



Catalog



Gear Units



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1 Introduction

1.1 The SEW-EURODRIVE group of companies

1.1.1 Global presence

Driving the world – with innovative drive solutions for all industries and for every application. Products and systems from SEW-EURODRIVE are used all over the world. Be it in the automotive, building materials, food and beverage, or metal-processing industry – the decision to use drive technology "made by SEW-EURODRIVE" means you get reliable products and a safe investment.

SEW-EURODRIVE's products and services can be found in all the important industries of our era. We also demonstrate this presence with subsidiaries and production plants all over the world, as well as with our service, which we see as an integrative part of our portfolio that extends SEW-EURODRIVE's high quality standards.

1.1.2 Always the right drive solution

With the broad product range of SEW-EURODRIVE, which also includes mechatronic drive units, frequency inverters, controllers, software and communication in addition to the tried-and-tested modular system for gearmotors, it is possible to implement the perfect drive solution for every application.

Gear units and motors

Using the modular system, gearmotors can be individually assembled according to the required speed and torque ranges, the available space and the ambient conditions. Gear units and gearmotors offering a unique and finely graduated power range and the best economic prerequisites to face any drive challenge.

Motors by SEW-EURODRIVE can be mounted directly or via adapter to SEW-EURODRIVE gear units. They meet all global requirements in terms of energy efficiency and technical regulations. A wide range of options and accessories ensures high flexibility for adjusting the motor to the requirements of the user and the application.

Inverters

MOVITRAC[®], MOVIDRIVE[®] and MOVIAXIS[®] inverter series enhance the gearmotors, forming a combination that blends in perfectly with the existing range of SEW-EURODRIVE systems.

Modular automation system

With its trademark MOVI-C[®], SEW-EURODRIVE launches a new generation of drive and automation technology. MOVI-C[®] is the modular automation system that allows for the highest level of system and machine automation. It comprises drive technology, motion control, control technology, and visualization.

MOVIDRIVE[®] modular is the modular application inverter for all types of applications, ranging from simple open-loop speed control to servo drives with kinematic model. MOVIDRIVE[®] modular can be supplemented by connecting MOVIDRIVE[®] system single-axis units. These possess functionalities comparable to those of axis modules, but have their own line connection. Especially in the upper power range, MOVIDRIVE[®] system complements the modular application inverter.

MOVIDRIVE® modular and MOVIDRIVE® system are intended for operation at the MOVI-C® CONTROLLER, the controller from SEW-EURODRIVE. They offer a powerful clock-synchronous connection via the integrated EtherCAT®/SBus^{PLUS} communication interface. Other EtherCAT® stations from SEW-EURODRIVE or other manufacturers can be controlled and diagnosed by the MOVI-C® CONTROLLER.

The MOVISUITE® engineering software with its unique operating philosophy is above all MOVI-C® hardware and software components. MOVISUITE® was developed with a focus on systematically shortening the startup time and covers the entire engineering process, from planning to diagnostics.

Decentralized drive technology

For economical, decentralized installations, SEW-EURODRIVE offers components from decentralized drive technology, such as MOVIMOT®, the gearmotor with integrated frequency inverter, or MOVI-SWITCH®, the gearmotor with integrated switching and protection function. SEW-EURODRIVE hybrid cables have been designed specifically to ensure cost-effective solutions, independent of the philosophy behind or the size of the system.

The decentralized drive technology portfolio is complemented by the DRC.. electronic motor, the MOVIGEAR® mechatronic drive system, the MOVIFIT® decentralized drive controller, the MOVIPRO® decentralized drive, positioning, and application controller, as well as MOVITRANS® system components for contactless energy transfer.

The MOVI-DPS® smart energy management system enhances the modular product range of SEW-EURODRIVE. With MOVI-DPS®, SEW-EURODRIVE offers the perfect combination: Conserving resources and reducing costs.

MOVI-DPS® allows for stable power grids, no power failures, and consequently reliable system availability. MOVI-DPS® is convincing in both, mobile and stationary applications. In addition, MOVI-DPS® can be combined with other systems, such as the MOVITRANS® contactless energy transfer system, resulting in further important synergy effects.

Industrial gear units

Power, quality, and sturdy design combined into one standard product: Industrial gear units from SEW-EURODRIVE realize major movements at high torque levels. The modular concept will once again provide optimum adaptation of industrial gear units to meet a wide range of different applications.

Individual system solutions with MAXOLUTION®

MAXOLUTION® from SEW-EURODRIVE provides individual system solutions in all areas of system and machine automation. From electromechanical drives, controllers and communication to visualization and the MOVITRANS® contactless energy transfer system and even a comprehensive service portfolio, MAXOLUTION® offers all modules required to design customer-specific solutions for machines and systems.

MAXOLUTION® combines individual products of the proven modular system with innovative system components to form individual system solutions that perfectly match the requirements of the specific application – "powered by SEW-EURODRIVE".

Safe – flexible – effective: safetyDRIVE

Guaranteeing the safety of all employees and preventing work accidents while ensuring trouble-free production processes are demands placed on all production areas. safetyDRIVE, the comprehensive safety concept, allows you to implement your machines "safely" in accordance with the currently valid guidelines. With controllers that meet the respective requirement of the safety categories or performance levels and that monitor instead of shut down.

All of our drive and frequency inverters provide the function that safely stops the electrical power to the motor (STO). The MOVISAFE® components complete the product range – integrated into the inverter as option cards or modular as safety modules. The decentralized MOVIFIT® and MOVIPRO® drive controllers with integrated safety functions are ready for use in decentralized installations.

The functionally safe motor options allow for implementing safety functions in safety-related applications. Safety encoders are used to implement safety functions with respect to speed, direction of rotation, standstill, and relative position. Safety brakes can implement safety functions with respect to decelerating and stopping.

1.1.3 Your ideal partner

Its global presence, extensive product portfolio and wide range of services make SEW-EURODRIVE the ideal partner for the machinery and plant construction industry when it comes to providing drive systems for demanding drive tasks in all industries and applications.

For detailed information on the entire product range of SEW-EURODRIVE, refer to our website www.sew-eurodrive.com. The website provides information about components, system solutions, services, and industries. Online Support provides access to a wide range of documents and tools such as the product configurator and various selection aids, as well as all documentation available for download in various languages.

1.2 Documentation

1.2.1 Content of this documentation

This "Gear Units" catalog describes the following product groups offered by SEW-EURODRIVE:

R.., F.., K.., S.., and SPIROPLAN® W.. gear units in combination with:

- AMS.. adapter
- AT.. adapter
- AD.. input shaft assembly
- AR.. slip clutch

The descriptions include:

- Product descriptions
- Overview of types
- Project planning notes
- Description of mounting positions
- Combination overviews and technical data
- Dimension sheets

For details on the motor, refer to the "AC Motors" catalog.

For information on R.., F.., K.., S.. and SPIROPLAN® W.. gear units in combination with the AQS.. adapter for mounting servomotors, refer to the "Servo Gear Units" catalog.

1.2.2 Additional documentation

In addition to this "Gear Units" catalog, you can order or download other documents on the SEW-EURODRIVE website. The complete range of technical documentation is available in various languages for download at our website www.sew-eurodrive.com.

Catalogs

- AC motors
- DRS../DR2S.. gearmotors (IE1)
- DRN.. gearmotors (IE3)

Drive Engineering – Practical Implementation

For detailed documentation about the entire topic of electrical drive technology, refer to the "Drive Engineering – Practical Implementation" documentation series:

- Project planning manual – Project Planning for Controlled and Non-Controlled Drives
- EMC in Drive Engineering – Basic Theoretical Principles and EMC-Compliant Installation in Practice
- Efficient Plant Automation with Mechatronic Drive Solutions

1.3 Decimal separator in numerical values

In this document, a period is used to indicate the decimal separator.

Example: 30.5 kg

1.4 Product names and trademarks

All product names included in this documentation are trademarks or registered trademarks of the respective titleholders.

1.5 Copyright notice

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2 Product description

2.1 Product features

2.1.1 Operating temperatures

Gear units and gearmotors from SEW-EURODRIVE can be operated in a wide ambient temperature range.

Gear units

The following standard temperature ranges are permitted for filling the gear units according to the lubricant table:

| Gear unit | Filled with | Permitted standard temperature range |
|--|---------------|--------------------------------------|
| K..19 – K..49 | CLP PG VG460 | -20 °C to +40 °C |
| K..37 – K..187 RX.57 – RX.107 R.07 – R.167 F..27 – F..157 | CLP(CC) VG220 | -15 °C to +40 °C |
| S..37 – S..97 | CLP(CC) VG680 | 0 °C to +40 °C |
| S..37p – S..97p | CLP PG VG460 | -20 °C to +40 °C |
| W..19 – W..49 | CLP PG VG220 | -25 °C to +60 °C |

The rated data of the gear units and gearmotors specified in the catalog refer to an ambient temperature of +25 °C.

INFORMATION



For information on churning losses and thermal rating, refer to chapter "Churning losses and thermal rating" (→ 57).

Gear units from SEW-EURODRIVE can be operated outside the standard temperature range if project planning is adapted to ambient temperatures from as low as up to -40 °C in the intensive cooling range up to +60 °C. Project planning must take special operating conditions into account and adapt the drive to the ambient conditions by selecting suitable lubricants and seals.

SEW-EURODRIVE recommends thermal project planning for the drives in general and offers to perform the project planning.

Motors

Motors of the DRN.. product family by SEW-EURODRIVE are designed for use in a temperature range from -20 °C to +40 °C.

This expands the standardized temperature range required by IEC 60034.

Using the motors outside the above temperature range is possible with some special adjustments. Contact SEW-EURODRIVE in this case.

INFORMATION



If the drive is to be operated on a frequency inverter, you must also consider the project planning notes of the inverter and take into account the thermal effects of inverter operation.

2.1.2 Installation altitude

Due to the low air density at high installation altitudes, heat dissipation on the surface of motors and gear units decreases. The rated data listed in the catalog applies to a maximum installation altitude of 1000 m above sea level. Installation altitudes > 1000 m above sea level must be taken into account for the project planning of gear units and gearmotors.

2.1.3 Power and torque

The power and torque ratings refer to mounting position M1 and similar mounting positions in which the input stage is not completely submerged in oil. In addition, the gearmotors are assumed to be standard versions with standard lubrication and under normal ambient conditions.

2.1.4 Noise

The noise levels of all SEW-EURODRIVE gear units, motors and gearmotors are well within the maximum permitted noise levels set forth in the VDI guideline 2159 for gear units and IEC/EN 60034 for motors.

2.1.5 Painting

The gear units, motors and gearmotors from SEW-EURODRIVE are painted as follows:

| Gear unit | Painting |
|--|-------------------|
| R..-, F..-, K..-, S..-, W.. gear units | blue/gray RAL7031 |

Exception: SPIROPLAN® W..10DR2S5 gearmotors have an aluminum housing and are supplied unpainted as standard.

Special paintings are available on request.

2.1.6 Surface and anti-corrosion protection

If required, all gear units, motors and gearmotors from SEW-EURODRIVE can also be supplied with surface protection for applications in extremely humid and chemically aggressive environments.

2.1.7 Heat dissipation and accessibility

Make sure to maintain adequate distance in the axial and radial direction when installing gearmotors/geared brakemotors to the driven machine. The distance is necessary for air circulation for the heat dissipation, for maintenance of the brake and of the MOVIMOT® inverter, if installed.

Please also observe to the notes in the motor dimension sheets in the "AC Motors" catalog.

2.1.8 Weights

Please note that the weight information shown in the catalogs only applies to the gear units and gearmotors without lubricant. The weight varies according to gear unit design and gear unit size. The lubricant fill depends on the mounting position, which is the reason that no universally applicable information can be provided. For recommended lubricant fill quantities depending on the mounting position, refer to the chapter "Lubricant fill quantities" (→ 140). For the exact weight, refer to the quotation or the order confirmation.

2.1.9 Backlash reduction

Helical, parallel-shaft helical and helical-bevel gear units with reduced backlash (only K..7) are available as of gear unit size 37.

The rotational clearance of these gear units is considerably less than that of the standard designs so that positioning tasks can be solved with great precision. The rotational clearance is specified in angular minutes in the chapter "Geometrically possible combinations". The rotational clearance for the output shaft is specified without load (max. 1% of the rated output torque); the gear unit input end is blocked. The specified values have a tolerance of ± 2 angular minutes. For further information, refer to chapter "Reduced backlash gear unit design /R" (→ 146).

2.1.10 Multi-stage gearmotors

You can achieve particularly low output speeds by using compound gear units or compound gearmotors. This requires a helical gear unit on the input end as a second gear unit.

It may be necessary to limit the maximum motor torque to match the maximum permitted output torque of the gear unit.

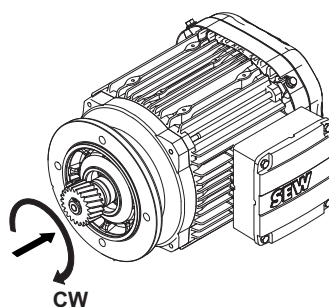
2.1.11 Directions of rotation

Direction of rotation of the motor shaft

In accordance with the standard DIN EN 60034-8 defined as standard:

Direction of rotation clockwise (CW) as viewed onto the pinion shaft end of the motor.

Prerequisite: Connection U1-V1-W1

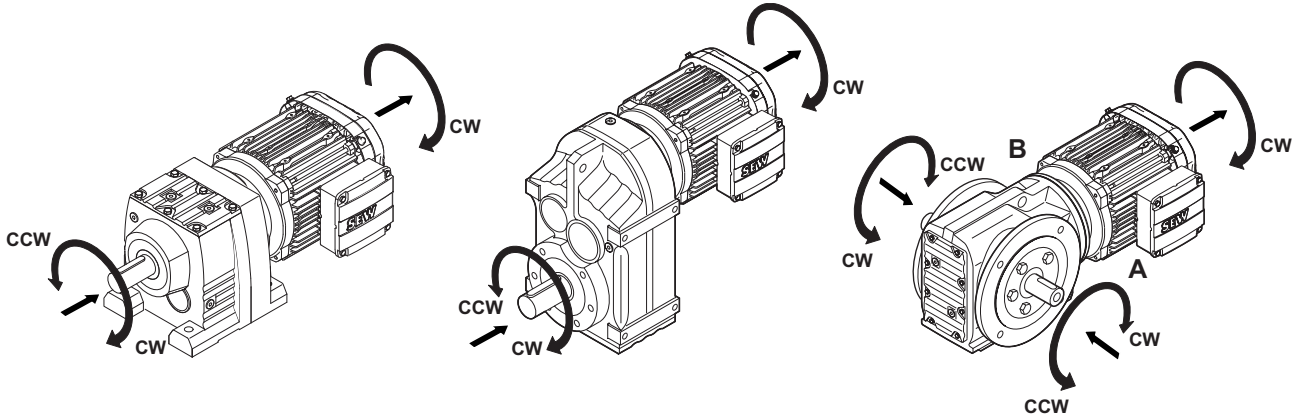


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Direction of rotation of the output shaft

The standard direction of rotation when looking onto the output shaft of the gear unit:

- CW (clockwise)
Clockwise direction of rotation
- CCW (counterclockwise)
Counterclockwise direction of rotation



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Direction of rotation of the gear unit

INFORMATION



Shaft position A, B, or AB (shaft output at both ends) is possible for K.. helical-bevel gear units, S.. helical-worm gear units, and SPIROPLAN® W gear units.

The direction of rotation is indicated according to the shaft position when looking onto the output end A or B or onto A and B, respectively.

| Series | Size | Gear unit stages | Shaft position | Standard direction of rotation when looking onto output shaft ¹⁾ |
|--------|----------|------------------|----------------|---|
| RX.. | 57 – 107 | 1 | | CCW |
| R.. | 07 – 167 | 2 | | CW |
| | | 3 | | CCW |
| F.. | 27 – 157 | 2 | | CW |
| | | 3 | | CCW |

1) CW = clockwise; CCW = counterclockwise.

| Series | Size | Gear unit stages | Shaft position | Standard direction of rotation when looking onto output shaft ¹⁾ | |
|--------|---------|------------------|----------------|---|----------------------|
| | | | | View of output end A | View of output end B |
| K.. | 19 – 49 | 2 | A | CW | |
| | | | AB | CW | CCW |
| | | | B | | CCW |

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| Series | Size | Gear unit stages | Shaft position | Standard direction of rotation when looking onto output shaft ¹⁾ | |
|--------|----------|------------------|----------------|---|----------------------|
| | | | | View of output end A | View of output end B |
| K.. | 37 – 187 | 3 | A | CCW | |
| | | | AB | CCW | CW |
| | | | B | | CCW |
| S.. | 37 – 97 | 2 | A | CW | |
| | | | AB | CW | CCW |
| | | | B | | CCW |
| W.. | 10 – 30 | 1 | A | CCW | |
| | | | AB | CCW | CW |
| | | | B | | CW |
| W.. | 19 – 49 | 2 | A | CW | |
| | | | AB | CW | CCW |
| | | | B | | CCW |
| | | 3 | A | CCW | |
| | | | AB | CCW | CW |
| | | | B | | CW |

1) CW = clockwise; CCW = counterclockwise.

2.1.12 Gear units and gearmotors for agitators and mixers

A special design variant of the helical gear, parallel-shaft and helical-bevel gear units are gear units and gearmotors equipped with an extended output bearing hub (RM../FM../FAM../KM.. and KAM..). These units are designed especially for agitator and mixer applications and allow for high bending moments as well as overhung and axial loads. The remaining data corresponds to that of standard gear units and gearmotors. For further information on gear unit and gearmotor designs for agitators and mixers, refer to chapter "Agitator designs" (→ 27).

2.1.13 SPIROPLAN® gearmotors

SPIROPLAN® gearmotors are robust, single- and two-stage, right-angle gearmotors with SPIROPLAN® gearing. The difference compared to helical-worm gear units is the material combination of the steel-on-steel gearing, the special tooth meshing relation, and the aluminum housing. As a result, SPIROPLAN® right-angle gearmotors are wear-free and lightweight.

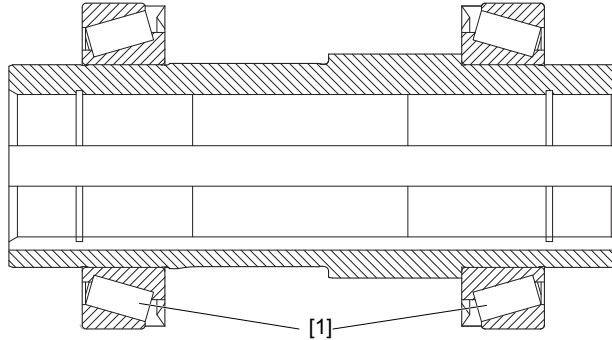
The particularly short design and the aluminum housing make for very compact and lightweight drive solutions.

The wear-free gearing and the life-long lubrication facilitate long periods of maintenance-free operation. The identical hole spacing in the foot and face as well as the same shaft height to both makes for a number of mounting options.

On request, SPIROPLAN® right-angle gearmotors can be equipped with a torque arm.

2.1.14 Reinforced hollow shaft bearing

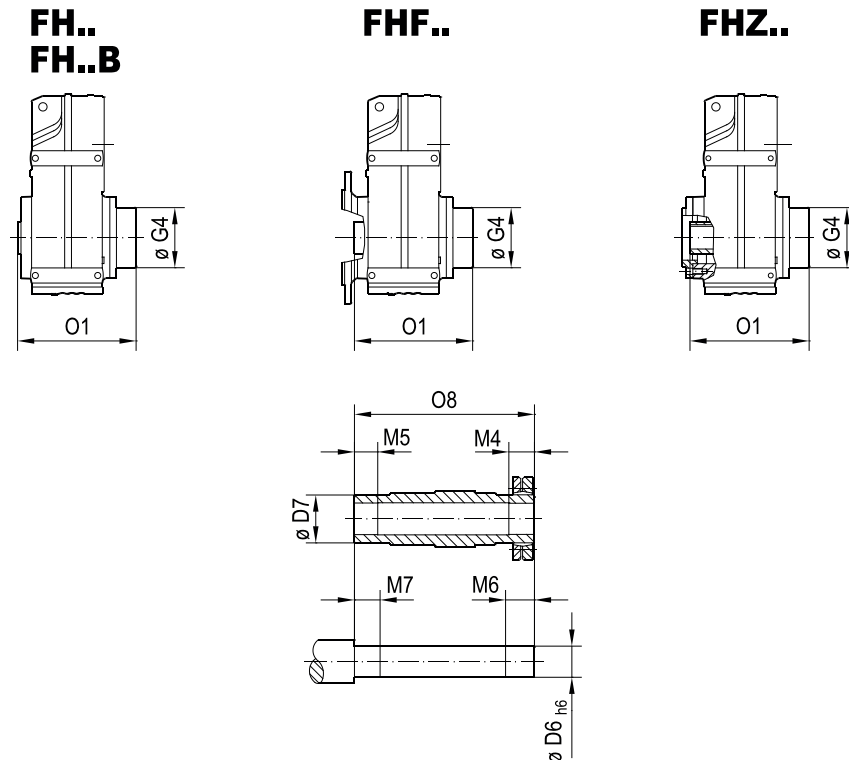
With the reinforced hollow shaft bearing, the standard deep groove ball bearings are replaced with tapered roller bearings. This measure enables considerably higher over-hung and axial loads and at the same time an increased service life of the bearings. Contact SEW-EURODRIVE for additional information.



[1] Tapered roller bearing

Gear unit dimensions with reinforced bearings










With the exception of the FH.87 and FH.97 gear units, the dimensions of the gear units with reinforced bearings are identical to those of the gear units with standard bearings. The following figure shows the differing dimensions of FH.87 and FH.97 gear units with reinforced bearings:



| Type | Dimensions in mm | | | | | | | | |
|-------|--------------------|------|-------|----|----|----|----|-------|-------|
| | D6 | D7 | G4 | M4 | M5 | M6 | M7 | O1 | O8 |
| FH.87 | Ø 65 _{h6} | Ø 85 | Ø 163 | 41 | 40 | 46 | 45 | 312.5 | 299.5 |
| FH.97 | Ø 75 _{h6} | Ø 95 | Ø 184 | 55 | 50 | 60 | 55 | 382.5 | 367 |

2.1.15 International markets

On request, SEW-EURODRIVE supplies motors that are certified or registered for the relevant market.

| | |
|---|---|
|  | CE mark to state compliance with European Directives (see EC declaration of conformity). |
|  | ATEX mark to state compliance with the European Directive 2014/34/EU. |
|  | UR logo to confirm that UL (Underwriters Laboratory) is informed about the registered components; register number by UL: E189357 |
|  | The UKCA mark states the compliance with the following British guidelines: <ul style="list-style-type: none"> • Low Voltage Directive S.I. 2016/1101¹⁾ • EMC S. I. 2016/1091 • Machinery Safety S. I. 2008/1597 • Directive S. I. 2012/3032 for limiting the use of certain hazardous substances in electrical and electronic equipment • Ecodesign Regulation S. I. 2019/539 |
|  | CSA mark to confirm the market conformity of the Canadian Standard Association (CSA) |
|  | EAC mark (EurAsian Conformity) Confirms compliance with the technical regulations of the economic and customs union of Russia, Belarus, Kazakhstan, Armenia. |
|  | CEL mark to represent the energy efficiency in the Chinese grade classification. |
|  | The UA.TR mark declares conformity with the technical regulations of Ukraine. |
|  | CMIM logo to confirm compliance with technical regulations of the country Morocco. |

1) For products with functional safety, the requirements from the Low Voltage Directive are fulfilled by the Machinery Safety S.I. 2008/1597.

2.1.16 Swing base

A swing base is a drive unit consisting of helical-bevel gear unit, hydraulic start-up coupling, and electric motor. The complete arrangement is mounted to a torsionally rigid mounting rail.

Motor swings are available with the following optional accessories:

- Torque arm
- Mechanical thermal monitoring device
- Contactless thermal monitoring device

Contact SEW-EURODRIVE for additional information.

2.2 Corrosion and surface protection

2.2.1 General information

For motor and gear unit operation in aggressive environments, SEW-EURODRIVE optionally offers the following preventive measure:




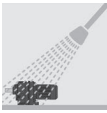
- KS corrosion protection for motors
- Surface protection OS for motors and gear units

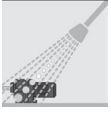
For motors, optimum protection is offered by a combination of KS corrosion protection and OS surface protection.

Optional preventive measures are also available for the output shafts.

2.2.2 OS surface protection

As an option for standard surface protection, motors and gear units are also available with OS1 to OS4 surface protection. The special measure "Z" is also available in addition. Special measure "Z" means that large contour recesses are filled with rubber before painting.

| Surface protection ^{1) 2)} | Ambient conditions | Sample applications |
|--|---|--|
| Standard  | Suitable for machines and systems in buildings and rooms indoors with neutral atmospheres. Based on corrosivity category ³⁾ . • C1 (negligible) | <ul style="list-style-type: none"> • Machines and systems in the automotive industry • Transport systems in logistics • Conveyor belts at airports |
| OS1  | Suitable for environments prone to condensation and atmospheres with low humidity or contamination, such as applications outdoors under roof or with protection device. Based on corrosivity category ³⁾ : • C2 (low) | <ul style="list-style-type: none"> • Systems in saw mills • Hall gates • Agitators and mixers |
| OS2  | Suited for environments with high humidity or moderate atmospheric contamination, such as applications outdoors subject to direct weathering. Based on corrosivity category ³⁾ : • C3 (moderate) | <ul style="list-style-type: none"> • Applications in amusement parks • Cable cars and chairlifts • Applications in gravel plants • Systems in nuclear power plants |
| OS3  | Suitable for environments with high humidity and occasionally severe atmospheric and chemical contamination. Occasionally acidic or caustic wet cleaning. Also for applications in coastal areas with moderate salt load. Based on corrosivity category ³⁾ : • C4 (high) | <ul style="list-style-type: none"> • Sewage treatment plants • Port cranes • Mining applications |

| Surface protection ^{1) 2)} | | Ambient conditions | Sample applications |
|-------------------------------------|---|---|---|
| OS4 |  | <p>Suitable for environments with permanent humidity and severe atmospheric or chemical contamination. Regular acidic and caustic wet cleaning, also with chemical cleaning agents.</p> <p>Based on corrosivity category³⁾:</p> <ul style="list-style-type: none"> C5-1 (very high) | <ul style="list-style-type: none"> Drives in malting plants Wet areas in the beverage industry Conveyor belts in the food industry |

1) Motors/brakemotors in degree of protection IP56 or IP66 are only available with OS2, OS3, or OS4 surface protection.

2) Gearmotors with OS2 – OS4 surface protection are only offered in combination with KS corrosion protection for motors.

3) According to DIN EN ISO 12944-2, classification of ambient conditions

2.2.3 Special protection measures

For operation under severe environmental impact or for particularly demanding applications special preventive measures for the output shafts of the gear units or gearmotors are optionally available, see also chapter "Sealing systems" (→ 21).

| Measure | Protection principle | Suitable for |
|--------------------------------------|---|--|
| Output shaft made of stainless steel | Surface protection with high-quality material | Particularly demanding applications with regard to corrosion |

2.2.4 NOCO® fluid

As standard, SEW-EURODRIVE supplies NOCO® fluid corrosion protection and lubricant with every hollow-shaft gear unit. Use NOCO® fluid when installing gear units with hollow shafts. Using this fluid can help prevent possible contact corrosion and makes it easier to disassemble the drive at a later time. NOCO® fluid is also suitable for protecting machined metal surfaces that do not have corrosion protection such as parts of shaft ends or flanges. You can order NOCO® fluid also in larger quantities from SEW-EURODRIVE.

| Batch size | Packaging type | Part number |
|------------|----------------|-------------|
| 5.5 g | Sachet | 09107819 |
| 100 g | Tube | 03253147 |
| 1 kg | Tub | 09107827 |

NOCO® fluid is food grade according to NSF-H1. You can recognize the food compatibility of NOCO® fluid by the NSF-H1 designation on the packaging.

2.3 Sealing systems

SEW-EURODRIVE offers sealing systems suitable for different ambient conditions and applications:

2.3.1 Input seals

| Sealing system | Recommended use | Sealing system design | Recommended maintenance interval | Material |
|--|--|--|----------------------------------|---|
| NBR Standard sealing system | <ul style="list-style-type: none"> Speeds up to 1800 min⁻¹ Temperature range from -40 °C to +80 °C | Oil seal according to Fig. 1 | ≈ 10000 h | High-quality NBR (acrylonitrile butadiene rubber) ¹⁾ |
| FKM Sealing system for increased rotational speeds and/or increased temperatures | <ul style="list-style-type: none"> Speeds up to 4500 min⁻¹ Temperature range from -25 °C to +115 °C S3 operation (high switching frequencies) | Oil seal with optimization based on Fig. 1 | ≈ 10000 h | High-quality FKM (fluorocarbon rubber) ¹⁾ |
| Premium Sine Seal Premium sealing system for longer service life | <ul style="list-style-type: none"> Speeds up to 4500 min⁻¹ Temperature range from -25 °C to +115 °C S3 operation (high switching frequencies) Extended maintenance interval Especially recommended with GearOil by SEW-EURODRIVE | Premium Sine Seal according to Fig. 2 | ≈ 20000 h | High-quality FKM (fluorocarbon rubber) ¹⁾ |

1) According to SEW-EURODRIVE specification 97 118 __15.

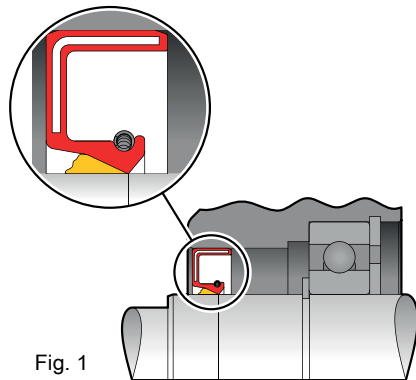


Fig. 1

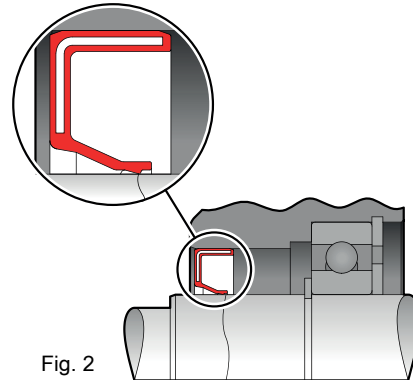
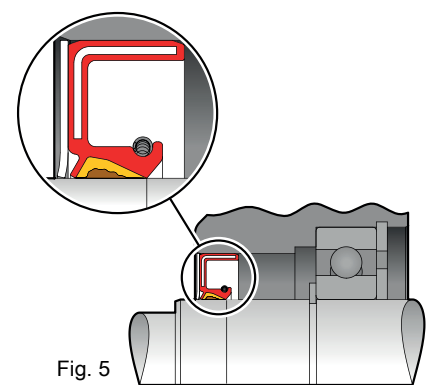
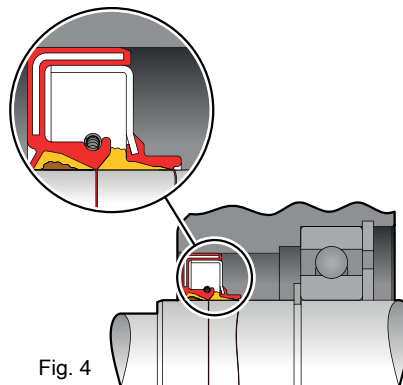
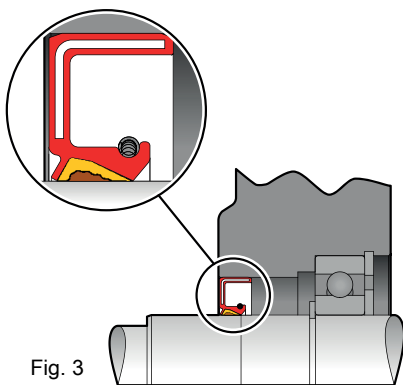


Fig. 2

2.3.2 Output seals

| Sealing system | Recommended use | Sealing system design | Recommended maintenance interval | Material |
|---|---|--|----------------------------------|---|
| NBR Standard sealing system | <ul style="list-style-type: none"> • Temperature range from -40 °C to +80 °C • Moderate ambient conditions | Oil seal with dust lip according to Fig. 3 | ≈ 10000 h | High-quality NBR (acrylonitrile butadiene rubber) ¹⁾ |
| FKM Sealing system for elevated temperatures | <ul style="list-style-type: none"> • Temperature range from -25 °C to +115 °C • S3 operation (high switching frequencies) • Moderate ambient conditions | Oil seal with dust lip according to Fig. 3 | ≈ 10000 h | High-quality FKM (fluorocarbon rubber) ¹⁾ |
| NBR/FKM Combination seal – premium sealing system for longer service life, especially at low temperatures | <ul style="list-style-type: none"> • Temperature range from -40 °C to +80 °C • Moderate ambient conditions • Extended maintenance interval • Especially recommended with GearOil by SEW-EURODRIVE | Combination seal comprising NBR oil seal with dust lip and FKM sine seal according to Fig. 4 | ≈ 20000 h | High-quality NBR in combination with high-quality FKM (fluorocarbon rubber) ¹⁾ |

| Sealing system | Recommended use | Sealing system design | Recommended maintenance interval | Material |
|--|---|--|----------------------------------|---|
| FKM/FKM Combination seal – premium sealing system for longer service life at elevated temperatures | <ul style="list-style-type: none"> • Temperature range from -25 °C to +115 °C • S3 operation (high switching frequencies) • Moderate ambient conditions • Extended maintenance interval • Especially recommended with GearOil by SEW-EURODRIVE | Combination seal comprising FKM oil seal with dust lip and FKM sine seal according to Fig. 4 | ≈ 20000 h | High-quality FKM (fluorocarbon rubber) ¹⁾ |
| FKM + fleece On request: Sealing system for very demanding ambient conditions | <ul style="list-style-type: none"> • Temperature range from -25 °C to +115 °C • S3 operation (high switching frequencies) • Abrasive and damp ambient conditions | Oil seal with dust lip and fleece disk based on Fig. 5 | ≈ 10000 h | High-quality FKM (fluorocarbon rubber) ¹⁾ + special fleece |



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2.4 Extended storage

2.4.1 Design

SEW-EURODRIVE recommends the "extended storage" gear unit design for storage periods longer than 9 months. A VCI anti-corrosion agent (volatile corrosion inhibitors) is added to the lubricant of these gear units. Please note that this VCI anti-corrosion agent is only effective in a temperature range of -25 °C to +50 °C. The flange contact surfaces and shaft ends are also treated with an anti-corrosion agent. As standard, the gear unit with "extended storage" option will be supplied with OS1 surface protection. Instead of OS1, you can order OS2, OS3 or OS4.

INFORMATION



To prevent the VCI anti-corrosion agent from evaporating, the gear units in "extended storage" design must remain tightly sealed until startup.

The gear units come with the oil fill according to the specified mounting position (M1 – M6). Always check the oil level before you take the gear unit into operation.

2.4.2 Storage conditions for long-term storage

Observe the storage conditions specified in the following table for extended storage:

| Climate zone | Packaging ¹⁾ | Storage ²⁾ | Storage duration |
|--|--|---|--|
| Temperate (Europe, USA, Canada, China and Russia, excluding tropical zones) | <ul style="list-style-type: none"> Packed in containers With desiccant and moisture indicator sealed in the plastic wrap | <ul style="list-style-type: none"> Under roof Protected against rain and snow Vibration-free | Up to 4 years with regular inspection of the packaging and humidity indicator (rel. humidity < 50%) |
| | Open | <ul style="list-style-type: none"> Under roof and enclosed at constant temperature and atmospheric humidity (5 °C < ϑ < 50 °C, relative humidity < 50%) No sudden temperature variations Controlled ventilation with filter (free from dust and dirt) No aggressive vapors No shocks | 2 years or more with regular inspections <ul style="list-style-type: none"> Check for cleanliness and mechanical damage during the inspection Check corrosion protection |

| Climate zone | Packaging ¹⁾ | Storage ²⁾ | Storage duration |
|---|--|--|--|
| Tropical (Asia, Africa, Central and South America, Australia, New Zealand exclud- ing temperate zones) | <ul style="list-style-type: none"> • Packed in containers • With desiccant and moisture indicator sealed in the plastic wrap • Protected against insect damage and mildew by chemical treatment | <ul style="list-style-type: none"> • Under roof • Protected against rain and snow • Vibration-free | Up to 3 years with regular inspection of the packaging and humidity indicator (rel. humidity < 50%) |
| | Open | <ul style="list-style-type: none"> • Under roof and enclosed at constant temperature and atmospheric humidity (5 °C < ϑ < 50 °C, < 50% relative humidity) • No sudden temperature variations • Controlled ventilation with filter (free from dust and dirt) • No aggressive vapors • No shocks • Protected against insect damage | 2 years or more with regular inspections <ul style="list-style-type: none"> • Check for cleanness and mechanical damage during the inspection • Check corrosion protection |

1) Packaging must be carried out by an experienced company using packaging material specifically suited for the application.

2) SEW-EURODRIVE recommends storing the gear units according to the mounting position.

2.5 Condition monitoring

2.5.1 /DUO10A oil aging sensor

The DUO10A diagnostic unit consists of a temperature sensor and the actual evaluation unit. The service life curves of the oil grades common in SEW-EURODRIVE gear units are stored in the evaluation unit. SEW-EURODRIVE can customize any oil grade in the diagnostic unit. Standard parameterization is performed directly on the evaluation unit. During operation, the evaluation unit uses the oil temperature to continuously calculate the remaining service life in days until the next oil change. The remaining service life is displayed directly on the evaluation unit. When the service life has expired, a binary signal can be sent to a higher-level system and evaluated or visualized in the system.

Using the DUO10A diagnostic unit, the system operator no longer replaces the oil within predefined intervals, but can adapt the replacement interval individually to the actual load. The benefits are reduced maintenance and service costs and increased system availability.

For the technical data and part numbers of the DUO10A oil aging sensor, refer to chapter "Information on oil aging sensor /DUO10A" (→ 182).

2.5.2 /DUV40A vibration monitoring system

The DUV40A vibration monitoring system is used to detect damage of gear units and gearmotors at an early stage (e.g. bearing damage or imbalances). Permanent broadband frequency-selective monitoring of the gearmotor is used for this purpose. Apart from the vibration analysis, additional measured values of up to 3 signal encoders can

be detected, recorded and analyzed. The additional signals can be used as reference values for signal analysis e.g. to trigger event-based measuring tasks. After the analysis and, depending on alarm limits defined during rated operation of the drive (teach-in mode), the system can switch outputs and display the alarm state using LEDs.

The SmartWeb software is used to configure and visualize the DUV40A system. If you use several DUV40A systems, you can control them via the SmartUtility Light software centrally from one PC (this software is included in the scope of delivery).

If you purchase the full version of the SmartUtility, you can analyze measurement data in the SmartUtility Viewer and download configurations or upload them onto other devices.

For information on the scope of delivery, part number and technical data, refer to chapter "Information on the /DUV40A vibration monitoring system" (→ 184).

2.6 Oil expansion tank

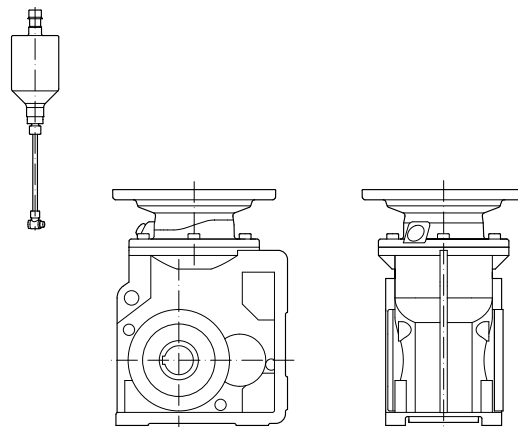
The oil fill level for gear units in mounting position M4 is set due to technical reasons. In case of unfavorable circumstances, oil may leak from the breather valve of these gear units. Use an oil expansion tank to reliably prevent oil from leaking. The oil expansion tank provides additional space for the lubricant to expand.

In case of gear units and gearmotors of size 107 and larger, an oil expansion tank is always required for operation in mounting position M4.

SEW-EURODRIVE recommends using an oil expansion tank for gear units and gearmotors in mounting position M4, in the following cases:

- For input speeds $> 2000 \text{ min}^{-1}$
- For sizes 77 – 97 and input speeds $> 1800 \text{ min}^{-1}$

The following figure shows the oil expansion tank mounted to a gear unit.



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The oil expansion tank is delivered as an assembly kit for mounting onto the gearmotor. In case of limited space or of gear units without motor, the oil expansion tank can also be mounted to nearby machine parts.

INFORMATION



Transverse acceleration is not permitted for gear units with expansion tanks with fixed piping for non-SEW-EURODRIVE motors and for servomotors.

For further information, contact your SEW-EURODRIVE sales representative.

2.7 Agitator designs

All gear units in agitator design are equipped with an extended bearing hub especially suitable for mixing and agitating applications. Agitator gear units are based on 3 proven standard gear unit series by SEW-EURODRIVE. Almost any agitating, mixing, blending or kneading application from a wide range of industries is covered by one of the agitator designs of the gear unit.

For project planning, please contact SEW-EURODRIVE.

Advantages of agitator gear units:

- FEM-optimized housing and a special agitator flange for particularly high permitted overhung loads
- No additional bearing for the agitator shaft required
- Shaft and flange dimensions are compatible with standard dimensions.
- Many options and design variants for optimal adaptation to the application
- Gear units/gearmotors also available in explosion-protected design
- Global service provided by SEW-EURODRIVE

| | Helical gear units RM.. series (2 and 3 stages) | Parallel-shaft helical gear units FM../FAM.. series (2 and 3 stages) | Helical-bevel gear units KM../KAM.. series (3-stage) |
|---|--|--|--|
| Sizes | 57 / 67 / 77 / 87 / 97 / 107 / 127 / 137 / 147 / 167 | 67 / 77 / 87 / 97 / 107 / 127 / 157 | 67 / 77 / 87 / 97 / 107 / 127 / 157 |
| Gear unit ratio i | 4.29 – 289.74 | 3.87 – 281.71 | 5.20 – 197.37 |
| Maximum output torque in Nm | 450 – 20000 | 820 – 20000 | 820 – 20000 |
| Maximum permitted output overhung load in N | 4000 – 120000 | 35000 – 135000 | 20000 – 135000 |

Available options:

- Double oil seal on the output end for additional protection against leakage
- Grease nipple for relubrication of output shaft bearings
- The gear units use series housings and series gearing components. The special flange is bolted to the output end of the standard gear unit.
- Energy efficiency classes IE1 – IE4 for gearmotors
- Motor power range of 0.12 to 200 kW
- Motor adapter AMS.. for mounting IEC and NEMA motors

Also available for the FM../FAM... and KM../KAM.. series:

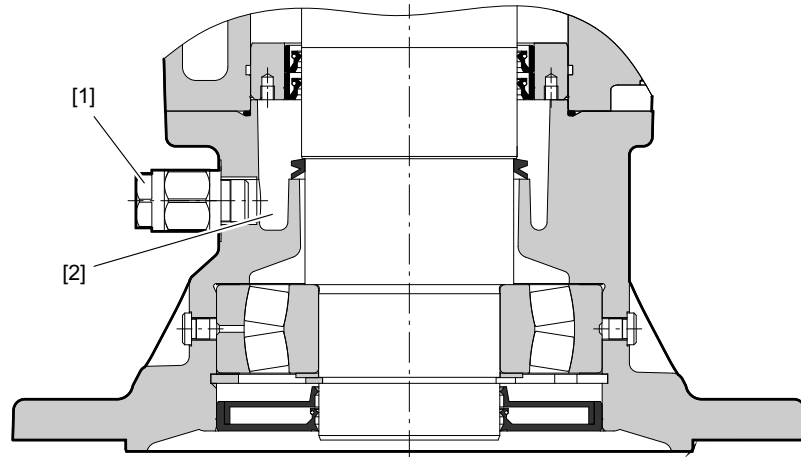
- Reinforced bearings also opposite the output end. These increase the permitted overhung load, particularly for high output speeds and low gear ratios.
- Drywell design with leak sensor prevents the product from being contaminated by leaking lubricant.

2.7.1 Drywell with oil sight glass

INFORMATION



The following specifications apply to gear units in agitator design with oil sight glass in mounting position M4 for FM., FAM and in mounting position M5A, M6B for KM., KAM..



The oil sight glass [1] makes it possible to visually check if gear unit oil has accumulated in the collecting space [2] of the output flange.

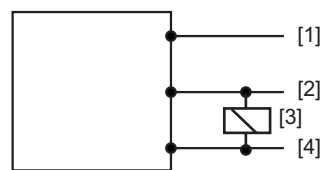
2.7.2 Leak sensor (Drywell design) with the agitator design

A Drywell design with level sensor is optionally available for FM., FAM., KM.. and KAM.. agitator drives.

One of the two following sensors is used, depending on the gear unit size:

Level sensor for sizes 67 – 97

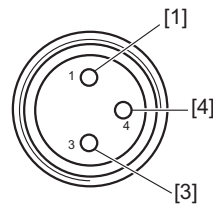
Electrical connection



23527583115

- [1] DC 12 V – 32 V
- [2] Output
- [3] Load
- [4] 0 V

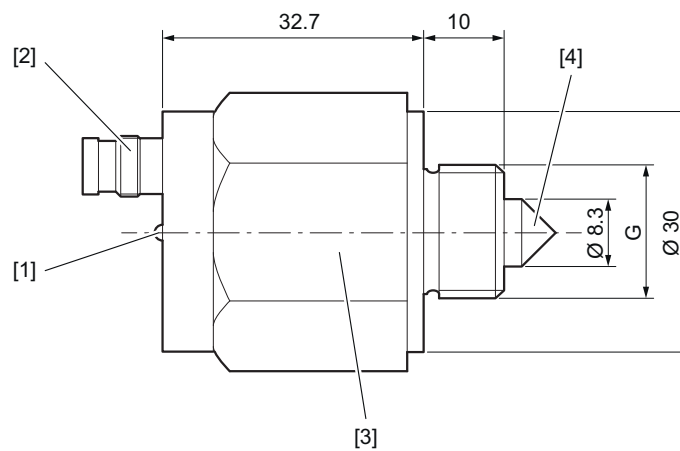
Pin assignment



23527590411

- [1] DC 12 V – 32 V
- [4] Output
- [3] Load

Dimensions



23563256075

- [1] LED function indicator
- [2] M8×1 circular connector; 3-pin (alternatively cable connection)
- [3] Wrench size: 30
- [4] Glass prism

Technical data

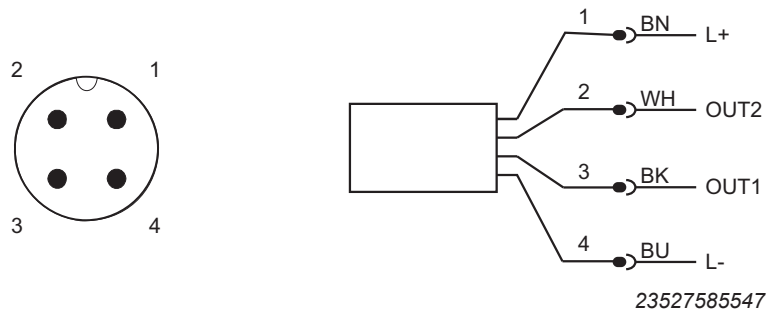
| | |
|--|---------------------------------------|
| Measuring accuracy | ± 0.5 mm |
| Minimum distance of the glass tip to an opposite surface | ≥ 10 mm |
| Mounting position | Any |
| Optical display of the switching status | 1 LED |
| Process connection | Male thread G 3/8", G 1/2" or M12 × 1 |

For more information, please contact SEW-EURODRIVE.

Level sensor for sizes 107 – 157

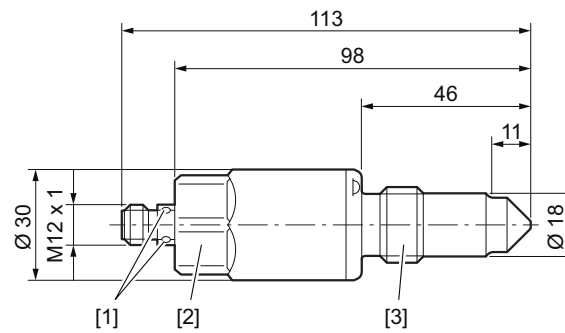
Electrical connection

M12 plug-in connector:



OUT1: Switching output/IO link/teach
 OUT2: Switching output

Dimensions



23563253643

- [1] LED
- [2] Tightening torque 20 – 25 Nm
- [3] G 1/2

Tightening torque 20 – 25 Nm

Technical Data

- Plug-in connection
- Process connection G 1/2 A
- Gold-plated contacts
- 2 switching outputs

2.8 Explosion protection according to ATEX

2.8.1 Area of application

ATEX directive 2014/34/EU includes requirements for devices and protective systems for designated use in potentially explosive atmospheres for the European Economic Area. Other European countries, such as Switzerland, have since fallen in with this regulation.

2.8.2 Available designs according to ATEX

SEW-EURODRIVE supplies explosion-proof gear units, gearmotors, options and accessories in accordance with the EU Directive "ATEX" 2014/34/EU.

Depending on equipment and dimensioning, the following gear unit and motor designs are available:

- Gear units in II2GD design for use in zones 1, 2, 21 and 22
- Motors in II3GD design for use in zones 2 and 22
- Motors in II3G design for use in zone 2

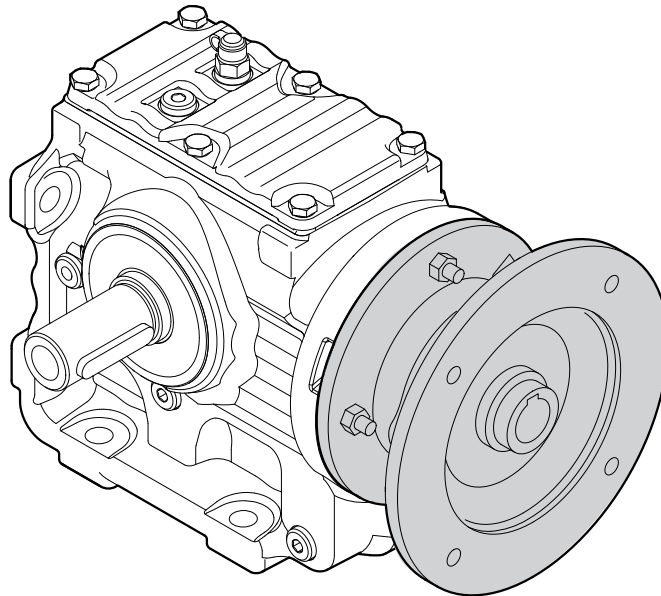
2.8.3 Other documentation

For detailed information about explosion-protected SEW-EURODRIVE products, refer to the "Explosion-Protected DRN.. gearmotors (IE3) in ATEX and IECEx" catalog and the "Explosion-Protected AC Motors" catalog.

2.9 Components on the input end

2.9.1 Gear units with IEC or NEMA AMS.. adapter

The following figure shows a helical-worm gear unit with AMS.. adapter:



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AMS.. adapters are used for mounting motors according to IEC standard or NEMA (type C or TC) to SEW-EURODRIVE helical gear units, parallel-shaft helical gear units, helical-bevel and helical-worm gear units and SPIROPLAN® gear units.

Adapters are available for sizes 63 to 280 for IEC motors. Adapters are available for sizes 56 to 365 for NEMA motors.

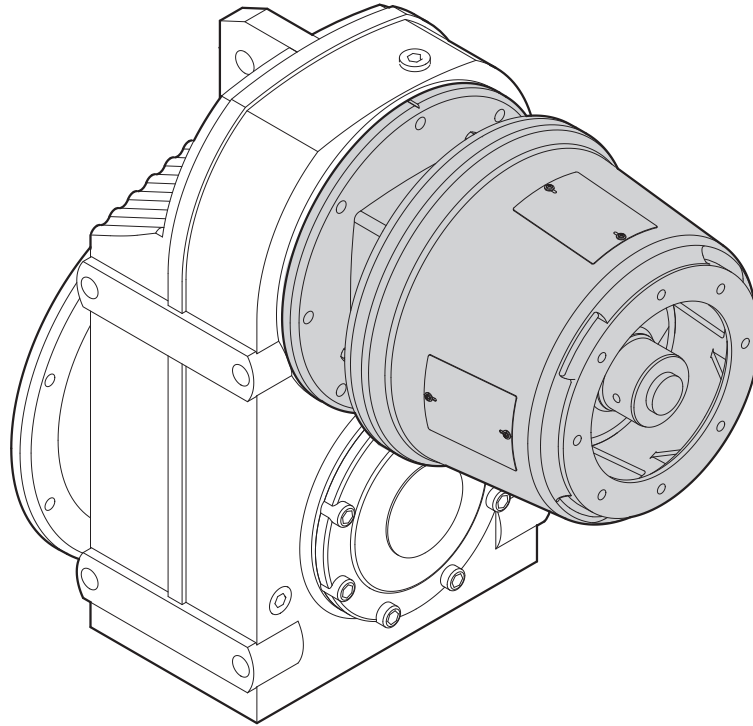
The designation of the adapter size corresponds to the respective IEC or NEMA motor size.

Torque is transmitted between the motor and the gear unit via a positive and impact resistant claw coupling. Vibrations and shocks occurring during operation are effectively attenuated by an inserted polyurethane girth gear.

For more information, refer to the project planning chapter "Gear units with IEC or NEMA AMS.. adapter" (→ 68).

2.9.2 AT adapter with hydraulic start-up coupling

The following figure shows a parallel-shaft gear unit with AT adapter:



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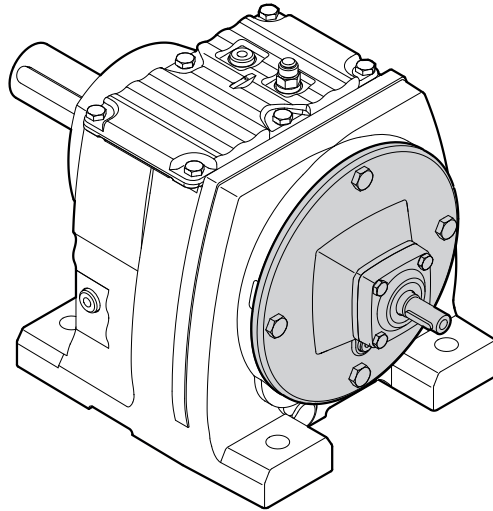
Helical, parallel-shaft helical, helical-bevel, helical-worm and SPIROPLAN® gear units can be combined with adapters and hydraulic start-up couplings for machines with high inertia starting (such as mixers, agitators, etc.). The hydraulic start-up coupling protects the motor and the driven machine against overload during the start-up phase and ensures that the machine starts up smoothly. The coupling is installed in a housing to prevent anyone from touching it. Ventilation openings in the housing ensure the cooling of the couplings. SEW-EURODRIVE motors of size 71 to 180 (0.37 to 22 kW) can be mounted.

Preferred speeds are 1400 min^{-1} and 2800 min^{-1} for 4- or 2-pole attached motors. The noise level increases when using the 2-pole drive combination.

For more information, refer to the project planning chapter "AT adapter with hydraulic start-up coupling" (→ 76).

2.9.3 AD.. input shaft assembly

The following figure shows a helical gear unit with AD.. input shaft assembly:



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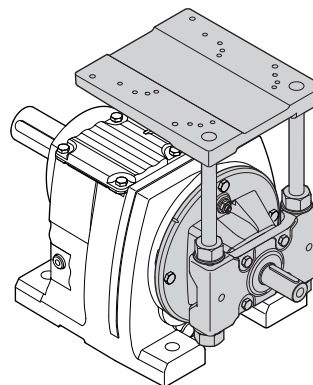
Helical, parallel-shaft helical, helical-bevel, helical-worm, and SPIROPLAN® gear units are equipped with an input shaft assembly for the drive via an exposed shaft-end. The dimensions of the drive shafts are given in metric units according to IEC standard (inch dimensions on request). The end of the input shaft has a center bore to standard 332 for mounting and attaching drive components.

The bearings of the input shaft are lubricated with grease. NBR oil seals and gap rings are used for sealing the cover. The solid input shaft bearings allow for high overhung loads.

For more information, refer to the chapter "AD input shaft assembly" (→ 78).

Motor mounting platform AD.. /P

The following figure depicts a helical gear unit with input shaft assembly and motor platform AD../P:

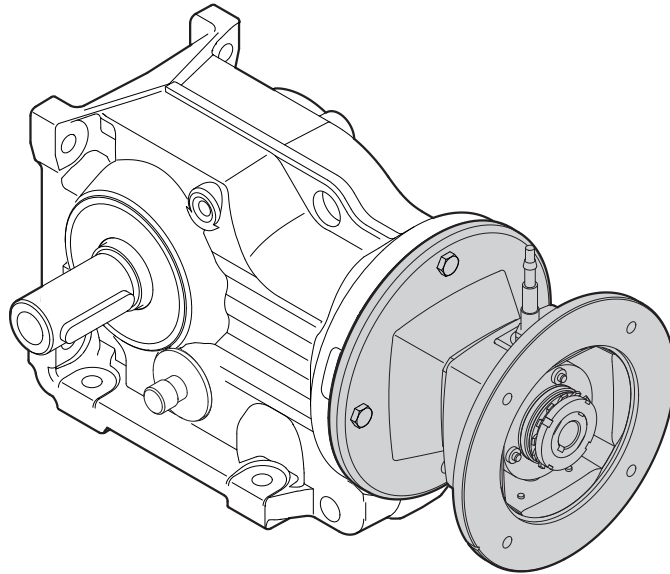


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Belt drives are available with an adjustable motor platform for space-saving installation. The motor platform is arranged parallel to the drive shaft and has tapped holes for IEC standard motors (also available without tapped holes on request). The distance from the input shaft can be adjusted using threaded columns.

2.9.4 AR.. adapter with slip clutch

The following figure shows a helical-bevel gear unit with AR.. adapter:



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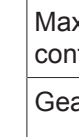
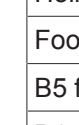
The torque is transmitted non-positive via friction linings. The slip torque of the coupling can be adjusted with an adjusting nut and cup springs. Different slip torques are possible depending on the thickness and arrangement of the cup springs. In the event of an overload, the coupling slips and interrupts the power flow between motor and gear unit. This prevents damage to the system and drive.

For more information, refer to the project planning chapter "AR adapter with slip clutch" (→ 70).







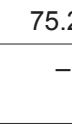
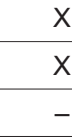
3 Overview of types and type designations

3.1 Overview of gear units

3.1.1 Axially parallel gear units

| Gear unit type | | RX.. (→  202) | R.. (→  202) | F.. (→  315) |
|------------------------------|------------|---|--|--|
| Technical data | | | | |
| Figure | |  |  |  |
| Maximum continuous torque | M_{amax} | 69 – 830 Nm | 50 – 20000 Nm | 130 – 20000 Nm |
| Gear ratio range | i | 1.3 – 8.65 | 3.21 – 289.74 | 3.77 – 281.71 |
| Option with reduced backlash | /R | – | X | X |
| Mechanical data | | | | |
| Hollow shaft | | – | – | X |
| Foot mounting | | X | X | X |
| B5 flange | | X | X | X |
| B14 flange | | – | X | X |

3.1.2 Right-angle gear units

| Gear unit type | | K..7 (→  434) | K..9 (→  434) | S../S..p (→  575) | W..9 (→  712) |
|------------------------------|------------|---|---|---|---|
| Technical data | | | | | |
| Figure | |  |  |  |  |
| Maximum continuous torque | M_{amax} | 200 – 8000 Nm | 80 – 500 Nm | 92 – 720 Nm | 80 – 400 Nm |
| Gear ratio range | i | 3.98 – 197.37 | 2.81 – 75.20 | 3.97 – 75.06 | 4.68 – 210.49 |
| Option with reduced backlash | /R | X | – | – | – |
| Mechanical data | | | | | |
| Hollow shaft | | X | X | X | X |
| Foot mounting | | X | X | X | – |
| B5 flange | | X | X | X | X |
| B14 flange | | X | – | X | – |

For information on all available options and variants, refer to the following chapters.

3.2 Designs and options – R..-, F..-, K..-, S..-, W.. gear units

Below, there is an overview of type designations for R..-, F..-, K..-, S..-, and W.. gear units and their options.

3.2.1 Helical gear units

| Designation | Description |
|-------------|---|
| RX.. | Single-stage foot-mounted design, output shaft with key |
| RXF.. | Single-stage B5 flange-mounted design, output shaft with key |
| R.. | Foot-mounted design, output shaft with key |
| R..F | Foot- and B5 flange-mounted design, output shaft with key |
| RF.. | B5 flange-mounted design, output shaft with key |
| RZ.. | B14 flange-mounted design, output shaft with key |
| RM.. | B5 flange-mounted design with extended bearing hub, output shaft with key |

3.2.2 Parallel-shaft helical gear units

| Designation | Description |
|-------------|--|
| F.. | Foot-mounted design, output shaft with key |
| FA..B | Foot-mounted design, hollow shaft with keyway |
| FH..B | Foot-mounted design, hollow shaft with shrink disk |
| FV..B | Foot-mounted design, splined hollow shaft to DIN 5480 |
| FF.. | B5 flange-mounted design, output shaft with key |
| FAF.. | B5 flange-mounted design, hollow shaft with keyway |
| FHF.. | B5 flange-mounted design, hollow shaft with shrink disk |
| FVF.. | B5 flange-mounted design, splined hollow shaft to DIN 5480 |
| FA.. | Hollow shaft with keyway |
| FH.. | Hollow shaft with shrink disk |
| FT.. | Hollow shaft with TorqLOC® hollow shaft mounting system |
| FV.. | Splined hollow shaft to DIN 5480 |
| FZ.. | B14 flange-mounted design, output shaft with key |
| FAZ.. | B14 flange-mounted design, hollow shaft with keyway |
| FHZ.. | B14 flange-mounted design, hollow shaft with shrink disk |
| FVZ.. | B14 flange-mounted design, splined hollow shaft to DIN 5480 |
| FM.. | B5 flange-mounted design with extended bearing hub, output shaft with key |
| FAM.. | B5 flange-mounted design with extended bearing hub, hollow shaft with keyway |

3.2.3 Helical-bevel gear units

| Designation | |
|-------------|--|
| K.. | Foot-mounted design, output shaft with key |
| KA..B | Foot-mounted design, hollow shaft with keyway |
| KAF..B | B5 flange-mounted design, foot-mounted design, hollow shaft with keyway |
| KF..B | B5 flange-mounted design, foot-mounted design, output shaft with key |
| KH..B | Foot-mounted design, hollow shaft with shrink disk |
| KHF..B | B5 flange-mounted design, foot-mounted design, hollow shaft with shrink disk |
| KV..B | Foot-mounted design, splined hollow shaft according to DIN 5480 |
| KF.. | B5 flange-mounted design, output shaft with key |
| KAF.. | B5 flange-mounted design, hollow shaft with keyway |
| KHF.. | B5 flange-mounted design, hollow shaft with shrink disk |
| KVF.. | B5 flange-mounted design, splined hollow shaft according to DIN 5480 |
| KA.. | Hollow shaft with keyway |
| KH.. | Hollow shaft with shrink disk |
| KT.. | Hollow shaft with TorqLOC® hollow shaft mounting system |
| KV.. | Splined hollow shaft according to DIN 5480 |
| KZ.. | B14 flange-mounted design, output shaft with key |
| KAZ.. | B14 flange-mounted design, hollow shaft with keyway |
| KHZ.. | B14 flange-mounted design, hollow shaft with shrink disk |
| KVZ.. | B14 flange-mounted design, splined hollow shaft according to DIN 5480 |
| KM.. | B5 flange-mounted design with extended bearing hub, output shaft with key |
| KAM.. | B5 flange-mounted design with extended bearing hub, hollow shaft with keyway |

3.2.4 Helical-worm gear units

| Designation | Description |
|-------------|--|
| S.. | Foot-mounted design, output shaft with key |
| SF.. | B5 flange-mounted design, output shaft with key |
| SAF.. | B5 flange-mounted design and hollow shaft with keyway |
| SHF.. | B5 flange-mounted design and hollow shaft with shrink disk |
| SA.. | Hollow shaft with keyway |
| SH.. | Hollow shaft with shrink disk |

| Designation | Description |
|-------------|---|
| ST.. | Hollow shaft with TorqLOC® hollow shaft mounting system |
| SAZ.. | B14 flange-mounted design and hollow shaft with keyway |
| SHZ.. | B14 flange-mounted design and hollow shaft with shrink disk |

3.2.5 SPIROPLAN® gear units

| Designation | Description |
|-------------|--|
| W.. | Foot-mounted design, output shaft with key |
| WF.. | B5 flange-mounted design, output shaft with key |
| WAF.. | B5 flange-mounted design and hollow shaft with keyway |
| WA.. | Hollow shaft with keyway |
| WHF.. | B5 flange-mounted design and hollow shaft with shrink disk |
| WH.. | Hollow shaft with shrink disk |
| WT.. | Hollow shaft with TorqLOC® hollow shaft mounting system |

3.2.6 Options

R, F, and K..7 gear units:

| Designation | Description |
|-------------|------------------|
| /R | Reduced backlash |

K, S and W gear units:

| Designation | Description |
|-------------|-----------------|
| /T | With torque arm |

F gear units:

| Designation | Description |
|-------------|--------------------|
| /G | With rubber buffer |

3.2.7 Condition monitoring

| Designation | Description |
|-------------|--|
| /DUO | Diagnostic Unit Oil = Oil aging sensor |
| /DUV40A | Diagnostic Unit Vibration = Vibration sensor |

3.2.8 Adapters

| Designation | Option |
|-------------|--|
| AMS.. | Adapter for mounting IEC/NEMA motors |
| AR.. | Adapter with slip clutch |
| AT.. | Adapter with hydraulic start-up coupling |

3.2.9 Adapter options

| Designation | Option |
|-------------|---|
| AMS../RS | Adapter with integrated backstop for mounting IEC/NEMA motors |
| AMS../DH | Adapter with condensation drain or drain holes for connecting IEC/NEMA motors |
| AR../W | Adapter with slip clutch and speed monitoring |
| AR../WS | Adapter with slip clutch and slip monitor |
| AT../RS | Adapter with hydraulic start-up coupling and backstop |

3.2.10 Input shaft assembly

| Designation | Option |
|-------------|----------------------|
| AD.. | Input shaft assembly |

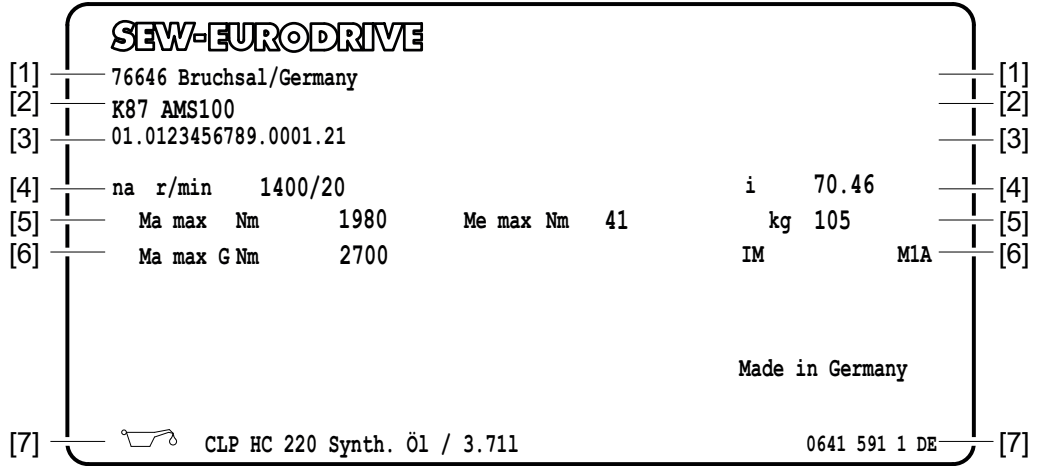
3.2.11 Options for input shaft assembly

| Designation | Option |
|-------------|--|
| AD../P | Input shaft assembly with motor platform |
| AD../RS | Input shaft assembly with backstop |
| AD../ZR | Input shaft assembly with centering shoulder |

3.3 Gear unit nameplates

The following figures show examples of nameplates for a helical-bevel gear unit with input adapter:

Nameplate 1



- [1] • Manufacturer, address
- [2] • Type designation
- [3] • Serial number
- [4] • Input speed / output speed
 - Gear ratio
- [5] • Maximum permitted output torque of the gear unit / adapter combination
 - Maximum permitted input torque
 - Weight
- [6] • Maximum permitted output torque of the open gear unit without additional component
 - Mounting position
- [7] • Oil type and oil fill volume

Explanation of the production number:

| 01. | 0123456789. | 0001. | 21 |
|--------------------|--------------|-------------|---------------------|
| Sales Organization | Order number | Item number | Year of manufacture |

Nameplate 2



| | |
|--|---|
| | Product label with QR code. The QR code can be scanned. You will be redirected to the digital services of SEW-EURODRIVE. There, you have access to product-specific data, documents, and additional services. |
|--|---|

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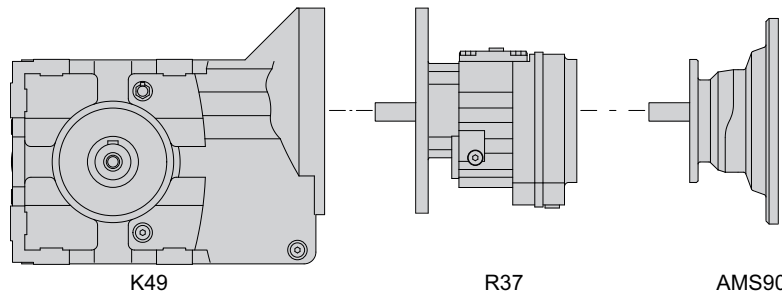
Overview of types and type designations

Type designation of a gear unit

3.4 Type designation of a gear unit

The type designation of the gear unit starts from the component on the output end. For example, a helical-bevel compound gear unit with adapter for IEC motors has the following type designation:

| Example: K49R37AMS90 | | |
|--|-----|--------------------------------------|
| Gear unit type | K | 1. Gear unit |
| Gear unit size | 49 | |
| Gear unit series | R | 2. Gear unit |
| Gear unit size | 37 | |
| Adapter for installation of IEC motors | AMS | Gear unit component on the input end |
| Adapter size | 90 | |



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3.5 Gear unit designs

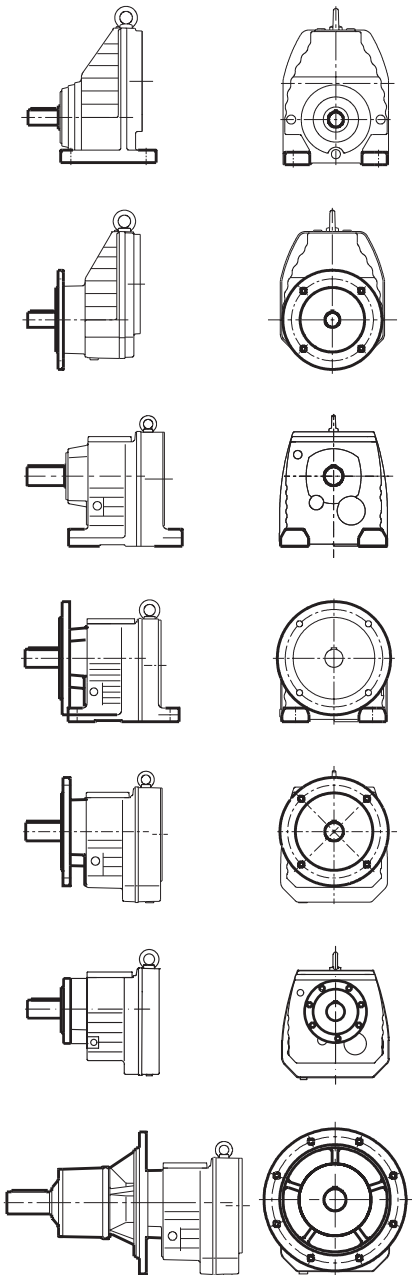
INFORMATION



The design types described in this chapter show open gear units from SEW-EURODRIVE without mount-on components. They also apply to gear units with mounted adapter or input cover.

3.5.1 Helical gear units

The following design types of helical gear units are available:



RX..

Single-stage helical gear units in foot-mounted design

RXF..

Single-stage helical gear units in B5 flange-mounted design

R..

Helical gear units in foot-mounted design

R..F

Helical gear units in foot and B5 flange-mounted design

RF..

Helical gear units in B5 flange-mounted design

RZ..

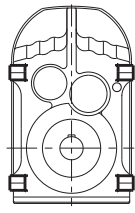
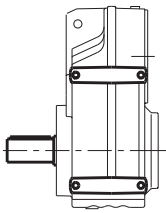
Helical gear units in B14 flange-mounted design

RM..

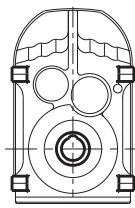
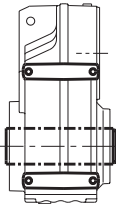
Helical gear units in B5 flange-mounted design with extended bearing hub

3.5.2 Parallel-shaft helical gear units

The following designs of parallel-shaft helical gear units are available:

**F..**

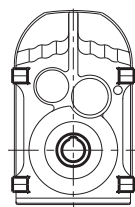
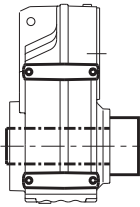
Parallel-shaft helical gear units in foot-mounted design

**FA..B**

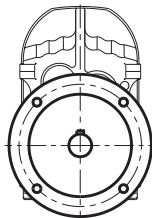
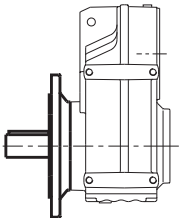
Parallel-shaft helical gear units in foot-mounted design with hollow shaft

FV..B

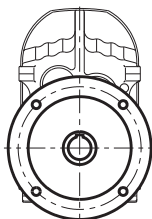
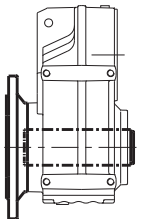
Parallel-shaft helical gear units in foot-mounted design with splined hollow shaft according to DIN 5480

**FH..B**

Parallel-shaft helical gear units in foot-mounted design with hollow shaft and shrink disk

**FF..**

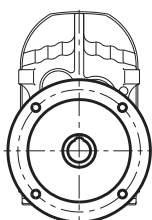
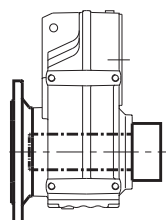
Parallel-shaft helical gear units in B5 flange-mounted design

**FAF..**

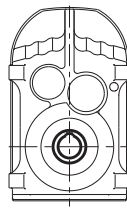
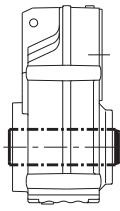
Parallel-shaft helical gear units in B5 flange-mounted design with hollow shaft

FVF..

Parallel-shaft helical gear units in B5 flange-mounted design with splined hollow shaft according to DIN 5480

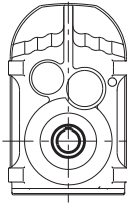
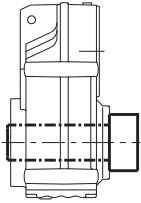
**FHF..**

Parallel-shaft helical gear units in B5 flange-mounted design with hollow shaft and shrink disk



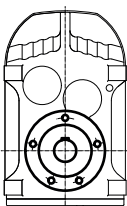
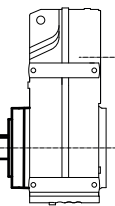
FA..

Parallel-shaft helical gear units with hollow shaft



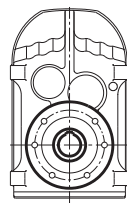
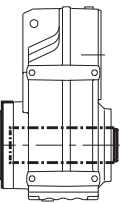
FV..

Parallel-shaft helical gear units with splined hollow shaft according to DIN 5480



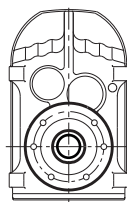
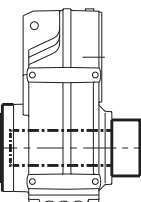
FH..

Parallel-shaft helical gear units with hollow shaft and shrink disk



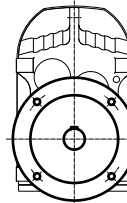
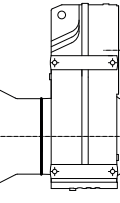
FT..

Parallel-shaft helical gear units with hollow shaft and TorqLOC® hollow shaft mounting system



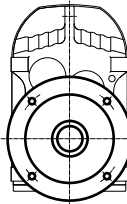
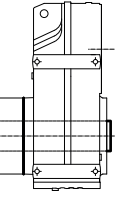
FZ..

Parallel-shaft helical gear units in B14 flange-mounted design



FAZ..

Parallel-shaft helical gear units in B14 flange-mounted design with hollow shaft



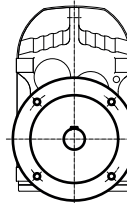
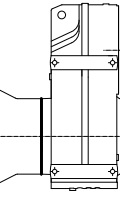
FVZ..

Parallel-shaft helical gear units in B14 flange-mounted design with splined hollow shaft according to DIN 5480



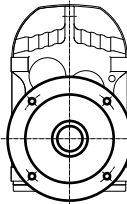
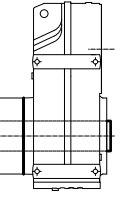
FHZ..

Parallel-shaft helical gear units in B14 flange-mounted design with hollow shaft and shrink disk



FM..

Parallel-shaft helical gear units in B5 flange-mounted design with extended bearing hub, output shaft with key

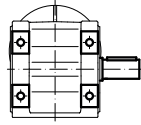
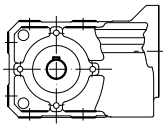


FAM..

Parallel-shaft helical gear units in B5 flange-mounted design with extended bearing hub with hollow shaft

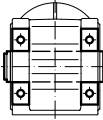
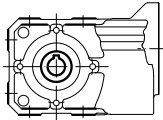
3.5.3 Helical-bevel gear units, gear unit sizes K..19 and K..29

The following designs of helical-bevel gear unit sizes K..19 and K..29 are available:



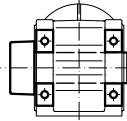
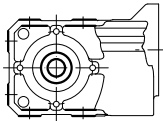
K19, K29

Helical-bevel gear units in foot-mounted design



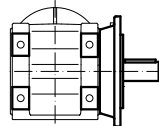
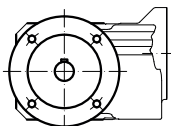
KA19B, KA29B

Helical-bevel gear units in foot-mounted design with hollow shaft in foot-mounted design



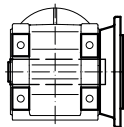
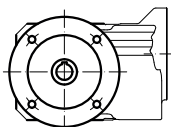
KH19B, KH29B

Helical-bevel gear units in foot-mounted design with hollow shaft and shrink disk



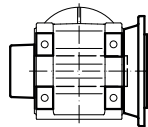
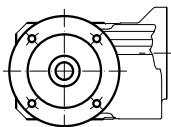
KF19B, KF29B

Helical-bevel gear units in B5 flange-mounted design in foot-mounted design



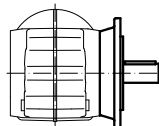
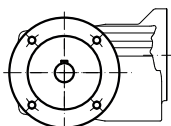
KAF19B, KAF29B

Helical-bevel gear units in B5 flange-mounted design with hollow shaft in foot-mounted design



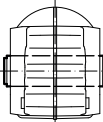
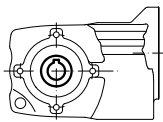
KHF19B, KHF29B

Helical-bevel gear units in B5 flange-mounted design with hollow shaft and shrink disk in foot-mounted design



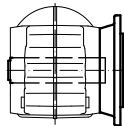
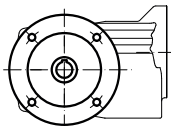
KF19, KF29

Helical-bevel gear units in B5 flange-mounted design



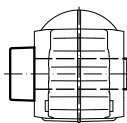
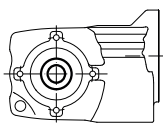
KA19, KA29

Helical-bevel gear units with hollow shaft



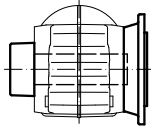
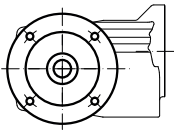
KAF19, KAF29

Helical-bevel gear units in B5 flange-mounted design with hollow shaft



KH19, KH29

Helical-bevel gear units with hollow shaft and shrink disk

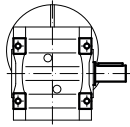
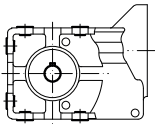


KHF19, KHF29

Helical-bevel gear units in B5 flange-mounted design with hollow shaft and shrink disk

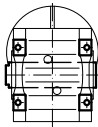
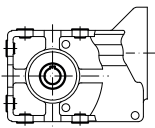
3.5.4 Helical-bevel gear units, gear unit sizes K..39 and K..49

The following designs of helical-bevel gear unit sizes K..9 are available:



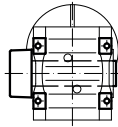
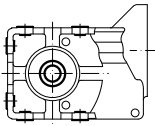
K39, K49

Helical-bevel gear units in foot-mounted design



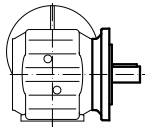
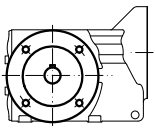
KA39B, KA49B

Helical-bevel gear units in foot-mounted design with hollow shaft



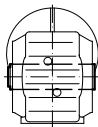
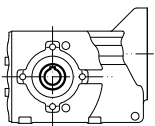
KH39B, KH49B

Helical-bevel gear units in foot-mounted design with hollow shaft and shrink disk



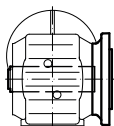
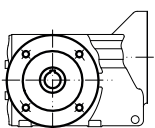
KF39, KF49

Helical-bevel gear units in B5 flange-mounted design



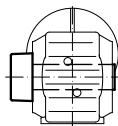
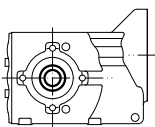
KA39, KA49

Helical-bevel gear units with hollow shaft



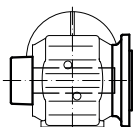
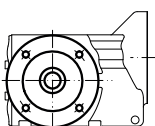
KAF39, KAF49

Helical-bevel gear units in B5 flange-mounted design with hollow shaft



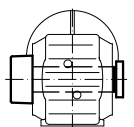
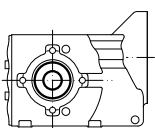
KH39, KH49

Helical-bevel gear units with hollow shaft and shrink disk



KHF39, KHF49

Helical-bevel gear units in B5 flange-mounted design with hollow shaft and shrink disk

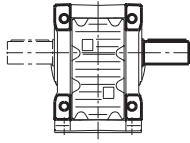
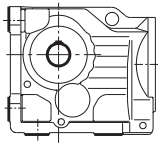


KT39, KT49

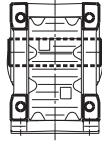
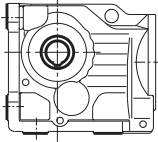
Helical-bevel gear units with hollow shaft and TorqLOC® hollow shaft mounting system

3.5.5 Helical-bevel gear units, gear unit sizes K..7

The following designs of helical-bevel gear unit sizes K..7 are available:

**K..7**

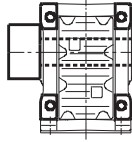
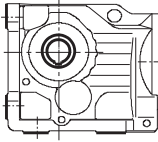
Helical-bevel gear units in foot-mounted design

**KA..7B**

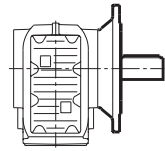
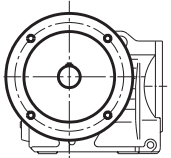
Helical-bevel gear units in foot-mounted design with hollow shaft

KV..7B

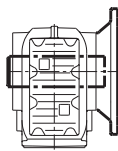
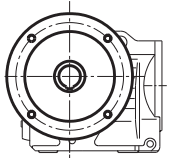
Helical-bevel gear units in foot-mounted design with splined hollow shaft according to DIN 5480

**KH..7B**

Helical-bevel gear units in foot-mounted design with hollow shaft and shrink disk

**KF..7**

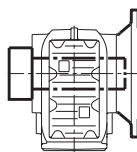
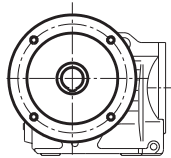
Helical-bevel gear units in B5 flange-mounted design

**KAF..7**

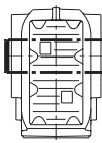
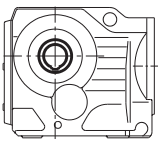
Helical-bevel gear units in B5 flange-mounted design with hollow shaft

KVF..7

Helical-bevel gear units in B5 flange-mounted design with splined hollow shaft according to DIN 5480

**KHF..7**

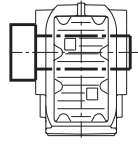
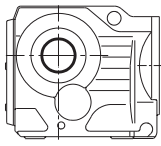
Helical-bevel gear units in B5 flange-mounted design with hollow shaft and shrink disk

**KA..7**

Helical-bevel gear units with hollow shaft

KV..7

Helical-bevel gear units with splined hollow shaft according to DIN 5480

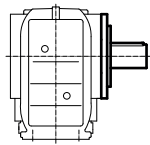
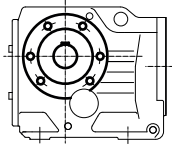


KH..7

Helical-bevel gear units with hollow shaft and shrink disk

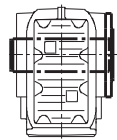
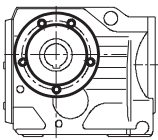
KT..7

Helical-bevel gear units with hollow shaft and TorqLOC® hollow shaft mounting system



KZ..7

Helical-bevel gear units in B14 flange-mounted design.

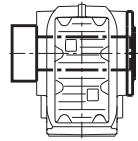
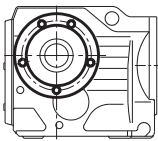


KAZ..7

Helical-bevel gear units in B14 flange-mounted design with hollow shaft

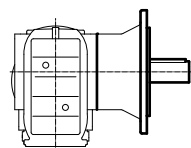
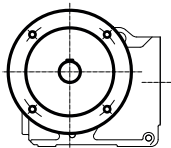
KVZ..7

Helical-bevel gear units in B14 flange-mounted design with splined hollow shaft according to DIN 5480



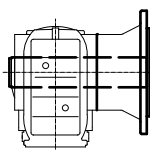
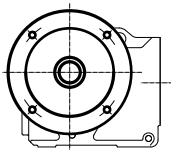
KHZ..7

Helical-bevel gear units in B14 flange-mounted design with hollow shaft and shrink disk



KM..7

Helical-bevel gear units in B5 flange-mounted design with extended bearing hub, output shaft with key

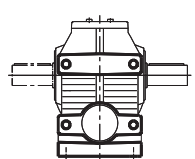
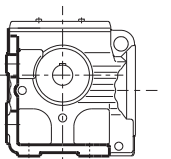


KAM..7

Helical-bevel gear units in B5 flange-mounted design with extended bearing hub with hollow shaft

3.5.6 Helical-worm gear units

The following designs of helical-worm gear units are available:



S..

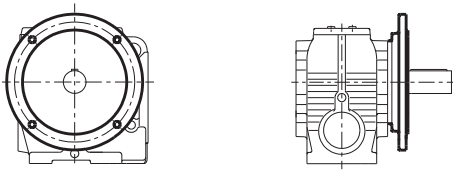
Helical-worm gear units in foot-mounted design

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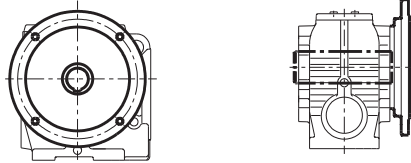
Overview of types and type designations

Gear unit designs



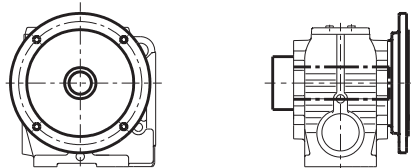
SF..

Helical-worm gear units in B5 flange-mounted design



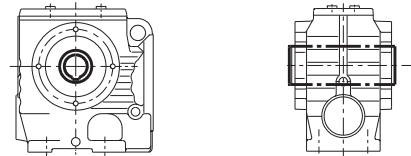
SAF..

Helical-worm gear units in B5 flange-mounted design with hollow shaft



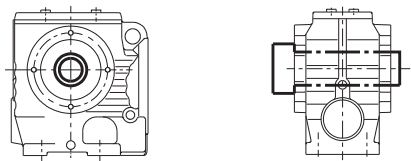
SHF..

Helical-worm gear units in B5 flange-mounted design with hollow shaft and shrink disk



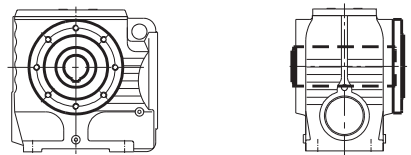
SA..

Helical-worm gear units with hollow shaft



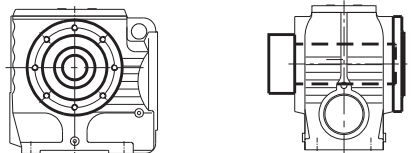
SH...

Helical-worm gear units with hollow shaft and shrink disk



ST..

Helical-worm gear units with hollow shaft and TorqLOC® hollow shaft mounting system



SAZ..

Helical-worm gear units in B14 flange-mounted design with hollow shaft

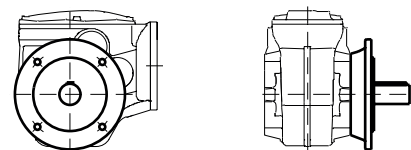


SHZ..

Helical-worm gear units in B14 flange-mounted design with hollow shaft and shrink disk

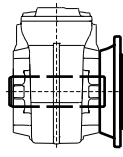
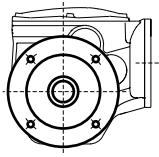
3.5.7 SPIROPLAN® gear units, gear unit size W..9

The following designs of SPIROPLAN® gear unit sizes W..9 are available:



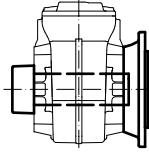
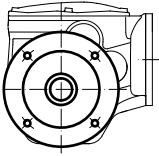
WF.9

SPIROPLAN® gear units in B5 flange-mounted design



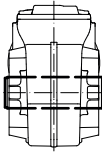
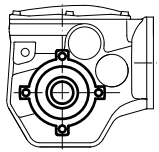
WAF.9

SPIROPLAN® gear units in B5 flange-mounted design with hollow shaft



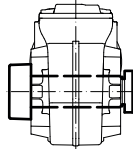
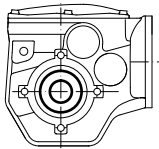
WHF.9

SPIROPLAN® gear units in B5 flange-mounted design with hollow shaft and shrink disk



WA.9

SPIROPLAN® gear units with hollow shaft



WH.9

SPIROPLAN® gear units with hollow shaft and shrink disk

WT.9

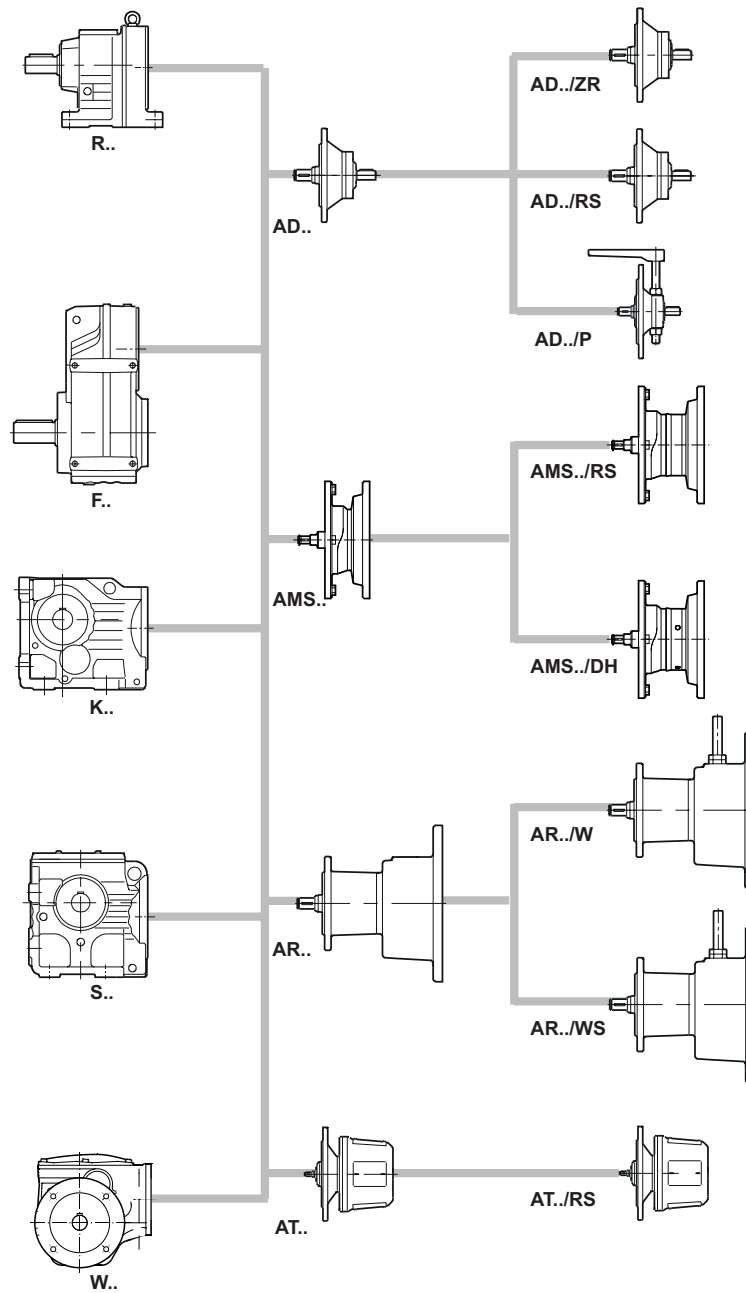
SPIROPLAN® gear units with hollow shaft and TorqLOC® hollow shaft mounting system

3 Overview of types and type designations

Components on the input end

3.6 Components on the input end

The following figure shows an overview of the components on the input end:



| Designation | Description |
|-------------|---|
| AD.. | Input shaft assembly |
| AD../ZR | Input shaft assembly with centering shoulder |
| AD../RS | Input shaft assembly with backstop |
| AD../P | Input shaft assembly with motor platform |
| AMS.. | Adapter for mounting IEC/NEMA motors |
| AMS../RS | Adapter with integrated backstop for mounting IEC/NEMA motors |

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| Designation | Description |
|-----------------------|--|
| AMS../DH | Adapter with condensation drain or drain holes for connecting IEC/ NEMA motors |
| AR.. | Adapter with slip clutch |
| AR../W | Adapter with slip clutch and speed monitoring |
| AR../WS ¹⁾ | Adapter with slip clutch and slip monitor |
| AT.. | Adapter with hydraulic start-up coupling |
| AT../RS | Adapter with hydraulic start-up coupling and backstop |

1) Only with VARIBLOC® variable-speed gear unit.

4 Project planning for gear units

Project planning must be carried out for each gear unit. Adhere to the project planning specifications and notes provided in this chapter.

SEW-EURODRIVE will gladly carry out this project planning for you.

4.1 Drive and gear unit selection data

Determining application data

First, you require the data (mass, speed, setting range, etc.) of the machine to be driven to select the correct drive (see following table). This data helps determine the required power, torque and speed. Refer to the documentation "Drive Engineering – Practical Implementation, Project Planning" or the SEW-Workbench project planning software for assistance.

Selecting the correct drive

Calculate the power, rotational speed, torque, and overhung load of the drive. Observe all mechanical requirements. The suitable drive can then be determined.

Motors

As the motor dimensions are not standardized, the following motor data must be known to select the appropriate adapter:

- Shaft diameter and length
- Flange dimensions (edge length, diameter, centering shoulder and hole circle)
- Maximum torque

Contact SEW-EURODRIVE if you have any questions on selection and project planning.

Application data required for project planning:

| Designation | Meaning | Unit |
|--------------------------|---|----------------------------|
| F_{Aa} | Axial load (tension and compression) on the output shaft | N |
| F_{Ra} | Overhung load acting on the output shaft | N |
| F_{Re} | Overhung load acting on the input shaft | N |
| h | Installation altitude | m above sea level |
| i | Gear ratio | m above sea level |
| i_{tot} | Total gear unit ratio | m above sea level |
| J_L | Mass moment of inertia to be driven | 10^{-4} kgm ² |
| M_a | Gearmotor output torque ($M_{Mot} \times i_G$) | Nm |
| M_{amax} | Maximum permitted output torque | Nm |
| M_a at n_{amax} | Output torque at maximum output speed | Nm |
| M_a at n_{amin} | Output torque at minimum output speed | Nm |
| M_B | Required braking torque | Nm |
| M_{Mot} | Maximum permitted motor torque | Nm |
| M_R | Slip torque (AR) | Nm |
| n_{amin} | Minimum output speed | min ⁻¹ |
| n_{amax} | Maximum output speed | min ⁻¹ |
| P_a at n_{amax} | Output power at maximum output speed | kW |
| P_a at n_{amin} | Output power at minimum output speed | kW |
| R, F, K, S, W M1 - M6 | Mounting position and required gear unit type, see chapter "Gear unit mounting positions" (→ 85) and "Project planning notes R, F, K, S, W gear units" (→ 56) | – |
| T_{amb} | Ambient temperature | °C |
| S., ..% cdf | Operating mode and cyclic duration factor cdf – the exact load cycle can be entered instead | – |
| Z | Switching frequency – or exact load cycle can be specified | h ⁻¹ |

4.2 Project planning sequence

The following flow diagram shows the procedure for planning a project including a gear unit with a component on the input end.

Necessary information regarding the machine to be driven

- Technical data and ambient conditions
- Stopping accuracy
- Output speed
- Starting acceleration and deceleration
- Cyclic duration factor and switching frequency



Calculation of the relevant application data

- Static and dynamic power
- Speeds
- Torques, power ratings
- Travel diagram, if required
- Determination of the required service factor f_B



Gear unit selection

- Definition of gear unit type, gear unit size, gear unit ratio, and gear unit design
- Checking the positioning accuracy,
- Checking the service factor f_B



Selecting components on the input end

- Definition of component type and design
- Definition of component size
- Checking the component load



Options

- Monitoring functions (monitoring devices and equipment)
- Brake for AT
- Backstop
- Centering shoulder
- Motor platform



Ensure that all requirements have been met.

INFORMATION

For thermal project planning of R, F, K, S, W gear units, contact SEW-EURODRIVE.



4.3 Project planning notes – R., F., K., S., W.. gear units

4.3.1 Efficiency of gear units

General information

The efficiency of the gear units is mainly determined by the gearing and bearing friction as well as by churning losses. Keep in mind that the starting efficiency of a gear unit is always less than its efficiency at operating speed. This factor is particularly true for helical-worm and SPIROPLAN® right-angle gear units.

INFORMATION



For information on churning losses and thermal rating, refer to chapter "Churning losses and thermal rating" (→ 57).

R, F, K gear units

Depending on the number of gear stages, the gearing efficiency of helical, parallel-shaft and helical-bevel gear units is up to 96% (3-stage), 97% (2-stage) and 98% (1-stage).

S and W gear units

The gearing in helical-worm and SPIROPLAN® gear units produces a high proportion of sliding friction. This is the reason why these gear units have higher tooth friction losses and lower efficiency than R, F or K gear units.

Other factors influencing the efficiency:

- Gear ratio of the helical-worm or SPIROPLAN® stage
- Input speed
- Ambient temperature

Helical-worm gear units from SEW-EURODRIVE are helical gear/worm combinations that are significantly more efficient than plain worm gear units; see chapter "Technical data of S., SF., SA., SAF 37" (→ 656) and subsequent chapters.

The efficiency may reach $\eta < 0.5$ if the helical-worm gear stage has a very high gear ratio.

Self-locking

Retrodriving torque in helical-worm gear units produces an efficiency of $\eta' = 2 - 1/\eta$, which is significantly less favorable than the forward efficiency η . The helical-worm gear unit is statically self-locking if the forward efficiency is $\eta \leq 0.5$. Contact SEW-EURODRIVE if you want to make technical use of the braking effect of self-locking characteristics.

INFORMATION



Note that the self-locking effect of helical-worm gear units is not permitted as the sole safety function for hoists.

Run-in phase

The tooth flanks of new helical-worm and SPIROPLAN® gear units of the W..0 series are not yet completely smooth. This makes for a greater friction angle and less efficiency during the run-in phase than during later operation. This effect intensifies with increasing gear ratio.

During the running-in phase, the nominal efficiency of the gear unit is reduced by the respective value in the following tables.


| | Worm | |
|---------|------------------|------------------|
| | i range | η reduction |
| 1-start | approx. 50 – 280 | approx. 12% |
| 2-start | approx. 20 – 75 | approx. 6% |
| 3-start | approx. 20 – 90 | approx. 3% |
| 5-start | approx. 6 – 25 | approx. 3% |
| 6-start | approx. 7 – 25 | approx. 2% |

| SPIROPLAN® W..10 to W..30 | |
|---------------------------|------------------|
| i range | η reduction |
| approx. 35 – 75 | approx. 15% |
| approx. 20 – 35 | approx. 10% |
| approx. 10 – 20 | approx. 8% |
| approx. 8 | approx. 5% |
| approx. 6 | approx. 3% |


The run-in phase usually lasts 48 hours. Helical-worm gear units achieve their nominal efficiency values when the following conditions have been met:


- The gear unit has been completely run-in.
- The gear unit has reached nominal operating temperature.
- The recommended lubricant has been filled.
- The gear unit is operating in the nominal load range.

4.3.2 Churning losses and thermal rating

* (→  X)

Churning losses may occur with the following conditions. They must be considered during the thermal check:

- A mounting position where the first gear unit stage is fully immersed in the lubricant. The respective mounting positions of the gear units are marked with * in chapter "Mounting position sheets" (→  91).
- A high mean input speed and consequently a high circumferential speed of the gear wheels of the input gear stage.

If one or both of these conditions apply, determine the requirements from the application and the corresponding operating conditions (see chapter "Data for calculating the thermal rating" (→  58)) and consult SEW-EURODRIVE. SEW-EURODRIVE can calculate the thermal rating based on the actual operating conditions. The thermal rating of the gear unit can be increased by appropriate measures, such as by using a synthetic lubricant with higher thermal endurance properties.

INFORMATION



To reduce churning losses to a minimum, use gear units, preferably in the M1 mounting position.

Data for calculating the thermal rating

The following information is required for calculating the thermal rating:

Gear unit type and design:

- Gear unit ratio i
- Mean input speed n_{em} or mean output speed n_{am} each in min^{-1}
- Effective motor torque M_{eff} in Nm
- Input motor power P_{Mot} in kW
- Mounting position M1 – M6 or pivoting angle

Installation site:

- Ambient temperature T_{amb} in $^{\circ}\text{C}$
- Installation altitude
- In small, closed rooms or in large rooms (halls) or outdoors

Installation situation:

- Space-critical or well ventilated
- Steel base or concrete base

4.4 Service factor

4.4.1 Service factor f_B

The method for determining the maximum permitted continuous torque M_{amax} and using this value to derive the service factor $f_B = M_{amax}/M_a$ is not defined in a standard and varies greatly from manufacturer to manufacturer. With a service factor $f_B = 1$, gear units by SEW-EURODRIVE in any case offer an extremely high level of safety and reliability in terms of fatigue strength (with exception of: Low temperatures and wear of the worm gear with helical-worm gear units). The service factor may differ from specifications of other gear unit manufacturers. If in doubt, contact SEW-EURODRIVE.

For the service factor, refer to the order confirmation and the selection tables in the gearmotor catalogs from SEW-EURODRIVE.

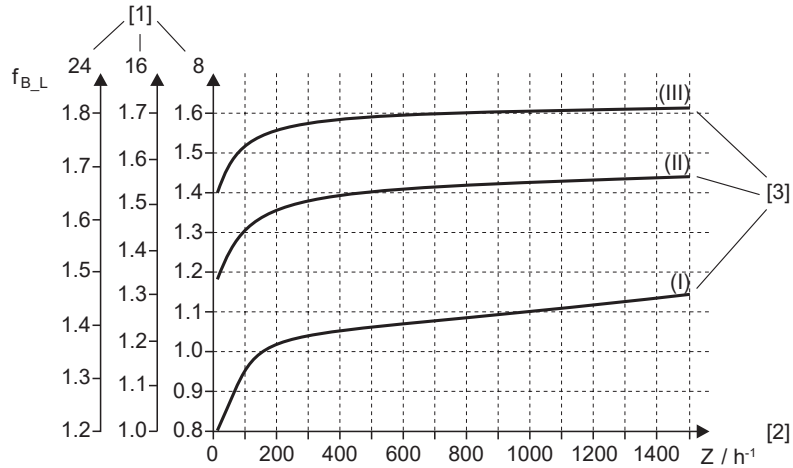
4.4.2 Required service factor f_{B_req}

The operating conditions are considered in order to determine the required service factor f_{B_req} for the gearmotor selection. Decisive factors are the requirements of the driven machine, as well as the ambient temperature and gear unit type, if applicable.

The service factor f_{B_req} results from other service factors described in the following chapters.

4.4.3 Application service factor

The effect of the driven machine on the gear unit is taken into account to a sufficient level of accuracy using the application service factor f_{B_L} . The service factor is determined according to the daily operating time and the switching frequency Z. Three load classifications are taken into account depending on the mass acceleration factor. You can read the service factor applicable to your application from the following diagram.



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- [1] Service factor f_{B_L} in relation to the daily operating time in hours/day
- [2] Switching frequency Z: The cycles include all starting and braking procedures as well as changeovers from low to high speed and vice versa.
- [3] Curves for load classification I, II and III

Definition of the load classification

The following 3 load classifications are distinguished:

- Load classification I: Uniform, almost no shock load, permitted mass acceleration factor ≤ 0.2
- Load classification II: Non-uniform, moderate shock load, permitted mass acceleration factor ≤ 3
- Load classification III: Very non-uniform, severe shock load, permitted mass acceleration factor ≤ 10

Mass moment of inertia ratio

The mass moment of inertia ratio is calculated as follows:

$$f_a = \frac{J_x}{J_{Mot}}$$

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- f_a = Mass moment of inertia ratio
- J_x = Load moment of inertia, reduced to motor shaft $[J_{Lx}] = \text{kgm}^2$
- J_{mot} = Motor moment of inertia $[J_{Mot}] = \text{kgm}^2$

The motor moment of inertia J_{Mot} is the mass moment of inertia of the motor and, if installed, the brake and the flywheel fan (Z fan).

The load moment of inertia J_x includes the mass moments of inertia of the driven machine and the gear unit, reduced to the motor shaft.

4 Project planning for gear units

Service factor

Reducing the mass moment of inertia to the motor shaft

The calculation for scaling down to motor speed is performed using the following formula:

$$J_x = J_L \times \left(\frac{1}{i_G}\right)^2$$

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- J_x = Load moment of inertia, reduced to motor shaft $[J_{L,x}] = \text{kgm}^2$
- J_L = Mass moment of inertia with reference to the output speed of the gear unit $[J_L] = \text{kgm}^2$
- i_G = Gear unit ratio

Service factors $f_{B_L} > 1.8$ may be required with large mass acceleration factors (> 10), high levels of backlash in the transmission elements or large overhung loads. Contact SEW-EURODRIVE in such cases.

4.4.4 Service factor at low temperatures

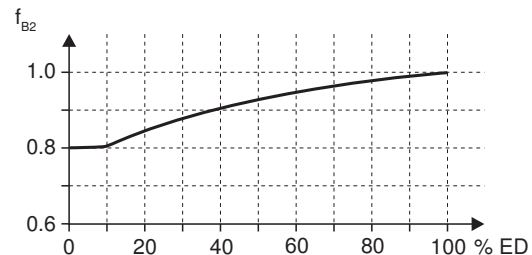
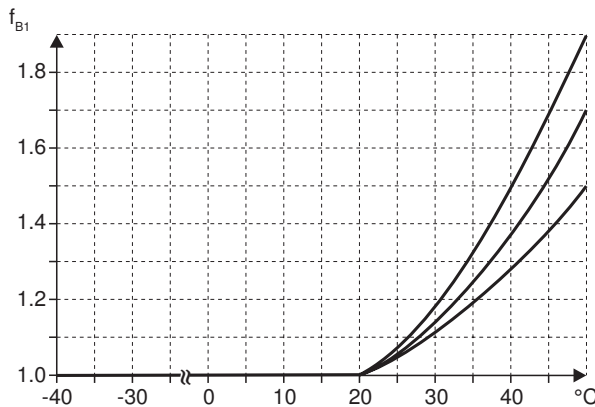
At an ambient temperature of < -30 °C, observe the additional service factor $f_{B3} = 1.2$.

4.4.5 Service factors for helical-worm gear units

In case of helical-worm gear units, the following 2 service factors must be observed:

- f_{B1} = Service factor based on ambient temperature
- f_{B2} = Service factor from cyclic duration factor

The additional service factors f_{B1} and f_{B2} can be determined by referring to the diagram below. For f_{B1} , the load classification is taken into account in the same way as for f_{B_L} . The following diagram shows the additional service factors f_{B1} and f_{B2} :



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Cyclic duration factor

$$ED = \frac{t_L}{60} \times 100$$

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- ED = Cyclic duration factor $[\text{cdf}] = \%$
- t_L = Time under load $[t_{L_tot}] = \text{min h}^{-1}$

4.4.6 Conditions for selecting gear units based on the service factor

The determined required service factor f_{B_req} must be smaller than or equal to the service factor according to the selection tables.

$$f_{B_req} \leq f_B$$

$$F_{B_L} \times [f_{B1} \times f_{B2} \times f_{B3}] \leq f_B$$

or

$$M_a \leq f_{B_req} \leq M_{amax}$$

$$M_a \times F_{B_L} \times [f_{B1} \times f_{B2} \times f_{B3}] \leq M_{amax}$$

The service factors in square brackets are only taken into account for specific conditions regarding the application and ambient conditions. Else, the value is 1.

f_B = Service factor

f_{B_req} = Required service factor

f_{B_L} = Application service factor based on load classification and switching frequency

f_{B3} = Low temperature service factor, only applies to ambient temperatures of < -30 °C

f_{B1} = Service factor for helical-worm gear units only, based on ambient temperature

f_{B2} = Service factor for helical-worm gear units only, based on cdf

M_a = Gearmotor output torque ($M_{Mot} \times i_G$)

M_{amax} = Maximum permitted output torque

$[M_a]$ = Nm

$[M_{amax}]$ = Nm

4.4.7 Examples

- An application with mass acceleration factor 2.5 (load classification II), operating time 14 hours/day (read off at 16 h/day (\rightarrow 59)) and 300 cycles/h produce a service factor $f_{B_L} = 1.5$ as shown in the figure. The f_B value of the required gearmotor must therefore be ≥ 1.5 .

If the gearmotor is intended for operation at -35 °C, the following applies:

$$f_{B_req} = f_{B_L} \times f_{B3} = 1.5 \times 1.2 = 1.8$$

The gearmotor to be selected now requires an f_B value of ≥ 1.8 .

- The gearmotor with service factor $f_{B_L} = 1.5$ of the previous example is to be a helical-worm gearmotor, and the ambient temperature is 40 °C:

$$\rightarrow f_{B1} = 1.36 \text{ (read off at load classification II } (\rightarrow \text{ 60))}$$

$$\text{Time under load} = 40 \text{ min/h} \rightarrow \text{cdf} = 66.67\% \rightarrow f_{B2} = 0.95$$

The required service factor is:

$$f_{B_req} = f_{B_L} \times f_{B1} \times f_{B2} = 1.5 \times 1.36 \times 0.95 = 1.94$$

The selected helical-worm gearmotor requires a service factor $f_B \geq 1.94$.

4.5 Overhung and axial loads of R..-, F..-, K..-, S..-, and W.. gear units

4.5.1 Determining the overhung load

When determining the resulting overhung load, the type of transmission element mounted on the shaft end must be considered. The following transmission element factors f_z must be considered for various transmission elements.

| Transmission element | Transmission element factor f_z | Comments |
|-------------------------------------|-----------------------------------|---|
| Gear wheels | 1.15 | < 17 teeth |
| Sprockets | 1.40 | < 13 teeth |
| Sprockets | 1.25 | < 20 teeth |
| Narrow V-belt pulleys | 1.75 | Consider influence of pre-tension force |
| Flat belt pulleys | 2.50 | Consider influence of pre-tension force |
| Toothed belt pulleys | 1.50 | Consider influence of pre-tension force |
| Gear rack pinion, pre-tensioned | 2.00 | Consider influence of pre-tension force |
| Gear rack pinion, not pre-tensioned | 1.15 | < 17 teeth |

Transmission element factor at low temperatures

For temperatures < -30 °C, observe a transmission element factor $f_{z1} = 1.2$.

The overhung load exerted on the motor or gear shaft is calculated as follows:

$$F_R = \frac{M_{\max} \times 2000}{d_0} \times f_z \times f_{z1}$$

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F_R = Overhung load

$[F_R] = \text{N}$

M_{\max} = Torque

$[M_{\max}] = \text{Nm}$

f_z = Transmission element factor

f_{z1} = Transmission element factor $f_{z1} = 1.2$ for ambient temperatures < -30 °C.

For ambient temperatures ≥ -30 °C, $f_{z1} = 1$

d_0 = Overhung load determined by diameter of installed transmission element

$[d] = \text{mm}$

4.5.2 Permitted overhung load F_{Ra}

The following important information refers to the overhung load value F_{Ra} in the relevant tables of this catalog:

F_{Ra} is calculated from the nominal bearing service life L_{10h} (according to ISO 281). For special operating conditions, the permitted overhung loads can be determined based on the modified bearing service life L_{na} . Consult SEW-EURODRIVE in this case.

The permitted overhung load is influenced by the direction of rotation and the force application angle. The values F_{Ra} listed in the catalog are based on the least favorable conditions.

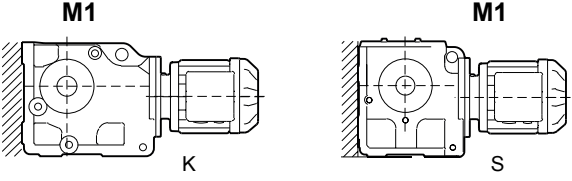
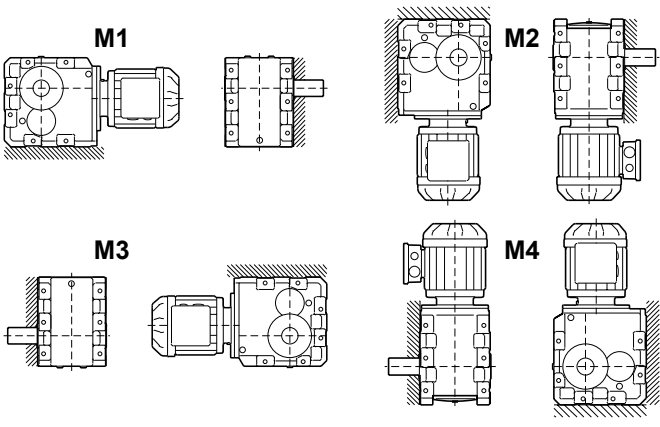
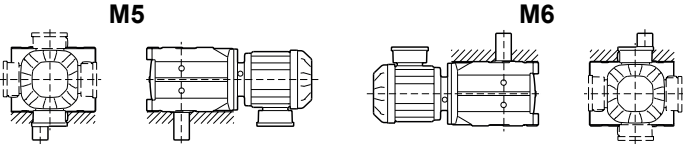
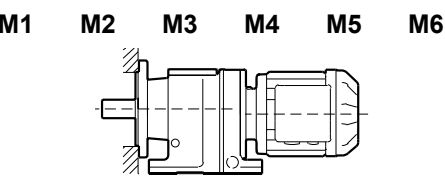
The permitted overhung loads F_{Ra} for the output shafts of foot-mounted gear units with a solid shaft are listed in the selection tables for gearmotors. For other designs, please contact SEW-EURODRIVE.

The overhung load data refers to a force application at the center of the output shaft $0.5 \times l$. With right-angle gear units, the application point is assumed to be at the A-side.

For gear units with hollow shaft and key (shaft-mounted design), the values refer to force application to the front end of the hollow shaft.

Reduced permitted overhung load

The following table shows the cases in which the overhung load must be limited:

| Mounting surface | Gear unit | Mounting position | Restriction |
|---|-------------------------|----------------------|--|
|  | K37 – K157 S37 – S97 | M1 | Maximally 50% of the overhung load F_{Ra} specified in the selection tables is permitted in the case of mounting at the front-end (shaded areas). |
|  | K167 K187 | M1 M2 M3 M4 | No reduction when the unit is mounted using the gray-shaded feet. A maximum of 50% of the overhung load F_{Ra} specified in the selection tables is permitted in the case of deviating mounting. |
|  | K167 K187 | M5 M6 | No reduction when the unit is mounted using the gray-shaded feet. In case of deviating mounting, contact SEW-EURODRIVE. |
|  | R07F – R87F | M1 – M6 | For all foot-mounted/flange-mounted gear units (R..F..) with torque transmission via the flange connection, a maximum of 50% of the overhung load F_{Ra} specified in the selection tables is permitted. |

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4 Project planning for gear units

Overhung and axial loads of R..-, F..-, K..-, S..-, and W.. gear units

4.5.3 Higher permitted overhung loads

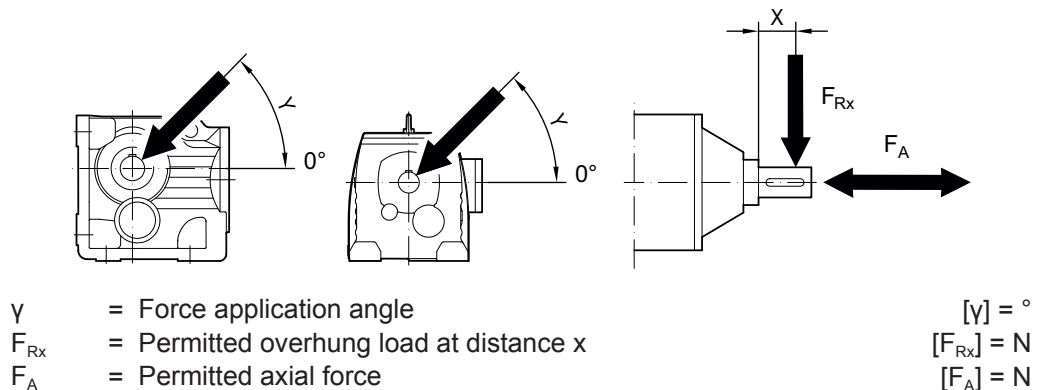
Precisely considering the force application angle γ and the direction of rotation makes it possible to achieve a higher overhung load than listed in the selection tables.

Furthermore, higher output shaft loads are permitted if heavy duty bearings are installed, especially with R, F and K gear units.

Contact SEW-EURODRIVE in such cases.

4.5.4 Definition of the force application

Force application is defined according to the following figure:



4.5.5 Permitted axial forces

If there is no overhung load, then an axial load F_A (tension or compression) amounting to 50% of the overhung load given in the selection tables is permitted. This condition applies to the following gearmotors:

- Helical gearmotors except for R..127.. to R..167..
- Parallel-shaft helical and helical-bevel gearmotors with solid shaft except for F97...
- Helical-worm gearmotors with solid shaft

INFORMATION



Contact SEW-EURODRIVE for all other gear unit designs and in the event of significantly greater axial loads or combinations of overhung load and axial load.

4.5.6 Input side: Overhung load conversion for off-center force application

INFORMATION



Contact SEW-EURODRIVE with regard to the project planning of gear units with input shaft assemblies and off-center force application.

4.5.7 Output side: Overhung load conversion for off-center force application

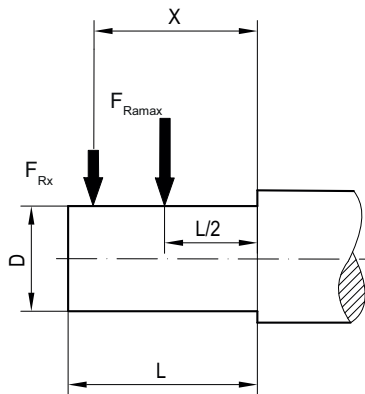
The permitted overhung loads must be calculated according to the selection tables using the following formulas in the event of force application to areas other than the center of the shaft end. The smaller of the two values F_{Rb} (according to bearing service life) and F_{Rw} (according to shaft strength) is the permitted value for the overhung load at distance x . Note that the calculations apply to M_{amax} . The permitted overhung load values F_{Ramax} specified in the data tables apply to force application at $0.5 \times l$ (solid shaft).

The following conditions must be met:

F_{Rb} according to bearing service life:
$$F_{Rb} = F_{Ramax} \times \frac{a}{b + x}$$

F_{Rw} according to shaft strength:
$$F_{Rw} = \frac{c}{f + x}$$

- F_{Rx} Permitted overhung load at distance x $[F_{Rx}] = N$
- F_{Ramax} Permitted overhung load $[F_{Ramax}] = N$
- x Distance from the shaft shoulder to the force application point $[x] = mm$
- a, b, f Gear unit constants for overhung load conversion $[a, b, f] = mm$
- c Gear unit constant for overhung load conversion $[c] = Nmm$



Gear unit constants for overhung load conversion

| Gear unit type | a mm | b mm | c Nmm | f mm | d mm | l mm |
|----------------|---------|---------|--------------------|---------|---------|---------|
| RX57 | 43.5 | 23.5 | 1.51×10^5 | 34.2 | 20 | 40 |
| RX67 | 52.5 | 27.5 | 2.42×10^5 | 39.7 | 25 | 50 |

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4

Project planning for gear units

Overhung and axial loads of R..-, F..-, K..-, S..-, and W.. gear units

| Gear unit type | a mm | b mm | c Nmm | f mm | d mm | l mm |
|----------------|-------|-------|--------------------|------|------|------|
| RX77 | 60.5 | 30.5 | 1.95×10^5 | 0 | 30 | 60 |
| RX87 | 73.5 | 33.5 | 7.69×10^5 | 48.9 | 40 | 80 |
| RX97 | 86.5 | 36.5 | 1.43×10^6 | 53.9 | 50 | 100 |
| RX107 | 102.5 | 42.5 | 2.47×10^6 | 62.3 | 60 | 120 |
| R07 | 72.0 | 52.0 | 4.67×10^4 | 11 | 20 | 40 |
| R17 | 88.5 | 68.5 | 6.53×10^4 | 17 | 20 | 40 |
| R27 | 106.5 | 81.5 | 1.56×10^5 | 11.8 | 25 | 50 |
| R37 | 118 | 93 | 1.24×10^5 | 0 | 25 | 50 |
| R47 | 137 | 107 | 2.44×10^5 | 15 | 30 | 60 |
| R57 | 147.5 | 112.5 | 3.77×10^5 | 18 | 35 | 70 |
| R67 | 168.5 | 133.5 | 2.65×10^5 | 0 | 35 | 70 |
| R77 | 173.7 | 133.7 | 3.97×10^5 | 0 | 40 | 80 |
| R87 | 216.7 | 166.7 | 8.47×10^5 | 0 | 50 | 100 |
| R97 | 255.5 | 195.5 | 1.06×10^6 | 0 | 60 | 120 |
| R107 | 285.5 | 215.5 | 2.06×10^6 | 0 | 70 | 140 |
| R127 | 311 | 226 | 4.93×10^6 | 0 | 90 | 170 |
| R137 | 343.5 | 258.5 | 4.58×10^6 | 0 | 90 | 170 |
| R147 | 402 | 297 | 8.65×10^6 | 33 | 110 | 210 |
| R167 | 450 | 345 | 1.26×10^7 | 0 | 120 | 210 |
| F27 | 109.5 | 84.5 | 1.13×10^5 | 0 | 25 | 50 |
| F37 | 123.5 | 98.5 | 1.07×10^5 | 0 | 25 | 50 |
| F47 | 153.5 | 123.5 | 1.40×10^5 | 0 | 30 | 60 |
| F57 | 170.7 | 135.7 | 2.70×10^5 | 0 | 35 | 70 |
| F67 | 181.3 | 141.3 | 4.12×10^5 | 0 | 40 | 80 |
| F77 | 215.8 | 165.8 | 7.87×10^5 | 0 | 50 | 100 |
| F87 | 263 | 203 | 1.06×10^6 | 0 | 60 | 120 |
| F97 | 350 | 280 | 2.09×10^6 | 0 | 70 | 140 |
| F107 | 373.5 | 288.5 | 4.23×10^6 | 0 | 90 | 170 |
| F127 | 442.5 | 337.5 | 9.45×10^6 | 0 | 110 | 210 |
| F157 | 512 | 407 | 1.05×10^7 | 0 | 120 | 210 |
| K19 | 103.7 | 83.7 | 8.66×10^4 | 0 | 20 | 40 |
| K29 | 124.5 | 99.5 | 1.26×10^5 | 0 | 25 | 50 |
| K37 | 123.5 | 98.5 | 1.30×10^5 | 0 | 25 | 50 |
| K39 | 155.5 | 125.5 | 2.25×10^5 | 0 | 30 | 60 |
| K47 | 153.5 | 123.5 | 1.40×10^5 | 0 | 30 | 60 |
| K49 | 183.5 | 148.5 | 2.63×10^5 | 0 | 35 | 70 |

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| Gear unit type | a mm | b mm | c Nmm | f mm | d mm | l mm |
|----------------|---------|---------|--------------------|---------|---------|---------|
| K57 | 169.7 | 134.7 | 2.70×10^5 | 0 | 35 | 70 |
| K67 | 181.3 | 141.3 | 4.12×10^5 | 0 | 40 | 80 |
| K77 | 215.8 | 165.8 | 7.69×10^5 | 0 | 50 | 100 |
| K87 | 252 | 192 | 1.64×10^6 | 0 | 60 | 120 |
| K97 | 319 | 249 | 2.80×10^6 | 0 | 70 | 140 |
| K107 | 373.5 | 288.5 | 5.53×10^6 | 0 | 90 | 170 |
| K127 | 443.5 | 338.5 | 8.31×10^6 | 0 | 110 | 210 |
| K157 | 509 | 404 | 1.18×10^7 | 0 | 120 | 210 |
| K167 | 621.5 | 496.5 | 1.88×10^7 | 0 | 160 | 250 |
| K187 | 720.5 | 560.5 | 3.04×10^7 | 0 | 190 | 320 |
| S37 | 118.5 | 98.5 | 6.0×10^4 | 0 | 20 | 40 |
| S47 | 130 | 105 | 1.33×10^5 | 0 | 25 | 50 |
| S57 | 150 | 120 | 2.14×10^5 | 0 | 30 | 60 |
| S67 | 184 | 149 | 3.04×10^5 | 0 | 35 | 70 |
| S77 | 224 | 179 | 5.26×10^5 | 0 | 45 | 90 |
| S87 | 281.5 | 221.5 | 1.68×10^6 | 0 | 60 | 120 |
| S97 | 326.3 | 256.3 | 2.54×10^6 | 0 | 70 | 140 |

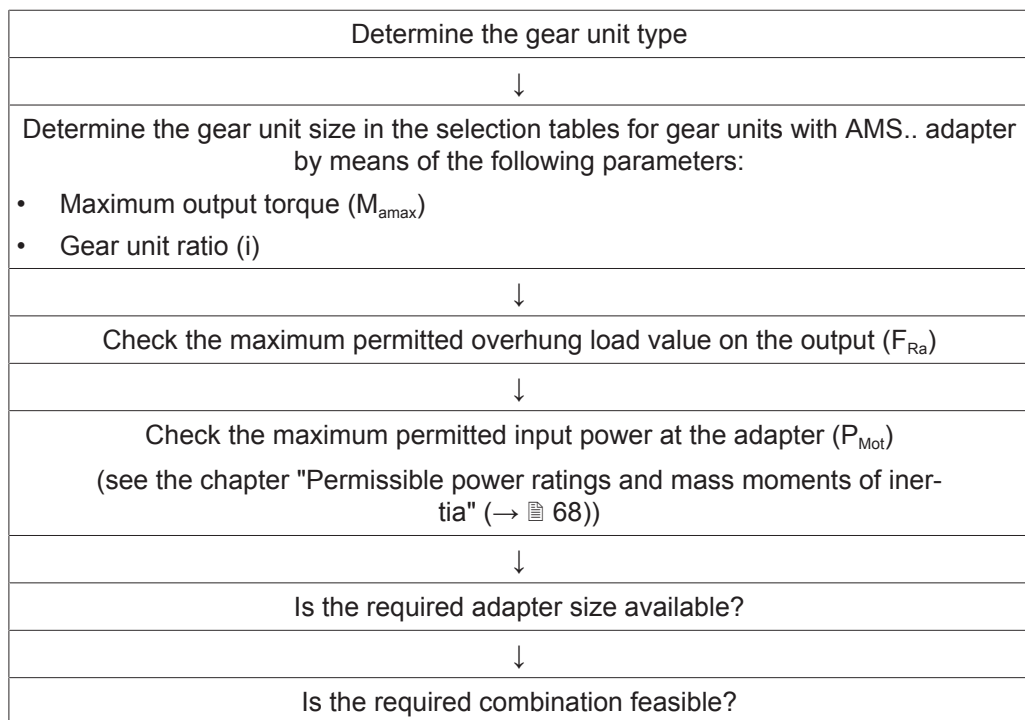
Values for designs not listed are available on request.

4.6 Project planning for components on the input end

4.6.1 Gear units with IEC or NEMA AMS.. adapter

Selecting the gear unit

Perform the gear unit selection as follows:



Checking the input power at the gear unit (P_{Mot})

The values in the selection tables refer to an input speed of $n_{Mot} = 1400 \text{ min}^{-1}$. The input power at the gear unit corresponds to a maximum torque at the input side. If the speed differs, convert the input power by means of the maximum torque.

Permissible power ratings and mass moments of inertia

The following table shows the permitted power ratings and mass moments of inertia:

| Adapter | | $P_m^{1)-1}$ kW | $J_{Adapter}$ kg × m ² |
|-----------|------------|--------------------|--------------------------------------|
| IEC | NEMA | | |
| AMS63 | – | 0.25 | 0.44×10^{-4} |
| AMS71 | – | 0.37 | 0.44×10^{-4} |
| AMS80 | AMS56 | 0.75 | 1.3×10^{-4} |
| AMS90 | AMS143/145 | 1.5 | 2.5×10^{-4} |
| AMS100 | AMS182 | 3 | 7.8×10^{-4} |
| AMS112 | AMS184 | 4 | 7.8×10^{-4} |
| AMS132S/M | AMS213/215 | 7.5 | 22×10^{-4} |
| AMS132ML | – | 9.2 | 22×10^{-4} |
| AMS160 | AMS254/256 | 15 | 72×10^{-4} |
| AMS180 | AMS284/286 | 22 | 72×10^{-4} |

| Adapter | | $P_m^{1)-1}$ kW | J_{Adapter} kg × m ² |
|---------|------------|--------------------|---|
| IEC | NEMA | | |
| AMS200 | AMS324/326 | 30 | 201 × 10 ⁻⁴ |
| AMS225 | AMS364/365 | 45 | 204 × 10 ⁻⁴ |
| AMS250 | – | 55 | 442 × 10 ⁻⁴ |
| AMS280 | – | 90 | 547 × 10 ⁻⁴ |

1) Maximum rated power of the mounted standard electric motor at 1400 min

The specified mass moments of inertia apply for the standard adapter and the adapter with reinforced bearings. The mass moments of inertia of the adapters with backstop AMS../RS and drain hole AMS../DH can be found in the tables in chapters "AMS.. adapter with backstop (RS)" (→ 69) and "AMS.. adapter with Drain Hole (DH)" (→ 70).

AMS.. adapter with backstop (RS)

If the application requires only one direction of rotation, the AMS.. adapter can be configured with a backstop. Backstops with centrifugal lift-off sprags are used. The advantage of this design is that the sprags move around inside the backstop without making contact above a certain speed (lift-off speed). This means the backstops operate wear-free, without losses, maintenance-free and are suited for high speeds.

The backstop is completely integrated in the adapter.

| Adapters | | Max. locking torque of the backstop Nm | Minimum lift-off speed min ⁻¹ | J_{Adapter} kg × m ² | Additional weight compared to AMS.. adapter kg |
|-----------|---------------|---|---|---|---|
| IEC | NEMA | | | | |
| AMS80/RS | – | 130 | 720 | 4.5 × 10 ⁻⁴ | 2 |
| AMS90/RS | AMS143/145/RS | | | | 2 |
| AMS100/RS | AMS182/RS | 190 | 625 | 15 × 10 ⁻⁴ | 4 |
| AMS112/RS | AMS184/RS | | | | 4 |
| AMS132/RS | AMS213/215/RS | 500 | 550 | 44 × 10 ⁻⁴ | 6 |
| AMS160/RS | AMS254/256/RS | 900 | 515 | 108 × 10 ⁻⁴ | 2 |
| AMS180/RS | AMS284/286/RS | | | | 2 |
| AMS200/RS | AMS324/326/RS | 1900 | 490 | 257 × 10 ⁻⁴ | 3 |
| AMS225/RS | AMS364/365/RS | | | | 3 |
| AMS250/RS | – | | | 496 × 10 ⁻⁴ | 4 |
| AMS280/RS | – | | | 601 × 10 ⁻⁴ | 4 |

AMS.. adapter with Drain Hole (DH)

The Drain Hole option is only available for the M4 mounting position. It is recommended if moisture or liquids (water) can enter the adapter space due to external influences. The design provides 4 drain holes around the circumference of the spacer ring for this case. Incoming liquids encounter the installed oil flinger, which transports the liquids to the outside due to rotary motion. The medium can run off to the outside through the drainage slope when in idle state.

| Adapters | | Maximum permitted speed min ⁻¹ | J _{Adapter} kg × m ² | Additional weight compared to AMS.. adapter kg |
|-------------|---------------|--|---|---|
| IEC | NEMA | | | |
| AMS63/71/DH | – | 3600 | 0.6 × 10 ⁻⁴ | 0.6 |
| AMS80/DH | AMS56/DH | 3600 | 1.8 × 10 ⁻⁴ | 0.9 |
| AMS90/DH | AMS143/145/DH | 3600 | 3.1 × 10 ⁻⁴ | 1 |
| AMS100/DH | AMS182/DH | 3600 | 11 × 10 ⁻⁴ | 3 |
| AMS112/DH | AMS184/DH | 3600 | 11 × 10 ⁻⁴ | 3 |
| AMS132/DH | AMS213/215/DH | 3200 | 31 × 10 ⁻⁴ | 5 |
| AMS160/DH | AMS254/256/DH | 2600 | 87 × 10 ⁻⁴ | 7 |
| AMS180/DH | AMS284/286/DH | 2600 | 86 × 10 ⁻⁴ | 7 |
| AMS200/DH | AMS324/326/DH | 1900 | 201 × 10 ⁻⁴ | 0 |
| AMS225/DH | AMS364/365/DH | 1900 | 204 × 10 ⁻⁴ | 0 |
| AMS250/DH | – | 1900 | 442 × 10 ⁻⁴ | 0 |
| AMS280/DH | – | 1900 | 547 × 10 ⁻⁴ | 0 |

AMS.. adapter with reinforced bearings

Optionally, you can obtain the AMS.. adapters with reinforced bearings, which can significantly increase the bearing service life in the customer application. The adapter does not have any additional length because of the reinforced bearings.

4.6.2 AR adapter with slip clutch**Double gear unit with adapter and slip clutch**

In combination with compound gear units, the adapter with slip clutch is preferably installed between the two gear units. Please contact SEW-EURODRIVE if required.

Selecting the gear unit

The type sizes of the AR.. adapter with slip clutch correspond to those of the AMS.. adapter for IEC motors. Therefore, select a gear unit using the selection tables for the AMS.. adapter. Replace the AMS.. type designation with AR.. and determine the required slip torque.

Determining the slip torque

The slip torque should be about 1.5 times the rated torque of the drive. When determining the slip torque, bear in mind the maximum permitted output torque of the gear unit as well as the variations in the slip torque of the clutch (± 20%) depending on the design.

When you order a gear unit with adapter and slip clutch, you have to specify the required slip torque of the coupling.

If you do not specify the slip torque, it will be set according to the maximum permitted output torque of the gear unit.

Torques, slip torques

The following table shows an overview of torques and slip torques sorted by adapter:

| Type | $P_{Mot}^{1)}$ kW | $M_{slip}^{2)}$ Nm | $M_{slip}^{2)}$ Nm | $M_{slip}^{2)}$ Nm | Additional weight compared to AMS.. adapter kg |
|----------|----------------------|-----------------------|-----------------------|-----------------------|---|
| AR71 | 0.37 | 1 – 6 | – | – | 2 |
| AR80 | 0.75 | 1 – 6 | 6.1 – 16 | – | 2 |
| AR90 | 1.5 | 1 – 6 | 6.1 – 16 | 17 – 32 | 2 |
| AR100 | 3.0 | 5 – 13 | 14 – 80 | – | 3 |
| AR112 | 4.0 | 5 – 13 | 14 – 80 | – | 3 |
| AR132S/M | 7.5 | 15 – 130 | – | – | 10 |
| AR132ML | 9.2 | 15 – 130 | – | – | 10 |
| AR160 | 15 | 30 – 85 | 86 – 200 | – | 14 |
| AR180 | 22 | 30 – 85 | 86 – 300 | – | 14 |

1) Maximum rated power of the attached standard electric motor at 1400 1/min.

2) Slip torque can be set based on the cup springs installed.

Speed monitor option /W

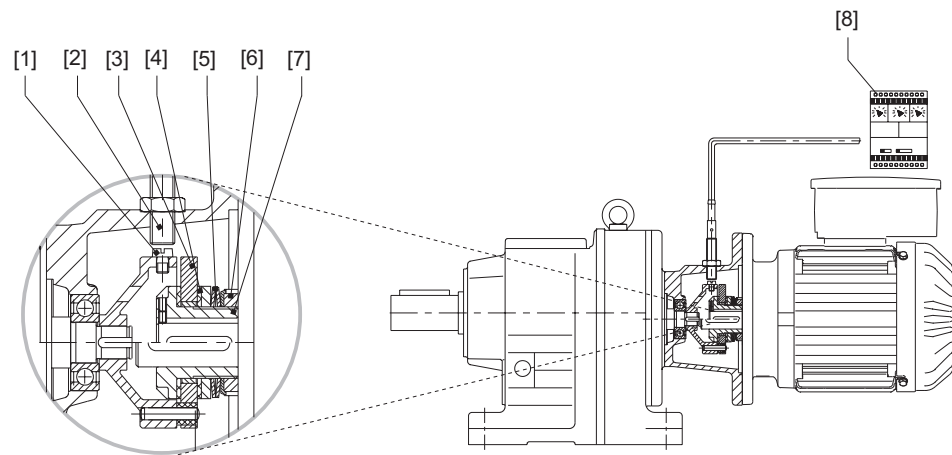
Part number 19139438

We recommend monitoring the speed of the coupling using a speed monitor to avoid uncontrolled slippage of the coupling and the associated wear to the friction ring pads.

The speed of the output end coupling half of the slip clutch is detected in a proximity-type method using a trigger cam and an inductive encoder. The speed monitor compares the pulses with a defined reference speed. The output relay (NC or NO contact) trips when the speed drops below the specified speed (overload). The monitor is equipped with a start bypass to suppress error messages during the startup phase. The start bypass can be set within a time window of 0.5 to 15 seconds.

Reference speed, start bypass and switching hysteresis can be set on the speed monitor.

The following figure shows the adapter with slip clutch and speed monitor /W:



4513827211

- | | | |
|--------------------------------------|---------------------|-------------------|
| [1] Trip cam | [4] Friction lining | [7] Friction hub |
| [2] Incremental encoder (adapter) | [5] Cup spring | [8] Speed monitor |
| [3] Driving disk | [6] Slotted nut | |

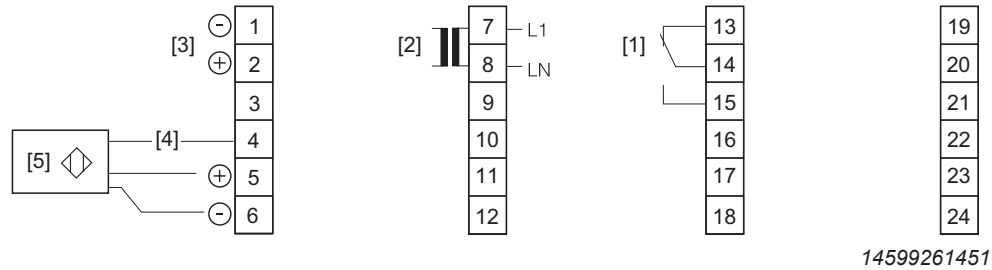
Connection /W

The encoder is connected to the slip monitor using a two or three-core cable (depending on the encoder type).

- Maximum cable length: 500 m with a cable cross section of 1.5 mm²
- Standard supply cable: 3-core/2 m
- Route the signal lines separately (not in multi-conductor cables) and shield them, if necessary
- Degree of protection: IP40 (terminals IP20)
- Operating voltage: AC 110 – 240 V or DC 24 V
- Maximum switching capacity of the output relay: 6 A (AC 250 V)

Terminal assignment /W

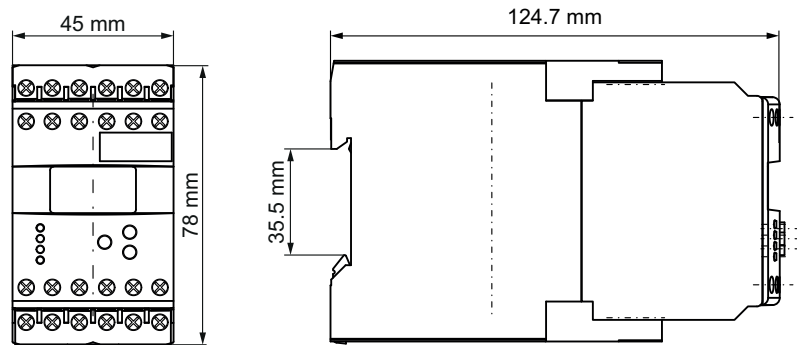
The following figure shows the terminal assignment /W:



- [1] Relay output
- [2] AC 110 – 240 V connection voltage (47 – 63 Hz)
- [3] DC 24 V connection voltage
- [4] Signal (pnp)
- [5] Encoder

Dimensions /W

The following figure shows the dimensions for /W:



Slip monitor option /WS

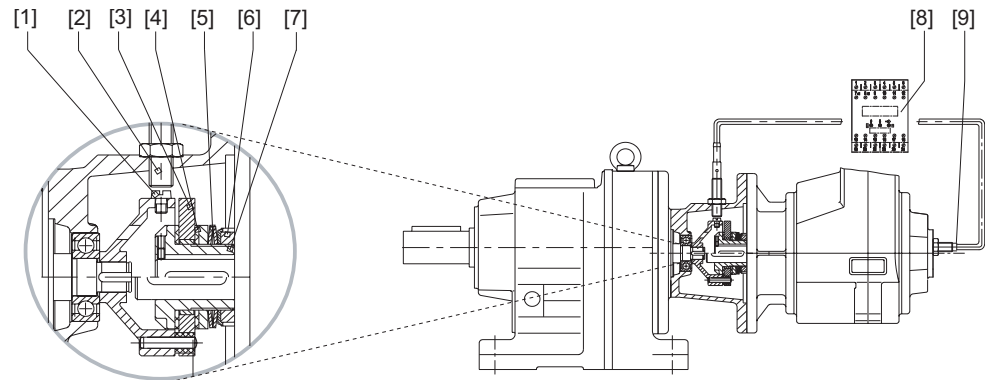
Part number: 01649493

The following figure shows the slip monitor option /WS:

In conjunction with VARIBLOC® variable-speed gear units (see "Variable Speed Gear Units" catalog), the speed monitor is replaced by a slip monitor to monitor the speed difference between the input and output halves of the coupling.

The signal pick-up depends on the size of the variable speed gear unit with two incremental encoders or one incremental encoder and an AC encoder.

The following figure shows the adapter with slip clutch and slip monitor /WS:



4513831563

- | | |
|-----------------------------------|----------------------------|
| [1] Trigger cam | [6] Slotted nut |
| [2] Incremental encoder (adapter) | [7] Friction hub |
| [3] Driving disk | [8] Slip monitor /WS |
| [4] Friction lining | [9] Incremental encoder IG |
| [5] Cup spring | |

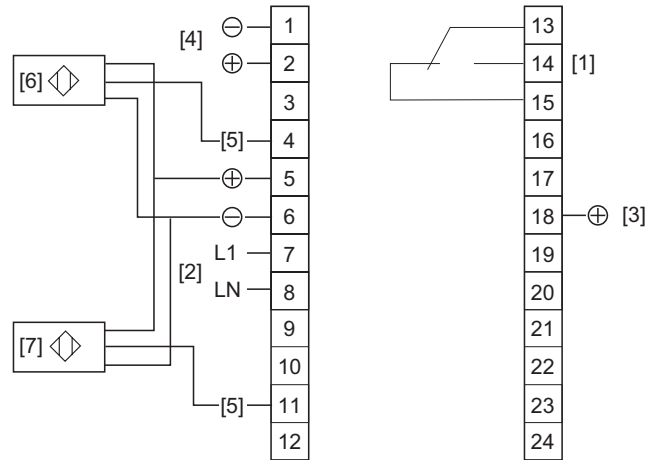
Connection /WS

The IG voltage encoder is connected to the WS slip monitor via a 2 or 3-core cable depending on the type.

- Maximum cable length: 500 m with a cable cross section of 1.5 mm²
- Standard supply cable: 3-core (2 m)
- Route the signal lines separately (not in multicore cables) and shield them, if necessary.
- Degree of protection: IP40 (terminals IP20)
- Operating voltage: AC 110 V – 240 V or DC 24 V
- Maximum switching capacity of the output relay: 6 A (AC 250 V)

Terminal assignment /WS

The following figure shows the terminal assignment of the slip monitor /WS:

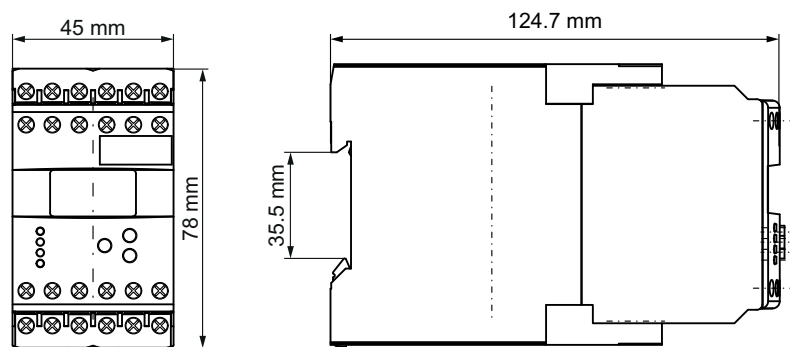


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- | | |
|--|---------------|
| [1] Relay output | [5] Signal |
| [2] AC 230 V, 47 Hz – 63 Hz connection voltage | [6] Encoder 1 |
| [3] External slip reset | [7] Encoder 2 |
| [4] DC 24 V connection voltage | |

Dimensions /WS

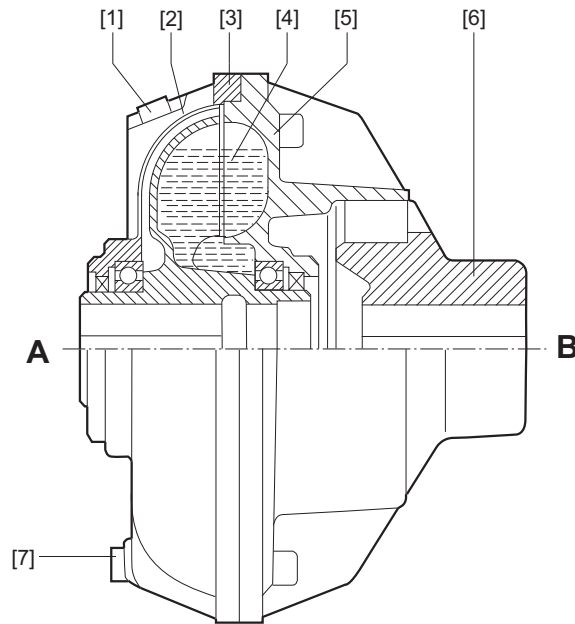
The following figure shows the dimensions /WS:



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4.6.3 AT adapter with hydraulic start-up coupling

Start-up coupling



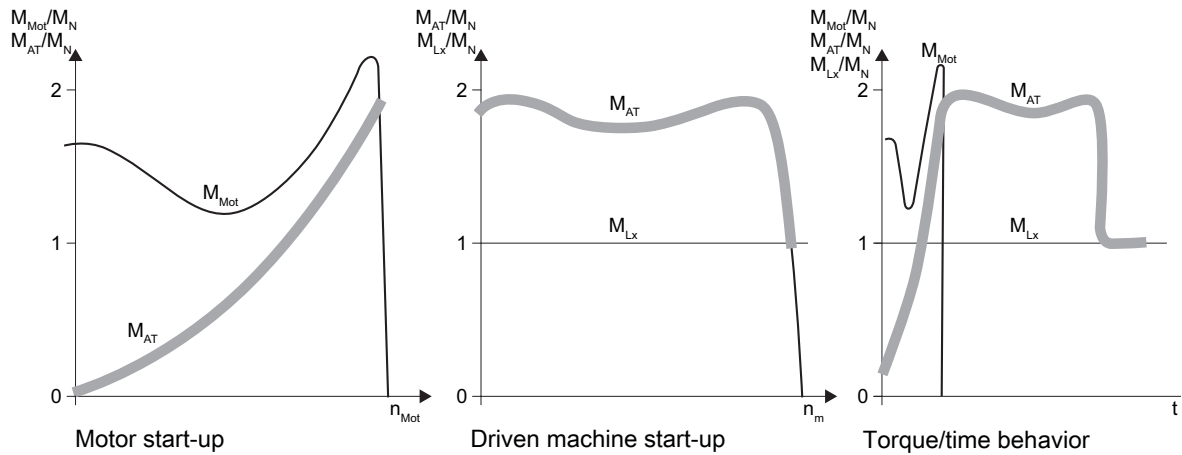
4513847051

- | | |
|-------------------------------------|----------------------------------|
| [1] Filling plug | [6] Flexible connecting coupling |
| [2] Turbine wheel | [7] Fusible screw plug |
| [3] Coupling half | [A] Gear unit side |
| [4] Operating fluid (hydraulic oil) | [B] Motor side |
| [5] Pump wheel | |

The power which the coupling can transmit depends significantly on the speed. A distinction is made between startup phase and stationary operation. During the startup phase, the motor starts without load until the coupling transmits torque. During this phase, the machine is accelerated slowly and smoothly. Once the stationary operating condition has been reached, a level of operating slip is established between the motor and the gear unit which is determined by the functional principle of the coupling. The motor now only has to supply the load torque demand of the machine. Load peaks are absorbed by the coupling.

The hydraulic start-up coupling is equipped with fusible safety plugs that allow the operating fluid to be evacuated in the event of excessive temperature (excessive overload, blockage). In this manner, the coupling and system are protected from damage.

Characteristic curves



24009504267

- M_{Mot} Motor torque
- M_N Nominal torque
- M_{AT} Coupling torque
- M_{Lx} Load torque
- n_{Mot} Motor speed
- n_m Driven machine speed

- $[M_{Mot}] = Nm$
- $[M_N] = Nm$
- $[M_{AT}] = Nm$
- $[M_{Lx}] = Nm$
- $[n_{Mot}] = min^{-1}$
- $[n_m] = min^{-1}$

Selecting the gear unit

Proceed as follows for gear unit selection:

| |
|--|
| Determine the gear unit type. |
| ↓ |
| Determine the gear unit size using the selection tables for gear units with AMS.. adapter by means of the following parameters: <ul style="list-style-type: none"> Maximum output torque (M_{amax}) Gear unit ratio (i) |
| ↓ |
| Determine the adapter type using the selection tables for AT.. adapters by means of the following parameters: <ul style="list-style-type: none"> Motor speed (n_{Mot}) Gear unit size Nominal power of the driving motor (P_{Mot}) |

Backstop option AT../RS

If the application permits only one direction of rotation, the hydraulic start-up coupling can be equipped with a backstop. Backstops with centrifugal lift-off sprags are used. The advantage of this design is that the sprags move around in the backstop without making contact above a certain speed. This means the backstops operate wear-free, without losses, maintenance-free and are suited for high speeds.

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Dimensions

The dimensions of the hydraulic start-up coupling with backstop AT../RS are identical to those of the hydraulic start-up coupling AT.. (see dimension sheets in the chapter for hydraulic start-up couplings AT..).

Locking torques

| Type | Maximum locking torque of the backstop | Lift-off speed |
|---------------------|--|-------------------|
| | Nm | min ⁻¹ |
| AT311/RS – AT322/RS | 425 | 620 |
| AT421/RS – AT422/RS | 850 | 530 |
| AT522/RS – AT542/RS | 1450 | 480 |


4.6.4 AD input shaft assembly**Selecting the gear unit**

Perform the gear unit selection as follows:

| |
|---|
| Determine the gear unit type. |
| ↓ |
| Determine the gear unit size using the selection tables for gear units with AD.. input shaft assembly by means of the following parameters: <ul style="list-style-type: none"> • Maximum output torque (M_{amax}) • Gear unit ratio (i) <p style="text-align: center;">When selecting AD/P, please observe the "selection notes" (→ 80).</p> |
| ↓ |
| Check the maximum permitted overhung load value on the output (F_{Ra}). |
| ↓ |
| Check the maximum permitted input power at the gear unit (P_{Mot}) by taking account of the thermal limit rating, see the chapter "Thermal limit rating for gear units with input shaft assembly" (→ 79). |
| ↓ |
| Check the overhung load at the input (F_{Re}). |
| ↓ |
| Please contact SEW-EURODRIVE if the requirements are more demanding (e.g. higher overhung load on input end). |

Thermal limit rating for gear units with input shaft assembly

The power values given in the selection tables for gear units with input shaft assemblies are mechanical power limits. However, gear units might become thermally overloaded before they reach the mechanical power limit depending on the mounting position and gear ratio. If a gear ratio in the selection tables is marked with a footnote, observe the chapter "Churning losses and thermal rating" (→ 57).

| R107, $n_{\text{inc}} = 1400 \text{ min}^{-1}$, $M_{\text{I,max}}$ /Nm | | | | | | | | | | | 4300 Nm | |
|---|----------------------------|----------------------------|----------------------------|----------------------|-----|-----|--------|-------|-----|------|---------|------|
| i | n_G min ⁻¹ | $M_{\text{a,max G}}$ Nm | $F_{\text{Ra}}^{(1)}$ N | $\varphi_{(R)}$ ' | AMS | | | | | | 225 | |
| | | | | | 100 | 112 | 132S/M | 132ML | 160 | 180 | | 200 |
|  2 | | | | | | | | | | | | |
| 4.92 ²⁾ | 285 | 2900 | 11300 | | | | | 810 | 900 | 1510 | 2200 | 2200 |

[1]

9007223264990731

[1] For gear ratios with a footnote, refer to the chapter "Churning losses and thermal rating" (→ 57).

AD../ZR centering shoulder

The input shaft assembly can optionally be configured with a centering shoulder. In this way, a customer's application can be attached to the cover centrally in relation to the input shaft side.

AD../RS backstop

The input shaft assembly can be supplied with a backstop if the application permits only one direction of rotation. Backstops with centrifugal lift-off sprags are used. The advantage of this design is that the sprags move around inside the backstop without making contact above a certain speed (lift-off speed). This means the backstops operate wear-free, without losses, maintenance-free and are suited for high speeds.

The backstop is completely integrated in the cover. This means there is no difference in dimensions between an input shaft assembly with or without backstop (see dimension sheets in the Input shaft assembly AD chapters).

Locking torques:

| Type | Maximum locking torque of the backstop | Minimum lift-off speed |
|--------|--|------------------------|
| | Nm | min ⁻¹ |
| AD2/RS | 65 | 820 |
| AD3/RS | 425 | 620 |
| AD4/RS | 850 | 530 |
| AD5/RS | 1450) | 480 |
| AD6/RS | 1950 | 450 |
| AD7/RS | 1950 | 450 |
| AD8/RS | 1950 | 450 |

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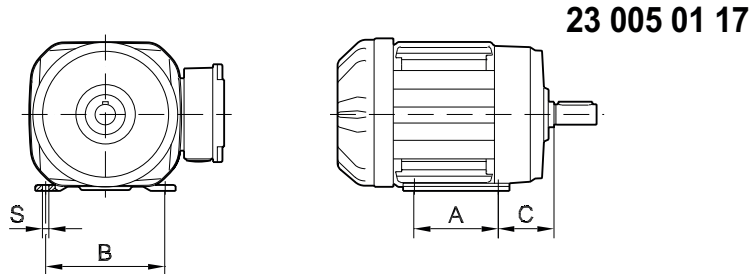
Project planning for gear units

Project planning for components on the input end

AD../P motor platform

Available combinations

The following table shows motor dimensions and available input shaft assemblies with motor platform:



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| Motor | A mm | B mm | C mm | S mm | Cover |
|----------|---------|---------|---------|---------|-------|
| DRN71MS | 90 | 112 | 45 | 7 | AD2/P |
| DRN71M | 90 | 112 | 45 | 7 | |
| DRN80MK | 100 | 125 | 50 | 10 | |
| DRN80M | 100 | 125 | 50 | 10 | |
| DRN90S | 100 | 140 | 45 | 10 | |
| DRN90L | 125 | 140 | 56 | 10 | |
| DRN100LS | 140 | 160 | 63 | 12 | AD3/P |
| DRN100L | 140 | 160 | 63 | 12 | |
| DRN100LM | 140 | 160 | 63 | 12 | |
| DRN112M | 140 | 190 | 70 | 12 | |
| DRN132S | 178 | 216 | 89 | 12 | AD4/P |
| DRN132M | 178 | 216 | 89 | 13 | |
| DRN132L | 178 | 216 | 89 | 13 | |
| DRN160M | 254 | 254 | 108 | 14.5 | AD5/P |
| DRN160L | 254 | 254 | 108 | 14.5 | |
| DRN180M | 279 | 279 | 121 | 14.5 | |
| DRN180L | 279 | 279 | 121 | 14.5 | |
| DRN200L | 305 | 316 | 133 | 18.5 | AD6/P |
| DRN225S | 286 | 356 | 149 | 18.5 | |
| DRN225M | 311 | 356 | 149 | 18.5 | |
| DRN250M | 349 | 406 | 168 | 24.5 | AD7/P |
| DRN250ME | 349 | 406 | 168 | 24.5 | |
| DRN280S | 419 | 457 | 190 | 24.5 | |
| DRN280M | 419 | 457 | 190 | 24.5 | |

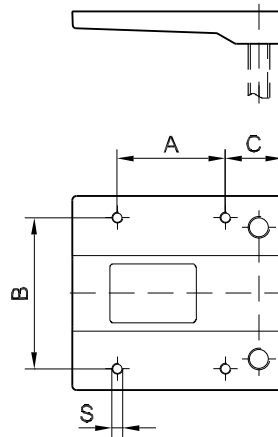
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If the required combination of gear unit cover (motor platform) and motor is not listed, contact SEW-EURODRIVE. You will find available combinations of gear units and motors in the chapters for dimension sheets for input shaft assemblies with motor platform.

Bore dimensions and weight

The following table shows bore dimensions and weight information of the motor platform. The motor platform is also available without bores.

23 006 00 17



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| Cover | A mm | B mm | C mm | S | Weight P kg |
|--------------|---------|---------|---------|-----|----------------|
| AD2/P | 90 | 112 | 42 | M6 | 5.5 |
| | 100 | 125 | 47 | M8 | |
| | 100 | 140 | 53 | M8 | |
| | 125 | 140 | 53 | M8 | |
| AD3/P | 100 | 140 | 52 | M8 | 11 |
| | 125 | 140 | 52 | M8 | |
| | 140 | 160 | 59 | M10 | |
| | 140 | 190 | 66 | M10 | |
| AD4/P | 140 | 216 | 86 | M10 | 23 |
| | 178 | 216 | 86 | M12 | |
| | 210 | 254 | 105 | M12 | |
| AD5/P | 210 | 254 | 105 | M12 | 41 |
| | 254 | 254 | 105 | M12 | |
| | 241 | 279 | 118 | M12 | |
| | 279 | 279 | 118 | M12 | |

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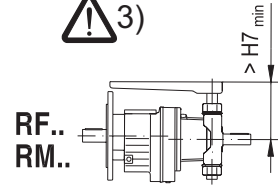
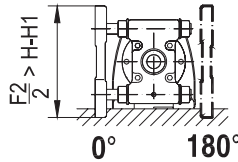
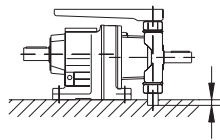
Project planning for gear units

Project planning for components on the input end

| Cover | A mm | B mm | C mm | S | Weight P kg |
|-------|---------|---------|---------|-----|----------------|
| AD6/P | 305 | 318 | 129 | M16 | 62 |
| | 286 | 356 | 145 | M16 | |
| | 311 | 356 | 145 | M16 | |
| AD7/P | 349 | 406 | 166 | M20 | 103 |
| | 368 | 457 | 188 | M20 | |
| | 419 | 457 | 188 | M20 | |

Risks of collision

The following critical cases can occur when using gear units with input shaft assembly and motor platform:



4531208203

1. The column might protrude beyond the foot mounting surface depending on the adjustment.
2. The motor platform protrudes beyond the foot mounting surface.
3. The motor platform might collide with the gear unit flange depending on the adjustment.

These cases are indicated in the right column of the dimension tables.

| | | | | | | | | | | | | | | | | |
|----|----|----|----|-----------|-----------|------------|------------|----|----|----|----|-----|-----|----|----|--|
| E2 | F2 | G2 | H6 | H7 min | H7 max | H11 min | H11 max | K2 | Q4 | D1 | L1 | L13 | L14 | T1 | U1 | |
|----|----|----|----|-----------|-----------|------------|------------|----|----|----|----|-----|-----|----|----|--|

4.7 Multi-stage gearmotors

4.7.1 General information

You can achieve particularly low output speeds by using compound gear units or compound gearmotors. This means an additional second gear unit, usually a helical gear unit, is installed in front of the gear unit or between gear unit and motor.

The resulting total reduction ratio might make protecting the gear unit from high output torques necessary.

4.7.2 Limiting the motor power

Reduce the maximum output motor power according to the maximum permitted output torque on the gear unit (M_{a_max}). For this purpose, you first have to determine the maximum permitted motor torque (M_{Mot_max}).

You can calculate the maximum permitted motor torque as follows:

Maximum permitted motor torque

$$M_{Mot} = \frac{M_{amax}}{i_{tot} \times \eta_{tot}}$$

| | | |
|--------------|---------------------------------|--------------------------|
| M_{Mot} | Maximum permitted motor torque | $[M_{Mot}] = \text{Nm}$ |
| M_{amax} | Maximum permitted output torque | $[M_{amax}] = \text{Nm}$ |
| i_{tot} | Total gear unit ratio | $[i_{tot}] = 1$ |
| η_{tot} | Overall efficiency | $[\eta_{tot}] = \%$ |

Use this maximum permitted motor torque M_{Mot} and the load diagram of the motor to determine the associated value for the motor current.

Take appropriate measures to prevent the continuous current consumption of the motor from exceeding the pre-determined value for the motor torque M_{Mot} . An appropriate measure would be to set the tripping current of the motor protection switch to this maximum current value. A motor circuit breaker offers the option to bridge a brief overload, for example, during the startup phase of the motor. A suitable measure for inverter drives is to limit the output current of the inverter according to the determined motor current.

4.7.3 Checking brake torques

If you use a compound gear unit brakemotor, you have to limit the braking torque (M_B) according to the maximum permitted motor torque M_{Mot} . The maximum permitted braking torque is 200% M_{Mot} .

Maximum braking torque

$$M_B \leq 200\% M_{Mot}$$

| | |
|-----------|--------------------------------------|
| M_B | Maximum braking torque in Nm |
| M_{Mot} | Maximum permitted motor torque in Nm |

If you have questions regarding the approved switching frequency of compound gear unit brake motors, please contact SEW-EURODRIVE.

4 Project planning for gear units

Multi-stage gearmotors

4.7.4 Preventing blocking

Blockage on the output side of the double gear unit or multi-stage gearmotor is not permitted. The reason is that indeterminable torques and uncontrolled overhung and axial loads may occur. The gear units may suffer irreparable damage as a result.

INFORMATION



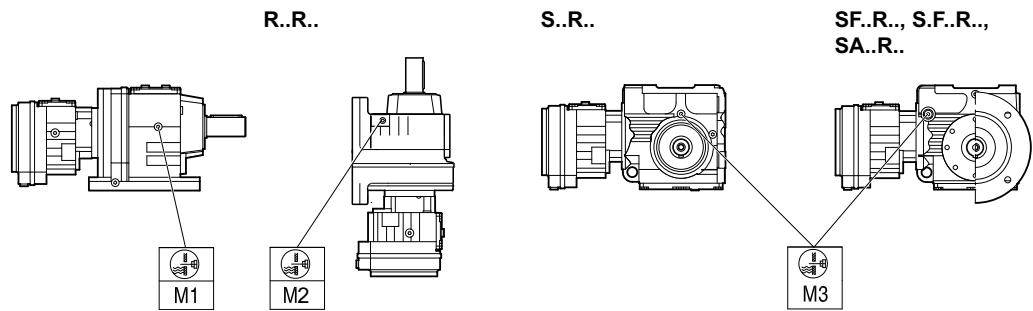
Contact SEW-EURODRIVE if blockages of the double gear unit or multi-stage gearmotor cannot be avoided due to the application.

4.7.5 Position of the oil level plug of compound gear units


To ensure sufficient lubrication of the first gear unit (larger gear unit) in the case of compound gear units, the following gear units have a higher oil level in the specified mounting positions:

- Helical gear unit type R..R in mounting position M1 and M2
- Helical-worm gear unit type S..R in mounting position M3

The oil level plugs are located at the following positions, deviating from the specifications on the mounting position sheets:



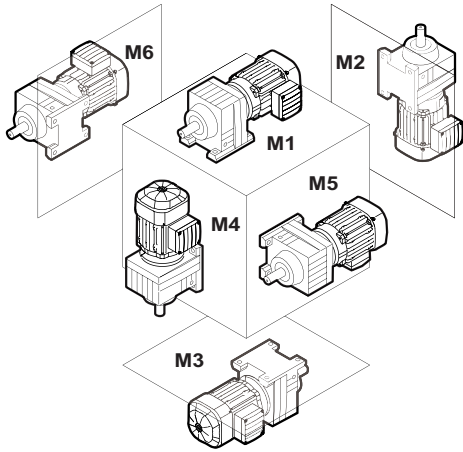
15987248395

| Icon | Meaning |
|---|----------------|
|  | Oil level plug |

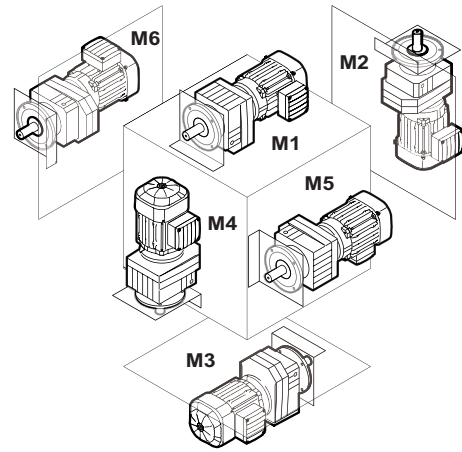
5 Gear unit mounting positions and order information

5.1 General mounting position information for R.., F.., K.., S.., W.. gear units

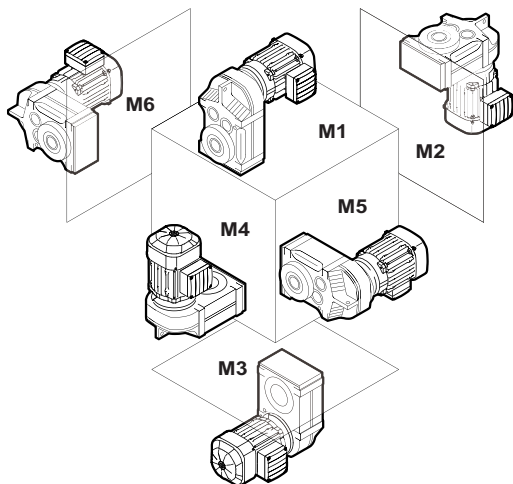
The following illustration shows the SEW-EURODRIVE mounting positions M1 – M6:



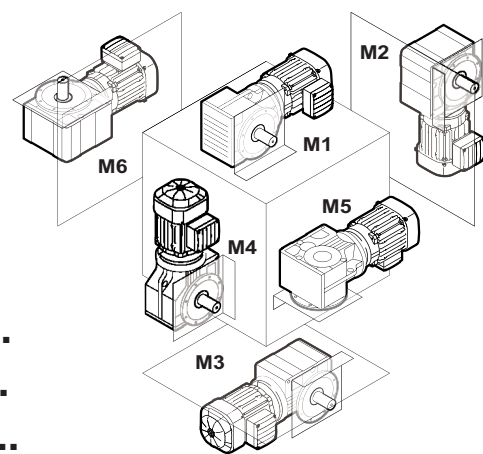
R..



F..



**K..
S..
W..**



15649312267

5.1.1 Change of mounting position

Observe the following information when you operate the gearmotor in a mounting position other than the one indicated in the order:

- Adjust the lubricant fill quantity to the changed mounting position.
- Adjust the position of the breather valve.
- When changing the mounting position to M4: Contact SEW-EURODRIVE. Depending on the drive's operating mode, an oil expansion tank might be necessary (see chapter "Oil expansion tank" (→ [26](#))).
- For helical-bevel gearmotors: Contact SEW-EURODRIVE if you want to change to mounting position M5 or M6.
- For helical-worm gearmotors: Contact SEW-EURODRIVE if you want to change to mounting position M2 or M3.
- For helical gearmotors: Contact SEW-EURODRIVE if you want to change to mounting position M2.
- If you change the mounting position to a mounting position that requires more oil, SEW-EURODRIVE recommends to perform a thermal check/project planning again.

5.1.2 Gear unit in pivoted mounting position (dynamic)

The dynamic pivoted mounting position is available on request for gear units of the types R..7, F..7, K..7, K..9, S..7 and SPIROPLAN® W..9.

In the pivoted mounting position, the gear units are delivered with the maximum required oil fill quantity and sealed with oil screw plugs. The gear unit can be pivoted during operation to the mounting positions required by the customer.

5.1.3 Gear unit in pivoted mounting position (stationary)

The stationary pivoted mounting position is available for all gear units of the type R..7, F..7, K..7, K..9, S..7 and SPIROPLAN® W..9.

In the stationary pivoted mounting position, the gear units are delivered with the oil fill quantity required for this pivoted mounting position and sealed with oil screw plugs. For gear units with stationary pivoted mounting position, replace the highest screw plug with the supplied breather valve before startup.

5.1.4 Mounting position MX

Mounting position MX is available for all gear units of sizes R..7, F..7, K..7, K..9, S..7 and SPIROPLAN® W..9.

Before startup, make adjustments dependent on the mounting position for gear units in mounting position MX.

In the mounting position MX, the gear units are delivered with the maximum required oil fill quantity and sealed with oil screw plugs. A breather valve is included with each drive. The oil fill volume must be adapted according to the mounting position of the gear unit (see chapter "Lubricant fill quantities" (→ [140](#))). Customers will also have to mount the enclosed breather valve at the proper location depending on the mounting position, see chapter "Mounting position sheets" (→ [91](#)).

Compound gear units in MX mounting position

In MX mounting position, both gear units (primary and subsequent gear unit) are in the same mounting position.

5.1.5 Universal mounting position M0

SPIROPLAN® gear units W10.. – W30.. are available in universal mounting position M0. Because of their compact size, they are fully enclosed and do not have a breather valve. You can use them in any M1 – M6 mounting position without having to adapt the gear unit.

All W10..to W30.. gear units of a certain size have the same oil fill quantity.

5.1.6 Variable mounting position

The variable mounting position is available on request for gear units of the types R..7, F..7, K..7, K..9, S..7 and SPIROPLAN® W..9.

Before startup, make adjustments dependent on the mounting position for gear units in the variable mounting position.

In the variable mounting position, the gear units are delivered with the maximum required oil fill quantity of the mentioned mounting positions and sealed with oil screw plugs. A breather valve is included with each drive. The enclosed breather valve must be mounted in the proper location depending on the mounting position, see chapter "Mounting position sheets" (→ 91).

5.1.7 Position of the breather valve/oil drain plug in the adapter flange

As shown in the mounting position sheets in chapter Mounting position sheets, the position of the breather valve and oil drain plug depends on the mounting position of the gear unit.

The following table shows the position of the breather valve or oil drain plug depending on the mounting position:

| Mounting position | Breather valve position | Oil drain plug position |
|-------------------|------------------------------|------------------------------|
| M1, M3, M5, M6 | In the gear unit housing | In the gear unit housing |
| M4 | In the adapter flange | In the gear unit housing |
| M2 | In the gear unit housing | In the adapter flange |

5.2 Order information

INFORMATION



The following order information is required for R, F, K, S, and W gear units or gearmotors in addition to the mounting position to precisely determine the drive design.

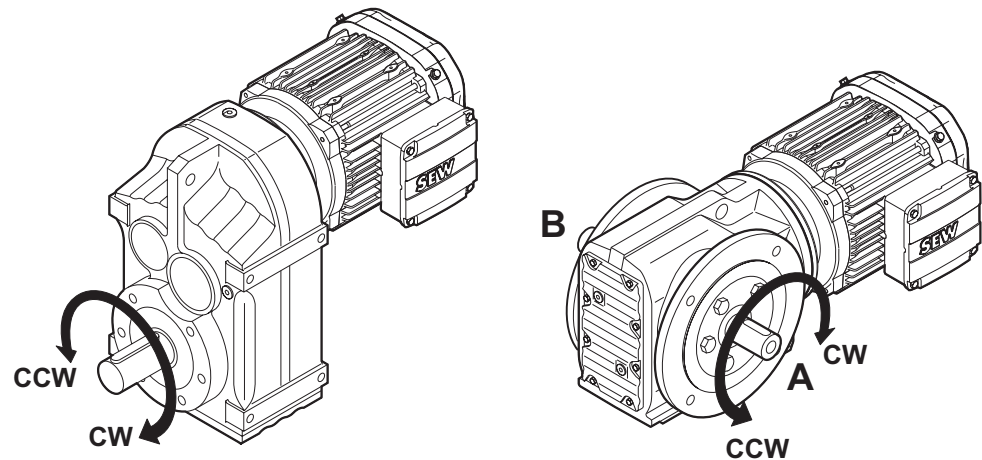
This information is also required for gearmotors that do not depend on a particular mounting position.

5.2.1 Output direction of rotation with backstop

The purpose of a backstop is to prevent unwanted directions of rotation. During operation, the backstop permits rotation only in the specified direction. If the drive has an RS backstop, you have to indicate the direction of rotation of the output for the drive.

The direction of rotation is specified as viewed onto the output shaft (LSS):

- CW rotation
- CCW rotation



4579708555

In right-angle gear units, you also have to indicate whether the direction of rotation is given looking onto the A or B-side.

The permitted direction of rotation is indicated by a direction arrow on the housing:



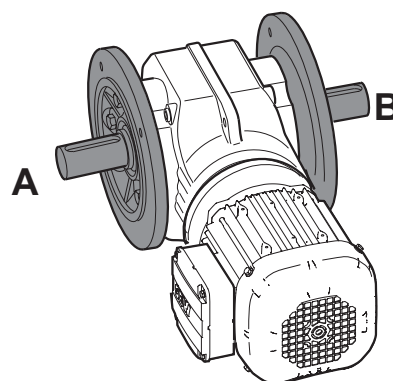
15985405835

A replacement label is enclosed for the customer.

5.2.2 Position of the output shaft and the output flange

In right-angle gear units, you also have to indicate the position of the output shaft and the output flange:

- A or B or AB

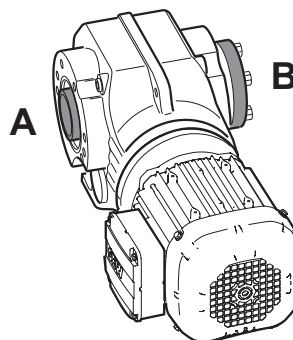


4579723275

5.2.3 Position of the output end in right-angle gear units

In shaft-mounted, right-angle gear units with a shrink disk, you also have to indicate whether the A or B-side is the output end. In the figure below, the A-side is the output end. The shrink disk is located opposite the output end.

In shaft-mounted, right-angle gear units, the designation "output end" is equivalent to the designation "position of the output shaft" used for right-angle gear units with solid shaft.



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INFORMATION



For the permitted mounting surfaces (= hatched area), refer to the mounting position sheets (see chapter "Mounting position sheets" (→ 91)).

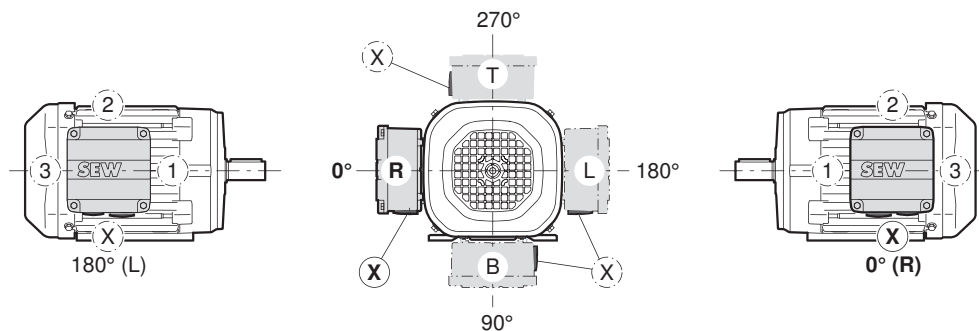
5.2.4 Position of motor terminal box and cable entry

The position of the motor terminal box has so far been indicated with 0°, 90°, 180° or 270° as viewed onto the fan guard (= B-side), see also the following figure. A change in the standard DIN EN 60034 specifies that the following designations will have to be used for terminal box positions for foot-mounted motors in the future:

- As viewed onto the output shaft = A-side
- Designation as R (right), B (bottom), L (left) and T (top)

This new designation applies to foot-mounted motors without a gear unit in mounting position B3 (= M1). For gearmotors, the previous designation is maintained. The following figure shows both designations. Where the mounting position of the motor changes, R, B, L and T are rotated accordingly. In motor mounting position B8 (= M3), T is at the bottom.

The position of the cable entry can be selected as well. "X" (= normal position), "1", "2" or "3" are possible, as shown in following figure.



3975310859

Unless indicated otherwise, you will receive the terminal box type 0° with "X" cable entry. SEW-EURODRIVE recommends selecting cable entry "2" with mounting position M3.

INFORMATION



Only cable entries "X" and "2" are possible for DR2S56.. and DRN63.. motors. Exception: This limitation does not apply with IS plug connectors.

INFORMATION



When the **terminal box is in the 90° (B) position**, check to see if the gearmotor has to be supported.

Software support

Not all cable entry positions X, 1, 2, 3 and terminal box positions 0°(R), 90°(B), 180°(L), 270°(T) are possible in any case. Some additional features for the motor require a connection inside the terminal box, which means this terminal box is larger than the standard terminal box due to the normative air gaps and creepage distances. The dimension sheets only depict the standard terminal box.

Dimensions not listed in the dimension sheets are available on the SEW-EURODRIVE website via the respective CAD data.

5.2.5 Sample orders

| Examples | Mounting position | Shaft position | Flange position | Connection side | Shrink disk position | Output direction of rotation |
|------------------|-------------------|----------------|-----------------|-----------------|----------------------|------------------------------|
| K47AMS71/RS | M2 | A | – | – | – | Right |
| SF77AT312DRN80M4 | M6 | AB | AB | – | – | – |
| KA97AMS184 | M4 | – | – | B | – | – |
| KH107AD4 | M1 | – | – | A | B | – |

5.3 Mounting position sheets

5.3.1 Key to the mounting position sheets

INFORMATION



The positions of the breather valve, oil level plug, and oil drain plug specified in the mounting position sheets are binding and comply with the assembly specifications.

The motors are only depicted symbolically on the mounting position sheets.

INFORMATION



For gear units with solid shaft: The displayed shaft is always on the A-side.

For shaft-mounted gear units: The shaft with dashed lines represents the customer shaft. The output end (= output shaft position) is always shown on the A-side.

INFORMATION



SPIROPLAN® gearmotors with W..0 are dependent on the mounting position in M4 mounting position. However, mounting positions M1 to M6 are also shown for SPIROPLAN® gearmotors to assist you in working with this documentation.

INFORMATION



SPIROPLAN® gearmotors W..10, W..20, W..30 cannot be equipped with breather valves, oil level plugs or oil drain plugs.


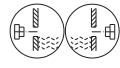

INFORMATION



SPIROPLAN® gearmotors W..9 are equipped with breather valves in mounting position M4 and with an oil drain plug in mounting position M2.

Symbols used

The following table shows the symbols used in the mounting position sheets.

| Symbol | Meaning |
|---|----------------|
|  | Breather valve |
|  | Oil level plug |
|  | Oil drain plug |

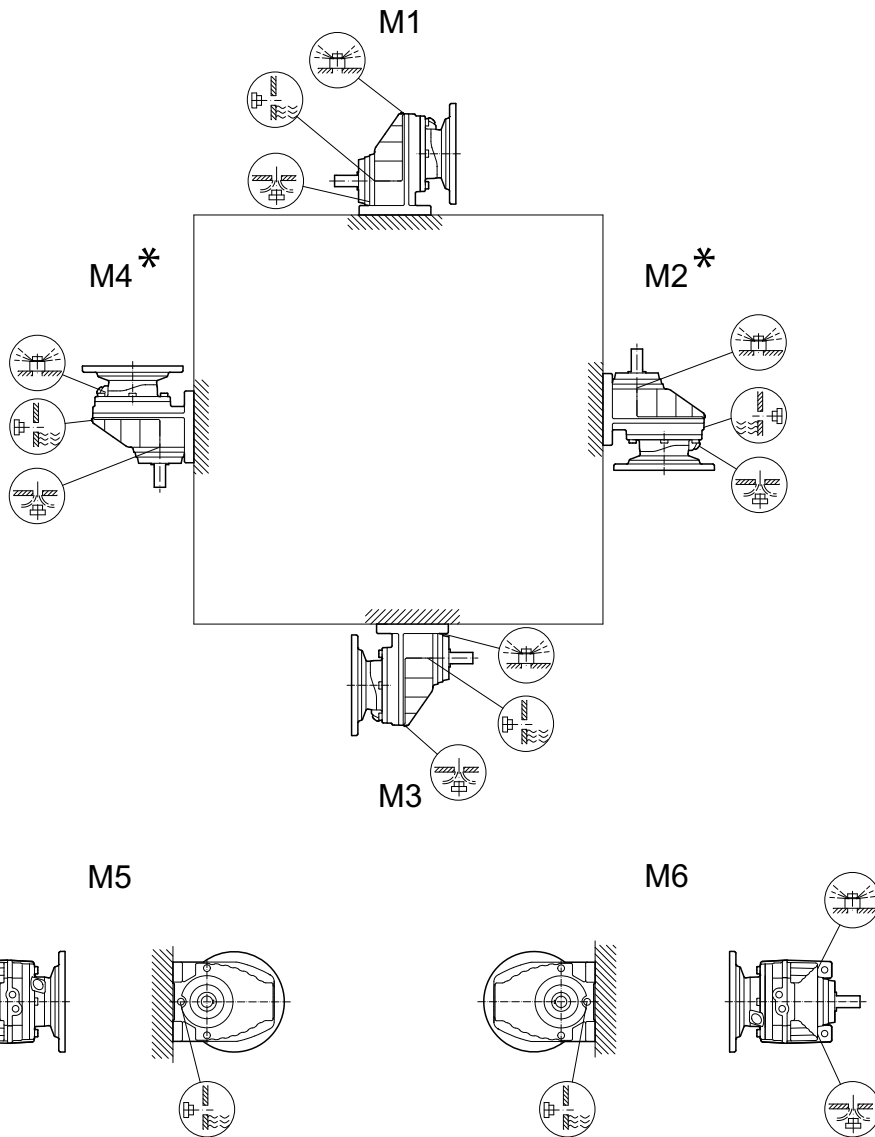
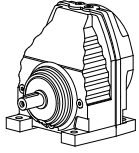
5 Gear unit mounting positions and order information

Mounting position sheets

5.3.2 Mounting positions of helical gear units

RX57 – RX107

01 197 00 20

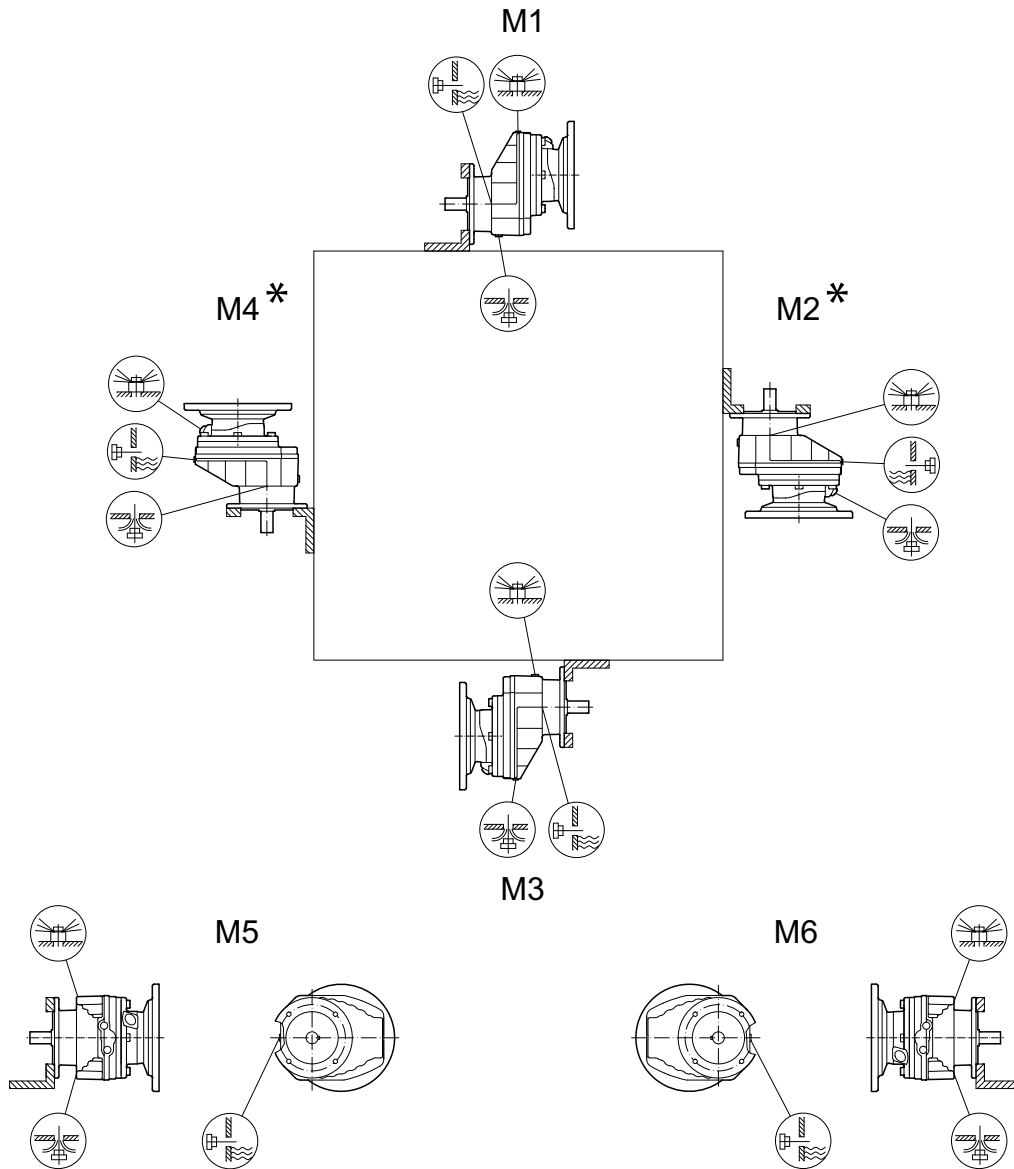
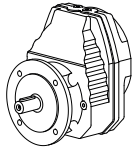


* (→ 57)

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RXF57 – RXF107

01 198 00 20



* (→ 57)

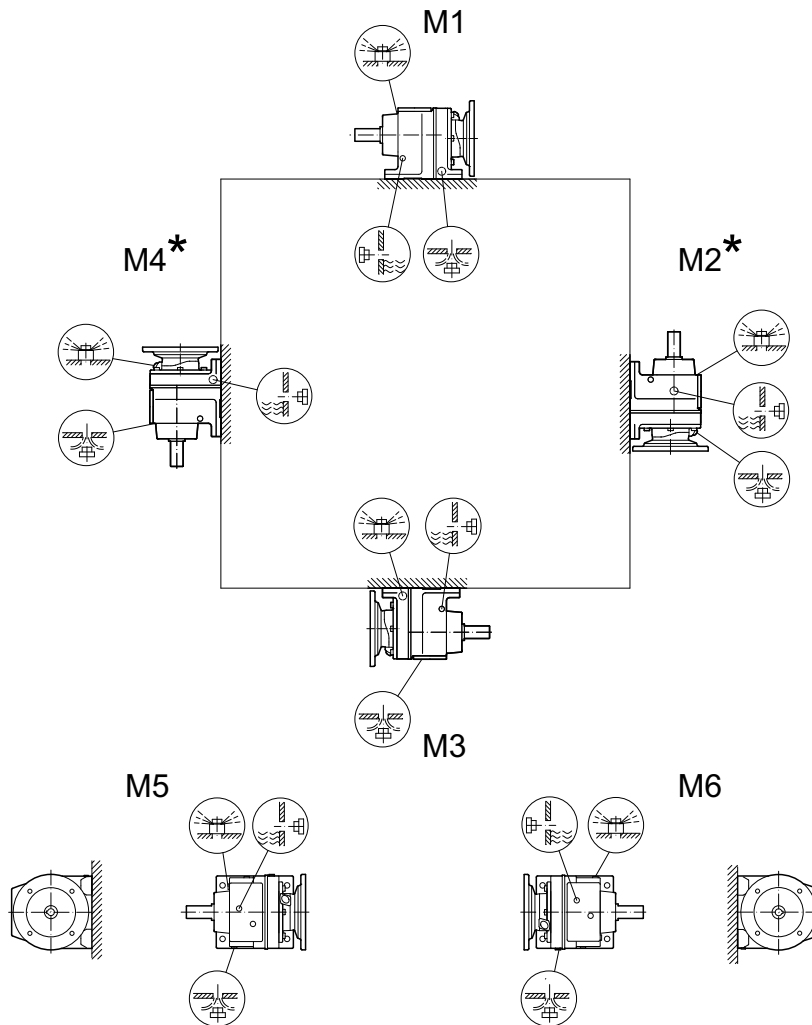
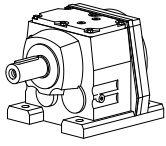
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5 Gear unit mounting positions and order information

Mounting position sheets

R07 – R167

01 199 00 20



- R27  M1, M3, M5, M6
- R27   M5
- R47, R57  M5

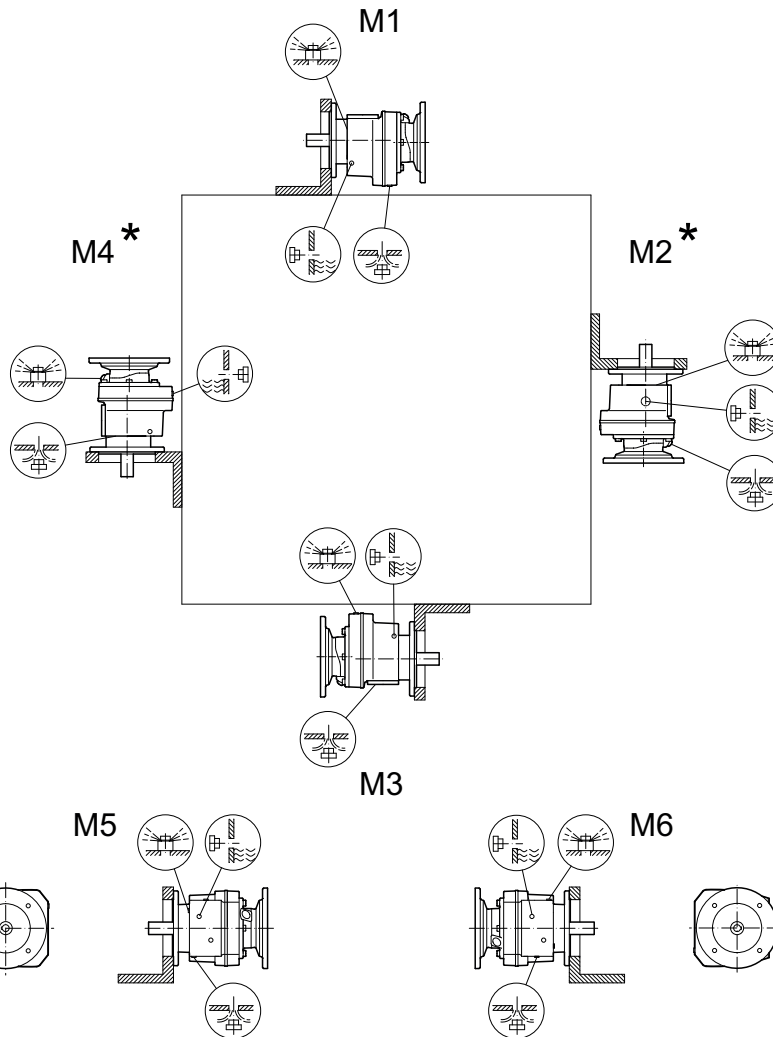
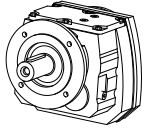
* (→ 57)

Observe the information in chapter "Overhung and axial loads of R..-, F..-, K..-, S..-, and W.. gear units" (→ 62).

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RF07 – RF167, RZ07 – RZ87, RM57 – RM167

01 200 00 20



RF/RZ27 ~~⊗~~ M1, M3, M5, M6

RF/RZ27 ~~⊗~~ ~~⊗~~

RF/RZ47, 57 ~~⊗~~ M5

* (→ 57)

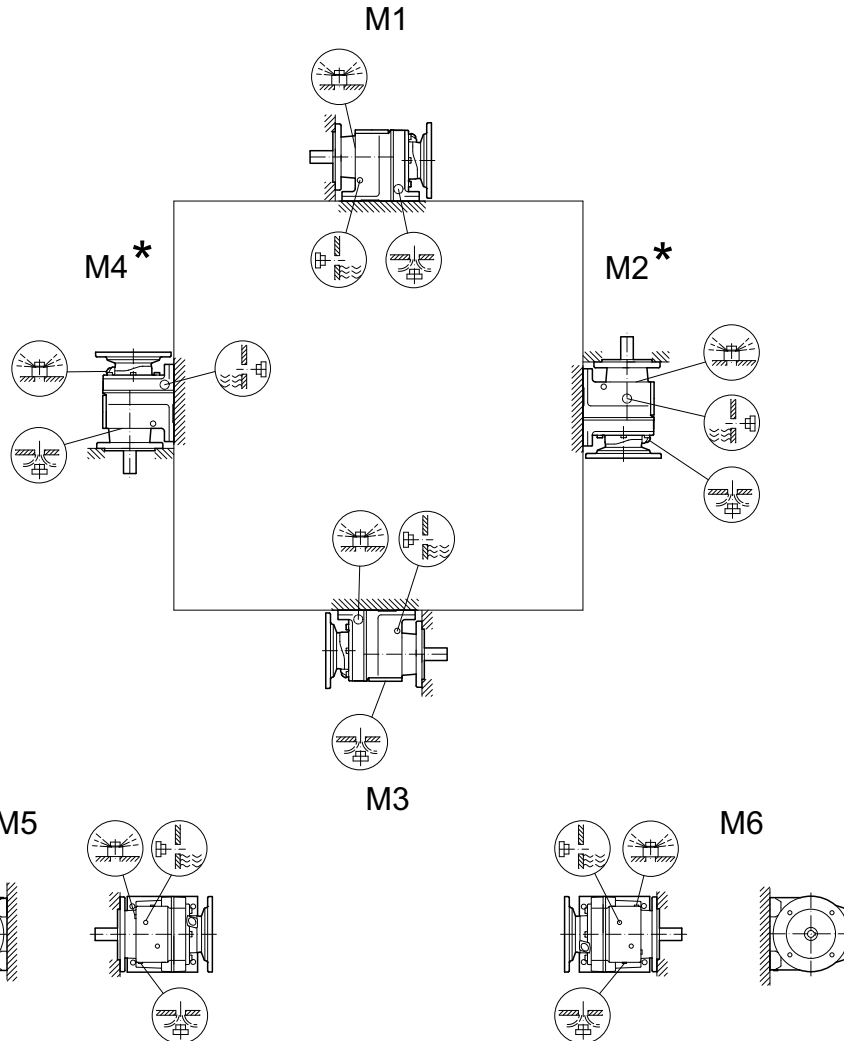
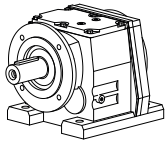
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5 Gear unit mounting positions and order information

Mounting position sheets

R07F – R87F

01 201 00 20



- R27F M1, M3, M5, M6
- R27F
- R47F, R57F M5

* (→ 57)

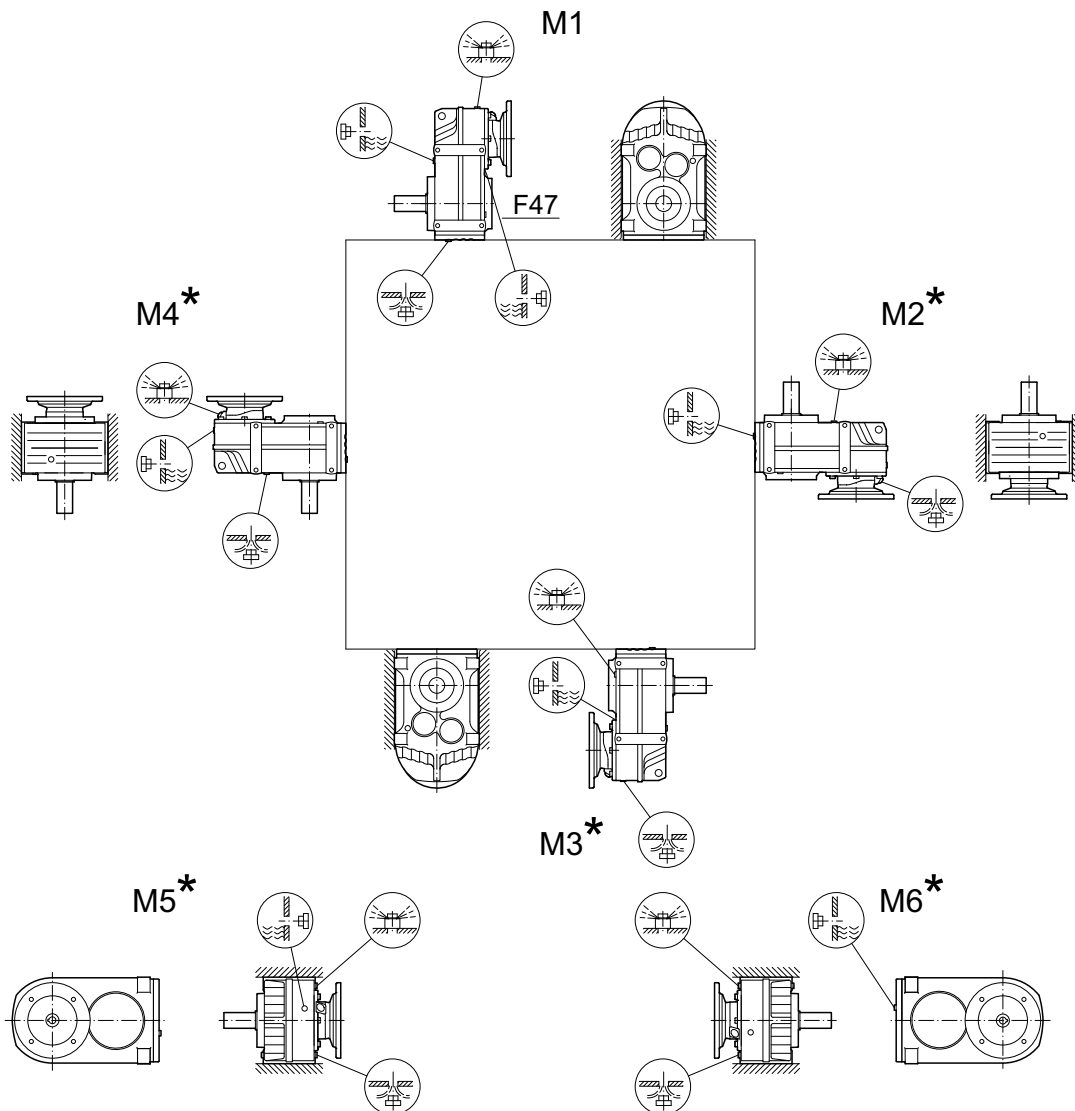
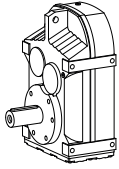
Observe the information in chapter "Overhung and axial loads of R.-, F.-, K.-, S.-, and W.. gear units" (→ 62).

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5.3.3 Mounting positions of parallel-shaft helical gear units

F/FA..B/FH27B – 157B, FV27B – 107B

42 282 00 20



- F..27 M1, M3, M5, M6
- F..27 M1 - M6
- F..27 M1, M3, M5, M6

* (→ 57)

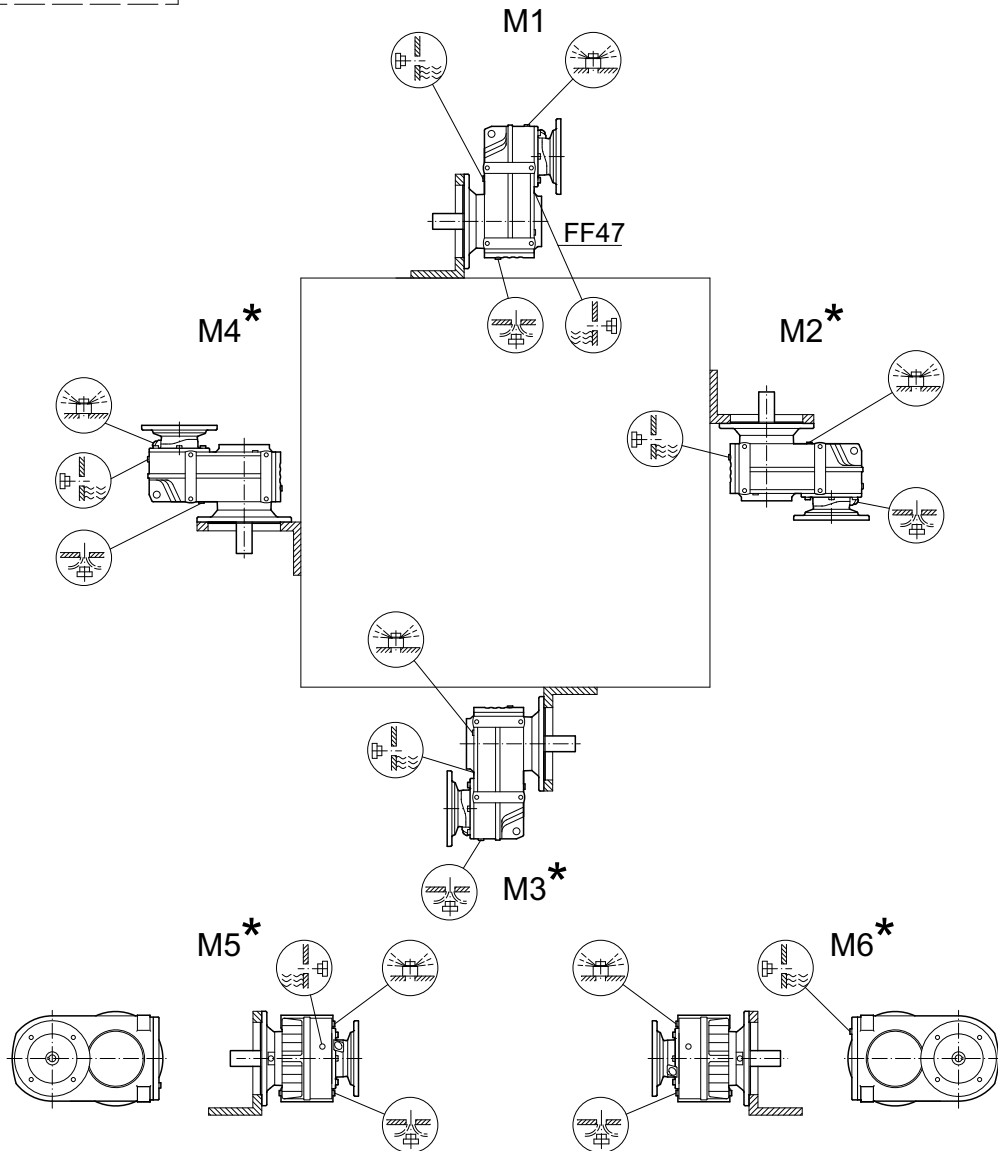
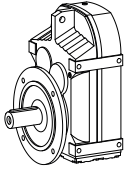
26878585/EN – 11/2021

5 Gear unit mounting positions and order information

Mounting position sheets

FF/FAF/FHF/FZ/FAZ/FHZ27 – 157, FVF/FVZ27 – 107, FM/FAM67 – 157

42 283 00 20



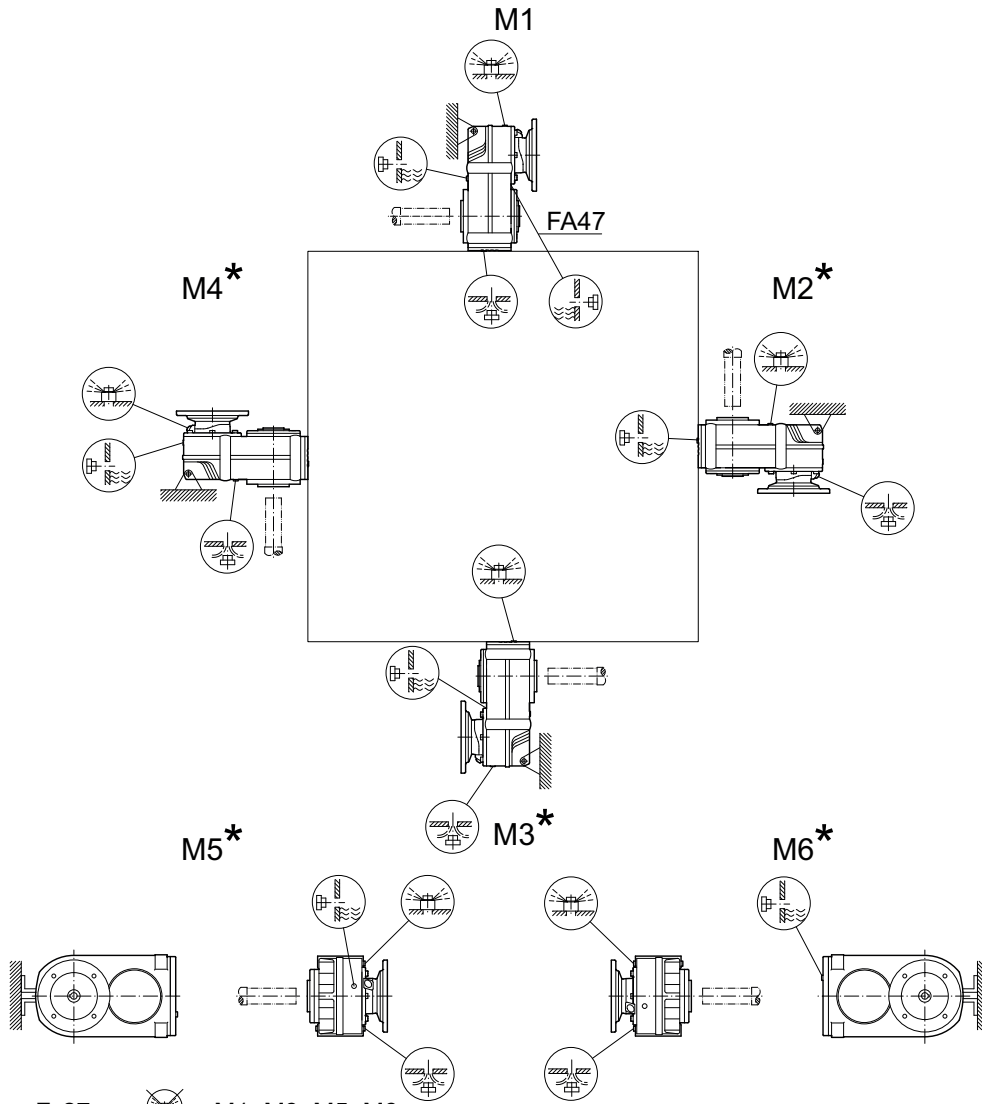
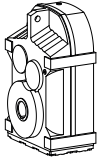
- | | | |
|-------|--|----------------|
| F..27 | | M1, M3, M5, M6 |
| F..27 | | M1 - M6 |
| F..27 | | M1, M3, M5, M6 |

* (→ 57)

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FA/FH27 – 157, FV27 – 107, FT37 – 157

42 284 00 20



- | | | |
|-------|--|----------------|
| F..27 | | M1, M3, M5, M6 |
| F..27 | | M1 - M6 |
| F..27 | | M1, M3, M5, M6 |

* (→ 57)

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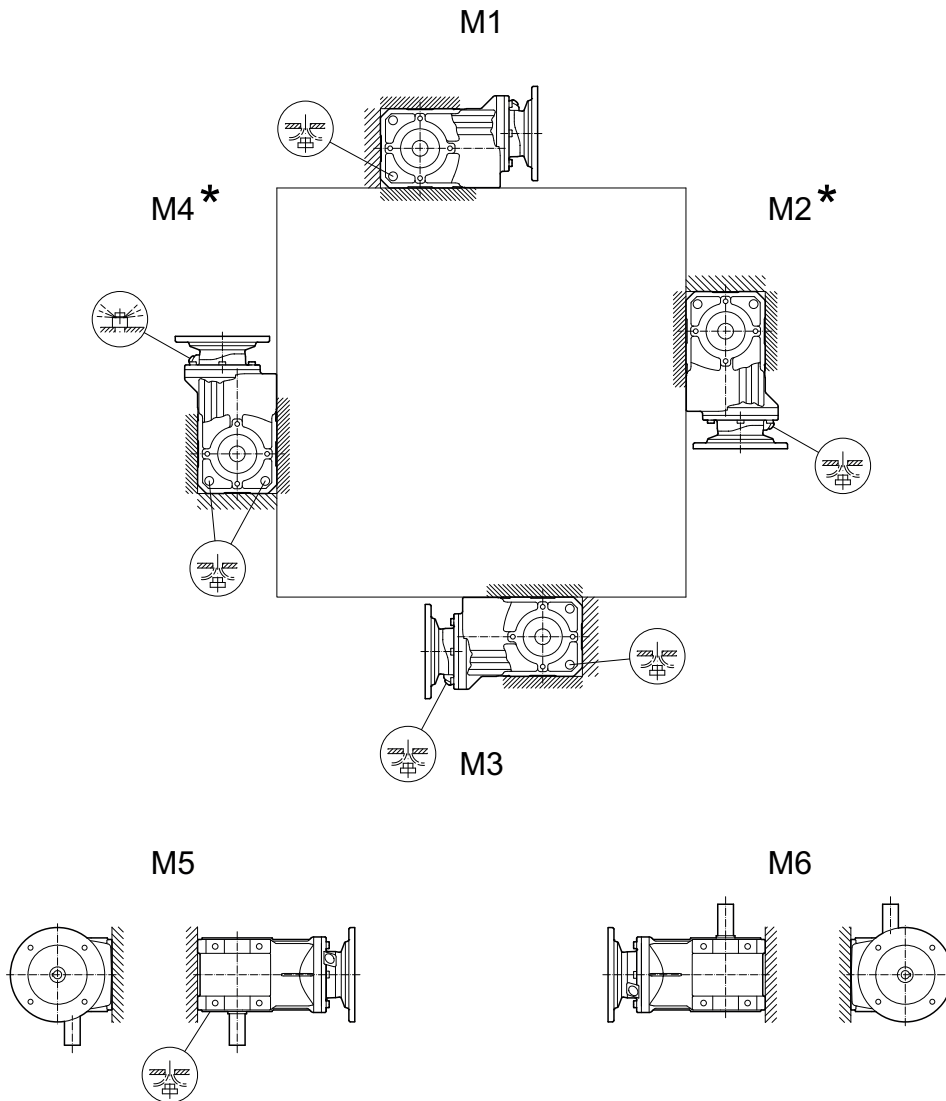
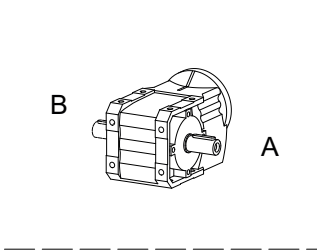
5 Gear unit mounting positions and order information

Mounting position sheets

5.3.4 Mounting positions of helical-bevel gear units

K/KA..B/KH19B – 29B

33 380 00 20



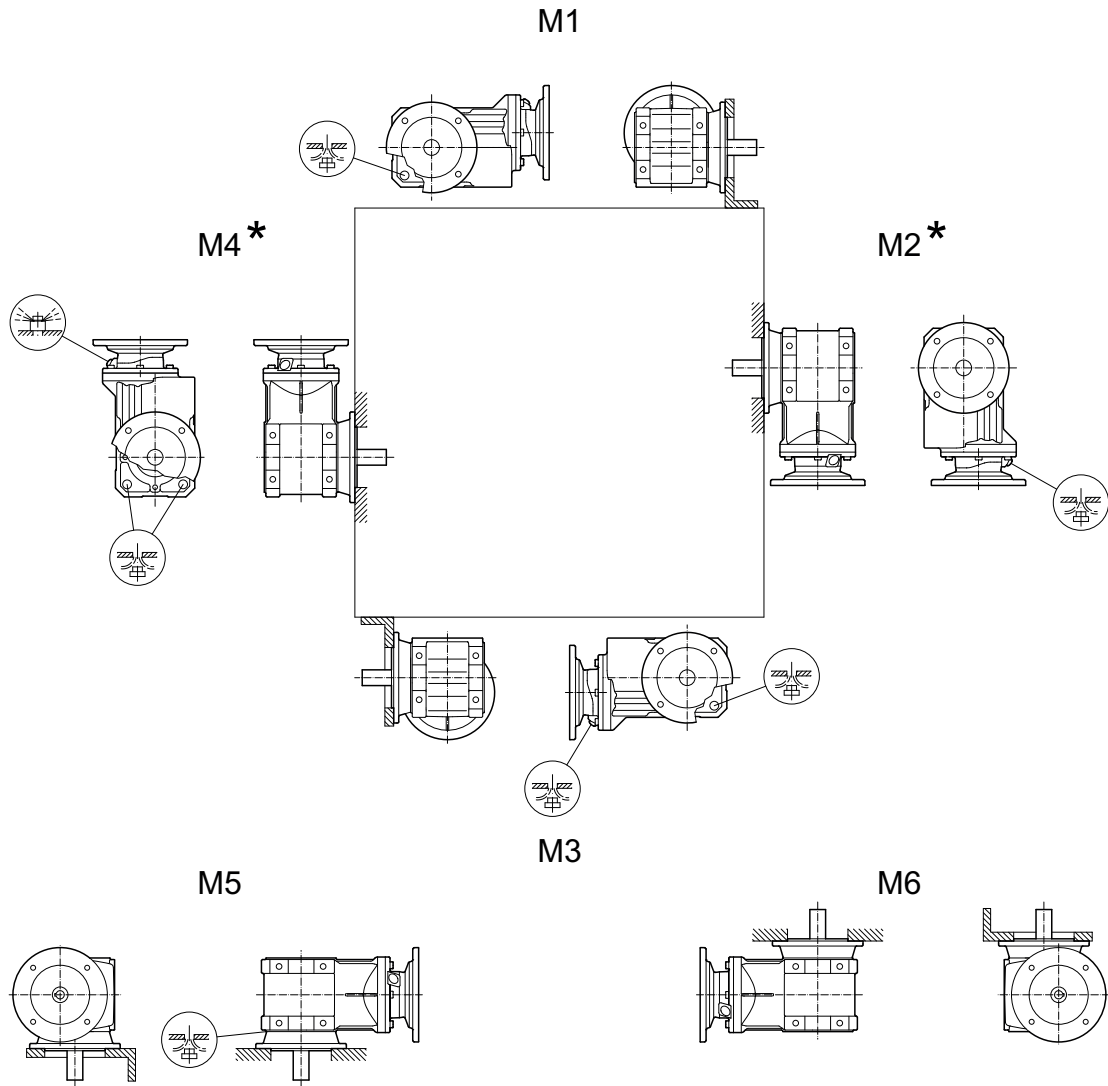
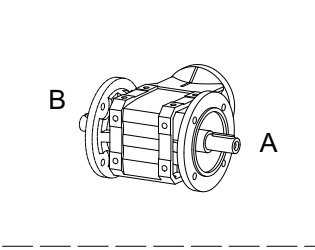
* (→ 57)

Observe the information in chapter "Overhung and axial loads of R..-, F..-, K..-, S..-, and W.. gear units" (→ 62).

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KF..B/KAF..B/KHF19B – 29B

33 381 00 20



* (→ 57)

Observe the information in chapter "Overhung and axial loads of R..-, F..-, K..-, S..-, and W.. gear units" (→ 62).

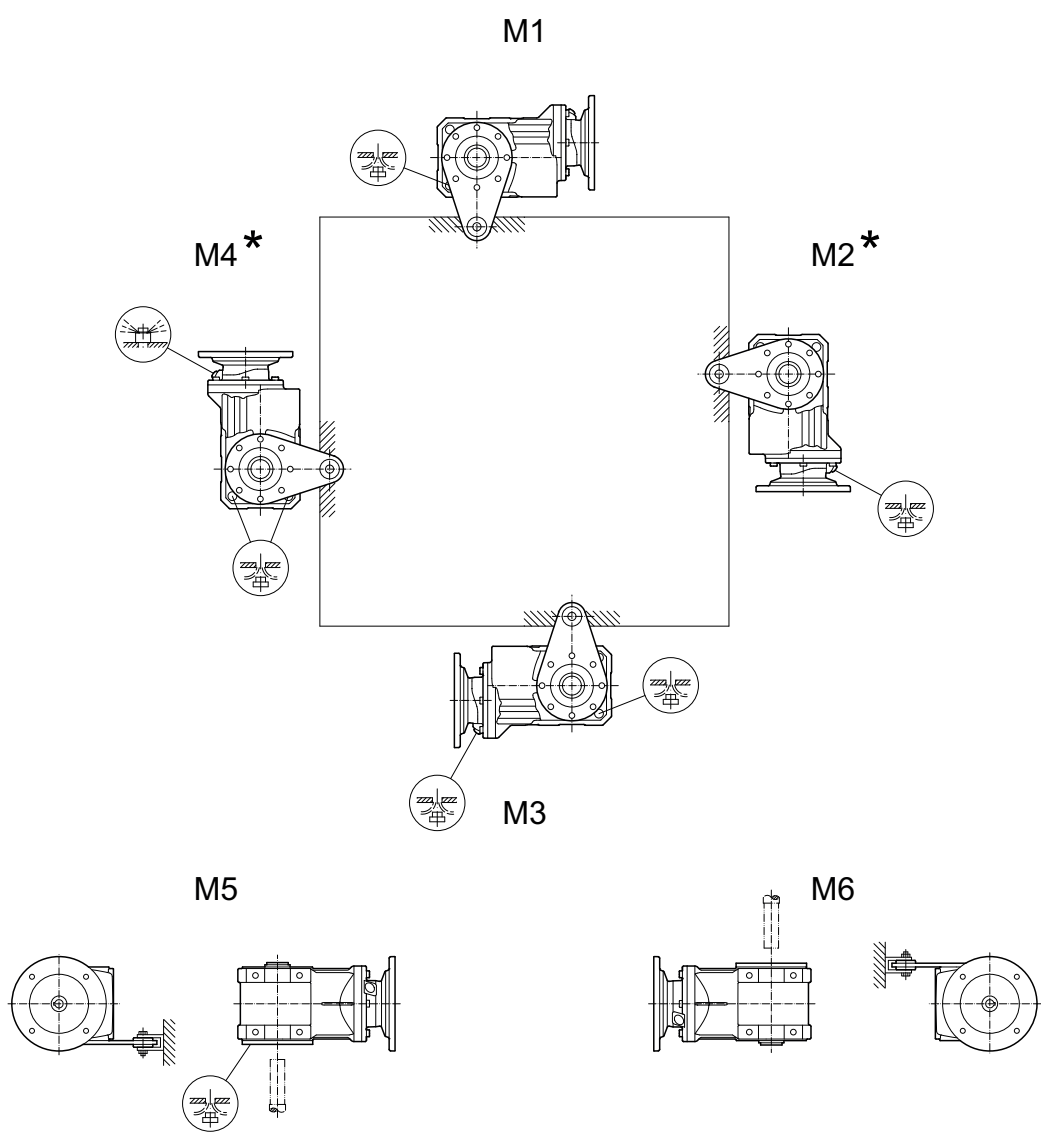
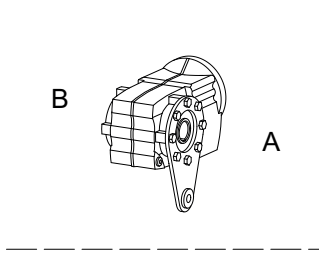
26878585/EN – 11/2021

5 Gear unit mounting positions and order information

Mounting position sheets

KA..B/KH19B – 29B

33 382 00 20



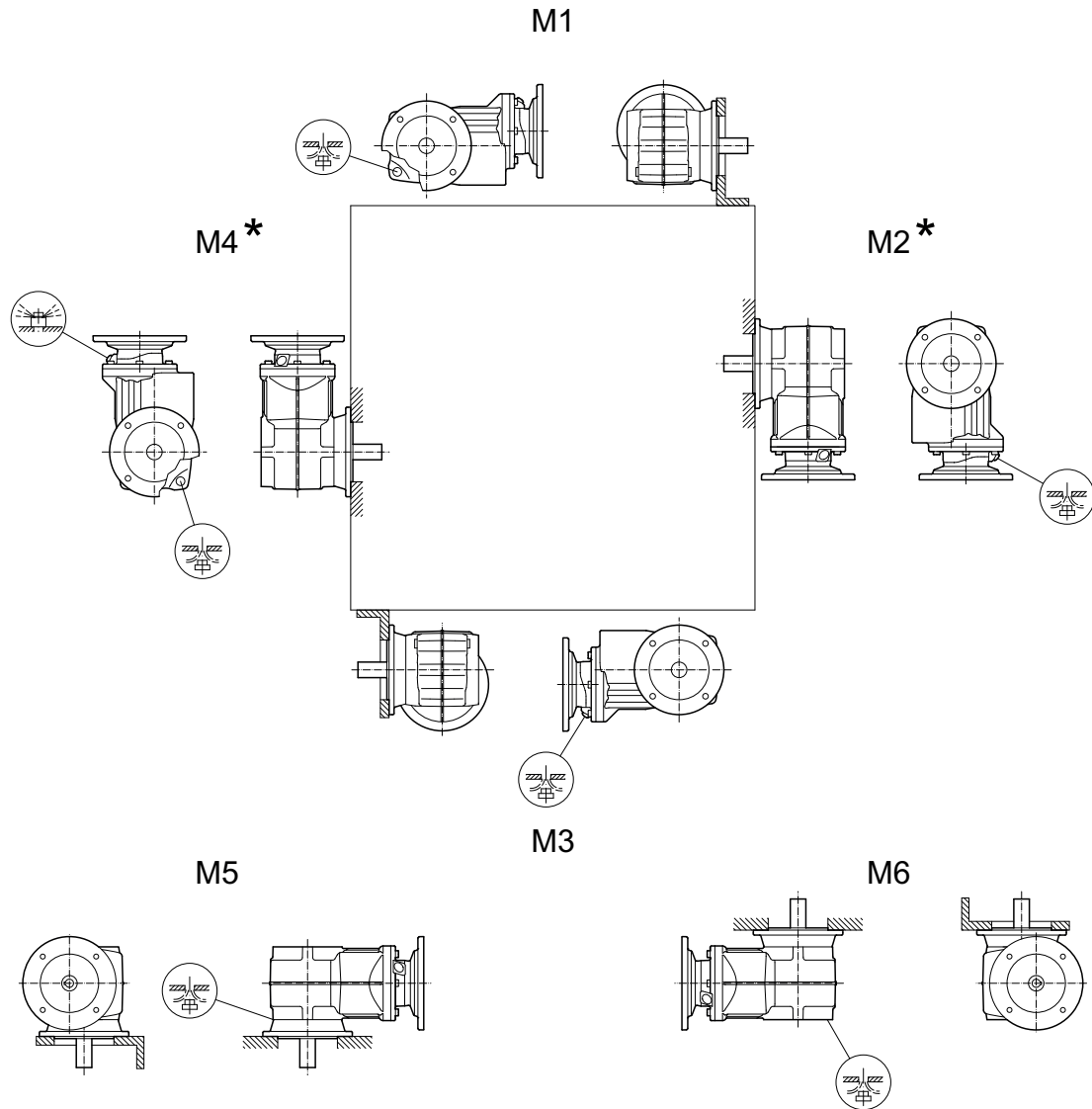
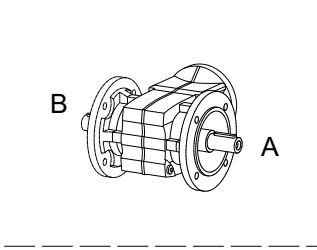
* (→ 57)

Observe the information in chapter "Overhung and axial loads of R..-, F..-, K..-, S..-, and W.. gear units" (→ 62).

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KF/KAF/KHF19 – 29

33 383 00 20



* (→ 57)

Observe the information in chapter "Overhung and axial loads of R..-, F..-, K..-, S..-, and W.. gear units" (→ 62).

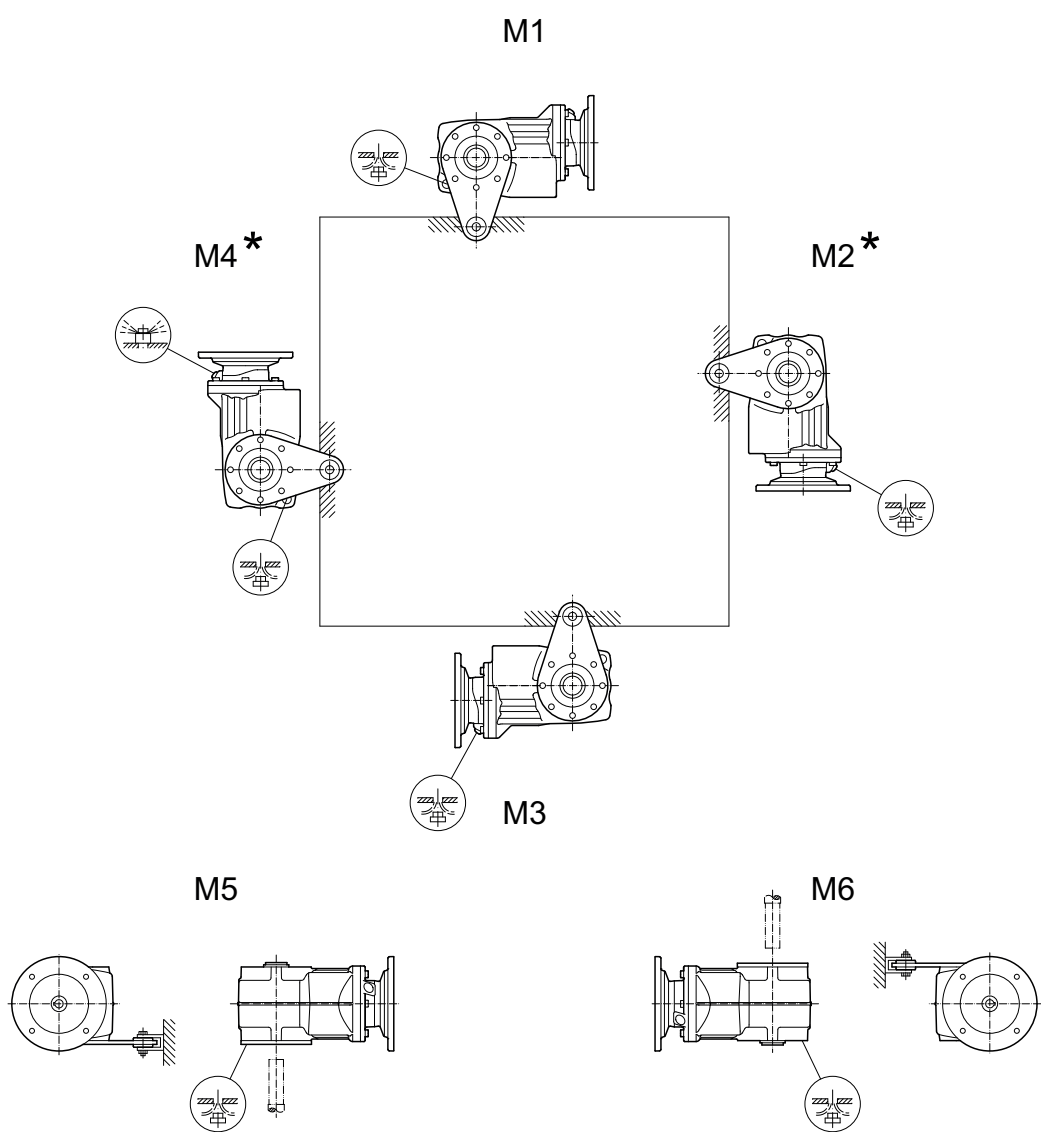
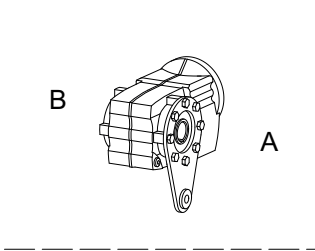
26878585/EN – 11/2021

5 Gear unit mounting positions and order information

Mounting position sheets

KA/KH/KT19 – 29

33 384 00 20

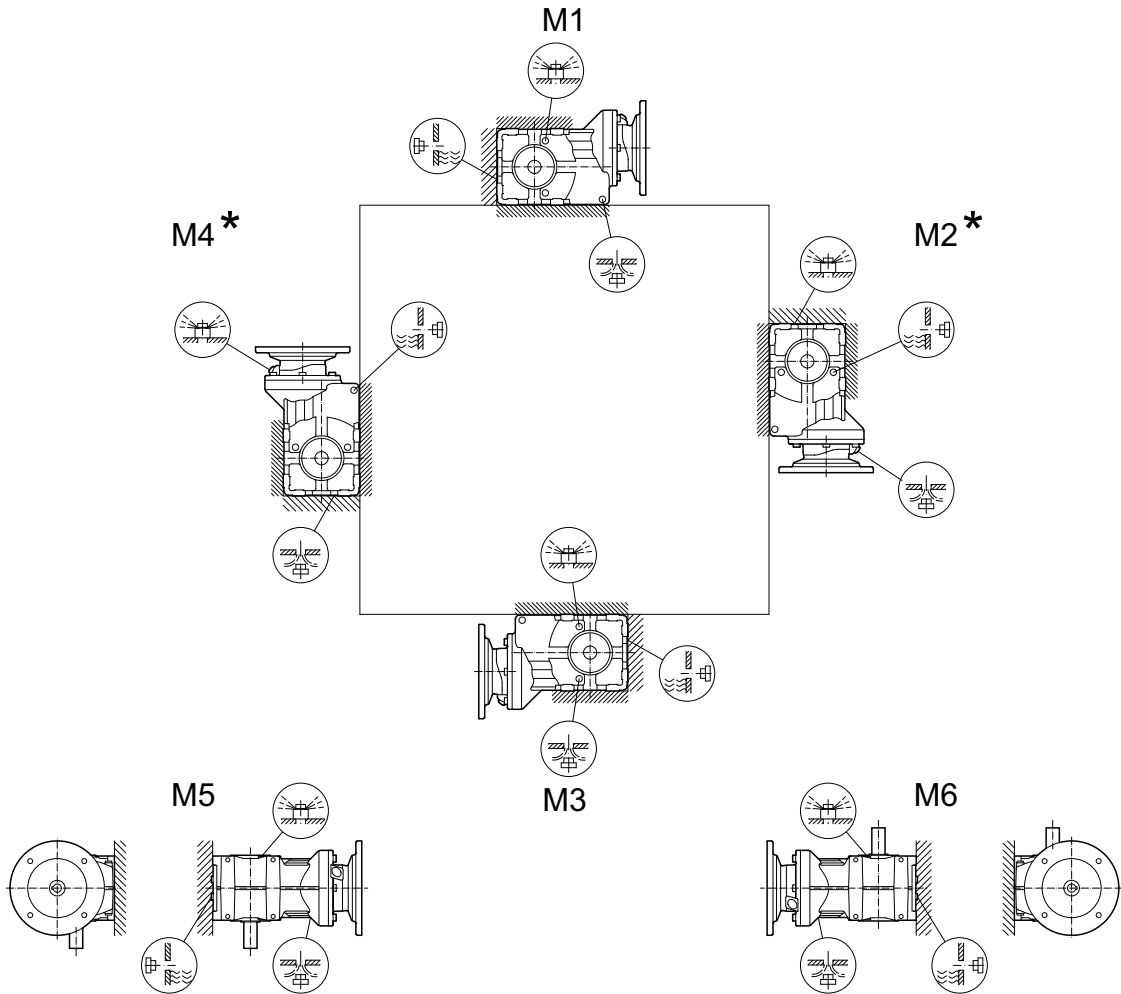
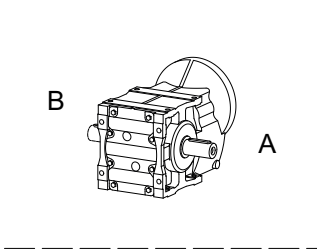


* (→ 57)

26878565/EN – 11/2021

K/KA..B39 – 49

33 385 00 20



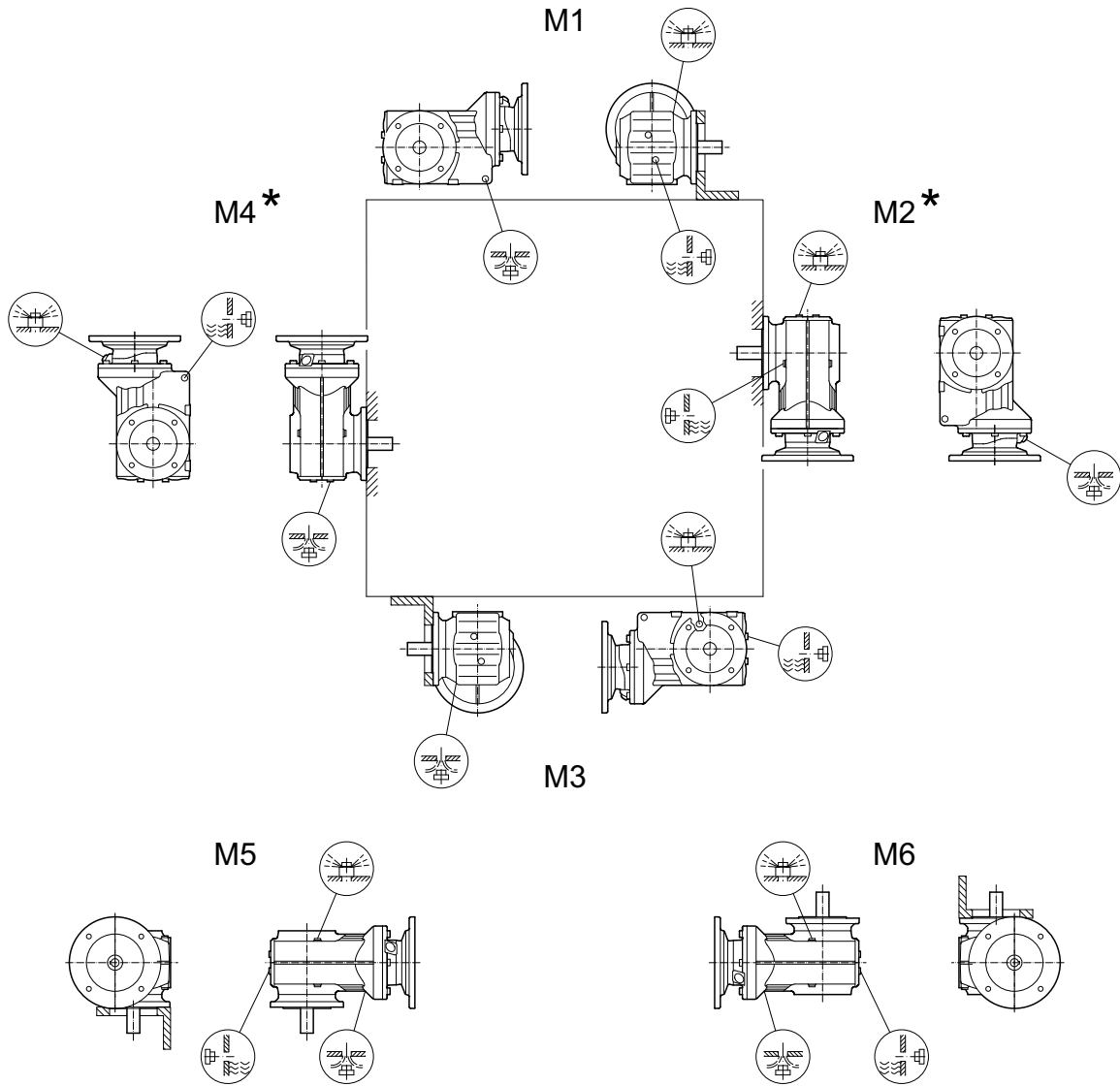
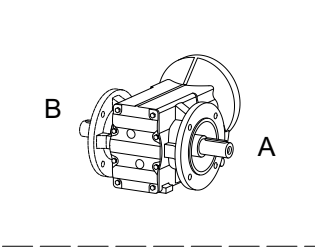
* (→ 57)

5 Gear unit mounting positions and order information

Mounting position sheets

KF/KAF/KHF39 – 49

33 386 00 20

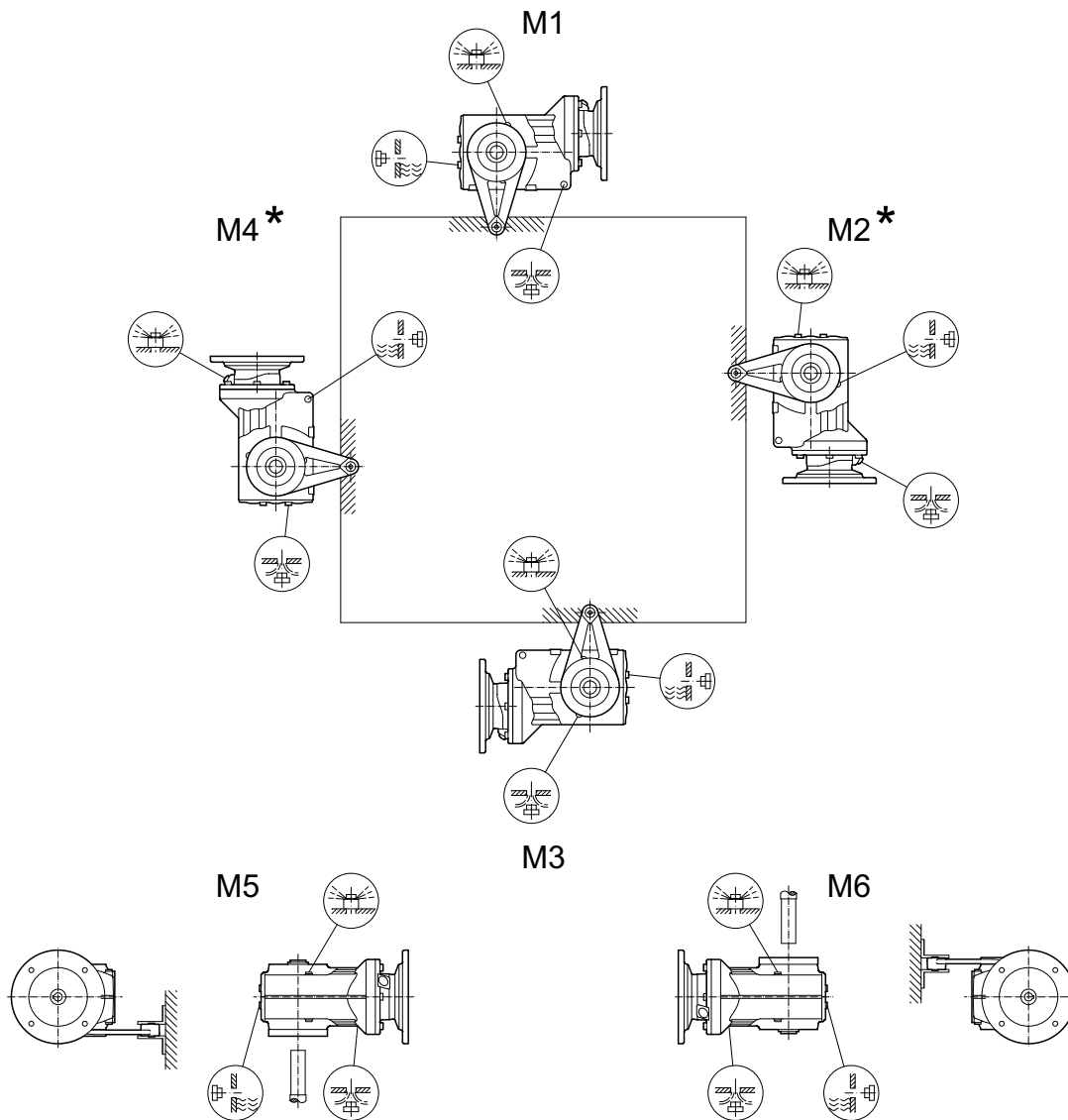
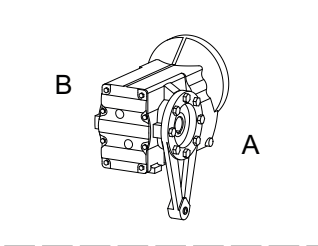


* (→ 57)

26878565/EN – 11/2021

KA/KH/KT39 – 49

33 387 00 20



* (→ 57)

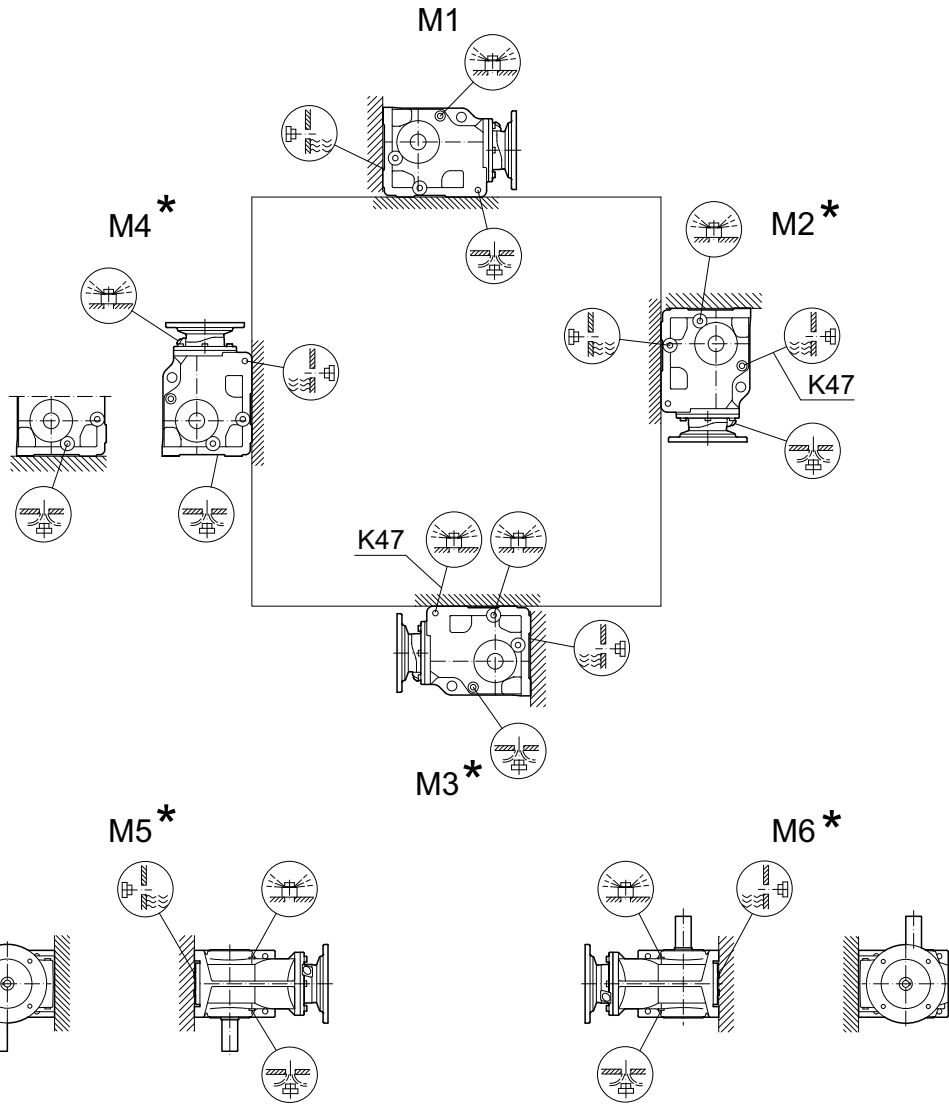
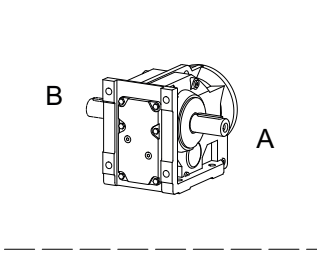
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5 Gear unit mounting positions and order information

Mounting position sheets

K37 – 157, KA..B/KH47B – 157B, KV47B – 107B

33 388 00 20



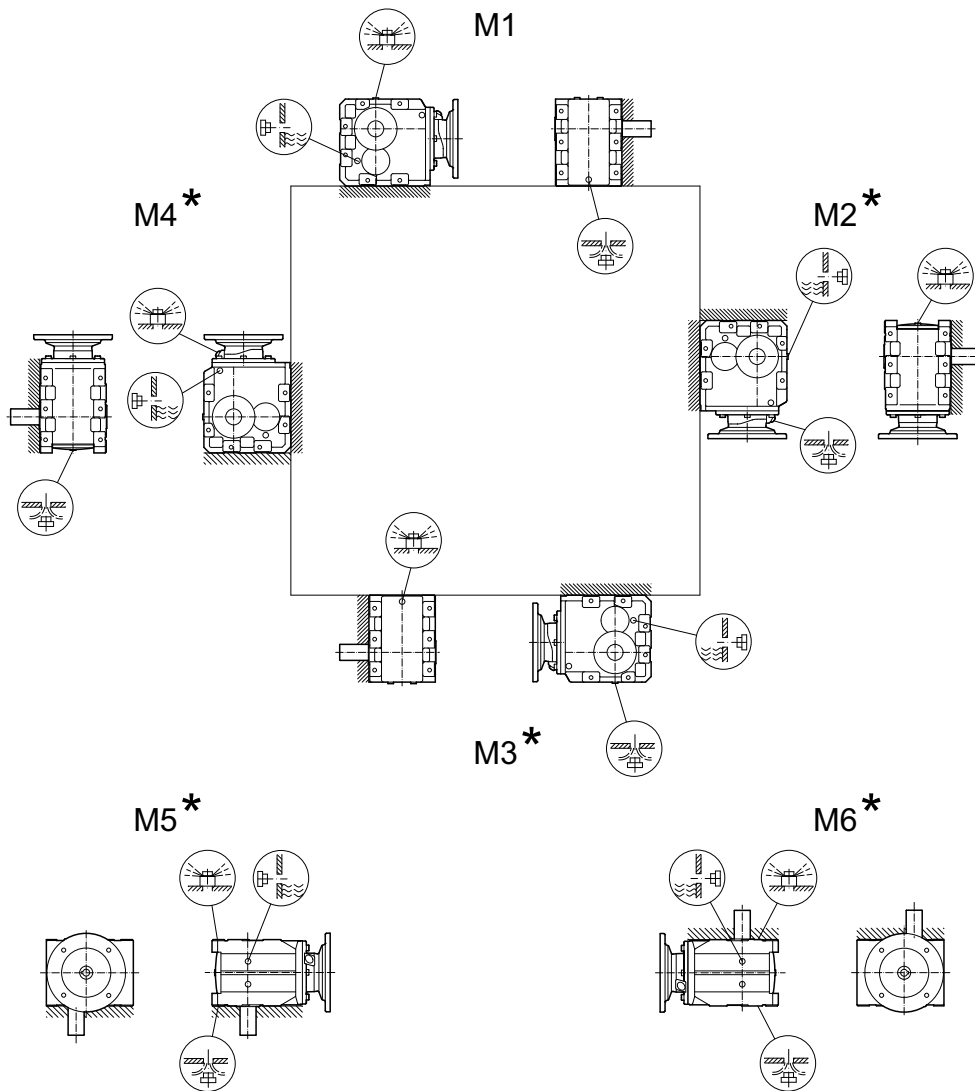
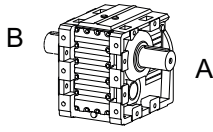
* (→ 57)

Observe the information in chapter "Overhung and axial loads of R.., F.., K.., S.., and W.. gear units" (→ 62).

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K167 – 187, KH167B – 187B

33 389 00 20



* (→ 57)

Observe the information in chapter "Overhung and axial loads of R.., F.., K.., S.., and W.. gear units" (→ 62).

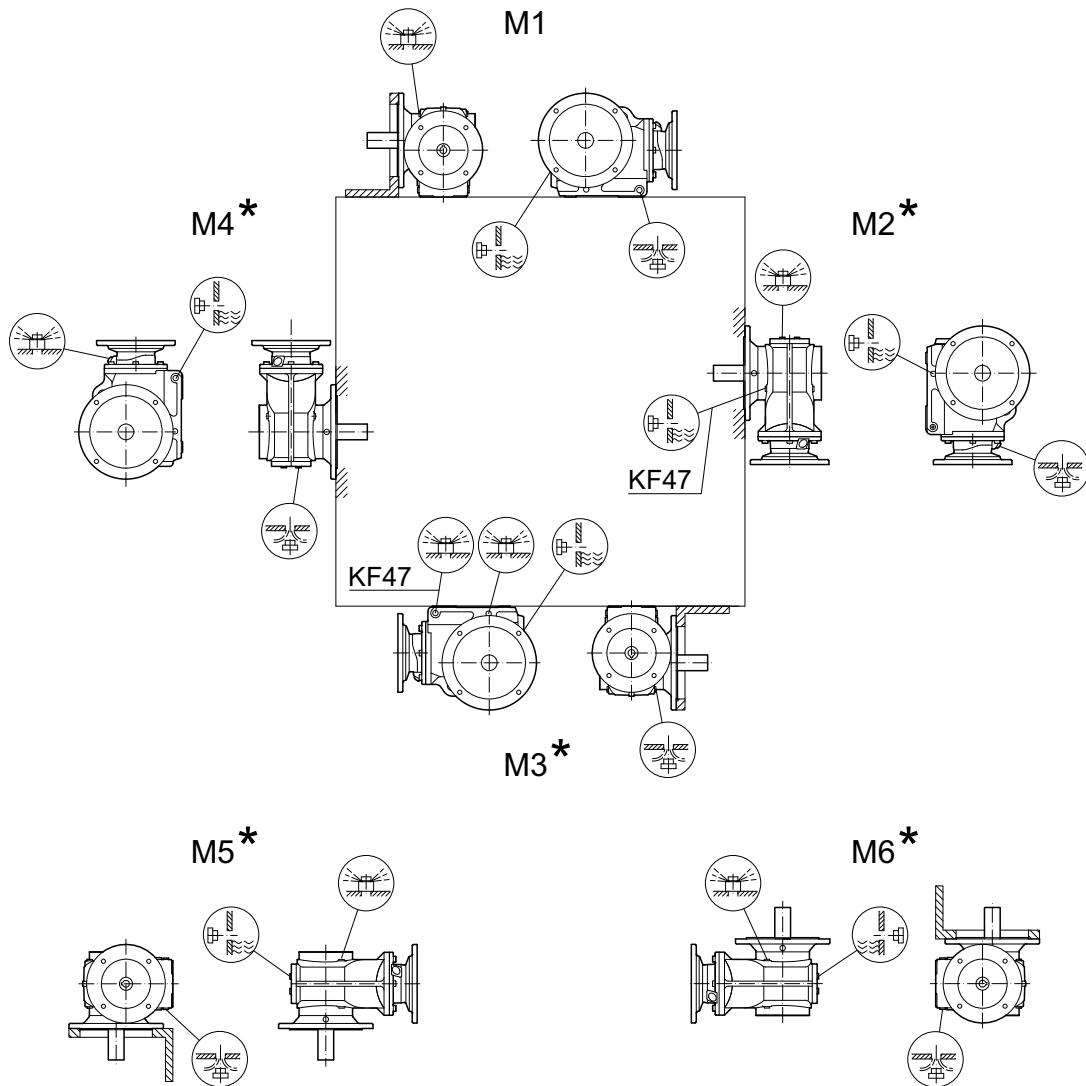
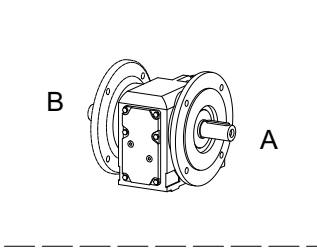
26878585/EN – 11/2021

5 Gear unit mounting positions and order information

Mounting position sheets

KF/KAF/KHF/KZ/KAZ/KHZ37 – 157, KVF/KVZ37 – 107, KM/KAM67 – 157

33 390 00 20

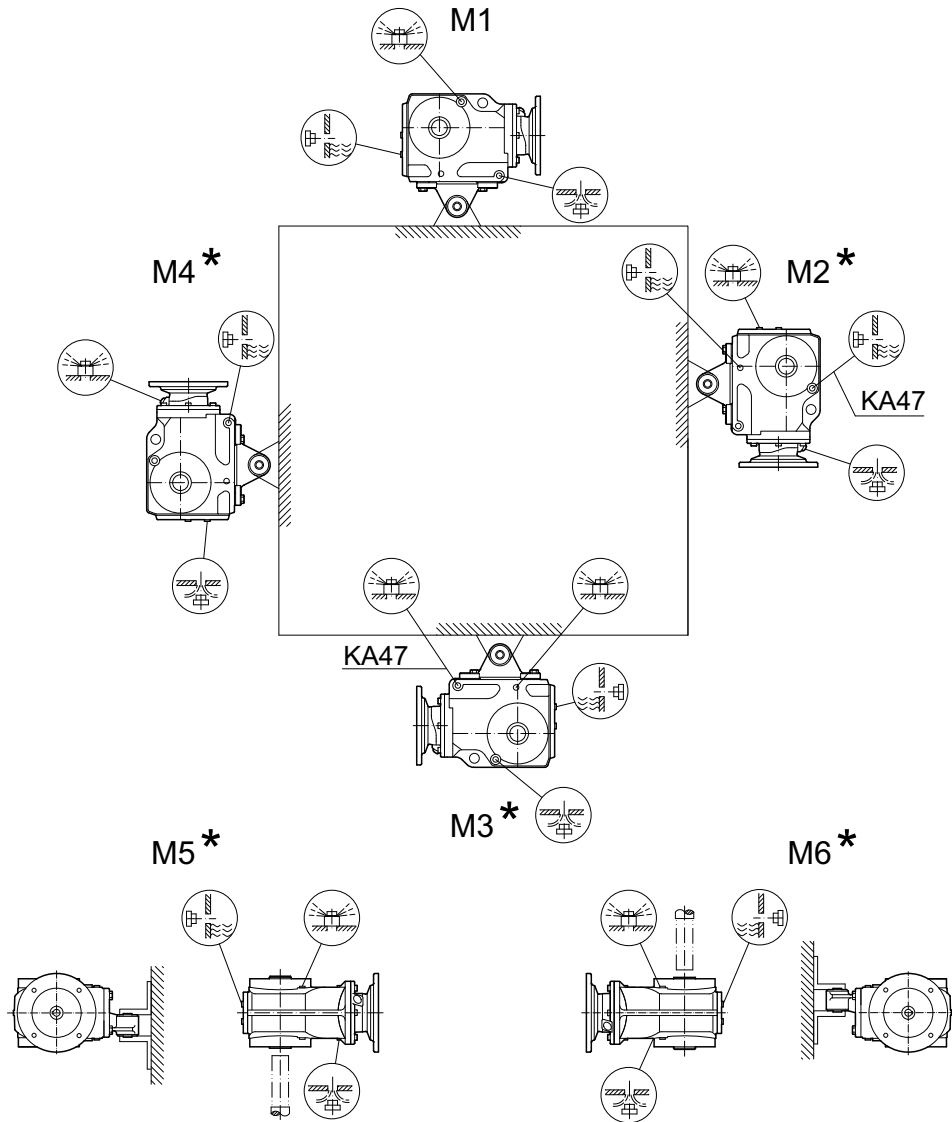
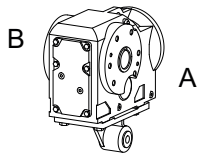


* (→ 57)

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KA/KH37 – 157, KV37 – 107, KT37 – 157

33 391 00 20



* (→ 57)

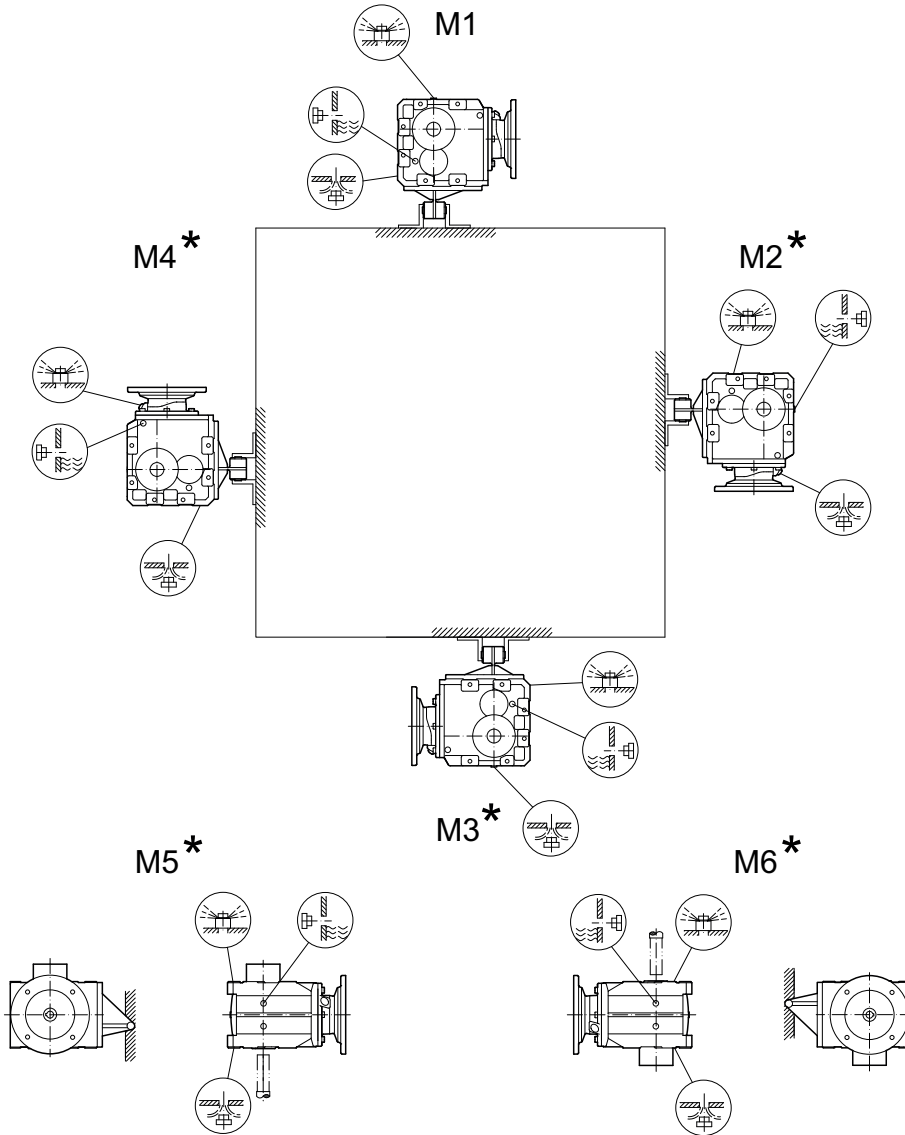
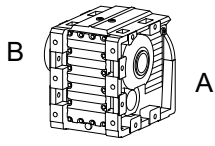
26878585/EN – 11/2021

5 Gear unit mounting positions and order information

Mounting position sheets

KH167 – 187

33 392 00 20



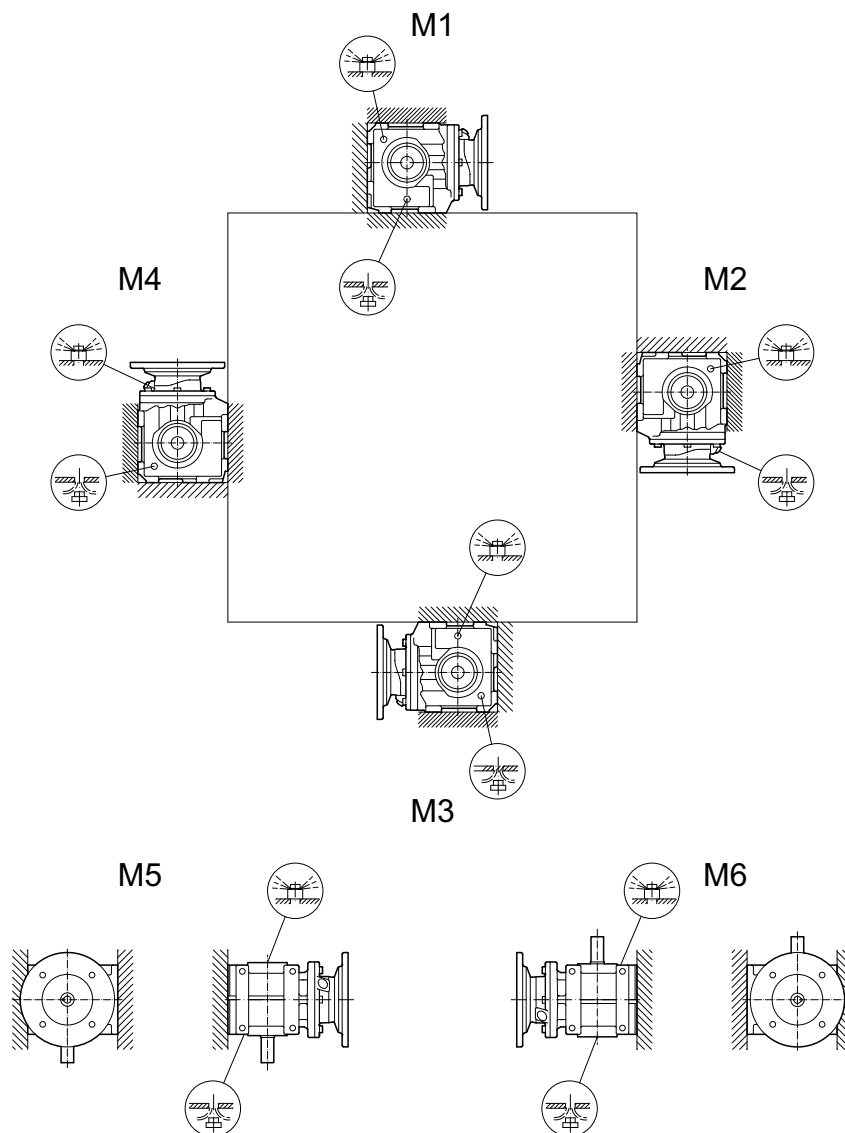
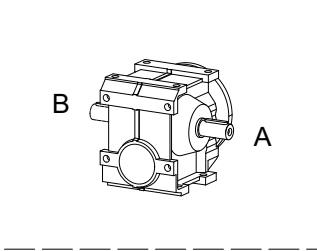
* (→ 57)

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5.3.5 Mounting positions of helical-worm gear units

S37

02 156 00 20



Observe the notes in chapter "Overhung and axial loads of R..-, F..-, K..-, S..-, and W.. gear units" (→ 62).

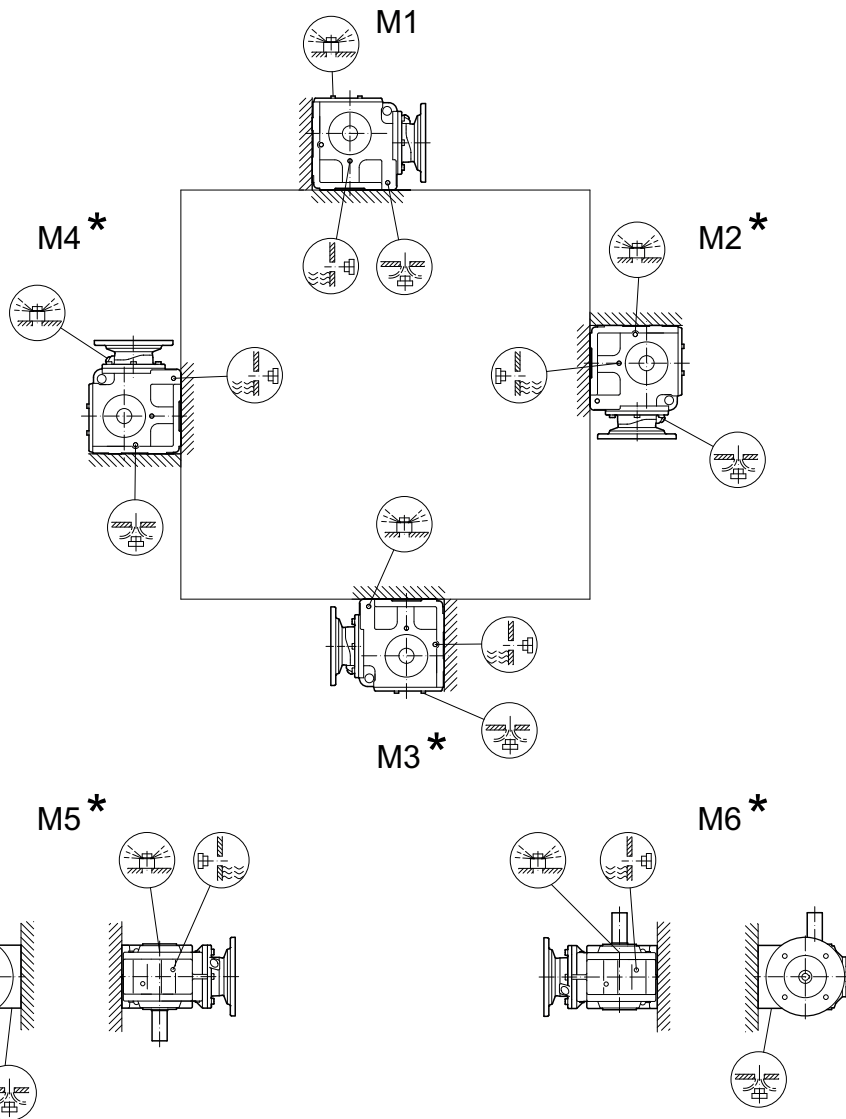
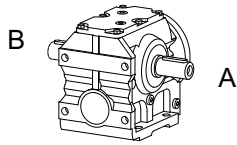
26878585/EN – 11/2021

5 Gear unit mounting positions and order information

Mounting position sheets

S47 – S97

02 157 00 20



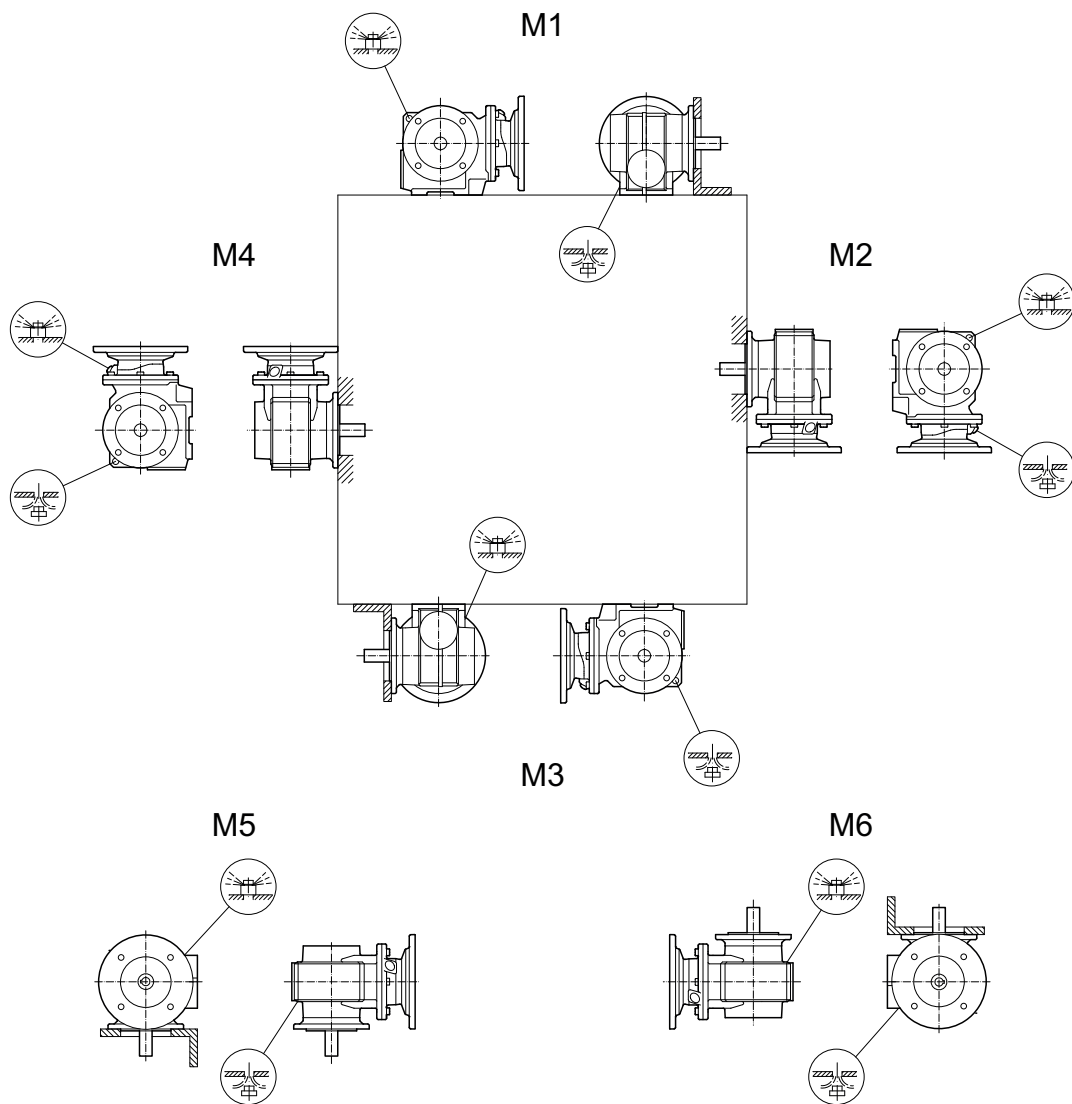
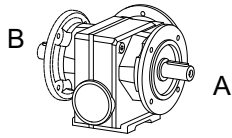
* (→ 57)

Observe the notes in chapter "Overhung and axial loads of R..-, F..-, K..-, S..-, and W.. gear units" (→ 62).

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SF/SAF/SHF37

02 158 00 20



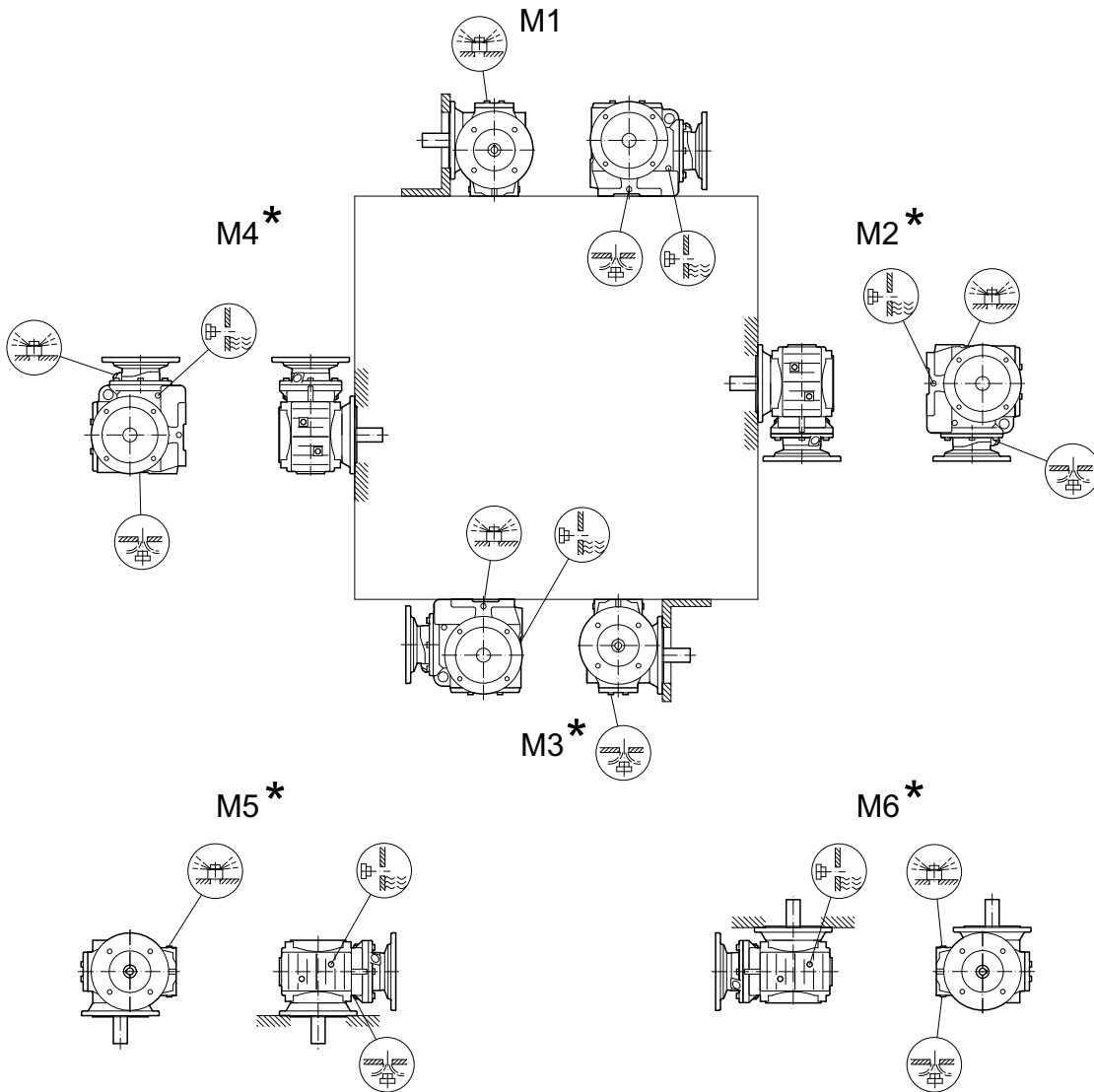
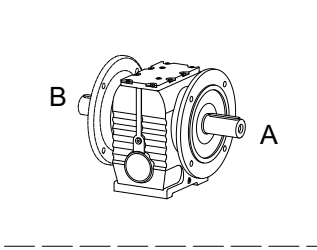
26878585/EN – 11/2021

5 Gear unit mounting positions and order information

Mounting position sheets

SF/SAF/SHF/SAZ/SHZ47 – 97

02 159 00 20

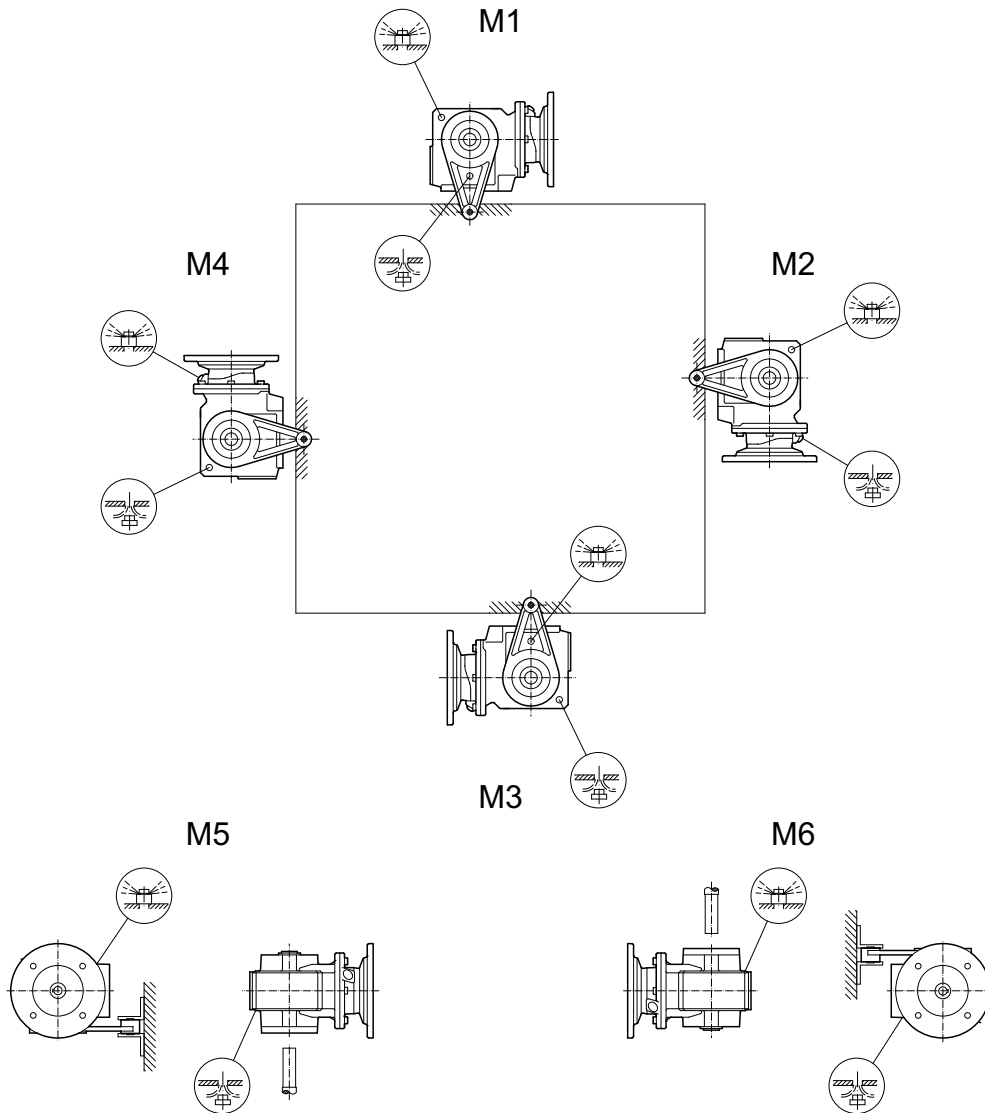
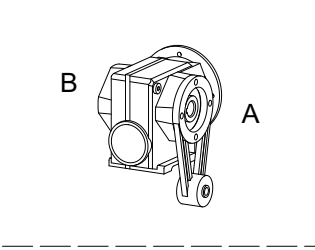


* (→ 57)

26878565/EN – 11/2021

SA/SH/ST37

02 160 00 20



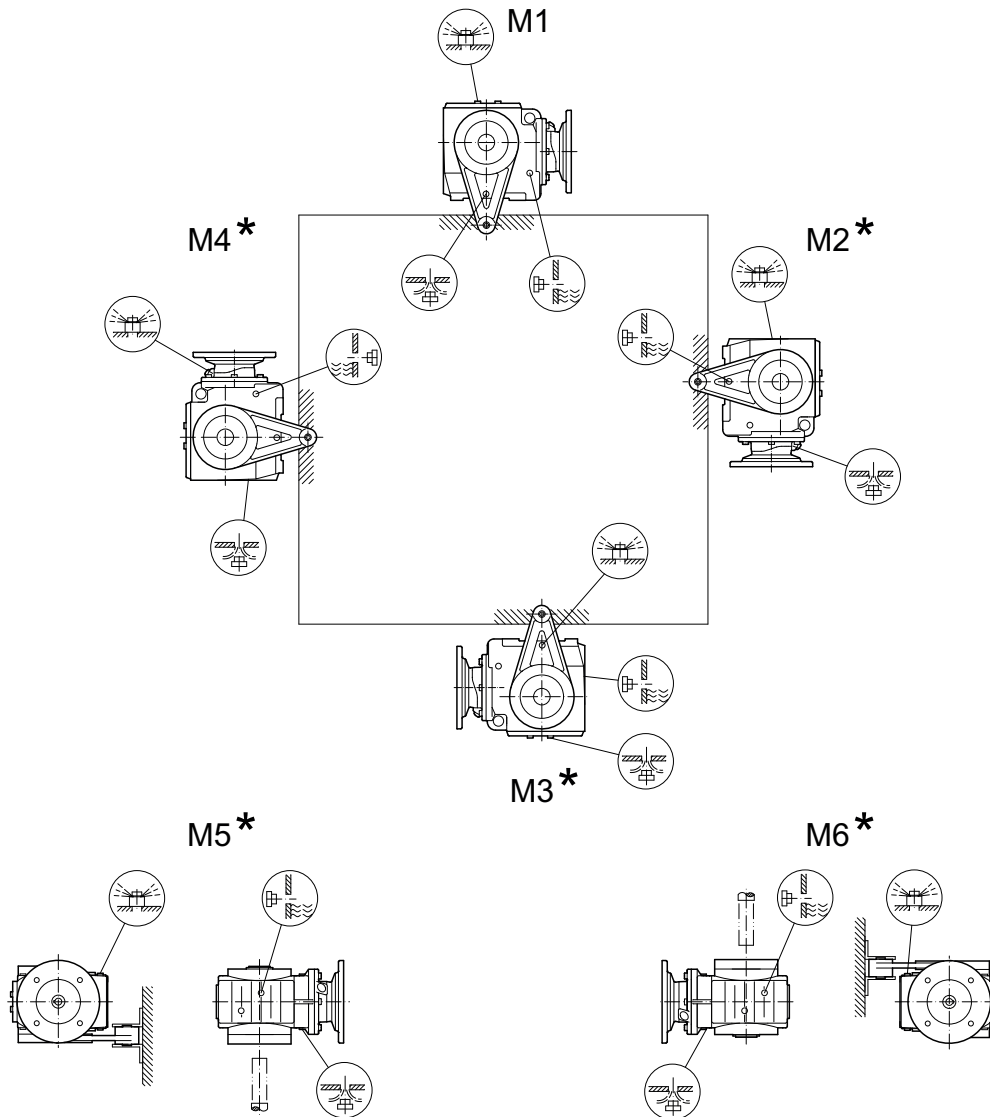
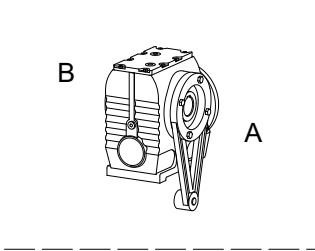
26878585/EN – 11/2021

5 Gear unit mounting positions and order information

Mounting position sheets

SA/SH/ST47 – 97

02 161 00 20



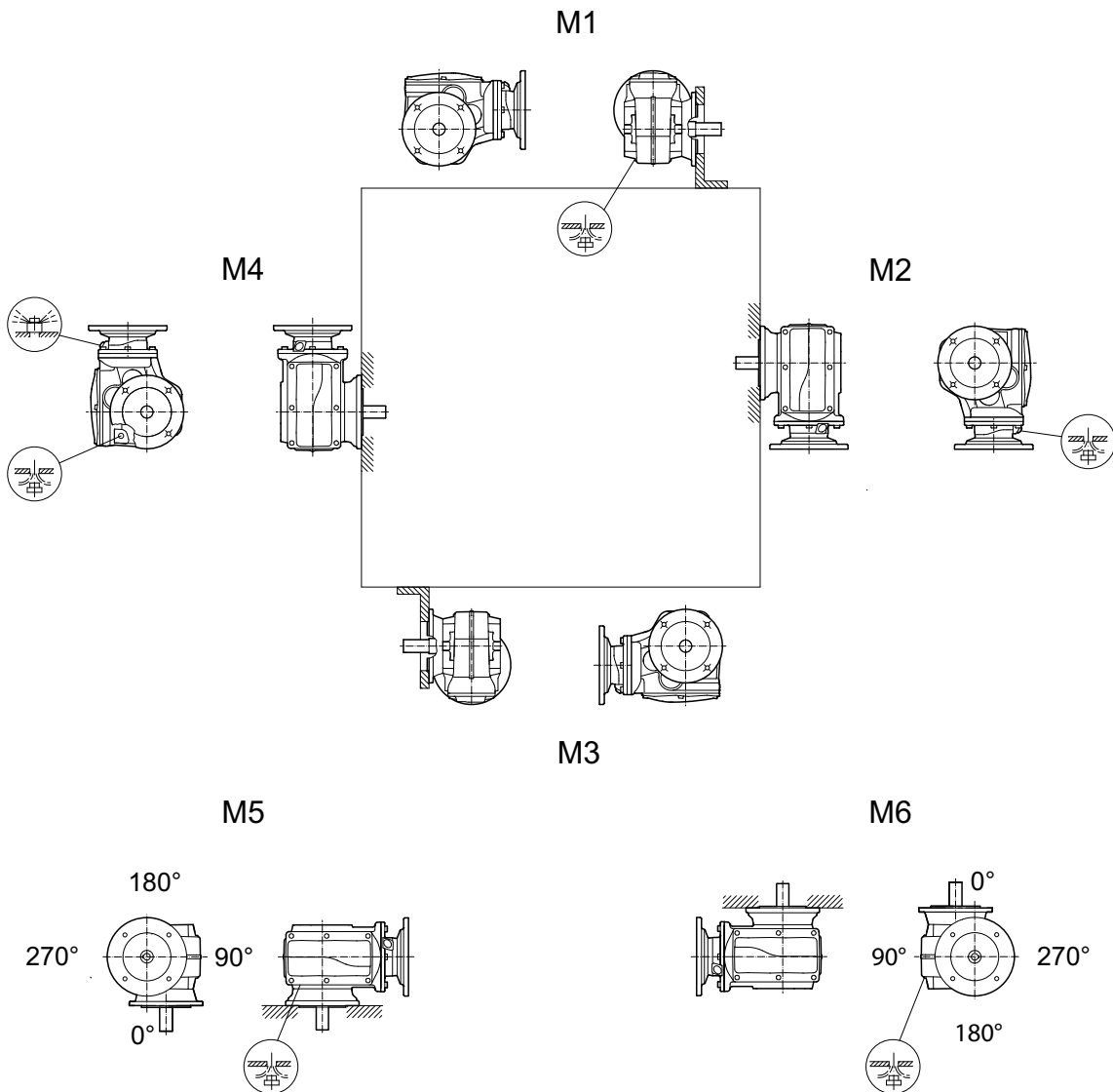
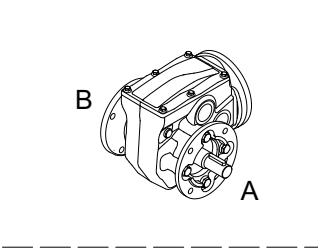
* (→ 57)

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5.3.6 Mounting positions of SPIROPLAN® gear units

WF/WAF19 – 49, WHF29 – 49

20 179 00 20



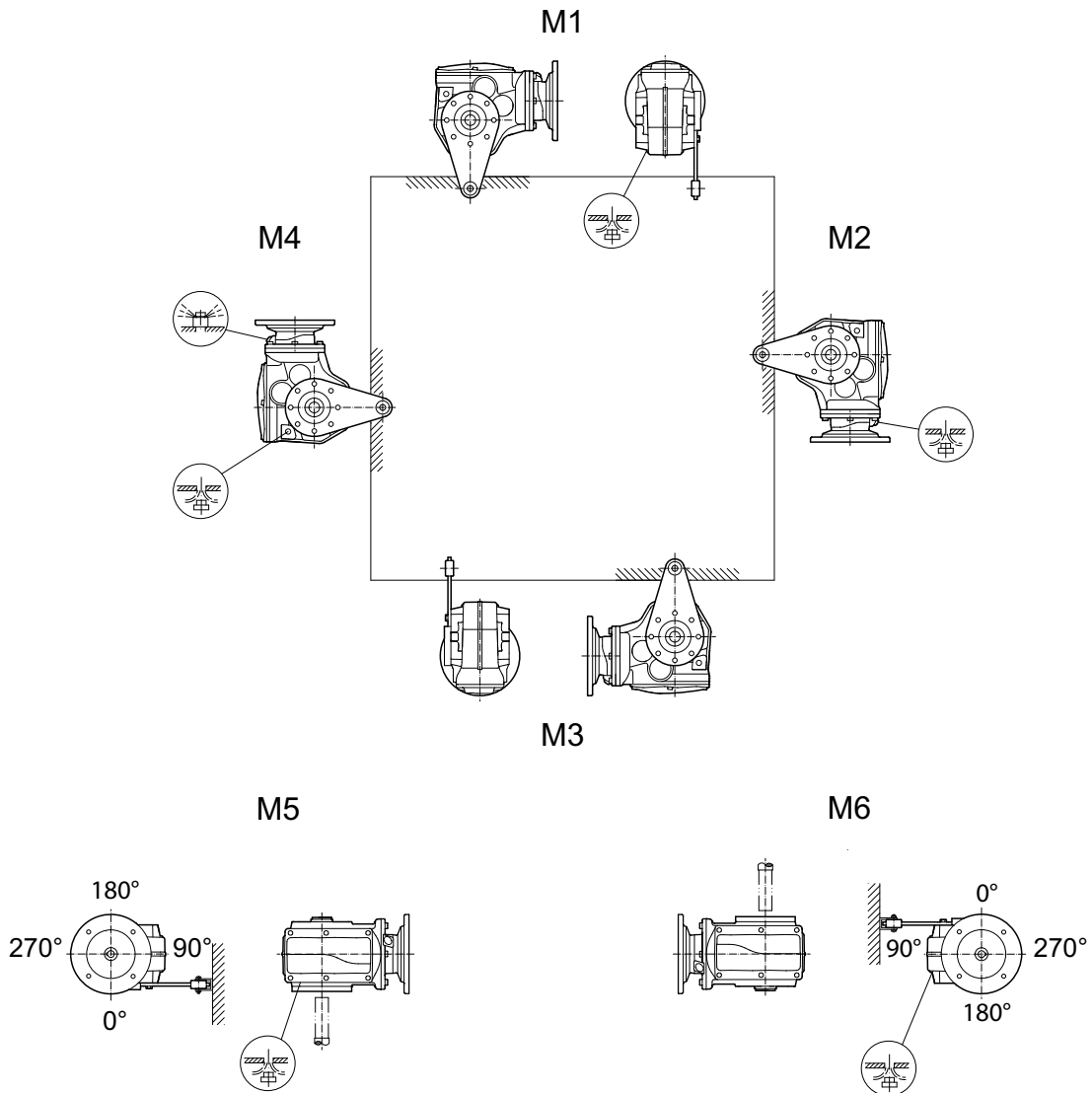
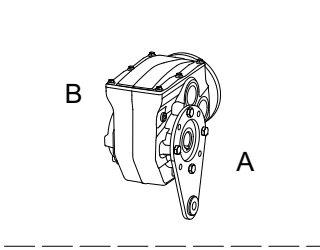
26878585/EN – 11/2021

5 Gear unit mounting positions and order information

Mounting position sheets

WA19 – 49,WH/WT29 – 49

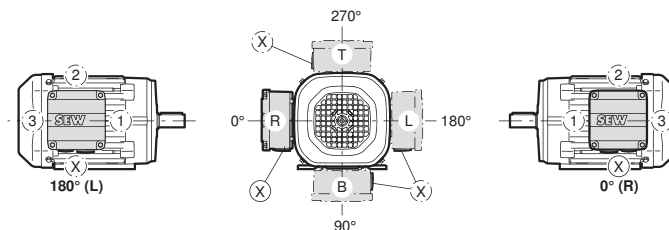
20 180 00 20



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5.4 Mounting positions of AC motors

5.4.1 Motor terminal box position and cable entry



8670476811

5.4.2 Mounting positions

| | | |
|-------------------|-------------------|-------------------|
| <p>B3</p> | <p>B6</p> | <p>B7</p> |
| <p>B8</p> | <p>V5</p> | <p>V6</p> |
| <p>B5</p> | <p>V1</p> | <p>V15</p> |
| <p>B35</p> | <p>V3</p> | <p>V36</p> |
| <p>B14</p> | <p>V18</p> | <p>V17</p> |
| <p>B34</p> | <p>V19</p> | <p>V37</p> |
| <p>B65</p> | <p>B75</p> | <p>B85</p> |

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6 Design and operating notes

6.1 Lubricants

Unless a special arrangement is made, SEW-EURODRIVE supplies the drives with a lubricant fill adapted for the specific gear unit and mounting position. The decisive factor is the mounting position specified when ordering the drive. If you change the mounting position later, you must adapt the lubricant fill quantity accordingly.

6.1.1 GearOil by SEW-EURODRIVE – lubricant for gear units



With decades of experience in gear unit development and construction, as well as numerous customer applications, SEW-EURODRIVE has extensive tribological knowledge. On this basis and in accordance with long-term test runs, SEW-EURODRIVE has developed a special formulation for its own premium gear oil: GearOil by SEW-EURODRIVE – the optimum protection for SEW-EURODRIVE gear units.

By using high-quality base materials and additives as well as the appropriate logistics, SEW-EURODRIVE ensures the highest level of quality.

GearOil by SEW-EURODRIVE increases the performance of the gear unit, regardless of whether it is a standard, servo, or industrial gear unit. The premium gear oil reduces the friction between gear wheels by creating a very good lubrication film. This increases the service life of lubricant and wear parts, such as seals and bearings. The high damage load stage of the mineral lubricants GearOil Base (damage load stage 14) improves protection against pitting of the gearing. At the same time, GearOil increases the efficiency of the gear unit and protects against corrosion and harmful foaming of the oil. The "self-cleaning" properties of the lubricants prevent deposits as they bind water and dirt particles.

Optionally, you can select GearOil by SEW-EURODRIVE as the initial filling for the gear units and gearmotors. The premium gear oil can be ordered in can or barrel containers for service and maintenance purposes. GearOil by SEW-EURODRIVE can be stored for up to 6 years in unopened containers.

Refer to the following table for the quantities that can be ordered as well as for the corresponding part numbers:


| GearOil Base | Can 1 liter | Can 5 liters | Can 20 liters | Barrel 205 liters | IBC 1000 liters |
|-----------------------|----------------|-----------------|------------------|----------------------|--------------------|
| GearOil Base 150 E1 | | | 03287866 | 03287742 | 03096750 |
| GearOil Base 220 E1 | 03044130 | 03044084 | 03287858 | 03287734 | 03096688 |
| GearOil Base 320 E1 | | | 03287831 | 03287726 | 03096742 |
| GearOil Base 460 E1 | | | 03287823 | 03287718 | 03096734 |
| GearOil Base 680 E1 | | | 03287815 | 03287696 | 03096726 |
| GearOil Base 680 S E1 | | | 03287807 | 03287688 | 03096718 |

| GearOil Poly | Can 1 liter | Can 5 liters | Can 20 liters | Barrel 205 liters |
|---------------------|----------------|-----------------|------------------|----------------------|
| GearOil Poly 150 E1 | | 03099296 | | 03099172 |
| GearOil Poly 220 E1 | 03044211 | 03099288 | | 03099164 |

| GearOil Poly | Can 1 liter | Can 5 liters | Can 20 liters | Barrel 205 liters |
|------------------------|------------------------|-------------------------|--------------------------|------------------------------|
| GearOil Poly 460 E1 | | 03099261 | | 03099148 |
| GearOil Poly 460 W E1 | | 03096599 | 03287750 | 03287645 |
| GearOil Poly 150 H1 E1 | | 03099253 | | 03099121 |
| GearOil Poly 220 H1 E1 | | 03099237 | | 03099113 |
| GearOil Poly 460 H1 E1 | 03044165 | 03287076 | 03288099 | 03287068 |

| GearOil Synth | Can 1 liter | Can 5 liters | Can 20 liters | Barrel 205 liters |
|-------------------------|------------------------|-------------------------|--------------------------|------------------------------|
| GearOil Synth 150 E1 | | 03042545 | 03042413 | 03042308 |
| GearOil Synth 220 E1 | 03044270 | 03042537 | 03042405 | 03042294 |
| GearOil Synth 320 E1 | | 03042529 | 03042391 | 03042286 |
| GearOil Synth 460 E1 | | 03042510 | 03042383 | 03042278 |
| GearOil Synth 680 E1 | | 03042502 | 03042375 | 03042251 |
| GearOil Synth 220 H1 E1 | | 03042596 | 03042464 | 03042340 |
| GearOil Synth 460 H1 E1 | 03044319 | 03042588 | 03042456 | 03042332 |



 = Lubricant suitable for the food and feed industry

For further information on the use of GearOil lubricants and their essential technical properties, please refer to the lubricant tables, see chapter "Lubricant table" (→  124). Technical data sheets and safety data sheets are available from SEW-EURODRIVE on request.

6.1.2 Bearing greases

The gear unit rolling bearings are given a factory-fill with the greases listed below. SEW-EURODRIVE recommends re-greasing the rolling bearings with a grease filling at the same time as changing the oil.

This table shows the lubricants recommended by SEW-EURODRIVE:

| Operating range | Ambient temperature | Manufacturer | Type |
|---|----------------------------|---------------------|---------------------------------|
| Standard | -40 °C to +80 °C | SEW-EURODRIVE | Grease HL 2 E1 ¹⁾ |
| | | Fuchs | Renolit CX-TOM 15 ¹⁾ |
| | | Klüber | Petamo GHY 133 N |
|  ²⁾ | -40 °C to +40 °C | SEW-EURODRIVE | Grease HL 2 H1 E1 |
| | | Bremer & Leguil | Cassida Grease GTS 2 |
|  ³⁾ | -20 °C to +40 °C | Fuchs | Plantogel 2S |

1) Bearing grease based on semi-synthetic base oil.

2) Lubricant for the food processing industry.

3) Readily biodegradable lubricant for environmentally sensitive areas.

INFORMATION



The following grease quantities are required:

- **For fast-running bearings (gear unit input side):** Fill the cavities between the rolling elements one-third full with grease.
- **For slow-running bearings (gear unit output side):** Fill the cavities between the rolling elements two-thirds full with grease.

6.1.3 Lubricant table

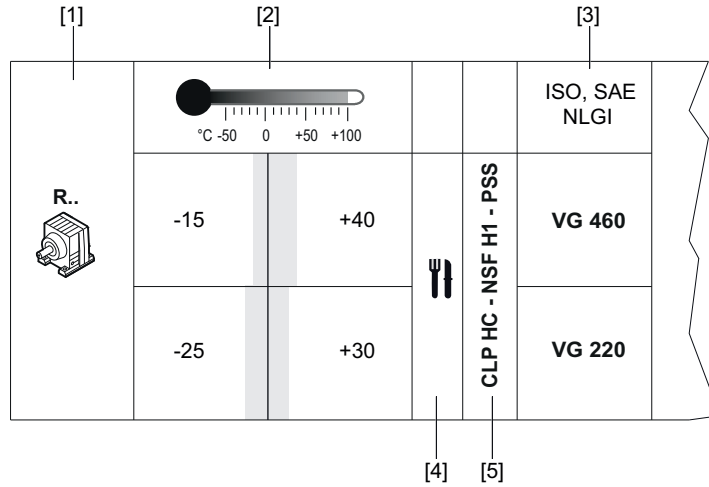
NOTICE

Damage to the gear unit due to improper lubricants.

Possible damage to property.

- The oil viscosity and type (mineral/synthetic) to be used are determined by SEW-EURODRIVE specifically for each order. This information is noted in the order confirmation and on the gear unit's nameplate. If you use other lubricants for the gear units and/or use the lubricants at temperatures outside the recommended temperature range, SEW-EURODRIVE does not assume liability.
- The lubricant recommendation in the lubricant table in no way represents a guarantee regarding the quality of the lubricant delivered by each respective supplier. Each lubricant manufacturer is responsible for the quality of their product.
- Do not mix synthetic lubricants.
- Do not mix synthetic lubricants and mineral lubricants.
- Oils of the same viscosity class from different manufacturers do not have the same characteristics. In particular, the minimally and maximally permitted oil bath temperatures are manufacturer-specific. These temperatures are specified in the lubricant tables.
- The values specified in the lubricant tables apply as of the time of printing of this document. The data of the lubricants is subject to dynamic change on the part of the lubricant manufacturers. For the latest information about the lubricants, visit: www.sew-eurodrive.de/lubricants.

Information on table structure

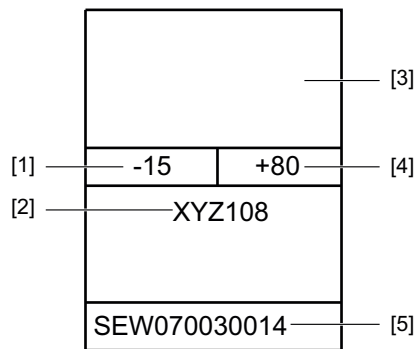


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- [1] Gear unit type
- [2] Ambient temperature range
- [3] Viscosity class
- [4] Note on special approvals
- [5] Lubricant type

The specified ambient temperatures are guide values for selecting a suitable lubricant. The exact upper and lower temperature limits for project planning are specified in the table with the respective trade name. Bear in mind during project planning that the viscosity increases at low temperatures and that this might influence the starting behavior.

Information on the various lubricants



- [1] Lowest oil sump temperature in °C, **going below this value during operation is not permitted**
- [2] Trade name
- [3] Manufacturer
- [4] Highest oil sump temperature in °C. The service life will be considerably reduced when this temperature is exceeded. Adhere to the lubricant change intervals in chapter "Current lubricant change intervals" in the operating instructions.
- [5] Approvals regarding compatibility of the lubricant with approved oil seals

Lubricant compatibility with oil seals

| Approval | Explanation |
|----------|-------------|
|----------|-------------|

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| | |
|----------------|---|
| SEW07004_ _13: | A lubricant especially recommended with regard to compatibility with the approved oil seals. The lubricant exceeds the state-of-the-art requirements regarding elastomer compatibility. |
|----------------|---|

Approved application temperature range of the oil seals

In the low temperature range, oil seals can withstand shaft deflections (e. g. through overhung load) only to a limited extent. Especially avoid or limit pulsating or changing radial displacements of the shaft. Contact SEW-EURODRIVE, if required.

| Oil seal Material class | Permitted Oil sump temperature |
|----------------------------|-----------------------------------|
| NBR | -40 °C to +80 °C |
| FKM | -25 °C to +115 °C |
| FKM-PSS | -25 °C to +115 °C |

Limitations of use of oil seals with the specific lubricant are described in the following table:

| Material class | | Manufacturer | | Material | | |
|----------------|---|--------------|---|-------------|------------|---------------|
| S | 1 | NBR | 1 | Freudenberg | 72 NBR 902 | |
| | | | 2 | Trelleborg | 4NV11 | |
| | 2 | FKM | 1 | Freudenberg | 1 | 75 FKM 585 |
| | | | | | 2 | 75 FKM 170055 |
| | | | 2 | Trelleborg | 1 | VCBVR |
| | | | | | 3 | SKF |






Examples:

S11: Only the elastomer 72NBR902 of the Freudenberg company meets the requirements of the approval in conjunction with the specific lubricant.

S2: Only the elastomer FKM meets the requirements of the approval in conjunction with the specific lubricant.

Key

The following table shows the abbreviations and symbols used in the lubricant table and explains what they mean:

| Abbreviation/symbol | Meaning |
|--|---|
|  | Synthetic lubricant (marked gray) |
|  | Mineral lubricant |
| CLP | Mineral oil |
| CLP PG | Polyglycol (PG) |
| CLP HC | Synthetic hydrocarbons – polyalphaolefins (PAO) |
| An | Ester-based oil |
|  | Lubricant for the food processing industry and feed industry. Oils are NSF-H1 registered and compliant in accordance with FDA 21 CFR § 178.3570 |
|  | Easily biodegradable oil for environmentally sensitive areas |
|  | Lubricant suitable for explosion-protected gear units and gearmotors |
| 1) | Helical-worm gear units with CLP-PG: Contact SEW-EURODRIVE. |
| 2) | Low-viscosity grease |
| 3) | With appropriate measures, the gear units can be operated at ambient temperatures as low as -40 °C. Contact SEW-EURODRIVE. |
| Oil seal | Oil seal |
| Premium Sine Seal | Oil seal of the Premium Sine Seal type. The addendum "PSS" for the lubricant type indicates compatibility with the sealing system. |

The lubricant table is valid on the day this document is published. Refer to www.sew-eurodrive.de/lubricants for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→ 125).


| [3] °C | [1] | [2] | ISO SAE NLGI | SEW EURODRIVE | Dreher & leguil | Castrol | FUCHS | Mobil | Klüber | Shell | SINOPEC | TOTAL |
|-----------|------|----------------------|-----------------|--|-------------------------------|------------------|----------------------|-----------------------|--------------------------|--------------|---------|-------|
| | | | | | | | | | | | | |
| [4] -25 | [Ex] | CLP PG | VG 220 | GearOil Poly 220 E1 SEW0700400313 | Optigear Synthetic 800/220 | Renolin PG220 | Mobil Glycole 220 | Klüber GH 6-220 | Shell Omala S4 WE 220 | Cater SY 220 | | |
| | | | | -30 | | | | | | | | |
| [4] -30 | [Ex] | CLP PG PSS | VG 150 | GearOil Poly 150 E1 SEW0700400313 | | | | Klüber UHI 1-150 | | | | |
| | | | | -25 | | | | | | | | |
| [4] -25 | [Ex] | CLP PG PSS | VG 220 | GearOil Poly 220 E1 SEW0700400313 | | | | Klüber GH 6-220 | | | | |
| | | | | -30a | | | | | | | | |
| [4] -30 | [Ex] | CLP PG PSS | VG 150 | GearOil Poly 150 E1 SEW0700400313 | | | | Klüber UHI 6 - 150 | | | | |
| | | | | -25 | | | | | | | | |
| [4] -25 | [Ex] | CLP PG NSF H1 (-PSS) | VG 220 | GearOil Poly 220 H1 E1 SEW0700400313 | | | | Klüber UH1 6 - 220 | | | | |
| | | | | -20 | | | | | | | | |
| [4] -20 | [Ex] | CLP PG NSF H1 (-PSS) | VG 460 | GearOil Poly 460 H1 E1 SEW0700400313 | | | | Klüber UH1 6 - 460 | | | | |
| | | | | -30 | | | | | | | | |
| [4] -30 | [Ex] | CLP PG NSF H1 (-PSS) | VG 150 | GearOil Poly 150 H1 E1 SEW0700400313 | | | | Klüber UH1 6 - 150 | | | | |
| | | | | -30 | | | | | | | | |

R. RES K..7 KES HK.. F. 

[1] Note on special approvals
[2] Oil type

[3] Ambient temperature range
[4] Standard

The lubricant table is valid on the day this document is published. Refer to www.sew-eurodrive.de/lubricants for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→  125).

| [3] °C -50 0 +50 +100 | [1] | [2] | ISO SAE NLGI | SEW EURODRIVE | b remer & leguit | Castrol | FUCHS | Mobil® | KUBERNIK | Shell | SINOPEC | TOTAL |
|-----------------------------|-----|--------------|-----------------|-------------------------|---------------------|---------|--------------------------|------------------|----------------------------|--------------------------|---------|--------------|
| | | | | | | | | | | | | |
| [4] -25 | ⊕ | CLP HC | VG 220 | GearOil Synth 220 E1 | | | Renolin Unisyn CLP220 | Mobil SHC 630 | KlüberSynth GEM 4-220 N | Shell Omala S4 GX 220 | | Cater SH 220 |
| +60 | | | | | | | | | | | | |
| [4] -35 | ⊕ | VG 68 | VG 68 | | | | Renolin Unisyn CLP68 | Mobil SHC 626 | | Shell Omala S4 GX 68 | | |
| +20 | | | | | | | | | | | | |
| [4] -25 | ⊕ | CLP HC - PSS | VG 220 | GearOil Synth 220 E1 | | | | Mobil SHC 630 | | | | |
| +60 | | | | | | | | | | | | |
| [4] -30 | ⊕ | VG 150 | VG 150 | GearOil Synth 150 E1 | | | | Mobil SHC 629 | | | | Daenis SH 32 |
| +50 | | | | | | | | | | | | |

R.:  K.:  KES:  HK.:  F.: 

[1] Note on special approvals
[2] Oil type

[3] Ambient temperature range
[4] Standard

The lubricant table is valid on the day this document is published. Refer to www.sew-eurodrive.de/lubricants for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→ 125).

| [3] | [1] | [2] | ISO SAE NLGI | SEW EURODRIVE | bremner & legull | Castrol | FUCHS | Mobil | KLÜBER LUBRICATION | Shell | SINOPEC | TOTAL |
|--------------------------|-----|-----------------------|-----------------|--|-------------------------|-----------------------------------|---------------------------|-------------------------|----------------------------|-------|---------|-------|
| [3] °C -50 0 +50 +100 | [1] | [2] | VG 460 | GearOil Synth 460 H1 E1 SEW070040313 | Cassida Fluid GL 460 | Optileb GT 460 SEW070040313 | Cassida Fluid GL 460 | Cassida Fluid GL 460 | Klüberoil 4UH1-460 N | | | |
| | | | | GearOil Synth 220 H1 E1 SEW070040313 | Cassida Fluid GL 220 | Optileb GT 220 SEW070040313 | Cassida Fluid GL 220 | Klüberoil 4UH1-220 N | | | | |
| | | CLP HC - NSF H1 | VG 68 | | Cassida Fluid HF 68 | Optileb HY 68 | Cassida Fluid HF 68 | | Klüberoil 4UH1-68 N | | | |
| | | | VG 32 | | Cassida Fluid HF 32 | Optileb HY 32 | Cassida Fluid HF 32 | | KlüberSummit HySynFG32 | | | |
| [4] | | CLP HC - NSF H1 - PSS | VG 460 | GearOil Synth 460 H1 E1 SEW070040313 | | Optileb GT 460 SEW070040313 | Cassida Fluid GL 460 | | | | | |
| | | | VG 220 | GearOil Synth 220 H1 E1 SEW070040313 | | Optileb GT 220 SEW070040313 | Cassida Fluid GL 220 | | | | | |
| | | E | VG 460 | | | | Plantogear 460 S S2 | | Klüberbio CA2-460 S2 | | | |
| | | | VG 320 | | | | Plantogear 320 S S2 | | | | | |

R.: RES
K.: 7
KES
HK.:
F.:

[1] Note on special approvals
[2] Oil type

[3] Ambient temperature range
[4] Standard

Lubricant table for K..9 gear units

The lubricant table is valid on the day this document is published. Refer to www.sew-eurodrive.de/lubricants for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→ 125).

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-----|-----|-----|-----------------|--|--|--|--|--|--|--|--|--|-----|--|---|---|---|--|--|--|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | [3] | [1] | [2] | ISO SAE NLGI | | | | | | | | | | K.9 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | -20 +60 | -25 +40 | -30 +30 | -20 +60 | -25 +40 | -30 +30 | -20 +60 | -25 +40 | -30 +30 | -20 +60 | -25 +40 | -30 +30 | -20 +60 | -25 +40 | -30 +30 |
| | | | | | | | | | | | | | | | | -20 +95 | -25 +70 | -30 +60 | -20 +95 | -25 +70 | -30 +60 | -20 +95 | -25 +70 | -30 +60 | -20 +95 | -25 +70 | -30 +60 | -20 +95 | -25 +70 | -30 +60 |
| | | | | | | | | | | | | | | | | GearOil Poly 460 E1 SEW 070040313 | GearOil Poly 220 E1 SEW 070040313 | GearOil Poly 150 E1 SEW 070040313 | GearOil Poly 460 HI E1 SEW 070040313 | GearOil Poly 220 HI E1 SEW 070040313 | GearOil Poly 150 HI E1 SEW 070040313 | Klübersynth GH 6-460 | Klübersynth GH 6-680 | Klübersynth GH 6-220 | Klübersynth GH 6-150 | Klübersynth UHI 6-460 | Klübersynth UHI 6-680 | Klübersynth UHI 6-220 | Klübersynth UHI 6-150 | Klübersynth UHI 6-460 |
| | | | | | | | | | | | | | | | | VG 460 | VG 680 | VG 220 | VG 150 | VG 460 | VG 680 | CLP PG (-PSS) | CLP PG (-PSS) | CLP PG (-PSS) | CLP PG (-PSS) | CLP PG (-PSS) | CLP PG (-PSS) | CLP PG (-PSS) | CLP PG (-PSS) | CLP PG (-PSS) |
| | | | | | | | | | | | | | | | | CLP PG (-PSS) | CLP PG (-PSS) | CLP PG (-PSS) | CLP PG (-PSS) | CLP PG (-PSS) | CLP PG (-PSS) | CLP PG (-PSS) | CLP PG (-PSS) | CLP PG (-PSS) | CLP PG (-PSS) | CLP PG (-PSS) | CLP PG (-PSS) | CLP PG (-PSS) | CLP PG (-PSS) | CLP PG (-PSS) |

[1] Note on special approvals

[2] Oil type


[3] Ambient temperature range

[4] Standard

Lubricant table for S.. gear units

The lubricant table is valid on the day this document is published. Refer to www.sew-eurodrive.de/lubricants for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→ 125).

| S.. HS..  | [3] °C -50 0 +50 +100 [4] 0 +40 -20 +25 [4] 0 +40 -20 +25 | [1] [2] | ISO,SAE NLGI | SEW EURODRIVE | b brenner & leguit | Castrol | FUCHS | Mobil | KILBEROIL MASCARINA | Shell | SINOPEC | TOTAL |
|---|--|---------|-----------------|--|-----------------------|------------------------------------|---|---|--|---------------------------------------|-------------------------------|-------------------------------|
| | | | | | | | | | | | | |
| | | | VG 680 | SEW GearOil Base 680 S E1 SEW070040313 | | Optigear BM 680 SEW070040313 | Renolin CLP 680 Plus SEW070040313 | Mobilgear 600 XP 680 SEW070040313 | Kilberoil GEM 1-680 N SEW070040313 | Shell Omala SG 680 SEW070040313 | AP-SGO 680 SEW070040313 | Carter EP 680 SEW070040313 |
| | | | VG 150 | SEW GearOil Base 150 E1 / US1 SEW070040313 | | Optigear BM150 SEW070040313 | Renolin CLP 150 Plus SEW070040313 | Mobilgear 600 XP 150 SEW070040313 | Kilberoil GEM 1-150 N SEW070040313 | Shell Omala SG 150 SEW070040313 | AP-SGO 150 SEW070040313 | Carter EP 150 SEW070040313 |
| | | | VG 680 | SEW GearOil Base 680 S E1 SEW070040313 | | | Renolin CLP 680 Plus SEW070040313 | Mobilgear 600 XP 680 SEW070040313 | | | | |
| | | | VG 150 | SEW GearOil Base 150 E1 / US1 SEW070040313 | | | Renolin CLP 150 Plus SEW070040313 | Mobilgear 600 XP 150 SEW070040313 | | | | |

[1] Note on special approvals

[2] Oil type

[3] Ambient temperature range

[4] Standard

The lubricant table is valid on the day this document is published. Refer to www.sew-eurodrive.de/lubricants for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→ 125).

| [3] °C -50 0 +50 +100 | [1] | [2] | ISO/SAE NLGI | SEW EURODRIVE | Bremner & leguil | Castrol | FUCHS | Mobil | KLOBER LUBRICATION | Shell | SINOPEC | TOTAL |
|-----------------------------|-----|-----------------------|-----------------------|---|------------------|-------------------------------|-------------------|------------------------|-------------------------|--------------------------|---------|---------------|
| | | | | | | | | | | | | |
| -20 | ⊕ | CLP PG | VG 460 ⁽¹⁾ | GearOil Poly 460 HI E1 SEW070040313 | | Optigear Synthetic 800/220 | Renolin PG 220 | Mobile Glygoyle 220 | Klubersyth GH 6-460 | Shell Omala S4 WE 220 | | Caeter SY 220 |
| +80 | | | | | | | | | | | | |
| -25 | | | | | | | | | | | | |
| +40 | ⊕ | CLP PG - PSS | VG 150 ⁽¹⁾ | GearOil Poly 220 HI E1 SEW070040313 | | | | | Klubersyth GH 6-150 | | | |
| +80 | | | | | | | | | | | | |
| -25 | | | | | | | | | | | | |
| +60 | ⊕ | CLP PG - NSFH1 (-PSS) | VG 460 ⁽¹⁾ | GearOil Poly 150 HI E1 SEW070040313 | | | | | Klubersyth UH1 6-460 | | | |
| +70 | | | | | | | | | | | | |
| -25 | | | | | | | | | | | | |
| +40 | ⊕ | CLP PG - NSFH1 (-PSS) | VG 220 ⁽¹⁾ | GearOil Poly 150 HI E1 SEW070040313 | | | | | Klubersyth UH1 6-220 | | | |
| +40 | | | | | | | | | | | | |
| -30 | | | | | | | | | | | | |
| +20 | ⊕ | CLP PG - NSFH1 (-PSS) | VG 150 ⁽¹⁾ | GearOil Poly 150 HI E1 SEW070040313 | | | | | Klubersyth UH1 6-150 | | | |
| +20 | | | | | | | | | | | | |
| -30 | | | | | | | | | | | | |



[1] Note on special approvals
[2] Oil type

[3] Ambient temperature range
[4] Standard

The lubricant table is valid on the day this document is published. Refer to www.sew-eurodrive.de/lubricants for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→ 125).

| [3] °C -50 0 +50 +100 | [1] | [2] | ISO/SAE NLGI | SEW EURODRIVE | b bremner & leguit | Castrol | FUCHS | Mobil® | MAGNER LUBRICATION | Shell | SINOPEC | TOTAL |
|--------------------------|-----|--------------|----------------------|------------------|-----------------------|---------|---------------------------|---------------------------|----------------------------|----------------------------|--------------------------|---------------|
| | | | | | | | | | | | | |
| +60 | ⊗ | CLP HC | VG 460 | | | | Renolin Unisyn CLP 460 | Mobil SHC 634 | Klübersynth GEM 4-460 N | Shell Omala S4 GX 460 | | Carter SH 460 |
| +30 | | | VG 150 ³⁾ | | | | | Renolin Unisyn CLP 150 | Mobil SHC 629 | Klübersynth GEM 4-150 N | Shell Omala S4 GX 150 | |
| +20 | ⊗ | CLP HC - PSS | VG 68 | | | | Renolin Unisyn CLP 68 | Mobil SHC 626 | | Shell Omala S4 GX 68 | | |
| 0 | | | VG 32 | | | | | Renolin Unisyn OL 32 | Mobil SHC 624 | | | |
| +60 | ⊗ | CLP HC - PSS | VG 460 | | | | | Mobil SHC 634 | | | | |
| +30 | | | VG 150 ³⁾ | | | | | | Mobil SHC 629 | | | |

S:
HS: 

[1] Note on special approvals

[2] Oil type

[3] Ambient temperature range

[4] Standard

The lubricant table is valid on the day this document is published. Refer to www.sew-eurodrive.de/lubricants for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→ 125).

| | SEW EURODRIVE | bremser & leguit | Castrol | FUCHS | Mobil | ELBERER LUBRICATION | Shell | SINOPEC | TOTAL |
|-----|---------------------------|------------------|---------|---------|---------|---------------------|---------|---------|---------|
| [3] | [2] CLP HC - NSF H1 | [1] | [4] -15 | [4] -15 | [4] -15 | [4] -15 | [4] -15 | [4] -15 | [4] -15 |
| | | | | | | | | | |
| [3] | [2] CLP HC - NSF H1 - PSS | [1] | [4] -25 | [4] -25 | [4] -25 | [4] -25 | [4] -25 | [4] -25 | [4] -25 |
| | | | | | | | | | |
| [3] | [2] CLP HC - NSF H1 - PSS | [1] | [4] -35 | [4] -35 | [4] -35 | [4] -35 | [4] -35 | [4] -35 | [4] -35 |
| | | | | | | | | | |
| [3] | [2] CLP HC - NSF H1 - PSS | [1] | [4] -40 | [4] -40 | [4] -40 | [4] -40 | [4] -40 | [4] -40 | [4] -40 |
| | | | | | | | | | |
| [3] | [2] CLP HC - NSF H1 - PSS | [1] | [4] -15 | [4] -15 | [4] -15 | [4] -15 | [4] -15 | [4] -15 | [4] -15 |
| | | | | | | | | | |
| [3] | [2] CLP HC - NSF H1 - PSS | [1] | [4] -25 | [4] -25 | [4] -25 | [4] -25 | [4] -25 | [4] -25 | [4] -25 |
| | | | | | | | | | |
| [3] | [2] CLP HC - NSF H1 - PSS | [1] | [4] -15 | [4] -15 | [4] -15 | [4] -15 | [4] -15 | [4] -15 | [4] -15 |
| | | | | | | | | | |
| [3] | [2] CLP HC - NSF H1 - PSS | [1] | [4] -20 | [4] -20 | [4] -20 | [4] -20 | [4] -20 | [4] -20 | [4] -20 |
| | | | | | | | | | |

[1] Note on special approvals
[2] Oil type

[3] Ambient temperature range
[4] Standard

The lubricant table is valid on the day this document is published. Refer to www.sew-eurodrive.de/lubricants for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→ 125).

| | | | | | | | | | | | | | | | | |
|-----|-----|------|--|-----|------|--|-----|-----|--|---------|---------------|-----|-----|--|--|--|
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | -20 | +115 | GearOil Poly 460 E1 SEW070040313 | -25 | +100 | GearOil Poly 220 E1 SEW070040313 | -30 | +85 | GearOil Poly 150 E1 SEW070040313 | ISO,SAE | CLP PG (-PSS) | [1] | [2] | | | |
| | | | | | | | | | | NLGI | | | | | | |
| | | | | | | | | | | VG 460 | | | | | | |
| [3] | °C | -50 | 0 | +50 | +100 | [4] | -20 | +80 | +60 | ISO,SAE | CLP PG (-PSS) | [1] | [2] | | | |
| | | | | | | | | | | NLGI | | | | | | |
| | | | | | | | | | | VG 220 | | | | | | |
| [3] | °C | -50 | 0 | +50 | +100 | [4] | -25 | +60 | +40 | ISO,SAE | CLP PG (-PSS) | [1] | [2] | | | |
| | | | | | | | | | | NLGI | | | | | | |
| | | | | | | | | | | VG 150 | | | | | | |

26878585/EN – 11/2021











[1] Note on special approvals
[2] Oil type

[3] Ambient temperature range
[4] Standard

Lubricant table for W.. gear units

The lubricant table is valid on the day this document is published. Refer to www.sew-eurodrive.de/lubricants for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→ 125).

| | | | | | | | | | | | | | | | | | | | |
|--|-----|-------------------|--------------------------|-----|---|-----|--|------------------|---|---------------|--|----------------------|---|---|--|---|---|---|---|
|  W.. HW.. | [4] | -20 -30 -40 | +60 +60 +20 +10 | [1] |    | [2] | CLP PG CLP PG NSF H1 (-PSS) CLP PG NSF H1 (-PSS) GL 5 GL 5 | ISO, SAE NLGI | VG 460 VG 460 VG 150 SAE 75W/90 (-VG 100) | SEW EURODRIVE | -20 +115 GearOil Poly 460 W E1 SEW070040313 -20 +115 GearOil Poly 460 H1 E1 SEW070040313 -30 +65 GearOil Poly 1510 H1 E1 SEW070040313 | b iremer & leguit |  |  |  | -20 +115 Klübersynth UH1 6-460 -30 +65 Klübersynth UH1 6-150 |  |  |  |
|--|-----|-------------------|--------------------------|-----|---|-----|--|------------------|---|---------------|--|----------------------|---|---|--|---|---|---|---|

[1] Information regarding special approvals


[2] Oil type

[3] Ambient temperature range

[4] Standard

The lubricant table is valid on the day this document is published. Refer to www.sew-eurodrive.de/lubricants for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→ 125).

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------------------------------|---|---|-------------------------|--------------------------|-----------------------------------|----------------|--------------|--------------|-------------------------------|--------------|----------------|--------------|---|--|---|--|---|--|--|--|--|--|--|---|--|--|---------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------|
|  | <p>[3]</p> <p>°C -50 0 +50 +100</p> | <p>[1]</p> <p></p> | <p>[2]</p> <p>CLP PG - NSF H1 (PSS)</p> | <p>ISO SAE NLGI</p> | <p>SEW EURODRIVE</p> | <p>b Ipremar & leguit</p> | <p>Castrol</p> | <p>FUCHS</p> | <p>Mobil</p> | <p>KLÜBER LUBRICATION</p> | <p>Shell</p> | <p>SINOPEC</p> | <p>TOTAL</p> | <p>-25</p> <p>GearOil Poly 220 E1</p> | <p>+100</p> <p>GearOil Poly 220 E1</p> | <p>-25</p> <p>GearOil Poly 220 E1</p> | <p>+100</p> <p>GearOil Poly 220 E1</p> | <p>-20</p> <p>GearOil Poly 460 E1</p> | <p>+115</p> <p>GearOil Poly 460 E1</p> | <p>-30</p> <p>GearOil Poly 150 H1 E1</p> | <p>+85</p> <p>GearOil Poly 150 H1 E1</p> | <p>-25</p> <p>GearOil Poly 220 H1 E1</p> | <p>+80</p> <p>GearOil Poly 220 H1 E1</p> | <p>-20</p> <p>GearOil Poly 460 H1 E1</p> | <p>+110</p> <p>GearOil Poly 460 H1 E1</p> | <p>-30</p> <p>GearOil Poly 150 H1 E1</p> | <p>+85</p> <p>GearOil Poly 150 H1 E1</p> | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | <p>SEW070040313</p> | |
| | | | | | | | | | | | | | | <p>VG 220</p> | <p>VG 220</p> | <p>VG 460</p> | <p>VG 150</p> | <p>VG 220</p> | <p>VG 460</p> | <p>VG 150</p> | <p>VG 220</p> | <p>VG 460</p> | <p>VG 150</p> | <p>VG 220</p> | <p>VG 460</p> | <p>VG 150</p> | <p>VG 220</p> | <p>VG 460</p> | <p>VG 150</p> | <p>VG 220</p> | <p>VG 460</p> | <p>VG 150</p> | <p>VG 220</p> | <p>VG 460</p> | <p>VG 150</p> | <p>VG 220</p> | <p>VG 460</p> | <p>VG 150</p> | <p>VG 220</p> | <p>VG 460</p> | <p>VG 150</p> |
| | | | | | | | | | | | | | | <p>Mobil Glygoyle 220</p> | <p>Klübersynth GH 6-220</p> | <p>Klübersynth GH 6-220</p> | <p>Klübersynth GH 6-460</p> | <p>Klübersynth GH 6-150</p> | <p>Klübersynth UH 6-220</p> | <p>Klübersynth UH 6-460</p> | <p>Klübersynth UH 6-150</p> | <p>Mobil Glygoyle 220</p> | <p>Klübersynth GH 6-220</p> | <p>Klübersynth GH 6-460</p> | <p>Klübersynth GH 6-150</p> | <p>Klübersynth UH 6-220</p> | <p>Klübersynth UH 6-460</p> | <p>Klübersynth UH 6-150</p> | <p>SINOPEC</p> | <p>TOTAL</p> | | | | | | | | | | | |

- [1] Information regarding special approvals
- [2] Oil type
- [3] Ambient temperature range
- [4] Standard

6.1.4 Lubricant fill quantities

INFORMATION

The specified fill quantities are **guide values**. The exact values vary depending on the number of gear stages and gear ratio. Check the **oil level plug for the exact oil quantity**.

INFORMATION

Unless a special arrangement is made, SEW-EURODRIVE supplies the drives with a lubricant fill adapted for the specific mounting position. The mounting position (see chapter "Gear unit mounting positions and order information" (→ 85)) must therefore be specified in the drive order.

When the mounting position is changed, the lubricant fill quantity must be adapted accordingly (see the following chapters). Consequently, a mounting position may only be **changed** after consultation with SEW-EURODRIVE, **otherwise your rights to claim under limited warranty no longer apply**.

The following tables show guide values for lubricant fill quantities in relation to the mounting position M1 – M6.

Helical (R) gear units

R..., R..F

| Gear unit | Fill quantity in liters | | | | | |
|-----------|-------------------------|------|------|------|------|------|
| | M1 ¹⁾ | M2 | M3 | M4 | M5 | M6 |
| R07 | 0.12 | 0.20 | | | | |
| R17 | 0.25 | 0.55 | 0.35 | 0.55 | 0.35 | 0.40 |
| R27 | 0.25/0.40 | 0.70 | 0.50 | 0.70 | 0.50 | |
| R37 | 0.30/0.95 | 0.85 | 0.95 | 1.05 | 0.75 | 0.95 |
| R47 | 0.70/1.50 | 1.60 | 1.50 | 1.65 | 1.50 | |
| R57 | 0.80/1.70 | 1.90 | 1.70 | 2.10 | 1.70 | |
| R67 | 1.10/2.30 | 2.40 | 2.80 | 2.90 | 1.80 | 2.00 |
| R77 | 1.20/3.00 | 3.30 | 3.60 | 3.80 | 2.50 | 3.40 |
| R87 | 2.30/6.0 | 6.2 | 7.4 | 7.05 | 6.4 | 6.6 |
| R97 | 4.60/9.8 | 11.7 | | 13.4 | 11.3 | 11.7 |
| R107 | 6.0/13.7 | 16.3 | 16.9 | 19.2 | 13.2 | 15.9 |
| R127 | 6.4/17 | 18.3 | 18.2 | 22.0 | 16.8 | 17.9 |
| R137 | 10.0/25.0 | 28.0 | 29.5 | 31.5 | 25.0 | |
| R147 | 15.4/40.0 | 46.5 | 48.0 | 52.0 | 39.5 | 41.0 |
| R167 | 27.0/70.0 | 82.0 | 78.0 | 88.0 | 66.0 | 69.0 |

1) The larger gear unit of compound gear units must be filled with the larger oil quantity.

RF..., RM..., RZ..

| Gear unit | Fill quantity in liters | | | | | |
|-----------|-------------------------|------|------|------|------|------|
| | M1 ¹⁾ | M2 | M3 | M4 | M5 | M6 |
| RF07 | 0.12 | 0.20 | | | | |
| RF17 | 0.25 | 0.55 | 0.35 | 0.55 | 0.35 | 0.40 |
| RF27 | 0.25/0.40 | 0.70 | 0.50 | 0.70 | 0.50 | |
| RF37 | 0.35/0.95 | 0.90 | 0.95 | 1.05 | 0.75 | 0.95 |
| RF47 | 0.65/1.50 | 1.60 | 1.50 | 1.65 | 1.50 | |
| RF57 | 0.80/1.70 | 1.80 | 1.70 | 2.00 | 1.70 | |
| RF67 | 1.20/2.50 | 2.50 | 2.70 | 2.80 | 1.90 | 2.10 |
| RF77 | 1.20/2.60 | 3.10 | 3.30 | 3.60 | 2.40 | 3.00 |
| RF87 | 2.40/6.0 | 6.4 | 7.1 | 7.2 | 6.3 | 6.4 |
| RF97 | 5.1/10.2 | 11.9 | 11.2 | 14.0 | 11.2 | 11.8 |
| RF107 | 6.3/14.9 | 15.9 | 17.0 | 19.2 | 13.1 | 15.9 |
| RF127 | 6.6/16.0 | 18.3 | 18.2 | 21.4 | 15.9 | 17.0 |
| RF137 | 9.5/25.0 | 27.0 | 29.0 | 32.5 | 25.0 | |
| RF147 | 16.4/42.0 | 47.0 | 48.0 | 52.0 | 42.0 | 42.0 |
| RF167 | 26.0/70.0 | 82.0 | 78.0 | 88.0 | 65.0 | 71.0 |

1) The larger gear unit of compound gear units must be filled with the larger oil quantity.

RX..

| Gear unit | Fill quantity in liters | | | | | |
|-----------|-------------------------|------|------|------|------|----|
| | M1 | M2 | M3 | M4 | M5 | M6 |
| RX57 | 0.60 | 0.80 | 1.30 | | 0.90 | |
| RX67 | 0.80 | | 1.70 | 1.90 | 1.10 | |
| RX77 | 1.10 | 1.50 | 2.60 | 2.70 | 1.60 | |
| RX87 | 1.70 | 2.50 | 4.80 | | 2.90 | |
| RX97 | 2.10 | 3.40 | 7.4 | 7.0 | 4.80 | |
| RX107 | 3.90 | 5.6 | 11.6 | 11.9 | 7.7 | |

RXF..

| Gear unit | Fill quantity in liters | | | | | |
|-----------|-------------------------|------|------|------|------|----|
| | M1 | M2 | M3 | M4 | M5 | M6 |
| RXF57 | 0.50 | 0.80 | 1.10 | | 0.70 | |
| RXF67 | 0.70 | 0.80 | 1.50 | 1.40 | 1.00 | |

| Gear unit | Fill quantity in liters | | | | | |
|-----------|-------------------------|------|------|------|------|----|
| | M1 | M2 | M3 | M4 | M5 | M6 |
| RXF77 | 0.90 | 1.30 | 2.40 | 2.00 | 1.60 | |
| RXF87 | 1.60 | 1.95 | 4.90 | 3.95 | 2.90 | |
| RXF97 | 2.10 | 3.70 | 7.1 | 6.3 | 4.80 | |
| RXF107 | 3.10 | 5.7 | 11.2 | 9.3 | 7.2 | |

Parallel shaft helical (F) gear units

F., FA..B, FH..B, FV..B

| Gear unit | Fill quantity in liters | | | | | |
|-----------|-------------------------|-------|------|-------|------|------|
| | M1 | M2 | M3 | M4 | M5 | M6 |
| F..27 | 0.60 | 0.80 | 0.65 | 0.70 | 0.60 | 0.60 |
| F..37 | 0.95 | 1.25 | 0.70 | 1.25 | 1.00 | 1.10 |
| F..47 | 1.50 | 1.80 | 1.10 | 1.90 | 1.50 | 1.70 |
| F..57 | 2.25 | 3.15 | 1.65 | 3.15 | 2.40 | 2.50 |
| F..67 | 2.70 | 3.80 | 1.90 | 3.80 | 2.90 | 3.20 |
| F..77 | 5.90 | 7.30 | 4.30 | 8.00 | 6.00 | 6.30 |
| F..87 | 10.8 | 13.0 | 7.70 | 13.8 | 10.8 | 11.0 |
| F..97 | 18.5 | 22.5 | 12.6 | 25.2 | 18.5 | 20.0 |
| F..107 | 24.5 | 32.0 | 19.5 | 37.0 | 27.0 | 27.0 |
| F..127 | 39.5 | 51.7 | 31.5 | 60.1 | 45.6 | 44.2 |
| F..157 | 69.0 | 104.0 | 63.0 | 105.0 | 86.0 | 78.0 |

FF..

| Gear unit | Fill quantity in liters | | | | | |
|-----------|-------------------------|-------|------|-------|------|------|
| | M1 | M2 | M3 | M4 | M5 | M6 |
| FF27 | 0.60 | 0.80 | 0.65 | 0.70 | 0.60 | 0.60 |
| FF37 | 1.00 | 1.25 | 0.70 | 1.30 | 1.00 | 1.10 |
| FF47 | 1.60 | 1.85 | 1.10 | 1.90 | 1.50 | 1.70 |
| FF57 | 2.30 | 3.10 | 1.70 | 3.10 | 2.30 | 2.40 |
| FF67 | 2.70 | 3.80 | 1.90 | 3.80 | 2.90 | 3.20 |
| FF77 | 5.90 | 7.30 | 4.30 | 8.10 | 6.00 | 6.30 |
| FF87 | 11.0 | 13.3 | 7.80 | 14.1 | 11.1 | 11.3 |
| FF97 | 19.0 | 22.5 | 12.6 | 25.6 | 18.9 | 20.5 |
| FF107 | 25.5 | 32.0 | 19.5 | 38.5 | 27.5 | 28.0 |
| FF127 | 40.6 | 51.6 | 31.5 | 61.2 | 46.3 | 44.9 |
| FF157 | 72.0 | 105.0 | 64.0 | 106.0 | 87.0 | 79.0 |

FA., FH., FV., FAF., FAZ., FHF., FZ., FHZ., FVF., FVZ., FT., FM., FAM..

| Gear unit | Fill quantity in liters | | | | | |
|-----------|-------------------------|-------|------|-------|------|------|
| | M1 | M2 | M3 | M4 | M5 | M6 |
| F..27 | 0.60 | 0.80 | 0.65 | 0.70 | 0.60 | 0.60 |
| F..37 | 0.95 | 1.25 | 0.70 | 1.25 | 1.00 | 1.10 |
| F..47 | 1.50 | 1.80 | 1.10 | 1.90 | 1.50 | 1.70 |
| F..57 | 2.40 | 3.10 | 1.70 | 3.15 | 2.40 | 2.50 |
| F..67 | 2.70 | 3.80 | 1.90 | 3.80 | 2.90 | 3.20 |
| F..77 | 5.90 | 7.30 | 4.30 | 8.00 | 6.00 | 6.30 |
| F..87 | 11.0 | 13.1 | 7.70 | 13.8 | 10.9 | 11.1 |
| F..97 | 18.5 | 22.5 | 12.6 | 25.2 | 18.5 | 20.0 |
| F..107 | 24.5 | 32.0 | 19.5 | 37.5 | 27.0 | 27.0 |
| F..127 | 38.3 | 50.9 | 31.5 | 59.7 | 44.7 | 43.3 |
| F..157 | 68.0 | 103.0 | 62.0 | 104.0 | 85.0 | 77.0 |

Helical-bevel (K) gear units

INFORMATION



All K..19 and K..29 gear units have a universal mounting position, which means that K..19 and K..29 gear units of the same design are filled with the same oil quantity independent of the mounting position. An exception to this is the M4 mounting position.

K.., KA..B, KH..B, KV..B

| Gear unit | Fill quantity in liters | | | | | |
|-----------|-------------------------|-------|-------|-------|-------|-------|
| | M1 | M2 | M3 | M4 | M5 | M6 |
| K..19 | | 0.40 | | 0.45 | 0.40 | |
| K..29 | | 0.70 | | 0.85 | 0.70 | |
| K..39 | 0.90 | 1.70 | 1.55 | 1.9 | 1.55 | 1.30 |
| K..49 | 1.70 | 3.40 | 2.80 | 4.20 | 3.15 | 2.80 |
| K..37 | 0.50 | 1.00 | | 1.25 | 0.95 | |
| K..47 | 0.80 | 1.30 | 1.50 | 2.00 | 1.60 | |
| K..57 | 1.10 | 2.20 | | 2.80 | 2.30 | 2.10 |
| K..67 | 1.10 | 2.40 | 2.60 | 3.45 | 2.60 | |
| K..77 | 2.20 | 4.10 | 4.40 | 5.80 | 4.20 | 4.40 |
| K..87 | 3.70 | 8.20 | 8.90 | 10.75 | 8.20 | |
| K..97 | 7.0 | 14.0 | 15.70 | 20.0 | 15.70 | 15.50 |
| K..107 | 10.0 | 21.0 | 25.50 | 33.50 | 24.0 | |
| K..127 | 21.0 | 41.50 | 44.0 | 54.0 | 40.0 | 41.0 |
| K..157 | 31.0 | 65.0 | 68.0 | 90.0 | 62.0 | 63.0 |
| K..167 | 33.0 | 97.0 | 109.0 | 127.0 | 89.0 | 86.0 |
| K..187 | 53.0 | 156.0 | 174.0 | 207.0 | 150.0 | 147.0 |

KF..

| Gear unit | Fill quantity in liters | | | | | |
|-----------|-------------------------|-------|-------|-------|-------|-------|
| | M1 | M2 | M3 | M4 | M5 | M6 |
| KF19 | | 0.40 | | 0.45 | 0.40 | |
| KF29 | | 0.70 | | 0.85 | 0.70 | |
| KF39 | 0.90 | 1.70 | 1.55 | 1.9 | 1.55 | 1.30 |
| KF49 | 1.70 | 3.40 | 2.80 | 4.20 | 3.15 | 2.80 |
| KF37 | 0.50 | 1.10 | | 1.50 | 1.00 | |
| KF47 | 0.80 | 1.30 | 1.70 | 2.20 | 1.60 | |
| KF57 | 1.20 | 2.20 | 2.40 | 3.15 | 2.50 | 2.30 |
| KF67 | 1.10 | 2.40 | 2.80 | 3.70 | 2.70 | |
| KF77 | 2.10 | 4.10 | 4.40 | 5.90 | 4.50 | |
| KF87 | 3.70 | 8.20 | 9.0 | 11.90 | 8.40 | |
| KF97 | 7.0 | 14.70 | 17.30 | 21.50 | 15.70 | 16.50 |
| KF107 | 10.0 | 21.80 | 25.80 | 35.10 | 25.20 | |
| KF127 | 21.0 | 41.50 | 46.0 | 55.0 | 41.0 | |
| KF157 | 31.0 | 66.0 | 69.0 | 92.0 | 62.0 | 63.0 |

KA.., KH.., KV.., KAF.., KHf.., KVf.., KZ.., KAZ.., KHZ.., KVZ.., KT.., KM.., KAM..

| Gear unit | Fill quantity in liters | | | | | |
|-----------|-------------------------|------|------|------|------|------|
| | M1 | M2 | M3 | M4 | M5 | M6 |
| K..19 | | 0.40 | | 0.45 | 0.40 | |
| K..29 | | 0.70 | | 0.85 | 0.70 | |
| K..39 | 0.90 | 1.70 | 1.55 | 1.9 | 1.55 | 1.30 |
| K..49 | 1.70 | 3.40 | 2.80 | 4.20 | 3.15 | 2.80 |
| K..37 | 0.50 | 1.00 | | 1.40 | 1.00 | |
| K..47 | 0.80 | 1.30 | 1.60 | 2.15 | 1.60 | |
| K..57 | 1.20 | 2.20 | 2.40 | 3.15 | 2.70 | 2.40 |

| Gear unit | Fill quantity in liters | | | | | |
|-----------|-------------------------|-------|-------|-------|-------|-------|
| | M1 | M2 | M3 | M4 | M5 | M6 |
| K..67 | 1.10 | 2.40 | 2.70 | 3.70 | 2.60 | |
| K..77 | 2.10 | 4.10 | 4.60 | 5.90 | 4.40 | |
| K..87 | 3.70 | 8.20 | 8.80 | 11.10 | 8.0 | |
| K..97 | 7.0 | 14.70 | 15.70 | 20.0 | 15.70 | |
| K..107 | 10.0 | 20.80 | 24.5 | 31.95 | 24.5 | 24.3 |
| K..127 | 21.0 | 41.50 | 43.0 | 52.0 | 40.0 | |
| K..157 | 31.0 | 65.0 | 68.0 | 90.0 | 62.0 | 63.0 |
| K..167 | 33.0 | 97.0 | 109.0 | 127.0 | 89.0 | 86.0 |
| K..187 | 53.0 | 156.0 | 174.0 | 207.0 | 150.0 | 147.0 |

Helical-worm (S) gear units

S..

| Gear unit | Fill quantity in liters | | | | | |
|-----------|-------------------------|------|------------------|------|------|------|
| | M1 | M2 | M3 ¹⁾ | M4 | M5 | M6 |
| S37 | 0.25 | 0.40 | 0.50 | 0.55 | 0.40 | |
| S47 | 0.35 | 0.80 | 0.70/0.90 | 1.03 | 0.80 | |
| S57 | 0.50 | 1.20 | 1.00/1.20 | 1.43 | 1.30 | |
| S67 | 1.00 | 2.00 | 2.20/3.10 | 3.10 | 2.60 | 2.60 |
| S77 | 1.90 | 4.20 | 3.70/5.4 | 5.9 | 4.40 | |
| S87 | 3.30 | 8.1 | 6.9/10.4 | 11.3 | 8.4 | |
| S97 | 6.8 | 15.0 | 13.4/18.0 | 21.8 | 17.0 | |

1) The larger gear unit of compound gear units must be filled with the larger oil quantity.

SF..

| Gear unit | Fill quantity in liters | | | | | | |
|-----------|-------------------------|------|------------------|---------------|--------------|------|----|
| | M1 | M2 | M3 ¹⁾ | M4 | | M5 | M6 |
| | | | | Output A or B | Output A + B | | |
| SF37 | 0.25 | 0.40 | 0.50 | 0.55 | 0.6 | 0.40 | |
| SF47 | 0.40 | 0.90 | 0.90/1.05 | 1.08 | 1.13 | 1.00 | |
| SF57 | 0.50 | 1.20 | 1.00/1.50 | 1.48 | 1.53 | 1.40 | |
| SF67 | 1.00 | 2.20 | 2.30/3.00 | 3.20 | 3.5 | 2.70 | |
| SF77 | 1.90 | 4.10 | 3.90/5.8 | 6.5 | 7.2 | 4.90 | |
| SF87 | 3.80 | 8.0 | 7.1/10.1 | 12.0 | 13.2 | 9.1 | |
| SF97 | 7.4 | 15.0 | 13.8/18.8 | 23.1 | 25.2 | 18.0 | |

1) The larger gear unit of compound gear units must be filled with the larger oil quantity.



SA., SH., SAF., SHZ., SAZ., SHF., ST..

| Gear unit | Fill quantity in liters | | | | | |
|-----------|-------------------------|------|------------------|------|------|----|
| | M1 | M2 | M3 ¹⁾ | M4 | M5 | M6 |
| S..37 | 0.25 | 0.40 | 0.50 | | 0.40 | |
| S..47 | 0.40 | 0.80 | 0.70/0.90 | 1.03 | 0.80 | |
| S..57 | 0.50 | 1.10 | 1.00/1.50 | 1.43 | 1.20 | |
| S..67 | 1.00 | 2.00 | 1.80/2.60 | 2.90 | 2.50 | |
| S..77 | 1.80 | 3.90 | 3.60/5.0 | 5.8 | 4.50 | |
| S..87 | 3.80 | 7.4 | 6.0/8.7 | 10.8 | 8.0 | |
| S..97 | 7.0 | 14.0 | 11.4/16.0 | 21.0 | 15.7 | |

1) The larger gear unit of compound gear units must be filled with the larger oil quantity.

SPIROPLAN® (W) gear units

WF..., WA..., WAF..., WH..., WHF..., WT..

| Gear unit | Fill quantity in liters | | | | | | |
|-----------|-------------------------|------|----|---|--|------|----|
| | M1 | M2 | M3 | M4  2 | M4  3 | M5 | M6 |
| W10 | | | | 0.16 | | | |
| W19 | | 0.34 | | 0.6 | 0.54 | 0.72 | |
| W20 | | | | 0.24 | | | |
| W29 | | 0.54 | | 0.93 | 0.78 | 0.84 | |
| W30 | | | | 0.40 | | | |
| W39 | | 0.85 | | 1.5 | 1.35 | 1.25 | |
| W49 | | 1.39 | | 2.41 | 2.19 | 2.15 | |

6.2 Gear unit venting

INFORMATION



Dirt and dust in the environment may affect the function of the breather valves.
Contact SEW-EURODRIVE regarding alternative venting systems, if required.

6.3 Reduced backlash gear unit design /R

Helical, parallel-shaft helical and helical-bevel gear units with reduced backlash are available as of gear unit size 37. The rotational clearance of these gear units is considerably less than that of the standard designs so that positioning tasks can be solved with great precision. The rotational clearance is specified in angular minutes in the chapter "Geometrically possible combinations". The rotational clearance for the output shaft is specified without load (max. 1% of the rated output torque); the gear unit input side is blocked. The specified values have a tolerance of ± 2 angular minutes.

The reduced backlash design is available for the following gear units:

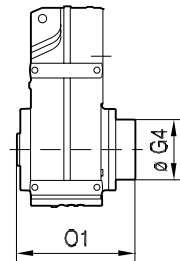
- Helical gear units (R), sizes 37 to 167
- Parallel-shaft helical gear units (F), sizes 37 to 157
- Helical-bevel gear units (only K..7) in gear unit sizes 37 to 187

The dimensions of the reduced backlash variants correspond to the dimensions of the standard designs, except for parallel-shaft helical gear units FH.87 and FH.97 with reduced backlash.

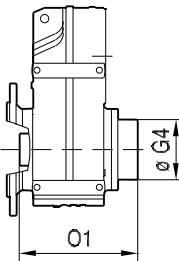
The following figure shows the dimensions of the FH.87 and FH.97 gear units with reduced backlash:

42 020 00 09

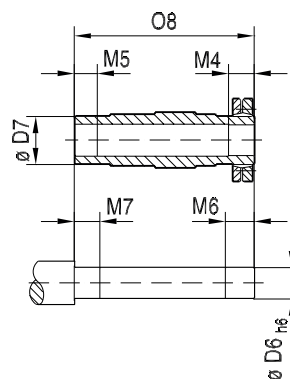
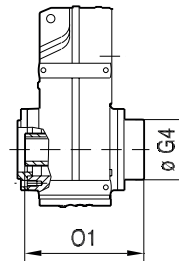
**FH../R
FH..B/R**



FHF../R



FHZ../R



9007205899247883

| Type | Dimensions in mm | | | | | | | | |
|---------|-----------------------|------------------|-------------------|----|----|----|----|-------|-------|
| | D6 | D7 | G4 | M4 | M5 | M6 | M7 | O1 | O8 |
| FH.87/R | $\varnothing 65_{h6}$ | $\varnothing 85$ | $\varnothing 163$ | 41 | 40 | 46 | 45 | 312.5 | 299.5 |
| FH.97/R | $\varnothing 75_{h6}$ | $\varnothing 95$ | $\varnothing 184$ | 55 | 50 | 60 | 55 | 382.5 | 367 |

6.4 Assembly/disassembly of gear units with hollow shaft and key



INFORMATION

Use the supplied NOCO® fluid for mounting. The fluid prevents contact corrosion and facilitates subsequent disassembly.



INFORMATION

The key dimension L12 is specified for the customer and depends on the application requirements and the used materials.

See the following figure "Customer shaft with contact shoulder [A] and without contact shoulder [B]."



INFORMATION

When dimensioning the keyed connection, take into account that the hollow shaft of the gear unit (hub) is made of the material C45R(1.1201).

SEW-EURODRIVE recommends **2 options for mounting** gear units with hollow shaft and key onto the input shaft of the driven machine (= customer shaft):

- Mounting using supplied fastening parts
- Mounting/dismounting using the SEW-EURODRIVE assembly and disassembly kit

The following sections describe the two options.

6.4.1 Assembly using supplied fastening parts

The following fastening parts are provided as standard:

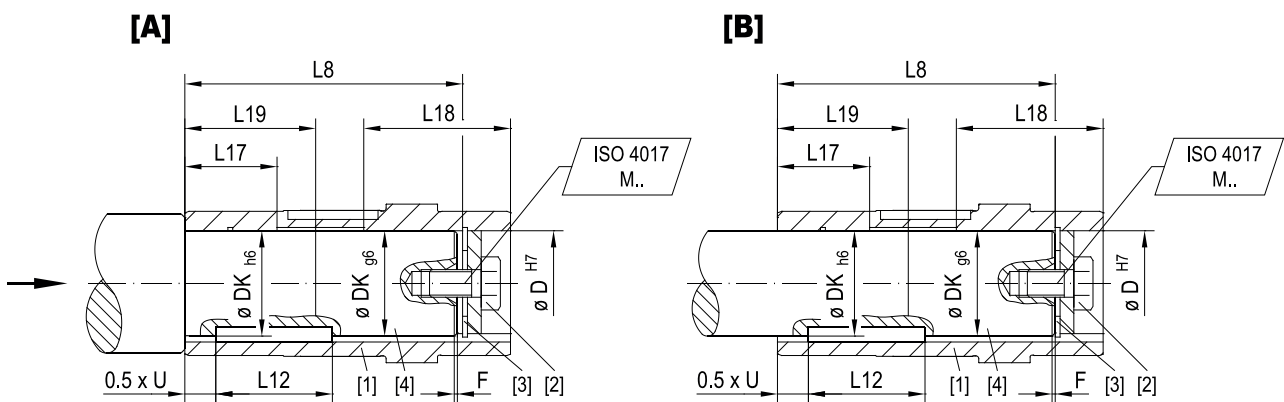
- Retaining screw with washer [2]
- Retaining ring [3]

Note the following information concerning the customer shaft:

- The installation length of the customer shaft with contact shoulder [A] must be "L8" - 1 mm.
- The installation length of the customer shaft without contact shoulder [B] must equal "L8".

The following figure shows the customer shaft with contact shoulder [A] and without contact shoulder [B].

00 001 02 02



27021619247083659

- D Hollow shaft diameter
- DK Customer shaft diameter
- F Shaft end chamfer
- L8 Customer shaft length
- L12 Key length
- L17 Cylinder section length with dimension H7
- L18 Cylinder section length with dimension H7
- L19 Depending on the insertion side of the customer shaft, the dimension L19 should be > L17 or > L18
- U Key width
- [1] Hollow shaft
- [2] Retaining screw with washer
- [3] Retaining ring
- [4] Customer shaft

Dimensions and tightening torques MS for retaining screw [2] for standard gear units:

| Gear unit type | D ^{H7} mm | DK mm | F mm | L8 mm | L17 mm | L18 mm | U mm | MS Nm | ISO 4017 M.. |
|----------------|-----------------------|----------|---------|----------|-----------|-----------|---------|----------|-----------------|
| FA..27 | 25 | 1 | 89 | 30 | 30 | 8 | 20 | M10 × 25 | |
| FA..37, KA..37 | 30 | 1 | 105 | 39 | 45 | 8 | 20 | M10 × 25 | |
| FA..47, KA..47 | 35 | 1 | 132 | 45 | 52 | 10 | 20 | M12 × 30 | |
| FA..57, KA..57 | 40 | 1 | 142 | 50 | 60 | 12 | 40 | M16 × 40 | |
| FA..67, KA..67 | 40 | 1 | 156 | 50 | 60 | 12 | 40 | M16 × 40 | |

| Gear unit type | D ^{H7} mm | DK mm | F mm | L8 mm | L17 mm | L18 mm | U mm | MS Nm | ISO 4017 M.. |
|------------------|-----------------------|----------|---------|----------|-----------|-----------|---------|----------|-----------------|
| FA..77, KA..77 | 50 | | 1 | 183 | 65 | 75 | 14 | 40 | M16 × 45 |
| FA..87, KA..87 | 60 | | 1 | 210 | 75 | 90 | 18 | 80 | M20 × 50 |
| FA..97, KA..97 | 70 | | 2 | 270 | 90 | 105 | 20 | 80 | M20 × 50 |
| FA..107, KA..107 | 90 | | 2 | 313 | 110 | 125 | 25 | 200 | M24 × 60 |
| FA..127, KA..127 | 100 | | 2 | 373 | 120 | 150 | 28 | 200 | M24 × 60 |
| FA..157, KA..157 | 120 | | 2 | 460 | 180 | 180 | 32 | 200 | M24 × 60 |
| FAM67, KAM67 | 40 | | 1 | 278 | 50 | 60 | 12 | 40 | M16 × 40 |
| FAM77, KAM77 | 50 | | 1 | 309 | 65 | 75 | 14 | 40 | M16 × 45 |
| FAM87, KAM87 | 60 | | 1 | 363 | 75 | 90 | 18 | 80 | M20 × 50 |
| FAM97, KAM97 | 70 | | 2 | 422 | 90 | 105 | 20 | 80 | M20 × 50 |
| FAM107, KAM107 | 90 | | 2 | 473 | 110 | 125 | 25 | 200 | M24 × 60 |
| FAM127, KAM127 | 100 | | 2 | 553 | 120 | 150 | 28 | 200 | M24 × 60 |
| FAM157, KAM157 | 120 | | 2 | 691 | 180 | 180 | 32 | 200 | M24 × 60 |
| KA..19 | 20 | | 1 | 92 | 28 | 30 | 6 | 8 | M6 × 16 |
| KA..29 | 25 | | 1 | 107 | 30 | 38 | 8 | 20 | M10 × 25 |
| KA..29 | 30 | | 1 | 107 | 35 | 35 | 8 | 20 | M10 × 25 |
| KA..39 | 30 | | 1 | 137 | 35 | 45 | 8 | 20 | M10 × 25 |
| KA..39 | 35 | | 1 | 137 | 35 | 45 | 10 | 20 | M12 × 30 |
| KA..49 | 35 | | 1 | 160 | 35 | 45 | 10 | 20 | M12 × 30 |
| KA..49 | 40 | | 1 | 154 | 35 | 45 | 12 | 40 | M16 × 40 |
| SA..37 | 20 | | 1 | 104 | 40 | 40 | 6 | 8 | M6 × 16 |
| SA..47 | 25 | | 1 | 105 | 38 | 38 | 8 | 20 | M10 × 25 |
| SA..47 | 30 | | 1 | 105 | 39 | 45 | 8 | 20 | M10 × 25 |
| SA..57 | 30 | | 1 | 132 | 39 | 45 | 8 | 20 | M10 × 25 |
| SA..57 | 35 | | 1 | 132 | 45 | 52 | 10 | 20 | M12 × 30 |
| SA..67 | 40 | | 1 | 144 | 50 | 60 | 12 | 40 | M16 × 40 |
| SA..67 | 45 | | 1 | 144 | 50 | 60 | 14 | 40 | M16 × 40 |
| SA..77 | 50 | | 1 | 180 | 63 | 75 | 14 | 40 | M16 × 45 |
| SA..77 | 60 | | 1 | 180 | 72 | 90 | 18 | 80 | M20 × 50 |
| SA..87 | 60 | | 1 | 220 | 75 | 90 | 18 | 80 | M20 × 50 |
| SA..87 | 70 | | 2 | 220 | 90 | 105 | 20 | 80 | M20 × 50 |
| SA..97 | 70 | | 2 | 260 | 90 | 105 | 20 | 80 | M20 × 50 |
| SA..97 | 90 | | 2 | 255 | 110 | 125 | 25 | 200 | M24 × 60 |
| WA..10 | 16 | | 0.5 | 69 | 24 | 24 | 5 | 8 | M5 × 12 |
| WA..19 | 18 | | 1 | 84 | 27 | 27 | 6 | 8 | M6 × 16 |
| WA..19 | 20 | | 1 | 84 | 26 | 30 | 6 | 8 | M6 × 16 |

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6

Design and operating notes

Assembly/disassembly of gear units with hollow shaft and key

| Gear unit type | D ^{H7} mm | DK mm | F mm | L8 mm | L17 mm | L18 mm | U mm | MS Nm | ISO 4017 M.. |
|----------------|-----------------------|----------|---------|----------|-----------|-----------|---------|----------|-----------------|
| WA..20 | 18 | | 1 | 84 | 24 | 27 | 6 | 8 | M6 × 16 |
| WA..29 | 20 | | 1 | 92 | 28 | 30 | 6 | 8 | M6 × 16 |
| WA..29 | 25 | | 0.5 | 92 | 28 | 30 | 8 | 20 | M10 × 25 |
| WA..30 | 20 | | 1 | 105 | 30 | 30 | 6 | 8 | M6 × 16 |
| WA..39 | 25 | | 1 | 107 | 30 | 38 | 8 | 20 | M10 × 25 |
| WA..39 | 30 | | 1 | 107 | 30 | 38 | 8 | 20 | M10 × 25 |
| WA..49 | 30 | | 1 | 137 | 35 | 45 | 8 | 20 | M10 × 25 |
| WA..49 | 35 | | 1 | 137 | 35 | 45 | 10 | 20 | M12 × 30 |

6.4.2 Assembly/disassembly with SEW-EURODRIVE assembly and disassembly kit

Assembly

You can use the optional assembly/disassembly kit for mounting. The kit can be ordered for the respective gear unit types by quoting the part numbers in the table below. The scope of delivery includes:

- Spacer tube for installation without contact shoulder [5]
- Retaining screw for assembly [2]
- Forcing washer for disassembly [7]
- Fixed nut for disassembly [8]

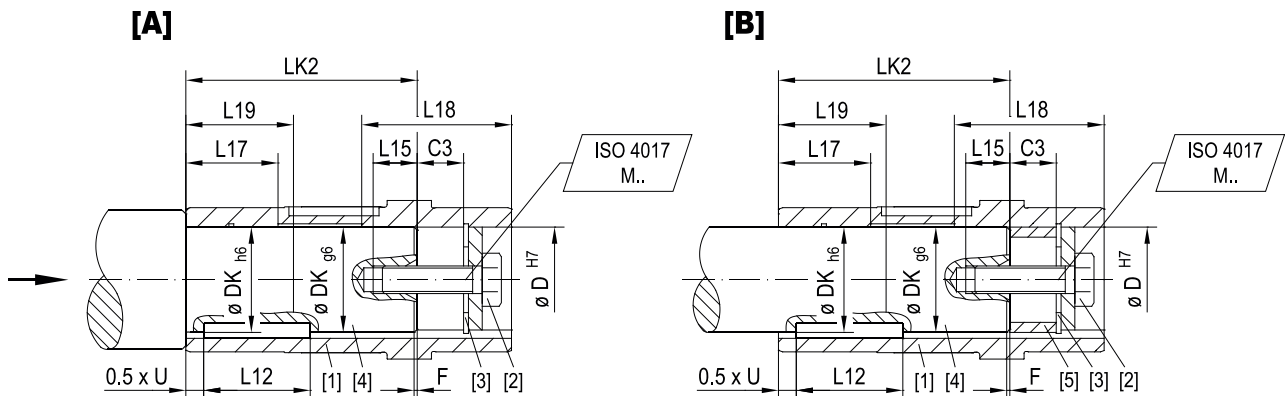
The short retaining screw delivered as standard is not required.

Note the following information concerning the customer shaft:

- The installation length of the customer shaft must be LK2. Do not use the spacer tube if the customer shaft has a contact shoulder [A].
- The installation length of the customer shaft must be LK2. Use the spacer tube if the customer shaft has no contact shoulder [B].

The following figure shows the customer shaft with contact shoulder [A] and without contact shoulder [B].

00 002 02 02



54043199837413003

- C3 Indentation fixed nut and forcing washer
- D Hollow shaft diameter
- DK Customer shaft diameter
- F Shaft end chamfer
- L8 Customer shaft length
- L12 Key length
- L15 Thread depth of customer shaft
- L17 Cylinder section length with dimension H7
- L18 Cylinder section length with dimension H7
- L19 Depending on the insertion side of the customer shaft, the dimension L19 should be > L17 or > L18
- LK2 Length of the customer shaft when using the optional assembly/disassembly kit
- U Key width
- [1] Hollow shaft
- [2] Retaining screw with washer
- [3] Retaining ring
- [4] Customer shaft
- [5] Spacer tube

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Dimensions, tightening torque MS and part numbers for retaining screw [2]:

| Type | C3 mm | D ^{H7} mm | DK mm | L15 mm | L17 mm | L18 mm | LK2 mm | U mm | MS Nm | ISO 4017 M.. | Part number of the as- sembly/disassembly kit |
|---------|----------|-----------------------|----------|-----------|-----------|-----------|-----------|---------|----------|-----------------|--|
| FA..27 | 16 | 25 | 22 | 30 | 30 | 73 | 8 | 20 | M10 × 35 | 06436846 | |
| FA..37 | 16 | 30 | 22 | 39 | 45 | 89 | 8 | 20 | M10 × 35 | 06436854 | |
| FA..47 | 18 | 35 | 28 | 45 | 52 | 114 | 10 | 20 | M12 × 45 | 06436862 | |
| FA..57 | 18 | 40 | 36 | 50 | 60 | 124 | 12 | 40 | M16 × 50 | 06436870 | |
| FA..67 | 18 | 40 | 36 | 50 | 60 | 138 | 12 | 40 | M16 × 50 | 06436870 | |
| FA..77 | 18 | 50 | 36 | 65 | 75 | 165 | 14 | 40 | M16 × 50 | 06436897 | |
| FA..87 | 22 | 60 | 42 | 75 | 90 | 188 | 18 | 80 | M20 × 60 | 06436900 | |
| FA..97 | 22 | 70 | 42 | 90 | 105 | 248 | 20 | 80 | M20 × 60 | 06436919 | |
| FA..107 | 26 | 90 | 50 | 110 | 125 | 287 | 25 | 200 | M24 × 70 | 06436927 | |
| FA..127 | 26 | 100 | 50 | 120 | 150 | 347 | 28 | 200 | M24 × 70 | 06436935 | |
| FA..157 | 26 | 120 | 50 | 180 | 180 | 434 | 32 | 200 | M24 × 70 | 06436943 | |
| FAM67 | 18 | 40 | 36 | 50 | 60 | 260 | 12 | 40 | M16 × 50 | 06436870 | |
| FAM77 | 18 | 50 | 36 | 65 | 75 | 291 | 14 | 40 | M16 × 50 | 06436897 | |
| FAM87 | 22 | 60 | 42 | 75 | 90 | 341 | 18 | 80 | M20 × 60 | 06436900 | |
| FAM97 | 22 | 70 | 42 | 90 | 105 | 400 | 20 | 80 | M20 × 60 | 06436919 | |
| FAM107 | 26 | 90 | 50 | 110 | 125 | 447 | 25 | 200 | M24 × 70 | 06436927 | |
| FAM127 | 26 | 100 | 50 | 120 | 150 | 527 | 28 | 200 | M24 × 70 | 06436935 | |
| FAM157 | 26 | 120 | 50 | 180 | 180 | 665 | 32 | 200 | M24 × 70 | 06436943 | |
| KA..19 | 12 | 20 | 16 | 28 | 30 | 80 | 6 | 8 | M6 × 25 | 06436838 | |
| KA..29 | 16 | 25 | 22 | 30 | 38 | 91 | 8 | 20 | M10 × 35 | 06436846 | |
| KA..29 | 16 | 30 | 22 | 35 | 35 | 91 | 8 | 20 | M10 × 35 | 06436854 | |
| KA..37 | 16 | 30 | 22 | 39 | 45 | 89 | 8 | 20 | M10 × 35 | 06436854 | |
| KA..39 | 16 | 30 | 22 | 35 | 45 | 121 | 8 | 20 | M10 × 35 | 06436854 | |
| KA..39 | 18 | 35 | 28 | 35 | 45 | 119 | 10 | 20 | M12 × 45 | 06436862 | |
| KA..47 | 18 | 35 | 28 | 45 | 52 | 114 | 10 | 20 | M12 × 45 | 06436862 | |
| KA..49 | 18 | 35 | 28 | 35 | 45 | 142 | 10 | 20 | M12 × 45 | 06436862 | |
| KA..49 | 18 | 40 | 36 | 35 | 45 | 136 | 12 | 40 | M16 × 50 | 06436870 | |
| KA..57 | 18 | 40 | 36 | 50 | 60 | 124 | 12 | 40 | M16 × 50 | 06436870 | |
| KA..67 | 18 | 40 | 36 | 50 | 60 | 138 | 12 | 40 | M16 × 50 | 06436870 | |
| KA..77 | 18 | 50 | 36 | 65 | 75 | 165 | 14 | 40 | M16 × 50 | 06436897 | |
| KA..87 | 22 | 60 | 42 | 75 | 90 | 188 | 18 | 80 | M20 × 60 | 06436900 | |
| KA..97 | 22 | 70 | 42 | 90 | 105 | 248 | 20 | 80 | M20 × 60 | 06436919 | |
| KA..107 | 26 | 90 | 50 | 110 | 125 | 287 | 25 | 200 | M24 × 70 | 06436927 | |
| KA..127 | 26 | 100 | 50 | 120 | 150 | 347 | 28 | 200 | M24 × 70 | 06436935 | |
| KA..157 | 26 | 120 | 50 | 180 | 180 | 434 | 32 | 200 | M24 × 70 | 06436943 | |

| Type | C3 mm | D ^{H7} mm | DK mm | L15 mm | L17 mm | L18 mm | LK2 mm | U mm | MS Nm | ISO 4017 M.. | Part number of the as- sembly/disassembly kit |
|--------|----------|-----------------------|----------|-----------|-----------|-----------|-----------|---------|----------|-----------------|--|
| KAM77 | 18 | 50 | 36 | 65 | 75 | 291 | 14 | 40 | M16 × 50 | 06436897 | |
| KAM67 | 18 | 40 | 36 | 50 | 60 | 260 | 12 | 40 | M16 × 50 | 06436870 | |
| KAM87 | 22 | 60 | 42 | 75 | 90 | 341 | 18 | 80 | M20 × 60 | 06436900 | |
| KAM97 | 22 | 70 | 42 | 90 | 105 | 400 | 20 | 80 | M20 × 60 | 06436919 | |
| KAM107 | 26 | 90 | 50 | 110 | 125 | 447 | 25 | 200 | M24 × 70 | 06436927 | |
| KAM127 | 26 | 100 | 50 | 120 | 150 | 527 | 28 | 200 | M24 × 70 | 06436935 | |
| KAM157 | 26 | 120 | 50 | 180 | 180 | 665 | 32 | 200 | M24 × 70 | 06436943 | |
| SA..37 | 12 | 20 | 16 | 40 | 40 | 92 | 6 | 8 | M6 × 25 | 06436838 | |
| SA..47 | 16 | 25 | 22 | 38 | 38 | 89 | 8 | 20 | M10 × 35 | 06436846 | |
| SA..47 | 16 | 30 | 22 | 39 | 45 | 89 | 8 | 20 | M10 × 35 | 06436854 | |
| SA..57 | 16 | 30 | 22 | 39 | 45 | 116 | 8 | 20 | M10 × 35 | 06436854 | |
| SA..57 | 18 | 35 | 28 | 45 | 52 | 114 | 10 | 20 | M12 × 45 | 06436862 | |
| SA..67 | 18 | 40 | 36 | 50 | 60 | 126 | 12 | 40 | M16 × 50 | 06436870 | |
| SA..67 | 18 | 45 | 36 | 50 | 60 | 126 | 14 | 40 | M16 × 50 | 06436889 | |
| SA..77 | 18 | 50 | 36 | 63 | 75 | 165 | 14 | 40 | M16 × 50 | 06436897 | |
| SA..77 | 22 | 60 | 42 | 72 | 90 | 158 | 18 | 80 | M20 × 60 | 06436900 | |
| SA..87 | 22 | 60 | 42 | 75 | 90 | 198 | 18 | 80 | M20 × 60 | 06436900 | |
| SA..87 | 22 | 70 | 42 | 90 | 105 | 198 | 20 | 80 | M20 × 60 | 06436919 | |
| SA..97 | 22 | 70 | 42 | 90 | 105 | 238 | 20 | 80 | M20 × 60 | 06436919 | |
| SA..97 | 26 | 90 | 50 | 110 | 125 | 229 | 25 | 200 | M24 × 70 | 06436927 | |
| WA..10 | 11 | 16 | 12.5 | 24 | 24 | 58 | 5 | 8 | M5 × 50 | 06437125 | |
| WA..19 | 12 | 18 | 16 | 27 | 27 | 72 | 6 | 8 | M6 × 25 | 0643682X | |
| WA..19 | 12 | 20 | 16 | 26 | 30 | 72 | 6 | 8 | M6 × 25 | 06436838 | |
| WA..20 | 12 | 18 | 16 | 27 | 27 | 72 | 6 | 8 | M6 × 25 | 0643682X | |
| WA..20 | 12 | 20 | 16 | 26 | 30 | 72 | 6 | 8 | M6 × 25 | 06436838 | |
| WA..29 | 12 | 20 | 16 | 28 | 30 | 80 | 6 | 8 | M6 × 16 | 06436838 | |
| WA..29 | 16 | 25 | 22 | 28 | 30 | 91 | 8 | 20 | M10 × 35 | 06436846 | |
| WA..30 | 12 | 20 | 16 | 30 | 30 | 93 | 6 | 8 | M6 × 25 | 06436838 | |
| WA..39 | 16 | 25 | 22 | 30 | 38 | 91 | 8 | 20 | M10 × 35 | 06436846 | |
| WA..39 | 16 | 30 | 22 | 35 | 35 | 91 | 8 | 20 | M10 × 35 | 06436854 | |
| WA..49 | 16 | 30 | 22 | 35 | 45 | 121 | 8 | 20 | M10 × 35 | 06436854 | |
| WA..49 | 18 | 35 | 28 | 35 | 45 | 119 | 10 | 20 | M12 × 45 | 06436862 | |

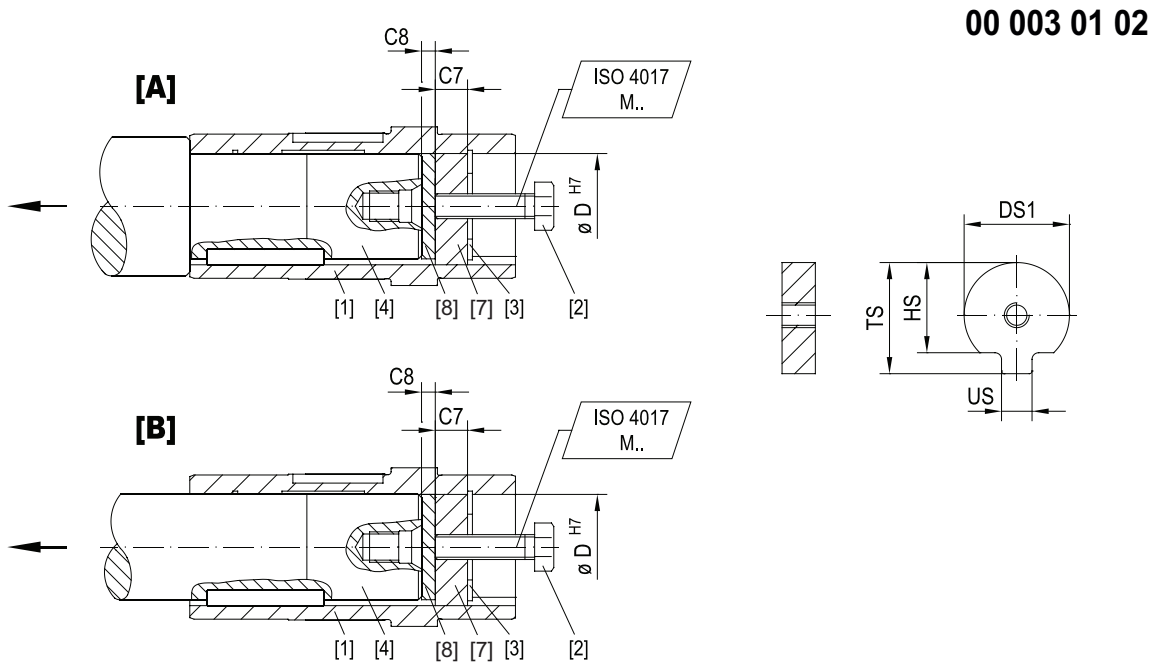
Disassembly

INFORMATION



The depicted assembly kit for attaching the customer shaft is a recommendation by SEW-EURODRIVE.

- Always check whether this design can compensate the present axial loads.
- In particular applications (e.g. mounting agitator shafts), a different design may have to be used to secure the shaft axially. You can use your own devices to secure the shaft axially, if you ensure that these designs do not cause potential sources of combustion according to DIN EN 13463 (e.g. impact sparks).



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- C7 Width of fixed nut
- C8 Width of forcing washer
- D Hollow shaft diameter
- DS1 Diameter of fixed nut
- HS Height 1 fixed nut
- TS Height 2 fixed nut
- US Base width of fixed nut
- [1] Hollow shaft
- [2] Retaining screw
- [3] Retaining ring
- [4] Customer shaft
- [7] Fixed nut for disassembly
- [8] Forcing washer

Dimensions and part numbers of the assembly/disassembly kit:

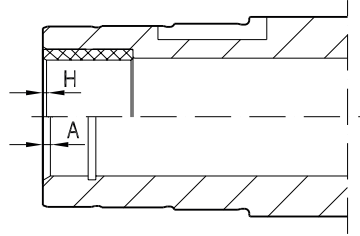
| Gear unit | D^{H7} mm | C8 mm | C7 mm | HS mm | US mm | TS mm | DS1 mm | ISO 4017 M.. | Part number of the as- sembly/disassembly kit |
|-----------|----------------|----------|----------|----------|----------|----------|-----------|-----------------|--|
| WA..10 | 16 | 5 | 5 | 12 | 4.5 | 18 | 15.7 | M5 × 50 | 06437125 |
| WA..19 | 18 | 5 | 6 | 13.5 | 5.5 | 20.5 | 17.7 | M6 × 25 | 06437125 |

| Gear unit | D^{H7} mm | C8 mm | C7 mm | HS mm | US mm | TS mm | DS1 mm | ISO 4017 M.. | Part number of the as- sembly/disassembly kit |
|---|------------------------------|------------------|------------------|------------------|------------------|------------------|-------------------|-------------------------|--|
| WA..20 | 18 | 5 | 6 | 13.5 | 5.5 | 20.5 | 17.7 | M6 × 25 | 0643682X |
| KA..19, SA..37, WA..19, WA..20, WA..30 | 20 | 5 | 6 | 15.5 | 5.5 | 22.5 | 19.7 | M6 × 25 | 06436838 |
| FA..27, KA..29, SA..47, W..29, W..39 | 25 | 5 | 10 | 20 | 7.5 | 28 | 24.7 | M10 × 35 | 06436846 |
| FA..37, KA..29, KA..37, KA..39, SA..47, SA..57, W..29, W..39 | 30 | 5 | 10 | 25 | 7.5 | 33 | 29.7 | M10 × 35 | 06436854 |
| FA..47, KA..39, KA..47, KA..49, SA..57 | 35 | 5 | 12 | 29 | 9.5 | 38 | 34.7 | M12 × 45 | 06436862 |
| FA..57, KA..57, FA..67, KA..49, KA..67, SA..67 | 40 | 5 | 12 | 34 | 11.5 | 41.9 | 39.7 | M16 × 50 | 06436870 |
| SA..67 | 45 | 5 | 12 | 38.5 | 13.5 | 48.5 | 44.7 | M16 × 50 | 06436889 |
| FA..77, KA..77, SA..77 | 50 | 5 | 12 | 43.5 | 13.5 | 53.5 | 49.7 | M16 × 50 | 06436897 |
| FA..87, KA..87, SA..77, SA..87 | 60 | 5 | 16 | 56 | 17.5 | 64 | 59.7 | M20 × 60 | 06436900 |
| FA..97, KA..97, SA..87, SA..97 | 70 | 5 | 16 | 65.5 | 19.5 | 74.5 | 69.7 | M20 × 60 | 06436919 |
| FA..107, KA..107, SA..97 | 90 | 5 | 20 | 80 | 24.5 | 95 | 89.7 | M24 × 70 | 06436927 |
| FA..127, KA..127 | 100 | 5 | 20 | 89 | 27.5 | 106 | 99.7 | M24 × 70 | 06436935 |
| FA..157, KA..157 | 120 | 5 | 20 | 107 | 31 | 127 | 119.7 | M24 × 70 | 06436943 |

6.5 Gear units with hollow shaft

6.5.1 Chamfers on hollow shafts

The following figure shows the chamfers of parallel-shaft helical, helical-bevel, helical-worm and SPIROPLAN® gear units with hollow shaft:



Dimension table for the chamfers of the F, K, S, and W gear units:

| Gear unit | Design | |
|---------------------|-----------------------|---------------------------------------|
| | with hollow shaft (A) | with hollow shaft and shrink disk (H) |
| W..10 | 1.5 × 30° | – |
| W..19, W..20, W..30 | 2 × 30° | – |
| F..27 | 2 × 30° | 0.5 × 45° |
| K..19, W..29 | 2 × 30° | 0.5 × 45° |
| K..29, W..39 | 2 × 30° | 0.5 × 45° |
| F../K../S..37 | 2 × 30° | 0.5 × 45° |
| K..39, W..49 | 2 × 30° | – |
| F../K../S..47 | 2 × 30° | 0.5 × 45° |
| K..49 | 2 × 30° | – |
| S..57 | 2 × 30° | 0.5 × 45° |
| F../K../S..57 | 2 × 30° | 0.5 × 45° |
| F../K../S..67 | 2 × 30° | 0.5 × 45° |
| F../K../S..77 | 2 × 30° | 0.5 × 45° |
| F../K../S..87 | 3 × 30° | 0.5 × 45° |
| F../K../S..97 | 3 × 30° | 0.5 × 45° |
| F../K..107 | 3 × 30° | 0.5 × 45° |
| F../K..127 | 5 × 30° | 0.5 × 45° |
| F../K..157 | 5 × 30° | 0.5 × 45° |
| KH167 | – | 0.5 × 45° |
| KH187 | – | 0.5 × 45° |

6.5.2 Special motor/gear unit combinations

Please note for parallel-shaft helical gearmotors with hollow shaft (FA..B, FV..B, FH..B, FAF, FVF, FHF, FA, FV, FH, FT, FAZ, FVZ, FHZ):

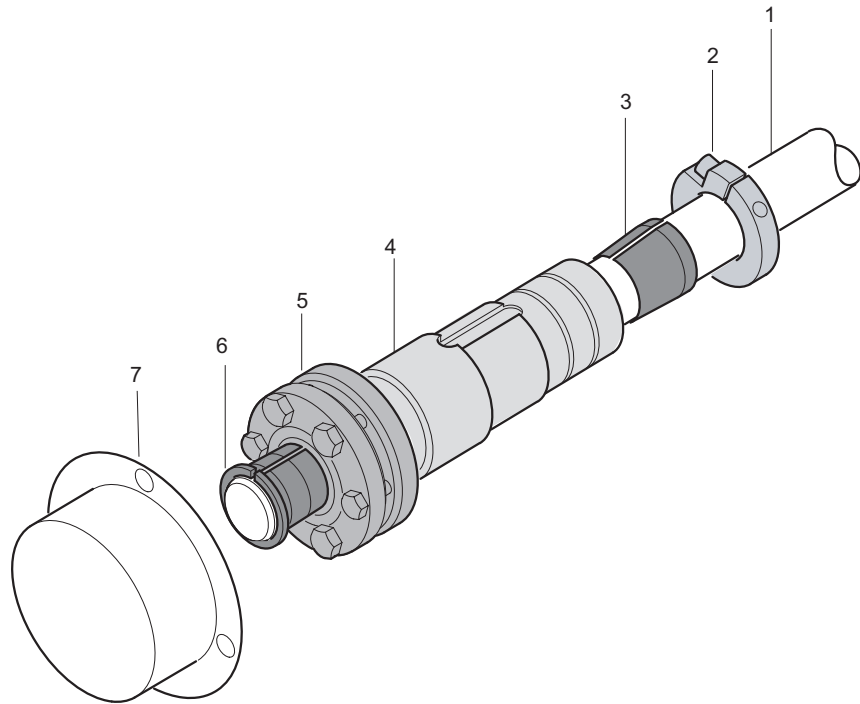
- If you are using a customer shaft pushed through on the motor end, there may be a collision when a "small gear unit" is used in combination with a "large motor."
- Check the motor dimension AC to decide whether there will be a collision with a pushed-through customer shaft.

6.6 TorqLOC® mounting system for gear units with hollow shaft

6.6.1 TorqLOC® description

The TorqLOC® hollow shaft mounting system is used for achieving a non-positive connection between the customer shaft and the hollow shaft in the gear unit. This makes the TorqLOC® hollow shaft mounting system an alternative to the previous hollow shaft with shrink disk, hollow shaft with key, and splined hollow shaft.

The TorqLOC® hollow shaft mounting system consists of the following components:



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- [1] Customer shaft
- [2] Clamping ring
- [3] Conical bronze bushing
- [4] Hollow shaft in gear unit
- [5] Shrink disk
- [6] Conical steel bushing
- [7] Fixed safety cover

6.6.2 Advantages of TorqLOC®

The TorqLOC® hollow shaft mounting system is characterized by the following advantages:

- Cost saving as the customer shaft can be made from drawn material up to quality h11.
- Cost saving because different customer shaft diameters can be realized with one hollow shaft diameter and different bushings.
- Simple installation as there is no need to accommodate any shaft connections.
- Simple removal even after many hours of operation as the formation of contact corrosion has been reduced and the conical connections can easily be released.

6.6.3 Technical data of TorqLOC®

The TorqLOC® hollow shaft mounting system is approved for output torques of 80 Nm to 20 000 Nm.

The following gear units are available with TorqLOC® hollow shaft mounting system:

- Parallel-shaft helical gear units in gear unit sizes 37 to 157 (FT37 – FT157)
- Helical-bevel gear units in gear unit sizes 37 to 157 (KT37 – KT157), 19 to 49 (KT19 – KT49)
- Helical-worm gear units in gear unit sizes 37 to 97 (ST37 – ST97)
- SPIROPLAN® gear units in size 29 – 49 (WT.9)

Available options

The following options are available for gear units with TorqLOC® hollow shaft mounting system:

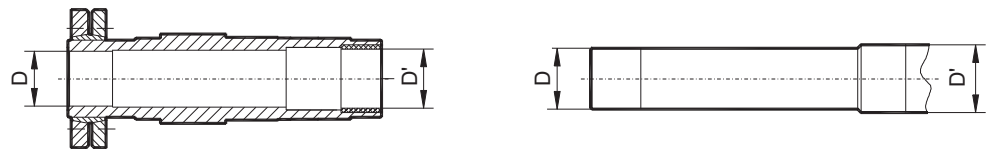
- For helical-bevel, worm and SPIROPLAN® gear units (KT..., ST..., WT.9...): "Torque arm" option (../T).
- For parallel-shaft helical gear units (FT...): "Rubber buffer" option (../G).

6.7 Shouldered hollow shaft option with shrink disk

The following gear units with a hollow shaft and shrink disk also have the option of the larger bore diameter D':

- Parallel-shaft helical gear units FH/FHF/FHZ37 – 157
- Helical-bevel gear units KH/KHF/KHZ37 – 157
- Helical-worm gear units SH/SHF/SHZ47 – 97

D' = D as standard.



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| Gear unit | Bore diameter D/ optionally D' mm |
|--|---|
| FH/FHF/FHZ37, KH/KHF/KHZ37, SH/SHF/SHZ47 | 30/32 |
| FH/FHF/FHZ47, KH/KHF/KHZ47, SH/SHF/SHZ57 | 35/36 |
| FH/FHF/FHZ57, KH/KHF/KHZ57 | 40/42 |
| FH/FHF/FHZ67, KH/KHF/KHZ67, SH/SHF/SHZ67 | 40/42 |
| FH/FHF/FHZ77, KH/KHF/KHZ77, SH/SHF/SHZ77 | 50/52 |
| FH/FHF/FHZ87, KH/KHF/KHZ87, SH/SHF/SHZ87 | 65/66 |
| FH/FHF/FHZ97, KH/KHF/KHZ97, SH/SHF/SHZ97 | 75/76 |
| FH/FHF/FHZ107, KH/KHF/KHZ107 | 95/96 |
| FH/FHF/FHZ127, KH/KHF/KHZ127 | 105/106 |

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Design and operating notes

Shouldered hollow shaft option with shrink disk

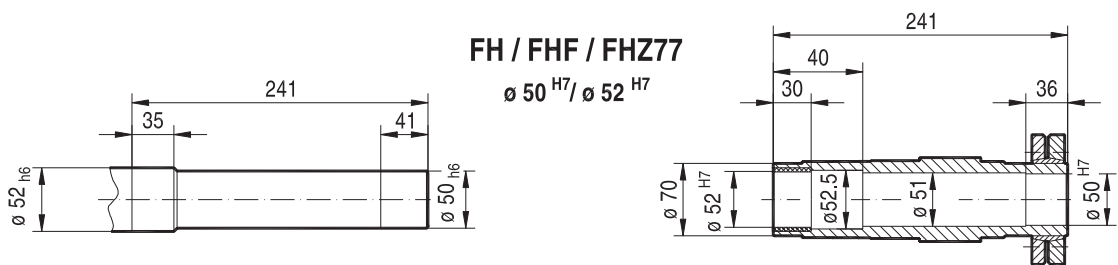
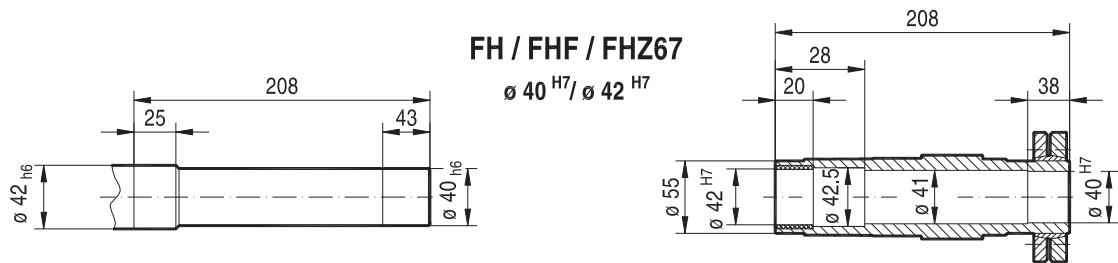
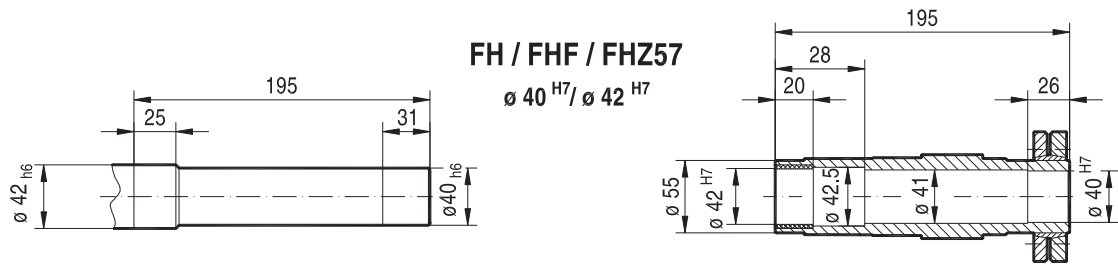
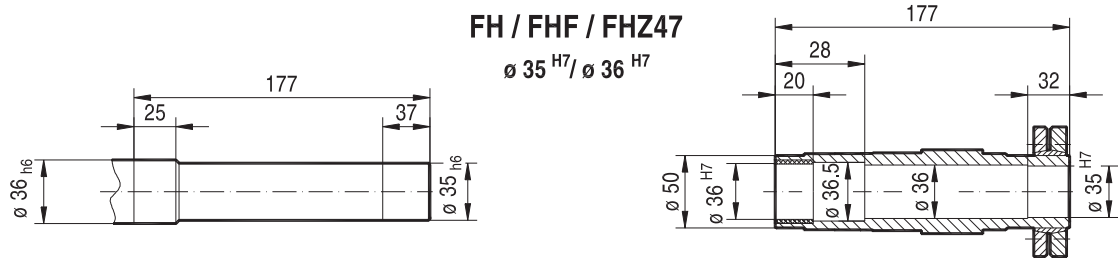
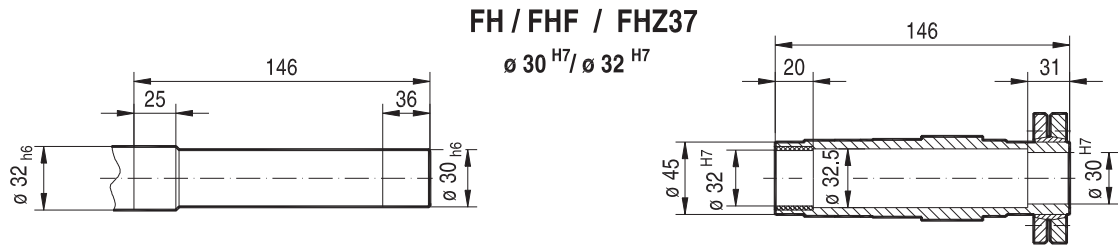
| Gear unit | Bore diameter D/ optionally D' mm |
|------------------------------|---|
| FH/FHF/FHZ157, KH/KHF/KHZ157 | 125/126 |

Diameter D/D' must be specified when ordering gear units with a shouldered hollow shaft (optional bore diameter D').

6.7.1 Sample order

FH37 DRN80M4 with hollow shaft 30/32 mm

6.7.2 Parallel-shaft helical gear units with shouldered hollow shaft (dimensions in mm):

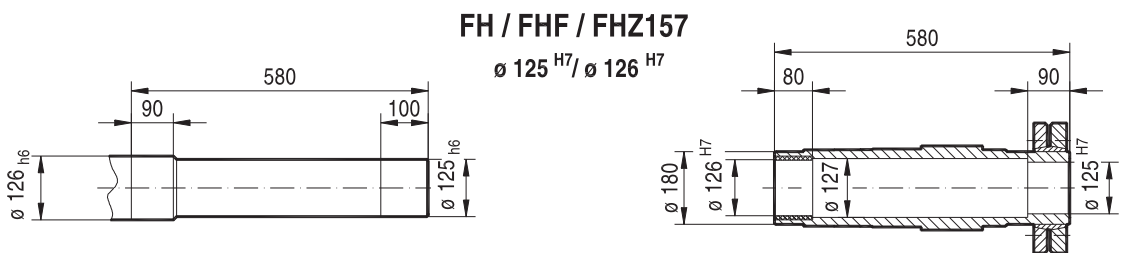
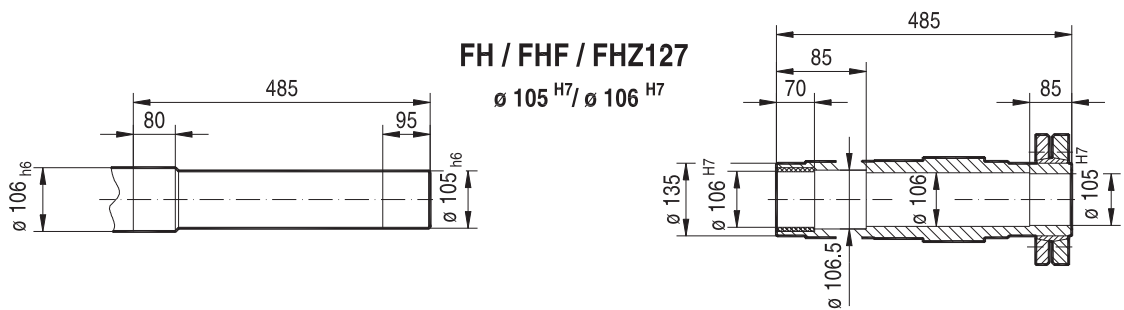
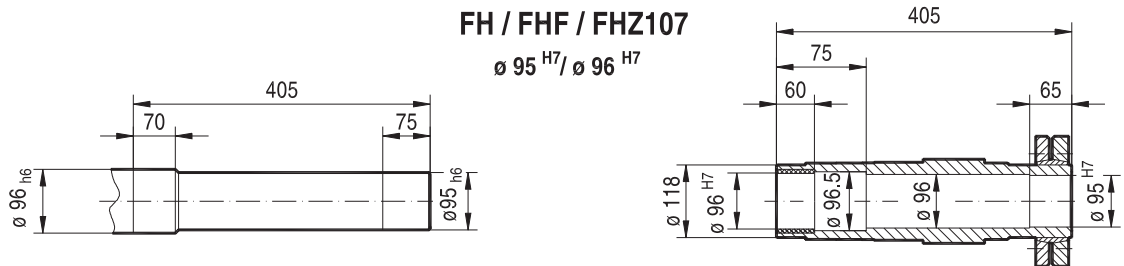
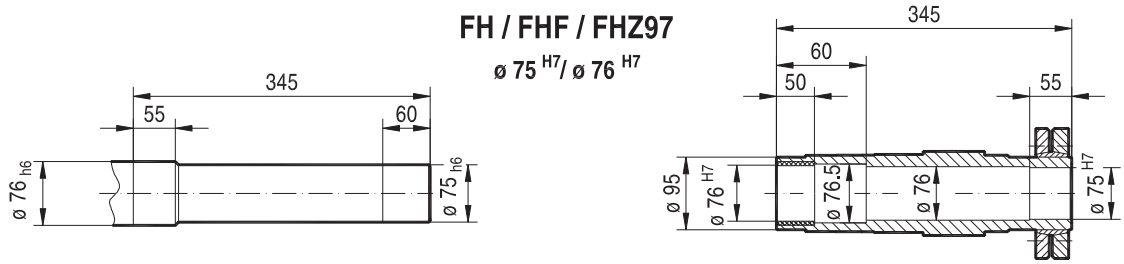
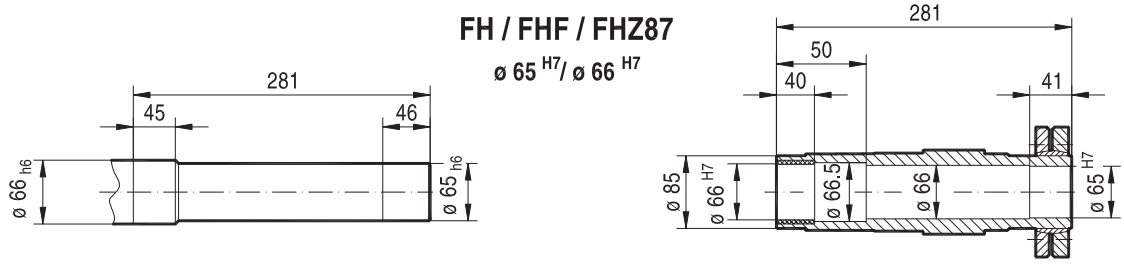


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Design and operating notes

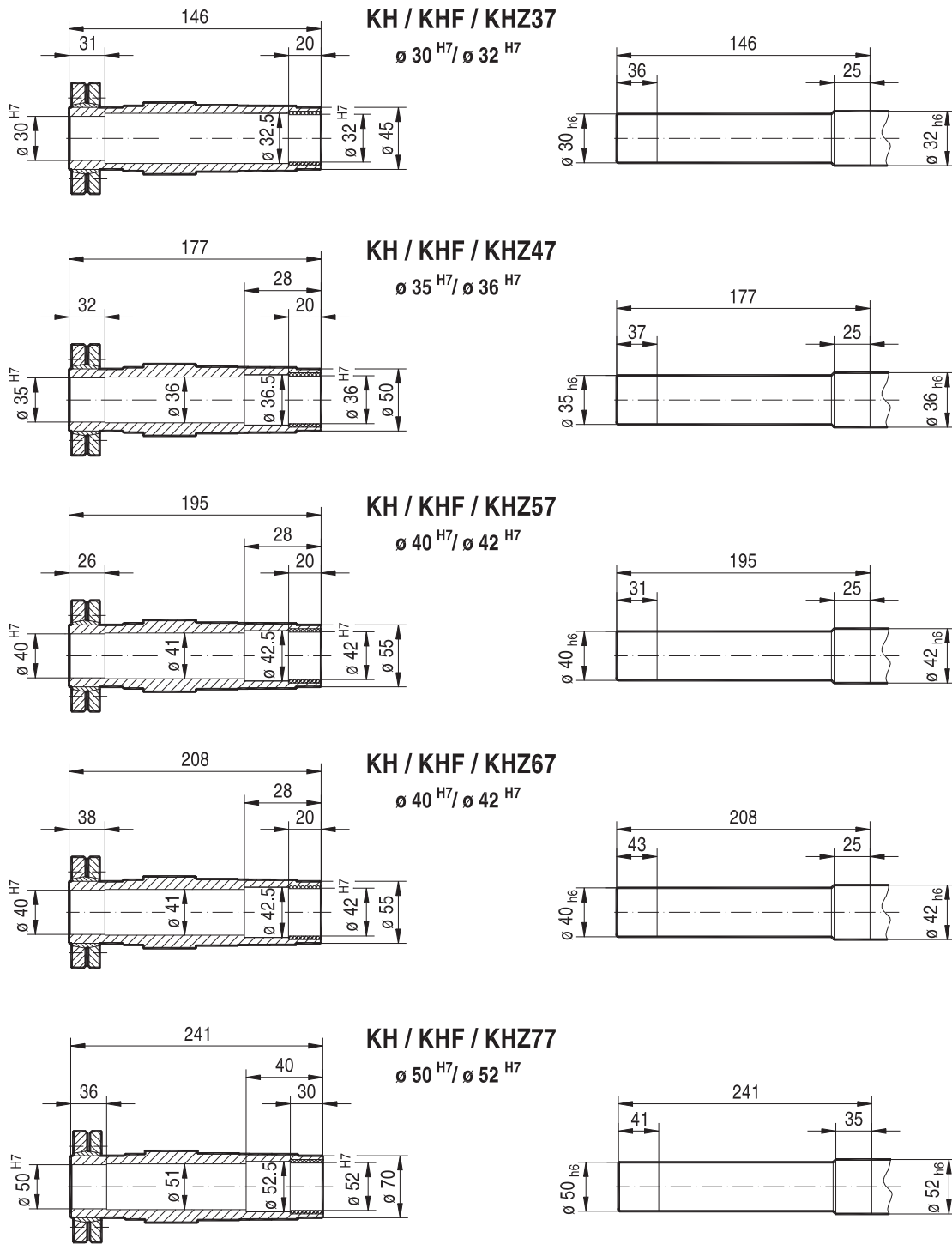
Shouldered hollow shaft option with shrink disk



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6.7.3 Helical-bevel gear units with shouldered hollow shaft (dimensions in mm):

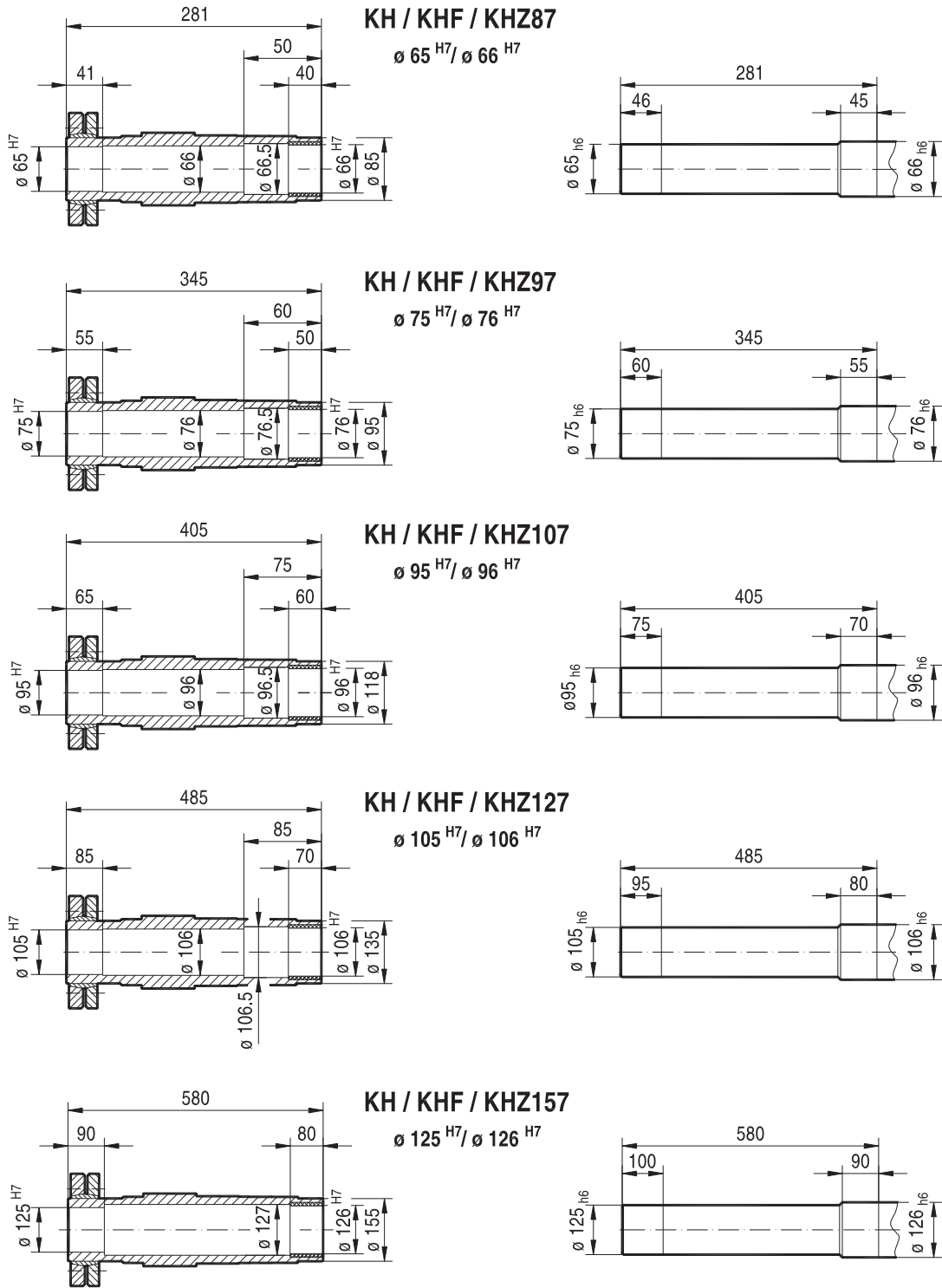


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Design and operating notes

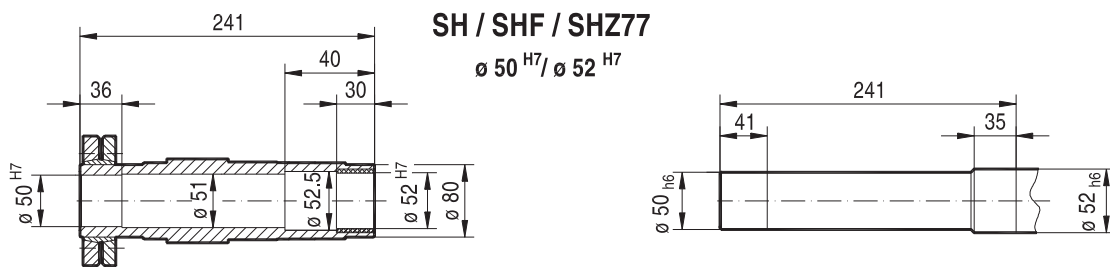
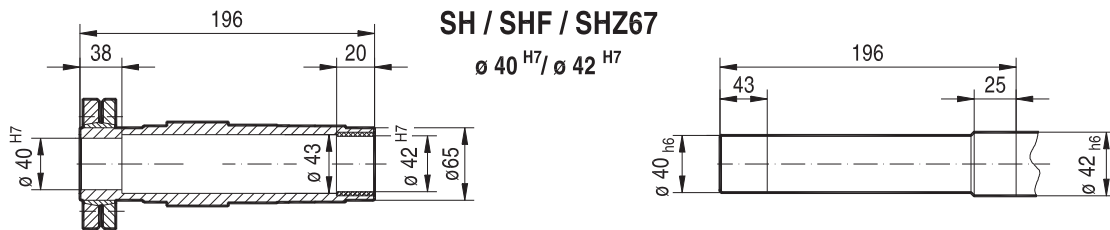
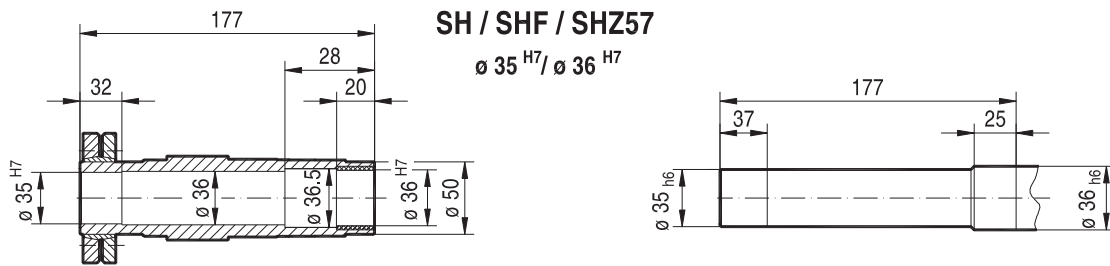
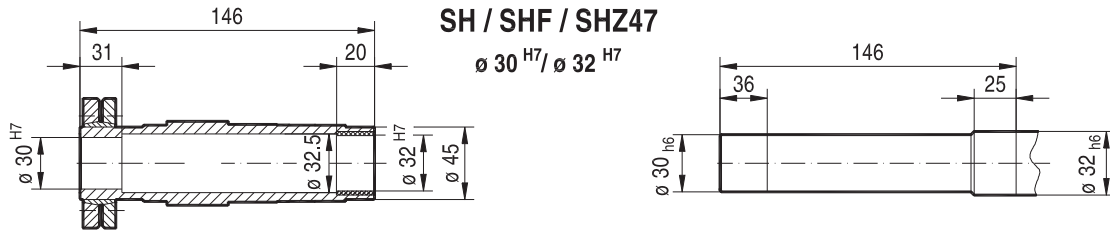
Shouldered hollow shaft option with shrink disk



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6.7.4 Helical-worm gear units with shouldered hollow shaft (dimensions in mm):

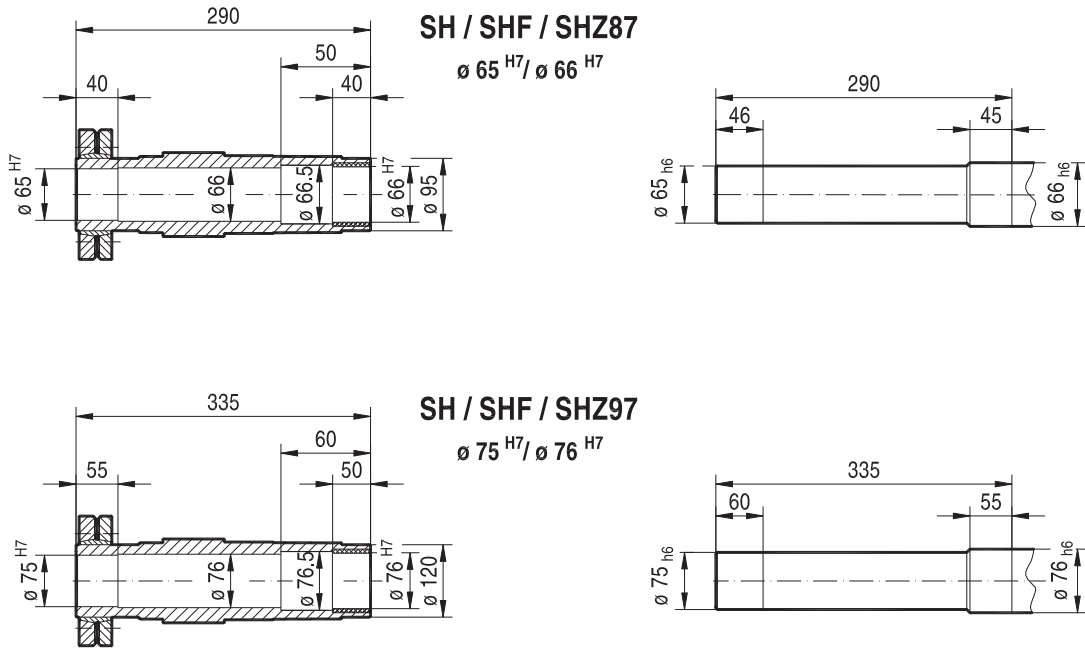


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Design and operating notes

Notes on stainless shrink disk or output shaft



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6.8 Notes on stainless shrink disk or output shaft

Before using a stainless steel shrink disk or stainless steel output shaft, check if the ambient conditions, used chemicals and cleaning agents are compatible with the stainless steel material. For information on the material, refer to the order confirmation.

6.9 Gear unit mounting

Strength class of the screws

Always mount gearmotors using screws of strength class 8.8. The gearmotors in flange-mounted design and in foot-/flange-mounted design listed in the following table are an exception. Always use screws of strength class 10.9 for these gearmotors. Use suitable washers.

| Gear unit | Ø flange mm | Strength class of the screws |
|--|----------------|---------------------------------|
| RF37/R37F SF37p | 120 | 10.9 |
| RF47/R47F | 140 | |
| RF57/R57F | 160 | |
| SF67p | 200 | |
| FF/FAF77 KF/KAF77 SF77p | 250 | |
| FM/FAM67, FM/FAM77 KM/KAM67, KM/KAM77 | 300 | |
| FM/FAM87 KM/KAM87 SF87p | 350 | |
| FM/FAM97 KM/KAM97 | 400 | |
| RF147 FM/FAM107 KM/KAM107 | 450 | |
| RF167 FM/FAM127 KM/KAM127 | 550 | |
| FM/FAM157 KM/KAM157 | 660 | |
| RZ37 – RZ87 | 60ZR – 130ZR | |

6.10 Torque arms

**NOTICE**

Danger due to static overdetermination if gear units with foot (e.g. KA19/29B, KA127/157B or FA127/157B) are mounted both via the torque arm and via the foot plate.

Risk of injuries and damage to property can occur.

- The simultaneous use of the foot plates and the torque arm, especially for the KA.9B/T version, is not permitted.
- Attach the KA.9B/T design only via the torque arm.
- Attach the K.9 or KA.9B design only via the foot plate.
- If you want to use foot plates and torque arms for mounting, contact SEW-EURODRIVE.

INFORMATION

Note that torque arms are always mounted on the output end.

6.10.1 Standard torque arms

The following table lists the part numbers of all galvanized steel or gray cast iron torque arms available for shipment:

| Gear unit | Size | | | |
|------------|----------|----------|----------|----------|
| | 19 | 29 | 39 | 49 |
| KA, KH, KT | 10684115 | 10684107 | 10682163 | 06442439 |

| Gear unit | Size | | | | | |
|--------------------------|---------|---------|---------|---------|---------|---------|
| | 27 | 37 | 47 | 57 | 67 | 77 |
| KA, KH, KV, KT | – | 6434258 | 6434282 | 6434312 | 6434312 | 6434347 |
| SA, SH, ST | – | 1269941 | 6442374 | 6442404 | 6442439 | 6442463 |
| FA, FH, FV, FT | 0133485 | 0133485 | 0133485 | 0133485 | 0133485 | 0133493 |
| Rubber buffer (2 pieces) | | | | | | |

| Gear unit | Size | | | | |
|--------------------------|---------|---------|---------|---------|---------|
| | 87 | 97 | 107 | 127 | 157 |
| KA, KH, KV, KT | 6434371 | 6434401 | 6434436 | 6432948 | – |
| SA, SH, ST | 6442498 | 6442528 | – | – | – |
| FA, FH, FV, FT | 0133493 | 0133507 | 0133507 | 0133515 | 0133477 |
| Rubber buffer (2 pieces) | | | | | |

| Gear unit | Size | | | |
|------------|----------|----------|---------|----------|
| | 10 | 19 | 20 | 29 |
| WA, WH, WT | 10610219 | 01680730 | 1680730 | 10684115 |

| Gear unit | Size | | |
|------------|---------|----------|----------|
| | 30 | 39 | 49 |
| WA, WH, WT | 1680110 | 10684107 | 10682163 |

6.10.2 Stainless steel torque arm

Torque arms made of stainless steel are available for K..19/29 and SPIROPLAN® gear units. Suitable retaining screws made of stainless steel are included in the delivery in a bag.

| Gear unit | Size | |
|------------|----------|----------|
| | 19 | 29 |
| KA, KH, KT | 10638008 | 10638016 |

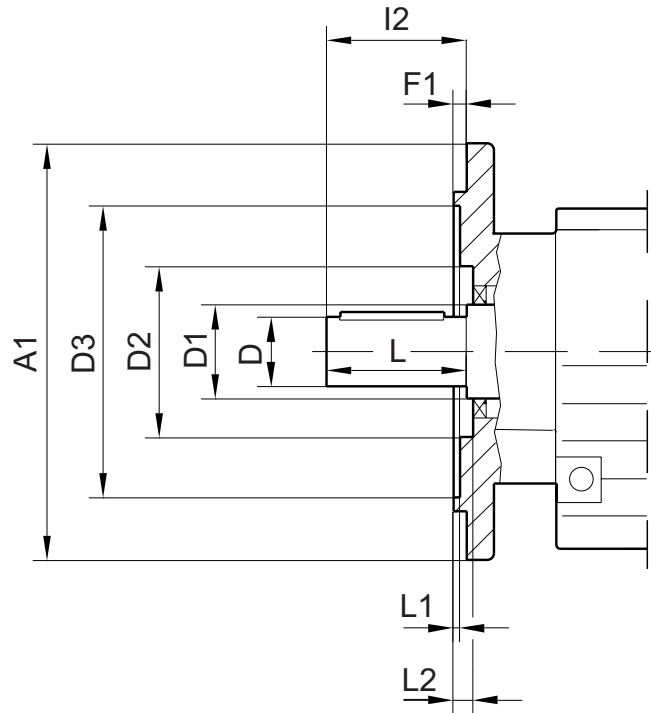
| Gear unit | Size | | | |
|------------|----------|----------|----------|----------|
| | 10 | 19 | 20 | 29 |
| WA, WH, WT | 10638024 | 10638032 | 10638032 | 10638008 |

| Gear unit | Size | | |
|------------|----------|----------|----------|
| | 30 | 39 | 49 |
| WA, WH, WT | 10638040 | 10638016 | 29225981 |

6.10.3 Torque arms for KH167.., KH187..

As standard, torque arms are not available for gear unit sizes KH167.. and KH187... Consult SEW-EURODRIVE if you need torque arms for these gear units.

6.11 Flange contours of RF.. and R..F gear units

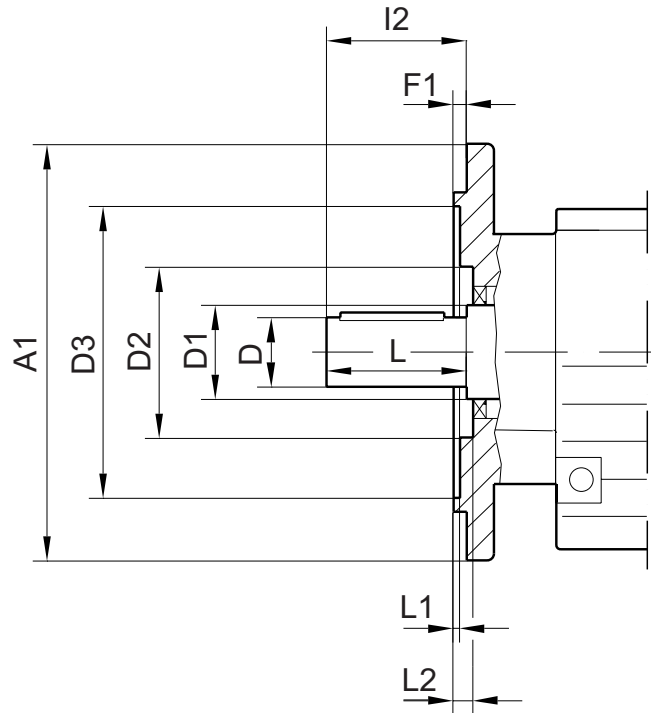


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Check dimensions L1 and L2 for selection and installation of output elements.

| Type | Dimensions in mm | | | | | | | | | | | |
|------------|-------------------|----|----|----|------|-----|-----|----|----|-----|------|-----|
| | A1 | D | D1 | D2 | | D3 | F1 | I2 | L | L1 | | L2 |
| | | | | RF | R..F | | | | | RF | R..F | |
| RF07, R07F | 120 | 20 | 22 | 38 | 38 | 72 | 3 | 40 | 40 | 2 | 2 | 6 |
| | 140 ¹⁾ | 20 | 22 | 38 | – | 85 | 3 | 40 | 40 | 2 | – | 6 |
| | 160 ¹⁾ | 20 | 22 | 38 | – | 100 | 3.5 | 40 | 40 | 2.5 | – | 6.5 |
| RF17, R17F | 120 | 20 | 25 | 46 | 46 | 65 | 3 | 40 | 40 | 1 | 1 | 5 |
| | 140 | 20 | 25 | 46 | – | 78 | 3 | 40 | 40 | 1 | – | 5 |
| | 160 ¹⁾ | 20 | 25 | 46 | – | 95 | 3.5 | 40 | 40 | 1 | – | 6 |
| RF27, R27F | 120 | 25 | 30 | 54 | 54 | 66 | 3 | 50 | 50 | 1 | 1 | 6 |
| | 140 | 25 | 30 | 54 | – | 79 | 3 | 50 | 50 | 3 | – | 7 |
| | 160 | 25 | 30 | 54 | – | 92 | 3.5 | 50 | 50 | 3 | – | 7 |
| RF37, R37F | 120 | 25 | 35 | 60 | 63 | 70 | 3 | 50 | 50 | 5 | 4 | 7 |
| | 160 | 25 | 35 | 60 | – | 96 | 3.5 | 50 | 50 | 1 | – | 7.5 |
| | 200 ¹⁾ | 25 | 35 | 60 | – | 119 | 3.5 | 50 | 50 | 1 | – | 7.5 |
| RF47, R47F | 140 | 30 | 35 | 72 | 64 | 82 | 3 | 60 | 60 | 4 | 1 | 6 |
| | 160 | 30 | 35 | 72 | – | 96 | 3.5 | 60 | 60 | 0.5 | – | 6.5 |
| | 200 | 30 | 35 | 72 | – | 116 | 3.5 | 60 | 60 | 0.5 | – | 6.5 |
| RF57, R57F | 160 | 35 | 40 | 76 | 75 | 96 | 3.5 | 70 | 70 | 4 | 2.5 | 5 |
| | 200 | 35 | 40 | 76 | – | 116 | 3.5 | 70 | 70 | 0 | – | 5 |
| | 250 ¹⁾ | 35 | 40 | 76 | – | 160 | 4 | 70 | 70 | 0.5 | – | 5.5 |
| RF67, R67F | 200 | 35 | 50 | 90 | 90 | 118 | 3.5 | 70 | 70 | 2 | 4 | 7 |
| | 250 | 35 | 50 | 90 | – | 160 | 4 | 70 | 70 | 1 | – | 7.5 |

1) The flange contour protrudes from under the base surface.



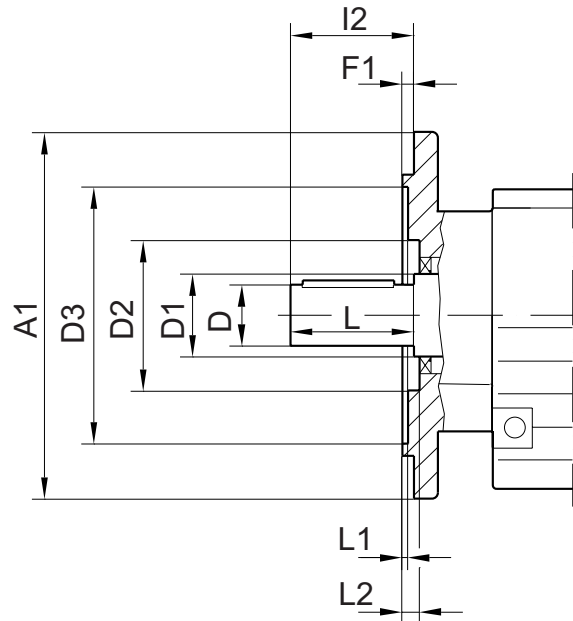
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Check dimensions L1 and L2 for selection and installation of output elements.

| Type | Dimensions in mm | | | | | | | | | | | |
|------------|-------------------|-----|-----|-----|------|-----|----|-----|-----|-----|------|----|
| | A1 | D | D1 | D2 | | D3 | F1 | I2 | L | L1 | | L2 |
| | | | | RF | R..F | | | | | RF | R..F | |
| RF77, R77F | 250 | 40 | 52 | 112 | 100 | 160 | 4 | 80 | 80 | 0.5 | 2.5 | 7 |
| | 300 ¹⁾ | 40 | 52 | 112 | – | 210 | 4 | 80 | 80 | 0.5 | – | 7 |
| RF87, R87F | 300 | 50 | 62 | 123 | 122 | 210 | 4 | 100 | 100 | 0 | 1.5 | 8 |
| | 350 | 50 | 62 | 123 | – | 226 | 5 | 100 | 100 | 1 | – | 9 |
| RF97 | 350 | 60 | 72 | 136 | – | 236 | 5 | 120 | 120 | 0 | – | 9 |
| | 450 | 60 | 72 | 136 | – | 320 | 5 | 120 | 120 | 0 | – | 9 |
| RF107 | 350 | 70 | 82 | 157 | – | 232 | 5 | 140 | 140 | 0 | – | 11 |
| | 450 | 70 | 82 | 186 | – | 316 | 5 | 140 | 140 | 0 | – | 11 |
| RF127 | 450 | 90 | 108 | 180 | – | 316 | 5 | 170 | 170 | 0 | – | 10 |
| RF137 | 450 | 90 | 108 | 180 | – | 316 | 5 | 170 | 170 | 0 | – | 10 |
| | 550 | 90 | 108 | 180 | – | 416 | 5 | 170 | 170 | 0 | – | 10 |
| RF147 | 450 | 110 | 125 | 210 | – | 316 | 5 | 210 | 210 | 0 | – | 10 |
| | 550 | 110 | 125 | 210 | – | 416 | 5 | 210 | 210 | 0 | – | 10 |
| RF167 | 550 | 120 | 145 | 290 | – | 416 | 5 | 210 | 210 | 1 | – | 10 |
| | 660 | 120 | 145 | 290 | – | 517 | 6 | 210 | 210 | 2 | – | 11 |

1) The flange contour protrudes from under the base surface.

6.12 Flange contours of FF..., KF..., SF... and WF... gear units

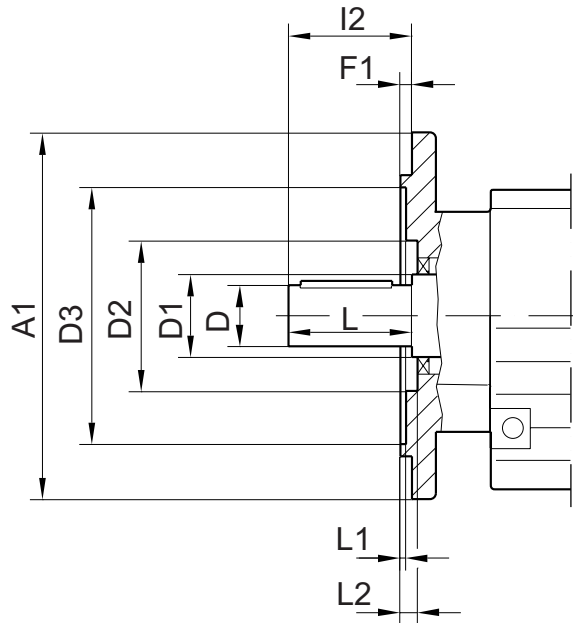


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Check dimensions L1 and L2 for selection and installation of output elements.

| Type | Dimensions in mm | | | | | | | | | |
|-------|------------------|-----|-----|-----|-----|-----|-----|-----|------|------|
| | A1 | D | D1 | D2 | D3 | F1 | I2 | L | L1 | L2 |
| FF27 | 160 | 25 | 40 | 66 | 96 | 3.5 | 50 | 50 | 3 | 18.5 |
| FF37 | 160 | 25 | 30 | 70 | 94 | 3.5 | 50 | 50 | 2 | 6 |
| FF47 | 200 | 30 | 40 | 72 | 115 | 3.5 | 60 | 60 | 3.5 | 7.5 |
| FF57 | 250 | 35 | 40 | 84 | 155 | 4 | 70 | 70 | 4 | 9 |
| FF67 | 250 | 40 | 50 | 84 | 155 | 4 | 80 | 80 | 4 | 9 |
| FF77 | 300 | 50 | 55 | 82 | 205 | 4 | 100 | 100 | 5 | 9 |
| FF87 | 350 | 60 | 65 | 115 | 220 | 5 | 120 | 120 | 5 | 9 |
| FF97 | 450 | 70 | 75 | 112 | 320 | 5 | 140 | 140 | 8 | 10 |
| FF107 | 450 | 90 | 100 | 159 | 318 | 5 | 170 | 170 | 16 | 9 |
| FF127 | 550 | 110 | 118 | - | 420 | 5 | 210 | 210 | 10 | - |
| FF157 | 660 | 120 | 135 | 190 | 520 | 6 | 210 | 210 | 8 | 14 |
| KF19 | 120 | 20 | 25 | - | 70 | 2.5 | 40 | 40 | - | 11.5 |
| | 160 | 20 | 25 | - | 100 | 2.5 | 40 | 40 | - | 11.5 |
| KF29 | 160 | 25 | 30 | - | 109 | 3.5 | 50 | 50 | - | 6.5 |
| | 200 | 25 | 30 | - | 115 | 3.5 | 50 | 50 | - | 6.5 |
| KF37 | 160 | 25 | 30 | 70 | 94 | 3.5 | 50 | 50 | 2 | 6 |
| KF39 | 160 | 30 | 39 | 68 | 96 | 3.5 | 60 | 60 | 13.5 | 23.5 |
| KF47 | 200 | 30 | 40 | 72 | 115 | 3.5 | 60 | 60 | 3.5 | 7.5 |
| KF49 | 200 | 35 | 49 | 76 | 115 | 3.5 | 70 | 70 | 24.5 | 28 |
| KF57 | 250 | 35 | 40 | 84 | 155 | 4 | 70 | 70 | 4 | 9 |
| KF67 | 250 | 40 | 50 | 84 | 155 | 4 | 80 | 80 | 4 | 9 |
| KF77 | 300 | 50 | 55 | 82 | 205 | 4 | 100 | 100 | 5 | 9 |
| KF87 | 350 | 60 | 65 | 115 | 220 | 5 | 120 | 120 | 5 | 9 |
| KF97 | 450 | 70 | 75 | 112 | 320 | 5 | 140 | 140 | 8 | 10 |
| KF107 | 450 | 90 | 100 | 159 | 318 | 5 | 170 | 170 | 16 | 9 |
| KF127 | 550 | 110 | 118 | - | 420 | 5 | 210 | 210 | 10 | - |
| KF157 | 660 | 120 | 135 | 190 | 520 | 6 | 210 | 210 | 8 | 14 |

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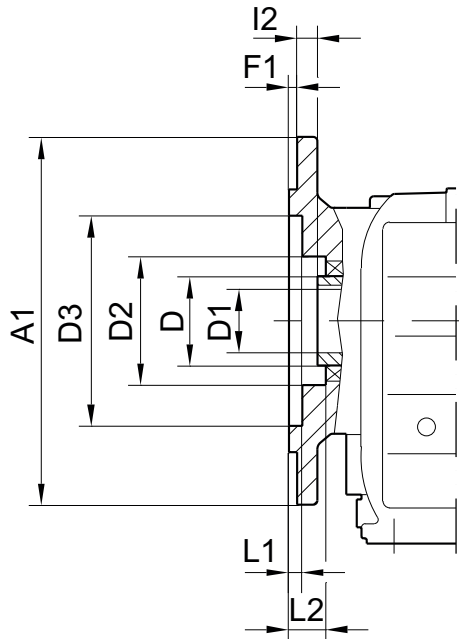


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Check dimensions L1 and L2 for selection and installation of output elements.

| Type | Dimensions in mm | | | | | | | | | |
|------|------------------|----|----|-----|-----|-----|-----|-----|------|------|
| | A1 | D | D1 | D2 | D3 | F1 | I2 | L | L1 | L2 |
| SF37 | 120 | 20 | 25 | - | 68 | 3 | 40 | 40 | 6 | - |
| | 160 | 20 | 25 | - | 96 | 3.5 | 40 | 40 | 5.5 | - |
| SF47 | 160 | 25 | 30 | 70 | 94 | 3.5 | 50 | 50 | 2 | 6 |
| SF57 | 200 | 30 | 40 | 72 | 115 | 3.5 | 60 | 60 | 3.5 | 7.5 |
| SF67 | 200 | 35 | 45 | - | 115 | 3.5 | 70 | 70 | 8.5 | - |
| SF77 | 250 | 45 | 55 | 108 | 160 | 4 | 90 | 90 | 8 | 9 |
| SF87 | 350 | 60 | 65 | 130 | 220 | 5 | 120 | 120 | 6 | 10 |
| SF97 | 450 | 70 | 75 | 150 | 320 | 5 | 140 | 140 | 8.5 | 10 |
| WF10 | 80 | 16 | 25 | - | 39 | 2.5 | 40 | 40 | 30 | - |
| | 120 | 16 | 25 | 39 | 74 | 3 | 40 | 40 | 5 | 30 |
| WF19 | 110 | 20 | 30 | 44 | 53 | -4 | 40 | 40 | 27 | 35 |
| | 120 | 20 | 30 | - | 45 | 2.5 | 40 | 40 | 37.5 | - |
| WF20 | 110 | 20 | 30 | 44 | 53 | -4 | 40 | 40 | 27 | 35 |
| | 120 | 20 | 30 | - | 45 | 2.5 | 40 | 40 | 37.5 | - |
| WF29 | 120 | 20 | 25 | - | 70 | 2.5 | 40 | 40 | - | 11.5 |
| | 160 | 20 | 25 | - | 100 | 2.5 | 40 | 40 | - | 11.5 |
| WF30 | 120 | 20 | 30 | 48 | 63 | 2.5 | 40 | 40 | 18 | 27 |
| | 160 | 20 | 30 | 48 | 63 | 2.5 | 40 | 40 | 33 | 42 |
| WF39 | 160 | 25 | 30 | - | 109 | 3.5 | 50 | 50 | - | 6.5 |
| | 200 | 25 | 30 | - | 115 | 3.5 | 50 | 50 | - | 6.5 |
| WF49 | 160 | 30 | 39 | - | 97 | 3.5 | 60 | 60 | 15.3 | 23.5 |

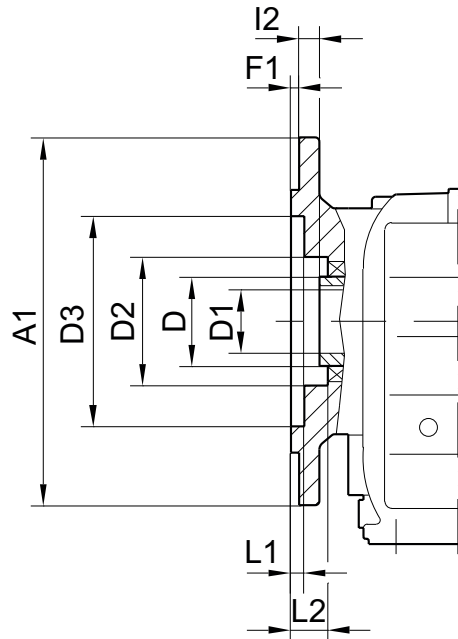
6.13 Flange contours of FAF..., KAF..., SAF... and WAF... gear units



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Check dimensions L1 and L2 for selection and installation of output elements.

| Type | Dimensions in mm | | | | | | | | |
|--------|------------------|-----|---------|-----|-----|-----|------|-----|------|
| | A1 | D | D1 | D2 | D3 | F1 | I2 | L1 | L2 |
| FAF27 | 160 | 40 | 25 | 66 | 96 | 3.5 | 20 | 3 | 18.5 |
| FAF37 | 160 | 45 | 30 | 62 | 94 | 3.5 | 24 | 2 | 30 |
| FAF47 | 200 | 50 | 35 | 70 | 115 | 3.5 | 25 | 3.5 | 31.5 |
| FAF57 | 250 | 55 | 40 | 76 | 155 | 4 | 23.5 | 4 | 31 |
| FAF67 | 250 | 55 | 40 | 76 | 155 | 4 | 23 | 4 | 31 |
| FAF77 | 300 | 70 | 50 | 95 | 205 | 4 | 37 | 5 | 45 |
| FAF87 | 350 | 85 | 60 | 120 | 220 | 5 | 30 | 5 | 39 |
| FAF97 | 450 | 95 | 70 | 135 | 320 | 5 | 41.5 | 5.5 | 51 |
| FAF107 | 450 | 118 | 90 | 224 | 320 | 5 | 41 | 16 | 52 |
| FAF127 | 550 | 135 | 100 | 185 | 420 | 5 | 51 | 6 | 63 |
| FAF157 | 660 | 155 | 120 | 200 | 520 | 6 | 60 | 10 | 74 |
| KAF19 | 120 | 30 | 20 | 60 | 70 | 2.5 | 25 | 9 | 25.5 |
| | 160 | 30 | 20 | 60 | 100 | 2.5 | 25 | 9 | 25.5 |
| KAF29 | 160 | 40 | 25 / 30 | - | 105 | 3.5 | 33.5 | - | 6.5 |
| | 200 | 40 | 25 / 30 | - | 118 | 3.5 | 33.5 | - | 6.5 |
| KAF39 | 160 | 50 | 30 / 35 | 68 | 96 | 3.5 | 24.5 | 10 | 27 |
| KAF37 | 160 | 45 | 30 | 62 | 94 | 3.5 | 24 | 2 | 30 |
| KAF47 | 200 | 50 | 35 | 70 | 115 | 3.5 | 25 | 3.5 | 8.5 |
| KAF49 | 200 | 55 | 35 / 40 | 76 | 115 | 3.5 | 32.5 | 16 | 34.5 |
| KAF57 | 250 | 55 | 40 | 76 | 155 | 4 | 23.5 | 4 | 31 |
| KAF67 | 250 | 55 | 40 | 76 | 155 | 4 | 23 | 4 | 31 |
| KAF77 | 300 | 70 | 50 | 95 | 205 | 4 | 37 | 5 | 45 |
| KAF87 | 350 | 85 | 60 | 120 | 220 | 5 | 30 | 5 | 39 |
| KAF97 | 450 | 95 | 70 | 135 | 320 | 5 | 41.5 | 5.5 | 51 |
| KAF107 | 450 | 118 | 90 | 224 | 320 | 5 | 41 | 16 | 52 |
| KAF127 | 550 | 135 | 100 | 185 | 420 | 5 | 51 | 6 | 63 |
| KAF157 | 660 | 155 | 120 | 200 | 520 | 6 | 60 | 10 | 74 |



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Check dimensions L1 and L2 for selection and installation of output elements.

| Type | Dimensions in mm | | | | | | | | |
|-------|------------------|-----|---------|-----|-----|-----|------|------|------|
| | A1 | D | D1 | D2 | D3 | F1 | I2 | L1 | L2 |
| SAF37 | 120 | 35 | 20 | - | 68 | 3 | 15 | 6 | - |
| | 160 | 35 | 20 | - | 96 | 3.5 | 15 | 5.5 | - |
| SAF47 | 160 | 45 | 30 / 25 | 62 | 94 | 3.5 | 24 | 2 | 30 |
| SAF57 | 200 | 50 | 35 / 30 | 70 | 115 | 3.5 | 25 | 3.5 | 31.5 |
| SAF67 | 200 | 65 | 45 / 40 | 91 | 115 | 3.5 | 42.5 | 4 | 48.5 |
| SAF77 | 250 | 80 | 60 / 50 | 112 | 164 | 4 | 45.5 | 5 | 53.5 |
| SAF87 | 350 | 95 | 70 / 60 | 131 | 220 | 5 | 52.5 | 6 | 62.5 |
| SAF97 | 450 | 120 | 90 / 70 | 160 | 320 | 5 | 60 | 6.5 | 69 |
| WAF10 | 80 | 25 | 16 | - | 39 | 2.5 | 23 | 30 | - |
| | 120 | 25 | 16 | 39 | 74 | 3 | 23 | 5 | 30 |
| WAF19 | 110 | 30 | 18 / 20 | 45 | 53 | -4 | 30 | 27 | 35 |
| | 120 | 30 | 18 / 20 | - | 45 | 2.5 | 30 | 37.5 | - |
| WAF20 | 110 | 30 | 18 / 20 | 45 | 53 | -4 | 30 | 27 | 35 |
| | 120 | 30 | 18 / 20 | - | 45 | 2.5 | 30 | 37.5 | - |
| WAF29 | 120 | 30 | 20 | 60 | 70 | 2.5 | 25 | 9 | 25.5 |
| | 160 | 30 | 20 | 60 | 100 | 2.5 | 25 | 9 | 25.5 |
| WAF30 | 120 | 30 | 20 | 48 | 63 | 2.5 | 19.5 | 18 | 27 |
| | 160 | 30 | 20 | 48 | 63 | 2.5 | 34.5 | 22 | 42 |
| WAF39 | 160 | 40 | 25 / 30 | - | 105 | 3.5 | 33.5 | - | 6.5 |
| | 200 | 40 | 25 / 30 | - | 118 | 3.5 | 33.5 | - | 6.5 |
| WAF49 | 160 | 50 | 30 / 35 | - | 97 | 3.5 | 60 | 60 | 23.5 |

6.14 Safety covers

6.14.1 Rotating safety cover

The following gear unit types with hollow shaft and shrink disk are equipped with a rotating safety cover as standard:

| Gear unit type | Sizes |
|----------------|---------------------|
| KH.. | 19 – 49 and 37 – 97 |
| FH.., SH.. | 37 – 97 |
| WH.. | 29 – 49 |

Should you require a fixed plastic or metal safety cover for safety reasons, refer to the part numbers in the following chapters.

6.14.2 High fixed plastic safety cover

The following gear unit types with hollow shaft and shrink disk are equipped with a high fixed plastic safety cover as standard:

| Gear unit type | Sizes |
|----------------|------------------|
| FH.. | 27 and 107 – 127 |
| KH.. | 107 – 127 |

Should you require a high fixed plastic safety cover for other gear unit types or sizes due to safety reasons, refer to the part numbers in the following chapters.

6.14.3 Fixed sheet metal safety cover

The following gear unit types with hollow shaft and shrink disk are equipped with a fixed sheet metal safety cover as standard:

| Gear unit type | Sizes |
|--|---------------------|
| KH.. | 157, 167 and 187 |
| FH.. | 157 |
| FT.., KT.., ST.., WT.. (with TorqLOC® hollow shaft mounting system) | All available sizes |
| Explosion-protected gear units FH.., KH.., SH.., WH.. | All available sizes |

Should you require a fixed sheet metal safety cover for other gear unit types or sizes, the part numbers required to order the cover can be found in the following chapter.

6.14.4 Flat fixed plastic safety cover

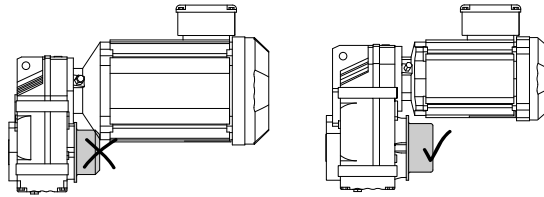
The following gear unit types with hollow shaft can optionally be equipped with a flat fixed plastic safety cover:

| Gear unit type | Sizes |
|-----------------------|---------------------|
| FA., FV.. | 27 – 97 |
| KA.. | 19 – 49 and 37 – 97 |
| KV.. | 37 – 97 |
| SA.. | 37 – 97 |
| WA.. | 10 – 30 and 19 – 49 |

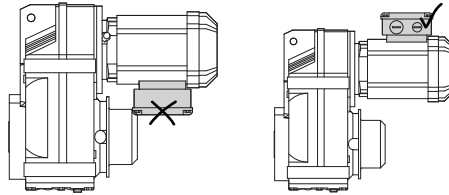
Should you require a flat fixed plastic safety cover for these gear unit types due to safety reasons, refer to the part numbers in the following chapters.

6.14.5 Motor mounting sizes and terminal box position with fixed safety cover

The size of the attached motor may be limited by the use of a high fixed safety cover for parallel-shaft helical gear units.



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SEW-EURODRIVE recommends the terminal box position $\neq 90^\circ$ for parallel-shaft helical gear units with high safety cover to simplify assembly and maintenance.

If necessary, check the configuration in the product configurator on the SEW-EURODRIVE website.

High fixed plastic safety cover

The following table shows the maximum possible motor mounting sizes, depending on the gear unit size, for a high fixed plastic safety cover:

| Gear unit size | F..37 | F..47 | F..57 | F..67 | F..77 | F..87 | F..97 |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|
| Maximum possible motor mounting sizes | 71M | 80M | 90L | 112M | 132L | 160L | 180L |

Fixed sheet metal safety cover

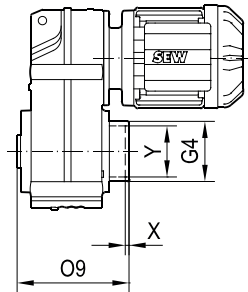
The following table shows the maximum possible motor sizes, depending on the gear unit size, for a high fixed sheet metal safety cover:

| Gear unit size | F..37 | F..47 | F..57 | F..67 | F..77 | F..87 | F..97 |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|
| Maximum possible motor mounting sizes | 71M | 71M | 80M | 100L | 132L | 160L | 180L |

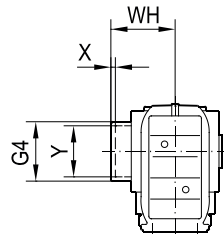
6.14.6 Part numbers and dimensions for high fixed plastic covers

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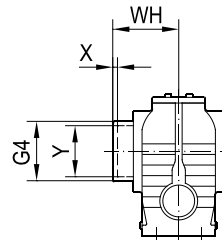
FH../FA..



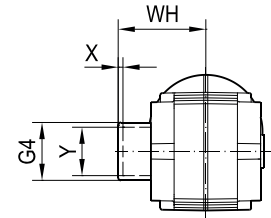
KH../KA..



SH../SA..



WH../WA..



| Parallel-shaft helical gearmotors | FH/FA ..27 | FH/FA ..37 | FH/FA ..47 | FH/FA ..57 | FH/FA ..67 | FH/FA ..77 | FH/FA ..87 | FH/FA ..97 |
|-----------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Part number | 06435319 | 6435130 | 6435149 | 6435157 | 6435157 | 6435165 | 6435173 | 6435181 |
| G4 in mm | 58 | 78 | 88 | 100 | 100 | 121 | 164 | 185 |
| O9 in mm | 134 | 157 | 188.5 | 207.5 | 221.5 | 255 | 295 | 363.5 |
| X in mm | 0.8 | 2 | 4.5 | 7.5 | 6 | 6 | 4 | 6.5 |
| Y in mm | 56 | 75 | 83 | 83 | 93 | 114 | 159 | 174 |

| Helical-bevel gearmotors | KH/KA ..19 | KH/KA ..29 |
|--------------------------|---------------|---------------|
| Part number | 10684158 | 10684166 |
| G4 in mm | 62 | 68 |
| WH in mm | 83 | 90 |
| X in mm | 2 | 4 |
| Y in mm | 50 | 60 |

| Helical-bevel gearmotors ¹⁾ | KH/KA ..37 | KH/KA ..47 | KH/KA ..57 | KH/KA ..67 | KH/KA ..77 | KH/KA ..87 | KH/KA ..97 |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Part number | 6435130 | 6435149 | 6435157 | 6435157 | 6435165 | 6435173 | 6435181 |
| G4 in mm | 78 | 88 | 100 | 100 | 121 | 164 | 185 |
| WH in mm | 95 | 111.5 | 122.5 | 129 | 147 | 172 | 210.5 |
| X in mm | 0 | 1.5 | 5.5 | 3 | 1 | 2 | 4.5 |
| Y in mm | 75 | 83 | 83 | 93 | 114 | 159 | 174 |

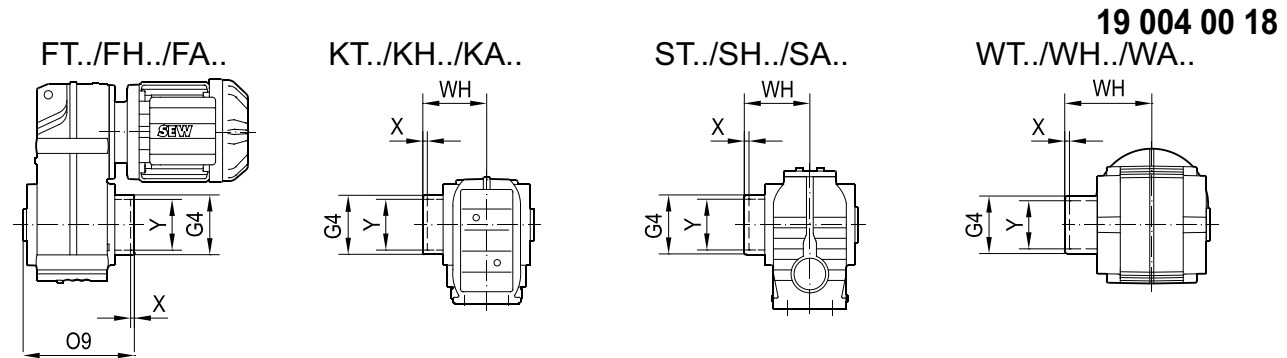
1) Not possible for helical-bevel gear units with hollow shaft in foot-mounted design (KH..B and KA..B).

| Helical-worm gearmotors | SH/SA ..37 | SH/SA ..47 | SH/SA ..57 | SH/SA ..67 | SH/SA ..77 | SH/SA ..87 | SH/SA ..97 |
|-------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Part number | 6435122 | 6435130 | 6435149 | 6435157 | 6435165 | 6435173 | 6435181 |
| G4 in mm | 59 | 78 | 88 | 100 | 121 | 164 | 185 |
| WH in mm | 88 | 95 | 111.5 | 123 | 147 | 176 | 204.5 |
| X in mm | 1 | 0 | 1.5 | 3 | 1 | 0 | 0.5 |
| Y in mm | 53 | 75 | 83 | 93 | 114 | 159 | 174 |

| SPIROPLAN® gearmotors | WH/WA ..29 | WH/WA ..39 |
|-----------------------|---------------|---------------|
| Part number | 10684158 | 10684166 |
| G4 in mm | 62 | 68 |
| WH in mm | 83 | 90 |
| X in mm | 2 | 4 |
| Y in mm | 50 | 60 |

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6.14.7 Part numbers and dimensions for fixed sheet metal covers



| Parallel-shaft helical gearmotors | FT./FH/FA ..37 | FT./FH/FA ..47 | FT./FH/FA ..57 | FT./FH/FA ..67 | FT./FH/FA ..77 | FT./FH/FA ..87 | FT./FH/FA ..97 | FT./FH/FA ..107 | FT./FH/FA ..127 | FT./FH/FA ..157 |
|-----------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|--------------------|--------------------|
| Part number | 0643584X | 06435858 | 06435866 | 06435866 | 06435874 | 06435882 | 06435890 | 06421814 | 06421822 | 06421830 |
| G4 in mm | 81 | 90 | 101 | 101 | 124 | 165 | 200 | 196 | 229 | 275 |
| O9 in mm | 166 | 199 | 222 | 236 | 285 | 322 | 382 | 421 | 502 | 605 |
| X in mm | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Y in mm | 78 | 87 | 98 | 98 | 121 | 162 | 197 | 193 | 226 | 272 |

| Helical-bevel gear-motors | KH/KA ..19 | KH/KA ..29 | KT/KH/KA ..39 | KT/KH/KA ..49 |
|---------------------------|---------------|---------------|------------------|------------------|
| Part number | 10686320 | 10686339 | 10682651 | 10682964 |
| G4 in mm | 60 | 68 | 86 | 97 |
| WH in mm | 84.5 | 91.5 | 117.5 | 138 |
| X in mm | 1.5 | 1.5 | 1 | 1 |
| Y in mm | 50 | 60 | 84 | 95 |

| Helical-bevel gear-motors ¹⁾ | KT/KH/ KA ..37 | KT/KH/ KA ..47 | KT/KH/ KA ..57 | KT/KH/ KA ..67 | KT/KH/ KA ..77 | KT/KH/ KA ..87 | KT/KH/ KA ..97 | KT/KH/ KA ..107 | KT/KH/ KA ..127 | KT/KH/ KA ..157 |
|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-----------------------|-----------------------|
| Part number | 0643584X | 06435858 | 06435866 | 06435866 | 06435874 | 06435882 | 06435890 | 06421814 | 06421822 | 06421879 |
| G4 in mm | 81 | 90 | 101 | 101 | 124 | 165 | 200 | 196 | 229 | 275 |
| WH in mm | 104 | 122 | 137 | 143 | 177 | 229 | 382 | 246 | 297 | 375 |
| X in mm | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Y in mm | 78 | 87 | 98 | 98 | 121 | 162 | 197 | 193 | 226 | 272 |

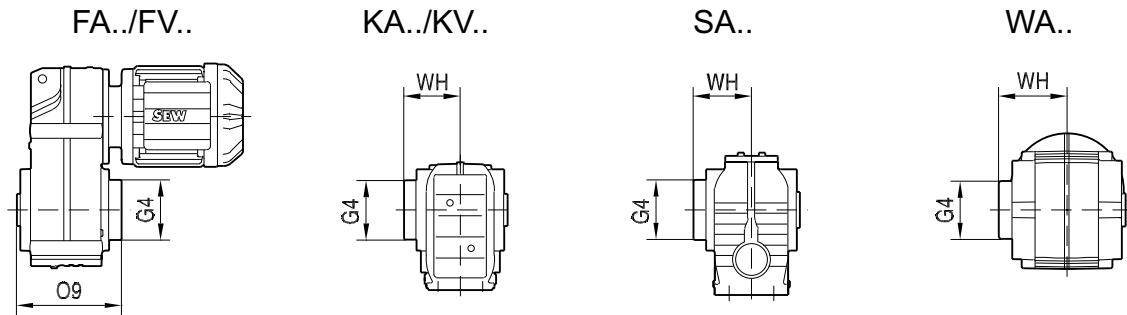
1) Not possible for helical-bevel gear units with hollow shaft in foot-mounted design (KH..B and KA..B).

| Helical-worm gear-motors | ST/SH/SA ..37 | ST/SH/SA ..47 | ST/SH/SA ..57 | ST/SH/SA ..67 | ST/SH/SA ..77 | ST/SH/SA ..87 | ST/SH/SA ..97 |
|--------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Part number | 06444768 | 0643584X | 06435858 | 06435866 | 06435874 | 06435882 | 06435882 |
| G4 in mm | 64 | 81 | 90 | 101 | 124 | 165 | 165 |
| WH in mm | 98 | 104 | 122 | 137 | 177 | 203 | 223 |
| X in mm | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Y in mm | 61 | 78 | 87 | 98 | 121 | 162 | 162 |

| SPIROPLAN® gearmotors | WT/WH/ WA ..29 | WT/WH/ WA ..39 | WT/WH/ WA ..49 |
|-----------------------|----------------------|----------------------|----------------------|
| Part number | 10686320 | 29225086 | 29225612 |
| G4 in mm | 60 | 70 | 87 |
| WH in mm | 84.5 | 98 | 119 |
| X in mm | 1.5 | 1.5 | 1.5 |
| Y in mm | 50 | 67 | 84 |

6.14.8 Part numbers and dimensions for flat fixed plastic covers

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| Parallel-shaft helical gearmotors | FA/FV..27 | FA/FV..37 | FA/FV..47 | FA/FV..57 | FA/FV..67 | FA/FV..77 | FA/FV..87 | FA/FV..97 |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Part number | 10688684 | 10688293 | 10688390 | 10688498 | 10688498 | 10688595 | 10688692 | 10688781 |
| G4 in mm | 57.4 | 80.4 | 80.4 | 84.7 | 84.7 | 117.4 | 147.5 | 187.4 |
| O9 in mm | 111 | 134 | 163 | 179 | 193 | 223 | 251 | 313 |

| Helical-bevel gearmotors | KA ..19 | KA ..29 | KA ..39 | KA ..49 |
|--------------------------|----------|----------|----------|----------|
| Part number | 10688684 | 10688293 | 10688498 | 10688498 |
| G4 in mm | 57.4 | 80.4 | 84.7 | 84.7 |
| WH in mm | 63.2 | 73.5 | 90 | 90 |

| Helical-bevel gearmotors ¹⁾ | KA/KV..37 | KA/KV..47 | KA/KV..57 | KA/KV..67 | KA/KV..77 | KA/KV..87 | KA/KV..97 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Part number | 10688293 | 10688390 | 10688498 | 10688498 | 10688595 | 10688692 | 10688781 |
| G4 in mm | 80.4 | 80.4 | 84.7 | 84.7 | 117.4 | 147.5 | 187.4 |
| WH in mm | 72.5 | 87 | 95 | 101.5 | 116 | 131 | 161 |

1) Not possible for helical-bevel gear units with hollow shaft in foot-mounted design (KH..B and KA..B)

| Helical-worm gearmotors | SA ..37 | SA..47 | SA ..57 | SA..67 | SA..77 | SA.. 87 | SA..97 |
|-------------------------|----------|----------|----------|----------|----------|----------|----------|
| Part number | 10687890 | 10688293 | 10688390 | 10688498 | 10688595 | 10688692 | 10688781 |
| G4 in mm | 57.4 | 80.4 | 80.4 | 84.7 | 117.4 | 147.5 | 187.4 |
| WH in mm | 68 | 72.5 | 87 | 95.5 | 116 | 135 | 155 |

| SPIROPLAN [®] gear motors | WA..10 | WA..19 | WA..20 | WA ..29 | WA..30 | WA ..39 | WA ..49 |
|------------------------------------|----------|----------|----------|----------|----------|----------|----------|
| Part number | 10687998 | 10687998 | 10687998 | 10688684 | 10688099 | 10688293 | 10610286 |
| G4 in mm | 42.4 | 42.4 | 42.4 | 57.4 | 57.4 | 80.4 | 87.4 |
| WH in mm | 51 | 58.5 | 58.5 | 63.2 | 69 | 73.5 | 90 |




6.15 Technical data of condition monitoring

6.15.1 Information on oil aging sensor /DUO10A

Technical data

| | Technical data | | |
|---------------------------------|--|----------------------------|----------------------------|
| Preset oil grades | OIL1 | CLP mineral oil | $T_{\max} = 100\text{ °C}$ |
| | | Biodegradable oil | $T_{\max} = 100\text{ °C}$ |
| | OIL2 | CLP HC synthetic oil | $T_{\max} = 130\text{ °C}$ |
| | | CLP PAO oil | $T_{\max} = 130\text{ °C}$ |
| | OIL3 | CLP PG polyglycol | $T_{\max} = 130\text{ °C}$ |
| OIL4 | Food grade oil | $T_{\max} = 100\text{ °C}$ | |
| Switch outputs | 1: Early warning (time to next oil change can be set to between 2 and 100 days) 2: Main alarm (time to oil change 0 days) 3: Exceeded temperature T_{\max} 4: DUO10A is ready for operation | | |
| Permitted oil temperature | -40 °C – +130 °C | | |
| Permitted temperature sensor | PT1000 | | |
| EMC | IEC1000-4-2/3/4/6 | | |
| Ambient temperature | -25 °C – +70 °C | | |
| Operating voltage | DC 18 – 28 V | | |
| Current consumption for DC 24 V | < 90 mA | | |
| Protection class | III | | |
| Degree of protection | IP67 (optionally IP69K) | | |
| Housing materials | Evaluation unit: V2A, EPDM/X, PBT, FPM Temperature sensor: V4A | | |
| Electrical connection | Evaluation unit: M12 plug connector PT1000 temperature sensor: M12 plug connector | | |

Designations and part numbers

| Designation | Description | Part number |
|---|--|-------------|
|  DUO10A | Evaluation unit (basic device) | 13438751 |
| DUO10A-PUR-M12-5m | 5 m PUR cable with 1 connector | 13438778 |
| DUO10A-PVC-M12-5m | 5 m PVC cable with 1 connector | 13438786 |
| DUO10A | Angle bracket | 13438808 |
| DUO10A D = 34 | Mounting clamp | 13438794 |
|  W4843 PT1000 | PT1000 temperature sensor | 13438816 |
| W4843_4x0.34-2m-PUR | 2 m PUR cable for PT1000 ¹⁾ | 13438824 |
| W4843_4x0.34-2m-PVC | 2 m PVC cable for PT1000 ²⁾ | 13438832 |
|  DUO10A | Protection cap (for aseptic design, IP69K) | 13439022 |

1) PUR cables are particularly suited for use in oil-contaminated environments.

2) PVC cables are particularly suited for use in moist environments.

Mounting to standard gear units (R, F, K,S)

Adapter for mounting the PT1000 temperature sensor in screw plug bores:

| Complete adapter for PT1000 sensor | Part number |
|------------------------------------|-------------|
| M10 × 1 | 13439030 |
| M12 × 1.5 | 13439049 |
| M22 × 1.5 | 13439057 |
| M33 × 2 | 13439065 |
| M42 × 2 | 13439073 |

Mounting base for installing the diagnostic unit at the gear unit with an angle bracket:

| Mounting base with sealing ring | Part number |
|---------------------------------|-------------|
| M10 × 1 | 13434411 |
| M12 × 1.5 | 13438271 |
| M22 × 1.5 | 13438298 |
| M33 × 2 | 13438301 |
| M42 × 2 | 13438328 |

6.15.2 Information on the /DUV40A vibration monitoring system**Scope of delivery**

- Vibration SmartCheck unit with integrated SmartWeb software
- Vibration SmartCheck and SmartWeb documentation on CD-ROM
- SmartUtility Light software with user documentation on CD-ROM

Technical data

| DUV40A (Diagnostic Unit Vibration) | |
|------------------------------------|--|
| Housing | Glass fiber reinforced plastic |
| Fastening | Hexagon socket head screw M6 × 45 Contact surface on the machine: 25 mm Ø |
| Current consumption | < 200 mA at 24 V |
| Ambient temperature | -20 to +70 °C |
| Internal operating temperature | -20 to +85 °C |
| Voltage supply | DC 11 – 32 V or Power over Ethernet (PoE) based on 802.3af Mode A |
| Size | 44 mm × 57 mm × 55 mm |
| Weight | Approx. 210 g |
| Degree of protection | IP 67 |
| Operating system | Embedded Linux |

| DUV40A (Diagnostic Unit Vibration) | |
|------------------------------------|--|
| Software | SmartWeb (Mozilla Firefox ESR 38 (recommended), Internet Explorer 11, Internet Explorer 9 not recommended due to performance reasons) Vibration SmartUtility Light or optionally Vibration SmartUtility Languages: German, English, Chinese, Spanish, and French |

| Internal sensor technology | |
|----------------------------|--|
| Vibration | Acceleration sensor (piezoelectric sensor) Frequency range 0.8 Hz to 10 kHz Measuring range ± 50 g |
| Temperature | Measuring range -20 to +70 °C |

| Measurement | |
|-----------------------|--|
| Measurement functions | Acceleration Speed and distance by integration System temperature Process parameters (e.g. speed, load, pressure) |
| Diagnostic methods | Time signal, envelope, spectrum and trend analysis, rotational speed and frequency tracking |

| Characteristic values (time and frequency range) | |
|--|--|
| Defined characteristic values | DIN/ISO 10816 |
| Calculated characteristic values | RMS, frequency selected RMS, direct component, peak, peak to peak, crest factor, Wellhausen count, carpet level, condition monitoring Other user-defined characteristic values are available. |

| Signal processor | |
|-----------------------------|---|
| Frequency resolution | 1600, 3200, 6400, or 12800 lines |
| Measurement resolution | 24-bit (A/D converter) |
| Frequency range | 0.8 Hz – 10 kHz |
| Low passes | 50 Hz – 10 kHz (50 Hz, 100 Hz, 200 Hz, 500 Hz, 1 kHz, 2 kHz, 5 kHz, 10 kHz) |
| High passes (only envelope) | 750 Hz, 1 kHz, 2 kHz (other filters on request) |

| Memory | |
|------------------|-------------------------|
| Program and data | 64 MB RAM, 128 MB flash |

| Inputs and outputs | |
|--------------------|---|
| Inputs | 2 analog inputs (0 – 10 V / 0 – 24 V / 0 – 20 mA / 4 – 20 mA), frequency range 0 – 500 Hz, 12-bit 1 digital input (0 – 30 V, 0.1 Hz – 1 kHz) |
| Outputs | 1 analog output (0 – 10 V / -20 mA / 4 – 20 mA), 12-bit 1 switching output (open collector, max. 1 A, 28 V) |

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| Interfaces | |
|------------------------|--|
| Control elements | 2 capacitive pushbuttons (learning mode, alarm reset, restart, factory settings) |
| Display elements | 1 LED to display status and alarm 1 LED to acknowledge the pushbuttons 2 LEDs to display communication |
| Communication | Ethernet 100 Mb/s OPC UA (server) available with additional license |
| Electrical connections | 3 polarity reversal-protected M12 plug connectors for supply, input/outputs and Ethernet |

Part numbers

| | Description | Part number |
|--------|--|-------------|
| Sensor | DUV40A (Diagnostic Unit Vibration) | 19175892 |
| Cables | Voltage supply cable 8-pin for SmartCheck 5 m; M12(B) <-> open end | 19179596 |
| Cables | Ethernet cable for SmartCheck 5 m; M12 <-> RJ45 | 19179618 |
| Cables | I/O cable 8-pin for SmartCheck 5 m; M12(St) <-> open end | 19179626 |
| Cables | Power/Ethernet/I-O signals in 10 m and 20 m | |

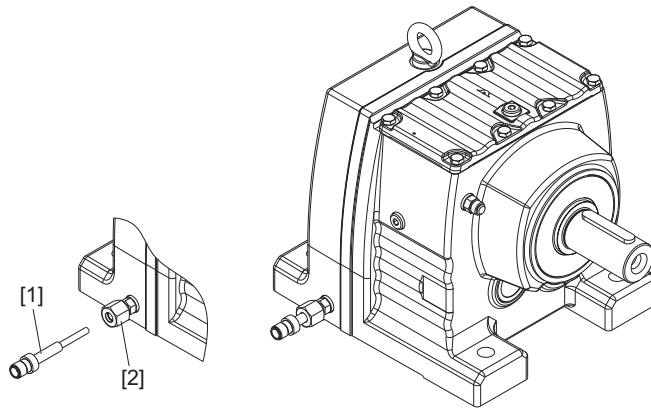
| | Description | Part number |
|--|---|-------------|
| Base for mounting on standard gear units (R, F, K, and S gear units) | Mounting base with sealing ring M10 × 1 | 20593422 |
| | Mounting base with sealing ring M12 × 1.5 | 20593430 |
| | Mounting base with sealing ring M22 × 1.5 | 20593449 |
| | Mounting base with sealing ring M33 × 2 | 20593457 |
| | Mounting base with sealing ring M42 × 2 | 20593465 |

| | Description | Part number |
|--|---|-------------|
| Base for mounting on industrial gear units | Mounting base with sealing ring G3/4" | 20593384 |
| | Mounting base with sealing ring G1" | 20593392 |
| | Mounting base with sealing ring G1 1/4" | 20593406 |
| | Mounting base with sealing ring G1 1/2" | 20593414 |

| | Description | Part number |
|--------------------------------------|-------------------|-------------|
| Base for mounting on standard motors | Mounting base M5 | 21014175 |
| | Mounting base M6 | 21014167 |
| | Mounting base M8 | 20593503 |
| | Mounting base M10 | 21014248 |
| | Mounting base M12 | 20593473 |
| | Mounting base M16 | 20593481 |
| | Mounting base M20 | 20593511 |

6.16 PT1000 temperature sensor

The optional PT1000 temperature sensor (part number 13438816) is used for continuously measuring the oil temperature of the gear unit.



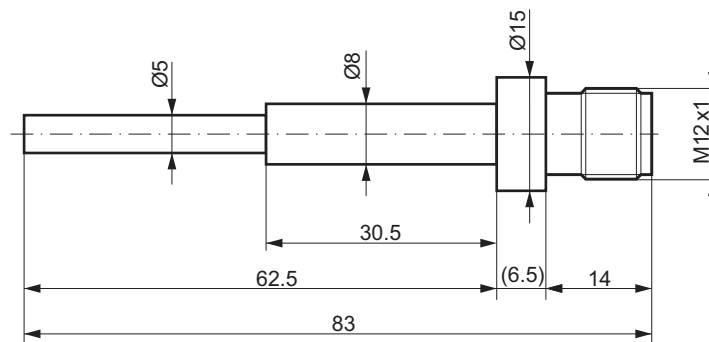
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- [1] Temperature sensor
- [2] Adapter screw fitting

The temperature sensor [1] is delivered in mounted condition. It is attached to the gear unit by means of an adapter screw fitting [2] in the corresponding screw plug bore.

For using the temperature sensor in potentially explosive areas, observe the corresponding information in the "Explosion-Protected Gear Units" assembly and operating instructions (Mechanical installation → Optional equipment).

6.16.1 PT1000 dimension drawing



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6.16.2 PT1000 technical data


| Technical Data | Value |
|------------------------------|--|
| Rod length | 62.5 mm |
| Measuring range | -40 – 130 °C |
| Permitted oil temperature | -40 – 130 °C |
| Accuracy | ± (PT1000 + 0.2 K) |
| Measuring element | 1 × PT1000 to DIN EN 60751, class B, 4-wire connection |
| Dynamic response T05/T09 (s) | 3/8 to DIN EN 60751 |

| Technical Data | Value |
|--|--|
| Ambient temperature | -25 – 80 °C |
| Degree of protection, protection class | IP67, III |
| Housing materials | V4A (1.4404) |
| Materials in contact with the medium | V4A (1.4404) |
| Port | M12 plug-in connection; gold-plated contacts |

7 Important information on selection tables and dimension drawings

7.1 Information on the selection tables

7.1.1 Information on selection tables for AMS.. adapters

| R77, $n_g = 1400 \text{ min}^{-1}$, $M_{a \text{ max}} / \text{Nm}$ | | | | | AMS | | | | | | | | 820 Nm |
|--|----------------------------|-----------------------------|---------------------|-------------------|-----|----|---|-----|-----|-----|--------|-------|--------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\phi_{(R)}$ ' | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M | 132ML | |
| | | | | | | |  2 | | | | | | [7] |
| 5.31 | 264 | 510 | 3990 | 8 | | | 97 | 128 | 265 | 315 | 510 | 510 | |
| 5.99 | 234 | 540 | 3990 | 8 | | | 110 | 144 | 295 | 355 | 540 | 540 | |
| 6.79 | 206 | 580 | 3850 | 8 | 44 | 44 | 125 | 164 | 325 | 405 | 580 | 580 | |
| 7.74 | 181 | 610 | 3940 | 8 | 50 | 50 | 143 | 187 | 365 | 435 | 610 | 610 | |
| 8.59 | 163 | 630 | 4110 | 7 | 56 | 56 | 158 | 205 | 395 | 455 | 630 | | |
| 9.64 | 145 | 630 | 6300 | 7 | | | 177 | 230 | 540 | 575 | 630 | 630 | |
| 10.88 | 129 | 660 | 6490 | 6 | | | 200 | 260 | 595 | 645 | 660 | 660 | |

[1]

[2]

[3]

[4]

[5]

[6]





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- [1] Gear unit ratio: For gear ratios with a footnote²⁾, refer to the chapter "Churning losses and thermal rating" (→ 57).
- [2] Output speed
- [3] Maximum permitted output torque of the open gear unit without additional component
- [4] Permitted overhung load at maximum output torque
(¹⁾ R., F., K., S.: Foot-mounted gear unit with solid shaft; W..9: Design with hollow shaft)
- [5] Numerical value given: The reduced backlash option (/R) is possible; the numerical value specifies the rotational clearance of the reduced backlash version in angular minutes '. No data (-): The reduced backlash option (/R) is not possible for this i value.
- [6] Maximum permitted output torque of the gear unit/adaptor combination
- [7] Stages of the following gear ratios



Combination is **not possible**.
Combination is **possible**.

The following table provides weight information for gear units with IEC or NEMA adapter







| m /kg | | AMS | | | | | | | |
|-------------|---|-----|----|-----|-----|-----|-----|---------|-------|
| IEC | s | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M | 132ML |
| R77 |  2 | 33 | 34 | 35 | 36 | 41 | 41 | 45 | 45 |
| R77 |  3 | 34 | 35 | 36 | 37 | 42 | 42 | 47 | 47 |
| NEMA | | – | 56 | 143 | 145 | 182 | 184 | 213/215 | – |
| R77 |  2 | – | 34 | 35 | 35 | 39 | 39 | 43 | – |
| R77 |  3 | – | 36 | 36 | 36 | 40 | 40 | 44 | – |

RF: + 5.7 kg / RM: + 31 kg

7 Important information on selection tables and dimension drawings

Information on the selection tables




7.1.2 Information on selection tables for AT.. adapters

| | | | | | | | |
|---|---|-------------|---|--|---|------------|---|
|  |  | P_m kW |  |  |  | S_n % |  |
| [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] |

21397670411

- [1] Gear unit size
- [2] Motor type
- [3] Motor power
- [4] Adapter type
- [5] Coupling type
- [6] Fill quantity in liters
- [7] Rated slip of the coupling
- [8] Dimension sheet page number

7.1.3 Information on the selection tables for AD.. input shaft assemblies

| | | | | | | | | | | | |
|--|----------------------------|-------------------|-------------|---------------------|---------------|-----------------|--|---|------|-----------|--|
| [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] |
| i | n_a min^{-1} | $M_{a,max}$ Nm | P_o kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\varphi_{(R)}$ |  |  | | m kg |  |
| RX57 AD.., $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | | 69 Nm |
| [13] | [14] | | | | | | | | | | [15] |

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- [1] Gear unit ratio; a value marked with * indicates a finite gear unit ratio
- [2] Output speed
- [3] Maximum permitted output torque
- [4] Calculated input power of the gear unit
- [5] Permitted overhung load at maximum output torque.
(¹) R.., F.. K.., S..: Foot-mounted gear unit with solid shaft; W..9: Design with hollow shaft)
- [6] Permitted overhung load on input end
- [7] Numerical value given: The reduced backlash option (/R) is possible; the numerical value specifies the rotational clearance of the reduced backlash version in angular minutes '. No data (-): The reduced backlash option (/R) is not possible for this i value.
- [8] Observe the chapter "Thermal limit rating for gear units with input shaft assembly" (→ 79).
- [9] Gear unit size
- [10] Cover type
- [11] Weight
- [12] Dimension sheet page number
- [13] Gear unit type and size
- [14] Rated speed
- [15] Maximum output torque of the gear unit

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7.2 Dimension sheet information

7.2.1 Symbols for scope of delivery



Standard parts supplied by SEW-EURODRIVE.



Standard parts not supplied by SEW-EURODRIVE.

7.2.2 Tolerances

Shaft heights

The following tolerances apply to the indicated dimensions:

$h \leq 250 \text{ mm} \rightarrow -0.5 \text{ mm}$

$h > 250 \text{ mm} \rightarrow -1 \text{ mm}$

Foot-mounted gear units: Check the mounted motor because it might project below the mounting surface.

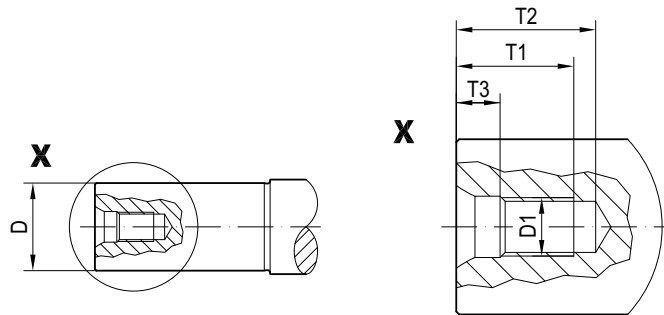
Shaft ends

Diameter tolerance:

$\varnothing \leq 50 \text{ mm} \rightarrow \text{ISO k6}$

$\varnothing > 50 \text{ mm} \rightarrow \text{ISO m6}$

Center holes according to DIN 332, shape DR:



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| D | D1 | T1 +2/0 | T2 min | T3 +1/0 |
|--------------|-----|---------|--------|---------|
| 13 < D ≤ 16 | M5 | 12.5 | 17 | 4 |
| 16 < D ≤ 21 | M6 | 16 | 21 | 5 |
| 21 < D ≤ 24 | M8 | 19 | 25 | 6 |
| 24 < D ≤ 30 | M10 | 22 | 30 | 7.5 |
| 30 < D ≤ 38 | M12 | 28 | 37 | 9.5 |
| 38 < D ≤ 50 | M16 | 36 | 45 | 12 |
| 50 < D ≤ 85 | M20 | 42 | 53 | 15 |
| 85 < D ≤ 130 | M24 | 50 | 63 | 18 |

| D | D1 | T1 +2/0 | T2 min | T3 +1/0 |
|---------------|-----|---------|--------|---------|
| 130 < D ≤ 225 | M30 | 63 | 85 | 20 |

Keys: according to DIN 6885 (domed type)

Keyway width to ISO N9

Hollow shafts

Diameter tolerance:

∅ → ISO H7 measured with plug gauge

Keys: according to DIN 6885 (domed type)

Exception: Key for WA.37 with shaft ∅ 25 mm and for KA.29 with shaft ∅ 30 mm according to DIN 6885-3 (low form)

Keyway width to ISO JS9

Multiple-spline shafts

D_m Measuring roller diameter

M_e Check size

The fit of the hollow shafts with splined hollow shaft is 9H.

The assumed fit of the customer shaft in the dimension sheets of the catalog is 7d.

The fit pair 9H/7d specified in the dimension sheets is a clearance fit. Depending on the application requirements, it is the customer's responsibility to choose another fit pair and to manufacture the customer shaft accordingly.

Flanges

Centering shoulder tolerance:

$\varnothing \leq 230$ mm (flange sizes A120 – A300) → ISO j6

$\varnothing > 230$ mm (flange sizes A350 – A660) → ISO h6

For helical gear units, SPIROPLAN® gear units, AC (brake) motors and explosion-protected AC (brake) motors, up to 3 different flange dimensions are available per size. The mountable flange for each size can be found in the respective dimension sheets.

7.2.3 Eyebolts, lifting eyes

R07 – R27 helical gear units, K..167 – K..187 helical-bevel gear units, motors up to DRN90 and SPIROPLAN® gearmotors W..10 – W..30 are delivered without special transportation fixtures. All other gear units and motors are equipped with cast-on lifting eyes, screw-on lifting eyes, or screw-on eyebolts.

| Gear unit/motor type | Screw-on | | Cast-on lifting eyes |
|----------------------|------------------|--------------|----------------------|
| | Lifting eyebolts | Lifting eyes | |
| R..37 – R..57 | — | X | — |
| R..67 – R..167 | X | — | — |
| RX57/RX67 | — | X | — |
| RX77 – RX107 | X | — | — |
| F..27 – F..157 | — | — | X |
| K..19 – K..49 | — | X | — |
| K..37 – K..157 | — | — | X |
| S..37/S47 | — | X | — |
| S..47 – S..97 | — | — | X |
| W..19 – W..49 | — | X | — |
| ≥ DRN100L | X | — | — |

Legend: —not available, X available

7.2.4 Breather valves

The gear unit dimension drawings always show the screw plugs. The corresponding screw plug is replaced by an activated breather valve at the factory depending on the ordered mounting position M1 to M6. The result may be slightly altered contour dimensions.

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7 Important information on selection tables and dimension drawings

Dimension sheet information

7.2.5 Shrink disk connection

In order to non-positively transfer the torques stated in the catalog in case of gear units with hollow shaft and shrink disk connection, observe the following peripheral conditions in addition to the information on the respective dimension sheet when dimensioning the customer shaft:

- Surface roughness $R_z \leq 16 \mu\text{m}$
- Elastic limit of the customer shaft material R_e and/or $R_{p0.2} \geq 305 \text{ N/mm}^2$
- Design of the customer shaft as solid shaft

For customer shafts designed as hollow shaft, contact SEW-EURODRIVE.

7.2.6 Splined hollow shaft

FV.. hollow shaft gear unit sizes 27 to 107, and KV.. sizes 37 to 107 are supplied with splining according to standard DIN 5480.

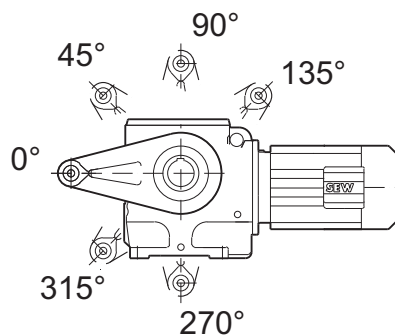
7.2.7 Rubber buffer for FA/FH/FV/FT

The depictions on the dimension sheets show the rubber buffers for FA/FH/FV/FT gear units in loose state. Preload rubber buffer by the indicated value ΔL . The characteristic curve of spring for the rubber buffer is available upon request from SEW-EURODRIVE.

7.2.8 Position of the torque arm

The following illustration shows the possible torque arm positions for helical-worm gear units, 2-stage K..9 helical-bevel gear units, and SPIROPLAN® gear units with the respective angles.

Exceptions: The 135° position is not possible with SPIROPLAN® W..0, SPIROPLAN® W..19 and SPIROPLAN® W49 gear units. For SPIROPLAN® W..29 and W..39 gear units, the 90° position is not possible either.



9007204237459467

For more information about torque arms, refer to the respective dimension sheets of the gearmotors:

| Gearmotor | Dimension sheets on page |
|--------------------------|--------------------------|
| Helical-bevel gearmotors | (→ 247) |
| Helical-worm gearmotors | (→ 612) |
| SPIROPLAN® gearmotors | (→ 721) |

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7.2.9 Dimensions of gear units and gearmotors**Motor options**

The motor dimensions may change when installing motor options. Refer to the dimension drawings of the motor options in the "AC Motors" catalog.

Special designs

The terminal box dimensions in special designs might vary from the standard.

7 Important information on selection tables and dimension drawings

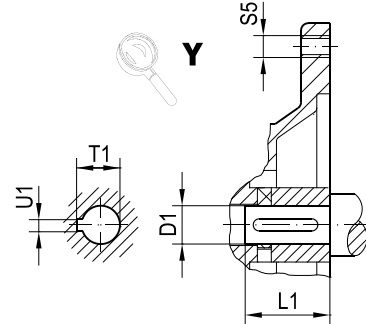
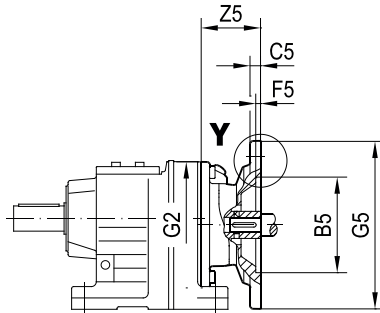
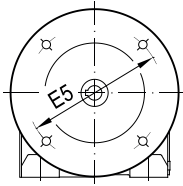
Dimension sheet information

Dimension designations of gear units

The dimensions of the gear units are described below:

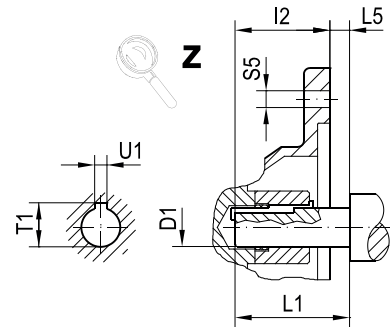
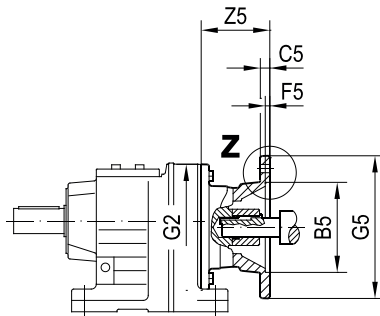
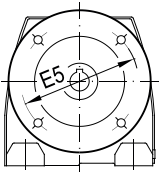
AMS..(IEC) / AMS..(NEMA)

AMS.. (IEC)



01 196 00 20

AMS.. (NEMA)



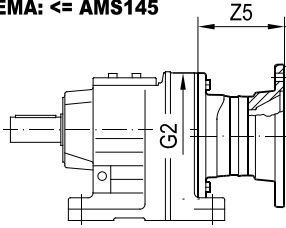
35485603339

- B5 Center bore diameter
- C5 Flange thickness
- D1 Coupling bore diameter
- E5 Hole circle diameter
- F5 Centering depth
- G2 Gear unit input end flange diameter
- G5 Adapter flange diameter
- I2 Maximum insertion depth in adapter
- L1 Shaft end length (motor)
- L5 Shaft collar length to flange surface
- S5 Tapped hole
- T1 Keyway depth
- U1 Keyway width
- Z5 Adapter length

AMS../RS / AMS../DH

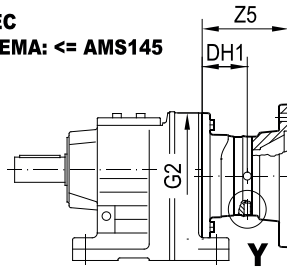
AMS../RS

IEC
NEMA: <= AMS145



AMS../DH

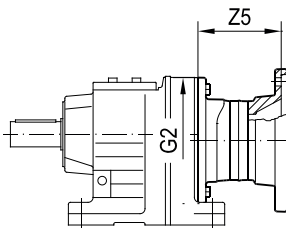
IEC
NEMA: <= AMS145



01 068 01 21

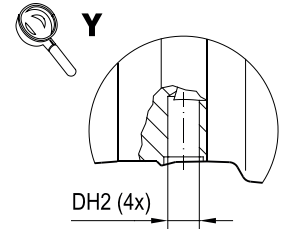
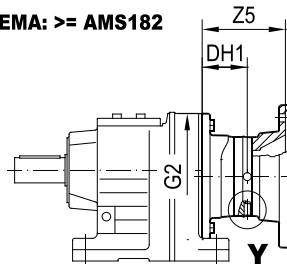
AMS../RS

NEMA: >= AMS182



AMS../DH

NEMA: >= AMS182



35485600907

- DH1 Position of the condensation drain hole or drain hole
- DH2 Diameter of the condensation drain hole or drain hole
- G2 Gear unit input end flange diameter
- Z5 Adapter length

INFORMATION

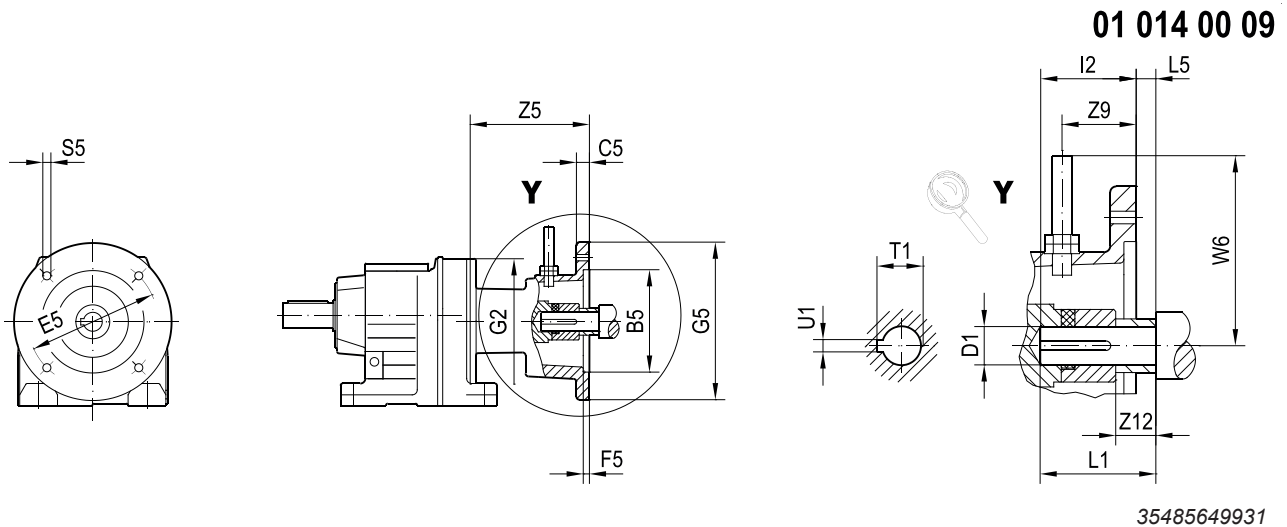


For motors with other feedback systems than resolvers, possible additional lengths must be considered.

7 Important information on selection tables and dimension drawings

Dimension sheet information

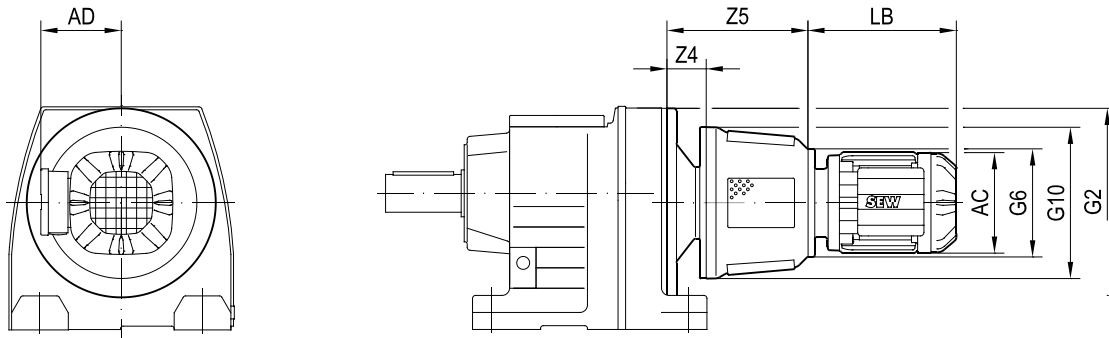
AR..



- B5 Center bore diameter
- C5 Flange thickness
- D1 Coupling bore diameter
- E5 Hole circle diameter
- F5 Centering depth
- G2 Gear unit input end flange diameter
- G5 Adapter flange diameter
- L1 Shaft end length (motor)
- S5 Tapped hole
- T1 Keyway depth
- U1 Keyway width
- W6 Incremental encoder height
- Z5 Adapter length
- Z9 Incremental encoder position
- Z12 Shaft collar length to coupling

AT..

01 075 01 21



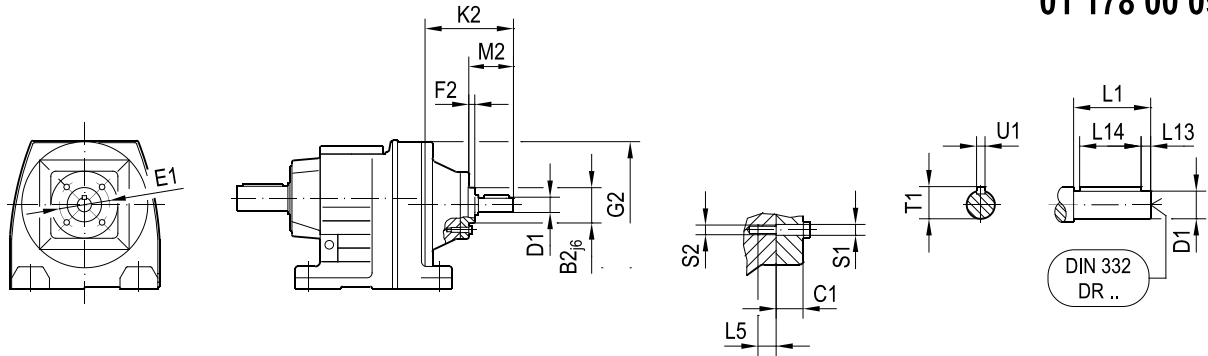
- AC Motor diameter
- AD Height of motor terminal box
- G2 Flange diameter on input end of gear unit
- G6 Motor flange diameter
- G10 Housing diameter of start-up coupling
- LB Motor length
- Z5 Adapter length
- Z4 Distance of gear unit and hydraulic coupling

7 Important information on selection tables and dimension drawings

Dimension sheet information

AD.. / AD../ZR

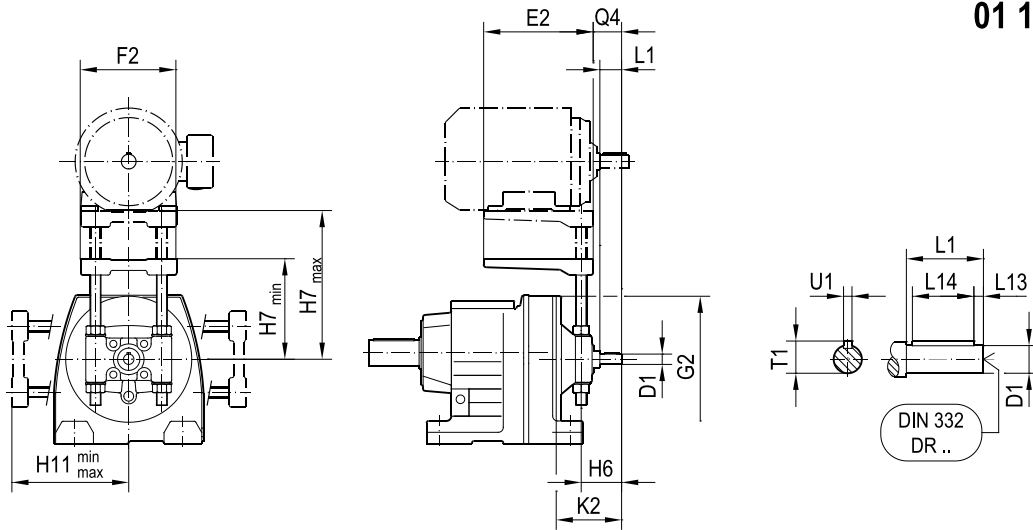
01 178 00 09



- B2 Center bore diameter
- C1 Flange thickness
- D1 Shaft diameter
- E1 Hole circle diameter
- F2 Center bore height
- G2 Flange diameter on input end of gear unit
- K2 Input shaft assembly length
- L1 Length of shaft end
- L5 Thread depth
- L13 Position of key
- L14 Key length
- M2 Contact surface position
- S1 Through bore
- S2 Thread diameter
- T1 Key height in shaft
- U1 Key width

AD../P

01 179 00 09



- D1 Shaft diameter
- E2 Length of motor platform
- F2 Width of motor platform
- G2 Flange diameter on input end of gear unit
- H6 Distance from shaft end to middle of pillar
- H7 Adjusting height
- H11 Adjusting height (0°, 180°)
- K2 Input shaft assembly length
- L1 Length of shaft end
- L13 Position of key
- L14 Key length
- Q4 Distance from shaft end to base plate
- T1 Key height in shaft
- U1 Key width

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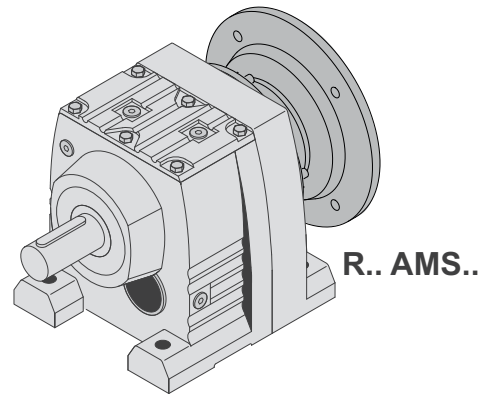
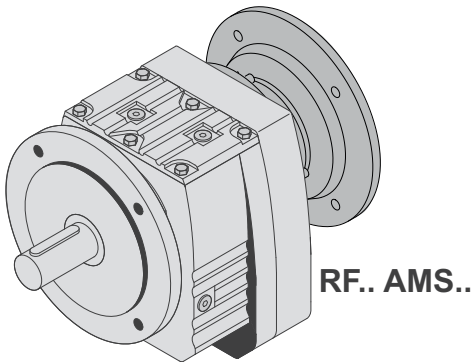
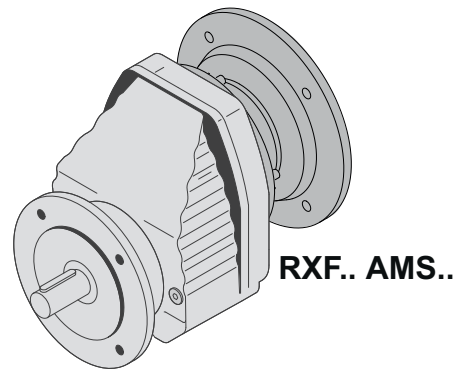
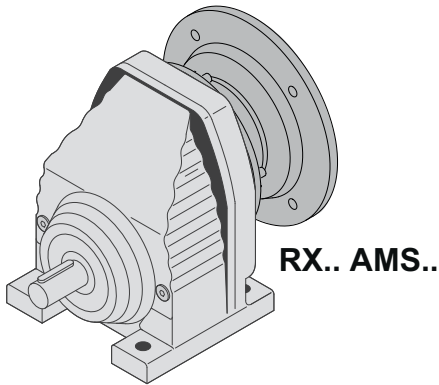
8

R.. helical gear units

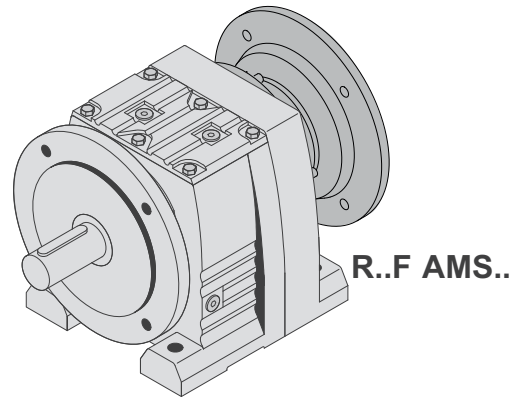
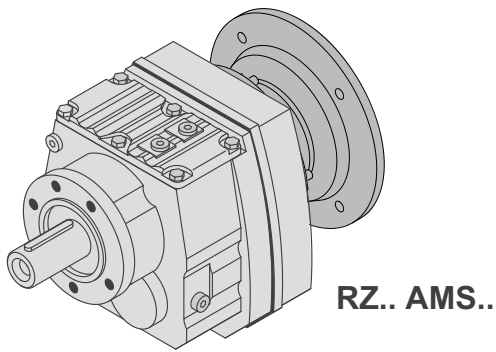
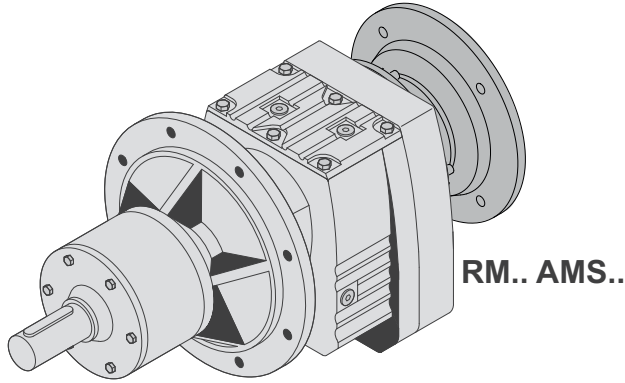
Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

8 R.. helical gear units

8.1 Selection tables for adapters for mounting IEC/NEMA motors (AMS..)






9007220696337291




9007220696339723



8.1.1 RX.. AMS.. /Nm

| RX57, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 69 Nm | | | | | | |
|---|----------------------------|-----------------------------|---------------------|----------------------|-------|----|----|-----------|-----|-----|--------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | 63 | 71 | 80 | AMS 90 | 100 | 112 | 132S/M |
|  1 | | | | | | | | | | | |
| 1.30 | 1075 | 63 | 132 | - | 8 | 8 | 24 | 32 | 58 | 63 | 63 |
| 1.48 | 946 | 68 | 112 | - | 9 | 9 | 27 | 36 | 64 | 68 | 68 |
| 1.65 | 848 | 69 | 430 | - | 11 | 11 | 31 | 40 | 69 | 69 | 69 |
| 1.92 | 729 | 69 | 880 | - | 12 | 12 | 36 | 43 | 69 | 69 | 69 |
| 2.04 | 686 | 69 | 1070 | - | 13 | 13 | 38 | 44 | 69 | 69 | 69 |
| 2.37 | 591 | 69 | 1500 | - | 15 | 15 | 42 | 47 | 69 | 69 | |
| 2.64 | 530 | 69 | 1810 | - | 17 | 17 | 46 | 48 | 69 | 69 | |
| 2.91 | 481 | 67 | 2170 | - | 19 | 19 | 48 | 49 | | | |
| 3.14 | 446 | 65 | 2320 | - | 21 | 21 | 50 | 51 | 65 | | |
| 3.55 | 394 | 69 | 2420 | - | 24 | 24 | 51 | 52 | | | |
| 3.79 | 369 | 69 | 2480 | - | 25 | 25 | 52 | 53 | | | |
| 4.35 | 322 | 68 | 2640 | - | 28 | 28 | 54 | | | | |
| 5.07 | 276 | 36 | 3030 | - | 29 | 29 | | | | | |
| 5.50 | 255 | 39 | 3100 | - | 30 | 30 | | | | | |

| RX57, m /kg | | | AMS | | | | | | |
|-------------|------|---|-----|----|-----|-----|-----|-----|---------|
| RX | IEC | s | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M |
| | |  1 | 12 | 12 | 14 | 15 | 19 | 19 | 24 |
| | NEMA | s | - | 56 | 143 | 145 | 182 | 184 | 213/215 |
| | |  1 | - | 14 | 14 | 14 | 18 | 18 | 21 |

RXF: + 1.9 kg

| RX67, $n_g = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | AMS | | | | | | | 134 Nm |
|---|----------------------------|-----------------------------|---------------------|----------------------|-----|----|----|----|-----|-----|--------|--------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M | |
|  1 | | | | | | | | | | | | |
| 1.40 | 1000 | 104 | 205 | - | | | 26 | 34 | 64 | 84 | 104 | |
| 1.61 | 870 | 114 | 245 | - | 10 | 10 | 30 | 39 | 72 | 97 | 114 | |
| 1.86 | 753 | 126 | 225 | - | 12 | 12 | 34 | 45 | 80 | 102 | 126 | |
| 2.04 | 686 | 134 | 230 | - | 13 | 13 | 38 | 50 | 86 | 106 | 134 | |
| 2.40 | 583 | 123 | 1530 | - | 16 | 16 | 45 | 54 | 96 | 113 | 123 | |
| 2.54 | 551 | 118 | 2000 | - | 17 | 17 | 47 | 55 | 100 | 115 | 118 | |
| 2.89 | 484 | 106 | 2640 | - | 19 | 19 | 52 | 57 | 106 | 106 | | |
| 3.20 | 438 | 100 | 2800 | - | 21 | 21 | 56 | 59 | 100 | 100 | | |
| 3.77 | 371 | 87 | 3090 | - | 25 | 25 | 60 | 61 | 87 | | | |
| 4.30 | 326 | 80 | 3300 | - | 29 | 29 | 63 | 64 | | | | |
| 4.53 | 309 | 82 | 3350 | - | 30 | 30 | 63 | 64 | | | | |
| 5.18 | 270 | 75 | 3580 | - | 34 | 34 | 64 | | | | | |
| 6.07 | 231 | 43 | 4000 | - | 35 | 35 | | | | | | |


| RX67, m /kg | | | AMS | | | | | | |
|-------------|------|--|---|----|-----|-----|-----|-----|---------|
| RX | IEC | s | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M |
| | | |  1 | 15 | 15 | 17 | 18 | 22 | 22 |
| RX | NEMA | s | - | 56 | 143 | 145 | 182 | 184 | 213/215 |
| | |  1 | - | 16 | 17 | 17 | 21 | 21 | 24 |



RXF: + 4.0 kg

8


R.. helical gear units



Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| RX77, $n_g = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | AMS | | | | | | | | 215 Nm |
|---|----------------------------|-----------------------------|---------------------|----------------------|-----|----|----|----|-----|-----|--------|-------|--------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M | 132ML | |
|  1 | | | | | | | | | | | | | |
| 1.42 | 986 | 155 | 240 | - | | | 26 | 34 | 71 | 85 | 155 | 155 | |
| 1.67 | 838 | 173 | 240 | - | | | 31 | 40 | 81 | 100 | 173 | 173 | |
| 1.88 | 745 | 187 | 255 | - | | | 35 | 45 | 89 | 113 | 187 | 187 | |
| 2.13 | 657 | 200 | 360 | - | 13 | 13 | 39 | 52 | 98 | 128 | 200 | 200 | |
| 2.43 | 576 | 215 | 425 | - | 16 | 16 | 45 | 59 | 109 | 136 | 215 | 215 | |
| 2.70 | 519 | 215 | 1030 | - | 17 | 17 | 50 | 66 | 118 | 142 | 215 | | |
| 3.08 | 455 | 193 | 2490 | - | 20 | 20 | 57 | 70 | 129 | 148 | 193 | | |
| 3.25 | 431 | 182 | 3140 | - | 21 | 21 | 60 | 72 | 134 | 150 | 182 | | |
| 3.70 | 378 | 153 | 4280 | - | 24 | 24 | 68 | 74 | 145 | 153 | | | |
| 4.04 | 347 | 143 | 4490 | - | 27 | 27 | 73 | 75 | 143 | 143 | | | |
| 4.73 | 296 | 123 | 4890 | - | 31 | 31 | 76 | 77 | 123 | | | | |
| 5.35 | 262 | 103 | 5240 | - | 35 | 35 | 79 | 81 | | | | | |
| 5.63 | 249 | 110 | 5300 | - | 37 | 37 | 79 | 81 | | | | | |
| 6.41 | 218 | 103 | 5600 | - | 42 | 42 | 81 | | | | | | |
| 7.47 | 187 | 53 | 6200 | - | 43 | 43 | | | | | | | |
| 8.00 | 175 | 57 | 6330 | - | 43 | 43 | | | | | | | |

| RX77, m /kg | | AMS | | | | | | | | |
|-------------|------|---|---|----|-----|-----|-----|-----|---------|-------|
| RX | IEC | s | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M | 132ML |
| | | |  1 | 25 | 25 | 27 | 27 | 32 | 32 | 37 |
| | NEMA | s | - | 56 | 143 | 145 | 182 | 184 | 213/215 | - |
| | |  1 | - | 26 | 27 | 27 | 31 | 31 | 34 | - |

RXF: + 2.3 kg

| RX87, $n_g = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | AMS | | | | | | | | 405 Nm |
|---|----------------------------|-----------------------------|---------------------|----------------------|-----|-----|-----|-----|--------|-------|-----|-----|--------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | 80 | 90 | 100 | 112 | 132S/M | 132ML | 160 | 180 | |
|  1 | | | | | | | | | | | | | |
| 1.39 | 1005 | 290 | 74 | - | | | | | 155 | 235 | 255 | 290 | |
| 1.60 | 875 | 315 | 74 | - | | | 87 | 96 | 179 | 250 | 295 | 315 | |
| 1.93 | 725 | 355 | 185 | - | | | 103 | 116 | 215 | 270 | 355 | 355 | |
| 2.15 | 651 | 385 | 42 | - | 39 | 52 | 114 | 129 | 240 | 280 | 385 | 385 | |
| 2.48 | 565 | 405 | 470 | - | 45 | 60 | 129 | 149 | 275 | 295 | 405 | 405 | |
| 2.76 | 507 | 405 | 1200 | - | 51 | 67 | 141 | 166 | 305 | 305 | 405 | 405 | |
| 3.09 | 453 | 405 | 2030 | - | 57 | 75 | 155 | 186 | 320 | 320 | 405 | | |
| 3.48 | 402 | 405 | 2810 | - | 64 | 85 | 171 | 200 | 330 | 330 | 405 | | |
| 3.78 | 370 | 305 | 5050 | - | 70 | 92 | 182 | 205 | 305 | | | | |
| 4.50 | 311 | 290 | 5520 | - | 84 | 103 | 205 | 215 | 290 | | | | |
| 5.07 | 276 | 250 | 5990 | - | 95 | 105 | 215 | 215 | | | | | |
| 5.56 | 252 | 225 | 6330 | - | 103 | 107 | 220 | 220 | | | | | |
| 6.45 | 217 | 192 | 6860 | - | 106 | 110 | 192 | | | | | | |
| 7.20 | 194 | 140 | 7380 | - | 110 | 112 | | | | | | | |
| 7.63 | 183 | 149 | 7500 | - | 111 | 113 | | | | | | | |
| 8.65 | 162 | 139 | 7890 | - | 113 | | | | | | | | |


| RX87, m /kg | | AMS | | | | | | | | |
|-------------|------|---|-----|-----|-----|-----|---------|-------|---------|---------|
| RX | IEC | s | 80 | 90 | 100 | 112 | 132S/M | 132ML | 160 | 180 |
| | |  1 | 43 | 44 | 49 | 49 | 54 | 55 | 68 | 67 |
| | NEMA | s | 143 | 145 | 182 | 184 | 213/215 | - | 254/256 | 284/286 |
| | |  1 | 43 | 43 | 48 | 48 | 52 | - | 62 | 65 |



RXF: + 5.0 kg

8


R.. helical gear units



Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| RX97, $n_g = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | | | | | | | 595 Nm |
|---|----------------------------|-----------------------------|---------------------|----------------------|-----|-----|--------|--------------|-----|-----|--------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | 100 | 112 | 132S/M | AMS 132ML | 160 | 180 | 200 |
|  1 | | | | | | | | | | | |
| 1.42 ⁽²⁾ | 986 | 455 | 132 | - | | | 157 | 235 | 260 | 440 | 455 |
| 1.64 ⁽²⁾ | 854 | 505 | 51 | - | | | 182 | 275 | 300 | 505 | 505 |
| 1.96 | 714 | 570 | 19 | - | | | 215 | 330 | 360 | 570 | 570 |
| 2.24 | 625 | 595 | 545 | - | 119 | 133 | 250 | 345 | 415 | 595 | 595 |
| 2.64 | 530 | 595 | 2020 | - | 137 | 158 | 295 | 365 | 490 | 595 | 595 |
| 2.92 | 479 | 595 | 2890 | - | 150 | 175 | 325 | 380 | 545 | 595 | 595 |
| 3.30 | 424 | 595 | 3820 | - | 166 | 198 | 365 | 390 | 595 | 595 | |
| 3.64 | 385 | 595 | 4610 | - | 180 | 215 | 400 | 400 | 595 | 595 | |
| 4.04 | 347 | 595 | 5450 | - | 195 | 240 | 415 | 415 | 595 | | |
| 4.52 | 310 | 595 | 6210 | - | 210 | 255 | 425 | 425 | 595 | | |
| 4.91 | 285 | 395 | 7240 | - | 225 | 265 | 395 | | | | |
| 5.79 | 242 | 420 | 7650 | - | 250 | 270 | 420 | | | | |
| 6.56 | 213 | 300 | 8510 | - | 275 | 275 | | | | | |
| 7.16 | 196 | 260 | 8960 | - | 260 | 260 | | | | | |
| 8.23 | 170 | 225 | 9570 | - | 225 | | | | | | |

| RX97, m /kg | | | AMS | | | | | | |
|-------------|------|---|-----|-----|---------|-------|---------|---------|---------|
| RX | IEC | s | 100 | 112 | 132S/M | 132ML | 160 | 180 | 200 |
| | |  1 | 73 | 73 | 79 | 79 | 94 | 94 | 115 |
| | NEMA | s | 182 | 184 | 213/215 | - | 254/256 | 284/286 | 324/326 |
| | |  1 | 72 | 72 | 76 | - | 89 | 91 | 110 |



RXF: + 8.6 kg





| RX107, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | | | | | | | | | 830 Nm |
|---|----------------------------|-----------------------------|---------------------|----------------------|-----|-----|--------|-------|-----|-----|-----|-----|--------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | AMS | | | | | | | | |
| | | | | | 100 | 112 | 132S/M | 132ML | 160 | 180 | 200 | 225 | |
|  1 | | | | | | | | | | | | | |
| 1.44 ⁽²⁾ | 972 | 645 | 315 | - | | | | 240 | 265 | 445 | 600 | 600 | |
| 1.71 ⁽²⁾ | 819 | 705 | 345 | - | | | 189 | 285 | 315 | 530 | 705 | 705 | |
| 1.95 | 718 | 765 | 420 | - | | | 215 | 325 | 360 | 605 | 765 | 765 | |
| 2.30 | 609 | 830 | 760 | - | | | 255 | 365 | 425 | 700 | 830 | 830 | |
| 2.64 | 530 | 830 | 1850 | - | 134 | 157 | 290 | 385 | 490 | 730 | 830 | 830 | |
| 3.07 | 456 | 830 | 3300 | - | 152 | 183 | 340 | 405 | 570 | 765 | 830 | 830 | |
| 3.38 | 414 | 830 | 4190 | - | 165 | 200 | 360 | 415 | 630 | 785 | 830 | 830 | |
| 3.81 | 367 | 830 | 5260 | - | 181 | 225 | 390 | 425 | 710 | 810 | | | |
| 4.20 | 333 | 830 | 6140 | - | 195 | 250 | 415 | 435 | 780 | 820 | | | |
| 4.65 | 301 | 695 | 7380 | - | 210 | 275 | 440 | 450 | 695 | | | | |
| 5.19 | 270 | 695 | 7780 | - | 225 | 285 | 465 | 460 | 695 | | | | |
| 5.61 | 250 | 455 | 9040 | - | 235 | 290 | 455 | | | | | | |
| 6.63 | 211 | 460 | 9660 | - | 260 | 300 | 460 | | | | | | |

| RX107, m /kg | | | AMS | | | | | | | |
|--------------|--|---|-----|-----|---------|-------|---------|---------|---------|---------|
| RX | IEC | s | 100 | 112 | 132S/M | 132ML | 160 | 180 | 200 | 225 |
| | |  1 | 105 | 105 | 115 | 115 | 130 | 130 | 150 | 155 |
| | NEMA | s | 182 | 184 | 213/215 | - | 254/256 | 284/286 | 324/326 | 364/365 |
| |  1 | 105 | 105 | 110 | - | 125 | 125 | 150 | 150 | |



RXF: + 17 kg





8.1.2 R.. AMS.. /Nm

| R07, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 50 Nm | | |
|---|----------------------------|-----------------------------|---------------------|----------------------|-------|-----------|----|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | 63 | AMS 71 | 80 |
|  2 | | | | | | | |
| 3.21 | 436 | 31 | 495 | - | 21 | 21 | 31 |
| 3.68 | 380 | 33 | 500 | - | 24 | 24 | 33 |
| 3.95 | 354 | 34 | 505 | - | 26 | 26 | 34 |
| 4.57 | 306 | 36 | 520 | - | 30 | 30 | 36 |
| 4.92 | 285 | 37 | 530 | - | 33 | 33 | 37 |
| 5.76 | 243 | 40 | 530 | - | 35 | 35 | 40 |
| 6.83 | 205 | 43 | 535 | - | 37 | 37 | |
| 7.48 | 187 | 43 | 595 | - | 38 | 38 | |
| 7.85 | 178 | 49 | 645 | - | 49 | 49 | 49 |
| 9.01 | 155 | 50 | 685 | - | 50 | 50 | 50 |
| 9.67 | 145 | 50 | 710 | - | 50 | 50 | 50 |
| 11.18 | 125 | 50 | 760 | - | 50 | 50 | 50 |
| 12.06 | 116 | 50 | 790 | - | 50 | 50 | 50 |
| 14.12 | 99 | 50 | 850 | - | 50 | 50 | 50 |
| 16.73 | 84 | 50 | 920 | - | 50 | 50 | |
| 18.31 | 76 | 50 | 960 | - | 50 | 50 | |
|  3 | | | | | | | |
| 21.73 | 64 | 50 | 1040 | - | 50 | 50 | 50 |
| 23.32 | 60 | 50 | 1080 | - | 50 | 50 | 50 |
| 26.97 | 52 | 50 | 1150 | - | 50 | 50 | 50 |
| 29.08 | 48 | 50 | 1190 | - | 50 | 50 | 50 |
| 34.05 | 41 | 50 | 1270 | - | 50 | 50 | 50 |
| 38.51 | 36 | 50 | 1340 | - | 50 | 50 | 50 |
| 40.34 | 35 | 50 | 1370 | - | 50 | 50 | |
| 41.31 | 34 | 50 | 1380 | - | 50 | 50 | 50 |
| 44.16 | 32 | 50 | 1420 | - | 50 | 50 | |
| 47.78 | 29 | 50 | 1470 | - | 50 | 50 | 50 |
| 51.52 | 27 | 50 | 1510 | - | 50 | 50 | 50 |
| 60.32 | 23 | 50 | 1510 | - | 50 | 50 | 50 |
| 71.47 | 20 | 50 | 1510 | - | 50 | 50 | |
| 78.24 | 18 | 50 | 1510 | - | 50 | 50 | |



| R07, m /kg | | AMS | | | |
|------------|------|---|-----|-----|-----|
| R | IEC | s | 63 | 71 | 80 |
| | |  2 | 4.5 | 4.7 | 6.5 |
| | |  3 | 4.6 | 4.9 | 6.6 |
| | NEMA | s | - | 56 | - |
| | |  2 | - | 5.7 | - |
| | |  3 | - | 5.8 | - |





RF: + - kg

| R17, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}$ /Nm | | | | | 85 Nm | | |
|---|----------------------------|-----------------------------|---------------------|----------------------|-------|-----------|----|
| i | n_a min ⁻¹ | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | 63 | AMS 71 | 80 |
|  2 | | | | | | | |
| 3.83 | 366 | 45 | 820 | - | 25 | 25 | 45 |
| 4.51 | 310 | 48 | 870 | - | 30 | 30 | 48 |
| 5.09 | 275 | 51 | 890 | - | 33 | 33 | 51 |
| 5.76 | 243 | 53 | 930 | - | 38 | 38 | 53 |
| 6.15 | 228 | 54 | 950 | - | 41 | 41 | 54 |
| 7.04 | 199 | 55 | 1010 | - | 47 | 47 | 55 |
| 7.55 | 185 | 56 | 1040 | - | 50 | 50 | 56 |
| 8.63 | 162 | 72 | 1090 | - | 57 | 57 | 72 |
| 10.15 | 138 | 77 | 1140 | - | 67 | 67 | 77 |
| 11.45 | 122 | 81 | 1180 | - | 76 | 76 | 81 |
| 12.98 | 108 | 85 | 1230 | - | 85 | 85 | 85 |
| 13.84 | 101 | 85 | 1270 | - | 85 | 85 | 85 |
| 15.84 | 88 | 85 | 1350 | - | 85 | 85 | 85 |
| 16.99 | 82 | 85 | 1400 | - | 85 | 85 | 85 |
| 19.71 | 71 | 85 | 1500 | - | 85 | 85 | 85 |
| 23.15 | 60 | 85 | 1620 | - | 85 | 85 | |
| 25.23 | 55 | 85 | 1680 | - | 85 | 85 | |
|  3 | | | | | | | |
| 24.07 | 58 | 85 | 1650 | - | 85 | 85 | 85 |
| 28.32 | 49 | 85 | 1770 | - | 85 | 85 | 85 |
| 31.94 | 44 | 85 | 1770 | - | 85 | 85 | 85 |
| 36.20 | 39 | 85 | 1770 | - | 85 | 85 | 85 |
| 38.61 | 36 | 85 | 1770 | - | 85 | 85 | 85 |
| 44.18 | 32 | 85 | 1770 | - | 85 | 85 | 85 |
| 47.44 | 30 | 85 | 1770 | - | 85 | 85 | 85 |
| 53.76 | 26 | 85 | 1770 | - | 85 | 85 | 85 |
| 57.35 | 24 | 85 | 1770 | - | 85 | 85 | 85 |
| 65.61 | 21 | 85 | 1770 | - | 85 | 85 | 85 |
| 70.39 | 20 | 85 | 1770 | - | 85 | 85 | 85 |
| 81.64 | 17 | 85 | 1770 | - | 85 | 85 | 85 |



| R17, m /kg | | AMS | | | |
|----------------|------|---|-----|-----|-----|
| R | IEC | s | 63 | 71 | 80 |
| | |  2 | 5.4 | 5.7 | 7.5 |
| | |  3 | 5.7 | 6.0 | 7.8 |
| | NEMA | s | - | 56 | - |
| | |  2 | - | 6.7 | - |
| | |  3 | - | 6.9 | - |
| RF: + -0.05 kg | | | | | |





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| R27, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}$ /Nm | | | | | 130 Nm | | | |
|--|----------------------------|-----------------------------|---------------------|----------------------|--------|-----|-----|-----|
| i | n_a min ⁻¹ | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | AMS | | | |
| | | | | | 63 | 71 | 80 | 90 |
|  2 | | | | | | | | |
| 3.37 | 415 | 79 | 900 | - | 22 | 22 | 62 | 79 |
| 4.00 | 350 | 85 | 900 | - | 26 | 26 | 73 | 85 |
| 4.27 | 328 | 87 | 920 | - | 28 | 28 | 77 | 87 |
| 5.00 | 280 | 95 | 860 | - | 33 | 33 | 86 | 95 |
| 5.60 | 250 | 99 | 880 | - | 37 | 37 | 93 | 99 |
| 6.59 | 212 | 106 | 880 | - | 44 | 44 | 102 | 105 |
| 7.63 | 183 | 112 | 900 | - | 51 | 51 | 108 | 110 |
| 8.16 | 172 | 116 | 870 | - | 54 | 54 | 110 | 112 |
| 9.41 | 149 | 122 | 900 | - | 60 | 60 | 114 | |
| 10.13 | 138 | 122 | 1890 | - | 67 | 67 | 122 | 122 |
| 11.86 | 118 | 129 | 1980 | - | 79 | 79 | 129 | 129 |
| 13.28 | 105 | 130 | 2140 | - | 88 | 88 | 130 | 130 |
| 15.63 | 90 | 130 | 2290 | - | 104 | 104 | 130 | 130 |
| 18.08 | 77 | 130 | 2440 | - | 121 | 121 | 130 | 130 |
| 19.35 | 72 | 130 | 2510 | - | 129 | 129 | 130 | 130 |
| 22.32 | 63 | 130 | 2660 | - | 130 | 130 | 130 | |
| 26.09 | 54 | 130 | 2840 | - | 130 | 130 | | |
| 28.37 | 49 | 130 | 2940 | - | 130 | 130 | | |
|  3 | | | | | | | | |
| 24.47 | 57 | 130 | 2760 | - | 130 | 130 | 130 | 130 |
| 28.78 | 49 | 130 | 2950 | - | 130 | 130 | 130 | 130 |
| 32.47 | 43 | 130 | 3100 | - | 130 | 130 | 130 | 130 |
| 36.79 | 38 | 130 | 3260 | - | 130 | 130 | 130 | 130 |
| 39.25 | 36 | 130 | 3350 | - | 130 | 130 | 130 | 130 |
| 44.90 | 31 | 130 | 3530 | - | 130 | 130 | 130 | 130 |
| 48.17 | 29 | 130 | 3630 | - | 130 | 130 | 130 | 130 |
| 55.87 | 25 | 130 | 3840 | - | 130 | 130 | 130 | |
| 61.30 | 23 | 130 | 3980 | - | 130 | 130 | 130 | 130 |
| 69.47 | 20 | 130 | 4180 | - | 130 | 130 | 130 | 130 |
| 74.11 | 19 | 130 | 4230 | - | 130 | 130 | 130 | 130 |
| 84.78 | 17 | 130 | 4230 | - | 130 | 130 | 130 | 130 |
| 90.96 | 15 | 130 | 4230 | - | 130 | 130 | 130 | 130 |
| 105.49 | 13 | 130 | 4230 | - | 130 | 130 | 130 | |
| 123.91 | 11 | 130 | 4230 | - | 130 | 130 | | |
| 135.09 | 10 | 130 | 4230 | - | 130 | 130 | | |

| R27, m /kg | | AMS | | | | | |
|------------|------|---|----|-----|-----|-----|-----|
| R | IEC | s | 63 | 71 | 80 | 90 | |
| | |  2 | | 6.0 | 6.3 | 8.1 | 8.7 |
| | |  3 | | 6.3 | 6.6 | 8.4 | 8.9 |
| | NEMA | s | - | 56 | 143 | 145 | |
| | |  2 | | - | 7.3 | 8.0 | 8.0 |
| | |  3 | | - | 7.5 | 8.2 | 8.2 |

RF: + -0.05 kg

| R37, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}} / \text{Nm}$ | | | | | 200 Nm | | | |
|---|----------------------------|-----------------------------|---------------------|----------------------|--------|-----|-----|-----|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | AMS | | | |
| | | | | | 63 | 71 | 80 | 90 |
|  2 | | | | | | | | |
| 3.41 | 411 | 112 | 900 | 14 | 22 | 22 | 63 | 82 |
| 4.05 | 346 | 122 | 840 | 13 | 26 | 26 | 74 | 90 |
| 4.32 | 324 | 126 | 820 | 13 | 28 | 28 | 77 | 92 |
| 5.06 | 277 | 135 | 790 | 13 | 33 | 33 | 87 | 98 |
| 5.67 | 247 | 142 | 760 | 12 | 37 | 37 | 94 | 102 |
| 6.67 | 210 | 144 | 1000 | 12 | 44 | 44 | 103 | 106 |
| 7.97 | 176 | 156 | 1720 | 8 | 52 | 52 | 148 | 156 |
| 9.47 | 148 | 167 | 1760 | 8 | 62 | 62 | 167 | 167 |
| 10.11 | 138 | 170 | 1820 | 8 | 67 | 67 | 170 | 170 |
| 11.83 | 118 | 183 | 1810 | 8 | 78 | 78 | 183 | 183 |
| 13.25 | 106 | 190 | 1880 | 8 | 88 | 88 | 190 | 190 |
| 15.60 | 90 | 200 | 2010 | 8 | 104 | 104 | 200 | 200 |
| 18.05 | 78 | 200 | 2390 | 8 | 120 | 120 | 200 | 200 |
| 19.31 | 73 | 200 | 2570 | 7 | 129 | 129 | 200 | 200 |
| 22.27 | 63 | 200 | 2970 | 7 | 142 | 142 | 200 | |
| 26.03 | 54 | 185 | 3860 | 7 | 147 | 147 | | |
| 28.32 | 49 | 200 | 3690 | 7 | 150 | 150 | | |
|  3 | | | | | | | | |
| 24.42 | 57 | 200 | 3240 | 9 | 160 | 160 | 200 | 200 |
| 28.73 | 49 | 200 | 3740 | 9 | 189 | 189 | 200 | 200 |
| 32.40 | 43 | 200 | 4120 | 9 | 200 | 200 | 200 | 200 |
| 36.72 | 38 | 200 | 4540 | 9 | 200 | 200 | 200 | 200 |
| 39.17 | 36 | 200 | 4760 | 9 | 200 | 200 | 200 | 200 |
| 44.81 | 31 | 200 | 4940 | 9 | 200 | 200 | 200 | 200 |
| 48.08 | 29 | 200 | 4940 | 9 | 200 | 200 | 200 | 200 |
| 55.76 | 25 | 200 | 4940 | 9 | 200 | 200 | 200 | |
| 61.18 | 23 | 200 | 4940 | 8 | 200 | 200 | 200 | 200 |
| 69.33 | 20 | 200 | 4940 | 8 | 200 | 200 | 200 | 200 |
| 73.96 | 19 | 200 | 4940 | 8 | 200 | 200 | 200 | 200 |
| 84.61 | 17 | 200 | 4940 | 8 | 200 | 200 | 200 | 200 |
| 90.77 | 15 | 200 | 4940 | 8 | 200 | 200 | 200 | 200 |
| 105.28 | 13 | 200 | 4940 | 8 | 200 | 200 | 200 | |
| 123.66 | 11 | 200 | 4940 | 8 | 200 | 200 | | |
| 134.82 | 10 | 200 | 4940 | 8 | 200 | 200 | | |

| R37, m /kg | | AMS | | | | |
|------------|------|---|----|----|-----|-----|
| R | IEC | s | 63 | 71 | 80 | 90 |
| | |  2 | 12 | 12 | 14 | 14 |
| | |  3 | 12 | 12 | 14 | 15 |
| | NEMA | s | - | 56 | 143 | 145 |
| | |  2 | - | 13 | 14 | 14 |
| | |  3 | - | 13 | 14 | 14 |



RF: + 1.5 kg





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R.. helical gear units

Selection tables for adapters for mounting IEC/NEMA motors (AMS..)



| R47, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}} / \text{Nm}$ | | | | | | | | | | | 300 Nm |
|---|----------------------------|-----------------------------|---------------------|----------------------|-----|-----|-----|-----------|-----|-----|--------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | 63 | 71 | 80 | AMS 90 | 100 | 112 | 132S/M |
|  2 | | | | | | | | | | | |
| 3.83 | 366 | 144 | 2080 | 11 | 25 | 25 | 70 | 93 | 144 | 144 | 144 |
| 4.34 | 323 | 146 | 2190 | 11 | 28 | 28 | 80 | 105 | 146 | 146 | 146 |
| 4.85 | 289 | 150 | 2280 | 10 | 32 | 32 | 90 | 117 | 150 | 150 | 150 |
| 5.64 | 248 | 155 | 2410 | 10 | 37 | 37 | 104 | 128 | 155 | 155 | 155 |
| 6.00 | 233 | 156 | 2470 | 10 | 39 | 39 | 111 | 131 | 156 | 156 | 156 |
| 6.96 | 201 | 159 | 2620 | 10 | 46 | 46 | 127 | 138 | 159 | 159 | |
| 7.76 | 180 | 163 | 2720 | 10 | 51 | 51 | 138 | 142 | 163 | 163 | |
| 8.01 | 175 | 205 | 2690 | 8 | 52 | 52 | 148 | 194 | 205 | 205 | 205 |
| 9.07 | 154 | 220 | 2780 | 8 | 59 | 59 | 168 | 220 | 220 | 220 | 220 |
| 10.15 | 138 | 230 | 2880 | 7 | 67 | 67 | 188 | 230 | 230 | 230 | 230 |
| 11.79 | 119 | 245 | 3020 | 7 | 78 | 78 | 215 | 245 | 245 | 245 | 245 |
| 12.54 | 112 | 250 | 3080 | 7 | 83 | 83 | 230 | 250 | 250 | 250 | 250 |
| 14.56 | 96 | 265 | 3230 | 7 | 96 | 96 | 265 | 265 | 265 | 265 | |
| 16.22 | 86 | 275 | 3350 | 7 | 108 | 108 | 275 | 275 | 275 | 275 | |
| 17.89 | 78 | 290 | 3390 | 7 | 119 | 119 | 290 | 290 | | | |
| 19.27 | 73 | 295 | 3530 | 7 | 128 | 128 | 295 | 295 | 295 | | |
| 21.81 | 64 | 300 | 3710 | 7 | 145 | 145 | 300 | 300 | | | |
| 23.28 | 60 | 300 | 3820 | 7 | 155 | 155 | 300 | 300 | | | |
| 26.74 | 52 | 300 | 4050 | 7 | 176 | 176 | 300 | | | | |
| 31.12 | 45 | 220 | 4610 | 7 | 182 | 182 | | | | | |
| 33.79 | 41 | 240 | 4680 | 7 | 184 | 184 | | | | | |
|  3 | | | | | | | | | | | |
| 23.59 | 59 | 300 | 3840 | 8 | 153 | 153 | 300 | 300 | 300 | | |
| 26.70 | 52 | 300 | 4050 | 8 | 174 | 174 | 300 | 300 | 300 | | |
| 29.88 | 47 | 300 | 4240 | 8 | 195 | 195 | 300 | 300 | 300 | | |
| 34.73 | 40 | 300 | 4520 | 8 | 225 | 225 | 300 | 300 | 300 | | |
| 36.93 | 38 | 300 | 4630 | 8 | 240 | 240 | 300 | 300 | 300 | | |
| 42.87 | 33 | 300 | 4930 | 8 | 280 | 280 | 300 | 300 | 300 | | |
| 47.75 | 29 | 300 | 5140 | 8 | 300 | 300 | 300 | 300 | 300 | | |
| 52.69 | 27 | 300 | 5350 | 8 | 300 | 300 | 300 | 300 | | | |
| 56.73 | 25 | 300 | 5420 | 8 | 300 | 300 | 300 | 300 | 300 | | |
| 64.21 | 22 | 300 | 5420 | 8 | 300 | 300 | 300 | 300 | | | |
| 68.54 | 20 | 300 | 5420 | 8 | 300 | 300 | 300 | 300 | | | |
| 76.23 | 18 | 300 | 5420 | 7 | 300 | 300 | 300 | 300 | | | |
| 84.90 | 16 | 300 | 5420 | 7 | 300 | 300 | 300 | 300 | | | |
| 93.68 | 15 | 300 | 5420 | 7 | 300 | 300 | 300 | 300 | | | |
| 100.86 | 14 | 300 | 5420 | 7 | 300 | 300 | 300 | 300 | | | |
| 114.17 | 12 | 300 | 5420 | 7 | 300 | 300 | 300 | 300 | | | |
| 121.87 | 11 | 300 | 5420 | 7 | 300 | 300 | 300 | 300 | | | |
| 139.99 | 10 | 300 | 5420 | 7 | 300 | 300 | 300 | | | | |
| 162.94 | 8.6 | 300 | 5420 | 7 | 300 | 300 | | | | | |
| 176.88 | 7.9 | 300 | 5420 | 7 | 300 | 300 | | | | | |





| R47, m /kg | | | AMS | | | | | | |
|---------------|------|---|-----|----|-----|-----|-----|-----|---------|
| R | IEC | s | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M |
| | |  2 | 16 | 16 | 18 | 19 | 23 | 23 | 28 |
| | |  3 | 16 | 17 | 19 | 19 | 23 | 23 | 28 |
| | NEMA | s | - | 56 | 143 | 145 | 182 | 184 | 213/215 |
| | |  2 | - | 17 | 18 | 18 | 22 | 22 | 25 |
| | |  3 | - | 18 | 18 | 18 | 22 | 22 | 26 |
| RF: + 0.15 kg | | | | | | | | | |

| R57, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}$ /Nm | | | | | 450 Nm | | | | | | |
|---|----------------------------|-----------------------------|---------------------|----------------------|--------|-----|-----|-----|-----|-----|--------|
| i | n_a min ⁻¹ | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | AMS | | | | | | |
| | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M |
|  2 | | | | | | | | | | | |
| 4.39 | 319 | 280 | 1900 | 10 | | | 81 | 106 | 205 | 260 | 280 |
| 5.05 | 277 | 305 | 1730 | 10 | 33 | 33 | 93 | 122 | 230 | 300 | 305 |
| 5.82 | 241 | 320 | 1820 | 10 | 38 | 38 | 107 | 141 | 260 | 320 | 320 |
| 6.41 | 218 | 335 | 1770 | 9 | 42 | 42 | 118 | 155 | 280 | 335 | 335 |
| 7.53 | 186 | 350 | 1950 | 9 | 49 | 49 | 139 | 173 | 315 | 350 | 350 |
| 7.97 | 176 | 355 | 2020 | 9 | 52 | 52 | 148 | 176 | 330 | 355 | 355 |
| 9.06 | 155 | 375 | 2010 | 9 | 60 | 60 | 168 | 181 | 355 | 375 | |
| 9.35 | 150 | 370 | 3180 | 7 | 61 | 61 | 173 | 225 | 370 | 370 | 370 |
| 10.79 | 130 | 390 | 3330 | 7 | 70 | 70 | 200 | 260 | 390 | 390 | 390 |
| 11.88 | 118 | 405 | 3430 | 7 | 78 | 78 | 220 | 285 | 405 | 405 | 405 |
| 13.95 | 100 | 430 | 3610 | 7 | 92 | 92 | 255 | 320 | 430 | 430 | 430 |
| 14.77 | 95 | 435 | 3690 | 7 | 97 | 97 | 270 | 325 | 435 | 435 | 435 |
| 16.79 | 83 | 450 | 3860 | 7 | 111 | 111 | 310 | 335 | 450 | 450 | |
| 18.60 | 75 | 450 | 4050 | 7 | 123 | 123 | 335 | 345 | 450 | 450 | |
| 21.93 | 64 | 450 | 4370 | 7 | 146 | 146 | 350 | 360 | 450 | | |
| 24.99 | 56 | 450 | 4640 | 6 | 166 | 166 | 370 | 375 | | | |
| 26.31 | 53 | 450 | 4750 | 6 | 175 | 175 | 370 | 380 | | | |
|  3 | | | | | | | | | | | |
| 26.97 | 52 | 450 | 4800 | 8 | 175 | 175 | 450 | 450 | 450 | 450 | 450 |
| 30.18 | 46 | 450 | 5040 | 8 | 196 | 196 | 450 | 450 | 450 | 450 | 450 |
| 35.07 | 40 | 450 | 5390 | 8 | 225 | 225 | 450 | 450 | 450 | 450 | 450 |
| 37.30 | 38 | 450 | 5530 | 8 | 240 | 240 | 450 | 450 | 450 | 450 | 450 |
| 43.30 | 32 | 450 | 5900 | 8 | 280 | 280 | 450 | 450 | 450 | 450 | |
| 48.23 | 29 | 450 | 6170 | 8 | 315 | 315 | 450 | 450 | 450 | 450 | |
| 53.22 | 26 | 450 | 6430 | 8 | 350 | 350 | 450 | 450 | | | |
| 57.29 | 24 | 450 | 6630 | 8 | 375 | 375 | 450 | 450 | 450 | | |
| 64.85 | 22 | 450 | 6980 | 8 | 425 | 425 | 450 | 450 | | | |
| 69.23 | 20 | 450 | 7100 | 7 | 450 | 450 | 450 | 450 | | | |
| 80.55 | 17 | 450 | 7100 | 7 | 450 | 450 | 450 | 450 | 450 | 450 | |
| 89.71 | 16 | 450 | 7100 | 7 | 450 | 450 | 450 | 450 | 450 | 450 | |
| 98.99 | 14 | 450 | 7100 | 7 | 450 | 450 | 450 | 450 | | | |
| 106.58 | 13 | 450 | 7100 | 7 | 450 | 450 | 450 | 450 | 450 | | |
| 120.63 | 12 | 450 | 7100 | 7 | 450 | 450 | 450 | 450 | | | |
| 128.77 | 11 | 450 | 7100 | 7 | 450 | 450 | 450 | 450 | | | |
| 147.92 | 9.5 | 450 | 7100 | 7 | 450 | 450 | 450 | | | | |
| 172.17 | 8.1 | 450 | 7100 | 7 | 450 | 450 | | | | | |
| 186.89 | 7.5 | 450 | 7100 | 7 | 450 | 450 | | | | | |

| R57, m /kg | | | AMS | | | | | | |
|------------|---|---|-----|----|-----|-----|-----|-----|---------|
| R | IEC | s | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M |
| | |  | 21 | 21 | 23 | 24 | 28 | 28 | 33 |
| | |  | 22 | 22 | 24 | 25 | 29 | 29 | 34 |
| | NEMA | s | - | 56 | 143 | 145 | 182 | 184 | 213/215 |
| | |  | - | 22 | 23 | 23 | 26 | 27 | 30 |
| |  | - | 23 | 24 | 24 | 27 | 27 | 31 | |



RF: + 3.4 kg / RM: + 15 kg





| R67, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}} / \text{Nm}$ | | | | | 600 Nm | | | | | | |
|---|----------------------------|-----------------------------|---------------------|----------------------|--------|-----|-----|-----|-----|-----|--------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | AMS | | | | | | |
| | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M |
|  2 | | | | | | | | | | | |
| 4.29 | 326 | 270 | 5000 | 10 | | | 79 | 104 | 191 | 255 | 270 |
| 4.93 | 284 | 290 | 5210 | 9 | 32 | 32 | 91 | 119 | 210 | 290 | 290 |
| 5.70 | 246 | 310 | 5450 | 9 | 37 | 37 | 105 | 138 | 235 | 305 | 310 |
| 6.27 | 223 | 330 | 5590 | 9 | 41 | 41 | 116 | 152 | 250 | 315 | 330 |
| 7.36 | 190 | 370 | 5790 | 8 | 48 | 48 | 136 | 164 | 280 | 340 | 370 |
| 7.79 | 180 | 380 | 5830 | 8 | 51 | 51 | 142 | 167 | 290 | 345 | 380 |
| 8.70 | 161 | 440 | 5960 | 7 | | | 160 | 210 | 385 | 440 | 440 |
| 10.00 | 140 | 470 | 6220 | 7 | 65 | 65 | 185 | 240 | 430 | 470 | 470 |
| 11.54 | 121 | 500 | 6500 | 7 | 75 | 75 | 210 | 280 | 480 | 500 | 500 |
| 12.70 | 110 | 520 | 6640 | 6 | 83 | 83 | 235 | 305 | 510 | 520 | 520 |
| 14.91 | 94 | 550 | 6980 | 6 | 98 | 98 | 275 | 330 | 550 | 550 | 550 |
| 15.79 | 89 | 560 | 7130 | 6 | 104 | 104 | 285 | 335 | 560 | 560 | 560 |
| 17.95 | 78 | 590 | 7330 | 6 | 119 | 119 | 315 | 345 | 590 | 590 | |
| 19.89 | 70 | 600 | 7560 | 6 | 132 | 132 | 335 | 360 | 600 | 600 | |
| 23.44 | 60 | 560 | 8010 | 6 | 156 | 156 | 365 | 375 | 560 | | |
| 26.72 | 52 | 540 | 8210 | 6 | 178 | 178 | 380 | 390 | | | |
| 28.13 | 50 | 540 | 8210 | 6 | 187 | 187 | 380 | 390 | | | |
|  3 | | | | | | | | | | | |
| 28.83 | 49 | 520 | 8400 | 7 | 187 | 187 | 520 | 520 | 520 | 520 | 520 |
| 32.27 | 43 | 540 | 8210 | 7 | 210 | 210 | 540 | 540 | 540 | 540 | 540 |
| 37.50 | 37 | 570 | 7900 | 7 | 240 | 240 | 570 | 570 | 570 | 570 | 570 |
| 39.88 | 35 | 580 | 7790 | 7 | 260 | 260 | 580 | 580 | 580 | 580 | 580 |
| 46.29 | 30 | 600 | 7560 | 7 | 300 | 300 | 600 | 600 | 600 | 600 | |
| 51.56 | 27 | 600 | 7560 | 7 | 335 | 335 | 600 | 600 | 600 | 600 | |
| 56.89 | 25 | 600 | 7560 | 7 | 370 | 370 | 600 | 600 | | | |
| 61.26 | 23 | 600 | 7560 | 7 | 400 | 400 | 600 | 600 | 600 | | |
| 69.75 | 20 | 600 | 7560 | 7 | 455 | 455 | 600 | 600 | 600 | 600 | 600 |
| 74.17 | 19 | 600 | 7560 | 7 | 480 | 480 | 600 | 600 | 600 | 600 | 600 |
| 86.11 | 16 | 600 | 7560 | 6 | 560 | 560 | 600 | 600 | 600 | 600 | |
| 95.91 | 15 | 600 | 7560 | 6 | 600 | 600 | 600 | 600 | 600 | 600 | |
| 105.83 | 13 | 600 | 7560 | 6 | 600 | 600 | 600 | 600 | | | |
| 113.94 | 12 | 600 | 7560 | 6 | 600 | 600 | 600 | 600 | 600 | | |
| 128.97 | 11 | 600 | 7560 | 6 | 600 | 600 | 600 | 600 | | | |
| 137.67 | 10 | 600 | 7560 | 6 | 600 | 600 | 600 | 600 | | | |
| 158.14 | 8.9 | 600 | 7560 | 6 | 600 | 600 | 600 | | | | |
| 184.07 | 7.6 | 600 | 7560 | 6 | 600 | 600 | | | | | |
| 199.81 | 7.0 | 600 | 7560 | 6 | 600 | 600 | | | | | |

| R67, m / kg | | | AMS | | | | | | |
|-------------|---|---|-----|----|-----|-----|-----|-----|---------|
| R | IEC | s | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M |
| | |  | 27 | 28 | 29 | 30 | 34 | 34 | 39 |
| | |  | 28 | 28 | 30 | 31 | 35 | 35 | 40 |
| | NEMA | s | - | 56 | 143 | 145 | 182 | 184 | 213/215 |
| | |  | - | 29 | 29 | 29 | 33 | 33 | 36 |
| |  | - | 30 | 30 | 30 | 34 | 34 | 37 | |



RF: + 3.2 kg / RM: + 19 kg





26878585/EN – 11/2021

| R77, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}$ /Nm | | | | | AMS | | | | | | | | 820 Nm |
|--|----------------------------|-----------------------------|---------------------|----------------------|-----|-----|-----|-----|-----|-----|--------|-------|--------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M | 132ML | |
|  2 | | | | | | | | | | | | | |
| 5.31 | 264 | 510 | 3990 | 8 | | | 97 | 128 | 265 | 315 | 510 | 510 | |
| 5.99 | 234 | 540 | 3990 | 8 | | | 110 | 144 | 295 | 355 | 540 | 540 | |
| 6.79 | 206 | 580 | 3850 | 8 | 44 | 44 | 125 | 164 | 325 | 405 | 580 | 580 | |
| 7.74 | 181 | 610 | 3940 | 8 | 50 | 50 | 143 | 187 | 365 | 435 | 610 | 610 | |
| 8.59 | 163 | 630 | 4110 | 7 | 56 | 56 | 158 | 205 | 395 | 455 | 630 | | |
| 9.64 | 145 | 630 | 6300 | 7 | | | 177 | 230 | 485 | 575 | 630 | 630 | |
| 10.88 | 129 | 660 | 6490 | 6 | | | 200 | 260 | 540 | 645 | 660 | 660 | |
| 12.33 | 114 | 690 | 6740 | 6 | 79 | 79 | 225 | 295 | 595 | 690 | 690 | 690 | |
| 14.05 | 100 | 720 | 7050 | 6 | 91 | 91 | 255 | 340 | 660 | 720 | 720 | 720 | |
| 15.60 | 90 | 740 | 7390 | 6 | 101 | 101 | 285 | 375 | 720 | 740 | 740 | | |
| 17.82 | 79 | 780 | 7620 | 6 | 116 | 116 | 330 | 410 | 780 | 780 | 780 | | |
| 18.80 | 74 | 780 | 7980 | 6 | 123 | 123 | 345 | 420 | 780 | 780 | 780 | | |
| 21.43 | 65 | 820 | 8250 | 6 | 141 | 141 | 395 | 430 | 820 | 820 | | | |
| 23.37 | 60 | 820 | 8870 | 6 | 154 | 154 | 430 | 440 | 820 | 820 | | | |
|  3 | | | | | | | | | | | | | |
| 25.23 | 55 | 780 | 10100 | 7 | | | 455 | 600 | 780 | 780 | 780 | 780 | |
| 29.00 | 48 | 820 | 9920 | 7 | 185 | 185 | 525 | 690 | 820 | 820 | 820 | 820 | |
| 33.47 | 42 | 820 | 9920 | 7 | 215 | 215 | 610 | 800 | 820 | 820 | 820 | 820 | |
| 36.83 | 38 | 820 | 9920 | 7 | 235 | 235 | 670 | 820 | 820 | 820 | 820 | | |
| 43.26 | 32 | 820 | 9920 | 7 | 280 | 280 | 790 | 820 | 820 | 820 | 820 | | |
| 45.81 | 31 | 820 | 9920 | 7 | 295 | 295 | 820 | 820 | 820 | 820 | 820 | | |
| 52.07 | 27 | 820 | 9920 | 7 | 335 | 335 | 820 | 820 | 820 | 820 | | | |
| 57.68 | 24 | 820 | 9920 | 7 | 375 | 375 | 820 | 820 | 820 | 820 | | | |
| 65.77 | 21 | 820 | 9920 | 7 | 420 | 420 | 820 | 820 | 820 | 820 | 820 | | |
| 77.24 | 18 | 820 | 9920 | 6 | 500 | 500 | 820 | 820 | 820 | 820 | 820 | | |
| 81.80 | 17 | 820 | 9920 | 6 | 530 | 530 | 820 | 820 | 820 | 820 | 820 | | |
| 92.97 | 15 | 820 | 9920 | 6 | 605 | 605 | 820 | 820 | 820 | 820 | | | |
| 102.99 | 14 | 820 | 9920 | 6 | 670 | 670 | 820 | 820 | 820 | 820 | | | |
| 121.42 | 12 | 820 | 9920 | 6 | 790 | 790 | 820 | 820 | 820 | | | | |
| 138.39 | 10 | 820 | 9920 | 6 | 820 | 820 | 820 | 820 | | | | | |
| 145.67 | 9.6 | 820 | 9920 | 6 | 820 | 820 | 820 | 820 | | | | | |
| 166.59 | 8.4 | 820 | 9920 | 6 | 820 | 820 | 820 | | | | | | |
| 195.24 | 7.2 | 820 | 9920 | 6 | 820 | 820 | | | | | | | |

| R77, m /kg | | AMS | | | | | | | | | |
|------------|---|---|----|----|----|-----|-----|-----|--------|---------|----|
| R | IEC | s | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M | 132ML | |
| | |  | 2 | 33 | 34 | 35 | 36 | 41 | 41 | 45 | 46 |
| | |  | 3 | 34 | 35 | 36 | 37 | 42 | 42 | 47 | 47 |
| | | NEMA | s | - | 56 | 143 | 145 | 182 | 184 | 213/215 | - |
| | |  | 2 | - | 34 | 35 | 35 | 39 | 39 | 43 | - |
| |  | 3 | - | 36 | 36 | 36 | 40 | 40 | 44 | - | |



RF: + 5.7 kg / RM: + 31 kg





| R87, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}} / \text{Nm}$ | | | | | AMS | | | | | | | | 1550 Nm |
|--|----------------------------|-----------------------------|---------------------|----------------------|------|------|------|------|--------|-------|------|------|---------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | 80 | 90 | 100 | 112 | 132S/M | 132ML | 160 | 180 | |
|  2 | | | | | | | | | | | | | |
| 5.30 | 264 | 910 | 1710 | 7 | | | 280 | 310 | 585 | 810 | 910 | 910 | |
| 6.39 | 219 | 1020 | 970 | 7 | | | 330 | 375 | 705 | 880 | 1020 | 1020 | |
| 7.13 | 196 | 1070 | 820 | 7 | 130 | 171 | 365 | 420 | 790 | 920 | 1070 | 1070 | |
| 8.22 | 170 | 1160 | 225 | 7 | 150 | 197 | 415 | 485 | 910 | 970 | 1160 | 1160 | |
| 9.14 | 153 | 1210 | 99 | 6 | 167 | 220 | 450 | 540 | 1000 | 1000 | 1210 | 1210 | |
| 9.90 | 141 | 1180 | 3520 | 6 | | | 525 | 585 | 1090 | 1180 | 1180 | 1180 | |
| 11.93 | 117 | 1230 | 4120 | 6 | | | 620 | 705 | 1230 | 1230 | 1230 | 1230 | |
| 13.33 | 105 | 1280 | 4220 | 6 | 240 | 315 | 685 | 790 | 1280 | 1280 | 1280 | 1280 | |
| 15.35 | 91 | 1340 | 4450 | 6 | 280 | 365 | 775 | 910 | 1340 | 1340 | 1340 | 1340 | |
| 17.08 | 82 | 1390 | 4580 | 6 | 310 | 410 | 840 | 1010 | 1390 | 1390 | 1390 | 1390 | |
| 19.10 | 73 | 1440 | 4800 | 6 | 350 | 460 | 920 | 1130 | 1440 | 1440 | 1440 | | |
| 21.51 | 65 | 1500 | 4970 | 6 | 395 | 515 | 1010 | 1210 | 1500 | 1500 | 1500 | | |
| 23.40 | 60 | 1550 | 5000 | 6 | 430 | 565 | 1080 | 1250 | 1550 | | | | |
| 27.84 | 50 | 1550 | 6640 | 6 | 510 | 625 | 1220 | 1300 | 1550 | | | | |
| 31.40 | 45 | 1550 | 7820 | 5 | 580 | 635 | 1320 | 1320 | | | | | |
| 34.40 | 41 | 1500 | 9480 | 5 | 630 | 650 | 1350 | 1350 | | | | | |
|  3 | | | | | | | | | | | | | |
| 27.88 | 50 | 1500 | 7370 | 7 | 500 | 660 | 1440 | 1500 | 1500 | 1500 | 1500 | 1500 | |
| 32.66 | 43 | 1550 | 8220 | 7 | 590 | 775 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | |
| 36.84 | 38 | 1550 | 9470 | 7 | 665 | 870 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | |
| 41.74 | 34 | 1550 | 10800 | 7 | 755 | 990 | 1550 | 1550 | 1550 | 1550 | 1550 | | |
| 47.58 | 29 | 1550 | 12300 | 7 | 860 | 1130 | 1550 | 1550 | 1550 | 1550 | 1550 | | |
| 52.82 | 27 | 1550 | 13500 | 6 | 960 | 1260 | 1550 | 1550 | 1550 | | | | |
| 60.35 | 23 | 1550 | 15200 | 6 | 1100 | 1400 | 1550 | 1550 | 1550 | | | | |
| 63.68 | 22 | 1550 | 15800 | 6 | 1160 | 1420 | 1550 | 1550 | 1550 | | | | |
| 72.57 | 19 | 1550 | 16900 | 6 | 1320 | 1470 | 1550 | 1550 | | | | | |
| 81.92 | 17 | 1550 | 16900 | 6 | 1480 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | | |
| 93.38 | 15 | 1550 | 16900 | 6 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | 1550 | | |
| 103.65 | 14 | 1550 | 16900 | 6 | 1550 | 1550 | 1550 | 1550 | 1550 | | | | |
| 118.43 | 12 | 1550 | 16900 | 6 | 1550 | 1550 | 1550 | 1550 | 1550 | | | | |
| 124.97 | 11 | 1550 | 16900 | 6 | 1550 | 1550 | 1550 | 1550 | 1550 | | | | |
| 142.41 | 9.8 | 1550 | 16900 | 6 | 1550 | 1550 | 1550 | 1550 | | | | | |
| 155.34 | 9.0 | 1550 | 16900 | 6 | 1550 | 1550 | 1550 | 1550 | | | | | |
| 181.77 | 7.7 | 1550 | 16900 | 6 | 1550 | 1550 | 1550 | | | | | | |
| 205.71 | 6.8 | 1550 | 16900 | 6 | 1550 | 1550 | | | | | | | |
| 216.54 | 6.5 | 1550 | 16900 | 6 | 1550 | 1550 | | | | | | | |
| 246.54 | 5.7 | 1550 | 16900 | 6 | 1550 | | | | | | | | |

| R87, m / kg | | | AMS | | | | | | | | |
|-------------|------|---|-----|-----|-----|-----|--------|---------|-----|---------|---------|
| R | IEC | s | 80 | 90 | 100 | 112 | 132S/M | 132ML | 160 | 180 | |
| | |  | 2 | 62 | 62 | 67 | 67 | 73 | 73 | 86 | 86 |
| | |  | 3 | 63 | 64 | 69 | 69 | 74 | 74 | 87 | 87 |
| | NEMA | s | | 143 | 145 | 182 | 184 | 213/215 | - | 254/256 | 284/286 |
| | |  | 2 | 61 | 61 | 66 | 66 | 70 | - | 81 | 83 |
| | |  | 3 | 63 | 63 | 67 | 67 | 71 | - | 82 | 85 |



RF: + 7.1 kg / RM: + 37 kg





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| R97, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}$ /Nm | | | | | 3000 Nm | | | | | | |
|---|----------------------------|-----------------------------|---------------------|----------------------|---------|------|--------|--------------|------|------|------|
| i | n_a min ⁻¹ | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | 100 | 112 | 132S/M | AMS 132ML | 160 | 180 | 200 |
|  2 | | | | | | | | | | | |
| 4.50 | 311 | 1630 | 0 | 6 | | | 490 | 750 | 820 | 1380 | 1630 |
| 5.20 | 269 | 1780 | 0 | 6 | | | 570 | 860 | 950 | 1600 | 1780 |
| 6.21 | 225 | 1890 | 0 | 6 | | | 680 | 1020 | 1140 | 1890 | 1890 |
| 7.12 | 197 | 2000 | 0 | 6 | 370 | 420 | 785 | 1060 | 1310 | 2000 | 2000 |
| 8.39 | 167 | 2030 | 0 | 6 | 425 | 495 | 920 | 1130 | 1540 | 2030 | 2030 |
| 9.29 | 151 | 2030 | 0 | 6 | 465 | 550 | 1020 | 1170 | 1710 | 2030 | 2030 |
| 10.83 | 129 | 2090 | 3720 | 6 | | | 1190 | 1770 | 1990 | 2090 | 2090 |
| 12.39 | 113 | 2190 | 3850 | 6 | 645 | 730 | 1360 | 1860 | 2190 | 2190 | 2190 |
| 14.62 | 96 | 2300 | 4240 | 6 | 745 | 860 | 1610 | 1980 | 2300 | 2300 | 2300 |
| 16.17 | 87 | 2400 | 4130 | 6 | 810 | 950 | 1780 | 2040 | 2400 | 2400 | 2400 |
| 18.24 | 77 | 2500 | 4270 | 6 | 890 | 1080 | 1980 | 2110 | 2500 | 2500 | |
| 20.14 | 70 | 2610 | 4110 | 5 | 970 | 1190 | 2120 | 2170 | 2610 | 2610 | |
| 22.37 | 63 | 2720 | 4060 | 5 | 1050 | 1330 | 2220 | 2220 | 2720 | | |
| 25.03 | 56 | 2830 | 4140 | 5 | 1140 | 1390 | 2280 | 2280 | 2830 | | |
| 27.19 | 51 | 2560 | 8380 | 5 | 1210 | 1420 | 2330 | | | | |
| 32.05 | 44 | 2560 | 10600 | 5 | 1360 | 1470 | 2400 | | | | |
|  3 | | | | | | | | | | | |
| 27.58 | 51 | 2670 | 7260 | 6 | 1420 | 1610 | 2670 | 2670 | 2670 | 2670 | 2670 |
| 33.25 | 42 | 2890 | 7160 | 6 | 1670 | 1940 | 2890 | 2890 | 2890 | 2890 | 2890 |
| 37.13 | 38 | 3000 | 7410 | 6 | 1840 | 2170 | 3000 | 3000 | 3000 | 3000 | 3000 |
| 42.78 | 33 | 3000 | 9480 | 6 | 2080 | 2510 | 3000 | 3000 | 3000 | 3000 | |
| 47.58 | 29 | 3000 | 11100 | 6 | 2270 | 2790 | 3000 | 3000 | 3000 | 3000 | |
| 53.21 | 26 | 3000 | 12900 | 6 | 2480 | 3000 | 3000 | 3000 | 3000 | | |
| 59.92 | 23 | 3000 | 14800 | 6 | 2710 | 3000 | 3000 | 3000 | 3000 | | |
| 65.21 | 21 | 3000 | 16300 | 6 | 2880 | 3000 | 3000 | | | | |
| 72.17 | 19 | 3000 | 18000 | 6 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 |
| 83.15 | 17 | 3000 | 19800 | 6 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | |
| 92.48 | 15 | 3000 | 19800 | 6 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | |
| 103.44 | 14 | 3000 | 19800 | 6 | 3000 | 3000 | 3000 | 3000 | 3000 | | |
| 116.48 | 12 | 3000 | 19800 | 6 | 3000 | 3000 | 3000 | 3000 | 3000 | | |
| 126.75 | 11 | 3000 | 19800 | 6 | 3000 | 3000 | 3000 | | | | |
| 150.78 | 9.3 | 3000 | 19800 | 6 | 3000 | 3000 | 3000 | | | | |
| 170.02 | 8.2 | 3000 | 19800 | 6 | 3000 | 3000 | | | | | |
| 186.30 | 7.5 | 3000 | 19800 | 6 | 3000 | 3000 | | | | | |
| 216.28 | 6.5 | 3000 | 19800 | 6 | 3000 | | | | | | |
| 241.25 | 5.8 | 3000 | 19800 | 6 | | | | | | | |
| 255.71 | 5.5 | 3000 | 19800 | 6 | | | | | | | |
| 289.74 | 4.8 | 3000 | 19800 | 6 | | | | | | | |

| R97, m /kg | | | AMS | | | | | | | |
|------------|-----|---|-----|-----|--------|---------|-----|---------|---------|---------|
| R | IEC | s | 100 | 112 | 132S/M | 132ML | 160 | 180 | 200 | |
| | |  2 | | 105 | 105 | 115 | 115 | 130 | 130 | 150 |
| | |  3 | | 110 | 110 | 115 | 115 | 130 | 130 | 150 |
| | | NEMA | s | 182 | 184 | 213/215 | - | 254/256 | 284/286 | 324/326 |
| | |  2 | | 105 | 105 | 110 | - | 125 | 125 | 145 |
| | |  3 | | 110 | 110 | 115 | - | 125 | 130 | 150 |



RF: + 17 kg / RM: + 68 kg





| R107, $n_g = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 4300 Nm | | | | | | | |
|---|----------------------------|-----------------------------|---------------------|----------------------|---------|------|--------|-------|------|------|------|------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | AMS | | | | | | | |
| | | | | | 100 | 112 | 132S/M | 132ML | 160 | 180 | 200 | 225 |
|  2 | | | | | | | | | | | | |
| 4.92 ²⁾ | 285 | 2900 | 11300 | 9 | | | | 810 | 900 | 1510 | 2020 | 2020 |
| 5.82 | 241 | 2970 | 12100 | 9 | | | 635 | 960 | 1060 | 1790 | 2400 | 2400 |
| 6.66 | 210 | 2970 | 12800 | 9 | | | 730 | 1100 | 1220 | 2040 | 2750 | 2750 |
| 7.86 | 178 | 2970 | 13800 | 9 | | | 860 | 1300 | 1440 | 2410 | 2970 | 2970 |
| 8.56 ²⁾ | 164 | 4300 | 11300 | 7 | | | | 1420 | 1560 | 2620 | 3520 | 3520 |
| 10.13 | 138 | 4300 | 12400 | 7 | | | 1100 | 1680 | 1850 | 3110 | 4170 | 4170 |
| 11.59 | 121 | 4300 | 13300 | 7 | | | 1270 | 1930 | 2120 | 3560 | 4300 | 4300 |
| 13.66 | 102 | 4300 | 14400 | 7 | | | 1500 | 2270 | 2510 | 4200 | 4300 | 4300 |
| 15.65 | 89 | 4300 | 15400 | 7 | 810 | 920 | 1720 | 2380 | 2870 | 4300 | 4300 | 4300 |
| 18.21 | 77 | 4300 | 16600 | 7 | 930 | 1070 | 2000 | 2500 | 3350 | 4300 | 4300 | 4300 |
| 20.07 | 70 | 4300 | 17300 | 7 | 1010 | 1180 | 2210 | 2580 | 3690 | 4300 | 4300 | 4300 |
| 22.62 | 62 | 4300 | 18300 | 7 | 1120 | 1340 | 2500 | 2650 | 4160 | 4300 | | |
| 24.90 | 56 | 4300 | 19200 | 7 | 1210 | 1470 | 2720 | 2720 | 4300 | 4300 | | |
| 27.58 | 51 | 4300 | 20100 | 7 | 1340 | 1640 | 2820 | 2820 | 4300 | | | |
| 30.77 | 45 | 4300 | 21100 | 7 | 1460 | 1760 | 2890 | 2890 | 4300 | | | |
|  3 | | | | | | | | | | | | |
| 29.49 | 47 | 4300 | 20700 | 7 | | | 3190 | 4300 | 4300 | 4300 | 4300 | 4300 |
| 35.26 | 40 | 4300 | 22400 | 7 | | | 3830 | 4300 | 4300 | 4300 | 4300 | 4300 |
| 40.37 | 35 | 4300 | 23800 | 7 | 2080 | 2340 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 |
| 47.63 | 29 | 4300 | 25500 | 7 | 2410 | 2780 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 |
| 52.68 | 27 | 4300 | 26600 | 7 | 2640 | 3080 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 |
| 59.41 | 24 | 4300 | 28000 | 7 | 2910 | 3480 | 4300 | 4300 | 4300 | 4300 | | |
| 65.60 | 21 | 4300 | 29200 | 7 | 3160 | 3840 | 4300 | 4300 | 4300 | 4300 | | |
| 72.88 | 19 | 4300 | 29500 | 7 | 3430 | 4280 | 4300 | 4300 | 4300 | | | |
| 78.57 | 18 | 4300 | 29500 | 7 | 4060 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 |
| 92.70 | 15 | 4300 | 29500 | 7 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 |
| 102.53 | 14 | 4300 | 29500 | 7 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 |
| 115.63 | 12 | 4300 | 29500 | 7 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | | |
| 127.68 | 11 | 4300 | 29500 | 7 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | | |
| 141.83 | 9.9 | 4300 | 29500 | 7 | 4300 | 4300 | 4300 | 4300 | 4300 | | | |
| 158.68 | 8.8 | 4300 | 29500 | 7 | 4300 | 4300 | 4300 | 4300 | 4300 | | | |
| 172.34 | 8.1 | 4300 | 29500 | 7 | 4300 | 4300 | 4300 | | | | | |
| 203.16 | 6.9 | 4300 | 29500 | 7 | 4300 | 4300 | 4300 | | | | | |
| 229.95 | 6.1 | 4300 | 29500 | 7 | 4300 | 4300 | | | | | | |
| 251.15 | 5.6 | 4300 | 29500 | 7 | 4300 | 4300 | | | | | | |

| R107, m /kg | | | AMS | | | | | | | |
|-------------|------|---|-----|-----|---------|-------|---------|---------|---------|---------|
| R | IEC | s | 100 | 112 | 132S/M | 132ML | 160 | 180 | 200 | 225 |
| | |  2 | 160 | 160 | 170 | 170 | 185 | 185 | 205 | 210 |
| | |  3 | 170 | 170 | 175 | 175 | 190 | 190 | 210 | 220 |
| | NEMA | s | 182 | 184 | 213/215 | - | 254/256 | 284/286 | 324/326 | 364/365 |
| | |  2 | 160 | 160 | 165 | - | 180 | 180 | 205 | 205 |
| | |  3 | 165 | 165 | 170 | - | 185 | 190 | 210 | 210 |



RF: + 6.0 kg / RM: + 94 kg





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| R127, $n_g = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 6000 Nm | | | | | | | |
|---|----------------------------|-----------------------------|---------------------|----------------------|---------|------|--------|-------|------|------|------|------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | AMS | | | | | | | |
| | | | | | 100 | 112 | 132S/M | 132ML | 160 | 180 | 200 | 225 |
|  2 | | | | | | | | | | | | |
| 5.55 ²⁾ | 252 | 3930 | 37600 | 8 | | | | 920 | 1010 | 1700 | 2280 | 2280 |
| 6.56 | 213 | 3930 | 40200 | 8 | | | 715 | 1090 | 1200 | 2010 | 2700 | 2700 |
| 7.51 | 186 | 3930 | 42400 | 8 | | | 820 | 1250 | 1370 | 2300 | 3090 | 3090 |
| 8.85 | 158 | 3930 | 43000 | 8 | | | 970 | 1430 | 1620 | 2710 | 3530 | 3530 |
| 8.96 ²⁾ | 156 | 5420 | 41400 | 7 | | | | 1480 | 1630 | 2740 | 3690 | 3690 |
| 10.59 | 132 | 5700 | 43000 | 6 | | | 1150 | 1760 | 1940 | 3250 | 4360 | 4360 |
| 12.12 | 116 | 5940 | 43000 | 6 | | | 1320 | 2010 | 2220 | 3720 | 5000 | 5000 |
| 14.29 | 98 | 6000 | 43000 | 6 | | | 1570 | 2310 | 2620 | 4380 | 5700 | 5700 |
| 16.37 | 86 | 6000 | 43000 | 6 | 840 | 960 | 1800 | 2420 | 3010 | 4570 | 5940 | 5940 |
| 19.04 | 74 | 6000 | 43000 | 6 | 960 | 1120 | 2100 | 2550 | 3500 | 4790 | 6000 | 6000 |
| 20.98 | 67 | 6000 | 43000 | 6 | 1050 | 1240 | 2310 | 2620 | 3860 | 4920 | 6000 | 6000 |
| 23.65 | 59 | 6000 | 43000 | 6 | 1150 | 1400 | 2500 | 2700 | 4350 | 5060 | | |
| 26.04 | 54 | 6000 | 43000 | 6 | 1250 | 1540 | 2660 | 2760 | 4800 | 5180 | | |
| 28.84 | 49 | 6000 | 43000 | 6 | 1350 | 1710 | 2870 | 2870 | 5320 | | | |
| 32.18 | 44 | 6000 | 43000 | 6 | 1460 | 1780 | 2930 | 2930 | 4870 | | | |
|  3 | | | | | | | | | | | | |
| 30.84 | 45 | 5380 | 43000 | 7 | | | 3340 | 5070 | 5380 | 5380 | 5380 | 5380 |
| 36.88 | 38 | 5730 | 43000 | 7 | | | 4000 | 5730 | 5730 | 5730 | 5730 | 5730 |
| 42.22 | 33 | 6000 | 43000 | 7 | 2170 | 2450 | 4590 | 6000 | 6000 | 6000 | 6000 | 6000 |
| 49.81 | 28 | 6000 | 43000 | 7 | 2510 | 2900 | 5420 | 6000 | 6000 | 6000 | 6000 | 6000 |
| 55.09 | 25 | 6000 | 43000 | 7 | 2740 | 3220 | 6000 | 6000 | 6000 | 6000 | 6000 | 6000 |
| 62.13 | 23 | 6000 | 43000 | 7 | 3020 | 3640 | 6000 | 6000 | 6000 | 6000 | | |
| 68.61 | 20 | 6000 | 43000 | 7 | 3280 | 4020 | 6000 | 6000 | 6000 | 6000 | | |
| 76.21 | 18 | 6000 | 43000 | 7 | 3560 | 4470 | 6000 | 6000 | 6000 | | | |
| 82.17 | 17 | 6000 | 43000 | 6 | 4220 | 4780 | 6000 | 6000 | 6000 | 6000 | 6000 | 6000 |
| 85.26 | 16 | 6000 | 43000 | 7 | 3870 | 4690 | 6000 | 6000 | 6000 | | | |
| 96.95 | 14 | 6000 | 43000 | 6 | 4890 | 5650 | 6000 | 6000 | 6000 | 6000 | 6000 | 6000 |
| 107.23 | 13 | 6000 | 43000 | 6 | 5330 | 6000 | 6000 | 6000 | 6000 | 6000 | 6000 | 6000 |
| 120.92 | 12 | 6000 | 43000 | 6 | 5890 | 6000 | 6000 | 6000 | 6000 | 6000 | | |
| 133.53 | 10 | 6000 | 43000 | 6 | 6000 | 6000 | 6000 | 6000 | 6000 | 6000 | | |
| 148.33 | 9.4 | 6000 | 43000 | 6 | 6000 | 6000 | 6000 | 6000 | 6000 | | | |
| 165.95 | 8.4 | 6000 | 43000 | 6 | 6000 | 6000 | 6000 | 6000 | 6000 | | | |
| 180.23 | 7.8 | 6000 | 43000 | 6 | 6000 | 6000 | 6000 | | | | | |
| 212.46 | 6.6 | 6000 | 43000 | 6 | 6000 | 6000 | 6000 | | | | | |
| 240.48 | 5.8 | 6000 | 43000 | 6 | 6000 | 6000 | | | | | | |
| 262.65 | 5.3 | 6000 | 43000 | 6 | 6000 | 6000 | | | | | | |

| R127, m /kg | | | AMS | | | | | | | | | |
|-------------|---|---|-----|-----|---------|-------|---------|---------|---------|---------|--|--|
| R | IEC | s | 100 | 112 | 132S/M | 132ML | 160 | 180 | 200 | 225 | | |
| | |  | 210 | 210 | 215 | 215 | 230 | 230 | 255 | 260 | | |
| | |  | 225 | 225 | 230 | 230 | 245 | 245 | 270 | 275 | | |
| | NEMA | s | 182 | 184 | 213/215 | - | 254/256 | 284/286 | 324/326 | 364/365 | | |
| | |  | 210 | 210 | 210 | - | 225 | 230 | 250 | 250 | | |
| |  | 225 | 225 | 230 | - | 240 | 245 | 265 | 265 | | | |

RF: + 11 kg / RM: + 105 kg

| R137, $n_g = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | AMS | | | | | | 8000 Nm |
|---|----------------------------|-----------------------------|---------------------|----------------------|--------|-------|------|------|------|------|---------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | 132S/M | 132ML | 160 | 180 | 200 | 225 | |
|  2 | | | | | | | | | | | |
| 5.15 | 272 | 4600 | 34500 | 8 | | | | 1570 | 2110 | 2110 | |
| 6.38 | 219 | 5110 | 35900 | 8 | | 1050 | 1160 | 1950 | 2620 | 2620 | |
| 7.59 | 184 | 5110 | 39000 | 8 | 820 | 1260 | 1380 | 2330 | 3130 | 3130 | |
| 8.71 | 161 | 7840 | 27600 | 6 | | | | 2660 | 3580 | 3580 | |
| 10.79 | 130 | 8000 | 31100 | 6 | | 1780 | 1960 | 3300 | 4440 | 4440 | |
| 12.83 | 109 | 8000 | 34700 | 6 | 1400 | 2130 | 2340 | 3940 | 5290 | 5290 | |
| 14.51 | 96 | 8000 | 37300 | 6 | 1580 | 2410 | 2660 | 4460 | 5980 | 5980 | |
| 16.80 | 83 | 8000 | 40600 | 6 | 1840 | 2770 | 3080 | 5170 | 6780 | 6780 | |
| 19.04 | 74 | 8000 | 43500 | 6 | 2090 | 2870 | 3500 | 5400 | 7000 | 7000 | |
| 22.00 | 64 | 8000 | 47100 | 6 | 2420 | 3000 | 4040 | 5620 | 7280 | 7280 | |
| 24.12 | 58 | 8000 | 49400 | 6 | 2660 | 3070 | 4440 | 5750 | 7440 | 7440 | |
| 29.57 | 47 | 7780 | 53900 | 6 | 3270 | 3270 | 5450 | 6060 | | | |
|  3 | | | | | | | | | | | |
| 27.83 | 50 | 7680 | 54100 | 6 | | 4550 | 5020 | 7680 | 7680 | 7680 | |
| 32.91 | 43 | 8000 | 53400 | 6 | 3550 | 5400 | 5950 | 8000 | 8000 | 8000 | |
| 37.65 | 37 | 8000 | 53400 | 6 | 4070 | 6190 | 6820 | 8000 | 8000 | 8000 | |
| 44.39 | 32 | 8000 | 53400 | 6 | 4810 | 7310 | 8000 | 8000 | 8000 | 8000 | |
| 50.86 | 28 | 8000 | 53400 | 6 | 5530 | 7660 | 8000 | 8000 | 8000 | 8000 | |
| 59.17 | 24 | 8000 | 53400 | 6 | 6440 | 8000 | 8000 | 8000 | 8000 | 8000 | |
| 65.20 | 21 | 8000 | 53400 | 6 | 7110 | 8000 | 8000 | 8000 | 8000 | 8000 | |
| 73.49 | 19 | 8000 | 53400 | 6 | 8000 | 8000 | 8000 | 8000 | | | |
| 80.91 | 17 | 8000 | 53400 | 6 | 8000 | 8000 | 8000 | 8000 | | | |
| 88.70 | 16 | 8000 | 53400 | 6 | 8000 | 8000 | 8000 | 8000 | 8000 | 8000 | |
| 103.20 | 14 | 8000 | 53400 | 6 | 8000 | 8000 | 8000 | 8000 | 8000 | 8000 | |
| 113.72 | 12 | 8000 | 53400 | 6 | 8000 | 8000 | 8000 | 8000 | 8000 | 8000 | |
| 128.18 | 11 | 8000 | 53400 | 6 | 8000 | 8000 | 8000 | 8000 | | | |
| 141.12 | 9.9 | 8000 | 53400 | 6 | 8000 | 8000 | 8000 | 8000 | | | |
| 156.31 | 9.0 | 8000 | 53400 | 6 | 8000 | 8000 | 8000 | | | | |
| 174.40 | 8.0 | 8000 | 53400 | 6 | 8000 | 8000 | 8000 | | | | |
| 188.45 | 7.4 | 8000 | 53400 | 6 | 8000 | | | | | | |
| 222.60 | 6.3 | 8000 | 53400 | 6 | 8000 | | | | | | |

| R137, m /kg | | AMS | | | | | | |
|-------------|------|---|---------|-------|---------|---------|---------|---------|
| R | IEC | s | 132S/M | 132ML | 160 | 180 | 200 | 225 |
| | |  2 | 250 | 250 | 265 | 265 | 290 | 295 |
| | |  3 | 260 | 260 | 275 | 275 | 300 | 305 |
| | NEMA | s | 213/215 | - | 254/256 | 284/286 | 324/326 | 364/365 |
| | |  2 | 245 | - | 260 | 265 | 285 | 285 |
| | |  3 | 255 | - | 270 | 275 | 295 | 295 |



RF: + 23 kg / RM: + 135 kg





26878585/EN – 11/2021

8



R.. helical gear units





Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| R147, $n_g = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | | | | | | | 13000 Nm |
|---|----------------------------|-----------------------------|---------------------|----------------------|-------|-------|-------|-------|-------|-------|----------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | 132ML | 160 | 180 | AMS | | | |
| | | | | | | | | 200 | 225 | 250 | 280 |
|  2 | | | | | | | | | | | |
| 5.00 | 280 | 8670 | 49300 | 8 | | | | 2050 | 2050 | 3200 | 3200 |
| 5.89 | 238 | 8670 | 53200 | 8 | | | 1800 | 2420 | 2420 | 3780 | 3780 |
| 7.25 | 193 | 8670 | 58400 | 8 | 1200 | 1320 | 2220 | 2980 | 2980 | 4320 | 4650 |
| 8.26 | 169 | 13000 | 49900 | 6 | | | | 3390 | 3390 | 5290 | 5290 |
| 9.74 | 144 | 13000 | 54400 | 6 | | | 2980 | 4000 | 4000 | 6250 | 6250 |
| 11.99 | 117 | 13000 | 60400 | 5 | 1980 | 2180 | 3670 | 4930 | 4930 | 7140 | 7700 |
| 13.91 | 101 | 12600 | 63400 | 5 | 2310 | 2540 | 4270 | 5730 | 5730 | 7430 | 8940 |
| 15.64 | 90 | 13000 | 62700 | 5 | 2600 | 2860 | 4800 | 6450 | 6450 | 10000 | 10000 |
| 18.04 | 78 | 10500 | 67000 | 5 | 3000 | 3310 | 5540 | 7360 | 7360 | 10500 | 10500 |
| 20.44 | 68 | 12000 | 64600 | 5 | 3140 | 3750 | 5870 | 7600 | 7600 | 12000 | 12000 |
|  3 | | | | | | | | | | | |
| 24.19 | 58 | 11900 | 64700 | 6 | | | 7310 | 9820 | 9820 | 11900 | 11900 |
| 29.95 | 47 | 13000 | 62700 | 6 | 4900 | 5400 | 9070 | 12100 | 12100 | 13000 | 13000 |
| 35.64 | 39 | 13000 | 62700 | 6 | 5840 | 6440 | 10800 | 13000 | 13000 | 13000 | 13000 |
| 40.29 | 35 | 13000 | 62700 | 6 | 6620 | 7290 | 12200 | 13000 | 13000 | 13000 | 13000 |
| 46.65 | 30 | 13000 | 62700 | 6 | 7420 | 8460 | 13000 | 13000 | 13000 | 13000 | 13000 |
| 52.87 | 26 | 13000 | 62700 | 6 | 7680 | 9600 | 13000 | 13000 | 13000 | 13000 | 13000 |
| 61.09 | 23 | 13000 | 62700 | 6 | 8030 | 11100 | 13000 | 13000 | 13000 | | |
| 66.99 | 21 | 13000 | 62700 | 6 | 8220 | 12100 | 13000 | 13000 | 13000 | | |
| 72.09 | 19 | 13000 | 62700 | 6 | 11800 | 13000 | 13000 | 13000 | 13000 | 13000 | 13000 |
| 83.47 | 17 | 13000 | 62700 | 6 | 13000 | 13000 | 13000 | 13000 | 13000 | 13000 | 13000 |
| 94.60 | 15 | 13000 | 62700 | 6 | 13000 | 13000 | 13000 | 13000 | 13000 | 13000 | 13000 |
| 109.31 | 13 | 13000 | 62700 | 5 | 13000 | 13000 | 13000 | 13000 | 13000 | | |
| 119.86 | 12 | 13000 | 62700 | 5 | 13000 | 13000 | 13000 | 13000 | 13000 | | |
| 146.91 | 9.5 | 13000 | 62700 | 5 | 13000 | 13000 | 13000 | | | | |
| 163.31 | 8.6 | 13000 | 62700 | 5 | 13000 | 13000 | | | | | |

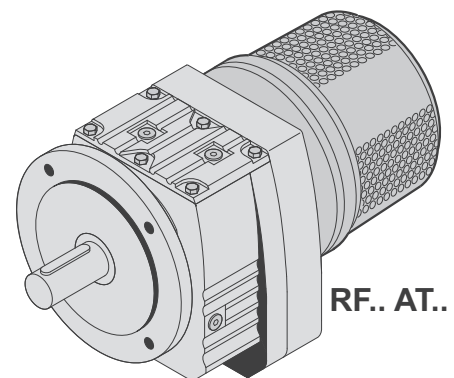
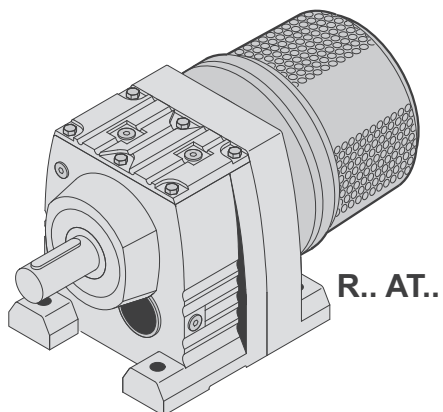
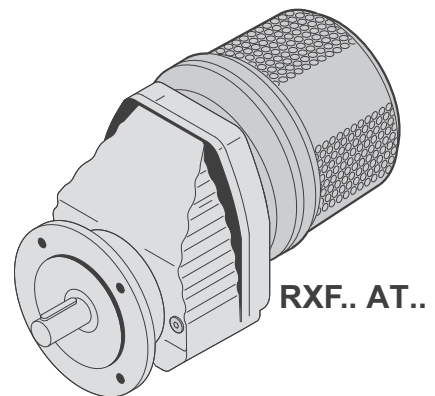
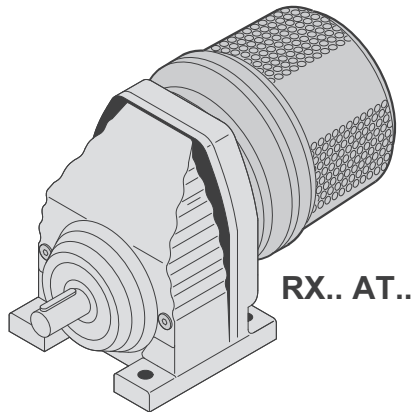
| R147, m /kg | | | AMS | | | | | | |
|-------------|---|---|-------|---------|---------|---------|---------|-----|-----|
| R | IEC | s | 132ML | 160 | 180 | 200 | 225 | 250 | 280 |
| | |  2 | 380 | 395 | 395 | 415 | 420 | 440 | 445 |
| | |  3 | 390 | 410 | 410 | 425 | 430 | 455 | 460 |
| | NEMA | s | - | 254/256 | 284/286 | 324/326 | 364/365 | - | - |
| | |  2 | - | 390 | 395 | 410 | 410 | - | - |
| |  3 | - | 405 | 405 | 425 | 425 | - | - | |

RF: + 8.3 kg / RM: + 175 kg

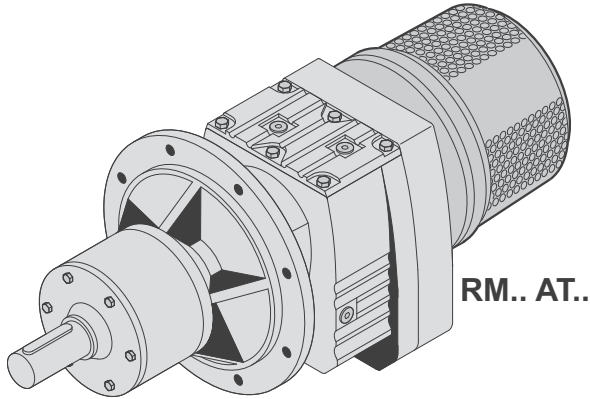
| R167, $n_g = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 20000 Nm | | | | | |
|---|----------------------------|-----------------------------|---------------------|----------------------|----------|-------|-------|-------|-------|-------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | AMS | | | | | |
| | | | | | 160 | 180 | 200 | 225 | 250 | 280 |
|  | | | | | | | | | | |
| 10.24 | 137 | 18500 | 77500 | 5 | | | 4190 | 4190 | 6560 | 6560 |
| 11.99 | 117 | 19000 | 83300 | 5 | | 3660 | 4920 | 4920 | 7690 | 7690 |
| 14.48 | 97 | 19700 | 89300 | 5 | 2640 | 4430 | 5950 | 5950 | 8530 | 9290 |
| 16.98 | 82 | 20000 | 95400 | 5 | 3100 | 5210 | 6990 | 6990 | 8970 | 10900 |
| 19.03 | 74 | 20000 | 100600 | 5 | 3480 | 5840 | 7850 | 7850 | 12200 | 12200 |
| 21.85 | 64 | 20000 | 107100 | 5 | 4000 | 6720 | 8820 | 8820 | 14000 | 14000 |
| 24.57 | 57 | 16400 | 120000 | 5 | 4510 | 6960 | 9030 | 9030 | 15800 | 15800 |
| 30.71 | 46 | 11700 | 120000 | 5 | 5650 | 7310 | 9470 | 9470 | | |
| 37.74 | 37 | 10200 | 120000 | 5 | 6940 | 7720 | | | | |
| 46.00 | 30 | 9460 | 120000 | 5 | 7940 | | | | | |
|  | | | | | | | | | | |
| 23.71 | 59 | 18800 | 114400 | 6 | | | 9610 | 9610 | 15000 | 15000 |
| 27.96 | 50 | 20000 | 119500 | 6 | | 8440 | 11300 | 11300 | 17700 | 17700 |
| 34.41 | 41 | 20000 | 120000 | 6 | 6200 | 10400 | 13900 | 13900 | 19900 | 20000 |
| 39.92 | 35 | 20000 | 120000 | 6 | 7210 | 12100 | 16200 | 16200 | 20000 | 20000 |
| 44.87 | 31 | 20000 | 120000 | 6 | 8120 | 13600 | 18200 | 18200 | 20000 | 20000 |
| 51.76 | 27 | 20000 | 120000 | 6 | 9380 | 15700 | 20000 | 20000 | 20000 | 20000 |
| 58.65 | 24 | 20000 | 120000 | 6 | 10600 | 16300 | 20000 | 20000 | 20000 | 20000 |
| 67.40 | 21 | 20000 | 120000 | 6 | 12200 | 16900 | 20000 | 20000 | | |
| 73.70 | 19 | 20000 | 120000 | 6 | 13300 | 17200 | 20000 | 20000 | | |
| 82.91 | 17 | 20000 | 120000 | 5 | 14900 | 20000 | 20000 | 20000 | 20000 | 20000 |
| 93.19 | 15 | 20000 | 120000 | 5 | 16800 | 20000 | 20000 | 20000 | 20000 | 20000 |
| 107.49 | 13 | 20000 | 120000 | 5 | 19400 | 20000 | 20000 | 20000 | 20000 | 20000 |
| 121.81 | 11 | 20000 | 120000 | 5 | 20000 | 20000 | 20000 | 20000 | 20000 | 20000 |
| 139.98 | 10 | 20000 | 120000 | 5 | 20000 | 20000 | 20000 | 20000 | | |
| 153.07 | 9.1 | 20000 | 120000 | 5 | 20000 | 20000 | 20000 | 20000 | | |
| 186.93 | 7.5 | 20000 | 120000 | 5 | 20000 | 20000 | | | | |
| 229.71 | 6.1 | 20000 | 120000 | 5 | 20000 | | | | | |

| R167, m /kg | | | AMS | | | | | |
|-------------|---|---|---------|---------|---------|---------|-----|-----|
| R | IEC | s | 160 | 180 | 200 | 225 | 250 | 280 |
| | |  | 650 | 650 | 670 | 680 | 700 | 700 |
| | |  | 660 | 660 | 680 | 680 | 700 | 710 |
| | NEMA | s | 254/256 | 284/286 | 324/326 | 364/365 | - | - |
| | |  | 650 | 650 | 670 | 670 | - | - |
| |  | 660 | 660 | 670 | 670 | - | - | |

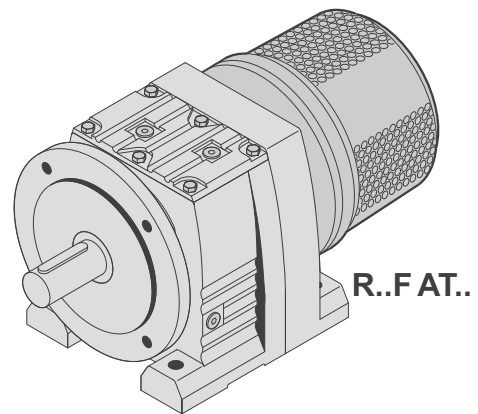
RF: + 6.4 kg / RM: + 200 kg

8.2 Selection tables for adapters with hydraulic start-up coupling (AT..)

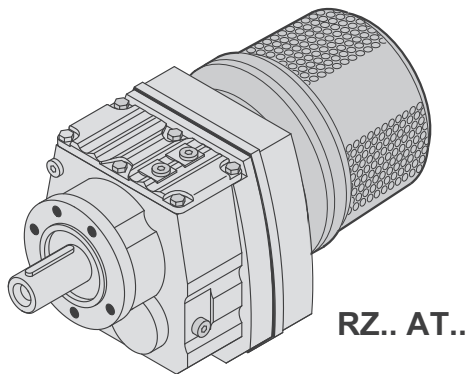
21441538187



RM.. AT..










R..FAT..

















RZ.. AT..

21441540619







8.2.1 R..AT/DRN..4

|  |  | P_{Mot} kW |  |  |  | Sn % |  |
|---|---|-----------------|---|--|---|---------|---|
| R67 | DRN71M4 | 0.37 | AT311 | T11 | 0.42 | 12 | (→  308) |
| | DRN80MK4 | 0.55 | AT312 | T11D | 0.55 | 11 | |
| | DRN80M4 | 0.75 | AT312 | T11D | 0.7 | 11 | |
| | DRN90S4 | 1.1 | AT312 | T11D | 0.72 | 15 | |
| | DRN90L4 | 1.5 | AT321 | T21 | 0.85 | 9 | |
| | DRN100LS4 | 2.2 | AT321 | T21 | 0.9 | 13 | |
| | DRN100L4 | 3 | AT322 | T21D | 1.53 | 11 | |
| R77 | DRN80MK4 | 0.55 | AT312 | T11D | 0.55 | 11 | |
| | DRN80M4 | 0.75 | AT312 | T11D | 0.7 | 11 | |
| | DRN90S4 | 1.1 | AT312 | T11D | 0.72 | 15 | |
| | DRN90L4 | 1.5 | AT421 | T21 | 0.85 | 9 | |
| | DRN100LS4 | 2.2 | AT421 | T21 | 0.9 | 13 | |
| | DRN100L4 | 3 | AT422 | T21D | 1.53 | 11 | |
| | DRN112M4 | 4 | AT422 | T21D | 1.6 | 12 | |
| R87 | DRN90S4 | 1.1 | AT312 | T11D | 0.72 | 15 | |
| | DRN90L4 | 1.5 | AT421 | T21 | 0.85 | 9 | |
| | DRN100LS4 | 2.2 | AT421 | T21 | 0.9 | 13 | |
| | DRN100L4 | 3 | AT422 | T21D | 1.53 | 11 | |
| | DRN112M4 | 4 | AT422 | T21D | 1.6 | 12 | |
| | DRN132S4 | 5.5 | AT541 | T41 | 2 | 6 | |
| | DRN132M4 | 7.5 | AT541 | T41 | 2.4 | 8 | |
| | DRN132L4 | 9.2 | AT541 | T41 | 2.5 | 10 | |
| | DRN160M4 | 11 | AT541 | T41 | 2.5 | 13 | |
| | DRN160L4 | 15 | AT542 | T41D | 4.2 | 8 | |

|  |  | P_{Mot} kW |  |  |  | Sn % |  |
|---|---|-------------------------------------|---|--|---|-----------------------|---|
| R97 | DRN90S4 | 1.1 | AT312 | T11D | 0.72 | 15 | (→  308) |
| | DRN90L4 | 1.5 | AT421 | T21 | 0.85 | 9 | |
| | DRN100LS4 | 2.2 | AT421 | T21 | 0.9 | 13 | |
| | DRN100L4 | 3 | AT422 | T21D | 1.53 | 11 | |
| | DRN112M4 | 4 | AT422 | T21D | 1.6 | 12 | |
| | DRN132S4 | 5.5 | AT541 | T41 | 2 | 6 | |
| | DRN132M4 | 7.5 | AT541 | T41 | 2.4 | 8 | |
| | DRN132L4 | 9.2 | AT541 | T41 | 2.5 | 10 | |
| | DRN160M4 | 11 | AT541 | T41 | 2.5 | 13 | |
| | DRN160L4 | 15 | AT542 | T41D | 4.2 | 8 | |
| | DRN180M4 | 18.5 | AT542 | T41D | 4.3 | 10 | |
| DRN180L4 | 22 | AT542 | T41D | 4.3 | 14 | | |
| R107 | DRN100LS4 | 2.2 | AT421 | T21 | 0.9 | 13 | |
| | DRN100L4 | 3 | AT422 | T21D | 1.53 | 11 | |
| | DRN112M4 | 4 | AT422 | T21D | 1.6 | 12 | |
| | DRN132S4 | 5.5 | AT541 | T41 | 2 | 6 | |
| | DRN132M4 | 7.5 | AT541 | T41 | 2.4 | 8 | |
| | DRN132L4 | 9.2 | AT541 | T41 | 2.5 | 10 | |
| | DRN160M4 | 11 | AT541 | T41 | 2.5 | 13 | |
| | DRN160L4 | 15 | AT542 | T41D | 4.2 | 8 | |
| | DRN180M4 | 18.5 | AT542 | T41D | 4.3 | 10 | |
| | DRN180L4 | 22 | AT542 | T41D | 4.3 | 14 | |
| R127 | DRN100LS4 | 2.2 | AT421 | T21 | 0.9 | 13 | |
| | DRN100L4 | 3 | AT422 | T21D | 1.53 | 11 | |
| | DRN112M4 | 4 | AT422 | T21D | 1.6 | 12 | |
| | DRN132S4 | 5.5 | AT541 | T41 | 2 | 6 | |
| | DRN132M4 | 7.5 | AT541 | T41 | 2.4 | 8 | |
| | DRN132L4 | 9.2 | AT541 | T41 | 2.5 | 10 | |
| | DRN160M4 | 11 | AT541 | T41 | 2.5 | 13 | |
| | DRN160L4 | 15 | AT542 | T41D | 4.2 | 8 | |
| | DRN180M4 | 18.5 | AT542 | T41D | 4.3 | 10 | |
| | DRN180L4 | 22 | AT542 | T41D | 4.3 | 14 | |

|  |  | P_{Mot} kW |  |  |  | Sn % |  |
|---|---|-----------------|---|--|---|---------|---|
| R137 | DRN100LS4 | 2.2 | AT421 | T21 | 0.9 | 13 | (→  308) |
| | DRN100L4 | 3 | AT422 | T21D | 1.53 | 11 | |
| | DRN112M4 | 4 | AT422 | T21D | 1.6 | 12 | |
| | DRN132S4 | 5.5 | AT541 | T41 | 2 | 6 | |
| | DRN132M4 | 7.5 | AT541 | T41 | 2.4 | 8 | |
| | DRN132L4 | 9.2 | AT541 | T41 | 2.5 | 10 | |
| | DRN160M4 | 11 | AT541 | T41 | 2.5 | 13 | |
| | DRN160L4 | 15 | AT542 | T41D | 4.2 | 8 | |
| | DRN180M4 | 18.5 | AT542 | T41D | 4.3 | 10 | |
| | DRN180L4 | 22 | AT542 | T41D | 4.3 | 14 | |
| R147 | DRN132M4 | 7.5 | AT541 | T41 | 2.4 | 8 | |
| | DRN132L4 | 9.2 | AT541 | T41 | 2.5 | 10 | |
| | DRN160M4 | 11 | AT541 | T41 | 2.5 | 13 | |
| | DRN160L4 | 15 | AT542 | T41D | 4.2 | 8 | |
| | DRN180M4 | 18.5 | AT542 | T41D | 4.3 | 10 | |
| | DRN180L4 | 22 | AT542 | T41D | 4.3 | 14 | |
| R167 | DRN160M4 | 11 | AT541 | T41 | 2.5 | 13 | |
| | DRN160L4 | 15 | AT542 | T41D | 4.2 | 8 | |
| | DRN180M4 | 18.5 | AT542 | T41D | 4.3 | 10 | |
| | DRN180L4 | 22 | AT542 | T41D | 4.3 | 14 | |







8.2.2 R..AT/DRN..2

|  |  | P_{Mot} kW |  |  |  | Sn |  |
|---|---|-----------------|---|--|---|------|---|
| R67 | DRN71M2 | 0.55 | AT311 | T11 | 0.19 | 3 | |
| | DRN80MS2 | 0.75 | AT311 | T11 | 0.22 | 4.5 | |
| | DRN80M2 | 1.1 | AT311 | T11 | 0.27 | 6 | |
| | DRN90S2 | 1.5 | AT311 | T11 | 0.29 | 8.5 | |
| | DRN90L2 | 2.2 | AT311 | T11 | 0.31 | 11.5 | |
| | DRN100LM2 | 3 | AT311 | T11 | 0.4 | 12 | |
| | DRN112M2 | 4 | AT312 | T11D | 0.52 | 10 | |
| R77 | DRN71M2 | 0.55 | AT311 | T11 | 0.19 | 3 | |
| | DRN80MS2 | 0.75 | AT311 | T11 | 0.22 | 4.5 | |
| | DRN80M2 | 1.1 | AT311 | T11 | 0.27 | 6 | |
| | DRN90S2 | 1.5 | AT311 | T11 | 0.29 | 8.5 | |
| | DRN90L2 | 2.2 | AT311 | T11 | 0.31 | 11.5 | |
| | DRN100LM2 | 3 | AT311 | T11 | 0.4 | 12 | |
| | DRN112M2 | 4 | AT312 | T11D | 0.52 | 10 | |
| | DRN132S2 | 5.5 | AT321 | T11D | 0.58 | 12 | |
| | DRN132S2 | 5.5 | AT421 | T21 | 0.6 | 8 | |
| R87 | DRN90S2 | 1.5 | AT311 | T11 | 0.29 | 8.5 | |
| | DRN90L2 | 2.2 | AT311 | T11 | 0.31 | 11.5 | |
| | DRN100LM2 | 3 | AT311 | T11 | 0.4 | 12 | |
| | DRN112M2 | 4 | AT312 | T11D | 0.52 | 10 | |
| | DRN132S2 | 5.5 | AT321 | T11D | 0.58 | 12 | |
| | DRN132S2 | 5.5 | AT421 | T21 | 0.6 | 8 | |
| R97 | DRN90S2 | 1.5 | AT311 | T11 | 0.29 | 8.5 | |
| | DRN90L2 | 2.2 | AT311 | T11 | 0.31 | 11.5 | |
| | DRN100LM2 | 3 | AT311 | T11 | 0.4 | 12 | |
| | DRN112M2 | 4 | AT312 | T11D | 0.52 | 10 | |
| | DRN132S2 | 5.5 | AT321 | T11D | 0.58 | 12 | |
| | DRN132S2 | 5.5 | AT421 | T21 | 0.6 | 8 | |
| R107 | DRN100LM2 | 3 | AT311 | T11 | 0.4 | 12 | |
| | DRN112M2 | 4 | AT312 | T11D | 0.52 | 10 | |
| | DRN132S2 | 5.5 | AT321 | T11D | 0.58 | 12 | |
| | DRN132S2 | 5.5 | AT421 | T21 | 0.6 | 8 | |

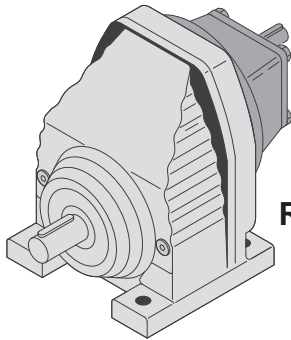
8

R.. helical gear units

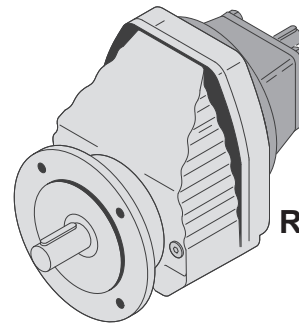
Selection tables for adapters with hydraulic start-up coupling (AT..)

|  |  | P_{Mot} kW |  |  |  | Sn |  |
|---|---|-----------------|---|--|---|----|---|
| R127 | DRN100LM2 | 3 | AT311 | T11 | 0.4 | 12 | |
| | DRN112M2 | 4 | AT312 | T11D | 0.52 | 10 | |
| | DRN132S2 | 5.5 | AT321 | T11D | 0.58 | 12 | |
| | DRN132S2 | 5.5 | AT421 | T21 | 0.6 | 8 | |
| R137 | DRN132S2 | 5.5 | AT421 | T21 | 0.6 | 8 | |

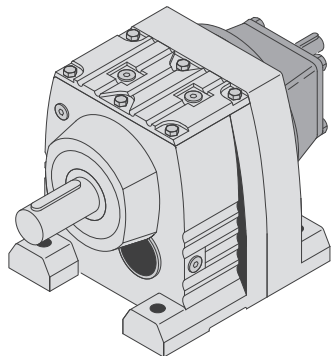
8.3 Selection tables for input shaft assembly (AD..)



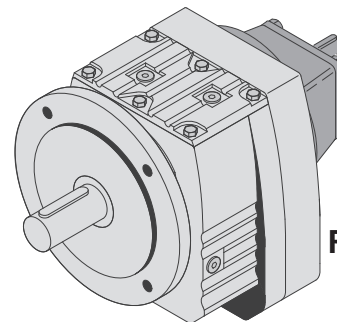
RX.. AD..



RXF.. AD..



R.. AD..



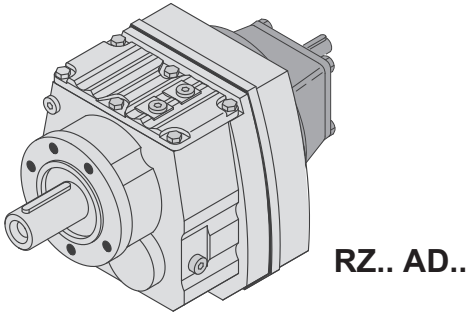
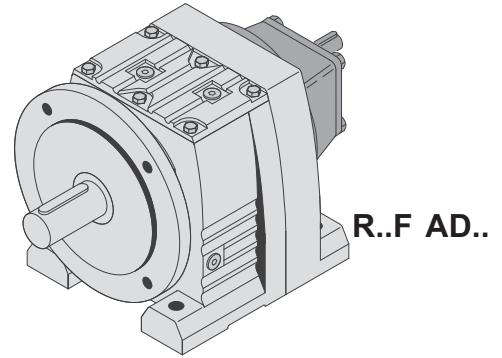
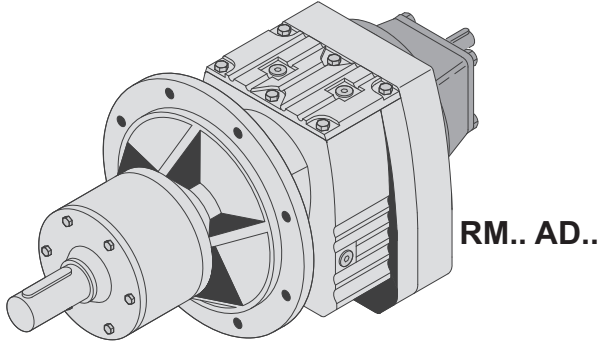
RF.. AD..

21460886923


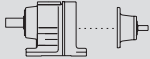

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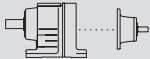

R.. helical gear units


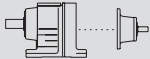

Selection tables for input shaft assembly (AD..)


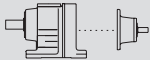



21460889355

| RX57 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 69 Nm | |
|---|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|--|---------|---|--|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | |
| 5.50* | 255 | 37 | 1.0 | 3120 | 515 | - | - | | | | |
| 5.07 | 276 | 34 | 1.0 | 3050 | 645 | - | - | | | | |
| 4.35 | 322 | 61 | 2.1 | 2690 | 1110 | - | - | | | | |
| 3.79 | 369 | 58 | 2.3 | 2560 | 1130 | - | - | RX 57 | AD2 | 13 311 | |
| 3.55* | 394 | 55 | 2.3 | 2520 | 1150 | - | - | RXF 57 | AD2 | 15 311 | |
| 3.14 | 446 | 65 | 3.1 | 2320 | 990 | - | - | | | | |
| 2.91 | 481 | 49 | 2.5 | 2370 | 1190 | - | - | | | | |
| 2.64* | 530 | 69 | 3.9 | 1810 | 880 | - | - | | | | |
| 2.37 | 591 | 69 | 4.4 | 1500 | 1860 | - | - | | | | |
| 2.04 | 686 | 69 | 5.1 | 1070 | 1810 | - | - | | | | |
| 1.92* | 729 | 69 | 5.4 | 880 | 1780 | - | - | RX 57 | AD3 | 16 311 | |
| 1.65 | 847 | 69 | 6.3 | 430 | 1720 | - | - | RXF 57 | AD3 | 18 311 | |
| 1.48 | 948 | 68 | 6.9 | 112 | 1660 | - | - | | | | |
| 1.30 | 1075 | 63 | 7.2 | 132 | 1710 | - | - | | | | |

| RX67 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 134 Nm | |
|---|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|--|---------|---|--|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | |
| 6.07 | 231 | 41 | 1.0 | 4020 | 630 | - | - | | | | |
| 5.18 | 270 | 75 | 2.2 | 3580 | 1090 | - | - | | | | |
| 4.53 | 309 | 71 | 2.4 | 3420 | 1120 | - | - | RX 67 | AD2 | 15 311 | |
| 4.30* | 326 | 69 | 2.4 | 3370 | 1140 | - | - | RXF 67 | AD2 | 19 311 | |
| 3.77 | 371 | 87 | 3.5 | 3090 | 880 | - | - | | | | |
| 3.20* | 438 | 100 | 4.7 | 2800 | 1700 | - | - | | | | |
| 2.89 | 485 | 105 | 5.5 | 2640 | 1610 | - | - | | | | |
| 2.54 | 551 | 118 | 7.0 | 2000 | 1400 | - | - | | | | |
| 2.40* | 583 | 123 | 7.7 | 1530 | 1300 | - | - | RX 67 | AD3 | 19 311 | |
| 2.04 | 685 | 114 | 8.3 | 1260 | 1310 | - | - | RXF 67 | AD3 | 23 311 | |
| 1.86 | 754 | 108 | 8.7 | 1180 | 1340 | - | - | | | | |
| 1.61 | 870 | 99 | 9.2 | 1080 | 1380 | - | - | | | | |
| 1.40* | 1000 | 90 | 9.6 | 1030 | 1420 | - | - | | | | |

| RX77 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 215 Nm | |
|---|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|--|---------|---|--|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | |
| 8.00* | 175 | 54 | 1.1 | 6350 | 520 | - | - | | | | |
| 7.47 | 188 | 50 | 1.0 | 6220 | 655 | - | - | | | | |
| 6.41 | 218 | 101 | 2.4 | 5610 | 1050 | - | - | RX 77 | AD2 | 25 311 | |
| 5.63 | 249 | 107 | 2.9 | 5320 | 970 | - | - | RXF 77 | AD2 | 27 311 | |
| 5.35* | 262 | 101 | 2.9 | 5250 | 1020 | - | - | | | | |
| 4.73 | 296 | 123 | 3.9 | 4900 | 1800 | - | - | | | | |
| 4.04* | 347 | 143 | 5.3 | 4500 | 1580 | - | - | RX 77 | AD3 | 29 311 | |
| 3.70 | 378 | 143 | 5.8 | 4350 | 1560 | - | - | RXF 77 | AD3 | 31 311 | |
| 3.25* | 431 | 182 | 8.4 | 3200 | 3160 | - | - | | | | |
| 3.08* | 455 | 193 | 9.4 | 2560 | 3040 | - | - | | | | |
| 2.70 | 519 | 215 | 11.9 | 1110 | 2780 | - | - | | | | |
| 2.43 | 576 | 215 | 13.2 | 510 | 2670 | - | - | RX 77 | AD4 | 35 311 | |
| 2.13 | 657 | 200 | 14.0 | 435 | 2720 | - | - | RXF 77 | AD4 | 37 311 | |
| 1.88* | 745 | 187 | 14.9 | 335 | 2750 | - | - | | | | |
| 1.67 | 840 | 173 | 15.5 | 315 | 2800 | - | - | | | | |
| 1.42 | 984 | 155 | 16.3 | 315 | 2870 | - | - | | | | |


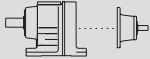

| RX87 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 405 Nm | |
|---|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|--|---------|---|--|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | |
| 8.65 | 162 | 139 | 2.4 | 7890 | 1070 | - | - | | | | |
| 7.63 | 183 | 145 | 2.9 | 7510 | 1020 | - | - | RX 87 | AD2 | 41 311 | |
| 7.20* | 194 | 136 | 2.9 | 7390 | 1060 | - | - | RXF 87 | AD2 | 46 311 | |
| 6.45 | 217 | 192 | 4.5 | 6850 | 1640 | - | - | | | | |
| 5.56* | 252 | 225 | 6.1 | 6320 | 1410 | - | - | RX 87 | AD3 | 45 311 | |
| 5.07 | 276 | 215 | 6.4 | 6140 | 1440 | - | - | RXF 87 | AD3 | 50 311 | |




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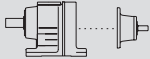

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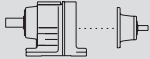

R.. helical gear units


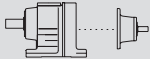

Selection tables for input shaft assembly (AD..)

| RX87 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | | 405 Nm | | | | |
|---|----------------------------|-------------------------|-------------|---------------------|---------------|--------------|---|--|-----|---------|---|--------|-----|----|-----|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | | m kg |  | | | | |
| 4.50* | 311 | 290 | 9.7 | 5500 | 3010 | - | - | RX 87 | AD4 | 52 | 311 | | | | |
| 3.78 | 370 | 305 | 12.1 | 5030 | 2850 | - | - | | | RXF 87 | AD4 | 56 | 311 | | |
| 3.48 | 403 | 405 | 17.4 | 2730 | 5330 | - | - | RX 87 | AD5 | 66 | 311 | | | | |
| 3.09 | 454 | 405 | 19.6 | 1950 | 5250 | - | - | | | | | | | | |
| 2.76* | 507 | 405 | 22 | 1200 | 5160 | - | - | | | | | | | | |
| 2.48 | 564 | 405 | 24 | 470 | 5060 | - | - | | | | | | | | |
| 2.15 | 650 | 385 | 27 | 42 | 5050 | - | - | | | | | | | | |
| 1.93 | 726 | 355 | 28 | 185 | 5150 | - | - | | | | | | | | |
| 1.60* | 875 | 315 | 29 | 74 | 5230 | - | - | | | | | | | | |
| 1.39 | 1005 | 290 | 31 | 74 | 5310 | - | - | | | | | | | | |
| | | | | | | | | | | | | RXF 87 | AD5 | 71 | 311 |

| RX97 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | | 595 Nm | |
|---|----------------------------|-------------------------|-------------|---------------------|---------------|--------------|---|--|-----|---------|---|----|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | | m kg |  | |
| 8.23 | 170 | 225 | 4.2 | 9560 | 1710 | - | - | RX 97 | AD3 | 70 | 311 | |
| 7.16* | 196 | 260 | 5.5 | 8950 | 1520 | - | - | | | RXF 97 | AD3 | 78 |
| 6.56 | 214 | 300 | 6.9 | 8500 | 1260 | - | - | RX 97 | AD4 | 75 | 311 | |
| 5.79 | 242 | 420 | 10.9 | 7630 | 2770 | - | - | | | | | |
| 4.91 | 285 | 395 | 12.1 | 7220 | 2820 | - | - | | | | | |
| 4.52 | 309 | 595 | 19.7 | 6180 | 4980 | - | - | | | | | |
| 4.04 | 346 | 595 | 22 | 5380 | 4900 | - | - | | | | | |
| 3.64* | 385 | 595 | 24 | 4530 | 4810 | - | - | | | | | |
| 3.30 | 425 | 595 | 27 | 3730 | 4730 | - | - | | | | | |
| 2.92 | 479 | 595 | 30 | 2810 | 4620 | - | - | | | | | |
| 2.64 | 530 | 595 | 34 | 1980 | 4510 | - | - | | | | | |
| 2.24* | 625 | 595 | 40 | 495 | 4280 | - | - | | | | | |
| 1.96 | 716 | 570 | 43 | 19 | 4260 | - | - | | | | | |
| 1.64 | 856 | 505 | 46 | 51 | 4390 | - | - | | | | | |
| 1.42 | 988 | 455 | 48 | 132 | 7450 | - | - | | | | | |
| | | | | | | | | RXF 97 | AD6 | 105 | 311 | |
| | | | | | | | | RXF 97 | AD6 | 115 | 311 | |

| RX107 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | | 830 Nm | |
|--|----------------------------|-------------------------|-------------|---------------------|---------------|--------------|---|--|-----|---------|---|-----|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | | m kg |  | |
| 6.63* | 211 | 460 | 10.4 | 9700 | 2710 | - | - | RX 107 | AD4 | 110 | 311 | |
| 5.61 | 250 | 455 | 12.2 | 9080 | 2660 | - | - | | | RXF 107 | AD4 | 125 |
| 5.19 | 270 | 695 | 20 | 7850 | 4730 | - | - | RX 107 | AD5 | 125 | 311 | |
| 4.65 | 301 | 695 | 22 | 7450 | 4660 | - | - | | | | | |
| 4.20* | 333 | 830 | 30 | 6420 | 3800 | - | - | | | | | |
| 3.81 | 367 | 830 | 32 | 5550 | 3610 | - | - | | | | | |
| 3.38 | 414 | 830 | 37 | 4490 | 3360 | - | - | | | | | |
| 3.07 | 456 | 830 | 40 | 3600 | 6560 | - | - | | | | | |
| 2.64* | 530 | 830 | 47 | 2160 | 6350 | - | - | | | | | |
| 2.30 | 608 | 830 | 54 | 900 | 6150 | - | - | | | | | |
| 1.95 | 716 | 730 | 56 | 1260 | 6410 | - | - | | | | | |
| 1.71 | 820 | 640 | 56 | 1840 | 6700 | - | - | | | | | |
| 1.44 | 969 | 540 | 56 | 2610 | 7070 | - | - | | | | | |
| | | | | | | | | RXF 107 | AD6 | 135 | 311 | |
| | | | | | | | | RXF 107 | AD6 | 155 | 311 | |

| R07 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 50 Nm | | |
|--|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|--|---------|---|-----|-----|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | | |
| 78.24 | 18 | 49 | 0.10 | 1260 | 870 | - | - | | | | | |
| 71.47 | 20 | 49 | 0.11 | 1260 | 870 | - | - | | | | | |
| 60.32 | 23 | 49 | 0.13 | 1260 | 860 | - | - | | | | | |
| 51.52 | 27 | 49 | 0.15 | 1260 | 860 | - | - | | | | | |
| 47.78 | 29 | 49 | 0.17 | 1260 | 860 | - | - | | | | | |
| 44.16 | 32 | 49 | 0.18 | 1260 | 830 | - | - | | | | | |
| 41.31 | 34 | 49 | 0.19 | 1260 | 860 | - | - | R | 07 | AD01 | 3.5 | 311 |
| 40.34 | 35 | 49 | 0.19 | 1260 | 820 | - | - | RF | 07 | AD01 | 3.5 | 311 |
| 38.51 | 36 | 49 | 0.21 | 1260 | 850 | - | - | | | | | |
| 34.05 | 41 | 49 | 0.23 | 1260 | 820 | - | - | | | | | |
| 29.08 | 48 | 49 | 0.27 | 1200 | 810 | - | - | | | | | |
| 26.97 | 52 | 49 | 0.29 | 1160 | 810 | - | - | | | | | |
| 23.32 | 60 | 49 | 0.33 | 1080 | 800 | - | - | | | | | |
| 21.73 | 64 | 49 | 0.36 | 1050 | 800 | - | - | | | | | |
| 18.31 | 76 | 49 | 0.41 | 970 | 555 | - | - | | | | | |
| 16.73 | 84 | 49 | 0.45 | 930 | 545 | - | - | | | | | |
| 14.12 | 99 | 49 | 0.53 | 860 | 515 | - | - | | | | | |
| 12.06 | 116 | 49 | 0.62 | 800 | 480 | - | - | | | | | |
| 11.18 | 125 | 49 | 0.67 | 770 | 465 | - | - | | | | | |
| 9.67 | 145 | 49 | 0.77 | 715 | 425 | - | - | | | | | |
| 9.01 | 155 | 49 | 0.83 | 690 | 405 | - | - | | | | | |
| 7.85 | 178 | 48 | 0.93 | 650 | 380 | - | - | R | 07 | AD01 | 3.4 | 311 |
| 7.48 | 187 | 31 | 0.63 | 770 | 245 | - | - | RF | 07 | AD01 | 3.4 | 311 |
| 6.83 | 205 | 29 | 0.65 | 755 | 280 | - | - | | | | | |
| 5.76 | 243 | 27 | 0.71 | 715 | 300 | - | - | | | | | |
| 4.92 | 284 | 25 | 0.77 | 685 | 320 | - | - | | | | | |
| 4.57 | 307 | 24 | 0.80 | 670 | 330 | - | - | | | | | |
| 3.95 | 355 | 22 | 0.85 | 645 | 355 | - | - | | | | | |
| 3.68 | 380 | 21 | 0.87 | 630 | 370 | - | - | | | | | |
| 3.21 | 437 | 19 | 0.90 | 610 | 400 | - | - | | | | | |


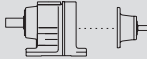

| R17 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 85 Nm | | |
|--|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|--|---------|---|-----|-----|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | | |
| 81.64 | 17 | 84 | 0.17 | 1830 | 860 | - | - | | | | | |
| 70.39 | 20 | 84 | 0.19 | 1830 | 860 | - | - | | | | | |
| 65.61 | 21 | 84 | 0.21 | 1830 | 860 | - | - | | | | | |
| 57.35 | 24 | 84 | 0.23 | 1830 | 850 | - | - | | | | | |
| 53.76 | 26 | 84 | 0.25 | 1830 | 850 | - | - | | | | | |
| 47.44 | 30 | 84 | 0.28 | 1830 | 850 | - | - | R | 17 | AD01 | 4.6 | 311 |
| 44.18 | 32 | 84 | 0.30 | 1830 | 820 | - | - | RF | 17 | AD01 | 4.6 | 311 |
| 38.61 | 36 | 84 | 0.34 | 1830 | 820 | - | - | | | | | |
| 36.20 | 39 | 84 | 0.37 | 1830 | 820 | - | - | | | | | |
| 31.94 | 44 | 84 | 0.41 | 1830 | 810 | - | - | | | | | |
| 28.32 | 49 | 84 | 0.47 | 1780 | 800 | - | - | | | | | |
| 24.07 | 58 | 84 | 0.55 | 1660 | 795 | - | - | | | | | |
| 25.23 | 55 | 84 | 0.51 | 1690 | 445 | - | - | | | | | |
| 23.15 | 60 | 84 | 0.56 | 1630 | 430 | - | - | | | | | |
| 19.71 | 71 | 84 | 0.65 | 1510 | 405 | - | - | | | | | |
| 16.99 | 82 | 84 | 0.75 | 1410 | 370 | - | - | | | | | |
| 15.84 | 88 | 84 | 0.81 | 1360 | 355 | - | - | | | | | |
| 13.84 | 101 | 84 | 0.92 | 1280 | 320 | - | - | | | | | |
| 12.98 | 108 | 84 | 0.99 | 1240 | 300 | - | - | | | | | |
| 11.45 | 122 | 76 | 1.0 | 1220 | 345 | - | - | | | | | |
| 10.15 | 138 | 67 | 1.0 | 1210 | 400 | - | - | R | 17 | AD01 | 4.4 | 311 |
| 8.63 | 162 | 57 | 1.0 | 1200 | 470 | - | - | RF | 17 | AD01 | 4.3 | 311 |
| 7.55 | 185 | 44 | 0.89 | 1140 | 235 | - | - | | | | | |
| 7.04 | 199 | 42 | 0.91 | 1130 | 260 | - | - | | | | | |
| 6.15 | 228 | 39 | 0.96 | 1090 | 285 | - | - | | | | | |
| 5.76 | 243 | 37 | 0.98 | 1080 | 310 | - | - | | | | | |
| 5.09 | 275 | 33 | 0.99 | 1050 | 360 | - | - | | | | | |
| 4.51 | 310 | 30 | 1.0 | 1030 | 395 | - | - | | | | | |
| 3.83 | 365 | 25 | 1.00 | 1000 | 475 | - | - | | | | | |


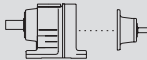

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8

R.. helical gear units

Selection tables for input shaft assembly (AD..)

| R27 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 130 Nm | | |
|--|----------------------------|------------------|-------------|--------------------|---------------|--------------|---|--|----|---------|---|-----|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | | m kg |  | |
| 135.09 | 10 | 130 | 0.17 | 4230 | 750 | - | - | | | | | |
| 123.91 | 11 | 130 | 0.18 | 4230 | 750 | - | - | | | | | |
| 105.49 | 13 | 130 | 0.21 | 4230 | 745 | - | - | | | | | |
| 90.96 | 15 | 130 | 0.24 | 4230 | 740 | - | - | | | | | |
| 84.78 | 17 | 130 | 0.26 | 4230 | 740 | - | - | | | | | |
| 74.11 | 19 | 130 | 0.29 | 4230 | 735 | - | - | | | | | |
| 69.47 | 20 | 130 | 0.31 | 4180 | 735 | - | - | | | | | |
| 61.30 | 23 | 130 | 0.35 | 3980 | 725 | - | - | R | 27 | AD1 | 6.0 | 311 |
| 55.87 | 25 | 130 | 0.38 | 3840 | 565 | - | - | RF | 27 | AD1 | 5.9 | 311 |
| 48.17 | 29 | 130 | 0.43 | 3630 | 550 | - | - | | | | | |
| 44.90 | 31 | 130 | 0.47 | 3530 | 540 | - | - | | | | | |
| 39.25 | 36 | 130 | 0.53 | 3350 | 520 | - | - | | | | | |
| 36.79 | 38 | 130 | 0.56 | 3260 | 505 | - | - | | | | | |
| 32.47 | 43 | 130 | 0.64 | 3100 | 485 | - | - | | | | | |
| 28.78 | 49 | 130 | 0.72 | 2950 | 460 | - | - | | | | | |
| 24.47 | 57 | 130 | 0.84 | 2760 | 425 | - | - | | | | | |
| 28.37 | 49 | 130 | 0.72 | 2940 | 1080 | - | - | | | | | |
| 26.09 | 54 | 130 | 0.78 | 2840 | 1060 | - | - | | | | | |
| 22.32 | 63 | 130 | 0.91 | 2660 | 1020 | - | - | | | | | |
| 19.35 | 72 | 130 | 1.0 | 2510 | 1550 | - | - | | | | | |
| 18.08 | 77 | 130 | 1.1 | 2440 | 1540 | - | - | | | | | |
| 15.63 | 90 | 130 | 1.3 | 2290 | 1520 | - | - | | | | | |
| 13.28* | 105 | 130 | 1.5 | 2140 | 1510 | - | - | | | | | |
| 11.86 | 118 | 129 | 1.7 | 1980 | 1490 | - | - | | | | | |
| 10.13 | 138 | 122 | 1.9 | 1890 | 1490 | - | - | R | 27 | AD2 | 6.9 | 311 |
| 9.41 | 149 | 122 | 2.0 | 900 | 1150 | - | - | RF | 27 | AD2 | 6.8 | 311 |
| 8.16 | 172 | 116 | 2.2 | 870 | 1160 | - | - | | | | | |
| 7.63* | 184 | 112 | 2.2 | 900 | 1170 | - | - | | | | | |
| 6.59 | 212 | 106 | 2.5 | 880 | 1170 | - | - | | | | | |
| 5.60* | 250 | 99 | 2.7 | 880 | 1190 | - | - | | | | | |
| 5.00* | 280 | 95 | 2.9 | 860 | 1180 | - | - | | | | | |
| 4.27 | 328 | 87 | 3.1 | 920 | 1200 | - | - | | | | | |
| 4.00* | 350 | 85 | 3.2 | 900 | 1200 | - | - | | | | | |
| 3.37 | 415 | 79 | 3.6 | 900 | 1190 | - | - | | | | | |


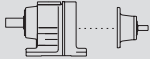




| R37 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 200 Nm | | |
|--|----------------------------|------------------|-------------|--------------------|---------------|--------------|---|--|----|---------|---|-----|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | | m kg |  | |
| 134.82 | 10 | 200 | 0.25 | 4940 | 675 | 8 | - | | | | | |
| 123.66 | 11 | 200 | 0.27 | 4940 | 665 | 8 | - | | | | | |
| 105.28 | 13 | 200 | 0.31 | 4940 | 655 | 8 | - | | | | | |
| 90.77 | 15 | 200 | 0.36 | 4940 | 640 | 8 | - | | | | | |
| 84.61 | 17 | 200 | 0.38 | 4940 | 635 | 8 | - | R | 37 | AD1 | 12 | 311 |
| 73.96 | 19 | 200 | 0.44 | 4940 | 615 | 8 | - | RF | 37 | AD1 | 13 | 311 |
| 69.33 | 20 | 200 | 0.47 | 4940 | 605 | 8 | - | | | | | |
| 61.18 | 23 | 200 | 0.53 | 4940 | 590 | 8 | - | | | | | |
| 55.76 | 25 | 200 | 0.57 | 4940 | 355 | 9 | - | | | | | |
| 48.08 | 29 | 200 | 0.66 | 4940 | 1510 | 9 | - | | | | | |
| 44.81 | 31 | 200 | 0.71 | 4940 | 1490 | 9 | - | | | | | |
| 39.17 | 36 | 200 | 0.81 | 4760 | 1460 | 9 | - | | | | | |
| 36.72 | 38 | 200 | 0.86 | 4540 | 1440 | 9 | - | | | | | |
| 32.40 | 43 | 200 | 0.97 | 4120 | 1390 | 9 | - | R | 37 | AD2 | 13 | 311 |
| 28.73 | 49 | 200 | 1.1 | 3740 | 1650 | 9 | - | RF | 37 | AD2 | 14 | 311 |
| 24.42 | 57 | 200 | 1.3 | 3240 | 1630 | 9 | - | | | | | |


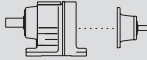

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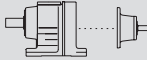

| R37 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 200 Nm | | |
|--|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|----|---------|--------|----|-----|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) | | | m kg | | | |
| 28.32 | 49 | 189 | 1.0 | 4000 | 490 | 7 | - | | | | | |
| 26.03 | 54 | 173 | 1.0 | 4180 | 620 | 7 | - | | | | | |
| 22.27 | 63 | 200 | 1.4 | 2970 | 1380 | 7 | - | | | | | |
| 19.31 | 73 | 200 | 1.6 | 2570 | 1360 | 7 | - | | | | | |
| 18.05 | 78 | 200 | 1.7 | 2390 | 1350 | 8 | - | | | | | |
| 15.60 | 90 | 200 | 2.0 | 2010 | 1320 | 8 | - | | | | | |
| 13.25 | 106 | 190 | 2.2 | 1880 | 1320 | 8 | - | | | | | |
| 11.83 | 118 | 183 | 2.4 | 1810 | 1320 | 8 | - | | | | | |
| 10.11 | 139 | 170 | 2.6 | 1820 | 1330 | 8 | - | R | 37 | AD2 | 13 | 311 |
| 9.47 | 148 | 167 | 2.7 | 1760 | 1320 | 8 | - | RF | 37 | AD2 | 14 | 311 |
| 7.97 | 176 | 156 | 3.0 | 1720 | 1310 | 8 | - | | | | | |
| 6.67 | 210 | 144 | 3.3 | 1000 | 920 | 12 | - | | | | | |
| 5.67 | 247 | 142 | 3.8 | 760 | 890 | 12 | - | | | | | |
| 5.06 | 277 | 135 | 4.0 | 790 | 890 | 13 | - | | | | | |
| 4.32 | 324 | 126 | 4.4 | 820 | 900 | 13 | - | | | | | |
| 4.05 | 346 | 121 | 4.5 | 880 | 910 | 13 | - | | | | | |
| 3.41 | 411 | 107 | 4.8 | 1070 | 950 | 14 | - | | | | | |


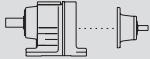


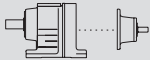

| R47 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 300 Nm | | |
|--|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|----|---------|--------|----|-----|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) | | | m kg | | | |
| 176.88 | 7.9 | 300 | 0.29 | 5420 | 1790 | 7 | - | | | | | |
| 162.94 | 8.6 | 300 | 0.31 | 5420 | 1780 | 7 | - | | | | | |
| 139.99 | 10 | 300 | 0.36 | 5420 | 1780 | 7 | - | | | | | |
| 121.87 | 11 | 300 | 0.41 | 5420 | 1780 | 7 | - | | | | | |
| 114.17 | 12 | 300 | 0.43 | 5420 | 1770 | 7 | - | | | | | |
| 100.86 | 14 | 300 | 0.49 | 5420 | 1770 | 7 | - | | | | | |
| 93.68 | 15 | 300 | 0.52 | 5420 | 1760 | 7 | - | | | | | |
| 84.90 | 16 | 300 | 0.58 | 5420 | 1760 | 7 | - | | | | | |
| 76.23 | 18 | 300 | 0.64 | 5420 | 1760 | 7 | - | | | | | |
| 68.54 | 20 | 300 | 0.70 | 5420 | 1450 | 8 | - | R | 47 | AD2 | 17 | 311 |
| 64.21 | 22 | 300 | 0.74 | 5420 | 1440 | 8 | - | RF | 47 | AD2 | 17 | 311 |
| 56.73 | 25 | 300 | 0.84 | 5420 | 1410 | 8 | - | | | | | |
| 52.69 | 27 | 300 | 0.90 | 5350 | 1380 | 8 | - | | | | | |
| 47.75 | 29 | 300 | 0.99 | 5140 | 1360 | 8 | - | | | | | |
| 42.87 | 33 | 300 | 1.1 | 4930 | 1640 | 8 | - | | | | | |
| 36.93 | 38 | 300 | 1.3 | 4630 | 1620 | 8 | - | | | | | |
| 34.73 | 40 | 300 | 1.4 | 4520 | 1620 | 8 | - | | | | | |
| 29.88 | 47 | 300 | 1.6 | 4240 | 1600 | 8 | - | | | | | |
| 26.70 | 52 | 300 | 1.8 | 4050 | 1580 | 8 | - | | | | | |
| 23.59 | 59 | 300 | 2.0 | 3840 | 1570 | 8 | - | | | | | |
| 33.79 | 41 | 225 | 1.0 | 4740 | 525 | 7 | - | | | | | |
| 31.12 | 45 | 205 | 1.0 | 4660 | 670 | 7 | - | | | | | |
| 26.74 | 52 | 300 | 1.7 | 4050 | 1270 | 7 | - | | | | | |
| 23.28 | 60 | 300 | 2.0 | 3820 | 1250 | 7 | - | | | | | |
| 21.81 | 64 | 300 | 2.1 | 3710 | 1240 | 7 | - | | | | | |
| 19.27 | 73 | 295 | 2.3 | 3530 | 1230 | 7 | - | | | | | |
| 17.89 | 78 | 290 | 2.5 | 3390 | 1220 | 7 | - | | | | | |
| 16.22 | 86 | 275 | 2.6 | 3350 | 1240 | 7 | - | | | | | |
| 14.56 | 96 | 265 | 2.8 | 3230 | 1240 | 7 | - | | | | | |
| 12.54 | 112 | 250 | 3.0 | 3080 | 1240 | 7 | - | R | 47 | AD2 | 16 | 311 |
| 11.79 | 119 | 245 | 3.2 | 3020 | 1240 | 7 | - | RF | 47 | AD2 | 17 | 311 |
| 10.15 | 138 | 230 | 3.5 | 2880 | 1240 | 7 | - | | | | | |
| 9.07 | 154 | 220 | 3.7 | 2780 | 1230 | 8 | - | | | | | |
| 8.01 | 175 | 205 | 3.9 | 2690 | 1250 | 8 | - | | | | | |
| 7.76* | 181 | 163 | 3.2 | 2720 | 1080 | 10 | - | | | | | |
| 6.96 | 201 | 159 | 3.5 | 2620 | 1070 | 10 | - | | | | | |
| 6.00 | 233 | 156 | 4.0 | 2470 | 1040 | 10 | - | | | | | |
| 5.64* | 248 | 155 | 4.2 | 2410 | 1020 | 10 | - | | | | | |
| 4.85 | 288 | 150 | 4.7 | 2280 | 1000 | 10 | - | | | | | |
| 4.34 | 323 | 146 | 5.1 | 2190 | 970 | 11 | - | | | | | |
| 3.83 | 365 | 144 | 5.7 | 2080 | 1970 | 11 | - | R | 47 | AD3 | 20 | 311 |
| | | | | | | | | RF | 47 | AD3 | 20 | 311 |


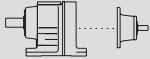

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| R57 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 450 Nm | |
|--|----------------------------|-------------------------|-------------|---------------------|---------------|--------------|---|--|----|---------|---|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | | m kg |  |
| 186.89 | 7.5 | 450 | 0.40 | 7100 | 1700 | 7 | - | | | | |
| 172.17 | 8.1 | 450 | 0.43 | 7100 | 1690 | 7 | - | | | | |
| 147.92 | 9.5 | 450 | 0.50 | 7100 | 1670 | 7 | - | | | | |
| 128.77 | 11 | 450 | 0.57 | 7100 | 1650 | 7 | - | | | | |
| 120.63 | 12 | 450 | 0.60 | 7100 | 1640 | 7 | - | | | | |
| 106.58 | 13 | 450 | 0.68 | 7100 | 1620 | 7 | - | | | | |
| 98.99 | 14 | 450 | 0.73 | 7100 | 1590 | 7 | - | | | | |
| 89.71 | 16 | 450 | 0.80 | 7100 | 1580 | 7 | - | | | | |
| 80.55 | 17 | 450 | 0.89 | 7100 | 1550 | 7 | - | R | 57 | AD2 | 22 311 |
| 69.23 | 20 | 450 | 1.0 | 7100 | 1020 | 7 | - | RF | 57 | AD2 | 26 311 |
| 64.85 | 22 | 450 | 1.1 | 6980 | 1570 | 8 | - | RM | 57 | AD2 | 38 311 |
| 57.29 | 24 | 450 | 1.2 | 6630 | 1560 | 8 | - | | | | |
| 53.22 | 26 | 450 | 1.3 | 6430 | 1540 | 8 | - | | | | |
| 48.23 | 29 | 450 | 1.5 | 6170 | 1540 | 8 | - | | | | |
| 43.30 | 32 | 450 | 1.6 | 5900 | 1520 | 8 | - | | | | |
| 37.30* | 38 | 450 | 1.9 | 5530 | 1500 | 8 | - | | | | |
| 35.07 | 40 | 450 | 2.0 | 5390 | 1490 | 8 | - | | | | |
| 30.18 | 46 | 450 | 2.3 | 5040 | 1460 | 8 | - | | | | |
| 26.97 | 52 | 450 | 2.6 | 4800 | 1440 | 8 | - | | | | |
| 26.31 | 53 | 420 | 2.4 | 4860 | 1100 | 6 | - | | | | |
| 24.99* | 56 | 410 | 2.5 | 4780 | 1120 | 6 | - | R | 57 | AD2 | 21 311 |
| 21.93 | 64 | 450 | 3.1 | 4370 | 1000 | 7 | - | RF | 57 | AD2 | 25 311 |
| 18.60* | 75 | 450 | 3.7 | 4050 | 960 | 7 | - | RM | 57 | AD2 | 37 311 |
| 16.79 | 83 | 450 | 4.1 | 3860 | 920 | 7 | - | | | | |
| 14.77* | 95 | 435 | 4.5 | 3690 | 930 | 7 | - | | | | |
| 13.95* | 100 | 430 | 4.7 | 3610 | 1940 | 7 | - | | | | |
| 11.88 | 118 | 405 | 5.2 | 3430 | 1930 | 7 | - | | | | |
| 10.79 | 130 | 390 | 5.5 | 3330 | 1930 | 7 | - | | | | |
| 9.35 | 150 | 370 | 6.0 | 3180 | 1920 | 7 | - | | | | |
| 9.06 | 155 | 335 | 5.6 | 2900 | 1580 | 9 | - | R | 57 | AD3 | 25 311 |
| 7.97 | 176 | 355 | 6.8 | 2020 | 1460 | 9 | - | RF | 57 | AD3 | 28 311 |
| 7.53 | 186 | 350 | 7.0 | 1950 | 1460 | 9 | - | RM | 57 | AD3 | 40 311 |
| 6.41 | 218 | 335 | 7.9 | 1770 | 1420 | 9 | - | | | | |
| 5.82 | 240 | 320 | 8.3 | 1820 | 1430 | 10 | - | | | | |
| 5.05 | 277 | 305 | 9.2 | 1730 | 1400 | 10 | - | | | | |
| 4.39 | 319 | 280 | 9.7 | 1900 | 1440 | 10 | - | | | | |
| R67 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 600 Nm | |
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | | m kg |  |
| 199.81 | 7.0 | 600 | 0.49 | 7560 | 1510 | 6 | - | | | | |
| 184.07 | 7.6 | 600 | 0.53 | 7560 | 1500 | 6 | - | | | | |
| 158.14 | 8.8 | 600 | 0.61 | 7560 | 1480 | 6 | - | | | | |
| 137.67 | 10 | 600 | 0.70 | 7560 | 1450 | 6 | - | | | | |
| 128.97 | 11 | 600 | 0.74 | 7560 | 1440 | 6 | - | | | | |
| 113.94 | 12 | 600 | 0.84 | 7560 | 1410 | 6 | - | | | | |
| 105.83 | 13 | 600 | 0.90 | 7560 | 1380 | 6 | - | | | | |
| 95.91 | 15 | 600 | 0.99 | 7560 | 1360 | 6 | - | | | | |
| 86.11 | 16 | 600 | 1.1 | 7560 | 1640 | 6 | - | R | 67 | AD2 | 29 311 |
| 74.17 | 19 | 600 | 1.3 | 7560 | 1620 | 7 | - | RF | 67 | AD2 | 32 311 |
| 69.75 | 20 | 600 | 1.4 | 7560 | 1620 | 7 | - | RM | 67 | AD2 | 48 311 |
| 61.26 | 23 | 600 | 1.5 | 7560 | 1450 | 7 | - | | | | |
| 56.89 | 25 | 600 | 1.6 | 7560 | 1440 | 7 | - | | | | |
| 51.56 | 27 | 600 | 1.8 | 7560 | 1420 | 7 | - | | | | |
| 46.29 | 30 | 600 | 2.0 | 7560 | 1410 | 7 | - | | | | |
| 39.88* | 35 | 580 | 2.3 | 7790 | 1400 | 7 | - | | | | |
| 37.50 | 37 | 570 | 2.4 | 7900 | 1390 | 7 | - | | | | |
| 32.27 | 43 | 540 | 2.6 | 8210 | 1390 | 7 | - | | | | |
| 28.83 | 49 | 520 | 2.8 | 8400 | 1380 | 7 | - | | | | |
| 28.13 | 50 | 410 | 2.2 | 9270 | 1150 | 6 | - | R | 67 | AD2 | 28 311 |
| 26.72 | 52 | 400 | 2.3 | 9340 | 1160 | 6 | - | RF | 67 | AD2 | 31 311 |
| 23.44 | 60 | 560 | 3.6 | 8010 | 810 | 6 | - | RM | 67 | AD2 | 47 311 |


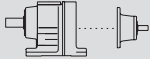

| R67 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 600 Nm | |
|--|-------------------------------------|-------------------------|----------------------|------------------------------------|----------------------|-------------------|---|--|---------|---|--|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ¹⁾ N | F _{Re} N | φ _(/R) |  |  | m kg |  | |
| 19.89 | 70 | 600 | 4.6 | 7560 | 1710 | 6 | - | | | | |
| 17.95 | 78 | 590 | 5.0 | 7330 | 1700 | 6 | - | | | | |
| 15.79 | 89 | 560 | 5.4 | 7130 | 1720 | 6 | - | | | | |
| 14.91 | 94 | 550 | 5.6 | 6980 | 1720 | 6 | - | | | | |
| 12.70 | 110 | 520 | 6.2 | 6640 | 1700 | 6 | - | | | | |
| 11.54 | 121 | 500 | 6.6 | 6500 | 1700 | 7 | - | | | | |
| 10.00 | 140 | 470 | 7.1 | 6220 | 1700 | 7 | - | R 67 | AD3 | 31 311 | |
| 8.70* | 161 | 440 | 7.7 | 5960 | 1710 | 7 | - | RF 67 | AD3 | 34 311 | |
| 7.79 | 180 | 380 | 7.4 | 5830 | 1280 | 8 | - | RM 67 | AD3 | 50 311 | |
| 7.36* | 190 | 370 | 7.6 | 5790 | 1290 | 8 | - | | | | |
| 6.27 | 223 | 330 | 8.0 | 5590 | 1360 | 9 | - | | | | |
| 5.70 | 246 | 310 | 8.2 | 5450 | 1400 | 9 | - | | | | |
| 4.93 | 284 | 290 | 8.9 | 5210 | 1400 | 9 | - | | | | |
| 4.29 | 326 | 270 | 9.5 | 5000 | 1410 | 10 | - | | | | |


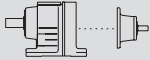

| R77 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 820 Nm | |
|--|-------------------------------------|-------------------------|----------------------|------------------------------------|----------------------|-------------------|---|--|---------|---|--|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ¹⁾ N | F _{Re} N | φ _(/R) |  |  | m kg |  | |
| 195.24* | 7.2 | 820 | 0.68 | 9920 | 1300 | 6 | - | | | | |
| 166.59 | 8.4 | 820 | 0.79 | 9920 | 1270 | 6 | - | | | | |
| 145.67 | 9.6 | 820 | 0.90 | 9920 | 1240 | 6 | - | | | | |
| 138.39 | 10 | 820 | 0.95 | 9920 | 1240 | 6 | - | | | | |
| 121.42 | 12 | 820 | 1.1 | 9920 | 1630 | 6 | - | | | | |
| 102.99 | 14 | 820 | 1.3 | 9920 | 1610 | 6 | - | | | | |
| 92.97 | 15 | 820 | 1.4 | 9920 | 1600 | 6 | - | | | | |
| 81.80 | 17 | 820 | 1.6 | 9920 | 1590 | 6 | - | | | | |
| 77.24 | 18 | 820 | 1.7 | 9920 | 1590 | 6 | - | R 77 | AD2 | 35 311 | |
| 65.77 | 21 | 820 | 1.9 | 9920 | 1560 | 7 | - | RF 77 | AD2 | 41 311 | |
| 57.68 | 24 | 820 | 2.2 | 9920 | 1380 | 7 | - | RM 77 | AD2 | 66 311 | |
| 52.07 | 27 | 820 | 2.4 | 9920 | 1370 | 7 | - | | | | |
| 45.81 | 31 | 820 | 2.8 | 9920 | 1350 | 7 | - | | | | |
| 43.26 | 32 | 820 | 2.9 | 9920 | 1340 | 7 | - | | | | |
| 36.83 | 38 | 820 | 3.4 | 9920 | 1290 | 7 | - | | | | |
| 33.47 | 42 | 820 | 3.8 | 9920 | 1270 | 7 | - | | | | |
| 29.00 | 48 | 820 | 4.4 | 9920 | 1220 | 7 | - | | | | |
| 25.23 | 55 | 780 | 4.8 | 10100 | 1210 | 7 | - | | | | |
| 23.37 | 60 | 820 | 5.3 | 8870 | 1620 | 6 | - | | | | |
| 21.43 | 65 | 820 | 5.8 | 8250 | 1600 | 6 | - | | | | |
| 18.80 | 74 | 780 | 6.3 | 7980 | 1630 | 6 | - | | | | |
| 17.82* | 79 | 780 | 6.7 | 7620 | 1600 | 6 | - | R 77 | AD3 | 37 311 | |
| 15.60 | 90 | 740 | 7.2 | 7390 | 1620 | 6 | - | RF 77 | AD3 | 43 311 | |
| 14.05 | 100 | 720 | 7.8 | 7050 | 1590 | 6 | - | RM 77 | AD3 | 68 311 | |
| 12.33 | 114 | 690 | 8.5 | 6740 | 1580 | 6 | - | | | | |
| 10.88 | 129 | 660 | 9.2 | 6490 | 1570 | 6 | - | | | | |
| 9.64 | 145 | 630 | 9.9 | 6300 | 1560 | 7 | - | | | | |
| 8.59 | 163 | 630 | 11.1 | 4110 | 2970 | 7 | - | | | | |
| 7.74 | 181 | 610 | 11.9 | 3940 | 2920 | 8 | - | R 77 | AD4 | 43 311 | |
| 6.79 | 206 | 580 | 12.9 | 3850 | 2930 | 8 | - | RF 77 | AD4 | 49 311 | |
| 5.99* | 234 | 540 | 13.7 | 3990 | 2970 | 8 | - | RM 77 | AD4 | 74 311 | |
| 5.31* | 264 | 510 | 14.5 | 3990 | 2980 | 8 | - | | | | |





| R87 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 1550 Nm | | |
|--|----------------------------|-------------------------|-------------|---------------------------|----------------------|--------------|---|--|----|---------|---|-----|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{\text{Ra}}^{1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | | m kg |  | |
| 246.54 | 5.7 | 1550 | 1.0 | 16900 | 1570 | 6 | - | | | | | |
| 216.54 | 6.5 | 1550 | 1.1 | 16900 | 1570 | 6 | - | | | | | |
| 205.71 | 6.8 | 1550 | 1.2 | 16900 | 1570 | 6 | - | | | | | |
| 181.77 | 7.7 | 1550 | 1.4 | 16900 | 1540 | 6 | - | | | | | |
| 155.34 | 9.0 | 1550 | 1.6 | 16900 | 1530 | 6 | - | | | | | |
| 142.41 | 9.8 | 1550 | 1.7 | 16900 | 1520 | 6 | - | | | | | |
| 124.97 | 11 | 1550 | 1.9 | 16900 | 1510 | 6 | - | | | | | |
| 118.43* | 12 | 1550 | 2.0 | 16900 | 1500 | 6 | - | R | 87 | AD2 | 61 | 311 |
| 103.65 | 14 | 1550 | 2.3 | 16900 | 1480 | 6 | - | RF | 87 | AD2 | 68 | 311 |
| 93.38 | 15 | 1550 | 2.6 | 16900 | 1460 | 6 | - | RM | 87 | AD2 | 98 | 311 |
| 81.92 | 17 | 1550 | 3.0 | 16900 | 1440 | 6 | - | | | | | |
| 72.57 | 19 | 1550 | 3.3 | 16900 | 1160 | 6 | - | | | | | |
| 63.68* | 22 | 1550 | 3.8 | 15800 | 1130 | 6 | - | | | | | |
| 60.35* | 23 | 1550 | 4.0 | 15200 | 1120 | 6 | - | | | | | |
| 52.82 | 27 | 1550 | 4.5 | 13500 | 1080 | 6 | - | | | | | |
| 47.58 | 29 | 1550 | 5.0 | 12300 | 1040 | 7 | - | | | | | |
| 41.74 | 34 | 1550 | 5.7 | 16900 | 1940 | 7 | - | R | 87 | AD3 | 65 | 311 |
| 36.84* | 38 | 1550 | 6.5 | 16800 | 1900 | 7 | - | RF | 87 | AD3 | 72 | 311 |
| 32.66* | 43 | 1550 | 7.3 | 16000 | 1850 | 7 | - | RM | 87 | AD3 | 100 | 311 |
| 27.88 | 50 | 1500 | 8.3 | 15100 | 1810 | 7 | - | | | | | |
| 34.40* | 41 | 1360 | 6.0 | 11500 | 1400 | 5 | - | R | 87 | AD3 | 64 | 311 |
| 31.40 | 45 | 1280 | 6.2 | 11700 | 1450 | 5 | - | RF | 87 | AD3 | 71 | 311 |
| | | | | | | | | RM | 87 | AD3 | 100 | 311 |
| 27.84* | 50 | 1550 | 8.5 | 15000 | 3200 | 6 | - | | | | | |
| 23.40 | 60 | 1550 | 10.1 | 13900 | 3130 | 6 | - | | | | | |
| 21.51 | 65 | 1500 | 10.6 | 13600 | 3120 | 6 | - | | | | | |
| 19.10 | 73 | 1440 | 11.4 | 13000 | 3130 | 6 | - | R | 87 | AD4 | 70 | 311 |
| 17.08* | 82 | 1390 | 12.4 | 12600 | 3130 | 6 | - | RF | 87 | AD4 | 77 | 311 |
| 15.35 | 91 | 1340 | 13.2 | 12100 | 3130 | 6 | - | RM | 87 | AD4 | 105 | 311 |
| 13.33 | 105 | 1280 | 14.6 | 11600 | 3110 | 6 | - | | | | | |
| 11.93 | 117 | 1230 | 15.6 | 11200 | 3100 | 6 | - | | | | | |
| 9.90* | 141 | 1180 | 18.1 | 10400 | 3020 | 6 | - | | | | | |
| 9.14* | 153 | 1210 | 20 | 10500 | 5360 | 6 | - | | | | | |
| 8.22 | 170 | 1160 | 21 | 10200 | 5380 | 7 | - | R | 87 | AD5 | 85 | 311 |
| 7.13 | 196 | 1070 | 23 | 9780 | 5440 | 7 | - | RF | 87 | AD5 | 92 | 311 |
| 6.39 | 219 | 1020 | 24 | 9450 | 5450 | 7 | - | RM | 87 | AD5 | 120 | 311 |
| 5.30* | 264 | 910 | 26 | 8980 | 5510 | 7 | - | | | | | |
| R97 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 3000 Nm | | |
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{\text{Ra}}^{1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | | m kg |  | |
| 216.28 | 6.5 | 3000 | 2.2 | 19800 | 2210 | 6 | - | | | | | |
| 186.30 | 7.5 | 3000 | 2.5 | 19800 | 2200 | 6 | - | | | | | |
| 170.02 | 8.2 | 3000 | 2.8 | 19800 | 2180 | 6 | - | | | | | |
| 150.78 | 9.3 | 3000 | 3.1 | 19800 | 2170 | 6 | - | | | | | |
| 126.75 | 11 | 3000 | 3.7 | 19800 | 2140 | 6 | - | | | | | |
| 116.48 | 12 | 3000 | 4.0 | 19800 | 2130 | 6 | - | R | 97 | AD3 | 105 | 311 |
| 103.44 | 14 | 3000 | 4.5 | 19800 | 2100 | 6 | - | RF | 97 | AD3 | 125 | 311 |
| 92.48 | 15 | 3000 | 5.0 | 19800 | 2070 | 6 | - | RM | 97 | AD3 | 175 | 311 |
| 83.15 | 17 | 3000 | 5.6 | 19800 | 2040 | 6 | - | | | | | |
| 72.17 | 19 | 3000 | 6.5 | 18000 | 2000 | 6 | - | | | | | |
| 65.21 | 21 | 3000 | 7.1 | 19800 | 1550 | 6 | - | | | | | |
| 59.92 | 23 | 3000 | 7.7 | 19800 | 1510 | 6 | - | | | | | |
| 53.21 | 26 | 3000 | 8.7 | 19800 | 1460 | 6 | - | | | | | |
| 47.58 | 29 | 3000 | 9.7 | 19800 | 3440 | 6 | - | | | | | |
| 42.78 | 33 | 3000 | 10.8 | 19800 | 3400 | 6 | - | R | 97 | AD4 | 110 | 311 |
| 37.13 | 38 | 3000 | 12.4 | 18600 | 3320 | 6 | - | RF | 97 | AD4 | 130 | 311 |
| 33.25 | 42 | 2890 | 13.4 | 17900 | 3310 | 6 | - | RM | 97 | AD4 | 180 | 311 |
| 27.58 | 51 | 2670 | 14.9 | 16900 | 3290 | 6 | - | | | | | |
| 32.05 | 44 | 2560 | 12.1 | 10600 | 2370 | 5 | - | R | 97 | AD4 | 110 | 311 |
| 27.19 | 52 | 2430 | 13.6 | 9910 | 2490 | 5 | - | RF | 97 | AD4 | 125 | 311 |
| | | | | | | | | RM | 97 | AD4 | 175 | 311 |





| R97 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 3000 Nm | |
|--|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|--|---------|---|--|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | |
| 25.03 | 56 | 2830 | 17.1 | 15900 | 5290 | 5 | - | | | | |
| 22.37 | 63 | 2720 | 18.4 | 15300 | 5320 | 5 | - | | | | |
| 20.14 | 70 | 2610 | 19.6 | 14800 | 5350 | 5 | - | | | | |
| 18.24 | 77 | 2500 | 21 | 14400 | 5390 | 6 | - | | | | |
| 16.17 | 87 | 2400 | 22 | 13800 | 5410 | 6 | - | | | | |
| 14.62 | 96 | 2300 | 24 | 13400 | 5430 | 6 | - | R 97 | AD5 | 125 311 | |
| 12.39 | 113 | 2190 | 27 | 12700 | 5380 | 6 | - | RF 97 | AD5 | 145 311 | |
| 10.83 | 129 | 2090 | 29 | 12100 | 5380 | 6 | - | RM 97 | AD5 | 195 311 | |
| 9.29 | 151 | 2030 | 33 | 12200 | 4260 | 6 | - | | | | |
| 8.39 | 167 | 2030 | 37 | 11700 | 4140 | 6 | - | | | | |
| 7.12 | 197 | 2000 | 42 | 10900 | 3810 | 6 | - | | | | |
| 6.21 | 225 | 1890 | 46 | 10500 | 3940 | 6 | - | | | | |
| 5.20 | 269 | 1780 | 52 | 9850 | 6870 | 6 | - | R 97 | AD6 | 140 311 | |
| 4.50* | 311 | 1630 | 55 | 9500 | 6940 | 6 | M2 | RF 97 | AD6 | 155 311 | |
| | | | | | | | | RM 97 | AD6 | 210 311 | |





| R107 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 4300 Nm | |
|---|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|--|---------|---|--|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | |
| 251.15 | 5.6 | 4300 | 2.7 | 29500 | 2150 | 7 | - | | | | |
| 229.95 | 6.1 | 4300 | 3.0 | 29500 | 2140 | 7 | - | | | | |
| 203.16 | 6.9 | 4300 | 3.3 | 29500 | 2130 | 7 | - | | | | |
| 172.34 | 8.1 | 4300 | 3.9 | 29500 | 2110 | 7 | - | | | | |
| 158.68 | 8.8 | 4300 | 4.2 | 29500 | 2090 | 7 | - | | | | |
| 141.83 | 9.9 | 4300 | 4.7 | 29500 | 2070 | 7 | - | R 107 | AD3 | 165 311 | |
| 127.68 | 11 | 4300 | 5.2 | 29500 | 2040 | 7 | - | RF 107 | AD3 | 170 311 | |
| 115.63 | 12 | 4300 | 5.8 | 29500 | 2020 | 7 | - | RM 107 | AD3 | 260 311 | |
| 102.53 | 14 | 4300 | 6.5 | 29500 | 1990 | 7 | - | | | | |
| 92.70 | 15 | 4300 | 7.2 | 29500 | 1960 | 7 | - | | | | |
| 78.57 | 18 | 4300 | 8.5 | 29500 | 1890 | 7 | - | | | | |
| 72.88 | 19 | 4300 | 9.1 | 29500 | 1400 | 7 | - | | | | |
| 65.60* | 21 | 4300 | 10.1 | 29200 | 3400 | 7 | - | | | | |
| 59.41 | 24 | 4300 | 11.2 | 28000 | 3360 | 7 | - | | | | |
| 52.68 | 27 | 4300 | 12.6 | 26600 | 3310 | 7 | - | R 107 | AD4 | 170 311 | |
| 47.63 | 29 | 4300 | 13.9 | 25500 | 3260 | 7 | - | RF 107 | AD4 | 175 311 | |
| 40.37* | 35 | 4300 | 16.4 | 23800 | 3150 | 7 | - | RM 107 | AD4 | 265 311 | |
| 35.26 | 40 | 4300 | 18.8 | 22400 | 3070 | 7 | - | | | | |
| 29.49 | 47 | 4300 | 22 | 20700 | 2920 | 7 | - | | | | |
| 30.77 | 46 | 4300 | 21 | 21100 | 4810 | 7 | - | | | | |
| 27.58 | 51 | 4300 | 24 | 20100 | 4730 | 7 | - | | | | |
| 24.90* | 56 | 4300 | 26 | 19200 | 4600 | 7 | - | R 107 | AD5 | 180 311 | |
| 22.62 | 62 | 4300 | 29 | 18300 | 4510 | 7 | - | RF 107 | AD5 | 185 311 | |
| 20.07 | 70 | 4300 | 32 | 17300 | 4400 | 7 | - | RM 107 | AD5 | 270 311 | |
| 18.21 | 77 | 4300 | 36 | 16600 | 4300 | 7 | - | | | | |
| 15.65 | 89 | 4300 | 42 | 15400 | 4070 | 7 | - | | | | |
| 13.66 | 102 | 4300 | 48 | 14400 | 6890 | 7 | - | | | | |
| 11.59 | 121 | 4280 | 56 | 13300 | 6650 | 7 | - | | | | |
| 10.13 | 138 | 3740 | 56 | 13300 | 6930 | 7 | - | | | | |
| 8.56 | 163 | 3160 | 56 | 13200 | 7280 | 7 | M2 | R 107 | AD6 | 190 311 | |
| 7.86 | 178 | 2900 | 56 | 13900 | 6250 | 9 | - | RF 107 | AD6 | 200 311 | |
| 6.66 | 210 | 2460 | 56 | 13500 | 6650 | 9 | - | RM 107 | AD6 | 285 311 | |
| 5.82 | 240 | 2150 | 56 | 13200 | 6930 | 9 | - | | | | |
| 4.92 | 284 | 2000 | 61 | 12500 | 6950 | 9 | M2 | | | | |

| R127 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 6000 Nm | | |
|---|----------------------------|------------------|-------------|---------------------|---------------|--------------|---|--|---------|---|-----|-----|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | | |
| 262.65 | 5.3 | 6000 | 3.6 | 43000 | 1940 | 6 | - | | | | | |
| 240.48 | 5.8 | 6000 | 3.9 | 43000 | 1920 | 6 | - | | | | | |
| 212.46 | 6.6 | 6000 | 4.4 | 43000 | 1900 | 6 | - | | | | | |
| 180.23 | 7.8 | 6000 | 5.2 | 43000 | 1870 | 6 | - | | | | | |
| 165.95 | 8.4 | 6000 | 5.6 | 43000 | 1850 | 6 | - | | | | | |
| 148.33 | 9.4 | 6000 | 6.3 | 43000 | 1820 | 6 | - | | | | | |
| 133.53 | 10 | 6000 | 7.0 | 43000 | 1790 | 6 | - | R | 127 | AD3 | 220 | 311 |
| 120.92 | 12 | 6000 | 7.7 | 43000 | 1760 | 6 | - | RF | 127 | AD3 | 235 | 311 |
| 107.23 | 13 | 6000 | 8.7 | 43000 | 1720 | 6 | - | RM | 127 | AD3 | 330 | 311 |
| 96.95 | 14 | 6000 | 9.6 | 43000 | 1670 | 6 | - | | | | | |
| 85.26 | 16 | 6000 | 10.8 | 43000 | 660 | 7 | - | | | | | |
| 82.17 | 17 | 6000 | 11.3 | 43000 | 1590 | 6 | - | | | | | |
| 76.21 | 18 | 6000 | 12.1 | 43000 | 560 | 7 | - | | | | | |
| 68.61* | 20 | 6000 | 13.4 | 43000 | 460 | 7 | - | | | | | |
| 62.13 | 23 | 6000 | 14.8 | 43000 | 350 | 7 | - | | | | | |
| 55.09 | 25 | 6000 | 16.7 | 43000 | 2850 | 7 | - | | | | | |
| 49.81 | 28 | 6000 | 18.5 | 43000 | 2790 | 7 | - | R | 127 | AD4 | 230 | 311 |
| 42.22* | 33 | 6000 | 22 | 43000 | 2650 | 7 | - | RF | 127 | AD4 | 240 | 311 |
| 36.88 | 38 | 5730 | 24 | 43000 | 2630 | 7 | M2 | RM | 127 | AD4 | 335 | 311 |
| 30.84 | 45 | 5380 | 27 | 43000 | 2580 | 7 | M1-6 | | | | | |
| 32.18 | 44 | 4850 | 23 | 43000 | 4440 | 6 | - | | | | | |
| 28.84 | 49 | 5320 | 28 | 43000 | 3800 | 6 | - | R | 127 | AD5 | 225 | 311 |
| 26.04* | 54 | 5790 | 34 | 43000 | 2760 | 6 | - | RF | 127 | AD5 | 245 | 311 |
| 23.65 | 59 | 6000 | 38 | 43000 | 2190 | 6 | - | RM | 127 | AD5 | 340 | 311 |
| 20.98 | 67 | 6000 | 43 | 43000 | 1910 | 6 | M2 | | | | | |
| 19.04 | 74 | 6000 | 48 | 43000 | 5660 | 6 | M1-6 | | | | | |
| 16.37* | 86 | 6000 | 55 | 43000 | 5130 | 6 | M1-6 | | | | | |
| 14.29 | 98 | 5290 | 56 | 43000 | 6080 | 6 | M1-6 | | | | | |
| 12.12 | 116 | 4480 | 56 | 43000 | 6520 | 6 | M1-6 | | | | | |
| 10.59 | 132 | 3910 | 56 | 43000 | 6820 | 6 | M1-6 | R | 127 | AD6 | 240 | 311 |
| 8.96 | 156 | 3300 | 56 | 43000 | 7180 | 7 | M1-6 | RF | 127 | AD6 | 260 | 311 |
| 8.85 | 158 | 3270 | 56 | 43000 | 6110 | 8 | M1-6 | RM | 127 | AD6 | 355 | 311 |
| 7.51 | 186 | 2770 | 56 | 43000 | 6530 | 8 | M1-6 | | | | | |
| 6.56 | 213 | 2420 | 56 | 43000 | 6820 | 8 | M1-6 | | | | | |
| 5.55 | 252 | 2050 | 56 | 43000 | 7170 | 8 | M1-6 | | | | | |

| R137 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 8000 Nm | | |
|---|----------------------------|------------------|-------------|---------------------|---------------|--------------|---|--|---------|---|-----|-----|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | | |
| 222.60* | 6.3 | 8000 | 5.6 | 53400 | 3730 | 6 | - | | | | | |
| 188.45 | 7.4 | 8000 | 6.6 | 53400 | 3690 | 6 | - | | | | | |
| 174.40* | 8.0 | 8000 | 7.1 | 53400 | 3680 | 6 | - | | | | | |
| 156.31 | 9.0 | 8000 | 7.9 | 53400 | 3650 | 6 | - | | | | | |
| 141.12* | 9.9 | 8000 | 8.8 | 53400 | 3600 | 6 | - | | | | | |
| 128.18 | 11 | 8000 | 9.7 | 53400 | 3570 | 6 | - | R | 137 | AD4 | 255 | 311 |
| 113.72 | 12 | 8000 | 10.9 | 53400 | 3530 | 6 | - | RF | 137 | AD4 | 280 | 311 |
| 103.20* | 14 | 8000 | 12.0 | 53400 | 3490 | 6 | - | RM | 137 | AD4 | 390 | 311 |
| 88.70* | 16 | 8000 | 14.0 | 53400 | 3420 | 6 | - | | | | | |
| 80.91* | 17 | 8000 | 15.2 | 53400 | 2790 | 6 | - | | | | | |
| 73.49 | 19 | 8000 | 16.7 | 53400 | 2740 | 6 | - | | | | | |
| 65.20 | 21 | 8000 | 18.9 | 53400 | 2670 | 6 | - | | | | | |
| 59.17* | 24 | 8000 | 21 | 53400 | 2600 | 6 | - | | | | | |
| 50.86* | 28 | 8000 | 24 | 53400 | 5670 | 6 | - | | | | | |
| 44.39 | 32 | 8000 | 28 | 53400 | 5560 | 6 | M2 | R | 137 | AD5 | 270 | 311 |
| 37.65 | 37 | 8000 | 33 | 53400 | 5400 | 6 | M1-6 | RF | 137 | AD5 | 290 | 311 |
| 32.91 | 43 | 8000 | 37 | 53400 | 5240 | 6 | M1-6 | RM | 137 | AD5 | 405 | 311 |
| 27.83 | 50 | 7680 | 42 | 54100 | 5160 | 6 | M1-6 | | | | | |
| 29.57* | 47 | 7780 | 40 | 53800 | 5200 | 6 | - | R | 137 | AD6 | 270 | 311 |
| 24.12 | 58 | 8000 | 50 | 49400 | 4330 | 6 | M2 | RF | 137 | AD6 | 295 | 311 |
| | | | | | | | | RM | 137 | AD6 | 405 | 311 |

| R137 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 8000 Nm | | |
|---|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|--|---------------------------|---|-------------------|-------------------|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | | |
| 22.00* | 64 | 8000 | 55 | 47100 | 11700 | 6 | M1-6 |  | R 137 RF 137 RM 137 | AD7 AD7 AD7 | 280 305 415 | 311 311 311 |
| 19.04* | 74 | 8000 | 63 | 43500 | 10700 | 6 | M1-6 | | | | | |
| 16.80* | 83 | 8000 | 72 | 40600 | 9940 | 6 | M1-6 | | | | | |
| 14.51 | 96 | 8000 | 83 | 37300 | 8800 | 6 | M1-6 | | | | | |
| 12.83 | 109 | 7390 | 87 | 37400 | 9850 | 6 | M1-6 | | | | | |
| 10.79 | 130 | 7200 | 101 | 34700 | 8850 | 6 | M1-6 | | | | | |
| 8.71 | 161 | 6900 | 120 | 31800 | 7540 | 6 | M1-6 | | | | | |
| 7.59 | 184 | 4600 | 91 | 41100 | 8460 | 8 | M1-6 | | | | | |
| 6.38 | 219 | 4400 | 104 | 38900 | 7940 | 8 | M1-6 | | | | | |
| 5.15 | 272 | 4100 | 120 | 36600 | 7410 | 8 | M1-6 | | | | | |

| R147 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 13000 Nm | | |
|---|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|--|---------------------------|---|-------------------|-------------------|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | | |
| 163.31 | 8.6 | 13000 | 12.3 | 62700 | 2990 | 5 | - |  | R 147 RF 147 RM 147 | AD4 AD4 AD4 | 385 395 560 | 312 312 312 |
| 146.91 | 9.5 | 13000 | 13.6 | 62700 | 2940 | 5 | - | | | | | |
| 119.86 | 12 | 13000 | 16.7 | 62700 | 2800 | 5 | - | | | | | |
| 109.31 | 13 | 13000 | 18.3 | 62700 | 2750 | 5 | - | | | | | |
| 94.60* | 15 | 13000 | 21 | 62700 | 2650 | 6 | - | | | | | |
| 83.47 | 17 | 13000 | 24 | 62700 | 2560 | 6 | - | | | | | |
| 72.09 | 19 | 13000 | 28 | 62700 | 5670 | 6 | M2 | | | | | |
| 66.99 | 21 | 13000 | 30 | 62700 | 4550 | 6 | - | | | | | |
| 61.09 | 23 | 13000 | 33 | 62700 | 4470 | 6 | - | | | | | |
| 52.87 | 26 | 13000 | 38 | 62700 | 4310 | 6 | - | | | | | |
| 46.65 | 30 | 13000 | 43 | 62700 | 4170 | 6 | M2,4 | | | | | |
| 40.29 | 35 | 13000 | 49 | 62700 | 6970 | 6 | M1-6 | | | | | |
| 35.64 | 39 | 13000 | 56 | 62700 | 16800 | 6 | M1-6 | | | | | |
| 29.95 | 47 | 13000 | 66 | 62700 | 16600 | 6 | M1-6 | | | | | |
| 24.19 | 58 | 11900 | 75 | 64700 | 16500 | 6 | M1-6 | | | | | |
| 20.44 | 68 | 11700 | 86 | 65100 | 23700 | 5 | M1-6 | | | | | |
| 18.04 | 78 | 10300 | 86 | 67300 | 24300 | 5 | M1-6 | | | | | |
| 15.64 | 90 | 13000 | 125 | 62700 | 22400 | 5 | M1-6 | | | | | |
| 13.91 | 101 | 12300 | 133 | 64000 | 22500 | 5 | M1-6 | | | | | |
| 11.99 | 117 | 10600 | 133 | 66900 | 23200 | 5 | M1-6 | | | | | |
| 9.74 | 144 | 8650 | 134 | 67400 | 23900 | 6 | M1-6 | | | | | |
| 8.26 | 169 | 7340 | 134 | 66900 | 24400 | 6 | M1-6 | | | | | |
| 7.25 | 193 | 6440 | 134 | 65300 | 23200 | 8 | M1-6 | | | | | |
| 5.89 | 238 | 5230 | 134 | 64000 | 23900 | 8 | M1-6 | | | | | |
| 5.00 | 280 | 4430 | 134 | 62600 | 24500 | 8 | M1-6 | | | | | |


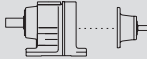

| R167 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 20000 Nm | | |
|---|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|--|---------------------------|---|-------------------|-------------------|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | | |
| 229.71 | 6.1 | 20000 | 13.5 | 120000 | 5880 | 5 | - |  | R 167 RF 167 RM 167 | AD5 AD5 AD5 | 650 650 850 | 312 312 312 |
| 186.93* | 7.5 | 20000 | 16.5 | 120000 | 5800 | 5 | - | | | | | |
| 153.07 | 9.2 | 20000 | 20 | 120000 | 5660 | 5 | - | | | | | |
| 139.98 | 10 | 20000 | 22 | 120000 | 5620 | 5 | - | | | | | |
| 121.81* | 11 | 20000 | 25 | 120000 | 5520 | 5 | - | | | | | |
| 107.49 | 13 | 20000 | 29 | 120000 | 5430 | 5 | - | | | | | |
| 93.19 | 15 | 20000 | 33 | 120000 | 5320 | 5 | - | | | | | |
| 82.91* | 17 | 20000 | 37 | 120000 | 5210 | 5 | - | | | | | |
| 73.70* | 19 | 20000 | 42 | 120000 | 2380 | 6 | - | | | | | |
| 67.40 | 21 | 20000 | 45 | 120000 | 6240 | 6 | - | | | | | |
| 58.65 | 24 | 20000 | 52 | 120000 | 5870 | 6 | - | | | | | |
| 51.76 | 27 | 20000 | 59 | 120000 | 5530 | 6 | M2 | | | | | |
| 44.87 | 31 | 20000 | 68 | 120000 | 13700 | 6 | M1-6 | | | | | |
| 39.92 | 35 | 20000 | 77 | 120000 | 12900 | 6 | M1-6 | | | | | |
| 34.41 | 41 | 20000 | 89 | 120000 | 12000 | 6 | M1-6 | | | | | |
| 27.96 | 50 | 19800 | 108 | 120000 | 25000 | 6 | M1-6 | | | | | |
| 23.71 | 59 | 18400 | 119 | 115400 | 25000 | 6 | M1-6 | | | | | |

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8

R.. helical gear units

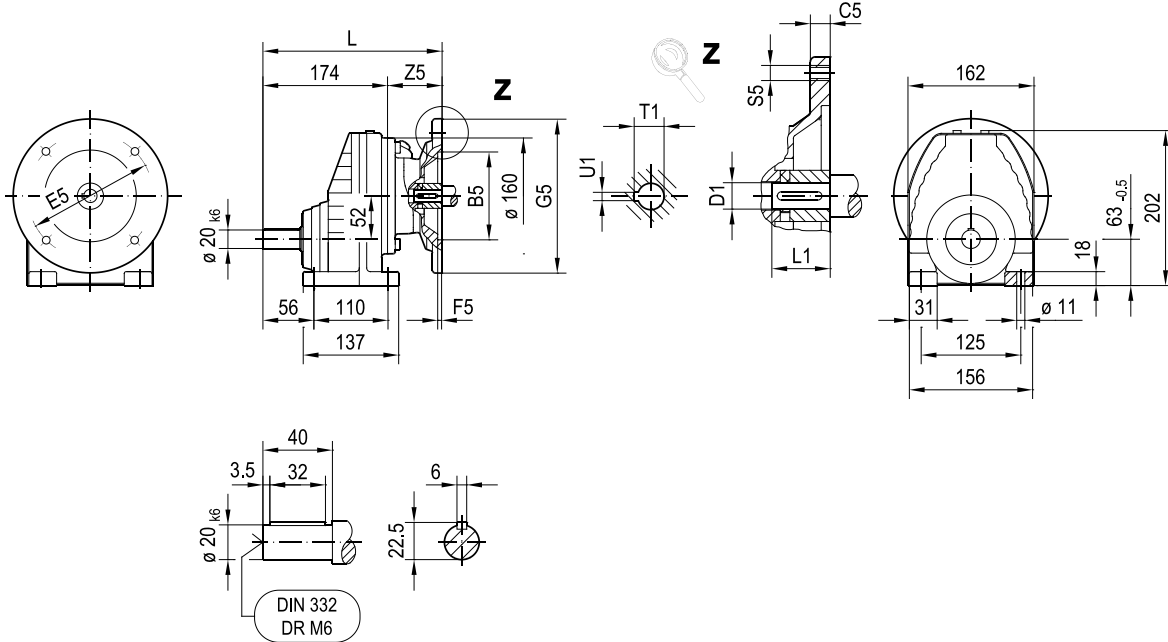
Selection tables for input shaft assembly (AD..)

| R167 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | | 20000 Nm | |
|---|----------------------------|-------------------------|-------------|--------------------|---------------|--------------|---|--|------------|------------|---|-----|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | | m kg |  | |
| 46.00 | 30 | 8460 | 28 | 120000 | 3140 | 5 | - | R | 167 | AD5 | 640 | 312 |
| | | | | | | | | RF | 167 | AD5 | 650 | 312 |
| | | | | | | | | RM | 167 | AD5 | 840 | 312 |
| 37.74 | 37 | 9940 | 40 | 120000 | 5170 | 5 | - | R | 167 | AD6 | 660 | 312 |
| | | | | | | | | RF | 167 | AD6 | 670 | 312 |
| 30.71 | 46 | 11400 | 56 | 120000 | 2870 | 5 | - | RM | 167 | AD6 | 860 | 312 |
| 24.57 | 57 | 15800 | 97 | 120000 | 22800 | 5 | M2 | R | 167 | AD8 | 680 | 312 |
| 21.85 | 64 | 14000 | 97 | 120000 | 23500 | 5 | M2,4 | | | | | |
| 19.03 | 74 | 18100 | 143 | 105700 | 21200 | 5 | M1-6 | | | | | |
| 16.98 | 82 | 16100 | 143 | 105900 | 21900 | 5 | M1-6 | | | | | |
| 14.48 | 97 | 19500 | 203 | 89800 | 19500 | 5 | M1-6 | | | | | |
| 11.99 | 117 | 18800 | 236 | 83900 | 19100 | 5 | M1-6 | | | | | |
| 10.24 | 137 | 18300 | 269 | 78700 | 18600 | 5 | M1-6 | | | | | |

8.4 Dimension sheets for adapters for mounting IEC motors (AMS..)

01 150 00 20

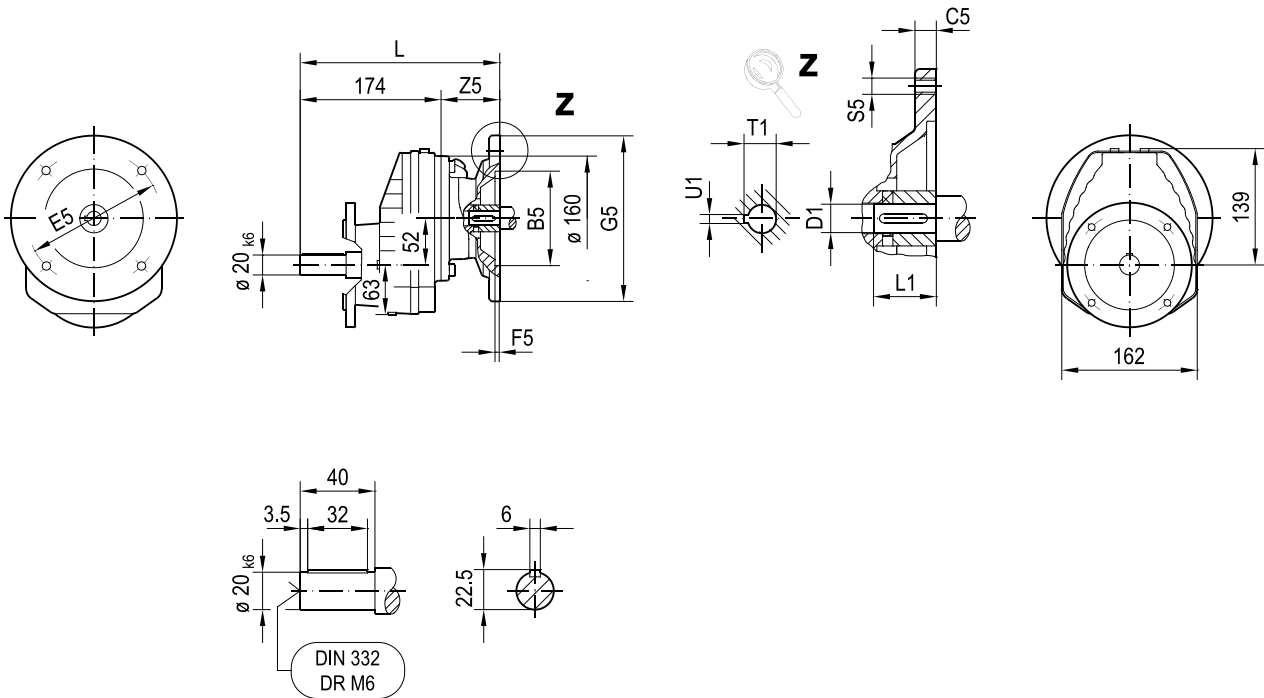
RX57..



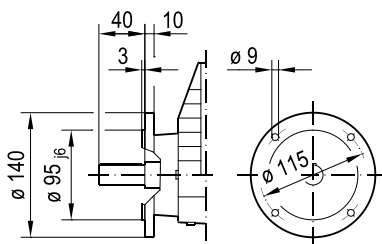
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 224 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 224 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 241 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 254 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 283 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 283 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 308 | M12 | 134 | 38 | 80 | 41.3 | 10 |

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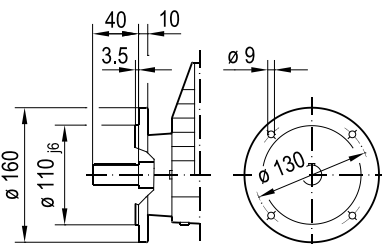
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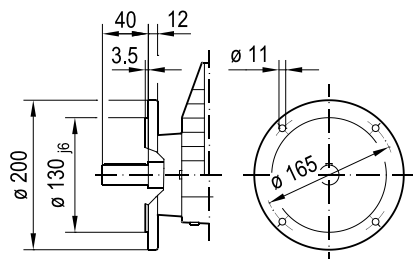
ø 140



ø 160



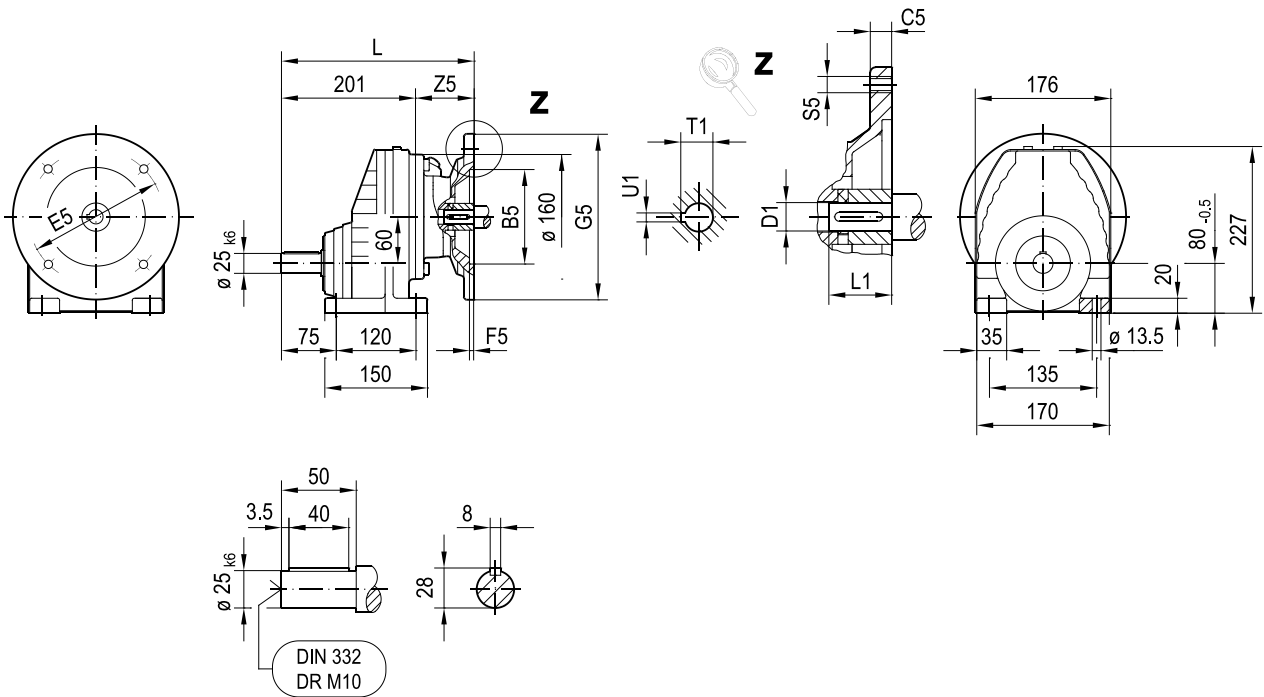
ø 200



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 224 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 224 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 241 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 254 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 283 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 283 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 308 | M12 | 134 | 38 | 80 | 41.3 | 10 |

01 152 00 20

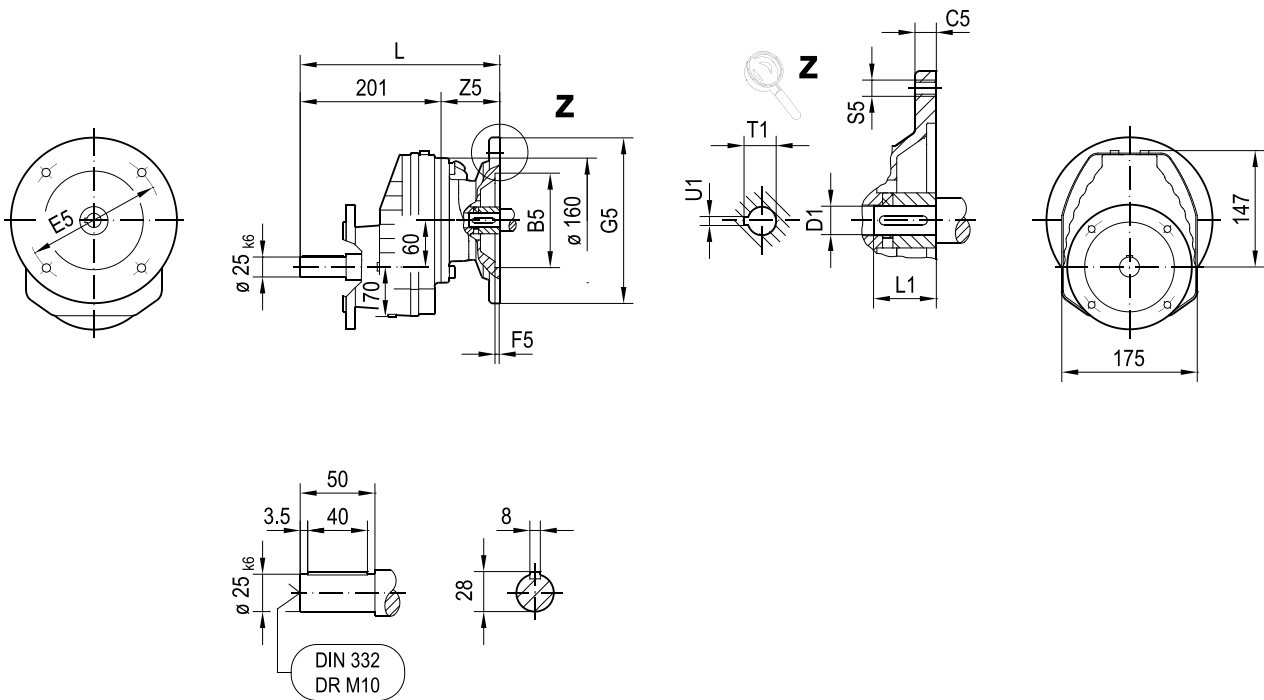
RX67..



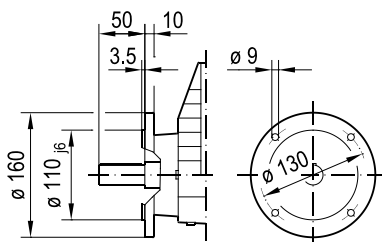
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 251 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 251 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 268 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 281 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 310 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 310 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 335 | M12 | 134 | 38 | 80 | 41.3 | 10 |

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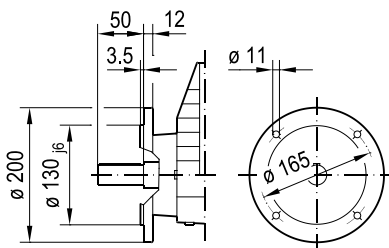
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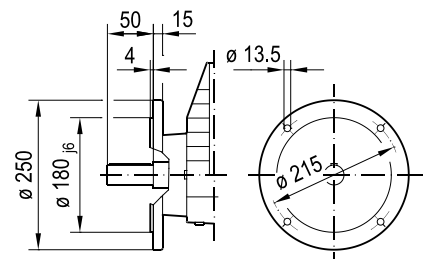
ø 160



ø 200



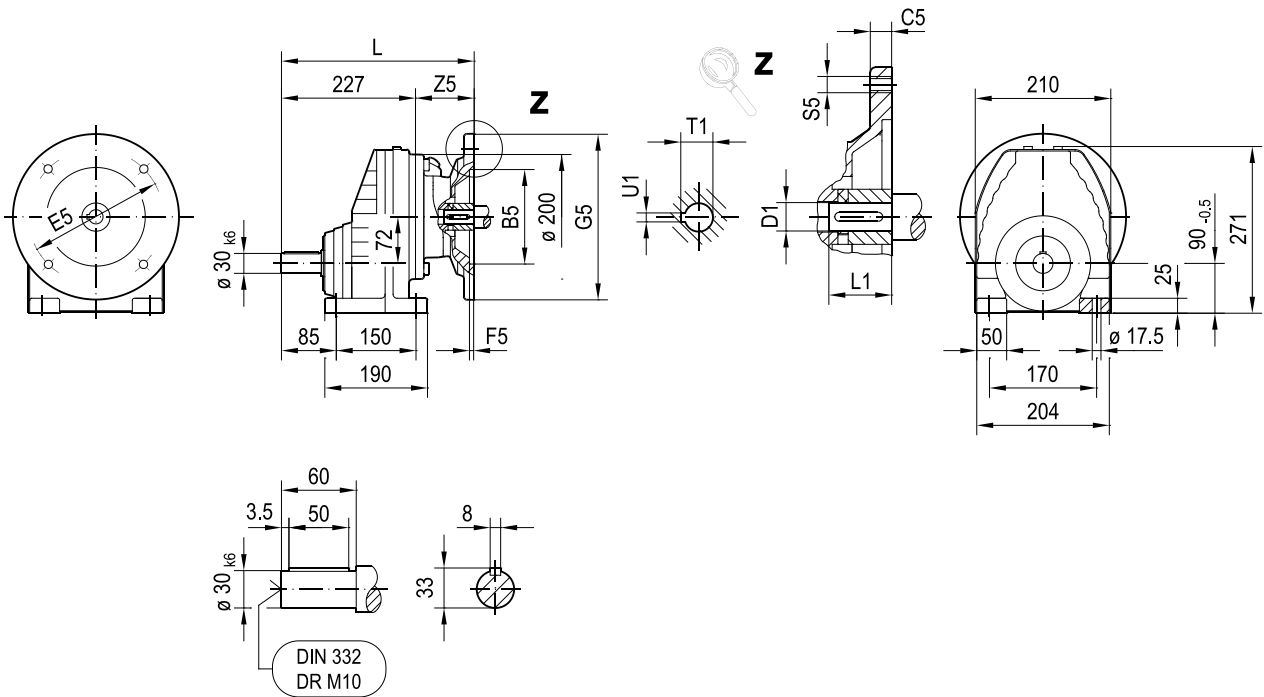
ø 250



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 251 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 251 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 268 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 281 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 310 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 310 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 335 | M12 | 134 | 38 | 80 | 41.3 | 10 |

01 154 00 20

RX77..

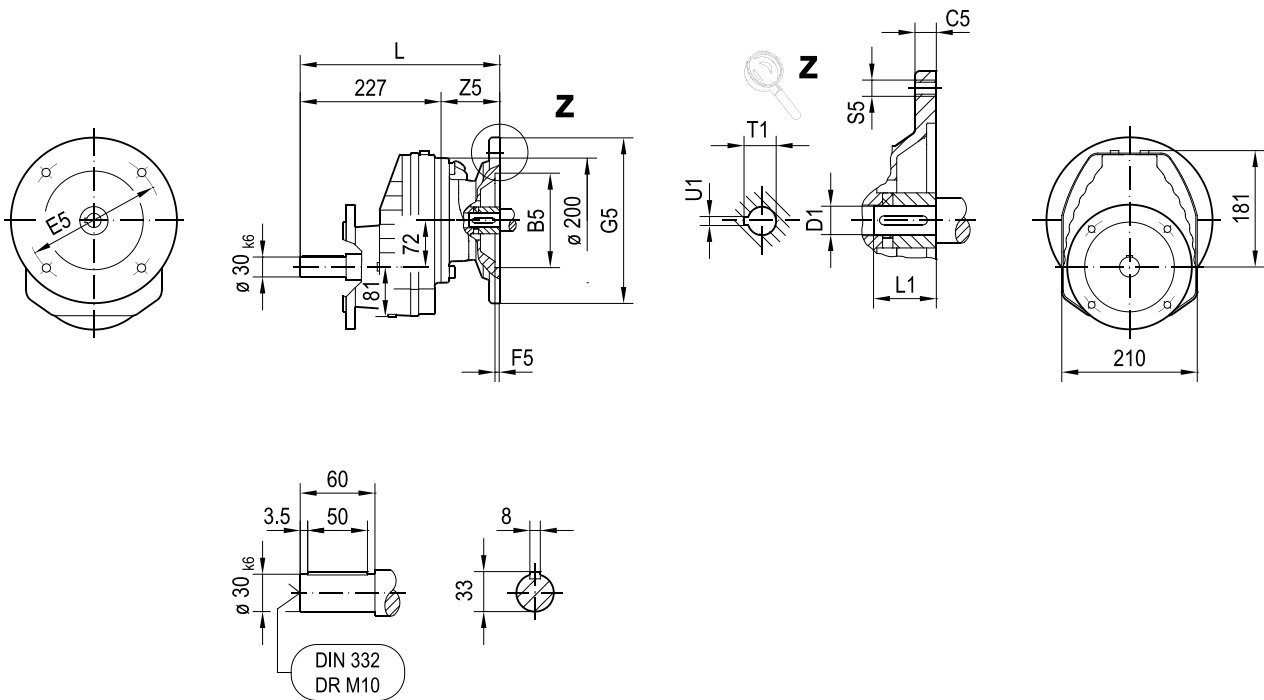


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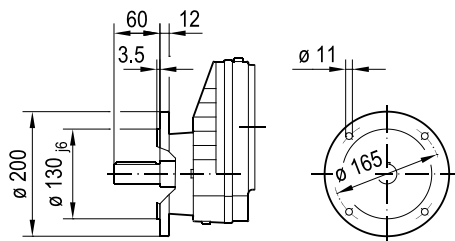
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 271 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 271 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 287 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 300 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 328 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 328 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 353 | M12 | 126 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 353 | M12 | 126 | 38 | 80 | 41.3 | 10 |

01 155 00 20

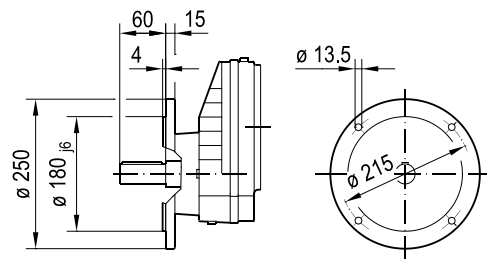
RXF77..



ø 200



ø 250

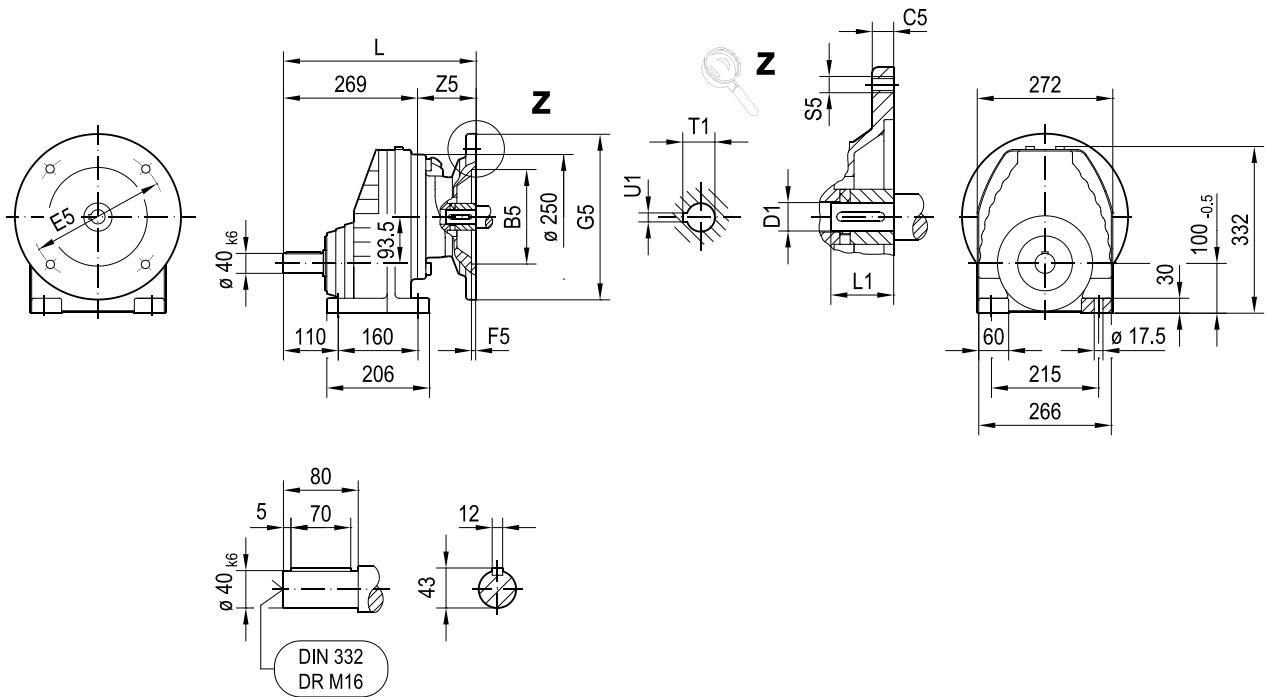


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|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 271 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 271 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 287 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 300 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 328 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 328 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 353 | M12 | 126 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 353 | M12 | 126 | 38 | 80 | 41.3 | 10 |

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RX87..

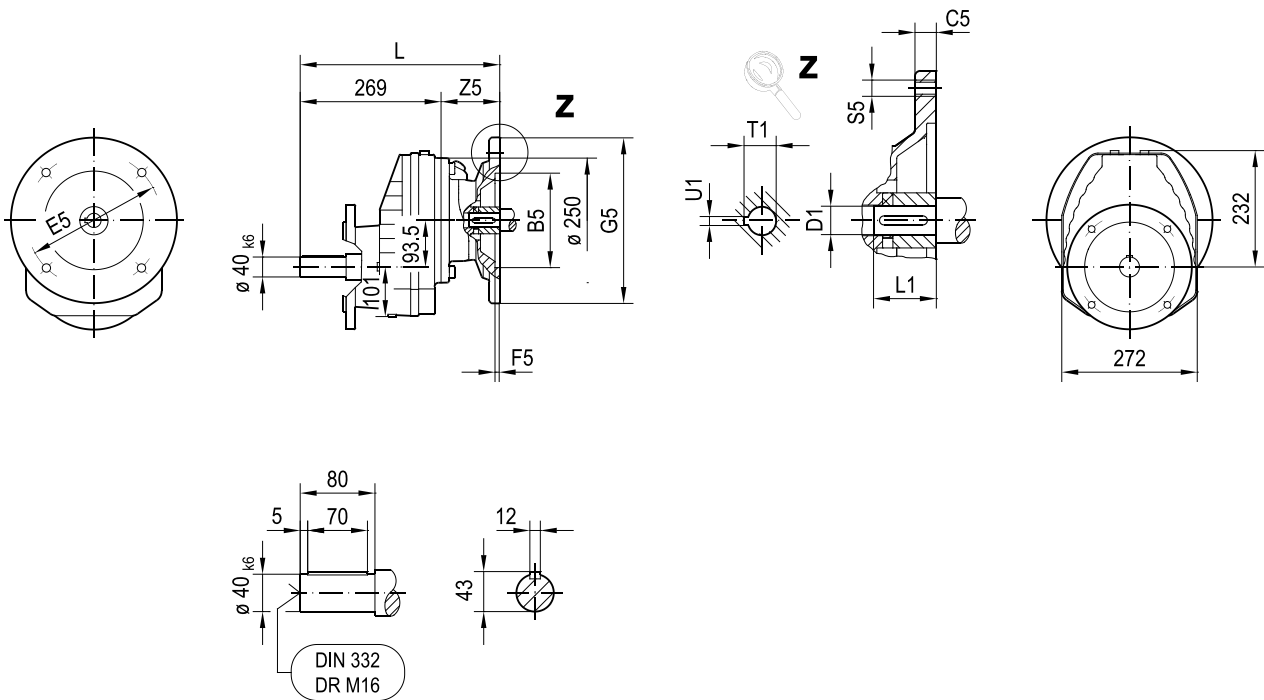


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|------|----|-----|------|----|
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 324 | M10 | 55 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 337 | M10 | 68 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 365 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 365 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 390 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 390 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 453 | M16 | 184 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 453 | M16 | 184 | 48 | 110 | 51.8 | 14 |

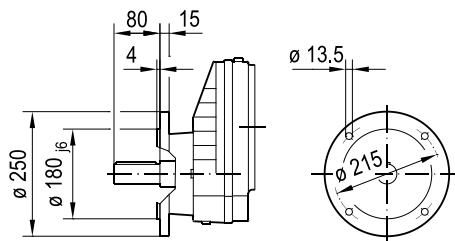
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01 157 00 20

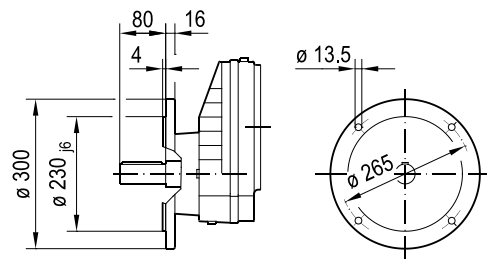
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ø 250



ø 300

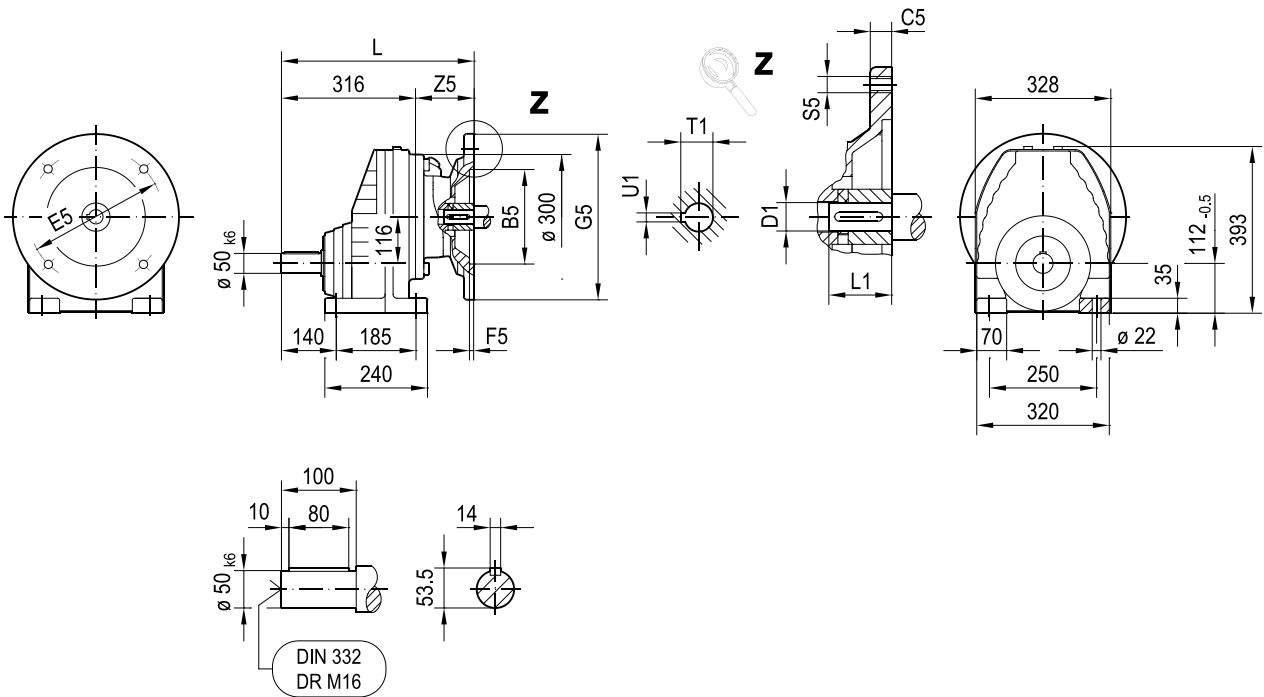


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|------|----|-----|------|----|
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 324 | M10 | 55 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 337 | M10 | 68 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 365 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 365 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 390 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 390 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 453 | M16 | 184 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 453 | M16 | 184 | 48 | 110 | 51.8 | 14 |

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01 158 00 20

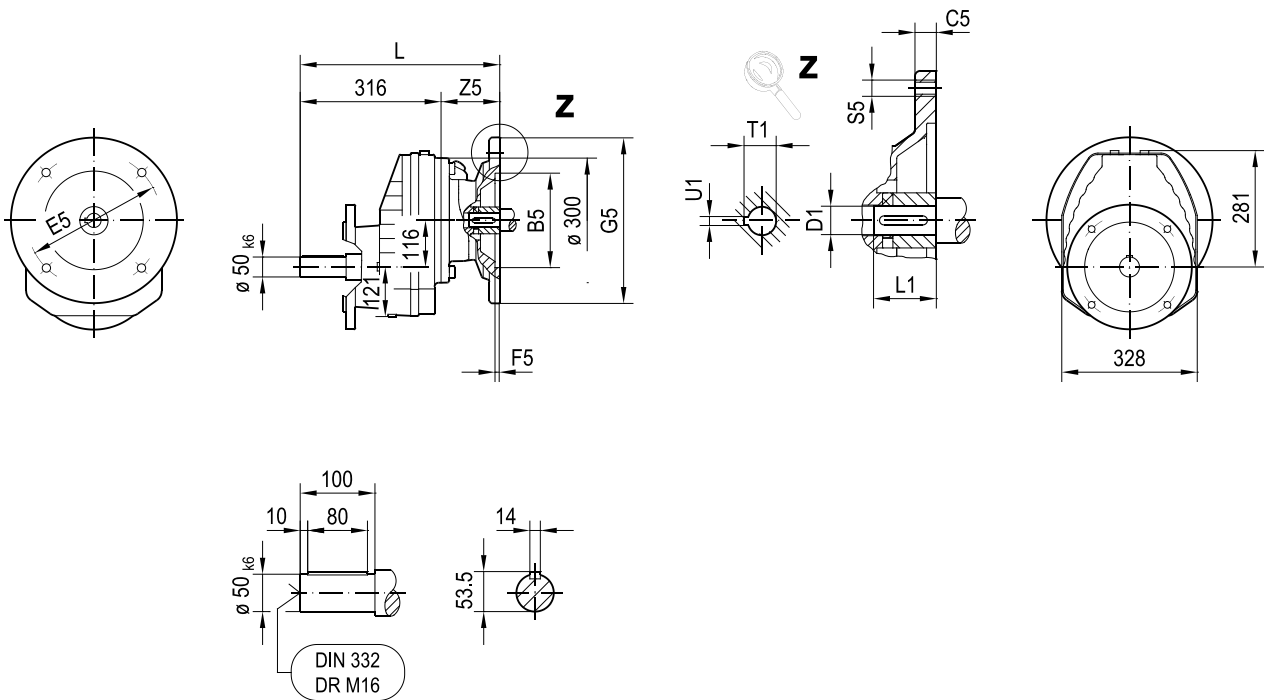
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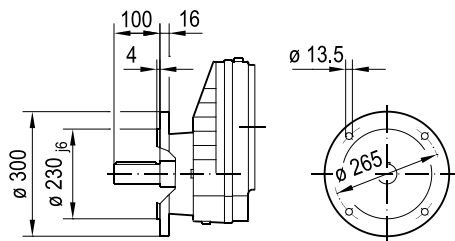
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 407 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 407 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 432 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 432 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 495 | M16 | 179 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 495 | M16 | 179 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 556 | M16 | 240 | 55 | 110 | 59.3 | 16 |

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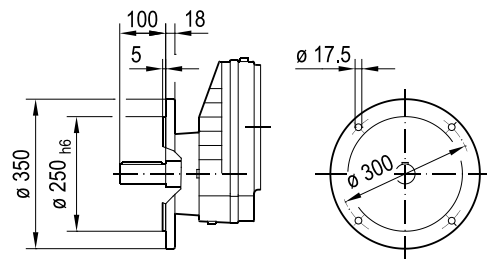
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ø 300



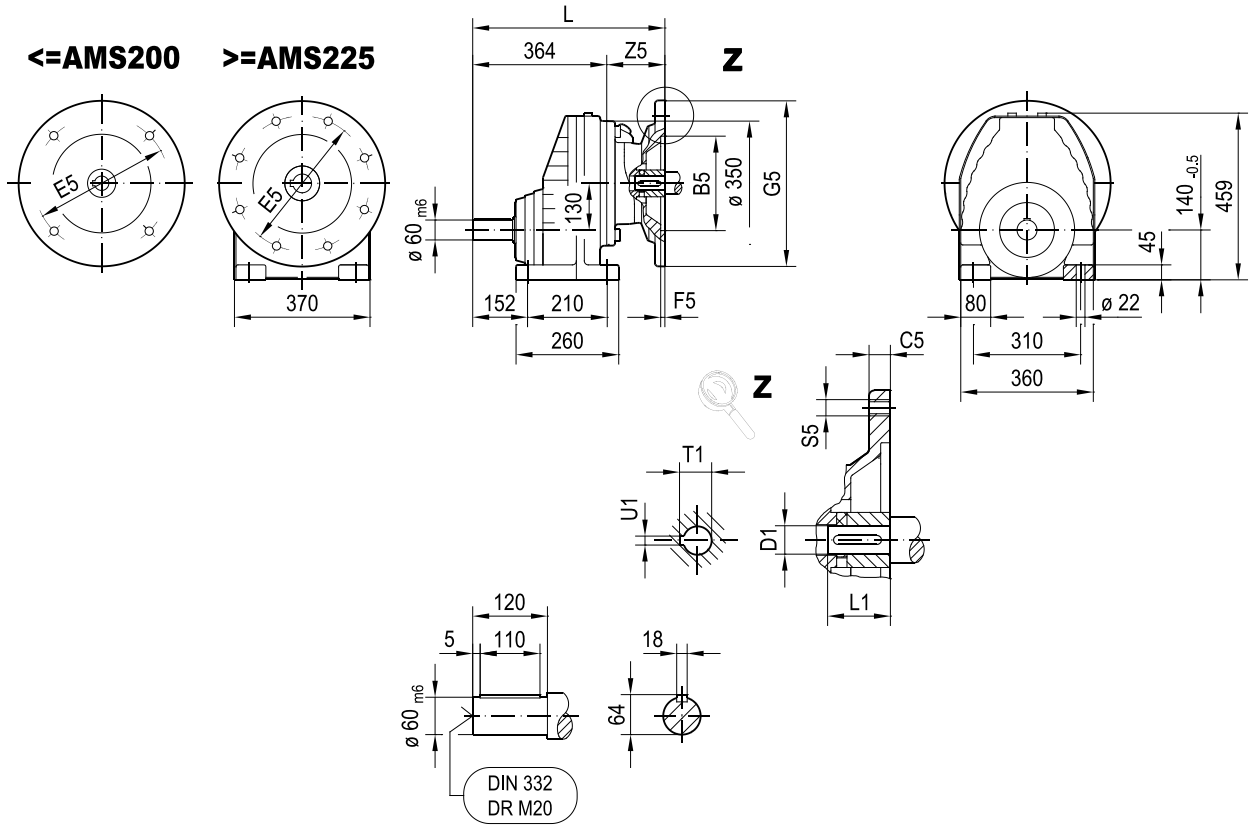
ø 350



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 407 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 407 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 432 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 432 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 495 | M16 | 179 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 495 | M16 | 179 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 556 | M16 | 240 | 55 | 110 | 59.3 | 16 |

01 160 00 20

RX107..



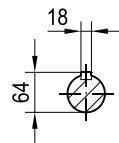
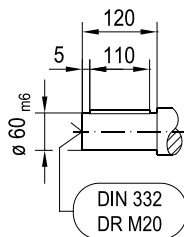
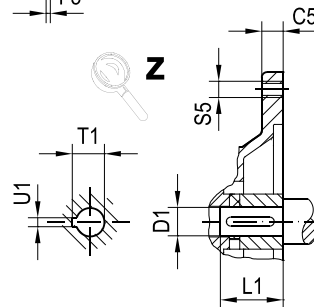
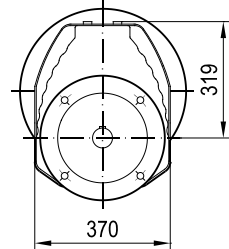
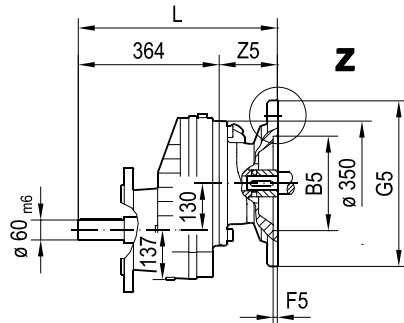
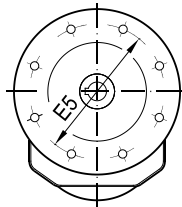
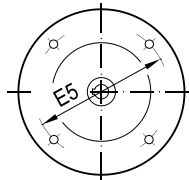
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 449 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 449 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 474 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 474 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 537 | M16 | 173 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 537 | M16 | 173 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 598 | M16 | 234 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 613 | M16 | 249 | 60 | 140 | 64.4 | 18 |

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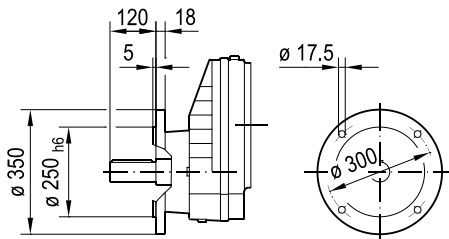
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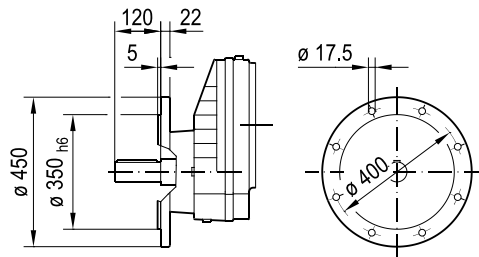
>=AMS225



ø 350



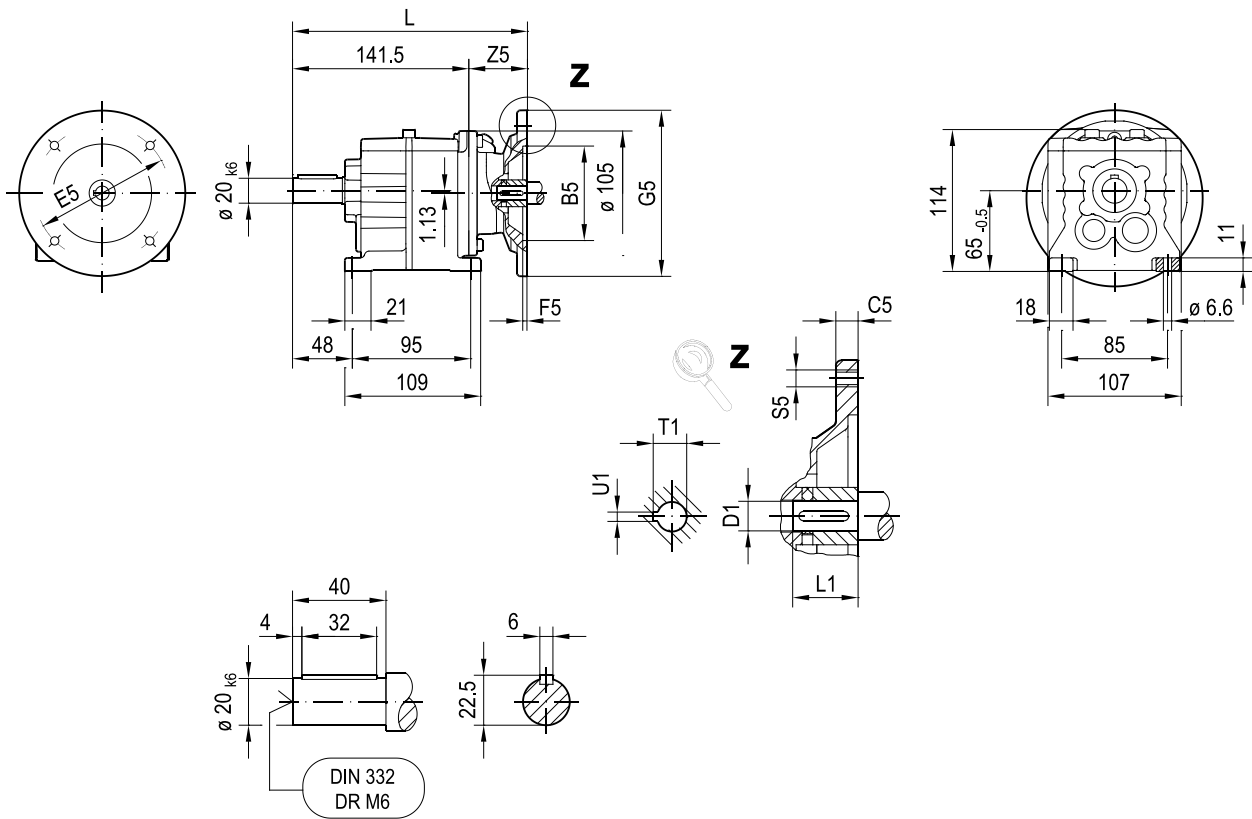
ø 450



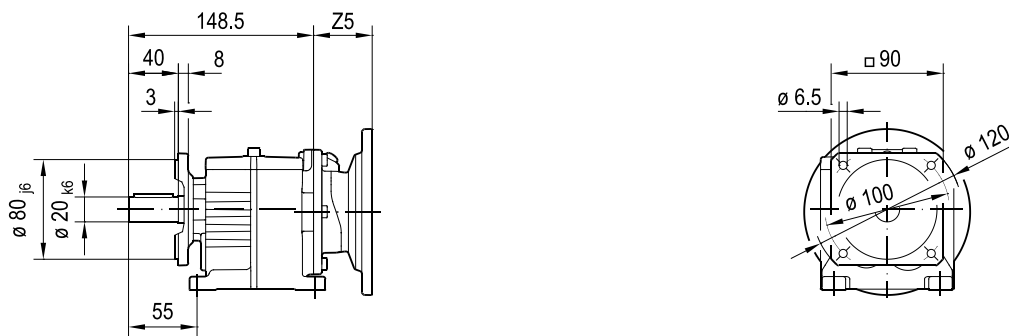
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 449 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 449 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 474 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 474 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 537 | M16 | 173 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 537 | M16 | 173 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 598 | M16 | 234 | 55 | 110 | 59.3 | 16 |
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01 001 00 21

R07..



R07F..

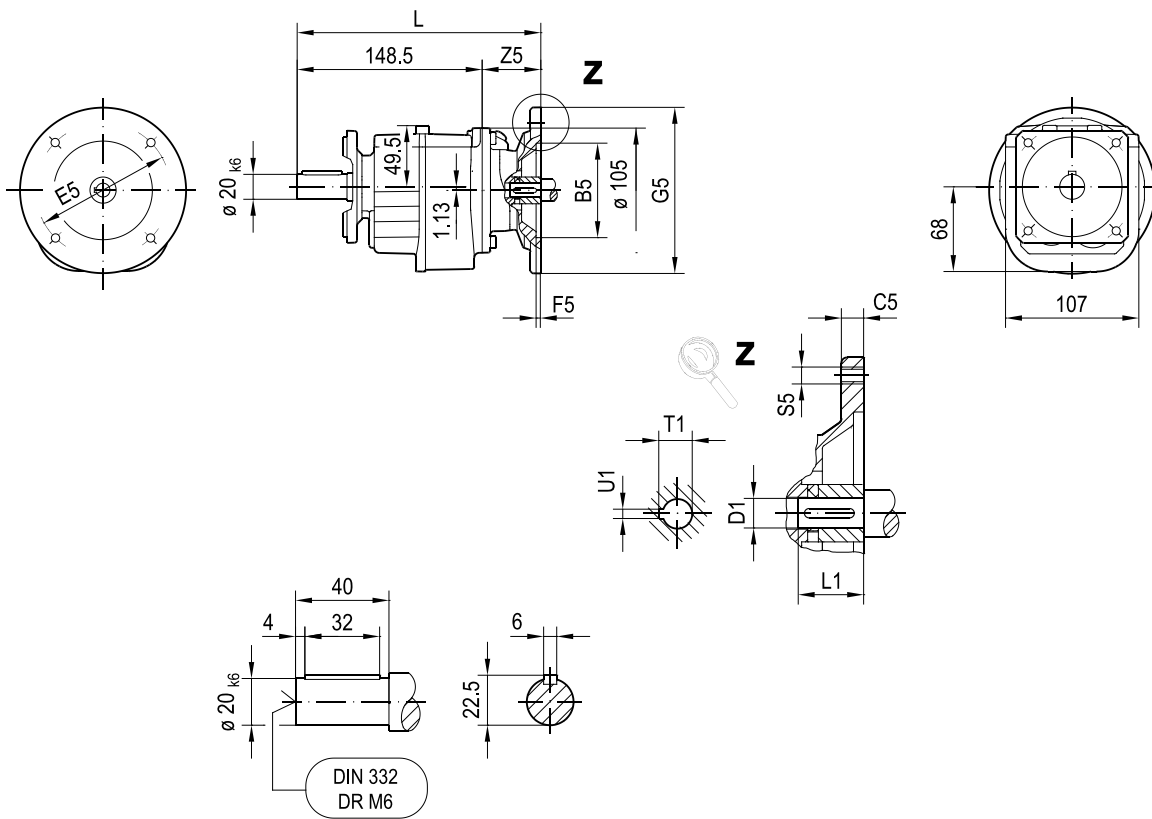


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|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 198 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 198 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 215 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |

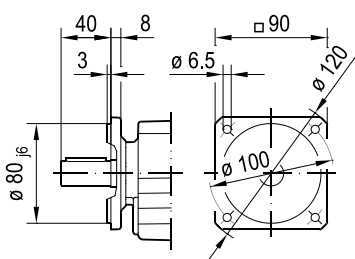
26878585/EN – 11/2021

01 002 00 21

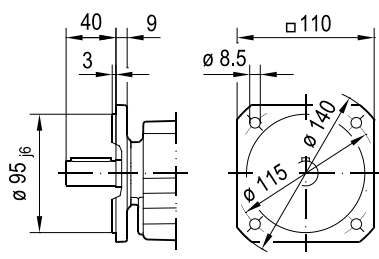
RF07..



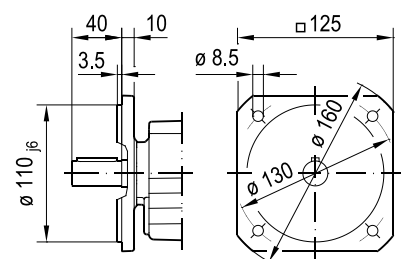
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ø 140



ø 160

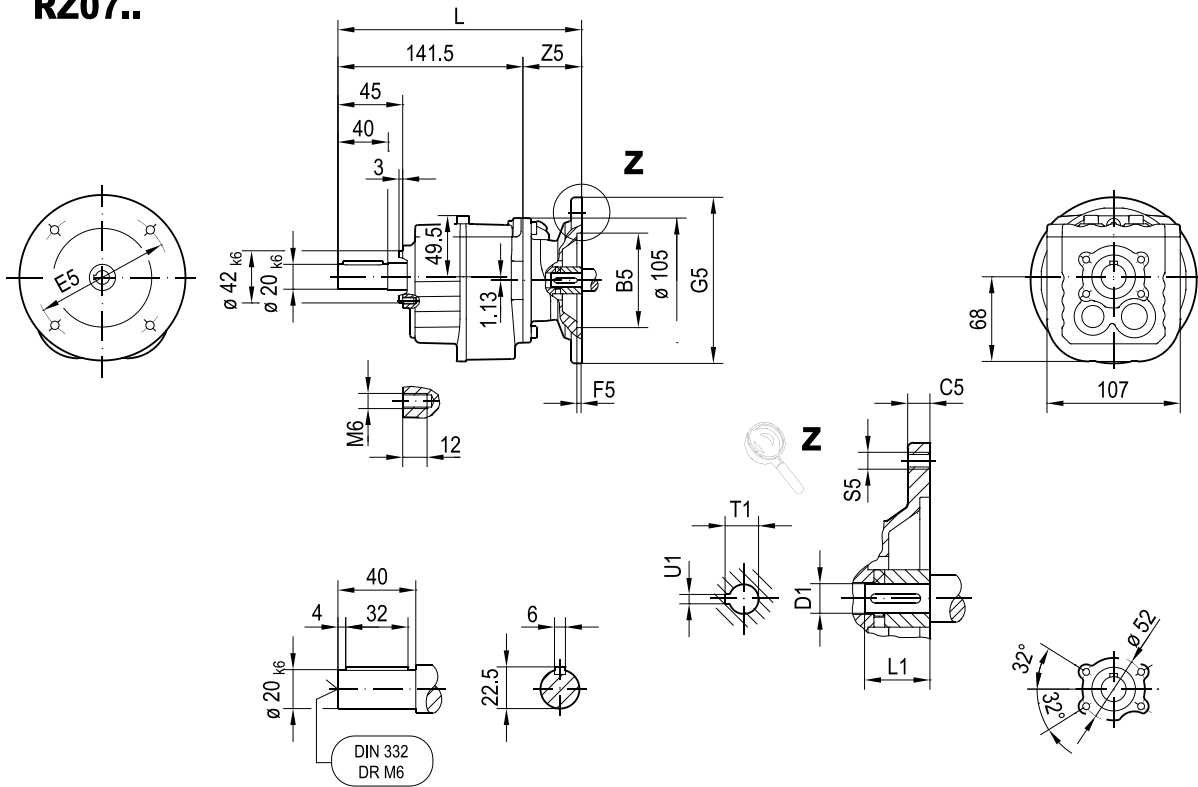


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|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
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| AMS71 | 110 | 10 | 130 | 4 | 160 | 205 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
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26878565/EN – 11/2021

01 003 00 21

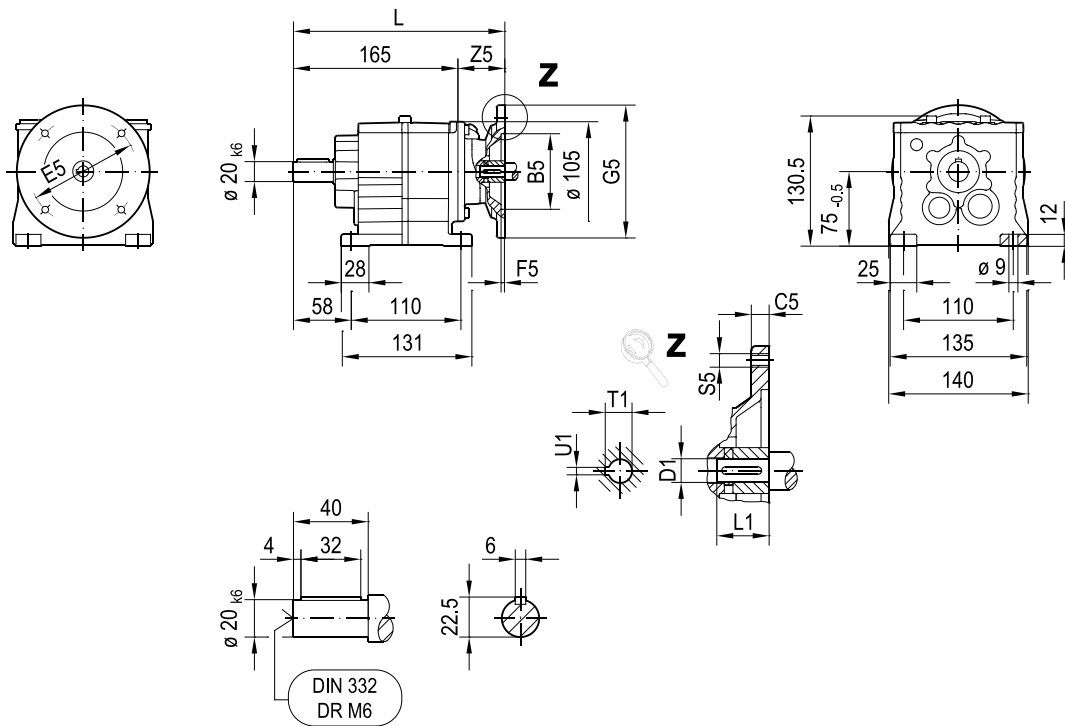
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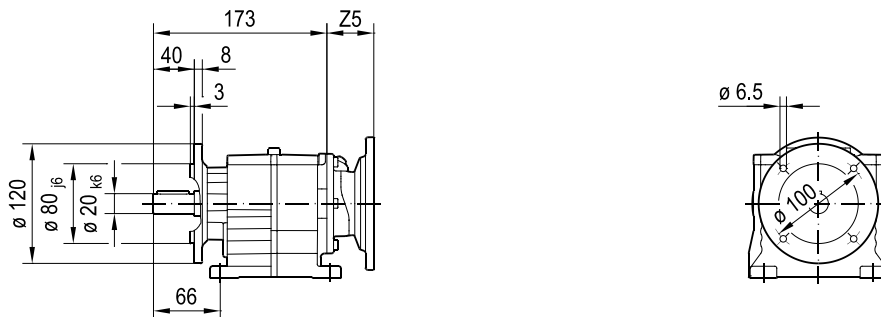
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|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 198 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 198 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 215 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |

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R17..



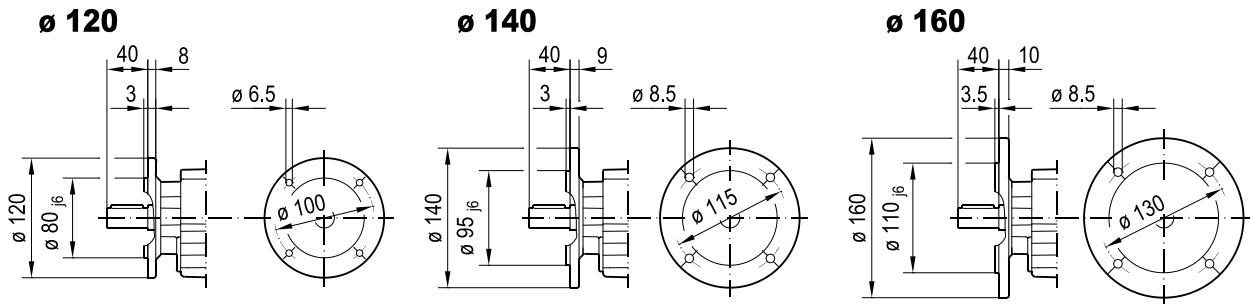
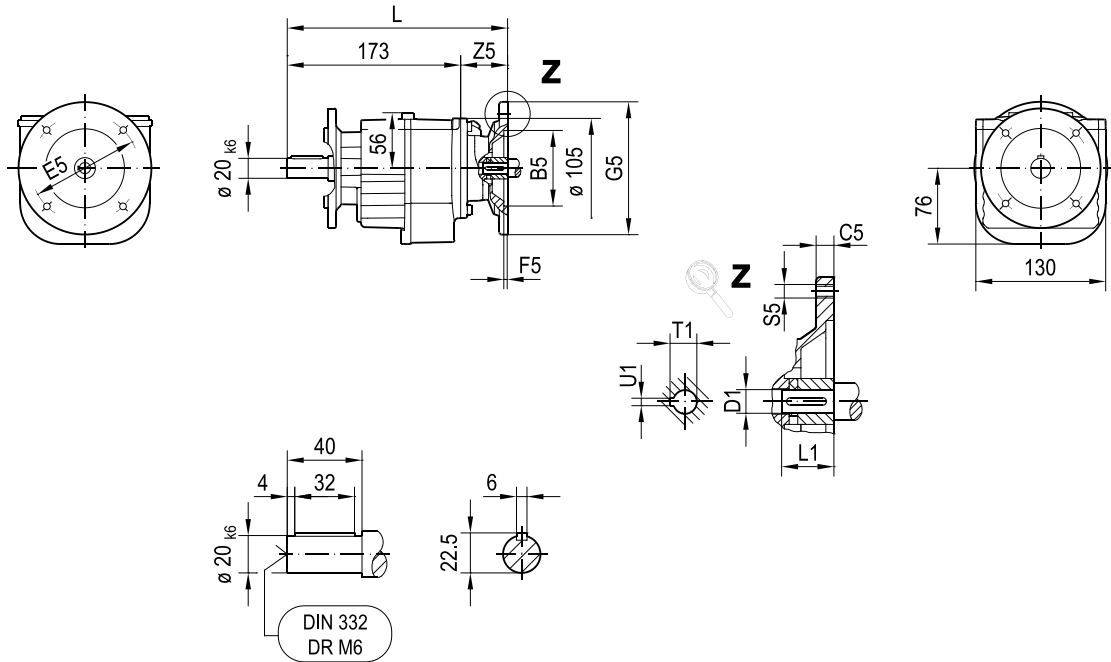
R17F..



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|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 222 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 222 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 239 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |

01 005 00 21

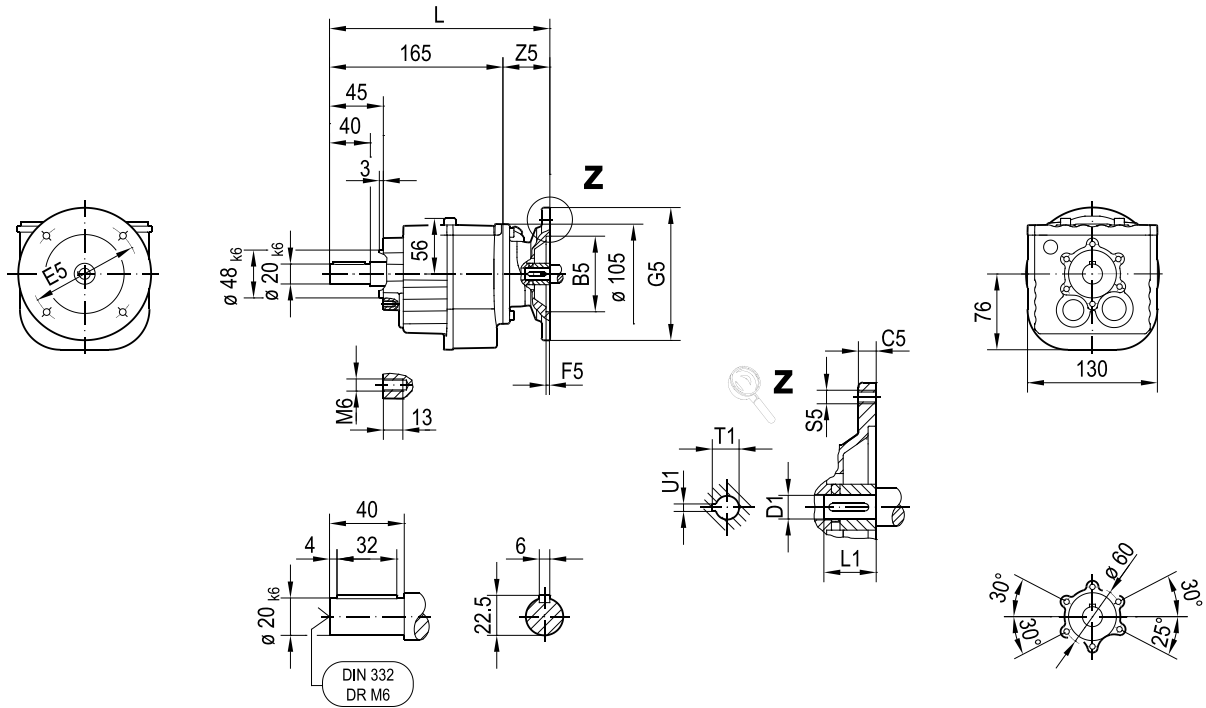
RF17..



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|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 230 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 230 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
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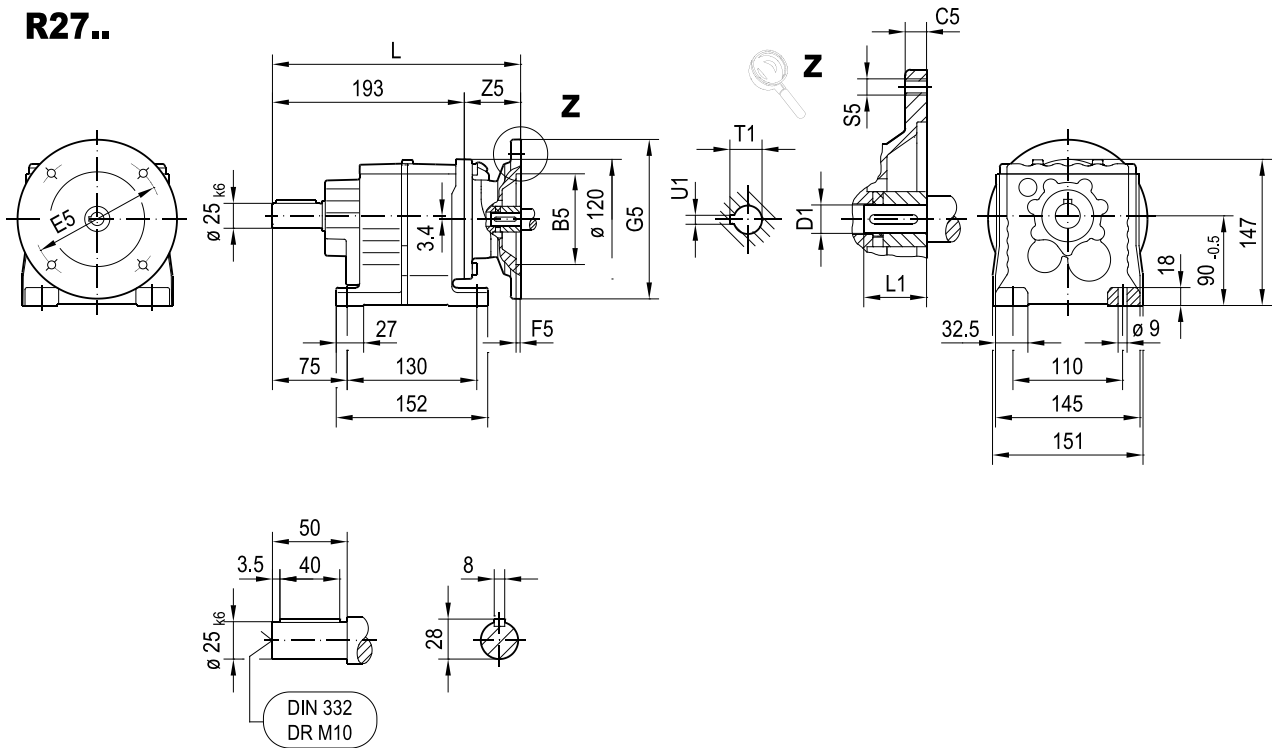
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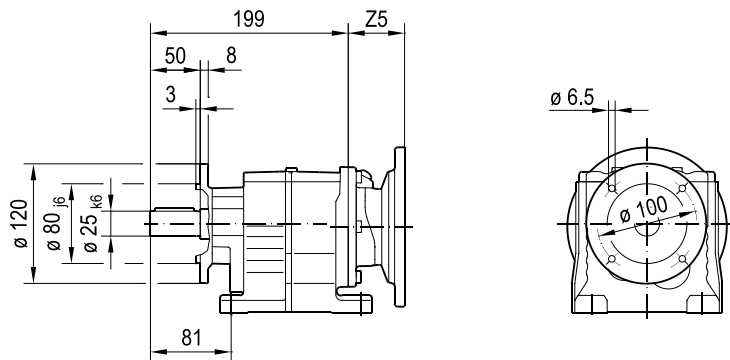
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|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 222 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 222 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
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01 069 01 21

R27..



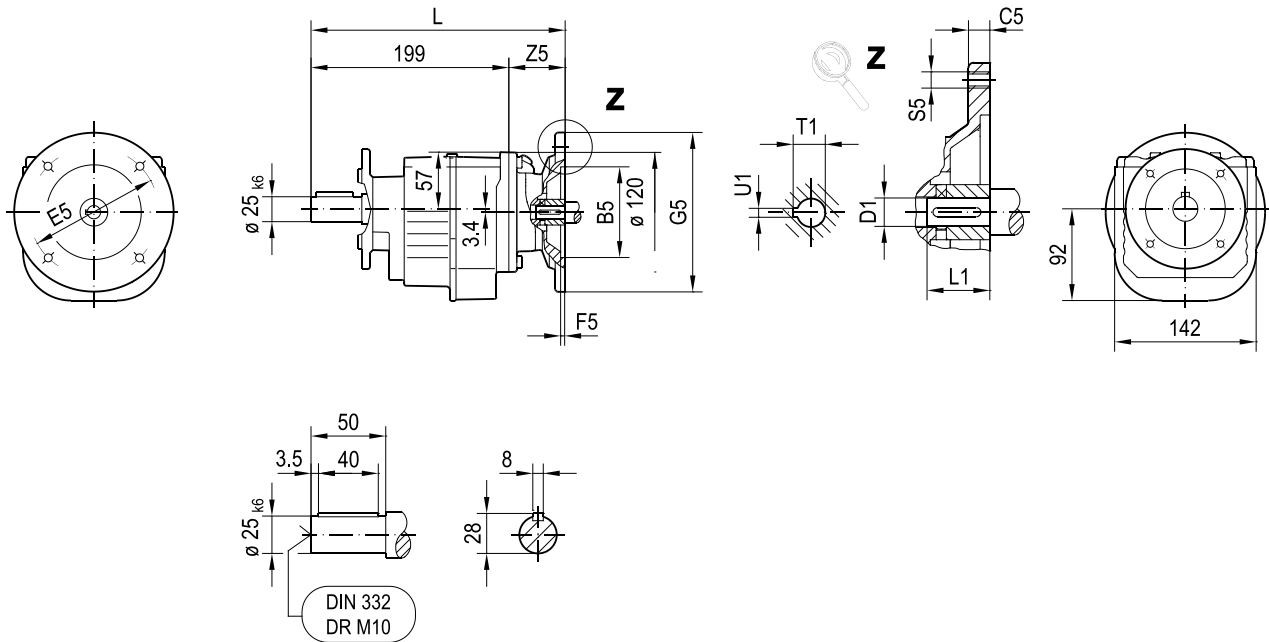
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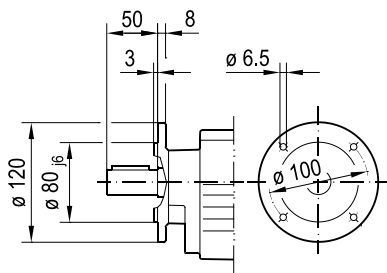
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|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 250 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 250 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 267 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 280 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

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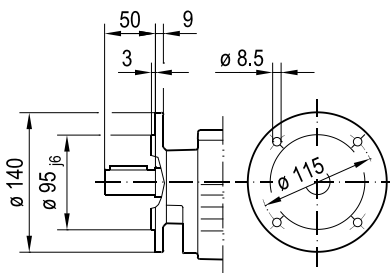
RF27..



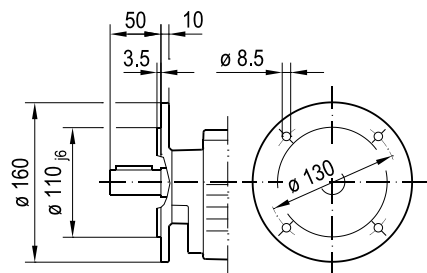
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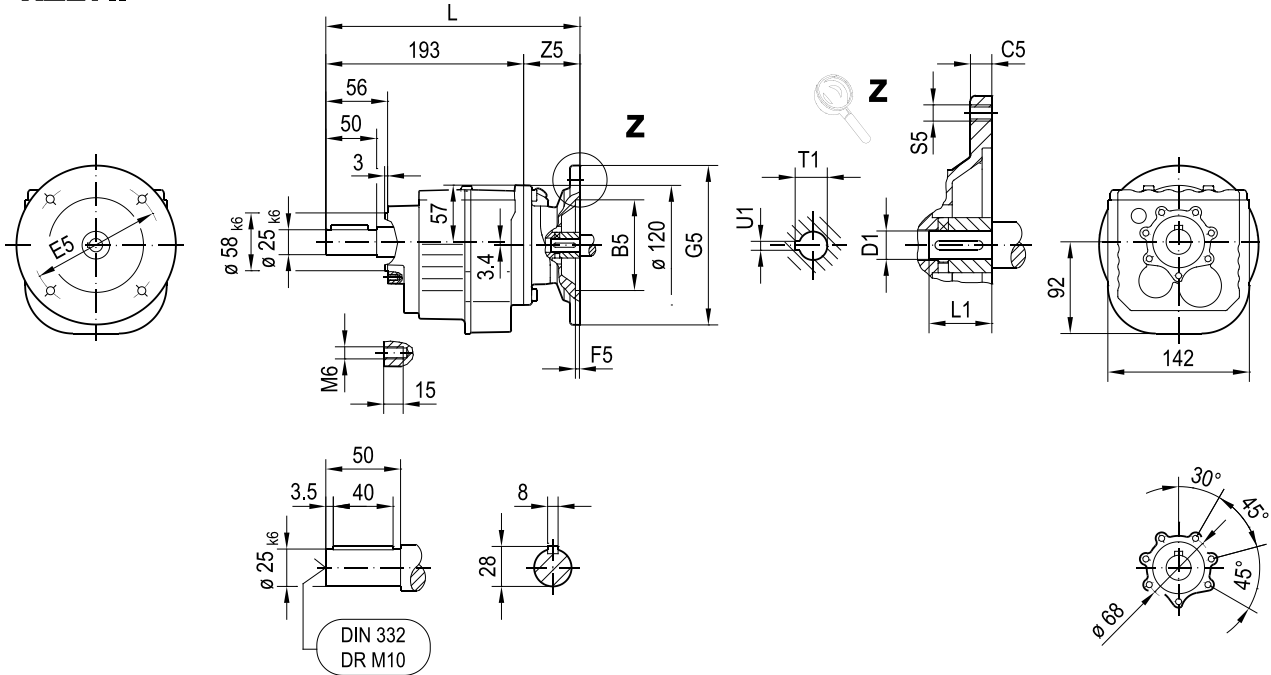
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| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 256 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 256 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 273 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 286 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

01 071 01 21

RZ27..

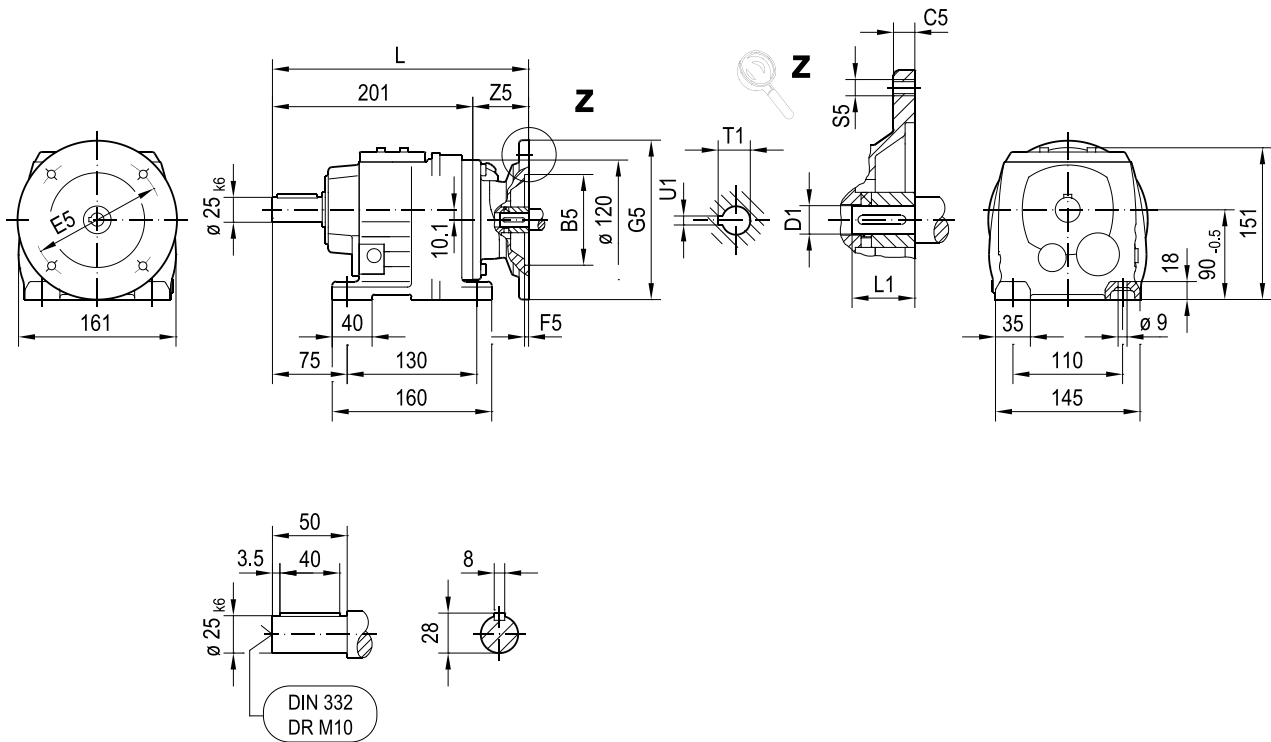


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|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 250 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 250 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 267 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 280 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

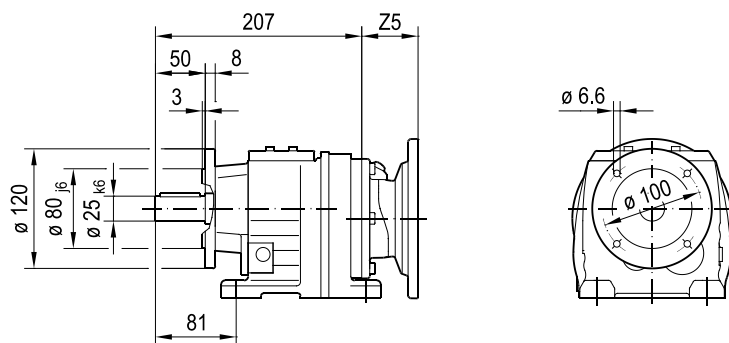
26878585/EN – 11/2021

R37..

01 165 00 20



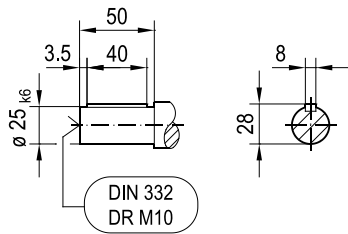
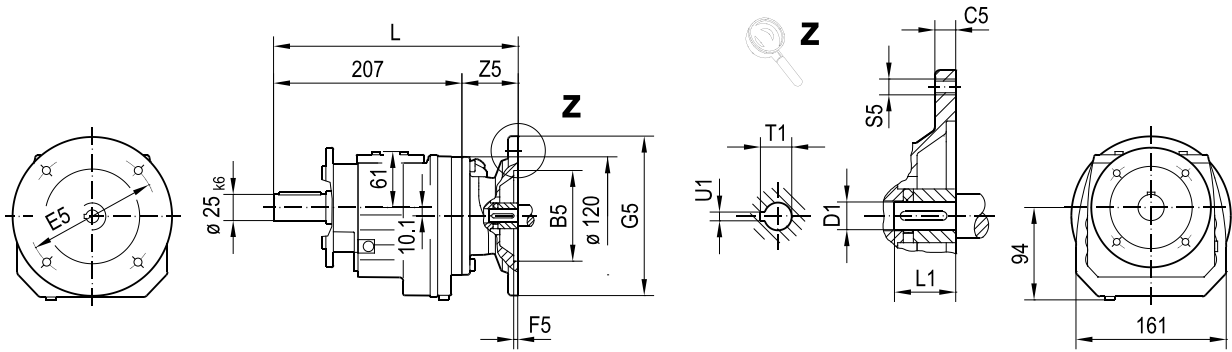
R37F..



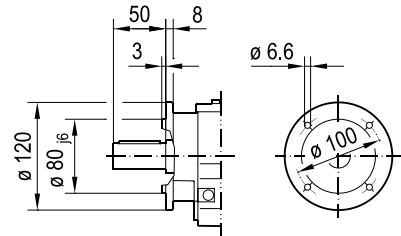
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|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 258 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 258 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 275 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 288 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

01 166 00 20

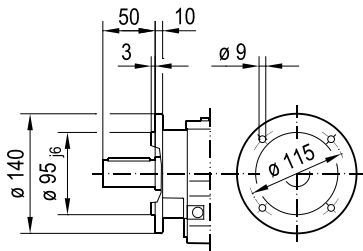
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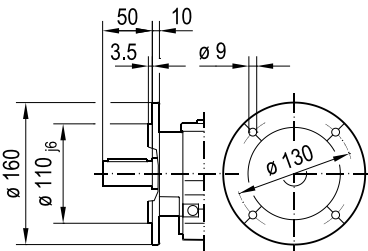
ø 120



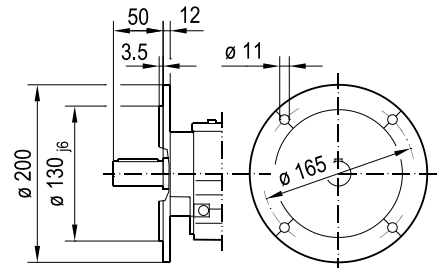
ø 140



ø 160



ø 200

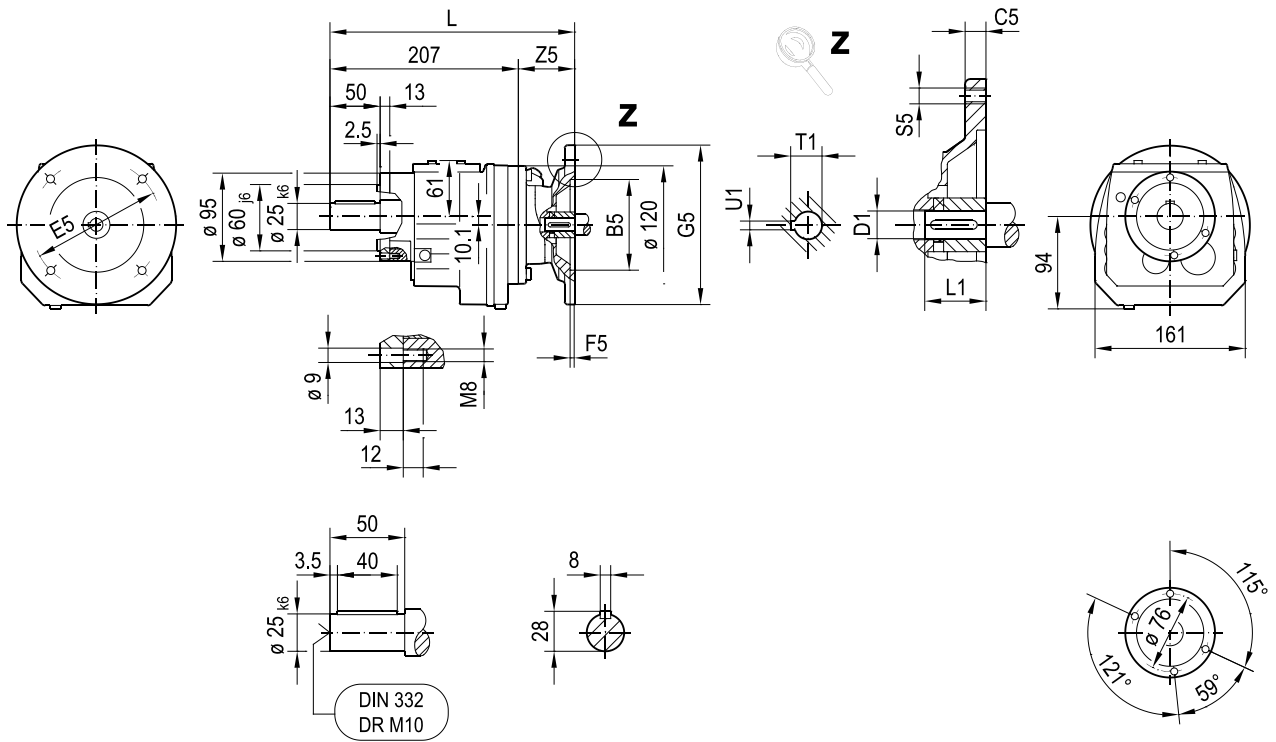


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|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
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| AMS71 | 110 | 10 | 130 | 4 | 160 | 264 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 281 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
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01 167 00 20

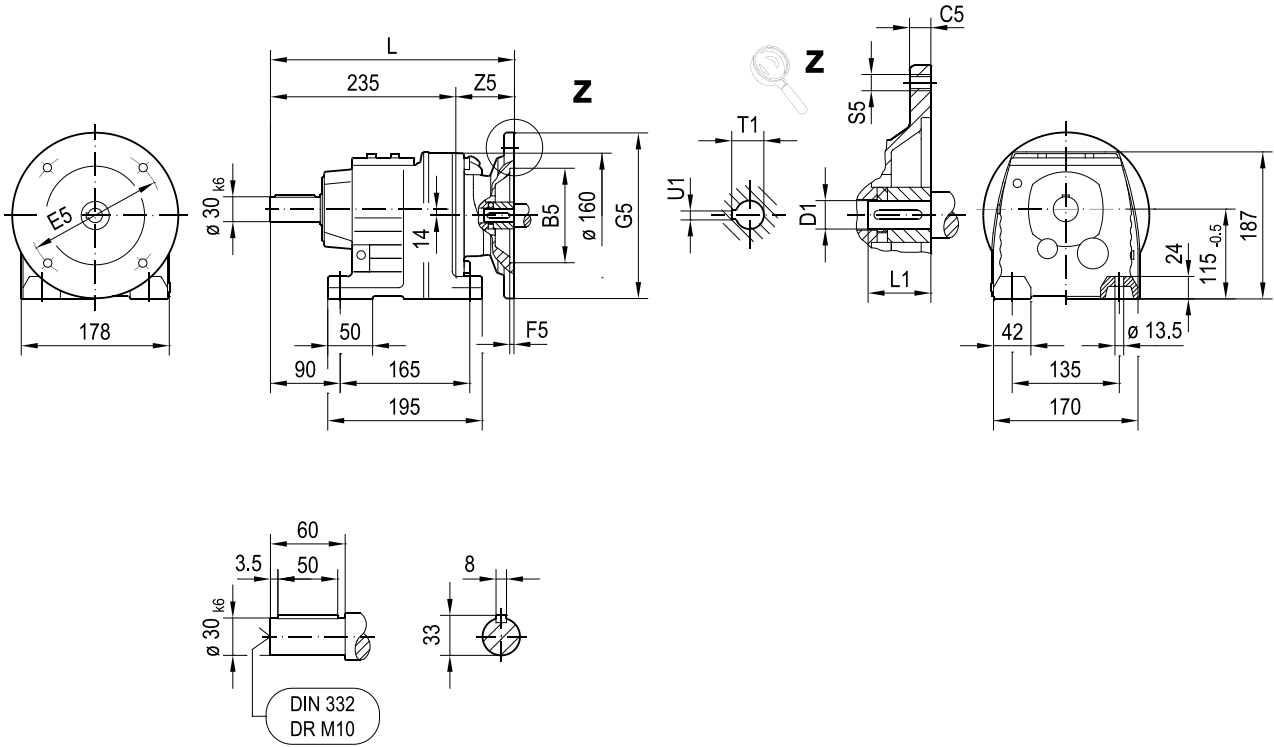
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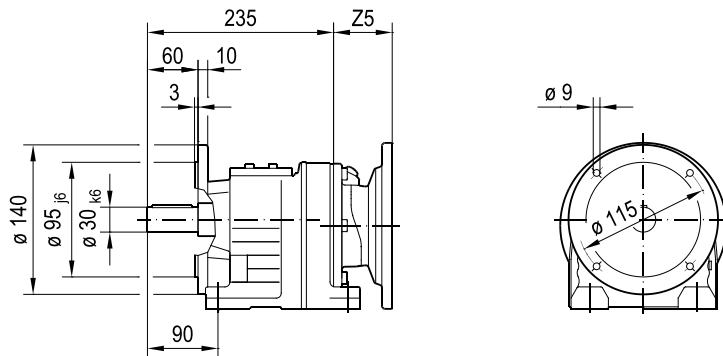
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|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 264 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 264 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 281 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 294 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

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R47..



R47F..

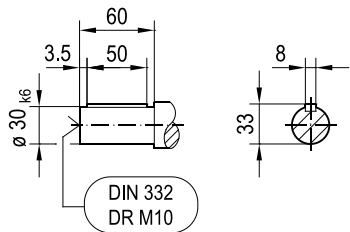
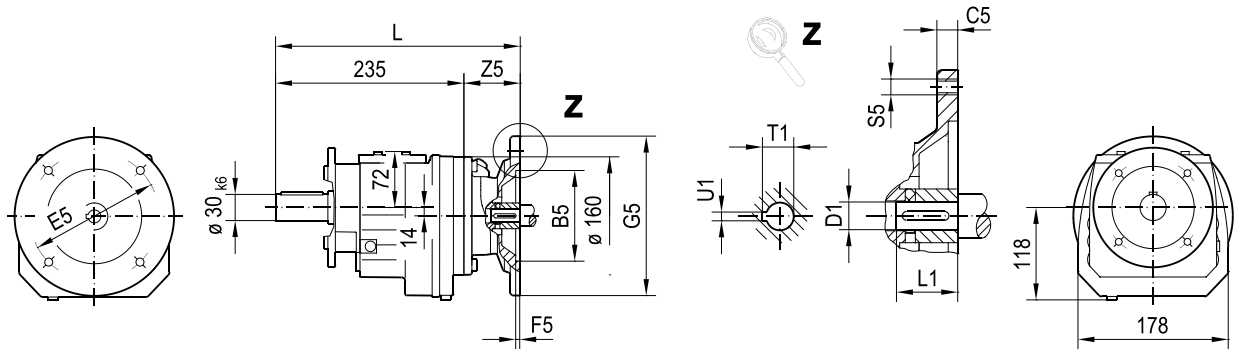


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 285 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 285 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 302 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 315 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 344 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 344 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 369 | M12 | 134 | 38 | 80 | 41.3 | 10 |

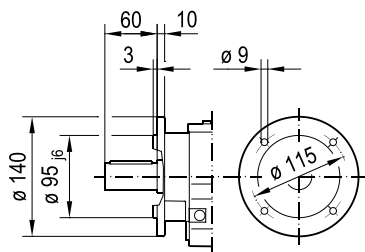
26878585/EN – 11/2021

01 169 00 20

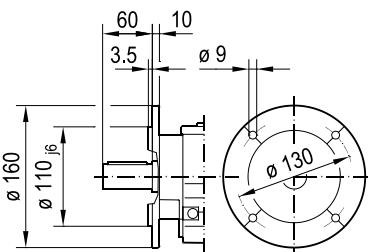
RF47..



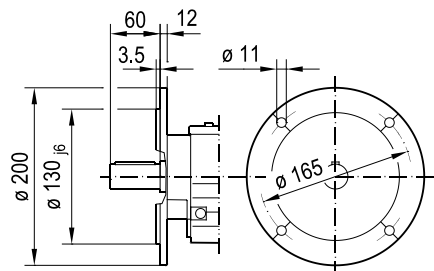
ø 140



ø 160



ø 200

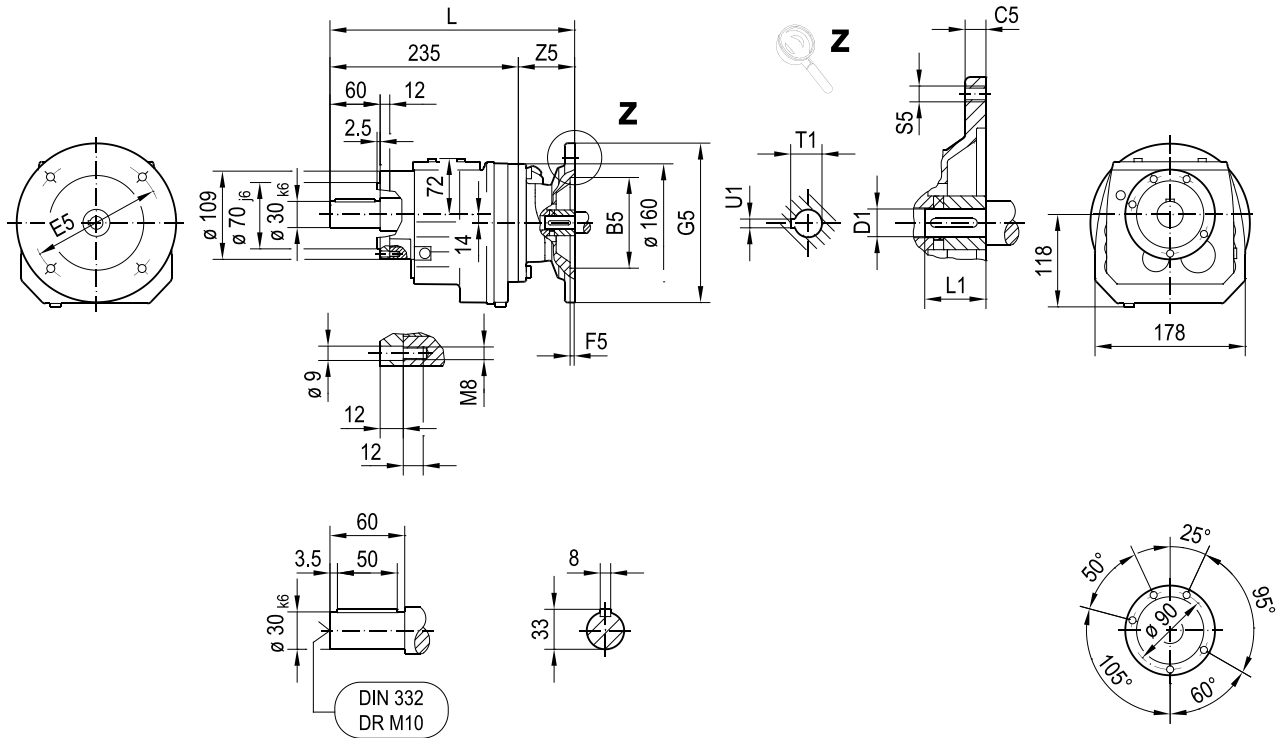


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 285 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 285 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 302 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 315 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 344 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 344 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 369 | M12 | 134 | 38 | 80 | 41.3 | 10 |

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01 170 00 20

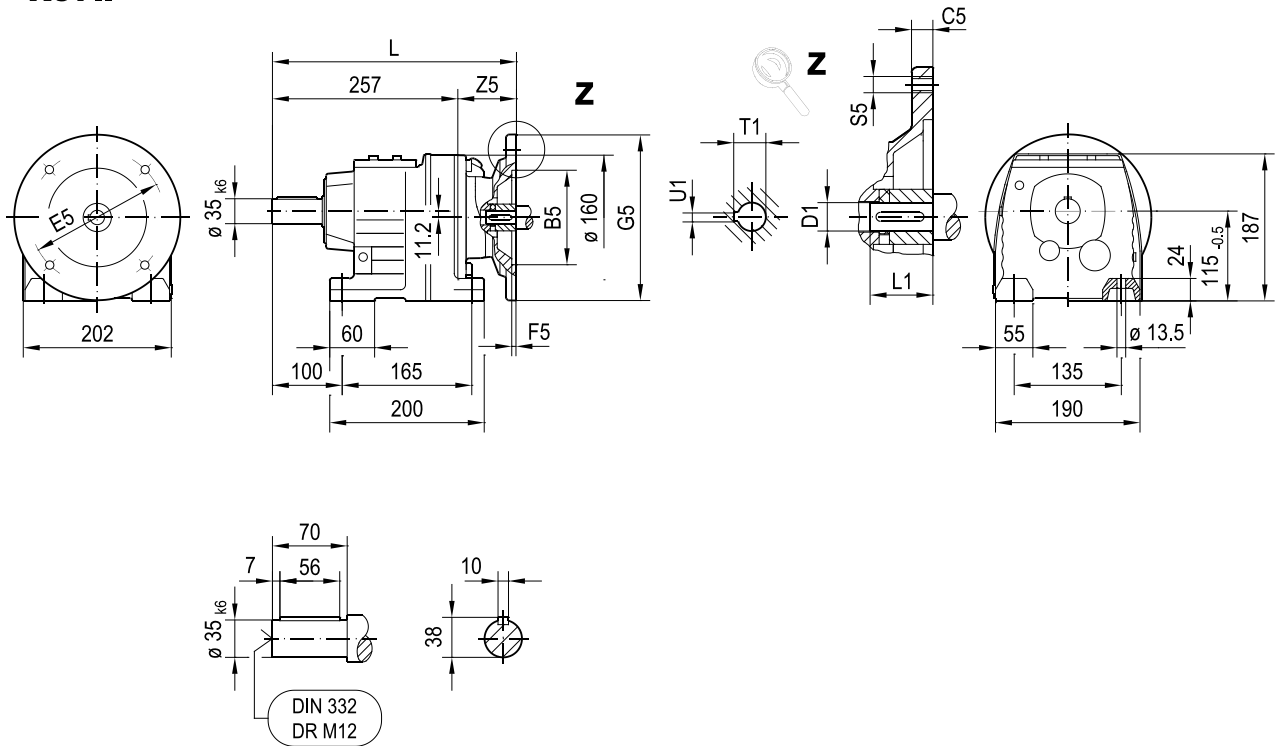
RZ47..



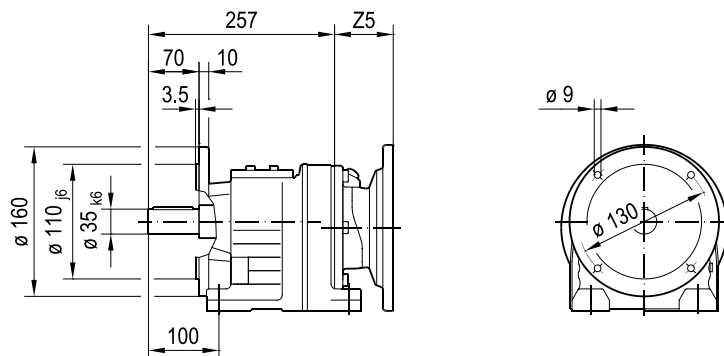
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|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 285 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 285 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 302 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 315 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 344 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 344 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 369 | M12 | 134 | 38 | 80 | 41.3 | 10 |

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R57..



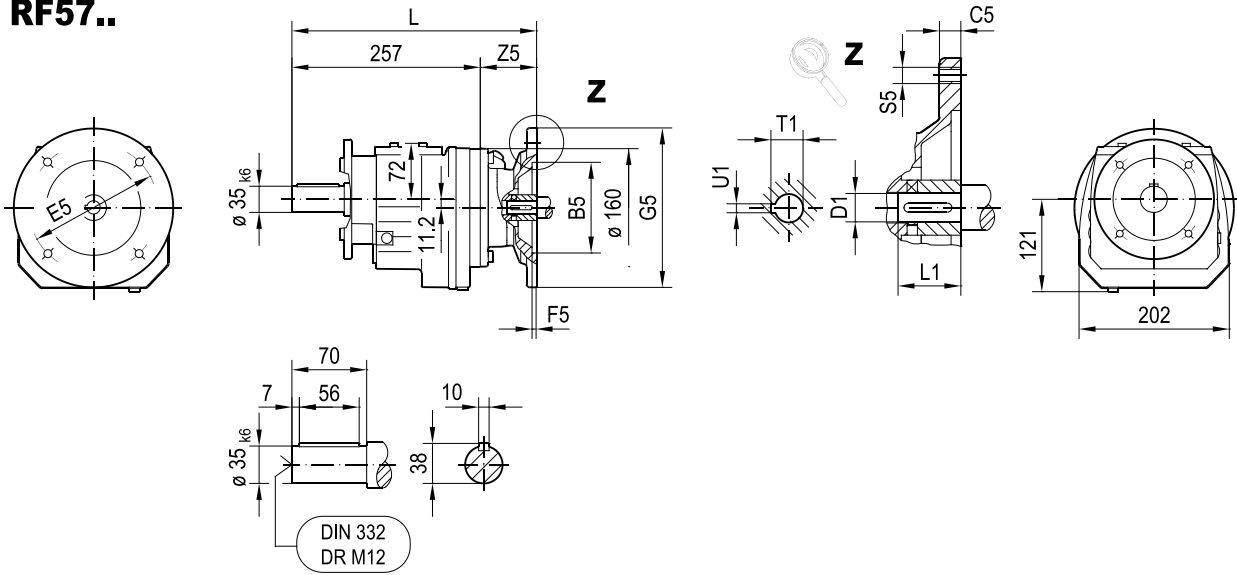
R57F..



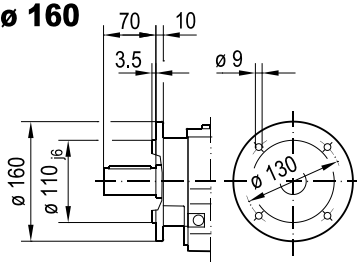
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|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 307 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 307 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 324 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 337 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 366 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 366 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 391 | M12 | 134 | 38 | 80 | 41.3 | 10 |

01 172 00 20

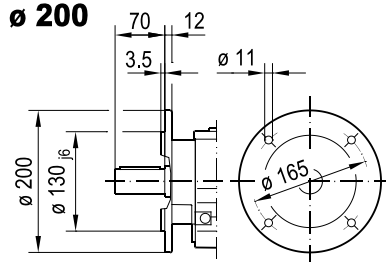
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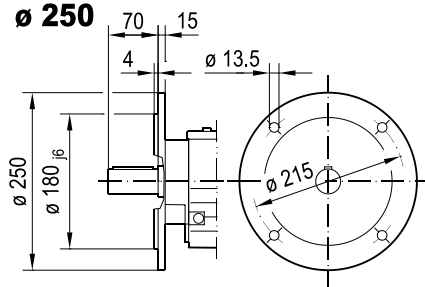
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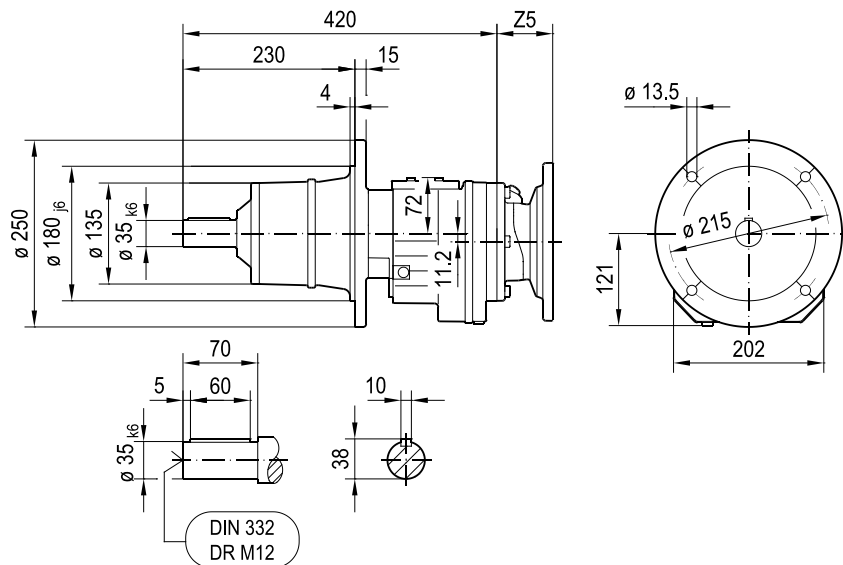
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ø 250



RM57..

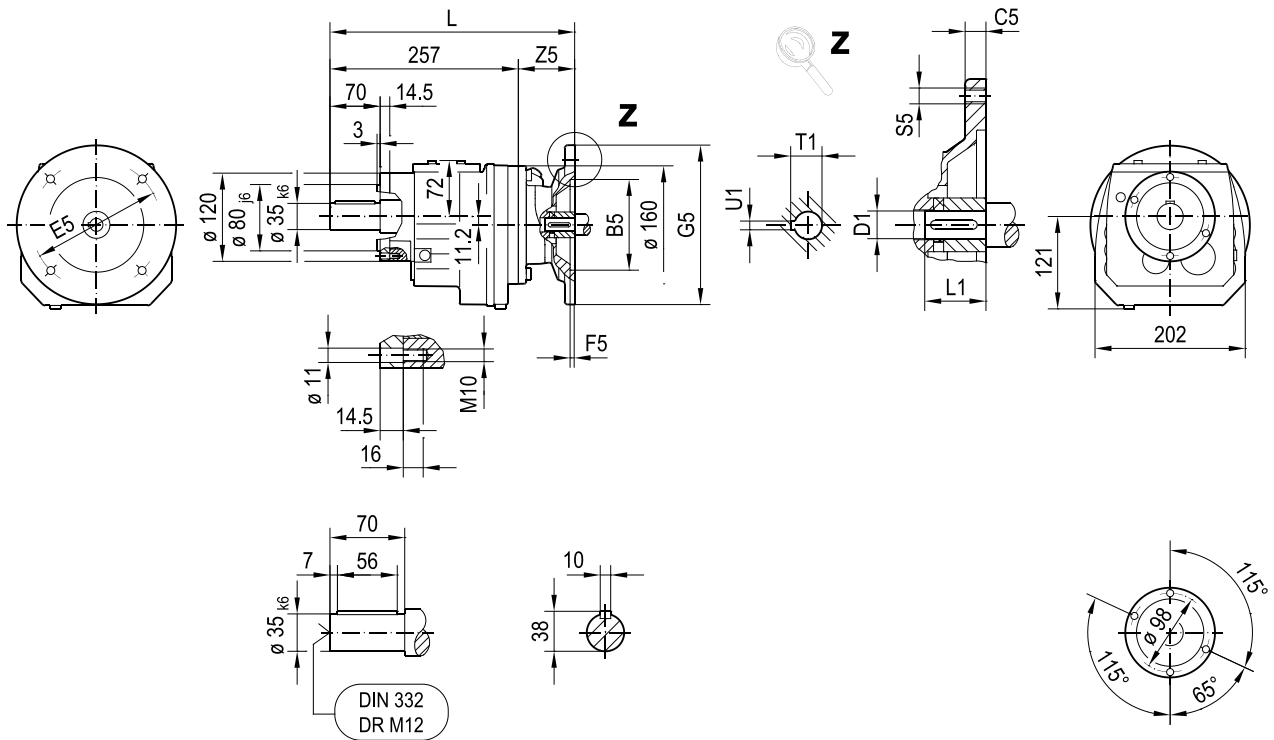


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 307 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 307 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 324 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 337 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 366 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 366 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 391 | M12 | 134 | 38 | 80 | 41.3 | 10 |

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01 173 00 20

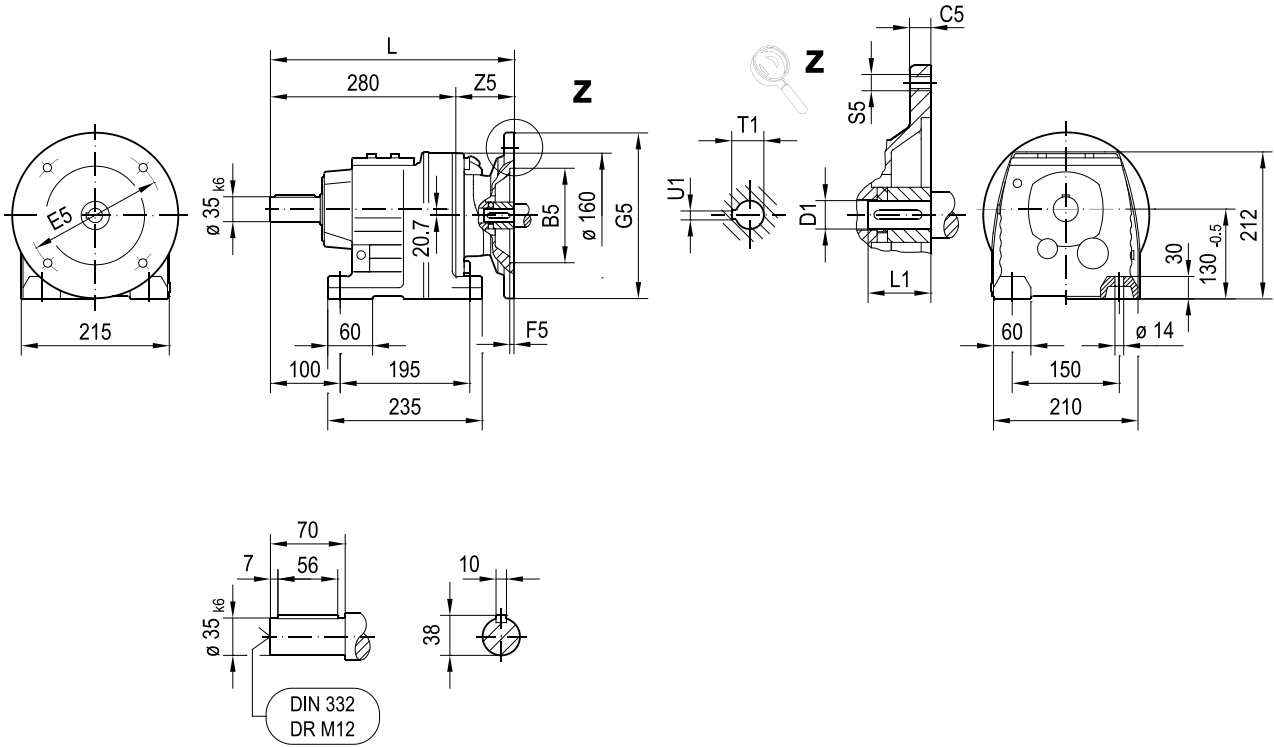
RZ57..



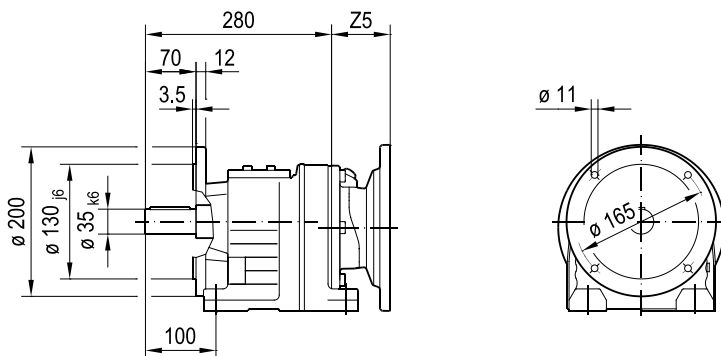
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 307 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 307 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 324 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 337 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 366 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 366 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 391 | M12 | 134 | 38 | 80 | 41.3 | 10 |

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R67..



R67F..

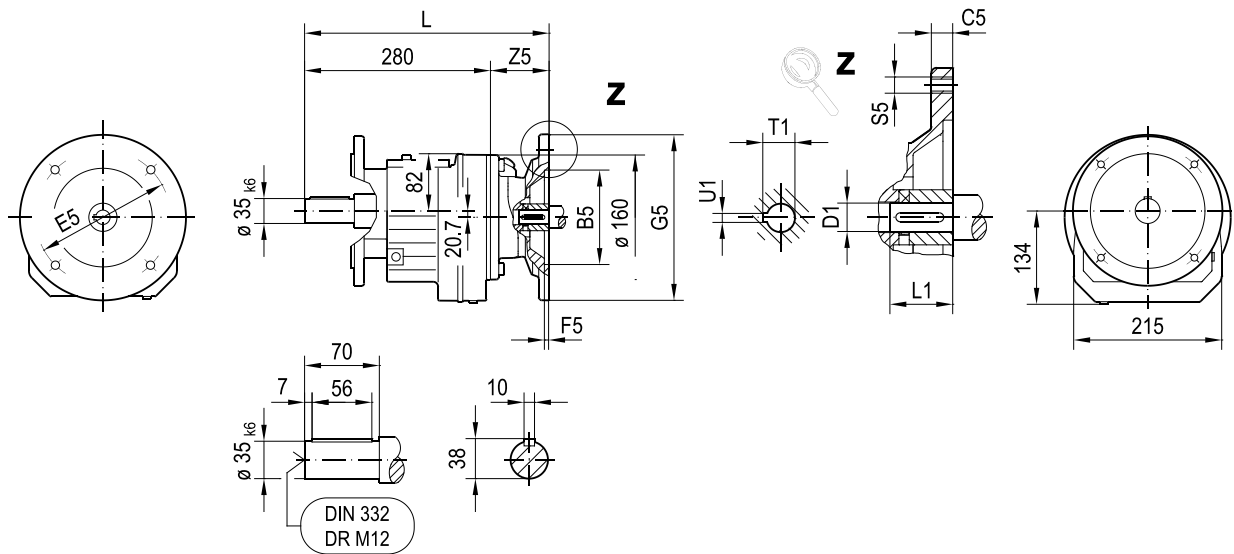


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 330 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 330 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 347 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 360 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 389 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 389 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 414 | M12 | 134 | 38 | 80 | 41.3 | 10 |

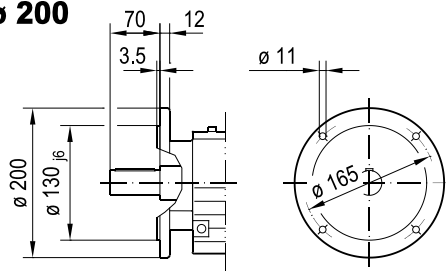
26878585/EN – 11/2021

01 175 00 20

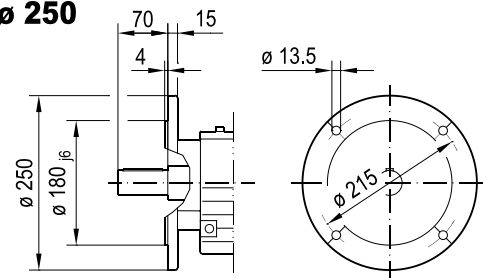
RF67..



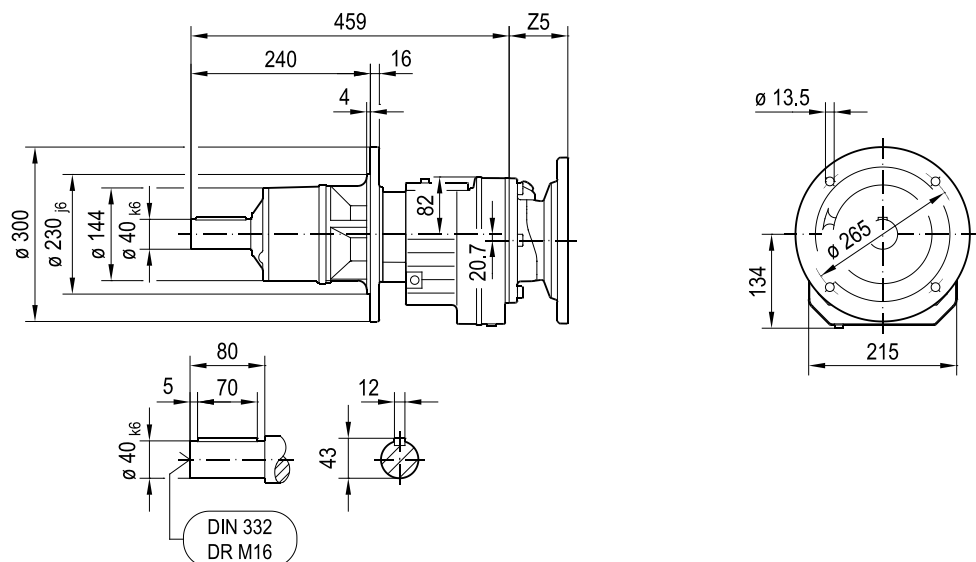
ø 200



ø 250



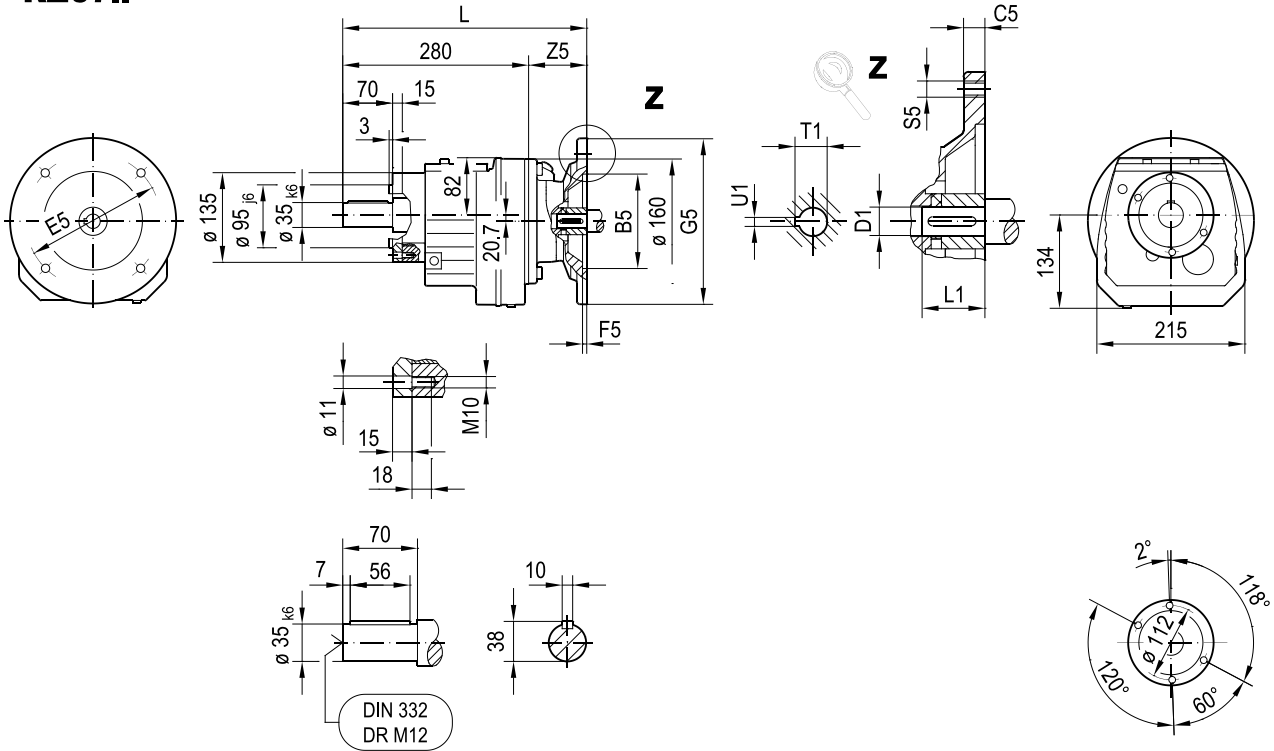
RM67..



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 330 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 330 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 347 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 360 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 389 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 389 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 414 | M12 | 134 | 38 | 80 | 41.3 | 10 |

01 176 00 20

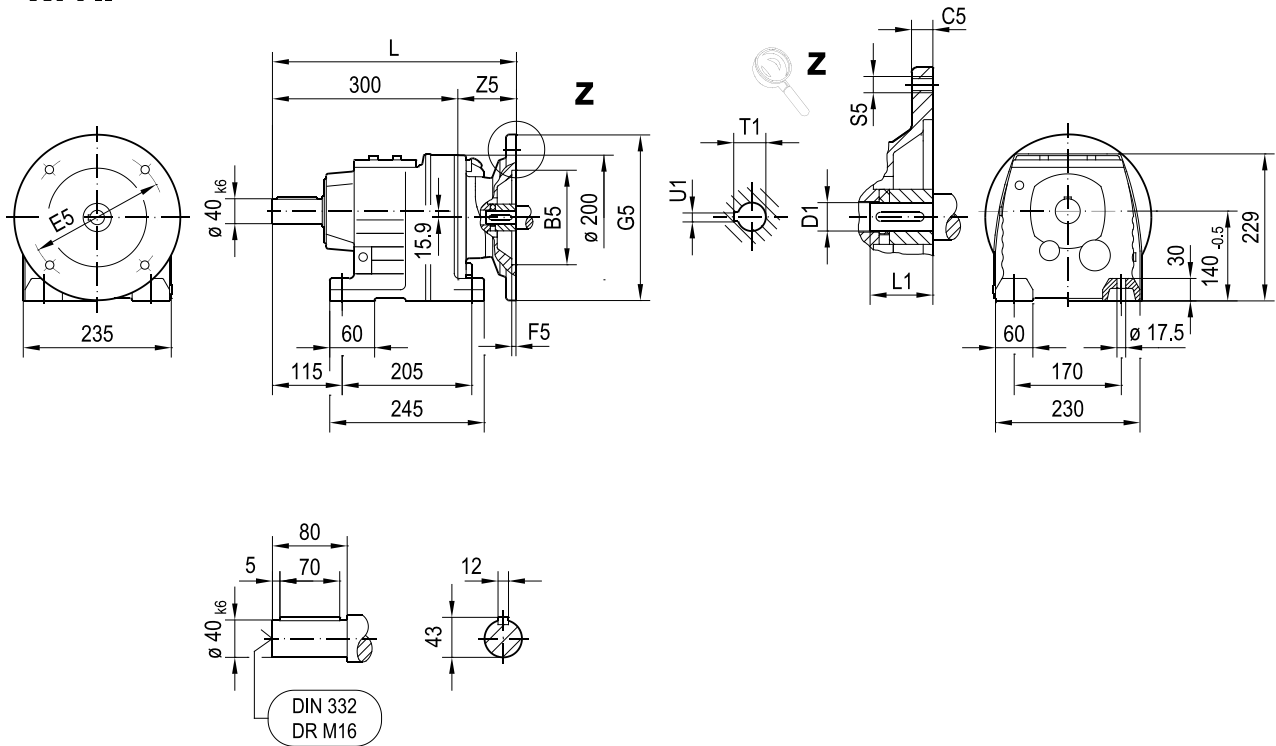
RZ67..



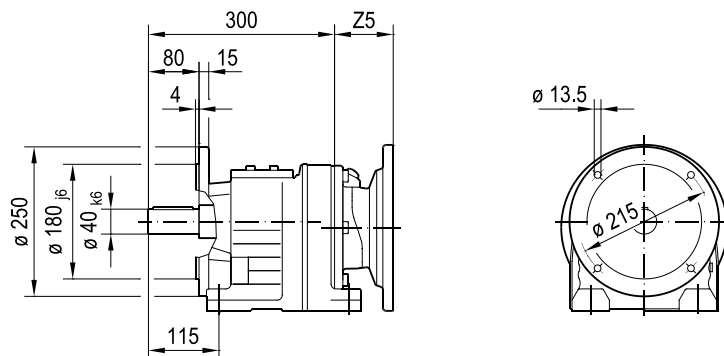
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 330 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 330 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 347 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 360 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 389 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 389 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 414 | M12 | 134 | 38 | 80 | 41.3 | 10 |

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R77..



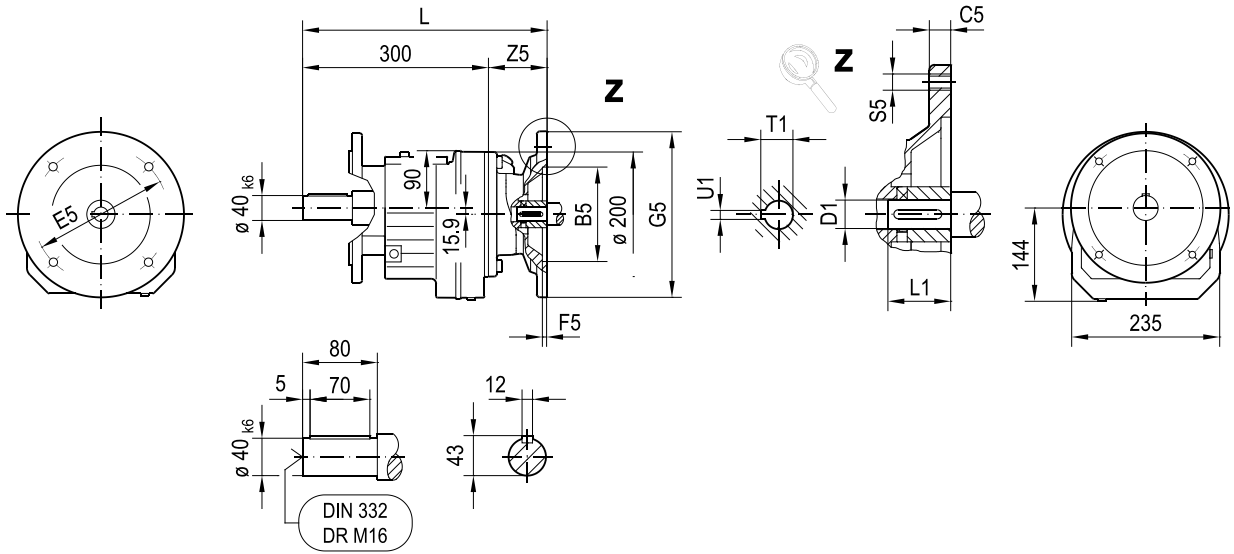
R77F..



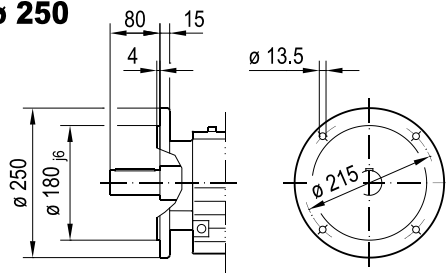
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 344 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 344 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 360 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 373 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 401 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 401 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 426 | M12 | 126 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 426 | M12 | 126 | 38 | 80 | 41.3 | 10 |

01 178 00 20

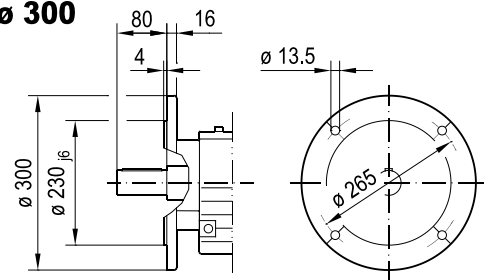
RF77..



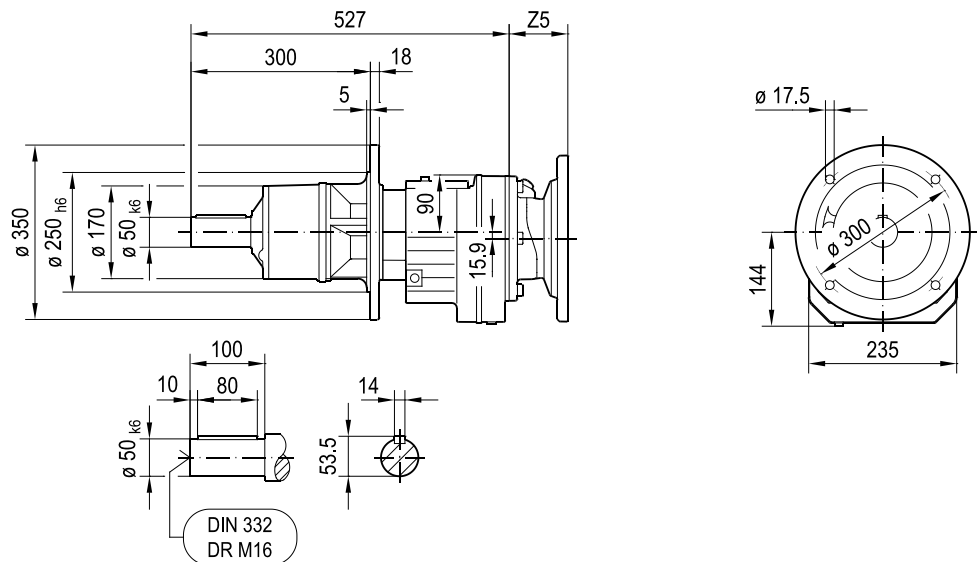
ø 250



ø 300



RM77..

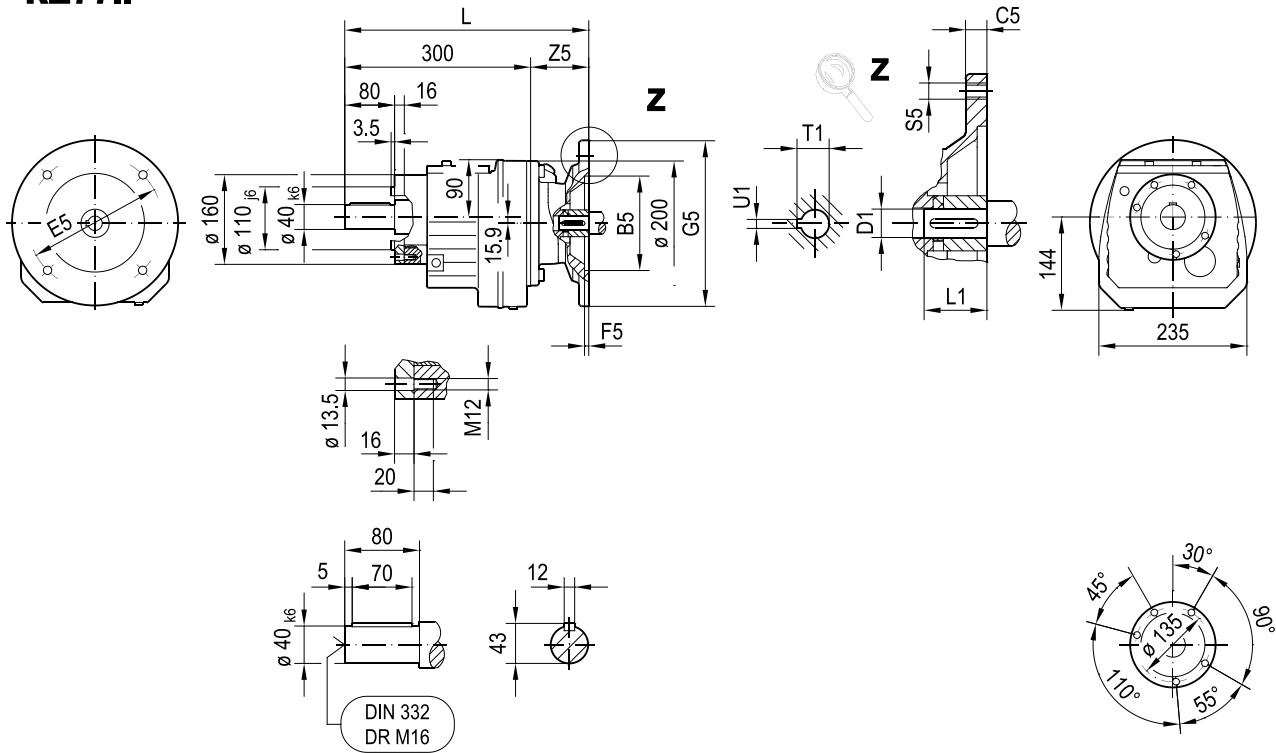


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 344 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 344 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 360 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 373 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 401 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 401 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 426 | M12 | 126 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 426 | M12 | 126 | 38 | 80 | 41.3 | 10 |

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01 179 00 20

RZ77..

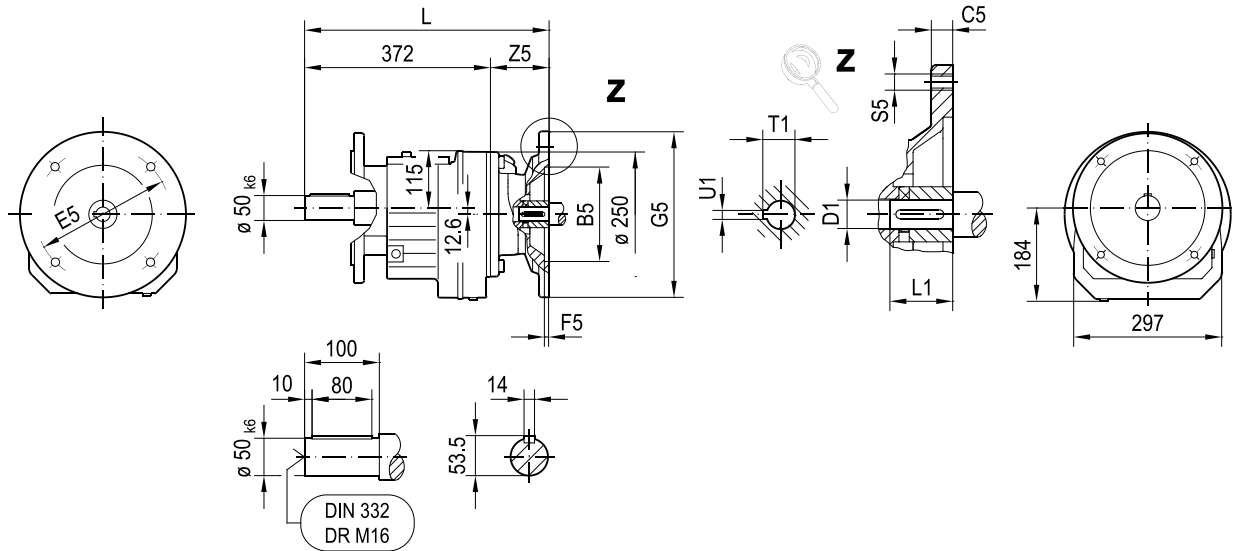


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 344 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 344 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 360 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 373 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 401 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 401 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 426 | M12 | 126 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 426 | M12 | 126 | 38 | 80 | 41.3 | 10 |

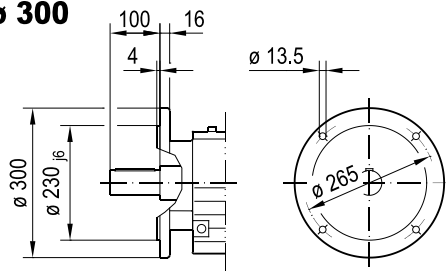
26878565/EN – 11/2021

01 181 00 20

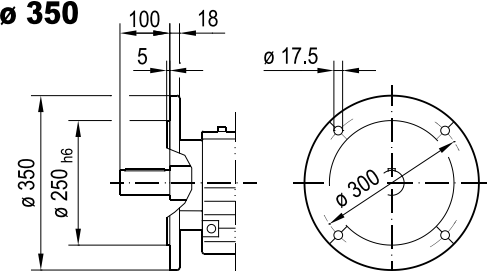
RF87..



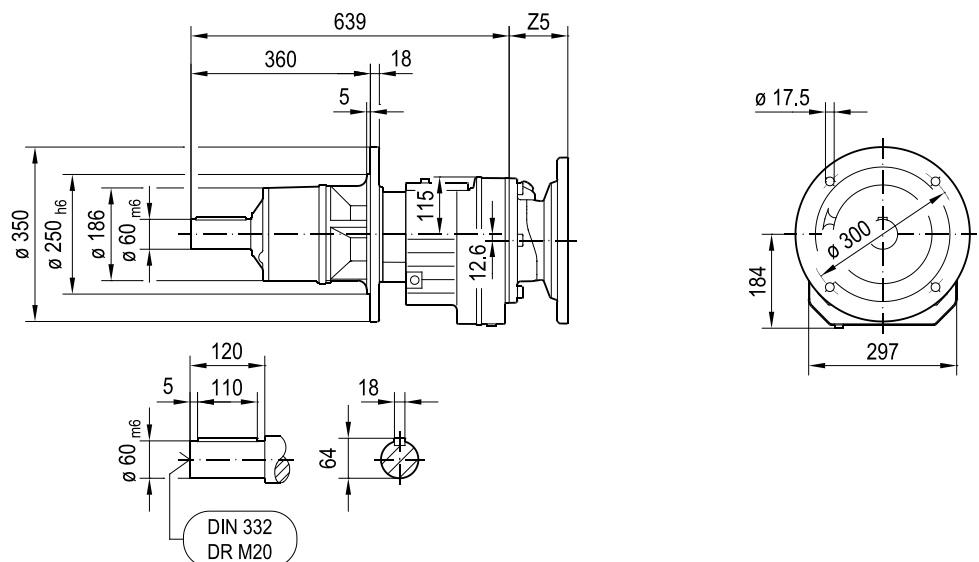
ø 300



ø 350



RM87..

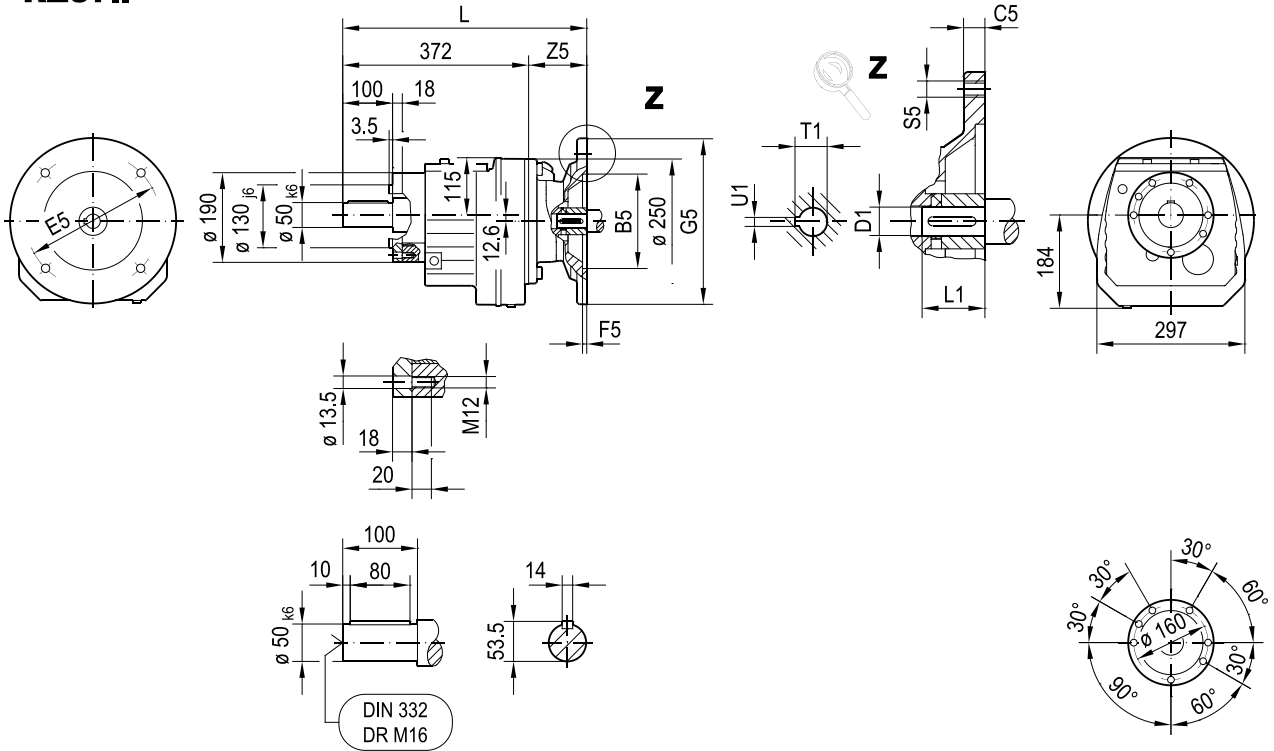


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|------|----|-----|------|----|
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 427 | M10 | 55 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 440 | M10 | 68 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 468 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 468 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 493 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 493 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 556 | M16 | 184 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 556 | M16 | 184 | 48 | 110 | 51.8 | 14 |

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01 182 00 20

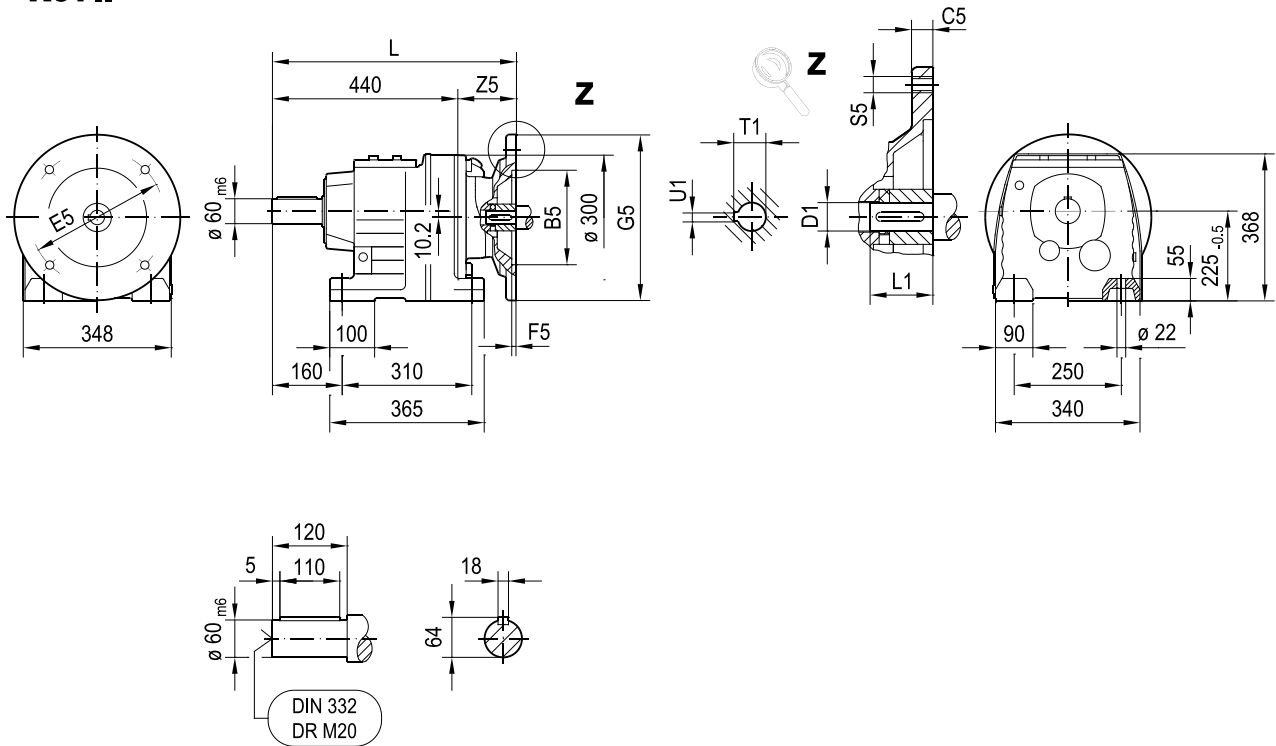
RZ87..



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|------|----|-----|------|----|
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 427 | M10 | 55 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 440 | M10 | 68 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 468 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 468 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 493 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 493 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 556 | M16 | 184 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 556 | M16 | 184 | 48 | 110 | 51.8 | 14 |

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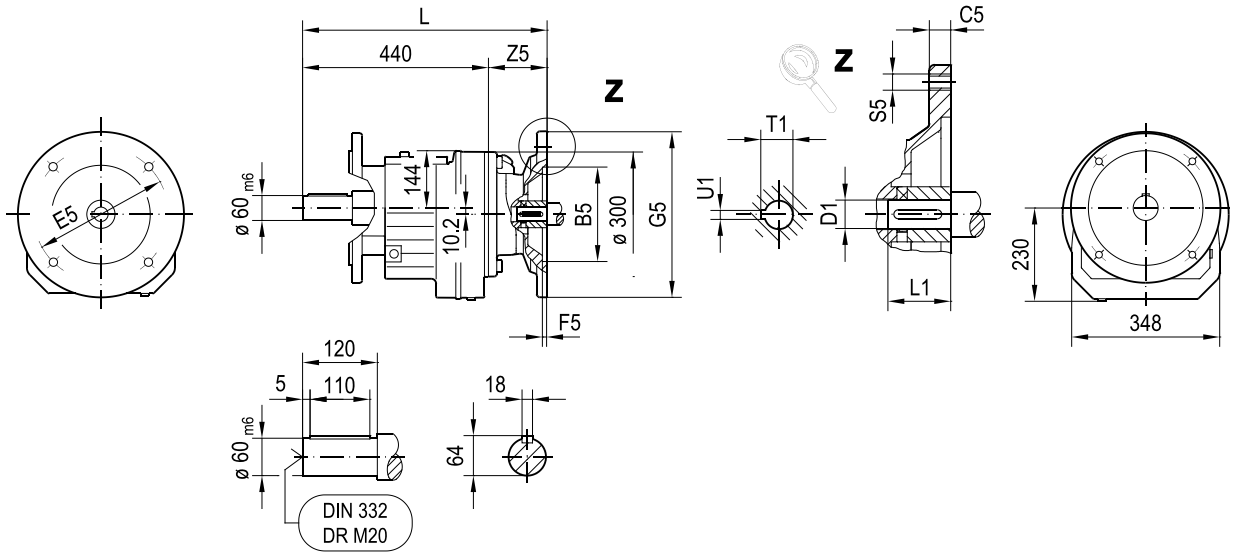
R97..



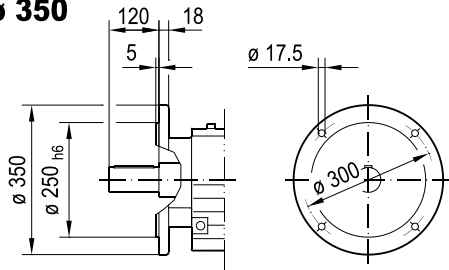
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 531 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 531 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 556 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 556 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 619 | M16 | 179 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 619 | M16 | 179 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 680 | M16 | 240 | 55 | 110 | 59.3 | 16 |

01 184 00 20

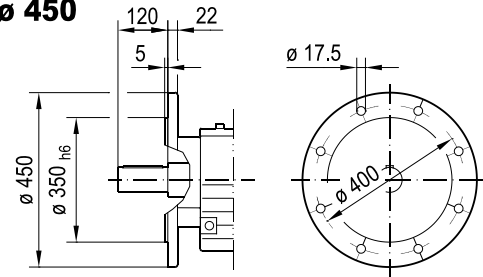
RF97..



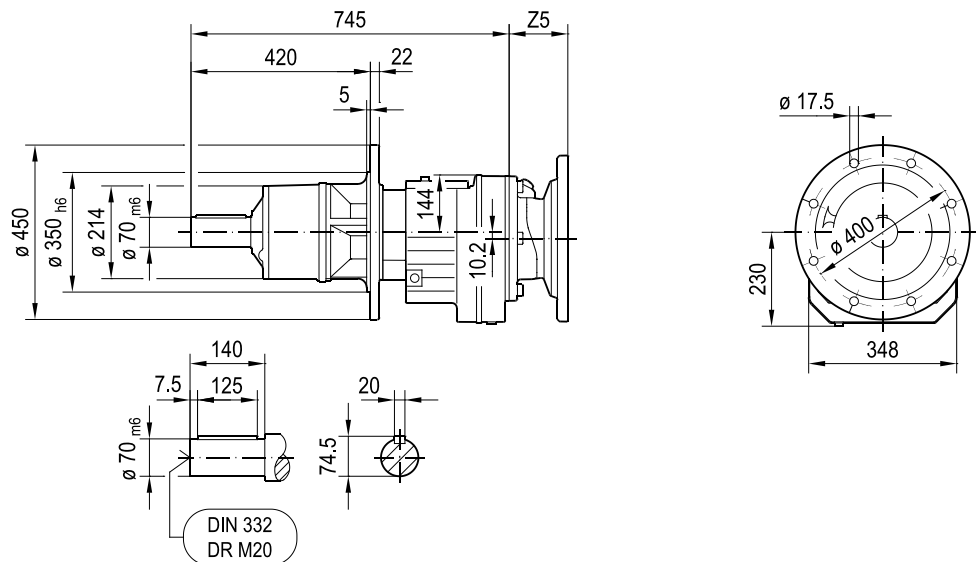
ø 350



ø 450



RM97..

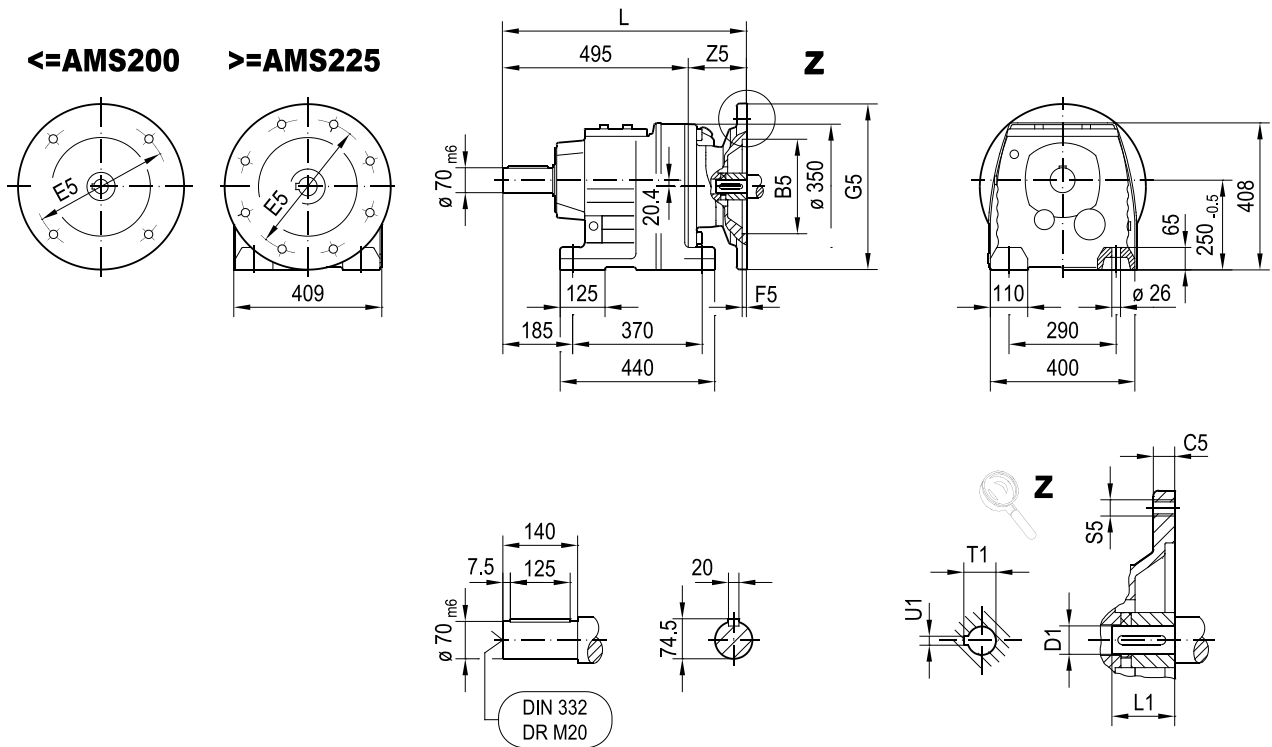


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 531 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 531 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 556 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 556 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 619 | M16 | 179 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 619 | M16 | 179 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 680 | M16 | 240 | 55 | 110 | 59.3 | 16 |

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R107..

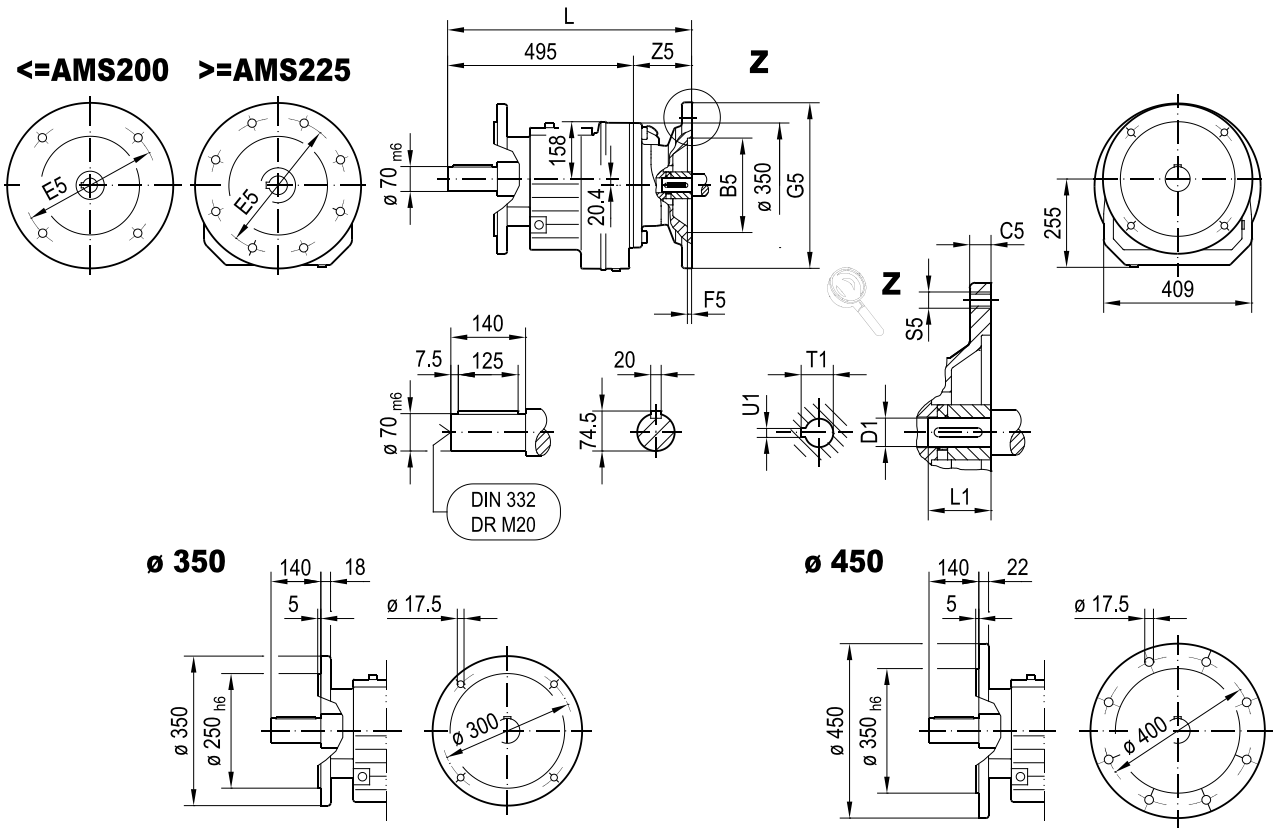


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 580 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 580 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 605 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 605 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 668 | M16 | 173 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 668 | M16 | 173 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 729 | M16 | 234 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 744 | M16 | 249 | 60 | 140 | 64.4 | 18 |

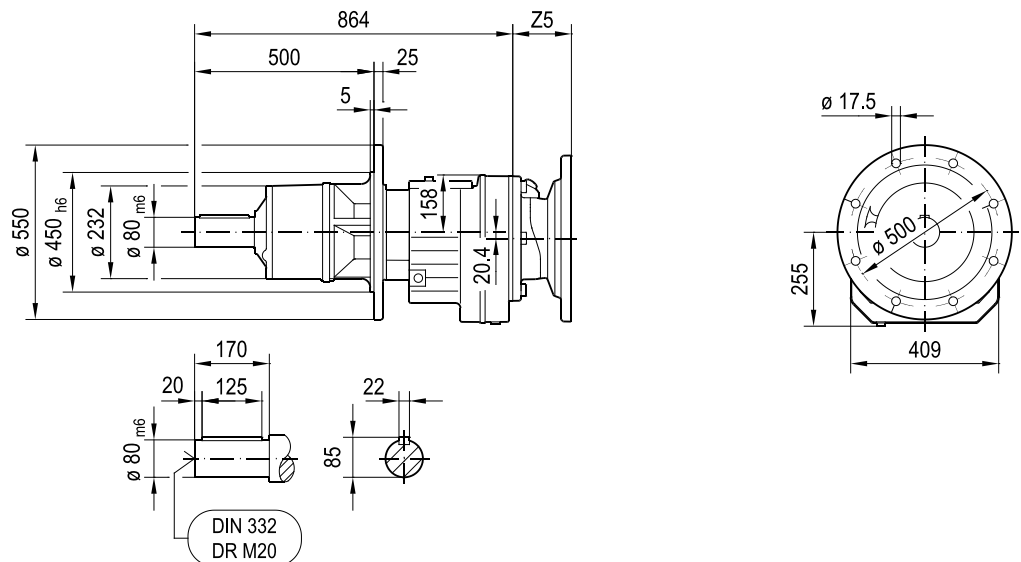
26878565/EN – 11/2021

01 186 00 20

RF107..



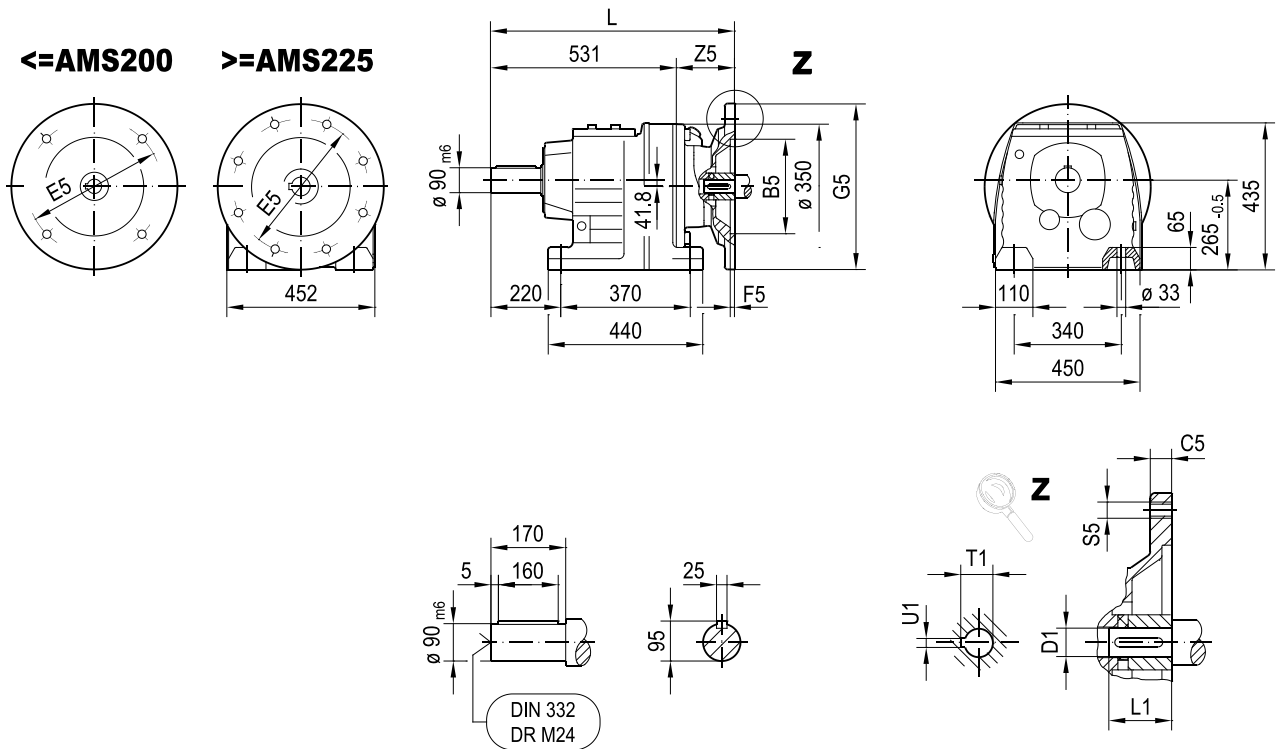
RM107..



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 580 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 580 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 605 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 605 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 668 | M16 | 173 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 668 | M16 | 173 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 729 | M16 | 234 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 744 | M16 | 249 | 60 | 140 | 64.4 | 18 |

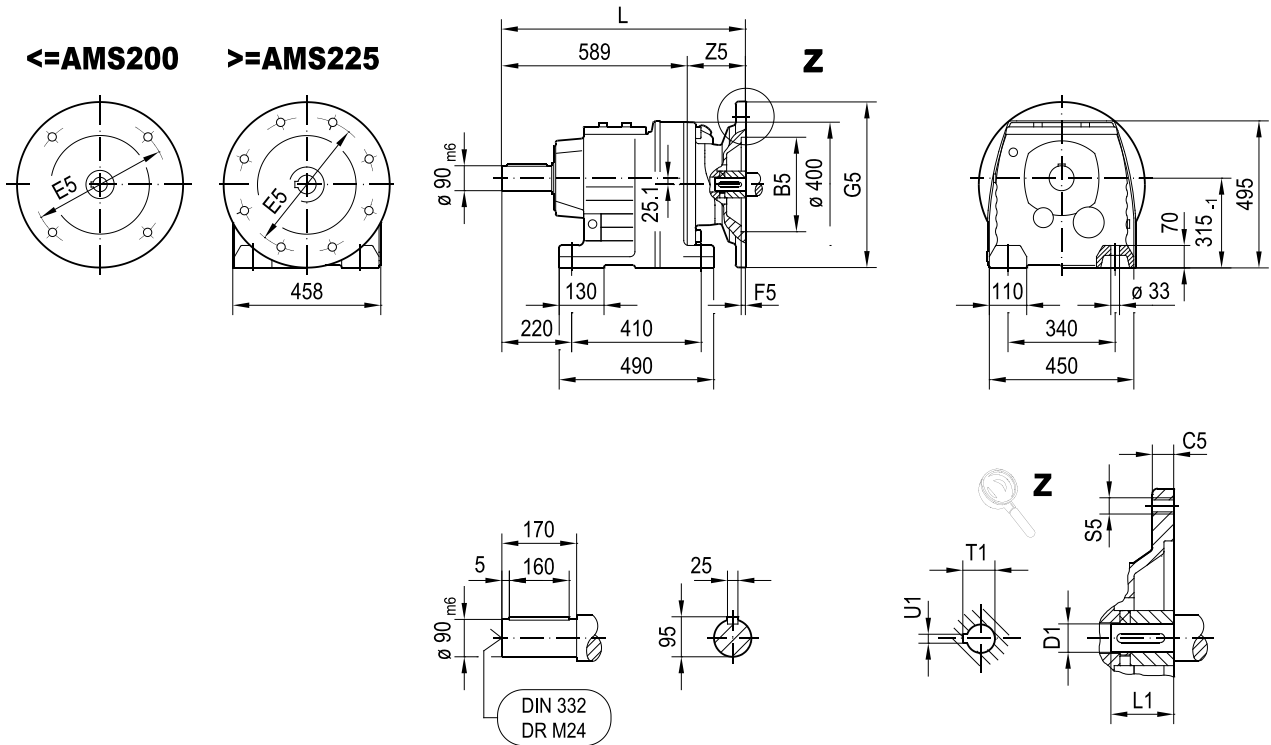
26878585/EN – 11/2021

R127..



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 616 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 616 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 641 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 641 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 704 | M16 | 173 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 704 | M16 | 173 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 765 | M16 | 234 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 780 | M16 | 249 | 60 | 140 | 64.4 | 18 |

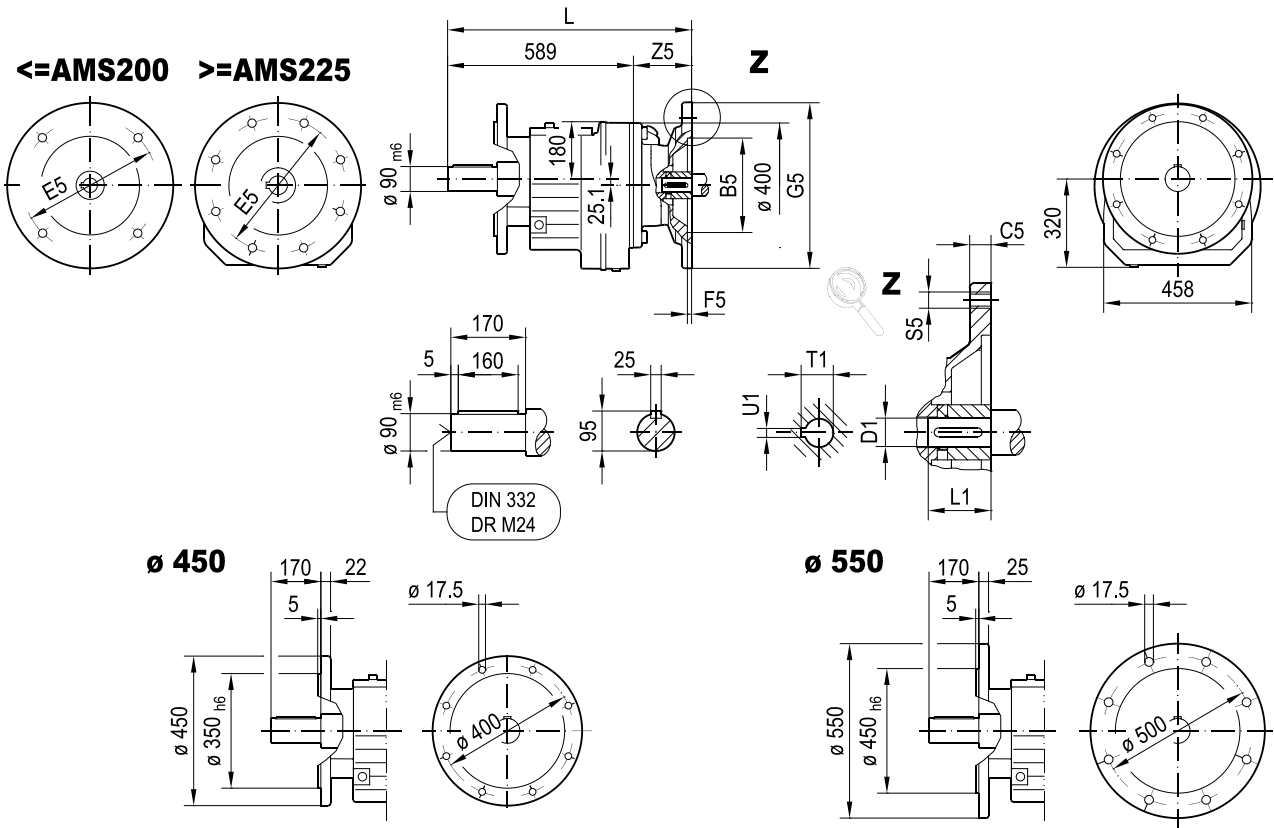
R137..



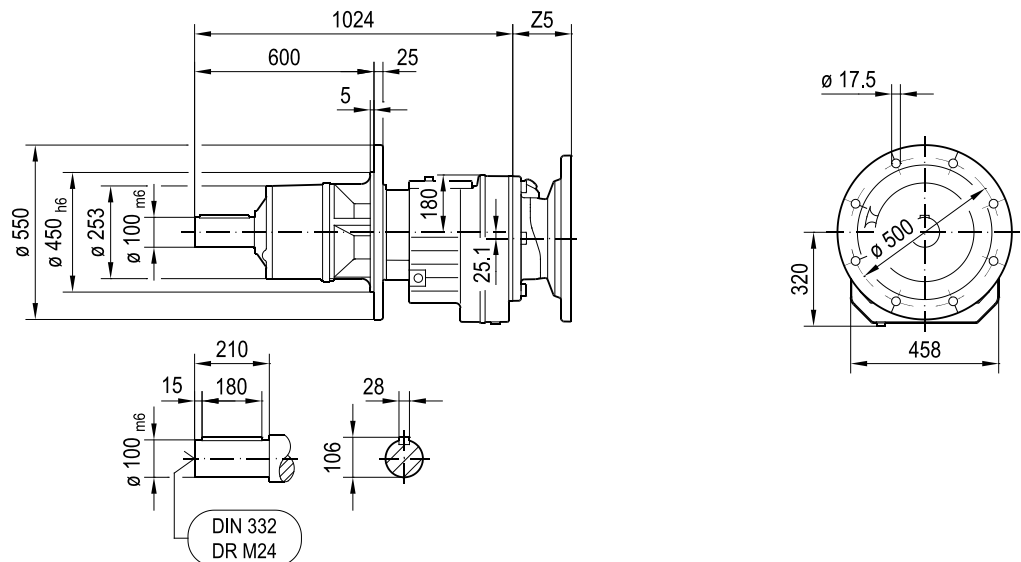
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|-----|----|-----|------|----|
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 692 | M12 | 103 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 692 | M12 | 103 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 755 | M16 | 166 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 755 | M16 | 166 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 816 | M16 | 227 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 831 | M16 | 242 | 60 | 140 | 64.4 | 18 |

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RF137..



RM137..



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|-----|----|-----|------|----|
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 692 | M12 | 103 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 692 | M12 | 103 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 755 | M16 | 166 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 755 | M16 | 166 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 816 | M16 | 227 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 831 | M16 | 242 | 60 | 140 | 64.4 | 18 |

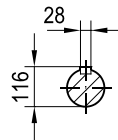
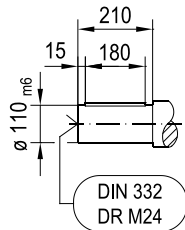
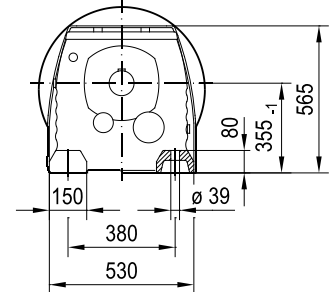
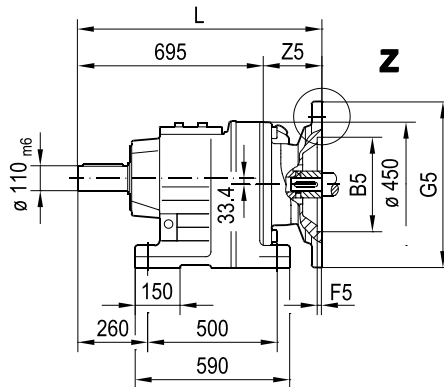
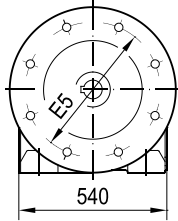
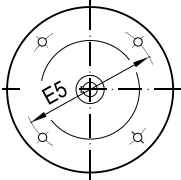
26878585/EN – 11/2021

01 191 00 20

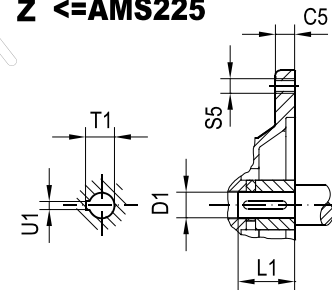
R147..

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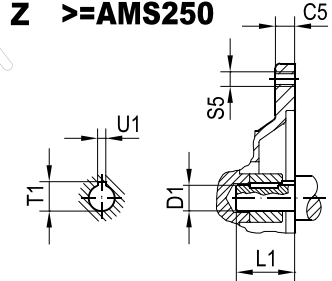
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Z <=AMS225



Z >=AMS250



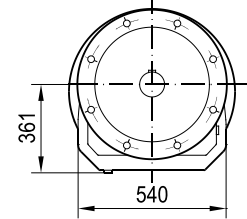
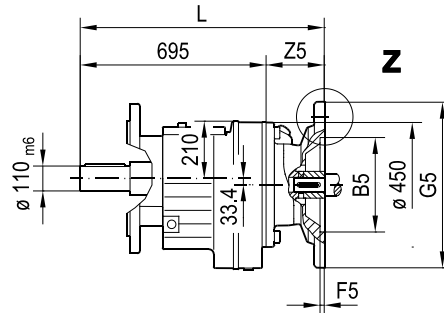
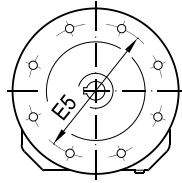
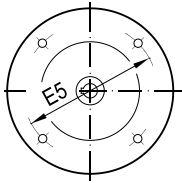
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|----------|-----|----|-----|----|-----|-----|-----|-------|----|-----|------|----|
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 790 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 853 | M16 | 158 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 853 | M16 | 158 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 914 | M16 | 219 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 929 | M16 | 234 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 993 | M16 | 297.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 993 | M16 | 297.5 | 75 | 140 | 79.9 | 20 |

01 192 00 20

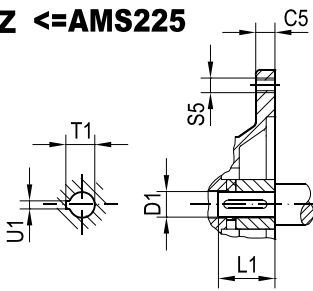
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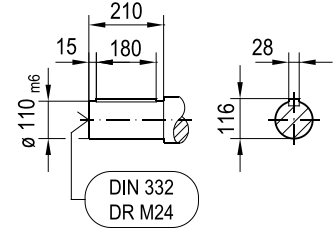
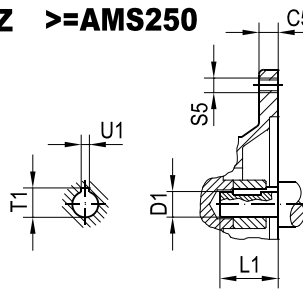
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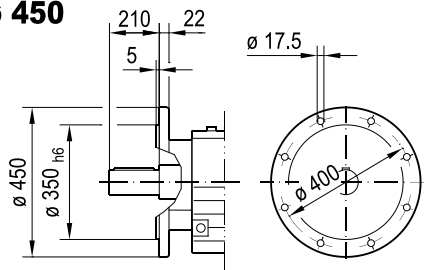
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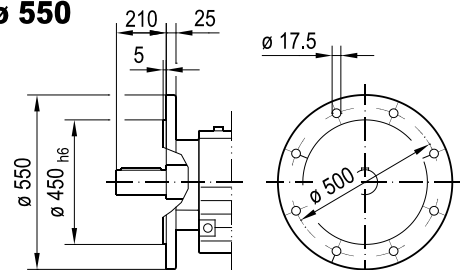
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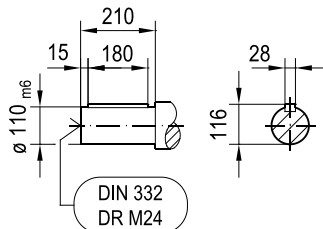
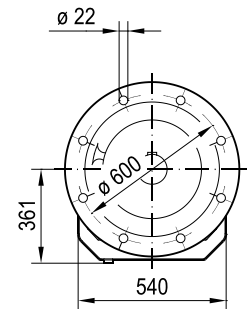
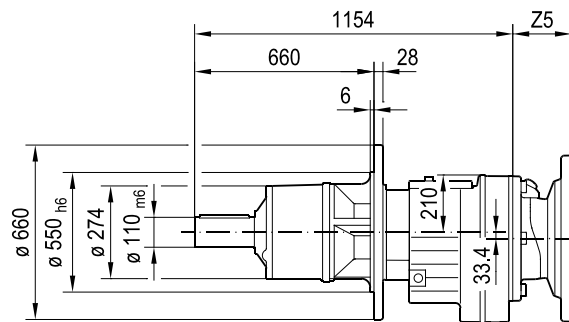
ø 450



ø 550



RM147..

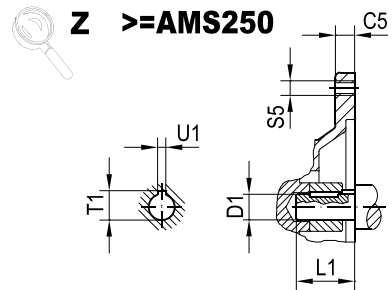
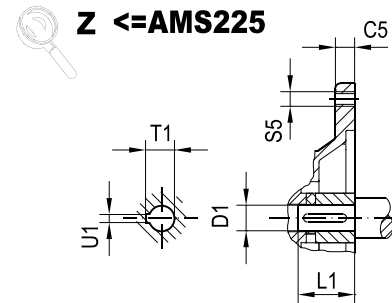
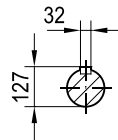
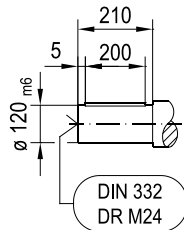
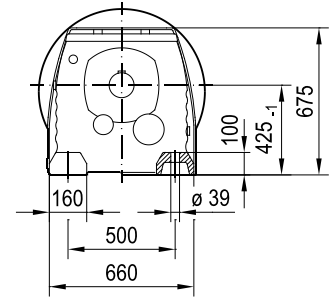
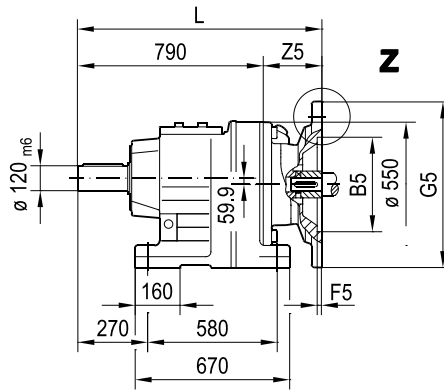
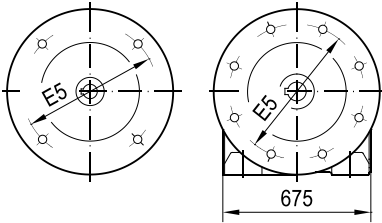


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|----------|-----|----|-----|----|-----|-----|-----|-------|----|-----|------|----|
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 790 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 853 | M16 | 158 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 853 | M16 | 158 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 914 | M16 | 219 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 929 | M16 | 234 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 993 | M16 | 297.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 993 | M16 | 297.5 | 75 | 140 | 79.9 | 20 |

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R167..

<=AMS200 >=AMS225



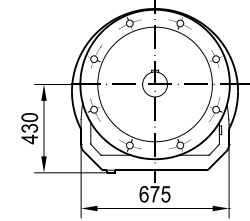
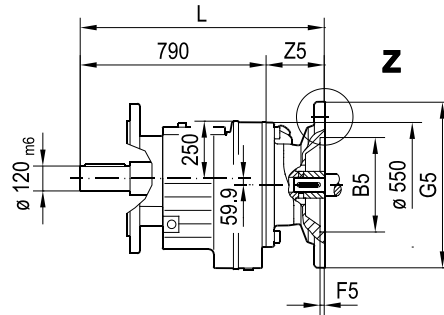
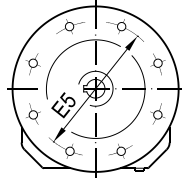
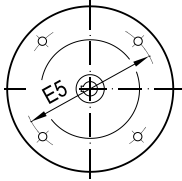
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|----|-----|------|-----|-------|----|-----|------|----|
| AMS160 | 250 | 18 | 300 | 6 | 350 | 940 | M16 | 150 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 940 | M16 | 150 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 1001 | M16 | 211 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 1016 | M16 | 226 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 1080 | M16 | 289.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 1080 | M16 | 289.5 | 75 | 140 | 79.9 | 20 |

01 194 00 20

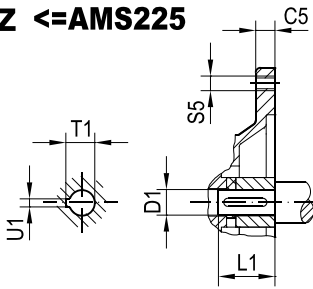
RF167..

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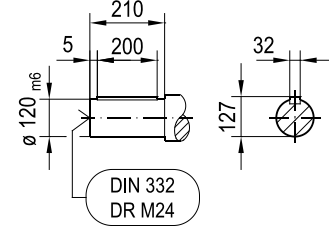
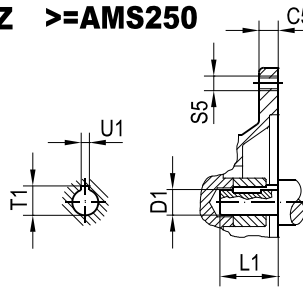
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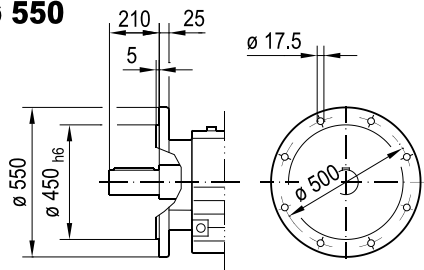
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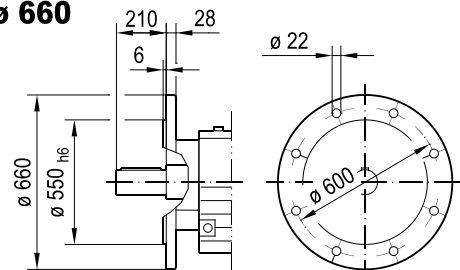
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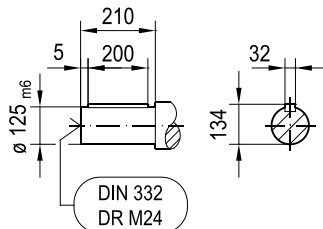
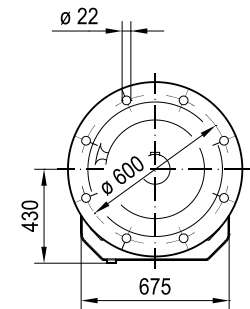
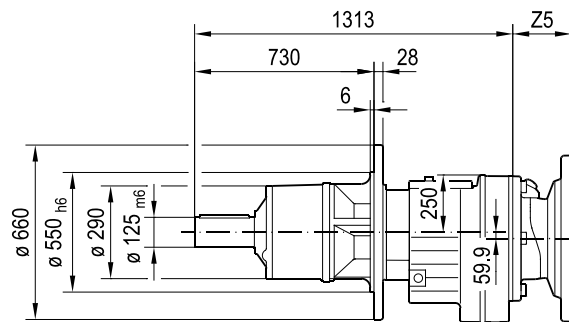
ø 550



ø 660



RM167..



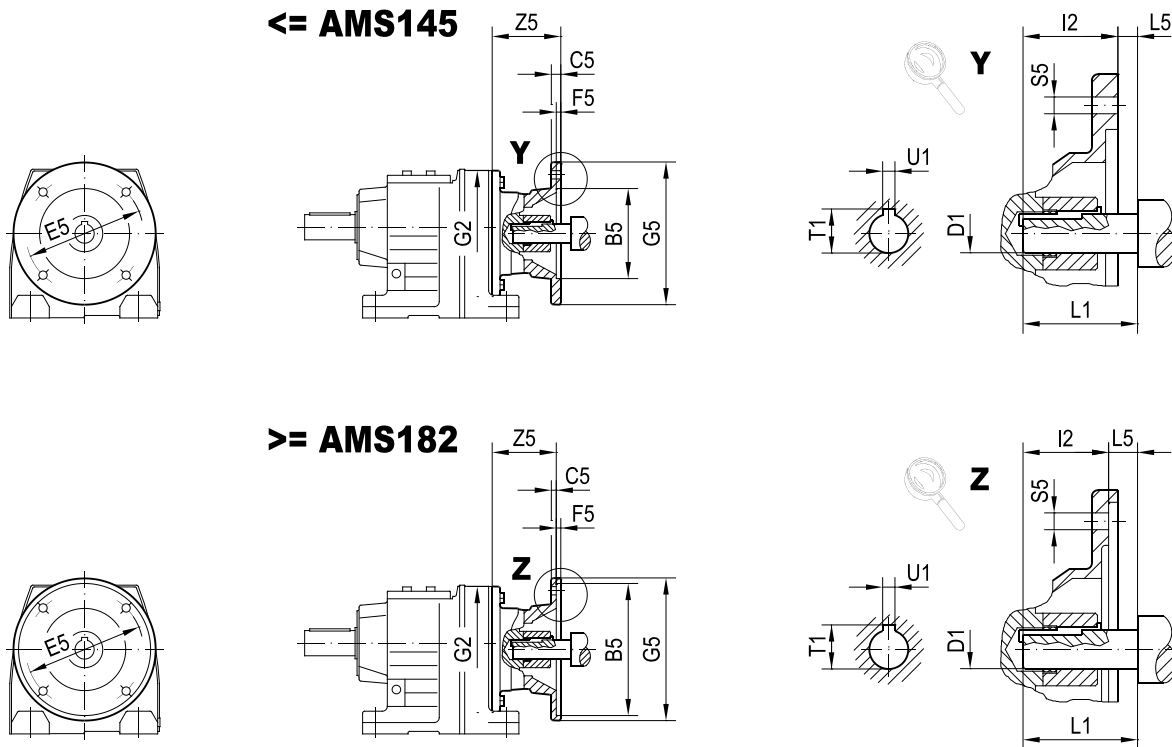
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|----|-----|------|-----|-------|----|-----|------|----|
| AMS160 | 250 | 18 | 300 | 6 | 350 | 940 | M16 | 150 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 940 | M16 | 150 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 1001 | M16 | 211 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 1016 | M16 | 226 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 1080 | M16 | 289.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 1080 | M16 | 289.5 | 75 | 140 | 79.9 | 20 |

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8.5 Dimension sheets for adapters for mounting NEMA motors (AMS..)

8.5.1 RX.. AMS.. (NEMA) /mm

01 195 00 20

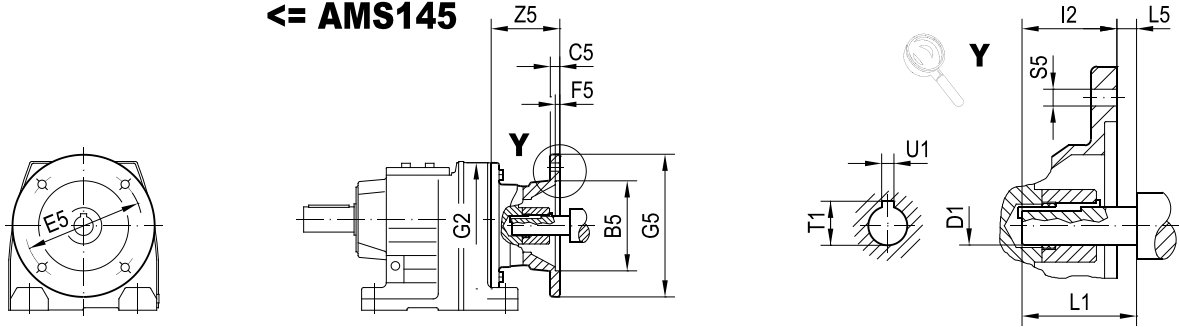


34212220811

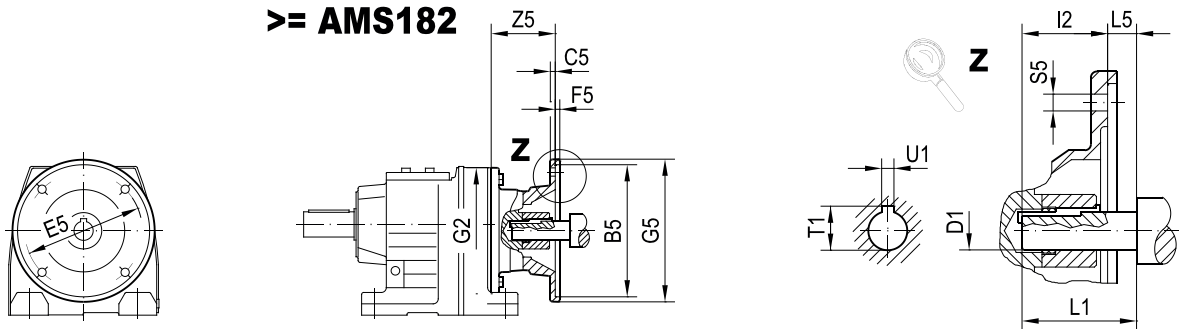
| | | B5 | C5 | E5 | F5 | G2 | G5 | I2 | L5 | S5 | Z5 | D1 | L1 | T1 | U1 |
|------------------|------------|-------|----|-------|-----|-----|-----|-------|------|------|-------|--------|-------|------|------|
| RX..57 RX..67 | AMS56 | 114.3 | 11 | 149.2 | 4.5 | 160 | 170 | 52.3 | -4.6 | 10.5 | 75 | 15.875 | 47.8 | 18.1 | 4.76 |
| | AMS143 | 114.3 | 12 | 149.2 | 4.5 | 160 | 170 | 53.8 | 3.3 | 10.5 | 87 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS145 | 114.3 | 14 | 149.2 | 4.5 | 160 | 170 | 53.8 | 3.3 | 10.5 | 87 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS182 | 215.9 | 10 | 184 | 5 | 160 | 228 | 66.6 | 3.3 | 15 | 114 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 160 | 228 | 66.6 | 3.3 | 15 | 114 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 160 | 228 | 79.2 | 6.6 | 15 | 138.5 | 34.925 | 85.9 | 38.7 | 7.94 |
| RX..77 | AMS56 | 114.3 | 11 | 149.2 | 4.5 | 200 | 170 | 52.3 | -4.6 | 10.5 | 68 | 15.875 | 47.8 | 18.1 | 4.76 |
| | AMS143 | 114.3 | 12 | 149.2 | 4.5 | 200 | 170 | 53.8 | 3.3 | 10.5 | 80 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS145 | 114.3 | 14 | 149.2 | 4.5 | 200 | 170 | 53.8 | 3.3 | 10.5 | 80 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS182 | 215.9 | 10 | 184 | 5 | 200 | 228 | 66.6 | 3.3 | 15 | 106 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 200 | 228 | 66.6 | 3.3 | 15 | 106 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 200 | 228 | 79.2 | 6.6 | 15 | 130.5 | 34.925 | 85.9 | 38.7 | 7.94 |
| RX..87 | AMS143 | 114.3 | 12 | 149.2 | 4.5 | 250 | 170 | 53.8 | 3.3 | 10.5 | 75 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS145 | 114.3 | 14 | 149.2 | 4.5 | 250 | 170 | 53.8 | 3.3 | 10.5 | 75 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS182 | 215.9 | 10 | 184 | 5 | 250 | 228 | 66.6 | 3.3 | 15 | 101 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 250 | 228 | 66.6 | 3.3 | 15 | 101 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 250 | 228 | 79.2 | 6.6 | 15 | 125.5 | 34.925 | 85.9 | 38.7 | 7.94 |
| | AMS254/256 | 215.9 | 12 | 184 | 5 | 250 | 228 | 95.3 | 6.4 | 15 | 185 | 41.275 | 101.6 | 45.8 | 9.53 |
| | AMS284/286 | 266.7 | 15 | 228.6 | 5 | 250 | 286 | 111.3 | 6.1 | 15 | 191.5 | 47.625 | 117.3 | 53.4 | 12.7 |

01 195 00 20

←= AMS145



≥= AMS182

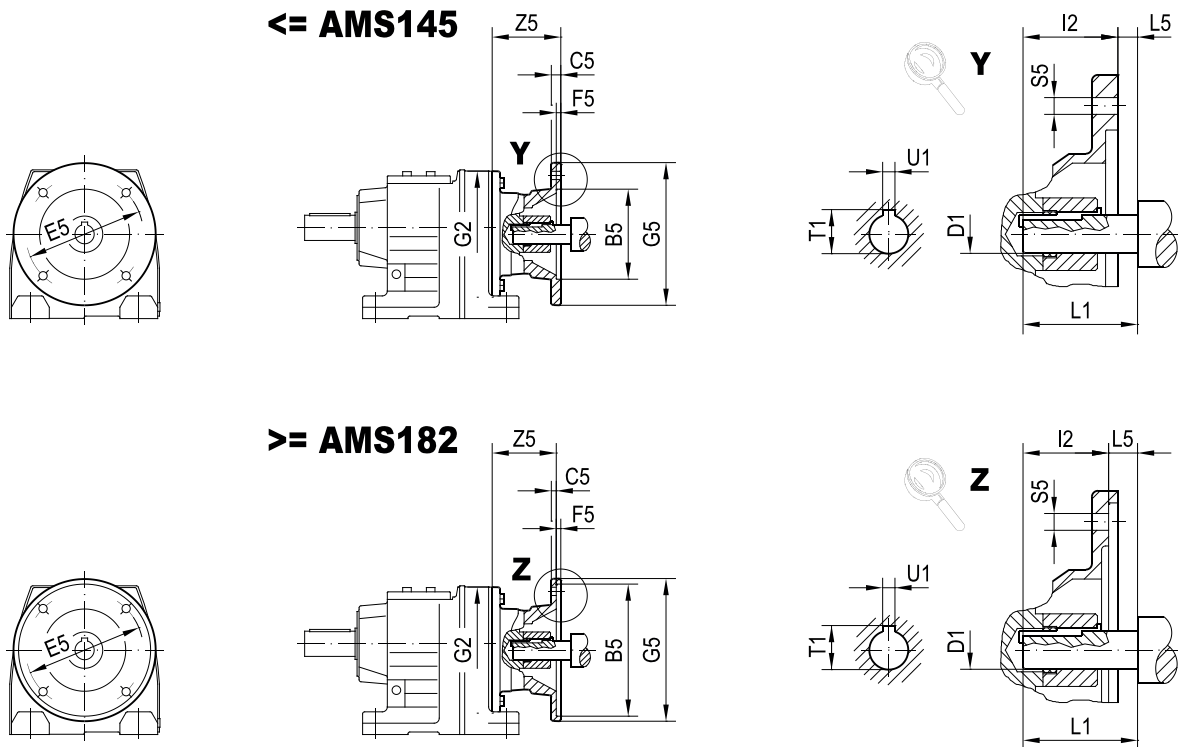


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| | | B5 | C5 | E5 | F5 | G2 | G5 | I2 | L5 | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|------------|-------|----|-------|----|-----|-----|-------|-----|------|-------|--------|-------|------|-------|
| RX..97 | AMS182 | 215.9 | 10 | 184 | 5 | 300 | 228 | 66.6 | 3.3 | 15 | 96 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 300 | 228 | 66.6 | 3.3 | 15 | 96 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 300 | 228 | 79.2 | 6.6 | 15 | 120.5 | 34.925 | 85.9 | 38.7 | 7.94 |
| | AMS254/256 | 215.9 | 12 | 184 | 5 | 300 | 228 | 95.3 | 6.4 | 15 | 180 | 41.275 | 101.6 | 45.8 | 9.53 |
| | AMS284/286 | 266.7 | 15 | 228.6 | 5 | 300 | 286 | 111.3 | 6.1 | 15 | 186.5 | 47.625 | 117.3 | 53.4 | 12.7 |
| | AMS324/326 | 317.5 | 17 | 279.4 | 5 | 300 | 356 | 127 | 6.4 | 17.5 | 252.5 | 53.975 | 133.4 | 60 | 12.7 |
| RX..107 | AMS182 | 215.9 | 10 | 184 | 5 | 350 | 228 | 66.6 | 3.3 | 15 | 90 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 350 | 228 | 66.6 | 3.3 | 15 | 90 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 350 | 228 | 79.2 | 6.6 | 15 | 114.5 | 34.925 | 85.9 | 38.7 | 7.94 |
| | AMS254/256 | 215.9 | 12 | 184 | 5 | 350 | 228 | 95.3 | 6.4 | 15 | 174 | 41.275 | 101.6 | 45.8 | 9.53 |
| | AMS284/286 | 266.7 | 15 | 228.6 | 5 | 350 | 286 | 111.3 | 6.1 | 15 | 180.5 | 47.625 | 117.3 | 53.4 | 12.7 |
| | AMS324/326 | 317.5 | 17 | 279.4 | 5 | 350 | 356 | 127 | 6.4 | 17.5 | 246.5 | 53.975 | 133.4 | 60 | 12.7 |
| | AMS364/365 | 317.5 | 17 | 279.4 | 5 | 350 | 356 | 142.7 | 6.6 | 17.5 | 252.5 | 60.325 | 149.4 | 67.6 | 15.88 |

8.5.2 R.. AMS.. (NEMA) /mm

01 195 00 20

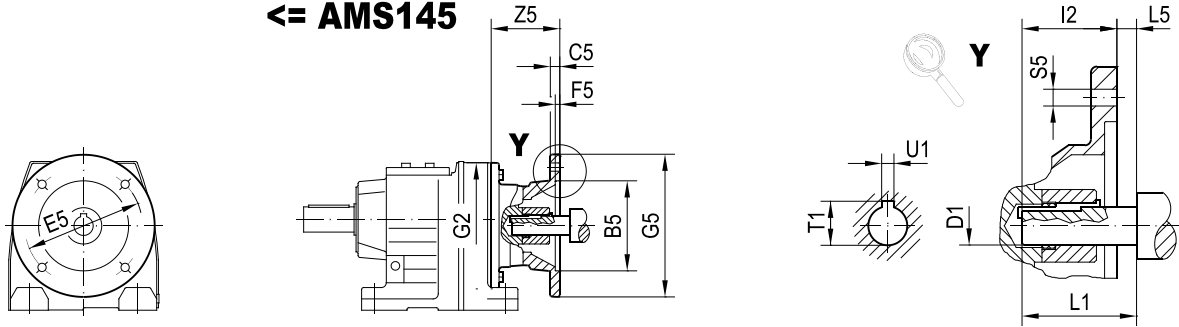


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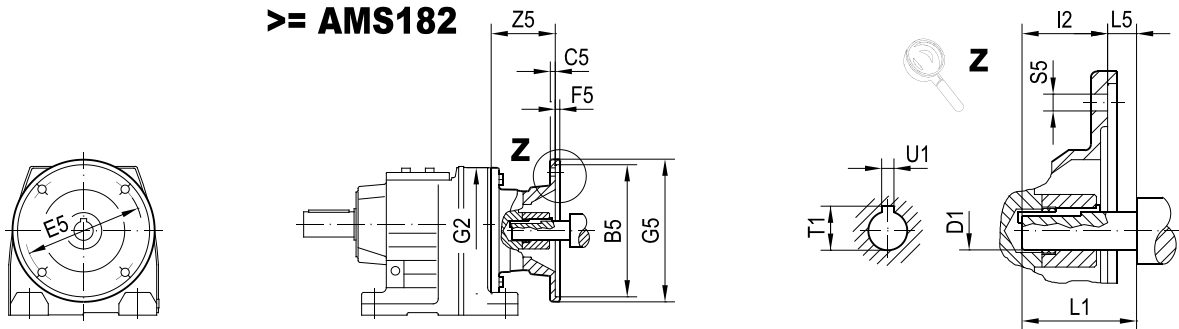
| | | B5 | C5 | E5 | F5 | G2 | G5 | I2 | L5 | S5 | Z5 | D1 | L1 | T1 | U1 |
|-------------------------|------------|-------|----|-------|-----|-----|-----|------|------|------|-------|--------|------|------|------|
| R..07 | AMS56 | 114.3 | 11 | 149.2 | 4.5 | 105 | 170 | 52.3 | -4.6 | 10.5 | 81.5 | 15.875 | 47.8 | 18.1 | 4.76 |
| R..17 | AMS56 | 114.3 | 11 | 149.2 | 4.5 | 120 | 170 | 52.3 | -4.6 | 10.5 | 81.5 | 15.875 | 47.8 | 18.1 | 4.76 |
| R..27 | AMS143 | 114.3 | 12 | 149.2 | 4.5 | 120 | 170 | 53.8 | 3.3 | 10.5 | 93.5 | 22.225 | 57.2 | 24.7 | 4.76 |
| R..37 | AMS145 | 114.3 | 14 | 149.2 | 4.5 | 120 | 170 | 53.8 | 3.3 | 10.5 | 93.5 | 22.225 | 57.2 | 24.7 | 4.76 |
| R..47 R..57 R..67 | AMS56 | 114.3 | 11 | 149.2 | 4.5 | 160 | 170 | 52.3 | -4.6 | 10.5 | 75 | 15.875 | 47.8 | 18.1 | 4.76 |
| | AMS143 | 114.3 | 12 | 149.2 | 4.5 | 160 | 170 | 53.8 | 3.3 | 10.5 | 87 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS145 | 114.3 | 14 | 149.2 | 4.5 | 160 | 170 | 53.8 | 3.3 | 10.5 | 87 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS182 | 215.9 | 10 | 184 | 5 | 160 | 228 | 66.6 | 3.3 | 15 | 114 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 160 | 228 | 66.6 | 3.3 | 15 | 114 | 28.575 | 69.9 | 31.7 | 6.35 |
| R..77 | AMS213/215 | 215.9 | 11 | 184 | 5 | 160 | 228 | 79.2 | 6.6 | 15 | 138.5 | 34.925 | 85.9 | 38.7 | 7.94 |
| | AMS56 | 114.3 | 11 | 149.2 | 4.5 | 200 | 170 | 52.3 | -4.6 | 10.5 | 68 | 15.875 | 47.8 | 18.1 | 4.76 |
| | AMS143 | 114.3 | 12 | 149.2 | 4.5 | 200 | 170 | 53.8 | 3.3 | 10.5 | 80 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS145 | 114.3 | 14 | 149.2 | 4.5 | 200 | 170 | 53.8 | 3.3 | 10.5 | 80 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS182 | 215.9 | 10 | 184 | 5 | 200 | 228 | 66.6 | 3.3 | 15 | 106 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 200 | 228 | 66.6 | 3.3 | 15 | 106 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 200 | 228 | 79.2 | 6.6 | 15 | 130.5 | 34.925 | 85.9 | 38.7 | 7.94 |

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←= AMS145



≥= AMS182

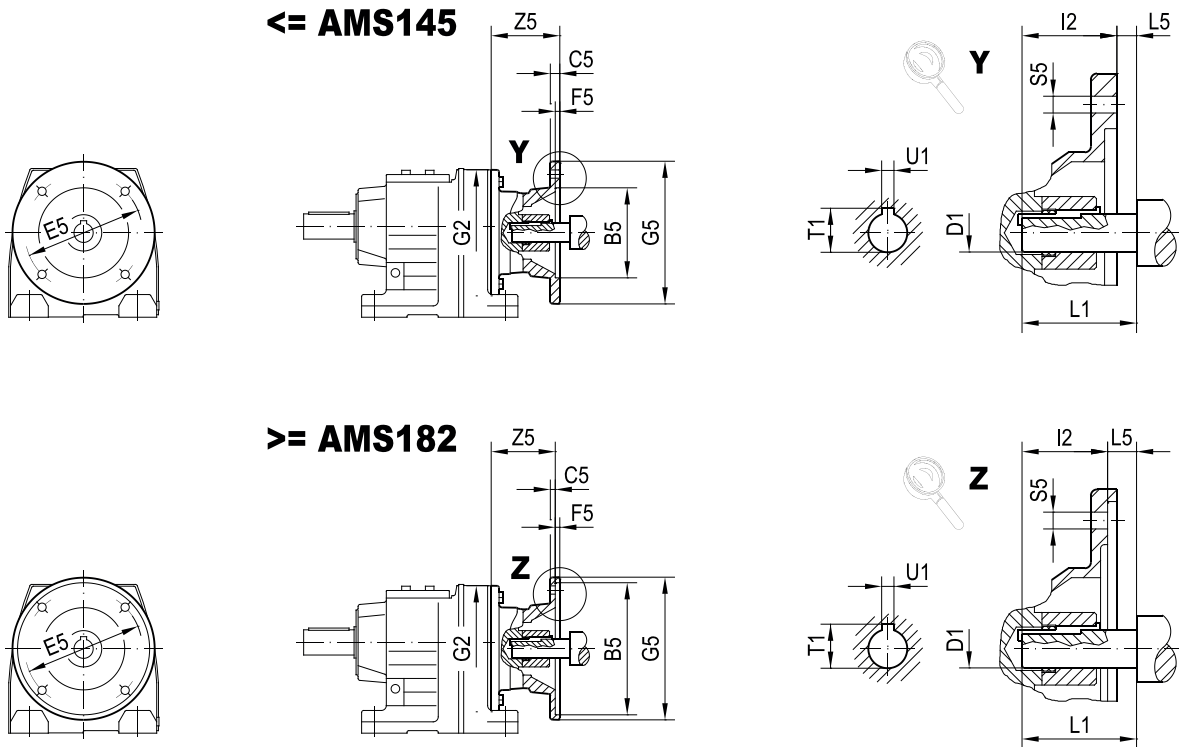


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| | | B5 | C5 | E5 | F5 | G2 | G5 | I2 | L5 | S5 | Z5 | D1 | L1 | T1 | U1 |
|------------------|------------|-------|-------|-------|-----|-----|-------|-------|------|-------|--------|--------|-------|-------|-------|
| R..87 | AMS143 | 114.3 | 12 | 149.2 | 4.5 | 250 | 170 | 53.8 | 3.3 | 10.5 | 75 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS145 | 114.3 | 14 | 149.2 | 4.5 | 250 | 170 | 53.8 | 3.3 | 10.5 | 75 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS182 | 215.9 | 10 | 184 | 5 | 250 | 228 | 66.6 | 3.3 | 15 | 101 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 250 | 228 | 66.6 | 3.3 | 15 | 101 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 250 | 228 | 79.2 | 6.6 | 15 | 125.5 | 34.925 | 85.9 | 38.7 | 7.94 |
| | AMS254/256 | 215.9 | 12 | 184 | 5 | 250 | 228 | 95.3 | 6.4 | 15 | 185 | 41.275 | 101.6 | 45.8 | 9.53 |
| R..97 | AMS182 | 215.9 | 10 | 184 | 5 | 300 | 228 | 66.6 | 3.3 | 15 | 96 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 300 | 228 | 66.6 | 3.3 | 15 | 96 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 300 | 228 | 79.2 | 6.6 | 15 | 120.5 | 34.925 | 85.9 | 38.7 | 7.94 |
| | AMS254/256 | 215.9 | 12 | 184 | 5 | 300 | 228 | 95.3 | 6.4 | 15 | 180 | 41.275 | 101.6 | 45.8 | 9.53 |
| | AMS284/286 | 266.7 | 15 | 228.6 | 5 | 300 | 286 | 111.3 | 6.1 | 15 | 186.5 | 47.625 | 117.3 | 53.4 | 12.7 |
| | AMS324/326 | 317.5 | 17 | 279.4 | 5 | 300 | 356 | 127 | 6.4 | 17.5 | 252.5 | 53.975 | 133.4 | 60 | 12.7 |
| R..107 R..127 | AMS182 | 215.9 | 10 | 184 | 5 | 350 | 228 | 66.6 | 3.3 | 15 | 90 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 350 | 228 | 66.6 | 3.3 | 15 | 90 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 350 | 228 | 79.2 | 6.6 | 15 | 114.5 | 34.925 | 85.9 | 38.7 | 7.94 |
| | AMS254/256 | 215.9 | 12 | 184 | 5 | 350 | 228 | 95.3 | 6.4 | 15 | 174 | 41.275 | 101.6 | 45.8 | 9.53 |
| | AMS284/286 | 266.7 | 15 | 228.6 | 5 | 350 | 286 | 111.3 | 6.1 | 15 | 180.5 | 47.625 | 117.3 | 53.4 | 12.7 |
| | AMS324/326 | 317.5 | 17 | 279.4 | 5 | 350 | 356 | 127 | 6.4 | 17.5 | 246.5 | 53.975 | 133.4 | 60 | 12.7 |
| R..137 | AMS364/365 | 317.5 | 17 | 279.4 | 5 | 350 | 356 | 142.7 | 6.6 | 17.5 | 252.5 | 60.325 | 149.4 | 67.6 | 15.88 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 400 | 228 | 79.2 | 6.6 | 15 | 107.5 | 34.925 | 85.9 | 38.7 | 7.94 |
| | AMS254/256 | 215.9 | 12 | 184 | 5 | 400 | 228 | 95.3 | 6.4 | 15 | 167 | 41.275 | 101.6 | 45.8 | 9.53 |
| | AMS284/286 | 266.7 | 15 | 228.6 | 5 | 400 | 286 | 111.3 | 6.1 | 15 | 173.5 | 47.625 | 117.3 | 53.4 | 12.7 |
| | AMS324/326 | 317.5 | 17 | 279.4 | 5 | 400 | 356 | 127 | 6.4 | 17.5 | 239.5 | 53.975 | 133.4 | 60 | 12.7 |
| AMS364/365 | 317.5 | 17 | 279.4 | 5 | 400 | 356 | 142.7 | 6.6 | 17.5 | 252.5 | 60.325 | 149.4 | 67.6 | 15.88 | |

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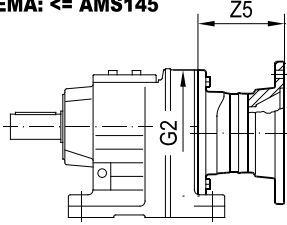
| | | B5 | C5 | E5 | F5 | G2 | G5 | I2 | L5 | S5 | Z5 | D1 | L1 | T1 | U1 |
|--------|------------|-------|----|-------|----|-----|-----|-------|-----|------|-------|--------|-------|------|-------|
| R..147 | AMS213/215 | 215.9 | 11 | 184 | 5 | 450 | 228 | 79.2 | 6.6 | 15 | 99.5 | 34.925 | 85.9 | 38.7 | 7.94 |
| | AMS254/256 | 215.9 | 12 | 184 | 5 | 450 | 228 | 95.3 | 6.4 | 15 | 159 | 41.275 | 101.6 | 45.8 | 9.53 |
| | AMS284/286 | 266.7 | 15 | 228.6 | 5 | 450 | 286 | 111.3 | 6.1 | 15 | 165.5 | 47.625 | 117.3 | 53.4 | 12.7 |
| | AMS324/326 | 317.5 | 17 | 279.4 | 5 | 450 | 356 | 127 | 6.4 | 17.5 | 231.5 | 53.975 | 133.4 | 60 | 12.7 |
| | AMS364/365 | 317.5 | 17 | 279.4 | 5 | 450 | 356 | 142.7 | 6.6 | 17.5 | 252.5 | 60.325 | 149.4 | 67.6 | 15.88 |
| R..167 | AMS254/256 | 215.9 | 12 | 184 | 5 | 550 | 228 | 95.3 | 6.4 | 15 | 151 | 41.275 | 101.6 | 45.8 | 9.53 |
| | AMS284/286 | 266.7 | 15 | 228.6 | 5 | 550 | 286 | 111.3 | 6.1 | 15 | 157.5 | 47.625 | 117.3 | 53.4 | 12.7 |
| | AMS324/326 | 317.5 | 17 | 279.4 | 5 | 550 | 356 | 127 | 6.4 | 17.5 | 223.5 | 53.975 | 133.4 | 60 | 12.7 |
| | AMS364/365 | 317.5 | 17 | 279.4 | 5 | 550 | 356 | 142.7 | 6.6 | 17.5 | 252.5 | 60.325 | 149.4 | 67.6 | 15.88 |

8.6 Dimension sheets for adapters with backstop (RS..) and drain hole (DH..)

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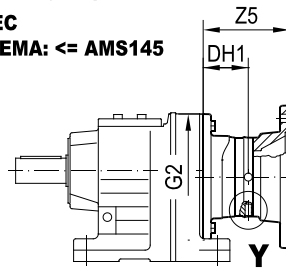
AMS.. /RS

IEC
NEMA: <= AMS145



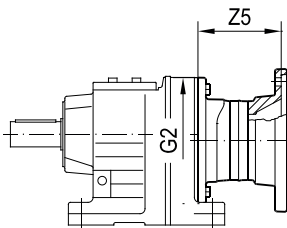
AMS.. /DH

IEC
NEMA: <= AMS145



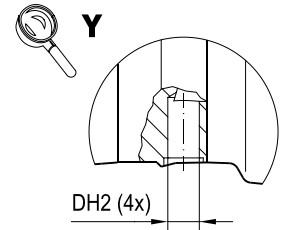
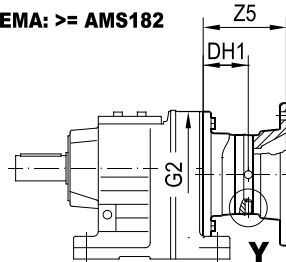
AMS.. /RS


NEMA: >= AMS182




AMS.. /DH


NEMA: >= AMS182



| |  | /RS | | /DH | | | |
|---|---|-------|-------|-------|-------|-----|-----|
| | | G2 | Z5 | G2 | Z5 | DH1 | DH2 |
| R..07 R..17 | AMS56 | - | - | 105 | 105 | 60 | 8 |
| | AMS63 | - | - | 105 | 78.5 | 46 | 8 |
| | AMS71 | - | - | 105 | 78.5 | 46 | 8 |
| | AMS80 | - | - | 105 | 97.5 | 60 | 8 |
| R..27 R..37 | AMS56 | - | - | 120 | 105 | 60 | 8 |
| | AMS63 | - | - | 120 | 78.5 | 46 | 8 |
| | AMS71 | - | - | 120 | 78.5 | 46 | 8 |
| | AMS80 | 120 | 121 | 120 | 97.5 | 60 | 8 |
| | AMS90 | 120 | 121 | 120 | 109 | 64 | 8 |
| | AMS143 | 120 | 128.5 | 120 | 116.5 | 64 | 8 |
| R..47 R..57, RX..57 R..67, RX..67 | AMS145 | 120 | 128.5 | 120 | 116.5 | 64 | 8 |
| | AMS56 | - | - | 160 | 98.5 | 54 | 8 |
| | AMS63 | - | - | 160 | 72 | 40 | 8 |
| | AMS71 | - | - | 160 | 72 | 40 | 8 |
| | AMS80 | 160 | 114.5 | 160 | 91 | 54 | 8 |
| | AMS90 | 160 | 114.5 | 160 | 102.5 | 57 | 8 |
| | AMS100 | 160 | 153 | 160 | 153 | 97 | 8 |
| | AMS112 | 160 | 153 | 160 | 153 | 97 | 8 |
| | AMS132S/M | 160 | 181.5 | 160 | 181.5 | 116 | 8 |
| | AMS143 | 160 | 122 | 160 | 110 | 57 | 8 |
| | AMS145 | 160 | 122 | 160 | 110 | 57 | 8 |
| | AMS182 | 160 | 158.5 | 160 | 158.5 | 97 | 8 |
| AMS184 | 160 | 158.5 | 160 | 158.5 | 97 | 8 | |
| AMS213/215 | 160 | 186 | 160 | 186 | 116 | 8 | |

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| |  | /RS | | /DH | | | |
|---------------|---|-------|-------|-----|-------|-----|-----|
| | | G2 | Z5 | G2 | Z5 | DH1 | DH2 |
| R..77, RX..77 | AMS56 | – | – | 200 | 91.5 | 47 | 8 |
| | AMS63 | – | – | 200 | 66 | 34 | 8 |
| | AMS71 | – | – | 200 | 66 | 34 | 8 |
| | AMS80 | 200 | 107.5 | 200 | 84 | 47 | 8 |
| | AMS90 | 200 | 107.5 | 200 | 95.5 | 50 | 8 |
| | AMS100 | 200 | 145 | 200 | 145 | 89 | 8 |
| | AMS112 | 200 | 145 | 200 | 145 | 89 | 8 |
| | AMS132ML | 200 | 173.5 | 200 | 173.5 | 108 | 8 |
| | AMS132S/M | 200 | 173.5 | 200 | 173.5 | 108 | 8 |
| | AMS143 | 200 | 115 | 200 | 103 | 50 | 8 |
| | AMS145 | 200 | 115 | 200 | 103 | 50 | 8 |
| | AMS182 | 200 | 150.5 | 200 | 150.5 | 89 | 8 |
| | AMS184 | 200 | 150.5 | 200 | 150.5 | 89 | 8 |
| | AMS213/215 | 200 | 178 | 200 | 178 | 108 | 8 |
| R..87, RX..87 | AMS80 | 250 | 102.5 | 250 | 79 | 42 | 8 |
| | AMS90 | 250 | 102.5 | 250 | 90.5 | 45 | 8 |
| | AMS100 | 250 | 140 | 250 | 140 | 84 | 8 |
| | AMS112 | 250 | 140 | 250 | 140 | 84 | 8 |
| | AMS132ML | 250 | 168.5 | 250 | 168.5 | 103 | 8 |
| | AMS132S/M | 250 | 168.5 | 250 | 168.5 | 103 | 8 |
| | AMS143 | 250 | 110 | 250 | 98 | 45 | 8 |
| | AMS145 | 250 | 110 | 250 | 98 | 45 | 8 |
| | AMS160 | 250 | 184 | 250 | 222 | 124 | 8 |
| | AMS180 | 250 | 184 | 250 | 222 | 124 | 8 |
| | AMS182 | 250 | 145.5 | 250 | 145.5 | 84 | 8 |
| | AMS184 | 250 | 145.5 | 250 | 145.5 | 84 | 8 |
| | AMS213/215 | 250 | 173 | 250 | 173 | 103 | 8 |
| | AMS254/256 | 250 | 185 | 250 | 223.5 | 124 | 8 |
| AMS284/286 | 250 | 191.5 | 250 | 230 | 124 | 8 | |
| R..97, RX..97 | AMS100 | 300 | 135 | 300 | 135 | 79 | 8 |
| | AMS112 | 300 | 135 | 300 | 135 | 79 | 8 |
| | AMS132ML | 300 | 163.5 | 300 | 163.5 | 98 | 8 |
| | AMS132S/M | 300 | 163.5 | 300 | 163.5 | 98 | 8 |
| | AMS160 | 300 | 179 | 300 | 217 | 119 | 8 |
| | AMS180 | 300 | 179 | 300 | 217 | 119 | 8 |
| | AMS182 | 300 | 140.5 | 300 | 140.5 | 79 | 8 |
| | AMS184 | 300 | 140.5 | 300 | 140.5 | 79 | 8 |
| | AMS200 | 300 | 240 | 300 | 240 | 141 | 8 |
| | AMS213/215 | 300 | 168 | 300 | 168 | 98 | 8 |
| | AMS254/256 | 300 | 180 | 300 | 218.5 | 119 | 8 |
| AMS284/286 | 300 | 186.5 | 300 | 225 | 119 | 8 | |

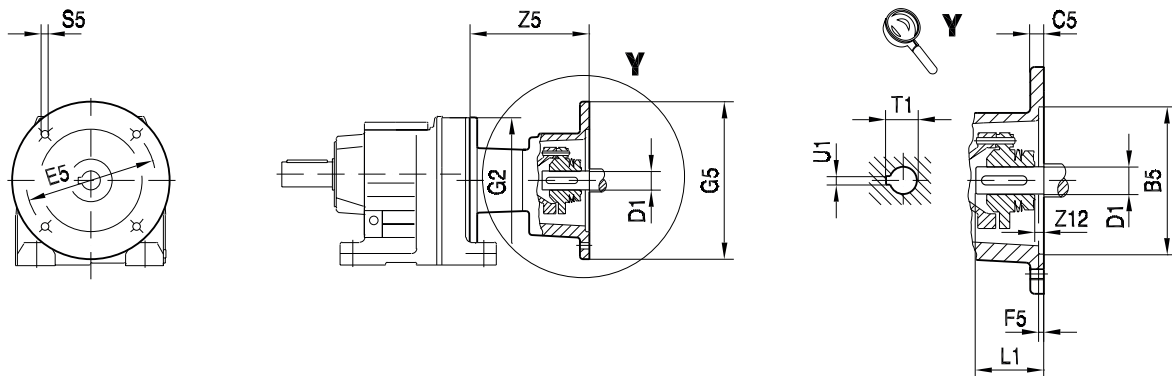
| |  | /RS | | /DH | | | |
|---------------------------|---|-------|-------|-------|-------|-----|-----|
| | | G2 | Z5 | G2 | Z5 | DH1 | DH2 |
| R..107, RX..107 R..127 | AMS100 | 350 | 129 | 350 | 129 | 73 | 8 |
| | AMS112 | 350 | 129 | 350 | 129 | 73 | 8 |
| | AMS132ML | 350 | 157.5 | 350 | 157.5 | 92 | 8 |
| | AMS132S/M | 350 | 157.5 | 350 | 157.5 | 92 | 8 |
| | AMS160 | 350 | 173 | 350 | 211 | 113 | 8 |
| | AMS180 | 350 | 173 | 350 | 211 | 113 | 8 |
| | AMS182 | 350 | 134.5 | 350 | 134.5 | 73 | 8 |
| | AMS184 | 350 | 134.5 | 350 | 134.5 | 73 | 8 |
| | AMS200 | 350 | 234 | 350 | 234 | 135 | 8 |
| | AMS213/215 | 350 | 162 | 350 | 162 | 92 | 8 |
| | AMS225 | 350 | 249 | 350 | 249 | 135 | 8 |
| | AMS254/256 | 350 | 174 | 350 | 212.5 | 113 | 8 |
| | AMS284/286 | 350 | 180.5 | 350 | 219 | 113 | 8 |
| | AMS324/326 | 350 | 246.5 | 350 | 246.5 | 146 | 8 |
| AMS364/365 | 350 | 246.5 | 350 | 246.5 | 146 | 8 | |
| R..137 | AMS132ML | 400 | 150.5 | 400 | 150.5 | 85 | 8 |
| | AMS132S/M | 400 | 150.5 | 400 | 150.5 | 85 | 8 |
| | AMS160 | 400 | 166 | 400 | 204 | 106 | 8 |
| | AMS180 | 400 | 166 | 400 | 204 | 106 | 8 |
| | AMS200 | 400 | 227 | 400 | 227 | 128 | 8 |
| | AMS213/215 | 400 | 155 | 400 | 155 | 85 | 8 |
| | AMS225 | 400 | 242 | 400 | 242 | 128 | 8 |
| | AMS254/256 | 400 | 167 | 400 | 205.5 | 106 | 8 |
| | AMS284/286 | 400 | 173.5 | 400 | 212 | 106 | 8 |
| | AMS324/326 | 400 | 239.5 | 400 | 239.5 | 139 | 8 |
| AMS364/365 | 400 | 239.5 | 400 | 239.5 | 139 | 8 | |
| R..147 | AMS132ML | 450 | 142.5 | 450 | 142.5 | 77 | 8 |
| | AMS132S/M | 450 | 142.5 | 450 | 142.5 | 77 | 8 |
| | AMS160 | 450 | 158 | 450 | 196 | 98 | 8 |
| | AMS180 | 450 | 158 | 450 | 196 | 98 | 8 |
| | AMS200 | 450 | 219 | 450 | 219 | 120 | 8 |
| | AMS213/215 | 450 | 147 | 450 | 147 | 77 | 8 |
| | AMS225 | 450 | 234 | 450 | 234 | 120 | 8 |
| | AMS250 | 450 | 297.5 | 450 | 297.5 | 121 | 8 |
| | AMS254/256 | 450 | 159 | 450 | 197.5 | 98 | 8 |
| | AMS280 | 450 | 297.5 | 450 | 297.5 | 121 | 8 |
| | AMS284/286 | 450 | 165.5 | 450 | 204 | 98 | 8 |
| AMS324/326 | 450 | 231.5 | 450 | 231.5 | 131 | 8 | |
| AMS364/365 | 450 | 231.5 | 450 | 231.5 | 131 | 8 | |
| R..167 | AMS160 | 550 | 150 | 550 | 188 | 90 | 8 |
| | AMS180 | 550 | 150 | 550 | 188 | 90 | 8 |
| | AMS200 | 550 | 211 | 550 | 211 | 112 | 8 |
| | AMS225 | 550 | 226 | 550 | 226 | 112 | 8 |
| | AMS250 | 550 | 289.5 | 550 | 289.5 | 113 | 8 |
| | AMS254/256 | 550 | 151 | 550 | 289.5 | 90 | 8 |
| | AMS280 | 550 | 289.5 | 550 | 189.5 | 113 | 8 |
| | AMS284/286 | 550 | 157.5 | 550 | 196 | 90 | 8 |
| | AMS324/326 | 550 | 223.5 | 550 | 223.5 | 123 | 8 |
| AMS364/365 | 550 | 223.5 | 550 | 223.5 | 123 | 8 | |

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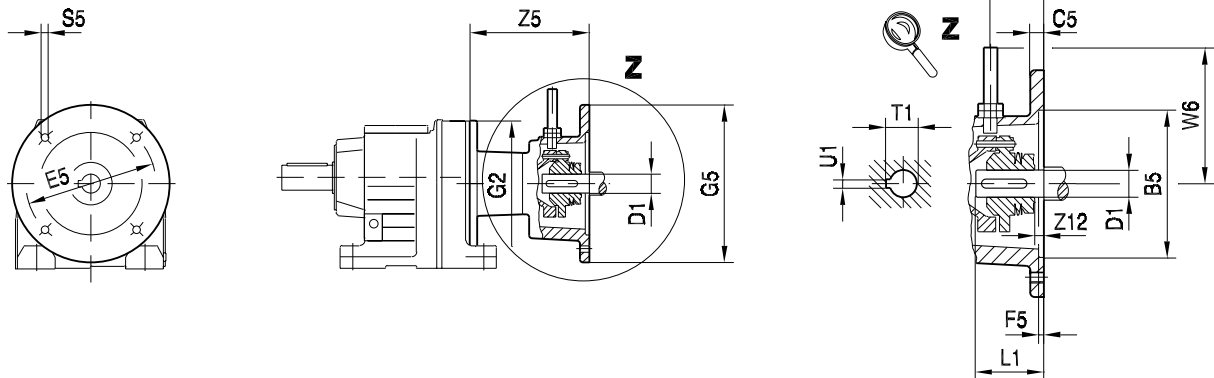
8.7 Dimension sheets for adapters with slip clutch (AR..)

R.. AR..

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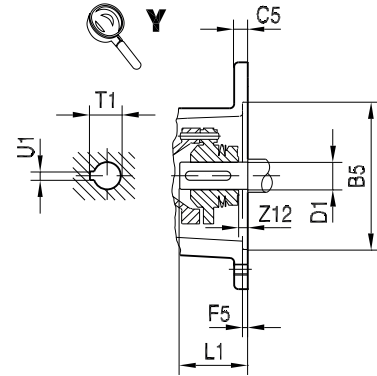
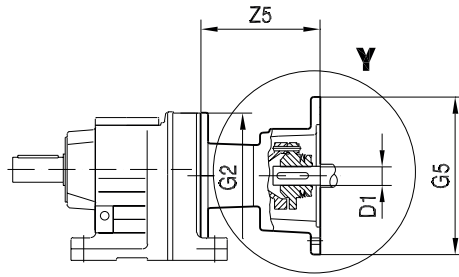
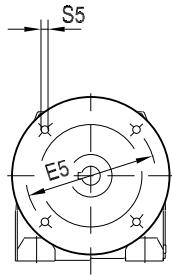
R.. AR../W



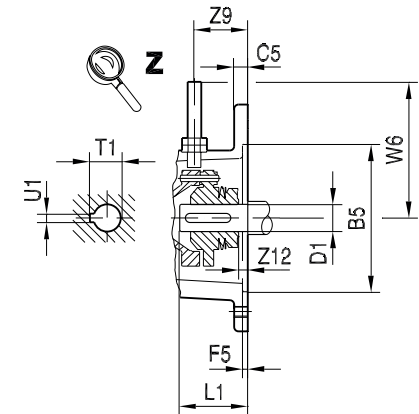
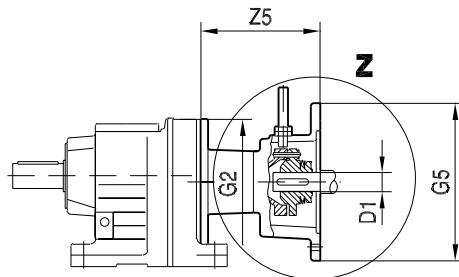
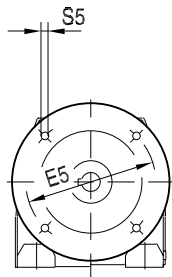
| | | B5 | C5 | E5 | F5 | G2 | G5 | S5 | W6 | Z5 | Z9 | Z12 | D1 | L1 | T1 | U1 |
|-------------------------|----------|-----|----|-----|-----|-----|-----|-----|-----|-------|-----|-----|-----|-----|------|----|
| R..27 R..37 | AR71 | 110 | 10 | 130 | 3.5 | 120 | 160 | M8 | 120 | 104 | 37 | 0 | 14 | 30 | 16.3 | 5 |
| | AR80 | 130 | 12 | 165 | 4.5 | | 200 | M10 | | 140.5 | | | 19 | 40 | 21.8 | 6 |
| | AR90 | | | | | | 24 | 50 | | 27.3 | | | 8 | | | |
| R..47 R..57 R..67 | AR71 | 110 | 10 | 130 | 3.5 | 160 | 160 | M8 | 120 | 97.5 | 37 | 0 | 14 | 30 | 16.3 | 5 |
| | AR80 | 130 | 12 | 165 | 4.5 | | 200 | M10 | | 134 | | | 19 | 40 | 21.8 | 6 |
| | AR90 | | | | | | 24 | 50 | | 27.3 | | | 8 | | | |
| | AR100 | 180 | 5 | 215 | 5 | | 250 | M12 | 130 | 174.5 | 52 | 5.5 | 28 | 60 | 31.3 | 8 |
| | AR112 | | | | | | 300 | M12 | 145 | 234 | 72 | 5 | 38 | 80 | 41.3 | 10 |
| R..77 | AR71 | 110 | 10 | 130 | 3.5 | 200 | 160 | M8 | 120 | 91.5 | 37 | 0 | 14 | 30 | 16.3 | 5 |
| | AR80 | 130 | 12 | 165 | 4.5 | | 200 | M10 | | 127 | | | 19 | 40 | 21.8 | 6 |
| | AR90 | | | | | | 24 | 50 | | 27.3 | | | 8 | | | |
| | AR100 | 180 | 15 | 215 | | | 250 | M12 | 130 | 166.5 | 52 | 5.5 | 28 | 60 | 31.3 | 8 |
| | AR132S/M | | | | | | 230 | 16 | 265 | 5 | 300 | M12 | 145 | 234 | 72 | 5 |
| | AR132ML | | | | | | | | | | | | | | | |
| R..87 | AR80 | 130 | 12 | 165 | 4.5 | 250 | 200 | M10 | 120 | 122 | 37 | 0 | 19 | 40 | 21.8 | 6 |
| | AR90 | | | | | | | | | | | | 24 | 50 | 27.3 | 8 |
| | AR100 | 180 | 15 | 215 | 5 | | 250 | M12 | 130 | 161.5 | 52 | 5.5 | 28 | 60 | 31.3 | 8 |
| | AR132S/M | | | | | | 230 | 16 | 265 | 5 | 300 | M12 | 145 | 229 | 72 | 5 |
| | AR132ML | | | | | | | | | | | | | | | |
| | AR160 | 250 | 18 | 300 | 6 | | 350 | M16 | 165 | 306.5 | 105 | 35 | 42 | 110 | 45.3 | 12 |
| | AR180 | | | | | | | | | | | | 48 | 110 | 51.8 | 14 |

R.. AR..

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R.. AR../W

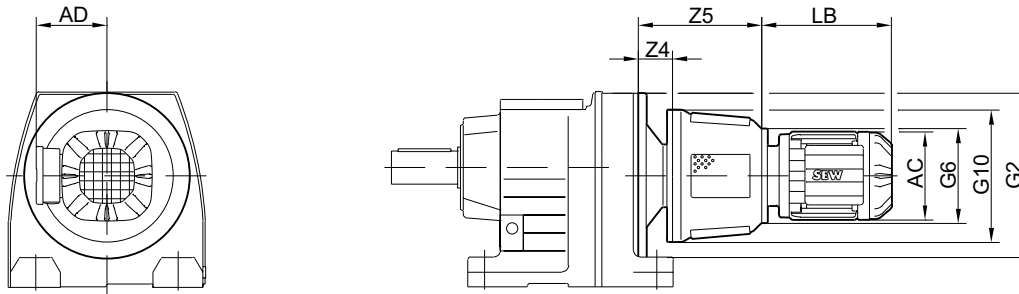


| | | B5 | C5 | E5 | F5 | G2 | G5 | S5 | W6 | Z5 | Z9 | Z12 | D1 | L1 | T1 | U1 |
|------------------|----------|-----|------|-----|----|-----|-----|-----|-----|-------|-----|-----|-----|-------|------|----|
| R..97 | AR100 | 180 | 15 | 215 | 5 | 300 | 250 | M12 | 130 | 156.5 | 52 | 5.5 | 28 | 60 | 31.3 | 8 |
| | AR112 | | | | | | | | | | | | | | | |
| | AR132S/M | 230 | 16 | 265 | 5 | | 300 | M12 | 145 | 224 | 72 | 5 | 38 | 80 | 41.3 | 10 |
| | AR132ML | | | | | | | | | | | | | | | |
| | AR160 | | | | | | 250 | 18 | 300 | 6 | 350 | M16 | 165 | 301.5 | 105 | 35 |
| AR180 | 48 | 110 | 51.8 | 14 | | | | | | | | | | | | |
| R..107 R..127 | AR100 | 180 | 15 | 215 | 5 | 350 | 250 | M12 | 130 | 150.5 | 52 | 5.5 | 28 | 60 | 31.3 | 8 |
| | AR112 | | | | | | | | | | | | | | | |
| | AR132S/M | 230 | 16 | 265 | 5 | | 300 | M12 | 145 | 218 | 72 | 5 | 38 | 80 | 41.3 | 10 |
| | AR132ML | | | | | | | | | | | | | | | |
| | AR160 | | | | | | 250 | 18 | 300 | 6 | 350 | M16 | 165 | 295.5 | 105 | 35 |
| AR180 | 48 | 110 | 51.8 | 14 | | | | | | | | | | | | |
| R..137 | AR132S/M | 230 | 16 | 265 | 5 | 400 | 300 | M12 | 145 | 211 | 72 | 5 | 38 | 80 | 41.3 | 10 |
| | AR132ML | | | | | | | | | | | | | | | |
| | AR160 | 250 | 18 | 300 | 6 | | 350 | M16 | 165 | 288.5 | 105 | 35 | 42 | 110 | 45.3 | 12 |
| | AR180 | | | | | | | | | | | | 48 | 110 | 51.8 | 14 |
| R..147 | AR132S/M | 230 | 16 | 265 | 5 | 450 | 300 | M12 | 145 | 203 | 72 | 5 | 38 | 80 | 41.3 | 10 |
| | AR132ML | | | | | | | | | | | | | | | |
| | AR160 | 250 | 18 | 300 | 6 | | 350 | M16 | 165 | 280.5 | 105 | 35 | 42 | 110 | 45.3 | 12 |
| | AR180 | | | | | | | | | | | | 48 | 110 | 51.8 | 14 |
| R..167 | AR160 | 250 | 18 | 300 | 6 | 550 | 350 | M16 | 165 | 272.5 | 105 | 35 | 42 | 110 | 45.3 | 12 |
| | AR180 | | | | | | | | | | | | 48 | 110 | 51.8 | 14 |

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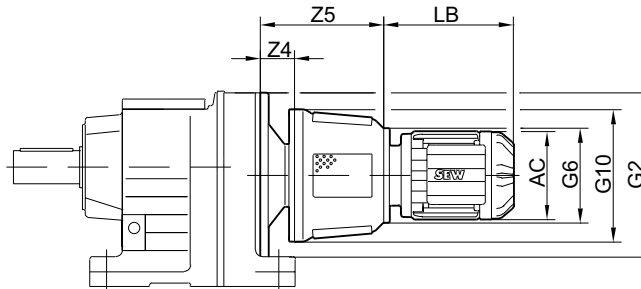
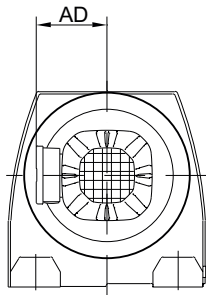
8.8 Dimension sheets for adapters with hydraulic start-up coupling (R..AT..)

25 001 04 01



| | | | AC | AD | G6 | G10 | LB | Z4 | Z5 | G2 | | | | | | | |
|----------------|----------------|----------|----------------|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|
| R..67 | AT311 AT312 | DRN71M | 139 | 118 | 200 | 280 | 222 | 97 | 286 | 160 | | | | | | | |
| | | DRN80MK | 156 | 128 | | | 241 | | | | | | | | | | |
| | | DRN80MS | | | | | 259 | | | | | | | | | | |
| | | DRN80M | | | | | 287 | | | | | | | | | | |
| | | DRN90S | 179 | 140 | | | 281 | | | | | | | | | | |
| | | DRN90L | | | | | 313 | | | | | | | | | | |
| | | DRN100LM | 197 | 157 | | | 359 | | | | | | | | | | |
| | | DRN112M | 221 | 170 | | | 387 | | | | | | | | | | |
| | AT321 AT322 | DRN90L | 179 | 140 | 250 | 350 | 313 | 97 | 333 | | | | | | | | |
| | | DRN100LS | 197 | 157 | | | 309 | | | | | | | | | | |
| | | DRN100L | | | | | 359 | | | | | | | | | | |
| | | R..77 | AT311 AT312 | DRN71M | | | 139 | | | | 118 | 200 | 280 | 222 | 89 | 278 | 200 |
| | | | | DRN80MK | | | 156 | | | | 128 | | | 241 | | | |
| DRN80MS | 259 | | | | | | | | | | | | | | | | |
| DRN80M | 287 | | | | | | | | | | | | | | | | |
| DRN90S | 179 | | | 140 | 281 | | | | | | | | | | | | |
| DRM90L | | | | | 313 | | | | | | | | | | | | |
| DRN100LM | 197 | | | 157 | 359 | | | | | | | | | | | | |
| DRN112M | 221 | | | 170 | 387 | | | | | | | | | | | | |
| AT321 | DRN132S | | 221 | 170 | 250 | 350 | 437 | 93 | 328 | | | | | | | | |
| AT421 AT422 | DRN90L | | 179 | 140 | 250 | 350 | 313 | 133 | 368 | | | | | | | | |
| | DRN100LS | | 197 | 157 | | | 309 | | | | | | | | | | |
| | DRN100L | | | | | | 359 | | | | | | | | | | |
| | DRN112M | | 221 | 170 | | | 387 | | | | | | | | | | |
| | DRN132S | 437 | | | | | | | | | | | | | | | |
| R..87 | AT311 AT312 | DRN90S | 179 | 140 | 200 | 280 | 281 | 84 | 273 | 250 | | | | | | | |
| | | DRM90L | | | | | 313 | | | | | | | | | | |
| | | DRN100LM | | | | | 359 | | | | | | | | | | |
| | | DRN112M | | | | | 387 | | | | | | | | | | |
| | AT321 | DRN132S | 221 | 170 | 250 | 350 | 437 | 84 | 320 | | | | | | | | |
| | AT421 AT422 | DRN90L | 179 | 140 | 250 | 350 | 313 | 128 | 363 | | | | | | | | |
| | | DRN100LS | 197 | 157 | | | 309 | | | | | | | | | | |
| | | DRN100L | | | | | 359 | | | | | | | | | | |
| | | DRN112M | 221 | 170 | | | 387 | | | | | | | | | | |
| | | DRN132S | | | | | 437 | | | | | | | | | | |
| | AT541 AT542 | DRN132S | 221 | 170 | 350 | 470 | 437 | 159 | 478 | | | | | | | | |
| | | DRN132M | 261 | 228 | | | 439 | | | | | | | | | | |
| | | DRN132L | | | | | 464 | | | | | | | | | | |
| | | DRN160M | 316 | 253 | | | 532 | | | | | | | | | | |
| | | DRN160L | | | | | 532 | | | | | | | | | | |

25 002 04 01



| | | | AC | AD | G6 | G10 | LB | Z4 | Z5 | G2 |
|------------------|----------------|----------|---------|-----|-----|-----|-----|-----|-----|-----|
| R..97 | AT311 AT312 | DRN90S | 179 | 140 | 200 | 280 | 281 | 79 | 268 | 300 |
| | | DRM90L | | | | | 313 | | | |
| | | DRN100LM | 197 | 157 | | | 359 | | | |
| | | DRN112M | 221 | 170 | | | 387 | | | |
| | AT321 | DRN132S | 221 | 170 | 250 | 350 | 437 | 79 | 315 | |
| | AT421 AT422 | DRN90L | 179 | 140 | 250 | 350 | 313 | 123 | 358 | |
| | | DRN100LS | 197 | 157 | | | 309 | | | |
| | | DRN100L | | | | | 359 | | | |
| | | DRN112M | 221 | 170 | | | 387 | | | |
| | AT541 AT542 | DRN132S | 221 | 170 | 350 | 470 | 437 | 154 | 473 | |
| | | DRN132M | 261 | 228 | | | 439 | | | |
| | | DRN132L | | | | | 464 | | | |
| | | DRN160M | 316 | 253 | | | 532 | | | |
| | | DRN160L | | | | | 532 | | | |
| DRN180M | | 357 | 268 | 557 | | | | | | |
| DRN180L | | | | 557 | | | | | | |
| R..107 R..127 | AT311 AT312 | DRN100LM | 197 | 157 | 200 | 280 | 359 | 73 | 262 | |
| | | DRN112M | 221 | 170 | | | 387 | | | |
| | | AT321 | DRN132S | 221 | | | 170 | | | 250 |
| | AT421 AT422 | DRN100LS | 197 | 157 | 250 | 350 | 309 | 117 | 352 | |
| | | DRN100L | | | | | 359 | | | |
| | | DRN112M | 221 | 170 | | | 387 | | | |
| | | DRN132S | | | | | 437 | | | |
| | AT541 AT542 | DRN132S | 221 | 170 | 350 | 470 | 437 | 148 | 467 | |
| | | DRN132M | 261 | 228 | | | 439 | | | |
| | | DRN132L | | | | | 464 | | | |
| | | DRN160M | 316 | 253 | | | 532 | | | |
| | | DRN160L | | | | | 532 | | | |
| | | DRN180M | 357 | 268 | | | 557 | | | |
| | | DRN180L | | | | | 557 | | | |
| R..137 | AT421 AT422 | DRN100LS | 197 | 157 | 250 | 350 | 309 | 110 | 345 | |
| | | DRN100L | | | | | 359 | | | |
| | | DRN112M | 221 | 170 | | | 387 | | | |
| | | DRN132S | | | | | 437 | | | |
| | AT541 AT542 | DRN132S | 221 | 170 | 350 | 470 | 437 | 141 | 460 | |
| | | DRN132M | 261 | 228 | | | 439 | | | |
| | | DRN132L | | | | | 464 | | | |
| | | DRN160M | 316 | 253 | | | 532 | | | |
| | | DRN160L | | | | | 532 | | | |
| | | DRN180M | 357 | 268 | | | 557 | | | |
| | | DRN180L | | | | | 557 | | | |

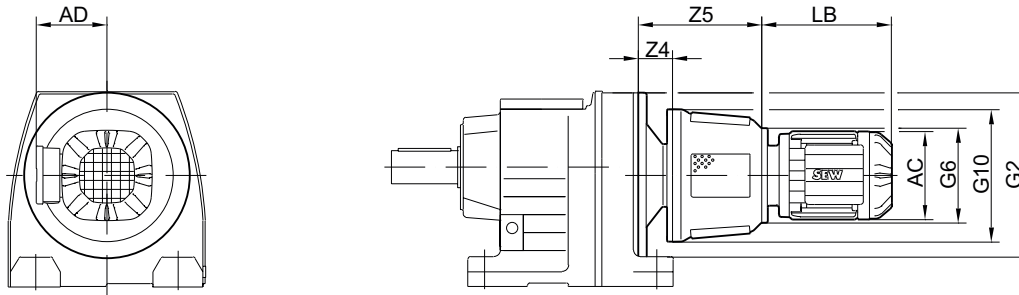
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8

R.. helical gear units

Dimension sheets for adapters with hydraulic start-up coupling (R..AT..)

25 003 04 01

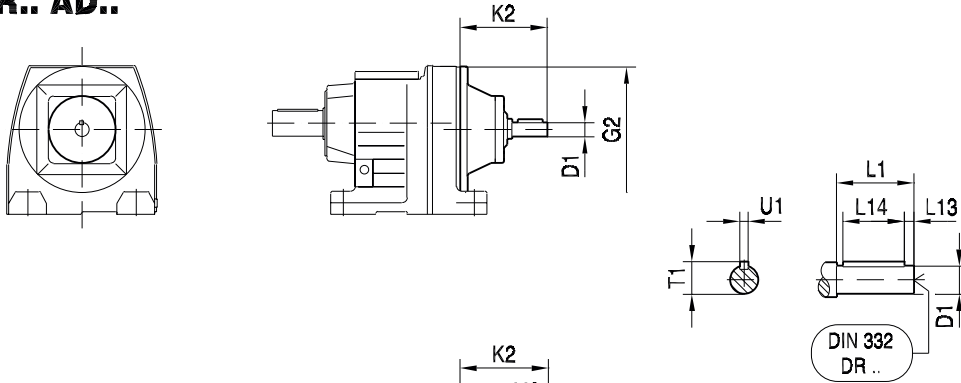


| | | | AC | AD | G6 | G10 | LB | Z4 | Z5 | G2 |
|--------|----------------|---------|-----|-----|-----|-----|-----|-----|-----|-----|
| R..147 | AT541 AT542 | DRN132M | 261 | 228 | 350 | 470 | 439 | 133 | 452 | 450 |
| | | DRN132L | | | | | 464 | | | |
| | | DRN160M | 316 | 253 | | | 532 | | | |
| | | DRN160L | | | | | 532 | | | |
| | | DRN180M | 357 | 268 | | | 557 | | | |
| | | DRN180L | | | | | 557 | | | |
| R..167 | AT541 AT542 | DRN160M | 316 | 253 | 350 | 470 | 532 | 125 | 444 | 550 |
| | | DRN160L | | | | | 532 | | | |
| | | DRN180M | 357 | 268 | | | 557 | | | |
| | | DRN180L | | | | | 557 | | | |

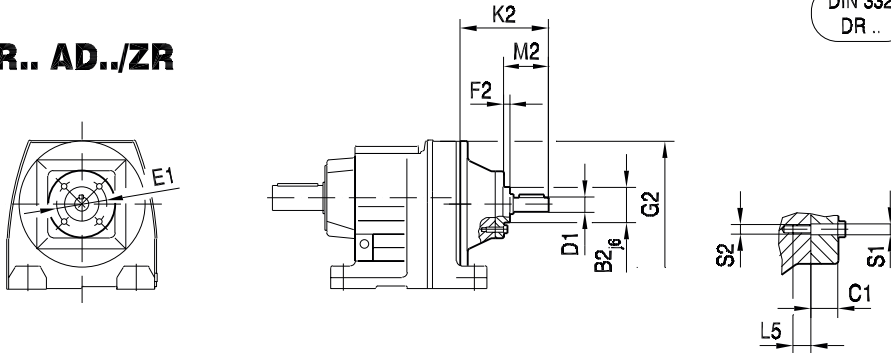
8.9 Dimension sheets for input shaft assembly (AD..)

R.. AD..

01 054 02 01



R.. AD../ZR



| | | B2 | C1 | E1 | F2 | G2 | K2 | L5 | M2 | S1 | S2 | D1 | L1 | L13 | L14 | T1 | U1 |
|-------------------------|-------------|-----|------|-----|----|-----|-----|----|-------|------|-----|----|-----|-----|-----|------|----|
| R..07 R..17 | AD01 | - | - | - | - | 105 | 72 | - | - | - | - | 14 | 30 | 4 | 22 | 16 | 5 |
| R..27 R..37 | AD1 | - | - | - | - | 120 | 102 | - | - | - | - | 16 | 40 | 4 | 32 | 18 | 5 |
| | AD2, AD2/ZR | 55 | 13.5 | 80 | 8 | | 130 | 12 | 50 | 9 | M8 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| R..47 R..57 R..67 | AD2, AD2/ZR | 55 | 13.5 | 80 | 8 | 160 | 123 | 12 | 50 | 9 | M8 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| | AD3, AD3/ZR | 70 | 15.5 | 105 | 8 | | 159 | 16 | 60 | 11 | M10 | 24 | 50 | 5 | 40 | 27 | 8 |
| R..77 | AD2, AD2/ZR | 55 | 13.5 | 80 | 8 | 200 | 116 | 12 | 50 | 9 | M8 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| | AD3, AD3/ZR | 70 | 15.5 | 105 | 8 | | 151 | 16 | 60 | 11 | M10 | 24 | 50 | 5 | 40 | 27 | 8 |
| | AD4, AD4/ZR | 100 | 16 | 130 | 13 | | 224 | 20 | 95.5 | 13.5 | M12 | 38 | 80 | 5 | 70 | 41 | 10 |
| R..87 | AD2, AD2/ZR | 55 | 13.5 | 80 | 8 | 250 | 111 | 12 | 50 | 9 | M8 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| | AD3, AD3/ZR | 70 | 15.5 | 105 | 8 | | 156 | 16 | 70 | 11 | M10 | 28 | 60 | 5 | 50 | 31 | 8 |
| | AD4, AD4/ZR | 100 | 16 | 130 | 13 | | 219 | 20 | 95.5 | 13.5 | M12 | 38 | 80 | 5 | 70 | 41 | 10 |
| | AD5, AD5/ZR | 120 | 24 | 180 | 11 | | 292 | 20 | 126 | 13.5 | M12 | 42 | 110 | 10 | 70 | 45 | 12 |
| R..97 | AD3, AD3/ZR | 70 | 15.5 | 105 | 8 | 300 | 151 | 16 | 70 | 11 | M10 | 28 | 60 | 5 | 50 | 31 | 8 |
| | AD4, AD4/ZR | 100 | 16 | 130 | 13 | | 214 | 20 | 95.5 | 13.5 | M12 | 38 | 80 | 5 | 70 | 41 | 10 |
| | AD5, AD5/ZR | 120 | 24 | 180 | 11 | | 287 | 20 | 126 | 13.5 | M12 | 42 | 110 | 10 | 70 | 45 | 12 |
| | AD6, AD6/ZR | 130 | 22.5 | 200 | 11 | | 327 | 26 | 130.5 | 17.5 | M16 | 48 | 110 | 10 | 80 | 51.5 | 14 |
| R..107 R..127 | AD3, AD3/ZR | 70 | 15.5 | 105 | 8 | 350 | 145 | 16 | 70 | 11 | M10 | 28 | 60 | 5 | 50 | 31 | 8 |
| | AD4, AD4/ZR | 100 | 16 | 130 | 13 | | 208 | 20 | 95.5 | 13.5 | M12 | 38 | 80 | 5 | 70 | 41 | 10 |
| | AD5, AD5/ZR | 120 | 24 | 180 | 11 | | 281 | 20 | 126 | 13.5 | M12 | 42 | 110 | 10 | 70 | 45 | 12 |
| | AD6, AD6/ZR | 130 | 22.5 | 200 | 11 | | 321 | 26 | 130.5 | 17.5 | M16 | 48 | 110 | 10 | 80 | 51.5 | 14 |
| R..137 | AD4, AD4/ZR | 100 | 16 | 130 | 13 | 400 | 201 | 20 | 95.5 | 13.5 | M12 | 38 | 80 | 5 | 70 | 41 | 10 |
| | AD5, AD5/ZR | 120 | 24 | 180 | 11 | | 274 | 20 | 126 | 13.5 | M12 | 42 | 110 | 10 | 70 | 45 | 12 |
| | AD6, AD6/ZR | 130 | 22.5 | 200 | 11 | | 314 | 26 | 130.5 | 17.5 | M16 | 48 | 110 | 10 | 80 | 51.5 | 14 |
| | AD7, AD7/ZR | 125 | 19 | 190 | 13 | | 308 | 30 | 133 | 22 | M20 | 55 | 110 | 10 | 90 | 59 | 16 |

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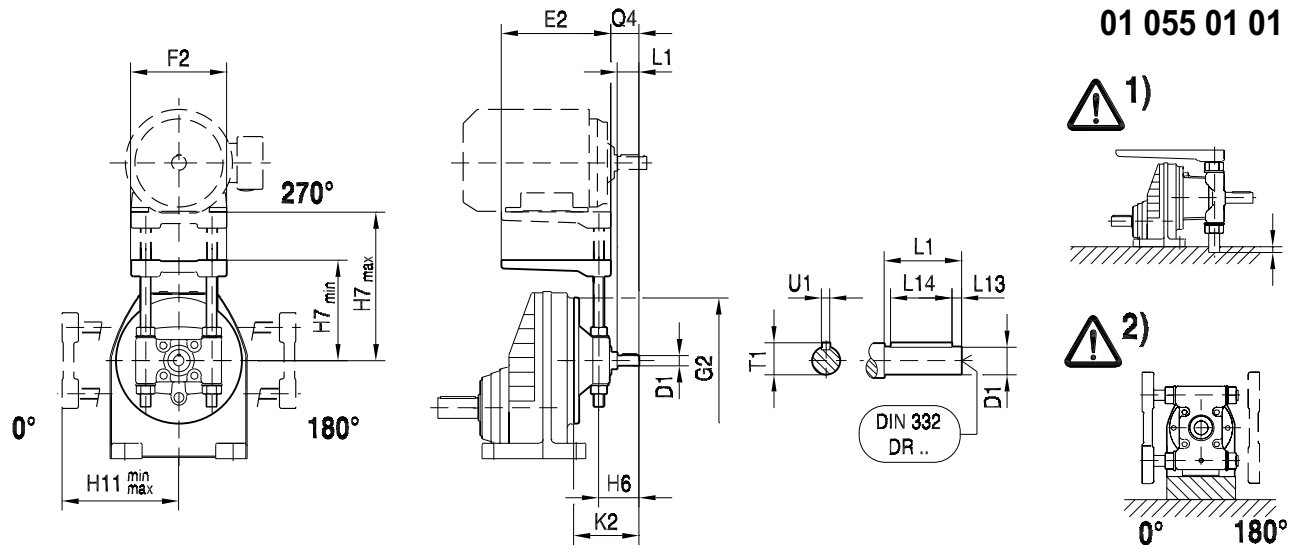
8

R.. helical gear units

Dimension sheets for input shaft assembly (AD..)

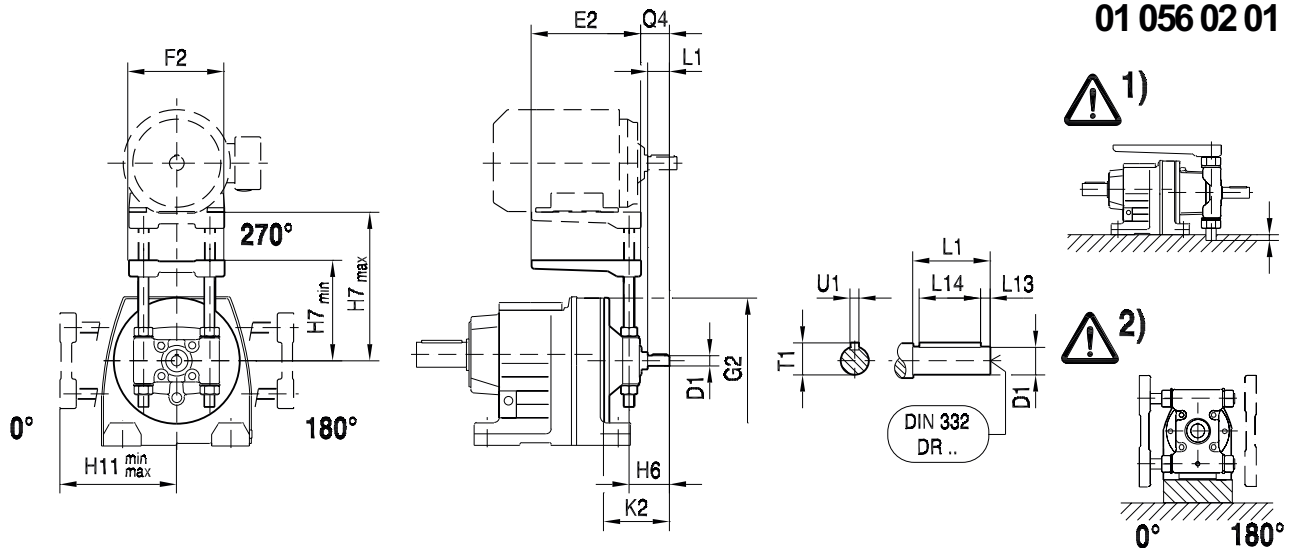
| | | B2 | C1 | E1 | F2 | G2 | K2 | L5 | M2 | S1 | S2 | D1 | L1 | L13 | L14 | T1 | U1 |
|--------|-------------|-----|------|-----|----|-----|-----|------|-------|------|-----|----|-----|-----|-----|------|----|
| R..147 | AD4, AD4/ZR | 100 | 16 | 130 | 13 | 450 | 193 | 20 | 95.5 | 13.5 | M12 | 38 | 80 | 5 | 70 | 41 | 10 |
| | AD5, AD5/ZR | 120 | 24 | 180 | 11 | | 266 | 20 | 126 | 13.5 | M12 | 42 | 110 | 10 | 70 | 45 | 12 |
| | AD6, AD6/ZR | 130 | 22.5 | 200 | 11 | | 306 | 26 | 130.5 | 17.5 | M16 | 48 | 110 | 10 | 80 | 51.5 | 14 |
| | AD7, AD7/ZR | 125 | 19 | 190 | 13 | | 300 | 30 | 133 | 22 | M20 | 55 | 110 | 10 | 90 | 59 | 16 |
| | AD8, AD8/ZR | 120 | 22.5 | 210 | 5 | | 383 | 19.5 | 155 | 13.5 | M12 | 70 | 140 | 15 | 110 | 74.5 | 20 |
| R..167 | AD5, AD5/ZR | 120 | 24 | 180 | 11 | 550 | 258 | 20 | 126 | 13.5 | M12 | 42 | 110 | 10 | 70 | 45 | 12 |
| | AD6, AD6/ZR | 130 | 22.5 | 200 | 11 | | 298 | 26 | 130.5 | 17.5 | M16 | 48 | 110 | 10 | 80 | 51.5 | 14 |
| | AD7, AD7/ZR | 125 | 19 | 190 | 13 | | 292 | 30 | 133 | 22 | M20 | 55 | 110 | 10 | 90 | 59 | 16 |
| | AD8, AD8/ZR | 120 | 22.5 | 210 | 5 | | 374 | 19.5 | 155 | 13.5 | M12 | 70 | 140 | 15 | 110 | 74.5 | 20 |

8.10 Dimension sheets for input shaft assembly with motor platform (AD../P)



| | | E2 | F2 | G2 | H6 | H7 min | H7 max | H11 min | H11 max | K2 | Q4 | D1 | L1 | L13 | L14 | T1 | U1 | ⚠ (→ 82) |
|---------|-------|-----|-----|-----|-----|--------|--------|---------|---------|-----|-----|----|-----|-----|-----|------|----|-------------|
| RX..57 | AD2/P | 195 | 180 | 160 | 65 | 110 | 165 | 115 | 165 | 123 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 | |
| | AD3/P | 230 | 240 | | 80 | 110 | 175 | 120 | 175 | 159 | 54 | 24 | 50 | 5 | 40 | 27 | 8 | 1), 2) |
| RX..67 | AD2/P | 195 | 180 | 160 | 65 | 110 | 165 | 125 | 165 | 123 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 | |
| | AD3/P | 230 | 240 | | 80 | 110 | 175 | 130 | 175 | 159 | 54 | 24 | 50 | 5 | 40 | 27 | 8 | 1) |
| RX..77 | AD2/P | 195 | 180 | 200 | 65 | 130 | 165 | 140 | 200 | 116 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 | |
| | AD3/P | 230 | 240 | | 80 | 135 | 175 | 145 | 175 | 151 | 54 | 24 | 50 | 5 | 40 | 27 | 8 | |
| | AD4/P | 345 | 291 | | 118 | 145 | 210 | 160 | 210 | 224 | 83 | 38 | 80 | 5 | 70 | 41 | 10 | 1), 2) |
| RX..87 | AD2/P | 195 | 180 | 250 | 65 | 160 | 200 | 170 | 200 | 111 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 | |
| | AD3/P | 230 | 240 | | 90 | 165 | 230 | 175 | 230 | 156 | 64 | 28 | 60 | 5 | 50 | 31 | 8 | |
| | AD4/P | 345 | 291 | | 118 | 170 | 210 | 195 | 280 | 219 | 83 | 38 | 80 | 5 | 70 | 41 | 10 | |
| | AD5/P | 430 | 355 | | 153 | 175 | 250 | 200 | 250 | 292 | 113 | 42 | 110 | 10 | 70 | 45 | 12 | 1), 2) |
| RX..97 | AD3/P | 230 | 240 | 300 | 90 | 185 | 230 | 205 | 320 | 151 | 64 | 28 | 60 | 5 | 50 | 31 | 8 | |
| | AD4/P | 345 | 291 | | 118 | 195 | 280 | 220 | 280 | 214 | 83 | 38 | 80 | 5 | 70 | 41 | 10 | |
| | AD5/P | 430 | 355 | | 153 | 195 | 250 | 225 | 325 | 287 | 113 | 42 | 110 | 10 | 70 | 45 | 12 | |
| RX..107 | AD3/P | 230 | 240 | 350 | 90 | 210 | 320 | 225 | 320 | 145 | 64 | 28 | 60 | 5 | 50 | 31 | 8 | |
| | AD4/P | 345 | 291 | | 118 | 220 | 280 | 270 | 360 | 208 | 83 | 38 | 80 | 5 | 70 | 41 | 10 | |
| | AD5/P | 430 | 355 | | 153 | 220 | 325 | 275 | 325 | 281 | 113 | 42 | 110 | 10 | 70 | 45 | 12 | |
| | AD6/P | 495 | 457 | | 163 | 245 | 310 | 250 | 310 | 321 | 114 | 48 | 110 | 10 | 80 | 51.5 | 14 | |

For bore dimensions and weight of the motor platform, refer to the chapter "Bore dimensions and weight" (→ 81).

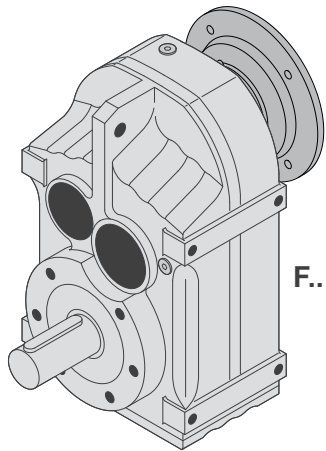


| | | E2 | F2 | G2 | H6 | H7 min | H7 max | H11 min | H11 max | K2 | Q4 | D1 | L1 | L13 | L14 | T1 | U1 | ⚠ (→ 82) |
|------------------|-------|-----|-----|-----|-----|--------|--------|---------|---------|-----|-----|----|-----|-----|-----|------|----|-------------|
| R..27 | AD2/P | 195 | 180 | 120 | 65 | 100 | 165 | 120 | 165 | 130 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 | 1), 2) |
| R..37 | AD2/P | 195 | 180 | 120 | 65 | 110 | 165 | 120 | 165 | 130 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 | 1), 2) |
| R..47 | AD2/P | 195 | 180 | 160 | 65 | 125 | 165 | 135 | 165 | 123 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 | 1), 2) |
| | AD3/P | 230 | 240 | | 80 | 130 | 175 | 140 | 175 | 159 | 54 | 24 | 50 | 5 | 40 | 27 | 8 | |
| R..57 | AD2/P | 195 | 180 | 160 | 65 | 125 | 165 | 145 | 200 | 123 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 | 1), 2) |
| | AD3/P | 230 | 240 | | 80 | 130 | 175 | 155 | 230 | 159 | 54 | 24 | 50 | 5 | 40 | 27 | 8 | |
| R..67 | AD2/P | 195 | 180 | 160 | 65 | 125 | 165 | 155 | 200 | 123 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 | 1), 2) |
| | AD3/P | 230 | 240 | | 80 | 130 | 175 | 160 | 230 | 159 | 54 | 24 | 50 | 5 | 40 | 27 | 8 | |
| R..77 | AD2/P | 195 | 180 | 200 | 65 | 135 | 200 | 165 | 200 | 116 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 | 1) |
| | AD3/P | 230 | 240 | | 80 | 145 | 175 | 170 | 230 | 151 | 54 | 24 | 50 | 5 | 40 | 27 | 8 | 1), 2) |
| | AD4/P | 345 | 291 | | 118 | 150 | 210 | 175 | 210 | 224 | 83 | 38 | 80 | 5 | 70 | 41 | 10 | |
| R..87 | AD2/P | 195 | 180 | 250 | 65 | 155 | 200 | 195 | 260 | 111 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 | 1), 2) |
| | AD3/P | 230 | 240 | | 90 | 165 | 230 | 185 | 230 | 156 | 64 | 28 | 60 | 5 | 50 | 31 | 8 | |
| | AD4/P | 345 | 291 | | 118 | 165 | 210 | 205 | 280 | 219 | 83 | 38 | 80 | 5 | 70 | 41 | 10 | |
| | AD5/P | 430 | 355 | | 153 | 210 | 250 | 215 | 250 | 292 | 113 | 42 | 110 | 10 | 70 | 45 | 12 | |
| R..97 | AD3/P | 230 | 240 | 300 | 90 | 180 | 230 | 235 | 320 | 151 | 64 | 28 | 60 | 5 | 50 | 31 | 8 | 1), 2) |
| | AD4/P | 345 | 291 | | 118 | 190 | 280 | 240 | 280 | 214 | 83 | 38 | 80 | 5 | 70 | 41 | 10 | |
| | AD5/P | 430 | 355 | | 153 | 190 | 250 | 245 | 325 | 287 | 113 | 42 | 110 | 10 | 70 | 45 | 12 | |
| R..107 R..127 | AD3/P | 230 | 240 | 350 | 90 | 230 | 320 | 230 | 320 | 145 | 64 | 28 | 60 | 5 | 50 | 31 | 8 | 1) |
| | AD4/P | 345 | 291 | | 118 | 230 | 280 | 265 | 360 | 208 | 83 | 38 | 80 | 5 | 70 | 41 | 10 | |
| | AD5/P | 430 | 355 | | 153 | 225 | 325 | 270 | 325 | 281 | 113 | 42 | 110 | 10 | 70 | 45 | 12 | |
| | AD6/P | 495 | 457 | | 163 | 245 | 310 | 250 | 310 | 321 | 114 | 48 | 110 | 10 | 80 | 51.5 | 14 | |
| R..137 | AD4/P | 345 | 291 | 400 | 118 | 245 | 280 | 280 | 360 | 201 | 83 | 38 | 80 | 5 | 70 | 41 | 10 | 1) |
| | AD5/P | 430 | 355 | | 153 | 245 | 325 | 285 | 325 | 274 | 113 | 42 | 110 | 10 | 70 | 45 | 12 | |
| | AD6/P | 495 | 457 | | 163 | 270 | 335 | 275 | 335 | 314 | 114 | 48 | 110 | 10 | 80 | 51.5 | 14 | |
| R..147 | AD4/P | 345 | 291 | 450 | 118 | 270 | 360 | 315 | 360 | 193 | 83 | 38 | 80 | 5 | 70 | 41 | 10 | 3) |
| | AD5/P | 430 | 355 | | 153 | 275 | 325 | 330 | 405 | 266 | 113 | 42 | 110 | 10 | 70 | 45 | 12 | |
| | AD6/P | 495 | 457 | | 163 | 295 | 360 | 310 | 360 | 306 | 114 | 48 | 110 | 10 | 80 | 51.5 | 14 | |
| | AD7/P | 650 | 570 | | 170 | 300 | 365 | 300 | 365 | 300 | 112 | 55 | 110 | 10 | 90 | 59 | 16 | |
| R..167 | AD5/P | 430 | 355 | 550 | 153 | 345 | 405 | 385 | 495 | 258 | 113 | 42 | 110 | 10 | 70 | 45 | 12 | 1) |
| | AD6/P | 495 | 457 | | 163 | 375 | 475 | 375 | 475 | 298 | 114 | 48 | 110 | 10 | 80 | 51.5 | 14 | |
| | AD7/P | 650 | 570 | | 170 | 375 | 475 | 380 | 475 | 292 | 112 | 55 | 110 | 10 | 90 | 59 | 16 | |

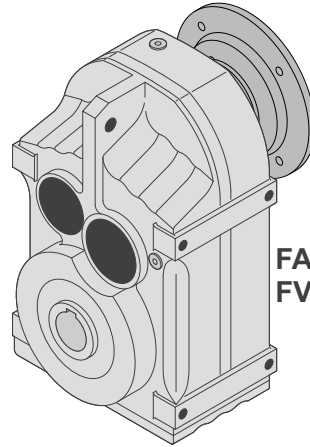
For bore dimensions and weight of the motor platform, refer to the chapter "Bore dimensions and weight" (→ 81).

9 F.. parallel-shaft helical gear units

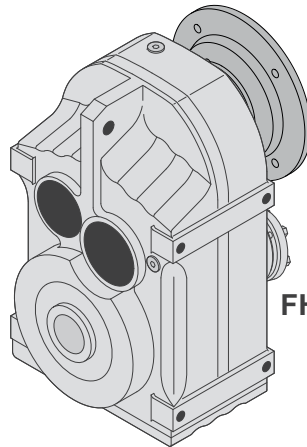
9.1 Selection tables for adapters for mounting IEC/NEMA motors (AMS..)



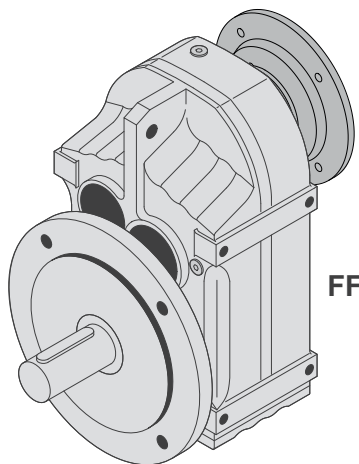
F.. AMS..



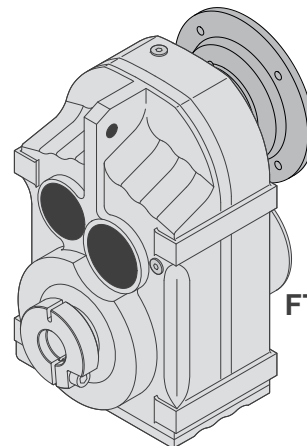
FA..B AMS..
FV..B AMS..



FH..B AMS..



FF.. AMS..



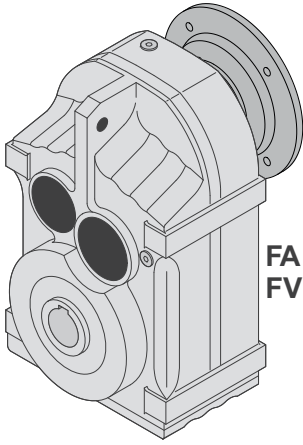
FT.. AMS..

18014419951038091

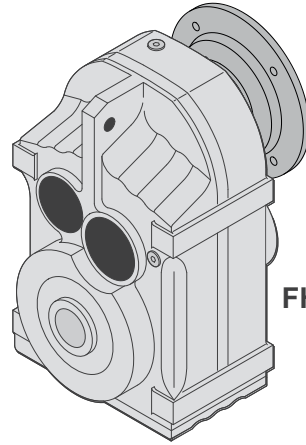
9

F.. parallel-shaft helical gear units

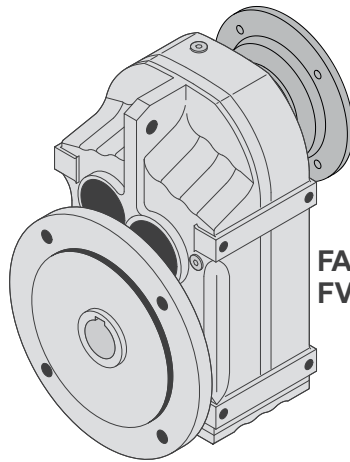
Selection tables for adapters for mounting IEC/NEMA motors (AMS..)



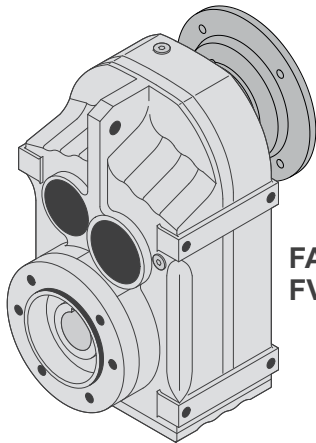
FA.. AMS..
FV.. AMS..



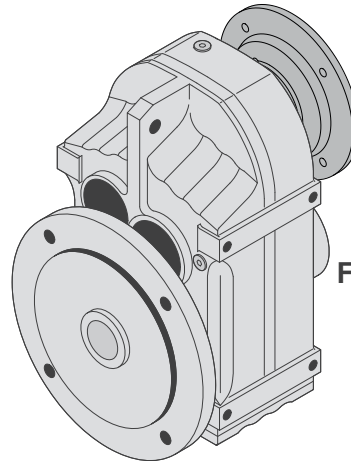
FH.. AMS..



FAF.. AMS..
FVF.. AMS..



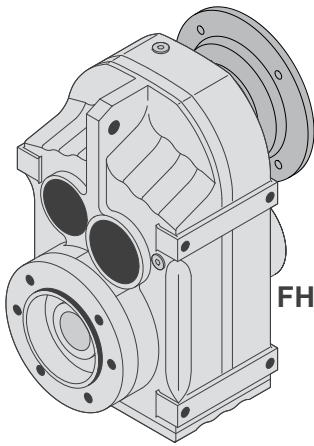
FAZ.. AMS..
FVZ.. AMS..



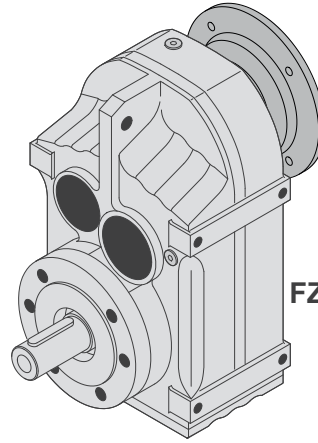
FHF.. AMS..

9007220696299531

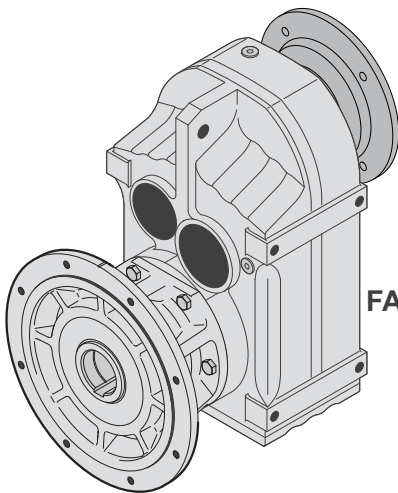
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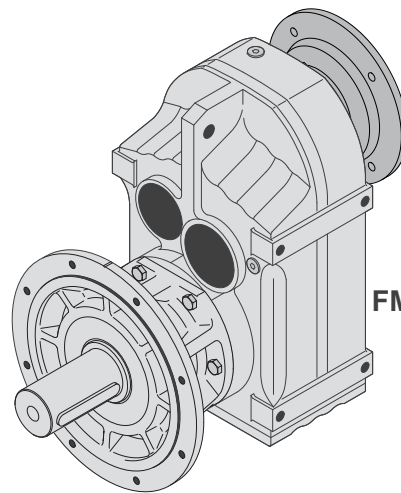
FHZ..AMS..



FZ..AMS..



FAM..AMS..





FM..AMS..





9007220696301963

9



F.. parallel-shaft helical gear units





Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| F27, $n_o = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 130 Nm | | | |
|--|----------------------------|-----------------------------|--------------------|----------------------|--------|-----|-----|-----|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | F_{Ra}^{-1} N | $\varphi_{(R)}$ ' | AMS | | | |
| | | | | | 63 | 71 | 80 | 90 |
|  2 | | | | | | | | |
| 4.16 | 337 | 87 | 1810 | - | 27 | 27 | 77 | 87 |
| 4.93 | 284 | 96 | 1860 | - | 33 | 33 | 92 | 96 |
| 5.27 | 266 | 100 | 1880 | - | 35 | 35 | 98 | 100 |
| 6.17 | 227 | 109 | 1940 | - | 41 | 41 | 109 | 109 |
| 6.91 | 203 | 114 | 2000 | - | 46 | 46 | 114 | 114 |
| 8.13 | 172 | 123 | 2080 | - | 54 | 54 | 123 | 123 |
| 9.40 | 149 | 130 | 2170 | - | 63 | 63 | 130 | 130 |
| 9.88 | 142 | 130 | 2400 | - | 66 | 66 | 130 | 130 |
| 10.55 | 133 | 130 | 2490 | - | 70 | 70 | 130 | 130 |
| 12.35 | 113 | 130 | 2700 | - | 82 | 82 | 130 | 130 |
| 13.84 | 101 | 130 | 2860 | - | 92 | 92 | 130 | 130 |
| 16.28 | 86 | 130 | 3110 | - | 109 | 109 | 130 | 130 |
| 18.84 | 74 | 130 | 3340 | - | 126 | 126 | 130 | 130 |
| 20.15 | 69 | 130 | 3450 | - | 130 | 130 | 130 | 130 |
| 23.25 | 60 | 130 | 3690 | - | 130 | 130 | 130 | |
| 27.18 | 52 | 130 | 3970 | - | 130 | 130 | | |
| 29.56 | 47 | 130 | 4120 | - | 130 | 130 | | |
|  3 | | | | | | | | |
| 33.83 | 41 | 130 | 4380 | - | 130 | 130 | 130 | 130 |
| 38.33 | 37 | 130 | 4500 | - | 130 | 130 | 130 | 130 |
| 40.89 | 34 | 130 | 4500 | - | 130 | 130 | 130 | 130 |
| 46.78 | 30 | 130 | 4500 | - | 130 | 130 | 130 | 130 |
| 50.19 | 28 | 130 | 4500 | - | 130 | 130 | 130 | 130 |
| 56.62 | 25 | 130 | 4500 | - | 130 | 130 | 130 | 130 |
| 63.86 | 22 | 130 | 4500 | - | 130 | 130 | 130 | 130 |
| 72.37 | 19 | 130 | 4500 | - | 130 | 130 | 130 | 130 |
| 77.21 | 18 | 130 | 4500 | - | 130 | 130 | 130 | 130 |
| 88.32 | 16 | 130 | 4500 | - | 130 | 130 | 130 | 130 |
| 94.76 | 15 | 130 | 4500 | - | 130 | 130 | 130 | 130 |
| 109.90 | 13 | 130 | 4500 | - | 130 | 130 | 130 | |
| 129.09 | 11 | 130 | 4500 | - | 130 | 130 | | |
| 140.74 | 9.9 | 130 | 4500 | - | 130 | 130 | | |

| F27, m /kg | | | AMS | | | | |
|------------|------|---|-----|-----|-----|-----|-----|
| FA | IEC | s | 63 | 71 | 80 | 90 | |
| | |  2 | 7.7 | 7.7 | 8.0 | 9.8 | 10 |
| | |  3 | 7.9 | 7.9 | 8.2 | 10 | 11 |
| | NEMA | s | - | 56 | 143 | 145 | |
| | |  2 | - | - | 8.9 | 9.6 | 9.6 |
| | |  3 | - | - | 9.2 | 9.9 | 9.9 |

FAF: + 0.70 kg / F: + 0.50 kg / FF: + 1.3 kg

| F37, $n_o = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 200 Nm | | | |
|--|----------------------------|-----------------------------|--------------------|-------------------|--------|-----|-----|-----|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{1)}$ N | $\Phi_{(R)}$ ' | AMS | | | |
| | | | | | 63 | 71 | 80 | 90 |
|  2 | | | | | | | | |
| 3.77 | 371 | 105 | 2470 | 12 | 25 | 25 | 70 | 91 |
| 4.22 | 332 | 110 | 2550 | 11 | 28 | 28 | 78 | 102 |
| 4.90 | 286 | 120 | 2630 | 11 | 32 | 32 | 91 | 110 |
| 5.21 | 269 | 125 | 2660 | 10 | 34 | 34 | 95 | 112 |
| 6.05 | 231 | 135 | 2750 | 10 | 40 | 40 | 106 | 118 |
| 6.74 | 208 | 140 | 2850 | 10 | 45 | 45 | 114 | 122 |
| 7.44 | 188 | 145 | 2940 | 10 | 49 | 49 | 121 | 124 |
| 8.01 | 175 | 170 | 2960 | 7 | 53 | 53 | 149 | 170 |
| 8.97 | 156 | 175 | 3080 | 7 | 59 | 59 | 167 | 175 |
| 10.42 | 134 | 185 | 3230 | 7 | 69 | 69 | 185 | 185 |
| 11.08 | 126 | 190 | 3290 | 7 | 74 | 74 | 190 | 190 |
| 12.87 | 109 | 200 | 3450 | 7 | 86 | 86 | 200 | 200 |
| 14.33 | 98 | 200 | 3650 | 6 | 96 | 96 | 200 | 200 |
| 15.81 | 89 | 200 | 3840 | 6 | 106 | 106 | 200 | 200 |
| 17.03 | 82 | 200 | 3990 | 6 | 114 | 114 | 200 | 200 |
| 19.27 | 73 | 200 | 4250 | 6 | 129 | 129 | 200 | 200 |
| 20.57 | 68 | 200 | 4390 | 6 | 138 | 138 | 200 | 200 |
| 23.63 | 59 | 200 | 4690 | 6 | 152 | 152 | 200 | |
|  3 | | | | | | | | |
| 23.88 | 59 | 200 | 4720 | 8 | 157 | 157 | 200 | 200 |
| 28.09 | 50 | 200 | 5090 | 8 | 186 | 186 | 200 | 200 |
| 31.69 | 44 | 200 | 5380 | 8 | 200 | 200 | 200 | 200 |
| 35.91 | 39 | 200 | 5700 | 8 | 200 | 200 | 200 | 200 |
| 38.31 | 37 | 200 | 5870 | 8 | 200 | 200 | 200 | 200 |
| 43.83 | 32 | 200 | 6240 | 8 | 200 | 200 | 200 | 200 |
| 47.02 | 30 | 200 | 6430 | 8 | 200 | 200 | 200 | 200 |
| 51.70 | 27 | 200 | 6710 | 7 | 200 | 200 | 200 | 200 |
| 54.54 | 26 | 200 | 6860 | 8 | 200 | 200 | 200 | |
| 58.32 | 24 | 200 | 7000 | 7 | 200 | 200 | 200 | 200 |
| 66.09 | 21 | 200 | 7000 | 7 | 200 | 200 | 200 | 200 |
| 70.50 | 20 | 200 | 7000 | 7 | 200 | 200 | 200 | 200 |
| 80.65 | 17 | 200 | 7000 | 7 | 200 | 200 | 200 | 200 |
| 86.53 | 16 | 200 | 7000 | 7 | 200 | 200 | 200 | 200 |
| 100.36 | 14 | 200 | 7000 | 7 | 200 | 200 | 200 | |
| 117.88 | 12 | 200 | 7000 | 7 | 200 | 200 | | |
| 128.51 | 11 | 200 | 7000 | 7 | 200 | 200 | | |







| F37, m /kg | | AMS | | | | | |
|------------|------|---|----|----|-----|-----|----|
| FA | IEC | s | 63 | 71 | 80 | 90 | |
| | |  | 2 | 14 | 14 | 16 | 16 |
| | |  | 3 | 14 | 14 | 16 | 17 |
| | NEMA | s | - | 56 | 143 | 145 | |
| | |  | 2 | - | 15 | 16 | 16 |
| | |  | 3 | - | 15 | 16 | 16 |


FAF: + 1.5 kg / F: + 0.45 kg / FF: + 2.3 kg


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F.. parallel-shaft helical gear units

Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| F47, $n_o = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 400 Nm | | | |
|---|----------------------------|---|--------------------|-------------------|--------|-----|-----|-----|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | F_{Ra}^{-1} N | $\Phi_{(R)}$ ' | AMS | | | |
| | | | | | 63 | 71 | 80 | 90 |
|  2 | | | | | | | | |
| 4.99 | 281 | 320 | 1160 | 9 | 33 | 33 | 92 | 121 |
| 5.76 | 243 | 340 | 1180 | 9 | 38 | 38 | 107 | 140 |
| 6.34 | 221 | 350 | 1230 | 8 | 42 | 42 | 117 | 154 |
| 7.44 | 188 | 380 | 1190 | 8 | 49 | 49 | 138 | 166 |
| 7.88 | 178 | 380 | 1280 | 8 | 52 | 52 | 144 | 169 |
| 8.96 | 156 | 330 | 1970 | 8 | 59 | 59 | 156 | 174 |
| 10.97 | 128 | 400 | 2060 | 6 | 72 | 72 | 200 | 265 |
| 12.66 | 111 | 400 | 2320 | 6 | 84 | 84 | 235 | 305 |
| 13.93 | 101 | 400 | 2510 | 6 | 92 | 92 | 255 | 335 |
| 16.36 | 86 | 400 | 2840 | 6 | 109 | 109 | 300 | 365 |
| 17.33 | 81 | 400 | 2960 | 6 | 115 | 115 | 315 | 370 |
| 19.70 | 71 | 400 | 3230 | 6 | 131 | 131 | 345 | 380 |
| 21.82 | 64 | 400 | 3460 | 6 | 145 | 145 | 365 | 395 |
| 25.72 | 54 | 400 | 3850 | 6 | 171 | 171 | 400 | 400 |
| 29.32 | 48 | 400 | 4170 | 6 | 195 | 195 | 400 | 400 |
| 30.86 | 45 | 400 | 4300 | 6 | 205 | 205 | 400 | 400 |
|  3 | | | | | | | | |
| 28.88 | 48 | 400 | 4130 | 7 | 190 | 190 | 400 | 400 |
| 34.29 | 41 | 400 | 4580 | 7 | 225 | 225 | 400 | 400 |
| 36.61 | 38 | 400 | 4750 | 7 | 240 | 240 | 400 | 400 |
| 42.86 | 33 | 400 | 5190 | 7 | 280 | 280 | 400 | 400 |
| 48.00 | 29 | 400 | 5520 | 7 | 315 | 315 | 400 | 400 |
| 56.49 | 25 | 400 | 6020 | 7 | 370 | 370 | 400 | 400 |
| 65.36 | 21 | 400 | 6490 | 7 | 400 | 400 | 400 | 400 |
| 68.09 | 21 | 400 | 6620 | 6 | 400 | 400 | 400 | 400 |
| 79.72 | 18 | 400 | 7160 | 6 | 400 | 400 | 400 | 400 |
| 89.29 | 16 | 400 | 7570 | 6 | 400 | 400 | 400 | 400 |
| 105.09 | 13 | 400 | 8180 | 6 | 400 | 400 | 400 | 400 |
| 121.57 | 12 | 400 | 8760 | 6 | 400 | 400 | 400 | 400 |
| 130.07 | 11 | 400 | 9040 | 6 | 400 | 400 | 400 | 400 |
| 150.06 | 9.3 | 400 | 9640 | 6 | 400 | 400 | 400 | |
| 175.38 | 8.0 | 400 | 10000 | 6 | 400 | 400 | | |
| 190.76 | 7.3 | 400 | 10000 | 6 | 400 | 400 | | |
| F47, m /kg | | | | | AMS | | | |
| FA | IEC | s | 63 | 71 | 80 | 90 | | |
| | |  2 | 18 | 18 | 20 | 21 | | |
| | |  3 | 19 | 19 | 21 | 21 | | |
| | NEMA | s | - | 56 | 143 | 145 | | |
| | |  2 | - | 19 | 20 | 20 | | |
| | |  3 | - | 20 | 21 | 21 | | |
| FAF: + 2.7 kg / F: + 0.80 kg / FF: + 3.9 kg | | | | | | | | |

| F57, $n_o = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 600 Nm | | | | | | |
|---|----------------------------|-----------------------------|--------------------|-------------------|--------|-----|-----|-----|-----|-----|--------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{1)}$ N | $\Phi_{(R)}$ ' | AMS | | | | | | |
| | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M |
|  2 | | | | | | | | | | | |
| 5.18 | 270 | 415 | 2020 | 9 | 34 | 34 | 96 | 126 | 215 | 295 | 415 |
| 5.98 | 234 | 420 | 2240 | 9 | 39 | 39 | 111 | 145 | 240 | 320 | 420 |
| 6.58 | 213 | 420 | 2430 | 8 | 43 | 43 | 122 | 160 | 255 | 330 | 420 |
| 7.73 | 181 | 420 | 2760 | 8 | 51 | 51 | 141 | 172 | 285 | 355 | 420 |
| 8.19 | 171 | 420 | 2880 | 8 | 54 | 54 | 147 | 175 | 295 | 360 | 405 |
| 9.31 | 150 | 420 | 3170 | 8 | 61 | 61 | 160 | 180 | 320 | 370 | |
| 10.64 | 132 | 600 | 2470 | 6 | 70 | 70 | 197 | 255 | 445 | 600 | 600 |
| 12.29 | 114 | 600 | 2810 | 6 | 81 | 81 | 225 | 295 | 495 | 600 | 600 |
| 13.52 | 104 | 600 | 3050 | 6 | 89 | 89 | 250 | 325 | 530 | 600 | 600 |
| 15.88 | 88 | 600 | 3470 | 6 | 105 | 105 | 290 | 350 | 590 | 600 | 600 |
| 16.81 | 83 | 600 | 3630 | 6 | 111 | 111 | 300 | 360 | 600 | 600 | 600 |
| 19.11 | 73 | 600 | 3980 | 6 | 127 | 127 | 325 | 370 | 600 | 600 | |
| 21.17 | 66 | 600 | 4280 | 6 | 140 | 140 | 350 | 380 | 600 | 600 | |
| 24.96 | 56 | 575 | 4970 | 6 | 166 | 166 | 385 | 395 | 575 | | |
| 28.45 | 49 | 535 | 5690 | 6 | 189 | 189 | 395 | 405 | | | |
| 29.94 | 47 | 545 | 5790 | 6 | 199 | 199 | 400 | 410 | | | |
| 34.24 | 41 | 500 | 6580 | 6 | 215 | 215 | 410 | | | | |
| 40.13 | 35 | 290 | 8750 | 6 | 220 | 220 | | | | | |

| | | | | | | | | | | | |
|--|-----|-----|-------|---|-----|-----|-----|-----|-----|-----|-----|
|  3 | | | | | | | | | | | |
| 30.15 | 46 | 590 | 5460 | 7 | 198 | 198 | 550 | 590 | 590 | 590 | 590 |
| 35.79 | 39 | 600 | 5980 | 7 | 235 | 235 | 600 | 600 | 600 | 600 | 600 |
| 38.21 | 37 | 600 | 6210 | 7 | 250 | 250 | 600 | 600 | 600 | 600 | 600 |
| 44.73 | 31 | 600 | 6790 | 7 | 290 | 290 | 600 | 600 | 600 | 600 | |
| 50.10 | 28 | 600 | 7230 | 7 | 325 | 325 | 600 | 600 | 600 | 600 | |
| 58.97 | 24 | 600 | 7890 | 7 | 385 | 385 | 600 | 600 | 600 | | |
| 68.22 | 21 | 600 | 8510 | 6 | 445 | 445 | 600 | 600 | | | |
| 72.98 | 19 | 600 | 8810 | 6 | 475 | 475 | 600 | 600 | | | |
| 83.46 | 17 | 600 | 9420 | 6 | 545 | 545 | 600 | 600 | 600 | 600 | |
| 93.47 | 15 | 600 | 9960 | 6 | 600 | 600 | 600 | 600 | 600 | 600 | |
| 110.01 | 13 | 600 | 10800 | 6 | 600 | 600 | 600 | 600 | 600 | | |
| 127.27 | 11 | 600 | 11500 | 6 | 600 | 600 | 600 | 600 | | | |
| 136.16 | 10 | 600 | 11500 | 6 | 600 | 600 | 600 | 600 | | | |
| 157.09 | 8.9 | 600 | 11500 | 6 | 600 | 600 | 600 | | | | |
| 183.60 | 7.6 | 600 | 11500 | 6 | 600 | 600 | | | | | |
| 199.70 | 7.0 | 600 | 11500 | 6 | 600 | 600 | | | | | |

| F57, m /kg | | | AMS | | | | | | |
|------------|------|---|-----|----|-----|-----|-----|-----|---------|
| FA | IEC | s | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M |
| | |  | 26 | 26 | 28 | 29 | 33 | 33 | 38 |
| | |  | 27 | 27 | 29 | 30 | 34 | 34 | 39 |
| | NEMA | s | - | 56 | 143 | 145 | 182 | 184 | 213/215 |
| | |  | - | 27 | 28 | 28 | 32 | 32 | 35 |
| | |  | - | 28 | 29 | 29 | 32 | 32 | 36 |



FAF: + 5.5 kg / F: + 0.20 kg / FF: + 6.6 kg





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9

F.. parallel-shaft helical gear units



Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| F67, $n_o = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | AMS | | | | | | | 820 Nm |
|---|----------------------------|-----------------------------|--------------------|-------------------|-----|-----|-----|-----|-----|-----|--------|--------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | F_{Ra}^{-1} N | $\Phi_{(R)}$ ' | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M | |
|  2 | | | | | | | | | | | | |
| 3.97 | 353 | 500 | 1220 | 10 | | | 73 | 96 | 188 | 235 | 395 | |
| 4.66 | 300 | 560 | 1020 | 9 | | | 86 | 112 | 210 | 275 | 440 | |
| 5.25 | 267 | 590 | 1010 | 9 | | | 97 | 127 | 230 | 310 | 475 | |
| 5.95 | 235 | 610 | 1090 | 9 | 39 | 39 | 110 | 144 | 255 | 345 | 515 | |
| 6.78 | 206 | 620 | 1280 | 9 | 44 | 44 | 125 | 164 | 280 | 365 | 555 | |
| 7.53 | 186 | 610 | 1570 | 8 | 49 | 49 | 139 | 183 | 300 | 380 | 590 | |
| 8.60 | 163 | 570 | 2180 | 8 | 56 | 56 | 159 | 193 | 330 | 395 | 540 | |
| 9.08 | 154 | 530 | 2620 | 8 | 60 | 60 | 168 | 196 | 340 | 400 | 515 | |
| 9.66 | 145 | 820 | 1580 | 6 | | | 178 | 230 | 455 | 575 | 820 | |
| 11.31 | 124 | 820 | 1960 | 6 | | | 205 | 270 | 515 | 675 | 820 | |
| 12.76 | 110 | 820 | 2260 | 6 | | | 235 | 305 | 570 | 760 | 820 | |
| 14.46 | 97 | 820 | 2580 | 6 | 95 | 95 | 265 | 350 | 625 | 820 | 820 | |
| 16.48 | 85 | 820 | 2940 | 6 | 109 | 109 | 305 | 400 | 685 | 820 | 820 | |
| 18.29 | 77 | 820 | 3230 | 6 | 121 | 121 | 335 | 440 | 740 | 820 | 820 | |
| 20.90 | 67 | 820 | 3620 | 5 | 138 | 138 | 385 | 470 | 800 | 820 | 820 | |
| 22.05 | 63 | 820 | 3780 | 5 | 145 | 145 | 405 | 475 | 820 | 820 | 820 | |
| 25.13 | 56 | 820 | 4190 | 5 | 166 | 166 | 445 | 490 | 820 | 820 | | |
| 27.41 | 51 | 820 | 4470 | 5 | 181 | 181 | 470 | 495 | 820 | 820 | | |
| 32.08 | 44 | 820 | 5000 | 5 | 210 | 210 | 500 | 515 | 810 | | | |
| 36.30 | 39 | 820 | 5440 | 5 | 240 | 240 | 520 | 530 | | | | |
|  3 | | | | | | | | | | | | |
| 34.01 | 41 | 740 | 5730 | 6 | 220 | 220 | 620 | 740 | 740 | 740 | 740 | |
| 39.26 | 36 | 780 | 5980 | 6 | 255 | 255 | 720 | 780 | 780 | 780 | 780 | |
| 43.20 | 32 | 820 | 6080 | 6 | 280 | 280 | 790 | 820 | 820 | 820 | 820 | |
| 50.74 | 28 | 820 | 6710 | 6 | 330 | 330 | 820 | 820 | 820 | 820 | 820 | |
| 53.73 | 26 | 820 | 6940 | 6 | 350 | 350 | 820 | 820 | 820 | 820 | 820 | |
| 61.07 | 23 | 820 | 7480 | 6 | 395 | 395 | 820 | 820 | 820 | 820 | | |
| 67.65 | 21 | 820 | 7930 | 6 | 440 | 440 | 820 | 820 | 820 | 820 | | |
| 79.76 | 18 | 820 | 8680 | 6 | 520 | 520 | 820 | 820 | 820 | | | |
| 90.59 | 15 | 820 | 9290 | 6 | 590 | 590 | 820 | 820 | 820 | 820 | 820 | |
| 95.94 | 15 | 820 | 9570 | 6 | 625 | 625 | 820 | 820 | 820 | 820 | 820 | |
| 109.04 | 13 | 820 | 10200 | 6 | 710 | 710 | 820 | 820 | 820 | 820 | | |
| 120.79 | 12 | 820 | 10800 | 6 | 785 | 785 | 820 | 820 | 820 | 820 | | |
| 142.40 | 9.8 | 820 | 11700 | 6 | 820 | 820 | 820 | 820 | 820 | | | |
| 162.31 | 8.6 | 820 | 12400 | 6 | 820 | 820 | 820 | 820 | | | | |
| 170.85 | 8.2 | 820 | 12700 | 6 | 820 | 820 | 820 | 820 | | | | |
| 195.39 | 7.2 | 820 | 13000 | 6 | 820 | 820 | 820 | | | | | |
| 228.99 | 6.1 | 820 | 13000 | 6 | 820 | 820 | | | | | | |

| F67, m /kg | | | AMS | | | | | | |
|------------|---|---|-----|----|-----|-----|-----|-----|---------|
| FA | IEC | s | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M |
| | |  2 | 29 | 30 | 31 | 32 | 36 | 36 | 41 |
| | |  3 | 30 | 31 | 33 | 33 | 37 | 38 | 42 |
| | NEMA | s | - | 56 | 143 | 145 | 182 | 184 | 213/215 |
| | |  2 | - | 31 | 31 | 31 | 35 | 35 | 38 |
| |  3 | - | 32 | 33 | 33 | 36 | 36 | 40 | |

FAF: + 6.3 kg / F: + 2.8 kg / FF: + 8.9 kg

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| F77, $n_o = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | | | | | | | 1500 Nm | | |
|---|----------------------------|-----------------------------|---------------------|-------------------|------|------|------|------|------|------|---------|-------|------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\Phi_{(R)}$ ' | AMS | | | | | | | | |
| | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M | 132ML | |
|  2 | | | | | | | | | | | | | |
| 4.28 | 327 | 1010 | 630 | 8 | | | | | | 215 | 250 | 470 | 630 |
| 5.16 | 271 | 1080 | 640 | 8 | | | | | | 255 | 305 | 570 | 685 |
| 5.76 | 243 | 1080 | 930 | 8 | | | 105 | 138 | 280 | 340 | 625 | 715 | |
| 6.64 | 211 | 1080 | 1310 | 8 | | | 122 | 160 | 310 | 395 | 690 | 755 | |
| 7.39 | 189 | 1080 | 1610 | 7 | | | 136 | 178 | 340 | 440 | 740 | 780 | |
| 8.26 | 169 | 1080 | 1940 | 7 | 53 | 53 | 152 | 200 | 370 | 490 | 795 | 800 | |
| 9.30 | 151 | 1080 | 2300 | 7 | 60 | 60 | 171 | 225 | 400 | 505 | 830 | 830 | |
| 10.93 | 128 | 1500 | 2080 | 6 | | | | | | 540 | 650 | 1210 | 1460 |
| 12.20 | 115 | 1500 | 2450 | 5 | | | 220 | 290 | 590 | 725 | 1330 | 1500 | |
| 14.06 | 100 | 1500 | 2940 | 5 | | | 255 | 335 | 665 | 830 | 1470 | 1500 | |
| 15.64 | 90 | 1500 | 3330 | 5 | | | 285 | 375 | 720 | 930 | 1500 | 1500 | |
| 17.49 | 80 | 1500 | 3750 | 5 | 114 | 114 | 320 | 420 | 785 | 1040 | 1500 | 1500 | |
| 19.70 | 71 | 1500 | 4220 | 5 | 128 | 128 | 360 | 475 | 850 | 1070 | 1500 | 1500 | |
| 21.43 | 65 | 1500 | 4560 | 5 | 139 | 139 | 395 | 515 | 900 | 1100 | 1500 | | |
| 25.50 | 55 | 1500 | 5300 | 5 | 166 | 166 | 470 | 555 | 1010 | 1140 | 1500 | | |
| 28.75 | 49 | 1430 | 6190 | 5 | 187 | 187 | 525 | 565 | 1080 | 1160 | | | |
| 31.51 | 44 | 1380 | 6870 | 5 | 205 | 205 | 560 | 575 | 1130 | 1180 | | | |
| 36.58 | 38 | 1110 | 8990 | 5 | 235 | 235 | 580 | 590 | 1050 | | | | |
|  3 | | | | | | | | | | | | | |
| 25.54 | 55 | 1450 | 5560 | 6 | | | 460 | 605 | 1300 | 1450 | 1450 | 1450 | |
| 29.91 | 47 | 1500 | 6010 | 6 | | | 540 | 710 | 1490 | 1500 | 1500 | 1500 | |
| 33.74 | 41 | 1500 | 6580 | 6 | | | 615 | 800 | 1500 | 1500 | 1500 | 1500 | |
| 38.23 | 37 | 1500 | 7190 | 6 | 245 | 245 | 695 | 910 | 1500 | 1500 | 1500 | 1500 | |
| 43.58 | 32 | 1500 | 7850 | 6 | 280 | 280 | 795 | 1040 | 1500 | 1500 | 1500 | 1500 | |
| 48.37 | 29 | 1500 | 8410 | 6 | 310 | 310 | 880 | 1150 | 1500 | 1500 | 1500 | | |
| 55.27 | 25 | 1500 | 9140 | 6 | 355 | 355 | 1000 | 1260 | 1500 | 1500 | 1500 | | |
| 58.32 | 24 | 1500 | 9450 | 6 | 375 | 375 | 1060 | 1280 | 1500 | 1500 | 1500 | | |
| 66.46 | 21 | 1500 | 10200 | 6 | 425 | 425 | 1210 | 1320 | 1500 | 1500 | | | |
| 72.50 | 19 | 1500 | 10700 | 6 | 465 | 465 | 1310 | 1340 | 1500 | 1500 | | | |
| 75.02 | 19 | 1500 | 11000 | 6 | 480 | 480 | 1370 | 1500 | 1500 | 1500 | 1500 | | |
| 85.52 | 16 | 1500 | 11800 | 6 | 550 | 550 | 1500 | 1500 | 1500 | 1500 | 1500 | | |
| 94.93 | 15 | 1500 | 12500 | 5 | 610 | 610 | 1500 | 1500 | 1500 | 1500 | 1500 | | |
| 108.46 | 13 | 1500 | 13400 | 5 | 695 | 695 | 1500 | 1500 | 1500 | 1500 | 1500 | | |
| 114.45 | 12 | 1500 | 13800 | 5 | 735 | 735 | 1500 | 1500 | 1500 | 1500 | 1500 | | |
| 130.42 | 11 | 1500 | 14800 | 5 | 840 | 840 | 1500 | 1500 | 1500 | 1500 | | | |
| 142.27 | 9.8 | 1500 | 15400 | 5 | 910 | 910 | 1500 | 1500 | 1500 | 1500 | | | |
| 166.47 | 8.4 | 1500 | 16700 | 5 | 1070 | 1070 | 1500 | 1500 | 1500 | | | | |
| 188.40 | 7.4 | 1500 | 17700 | 5 | 1210 | 1210 | 1500 | 1500 | | | | | |
| 198.31 | 7.1 | 1500 | 18100 | 5 | 1270 | 1270 | 1500 | 1500 | | | | | |
| 225.79 | 6.2 | 1500 | 19300 | 5 | 1450 | 1450 | 1500 | | | | | | |
| 262.93 | 5.3 | 1500 | 20000 | 5 | 1500 | 1500 | | | | | | | |
| 281.71 | 5.0 | 1500 | 20000 | 5 | 1500 | 1500 | | | | | | | |


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9





F.. parallel-shaft helical gear units

Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| F77, m /kg | | AMS | | | | | | | | |
|---|------|---|----|-----------|------------|------------|------------|------------|----------------|-------|
| FA | IEC | s | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M | 132ML |
| | |  2 | 52 | 52 | 54 | 55 | 59 | 59 | 64 | 64 |
| | |  3 | 53 | 54 | 55 | 56 | 61 | 61 | 66 | 66 |
| | NEMA | s | - | 56 | 143 | 145 | 182 | 184 | 213/215 | - |
| | |  2 | - | 53 | 54 | 54 | 58 | 58 | 61 | - |
| | |  3 | - | 55 | 55 | 55 | 59 | 59 | 63 | - |
| FAF: + 6.6 kg / F: + 3.8 kg / FF: + 14 kg | | | | | | | | | | |

| F87, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 3000 Nm | | | | | | | | |
|--|----------------------------|-----------------------------|--------------------|-------------------|---------|-----|------|------|--------|-------|------|------|------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | F_{Ra}^{-1} N | $\Phi_{(R)}$ ' | AMS | | | | | | | | |
| | | | | | 80 | 90 | 100 | 112 | 132S/M | 132ML | 160 | 180 | |
|  2 | | | | | | | | | | | | | |
| 4.12 | 340 | 1460 | 3020 | 7 | | | | | | 450 | 685 | 755 | 1260 |
| 4.92 | 285 | 1530 | 3310 | 7 | | | | | | 540 | 790 | 900 | 1490 |
| 5.63 | 249 | 1530 | 3850 | 7 | | | 285 | 330 | 620 | 820 | 1030 | 1530 | |
| 6.65 | 211 | 1530 | 4550 | 7 | | | 330 | 390 | 735 | 880 | 1220 | 1530 | |
| 7.35 | 190 | 1530 | 5000 | 7 | 133 | 176 | 360 | 435 | 795 | 910 | 1350 | 1530 | |
| 8.29 | 169 | 1530 | 5550 | 7 | 151 | 199 | 395 | 490 | 860 | 940 | 1530 | 1530 | |
| 9.58 | 146 | 2880 | 275 | 7 | | | | | 1050 | 1600 | 1760 | 2880 | |
| 11.46 | 122 | 3000 | 575 | 7 | | | | | 1260 | 1840 | 2110 | 3000 | |
| 13.12 | 107 | 3000 | 1300 | 7 | | | 670 | 775 | 1440 | 1920 | 2410 | 3000 | |
| 15.48 | 90 | 3000 | 2220 | 7 | | | 775 | 910 | 1710 | 2050 | 2850 | 3000 | |
| 17.12 | 82 | 3000 | 2810 | 7 | 310 | 405 | 840 | 1010 | 1850 | 2120 | 3000 | 3000 | |
| 19.31 | 73 | 3000 | 3540 | 7 | 350 | 460 | 920 | 1140 | 2000 | 2180 | 3000 | 3000 | |
| 21.32 | 66 | 3000 | 4160 | 7 | 390 | 510 | 1000 | 1270 | 2130 | 2240 | 3000 | 3000 | |
| 23.68 | 59 | 3000 | 4850 | 7 | 430 | 570 | 1080 | 1410 | 2270 | 2300 | 3000 | | |
| 26.50 | 53 | 3000 | 5610 | 7 | 485 | 635 | 1170 | 1450 | 2370 | 2360 | 3000 | | |
| 28.78 | 49 | 2450 | 8940 | 7 | 525 | 690 | 1240 | 1480 | 2420 | | | | |
| 33.92 | 41 | 2610 | 9340 | 7 | 620 | 745 | 1370 | 1530 | 2490 | | | | |

|  3 | | | | | | | | | | | | | |
|---|-----|------|-------|---|------|------|------|------|------|------|------|------|--|
| 29.20 | 48 | 2510 | 8740 | 8 | | | 1530 | 1700 | 2510 | 2510 | 2510 | 2510 | |
| 35.19 | 40 | 2610 | 9610 | 8 | | | 1810 | 2060 | 2610 | 2610 | 2610 | 2610 | |
| 39.30 | 36 | 2720 | 9910 | 8 | 705 | 920 | 1990 | 2300 | 2720 | 2720 | 2720 | 2720 | |
| 45.28 | 31 | 2820 | 10500 | 8 | 810 | 1070 | 2250 | 2660 | 2820 | 2820 | 2820 | 2820 | |
| 50.36 | 28 | 2940 | 10800 | 7 | 910 | 1190 | 2460 | 2940 | 2940 | 2940 | 2940 | 2940 | |
| 56.75 | 25 | 3000 | 11600 | 7 | | | 2970 | 3000 | 3000 | 3000 | 3000 | | |
| 68.40 | 20 | 3000 | 13300 | 7 | | | 3000 | 3000 | 3000 | 3000 | 3000 | | |
| 76.39 | 18 | 3000 | 14300 | 7 | 1370 | 1800 | 3000 | 3000 | 3000 | 3000 | 3000 | | |
| 88.01 | 16 | 3000 | 15800 | 7 | 1580 | 2080 | 3000 | 3000 | 3000 | 3000 | 3000 | | |
| 97.89 | 14 | 3000 | 16900 | 7 | 1770 | 2320 | 3000 | 3000 | 3000 | 3000 | 3000 | | |
| 109.49 | 13 | 3000 | 18100 | 7 | 1980 | 2600 | 3000 | 3000 | 3000 | 3000 | 3000 | | |
| 123.29 | 11 | 3000 | 19400 | 7 | 2230 | 2930 | 3000 | 3000 | 3000 | 3000 | 3000 | | |
| 134.16 | 10 | 3000 | 20400 | 7 | 2430 | 3000 | 3000 | 3000 | 3000 | | | | |
| 159.61 | 8.8 | 3000 | 22500 | 7 | 2890 | 3000 | 3000 | 3000 | 3000 | | | | |
| 179.97 | 7.8 | 3000 | 24100 | 7 | 3000 | 3000 | 3000 | 3000 | | | | | |
| 197.20 | 7.1 | 3000 | 25300 | 7 | 3000 | 3000 | 3000 | 3000 | | | | | |
| 228.93 | 6.1 | 3000 | 27300 | 7 | 3000 | 3000 | 3000 | | | | | | |
| 255.37 | 5.5 | 3000 | 28900 | 7 | 3000 | 3000 | | | | | | | |
| 270.68 | 5.2 | 3000 | 29800 | 7 | 3000 | 3000 | | | | | | | |



| F87, m /kg | | AMS | | | | | | | | | |
|------------|------|---|-----|-----|-----|-----|---------|-------|---------|---------|--|
| FA | IEC | s | 80 | 90 | 100 | 112 | 132S/M | 132ML | 160 | 180 | |
| | |  | 92 | 93 | 98 | 98 | 105 | 105 | 115 | 115 | |
| | |  | 95 | 96 | 100 | 100 | 105 | 105 | 120 | 120 | |
| | NEMA | s | 143 | 145 | 182 | 184 | 213/215 | - | 254/256 | 284/286 | |
| | |  | 92 | 92 | 96 | 96 | 100 | - | 110 | 115 | |
| | |  | 95 | 95 | 99 | 99 | 105 | - | 115 | 115 | |





FAF: + 13 kg / F: + 5.7 kg / FF: + 21 kg

26878585/EN – 11/2021

F.. parallel-shaft helical gear units



Selection tables for adapters for mounting IEC/NEMA motors (AMS..)





| F97, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ 4300 Nm | | | | | | | | | | | | | |
|---|----------------------------|-----------------------------|---------------------|----------------------|------|------|--------|-------|------|------|------|------|------|
| i | n_a min ⁻¹ | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | AMS | | | | | | | | |
| | | | | | 100 | 112 | 132S/M | 132ML | 160 | 180 | 200 | 225 | |
|  2 | | | | | | | | | | | | | |
| 3.87 | 362 | 1800 | 10300 | 9 | | | | | 640 | 705 | 1180 | 1590 | 1590 |
| 4.57 | 306 | 2050 | 10200 | 9 | | | | 500 | 760 | 830 | 1400 | 1880 | 1880 |
| 5.23 | 268 | 2150 | 10700 | 9 | | | | 575 | 870 | 960 | 1610 | 2150 | 2150 |
| 6.17 | 227 | 2250 | 11400 | 9 | | | | 675 | 990 | 1130 | 1870 | 2250 | 2250 |
| 7.07 | 198 | 2360 | 11900 | 9 | 360 | 415 | 775 | 1030 | 1300 | 1960 | 2360 | 2360 | 2360 |
| 8.22 | 170 | 2360 | 13100 | 8 | 410 | 485 | 900 | 1090 | 1510 | 2050 | 2360 | 2360 | 2360 |
| 9.06 | 155 | 2360 | 13900 | 9 | 445 | 535 | 990 | 1120 | 1670 | 2110 | 2360 | 2360 | 2360 |
| 11.16 | 125 | 4100 | 9710 | 6 | | | 1220 | 1850 | 2040 | 3430 | 4100 | 4100 | 4100 |
| 12.77 | 110 | 4300 | 10100 | 6 | | | 1400 | 2120 | 2340 | 3930 | 4300 | 4300 | 4300 |
| 15.06 | 93 | 4300 | 11700 | 6 | | | 1650 | 2410 | 2760 | 4300 | 4300 | 4300 | 4300 |
| 17.25 | 81 | 4300 | 13100 | 6 | 880 | 1010 | 1900 | 2530 | 3170 | 4300 | 4300 | 4300 | 4300 |
| 20.07 | 70 | 4300 | 14700 | 6 | 1010 | 1180 | 2210 | 2660 | 3690 | 4300 | 4300 | 4300 | 4300 |
| 22.11 | 63 | 4300 | 15700 | 6 | 1090 | 1310 | 2410 | 2740 | 4070 | 4300 | 4300 | 4300 | 4300 |
| 24.92 | 56 | 4300 | 17100 | 6 | 1200 | 1480 | 2610 | 2820 | 4300 | 4300 | | | |
| 27.44 | 51 | 4300 | 18200 | 6 | 1290 | 1630 | 2770 | 2880 | 4300 | 4300 | | | |
| 30.39 | 46 | 4300 | 19500 | 6 | 1400 | 1800 | 2990 | 2990 | 4300 | | | | |
| 33.91 | 41 | 4300 | 20900 | 6 | 1510 | 1860 | 3060 | 3060 | 4300 | | | | |
| 36.64 | 38 | 3070 | 27000 | 6 | 1590 | 1890 | 3070 | | | | | | |
| 43.28 | 32 | 3070 | 29300 | 6 | 1770 | 1950 | 3070 | | | | | | |
|  3 | | | | | | | | | | | | | |
| 32.50 | 43 | 4300 | 20300 | 6 | | | 3520 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 |
| 38.86 | 36 | 4300 | 22700 | 6 | | | 4220 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 |
| 44.49 | 31 | 4300 | 24500 | 6 | 2230 | 2590 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 |
| 52.49 | 27 | 4300 | 26900 | 6 | 2580 | 3070 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 |
| 58.06 | 24 | 4300 | 28500 | 6 | 2800 | 3400 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 |
| 65.47 | 21 | 4300 | 30400 | 6 | 3080 | 3840 | 4300 | 4300 | 4300 | 4300 | | | |
| 72.29 | 19 | 4300 | 32000 | 6 | 3320 | 4240 | 4300 | 4300 | 4300 | 4300 | | | |
| 75.63 | 19 | 4300 | 32800 | 6 | | | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 |
| 80.31 | 17 | 4300 | 33800 | 6 | 3580 | 4300 | 4300 | 4300 | 4300 | | | | |
| 86.59 | 16 | 4300 | 35100 | 6 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 |
| 89.85 | 16 | 4300 | 35700 | 6 | 3870 | 4300 | 4300 | 4300 | 4300 | | | | |
| 97.58 | 14 | 4300 | 37200 | 6 | 4100 | 4300 | 4300 | | | | | | |
| 102.16 | 14 | 4300 | 38100 | 6 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 |
| 112.99 | 12 | 4300 | 40000 | 6 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 |
| 127.42 | 11 | 4300 | 40000 | 6 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | | | |
| 140.71 | 9.9 | 4300 | 40000 | 6 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | | | |
| 156.30 | 9.0 | 4300 | 40000 | 6 | 4300 | 4300 | 4300 | 4300 | 4300 | | | | |
| 174.87 | 8.0 | 4300 | 40000 | 6 | 4300 | 4300 | 4300 | 4300 | 4300 | | | | |
| 189.92 | 7.4 | 4300 | 40000 | 6 | 4300 | 4300 | 4300 | | | | | | |
| 223.88 | 6.3 | 4300 | 40000 | 6 | 4300 | 4300 | 4300 | | | | | | |
| 253.41 | 5.5 | 4300 | 40000 | 6 | 4300 | 4300 | | | | | | | |
| 276.77 | 5.1 | 4300 | 40000 | 6 | 4300 | 4300 | | | | | | | |

| F97, m /kg | | AMS | | | | | | | | |
|--|------|---|-----|-----|---------|-------|---------|---------|---------|---------|
| FA | IEC | s | 100 | 112 | 132S/M | 132ML | 160 | 180 | 200 | 225 |
| | |  2 | 160 | 160 | 165 | 165 | 180 | 180 | 200 | 205 |
| | |  3 | 165 | 165 | 170 | 170 | 185 | 185 | 205 | 210 |
| | NEMA | s | 182 | 184 | 213/215 | - | 254/256 | 284/286 | 324/326 | 364/365 |
| | |  2 | 160 | 160 | 160 | - | 175 | 180 | 200 | 195 |
| | |  3 | 165 | 165 | 170 | - | 180 | 185 | 205 | 205 |
| FAF: + 22 kg / F: + 7.5 kg / FF: + 40 kg | | | | | | | | | | |



F.. parallel-shaft helical gear units





Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| F107, $n_g = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 7840 Nm | | | | | | | | |
|--|----------------------------|-----------------------------|---------------------|-------------------|---------|------|--------|-------|------|------|------|------|------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\Phi_{(R)}$ ' | AMS | | | | | | | | |
| | | | | | 100 | 112 | 132S/M | 132ML | 160 | 180 | 200 | 225 | |
|  2 | | | | | | | | | | | | | |
| 5.03 ²⁾ | 278 | 4600 | 4520 | 7 | | | | | | | 1530 | 2060 | 2060 |
| 6.22 | 225 | 4600 | 6920 | 7 | | | | 1020 | 1130 | 1900 | 2550 | 2550 | 2550 |
| 7.40 | 189 | 4600 | 8400 | 7 | | | 800 | 1220 | 1350 | 2270 | 3050 | 3050 | 3050 |
| 8.37 | 167 | 4800 | 8720 | 7 | | | 910 | 1390 | 1530 | 2570 | 3450 | 3450 | 3450 |
| 9.69 | 144 | 4910 | 9670 | 7 | | | 1060 | 1550 | 1770 | 2940 | 3840 | 3840 | 3840 |
| 9.96 ²⁾ | 141 | 6500 | 6200 | 5 | | | | | | 3040 | 4080 | 4080 | 4080 |
| 12.33 | 114 | 7000 | 6580 | 5 | | | | 2030 | 2240 | 3770 | 5070 | 5070 | 5070 |
| 14.67 | 95 | 7680 | 6050 | 5 | | | 1590 | 2430 | 2670 | 4500 | 6040 | 6040 | 6040 |
| 16.58 | 84 | 7840 | 6870 | 5 | | | 1810 | 2750 | 3030 | 5090 | 6830 | 6830 | 6830 |
| 19.20 | 73 | 7840 | 8600 | 5 | | | 2100 | 3070 | 3520 | 5830 | 7600 | 7600 | 7600 |
| 21.76 | 64 | 7840 | 10100 | 5 | 1120 | 1270 | 2390 | 3180 | 3990 | 6020 | 7840 | 7840 | 7840 |
| 25.14 | 56 | 7840 | 12000 | 5 | 1270 | 1480 | 2760 | 3320 | 4620 | 6280 | 7840 | 7840 | 7840 |
| 27.57 | 51 | 7840 | 13200 | 5 | 1370 | 1620 | 3030 | 3400 | 5070 | 6410 | 7840 | 7840 | 7840 |
| 33.79 | 41 | 7400 | 17700 | 5 | 1620 | 2000 | 3470 | 3590 | 6220 | 6730 | | | |
|  3 | | | | | | | | | | | | | |
| 31.80 | 44 | 7680 | 15800 | 6 | | | | 5190 | 5720 | 7680 | 7680 | 7680 | 7680 |
| 37.61 | 37 | 7680 | 18300 | 6 | | | 4040 | 6160 | 6780 | 7680 | 7680 | 7680 | 7680 |
| 43.03 | 33 | 7680 | 20300 | 6 | | | 4640 | 7060 | 7680 | 7680 | 7680 | 7680 | 7680 |
| 50.73 | 28 | 7680 | 23000 | 6 | | | 5490 | 7680 | 7680 | 7680 | 7680 | 7680 | 7680 |
| 58.12 | 24 | 7680 | 25300 | 6 | 2980 | 3360 | 6300 | 7680 | 7680 | 7680 | 7680 | 7680 | 7680 |
| 67.62 | 21 | 7680 | 28000 | 6 | 3420 | 3930 | 7350 | 7680 | 7680 | 7680 | 7680 | 7680 | 7680 |
| 74.52 | 19 | 7680 | 29900 | 6 | 3720 | 4340 | 7680 | 7680 | 7680 | 7680 | 7680 | 7680 | 7680 |
| 83.99 | 17 | 7680 | 32200 | 6 | 4110 | 4900 | 7680 | 7680 | 7680 | 7680 | | | |
| 88.49 | 16 | 7680 | 33200 | 5 | | | 7680 | 7680 | 7680 | 7680 | 7680 | 7680 | 7680 |
| 92.47 | 15 | 7680 | 34100 | 6 | 4440 | 5400 | 7680 | 7680 | 7680 | 7680 | | | |
| 101.38 | 14 | 7680 | 36000 | 5 | 5210 | 5870 | 7680 | 7680 | 7680 | 7680 | 7680 | 7680 | 7680 |
| 117.94 | 12 | 7680 | 39300 | 5 | 5960 | 6860 | 7680 | 7680 | 7680 | 7680 | 7680 | 7680 | 7680 |
| 129.97 | 11 | 7680 | 41400 | 5 | 6480 | 7570 | 7680 | 7680 | 7680 | 7680 | 7680 | 7680 | 7680 |
| 146.49 | 9.6 | 7680 | 44200 | 5 | 7170 | 7680 | 7680 | 7680 | 7680 | 7680 | | | |
| 161.28 | 8.7 | 7680 | 46600 | 5 | 7680 | 7680 | 7680 | 7680 | 7680 | 7680 | | | |
| 178.64 | 7.8 | 7680 | 49100 | 5 | 7680 | 7680 | 7680 | 7680 | 7680 | | | | |
| 199.31 | 7.0 | 7680 | 52000 | 5 | 7680 | 7680 | 7680 | 7680 | 7680 | | | | |
| 215.37 | 6.5 | 7680 | 54000 | 5 | 7680 | 7680 | 7680 | | | | | | |
| 254.40 | 5.5 | 7680 | 58600 | 5 | 7680 | 7680 | 7680 | | | | | | |

| F107, m /kg | | | AMS | | | | | | | |
|-------------|---|---|-----|-----|---------|-------|---------|---------|---------|---------|
| FA | IEC | s | 100 | 112 | 132S/M | 132ML | 160 | 180 | 200 | 225 |
| | |  2 | 230 | 230 | 235 | 235 | 255 | 255 | 275 | 280 |
| | |  3 | 240 | 240 | 245 | 245 | 265 | 265 | 285 | 290 |
| | NEMA | s | 182 | 184 | 213/215 | - | 254/256 | 284/286 | 324/326 | 364/365 |
| | |  2 | 230 | 230 | 235 | - | 245 | 250 | 275 | 275 |
| |  3 | 240 | 240 | 245 | - | 255 | 260 | 285 | 280 | |

FAF: + 21 kg / F: + 17 kg / FF: + 44 kg

| F127, $n_g = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 12000 Nm | | | | | | | | |
|---|----------------------------|-----------------------------|--------------------|----------------------|----------|-------|-------|-------|-------|-------|-------|-------|------|
| i | n_a min ⁻¹ | $M_{a \text{ max G}}$ Nm | F_{Ra}^{-1} N | $\varphi_{(R)}$ ' | AMS | | | | | | | | |
| | | | | | 132S/M | 132ML | 160 | 180 | 200 | 225 | 250 | 280 | |
|  2 | | | | | | | | | | | | | |
| 4.68 | 299 | 6000 | 5630 | 7 | | | | | | 1910 | 1910 | 2990 | 2990 |
| 5.52 | 254 | 6000 | 7110 | 7 | | | | | 1680 | 2260 | 2260 | 3530 | 3530 |
| 6.80 | 206 | 7000 | 5670 | 7 | | 1110 | 1230 | 2070 | 2790 | 2790 | 4040 | 4350 | |
| 7.88 | 178 | 6000 | 10600 | 6 | 850 | 1300 | 1430 | 2410 | 3240 | 3240 | 4200 | 5060 | |
| 8.86 | 158 | 7000 | 8410 | 6 | 960 | 1460 | 1610 | 2710 | 3640 | 3640 | 5690 | 5690 | |
| 10.19 | 137 | 9500 | 1090 | 5 | | | | 3100 | 4170 | 4170 | 6520 | 6520 | |
| 12.54 | 112 | 10000 | 2670 | 5 | | 2060 | 2270 | 3830 | 5150 | 5150 | 7460 | 8040 | |
| 14.55 | 96 | 11000 | 475 | 5 | 1570 | 2400 | 2640 | 4450 | 5980 | 5980 | 7760 | 9340 | |
| 16.36 | 86 | 11000 | 3190 | 5 | 1770 | 2700 | 2980 | 5010 | 6730 | 6730 | 10500 | 10500 | |
| 18.87 | 74 | 11000 | 6620 | 5 | 2050 | 3130 | 3450 | 5790 | 7690 | 7690 | 11000 | 11000 | |
| 21.38 | 65 | 12000 | 4380 | 5 | 2340 | 3270 | 3910 | 6130 | 7940 | 7940 | 12000 | 12000 | |
| 24.57 | 57 | 8500 | 18400 | 5 | 2690 | 3400 | 4510 | 6350 | 8210 | 8210 | | | |
| 26.86 | 52 | 8500 | 19800 | 5 | 2950 | 3480 | 4930 | 6480 | 8370 | 8370 | | | |
|  3 | | | | | | | | | | | | | |
| 25.30 | 55 | 12000 | 7720 | 5 | | | | 7610 | 10200 | 10200 | 12000 | 12000 | |
| 31.33 | 45 | 12000 | 11100 | 5 | | 5080 | 5610 | 9450 | 12000 | 12000 | 12000 | 12000 | |
| 37.28 | 38 | 12000 | 14000 | 5 | 3980 | 6080 | 6700 | 11200 | 12000 | 12000 | 12000 | 12000 | |
| 42.15 | 33 | 12000 | 16200 | 5 | 4520 | 6890 | 7590 | 12000 | 12000 | 12000 | 12000 | 12000 | |
| 48.80 | 29 | 12000 | 18900 | 5 | 5260 | 7730 | 8810 | 12000 | 12000 | 12000 | 12000 | 12000 | |
| 55.31 | 25 | 12000 | 21400 | 5 | 5980 | 8010 | 10000 | 12000 | 12000 | 12000 | 12000 | 12000 | |
| 63.91 | 22 | 12000 | 24300 | 5 | 6930 | 8370 | 11500 | 12000 | 12000 | 12000 | | | |
| 70.07 | 20 | 12000 | 26300 | 5 | 7610 | 8570 | 12000 | 12000 | 12000 | 12000 | | | |
| 75.41 | 19 | 12000 | 27900 | 5 | 8090 | 12000 | 12000 | 12000 | 12000 | 12000 | 12000 | 12000 | |
| 87.31 | 16 | 12000 | 31200 | 5 | 9410 | 12000 | 12000 | 12000 | 12000 | 12000 | 12000 | 12000 | |
| 98.95 | 14 | 12000 | 34100 | 5 | 10700 | 12000 | 12000 | 12000 | 12000 | 12000 | 12000 | 12000 | |
| 114.34 | 12 | 12000 | 37700 | 5 | 12000 | 12000 | 12000 | 12000 | 12000 | 12000 | | | |
| 125.37 | 11 | 12000 | 40000 | 5 | 12000 | 12000 | 12000 | 12000 | 12000 | 12000 | | | |
| 153.67 | 9.1 | 12000 | 45500 | 5 | 12000 | 12000 | 12000 | 12000 | | | | | |
| 170.83 | 8.2 | 12000 | 48500 | 5 | 12000 | 12000 | 12000 | | | | | | |



| F127, m /kg | | | AMS | | | | | | | | |
|-------------|---|---|---------|-------|---------|---------|---------|---------|-----|-----|-----|
| FA | IEC | s | 132S/M | 132ML | 160 | 180 | 200 | 225 | 250 | 280 | |
| | |  | 2 | 385 | 385 | 400 | 400 | 420 | 425 | 445 | 455 |
| | |  | 3 | 395 | 395 | 415 | 415 | 430 | 435 | 460 | 465 |
| | NEMA | s | 213/215 | - | 254/256 | 284/286 | 324/326 | 364/365 | - | - | |
| | |  | 2 | 380 | - | 395 | 400 | 415 | 415 | - | - |
| |  | 3 | 395 | - | 410 | 410 | 430 | 430 | - | - | |





FAF: + 37 kg / F: + 36 kg / FF: + 81 kg

9

F.. parallel-shaft helical gear units

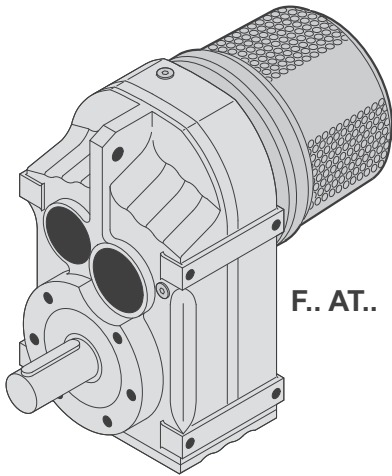
Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| F157, $n_g = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | AMS | | | | | | 20000 Nm |
|---|----------------------------|-----------------------------|--------------------|-------------------|-------|-------|-------|-------|-------|-------|----------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | F_{Ra}^{-1} N | $\Phi_{(R)}$ ' | 160 | 180 | 200 | 225 | 250 | 280 | |
|  2 | | | | | | | | | | | |
| 11.92 | 117 | 17300 | 48200 | 5 | | | 4860 | 4860 | 7610 | 7610 | |
| 13.96 | 100 | 17900 | 51200 | 5 | | 4240 | 5710 | 5710 | 8930 | 8930 | |
| 16.85 | 83 | 18700 | 54700 | 5 | 3040 | 5140 | 6910 | 6910 | 9900 | 10700 | |
| 19.77 | 71 | 19400 | 57900 | 4 | 3590 | 6040 | 8120 | 8120 | 10400 | 12600 | |
| 22.16 | 63 | 19900 | 60400 | 4 | 4030 | 6780 | 9110 | 9110 | 14200 | 14200 | |
| 25.43 | 55 | 20000 | 64800 | 4 | 4640 | 7800 | 10200 | 10200 | 16300 | 16300 | |
| 28.60 | 49 | 19100 | 71100 | 4 | 5230 | 8090 | 10400 | 10400 | 18300 | 18300 | |
| 35.75 | 39 | 13600 | 92900 | 4 | 6550 | 8500 | 11000 | 11000 | | | |
| 43.94 | 32 | 11900 | 105200 | 4 | 8060 | 8960 | | | | | |
| 53.55 | 26 | 11000 | 115600 | 4 | 9220 | | | | | | |
|  3 | | | | | | | | | | | |
| 27.60 | 51 | 20000 | 67600 | 5 | | | 11100 | 11100 | 17400 | 17400 | |
| 32.55 | 43 | 20000 | 73500 | 5 | | 9770 | 13100 | 13100 | 20000 | 20000 | |
| 40.06 | 35 | 20000 | 81400 | 5 | 7160 | 12000 | 16200 | 16200 | 20000 | 20000 | |
| 46.48 | 30 | 20000 | 87400 | 5 | 8340 | 14000 | 18800 | 18800 | 20000 | 20000 | |
| 52.24 | 27 | 20000 | 92300 | 5 | 9400 | 15800 | 20000 | 20000 | 20000 | 20000 | |
| 60.25 | 23 | 20000 | 98500 | 5 | 10800 | 18200 | 20000 | 20000 | 20000 | 20000 | |
| 68.28 | 21 | 20000 | 104200 | 5 | 12300 | 18900 | 20000 | 20000 | 20000 | 20000 | |
| 78.46 | 18 | 20000 | 110700 | 5 | 14200 | 19600 | 20000 | 20000 | | | |
| 85.80 | 16 | 20000 | 115100 | 5 | 15500 | 20000 | 20000 | 20000 | | | |
| 96.53 | 15 | 20000 | 120000 | 5 | 17300 | 20000 | 20000 | 20000 | 20000 | 20000 | |
| 108.49 | 13 | 20000 | 120000 | 5 | 19500 | 20000 | 20000 | 20000 | 20000 | 20000 | |
| 125.14 | 11 | 20000 | 120000 | 5 | 20000 | 20000 | 20000 | 20000 | 20000 | 20000 | |
| 141.80 | 9.9 | 20000 | 120000 | 5 | 20000 | 20000 | 20000 | 20000 | 20000 | 20000 | |
| 162.96 | 8.6 | 20000 | 120000 | 5 | 20000 | 20000 | 20000 | 20000 | | | |
| 178.20 | 7.9 | 20000 | 120000 | 5 | 20000 | 20000 | 20000 | 20000 | | | |
| 217.62 | 6.4 | 20000 | 120000 | 5 | 20000 | 20000 | | | | | |
| 267.43 | 5.2 | 20000 | 120000 | 5 | 20000 | | | | | | |

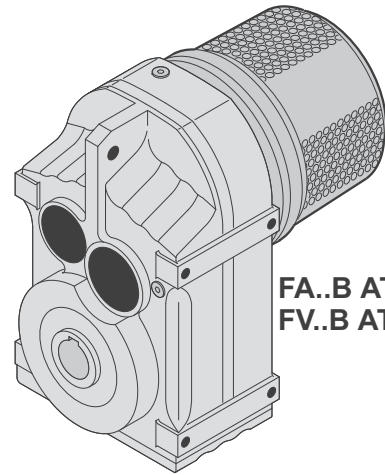
| F157, m /kg | | | AMS | | | | | |
|-------------|---|---|---------|---------|---------|---------|-----|-----|
| FA | IEC | s | 160 | 180 | 200 | 225 | 250 | 280 |
| | |  2 | 670 | 670 | 680 | 690 | 710 | 720 |
| | |  3 | 670 | 670 | 690 | 700 | 720 | 720 |
| | NEMA | s | 254/256 | 284/286 | 324/326 | 364/365 | - | - |
| | |  2 | 660 | 660 | 680 | 680 | - | - |
| |  3 | 670 | 670 | 690 | 690 | - | - | |

FAF: + 59 kg / F: + 21 kg / FF: + 125 kg

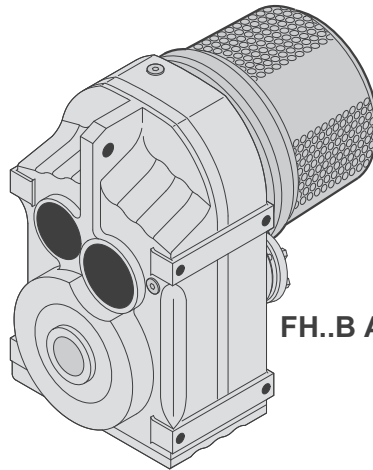
9.2 Selection tables for adapters with hydraulic start-up coupling (AT..)



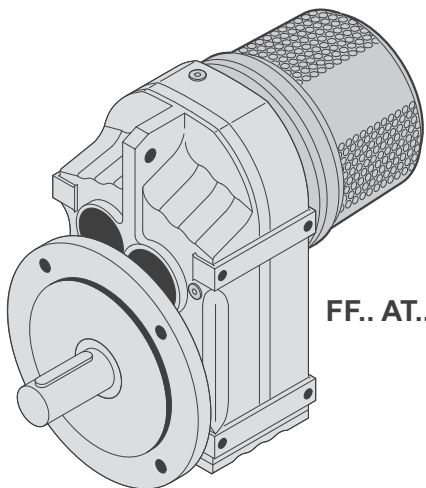
F.. AT..



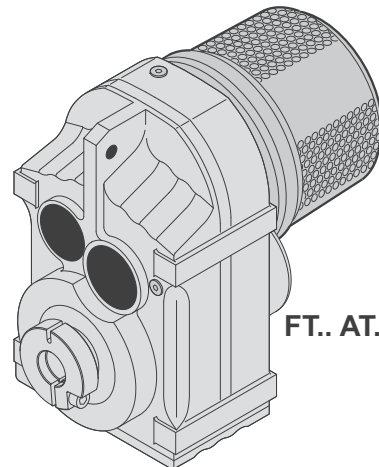
FA..B AT..
FV..B AT..



FH..B AT..



FF.. AT..



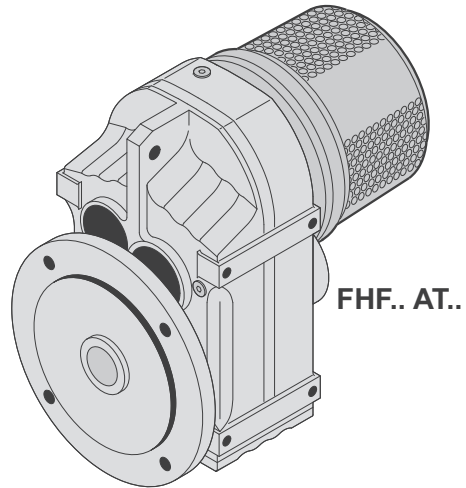
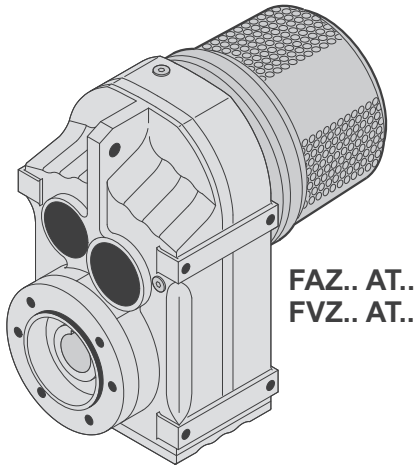
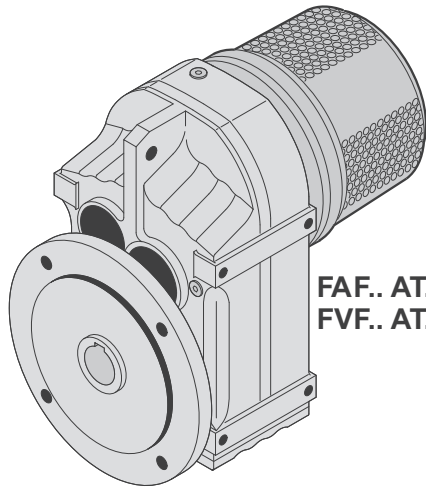
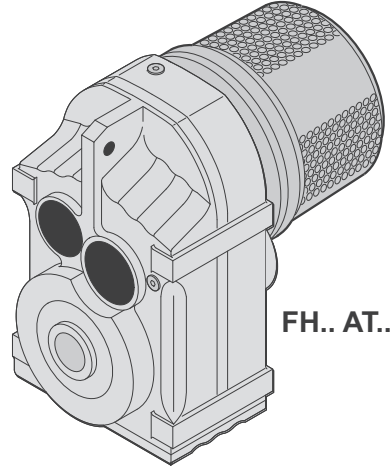
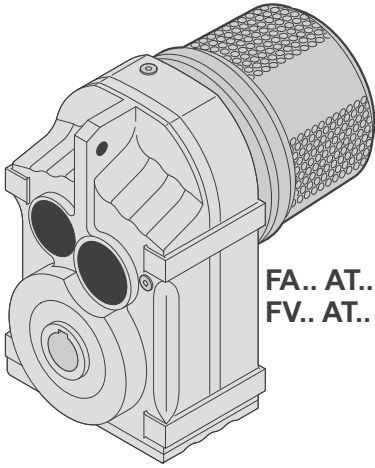
FT.. AT..

21441523595

9

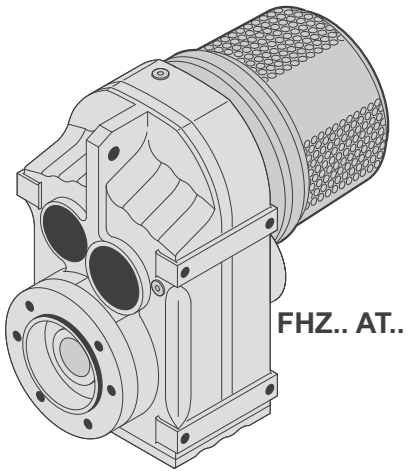
F.. parallel-shaft helical gear units

Selection tables for adapters with hydraulic start-up coupling (AT..)

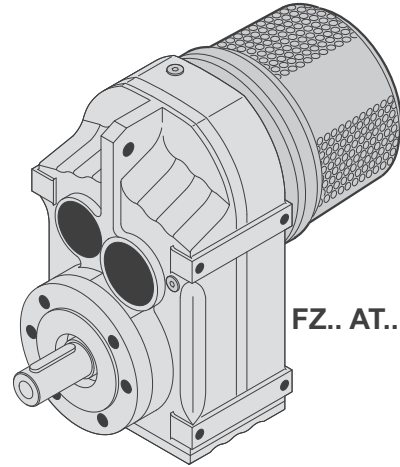


21441526027

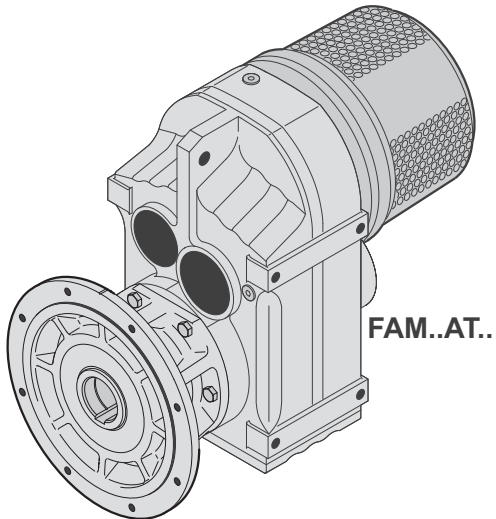
26878565/EN – 11/2021



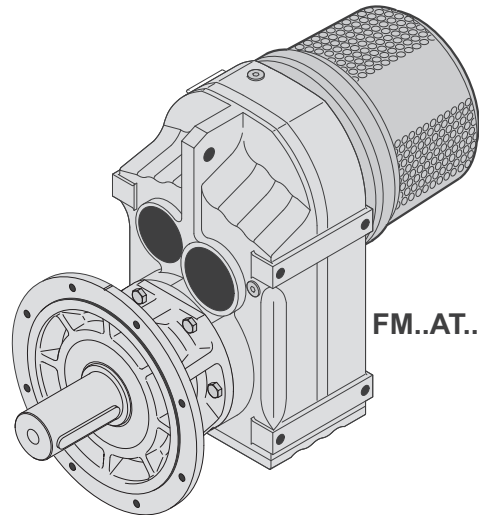
FHZ.. AT..



FZ.. AT..










FAM..AT..













FM..AT..

21441528459







9.2.1 F..AT/DRN..4

|  |  | P_{Mot} kW |  |  |  | Sn % |  |
|---|---|-----------------|---|--|---|---------|---|
| F67 | DRN71M4 | 0.37 | AT311 | T11 | 0.42 | 12 | (→  427) |
| | DRN80MK4 | 0.55 | AT312 | T11D | 0.55 | 11 | |
| | DRN80M4 | 0.75 | AT312 | T11D | 0.7 | 11 | |
| | DRN90S4 | 1.1 | AT312 | T11D | 0.72 | 15 | |
| | DRN90L4 | 1.5 | AT321 | T21 | 0.85 | 9 | |
| | DRN100LS4 | 2.2 | AT321 | T21 | 0.9 | 13 | |
| | DRN100L4 | 3 | AT322 | T21D | 1.53 | 11 | |
| F77 | DRN71M4 | 0.37 | AT311 | T11 | 0.42 | 12 | |
| | DRN80MK4 | 0.55 | AT312 | T11D | 0.55 | 11 | |
| | DRN80M4 | 0.75 | AT312 | T11D | 0.7 | 11 | |
| | DRN90S4 | 1.1 | AT312 | T11D | 0.72 | 15 | |
| | DRN90L4 | 1.5 | AT421 | T21 | 0.85 | 9 | |
| | DRN100LS4 | 2.2 | AT421 | T21 | 0.9 | 13 | |
| | DRN100L4 | 3 | AT422 | T21D | 1.53 | 11 | |
| F87 | DRN112M4 | 4 | AT422 | T21D | 1.6 | 12 | |
| | DRN90S4 | 1.1 | AT312 | T11D | 0.72 | 15 | |
| | DRN90L4 | 1.5 | AT421 | T21 | 0.85 | 9 | |
| | DRN100LS4 | 2.2 | AT421 | T21 | 0.9 | 13 | |
| | DRN100L4 | 3 | AT422 | T21D | 1.53 | 11 | |
| | DRN112M4 | 4 | AT422 | T21D | 1.6 | 12 | |
| | DRN132S4 | 5.5 | AT541 | T41 | 2 | 6 | |
| | DRN132M4 | 7.5 | AT541 | T41 | 2.4 | 8 | |
| | DRN132L4 | 9.2 | AT541 | T41 | 2.5 | 10 | |
| | DRN160M4 | 11 | AT541 | T41 | 2.5 | 13 | |
| DRN160L4 | 15 | AT542 | T41D | 4.2 | 8 | | |

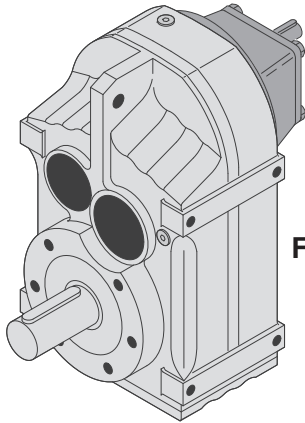
|  |  | P_{Mot} kW |  |  |  | Sn % |  |
|---|---|------------------------------|---|--|---|----------------|---|
| F97 | DRN90S4 | 1.1 | AT312 | T11D | 0.72 | 15 |  |
| | DRN90L4 | 1.5 | AT421 | T21 | 0.85 | 9 | |
| | DRN100LS4 | 2.2 | AT421 | T21 | 0.9 | 13 | |
| | DRN100L4 | 3 | AT422 | T21D | 1.53 | 11 | |
| | DRN112M4 | 4 | AT422 | T21D | 1.6 | 12 | |
| | DRN132S4 | 5.5 | AT541 | T41 | 2 | 6 | |
| | DRN132M4 | 7.5 | AT541 | T41 | 2.4 | 8 | |
| | DRN132L4 | 9.2 | AT541 | T41 | 2.5 | 10 | |
| | DRN160M4 | 11 | AT541 | T41 | 2.5 | 13 | |
| | DRN160L4 | 15 | AT542 | T41D | 4.2 | 8 | |
| | DRN180M4 | 18.5 | AT542 | T41D | 4.3 | 10 | |
| | DRN180L4 | 22 | AT542 | T41D | 4.3 | 14 | |
| F107 | DRN100LS4 | 2.2 | AT421 | T21 | 0.9 | 13 |  |
| | DRN100L4 | 3 | AT422 | T21D | 1.53 | 11 | |
| | DRN112M4 | 4 | AT422 | T21D | 1.6 | 12 | |
| | DRN132S4 | 5.5 | AT541 | T41 | 2 | 6 | |
| | DRN132M4 | 7.5 | AT541 | T41 | 2.4 | 8 | |
| | DRN132L4 | 9.2 | AT541 | T41 | 2.5 | 10 | |
| | DRN160M4 | 11 | AT541 | T41 | 2.5 | 13 | |
| | DRN160L4 | 15 | AT542 | T41D | 4.2 | 8 | |
| | DRN180M4 | 18.5 | AT542 | T41D | 4.3 | 10 | |
| | DRN180L4 | 22 | AT542 | T41D | 4.3 | 14 | |
| F127 | DRN132M4 | 7.5 | AT541 | T41 | 2.4 | 8 |  |
| | DRN132L4 | 9.2 | AT541 | T41 | 2.5 | 10 | |
| | DRN160M4 | 11 | AT541 | T41 | 2.5 | 13 | |
| | DRN160L4 | 15 | AT542 | T41D | 4.2 | 8 | |
| | DRN180M4 | 18.5 | AT542 | T41D | 4.3 | 10 | |
| | DRN180L4 | 22 | AT542 | T41D | 4.3 | 14 | |
| F157 | DRN160M4 | 11 | AT541 | T41 | 2.5 | 13 |  |
| | DRN160L4 | 15 | AT542 | T41D | 4.2 | 8 | |
| | DRN180M4 | 18.5 | AT542 | T41D | 4.3 | 10 | |
| | DRN180L4 | 22 | AT542 | T41D | 4.3 | 14 | |

(→  427)

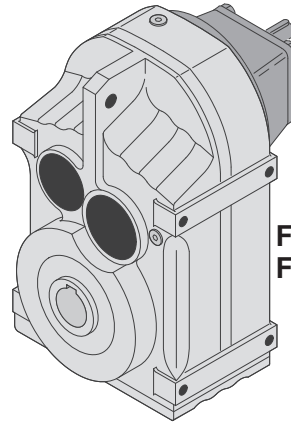
9.2.2 F..AT/DRN..2

|  |  | P_{Mot} kW |  |  |  | Sn |  |
|---|---|-----------------|---|--|---|------|---|
| F67 | DRN71M2 | 0.55 | AT311 | T11 | 0.19 | 3 | |
| | DRN80MS2 | 0.75 | AT311 | T11 | 0.22 | 4.5 | |
| | DRN80M2 | 1.1 | AT311 | T11 | 0.27 | 6 | |
| | DRN90S2 | 1.5 | AT311 | T11 | 0.29 | 8.5 | |
| | DRN90L2 | 2.2 | AT311 | T11 | 0.31 | 11.5 | |
| | DRN100LM2 | 3 | AT311 | T11 | 0.4 | 12 | |
| | DRN112M2 | 4 | AT312 | T11D | 0.52 | 10 | |
| F77 | DRN71M2 | 0.55 | AT311 | T11 | 0.19 | 3 | |
| | DRN80MS2 | 0.75 | AT311 | T11 | 0.22 | 4.5 | |
| | DRN80M2 | 1.1 | AT311 | T11 | 0.27 | 6 | |
| | DRN90S2 | 1.5 | AT311 | T11 | 0.29 | 8.5 | |
| | DRN90L2 | 2.2 | AT311 | T11 | 0.31 | 11.5 | |
| | DRN100LM2 | 3 | AT311 | T11 | 0.4 | 12 | |
| | DRN112M2 | 4 | AT312 | T11D | 0.52 | 10 | |
| | DRN132S2 | 5.5 | AT321 | T21 | 0.6 | 8 | |
| | DRN132S2 | 5.5 | AT421 | T21 | 0.6 | 8 | |
| F87 | DRN90S2 | 1.5 | AT311 | T11 | 0.29 | 8.5 | |
| | DRN90L2 | 2.2 | AT311 | T11 | 0.31 | 11.5 | |
| | DRN100LM2 | 3 | AT311 | T11 | 0.4 | 12 | |
| | DRN112M2 | 4 | AT312 | T11D | 0.52 | 10 | |
| | DRN132S2 | 5.5 | AT321 | T21 | 0.6 | 8 | |
| | DRN132S2 | 5.5 | AT421 | T21 | 0.6 | 8 | |
| F97 | DRN90S2 | 1.5 | AT311 | T11 | 0.29 | 8.5 | |
| | DRN90L2 | 2.2 | AT311 | T11 | 0.31 | 11.5 | |
| | DRN100LM2 | 3 | AT311 | T11 | 0.4 | 12 | |
| | DRN112M2 | 4 | AT312 | T11D | 0.52 | 10 | |
| | DRN132S2 | 5.5 | AT321 | T21 | 0.6 | 8 | |
| | DRN132S2 | 5.5 | AT421 | T21 | 0.6 | 8 | |
| F107 | DRN100LM2 | 3 | AT311 | T11 | 0.4 | 12 | |
| | DRN112M2 | 4 | AT312 | T11D | 0.52 | 10 | |
| | DRN132S2 | 5.5 | AT321 | T21 | 0.6 | 8 | |
| | DRN132S2 | 5.5 | AT421 | T21 | 0.6 | 8 | |
| F127 | DRN132S2 | 5.5 | AT421 | T21 | 0.6 | 8 | |

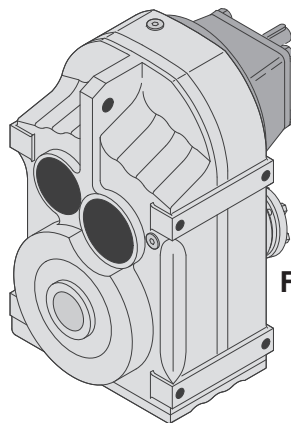
9.3 Selection tables for input shaft assembly (AD..)



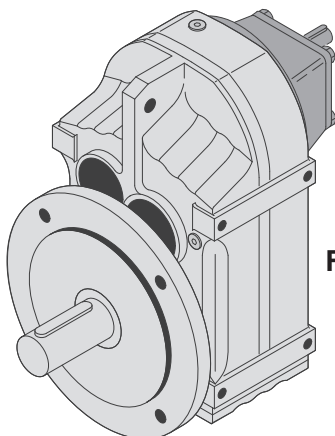
F.. AD..



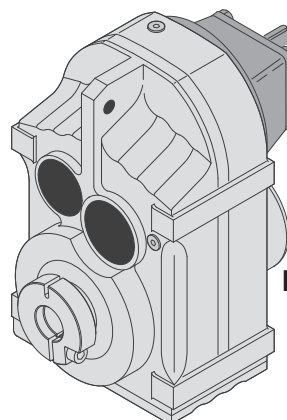
FA..B AD..
FV..B AD..



FH..B AD..



FF.. AD..



FT.. AD..

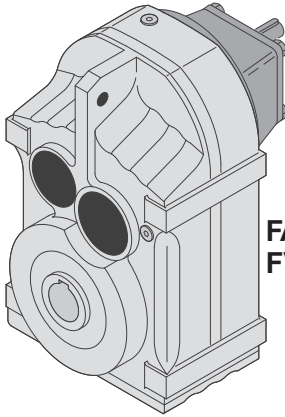
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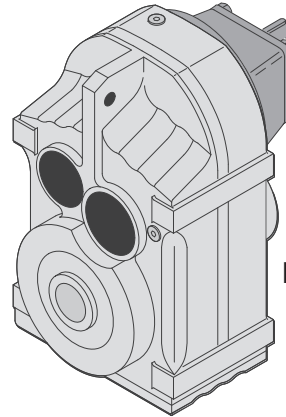
9

F.. parallel-shaft helical gear units

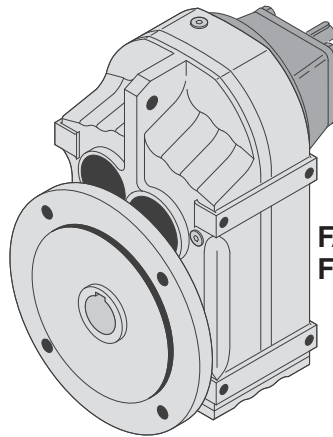
Selection tables for input shaft assembly (AD..)



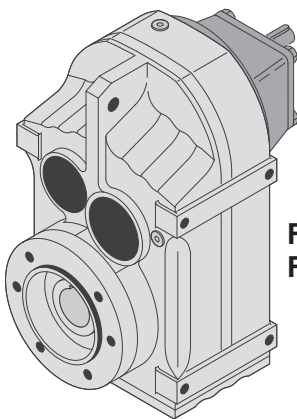
FA.. AD..
FV.. AD..



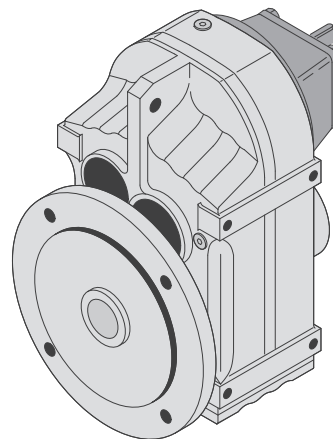
FH.. AD..



FAF.. AD..
FVF.. AD..



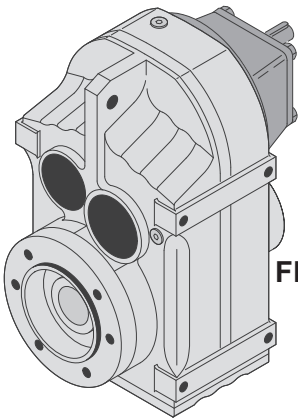
FAZ.. AD..
FVZ.. AD..



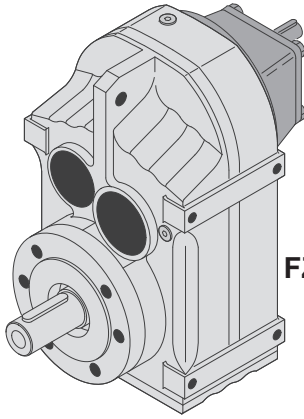
FHF.. AD..

9007220715398155

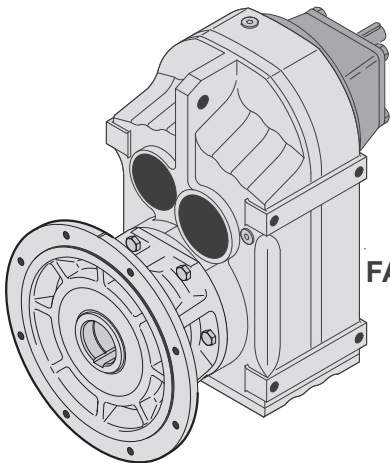
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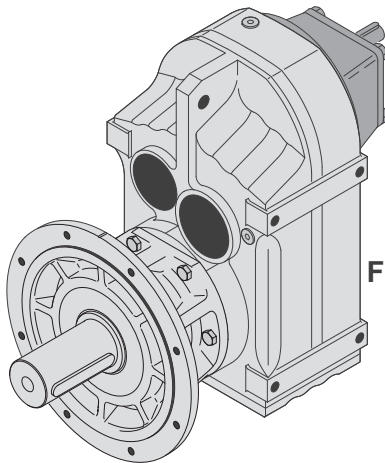
FHZ.. AD..



FZ.. AD..



FAM..AD..




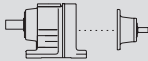

FM..AD..


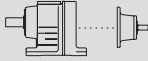

9007220715400587


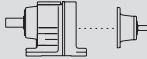

9


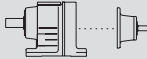

F.. parallel-shaft helical gear units

Selection tables for input shaft assembly (AD..)

| FA27 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 130 Nm | |
|---|----------------------------|-------------------------|-------------|---------------------|---------------|--------------|---|--|-----|---------|---|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | | m kg |  |
| 140.74 | 9.9 | 130 | 0.16 | 4500 | 755 | - | - | | | | |
| 129.09 | 11 | 130 | 0.18 | 4500 | 755 | - | - | | | | |
| 109.90 | 13 | 130 | 0.20 | 4500 | 755 | - | - | | | | |
| 94.76 | 15 | 130 | 0.23 | 4500 | 750 | - | - | | | | |
| 88.32 | 16 | 130 | 0.25 | 4500 | 750 | - | - | | | | |
| 77.21 | 18 | 130 | 0.28 | 4500 | 745 | - | - | | | | |
| 72.37 | 19 | 130 | 0.30 | 4500 | 745 | - | - | FA 27 | AD1 | 7.6 | 430 |
| 63.86 | 22 | 130 | 0.33 | 4400 | 740 | - | - | FAF 27 | AD1 | 8.3 | 430 |
| 56.62 | 25 | 130 | 0.37 | 4180 | 735 | - | - | F 27 | AD1 | 8.1 | 430 |
| 50.19 | 28 | 130 | 0.42 | 3980 | 580 | - | - | FF 27 | AD1 | 8.9 | 430 |
| 46.78 | 30 | 130 | 0.45 | 3860 | 570 | - | - | | | | |
| 40.89 | 34 | 130 | 0.51 | 3640 | 555 | - | - | | | | |
| 38.33 | 37 | 130 | 0.54 | 3530 | 545 | - | - | | | | |
| 33.83 | 41 | 130 | 0.61 | 3340 | 525 | - | - | | | | |
| 29.56 | 47 | 130 | 0.69 | 3140 | 1150 | - | - | | | | |
| 27.18 | 52 | 130 | 0.75 | 3030 | 1130 | - | - | | | | |
| 23.25 | 60 | 130 | 0.87 | 2820 | 1090 | - | - | | | | |
| 20.15 | 69 | 130 | 1.0 | 2630 | 1040 | - | - | | | | |
| 18.84 | 74 | 130 | 1.1 | 2550 | 1570 | - | - | | | | |
| 16.28 | 86 | 130 | 1.2 | 2370 | 1550 | - | - | | | | |
| 13.84 | 101 | 130 | 1.4 | 2180 | 1530 | - | - | | | | |
| 12.35 | 113 | 130 | 1.6 | 2060 | 1520 | - | - | FA 27 | AD2 | 8.5 | 430 |
| 10.55 | 133 | 130 | 1.9 | 1900 | 1490 | - | - | FAF 27 | AD2 | 9.2 | 430 |
| 9.88 | 142 | 130 | 2.0 | 1830 | 1480 | - | - | F 27 | AD2 | 9.0 | 430 |
| 9.40 | 149 | 130 | 2.1 | 1660 | 1230 | - | - | FF 27 | AD2 | 9.8 | 430 |
| 8.13 | 172 | 123 | 2.3 | 1580 | 1230 | - | - | | | | |
| 6.91 | 203 | 114 | 2.5 | 1530 | 1250 | - | - | | | | |
| 6.17 | 227 | 109 | 2.7 | 1480 | 1250 | - | - | | | | |
| 5.27 | 266 | 100 | 2.9 | 1440 | 1270 | - | - | | | | |
| 4.93 | 284 | 96 | 3.0 | 1420 | 1270 | - | - | | | | |
| 4.16 | 337 | 87 | 3.2 | 1380 | 1280 | - | - | | | | |

| FA37 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 200 Nm | |
|---|----------------------------|-------------------------|-------------|---------------------|---------------|--------------|---|--|-----|---------|---|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | | m kg |  |
| 128.51 | 11 | 200 | 0.26 | 4290 | 655 | 7 | - | | | | |
| 117.88 | 12 | 200 | 0.28 | 4290 | 650 | 7 | - | | | | |
| 100.36 | 14 | 200 | 0.33 | 4290 | 640 | 7 | - | | | | |
| 86.53 | 16 | 200 | 0.37 | 4290 | 625 | 7 | - | FA 37 | AD1 | 14 | 430 |
| 80.65 | 17 | 200 | 0.40 | 4290 | 615 | 7 | - | FAF 37 | AD1 | 15 | 430 |
| 70.50 | 20 | 200 | 0.45 | 4290 | 600 | 7 | - | F 37 | AD1 | 14 | 430 |
| 66.09 | 21 | 200 | 0.48 | 4290 | 595 | 7 | - | FF 37 | AD1 | 16 | 430 |
| 58.32 | 24 | 200 | 0.54 | 4290 | 575 | 7 | - | | | | |
| 54.54 | 26 | 200 | 0.58 | 4290 | 335 | 8 | - | | | | |
| 51.70 | 27 | 200 | 0.61 | 4290 | 555 | 7 | - | | | | |
| 47.02 | 30 | 200 | 0.68 | 4290 | 1490 | 8 | - | | | | |
| 43.83 | 32 | 200 | 0.72 | 4290 | 1480 | 8 | - | | | | |
| 38.31 | 37 | 200 | 0.82 | 4290 | 1440 | 8 | - | FA 37 | AD2 | 15 | 430 |
| 35.91 | 39 | 200 | 0.88 | 4290 | 1420 | 8 | - | FAF 37 | AD2 | 16 | 430 |
| 31.69 | 44 | 200 | 0.99 | 4290 | 1380 | 8 | - | F 37 | AD2 | 15 | 430 |
| 28.09 | 50 | 200 | 1.1 | 4060 | 1640 | 8 | - | FF 37 | AD2 | 17 | 430 |
| 23.88 | 59 | 200 | 1.3 | 3760 | 1620 | 8 | - | | | | |




| FA37 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | 200 Nm | | |
|---|-------------------------------------|-------------------------|----------------------|------------------------------------|----------------------|-------------------|---|--|---------|---|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  |
| 23.63 | 59 | 200 | 1.3 | 3740 | 1420 | 6 | - | | | |
| 20.57 | 68 | 200 | 1.5 | 3500 | 1400 | 6 | - | | | |
| 19.27 | 73 | 200 | 1.6 | 3390 | 1390 | 6 | - | | | |
| 17.03 | 82 | 200 | 1.8 | 3180 | 1370 | 6 | - | | | |
| 15.81 | 89 | 200 | 1.9 | 3070 | 1360 | 6 | - | | | |
| 14.33 | 98 | 200 | 2.1 | 2910 | 1340 | 6 | - | | | |
| 12.87 | 109 | 200 | 2.4 | 2750 | 1320 | 7 | - | | | |
| 11.08 | 126 | 190 | 2.6 | 2620 | 1320 | 7 | - | FA 37 | AD2 | 15 430 |
| 10.42 | 134 | 185 | 2.7 | 2580 | 1320 | 7 | - | FAF 37 | AD2 | 16 430 |
| 8.97 | 156 | 175 | 3.0 | 2460 | 1320 | 7 | - | F 37 | AD2 | 15 430 |
| 8.01 | 175 | 170 | 3.2 | 2360 | 1300 | 7 | - | FF 37 | AD2 | 17 430 |
| 7.44 | 188 | 121 | 2.5 | 2560 | 1200 | 10 | - | | | |
| 6.74 | 208 | 140 | 3.1 | 2270 | 1070 | 10 | - | | | |
| 6.05 | 231 | 135 | 3.4 | 2190 | 1070 | 10 | - | | | |
| 5.21 | 269 | 125 | 3.6 | 2120 | 1090 | 10 | - | | | |
| 4.90 | 286 | 120 | 3.7 | 2100 | 1100 | 11 | - | | | |
| 4.22 | 332 | 110 | 4.0 | 2030 | 1120 | 11 | - | | | |
| 3.77 | 372 | 105 | 4.2 | 1970 | 1110 | 12 | - | | | |




| FA47 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | 400 Nm | | |
|---|-------------------------------------|-------------------------|----------------------|------------------------------------|----------------------|-------------------|---|--|---------|---|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  |
| 190.76 | 7.3 | 400 | 0.35 | 5920 | 545 | 6 | - | | | |
| 175.38 | 8.0 | 400 | 0.37 | 5920 | 535 | 6 | - | | | |
| 150.06 | 9.3 | 400 | 0.43 | 5920 | 525 | 6 | - | | | |
| 130.07 | 11 | 400 | 0.49 | 5920 | 510 | 6 | - | FA 47 | AD1 | 19 430 |
| 121.57 | 12 | 400 | 0.53 | 5920 | 500 | 6 | - | FAF 47 | AD1 | 21 430 |
| 105.09 | 13 | 400 | 0.61 | 5920 | 475 | 6 | - | F 47 | AD1 | 19 430 |
| 89.29 | 16 | 400 | 0.71 | 5920 | 455 | 6 | - | FF 47 | AD1 | 22 430 |
| 79.72 | 18 | 400 | 0.79 | 5920 | 430 | 6 | - | | | |
| 68.09 | 21 | 400 | 0.92 | 5920 | 400 | 6 | - | | | |
| 65.36 | 21 | 400 | 0.97 | 5920 | 1180 | 7 | - | | | |
| 56.49 | 25 | 400 | 1.1 | 5920 | 1600 | 7 | - | | | |
| 48.00* | 29 | 400 | 1.3 | 5920 | 1580 | 7 | - | FA 47 | AD2 | 20 430 |
| 42.86 | 33 | 400 | 1.4 | 5920 | 1570 | 7 | - | FAF 47 | AD2 | 22 430 |
| 36.61 | 38 | 400 | 1.7 | 5920 | 1550 | 7 | - | F 47 | AD2 | 20 430 |
| 34.29 | 41 | 400 | 1.8 | 5920 | 1540 | 7 | - | FF 47 | AD2 | 24 430 |
| 28.88 | 48 | 400 | 2.1 | 5790 | 1510 | 7 | - | | | |
| 30.86 | 45 | 400 | 2.0 | 5920 | 1230 | 6 | - | | | |
| 29.32 | 48 | 400 | 2.1 | 5830 | 1220 | 6 | - | | | |
| 25.72 | 54 | 400 | 2.4 | 5460 | 1200 | 6 | - | | | |
| 21.82 | 64 | 400 | 2.8 | 5030 | 1170 | 6 | - | | | |
| 19.70 | 71 | 400 | 3.1 | 4770 | 1150 | 6 | - | | | |
| 17.33 | 81 | 400 | 3.5 | 4450 | 1120 | 6 | - | | | |
| 16.36 | 86 | 400 | 3.7 | 4320 | 1110 | 6 | - | FA 47 | AD2 | 19 430 |
| 13.93 | 100 | 400 | 4.3 | 3950 | 1040 | 6 | - | FAF 47 | AD2 | 22 430 |
| 12.66 | 111 | 400 | 4.8 | 3740 | 1010 | 6 | - | F 47 | AD2 | 20 430 |
| 10.97 | 128 | 380 | 5.2 | 3580 | 1000 | 6 | - | FF 47 | AD2 | 23 430 |
| 8.96 | 156 | 250 | 4.2 | 3860 | 860 | 8 | - | | | |
| 7.88 | 178 | 230 | 4.4 | 3770 | 910 | 8 | - | | | |
| 7.44* | 188 | 225 | 4.6 | 3710 | 920 | 8 | - | | | |
| 6.34 | 221 | 200 | 4.8 | 3610 | 960 | 8 | - | | | |
| 5.76 | 243 | 191 | 5.0 | 3520 | 960 | 9 | - | | | |
| 4.99 | 281 | 173 | 5.2 | 3430 | 1000 | 9 | - | | | |

9


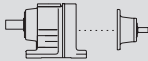

F.. parallel-shaft helical gear units


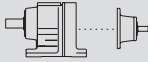

Selection tables for input shaft assembly (AD..)

| FA57 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 600 Nm | |
|---|----------------------------|-------------------------|-------------|----------------------------|----------------------|--------------|---|--|----|---------|---|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{\text{Ra}}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | | m kg |  |
| 199.70 | 7.0 | 600 | 0.50 | 9200 | 1510 | 6 | - | | | | |
| 183.60 | 7.6 | 600 | 0.54 | 9200 | 1500 | 6 | - | | | | |
| 157.09 | 8.9 | 600 | 0.62 | 9200 | 1470 | 6 | - | | | | |
| 136.16 | 10 | 600 | 0.71 | 9200 | 1440 | 6 | - | | | | |
| 127.27 | 11 | 600 | 0.76 | 9200 | 1430 | 6 | - | | | | |
| 110.01 | 13 | 600 | 0.87 | 9200 | 1380 | 6 | - | | | | |
| 93.47 | 15 | 600 | 1.0 | 9200 | 1340 | 6 | - | FA | 57 | AD2 | 27 430 |
| 83.46 | 17 | 600 | 1.1 | 9200 | 1640 | 6 | - | FAF | 57 | AD2 | 33 430 |
| 72.98 | 19 | 600 | 1.3 | 9200 | 1480 | 6 | - | F | 57 | AD2 | 27 430 |
| 68.22 | 21 | 600 | 1.4 | 9200 | 1470 | 6 | - | FF | 57 | AD2 | 34 430 |
| 58.97 | 24 | 600 | 1.6 | 9200 | 1440 | 7 | - | | | | |
| 50.10 | 28 | 600 | 1.9 | 9200 | 1420 | 7 | - | | | | |
| 44.73 | 31 | 600 | 2.1 | 9160 | 1400 | 7 | - | | | | |
| 38.21 | 37 | 600 | 2.4 | 8510 | 1370 | 7 | - | | | | |
| 35.79 | 39 | 600 | 2.6 | 8250 | 1350 | 7 | - | | | | |
| 30.15 | 46 | 590 | 3.0 | 7650 | 1320 | 7 | - | | | | |
| 40.13 | 35 | 265 | 1.0 | 10700 | 605 | 6 | - | FA | 57 | AD2 | 27 430 |
| 34.24 | 41 | 440 | 2.0 | 9020 | 1140 | 6 | - | FAF | 57 | AD2 | 32 430 |
| 29.94 | 47 | 415 | 2.1 | 8660 | 1170 | 6 | - | F | 57 | AD2 | 27 430 |
| 28.45 | 49 | 410 | 2.2 | 8500 | 1170 | 6 | - | FF | 57 | AD2 | 33 430 |
| 24.96 | 56 | 575 | 3.5 | 7060 | 830 | 6 | - | | | | |
| 21.17 | 66 | 600 | 4.3 | 6350 | 1760 | 6 | - | | | | |
| 19.11 | 73 | 600 | 4.8 | 6020 | 1730 | 6 | - | | | | |
| 16.81 | 83 | 600 | 5.4 | 5620 | 1700 | 6 | - | | | | |
| 15.88 | 88 | 600 | 5.7 | 5450 | 1670 | 6 | - | | | | |
| 13.52 | 104 | 600 | 6.7 | 4980 | 1580 | 6 | - | FA | 57 | AD3 | 30 430 |
| 12.29 | 114 | 600 | 7.4 | 4710 | 1530 | 6 | - | FAF | 57 | AD3 | 35 430 |
| 10.64 | 132 | 600 | 8.5 | 4320 | 1440 | 6 | - | F | 57 | AD3 | 30 430 |
| 9.31 | 150 | 310 | 5.1 | 5490 | 1660 | 8 | - | FF | 57 | AD3 | 36 430 |
| 8.19 | 171 | 400 | 7.4 | 4580 | 1250 | 8 | - | | | | |
| 7.73 | 181 | 390 | 7.6 | 4510 | 1260 | 8 | - | | | | |
| 6.58 | 213 | 355 | 8.2 | 4370 | 1300 | 8 | - | | | | |
| 5.98 | 234 | 335 | 8.5 | 4290 | 1330 | 9 | - | | | | |
| 5.18 | 270 | 305 | 8.9 | 4190 | 1380 | 9 | - | | | | |

| FA67 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 820 Nm | |
|---|----------------------------|-------------------------|-------------|----------------------------|----------------------|--------------|---|--|----|---------|---|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{\text{Ra}}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | | m kg |  |
| 228.99 | 6.1 | 820 | 0.59 | 10300 | 1420 | 6 | - | | | | |
| 195.39 | 7.2 | 820 | 0.68 | 10300 | 1390 | 6 | - | | | | |
| 170.85 | 8.2 | 820 | 0.77 | 10300 | 1360 | 6 | - | | | | |
| 162.31 | 8.6 | 820 | 0.81 | 10300 | 1370 | 6 | - | | | | |
| 142.40 | 9.8 | 820 | 0.92 | 10300 | 1320 | 6 | - | | | | |
| 120.79 | 12 | 820 | 1.1 | 10300 | 1630 | 6 | - | | | | |
| 109.04 | 13 | 820 | 1.2 | 10300 | 1620 | 6 | - | | | | |
| 95.94 | 15 | 820 | 1.3 | 10300 | 1620 | 6 | - | FA | 67 | AD2 | 31 430 |
| 90.59 | 15 | 820 | 1.4 | 10300 | 1610 | 6 | - | FAF | 67 | AD2 | 37 430 |
| 79.76 | 18 | 820 | 1.6 | 10300 | 1440 | 6 | - | F | 67 | AD2 | 34 430 |
| 67.65 | 21 | 820 | 1.9 | 10300 | 1420 | 6 | - | FF | 67 | AD2 | 40 430 |
| 61.07 | 23 | 820 | 2.1 | 10300 | 1400 | 6 | - | | | | |
| 53.73 | 26 | 820 | 2.4 | 10300 | 1390 | 6 | - | | | | |
| 50.74 | 28 | 820 | 2.5 | 10300 | 1380 | 6 | - | | | | |
| 43.20 | 32 | 820 | 2.9 | 10300 | 1340 | 6 | - | | | | |
| 39.26 | 36 | 780 | 3.1 | 10700 | 1340 | 6 | - | | | | |
| 34.01 | 41 | 740 | 3.4 | 11000 | 1340 | 6 | - | | | | |
| 36.30 | 39 | 590 | 2.5 | 12000 | 1100 | 5 | - | FA | 67 | AD2 | 30 430 |
| | | | | | | | | FAF | 67 | AD2 | 36 430 |
| | | | | | | | | F | 67 | AD2 | 33 430 |
| | | | | | | | | FF | 67 | AD2 | 39 430 |

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| FA67 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 820 Nm | |
|---|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|--|---------|---|--|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | |
| 32.08 | 44 | 820 | 3.9 | 10300 | 1760 | 5 | - | | | | |
| 27.41 | 51 | 820 | 4.6 | 10300 | 1720 | 5 | - | | | | |
| 25.13 | 56 | 820 | 5.0 | 10300 | 1700 | 5 | - | | | | |
| 22.05 | 63 | 820 | 5.7 | 10300 | 1660 | 5 | - | | | | |
| 20.90* | 67 | 820 | 6.0 | 10300 | 1640 | 5 | - | | | | |
| 18.29 | 77 | 820 | 6.8 | 10300 | 1590 | 6 | - | | | | |
| 16.48 | 85 | 820 | 7.5 | 10300 | 1530 | 6 | - | | | | |
| 14.46 | 97 | 820 | 8.6 | 10300 | 1460 | 6 | - | | | | |
| 12.76 | 110 | 800 | 9.5 | 10500 | 1420 | 6 | - | FA 67 | AD3 | 33 430 | |
| 11.31 | 124 | 745 | 10.0 | 10900 | 1450 | 6 | - | FAF 67 | AD3 | 39 430 | |
| 9.66 | 145 | 670 | 10.5 | 11500 | 1490 | 6 | - | F 67 | AD3 | 36 430 | |
| 9.08 | 154 | 450 | 7.5 | 11800 | 1230 | 8 | - | FF 67 | AD3 | 42 430 | |
| 8.60 | 163 | 440 | 7.8 | 11700 | 1260 | 8 | - | | | | |
| 7.53 | 186 | 410 | 8.2 | 11300 | 1310 | 8 | - | | | | |
| 6.78 | 206 | 385 | 8.6 | 11000 | 1330 | 9 | - | | | | |
| 5.95 | 235 | 355 | 9.0 | 10700 | 1380 | 9 | - | | | | |
| 5.25 | 267 | 330 | 9.5 | 10300 | 1420 | 9 | - | | | | |
| 4.66 | 301 | 305 | 9.9 | 10100 | 1450 | 9 | - | | | | |
| 3.97 | 352 | 275 | 10.5 | 9680 | 1490 | 10 | - | | | | |




| FA77 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 1500 Nm | |
|---|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|--|---------|---|--|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | |
| 281.71 | 5.0 | 1500 | 0.87 | 15700 | 880 | 5 | - | | | | |
| 262.93 | 5.3 | 1500 | 0.93 | 15700 | 880 | 5 | - | | | | |
| 225.79 | 6.2 | 1500 | 1.1 | 15700 | 1540 | 5 | - | | | | |
| 198.31 | 7.1 | 1500 | 1.2 | 15700 | 1540 | 5 | - | | | | |
| 188.40 | 7.4 | 1500 | 1.3 | 15700 | 1540 | 5 | - | | | | |
| 166.47 | 8.4 | 1500 | 1.4 | 15700 | 1510 | 5 | - | | | | |
| 142.27 | 9.8 | 1500 | 1.7 | 15700 | 1500 | 5 | - | | | | |
| 130.42 | 11 | 1500 | 1.8 | 15700 | 1490 | 5 | - | FA 77 | AD2 | 54 430 | |
| 114.45 | 12 | 1500 | 2.0 | 15700 | 1480 | 5 | - | FAF 77 | AD2 | 60 430 | |
| 108.46* | 13 | 1500 | 2.2 | 15700 | 1470 | 5 | - | F 77 | AD2 | 58 430 | |
| 94.93 | 15 | 1500 | 2.5 | 15700 | 1450 | 5 | - | FF 77 | AD2 | 68 430 | |
| 85.52 | 16 | 1500 | 2.7 | 15700 | 1430 | 6 | - | | | | |
| 75.02 | 19 | 1500 | 3.1 | 15700 | 1400 | 6 | - | | | | |
| 72.50 | 19 | 1500 | 3.2 | 15700 | 1110 | 6 | - | | | | |
| 66.46 | 21 | 1500 | 3.5 | 15700 | 1100 | 6 | - | | | | |
| 58.32 | 24 | 1500 | 4.0 | 15700 | 1070 | 6 | - | | | | |
| 55.27 | 25 | 1500 | 4.2 | 15700 | 1060 | 6 | - | | | | |
| 48.37 | 29 | 1500 | 4.8 | 15700 | 1020 | 6 | - | | | | |
| 43.58 | 32 | 1500 | 5.3 | 15700 | 2010 | 6 | - | FA 77 | AD3 | 57 430 | |
| 38.23 | 37 | 1500 | 6.0 | 15700 | 1970 | 6 | - | FAF 77 | AD3 | 64 430 | |
| 33.74 | 42 | 1500 | 6.8 | 15700 | 1920 | 6 | - | F 77 | AD3 | 61 430 | |
| 29.91 | 47 | 1500 | 7.7 | 15700 | 1860 | 6 | - | FF 77 | AD3 | 72 430 | |
| 25.54 | 55 | 1450 | 8.7 | 16100 | 1820 | 6 | - | | | | |
| 36.58 | 38 | 1110 | 4.6 | 17900 | 1580 | 5 | - | FA 77 | AD3 | 56 430 | |
| 31.51 | 44 | 1110 | 5.4 | 17900 | 1540 | 5 | - | FAF 77 | AD3 | 63 430 | |
| 28.75 | 49 | 1200 | 6.3 | 17400 | 1400 | 5 | - | F 77 | AD3 | 60 430 | |
| | | | | | | | | FF 77 | AD3 | 70 430 | |
| 25.50* | 55 | 1500 | 8.9 | 15700 | 3020 | 5 | - | | | | |
| 21.43 | 65 | 1500 | 10.6 | 15700 | 2950 | 5 | - | | | | |
| 19.70 | 71 | 1500 | 11.5 | 15700 | 2880 | 5 | - | | | | |
| 17.49 | 80 | 1500 | 13.0 | 15700 | 2820 | 5 | - | | | | |
| 15.64* | 90 | 1500 | 14.5 | 15700 | 2750 | 5 | - | | | | |
| 14.06 | 100 | 1500 | 16.1 | 15700 | 2680 | 5 | - | | | | |
| 12.20 | 115 | 1500 | 18.6 | 14900 | 2560 | 5 | - | FA 77 | AD4 | 62 430 | |
| 10.93 | 128 | 1500 | 21 | 14200 | 2470 | 6 | - | FAF 77 | AD4 | 69 430 | |
| 9.30 | 151 | 1080 | 17.6 | 13800 | 1300 | 7 | - | F 77 | AD4 | 66 430 | |
| 8.26 | 170 | 1080 | 19.8 | 13100 | 1110 | 7 | - | FF 77 | AD4 | 76 430 | |
| 7.39 | 190 | 1080 | 22 | 12500 | 900 | 7 | - | | | | |
| 6.64 | 211 | 1080 | 25 | 12000 | 690 | 8 | - | | | | |
| 5.76 | 243 | 1060 | 28 | 11400 | 475 | 8 | - | | | | |
| 5.16 | 271 | 940 | 27 | 11400 | 1000 | 8 | - | | | | |
| 4.28 | 327 | 790 | 28 | 11200 | 1550 | 8 | - | | | | |


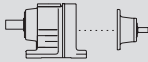

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F.. parallel-shaft helical gear units

Selection tables for input shaft assembly (AD..)

| FA87 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 3000 Nm | |
|---|----------------------------|-------------------------|-------------|----------------------------|----------------------|--------------|---|--|---------|---|-----|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{\text{Ra}}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | |
| 270.68 | 5.2 | 3000 | 1.8 | 19800 | 1350 | 7 | - | | | | |
| 255.37 | 5.5 | 3000 | 1.9 | 19800 | 1350 | 7 | - | | | | |
| 228.93 | 6.1 | 3000 | 2.1 | 19800 | 1330 | 7 | - | | | | |
| 197.20 | 7.1 | 3000 | 2.4 | 19800 | 1310 | 7 | - | | | | |
| 179.97 | 7.8 | 3000 | 2.6 | 19800 | 1300 | 7 | - | FA 87 | AD2 | 93 | 430 |
| 159.61 | 8.8 | 3000 | 2.9 | 19800 | 1290 | 7 | - | FAF 87 | AD2 | 105 | 430 |
| 134.16 | 10 | 3000 | 3.5 | 19800 | 1260 | 7 | - | F 87 | AD2 | 99 | 430 |
| 123.29 | 11 | 3000 | 3.8 | 19800 | 1240 | 7 | - | FF 87 | AD2 | 115 | 430 |
| 109.49 | 13 | 3000 | 4.2 | 19800 | 1220 | 7 | - | | | | |
| 97.89 | 14 | 3000 | 4.7 | 19800 | 1190 | 7 | - | | | | |
| 88.01 | 16 | 3000 | 5.3 | 19800 | 1160 | 7 | - | | | | |
| 76.39 | 18 | 3000 | 6.1 | 19800 | 1110 | 7 | - | | | | |
| 68.40 | 20 | 3000 | 6.8 | 19600 | 2020 | 7 | - | FA 87 | AD3 | 97 | 430 |
| 56.75 | 25 | 3000 | 8.2 | 17700 | 1940 | 7 | - | FAF 87 | AD3 | 110 | 430 |
| 50.36 | 28 | 2940 | 9.0 | 16800 | 1540 | 7 | - | F 87 | AD3 | 105 | 430 |
| 45.28 | 31 | 2820 | 9.6 | 16200 | 1540 | 8 | - | FF 87 | AD3 | 120 | 430 |
| 39.30 | 36 | 2720 | 10.6 | 15400 | 1510 | 8 | - | | | | |
| 35.19 | 40 | 2610 | 11.4 | 14900 | 3530 | 8 | - | FA 87 | AD4 | 105 | 430 |
| 29.20 | 48 | 2510 | 13.2 | 13800 | 3470 | 8 | - | FAF 87 | AD4 | 115 | 430 |
| | | | | | | | | F 87 | AD4 | 110 | 430 |
| | | | | | | | | FF 87 | AD4 | 125 | 430 |
| 33.92 | 41 | 2560 | 11.5 | 14800 | 2540 | 7 | - | FA 87 | AD4 | 100 | 430 |
| 28.78 | 49 | 2390 | 12.6 | 14100 | 2610 | 7 | - | FAF 87 | AD4 | 115 | 430 |
| | | | | | | | | F 87 | AD4 | 105 | 430 |
| | | | | | | | | FF 87 | AD4 | 120 | 430 |
| 26.50 | 53 | 3000 | 17.2 | 11100 | 5210 | 7 | - | | | | |
| 23.68 | 59 | 3000 | 19.2 | 10300 | 5140 | 7 | - | | | | |
| 21.32* | 66 | 3000 | 21 | 9520 | 5060 | 7 | - | | | | |
| 19.31 | 73 | 3000 | 24 | 8840 | 4980 | 7 | - | | | | |
| 17.12 | 82 | 3000 | 26 | 8040 | 4890 | 7 | - | | | | |
| 15.48 | 90 | 3000 | 29 | 7390 | 4790 | 7 | - | | | | |
| 13.12* | 107 | 3000 | 35 | 6370 | 4580 | 7 | - | FA 87 | AD5 | 115 | 430 |
| 11.46 | 122 | 3000 | 40 | 5580 | 4420 | 7 | - | FAF 87 | AD5 | 130 | 430 |
| 9.58 | 146 | 2880 | 45 | 5050 | 4280 | 7 | - | F 87 | AD5 | 120 | 430 |
| 8.29 | 169 | 1530 | 28 | 8890 | 4450 | 7 | - | FF 87 | AD5 | 135 | 430 |
| 7.35 | 190 | 1530 | 31 | 8280 | 4340 | 7 | - | | | | |
| 6.65 | 211 | 1530 | 35 | 7790 | 4220 | 7 | - | | | | |
| 5.63 | 248 | 1530 | 41 | 7020 | 3980 | 7 | - | | | | |
| 4.92 | 284 | 1510 | 46 | 6510 | 3760 | 7 | - | | | | |
| 4.12 | 340 | 1260 | 46 | 6830 | 4210 | 7 | - | | | | |

| FA97 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 4300 Nm | |
|---|----------------------------|-------------------------|-------------|----------------------------|----------------------|--------------|---|--|---------|---|-----|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{\text{Ra}}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | |
| 276.77 | 5.1 | 4300 | 2.5 | 29900 | 2180 | 6 | - | | | | |
| 253.41 | 5.5 | 4300 | 2.7 | 29900 | 2170 | 6 | - | | | | |
| 223.88 | 6.2 | 4300 | 3.0 | 29900 | 2150 | 6 | - | | | | |
| 189.92 | 7.4 | 4300 | 3.6 | 29900 | 2130 | 6 | - | | | | |
| 174.87 | 8.0 | 4300 | 3.9 | 29900 | 2110 | 6 | - | | | | |
| 156.30 | 9.0 | 4300 | 4.3 | 29900 | 2090 | 6 | - | | | | |
| 140.71 | 9.9 | 4300 | 4.8 | 29900 | 2070 | 6 | - | FA 97 | AD3 | 160 | 430 |
| 127.42 | 11 | 4300 | 5.3 | 29900 | 2050 | 6 | - | FAF 97 | AD3 | 185 | 430 |
| 112.99 | 12 | 4300 | 5.9 | 29900 | 2020 | 6 | - | F 97 | AD3 | 170 | 430 |
| 102.16 | 14 | 4300 | 6.5 | 29900 | 1990 | 6 | - | FF 97 | AD3 | 200 | 430 |
| 97.58 | 14 | 4300 | 6.8 | 29900 | 1520 | 6 | - | | | | |
| 89.85 | 16 | 4300 | 7.4 | 29900 | 1490 | 6 | - | | | | |
| 86.59 | 16 | 4300 | 7.7 | 29900 | 1930 | 6 | - | | | | |
| 80.31 | 17 | 4300 | 8.3 | 29900 | 1450 | 6 | - | | | | |
| 75.63 | 19 | 4300 | 8.8 | 29900 | 1880 | 6 | - | | | | |
| 72.29 | 19 | 4300 | 9.2 | 29900 | 1410 | 6 | - | | | | |
| 65.47 | 21 | 4300 | 10.1 | 29000 | 3410 | 6 | - | FA 97 | AD4 | 165 | 430 |
| 58.06 | 24 | 4300 | 11.4 | 27200 | 3370 | 6 | - | FAF 97 | AD4 | 190 | 430 |
| 52.49 | 27 | 4300 | 12.6 | 25800 | 3320 | 6 | - | F 97 | AD4 | 175 | 430 |
| 44.49 | 31 | 4300 | 14.9 | 23600 | 3220 | 6 | - | FF 97 | AD4 | 205 | 430 |
| 38.86 | 36 | 4300 | 17.1 | 21900 | 3140 | 6 | - | | | | |
| 32.50 | 43 | 4300 | 20 | 19800 | 3000 | 6 | - | | | | |

| FA97 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 4300 Nm | | |
|---|----------------------------|-------------------------|-------------|---------------------|---------------|--------------|---|--|---------------|------------|---|-----|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | | m kg |  | |
| 43.28 | 32 | 3070 | 10.8 | 27600 | 2700 | 6 | - | FA 97 | AD4 | 160 | 430 | |
| 36.64 | 38 | 3070 | 12.7 | 25500 | 2620 | 6 | - | | FAF 97 | AD4 | 185 | 430 |
| | | | | | | | | | F 97 | AD4 | 170 | 430 |
| | | | | | | | | | FF 97 | AD4 | 200 | 430 |
| 33.91 | 41 | 4300 | 19.2 | 20300 | 4940 | 6 | - | FA 97 | AD5 | 180 | 430 | |
| 30.39 | 46 | 4300 | 21 | 19000 | 4870 | 6 | - | | FAF 97 | AD5 | 200 | 430 |
| 27.44* | 51 | 4300 | 24 | 17900 | 4750 | 6 | - | | F 97 | AD5 | 185 | 430 |
| 24.92 | 56 | 4300 | 26 | 16800 | 4670 | 6 | - | | FF 97 | AD5 | 220 | 430 |
| 22.11 | 63 | 4300 | 29 | 15600 | 4570 | 6 | - | | | | | |
| 20.07 | 70 | 4300 | 32 | 14600 | 4470 | 6 | - | | | | | |
| 17.25* | 81 | 4300 | 38 | 13200 | 4290 | 6 | - | | | | | |
| 15.06 | 93 | 4300 | 43 | 11900 | 4110 | 6 | - | | | | | |
| 12.77 | 110 | 4300 | 51 | 10500 | 6840 | 6 | - | FA 97 | AD6 | 190 | 430 | |
| 11.16 | 125 | 4100 | 56 | 10000 | 6800 | 6 | - | | FAF 97 | AD6 | 215 | 430 |
| 9.06 | 154 | 2360 | 39 | 13400 | 6470 | 9 | - | | F 97 | AD6 | 200 | 430 |
| 8.22 | 170 | 2360 | 43 | 12600 | 6350 | 8 | - | | FF 97 | AD6 | 230 | 430 |
| 7.07 | 198 | 2360 | 50 | 11500 | 6130 | 9 | - | | | | | |
| 6.17 | 227 | 2250 | 55 | 11100 | 6130 | 9 | - | | | | | |
| 5.23 | 268 | 1930 | 56 | 11300 | 6490 | 9 | - | | | | | |
| 4.57 | 306 | 1690 | 56 | 11400 | 6780 | 9 | - | | | | | |
| 3.87 | 362 | 1430 | 56 | 11400 | 7140 | 9 | - | | | | | |


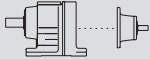

| FA107 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 7840 Nm | | | |
|--|----------------------------|-------------------------|-------------|---------------------|---------------|--------------|---|---|----------------|----------------|---|-----|-----|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | | m kg |  | | |
| 254.40* | 5.5 | 7680 | 4.8 | 49800 | 1850 | 5 | - | FA 107 | AD3 | 235 | 430 | | |
| 215.37 | 6.5 | 7680 | 5.6 | 49800 | 1820 | 5 | - | | FAF 107 | AD3 | 260 | 430 | |
| 199.31 | 7.0 | 7680 | 6.0 | 49800 | 1800 | 5 | - | | F 107 | AD3 | 255 | 430 | |
| 178.64 | 7.8 | 7680 | 6.7 | 49800 | 1780 | 5 | - | | FF 107 | AD3 | 280 | 430 | |
| 161.28* | 8.7 | 7680 | 7.4 | 49800 | 1720 | 5 | - | | | | | | |
| 146.49 | 9.6 | 7680 | 8.1 | 49800 | 1690 | 5 | - | | | | | | |
| 129.97 | 11 | 7680 | 9.2 | 49800 | 1650 | 5 | - | | | | | | |
| 117.94 | 12 | 7680 | 10.1 | 49800 | 1610 | 5 | - | | | | | | |
| 101.38* | 14 | 7680 | 11.8 | 49800 | 3570 | 5 | - | | FA 107 | AD4 | 245 | 430 | |
| 92.47* | 15 | 7680 | 12.8 | 49800 | 3030 | 6 | - | FAF 107 | | AD4 | 265 | 430 | |
| 88.49 | 16 | 7680 | 13.5 | 49800 | 3510 | 5 | - | F 107 | | AD4 | 260 | 430 | |
| 83.99 | 17 | 7680 | 14.1 | 49800 | 2980 | 6 | - | FF 107 | | AD4 | 290 | 430 | |
| 74.52 | 19 | 7680 | 15.9 | 49800 | 2920 | 6 | - | | | | | | |
| 67.62 | 21 | 7680 | 17.5 | 49800 | 2860 | 6 | - | | | | | | |
| 58.12* | 24 | 7680 | 20 | 47800 | 2760 | 6 | - | | | | | | |
| 50.73 | 28 | 7680 | 23 | 45100 | 2650 | 6 | - | | | | | | |
| 43.03 | 33 | 7680 | 28 | 42000 | 5730 | 6 | - | FA 107 | | AD5 | 255 | 430 | |
| 37.61 | 37 | 7680 | 31 | 39500 | 5600 | 6 | - | | FAF 107 | AD5 | 280 | 430 | |
| 31.80 | 44 | 7680 | 37 | 36500 | 5440 | 6 | - | | F 107 | AD5 | 275 | 430 | |
| | | | | | | | | | FF 107 | AD5 | 300 | 430 | |
| 33.79* | 41 | 7400 | 33 | 38300 | 6580 | 5 | - | | FA 107 | AD6 | 260 | 430 | |
| 27.57 | 51 | 7840 | 43 | 33300 | 5940 | 5 | - | | | FAF 107 | AD6 | 280 | 430 |
| 25.14 | 56 | 7840 | 47 | 31500 | 5710 | 5 | - | | | F 107 | AD6 | 275 | 430 |
| 21.76* | 64 | 7840 | 54 | 28800 | 5270 | 5 | - | | | FF 107 | AD6 | 305 | 430 |
| 19.20* | 73 | 7090 | 56 | 29600 | 6050 | 5 | - | | | | | | |
| 16.58 | 84 | 6120 | 56 | 30600 | 6480 | 5 | - | | | | | | |
| 14.67 | 95 | 5410 | 56 | 30800 | 6780 | 5 | - | | | | | | |
| 12.33 | 114 | 4540 | 56 | 30800 | 7140 | 5 | M4 | | | | | | |
| 9.96 | 141 | 4000 | 61 | 29600 | 7220 | 5 | M2,4-6 | | | | | | |
| 9.69 | 144 | 3580 | 56 | 29300 | 6050 | 7 | - | | | | | | |
| 8.37 | 167 | 3090 | 56 | 29100 | 6480 | 7 | - | | | | | | |
| 7.40 | 189 | 2730 | 56 | 28800 | 6780 | 7 | - | | | | | | |
| 6.22 | 225 | 2290 | 56 | 28200 | 7140 | 7 | M4 | | | | | | |
| 5.03 | 279 | 2020 | 61 | 26800 | 7220 | 7 | - | | | | | | |




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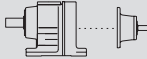


F.. parallel-shaft helical gear units

Selection tables for input shaft assembly (AD..)

| FA127 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 12000 Nm | |
|--|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|--|---------|----------|---|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) |  |  | | m kg |  |
| 170.83 | 8.2 | 12000 | 10.9 | 90000 | 3180 | 5 | - | | | | |
| 153.67* | 9.1 | 12000 | 12.1 | 90000 | 3140 | 5 | - | | | | |
| 125.37 | 11 | 12000 | 14.8 | 90000 | 3010 | 5 | - | | FA 127 | AD4 | 395 430 |
| 114.34 | 12 | 12000 | 16.2 | 88000 | 2970 | 5 | - | | FAF 127 | AD4 | 430 430 |
| 98.95 | 14 | 12000 | 18.8 | 83000 | 2880 | 5 | - | | F 127 | AD4 | 430 430 |
| 87.31* | 16 | 12000 | 21 | 78900 | 2800 | 5 | - | | FF 127 | AD4 | 475 430 |
| 75.41* | 19 | 12000 | 25 | 74300 | 2690 | 5 | - | | | | |
| 70.07 | 20 | 12000 | 26 | 72100 | 4930 | 5 | - | | FA 127 | AD5 | 405 430 |
| 63.91 | 22 | 12000 | 29 | 69400 | 4850 | 5 | - | | FAF 127 | AD5 | 440 430 |
| 55.31 | 25 | 12000 | 33 | 65200 | 4710 | 5 | - | | F 127 | AD5 | 440 430 |
| 48.80 | 29 | 12000 | 38 | 61300 | 4590 | 5 | M2 | | FF 127 | AD5 | 485 430 |
| 42.15 | 33 | 12000 | 44 | 56800 | 4420 | 5 | M1-6 | | | | |
| 37.28 | 38 | 12000 | 50 | 53200 | 7220 | 5 | M1-6 | | FA 127 | AD6 | 415 430 |
| | | | | | | | | | FAF 127 | AD6 | 455 430 |
| | | | | | | | | | F 127 | AD6 | 455 430 |
| | | | | | | | | | FF 127 | AD6 | 495 430 |
| 31.33 | 45 | 12000 | 59 | 48300 | 17000 | 5 | M1-6 | | FA 127 | AD7 | 415 430 |
| 25.30 | 55 | 12000 | 73 | 42400 | 16600 | 5 | M1-6 | | FAF 127 | AD7 | 455 430 |
| | | | | | | | | | F 127 | AD7 | 450 430 |
| | | | | | | | | | FF 127 | AD7 | 495 430 |
| 26.86 | 52 | 8500 | 48 | 55300 | 4990 | 5 | - | | FA 127 | AD6 | 405 430 |
| 24.57 | 57 | 8500 | 52 | 53300 | 4770 | 5 | - | | FAF 127 | AD6 | 440 430 |
| | | | | | | | | | F 127 | AD6 | 440 430 |
| | | | | | | | | | FF 127 | AD6 | 485 430 |
| 21.38 | 65 | 12000 | 85 | 38000 | 23800 | 5 | M1-6 | | | | |
| 18.87 | 74 | 10800 | 86 | 39600 | 24200 | 5 | M1-6 | | | | |
| 16.36 | 86 | 11000 | 102 | 35400 | 23900 | 5 | M1-6 | | | | |
| 14.55 | 96 | 11000 | 114 | 32600 | 23600 | 5 | M1-6 | | | | |
| 12.54 | 112 | 10000 | 120 | 33300 | 23900 | 5 | M1-6 | | FA 127 | AD8 | 425 430 |
| 10.19 | 137 | 9040 | 134 | 32700 | 23900 | 5 | M1-6 | | FAF 127 | AD8 | 465 430 |
| 8.86 | 158 | 7000 | 119 | 36400 | 22800 | 6 | M1-6 | | F 127 | AD8 | 460 430 |
| 7.88 | 178 | 6000 | 115 | 37000 | 23500 | 6 | M1-6 | | FF 127 | AD8 | 510 430 |
| 6.80 | 206 | 6030 | 134 | 34700 | 23200 | 7 | M1-6 | | | | |
| 5.52 | 254 | 4900 | 134 | 34500 | 23900 | 7 | M1-6 | | | | |
| 4.68 | 299 | 4150 | 134 | 34100 | 24400 | 7 | M1-6 | | | | |

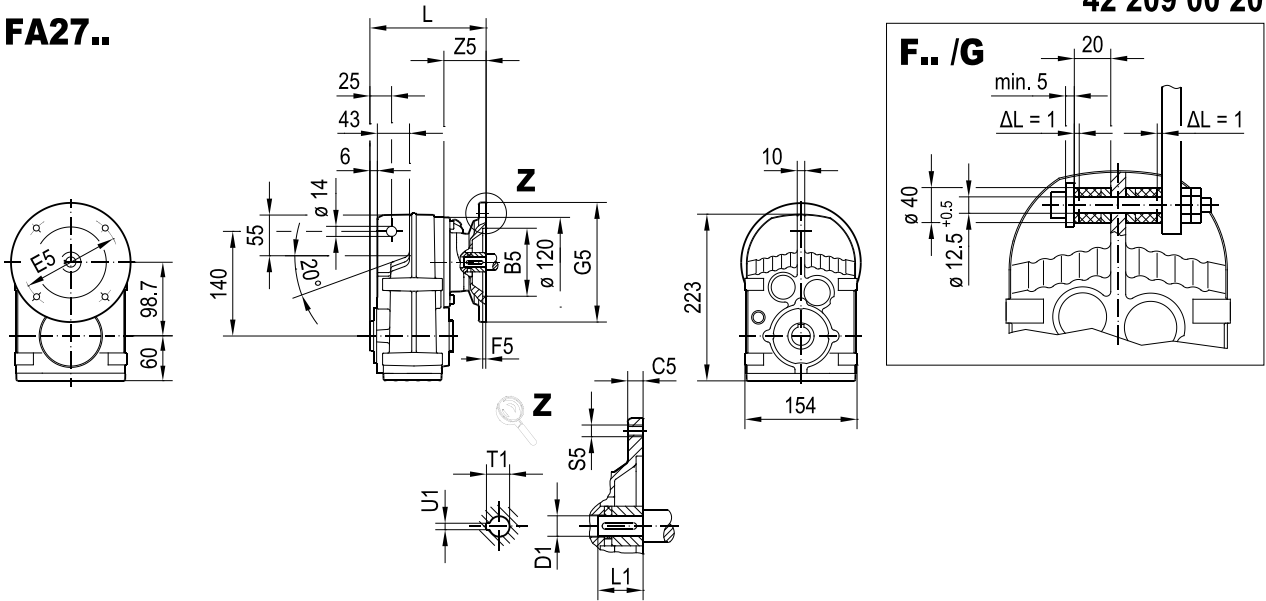
| FA157 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 20000 Nm | |
|--|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|--|---------|----------|---|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) |  |  | | m kg |  |
| 267.43 | 5.2 | 20000 | 11.7 | 93800 | 6140 | 5 | - | | | | |
| 217.62* | 6.4 | 20000 | 14.3 | 93800 | 6070 | 5 | - | | | | |
| 178.20* | 7.9 | 20000 | 17.4 | 93800 | 5960 | 5 | - | | | | |
| 162.96 | 8.6 | 20000 | 19.0 | 93800 | 5920 | 5 | - | | | | |
| 141.80* | 9.9 | 20000 | 22 | 93800 | 5840 | 5 | - | | FA 157 | AD5 | 660 431 |
| 125.14 | 11 | 20000 | 25 | 93800 | 5760 | 5 | - | | FAF 157 | AD5 | 720 431 |
| 108.49 | 13 | 20000 | 29 | 93800 | 5660 | 5 | - | | F 157 | AD5 | 680 431 |
| 96.53* | 14 | 20000 | 32 | 93800 | 5560 | 5 | - | | FF 157 | AD5 | 790 431 |
| 85.80* | 16 | 20000 | 36 | 91800 | 3770 | 5 | - | | | | |
| 78.46 | 18 | 20000 | 39 | 88300 | 3610 | 5 | - | | | | |
| 68.28* | 21 | 20000 | 45 | 83000 | 3300 | 5 | - | | | | |
| 60.25 | 23 | 18200 | 46 | 82100 | 3850 | 5 | - | | | | |
| 52.24 | 27 | 20000 | 59 | 73600 | 6370 | 5 | M2,5-6 | | FA 157 | AD6 | 680 431 |
| | | | | | | | | | FAF 157 | AD6 | 740 431 |
| | | | | | | | | | F 157 | AD6 | 700 431 |
| | | | | | | | | | FF 157 | AD6 | 810 431 |
| 46.48* | 30 | 20000 | 66 | 69600 | 16200 | 5 | M2-3,5-6 | | FA 157 | AD7 | 670 431 |
| 40.06 | 35 | 20000 | 77 | 64900 | 15400 | 5 | M1-6 | | FAF 157 | AD7 | 730 431 |
| 32.55 | 43 | 20000 | 94 | 58500 | 13600 | 5 | M1-6 | | F 157 | AD7 | 690 431 |
| | | | | | | | | | FF 157 | AD7 | 800 431 |
| 27.60 | 51 | 20000 | 111 | 53800 | 25300 | 5 | M1-6 | | FA 157 | AD8 | 700 431 |
| | | | | | | | | | FAF 157 | AD8 | 750 431 |
| | | | | | | | | | F 157 | AD8 | 720 431 |
| | | | | | | | | | FF 157 | AD8 | 820 431 |

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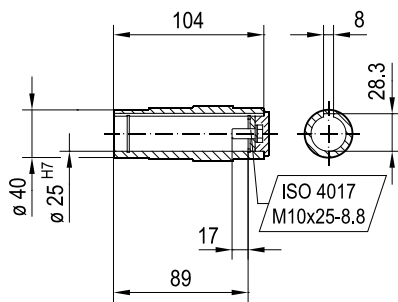
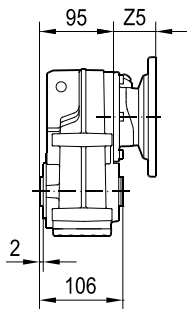
| FA157 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | | 20000 Nm | |
|--|----------------------------|-------------------------|-------------|--------------------|---------------|--------------|---|--|---------|---------|---|-------|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | | m kg |  | |
| 53.55 | 26 | 9820 | 28 | 94700 | 3140 | 4 | - | FA 157 | AD5 | 650 | 431 | |
| | | | | | | | | FAF 157 | AD5 | 710 | 431 | |
| | | | | | | | | F 157 | AD5 | 680 | 431 | |
| | | | | | | | | FF 157 | AD5 | 780 | 431 | |
| 43.94* | 32 | 11500 | 40 | 84800 | 5220 | 4 | - | FA 157 | AD6 | 670 | 431 | |
| | 35.75* | 39 | 13200 | 56 | 74900 | 2920 | 4 | - | FAF 157 | AD6 | 730 | 431 |
| | | | | | | | | F 157 | AD6 | 690 | 431 | |
| | | | | | | | | FF 157 | AD6 | 800 | 431 | |
| 28.60* | 49 | 18300 | 97 | 58200 | 22900 | 4 | - |  | AD8 | 690 | 431 | |
| 25.43 | 55 | 16300 | 97 | 58900 | 23500 | 4 | M2,5-6 | | | | | |
| 22.16 | 63 | 19700 | 134 | 48400 | 21700 | 4 | M1-6 | | | | | |
| 19.77 | 71 | 18800 | 143 | 47300 | 21800 | 4 | M1-6 | | | | | |
| 16.85 | 83 | 18400 | 165 | 44100 | 21500 | 5 | M1-6 | | | | | |
| 13.96 | 100 | 17700 | 191 | 41100 | 21200 | 5 | M1-6 | | | | | |
| 11.92 | 117 | 17100 | 217 | 38700 | 20800 | 5 | M1-6 | | | | | |
| | | | | | | | | | | | | F 157 |
| | | | | | | | | FF 157 | AD8 | 820 | 431 | |

42 209 00 20

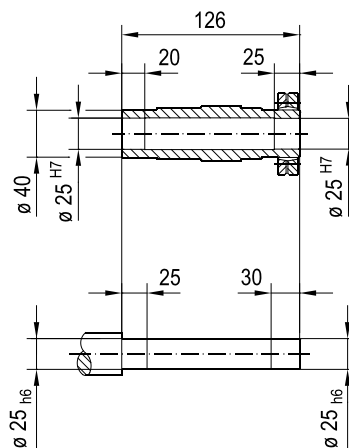
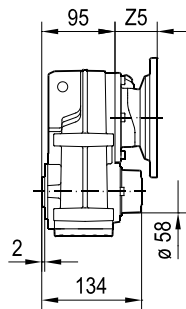
FA27..



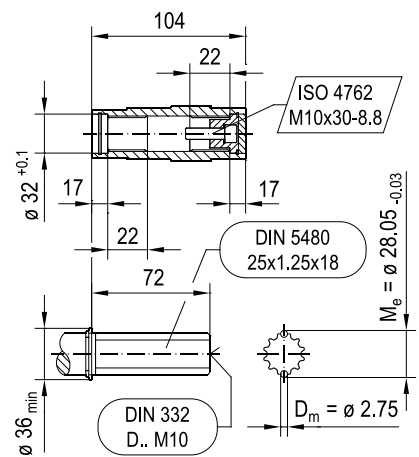
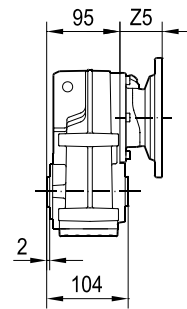
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FH27..



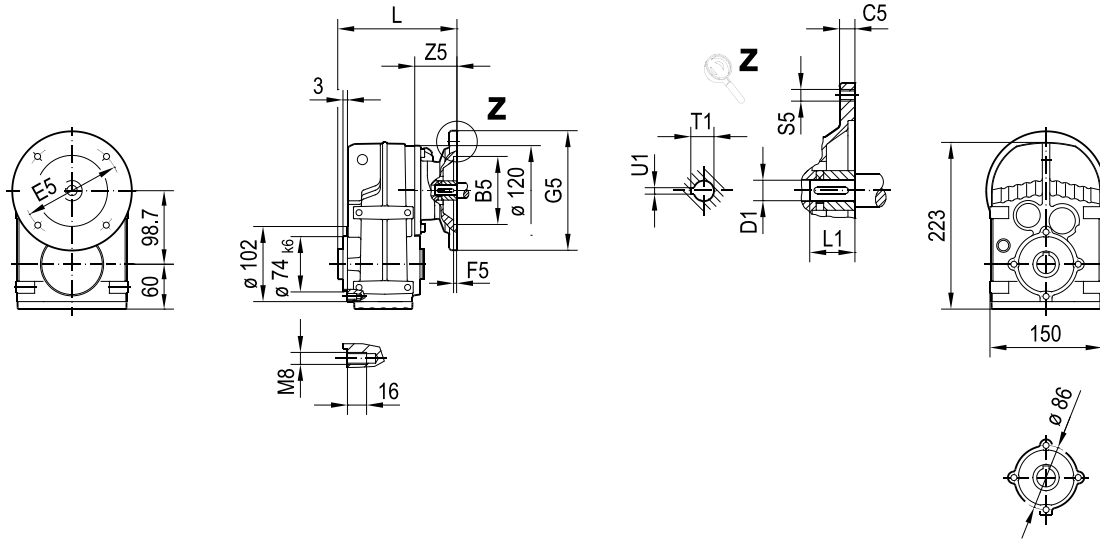
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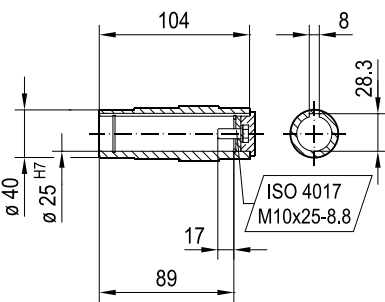
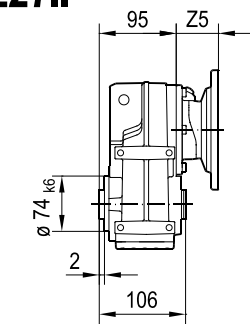
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 152 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 152 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 169 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 182 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

42 210 00 20

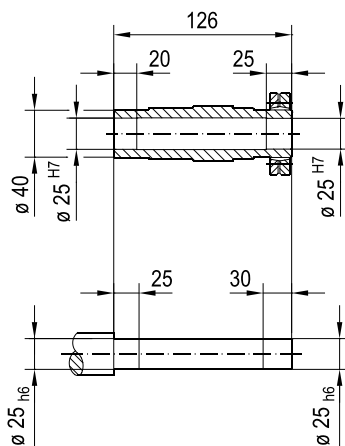
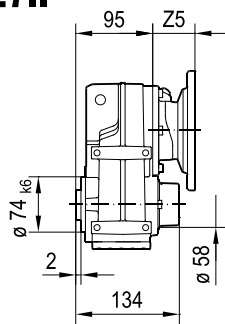
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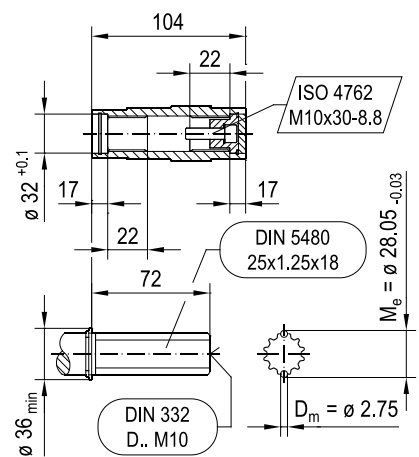
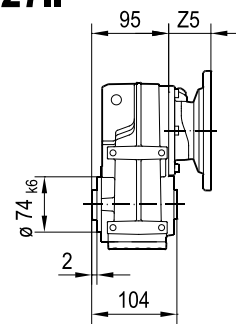
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FHZ27..



FVZ27..

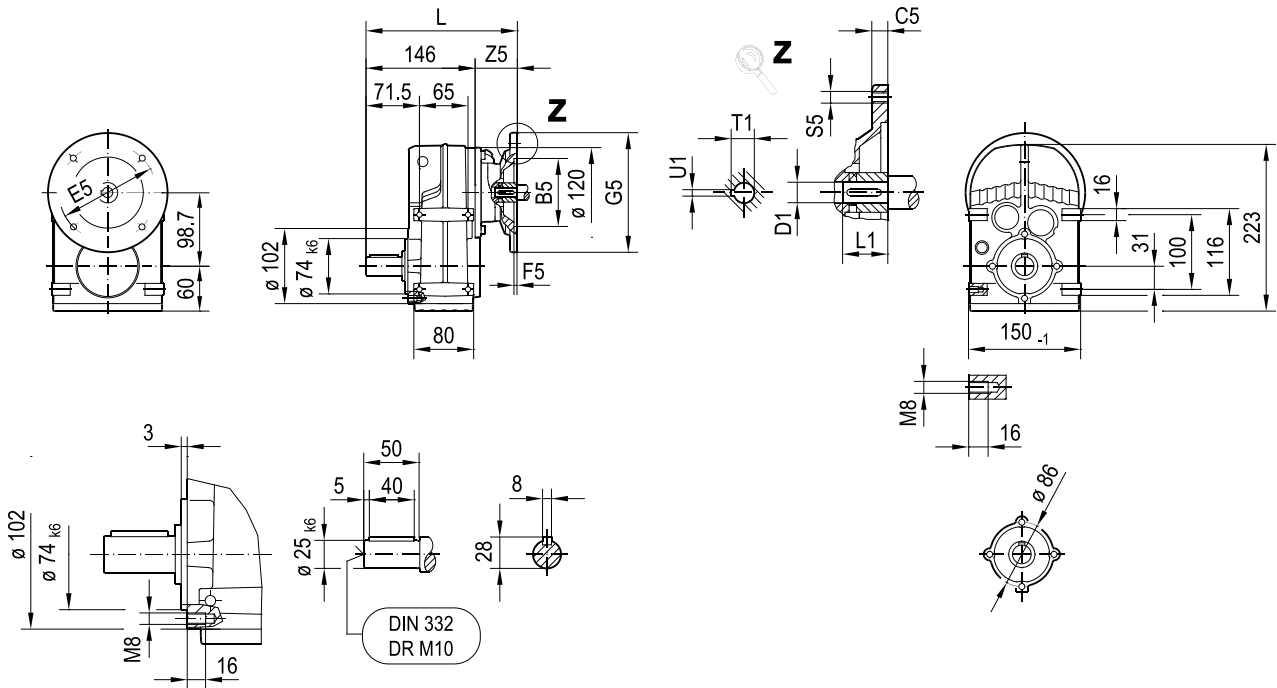


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 152 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 152 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 169 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 182 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

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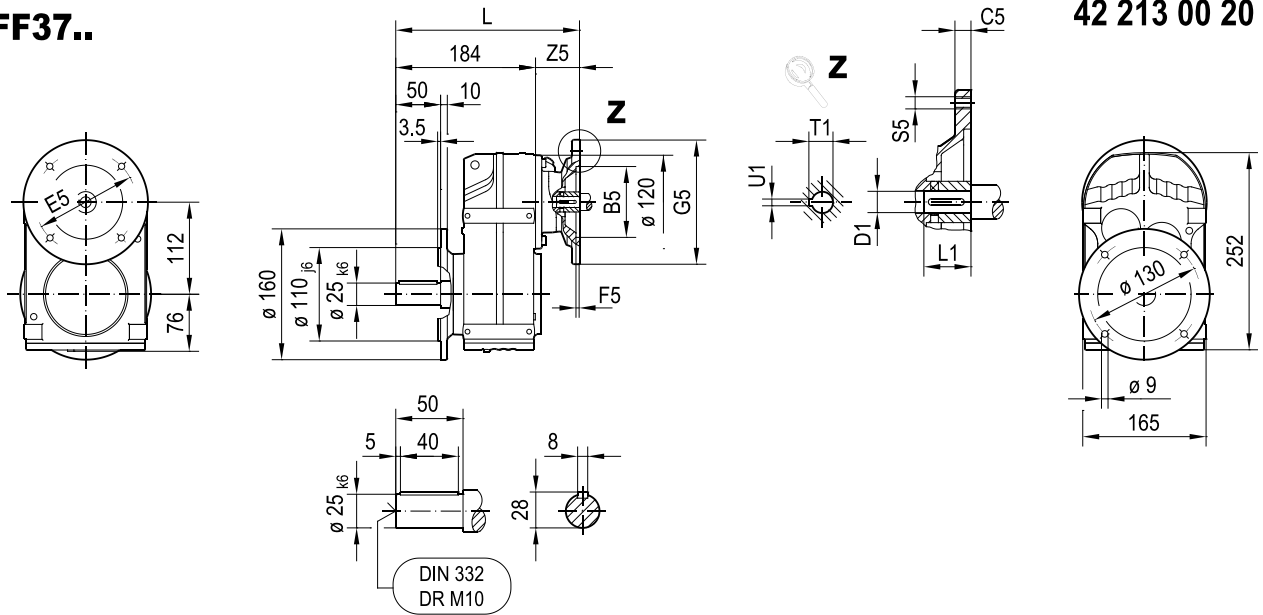
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FZ27..



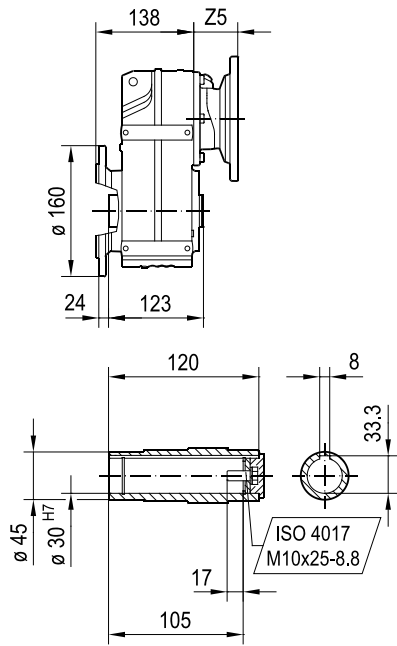
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|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 203 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 203 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 220 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 233 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

FF37..

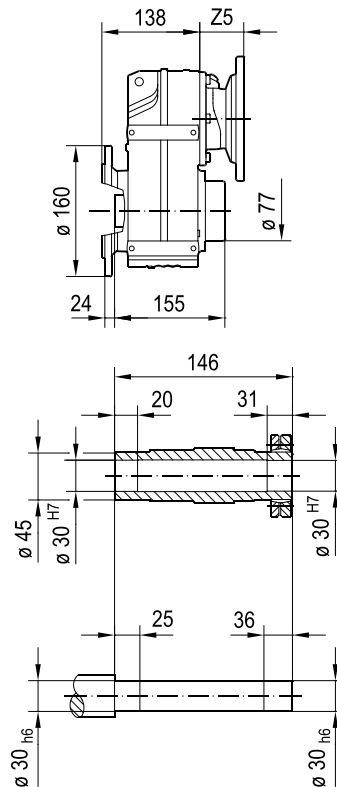


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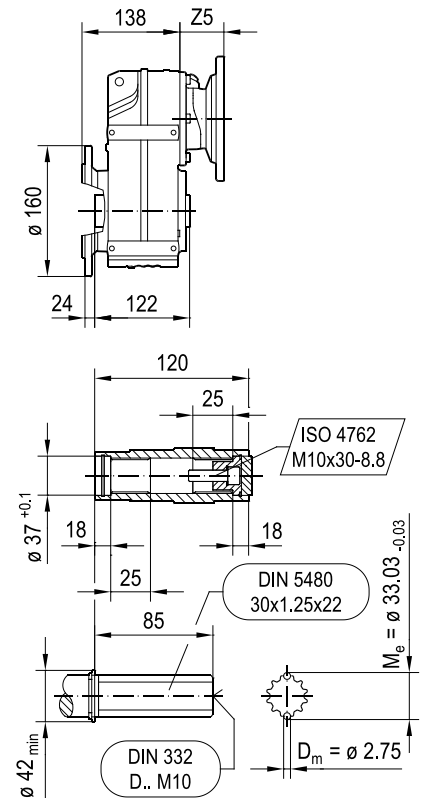
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FHF37..

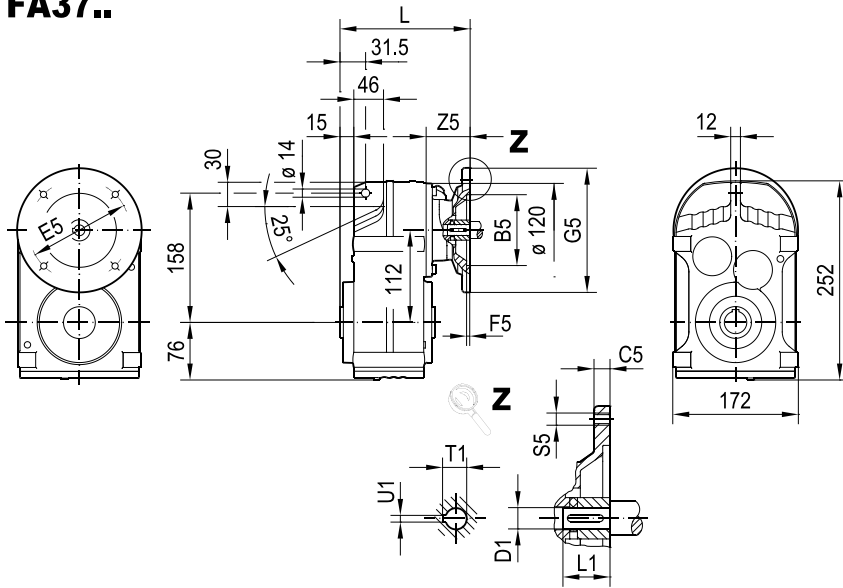


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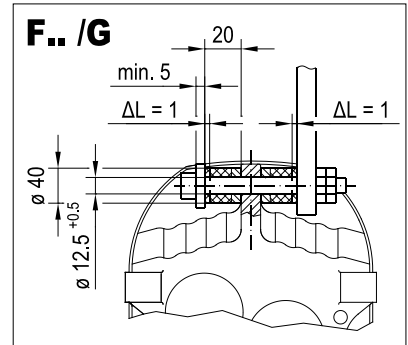


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 241 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 241 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 258 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 271 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

FA37..



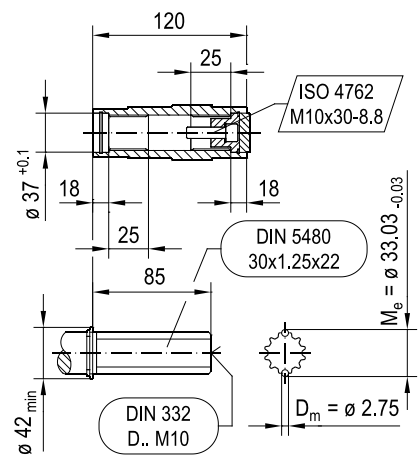
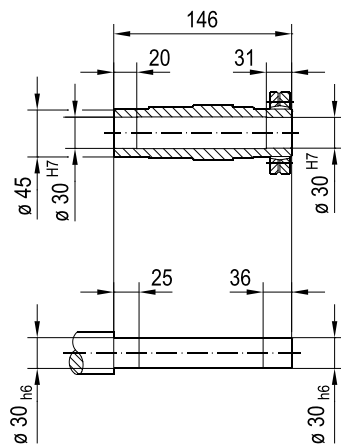
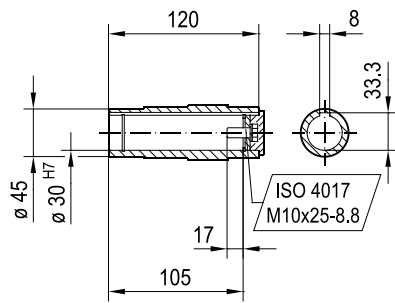
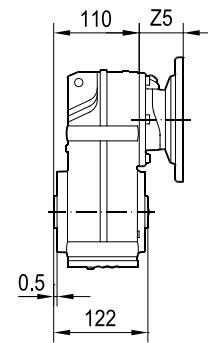
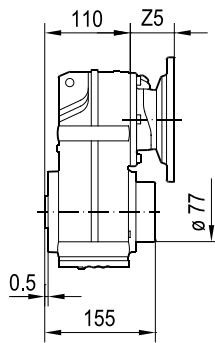
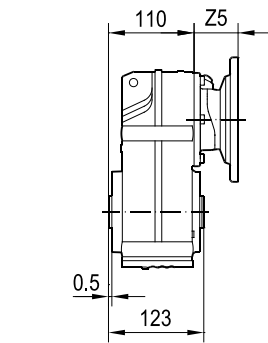
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FA37..

FH37..

FV37..

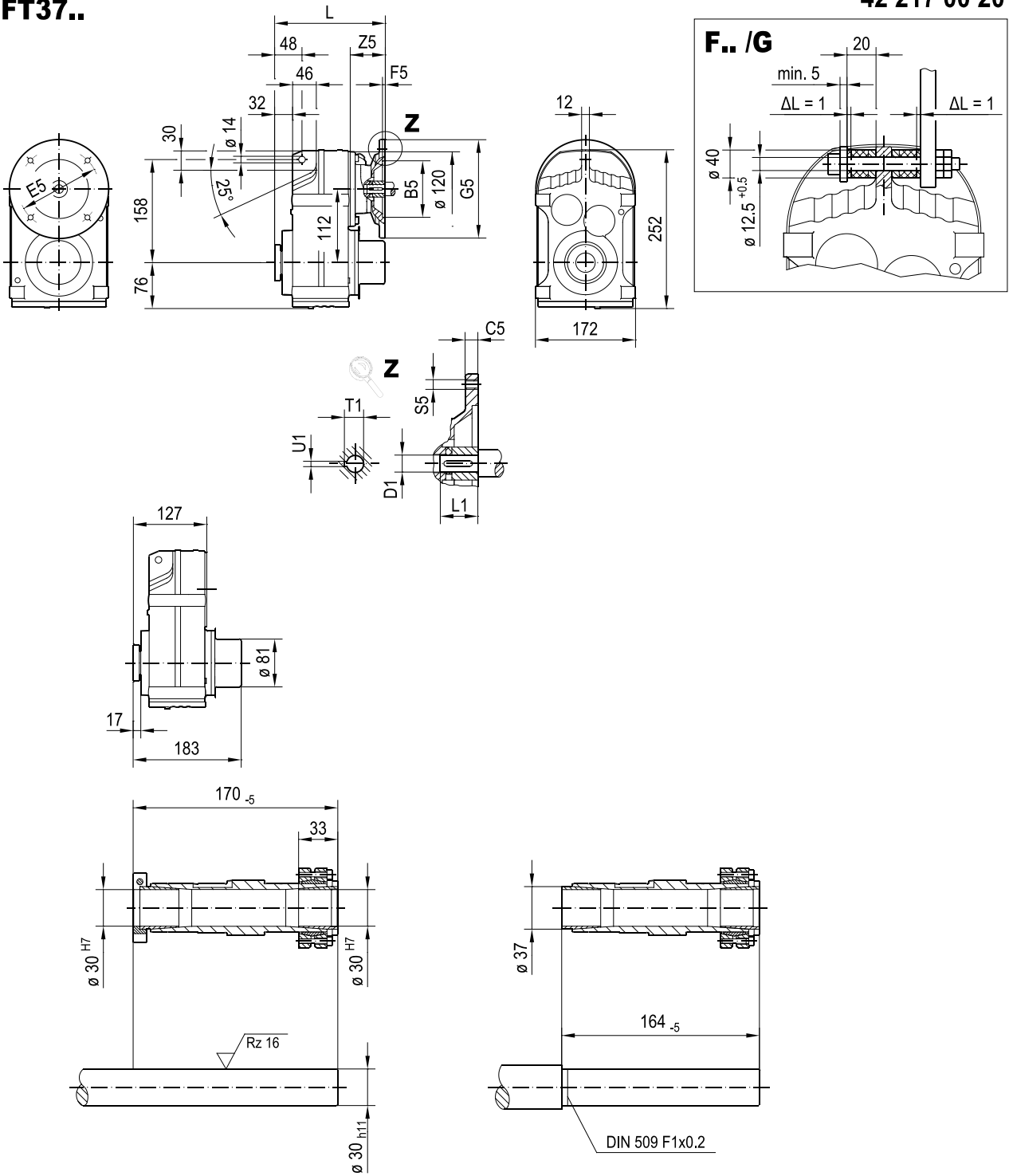


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 167 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 167 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 184 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 197 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

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FT37..

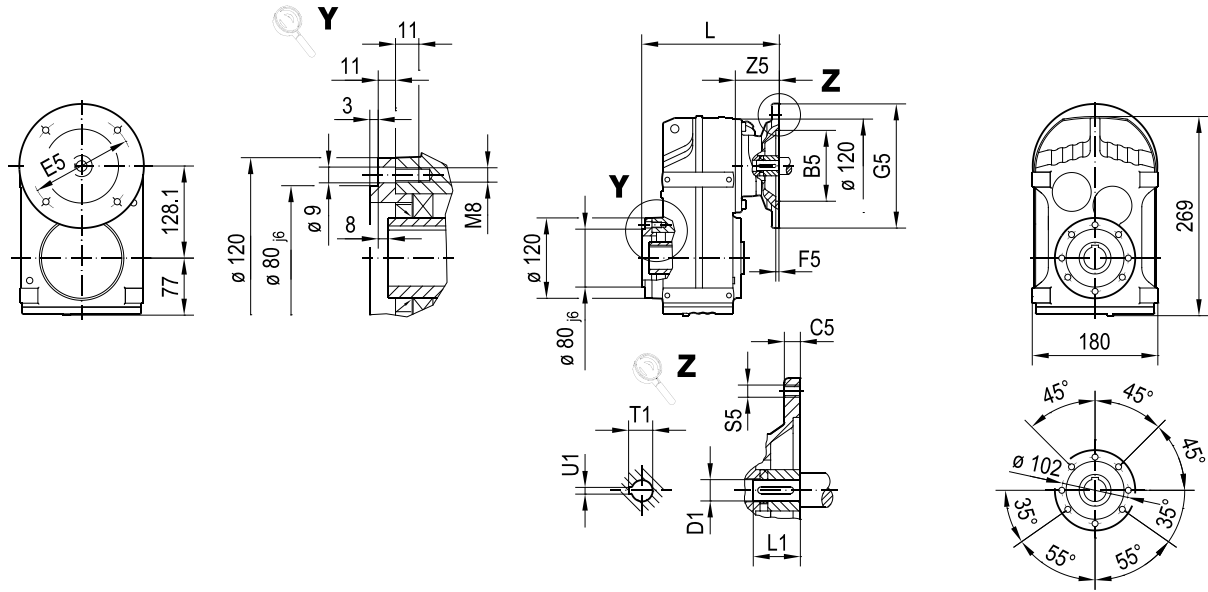
42 217 00 20



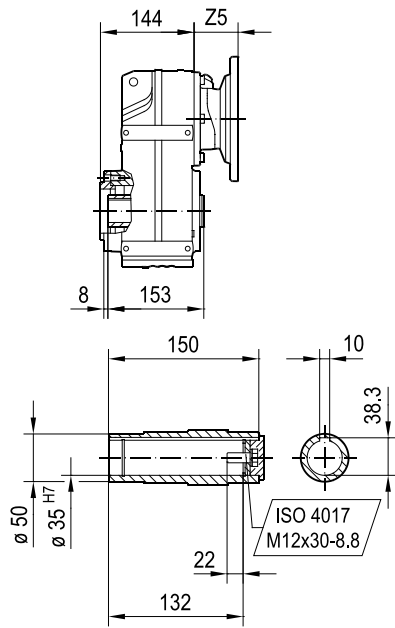
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|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 184 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 184 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 201 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 214 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

42 220 00 20

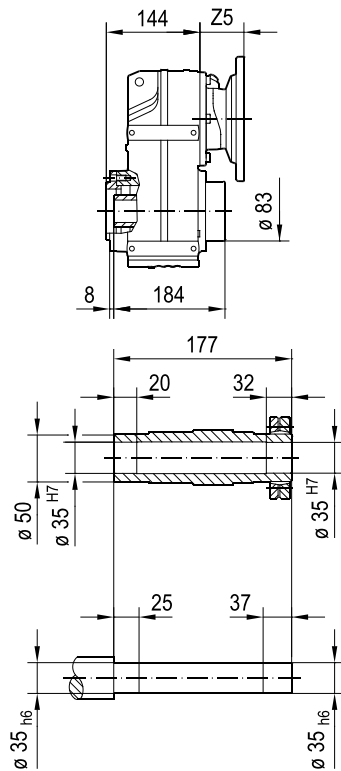
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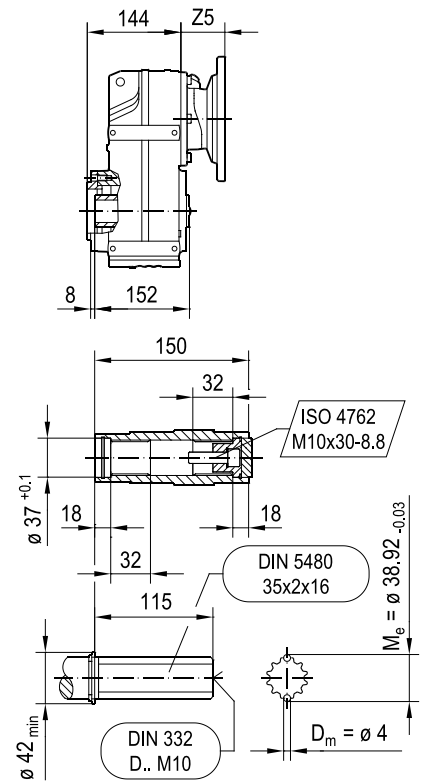
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FHZ47..



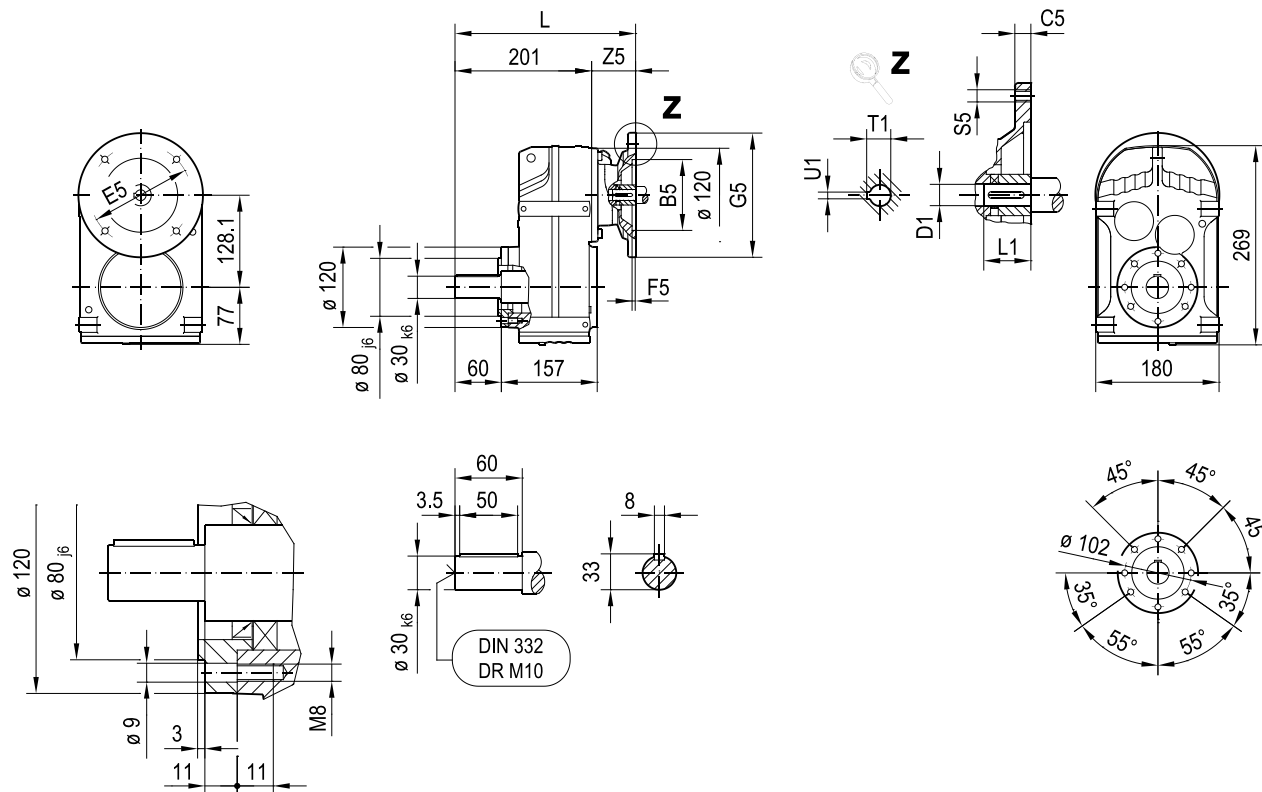
FVZ47..



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 201 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 201 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 218 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 231 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

FZ47..

42 221 00 20

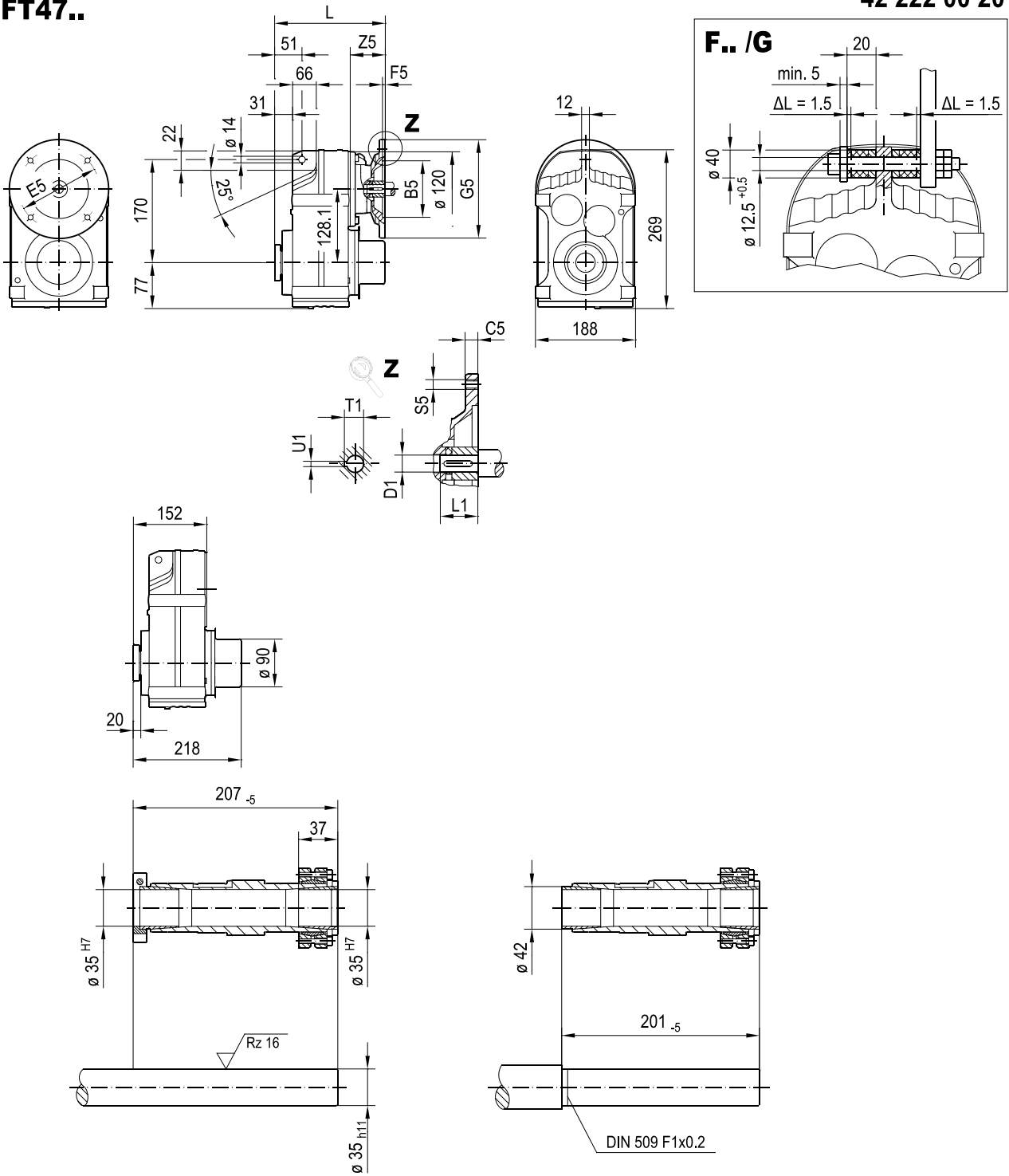


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 258 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 258 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 275 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 288 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

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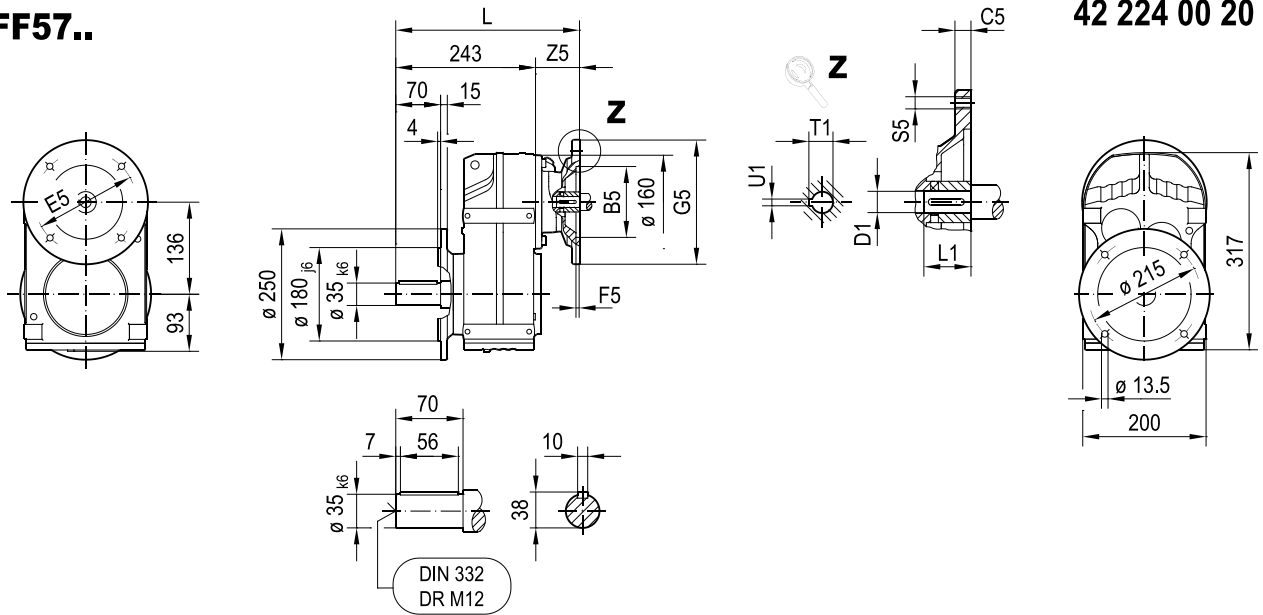
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42 222 00 20

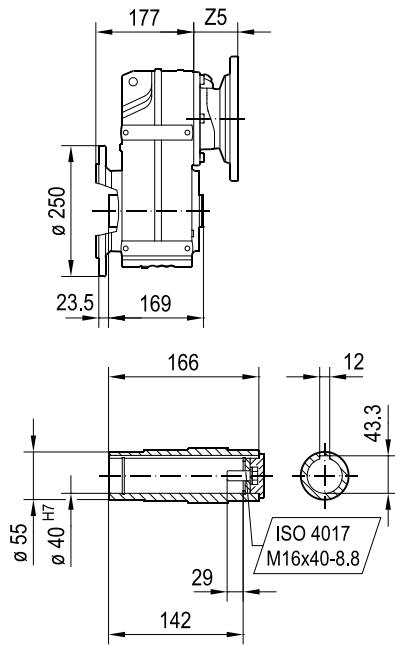


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 209 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 209 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 226 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 239 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

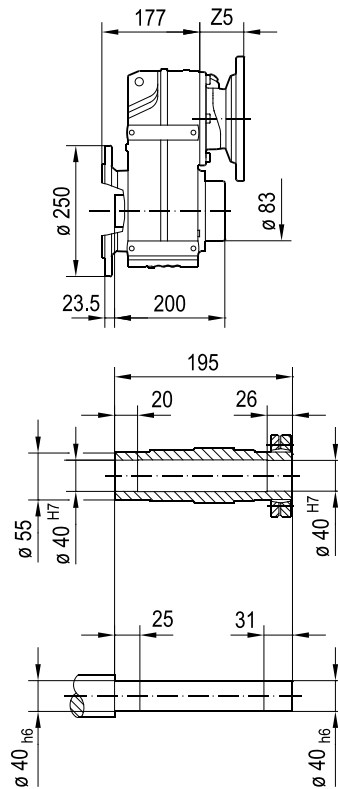
FF57..



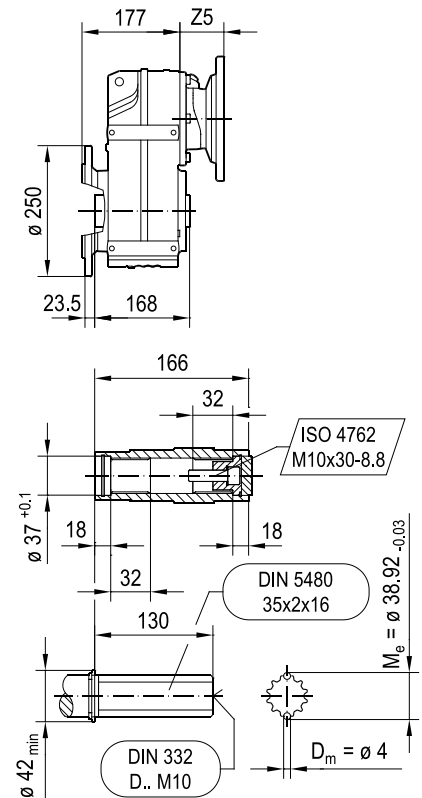
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FHF57..



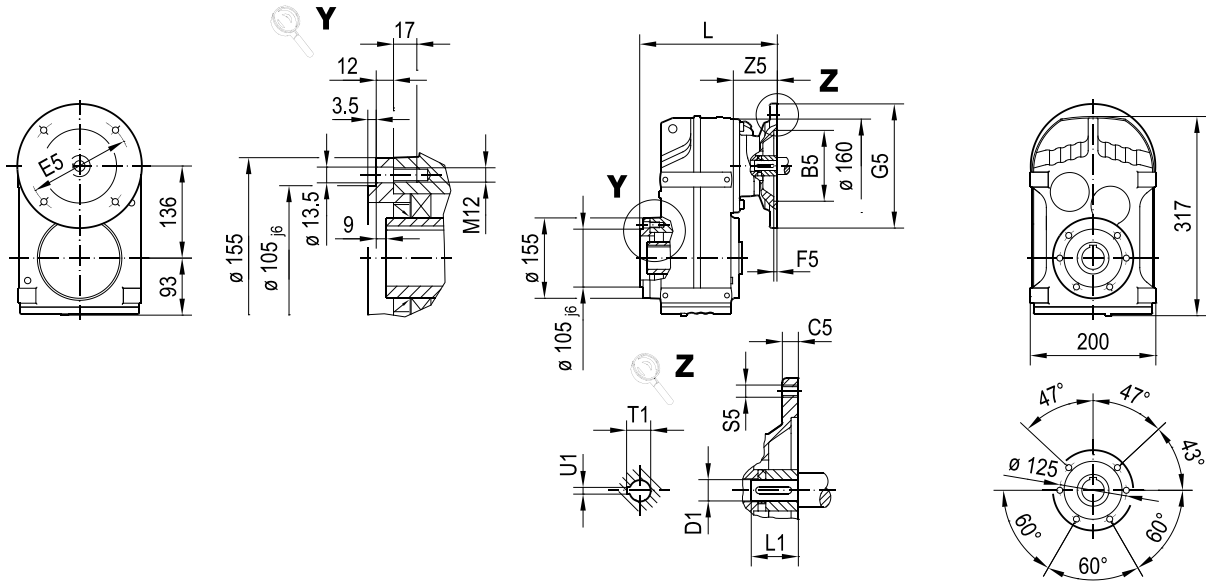
FVF57..



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 293 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 293 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 310 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 323 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 352 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 352 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 377 | M12 | 134 | 38 | 80 | 41.3 | 10 |

FAZ57..

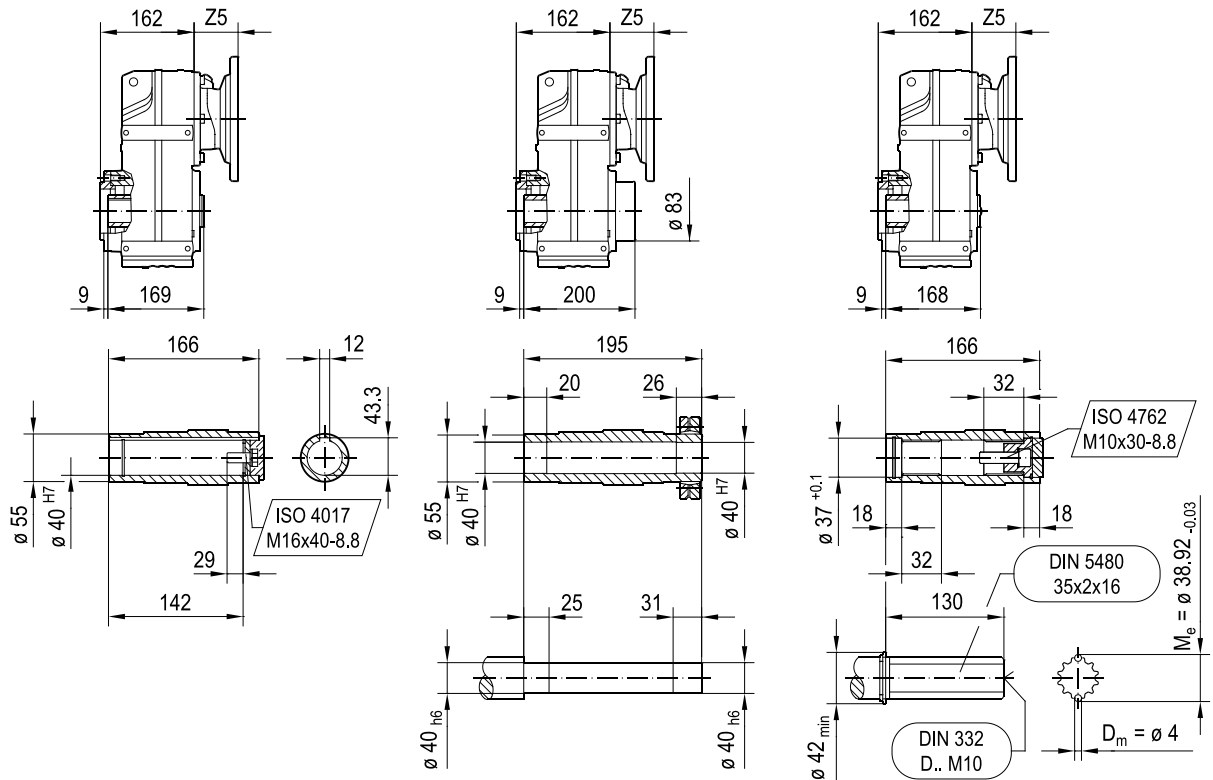
42 226 00 20



FAZ57..

FHZ57..

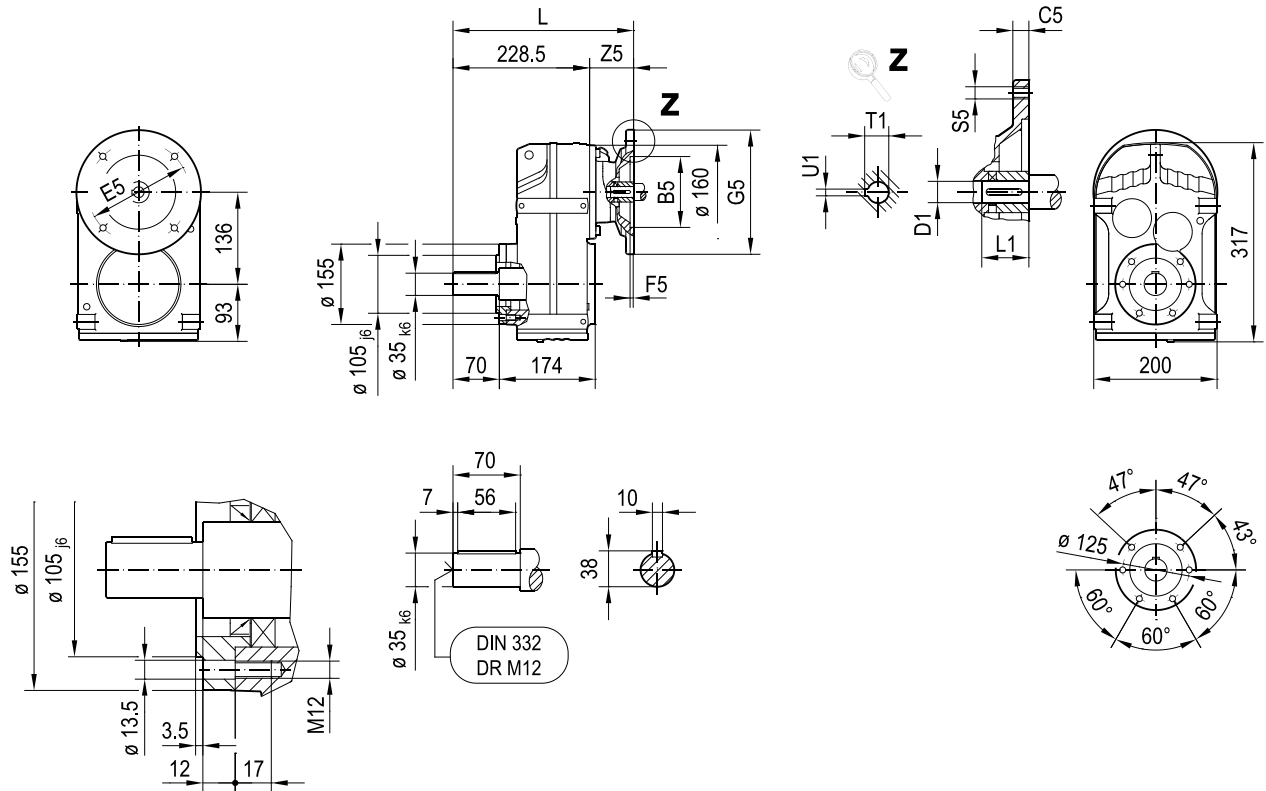
FVZ57..



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 212 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 212 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 229 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 242 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 271 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 271 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 296 | M12 | 134 | 38 | 80 | 41.3 | 10 |

FZ57..

42 227 00 20

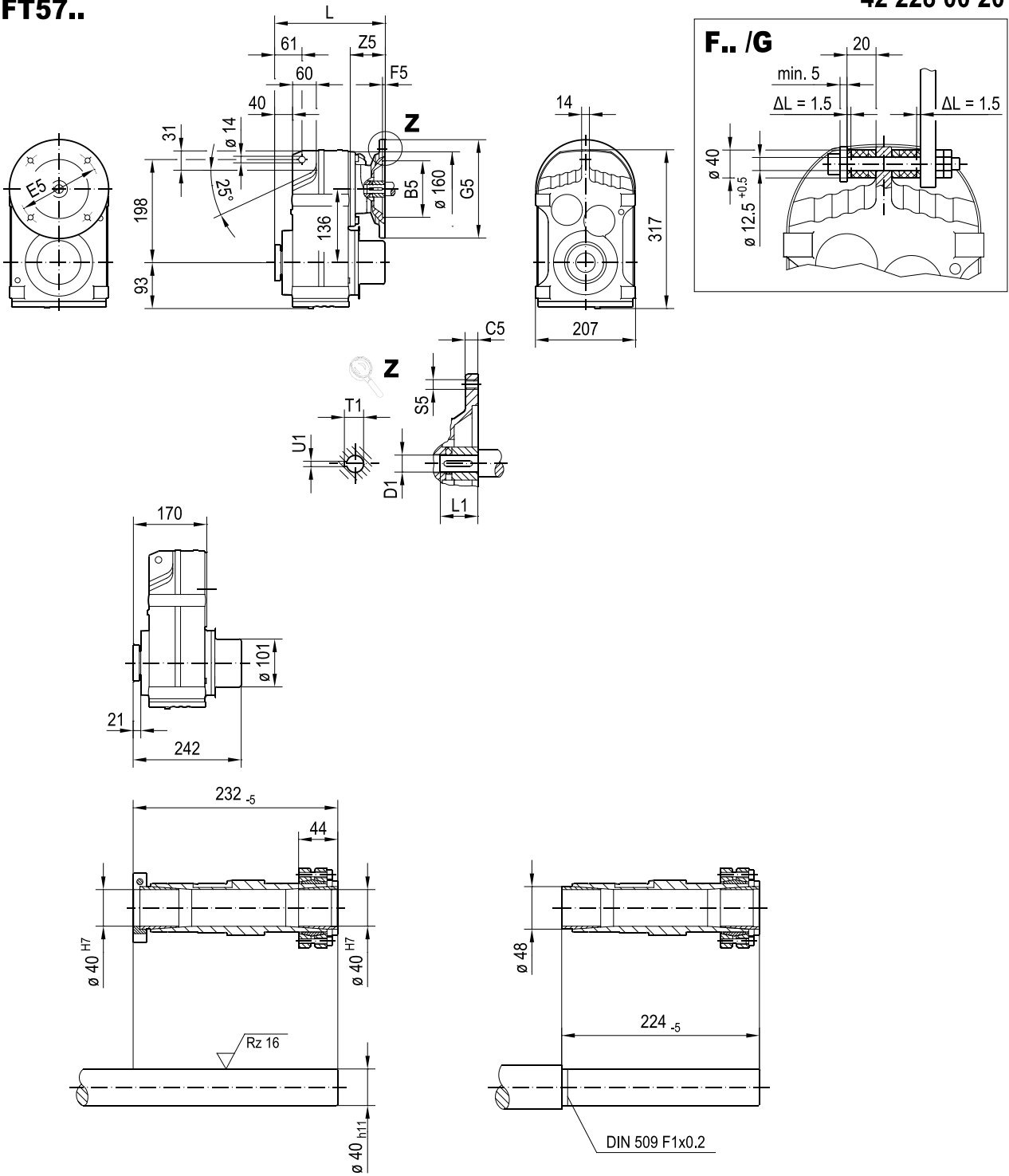


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 279 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 279 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 296 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 309 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 337 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 337 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 363 | M12 | 134 | 38 | 80 | 41.3 | 10 |

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FT57..

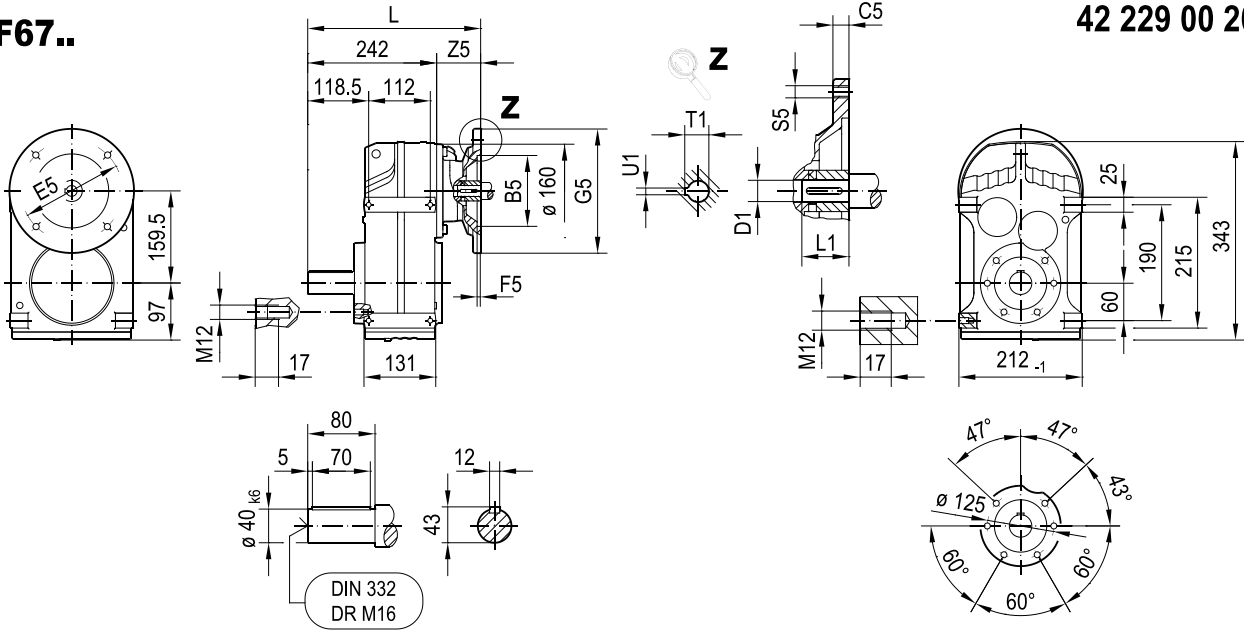
42 228 00 20



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 220 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 220 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 237 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 250 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 279 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 279 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 304 | M12 | 134 | 38 | 80 | 41.3 | 10 |

F67..

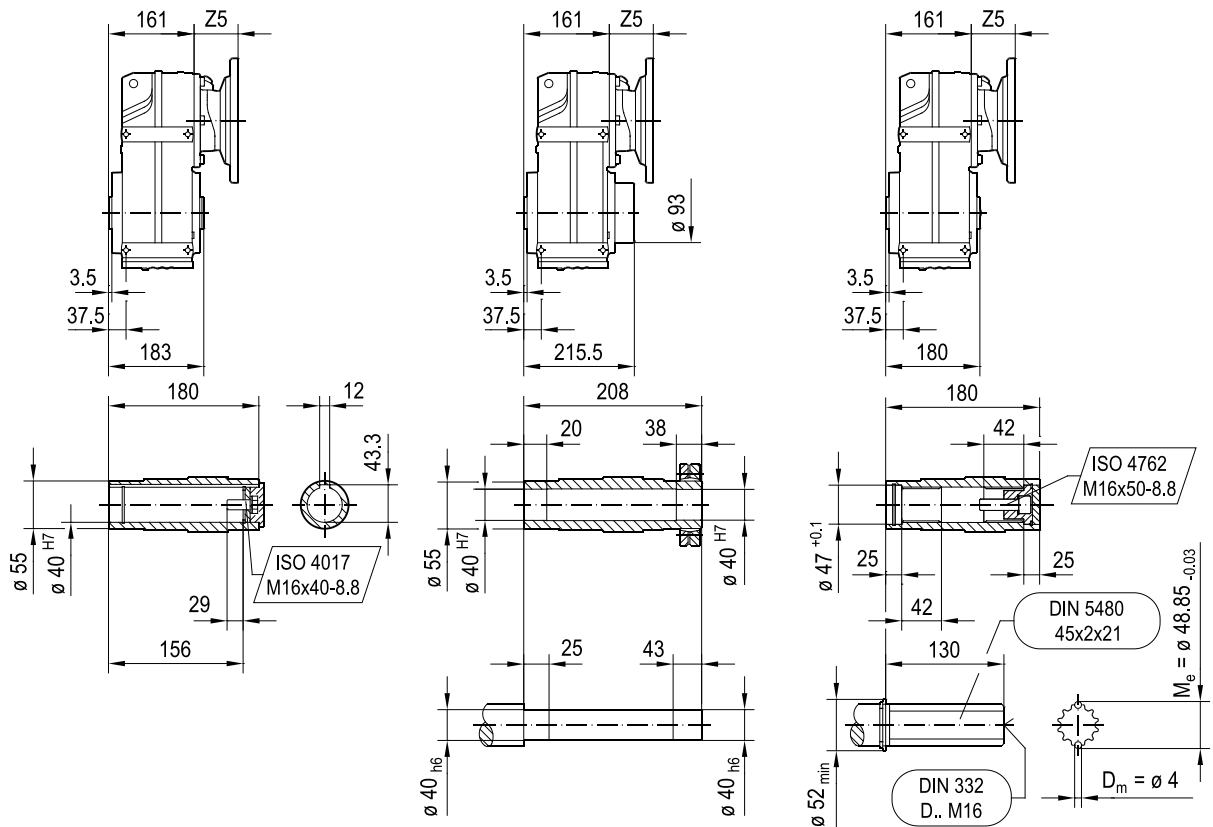
42 229 00 20



FA67B..

FH67B..

FV67B..

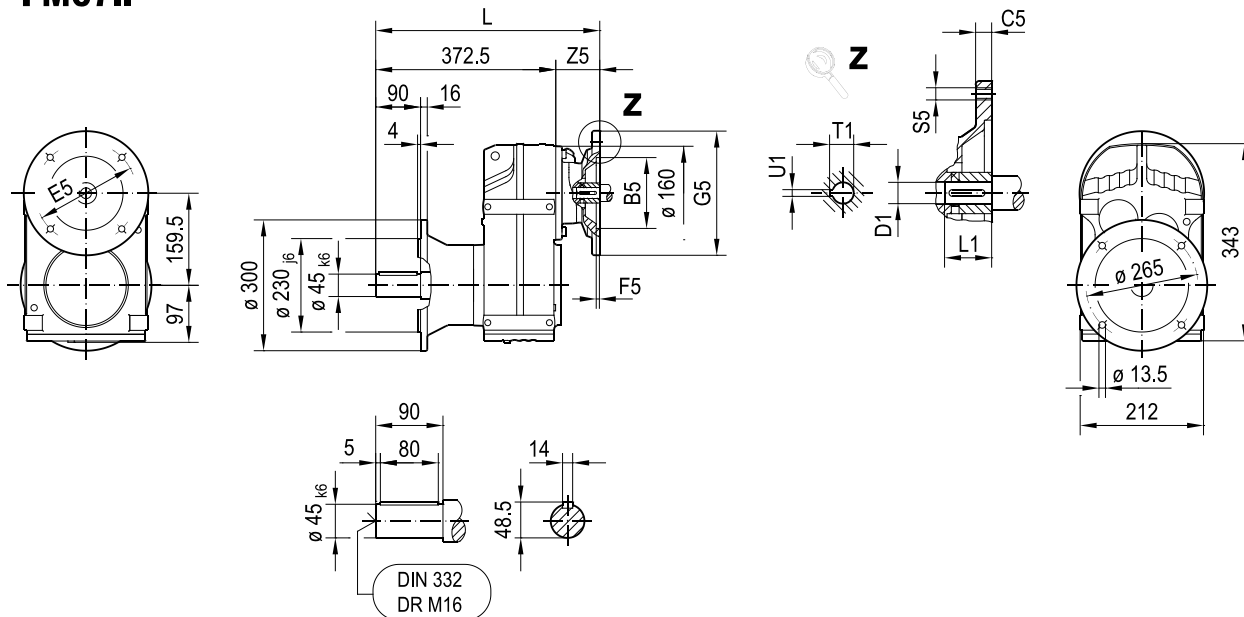


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 292 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 292 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 309 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 322 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 351 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 351 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 376 | M12 | 134 | 38 | 80 | 41.3 | 10 |

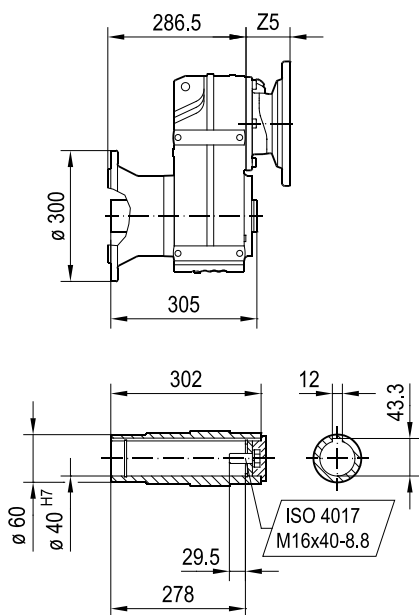
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42 231 00 20

FM67..



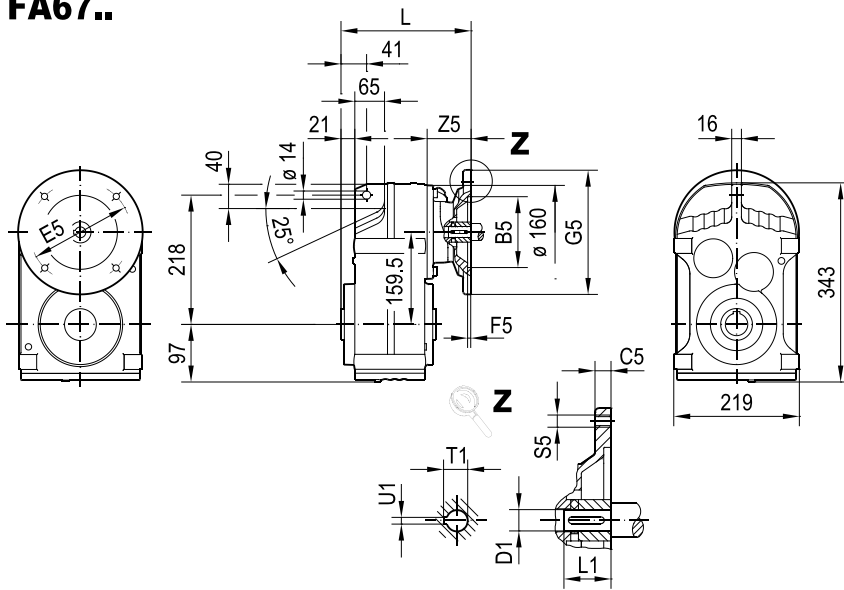
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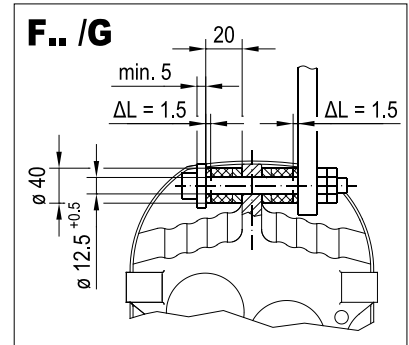
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 423 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 423 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 440 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 453 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 481 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 481 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 507 | M12 | 134 | 38 | 80 | 41.3 | 10 |

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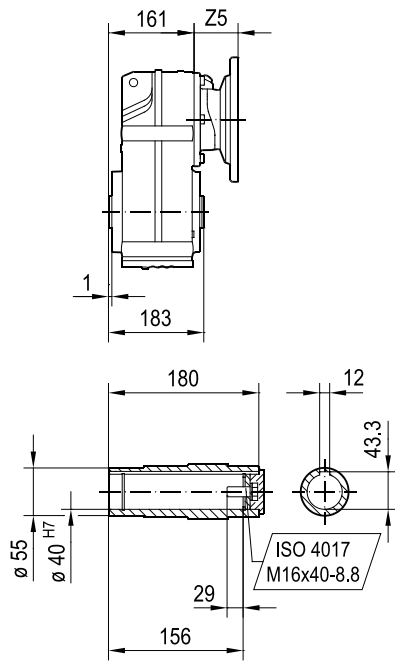
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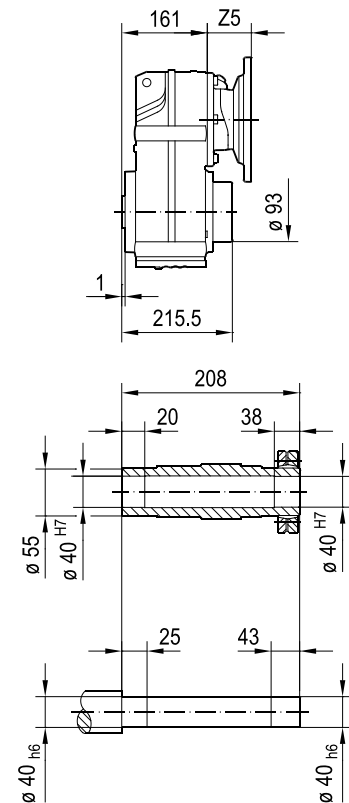
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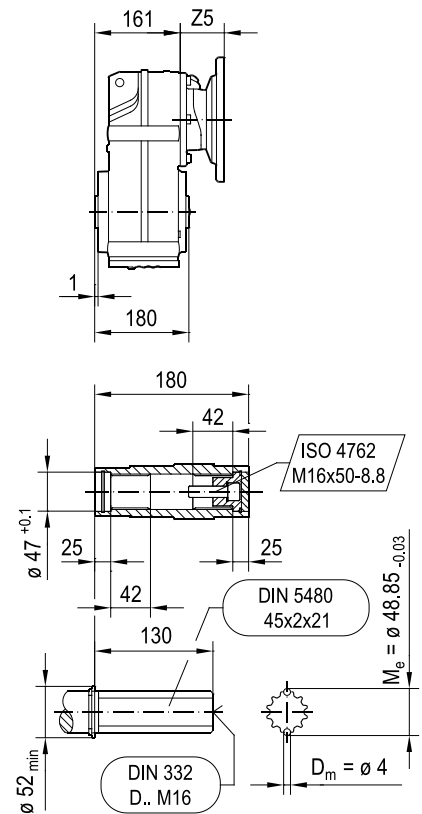
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FH67..



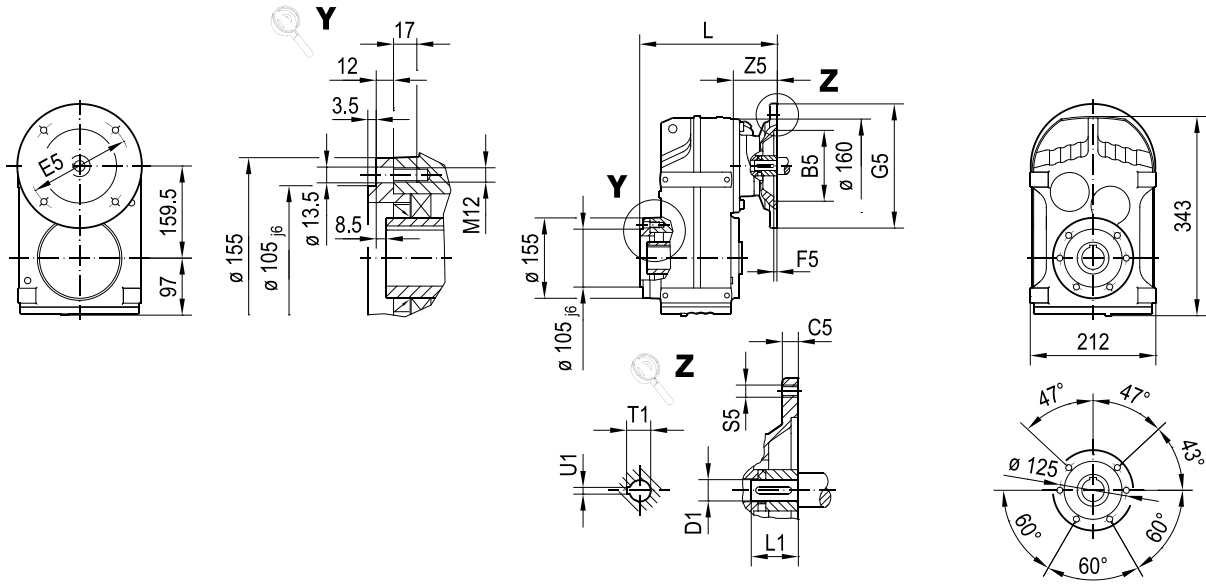
FV67..



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 211 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 211 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 228 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 241 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 270 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 270 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 295 | M12 | 134 | 38 | 80 | 41.3 | 10 |

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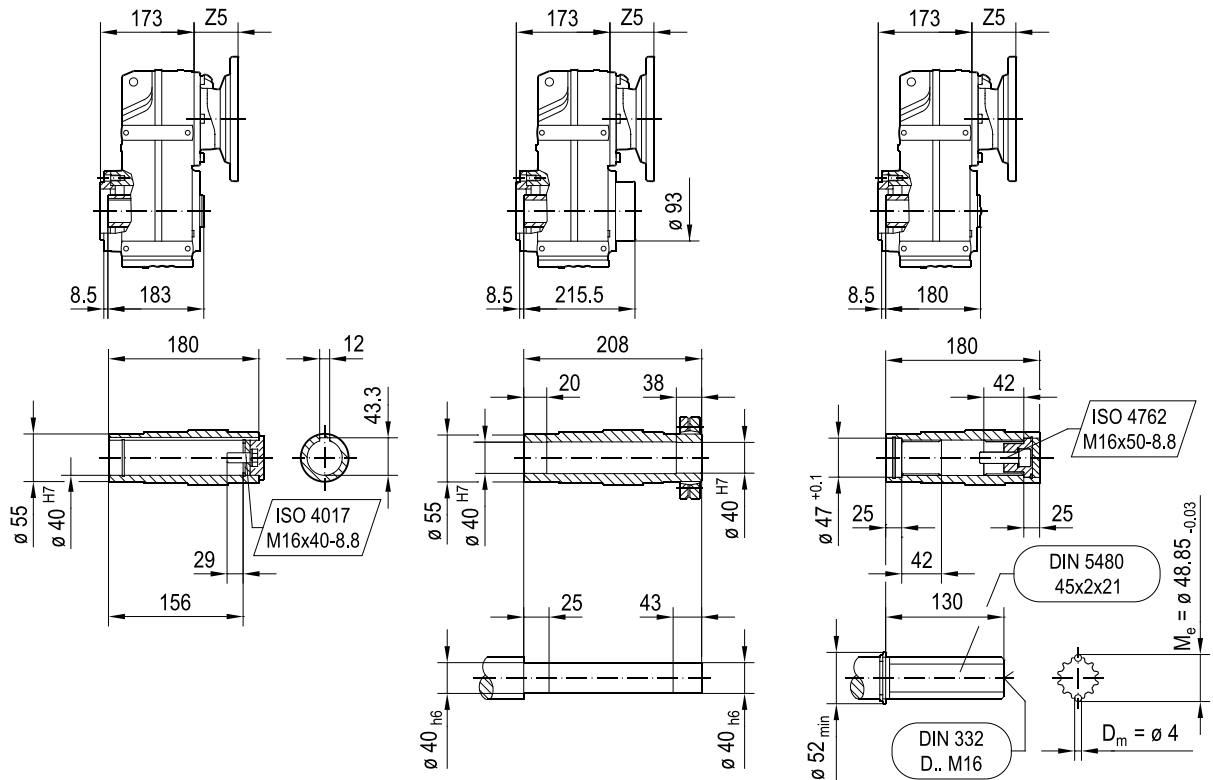
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FVZ67..

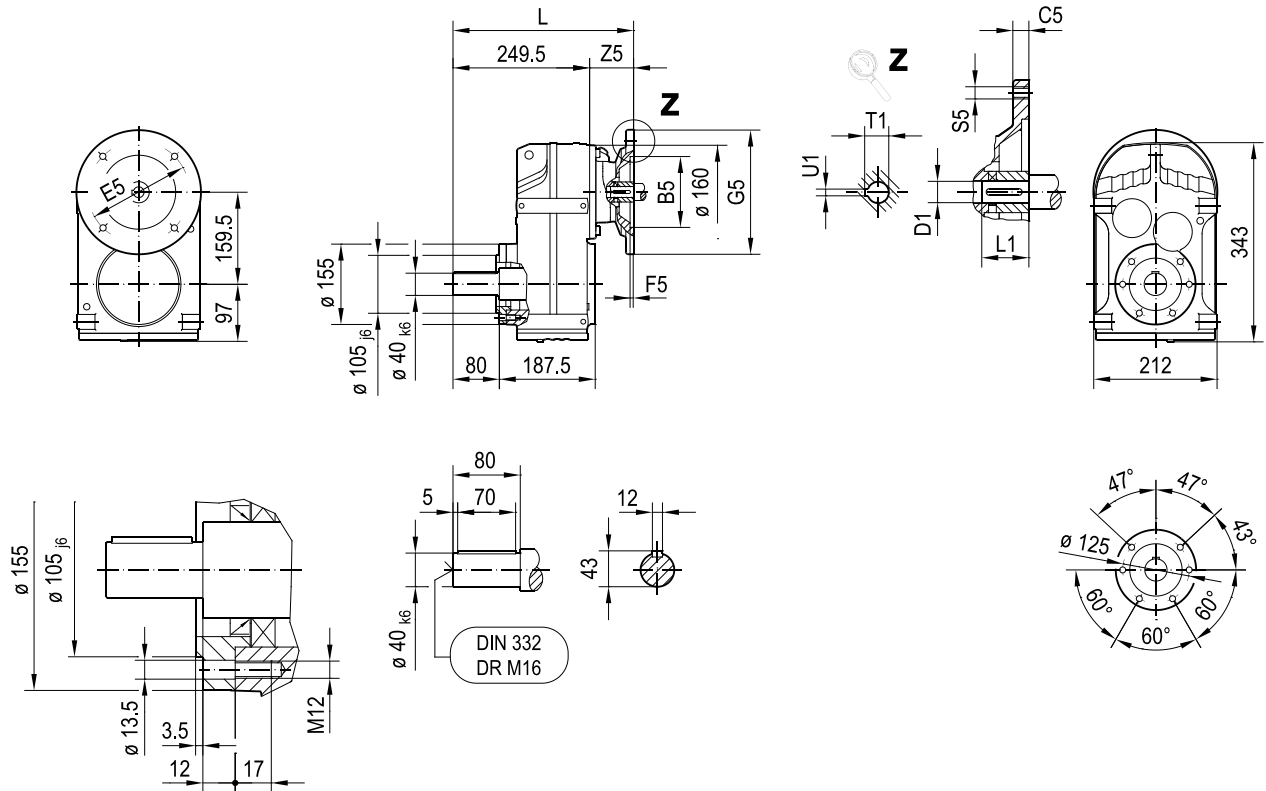


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 223 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 223 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 240 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 253 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 282 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 282 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
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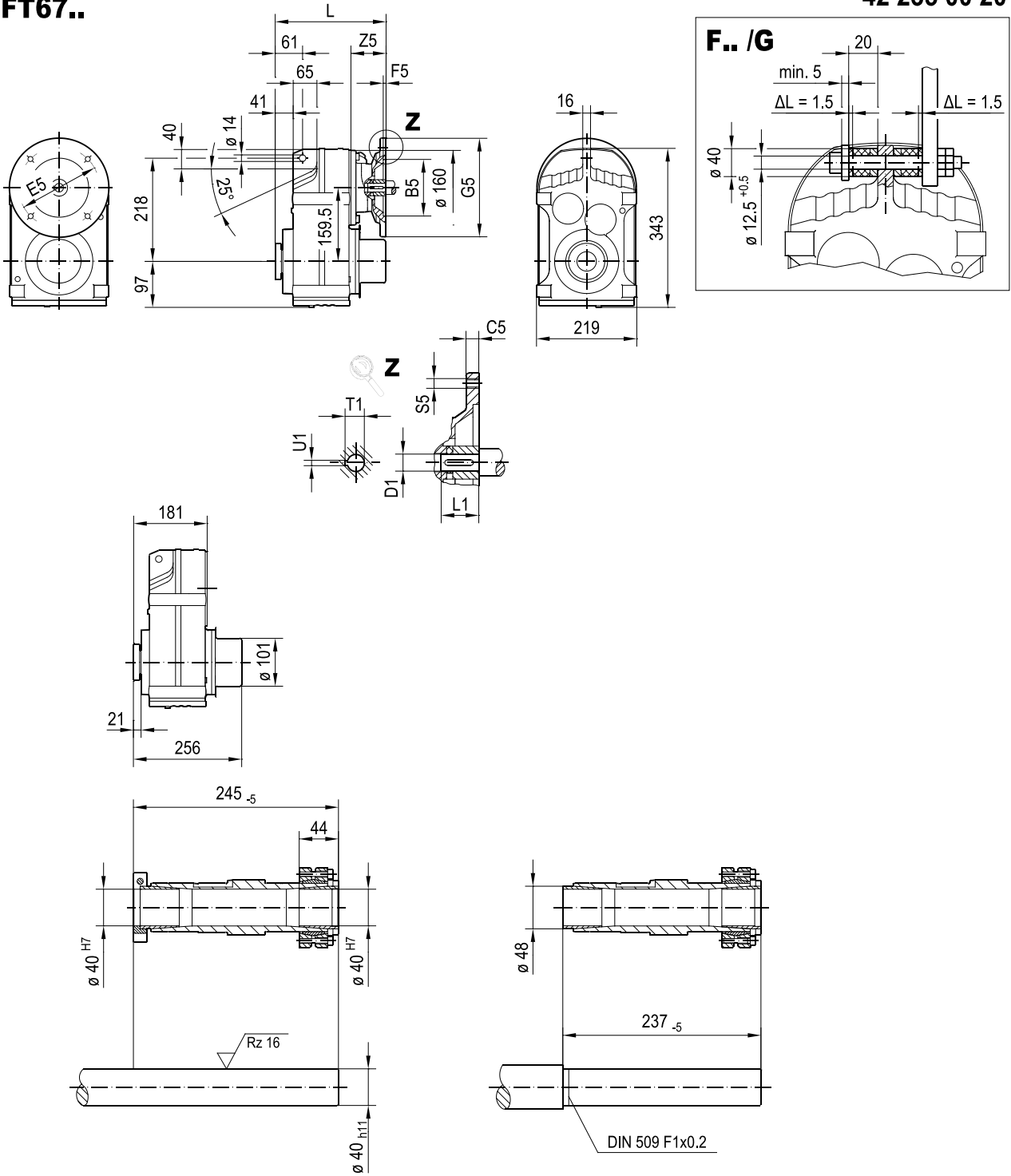
42 234 00 20



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 300 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 300 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 317 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 330 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 358 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 358 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 384 | M12 | 134 | 38 | 80 | 41.3 | 10 |

FT67..

42 235 00 20

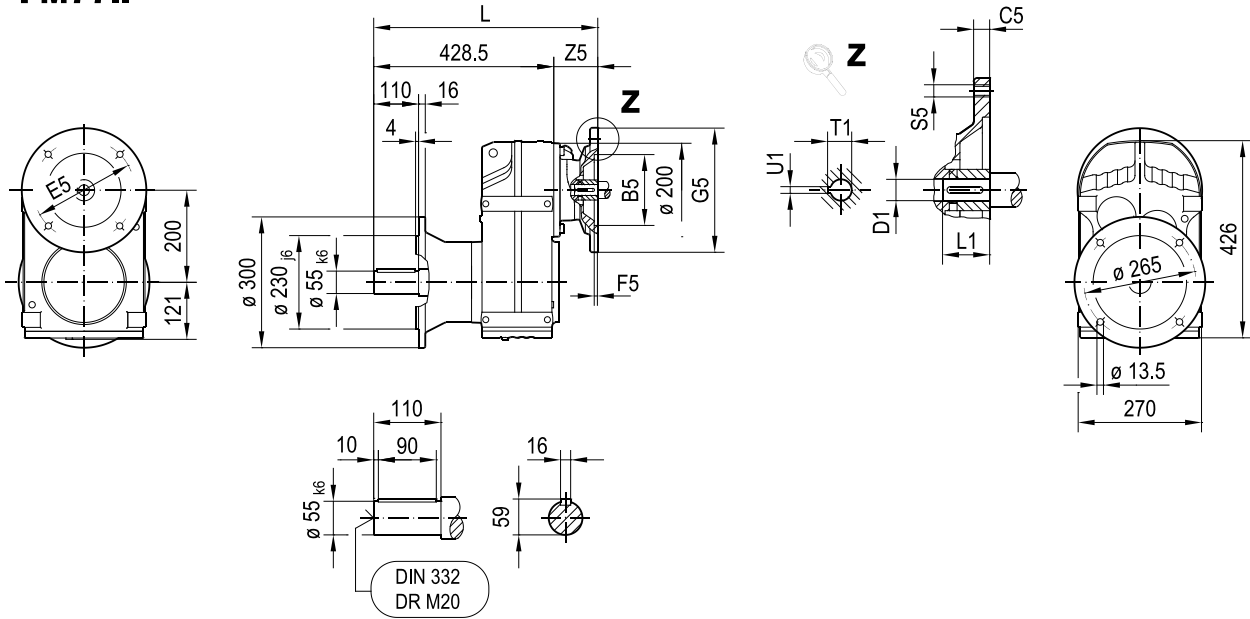


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 231 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 231 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 248 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 261 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 290 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 290 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 315 | M12 | 134 | 38 | 80 | 41.3 | 10 |

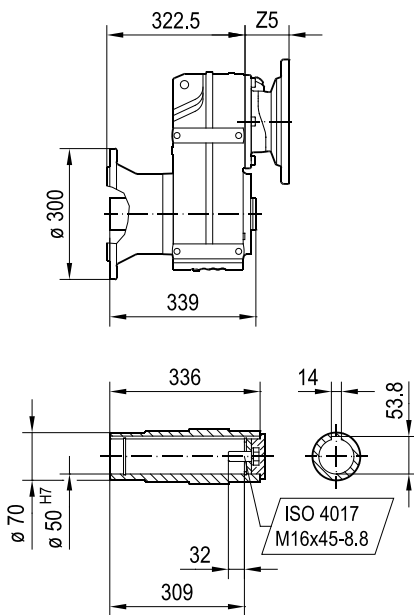
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FM77..

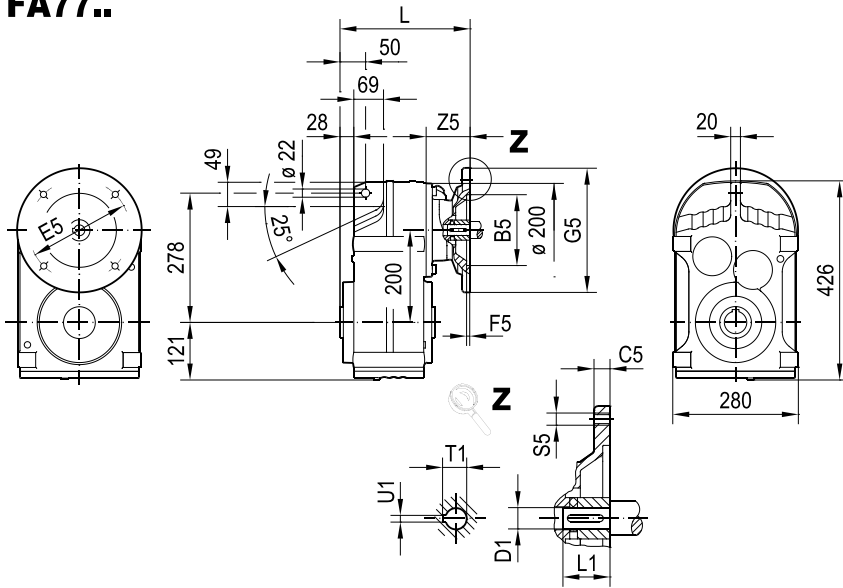


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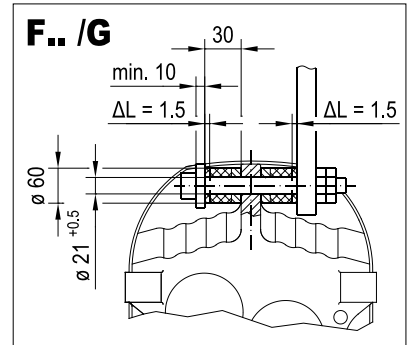


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 473 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 473 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 489 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 502 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 529 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 529 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 555 | M12 | 126 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 555 | M12 | 126 | 38 | 80 | 41.3 | 10 |

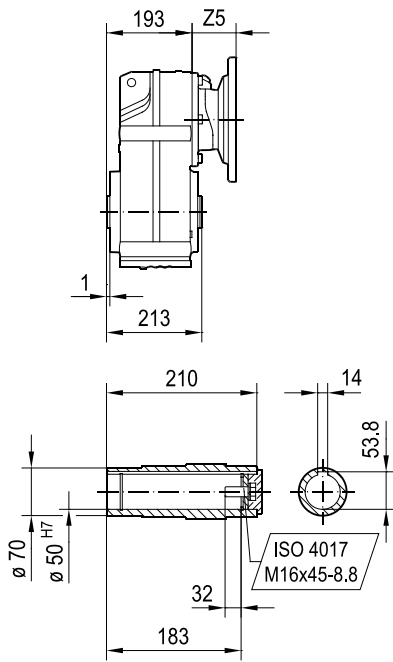
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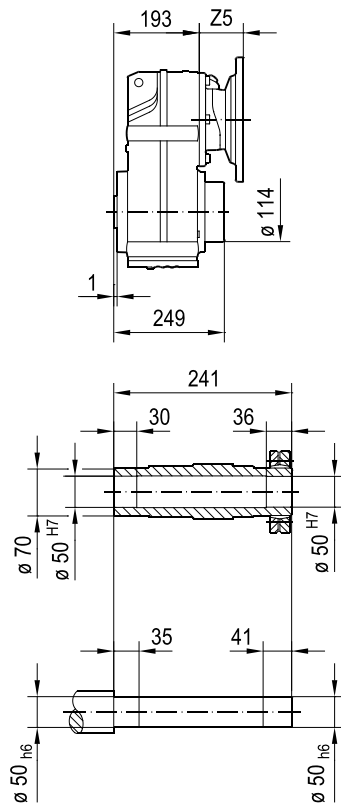
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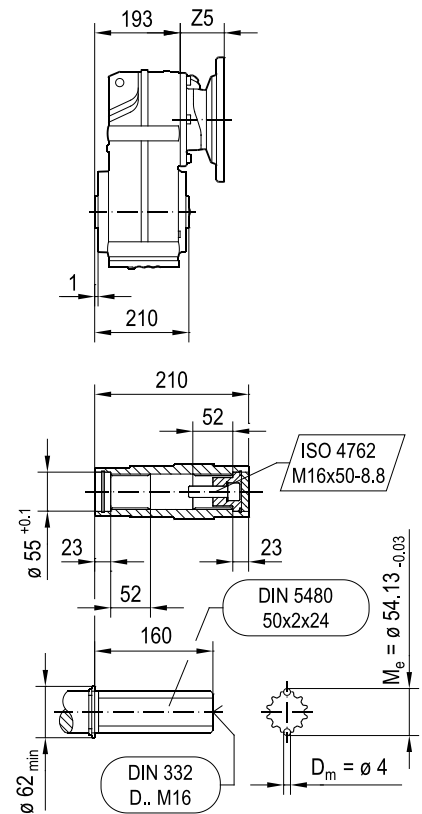
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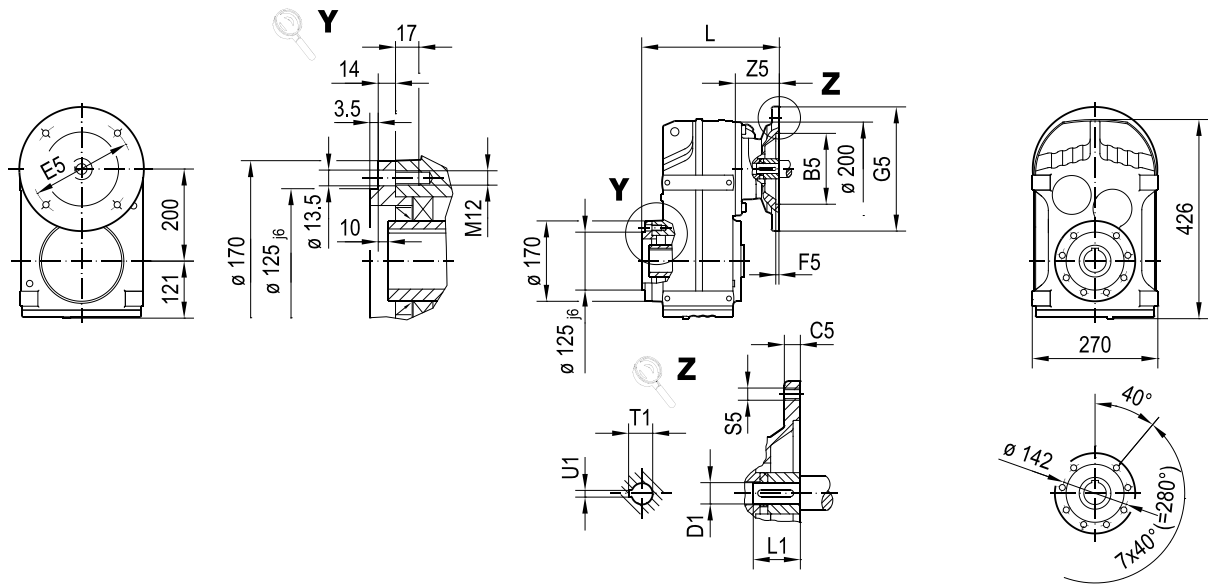


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 237 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 237 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 253 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 266 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 294 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 294 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 319 | M12 | 126 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 319 | M12 | 126 | 38 | 80 | 41.3 | 10 |

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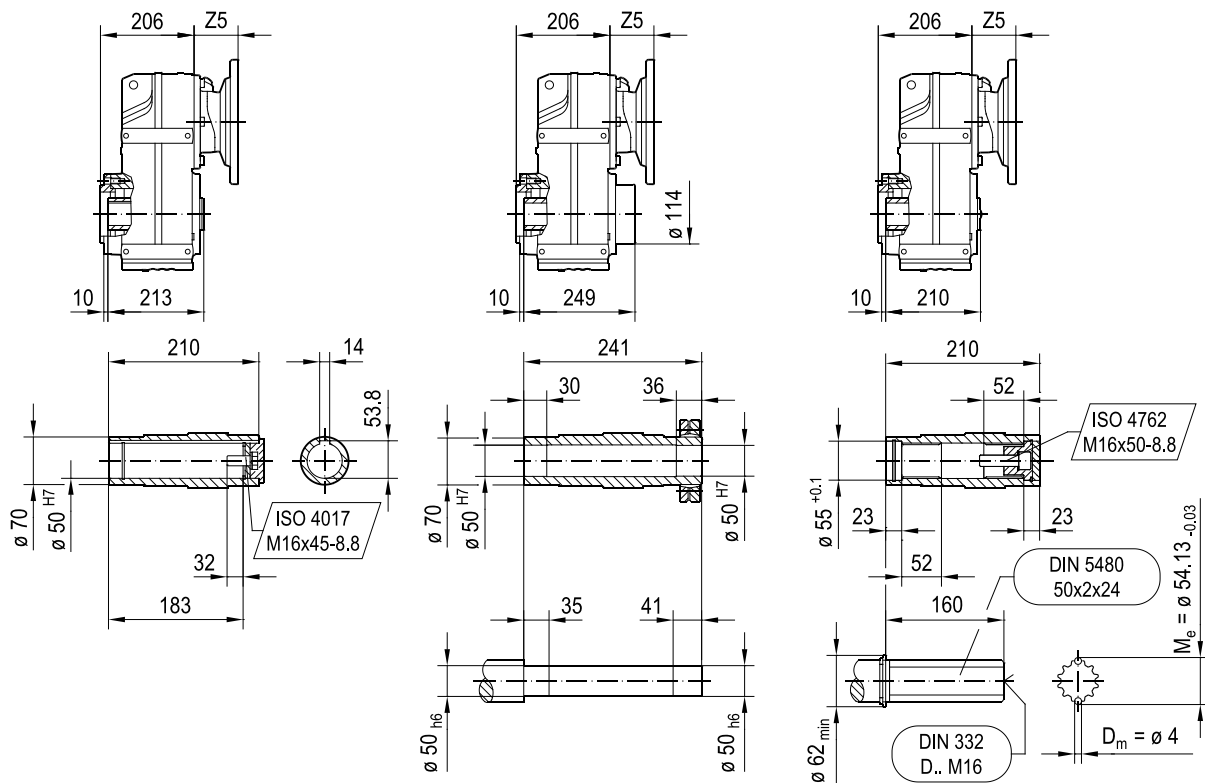
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FHZ77..

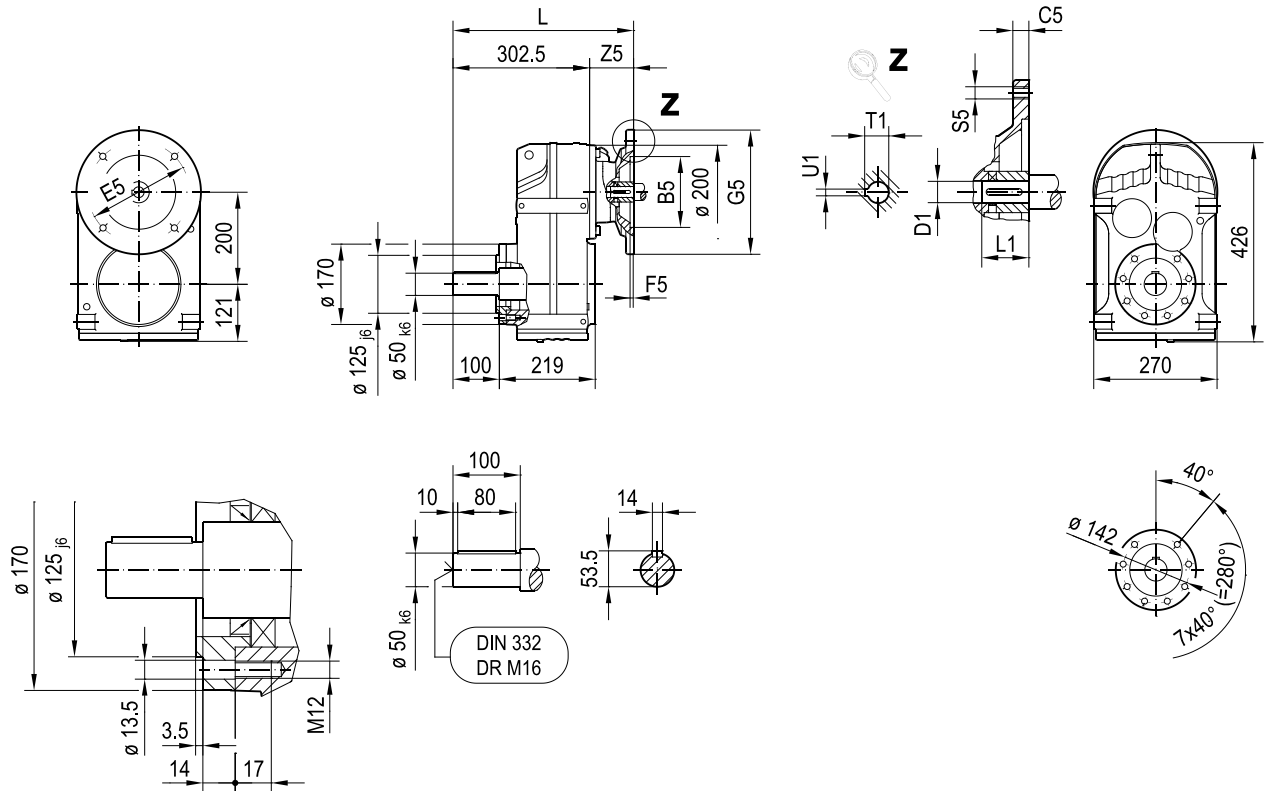
FVZ77..



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 250 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 250 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 266 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 279 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 307 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 307 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 332 | M12 | 126 | 38 | 80 | 41.3 | 10 |
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FZ77..

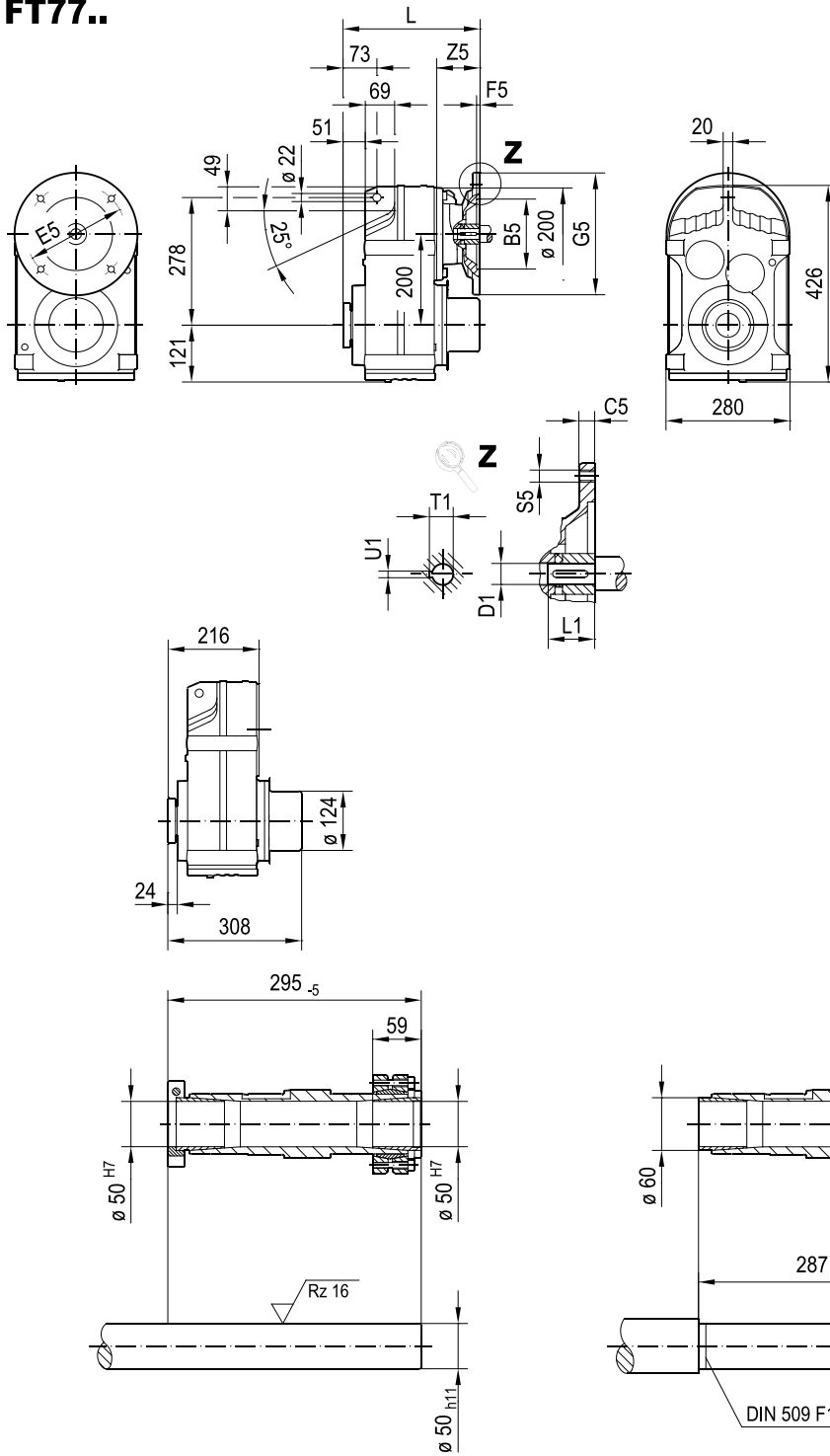
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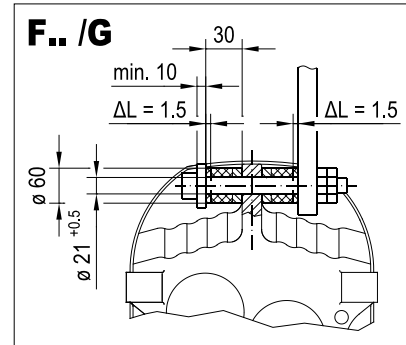
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|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 347 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 347 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 363 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 376 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 403 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 403 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 429 | M12 | 126 | 38 | 80 | 41.3 | 10 |
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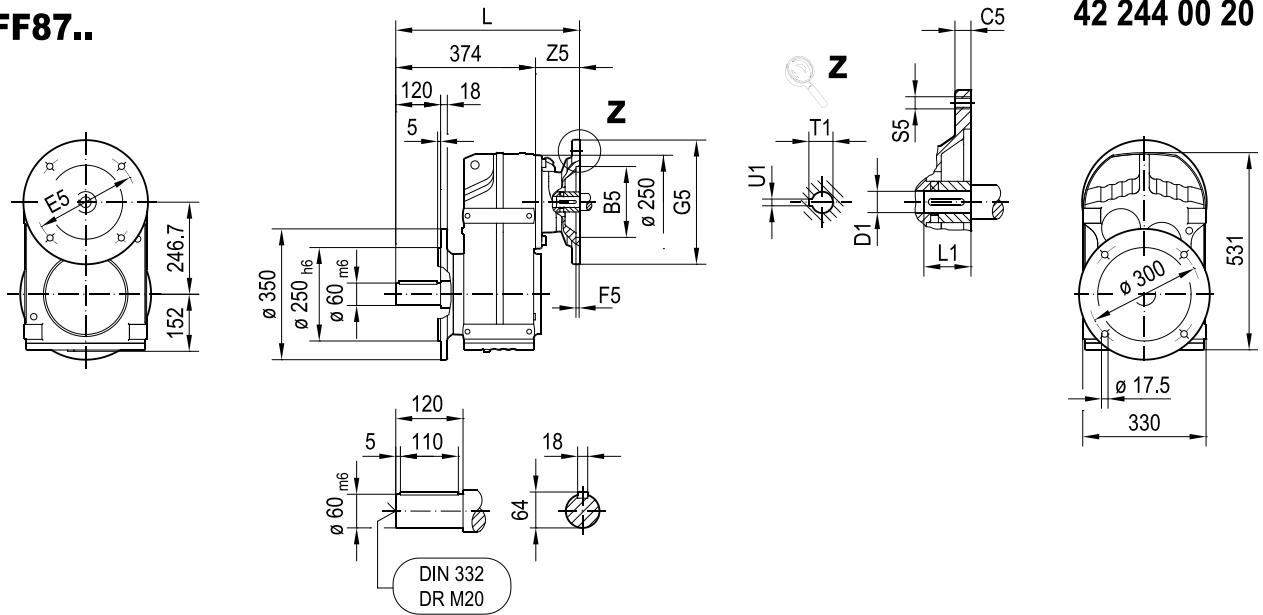


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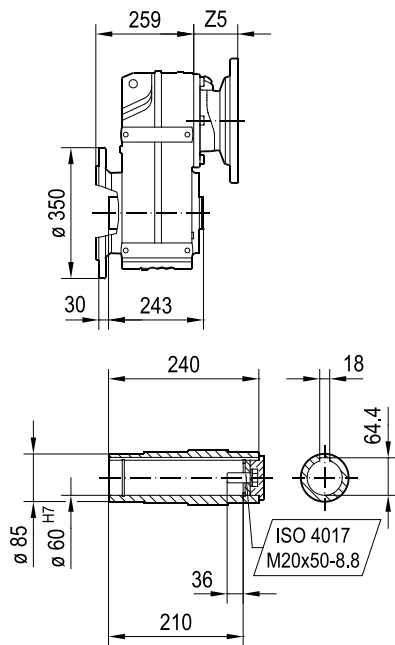
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 260 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 260 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 276 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 289 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 317 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 317 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 342 | M12 | 126 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 342 | M12 | 126 | 38 | 80 | 41.3 | 10 |

FF87..



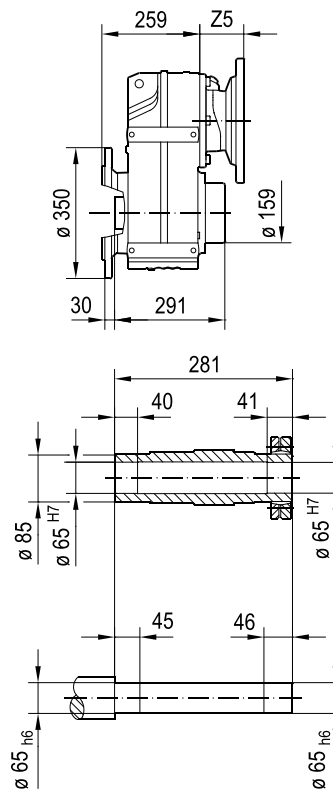
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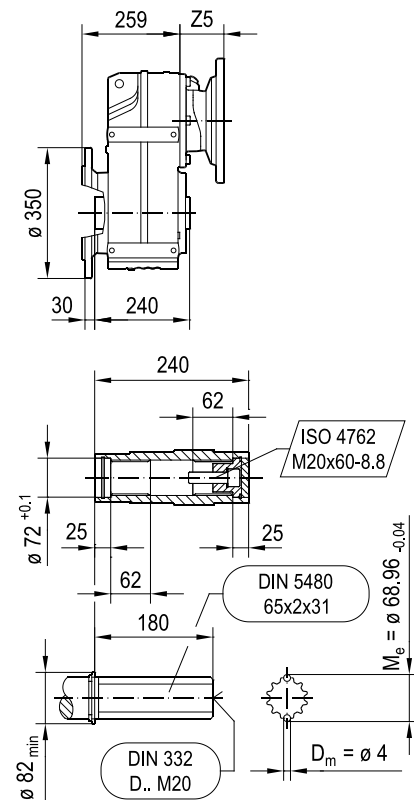


FHF87..

FHF87/R.. → 6.3



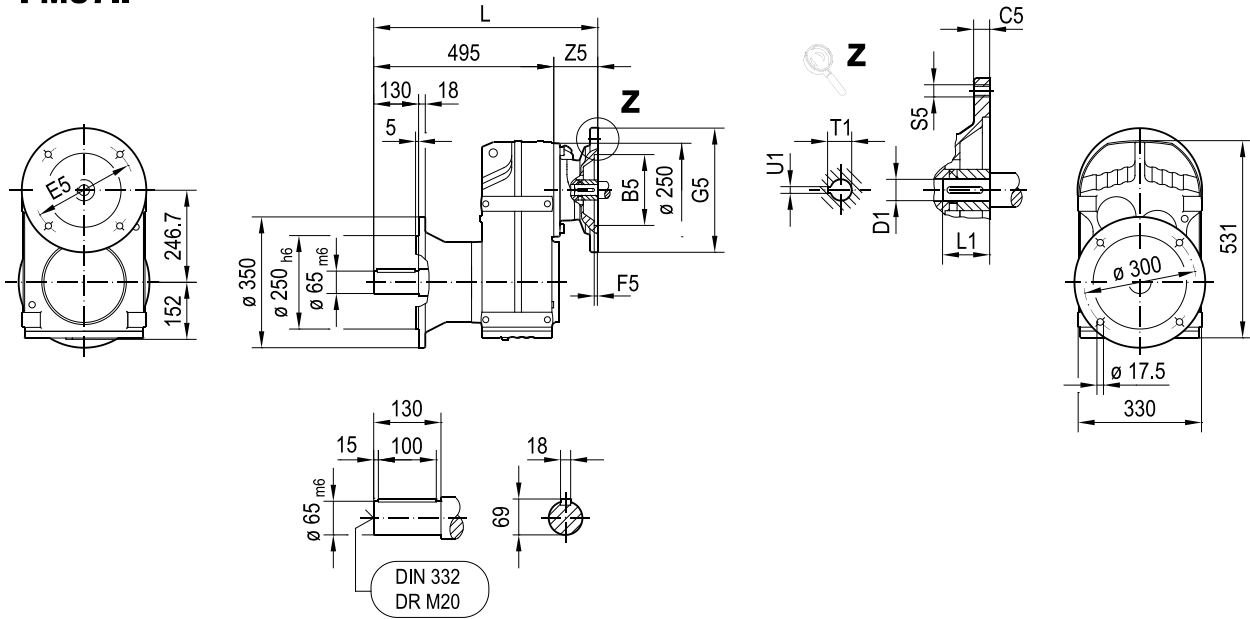
FVF87..



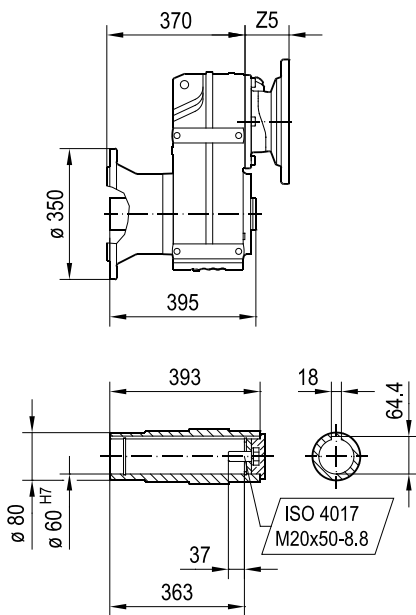
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|------|----|-----|------|----|
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 429 | M10 | 55 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 442 | M10 | 68 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 470 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 470 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 495 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 495 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 558 | M16 | 184 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 558 | M16 | 184 | 48 | 110 | 51.8 | 14 |

42 245 00 20

FM87..



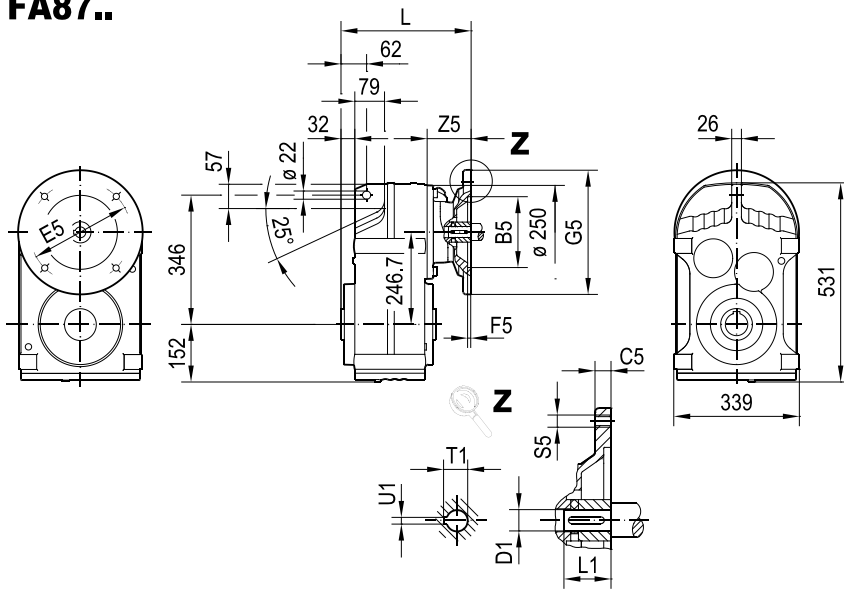
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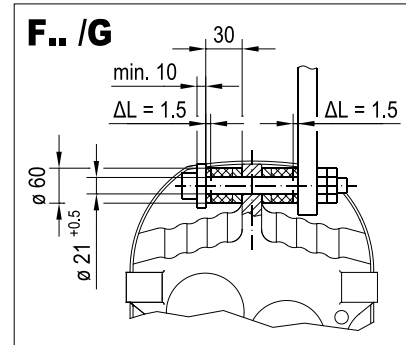
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|------|----|-----|------|----|
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 550 | M10 | 55 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 563 | M10 | 68 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 591 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 591 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 616 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 616 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 679 | M16 | 184 | 42 | 110 | 45.3 | 12 |
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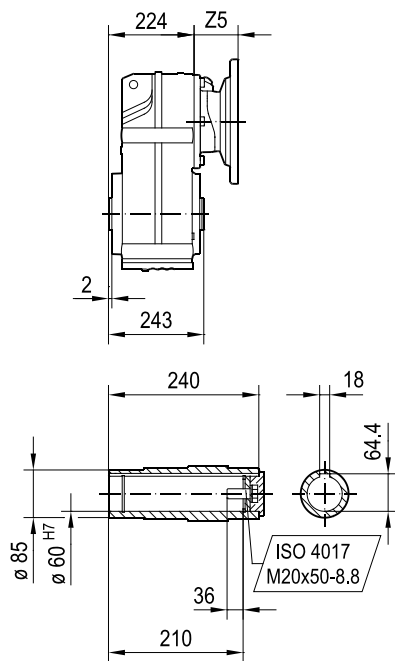
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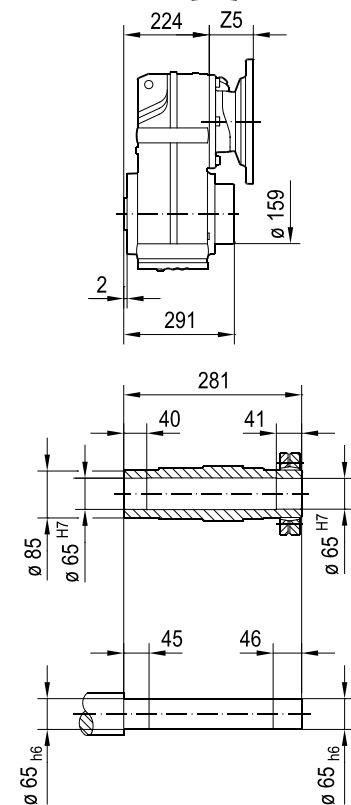


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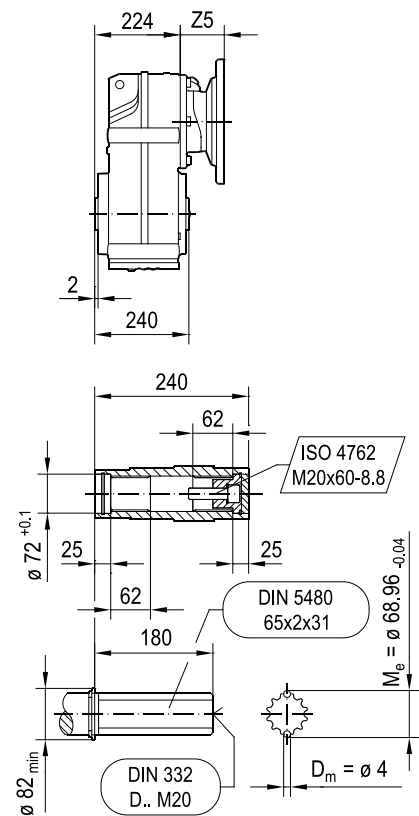


FH87.. FH87/R..

→ 6.3



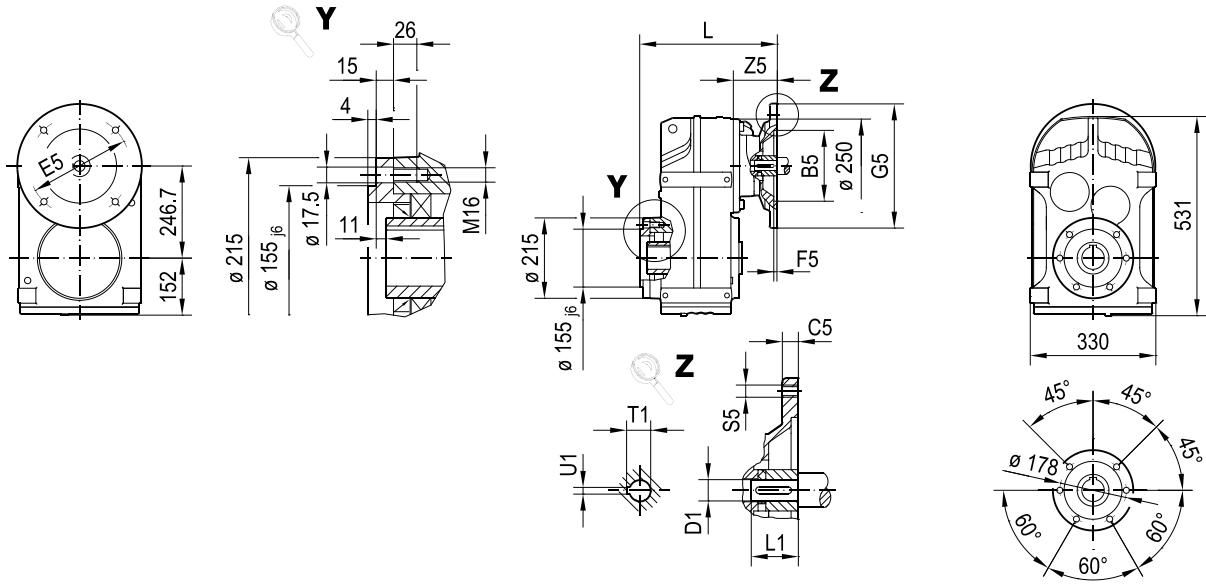
FV87..



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|------|----|-----|------|----|
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 279 | M10 | 55 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 292 | M10 | 68 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 320 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 320 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 345 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 345 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 408 | M16 | 184 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 408 | M16 | 184 | 48 | 110 | 51.8 | 14 |

FAZ87..

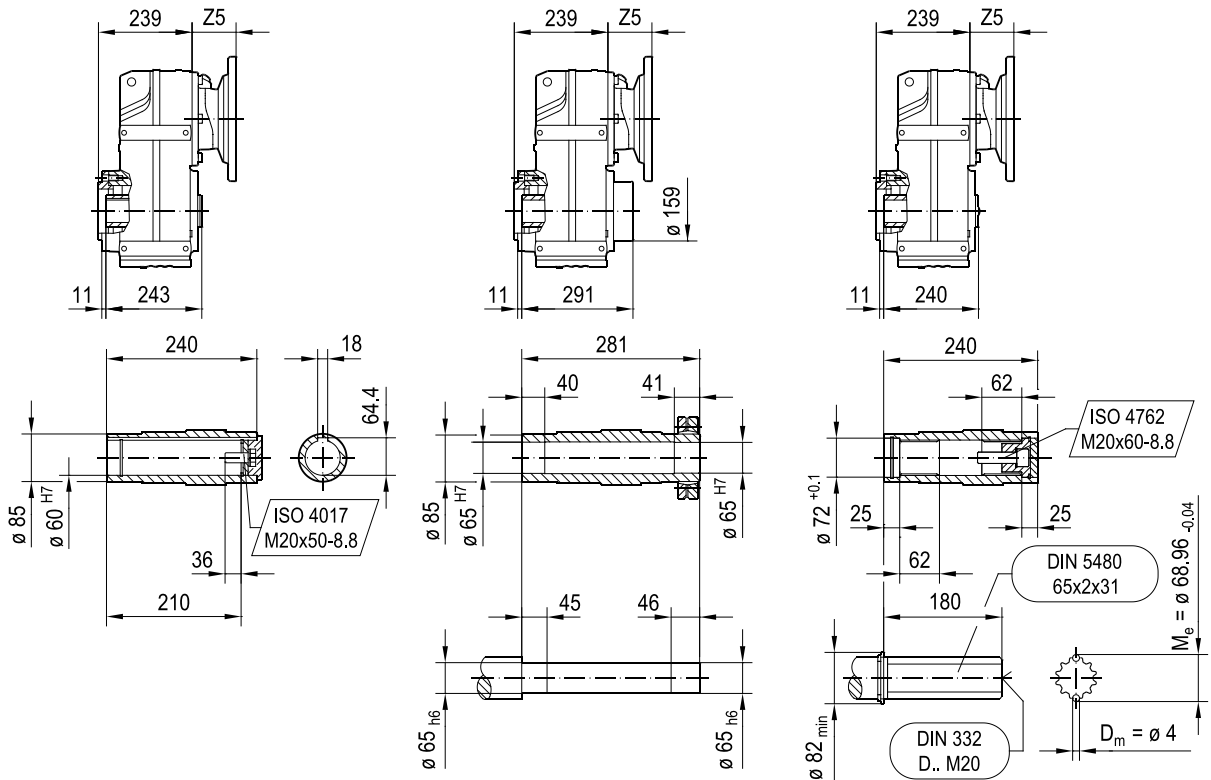
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FAZ87..

FHZ87..
FHZ87/R.. → 6.3

FVZ87..

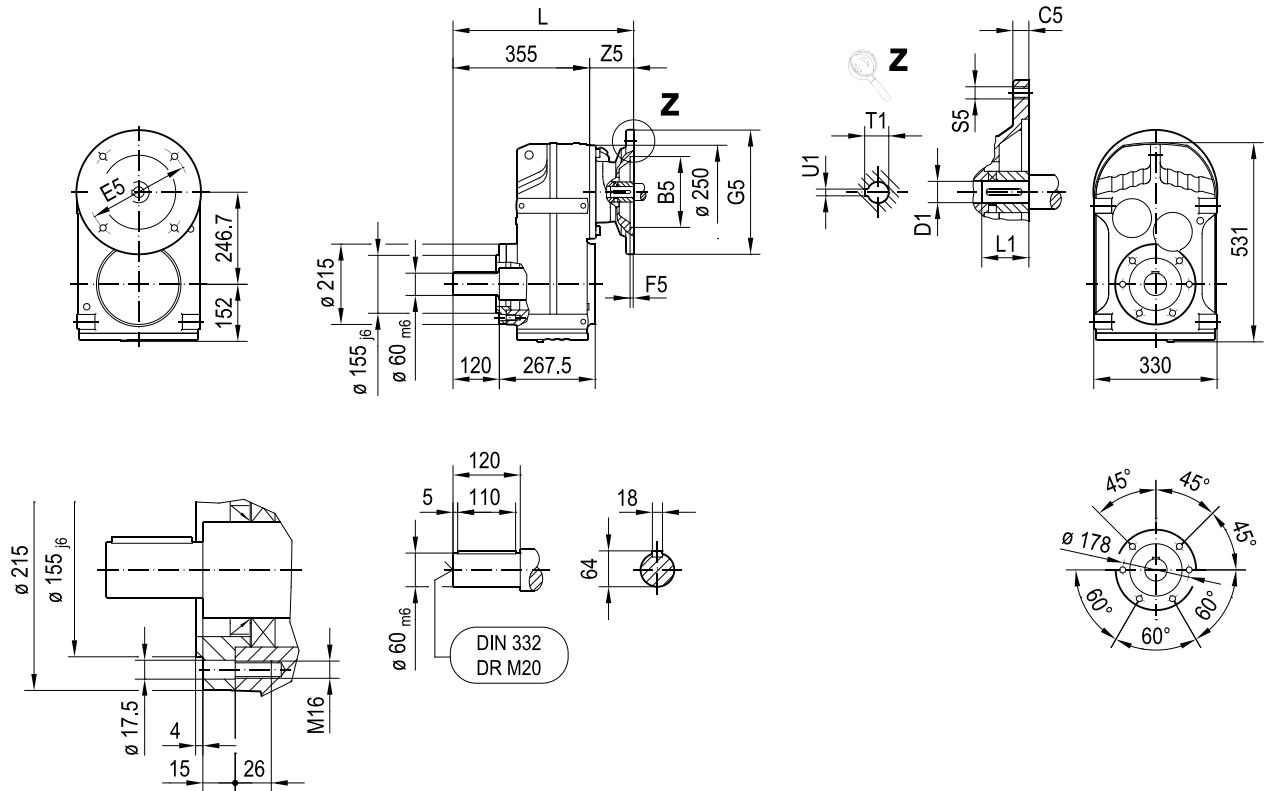


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|------|----|-----|------|----|
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 294 | M10 | 55 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 307 | M10 | 68 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 335 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 335 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 360 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 360 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 423 | M16 | 184 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 423 | M16 | 184 | 48 | 110 | 51.8 | 14 |

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42 248 00 20

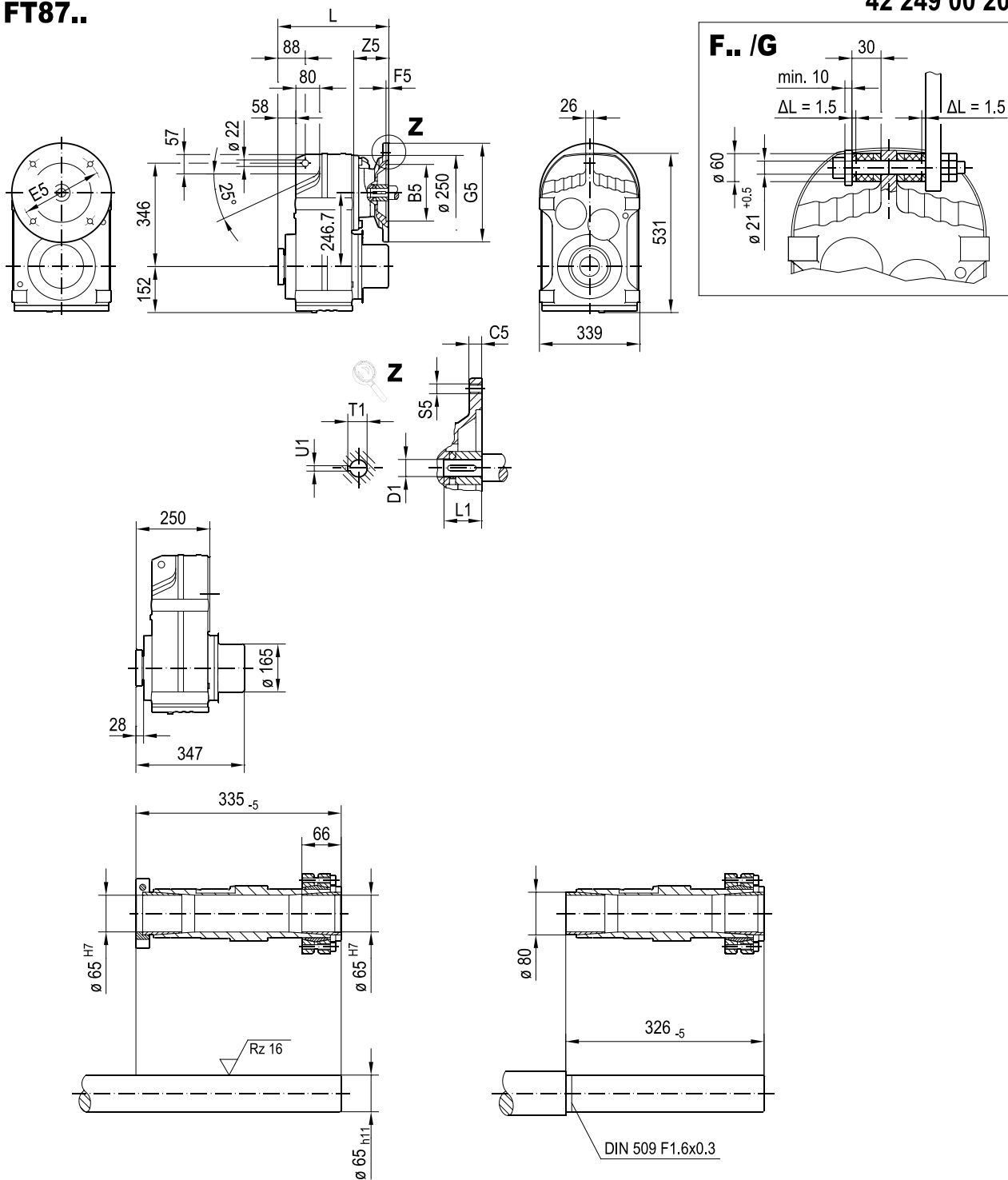


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|------|----|-----|------|----|
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 410 | M10 | 55 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 423 | M10 | 68 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 451 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 451 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 476 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 476 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 539 | M16 | 184 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 539 | M16 | 184 | 48 | 110 | 51.8 | 14 |

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FT87..

42 249 00 20



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|------|----|-----|------|----|
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 305 | M10 | 55 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 318 | M10 | 68 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 346 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 346 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 371 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 371 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 434 | M16 | 184 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 434 | M16 | 184 | 48 | 110 | 51.8 | 14 |

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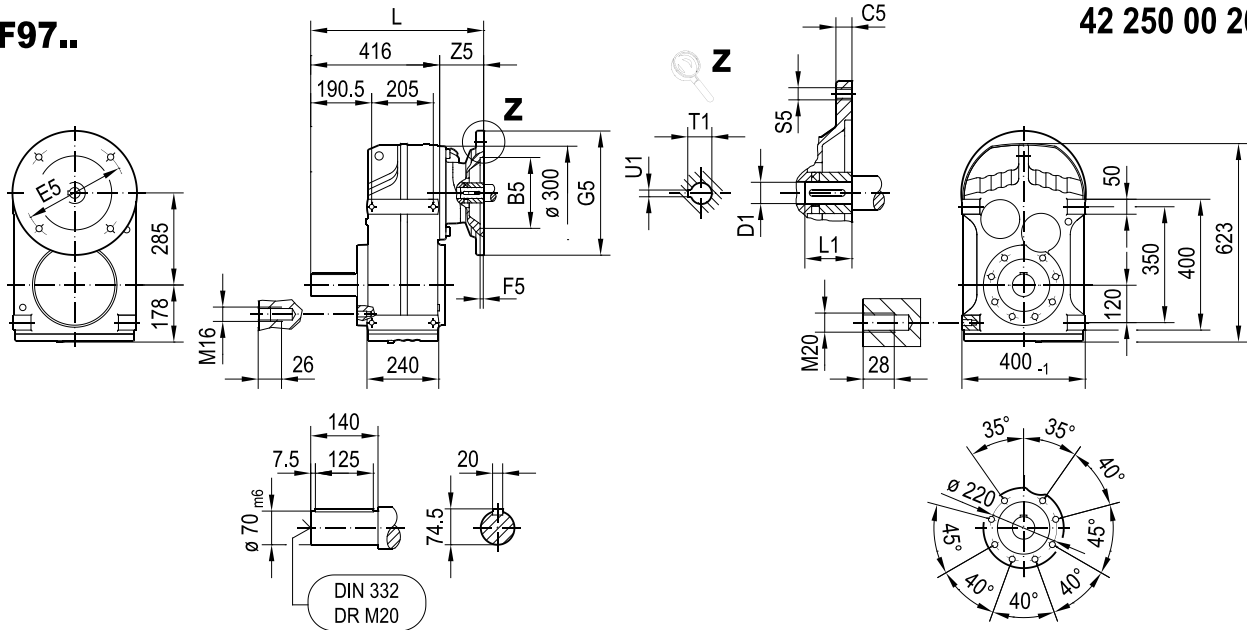
9

F.. parallel-shaft helical gear units

Dimension sheets for adapters for mounting IEC motors (AMS..)

F97..

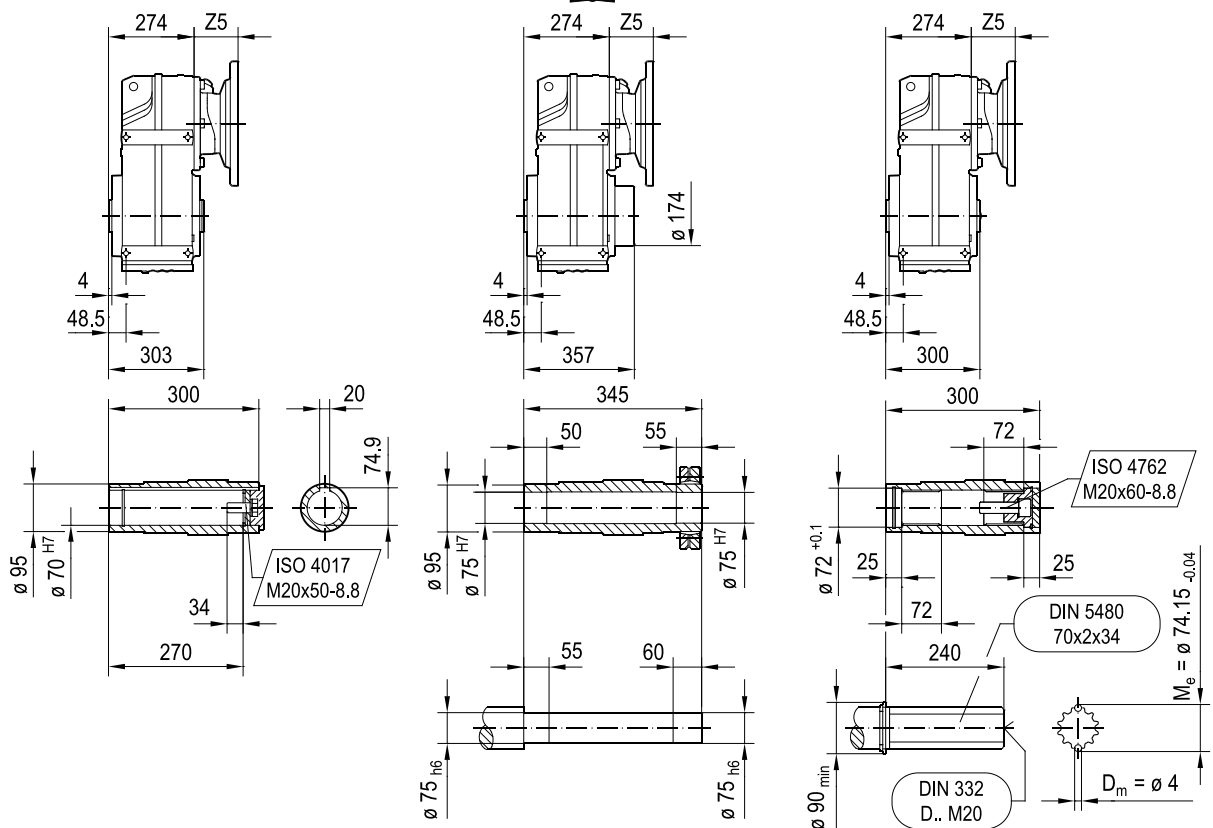
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FA97B..

FH97B.. FH97B/R.. → 6.3

FV97B..

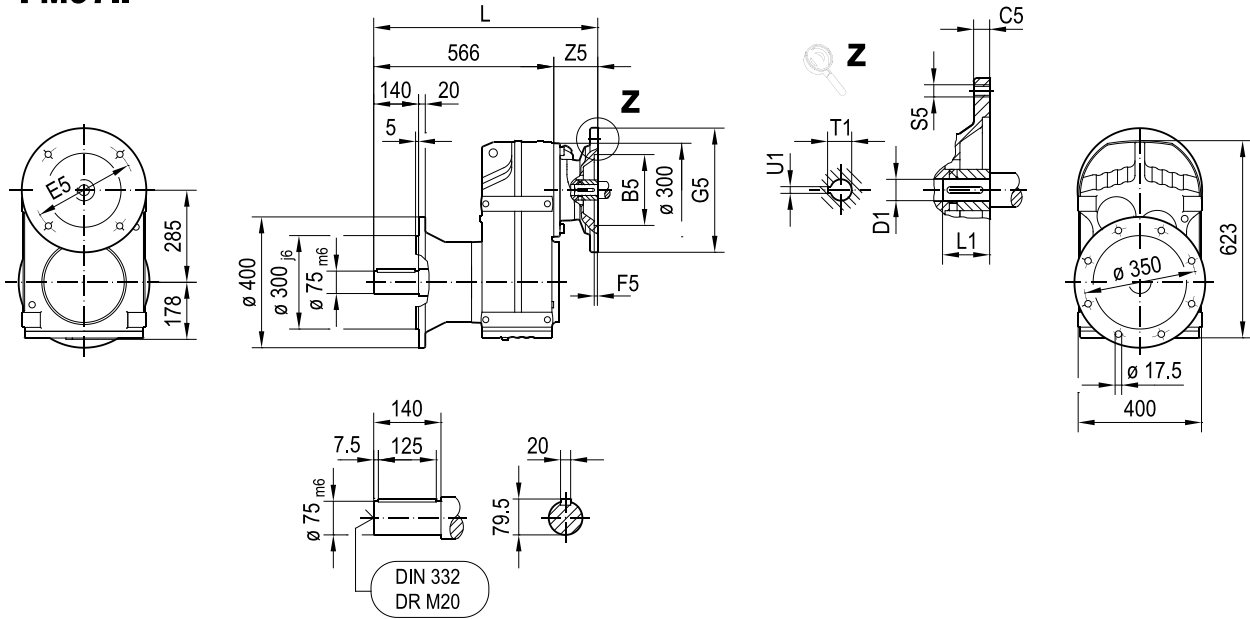


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 507 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 507 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 532 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 532 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 595 | M16 | 179 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 595 | M16 | 179 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 656 | M16 | 240 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 671 | M16 | 255 | 60 | 140 | 64.4 | 18 |

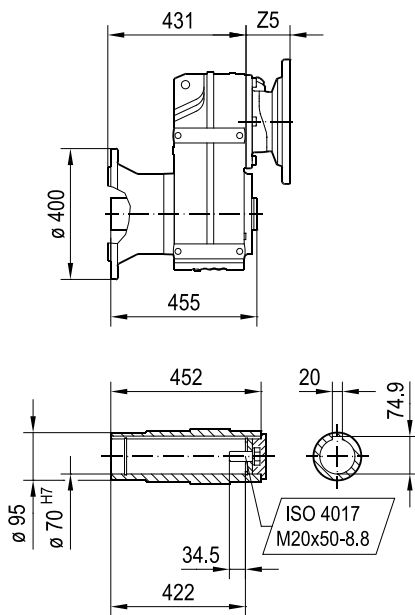
26878665/EN - 11/2021

42 252 00 20

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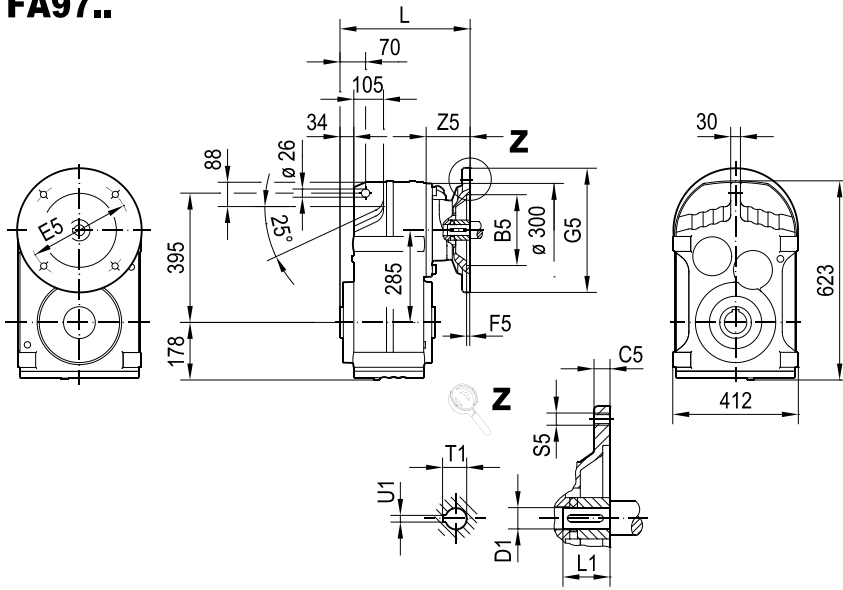


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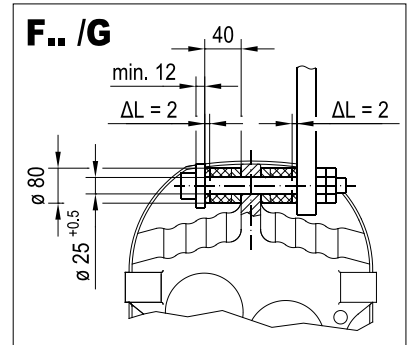


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|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 657 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 657 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 682 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 682 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 745 | M16 | 179 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 745 | M16 | 179 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 806 | M16 | 240 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 821 | M16 | 255 | 60 | 140 | 64.4 | 18 |

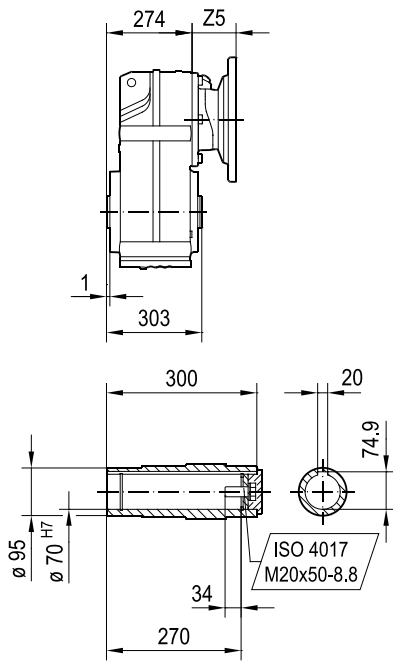
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42 253 00 20

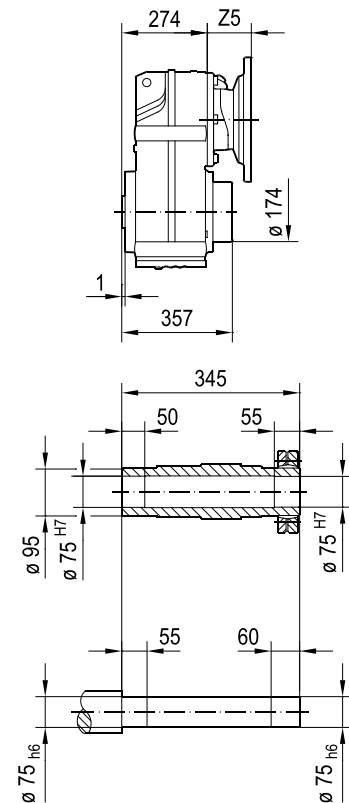


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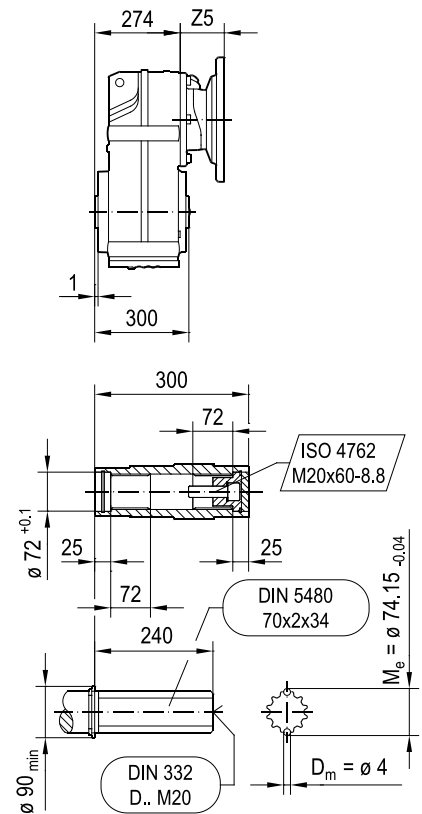


FH97..
FH97/R..

→ 6.3



FV97..

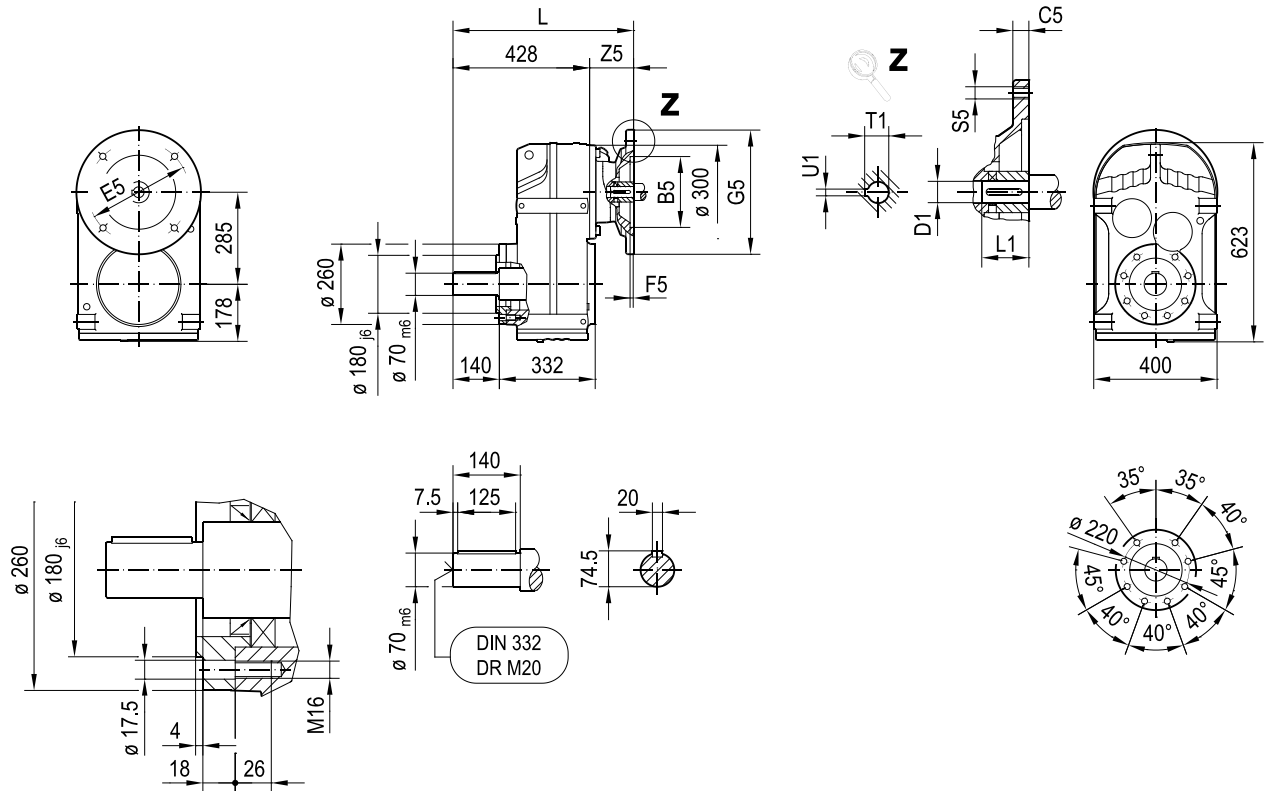


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|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
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| AMS112 | 180 | 15 | 215 | 5 | 250 | 365 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 390 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 390 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 453 | M16 | 179 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 453 | M16 | 179 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 514 | M16 | 240 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 529 | M16 | 255 | 60 | 140 | 64.4 | 18 |

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FZ97..

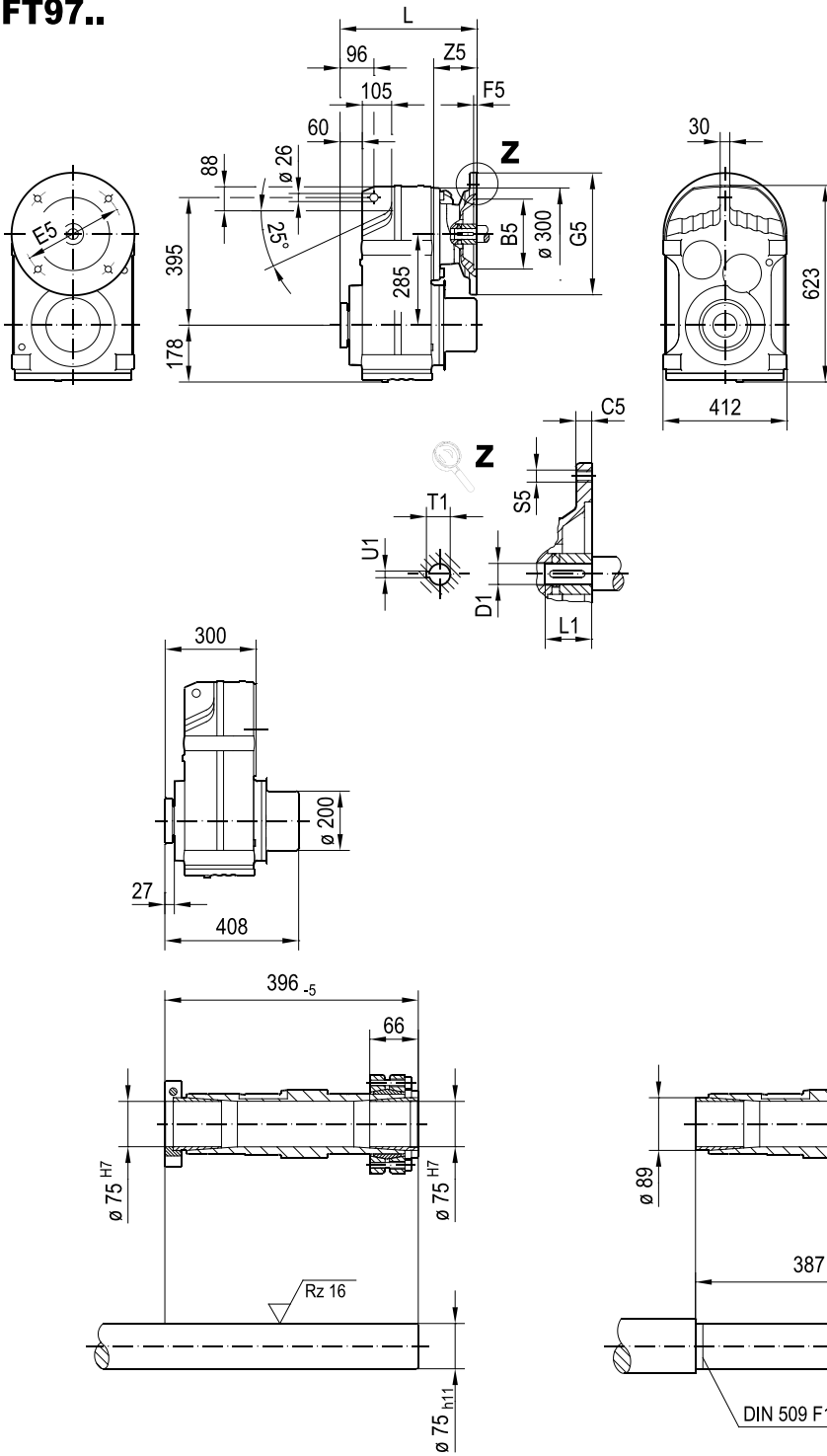
42 255 00 20



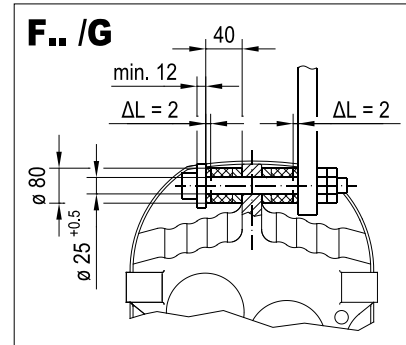
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|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 519 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 519 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 544 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 544 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 607 | M16 | 179 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 607 | M16 | 179 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 668 | M16 | 240 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 683 | M16 | 255 | 60 | 140 | 64.4 | 18 |

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FT97..



42 256 00 20



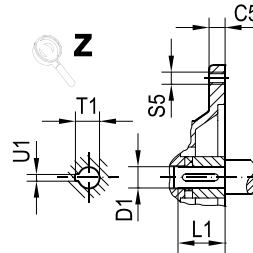
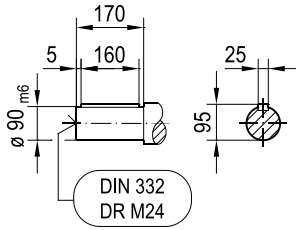
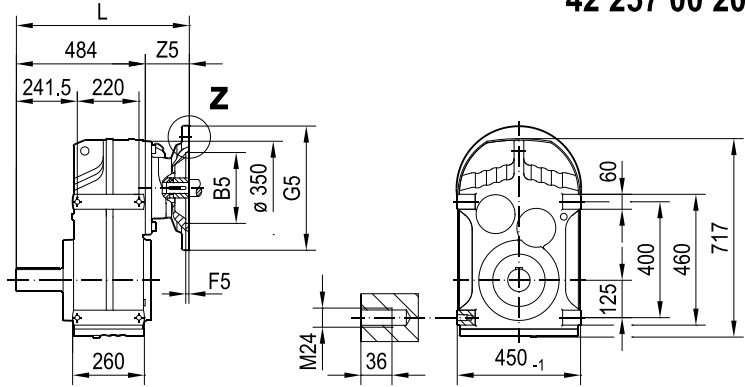
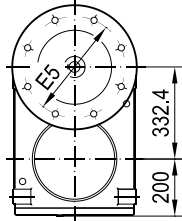
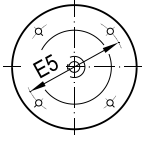
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|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 391 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 391 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 416 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 416 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 479 | M16 | 179 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 479 | M16 | 179 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 540 | M16 | 240 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 555 | M16 | 255 | 60 | 140 | 64.4 | 18 |

F107..

42 257 00 20

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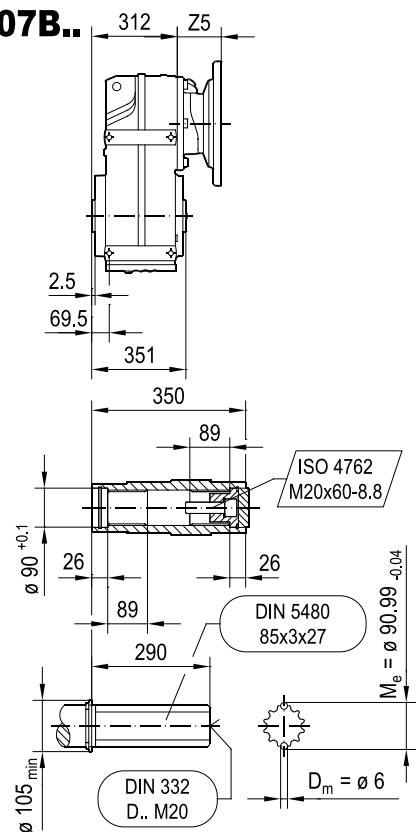
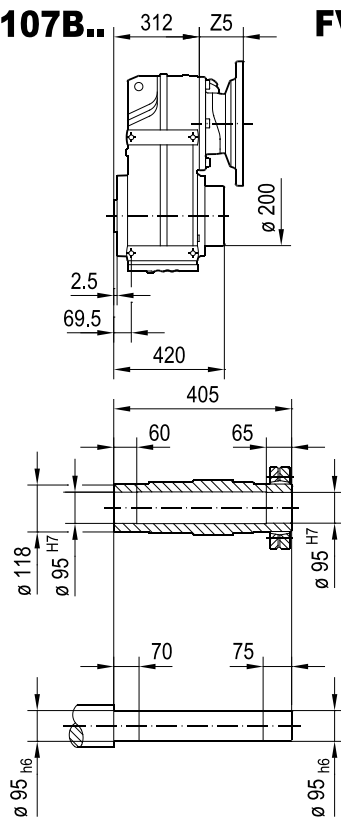
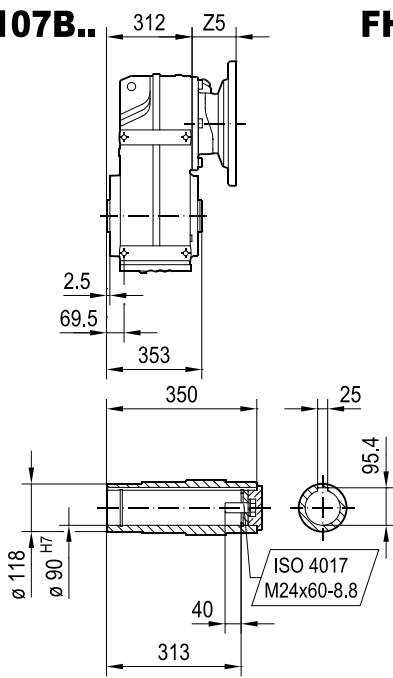
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FA107B..

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FV107B..



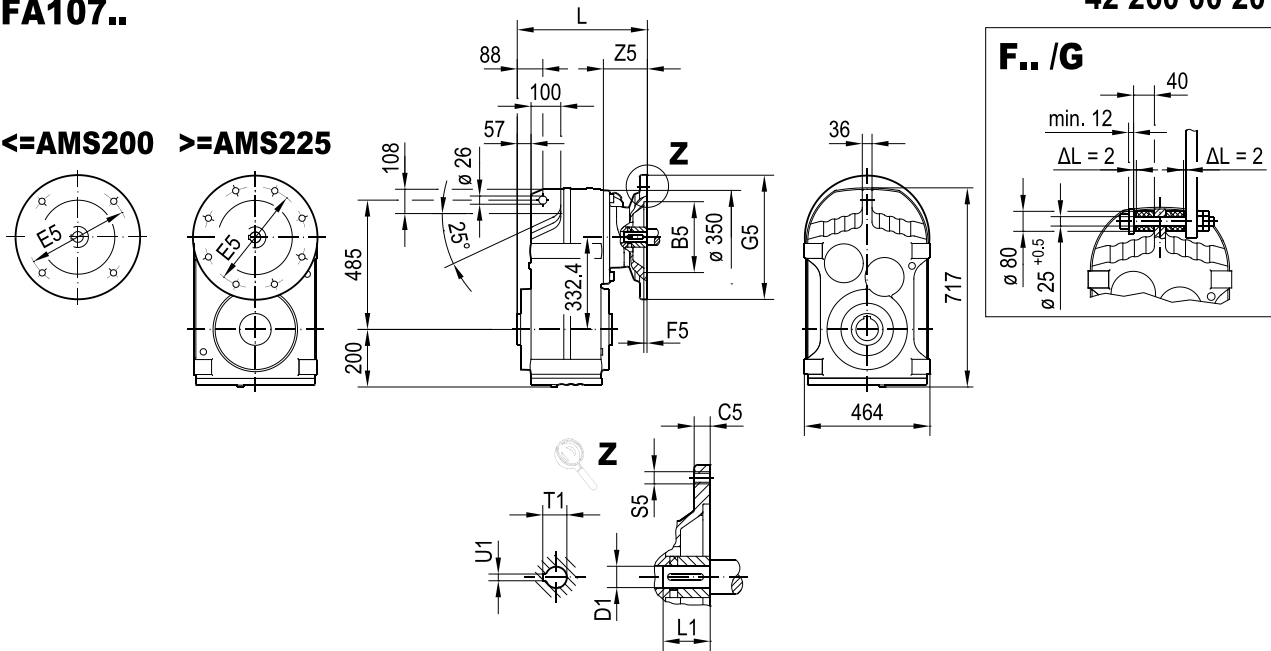
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|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 569 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 569 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 594 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 594 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 657 | M16 | 173 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 657 | M16 | 173 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 718 | M16 | 234 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 733 | M16 | 249 | 60 | 140 | 64.4 | 18 |

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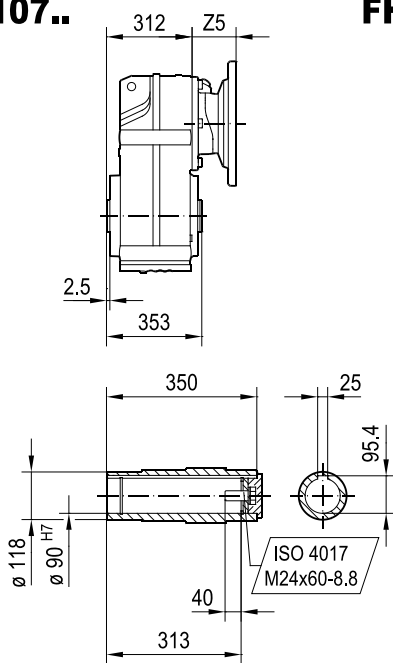
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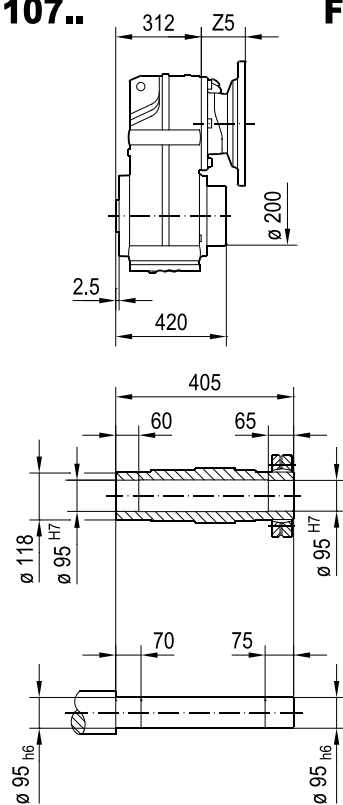
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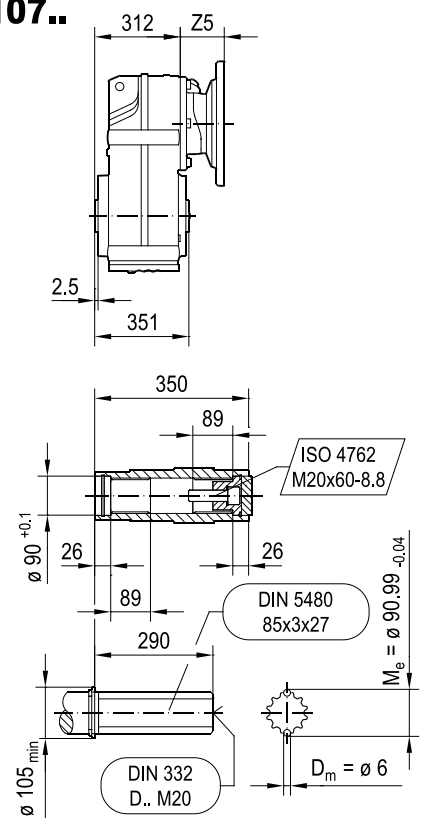
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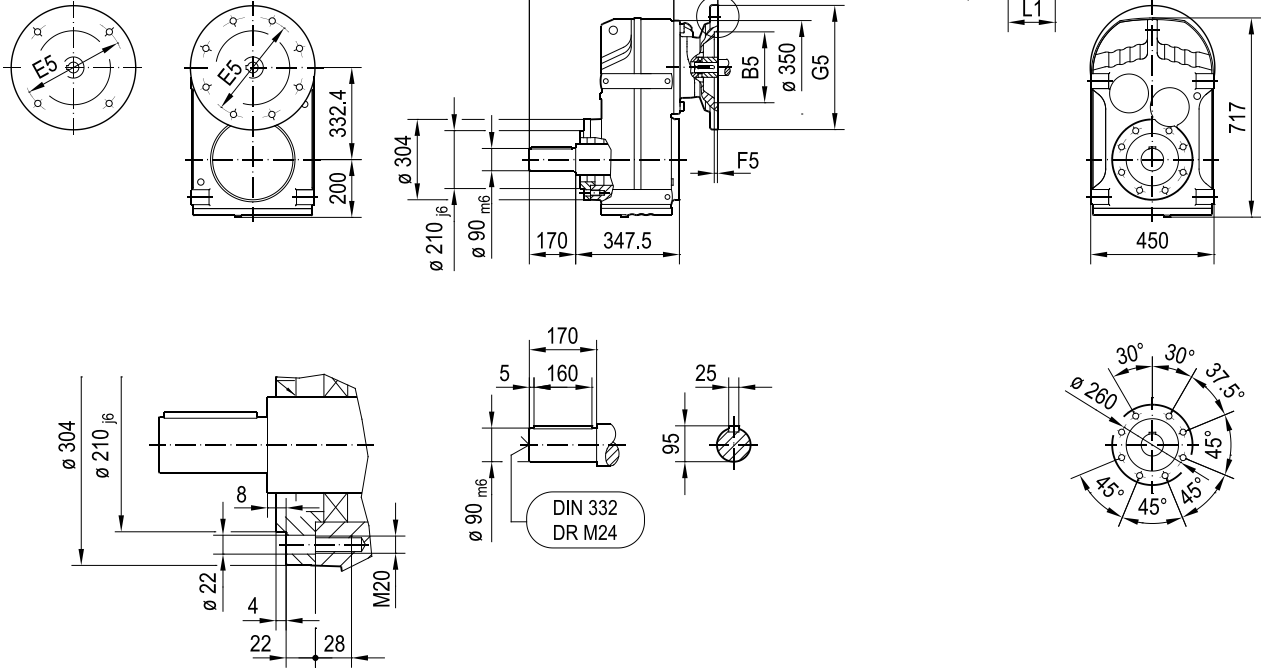


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|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 397 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 397 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 422 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 422 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 485 | M16 | 173 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 485 | M16 | 173 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 546 | M16 | 234 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 561 | M16 | 249 | 60 | 140 | 64.4 | 18 |

42 262 00 20

FZ107..

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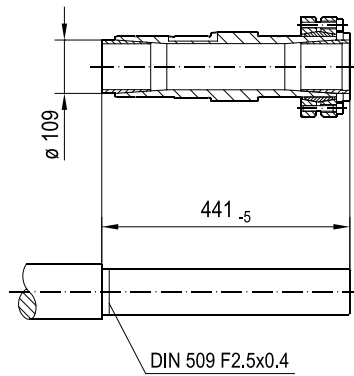
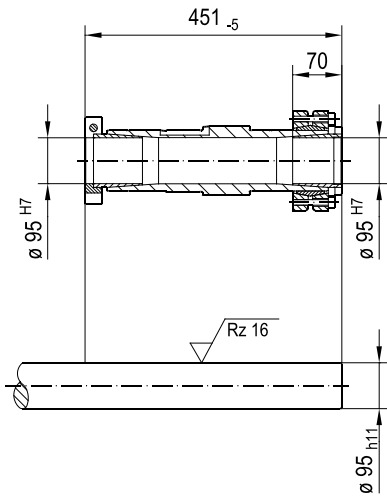
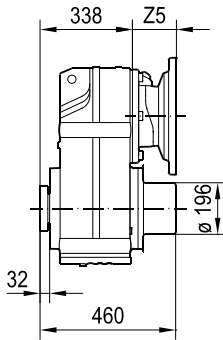
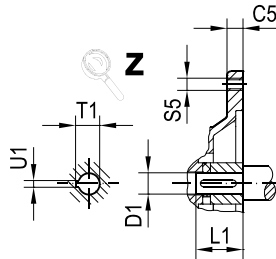
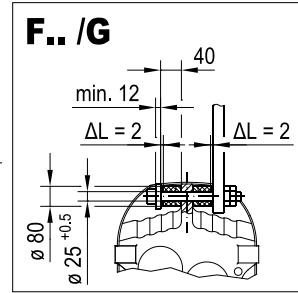
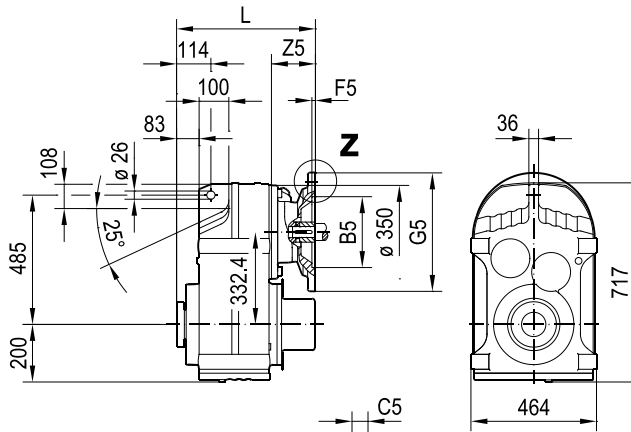
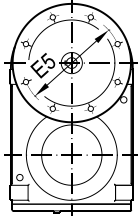
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|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 567 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 567 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 592 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 592 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 655 | M16 | 173 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 655 | M16 | 173 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 716 | M16 | 234 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 731 | M16 | 249 | 60 | 140 | 64.4 | 18 |

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42 263 00 20

←=AMS200 >=AMS225



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|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 423 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 423 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 448 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 448 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 511 | M16 | 173 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 511 | M16 | 173 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 572 | M16 | 234 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 587 | M16 | 249 | 60 | 140 | 64.4 | 18 |

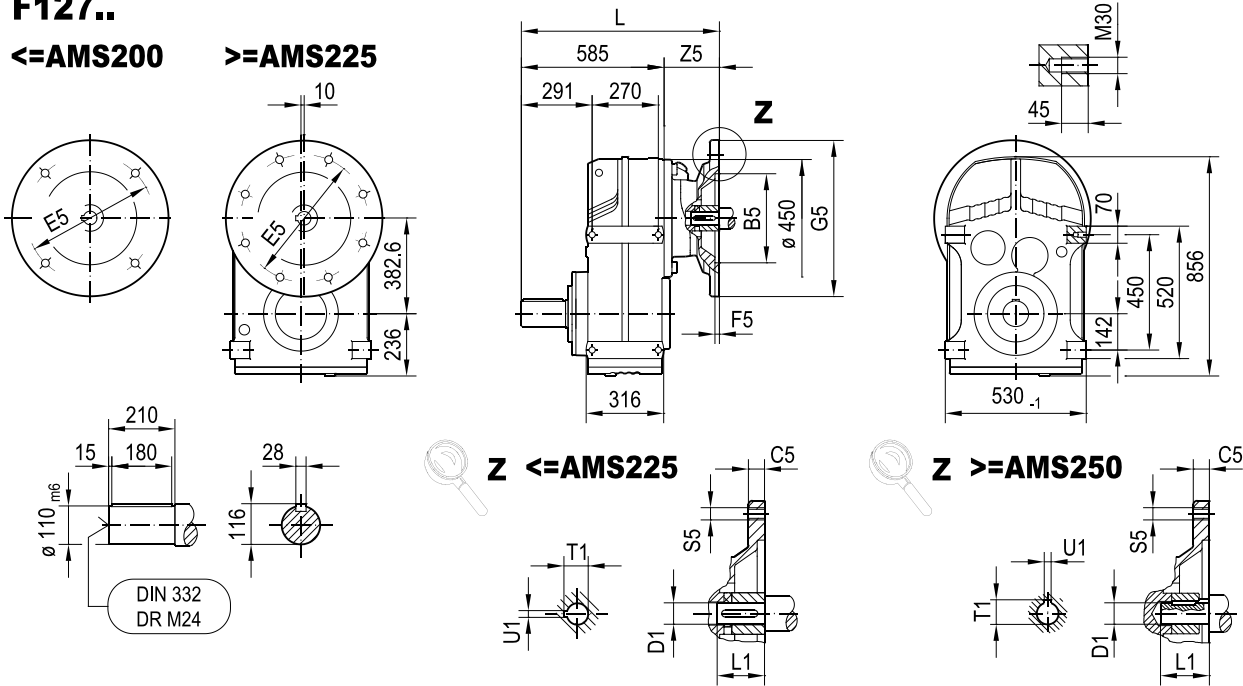
26878585/EN – 11/2021

42 264 00 20

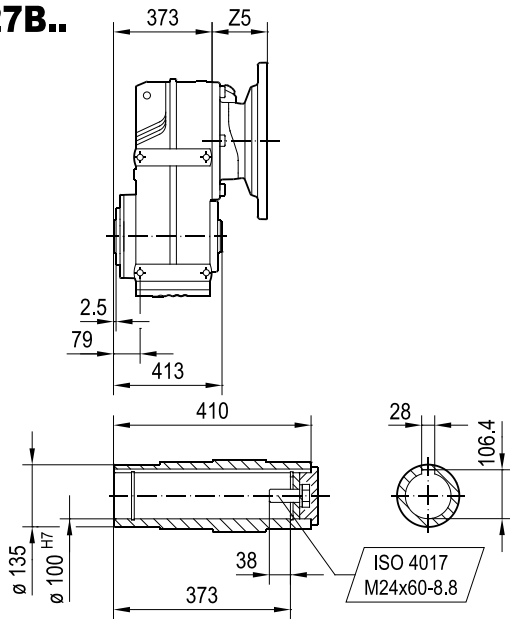
F127..

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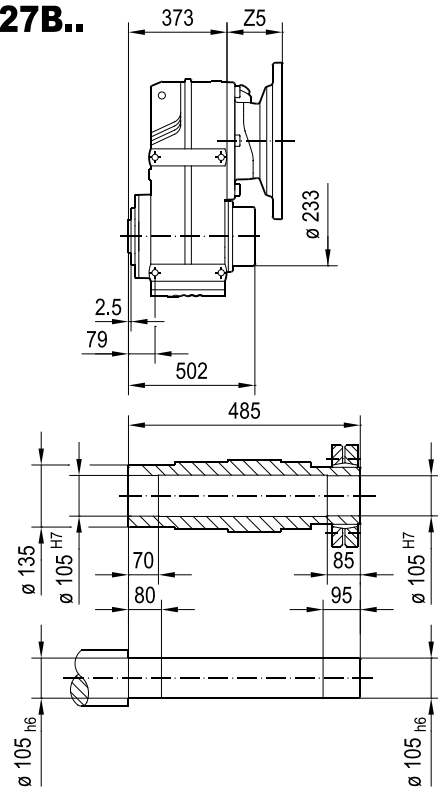
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FH127B..



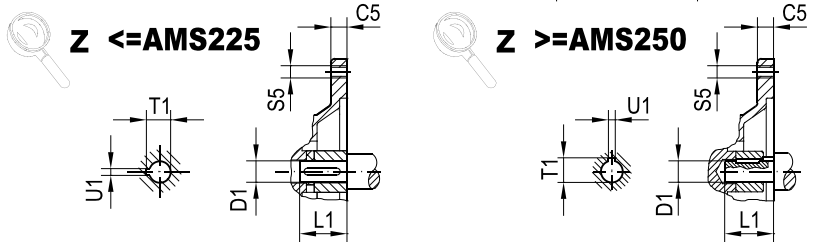
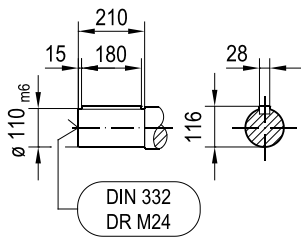
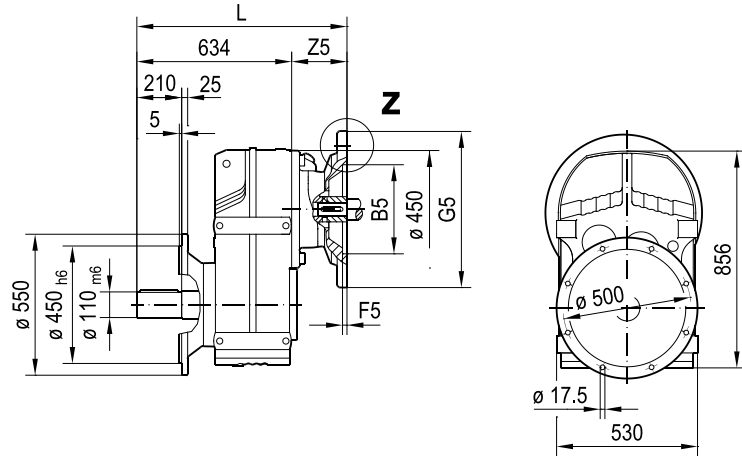
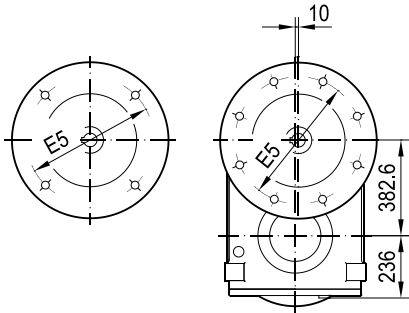
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|-----------|-----|----|-----|----|-----|-----|-----|-------|----|-----|------|----|
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 680 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 680 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 743 | M16 | 158 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 743 | M16 | 158 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 804 | M16 | 219 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 819 | M16 | 234 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 883 | M16 | 297.5 | 65 | 140 | 69.4 | 18 |
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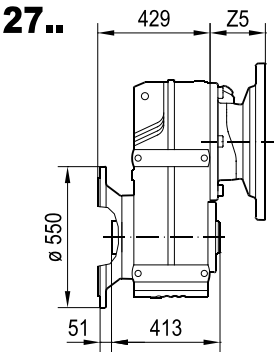
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FF127..

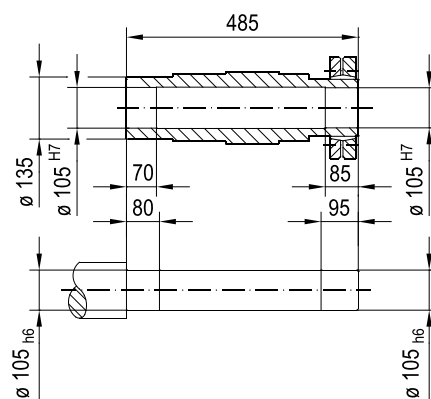
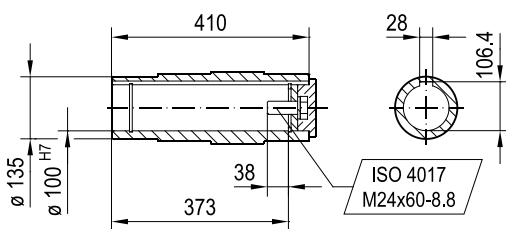
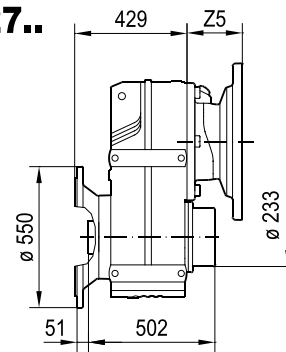
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FAF127..



FHF127..



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|-----------|-----|----|-----|----|-----|-----|-----|-------|----|-----|------|----|
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 729 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 729 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 792 | M16 | 158 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 792 | M16 | 158 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 853 | M16 | 219 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 868 | M16 | 234 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 932 | M16 | 297.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 932 | M16 | 297.5 | 75 | 140 | 79.9 | 20 |

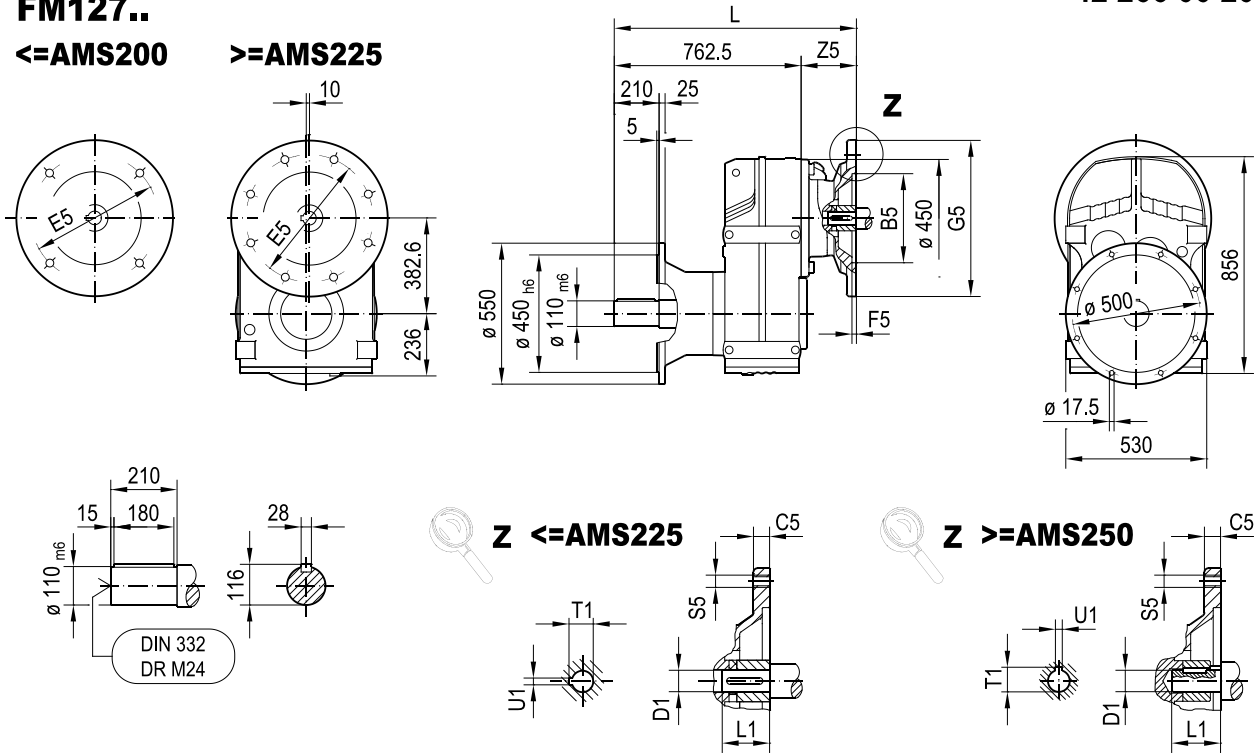
26878585/EN – 11/2021

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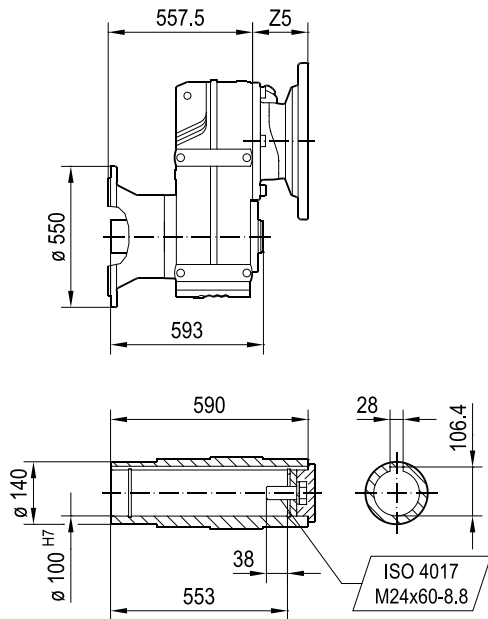
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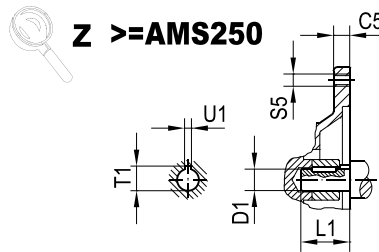
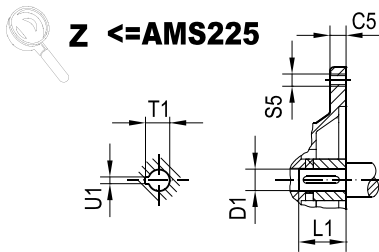
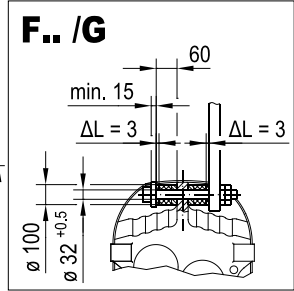
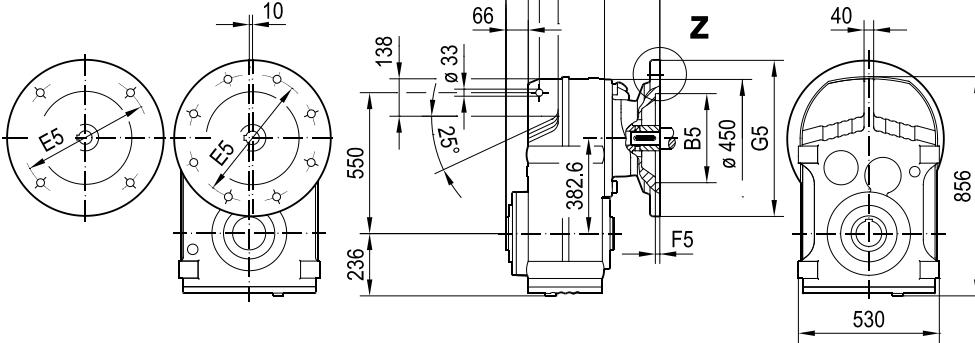


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|------|-----|-------|----|-----|------|----|
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 858 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 858 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 921 | M16 | 158 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 921 | M16 | 158 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 982 | M16 | 219 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 997 | M16 | 234 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 1060 | M16 | 297.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 1060 | M16 | 297.5 | 75 | 140 | 79.9 | 20 |

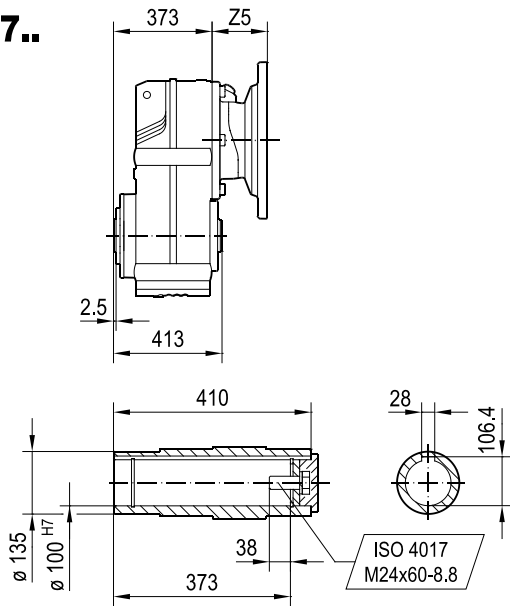
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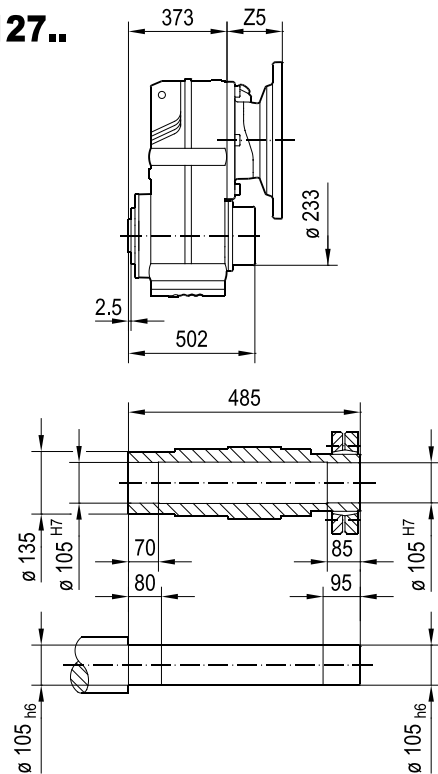
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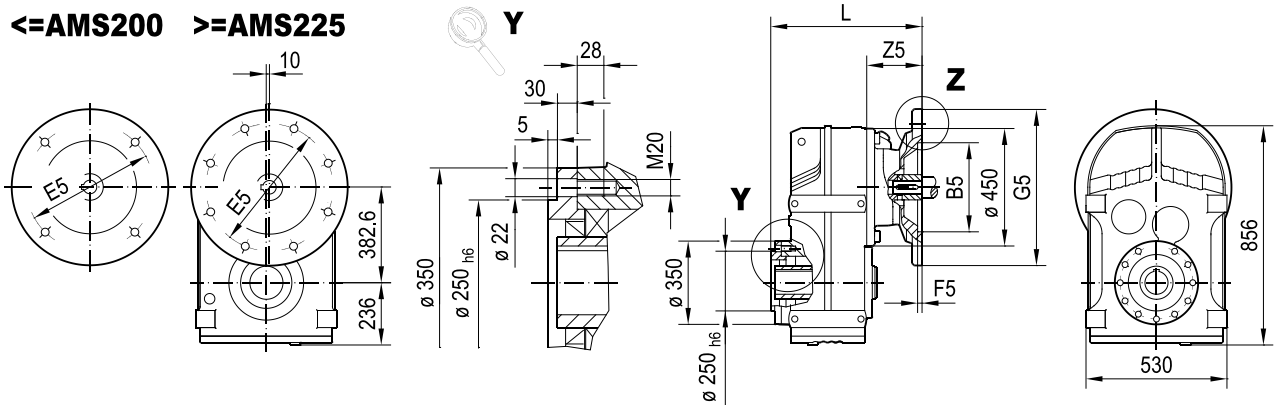
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|-----------|-----|----|-----|----|-----|-----|-----|-------|----|-----|------|----|
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 468 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 468 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 531 | M16 | 158 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 531 | M16 | 158 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 592 | M16 | 219 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 607 | M16 | 234 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 671 | M16 | 297.5 | 65 | 140 | 69.4 | 18 |
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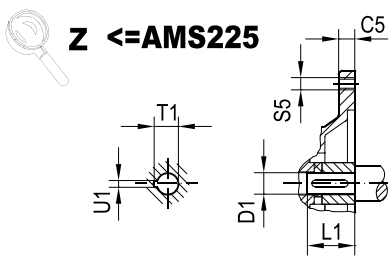
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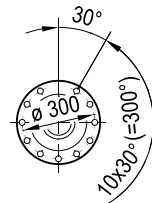
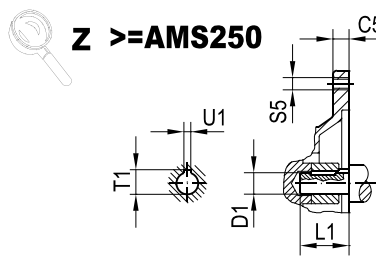
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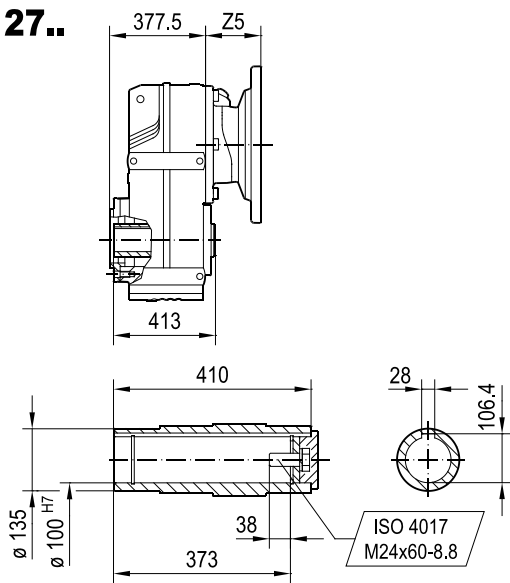
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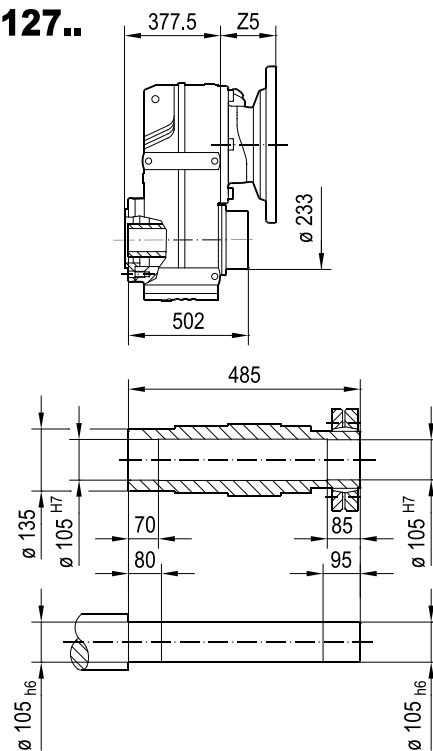
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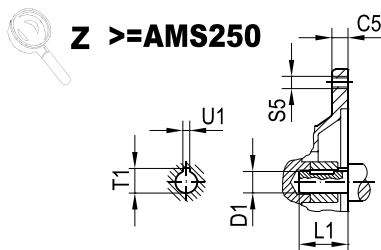
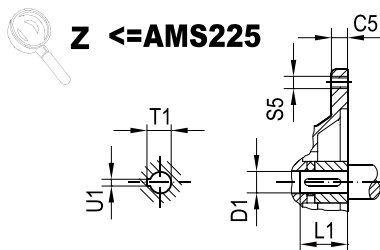
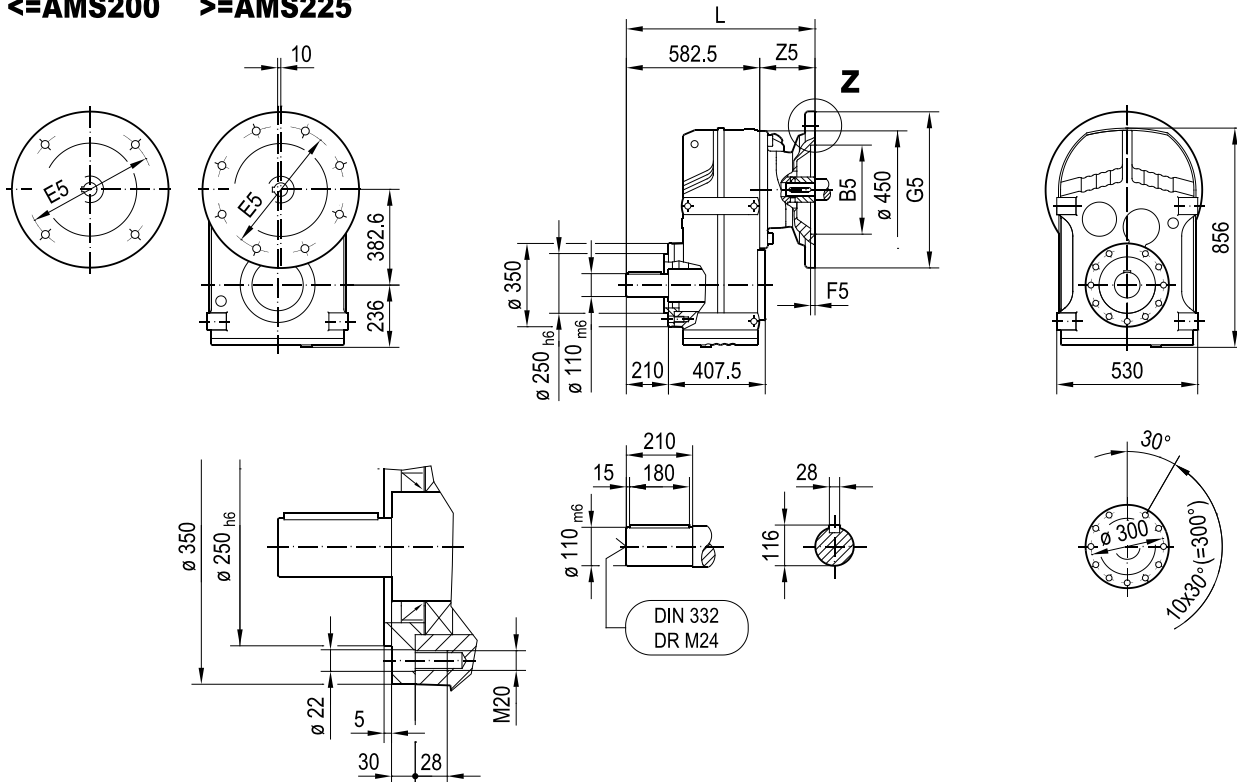
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|-------|----|-----|------|----|
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 473 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 473 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 536 | M16 | 158 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 536 | M16 | 158 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 597 | M16 | 219 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 612 | M16 | 234 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 675 | M16 | 297.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 675 | M16 | 297.5 | 75 | 140 | 79.9 | 20 |

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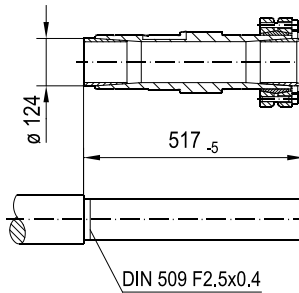
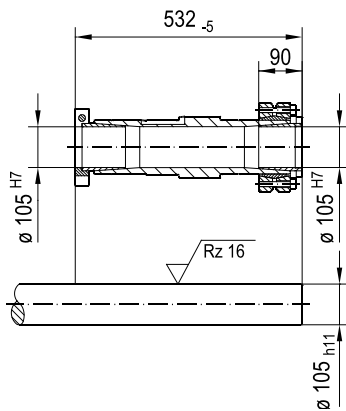
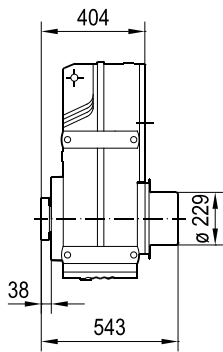
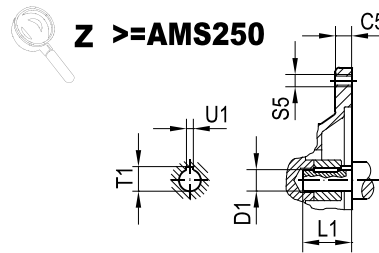
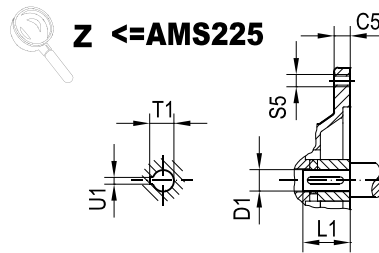
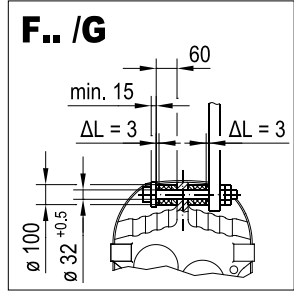
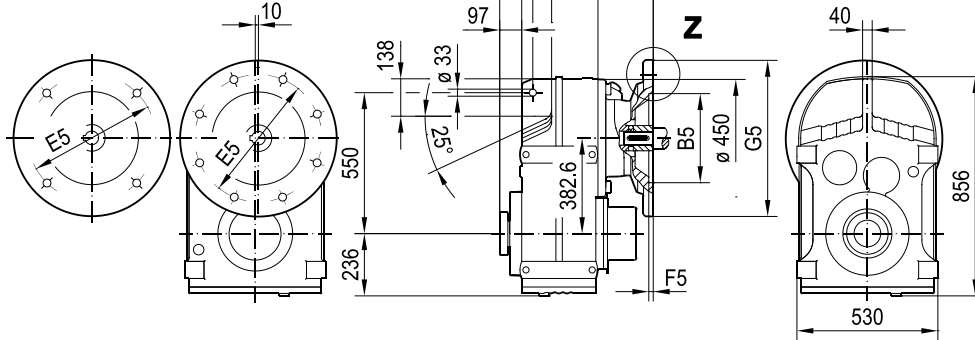
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| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|-------|----|-----|------|----|
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 678 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 678 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 741 | M16 | 158 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 741 | M16 | 158 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 802 | M16 | 219 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 817 | M16 | 234 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 880 | M16 | 297.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 880 | M16 | 297.5 | 75 | 140 | 79.9 | 20 |

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FT127..

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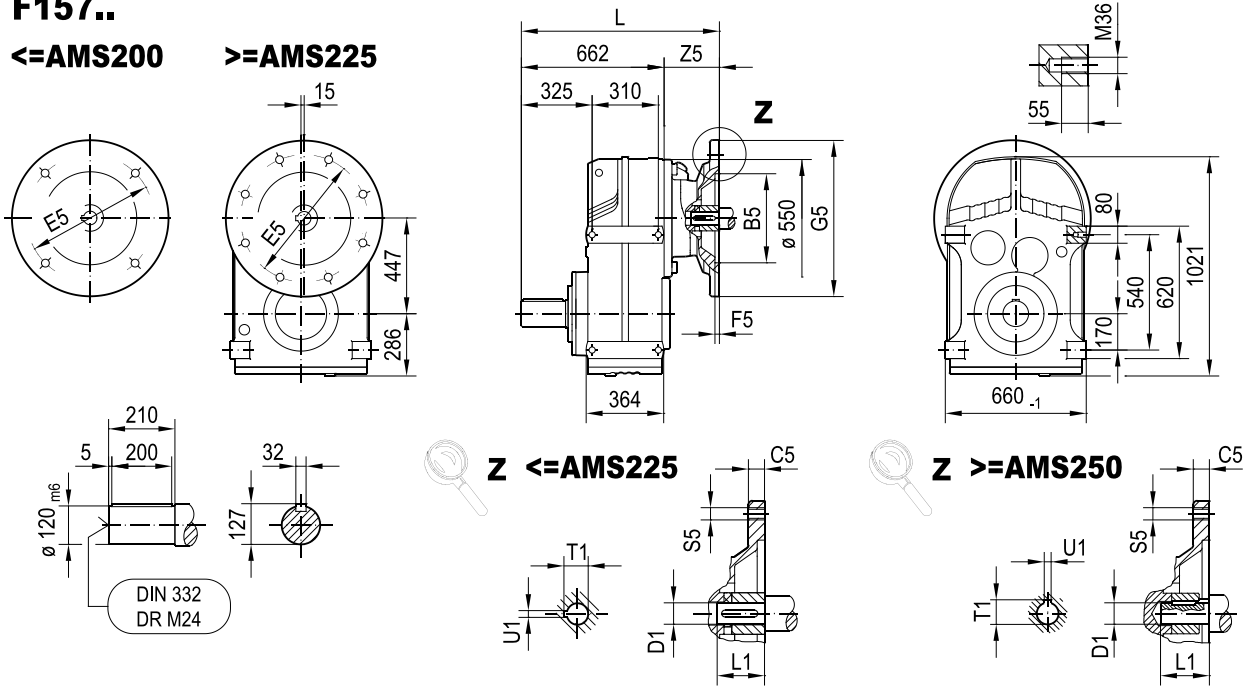
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|-----------|-----|----|-----|----|-----|-----|-----|-------|----|-----|------|----|
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 499 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 499 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 562 | M16 | 158 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 562 | M16 | 158 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 623 | M16 | 219 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 638 | M16 | 234 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 702 | M16 | 297.5 | 65 | 140 | 69.4 | 18 |
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F157..

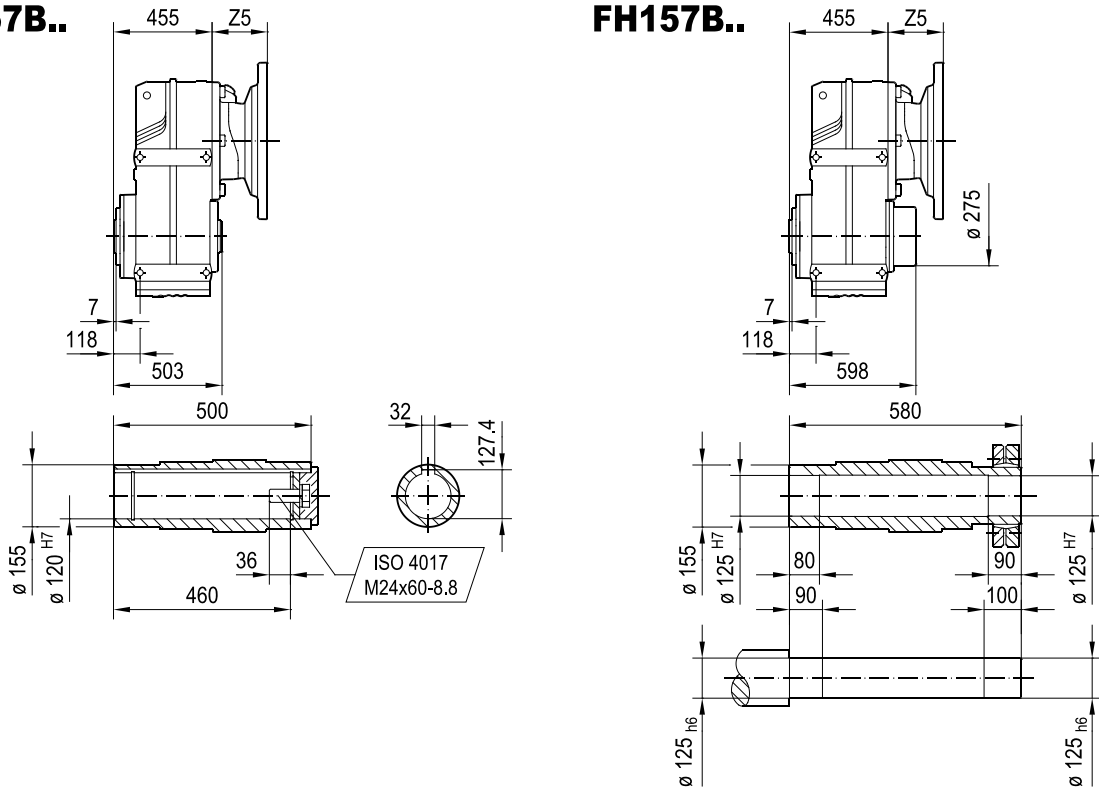
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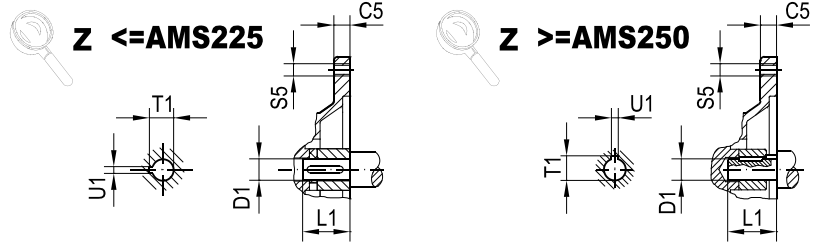
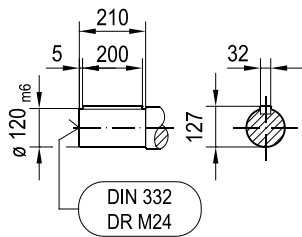
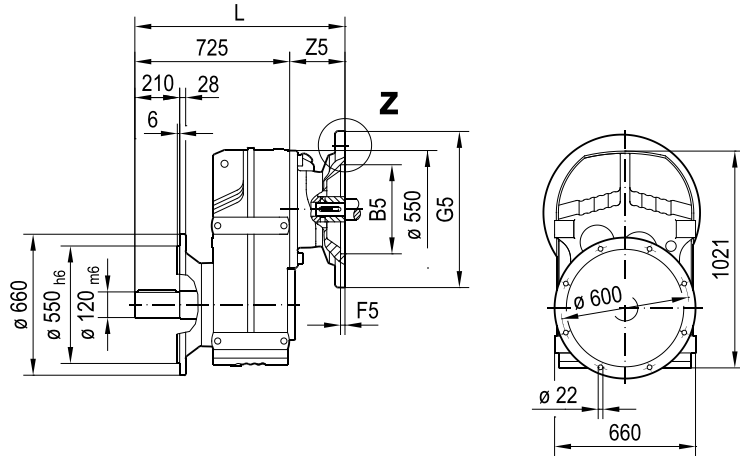
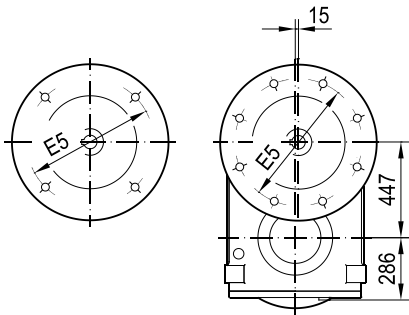


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|---------|-----|----|-----|----|-----|-----|-----|-------|----|-----|------|----|
| AMS160 | 250 | 18 | 300 | 6 | 350 | 812 | M16 | 150 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 812 | M16 | 150 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 873 | M16 | 211 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 888 | M16 | 226 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 952 | M16 | 289.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 952 | M16 | 289.5 | 75 | 140 | 79.9 | 20 |

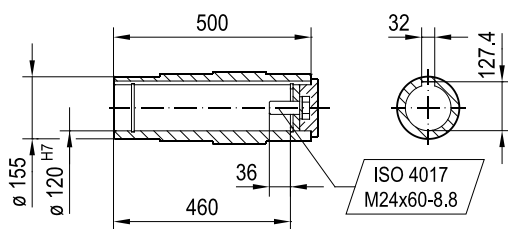
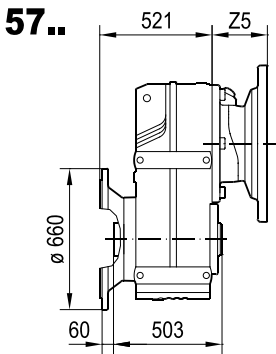
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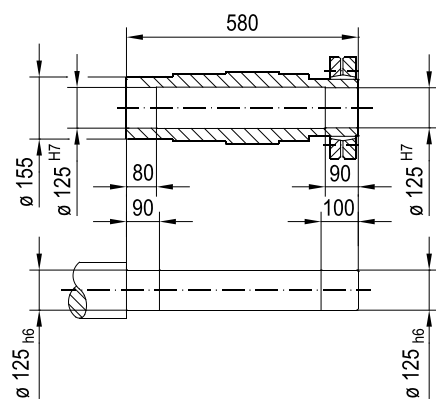
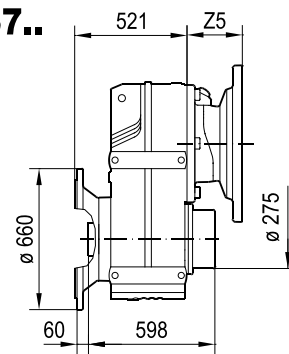
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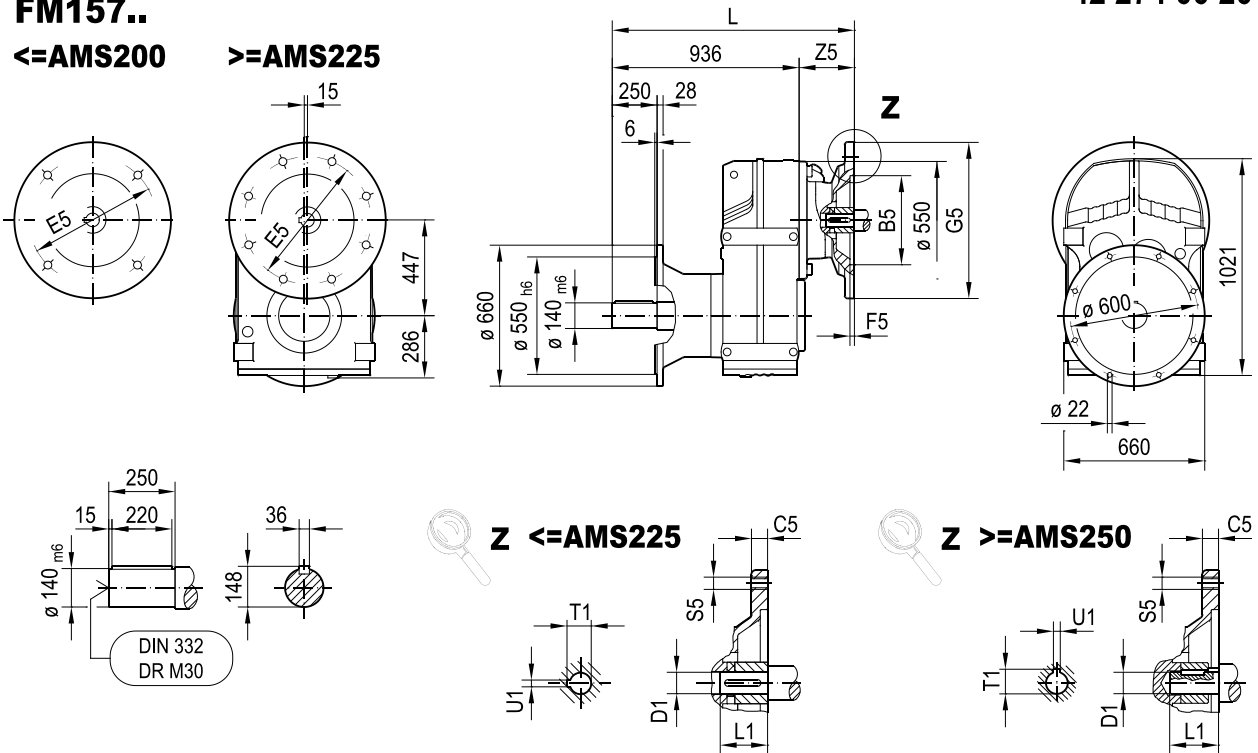
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|---------|-----|----|-----|----|-----|------|-----|-------|----|-----|------|----|
| AMS160 | 250 | 18 | 300 | 6 | 350 | 875 | M16 | 150 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 875 | M16 | 150 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 936 | M16 | 211 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 951 | M16 | 226 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 1015 | M16 | 289.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 1015 | M16 | 289.5 | 75 | 140 | 79.9 | 20 |

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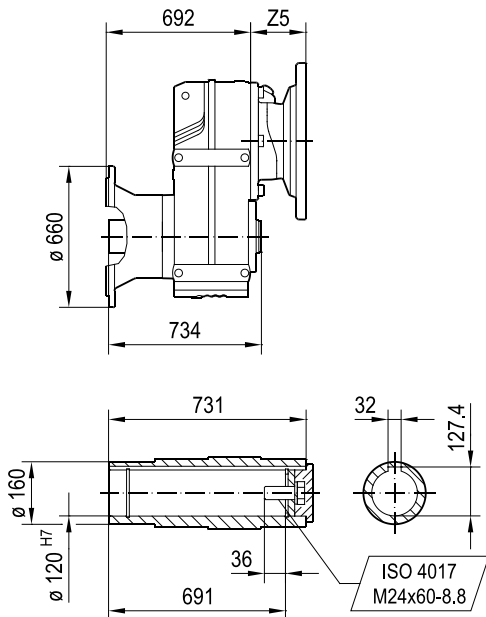
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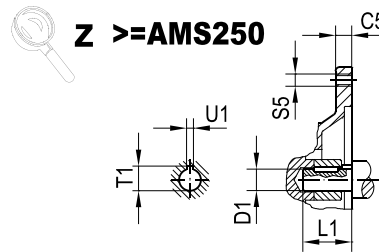
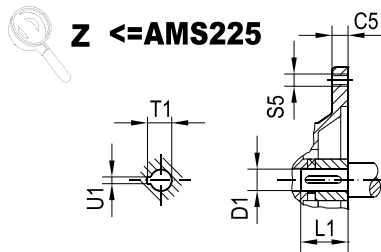
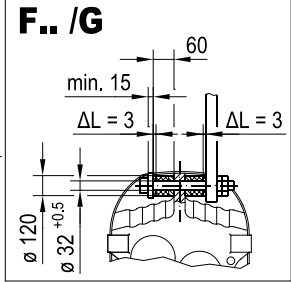
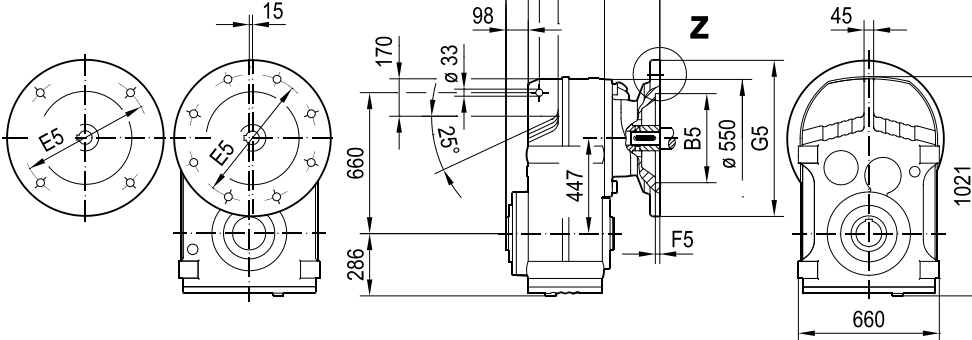
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| AMS160 | 250 | 18 | 300 | 6 | 350 | 1086 | M16 | 150 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 1086 | M16 | 150 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 1147 | M16 | 211 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 1162 | M16 | 226 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 1226 | M16 | 289.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 1226 | M16 | 289.5 | 75 | 140 | 79.9 | 20 |

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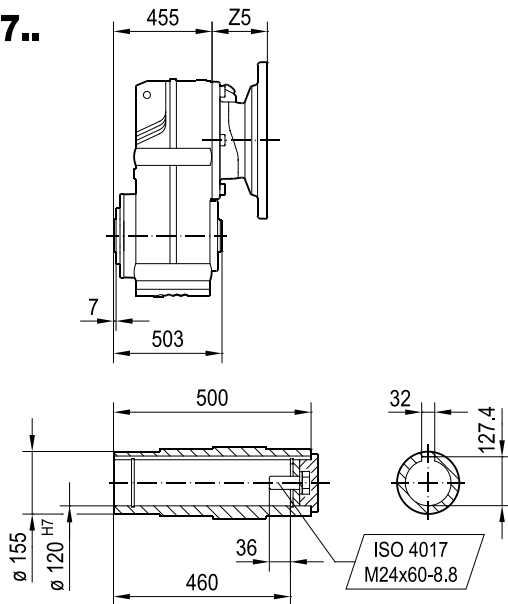
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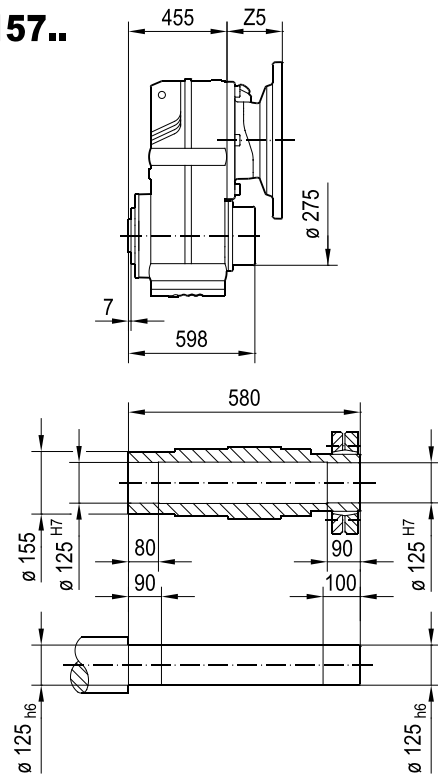
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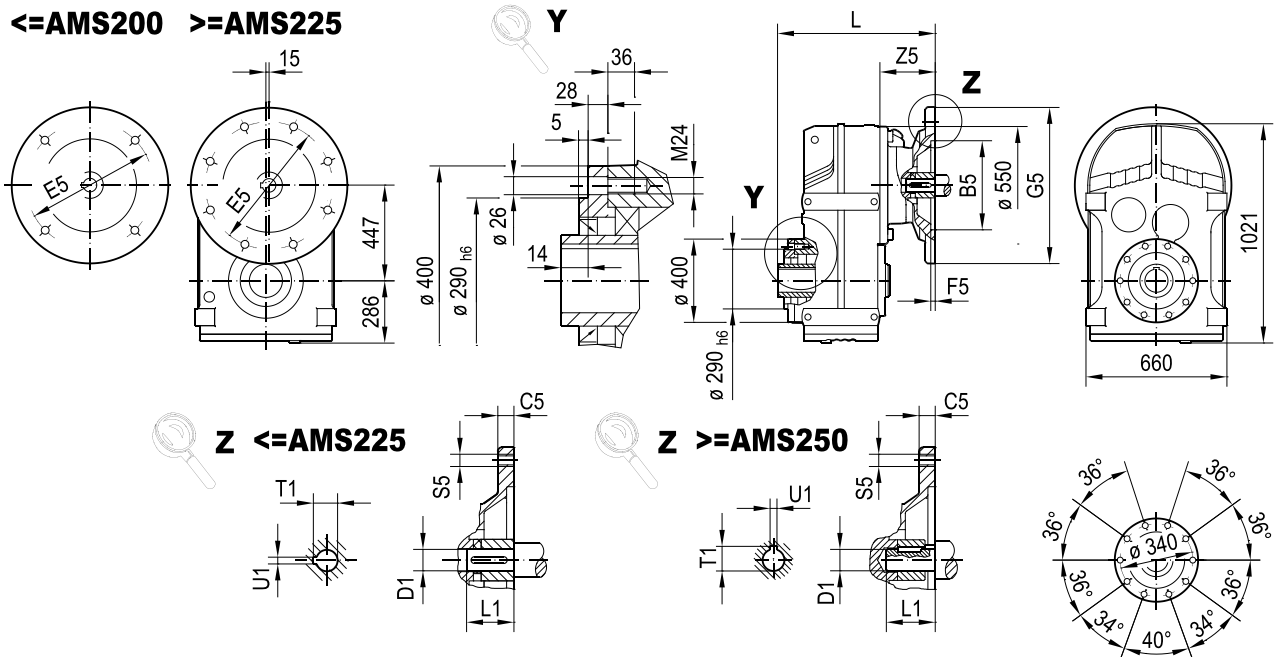


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|----|-----|-----|-----|-------|----|-----|------|----|
| AMS160 | 250 | 18 | 300 | 6 | 350 | 605 | M16 | 150 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 605 | M16 | 150 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 666 | M16 | 211 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 681 | M16 | 226 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 745 | M16 | 289.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 745 | M16 | 289.5 | 75 | 140 | 79.9 | 20 |

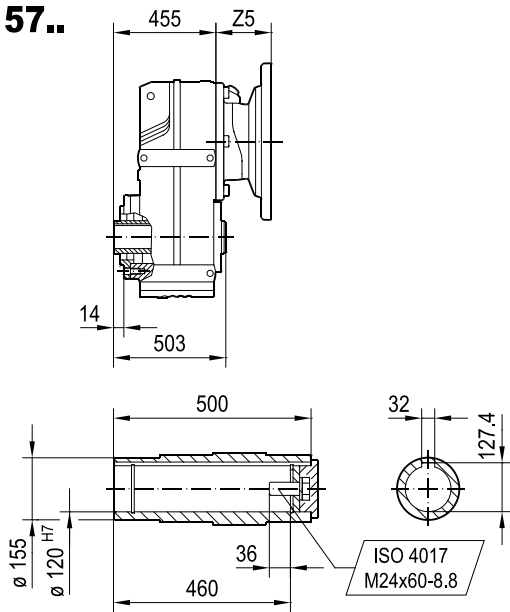
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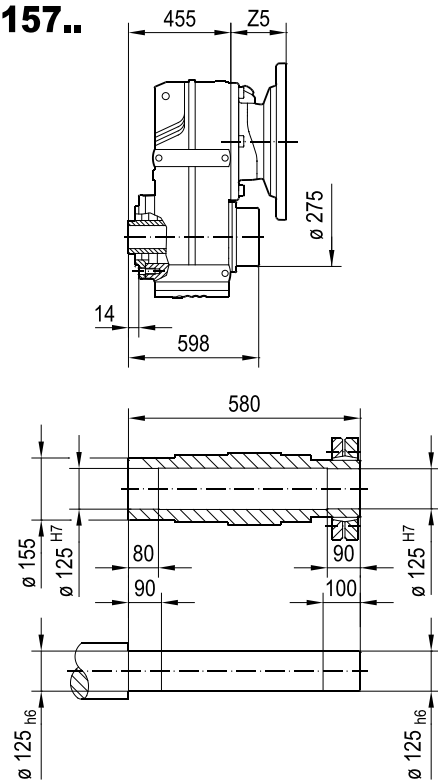
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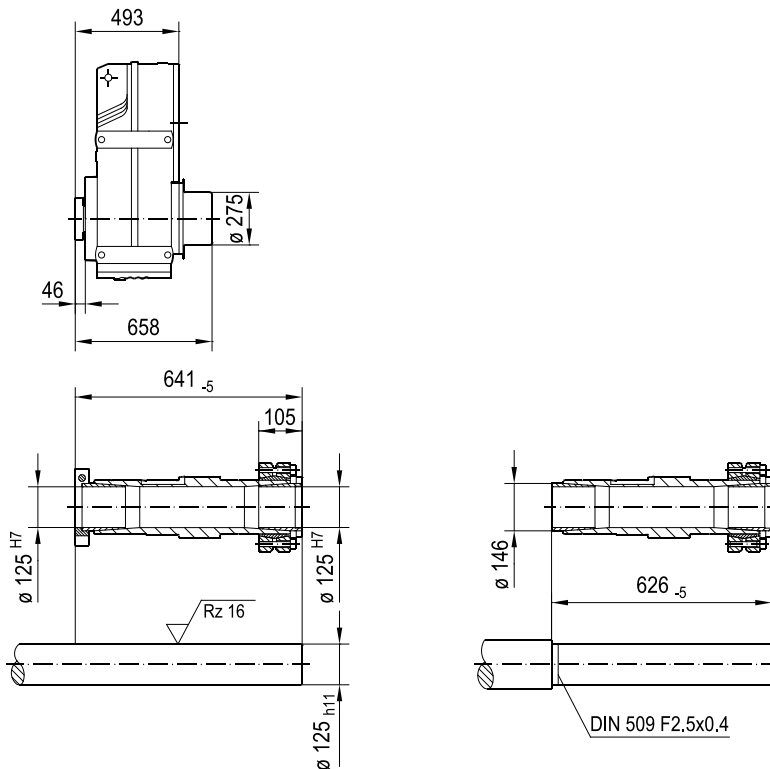
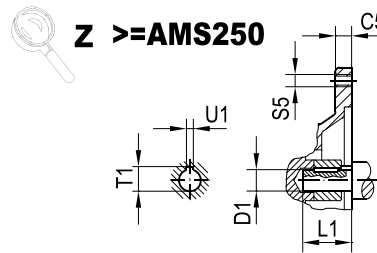
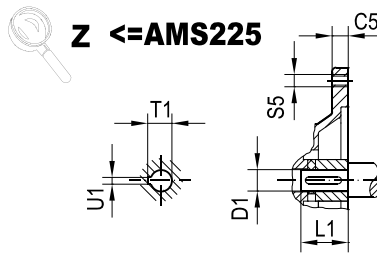
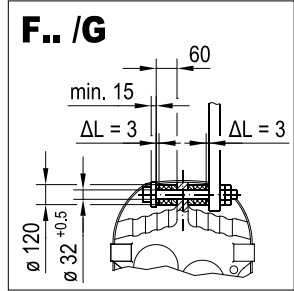
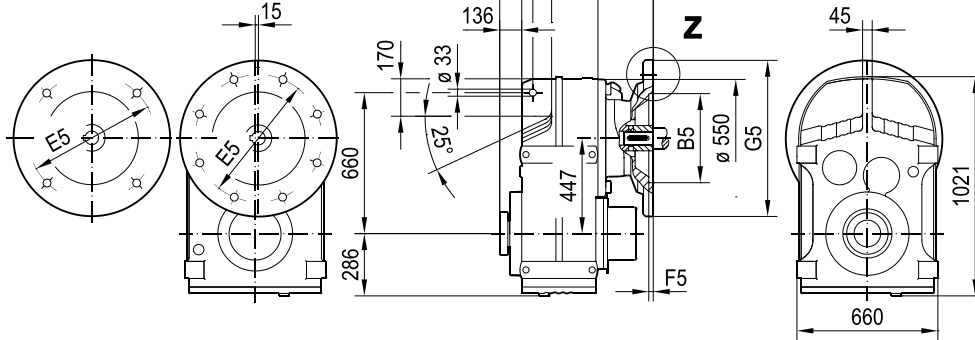
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|----|-----|-----|-----|-------|----|-----|------|----|
| AMS160 | 250 | 18 | 300 | 6 | 350 | 605 | M16 | 150 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 605 | M16 | 150 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 666 | M16 | 211 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 681 | M16 | 226 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 745 | M16 | 289.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 745 | M16 | 289.5 | 75 | 140 | 79.9 | 20 |

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FT157..

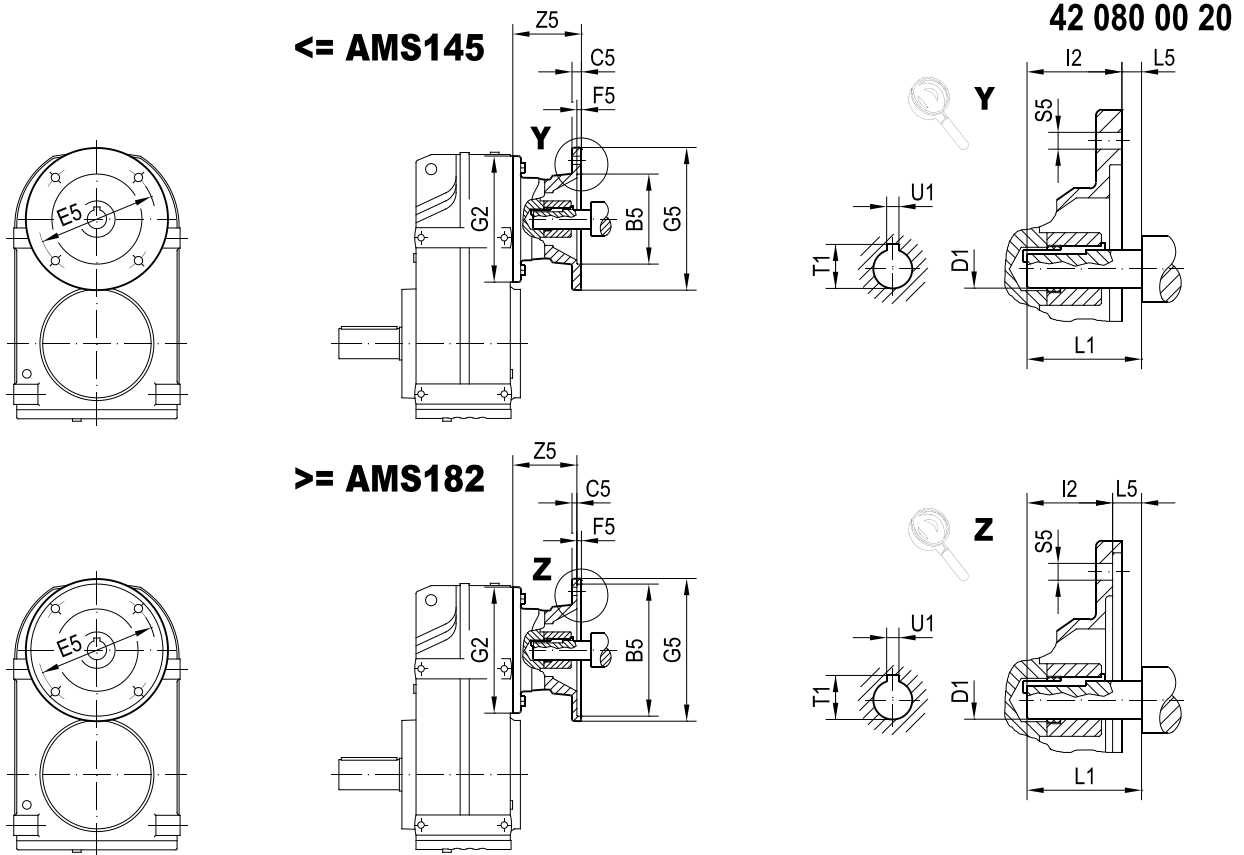
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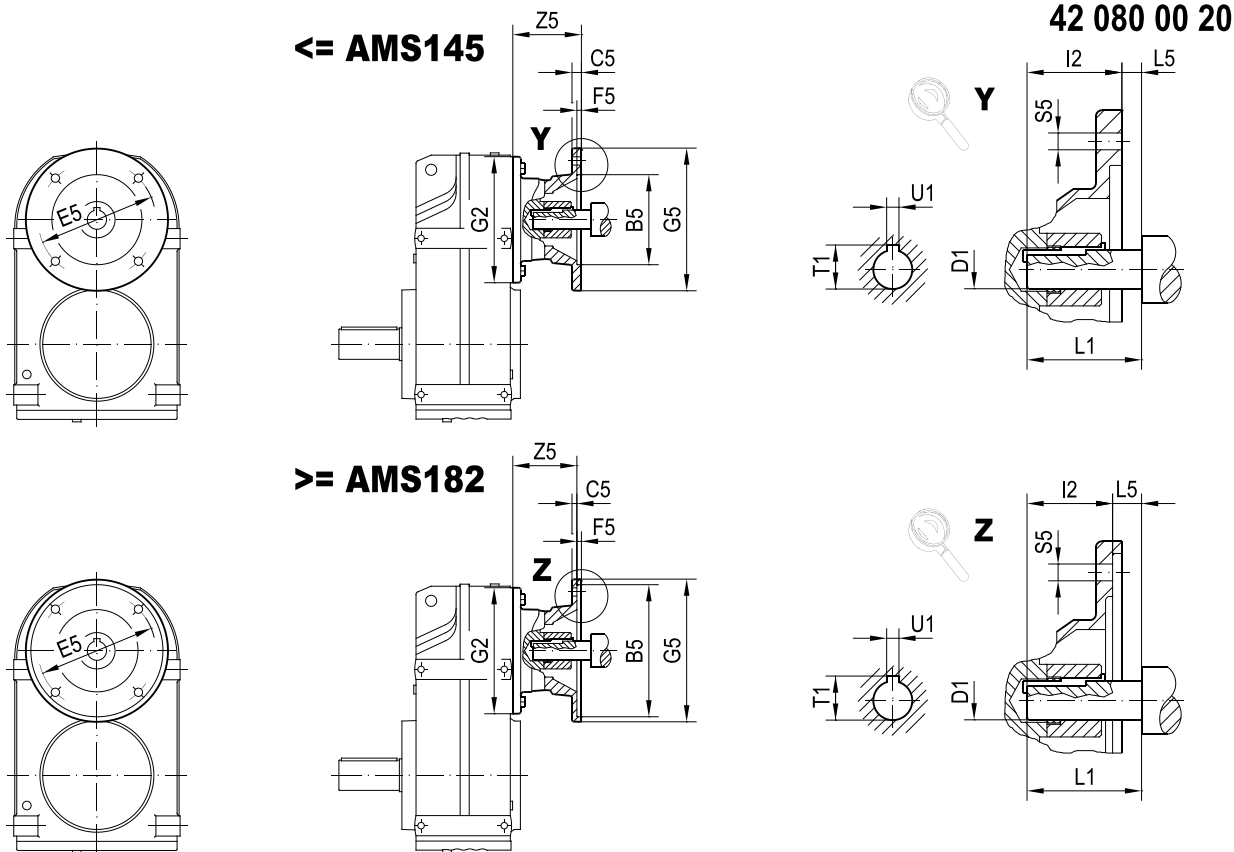
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|----|-----|-----|-----|-------|----|-----|------|----|
| AMS160 | 250 | 18 | 300 | 6 | 350 | 643 | M16 | 150 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 643 | M16 | 150 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 704 | M16 | 211 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 719 | M16 | 226 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 783 | M16 | 289.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 783 | M16 | 289.5 | 75 | 140 | 79.9 | 20 |

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9.5 Dimension sheets for adapters for mounting NEMA motors (AMS..)



| | | B5 | C5 | E5 | F5 | G2 | G5 | I2 | L5 | S5 | Z5 | D1 | L1 | T1 | U1 |
|-------------------------|------------|-------|----|-------|-----|-----|-----|-------|------|------|-------|--------|-------|------|------|
| F..27 F..37 F..47 | AMS56 | 114.3 | 11 | 149.2 | 4.5 | 120 | 170 | 52.3 | -4.6 | 10.5 | 81.5 | 15.875 | 47.8 | 18.1 | 4.76 |
| | AMS143 | 114.3 | 12 | 149.2 | 4.5 | 120 | 170 | 53.8 | 3.3 | 10.5 | 93.5 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS145 | 114.3 | 14 | 149.2 | 4.5 | 120 | 170 | 53.8 | 3.3 | 10.5 | 93.5 | 22.225 | 57.2 | 24.7 | 4.76 |
| F..57 F..67 | AMS56 | 114.3 | 11 | 149.2 | 4.5 | 160 | 170 | 52.3 | -4.6 | 10.5 | 75 | 15.875 | 47.8 | 18.1 | 4.76 |
| | AMS143 | 114.3 | 12 | 149.2 | 4.5 | 160 | 170 | 53.8 | 3.3 | 10.5 | 87 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS145 | 114.3 | 14 | 149.2 | 4.5 | 160 | 170 | 53.8 | 3.3 | 10.5 | 87 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS182 | 215.9 | 10 | 184 | 5 | 160 | 228 | 66.6 | 3.3 | 15 | 114 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 160 | 228 | 66.6 | 3.3 | 15 | 114 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 160 | 228 | 79.2 | 6.6 | 15 | 138.5 | 34.925 | 85.9 | 38.7 | 7.94 |
| F..77 | AMS56 | 114.3 | 11 | 149.2 | 4.5 | 200 | 170 | 52.3 | -4.6 | 10.5 | 68 | 15.875 | 47.8 | 18.1 | 4.76 |
| | AMS143 | 114.3 | 12 | 149.2 | 4.5 | 200 | 170 | 53.8 | 3.3 | 10.5 | 80 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS145 | 114.3 | 14 | 149.2 | 4.5 | 200 | 170 | 53.8 | 3.3 | 10.5 | 80 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS182 | 215.9 | 10 | 184 | 5 | 200 | 228 | 66.6 | 3.3 | 15 | 106 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 200 | 228 | 66.6 | 3.3 | 15 | 106 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 200 | 228 | 79.2 | 6.6 | 15 | 130.5 | 34.925 | 85.9 | 38.7 | 7.94 |
| F..87 | AMS143 | 114.3 | 12 | 149.2 | 4.5 | 250 | 170 | 53.8 | 3.3 | 10.5 | 75 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS145 | 114.3 | 14 | 149.2 | 4.5 | 250 | 170 | 53.8 | 3.3 | 10.5 | 75 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS182 | 215.9 | 10 | 184 | 5 | 250 | 228 | 66.6 | 3.3 | 15 | 101 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 250 | 228 | 66.6 | 3.3 | 15 | 101 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 250 | 228 | 79.2 | 6.6 | 15 | 125.5 | 34.925 | 85.9 | 38.7 | 7.94 |
| | AMS254/256 | 215.9 | 12 | 184 | 5 | 250 | 228 | 95.3 | 6.4 | 15 | 185 | 41.275 | 101.6 | 45.8 | 9.53 |
| | AMS284/286 | 266.7 | 15 | 228.6 | 5 | 250 | 286 | 111.3 | 6.1 | 15 | 191.5 | 47.625 | 117.3 | 53.4 | 12.7 |



| | | B5 | C5 | E5 | F5 | G2 | G5 | I2 | L5 | S5 | Z5 | D1 | L1 | T1 | U1 |
|--------|------------|-------|----|-------|----|-----|-----|-------|-----|------|-------|------|-------|------|-------|
| F..97 | AMS182 | 215.9 | 10 | 184 | 5 | 300 | 228 | 66.6 | 3.3 | 15 | 96 | 28.6 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 300 | 228 | 66.6 | 3.3 | 15 | 96 | 28.6 | 69.9 | 31.7 | 6.35 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 300 | 228 | 79.2 | 6.6 | 15 | 120.5 | 34.9 | 85.9 | 38.7 | 7.94 |
| | AMS254/256 | 215.9 | 12 | 184 | 5 | 300 | 228 | 95.3 | 6.4 | 15 | 180 | 41.3 | 101.6 | 45.8 | 9.53 |
| | AMS284/286 | 266.7 | 15 | 228.6 | 5 | 300 | 286 | 111.3 | 6.1 | 15 | 186.5 | 47.6 | 117.3 | 53.4 | 12.7 |
| | AMS324/326 | 317.5 | 17 | 279.4 | 5 | 300 | 356 | 127 | 6.4 | 17.5 | 252.5 | 54 | 133.4 | 60 | 12.7 |
| | AMS364/365 | 317.5 | 17 | 279.4 | 5 | 300 | 356 | 142.7 | 6.6 | 17.5 | 252.5 | 60.3 | 149.4 | 67.6 | 15.88 |
| F..107 | AMS182 | 215.9 | 10 | 184 | 5 | 350 | 228 | 66.6 | 3.3 | 15 | 90 | 28.6 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 350 | 228 | 66.6 | 3.3 | 15 | 90 | 28.6 | 69.9 | 31.7 | 6.35 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 350 | 228 | 79.2 | 6.6 | 15 | 114.5 | 34.9 | 85.9 | 38.7 | 7.94 |
| | AMS254/256 | 215.9 | 12 | 184 | 5 | 350 | 228 | 95.3 | 6.4 | 15 | 174 | 41.3 | 101.6 | 45.8 | 9.53 |
| | AMS284/286 | 266.7 | 15 | 228.6 | 5 | 350 | 286 | 111.3 | 6.1 | 15 | 180.5 | 47.6 | 117.3 | 53.4 | 12.7 |
| | AMS324/326 | 317.5 | 17 | 279.4 | 5 | 350 | 356 | 127 | 6.4 | 17.5 | 246.5 | 54 | 133.4 | 60 | 12.7 |
| | AMS364/365 | 317.5 | 17 | 279.4 | 5 | 350 | 356 | 142.7 | 6.6 | 17.5 | 252.5 | 60.3 | 149.4 | 67.6 | 15.88 |
| F..127 | AMS213/215 | 215.9 | 11 | 184 | 5 | 450 | 228 | 79.2 | 6.6 | 15 | 99.5 | 34.9 | 85.9 | 38.7 | 7.94 |
| | AMS254/256 | 215.9 | 12 | 184 | 5 | 450 | 228 | 95.3 | 6.4 | 15 | 159 | 41.3 | 101.6 | 45.8 | 9.53 |
| | AMS284/286 | 266.7 | 15 | 228.6 | 5 | 450 | 286 | 111.3 | 6.1 | 15 | 165.5 | 47.6 | 117.3 | 53.4 | 12.7 |
| | AMS324/326 | 317.5 | 17 | 279.4 | 5 | 450 | 356 | 127 | 6.4 | 17.5 | 231.5 | 54 | 133.4 | 60 | 12.7 |
| | AMS364/365 | 317.5 | 17 | 279.4 | 5 | 450 | 356 | 142.7 | 6.6 | 17.5 | 252.5 | 60.3 | 149.4 | 67.6 | 15.88 |
| F..157 | AMS254/256 | 215.9 | 12 | 184 | 5 | 550 | 228 | 95.3 | 6.4 | 15 | 151 | 41.3 | 101.6 | 45.8 | 9.53 |
| | AMS284/286 | 266.7 | 15 | 228.6 | 5 | 550 | 286 | 111.3 | 6.1 | 15 | 157.5 | 47.6 | 117.3 | 53.4 | 12.7 |
| | AMS324/326 | 317.5 | 17 | 279.4 | 5 | 550 | 356 | 127 | 6.4 | 17.5 | 223.5 | 54 | 133.4 | 60 | 12.7 |
| | AMS364/365 | 317.5 | 17 | 279.4 | 5 | 550 | 356 | 142.7 | 6.6 | 17.5 | 252.5 | 60.3 | 149.4 | 67.6 | 15.88 |

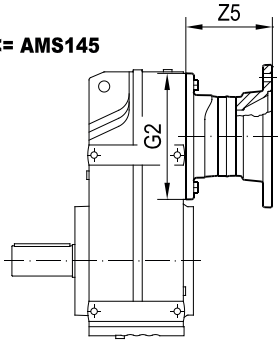
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9.6 Dimension sheets for adapters with backstop (RS..) and drain hole (DH..)

42 285 01 20

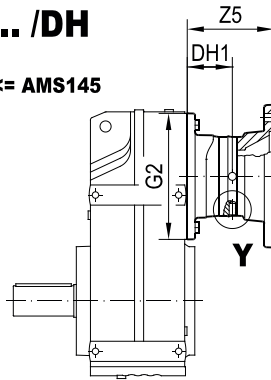
AMS.. /RS

IEC
NEMA: <= AMS145



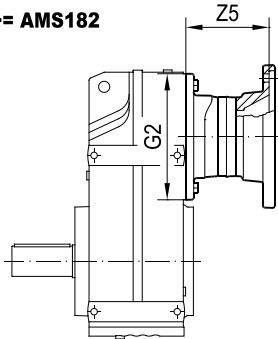
AMS.. /DH

IEC
NEMA: <= AMS145



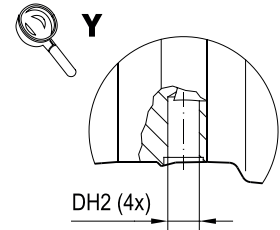
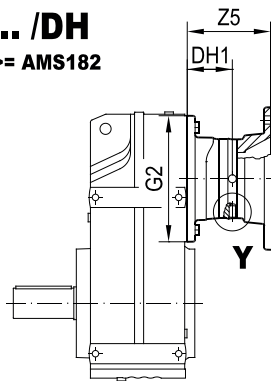
AMS.. /RS


NEMA: >= AMS182




AMS.. /DH

NEMA: >= AMS182




| |  | /RS | | /DH | | | |
|-------------------------|---|-----|-------|-----|-------|-----|-----|
| | | G2 | Z5 | G2 | Z5 | DH1 | DH2 |
| F..27 F..37 F..47 | AMS56 | – | – | 120 | 105 | 60 | 8 |
| | AMS63 | – | – | 120 | 78.5 | 46 | 8 |
| | AMS71 | – | – | 120 | 78.5 | 46 | 8 |
| | AMS80 | 120 | 121 | 120 | 97.5 | 60 | 8 |
| | AMS90 | 120 | 121 | 120 | 109 | 64 | 8 |
| | AMS143 | 120 | 128.5 | 120 | 116.5 | 64 | 8 |
| | AMS145 | 120 | 128.5 | 120 | 116.5 | 64 | 8 |
| F..57 F..67 | AMS56 | – | – | 160 | 98.5 | 54 | 8 |
| | AMS63 | – | – | 160 | 72 | 40 | 8 |
| | AMS71 | – | – | 160 | 72 | 40 | 8 |
| | AMS80 | 160 | 114.5 | 160 | 91 | 54 | 8 |
| | AMS90 | 160 | 114.5 | 160 | 102.5 | 57 | 8 |
| | AMS100 | 160 | 153 | 160 | 153 | 97 | 8 |
| | AMS112 | 160 | 153 | 160 | 153 | 97 | 8 |
| | AMS132S/M | 160 | 181.5 | 160 | 181.5 | 116 | 8 |
| | AMS143 | 160 | 122 | 160 | 110 | 57 | 8 |
| | AMS145 | 160 | 122 | 160 | 110 | 57 | 8 |
| | AMS182 | 160 | 158.5 | 160 | 158.5 | 97 | 8 |
| | AMS184 | 160 | 158.5 | 160 | 158.5 | 97 | 8 |
| | AMS213/215 | 160 | 186 | 160 | 186 | 116 | 8 |

| |  | /RS | | /DH | | | |
|------------|---|-------|-------|-------|-------|-----|-----|
| | | G2 | Z5 | G2 | Z5 | DH1 | DH2 |
| F..77 | AMS56 | – | – | 200 | 91.5 | 47 | 8 |
| | AMS63 | – | – | 200 | 66 | 34 | 8 |
| | AMS71 | – | – | 200 | 66 | 34 | 8 |
| | AMS80 | 200 | 107.5 | 200 | 84 | 47 | 8 |
| | AMS90 | 200 | 107.5 | 200 | 95.5 | 50 | 8 |
| | AMS100 | 200 | 145 | 200 | 145 | 89 | 8 |
| | AMS112 | 200 | 145 | 200 | 145 | 89 | 8 |
| | AMS132ML | 200 | 173.5 | 200 | 173.5 | 108 | 8 |
| | AMS132S/M | 200 | 173.5 | 200 | 173.5 | 108 | 8 |
| | AMS143 | 200 | 115 | 200 | 103 | 50 | 8 |
| | AMS145 | 200 | 115 | 200 | 103 | 50 | 8 |
| | AMS182 | 200 | 150.5 | 200 | 150.5 | 89 | 8 |
| | AMS184 | 200 | 150.5 | 200 | 150.5 | 89 | 8 |
| | AMS213/215 | 200 | 178 | 200 | 178 | 108 | 8 |
| F..87 | AMS80 | 250 | 102.5 | 250 | 79 | 42 | 8 |
| | AMS90 | 250 | 102.5 | 250 | 90.5 | 45 | 8 |
| | AMS100 | 250 | 140 | 250 | 140 | 84 | 8 |
| | AMS112 | 250 | 140 | 250 | 140 | 84 | 8 |
| | AMS132ML | 250 | 168.5 | 250 | 168.5 | 103 | 8 |
| | AMS132S/M | 250 | 168.5 | 250 | 168.5 | 103 | 8 |
| | AMS143 | 250 | 110 | 250 | 98 | 45 | 8 |
| | AMS145 | 250 | 110 | 250 | 98 | 45 | 8 |
| | AMS160 | 250 | 184 | 250 | 222 | 124 | 8 |
| | AMS180 | 250 | 184 | 250 | 222 | 124 | 8 |
| | AMS182 | 250 | 145.5 | 250 | 145.5 | 84 | 8 |
| | AMS184 | 250 | 145.5 | 250 | 145.5 | 84 | 8 |
| | AMS213/215 | 250 | 173 | 250 | 173 | 103 | 8 |
| | AMS254/256 | 250 | 185 | 250 | 223.5 | 124 | 8 |
| AMS284/286 | 250 | 191.5 | 250 | 230 | 124 | 8 | |
| F..97 | AMS100 | 300 | 135 | 300 | 135 | 79 | 8 |
| | AMS112 | 300 | 135 | 300 | 135 | 79 | 8 |
| | AMS132ML | 300 | 163.5 | 300 | 163.5 | 98 | 8 |
| | AMS132S/M | 300 | 163.5 | 300 | 163.5 | 98 | 8 |
| | AMS160 | 300 | 179 | 300 | 217 | 119 | 8 |
| | AMS180 | 300 | 179 | 300 | 217 | 119 | 8 |
| | AMS182 | 300 | 140.5 | 300 | 140.5 | 79 | 8 |
| | AMS184 | 300 | 140.5 | 300 | 140.5 | 79 | 8 |
| | AMS200 | 300 | 240 | 300 | 240 | 141 | 8 |
| | AMS213/215 | 300 | 168 | 300 | 168 | 98 | 8 |
| | AMS225 | 300 | 255 | 300 | 255 | 141 | 8 |
| | AMS254/256 | 300 | 180 | 300 | 218.5 | 119 | 8 |
| | AMS284/286 | 300 | 186.5 | 300 | 225 | 119 | 8 |
| | AMS324/326 | 300 | 252.5 | 300 | 252.5 | 152 | 8 |
| AMS364/365 | 300 | 252.5 | 300 | 252.5 | 152 | 8 | |

9

F.. parallel-shaft helical gear units

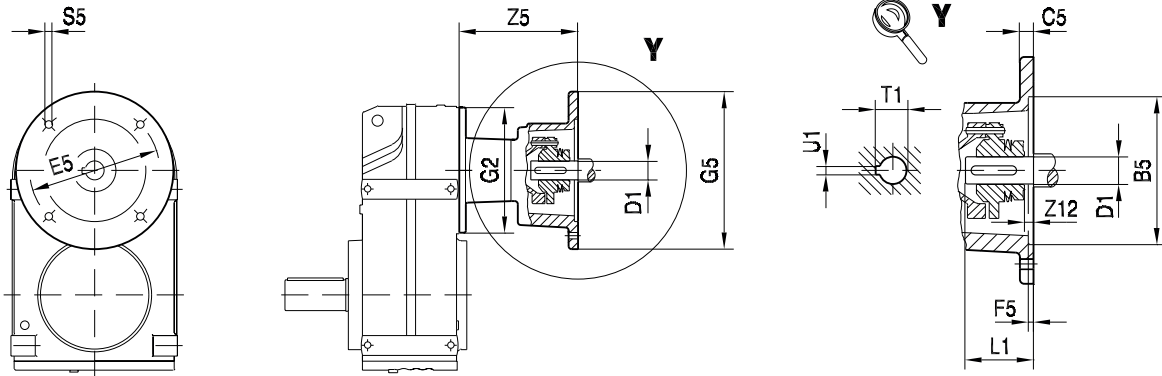
Dimension sheets for adapters with backstop (RS..) and drain hole (DH..)

| |  | /RS | | /DH | | | |
|------------|---|-------|-------|-------|-------|-----|-----|
| | | G2 | Z5 | G2 | Z5 | DH1 | DH2 |
| F..107 | AMS100 | 350 | 129 | 350 | 129 | 73 | 8 |
| | AMS112 | 350 | 129 | 350 | 129 | 73 | 8 |
| | AMS132ML | 350 | 157.5 | 350 | 157.5 | 92 | 8 |
| | AMS132S/M | 350 | 157.5 | 350 | 157.5 | 92 | 8 |
| | AMS160 | 350 | 173 | 350 | 211 | 113 | 8 |
| | AMS180 | 350 | 173 | 350 | 211 | 113 | 8 |
| | AMS182 | 350 | 134.5 | 350 | 134.5 | 73 | 8 |
| | AMS184 | 350 | 134.5 | 350 | 134.5 | 73 | 8 |
| | AMS200 | 350 | 234 | 350 | 234 | 135 | 8 |
| | AMS213/215 | 350 | 162 | 350 | 162 | 92 | 8 |
| | AMS225 | 350 | 249 | 350 | 249 | 135 | 8 |
| | AMS254/256 | 350 | 174 | 350 | 212.5 | 113 | 8 |
| | AMS284/286 | 350 | 180.5 | 350 | 219 | 113 | 8 |
| | AMS324/326 | 350 | 246.5 | 350 | 246.5 | 146 | 8 |
| AMS364/365 | 350 | 246.5 | 350 | 246.5 | 146 | 8 | |
| F..127 | AMS132ML | 450 | 142.5 | 450 | 142.5 | 77 | 8 |
| | AMS132S/M | 450 | 142.5 | 450 | 142.5 | 77 | 8 |
| | AMS160 | 450 | 158 | 450 | 196 | 98 | 8 |
| | AMS180 | 450 | 158 | 450 | 196 | 98 | 8 |
| | AMS200 | 450 | 219 | 450 | 219 | 120 | 8 |
| | AMS213/215 | 450 | 147 | 450 | 147 | 77 | 8 |
| | AMS225 | 450 | 234 | 450 | 234 | 120 | 8 |
| | AMS250 | 450 | 297.5 | 450 | 297.5 | 121 | 8 |
| | AMS254/256 | 450 | 159 | 450 | 197.5 | 98 | 8 |
| | AMS280 | 450 | 297.5 | 450 | 297.5 | 121 | 8 |
| | AMS284/286 | 450 | 165.5 | 450 | 204 | 98 | 8 |
| | AMS324/326 | 450 | 231.5 | 450 | 231.5 | 131 | 8 |
| AMS364/365 | 450 | 231.5 | 450 | 231.5 | 131 | 8 | |
| F..157 | AMS160 | 550 | 150 | 550 | 188 | 90 | 8 |
| | AMS180 | 550 | 150 | 550 | 188 | 90 | 8 |
| | AMS200 | 550 | 211 | 550 | 211 | 112 | 8 |
| | AMS225 | 550 | 226 | 550 | 226 | 112 | 8 |
| | AMS250 | 550 | 289.5 | 550 | 289.5 | 113 | 8 |
| | AMS254/256 | 550 | 151 | 550 | 189.5 | 90 | 8 |
| | AMS280 | 550 | 289.5 | 550 | 289.5 | 113 | 8 |
| | AMS284/286 | 550 | 157.5 | 550 | 196 | 90 | 8 |
| | AMS324/326 | 550 | 223.5 | 550 | 223.5 | 123 | 8 |
| AMS364/365 | 550 | 223.5 | 550 | 223.5 | 123 | 8 | |

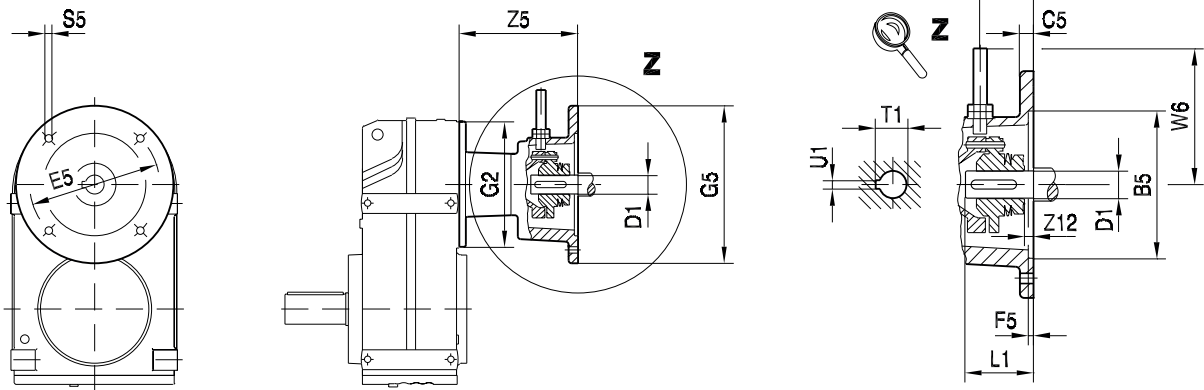
9.7 Dimension sheets for adapters with slip clutch (AR..)

F.. AR..

42 090 02 01



F.. AR../W



| | | B5 | C5 | E5 | F5 | G2 | G5 | S5 | W6 | Z5 | Z9 | Z12 | D1 | L1 | T1 | U1 | | | |
|-------------------------|---------------------|-----|----|-----|-----|-----|-----|-----|-----|-------|-----|-----|-------|-----|------|----|----|------|----|
| F..27 F..37 F..47 | AR71 | 110 | 10 | 130 | 3.5 | 120 | 160 | M8 | 120 | 104 | 37 | 0 | 14 | 30 | 16.3 | 5 | | | |
| | AR80 | 130 | 12 | 165 | 4.5 | | 200 | M10 | | 140.5 | | | 19 | 40 | 21.8 | 6 | | | |
| | AR90 | | | | | | 24 | 50 | | 27.3 | | | 8 | | | | | | |
| F..57 F..67 | AR71 | 110 | 10 | 130 | 3.5 | 160 | 160 | M8 | 120 | 97.5 | 37 | 0 | 14 | 30 | 16.3 | 5 | | | |
| | AR80 | 130 | 12 | 165 | 4.5 | | 200 | M10 | | 134 | | | 19 | 40 | 21.8 | 6 | | | |
| | AR90 | | | | | | 24 | 50 | | 27.3 | | | 8 | | | | | | |
| | AR100 | 180 | 15 | 215 | 5 | | 250 | M12 | | 130 | | | 174.5 | 52 | 5.5 | 28 | 60 | 31.3 | 8 |
| | AR112 | 230 | 16 | 265 | 5 | | 300 | M12 | | 145 | | | 234 | 72 | 5 | 38 | 80 | 41.3 | 10 |
| AR132S/M AR132ML | | | | | | | | | | | | | | | | | | | |
| F..77 | AR71 | 110 | 10 | 130 | 3.5 | 200 | 160 | M8 | 120 | 91.5 | 37 | 0 | 14 | 30 | 16.3 | 5 | | | |
| | AR80 | 130 | 12 | 165 | 4.5 | | 200 | M10 | | 127 | | | 19 | 40 | 21.8 | 6 | | | |
| | AR90 | | | | | | 24 | 50 | | 27.3 | | | 8 | | | | | | |
| | AR100 | 180 | 15 | 215 | 5 | | 250 | M12 | | 130 | | | 166.5 | 52 | 5.5 | 28 | 60 | 31.3 | 8 |
| | AR132S/M AR132ML | 230 | 16 | 265 | 5 | | 300 | M12 | | 145 | | | 229 | 72 | 5 | 38 | 80 | 41.3 | 10 |
| | AR160 AR180 | | | | | | | | | | | | | | | | | | |
| F..87 | AR80 | 130 | 12 | 165 | 4.5 | 250 | 200 | M10 | 120 | 122 | 37 | 0 | 19 | 40 | 21.8 | 6 | | | |
| | AR90 | | | | | | 24 | 50 | | 27.3 | | | 8 | | | | | | |
| | AR100 | 180 | 15 | 215 | 5 | | 250 | M12 | 130 | 161.5 | 52 | 5.5 | 28 | 60 | 31.3 | 8 | | | |
| | AR132S/M AR132ML | 230 | 16 | 265 | 5 | | 300 | M12 | 145 | 229 | 72 | 5 | 38 | 80 | 41.3 | 10 | | | |
| | AR160 AR180 | | | | | | | | | | | | | | | | | | |
| | AR160 AR180 | 250 | 18 | 300 | 6 | | 350 | M16 | 165 | 306.5 | 105 | 35 | 42 | 110 | 45.3 | 12 | | | |
| | | | | | | | | | | | | | 48 | 110 | 51.8 | 14 | | | |

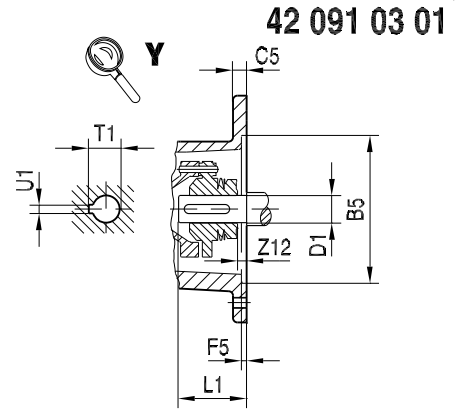
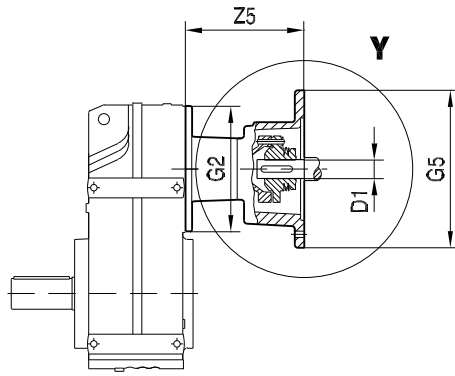
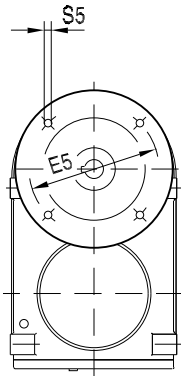
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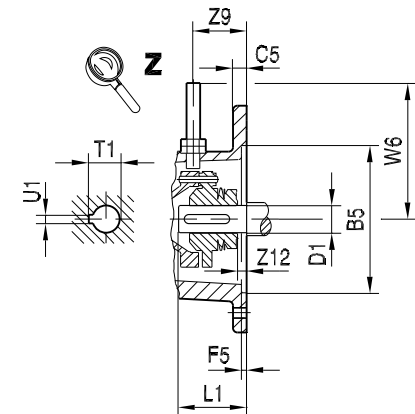
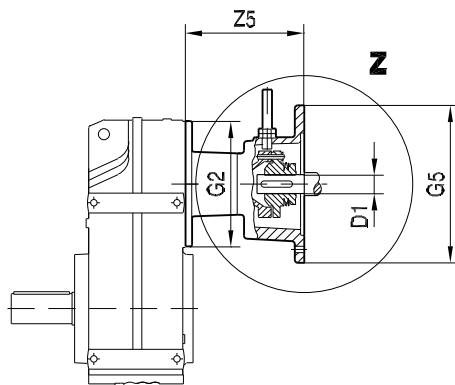
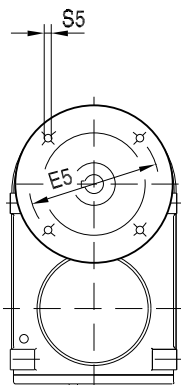
F.. parallel-shaft helical gear units

Dimension sheets for adapters with slip clutch (AR..)

F.. AR..



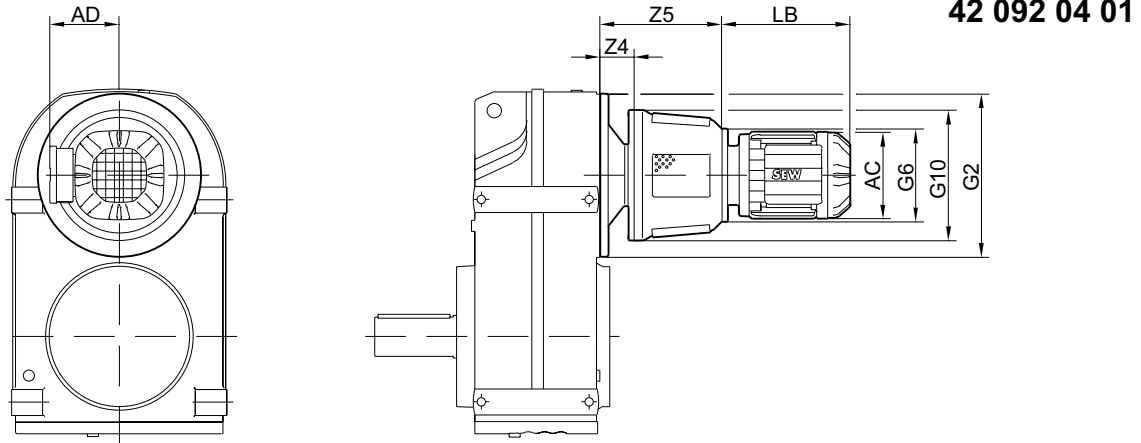
F.. AR../W



| | | B5 | C5 | E5 | F5 | G2 | G5 | S5 | W6 | Z5 | Z9 | Z12 | D1 | L1 | T1 | U1 | |
|--------|----------|-----|------|-----|----|-----|-----|-----|-----|-------|-----|-----|-----|-------|------|------|----|
| F..97 | AR100 | 180 | 15 | 215 | 5 | 300 | 250 | M12 | 130 | 156.5 | 52 | 5.5 | 28 | 60 | 31.3 | 8 | |
| | AR112 | | | | | | | | | | | | | | | | |
| | AR132S/M | 230 | 16 | 265 | 5 | | 300 | 300 | M12 | 145 | 224 | 72 | 5 | 38 | 80 | 41.3 | 10 |
| | AR132ML | | | | | | | | | | | | | | | | |
| | AR160 | | | | | | 250 | 18 | 300 | 6 | 350 | M16 | 165 | 301.5 | 105 | 35 | 42 |
| AR180 | 48 | 110 | 51.8 | 14 | | | | | | | | | | | | | |
| F..107 | AR100 | 180 | 15 | 215 | 5 | 350 | 250 | M12 | 130 | 150.5 | 52 | 5.5 | 28 | 60 | 31.3 | 8 | |
| | AR112 | | | | | | | | | | | | | | | | |
| | AR132S/M | 230 | 16 | 265 | 5 | | 300 | M12 | 145 | 218 | 72 | 5 | 38 | 80 | 41.3 | 10 | |
| | AR132ML | | | | | | | | | | | | | | | | |
| | AR160 | | | | | | 250 | 18 | 300 | 6 | 350 | M16 | 165 | 295.5 | 105 | 35 | 42 |
| AR180 | 48 | 110 | 51.8 | 14 | | | | | | | | | | | | | |
| F..127 | AR132S/M | 230 | 16 | 265 | 5 | 450 | 300 | M12 | 145 | 203 | 72 | 5 | 38 | 80 | 41.3 | 10 | |
| | AR132ML | | | | | | | | | | | | | | | | |
| | AR160 | 250 | 18 | 300 | 6 | | 350 | M16 | 165 | 280.5 | 105 | 35 | 42 | 110 | 45.3 | 12 | |
| | AR180 | | | | | | | | | | | | 48 | 110 | 51.8 | 14 | |
| F..157 | AR160 | 250 | 18 | 300 | 6 | 550 | 350 | M16 | 165 | 272.5 | 105 | 35 | 42 | 110 | 45.3 | 12 | |
| | AR180 | | | | | | | | | | | | 48 | 110 | 51.8 | 14 | |

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9.8 Dimension sheets for adapters with hydraulic start-up coupling (F..AT..)



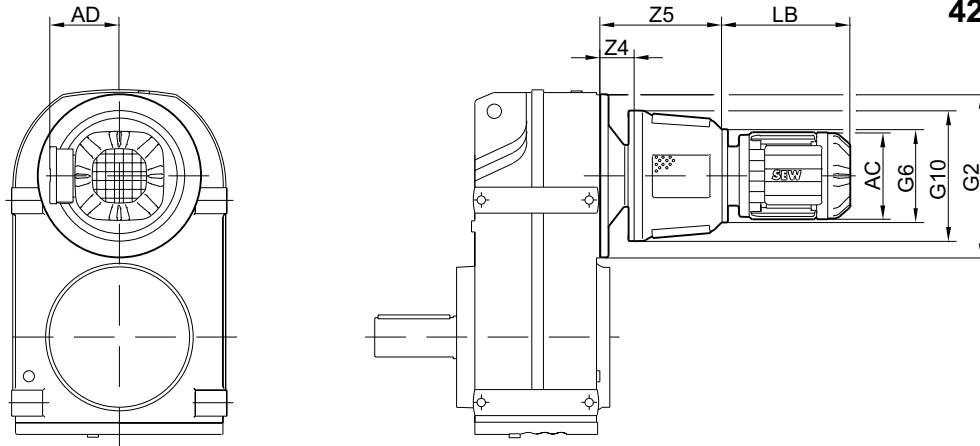
| | | | AC | AD | G6 | G10 | LB | Z4 | Z5 | G2 |
|---------|----------------|----------|-----|-----|-----|-----|-----|-----|-----|-----|
| F67 | AT311 AT312 | DRN71M | 139 | 118 | 200 | 280 | 222 | 97 | 286 | 160 |
| | | DRN80MK | | | | | 241 | | | |
| | | DRN80MS | 156 | 128 | | | 259 | | | |
| | | DRN80M | | | | | 287 | | | |
| | | DRN90S | | | | | 281 | | | |
| | | DRN90L | 179 | 140 | | | 313 | | | |
| | | DRN100LM | 197 | 157 | | | 359 | | | |
| | | DRN112M | 221 | 170 | | | 387 | | | |
| | AT321 AT322 | DRN90L | 179 | 140 | 250 | 350 | 313 | 97 | 333 | |
| | | DRN100LS | | | | | 309 | | | |
| DRN100L | | 197 | 157 | 359 | | | | | | |
| F77 | AT311 AT312 | DRN71M | 139 | 118 | 200 | 280 | 222 | 89 | 278 | 200 |
| | | DRN80MK | | | | | 241 | | | |
| | | DRN80MS | 156 | 128 | | | 259 | | | |
| | | DRN80M | | | | | 287 | | | |
| | | DRN90S | | | | | 281 | | | |
| | | DRM90L | 179 | 140 | | | 313 | | | |
| | | DRN100LM | 197 | 157 | | | 359 | | | |
| | | DRN112M | 221 | 170 | | | 387 | | | |
| | AT321 | DRN132S | 221 | 170 | 250 | 350 | 437 | 93 | 328 | |
| | AT421 AT422 | DRN90L | 179 | 140 | 250 | 350 | 313 | 133 | 368 | |
| | | DRN100LS | | | | | 309 | | | |
| | | DRN100L | 197 | 157 | | | 359 | | | |
| | | DRN112M | | | | | 387 | | | |
| | | DRN132S | 221 | 170 | | | 437 | | | |
| | | | | | | | | | | |

9

F.. parallel-shaft helical gear units

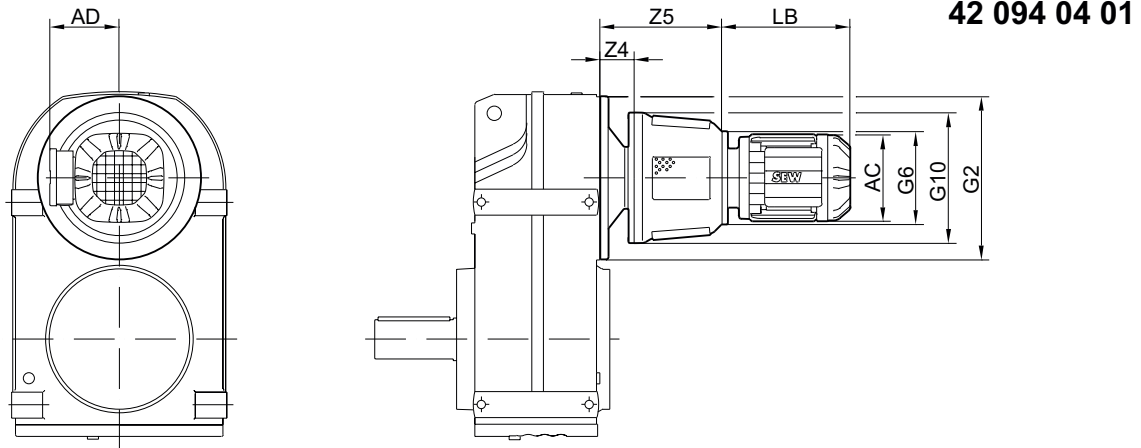
Dimension sheets for adapters with hydraulic start-up coupling (F..AT..)

42 093 04 01



| | | | AC | AD | G6 | G10 | LB | Z4 | Z5 | G2 |
|----------------|----------------|----------------|--------|-----|-----|-----|-----|-----|-----|-----|
| F87 | AT311 AT312 | DRN90S | 179 | 140 | 200 | 280 | 281 | 84 | 273 | 250 |
| | | DRM90L | | | | | 313 | | | |
| | | DRN100LM | 197 | 157 | | | 359 | | | |
| | | DRN112M | 221 | 170 | | | 387 | | | |
| | AT321 | DRN132S | 221 | 170 | 250 | 350 | 437 | 84 | 320 | |
| | AT421 AT422 | DRN90L | 179 | 140 | 250 | 350 | 313 | 128 | 363 | |
| | | DRN100LS | 197 | 157 | | | 309 | | | |
| | | DRN100L | | | | | 359 | | | |
| | | DRN112M | 221 | 170 | | | 387 | | | |
| | | DRN132S | 221 | 170 | | | 437 | | | |
| | AT541 AT542 | DRN132S | 221 | 170 | 350 | 470 | 437 | 159 | 478 | |
| | | DRN132M | 261 | 228 | | | 439 | | | |
| | | DRN132L | | | | | 464 | | | |
| | | DRN160M | 316 | 253 | | | 532 | | | |
| | | DRN160L | | | | | 532 | | | |
| | F97 | AT311 AT312 | DRN90S | 179 | 140 | 200 | 280 | 281 | 79 | |
| DRM90L | | | 313 | | | | | | | |
| DRN100LM | | | 197 | 157 | 359 | | | | | |
| DRN112M | | | 221 | 170 | 387 | | | | | |
| AT321 | | DRN132S | 221 | 170 | 250 | 350 | 437 | 79 | 315 | |
| AT421 AT422 | | DRN90L | 179 | 140 | 250 | 350 | 313 | 123 | 358 | |
| | | DRN100LS | 197 | 157 | | | 309 | | | |
| | | DRN100L | | | | | 359 | | | |
| | | DRN112M | 221 | 170 | | | 387 | | | |
| AT541 AT542 | | DRN132S | 221 | 170 | 350 | 470 | 437 | 154 | 473 | |
| | | DRN132M | 261 | 228 | | | 439 | | | |
| | | DRN132L | | | | | 464 | | | |
| | | DRN160M | 316 | 253 | | | 532 | | | |
| | | DRN160L | | | | | 532 | | | |
| | | DRN180M | 357 | 268 | | | 557 | | | |
| DRN180L | | 557 | | | | | | | | |

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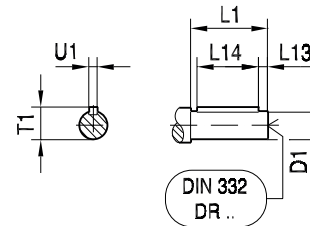
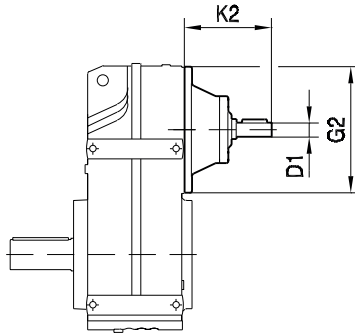
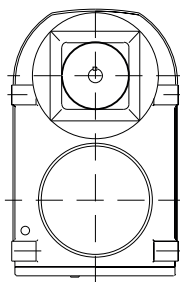


| | | | AC | AD | G6 | G10 | LB | Z4 | Z5 | G2 |
|---------|----------------|----------|-----|-----|-----|-----|-----|-----|-----|-----|
| F107 | AT311 AT312 | DRN100LM | 197 | 157 | 200 | 280 | 359 | 73 | 262 | 350 |
| | | DRN112M | 221 | 170 | | | 387 | | | |
| | AT321 | DRN132S | 221 | 170 | 250 | 350 | 437 | 73 | 309 | |
| | AT421 AT422 | DRN100LS | 197 | 157 | 250 | 350 | 309 | 117 | 352 | |
| | | DRN100L | | | | | 359 | | | |
| | | DRN112M | 221 | 170 | | | 387 | | | |
| | | DRN132S | 437 | | | | | | | |
| | AT541 AT542 | DRN132M | 261 | 228 | 350 | 470 | 439 | 148 | 467 | |
| | | DRN132L | | | | | 464 | | | |
| | | DRN160M | 316 | 253 | | | 532 | | | |
| | | DRN160L | | | | | 532 | | | |
| | | DRN180M | 357 | 268 | | | 557 | | | |
| DRN180L | | 557 | | | | | | | | |
| F127 | AT421 | DRN132S | 221 | 170 | 250 | 350 | 437 | 102 | 337 | |
| | AT541 AT542 | DRN132S | 221 | 170 | | | 437 | | | |
| | | DRN132M | 261 | 228 | 350 | 470 | 439 | 133 | 452 | |
| | | DRN132L | | | | | 464 | | | |
| | | DRN160M | 316 | 253 | | | 532 | | | |
| | | DRN160L | | | | | 532 | | | |
| | | DRN180M | 357 | 268 | | | 557 | | | |
| | | DRN180L | | | | | 557 | | | |
| F157 | AT541 AT542 | DRN160M | 316 | 253 | | | 350 | | | 470 |
| | | DRN160L | | | 532 | | | | | |
| | | DRN180M | 357 | 268 | 557 | | | | | |
| | | DRN180L | | | 557 | | | | | |
| | | DRN180L | | | 557 | | | | | |

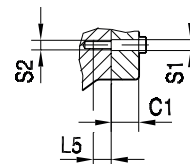
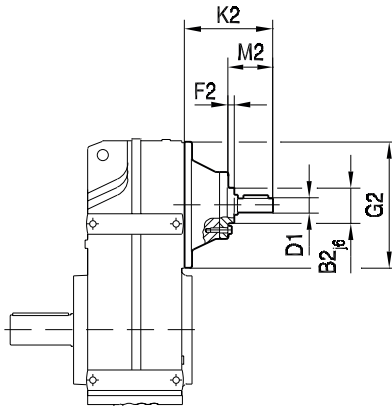
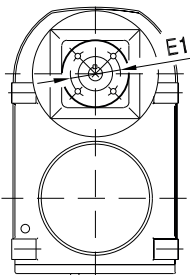
9.9 Dimension sheets for input shaft assembly (AD..)

42 098 01 01

F.. AD..



F.. AD../ZR



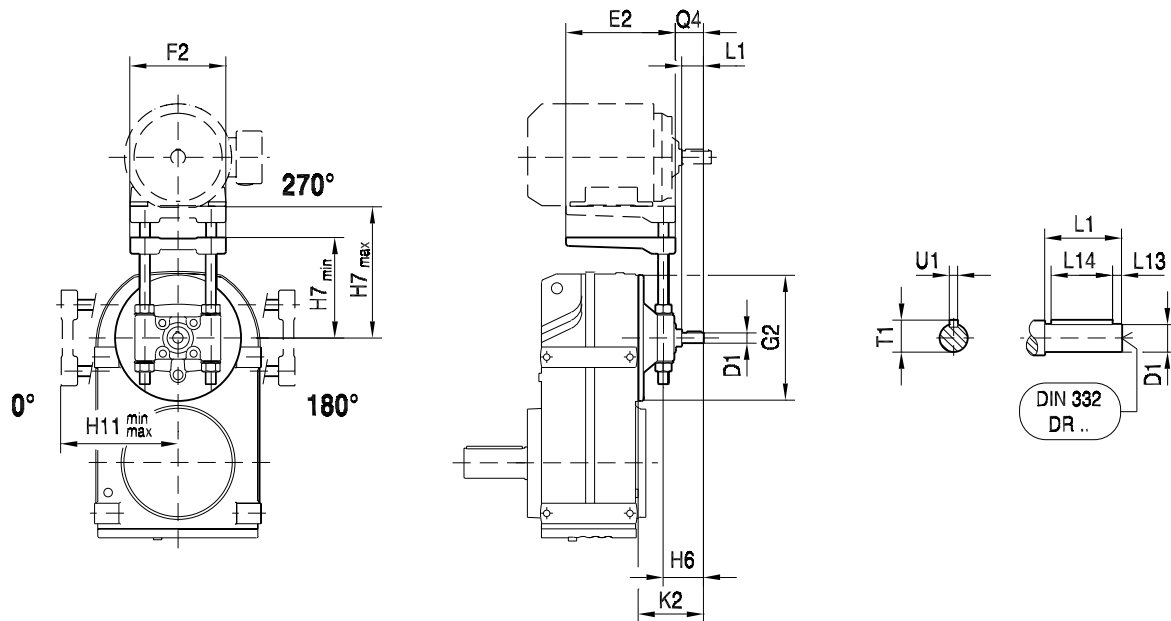
| | | B2 | C1 | E1 | F2 | G2 | K2 | L5 | M2 | S1 | S2 | D1 | L1 | L13 | L14 | T1 | U1 |
|------------------------|-------------|-----|------|-----|----|-----|-----|------|-------|------|-----|----|-----|-----|-----|------|----|
| F..27, F..37, F..47 | AD1 | - | - | - | - | 120 | 102 | - | - | - | - | 16 | 40 | 4 | 32 | 18 | 5 |
| | AD2, AD2/ZR | 55 | 13.5 | 80 | 8 | | 130 | 12 | 50 | 9 | M8 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| F..57 F..67 | AD2, AD2/ZR | 55 | 13.5 | 80 | 8 | 160 | 123 | 12 | 50 | 9 | M8 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| | AD3, AD3/ZR | 70 | 15.5 | 105 | 8 | | 159 | 16 | 60 | 11 | M10 | 24 | 50 | 5 | 40 | 27 | 8 |
| F..77 | AD2, AD2/ZR | 55 | 13.5 | 80 | 8 | 200 | 116 | 12 | 50 | 9 | M8 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| | AD3, AD3/ZR | 70 | 15.5 | 105 | 8 | | 151 | 16 | 60 | 11 | M10 | 24 | 50 | 5 | 40 | 27 | 8 |
| | AD4, AD4/ZR | 100 | 16 | 130 | 13 | | 224 | 20 | 95.5 | 13.5 | M12 | 38 | 80 | 5 | 70 | 41 | 10 |
| F..87 | AD2, AD2/ZR | 55 | 13.5 | 80 | 8 | 250 | 111 | 12 | 50 | 9 | M8 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| | AD3, AD3/ZR | 70 | 15.5 | 105 | 8 | | 156 | 16 | 70 | 11 | M10 | 28 | 60 | 5 | 50 | 31 | 8 |
| | AD4, AD4/ZR | 100 | 16 | 130 | 13 | | 219 | 20 | 95.5 | 13.5 | M12 | 38 | 80 | 5 | 70 | 41 | 10 |
| | AD5, AD5/ZR | 120 | 24 | 180 | 11 | | 292 | 20 | 126 | 13.5 | M12 | 42 | 110 | 10 | 70 | 45 | 12 |
| F..97 | AD3, AD3/ZR | 70 | 15.5 | 105 | 8 | 300 | 151 | 16 | 70 | 11 | M10 | 28 | 60 | 5 | 50 | 31 | 8 |
| | AD4, AD4/ZR | 100 | 16 | 130 | 13 | | 214 | 20 | 95.5 | 13.5 | M12 | 38 | 80 | 5 | 70 | 41 | 10 |
| | AD5, AD5/ZR | 120 | 24 | 180 | 11 | | 287 | 20 | 126 | 13.5 | M12 | 42 | 110 | 10 | 70 | 45 | 12 |
| | AD6, AD6/ZR | 130 | 22.5 | 200 | 11 | | 327 | 26 | 130.5 | 17.5 | M16 | 48 | 110 | 10 | 80 | 51.5 | 14 |
| F..107 | AD3, AD3/ZR | 70 | 15.5 | 105 | 8 | 350 | 145 | 16 | 70 | 11 | M10 | 28 | 60 | 5 | 50 | 31 | 8 |
| | AD4, AD4/ZR | 100 | 16 | 130 | 13 | | 208 | 20 | 95.5 | 13.5 | M12 | 38 | 80 | 5 | 70 | 41 | 10 |
| | AD5, AD5/ZR | 120 | 24 | 180 | 11 | | 281 | 20 | 126 | 13.5 | M12 | 42 | 110 | 10 | 70 | 45 | 12 |
| | AD6, AD6/ZR | 130 | 22.5 | 200 | 11 | | 321 | 26 | 130.5 | 17.5 | M16 | 48 | 110 | 10 | 80 | 51.5 | 14 |
| F..127 | AD4, AD4/ZR | 100 | 16 | 130 | 13 | 450 | 193 | 20 | 95.5 | 13.5 | M12 | 38 | 80 | 5 | 70 | 41 | 10 |
| | AD5, AD5/ZR | 120 | 24 | 180 | 11 | | 266 | 20 | 126 | 13.5 | M12 | 42 | 110 | 10 | 70 | 45 | 12 |
| | AD6, AD6/ZR | 130 | 22.5 | 200 | 11 | | 306 | 26 | 130.5 | 17.5 | M16 | 48 | 110 | 10 | 80 | 51.5 | 14 |
| | AD7, AD7/ZR | 125 | 19 | 190 | 13 | | 300 | 30 | 133 | 22 | M20 | 55 | 110 | 10 | 90 | 59 | 16 |
| | AD8, AD8/ZR | 120 | 22.5 | 210 | 5 | | 383 | 19.5 | 155 | 13.5 | M12 | 70 | 140 | 15 | 110 | 74.5 | 20 |

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| | | B2 | C1 | E1 | F2 | G2 | K2 | L5 | M2 | S1 | S2 | D1 | L1 | L13 | L14 | T1 | U1 |
|--------|-------------|-----|------|-----|----|-----|-----|------|-------|------|-----|----|-----|-----|-----|------|----|
| F..157 | AD5, AD5/ZR | 120 | 24 | 180 | 11 | 550 | 258 | 20 | 126 | 13.5 | M12 | 42 | 110 | 10 | 70 | 45 | 12 |
| | AD6, AD6/ZR | 130 | 22.5 | 200 | 11 | | 298 | 26 | 130.5 | 17.5 | M16 | 48 | 110 | 10 | 80 | 51.5 | 14 |
| | AD7, AD7/ZR | 125 | 19 | 190 | 13 | | 292 | 30 | 133 | 22 | M20 | 55 | 110 | 10 | 90 | 59 | 16 |
| | AD8, AD8/ZR | 120 | 22.5 | 210 | 5 | | 374 | 19.5 | 155 | 13.5 | M12 | 70 | 140 | 15 | 110 | 74.5 | 20 |

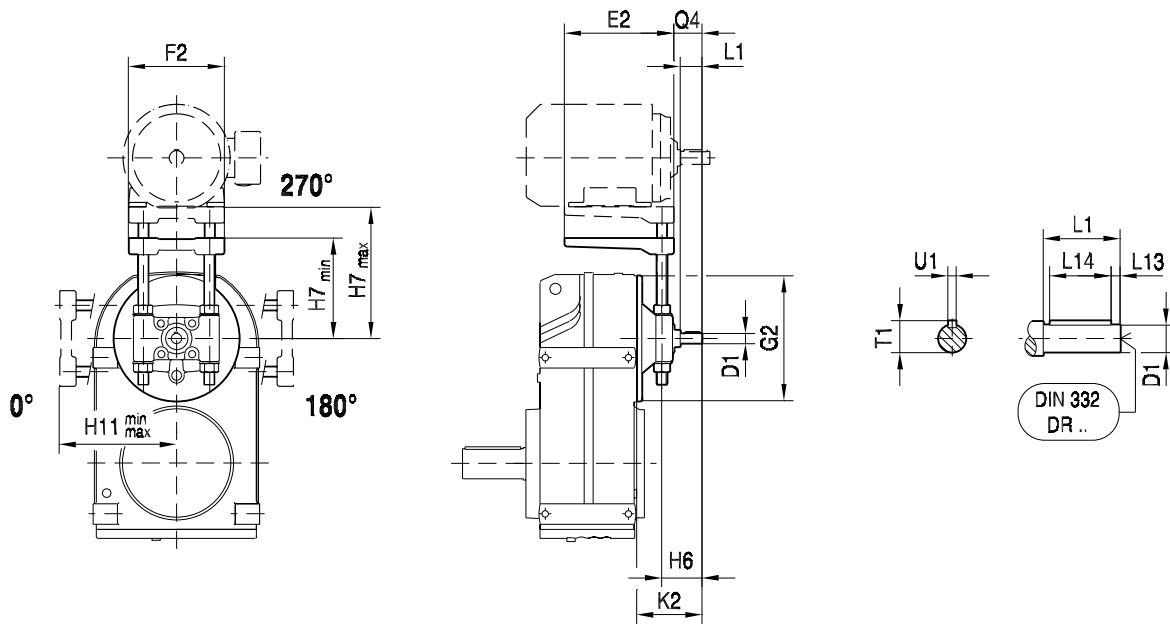
9.10 Dimension sheets for input shaft assembly with motor platform (AD../P)

42 099 01 01



| | | E2 | F2 | G2 | H6 | H7 min | H7 max | H11 min | H11 max | K2 | Q4 | D1 | L1 | L13 | L14 | T1 | U1 |
|--------|-------|-----|-----|-----|-----|--------|--------|---------|---------|-----|-----|----|-----|-----|-----|------|----|
| F..27 | AD2/P | 195 | 180 | 120 | 65 | 100 | 165 | 125 | 165 | 130 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| F..37 | AD2/P | 195 | 180 | 120 | 65 | 100 | 165 | 125 | 165 | 130 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| F..47 | AD2/P | 195 | 180 | 120 | 65 | 105 | 165 | 125 | 165 | 130 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| F..57 | AD2/P | 195 | 180 | 160 | 65 | 125 | 165 | 140 | 200 | 123 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| | AD3/P | 230 | 240 | | 80 | 130 | 175 | 150 | 230 | 159 | 54 | 24 | 50 | 5 | 40 | 27 | 8 |
| F..67 | AD2/P | 195 | 180 | 160 | 65 | 125 | 165 | 145 | 200 | 123 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| | AD3/P | 230 | 240 | | 80 | 130 | 175 | 155 | 230 | 159 | 54 | 24 | 50 | 5 | 40 | 27 | 8 |
| F..77 | AD2/P | 195 | 180 | 200 | 65 | 145 | 200 | 170 | 200 | 116 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| | AD3/P | 230 | 240 | | 80 | 150 | 230 | 175 | 230 | 151 | 54 | 24 | 50 | 5 | 40 | 27 | 8 |
| | AD4/P | 345 | 291 | | 118 | 155 | 210 | 185 | 210 | 224 | 83 | 38 | 80 | 5 | 70 | 41 | 10 |
| F..87 | AD2/P | 195 | 180 | 250 | 65 | 170 | 260 | 205 | 260 | 111 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| | AD3/P | 230 | 240 | | 90 | 175 | 230 | 210 | 320 | 156 | 64 | 28 | 60 | 5 | 50 | 31 | 8 |
| | AD4/P | 345 | 291 | | 118 | 180 | 280 | 215 | 280 | 219 | 83 | 38 | 80 | 5 | 70 | 41 | 10 |
| | AD5/P | 430 | 355 | | 153 | 185 | 250 | 225 | 325 | 292 | 113 | 42 | 110 | 10 | 70 | 45 | 12 |
| F..97 | AD3/P | 230 | 240 | 300 | 90 | 205 | 320 | 240 | 320 | 151 | 64 | 28 | 60 | 5 | 50 | 31 | 8 |
| | AD4/P | 345 | 291 | | 118 | 210 | 280 | 245 | 280 | 214 | 83 | 38 | 80 | 5 | 70 | 41 | 10 |
| | AD5/P | 430 | 355 | | 153 | 215 | 325 | 250 | 325 | 287 | 113 | 42 | 110 | 10 | 70 | 45 | 12 |
| F..107 | AD3/P | 230 | 240 | 350 | 90 | 230 | 320 | 270 | 320 | 145 | 64 | 28 | 60 | 5 | 50 | 31 | 8 |
| | AD4/P | 345 | 291 | | 118 | 240 | 280 | 275 | 360 | 208 | 83 | 38 | 80 | 5 | 70 | 41 | 10 |
| | AD5/P | 430 | 355 | | 153 | 240 | 325 | 280 | 325 | 281 | 113 | 42 | 110 | 10 | 70 | 45 | 12 |
| | AD6/P | 495 | 457 | | 163 | 245 | 310 | 285 | 310 | 321 | 114 | 48 | 110 | 10 | 80 | 51.5 | 14 |

42 101 01 01



| | | E2 | F2 | G2 | H6 | H7 min | H7 max | H11 min | H11 max | K2 | Q4 | D1 | L1 | L13 | L14 | T1 | U1 |
|--------|-------|-----|-----|-----|-----|--------|--------|---------|---------|-----|-----|----|-----|-----|-----|------|----|
| F..127 | AD4/P | 345 | 291 | 450 | 118 | 240 | 280 | 310 | 360 | 193 | 83 | 38 | 80 | 5 | 70 | 41 | 10 |
| | AD5/P | 430 | 355 | | 153 | 295 | 405 | 320 | 405 | 266 | 113 | 42 | 110 | 10 | 70 | 45 | 12 |
| | AD6/P | 495 | 457 | | 163 | 295 | 360 | 310 | 360 | 306 | 114 | 48 | 110 | 10 | 80 | 51.5 | 14 |
| | AD7/P | 650 | 570 | | 170 | 300 | 365 | 310 | 365 | 300 | 112 | 55 | 110 | 10 | 90 | 59 | 16 |
| F..157 | AD5/P | 430 | 355 | 550 | 153 | 345 | 405 | 370 | 405 | 258 | 113 | 42 | 110 | 10 | 70 | 45 | 12 |
| | AD6/P | 495 | 457 | | 163 | 375 | 475 | 380 | 475 | 298 | 114 | 48 | 110 | 10 | 80 | 51.5 | 14 |
| | AD7/P | 650 | 570 | | 170 | 375 | 475 | 385 | 475 | 292 | 112 | 55 | 110 | 10 | 90 | 59 | 16 |

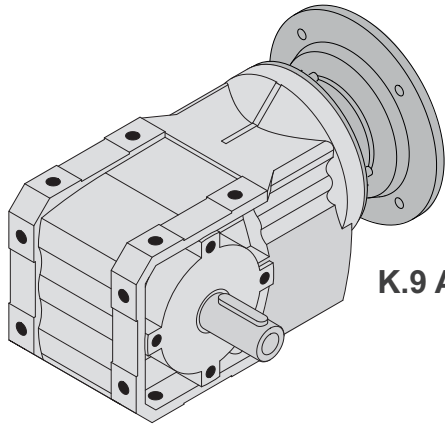
For bore dimensions and weight of the motor platform, refer to the chapter "Bore dimensions and weight" (→ 81).

K.. helical-bevel gear units

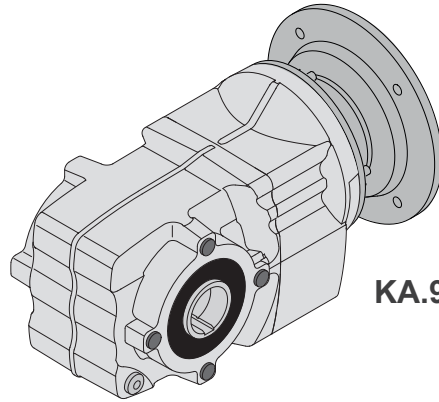
Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

10 K.. helical-bevel gear units

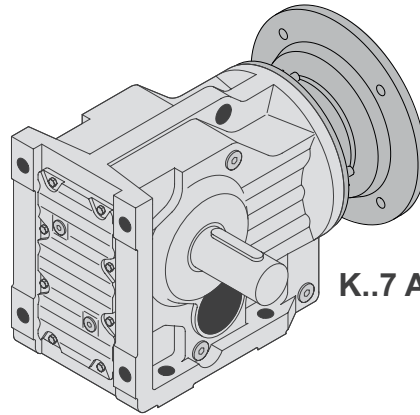
10.1 Selection tables for adapters for mounting IEC/NEMA motors (AMS..)



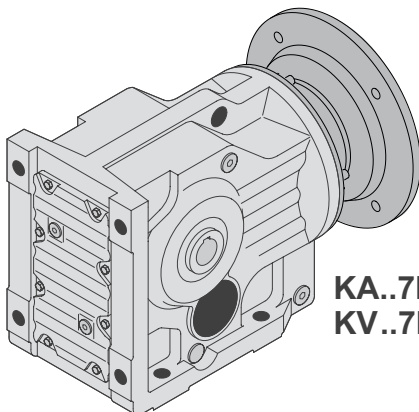
K.9 AMS..



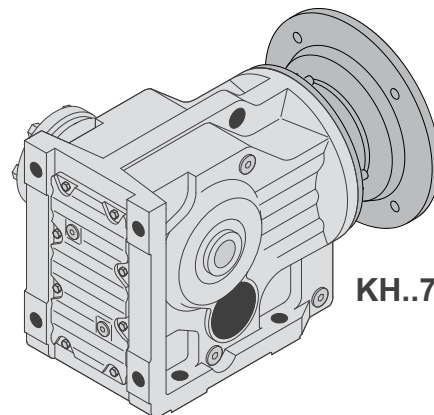
KA.9 AMS..



K..7 AMS..

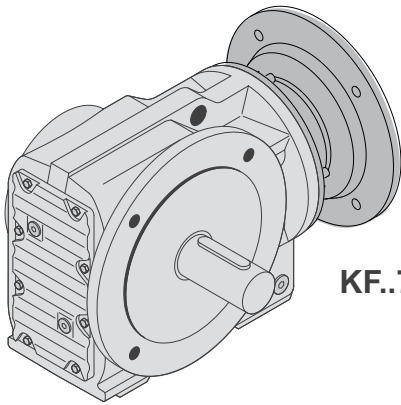


**KA..7B AMS..
KV..7B AMS..**

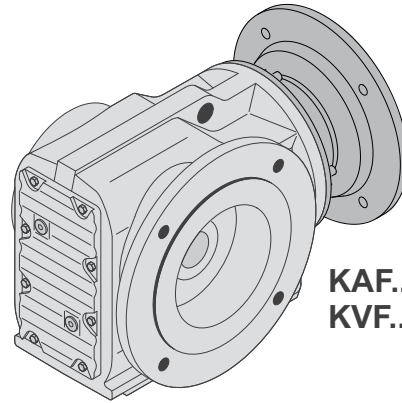


KH..7B AMS..

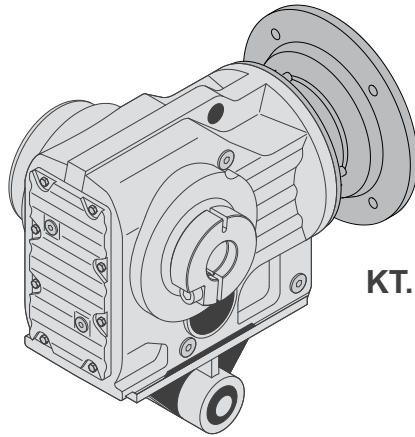
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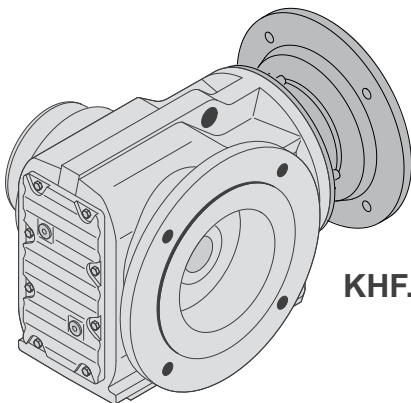
KF..7 AMS..



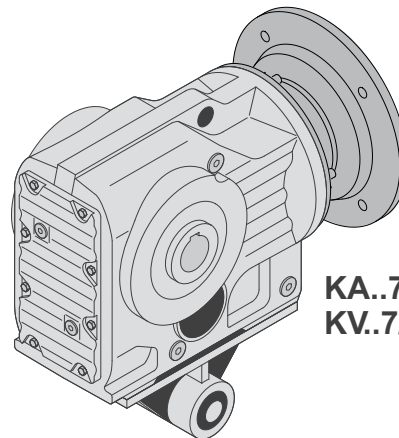
**KAF..7 AMS..
KVF..7 AMS..**



KT..7/T AMS..



KHF..7 AMS..

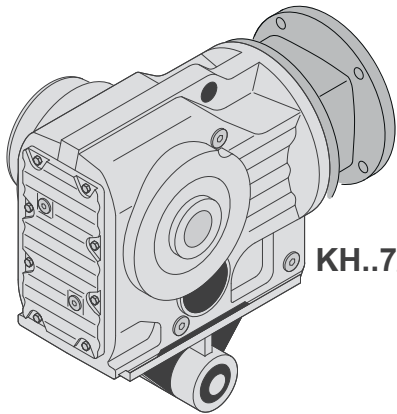


**KA..7/T AMS..
KV..7/T AMS..**

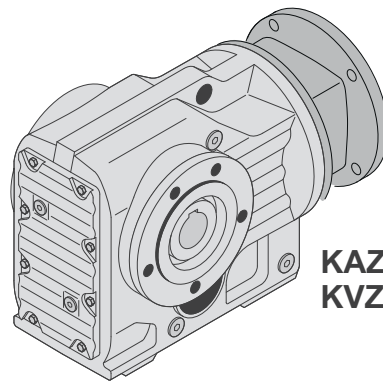
9007220696306827

K.. helical-bevel gear units

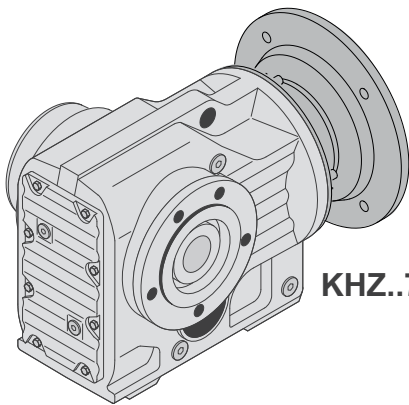
Selection tables for adapters for mounting IEC/NEMA motors (AMS..)



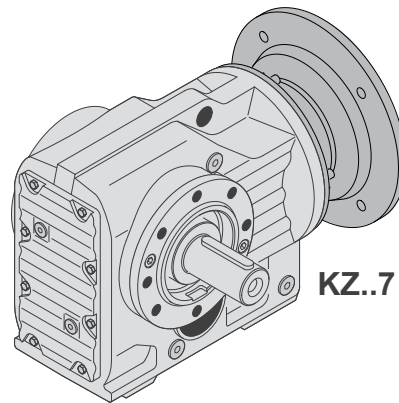
KH..7/T AMS..



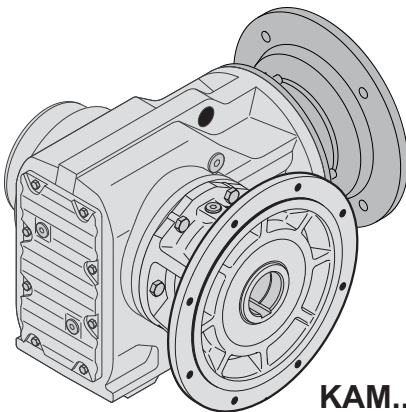
**KAZ..7 AMS..
KVZ..7 AMS..**



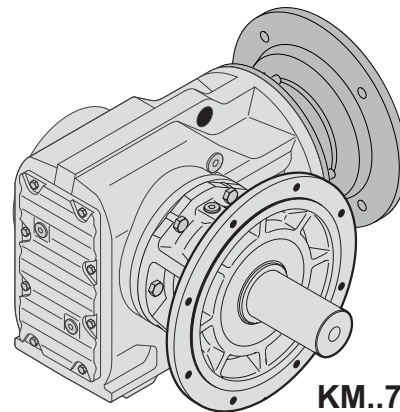
KHZ..7 AMS..



KZ..7 AMS..






KAM..7 AMS..



KM..7 AMS..

9007220696334859


| K19, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 80 Nm | | | |
|---|----------------------------|-----------------------------|---------------------|----------------------|-------|----|----|----|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | AMS | | | |
| | | | | | 63 | 71 | 80 | 90 |
|  2 | | | | | | | | |
| 4.50 | 311 | 80 | 2010 | - | 30 | 30 | 76 | 80 |
| 5.16 | 271 | 80 | 2140 | - | 34 | 34 | 80 | 80 |
| 5.54 | 253 | 80 | 2200 | - | 37 | 37 | 80 | 80 |
| 6.41 | 218 | 80 | 2340 | - | 43 | 43 | 80 | 80 |
| 6.91 | 203 | 80 | 2420 | - | 46 | 46 | 80 | 80 |
| 8.09 | 173 | 80 | 2590 | - | 52 | 52 | 80 | |
| 9.58 | 146 | 63 | 2910 | - | 55 | 55 | | |
| 10.32 | 136 | 76 | 2720 | - | 68 | 68 | 76 | 76 |
| 11.84 | 118 | 79 | 2850 | - | 78 | 78 | 79 | 79 |
| 12.70 | 110 | 80 | 2930 | - | 80 | 80 | 80 | 80 |
| 14.69 | 95 | 80 | 3110 | - | 80 | 80 | 80 | 80 |
| 15.84 | 88 | 80 | 3210 | - | 80 | 80 | 80 | 80 |
| 18.55 | 75 | 80 | 3430 | - | 80 | 80 | 80 | |
| 21.98 | 64 | 80 | 3680 | - | 80 | 80 | | |
| 24.06 | 58 | 80 | 3820 | - | 80 | 80 | | |
| 26.88 | 52 | 80 | 3990 | - | | | | |
| 27.16 | 52 | 60 | 4090 | - | 60 | 60 | 60 | 60 |
| 29.14 | 48 | 80 | 4120 | - | | | | |
| 29.29 | 48 | 61 | 4200 | - | 61 | 61 | 61 | 61 |
| 31.74 | 44 | 80 | 4260 | - | | | | |
| 34.29 | 41 | 64 | 4370 | - | 64 | 64 | 64 | |
| 40.63 | 34 | 67 | 4350 | - | 67 | 67 | | |
| 44.48 | 31 | 69 | 4340 | - | 69 | 69 | | |
| 49.69 | 28 | 70 | 4330 | - | | | | |
| 53.88 | 26 | 70 | 4330 | - | | | | |
| 58.68 | 24 | 70 | 4330 | - | | | | |



| K19, m /kg | | | AMS | | | | |
|------------|------|---|-----|-----|-----|-----|-----|
| K | IEC | s | 63 | 71 | 80 | 90 | |
| | |  2 | | 6.5 | 6.8 | 8.6 | 9.1 |
| | NEMA | s | - | 56 | 143 | 145 | |
| | |  2 | | - | 7.7 | 8.4 | 8.4 |

KF: + 0.30 kg / KA: + -0.45 kg / KAF: + -- kg


K.. helical-bevel gear units



Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| K29, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 130 Nm | | | |
|---|----------------------------|-----------------------------|---------------------|----------------------|--------|-----|-----|-----|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | AMS | | | |
| | | | | | 63 | 71 | 80 | 90 |
|  2 | | | | | | | | |
| 3.19 | 439 | 110 | 1830 | - | 21 | 21 | 59 | 76 |
| 3.92 | 357 | 126 | 1910 | - | 26 | 26 | 69 | 86 |
| 5.10 | 275 | 110 | 2260 | - | 34 | 34 | 85 | 97 |
| 5.75 | 243 | 112 | 2370 | - | 38 | 38 | 92 | 102 |
| 6.95 | 201 | 112 | 2580 | - | 46 | 46 | 105 | 109 |
| 7.48 | 187 | 123 | 2300 | - | 49 | 49 | 123 | 123 |
| 8.53 | 164 | 122 | 2740 | - | 57 | 57 | 114 | 116 |
| 9.17 | 153 | 130 | 2470 | - | 60 | 60 | 130 | 130 |
| 9.90 | 141 | 110 | 3000 | - | 62 | 62 | 110 | |
| 11.94 | 117 | 130 | 2810 | - | 79 | 79 | 130 | 130 |
| 13.47 | 104 | 130 | 2970 | - | 89 | 89 | 130 | 130 |
| 16.29 | 86 | 130 | 3240 | - | 108 | 108 | 130 | 130 |
| 19.99 | 70 | 130 | 3550 | - | 130 | 130 | 130 | 130 |
| 22.08 | 63 | 105 | 3820 | - | 105 | 105 | 105 | 105 |
| 23.19 | 60 | 130 | 3790 | - | 130 | 130 | 130 | |
| 24.91 | 56 | 109 | 3980 | - | 109 | 109 | 109 | 109 |
| 27.23 | 51 | 130 | 4060 | - | 130 | 130 | | |
| 29.69 | 47 | 130 | 4210 | - | 130 | 130 | | |
| 30.11 | 46 | 115 | 4250 | - | 115 | 115 | 115 | 115 |
| 33.15 | 42 | 130 | 4410 | - | | | | |
| 35.83 | 39 | 130 | 4560 | - | | | | |
| 36.96 | 38 | 122 | 4560 | - | 122 | 122 | 122 | 122 |
| 38.90 | 36 | 130 | 4720 | - | | | | |
| 42.87 | 33 | 128 | 4790 | - | 128 | 128 | 128 | |
| 50.35 | 28 | 130 | 4980 | - | 130 | 130 | | |
| 54.89 | 26 | 130 | 4980 | - | 130 | 130 | | |
| 61.28 | 23 | 130 | 4980 | - | | | | |
| 66.25 | 21 | 130 | 4980 | - | | | | |
| 71.93 | 19 | 130 | 4980 | - | | | | |

| K29, m /kg | | | AMS | | | | |
|------------|------|---|-----|-----|-----|-----|----|
| K | IEC | s | 63 | 71 | 80 | 90 | |
| | |  2 | | 8.3 | 8.6 | 10 | 11 |
| | NEMA | s | - | 56 | 143 | 145 | |
| | |  2 | | - | 9.5 | 10 | 10 |

KF: + 1.0 kg / KA: + -0.45 kg / KAF: + 0.35 kg


| K37, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 200 Nm | | | |
|---|----------------------------|-----------------------------|--------------------|-------------------|--------|-----|-----|-----|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | F_{Ra}^{-1} N | $\Phi_{(R)}$ ' | AMS | | | |
| | | | | | 63 | 71 | 80 | 90 |
|  3 | | | | | | | | |
| 3.98 | 352 | 125 | 1660 | 13 | 25 | 25 | 73 | 95 |
| 5.36 | 261 | 140 | 1810 | 13 | 35 | 35 | 98 | 129 |
| 6.37 | 220 | 145 | 1950 | 13 | 41 | 41 | 117 | 145 |
| 6.80 | 206 | 150 | 1980 | 13 | 44 | 44 | 125 | 150 |
| 7.96 | 176 | 155 | 2110 | 13 | 52 | 52 | 146 | 155 |
| 8.91 | 157 | 160 | 2200 | 12 | 59 | 59 | 160 | 160 |
| 10.49 | 133 | 160 | 2410 | 12 | 69 | 69 | 160 | 160 |
| 12.14 | 115 | 160 | 2600 | 12 | 80 | 80 | 160 | 160 |
| 13.08 | 107 | 165 | 2650 | 9 | 86 | 86 | 165 | 165 |
| 15.31 | 91 | 175 | 2780 | 8 | 101 | 101 | 175 | 175 |
| 17.15 | 82 | 180 | 2900 | 8 | 113 | 113 | 180 | 180 |
| 20.19 | 69 | 185 | 3110 | 8 | 134 | 134 | 185 | 185 |
| 23.36 | 60 | 195 | 3260 | 8 | 155 | 155 | 195 | 195 |
| 24.99 | 56 | 200 | 3330 | 8 | 166 | 166 | 200 | 200 |
| 28.83 | 49 | 200 | 3580 | 8 | 191 | 191 | 200 | |
| 29.96 | 47 | 200 | 3650 | 7 | 194 | 194 | 200 | 200 |
| 35.57 | 39 | 200 | 3970 | 7 | 200 | 200 | 200 | 200 |
| 37.97 | 37 | 200 | 4100 | 7 | 200 | 200 | 200 | 200 |
| 44.46 | 31 | 200 | 4420 | 7 | 200 | 200 | 200 | 200 |
| 49.79 | 28 | 200 | 4660 | 7 | 200 | 200 | 200 | 200 |
| 58.60 | 24 | 200 | 5020 | 7 | 200 | 200 | 200 | 200 |
| 67.80 | 21 | 200 | 5360 | 7 | 200 | 200 | 200 | 200 |
| 72.54 | 19 | 200 | 5520 | 7 | 200 | 200 | 200 | 200 |
| 83.69 | 17 | 200 | 5640 | 7 | 200 | 200 | 200 | |
| 97.81 | 14 | 200 | 5640 | 7 | 200 | 200 | | |
| 106.38 | 13 | 200 | 5640 | 7 | 200 | 200 | | |



| K37, m /kg | | | AMS | | | | |
|------------|------|---|-----|----|-----|-----|----|
| K | IEC | s | 63 | 71 | 80 | 90 | |
| | |  | 3 | 14 | 14 | 16 | 17 |
| | NEMA | s | - | 56 | 143 | 145 | |
| | |  | 3 | - | 15 | 16 | 16 |

KF: + 2.3 kg / KA: + -0.25 kg / KAF: + 1.5 kg


K.. helical-bevel gear units



Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| K39, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 300 Nm | | | | | |
|---|----------------------------|-----------------------------|---------------------|----------------------|--------|-----|-----|-----|-----|-----|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | AMS | | | | | |
| | | | | | 63 | 71 | 80 | 90 | 100 | 112 |
|  2 | | | | | | | | | | |
| 2.81 | 498 | 170 | 2870 | - | | | 50 | 66 | 131 | 164 |
| 3.94 | 355 | 215 | 3070 | - | | | 71 | 93 | 174 | 215 |
| 4.52 | 310 | 240 | 3130 | - | 28 | 28 | 82 | 107 | 194 | 240 |
| 5.22 | 268 | 260 | 3240 | - | 33 | 33 | 94 | 124 | 215 | 260 |
| 5.75 | 243 | 275 | 3300 | - | 36 | 36 | 104 | 137 | 230 | 275 |
| 6.75 | 207 | 300 | 3430 | - | 43 | 43 | 123 | 149 | 260 | 300 |
| 7.15 | 196 | 300 | 3530 | - | 46 | 46 | 129 | 151 | 270 | 300 |
| 8.12 | 172 | 300 | 3760 | - | 52 | 52 | 141 | 156 | 290 | 300 |
| 9.00 | 156 | 300 | 3950 | - | 58 | 58 | 151 | 161 | 300 | 300 |
| 10.61 | 132 | 285 | 4360 | - | 69 | 69 | 164 | 168 | 280 | |
| 12.09 | 116 | 255 | 4790 | - | 79 | 79 | 171 | 175 | | |
| 12.73 | 110 | 250 | 4930 | - | 83 | 83 | 171 | 175 | | |
| 13.44 | 104 | 270 | 4160 | - | | | 230 | 270 | 270 | 270 |
| 15.44 | 91 | 280 | 4380 | - | 94 | 94 | 265 | 280 | 280 | 280 |
| 17.83 | 79 | 290 | 4630 | - | 109 | 109 | 290 | 290 | 290 | 290 |
| 19.62 | 71 | 295 | 4820 | - | 121 | 121 | 295 | 295 | 295 | 295 |
| 23.04 | 61 | 300 | 5180 | - | 143 | 143 | 300 | 300 | 300 | 300 |
| 24.40 | 57 | 300 | 5330 | - | 152 | 152 | 300 | 300 | 300 | 300 |
| 27.73 | 50 | 300 | 5670 | - | 173 | 173 | 300 | 300 | 300 | 300 |
| 30.72 | 46 | 300 | 5960 | - | 193 | 193 | 300 | 300 | 300 | 300 |
| 36.22 | 39 | 300 | 6440 | - | 225 | 225 | 300 | 300 | 300 | |
| 41.28 | 34 | 300 | 6840 | - | 260 | 260 | 300 | 300 | | |
| 43.45 | 32 | 300 | 7000 | - | 275 | 275 | 300 | 300 | | |
| 49.69 | 28 | 300 | 7440 | - | 300 | 300 | 300 | | | |
| 58.24 | 24 | 300 | 7500 | - | 300 | 300 | | | | |

| K39, m /kg | | | AMS | | | | | | |
|------------|------|---|-----|----|-----|-----|-----|-----|----|
| K | IEC | s | 63 | 71 | 80 | 90 | 100 | 112 | |
| | |  2 | | 20 | 20 | 22 | 23 | 27 | 27 |
| | NEMA | s | - | 56 | 143 | 145 | 182 | 184 | |
| | |  2 | | - | 21 | 22 | 22 | 25 | 25 |

KF: + 1.5 kg / KA: + -1.0 kg / KAF: + 0.50 kg


| K47, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 400 Nm | | | | | |
|---|----------------------------|-----------------------------|--------------------|-------------------|--------|-----|-----|-----|-----|-----|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | F_{Ra}^{-1} N | $\Phi_{(R)}$ ' | AMS | | | | | |
| | | | | | 63 | 71 | 80 | 90 | 100 | 112 |
|  3 | | | | | | | | | | |
| 4.64 | 302 | 205 | 2980 | 12 | | | 84 | 111 | 205 | 205 |
| 5.81 | 241 | 230 | 3140 | 12 | 37 | 37 | 106 | 139 | 230 | 230 |
| 6.58 | 213 | 240 | 3270 | 12 | 43 | 43 | 120 | 158 | 240 | 240 |
| 7.36 | 190 | 250 | 3380 | 11 | 48 | 48 | 135 | 177 | 250 | 250 |
| 8.56 | 164 | 270 | 3500 | 11 | 56 | 56 | 157 | 200 | 270 | 270 |
| 9.10 | 154 | 280 | 3540 | 11 | 59 | 59 | 167 | 205 | 280 | 280 |
| 10.56 | 133 | 280 | 3830 | 11 | 69 | 69 | 194 | 215 | 280 | 280 |
| 11.77 | 119 | 280 | 4060 | 10 | 77 | 77 | 215 | 220 | 280 | 280 |
| 12.19 | 115 | 350 | 3720 | 8 | 79 | 79 | 220 | 290 | 350 | 350 |
| 13.65 | 103 | 360 | 3890 | 8 | 89 | 89 | 250 | 325 | 360 | 360 |
| 15.86 | 88 | 380 | 4080 | 8 | 104 | 104 | 290 | 370 | 380 | 380 |
| 16.86 | 83 | 380 | 4220 | 8 | 111 | 111 | 310 | 380 | 380 | 380 |
| 19.58 | 72 | 400 | 4440 | 8 | 129 | 129 | 360 | 400 | 400 | 400 |
| 21.81 | 64 | 400 | 4710 | 8 | 144 | 144 | 400 | 400 | 400 | 400 |
| 24.06 | 58 | 400 | 4970 | 8 | 159 | 159 | 400 | 400 | | |
| 25.91 | 54 | 400 | 5170 | 8 | 171 | 171 | 400 | 400 | 400 | |
| 29.32 | 48 | 400 | 5520 | 8 | 193 | 193 | 400 | 400 | | |
| 31.30 | 45 | 400 | 5700 | 7 | 205 | 205 | 400 | 400 | | |
| 35.39 | 40 | 400 | 5920 | 7 | 225 | 225 | 400 | 400 | 400 | 400 |
| 39.61 | 35 | 400 | 5920 | 7 | 255 | 255 | 400 | 400 | 400 | 400 |
| 46.03 | 30 | 400 | 5920 | 7 | 295 | 295 | 400 | 400 | 400 | 400 |
| 48.95 | 29 | 400 | 5920 | 7 | 315 | 315 | 400 | 400 | 400 | 400 |
| 56.83 | 25 | 400 | 5920 | 7 | 370 | 370 | 400 | 400 | 400 | 400 |
| 63.30 | 22 | 400 | 5920 | 6 | 400 | 400 | 400 | 400 | 400 | 400 |
| 69.84 | 20 | 400 | 5920 | 6 | 400 | 400 | 400 | 400 | | |
| 75.20 | 19 | 400 | 5920 | 6 | 400 | 400 | 400 | 400 | 400 | |
| 85.12 | 16 | 400 | 5920 | 6 | 400 | 400 | 400 | 400 | | |
| 90.86 | 15 | 400 | 5920 | 6 | 400 | 400 | 400 | 400 | | |
| 104.37 | 13 | 400 | 5920 | 6 | 400 | 400 | 400 | | | |
| 121.48 | 12 | 400 | 5920 | 6 | 400 | 400 | | | | |
| 131.87 | 11 | 400 | 5920 | 6 | 400 | 400 | | | | |



| K47, m / kg | | AMS | | | | | | | |
|-------------|---|---|----|----|-----|-----|-----|-----|----|
| K | IEC | s | 63 | 71 | 80 | 90 | 100 | 112 | |
| | |  | 3 | 21 | 21 | 23 | 24 | 28 | 28 |
| | NEMA | s | - | 56 | 143 | 145 | 182 | 184 | |
| |  | 3 | - | 22 | 23 | 23 | 27 | 27 | |

KF: + 3.2 kg / KA: + -0.85 kg / KAF: + 2.0 kg


K.. helical-bevel gear units



Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| K49, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 500 Nm | | | | | | |
|---|----------------------------|-----------------------------|--------------------|----------------------|--------|-----|-----|-----|-----|-----|--------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{1)}$ N | $\varphi_{(R)}$ ' | AMS | | | | | | |
| | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M |
|  2 | | | | | | | | | | | |
| 4.00 | 350 | 440 | 3110 | - | | | 71 | 94 | 195 | 230 | 435 |
| 4.69 | 299 | 465 | 3270 | - | | | 84 | 111 | 220 | 275 | 465 |
| 5.29 | 265 | 485 | 3400 | - | | | 95 | 125 | 245 | 310 | 485 |
| 5.99 | 234 | 500 | 3570 | - | 38 | 38 | 108 | 142 | 270 | 350 | 500 |
| 6.83 | 205 | 500 | 3840 | - | 43 | 43 | 124 | 163 | 300 | 370 | 500 |
| 7.58 | 185 | 500 | 4050 | - | 48 | 48 | 138 | 181 | 325 | 390 | 500 |
| 8.66 | 162 | 500 | 4340 | - | 56 | 56 | 158 | 194 | 355 | 405 | 500 |
| 9.14 | 153 | 500 | 4460 | - | 59 | 59 | 167 | 197 | 370 | 410 | 500 |
| 10.42 | 134 | 480 | 4860 | - | 68 | 68 | 190 | 200 | 400 | 425 | |
| 11.37 | 123 | 495 | 5000 | - | 74 | 74 | 200 | 205 | 420 | 430 | |
| 13.38 | 105 | 470 | 4320 | - | | | 230 | 300 | 470 | 470 | 470 |
| 15.67 | 89 | 490 | 4590 | - | | | 270 | 355 | 490 | 490 | 490 |
| 17.67 | 79 | 500 | 4860 | - | | | 305 | 400 | 500 | 500 | 500 |
| 20.03 | 70 | 500 | 5220 | - | 122 | 122 | 350 | 460 | 500 | 500 | 500 |
| 22.83 | 61 | 500 | 5610 | - | 141 | 141 | 400 | 500 | 500 | 500 | 500 |
| 25.34 | 55 | 500 | 5940 | - | 157 | 157 | 445 | 500 | 500 | 500 | 500 |
| 28.95 | 48 | 500 | 6370 | - | 181 | 181 | 500 | 500 | 500 | 500 | 500 |
| 30.55 | 46 | 500 | 6550 | - | 191 | 191 | 500 | 500 | 500 | 500 | 500 |
| 34.81 | 40 | 500 | 7000 | - | 215 | 215 | 500 | 500 | 500 | 500 | |
| 37.98 | 37 | 500 | 7310 | - | 235 | 235 | 500 | 500 | 500 | 500 | |
| 44.44 | 32 | 500 | 7900 | - | 280 | 280 | 500 | 500 | 500 | | |
| 50.29 | 28 | 500 | 8380 | - | 315 | 315 | 500 | 500 | | | |
| 52.94 | 26 | 500 | 8590 | - | 330 | 330 | 500 | 500 | | | |
| 60.27 | 23 | 500 | 9000 | - | 375 | 375 | 500 | | | | |
| 70.19 | 20 | 445 | 9000 | - | 385 | 385 | | | | | |
| 75.20 | 19 | 475 | 9000 | - | 385 | 385 | | | | | |

| K49, m /kg | | | AMS | | | | | | |
|------------|------|---|-----|----|-----|-----|-----|-----|---------|
| K | IEC | s | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M |
| | |  2 | 32 | 32 | 34 | 35 | 39 | 39 | 44 |
| | NEMA | s | - | 56 | 143 | 145 | 182 | 184 | 213/215 |
| | |  2 | - | 33 | 34 | 34 | 38 | 38 | 41 |

KF: + 1.7 kg / KA: + -2.8 kg / KAF: + 2.1 kg


| K57, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 600 Nm | | | | | | |
|---|----------------------------|-----------------------------|---------------------|-------------------|--------|-----|-----|-----|-----|-----|--------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\Phi_{(R)}$ ' | AMS | | | | | | |
| | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M |
|  3 | | | | | | | | | | | |
| 4.69 | 299 | 300 | 3800 | 11 | | | 85 | 111 | 225 | 275 | 300 |
| 6.57 | 213 | 345 | 4180 | 10 | | | 119 | 157 | 300 | 345 | 345 |
| 7.55 | 185 | 365 | 4360 | 10 | 48 | 48 | 137 | 180 | 340 | 365 | 365 |
| 8.71 | 161 | 390 | 4520 | 10 | 56 | 56 | 159 | 205 | 375 | 390 | 390 |
| 9.59 | 146 | 405 | 4650 | 10 | 62 | 62 | 175 | 230 | 405 | 405 | 405 |
| 11.26 | 124 | 415 | 4990 | 9 | 73 | 73 | 205 | 250 | 415 | 415 | 415 |
| 11.92 | 117 | 415 | 5150 | 9 | 77 | 77 | 215 | 255 | 415 | 415 | 415 |
| 13.25 | 106 | 510 | 5190 | 7 | | | 240 | 315 | 510 | 510 | 510 |
| 15.22 | 92 | 535 | 5430 | 7 | 97 | 97 | 275 | 360 | 535 | 535 | 535 |
| 17.57 | 80 | 555 | 5740 | 7 | 113 | 113 | 320 | 420 | 555 | 555 | 555 |
| 19.34 | 72 | 575 | 5910 | 7 | 125 | 125 | 350 | 460 | 575 | 575 | 575 |
| 22.71 | 62 | 600 | 6280 | 7 | 148 | 148 | 415 | 510 | 600 | 600 | 600 |
| 24.05 | 58 | 600 | 6480 | 7 | 157 | 157 | 440 | 520 | 600 | 600 | 600 |
| 27.34 | 51 | 600 | 6930 | 7 | 179 | 179 | 500 | 535 | 600 | 600 | |
| 30.28 | 46 | 600 | 7300 | 7 | 198 | 198 | 535 | 550 | 600 | 600 | |
| 35.70 | 39 | 600 | 7630 | 7 | 230 | 230 | 560 | 575 | 600 | | |
| 38.49 | 36 | 600 | 7630 | 6 | 240 | 240 | 600 | 600 | 600 | 600 | 600 |
| 44.43 | 32 | 600 | 7630 | 6 | 280 | 280 | 600 | 600 | 600 | 600 | 600 |
| 48.89 | 29 | 600 | 7630 | 6 | 310 | 310 | 600 | 600 | 600 | 600 | 600 |
| 57.42 | 24 | 600 | 7630 | 6 | 370 | 370 | 600 | 600 | 600 | 600 | 600 |
| 60.81 | 23 | 600 | 7630 | 6 | 390 | 390 | 600 | 600 | 600 | 600 | 600 |
| 69.12 | 20 | 600 | 7630 | 6 | 445 | 445 | 600 | 600 | 600 | 600 | |
| 76.56 | 18 | 600 | 7630 | 6 | 495 | 495 | 600 | 600 | 600 | 600 | |
| 90.26 | 16 | 600 | 7630 | 6 | 585 | 585 | 600 | 600 | 600 | | |
| 102.88 | 14 | 600 | 7630 | 6 | 600 | 600 | 600 | 600 | | | |
| 108.29 | 13 | 600 | 7630 | 6 | 600 | 600 | 600 | 600 | | | |
| 123.85 | 11 | 600 | 7630 | 6 | 600 | 600 | 600 | | | | |
| 145.14 | 9.6 | 600 | 7630 | 6 | 600 | 600 | | | | | |



| K57, m /kg | | AMS | | | | | | | | |
|------------|---|---|----|----|-----|-----|-----|-----|---------|----|
| K | IEC | s | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M | |
| | |  | 3 | 27 | 27 | 29 | 30 | 34 | 34 | 39 |
| | NEMA | s | - | 56 | 143 | 145 | 182 | 184 | 213/215 | |
| |  | 3 | - | 28 | 29 | 29 | 32 | 32 | 36 | |

KF: + 4.7 kg / KA: + -2.1 kg / KAF: + 3.6 kg


K.. helical-bevel gear units



Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| K67, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | | | | | | | 820 Nm |
|---|----------------------------|-----------------------------|---------------------|-------------------|-----|-----|-----|-----|-----|-----|--------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\Phi_{(R)}$ ' | AMS | | | | | | |
| | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M |
|  3 | | | | | | | | | | | |
| 5.20 | 269 | 350 | 9860 | 10 | | | 94 | 123 | 250 | 305 | 350 |
| 7.28 | 192 | 420 | 10700 | 9 | | | 132 | 174 | 335 | 420 | 420 |
| 8.37 | 167 | 440 | 11100 | 9 | 53 | 53 | 152 | 200 | 375 | 440 | 440 |
| 9.66 | 145 | 480 | 11500 | 9 | 62 | 62 | 176 | 230 | 420 | 480 | 480 |
| 10.63 | 132 | 500 | 11800 | 9 | 68 | 68 | 194 | 255 | 455 | 500 | 500 |
| 12.48 | 112 | 530 | 12300 | 9 | 81 | 81 | 225 | 280 | 510 | 530 | 530 |
| 13.22 | 106 | 670 | 11500 | 8 | | | 240 | 315 | 615 | 670 | 670 |
| 15.19 | 92 | 700 | 11300 | 8 | 97 | 97 | 275 | 360 | 685 | 700 | 700 |
| 17.54 | 80 | 740 | 11000 | 7 | 113 | 113 | 320 | 420 | 740 | 740 | 740 |
| 19.30 | 73 | 760 | 10800 | 7 | 125 | 125 | 350 | 460 | 760 | 760 | 760 |
| 22.66 | 62 | 780 | 10700 | 7 | 147 | 147 | 415 | 510 | 780 | 780 | 780 |
| 24.00 | 58 | 800 | 10500 | 7 | 156 | 156 | 440 | 520 | 800 | 800 | 800 |
| 27.28 | 51 | 820 | 10300 | 7 | 178 | 178 | 500 | 535 | 820 | 820 | |
| 30.22 | 46 | 820 | 10300 | 7 | 198 | 198 | 540 | 550 | 820 | 820 | |
| 35.62 | 39 | 820 | 10300 | 7 | 230 | 230 | 565 | 575 | 820 | | |
| 38.39 | 36 | 800 | 10500 | 6 | 240 | 240 | 690 | 800 | 800 | 800 | 800 |
| 44.32 | 32 | 820 | 10300 | 6 | 280 | 280 | 800 | 820 | 820 | 820 | 820 |
| 48.77 | 29 | 820 | 10300 | 6 | 310 | 310 | 820 | 820 | 820 | 820 | 820 |
| 57.28 | 24 | 820 | 10300 | 6 | 365 | 365 | 820 | 820 | 820 | 820 | 820 |
| 60.66 | 23 | 820 | 10300 | 6 | 390 | 390 | 820 | 820 | 820 | 820 | 820 |
| 68.95 | 20 | 820 | 10300 | 6 | 445 | 445 | 820 | 820 | 820 | 820 | |
| 76.37 | 18 | 820 | 10300 | 6 | 495 | 495 | 820 | 820 | 820 | 820 | |
| 90.04 | 16 | 820 | 10300 | 6 | 585 | 585 | 820 | 820 | 820 | | |
| 102.62 | 14 | 820 | 10300 | 6 | 665 | 665 | 820 | 820 | | | |
| 108.03 | 13 | 820 | 10300 | 6 | 700 | 700 | 820 | 820 | | | |
| 123.54 | 11 | 820 | 10300 | 6 | 800 | 800 | 820 | | | | |
| 144.79 | 9.7 | 820 | 10300 | 6 | 820 | 820 | | | | | |

| K67, m /kg | | | AMS | | | | | | |
|------------|------|---|-----|----|-----|-----|-----|-----|---------|
| K | IEC | s | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M |
| | |  3 | 32 | 33 | 35 | 35 | 40 | 40 | 44 |
| | NEMA | s | - | 56 | 143 | 145 | 182 | 184 | 213/215 |
| | |  3 | - | 34 | 35 | 35 | 38 | 38 | 42 |

KF: + 5.6 kg / KA: + -2.7 kg / KAF: + 3.0 kg


| K77, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | AMS | | | | | | | | 1550 Nm |
|--|----------------------------|-----------------------------|--------------------|-------------------|------|------|------|------|------|------|--------|-------|---------|
| i | n_a min ⁻¹ | $M_{a \text{ max G}}$ Nm | F_{Ra}^{-1} N | $\Phi_{(R)}$ ' | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M | 132ML | |
|  3 | | | | | | | | | | | | | |
| 7.24 | 193 | 820 | 13100 | 8 | | | 130 | 171 | 365 | 425 | 790 | 820 | |
| 8.48 | 165 | 890 | 13500 | 8 | | | 153 | 200 | 420 | 495 | 890 | 890 | |
| 9.56 | 146 | 940 | 13900 | 8 | | | 173 | 225 | 465 | 560 | 940 | 940 | |
| 10.84 | 129 | 990 | 14400 | 8 | 68 | 68 | 196 | 255 | 520 | 635 | 990 | 990 | |
| 12.36 | 113 | 1000 | 15100 | 8 | 78 | 78 | 225 | 295 | 575 | 690 | 1000 | 1000 | |
| 13.52 | 104 | 1340 | 14800 | 7 | | | 240 | 320 | 685 | 795 | 1340 | 1340 | |
| 15.84 | 88 | 1400 | 15500 | 6 | | | 285 | 375 | 790 | 930 | 1400 | 1400 | |
| 17.87 | 78 | 1450 | 16100 | 6 | | | 320 | 425 | 870 | 1050 | 1450 | 1450 | |
| 20.25 | 69 | 1500 | 15700 | 6 | 128 | 128 | 365 | 480 | 970 | 1190 | 1500 | 1500 | |
| 23.08 | 61 | 1550 | 15400 | 6 | 147 | 147 | 420 | 550 | 1080 | 1290 | 1550 | 1550 | |
| 25.62 | 55 | 1550 | 15400 | 6 | 164 | 164 | 465 | 610 | 1170 | 1350 | 1550 | | |
| 29.27 | 48 | 1550 | 15400 | 6 | 188 | 188 | 535 | 670 | 1290 | 1400 | 1550 | | |
| 30.89 | 45 | 1550 | 15400 | 6 | 199 | 199 | 565 | 680 | 1340 | 1430 | 1550 | | |
| 35.20 | 40 | 1550 | 15400 | 6 | 225 | 225 | 645 | 705 | 1470 | 1470 | | | |
| 38.39 | 36 | 1500 | 15700 | 6 | 250 | 250 | 695 | 715 | 1490 | 1490 | | | |
| 40.04 | 35 | 1550 | 15400 | 6 | | | 715 | 940 | 1550 | 1550 | 1550 | 1550 | |
| 45.16 | 31 | 1550 | 15400 | 6 | | | 810 | 1060 | 1550 | 1550 | 1550 | 1550 | |
| 51.18 | 27 | 1550 | 15400 | 6 | 320 | 320 | 920 | 1200 | 1550 | 1550 | 1550 | 1550 | |
| 58.34 | 24 | 1550 | 15400 | 6 | 365 | 365 | 1050 | 1380 | 1550 | 1550 | 1550 | 1550 | |
| 64.75 | 22 | 1550 | 15400 | 5 | 410 | 410 | 1160 | 1530 | 1550 | 1550 | 1550 | | |
| 73.99 | 19 | 1550 | 15400 | 5 | 470 | 470 | 1330 | 1550 | 1550 | 1550 | 1550 | | |
| 78.07 | 18 | 1550 | 15400 | 5 | 495 | 495 | 1410 | 1550 | 1550 | 1550 | 1550 | | |
| 88.97 | 16 | 1550 | 15400 | 5 | 570 | 570 | 1550 | 1550 | 1550 | 1550 | | | |
| 97.05 | 14 | 1550 | 15400 | 5 | 625 | 625 | 1550 | 1550 | 1550 | 1550 | | | |
| 113.56 | 12 | 1550 | 15400 | 5 | 730 | 730 | 1550 | 1550 | 1550 | | | | |
| 128.52 | 11 | 1550 | 15400 | 5 | 820 | 820 | 1550 | 1550 | | | | | |
| 135.28 | 10 | 1550 | 15400 | 5 | 870 | 870 | 1550 | 1550 | | | | | |
| 154.02 | 9.1 | 1550 | 15400 | 5 | 990 | 990 | 1550 | | | | | | |
| 179.37 | 7.8 | 1450 | 16100 | 5 | 1050 | 1050 | | | | | | | |
| 192.18 | 7.3 | 1450 | 16100 | 5 | 1050 | 1050 | | | | | | | |



| K77, m /kg | | AMS | | | | | | | | | |
|------------|---|---|----|----|-----|-----|-----|-----|---------|-------|--|
| K | IEC | s | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M | 132ML | |
| | |  3 | 57 | 58 | 59 | 60 | 65 | 65 | 70 | 70 | |
| | NEMA | s | - | 56 | 143 | 145 | 182 | 184 | 213/215 | - | |
| |  3 | - | 58 | 59 | 59 | 63 | 63 | 67 | - | | |

KF: + 8.2 kg / KA: + -7.5 kg / KAF: + 0.40 kg


K.. helical-bevel gear units



Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| K87, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 2700 Nm | | | | | | | | |
|---|----------------------------|-----------------------------|---------------------|-------------------|---------|------|------|------|--------|-------|------|------|------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\Phi_{(R)}$ ' | AMS | | | | | | | | |
| | | | | | 80 | 90 | 100 | 112 | 132S/M | 132ML | 160 | 180 | |
|  3 | | | | | | | | | | | | | |
| 7.21 | 194 | 1300 | 13200 | 7 | | | | | | 785 | 1190 | 1300 | 1300 |
| 8.29 | 169 | 1400 | 13500 | 7 | | | 440 | 485 | 900 | 1260 | 1400 | 1400 | 1400 |
| 10.00 | 140 | 1500 | 14200 | 7 | | | 520 | 585 | 1090 | 1370 | 1500 | 1500 | 1500 |
| 11.17 | 125 | 1500 | 14900 | 7 | 199 | 260 | 575 | 655 | 1220 | 1430 | 1500 | 1500 | 1500 |
| 12.56 | 111 | 2000 | 14800 | 6 | | | | | 1370 | 2000 | 2000 | 2000 | 2000 |
| 14.45 | 97 | 2100 | 15300 | 6 | | | 765 | 840 | 1570 | 2100 | 2100 | 2100 | 2100 |
| 16.00 | 88 | 1800 | 16000 | 6 | 290 | 380 | 785 | 940 | 1620 | 1620 | 1800 | | |
| 17.42 | 80 | 2200 | 16300 | 6 | | | 910 | 1020 | 1900 | 2200 | 2200 | 2200 | 2200 |
| 19.45 | 72 | 2300 | 16800 | 6 | 345 | 455 | 1000 | 1140 | 2120 | 2300 | 2300 | 2300 | 2300 |
| 22.41 | 62 | 2300 | 17900 | 6 | 400 | 530 | 1140 | 1310 | 2300 | 2300 | 2300 | 2300 | 2300 |
| 24.92 | 56 | 2500 | 18000 | 6 | 450 | 590 | 1240 | 1460 | 2500 | 2500 | 2500 | 2500 | 2500 |
| 27.88 | 50 | 2600 | 18500 | 6 | 505 | 660 | 1370 | 1640 | 2600 | 2600 | 2600 | 2600 | 2600 |
| 31.39 | 45 | 2700 | 19200 | 6 | 570 | 745 | 1500 | 1780 | 2700 | 2700 | 2700 | 2700 | 2700 |
| 36.52 | 38 | 2500 | 21400 | 6 | | | 1920 | 2110 | 2500 | 2500 | 2500 | 2500 | 2500 |
| 44.02 | 32 | 2600 | 22800 | 6 | | | 2280 | 2550 | 2600 | 2600 | 2600 | 2600 | 2600 |
| 49.16 | 28 | 2700 | 23500 | 5 | 870 | 1140 | 2520 | 2700 | 2700 | 2700 | 2700 | 2700 | 2700 |
| 56.64 | 25 | 2700 | 25000 | 5 | 1000 | 1320 | 2700 | 2700 | 2700 | 2700 | 2700 | 2700 | 2700 |
| 63.00 | 22 | 2700 | 26200 | 5 | 1120 | 1480 | 2700 | 2700 | 2700 | 2700 | 2700 | 2700 | 2700 |
| 70.46 | 20 | 2700 | 27300 | 5 | 1260 | 1660 | 2700 | 2700 | 2700 | 2700 | 2700 | 2700 | 2700 |
| 79.34 | 18 | 2700 | 27300 | 5 | 1420 | 1870 | 2700 | 2700 | 2700 | 2700 | 2700 | 2700 | 2700 |
| 86.34 | 16 | 2700 | 27300 | 5 | 1550 | 2040 | 2700 | 2700 | 2700 | | | | |
| 102.71 | 14 | 2700 | 27300 | 5 | 1850 | 2280 | 2700 | 2700 | 2700 | | | | |
| 115.82 | 12 | 2700 | 27300 | 5 | 2090 | 2320 | 2700 | 2700 | | | | | |
| 126.91 | 11 | 2700 | 27300 | 5 | 2280 | 2360 | 2700 | 2700 | | | | | |
| 147.32 | 9.5 | 2700 | 27300 | 5 | 2340 | 2420 | 2700 | | | | | | |
| 164.34 | 8.5 | 2700 | 27300 | 5 | 2430 | 2480 | | | | | | | |
| 174.19 | 8.0 | 2700 | 27300 | 5 | 2450 | 2500 | | | | | | | |
| 197.37 | 7.1 | 2700 | 27300 | 5 | 2490 | | | | | | | | |

| K87, m /kg | | AMS | | | | | | | | |
|------------|------|---|-----|-----|-----|-----|---------|-------|---------|---------|
| K | IEC | s | 80 | 90 | 100 | 112 | 132S/M | 132ML | 160 | 180 |
| | |  3 | 95 | 96 | 100 | 100 | 105 | 105 | 120 | 120 |
| | NEMA | s | 143 | 145 | 182 | 184 | 213/215 | - | 254/256 | 284/286 |
| | |  3 | 95 | 95 | 100 | 100 | 105 | - | 115 | 115 |

KF: + 9.2 kg / KA: + -12 kg / KAF: + 1.1 kg


| K97, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 4300 Nm | | | | | | | |
|---|----------------------------|-----------------------------|--------------------|-------------------|---------|------|--------|-------|------|------|------|------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | F_{Ra}^{-1} N | $\Phi_{(R)}$ ' | AMS | | | | | | | |
| | | | | | 100 | 112 | 132S/M | 132ML | 160 | 180 | 200 | 225 |
|  3 | | | | | | | | | | | | |
| 7.54 ²⁾ | 186 | 2400 | 15700 | 10 | | | 800 | 1220 | 1350 | 2280 | 2400 | 2400 |
| 8.71 ²⁾ | 161 | 2660 | 15800 | 10 | | | 930 | 1420 | 1560 | 2630 | 2660 | 2660 |
| 10.41 | 134 | 2870 | 16400 | 10 | | | 1120 | 1690 | 1880 | 2870 | 2870 | 2870 |
| 11.99 ²⁾ | 117 | 3890 | 16200 | 8 | | | 1270 | 1950 | 2150 | 3620 | 3890 | 3890 |
| 13.85 ²⁾ | 101 | 4300 | 16100 | 8 | | | 1480 | 2260 | 2490 | 4190 | 4300 | 4300 |
| 16.56 | 85 | 4300 | 17800 | 8 | | | 1780 | 2690 | 2990 | 4300 | 4300 | 4300 |
| 18.96 | 74 | 4300 | 19100 | 8 | 960 | 1080 | 2040 | 2810 | 3430 | 4300 | 4300 | 4300 |
| 22.37 | 63 | 4300 | 20900 | 8 | 1110 | 1280 | 2420 | 3000 | 4050 | 4300 | 4300 | 4300 |
| 24.75 | 57 | 4300 | 22000 | 8 | 1220 | 1430 | 2680 | 3100 | 4300 | 4300 | 4300 | 4300 |
| 27.91 | 50 | 4300 | 23300 | 8 | 1350 | 1610 | 3030 | 3200 | 4300 | 4300 | | |
| 30.82 | 45 | 4300 | 24500 | 7 | 1460 | 1790 | 3270 | 3290 | 4300 | 4300 | | |
| 34.23 | 41 | 4300 | 25700 | 7 | 1590 | 1990 | 3380 | 3380 | 4300 | | | |
| 38.30 | 37 | 4300 | 27100 | 7 | 1740 | 2100 | 3470 | 3470 | 4300 | | | |
| 41.87 | 33 | 4300 | 28300 | 7 | | | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 |
| 47.93 | 29 | 4300 | 30000 | 7 | 2400 | 2710 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 |
| 56.55 | 25 | 4300 | 32300 | 7 | 2800 | 3220 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 |
| 62.55 | 22 | 4300 | 33800 | 7 | 3060 | 3580 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 |
| 70.54 | 20 | 4300 | 35600 | 7 | 3380 | 4050 | 4300 | 4300 | 4300 | 4300 | | |
| 77.89 | 18 | 4300 | 37100 | 7 | 3670 | 4300 | 4300 | 4300 | 4300 | 4300 | | |
| 86.52 | 16 | 4300 | 38800 | 7 | 4000 | 4300 | 4300 | 4300 | 4300 | | | |
| 96.80 | 14 | 4300 | 40000 | 7 | 4300 | 4300 | 4300 | 4300 | 4300 | | | |
| 105.13 | 13 | 4300 | 40000 | 7 | 4300 | 4300 | 4300 | | | | | |
| 123.93 | 11 | 4300 | 40000 | 7 | 4300 | 4300 | 4300 | | | | | |
| 140.28 | 10.0 | 4300 | 40000 | 7 | 4300 | 4300 | | | | | | |
| 153.21 | 9.1 | 4300 | 40000 | 7 | 4300 | 4300 | | | | | | |
| 176.05 | 8.0 | 4300 | 40000 | 7 | 4300 | | | | | | | |



| K97, m /kg | | AMS | | | | | | | | | |
|------------|-----|---|-----|-----|--------|---------|-----|---------|---------|---------|---------|
| K | IEC | s | 100 | 112 | 132S/M | 132ML | 160 | 180 | 200 | 225 | |
| | |  | 3 | 160 | 160 | 165 | 165 | 180 | 180 | 200 | 210 |
| | | NEMA | s | 182 | 184 | 213/215 | - | 254/256 | 284/286 | 324/326 | 364/365 |
| | |  | 3 | 160 | 160 | 165 | - | 175 | 180 | 200 | 200 |

KF: + 20 kg / KA: + -18 kg / KAF: + 6.7 kg


K.. helical-bevel gear units



Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| K107, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}} / \text{Nm}$ | | | | | AMS | | | | | | | | 8000 Nm |
|---|----------------------------|-----------------------------|--------------------|----------------------|------|------|--------|-------|------|------|------|------|---------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | F_{Ra}^{-1} N | $\varphi_{(R)}$ ' | AMS | | | | | | | | |
| | | | | | 100 | 112 | 132S/M | 132ML | 160 | 180 | 200 | 225 | |
|  3 | | | | | | | | | | | | | |
| 7.35 ²⁾ | 190 | 3600 | 24400 | 9 | | | | 1180 | 1310 | 2210 | 2970 | 2970 | |
| 8.69 | 161 | 4070 | 24600 | 9 | | | 920 | 1410 | 1550 | 2620 | 3520 | 3520 | |
| 9.94 | 141 | 4190 | 25800 | 9 | | | 1060 | 1620 | 1780 | 3000 | 4040 | 4040 | |
| 11.73 | 119 | 4300 | 27500 | 9 | | | 1250 | 1840 | 2110 | 3510 | 4300 | 4300 | |
| 13.43 | 104 | 4300 | 29200 | 9 | 665 | 765 | 1440 | 1930 | 2420 | 3670 | 4300 | 4300 | |
| 14.64 | 96 | 6890 | 19500 | 7 | | | 1550 | 2370 | 2620 | 4420 | 5940 | 5940 | |
| 16.75 | 84 | 7050 | 21000 | 7 | | | 1780 | 2720 | 3000 | 5060 | 6800 | 6800 | |
| 19.74 | 71 | 7200 | 23200 | 6 | | | 2110 | 3110 | 3550 | 5920 | 7200 | 7200 | |
| 22.62 | 62 | 7200 | 25800 | 6 | 1120 | 1280 | 2430 | 3260 | 4080 | 6180 | 7200 | 7200 | |
| 26.32 | 53 | 7200 | 28800 | 6 | 1280 | 1500 | 2840 | 3430 | 4760 | 6490 | 7200 | 7200 | |
| 29.00 | 48 | 7200 | 30700 | 6 | 1390 | 1660 | 3110 | 3530 | 5250 | 6670 | 7200 | 7200 | |
| 31.28 ²⁾ | 45 | 6800 | 34200 | 6 | | | | 5000 | 5520 | 6800 | 6800 | 6800 | |
| 32.69 | 43 | 7200 | 33200 | 6 | 1530 | 1880 | 3370 | 3640 | 5930 | 6860 | | | |
| 37.00 | 38 | 7200 | 35800 | 6 | | | 3880 | 5950 | 6560 | 7200 | 7200 | 7200 | |
| 42.33 | 33 | 7360 | 37900 | 6 | | | 4470 | 6830 | 7360 | 7360 | 7360 | 7360 | |
| 49.90 | 28 | 7840 | 39300 | 6 | | | 5290 | 7780 | 7840 | 7840 | 7840 | 7840 | |
| 57.17 | 24 | 8000 | 41700 | 6 | 2800 | 3220 | 6090 | 8000 | 8000 | 8000 | 8000 | 8000 | |
| 66.52 | 21 | 8000 | 45400 | 6 | 3210 | 3770 | 7110 | 8000 | 8000 | 8000 | 8000 | 8000 | |
| 73.30 | 19 | 8000 | 47900 | 6 | 3490 | 4170 | 7780 | 8000 | 8000 | 8000 | 8000 | 8000 | |
| 82.61 | 17 | 8000 | 50900 | 6 | 3850 | 4720 | 8000 | 8000 | 8000 | 8000 | | | |
| 90.96 | 15 | 8000 | 53500 | 6 | 4160 | 5220 | 8000 | 8000 | 8000 | 8000 | | | |
| 100.75 | 14 | 8000 | 56200 | 6 | 4500 | 5800 | 8000 | 8000 | 8000 | | | | |
| 112.41 | 12 | 8000 | 59300 | 6 | 4880 | 6010 | 8000 | 8000 | 8000 | | | | |
| 121.46 | 12 | 8000 | 61500 | 6 | 5160 | 6120 | 8000 | | | | | | |
| 143.47 | 9.8 | 8000 | 65000 | 6 | 5770 | 6340 | 8000 | | | | | | |

| K107, m /kg | | AMS | | | | | | | | | |
|-------------|------|---|-----|-----|---------|-------|---------|---------|---------|---------|--|
| K | IEC | s | 100 | 112 | 132S/M | 132ML | 160 | 180 | 200 | 225 | |
| | |  3 | 275 | 275 | 280 | 280 | 295 | 295 | 320 | 325 | |
| | NEMA | s | 182 | 184 | 213/215 | - | 254/256 | 284/286 | 324/326 | 364/365 | |
| | |  3 | 275 | 275 | 280 | - | 290 | 295 | 315 | 315 | |

KF: + 12 kg / KA: + 27 kg / KAF: + 3.2 kg


| K127, $n_o = 1400 \text{ min}^{-1}$, $M_{a \text{ max}} / \text{Nm}$ | | | | | 13000 Nm | | | | | | | |
|---|----------------------------|-----------------------------|--------------------|-------------------|----------|-------|-------|-------|-------|-------|-------|-------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{1)}$ N | $\Phi_{(R)}$ ' | AMS | | | | | | | |
| | | | | | 132S/M | 132ML | 160 | 180 | 200 | 225 | 250 | 280 |
|  3 | | | | | | | | | | | | |
| 8.68 | 161 | 7230 | 32500 | 8 | | | | 2580 | 3480 | 3480 | 5470 | 5470 |
| 10.74 | 130 | 8000 | 33900 | 8 | | 1710 | 1890 | 3210 | 4330 | 4330 | 6150 | 6790 |
| 12.79 | 109 | 8530 | 35400 | 8 | 1340 | 2060 | 2270 | 3840 | 5170 | 5170 | 6570 | 8090 |
| 14.35 | 98 | 12100 | 31000 | 6 | | | | 4270 | 5760 | 5760 | 9040 | 9040 |
| 17.77 | 79 | 13000 | 32600 | 6 | | 2840 | 3140 | 5320 | 7170 | 7170 | 10100 | 11200 |
| 21.15 | 66 | 13000 | 37200 | 6 | 2210 | 3400 | 3760 | 6360 | 8560 | 8560 | 10800 | 13000 |
| 23.91 | 59 | 13000 | 39800 | 6 | 2520 | 3870 | 4270 | 7200 | 9690 | 9690 | 13000 | 13000 |
| 27.68 | 51 | 13000 | 43000 | 6 | 2940 | 4380 | 4960 | 8350 | 10800 | 10800 | 13000 | 13000 |
| 31.37 | 45 | 13000 | 45900 | 6 | 3350 | 4540 | 5640 | 8630 | 11200 | 11200 | 13000 | 13000 |
| 36.25 | 39 | 13000 | 49400 | 6 | 3890 | 4750 | 6540 | 8990 | 11600 | 11600 | | |
| 40.19 | 35 | 13000 | 52000 | 5 | | 6360 | 7030 | 11900 | 13000 | 13000 | 13000 | 13000 |
| 47.82 | 29 | 13000 | 56500 | 5 | 4960 | 7630 | 8420 | 13000 | 13000 | 13000 | 13000 | 13000 |
| 54.07 | 26 | 13000 | 59800 | 5 | 5650 | 8660 | 9560 | 13000 | 13000 | 13000 | 13000 | 13000 |
| 62.60 | 22 | 13000 | 64000 | 5 | 6590 | 9820 | 11100 | 13000 | 13000 | 13000 | 13000 | 13000 |
| 70.95 | 20 | 13000 | 67700 | 5 | 7500 | 10100 | 12600 | 13000 | 13000 | 13000 | 13000 | 13000 |
| 81.98 | 17 | 13000 | 72100 | 5 | 8710 | 10600 | 13000 | 13000 | 13000 | 13000 | | |
| 89.89 | 16 | 13000 | 75100 | 5 | 9580 | 10900 | 13000 | 13000 | 13000 | 13000 | | |
| 110.18 | 13 | 13000 | 79200 | 5 | 11500 | 11500 | 13000 | 13000 | | | | |
| 122.48 | 11 | 13000 | 79200 | 5 | 11900 | 11900 | 13000 | | | | | |
| 136.14 | 10 | 13000 | 79200 | 5 | 12100 | 12100 | 13000 | | | | | |
| 146.07 | 9.6 | 13000 | 79200 | 5 | 12200 | | | | | | | |



| K127, m /kg | | AMS | | | | | | | | |
|-------------|------|---|---------|-------|---------|---------|---------|---------|-----|-----|
| K | IEC | s | 132S/M | 132ML | 160 | 180 | 200 | 225 | 250 | 280 |
| | |  3 | 440 | 440 | 460 | 460 | 475 | 480 | 500 | 510 |
| | NEMA | s | 213/215 | - | 254/256 | 284/286 | 324/326 | 364/365 | - | - |
| | |  3 | 440 | - | 455 | 455 | 475 | 475 | - | - |

KF: + 42 kg / KA: + -28 kg / KAF: + 9.2 kg


K.. helical-bevel gear units



Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| K157, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}} / \text{Nm}$ | | | | | 20000 Nm | | | | | |
|---|----------------------------|-----------------------------|---------------------|----------------------|----------|-------|-------|-------|-------|-------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | AMS | | | | | |
| | | | | | 160 | 180 | 200 | 225 | 250 | 280 |
|  3 | | | | | | | | | | |
| 12.65 | 111 | 18700 | 32900 | 6 | | | 5050 | 5050 | 7940 | 7940 |
| 14.92 | 94 | 20000 | 33800 | 6 | | 4430 | 5990 | 5990 | 9390 | 9390 |
| 18.37 | 76 | 20000 | 38800 | 6 | 3230 | 5490 | 7400 | 7400 | 10700 | 11600 |
| 21.31 | 66 | 20000 | 42600 | 6 | 3780 | 6400 | 8620 | 8620 | 11100 | 13400 |
| 23.95 | 58 | 20000 | 45700 | 6 | 4270 | 7210 | 9700 | 9700 | 15100 | 15100 |
| 27.62 | 51 | 20000 | 49600 | 6 | 4950 | 8340 | 11000 | 11000 | 17500 | 17500 |
| 31.30 | 45 | 19000 | 55300 | 6 | 5620 | 8780 | 11300 | 11300 | 18300 | 18300 |
| 38.02 | 37 | 20000 | 59000 | 5 | | 11100 | 15100 | 15100 | 20000 | 20000 |
| 46.79 | 30 | 20000 | 65600 | 5 | 8170 | 13800 | 18600 | 18600 | 20000 | 20000 |
| 54.29 | 26 | 20000 | 70600 | 5 | 9540 | 16100 | 20000 | 20000 | 20000 | 20000 |
| 61.02 | 23 | 20000 | 74600 | 5 | 10700 | 18100 | 20000 | 20000 | 20000 | 20000 |
| 70.38 | 20 | 20000 | 79800 | 5 | 12400 | 20000 | 20000 | 20000 | 20000 | 20000 |
| 79.75 | 18 | 20000 | 84500 | 5 | 14100 | 20000 | 20000 | 20000 | 20000 | 20000 |
| 91.65 | 15 | 20000 | 90000 | 5 | 16300 | 20000 | 20000 | 20000 | | |
| 100.22 | 14 | 20000 | 93700 | 5 | 17900 | 20000 | 20000 | 20000 | | |
| 122.39 | 11 | 20000 | 102100 | 5 | 20000 | 20000 | | | | |
| 150.41 | 9.3 | 20000 | 111100 | 5 | 20000 | | | | | |

| K157, m /kg | | AMS | | | | | | |
|-------------|------|---|---------|---------|---------|---------|-----|-----|
| K | IEC | s | 160 | 180 | 200 | 225 | 250 | 280 |
| | |  3 | 700 | 700 | 710 | 720 | 740 | 750 |
| | NEMA | s | 254/256 | 284/286 | 324/326 | 364/365 | - | - |
| | |  3 | 690 | 690 | 710 | 710 | - | - |

KF: + 78 kg / KA: + -37 kg / KAF: + 22 kg


| K167, $n_o = 1400 \text{ min}^{-1}$, $M_{a \text{ max}} / \text{Nm}$ | | | | | 35000 Nm | | | | | |
|---|----------------------------|-----------------------------|---------------------|-------------------|----------|-------|-------|-------|-------|-------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\Phi_{(R)}$ ' | AMS | | | | | |
| | | | | | 160 | 180 | 200 | 225 | 250 | 280 |
|  3 | | | | | | | | | | |
| 17.34 | 81 | 35000 | 62400 | 5 | | | 6900 | 6900 | 10800 | 10800 |
| 20.32 | 69 | 35000 | 68500 | 5 | | 6010 | 8120 | 8120 | 12700 | 12700 |
| 24.52 | 57 | 35000 | 76200 | 5 | 4290 | 7300 | 9860 | 9860 | 13900 | 15400 |
| 28.77 | 49 | 35000 | 83100 | 5 | 5080 | 8610 | 11600 | 11600 | 14600 | 18100 |
| 32.25 | 43 | 35000 | 88200 | 5 | 5720 | 9680 | 13000 | 13000 | 20400 | 20400 |
| 36.61 | 38 | 35000 | 94200 | 5 | | | 14400 | 14400 | 22600 | 22600 |
| 42.89 | 33 | 35000 | 101900 | 5 | | 12500 | 16900 | 16900 | 26600 | 26600 |
| 51.77 | 27 | 35000 | 111500 | 5 | 8970 | 15200 | 20600 | 20600 | 29100 | 32300 |
| 60.74 | 23 | 35000 | 120100 | 5 | 10600 | 18000 | 24200 | 24200 | 30600 | 35000 |
| 68.07 | 21 | 35000 | 126500 | 5 | 11900 | 20200 | 27200 | 27200 | 35000 | 35000 |
| 78.14 | 18 | 35000 | 134600 | 5 | 13800 | 23100 | 30200 | 30200 | 35000 | 35000 |
| 87.86 | 16 | 35000 | 141700 | 5 | 15500 | 23700 | 31000 | 31000 | 35000 | 35000 |
| 109.83 | 13 | 35000 | 150000 | 5 | 19500 | 25000 | 32500 | 32500 | | |
| 134.99 | 10 | 35000 | 150000 | 4 | 24100 | 26100 | | | | |
| 164.50 | 8.5 | 33800 | 150000 | 4 | 26900 | | | | | |



| K167, m /kg | | AMS | | | | | | | |
|-------------|---|--|---------|---------|---------|---------|------|------|------|
| K | IEC | s | 160 | 180 | 200 | 225 | 250 | 280 | |
| | |  | 3 | 1090 | 1090 | 1110 | 1110 | 1130 | 1140 |
| | NEMA | s | 254/256 | 284/286 | 324/326 | 364/365 | - | - | |
| |  | 3 | 1090 | 1090 | 1100 | 1100 | - | - | |

KH: + -38 kg

K.. helical-bevel gear units

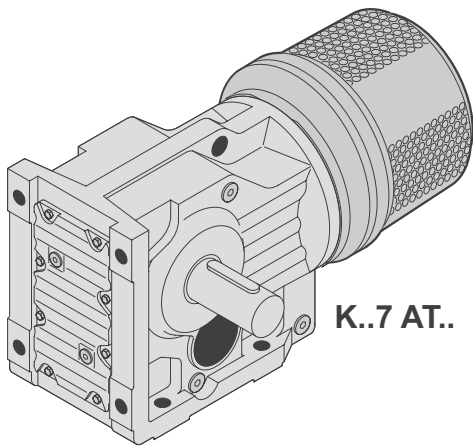
Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| K187, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}} / \text{Nm}$ | | | | | AMS | | | | | | 53000 Nm |
|---|----------------------------|-----------------------------|---------------------|-------------------|-------|-------|-------|-------|-------|-------|----------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\Phi_{(R)}$ ' | 160 | 180 | 200 | 225 | 250 | 280 | |
|  3 | | | | | | | | | | | |
| 17.18 | 81 | 46400 | 67300 | 4 | | | 6690 | 6690 | 10600 | 10600 | |
| 20.15 | 69 | 49700 | 69000 | 4 | | | 7920 | 7920 | 12500 | 12500 | |
| 24.18 | 58 | 53000 | 72100 | 4 | | | 9580 | 9580 | 15100 | 15100 | |
| 27.92 | 50 | 53000 | 78900 | 4 | | 8230 | 11100 | 11100 | 17500 | 17500 | |
| 33.23 | 42 | 53000 | 87500 | 4 | 5780 | 9860 | 13300 | 13300 | 19100 | 20900 | |
| 38.57 | 36 | 53000 | 95300 | 4 | 6770 | 11500 | 15500 | 15500 | 19900 | 24300 | |
| 42.51 | 33 | 53000 | 100500 | 4 | 7510 | 12700 | 17100 | 17100 | 26800 | 26800 | |
| 45.50 | 31 | 53000 | 104300 | 4 | | | 17500 | 17500 | 27800 | 27800 | |
| 53.36 | 26 | 53000 | 113400 | 4 | | | 20700 | 20700 | 32800 | 32800 | |
| 64.04 | 22 | 53000 | 124400 | 4 | | | 25100 | 25100 | 39600 | 39600 | |
| 73.96 | 19 | 53000 | 133500 | 4 | | 21500 | 29200 | 29200 | 45900 | 45900 | |
| 88.00 | 16 | 53000 | 145000 | 4 | 15100 | 25800 | 34900 | 34900 | 50100 | 53000 | |
| 102.16 | 14 | 53000 | 155400 | 4 | 17700 | 30200 | 40700 | 40700 | 52200 | 53000 | |
| 112.60 | 12 | 53000 | 162500 | 4 | 19600 | 33300 | 44900 | 44900 | 53000 | 53000 | |
| 129.69 | 11 | 53000 | 173100 | 4 | 22800 | 38500 | 50800 | 50800 | 53000 | 53000 | |
| 144.59 | 9.7 | 53000 | 181500 | 4 | 25500 | 39700 | 51600 | 51600 | 53000 | 53000 | |
| 165.21 | 8.5 | 53000 | 190000 | 4 | 29300 | 40900 | 53000 | 53000 | | | |
| 179.86 | 7.8 | 53000 | 190000 | 4 | 31900 | 41500 | 53000 | 53000 | | | |

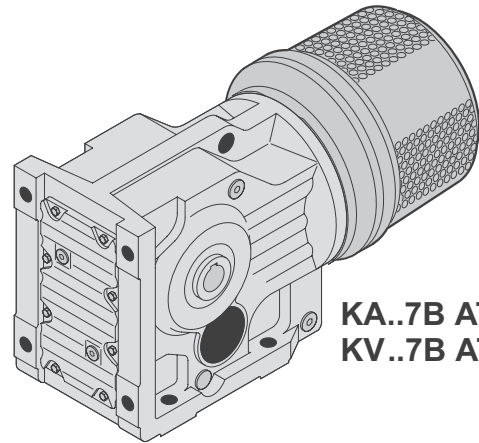
| K187, m /kg | | AMS | | | | | | |
|-------------|---|---|---------|---------|---------|---------|------|------|
| K | IEC | s | 160 | 180 | 200 | 225 | 250 | 280 |
| | |  3 | 1670 | 1670 | 1690 | 1690 | 1710 | 1720 |
| | NEMA | s | 254/256 | 284/286 | 324/326 | 364/365 | - | - |
| |  3 | 1670 | 1670 | 1690 | 1690 | - | - | |

KH: + -67 kg

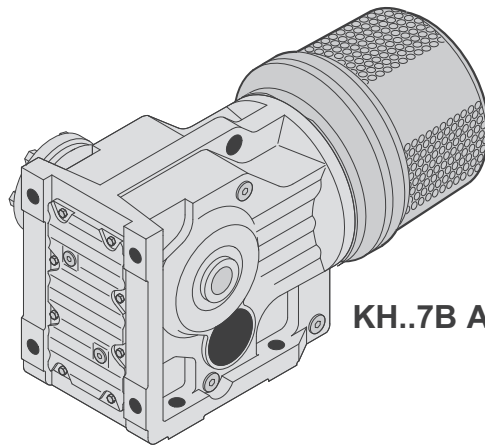
10.2 Selection tables for adapters with hydraulic start-up coupling (AT..)



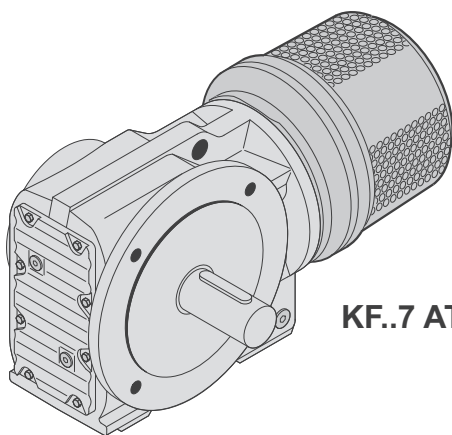
K..7 AT..



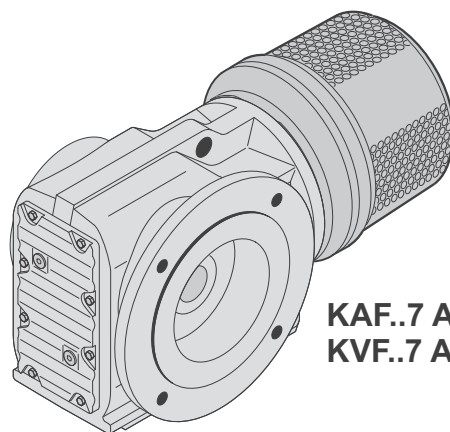
KA..7B AT..
KV..7B AT..



KH..7B AT..



KF..7 AT..

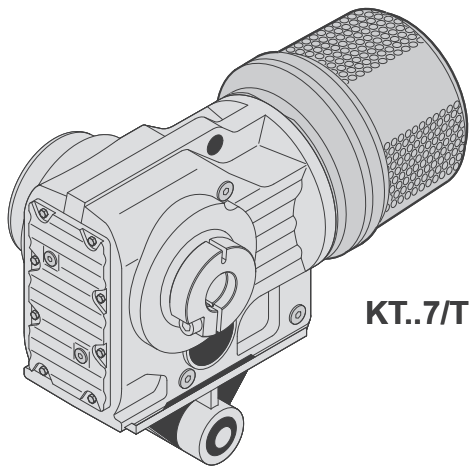


KAF..7 AT..
KVF..7 AT..

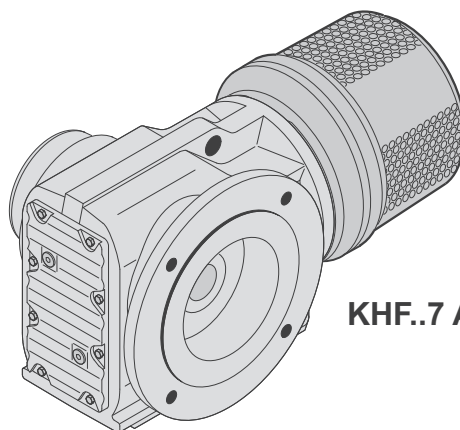
9007220696271883

K.. helical-bevel gear units

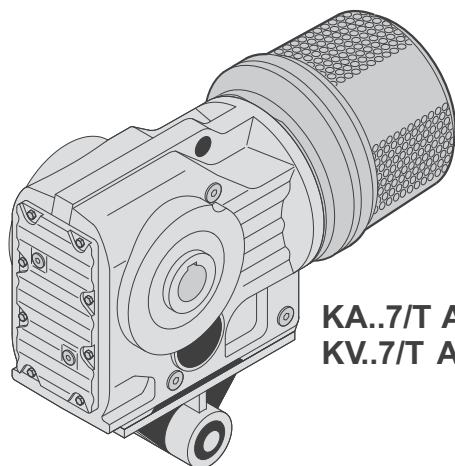
Selection tables for adapters with hydraulic start-up coupling (AT..)



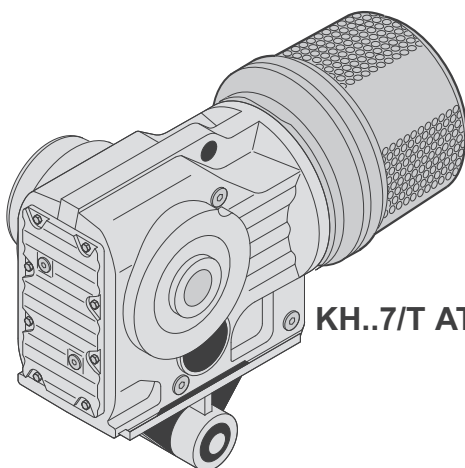
KT..7/T AT..



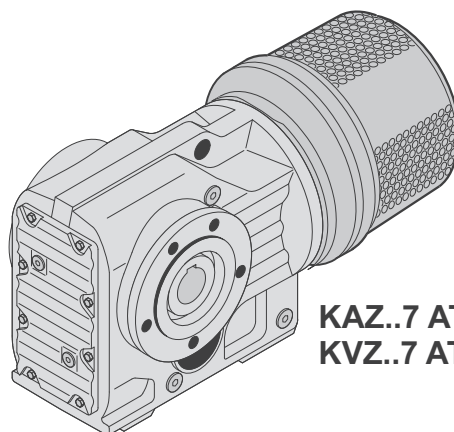
KHF..7 AT..



**KA..7/T AT..
KV..7/T AT..**



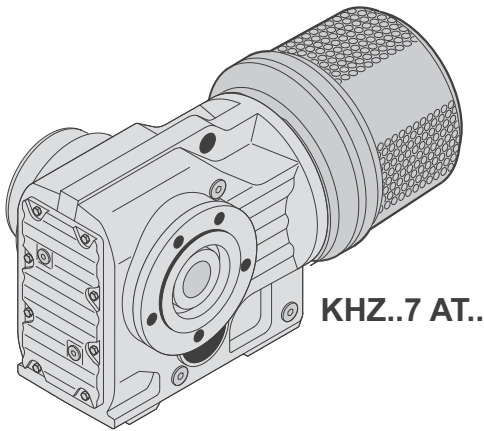
KH..7/T AT..



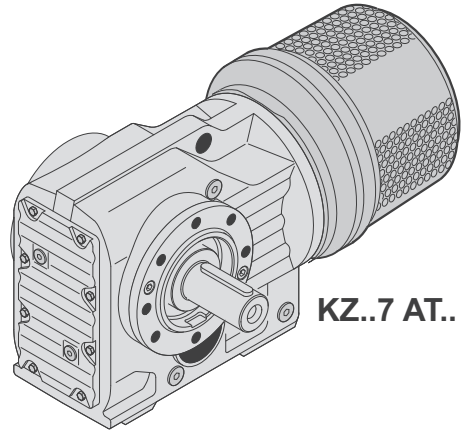
**KAZ..7 AT..
KVZ..7 AT..**

9007220696274315

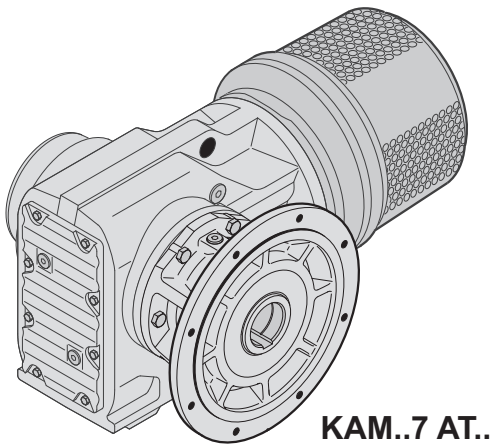
26878565/EN – 11/2021



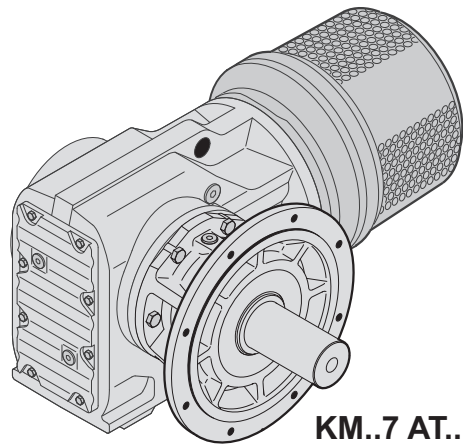
KHZ..7 AT..



KZ..7 AT..










KAM..7 AT..










KM..7 AT..

9007227464930827







10.2.1 K..AT/DRN..4

|  |  | P_{Mot} kW |  |  |  | Sn % |  |
|---|---|-----------------|---|--|---|---------|---|
| K67 | DRN71M4 | 0.37 | AT311 | T11 | 0.42 | 12 | (→  569) |
| | DRN80MK4 | 0.55 | AT312 | T11D | 0.55 | 11 | |
| | DRN80M4 | 0.75 | AT312 | T11D | 0.7 | 11 | |
| | DRN90S4 | 1.1 | AT312 | T11D | 0.72 | 15 | |
| | DRN90L4 | 1.5 | AT321 | T21 | 0.85 | 9 | |
| | DRN100LS4 | 2.2 | AT321 | T21 | 0.9 | 13 | |
| | DRN100L4 | 3 | AT322 | T21D | 1.53 | 11 | |
| K77 | DRN71M4 | 0.37 | AT311 | T11 | 0.42 | 12 | |
| | DRN80MK4 | 0.55 | AT312 | T11D | 0.55 | 11 | |
| | DRN80M4 | 0.75 | AT312 | T11D | 0.7 | 11 | |
| | DRN90S4 | 1.1 | AT312 | T11D | 0.72 | 15 | |
| | DRN90L4 | 1.5 | AT421 | T21 | 0.85 | 9 | |
| | DRN100LS4 | 2.2 | AT421 | T21 | 0.9 | 13 | |
| | DRN100L4 | 3 | AT422 | T21D | 1.53 | 11 | |
| K87 | DRN112M4 | 4 | AT422 | T21D | 1.6 | 12 | |
| | DRN90S4 | 1.1 | AT312 | T11D | 0.72 | 15 | |
| | DRN90L4 | 1.5 | AT421 | T21 | 0.85 | 9 | |
| | DRN100LS4 | 2.2 | AT421 | T21 | 0.9 | 13 | |
| | DRN100L4 | 3 | AT422 | T21D | 1.53 | 11 | |
| | DRN112M4 | 4 | AT422 | T21D | 1.6 | 12 | |
| | DRN132S4 | 5.5 | AT541 | T41 | 2 | 6 | |
| | DRN132M4 | 7.5 | AT541 | T41 | 2.4 | 8 | |
| | DRN132L4 | 9.2 | AT541 | T41 | 2.5 | 10 | |
| | DRN160M4 | 11 | AT541 | T41 | 2.5 | 13 | |
| DRN160L4 | 15 | AT542 | T41D | 4.2 | 8 | | |

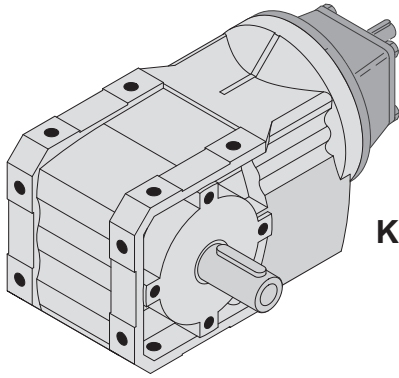
|  |  | P_{Mot} kW |  |  |  | Sn % |  |
|---|---|-----------------|---|--|---|---------|---|
| K97 | DRN90S4 | 1.1 | AT312 | T11D | 0.72 | 15 | |
| | DRN90L4 | 1.5 | AT421 | T21 | 0.85 | 9 | |
| | DRN100LS4 | 2.2 | AT421 | T21 | 0.9 | 13 | |
| | DRN100L4 | 3 | AT422 | T21D | 1.53 | 11 | |
| | DRN112M4 | 4 | v422 | T21D | 1.6 | 12 | |
| | DRN132S4 | 5.5 | AT541 | T41 | 2 | 6 | |
| | DRN132M4 | 7.5 | AT541 | T41 | 2.4 | 8 | |
| | DRN132L4 | 9.2 | AT541 | T41 | 2.5 | 10 | |
| | DRN160M4 | 11 | AT541 | T41 | 2.5 | 13 | |
| | DRN160L4 | 15 | v542 | T41D | 4.2 | 8 | |
| | DRN180M4 | 18.5 | AT542 | T41D | 4.3 | 10 | |
| DRN180L4 | 22 | AT542 | T41D | 4.3 | 14 | | |
| K107 | DRN100LS4 | 2.2 | AT421 | T21 | 0.9 | 13 | (→  569) |
| | DRN100L4 | 3 | AT422 | T21D | 1.53 | 11 | |
| | DRN112M4 | 4 | AT422 | T21D | 1.6 | 12 | |
| | DRN132S4 | 5.5 | AT541 | T41 | 2 | 6 | |
| | DRN132M4 | 7.5 | AT541 | T41 | 2.4 | 8 | |
| | DRN132L4 | 9.2 | AT541 | T41 | 2.5 | 10 | |
| | DRN160M4 | 11 | AT541 | T41 | 2.5 | 13 | |
| | DRN160L4 | 15 | AT542 | T41D | 4.2 | 8 | |
| | DRN180M4 | 18.5 | AT542 | T41D | 4.3 | 10 | |
| | DRN180L4 | 22 | AT542 | T41D | 4.3 | 14 | |
| K127 | DRN132M4 | 7.5 | AT541 | T41 | 2.4 | 8 | |
| | DRN132L4 | 9.2 | AT541 | T41 | 2.5 | 10 | |
| | DRN160M4 | 11 | AT541 | T41 | 2.5 | 13 | |
| | DRN160L4 | 15 | AT542 | T41D | 4.2 | 8 | |
| | DRN180M4 | 18.5 | AT542 | T41D | 4.3 | 10 | |
| | DRN180L4 | 22 | AT542 | T41D | 4.3 | 14 | |
| K157 K167 K187 | DRN160M4 | 11 | AT541 | T41 | 2.5 | 13 | |
| | DRN160L4 | 15 | AT542 | T41D | 4.2 | 8 | |
| | DRN180M4 | 18.5 | AT542 | T41D | 4.3 | 10 | |
| | DRN180L4 | 22 | AT542 | T41D | 4.3 | 14 | |

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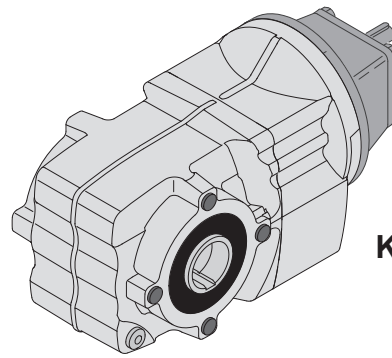
10.2.2 K..AT/DRN..2

|  |  | P_{Mot} kW |  |  |  | Sn |  |
|---|---|-----------------|---|--|---|------|---|
| K67 | DRN71M2 | 0.55 | AT311 | T11 | 0.19 | 3 | |
| | DRN80MS2 | 0.75 | AT311 | T11 | 0.22 | 4.5 | |
| | DRN80M2 | 1.1 | AT311 | T11 | 0.27 | 6 | |
| | DRN90S2 | 1.5 | AT311 | T11 | 0.29 | 8.5 | |
| | DRN90L2 | 2.2 | AT311 | T11 | 0.31 | 11.5 | |
| | DRN100LM2 | 3 | AT311 | T11 | 0.4 | 12 | |
| | DRN112M2 | 4 | AT312 | T11D | 0.52 | 10 | |
| K77 | DRN71M2 | 0.55 | AT311 | T11 | 0.19 | 3 | |
| | DRN80MS2 | 0.75 | AT311 | T11 | 0.22 | 4.5 | |
| | DRN80M2 | 1.1 | AT311 | T11 | 0.27 | 6 | |
| | DRN90S2 | 1.5 | AT311 | T11 | 0.29 | 8.5 | |
| | DRN90L2 | 2.2 | AT311 | T11 | 0.31 | 11.5 | |
| | DRN100LM2 | 3 | AT311 | T11 | 0.4 | 12 | |
| | DRN112M2 | 4 | AT312 | T11D | 0.52 | 10 | |
| | DRN132S2 | 5.5 | AT321 | T21 | 0.6 | 8 | |
| | DRN132S2 | 5.5 | AT421 | T21 | 0.6 | 8 | |
| K87 | DRN90S2 | 1.5 | AT311 | T11 | 0.29 | 8.5 | |
| | DRN90L2 | 2.2 | AT311 | T11 | 0.31 | 11.5 | |
| | DRN100LM2 | 3 | AT311 | T11 | 0.4 | 12 | |
| | DRN112M2 | 4 | AT312 | T11D | 0.52 | 10 | |
| | DRN132S2 | 5.5 | AT321 | T21 | 0.6 | 8 | |
| | DRN132S2 | 5.5 | AT421 | T21 | 0.6 | 8 | |
| K97 | DRN90S2 | 1.5 | AT311 | T11 | 0.29 | 8.5 | |
| | DRN90L2 | 2.2 | AT311 | T11 | 0.31 | 11.5 | |
| | DRN100LM2 | 3 | AT311 | T11 | 0.4 | 12 | |
| | DRN112M2 | 4 | AT312 | T11D | 0.52 | 10 | |
| | DRN132S2 | 5.5 | AT321 | T21 | 0.6 | 8 | |
| | DRN132S2 | 5.5 | AT421 | T21 | 0.6 | 8 | |
| K107 | DRN100LM2 | 3 | AT311 | T11 | 0.4 | 12 | |
| | DRN112M2 | 4 | AT312 | T11D | 0.52 | 10 | |
| | DRN132S2 | 5.5 | AT321 | T21 | 0.6 | 8 | |
| | DRN132S2 | 5.5 | AT421 | T21 | 0.6 | 8 | |
| K127 | DRN132S2 | 5.5 | AT421 | T21 | 0.6 | 8 | |

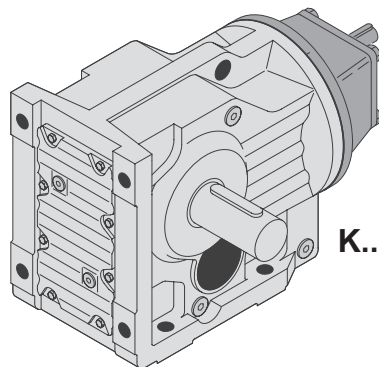
10.3 Selection tables for input shaft assembly (AD..)



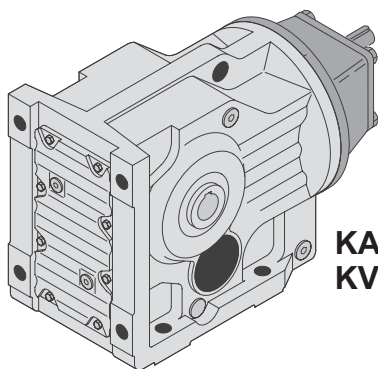
K.9 AD..



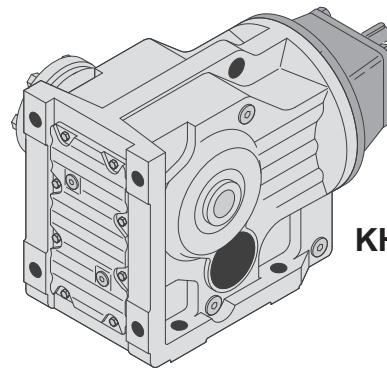
KA.9 AD..



K..7 AD..



KA..7B AD..
KV..7B AD..



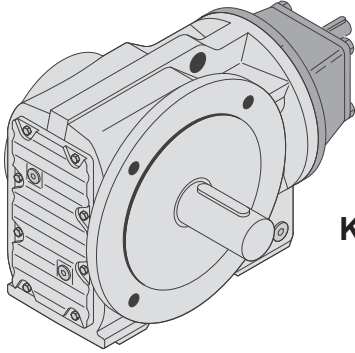
KH..7B AD..

21460662027

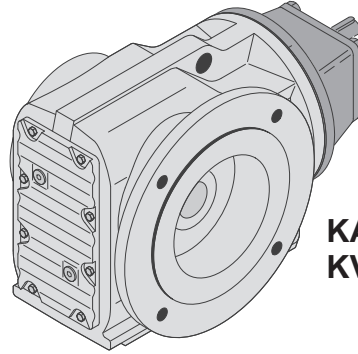
26878585/EN – 11/2021

K.. helical-bevel gear units

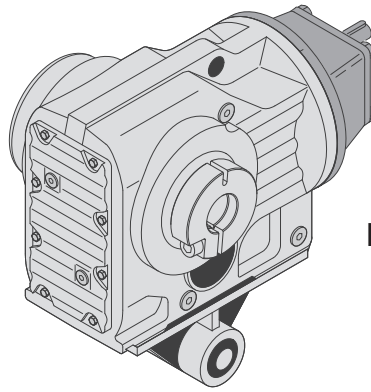
Selection tables for input shaft assembly (AD..)



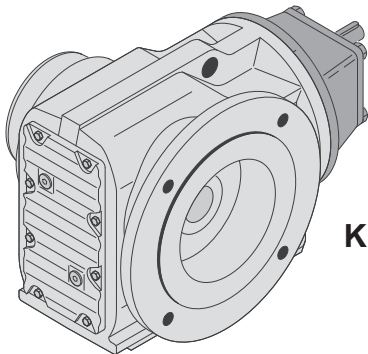
KF..7 AD..



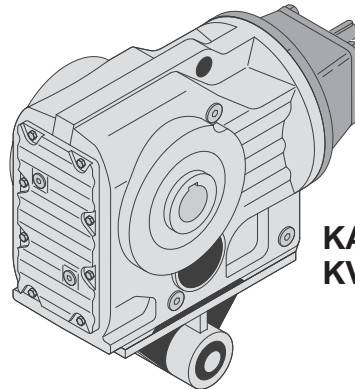
**KAF..7 AD..
KVF..7 AD..**



KT..7/T AD..



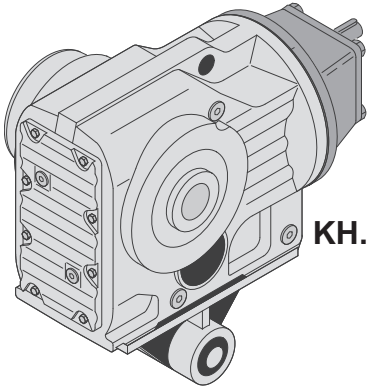
KHF..7 AD..



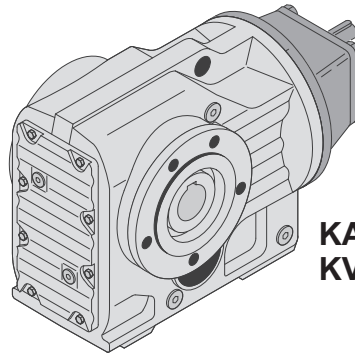
**KA..7/T AD..
KV..7/T AD..**

21460664459

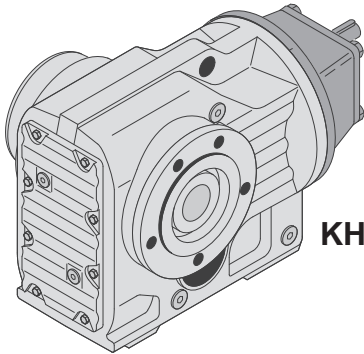
26878565/EN – 11/2021



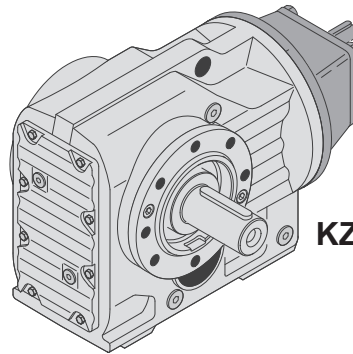
KH..7/T AD..



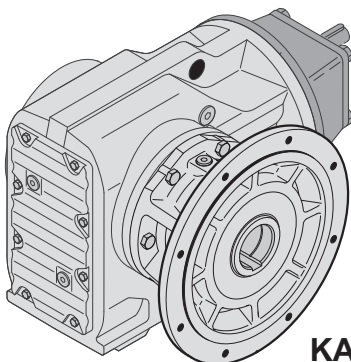
KAZ..7 AD..
KVZ..7 AD..



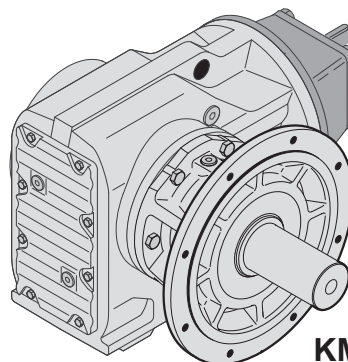
KHZ..7 AD..



KZ..7 AD..


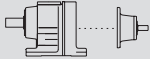




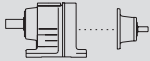

KAM..7 AD..



KM..7 AD..


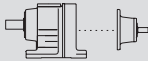

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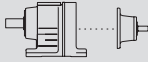

| K37 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 200 Nm | |
|--|-------------------------------------|-------------------------|----------------------|------------------------------------|----------------------|-------------------|---|--|---------|---|--|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ¹⁾ N | F _{Re} N | φ _(/R) |  |  | m kg |  | |
| 29.96 | 47 | 200 | 1.1 | 3650 | 1710 | 7 | - | | | | |
| 28.83 | 49 | 200 | 1.1 | 3580 | 1520 | 8 | - | | | | |
| 24.99 | 56 | 200 | 1.2 | 3330 | 1510 | 8 | - | | | | |
| 23.36 | 60 | 195 | 1.3 | 3260 | 1510 | 8 | - | | | | |
| 20.19 | 69 | 185 | 1.4 | 3110 | 1510 | 8 | - | | | | |
| 17.15 | 82 | 180 | 1.6 | 2900 | 1500 | 8 | - | | | | |
| 15.31 | 91 | 175 | 1.8 | 2780 | 1500 | 8 | - | K 37 | AD2 | 15 571 | |
| 13.08 | 107 | 165 | 1.9 | 2650 | 1490 | 9 | - | KF 37 | AD2 | 17 571 | |
| 12.14 | 115 | 160 | 2.0 | 2600 | 1280 | 12 | - | KA 37 | AD2 | 15 571 | |
| 10.49 | 133 | 160 | 2.3 | 2410 | 1240 | 12 | - | KAF 37 | AD2 | 16 571 | |
| 8.91 | 157 | 160 | 2.8 | 2200 | 1210 | 12 | - | | | | |
| 7.96 | 176 | 155 | 3.0 | 2110 | 1210 | 13 | - | | | | |
| 6.80 | 206 | 150 | 3.4 | 1980 | 1180 | 13 | - | | | | |
| 6.37 | 220 | 145 | 3.5 | 1950 | 1190 | 13 | - | | | | |
| 5.36 | 261 | 140 | 4.0 | 1810 | 1150 | 13 | - | | | | |
| 3.98 | 352 | 125 | 4.8 | 1660 | 1110 | 13 | - | | | | |


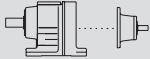

| K39 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 300 Nm | |
|--|-------------------------------------|-------------------------|----------------------|------------------------------------|----------------------|-------------------|---|--|---------|---|--|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ¹⁾ N | F _{Re} N | φ _(/R) |  |  | m kg |  | |
| 58.24* | 24 | 300 | 0.85 | 7500 | 960 | - | - | | | | |
| 49.69 | 28 | 300 | 0.99 | 7440 | 1540 | - | - | | | | |
| 43.45 | 32 | 300 | 1.1 | 7000 | 1530 | - | - | | | | |
| 41.28* | 34 | 300 | 1.2 | 6840 | 1530 | - | - | | | | |
| 36.22 | 39 | 300 | 1.4 | 6440 | 1510 | - | - | | | | |
| 30.72* | 46 | 300 | 1.6 | 5960 | 1490 | - | - | | | | |
| 27.73 | 50 | 300 | 1.8 | 5670 | 1480 | - | - | | | | |
| 24.40* | 57 | 300 | 2.0 | 5330 | 1460 | - | - | | | | |
| 23.04* | 61 | 300 | 2.1 | 5180 | 1450 | - | - | | | | |
| 19.62 | 71 | 295 | 2.4 | 4820 | 1430 | - | - | | | | |
| 17.83 | 79 | 290 | 2.6 | 4630 | 1420 | - | - | | | | |
| 17.06* | 82 | 114 | 1.0 | 6360 | 635 | - | - | | | | |
| 15.44 | 91 | 280 | 2.9 | 4380 | 1400 | - | - | K 39 | AD2 | 20 571 | |
| 14.56 | 96 | 190 | 2.0 | 5570 | 1160 | - | - | KF 39 | AD2 | 22 571 | |
| 13.44* | 104 | 270 | 3.2 | 4160 | 1380 | - | - | KA 39 | AD2 | 19 571 | |
| 12.73 | 110 | 192 | 2.3 | 5260 | 1130 | - | - | KAF 39 | AD2 | 21 571 | |
| 12.09* | 116 | 187 | 2.4 | 5180 | 1140 | - | - | | | | |
| 10.61 | 132 | 285 | 4.1 | 4360 | 600 | - | - | | | | |
| 9.60* | 146 | 250 | 4.2 | 3640 | 1320 | - | - | | | | |
| 9.00* | 156 | 300 | 5.1 | 3950 | 360 | - | - | | | | |
| 8.12* | 172 | 285 | 5.3 | 3840 | 420 | - | - | | | | |
| 7.15* | 196 | 265 | 5.6 | 3730 | 535 | - | - | | | | |
| 6.75* | 207 | 255 | 5.7 | 3690 | 585 | - | - | | | | |
| 5.75 | 244 | 225 | 5.9 | 3590 | 725 | - | - | | | | |
| 5.22 | 268 | 210 | 6.1 | 3520 | 760 | - | - | | | | |
| 4.52 | 309 | 191 | 6.4 | 3410 | 795 | - | - | | | | |
| 3.94* | 356 | 171 | 6.6 | 3320 | 840 | - | - | | | | |
| 2.81* | 498 | 128 | 6.9 | 3110 | 940 | - | - | | | | |


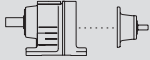

K.. helical-bevel gear units




Selection tables for input shaft assembly (AD..)

| K47 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 400 Nm | |
|--|----------------------------|-------------------------|-------------|----------------------------|----------------------|--------------|---|--|--------|---------|---|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{\text{Ra}}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | | m kg |  |
| 131.87* | 11 | 400 | 0.50 | 5920 | 1540 | 6 | - | | | | |
| 121.48* | 12 | 400 | 0.54 | 5920 | 1530 | 6 | - | | | | |
| 104.37 | 13 | 400 | 0.62 | 5920 | 1500 | 6 | - | | | | |
| 90.86 | 15 | 400 | 0.71 | 5920 | 1480 | 6 | - | | | | |
| 85.12* | 16 | 400 | 0.76 | 5920 | 1470 | 6 | - | | | | |
| 75.20* | 19 | 400 | 0.85 | 5920 | 1440 | 6 | - | | | | |
| 69.84 | 20 | 400 | 0.91 | 5920 | 1410 | 6 | - | | | | |
| 63.30* | 22 | 400 | 1.0 | 5920 | 1390 | 6 | - | | | | |
| 56.83 | 25 | 400 | 1.1 | 5920 | 1660 | 7 | - | | | | |
| 48.95* | 29 | 400 | 1.3 | 5920 | 1640 | 7 | - | | | | |
| 46.03* | 30 | 400 | 1.4 | 5920 | 1640 | 7 | - | | | | |
| 39.61 | 35 | 400 | 1.6 | 5920 | 1620 | 7 | - | | K 47 | AD2 | 21 571 |
| 35.39 | 40 | 400 | 1.8 | 5920 | 1600 | 7 | - | | KF 47 | AD2 | 25 571 |
| 31.30 | 45 | 400 | 2.0 | 5700 | 1290 | 7 | - | | KA 47 | AD2 | 21 571 |
| 29.32 | 48 | 400 | 2.1 | 5520 | 1280 | 8 | - | | KAF 47 | AD2 | 23 571 |
| 25.91 | 54 | 400 | 2.4 | 5170 | 1260 | 8 | - | | | | |
| 24.06 | 58 | 400 | 2.6 | 4970 | 1240 | 8 | - | | | | |
| 21.81 | 64 | 400 | 2.8 | 4710 | 1220 | 8 | - | | | | |
| 19.58 | 72 | 400 | 3.1 | 4440 | 1200 | 8 | - | | | | |
| 16.86 | 83 | 380 | 3.5 | 4220 | 1190 | 8 | - | | | | |
| 15.86 | 88 | 380 | 3.7 | 4080 | 1180 | 8 | - | | | | |
| 13.65 | 103 | 360 | 4.0 | 3890 | 1170 | 8 | - | | | | |
| 12.19 | 115 | 350 | 4.4 | 3720 | 1150 | 8 | - | | | | |
| 11.77 | 119 | 280 | 3.6 | 4060 | 1020 | 10 | - | | | | |
| 10.56 | 133 | 280 | 4.1 | 3830 | 980 | 11 | - | | | | |
| 9.10 | 154 | 280 | 4.7 | 3540 | 930 | 11 | - | | | | |
| 8.56 | 164 | 270 | 4.8 | 3500 | 1960 | 11 | - | | K 47 | AD3 | 25 571 |
| 7.36 | 190 | 250 | 5.2 | 3380 | 1980 | 11 | - | | KF 47 | AD3 | 28 571 |
| 6.58 | 213 | 240 | 5.6 | 3270 | 1960 | 12 | - | | KA 47 | AD3 | 24 571 |
| 5.81 | 241 | 230 | 6.1 | 3140 | 1960 | 12 | - | | KAF 47 | AD3 | 27 571 |
| 4.64 | 302 | 205 | 6.8 | 2980 | 1920 | 12 | - | | | | |

| K49 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 500 Nm | |
|--|----------------------------|-------------------------|-------------|----------------------------|----------------------|--------------|---|--|--------|---------|---|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{\text{Ra}}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | | m kg |  |
| 75.20* | 19 | 475 | 1.0 | 9000 | 545 | - | - | | | | |
| 70.19 | 20 | 445 | 1.0 | 9000 | 660 | - | - | | | | |
| 60.27 | 23 | 500 | 1.4 | 9000 | 1420 | - | - | | | | |
| 52.94 | 26 | 500 | 1.5 | 8590 | 1410 | - | - | | | | |
| 50.29* | 28 | 500 | 1.6 | 8380 | 1410 | - | - | | | | |
| 44.44 | 32 | 500 | 1.8 | 7900 | 1380 | - | - | | | | |
| 42.10 | 32 | 500 | 1.8 | 7860 | 1370 | - | - | | | | |
| 37.98* | 37 | 500 | 2.1 | 7310 | 1360 | - | - | | | | |
| 34.81 | 40 | 500 | 2.3 | 7000 | 1350 | - | - | | | | |
| 30.55* | 46 | 500 | 2.6 | 6550 | 1330 | - | - | | | | |
| 28.95* | 48 | 500 | 2.8 | 6370 | 1320 | - | - | | | | |
| 25.34 | 55 | 500 | 3.2 | 5940 | 1290 | - | - | | K 49 | AD2 | 33 571 |
| 22.83 | 61 | 500 | 3.5 | 5610 | 1260 | - | - | | KF 49 | AD2 | 34 571 |
| 22.50* | 62 | 150 | 1.0 | 8470 | 555 | - | - | | KA 49 | AD2 | 30 571 |
| 21.00* | 67 | 140 | 1.0 | 8310 | 675 | - | - | | KAF 49 | AD2 | 35 571 |
| 20.03 | 70 | 500 | 4.0 | 5220 | 1220 | - | - | | | | |
| 18.04 | 78 | 260 | 2.2 | 7300 | 1110 | - | - | | | | |
| 17.67* | 79 | 500 | 4.6 | 4860 | 1190 | - | - | | | | |
| 15.84 | 88 | 260 | 2.5 | 6940 | 1090 | - | - | | | | |
| 15.67 | 89 | 490 | 5.0 | 4590 | 1160 | - | - | | | | |
| 15.05* | 93 | 255 | 2.6 | 6830 | 1110 | - | - | | | | |
| 13.38 | 105 | 470 | 5.7 | 4320 | 1130 | - | - | | | | |
| 13.30 | 105 | 420 | 4.8 | 5740 | 142 | - | - | | | | |
| 12.60 | 106 | 420 | 4.9 | 5710 | 86 | - | - | | | | |
| 11.75* | 126 | 450 | 6.5 | 4000 | 1060 | - | - | | | | |

| K49 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 500 Nm | |
|--|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|------------------|---|--|---------|---|-----|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Ψ _(R) |  |  | m kg |  | |
| 11.37* | 123 | 415 | 5.6 | 5370 | 1520 | - | - | | | | |
| 10.42 | 134 | 395 | 5.8 | 5250 | 1560 | - | - | | | | |
| 9.14* | 153 | 500 | 8.3 | 4460 | 940 | - | - | | | | |
| 8.66* | 162 | 500 | 8.8 | 4340 | 880 | - | - | | | | |
| 7.58 | 185 | 500 | 10.0 | 4050 | 735 | - | - | K 49 | AD3 | 36 | 571 |
| 6.83 | 205 | 500 | 11.1 | 3840 | 560 | - | - | KF 49 | AD3 | 38 | 571 |
| 5.99 | 234 | 500 | 12.7 | 3570 | 380 | - | - | KA 49 | AD3 | 33 | 571 |
| 5.29* | 265 | 485 | 13.9 | 3400 | 310 | - | - | KAF 49 | AD3 | 38 | 571 |
| 4.69* | 299 | 465 | 15.1 | 3270 | 285 | - | - | | | | |
| 4.00 | 350 | 435 | 16.5 | 3130 | 275 | - | - | | | | |
| 3.52* | 422 | 365 | 16.7 | 3140 | 505 | - | - | | | | |


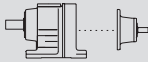

| K57 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 600 Nm | |
|--|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|------------------|---|--|---------|---|-----|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Ψ _(R) |  |  | m kg |  | |
| 145.14* | 9.7 | 600 | 0.67 | 7630 | 1280 | 6 | - | | | | |
| 123.85 | 11 | 600 | 0.78 | 7630 | 1240 | 6 | - | | | | |
| 108.29 | 13 | 600 | 0.89 | 7630 | 1220 | 6 | - | | | | |
| 102.88* | 14 | 600 | 0.93 | 7630 | 1210 | 6 | - | | | | |
| 90.26* | 16 | 600 | 1.1 | 7630 | 1610 | 6 | - | | | | |
| 76.56* | 18 | 600 | 1.2 | 7630 | 1590 | 6 | - | | | | |
| 69.12 | 20 | 600 | 1.4 | 7630 | 1580 | 6 | - | | | | |
| 60.81* | 23 | 600 | 1.6 | 7630 | 1570 | 6 | - | | | | |
| 57.42* | 24 | 600 | 1.6 | 7630 | 1560 | 6 | - | | | | |
| 48.89 | 29 | 600 | 1.9 | 7630 | 1540 | 6 | - | K 57 | AD2 | 27 | 571 |
| 44.43 | 32 | 600 | 2.1 | 7630 | 1520 | 6 | - | KF 57 | AD2 | 32 | 571 |
| 38.49 | 36 | 600 | 2.5 | 7630 | 1500 | 6 | - | KA 57 | AD2 | 25 | 571 |
| 35.70 | 39 | 600 | 2.6 | 7630 | 1160 | 7 | - | KAF 57 | AD2 | 31 | 571 |
| 30.28 | 46 | 600 | 3.0 | 7300 | 1120 | 7 | - | | | | |
| 27.34 | 51 | 600 | 3.4 | 6930 | 1100 | 7 | - | | | | |
| 24.05 | 58 | 600 | 3.8 | 6480 | 1070 | 7 | - | | | | |
| 22.71 | 62 | 600 | 4.1 | 6280 | 1050 | 7 | - | | | | |
| 19.34 | 72 | 575 | 4.6 | 5910 | 1030 | 7 | - | | | | |
| 17.57 | 80 | 555 | 4.8 | 5740 | 1020 | 7 | - | | | | |
| 15.22 | 92 | 535 | 5.4 | 5430 | 2030 | 7 | - | | | | |
| 13.25 | 106 | 510 | 5.9 | 5190 | 2010 | 7 | - | | | | |
| 11.92 | 117 | 415 | 5.3 | 5150 | 1770 | 9 | - | | | | |
| 11.26 | 124 | 415 | 5.7 | 4990 | 1750 | 9 | - | K 57 | AD3 | 30 | 571 |
| 9.59 | 146 | 405 | 6.5 | 4650 | 1690 | 10 | - | KF 57 | AD3 | 35 | 571 |
| 8.71 | 161 | 390 | 6.9 | 4520 | 1690 | 10 | - | KA 57 | AD3 | 28 | 571 |
| 7.55 | 186 | 365 | 7.4 | 4360 | 1700 | 10 | - | KAF 57 | AD3 | 34 | 571 |
| 6.57 | 213 | 345 | 8.1 | 4180 | 1690 | 10 | - | | | | |
| 4.69 | 298 | 300 | 9.8 | 3800 | 1630 | 11 | - | | | | |




| K67 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 820 Nm | |
|--|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|------------------|---|--|---------|---|--|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Ψ _(R) |  |  | m kg |  | |
| 144.79* | 9.7 | 820 | 0.91 | 10300 | 880 | 6 | - | | | | |
| 123.54 | 11 | 820 | 1.1 | 10300 | 1530 | 6 | - | | | | |
| 108.03 | 13 | 820 | 1.2 | 10300 | 1520 | 6 | - | | | | |
| 102.62 | 14 | 820 | 1.3 | 10300 | 1520 | 6 | - | | | | |
| 90.04 | 16 | 820 | 1.4 | 10300 | 1500 | 6 | - | | | | |
| 76.37 | 18 | 820 | 1.7 | 10300 | 1480 | 6 | - | | | | |
| 68.95 | 20 | 820 | 1.9 | 10300 | 1460 | 6 | - | | | | |
| 60.66 | 23 | 820 | 2.1 | 10300 | 1450 | 6 | - | | | | |
| 57.28 | 24 | 820 | 2.2 | 10300 | 1440 | 6 | - | | | | |
| 48.77 | 29 | 820 | 2.6 | 10300 | 1400 | 6 | - | | | | |
| 44.32 | 32 | 820 | 2.9 | 10300 | 1380 | 6 | - | | | | |
| 38.39 | 36 | 800 | 3.3 | 10500 | 1360 | 6 | - | | | | |
| 35.62 | 39 | 820 | 3.5 | 10300 | 880 | 7 | - | | | | |




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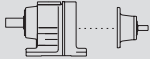

K.. helical-bevel gear units




Selection tables for input shaft assembly (AD..)

| K67 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 820 Nm | |
|--|----------------------------|-------------------------|-------------|----------------------------|----------------------|--------------|---|--|---------|---|--|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{\text{Ra}}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | |
| 30.22 | 46 | 820 | 4.2 | 10300 | 1860 | 7 | - | | | | |
| 27.28 | 51 | 820 | 4.6 | 10300 | 1820 | 7 | - | | | | |
| 24.00 | 58 | 800 | 5.1 | 10500 | 1820 | 7 | - | | | | |
| 22.66 | 62 | 780 | 5.3 | 10700 | 1820 | 7 | - | | | | |
| 19.30 | 73 | 760 | 6.0 | 10800 | 1780 | 7 | - | | | | |
| 17.54 | 80 | 740 | 6.5 | 11000 | 1760 | 7 | - | | | | |
| 15.19 | 92 | 700 | 7.1 | 11300 | 1750 | 8 | - | K 67 | AD3 | 36 571 | |
| 13.22 | 106 | 670 | 7.8 | 11500 | 1730 | 8 | - | KF 67 | AD3 | 42 571 | |
| 12.48 | 112 | 530 | 6.5 | 12300 | 1570 | 9 | - | KA 67 | AD3 | 34 571 | |
| 10.63 | 132 | 500 | 7.2 | 11800 | 1560 | 9 | - | KAF 67 | AD3 | 39 571 | |
| 9.66 | 145 | 480 | 7.6 | 11500 | 1560 | 9 | - | | | | |
| 8.37 | 167 | 440 | 8.1 | 11100 | 1590 | 9 | - | | | | |
| 7.28 | 192 | 420 | 8.8 | 10700 | 1570 | 9 | - | | | | |
| 5.20 | 269 | 350 | 10.3 | 9860 | 1560 | 10 | - | | | | |

| K77 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 1550 Nm | |
|--|----------------------------|-------------------------|-------------|----------------------------|----------------------|--------------|---|--|---------|---|--|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{\text{Ra}}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | |
| 192.18 | 7.3 | 1240 | 1.0 | 17200 | 570 | 5 | - | | | | |
| 179.37 | 7.8 | 1160 | 1.0 | 17600 | 685 | 5 | - | | | | |
| 154.02 | 9.1 | 1550 | 1.6 | 15400 | 1360 | 5 | - | | | | |
| 135.28 | 10 | 1550 | 1.8 | 15400 | 1350 | 5 | - | | | | |
| 128.52 | 11 | 1550 | 1.9 | 15400 | 1350 | 5 | - | | | | |
| 113.56 | 12 | 1550 | 2.1 | 15400 | 1310 | 5 | - | | | | |
| 97.05 | 14 | 1550 | 2.5 | 15400 | 1290 | 5 | - | K 77 | AD2 | 58 571 | |
| 88.97 | 16 | 1550 | 2.7 | 15400 | 1280 | 5 | - | KF 77 | AD2 | 66 571 | |
| 78.07 | 18 | 1550 | 3.1 | 15400 | 1250 | 5 | - | KA 77 | AD2 | 50 571 | |
| 73.99 | 19 | 1550 | 3.3 | 15400 | 1240 | 5 | - | KAF 77 | AD2 | 58 571 | |
| 64.75 | 22 | 1550 | 3.7 | 15400 | 1210 | 5 | - | | | | |
| 58.34 | 24 | 1550 | 4.1 | 15400 | 1180 | 6 | - | | | | |
| 51.18 | 27 | 1550 | 4.7 | 15400 | 1140 | 6 | - | | | | |
| 45.16 | 31 | 1550 | 5.3 | 15400 | 1100 | 6 | - | | | | |
| 40.04 | 35 | 1550 | 6.0 | 15400 | 2090 | 6 | - | K 77 | AD3 | 61 571 | |
| 38.39 | 36 | 1490 | 6.0 | 15800 | 1470 | 6 | - | KF 77 | AD3 | 70 571 | |
| 35.20 | 40 | 1410 | 6.2 | 16300 | 1530 | 6 | - | KA 77 | AD3 | 54 571 | |
| 30.89 | 45 | 1550 | 7.7 | 15400 | 1280 | 6 | - | KAF 77 | AD3 | 62 571 | |
| 29.27 | 48 | 1550 | 8.2 | 15400 | 3310 | 6 | - | | | | |
| 25.62 | 55 | 1550 | 9.3 | 15400 | 3250 | 6 | - | | | | |
| 23.08 | 61 | 1550 | 10.3 | 15400 | 3170 | 6 | - | | | | |
| 20.25 | 69 | 1500 | 11.4 | 15700 | 3140 | 6 | - | | | | |
| 17.87 | 78 | 1450 | 12.4 | 16100 | 3120 | 6 | - | K 77 | AD4 | 67 571 | |
| 15.84 | 88 | 1400 | 13.6 | 15500 | 3090 | 6 | - | KF 77 | AD4 | 76 571 | |
| 13.52 | 104 | 1340 | 15.2 | 14800 | 3050 | 7 | - | KA 77 | AD4 | 60 571 | |
| 12.36 | 113 | 1000 | 12.4 | 15100 | 2860 | 8 | - | KAF 77 | AD4 | 68 571 | |
| 10.84 | 129 | 990 | 14.0 | 14400 | 2790 | 8 | - | | | | |
| 9.56 | 146 | 940 | 15.1 | 13900 | 2790 | 8 | - | | | | |
| 8.48 | 165 | 890 | 16.1 | 13500 | 2800 | 8 | - | | | | |
| 7.24 | 193 | 820 | 17.3 | 13100 | 2810 | 8 | - | | | | |

| K87 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 2700 Nm | |
|--|----------------------------|-------------------------|-------------|----------------------------|----------------------|--------------|---|--|---------|---|--|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{\text{Ra}}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | |
| 197.37 | 7.1 | 2700 | 2.1 | 27300 | 1170 | 5 | - | | | | |
| 174.19 | 8.0 | 2700 | 2.4 | 27300 | 1150 | 5 | - | | | | |
| 164.34* | 8.5 | 2700 | 2.6 | 27300 | 1150 | 5 | - | K 87 | AD2 | 93 571 | |
| 147.32* | 9.5 | 2700 | 2.9 | 27300 | 1120 | 5 | - | KF 87 | AD2 | 105 571 | |
| 126.91* | 11 | 2700 | 3.3 | 27300 | 1100 | 5 | - | KA 87 | AD2 | 81 571 | |
| 115.82 | 12 | 2700 | 3.6 | 27300 | 1080 | 5 | - | KAF 87 | AD2 | 94 571 | |
| 102.71* | 14 | 2700 | 4.1 | 27300 | 1060 | 5 | - | | | | |
| 86.34 | 16 | 2700 | 4.9 | 27300 | 1020 | 5 | - | | | | |


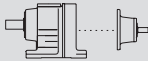


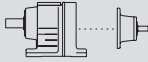


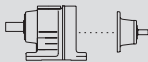

| K87 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 2700 Nm | |
|--|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|--|--------|---------|---|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) |  |  | | m kg |  |
| 79.34 | 18 | 2700 | 5.3 | 27300 | 1940 | 5 | - | | | | |
| 70.46 | 20 | 2700 | 6.0 | 27300 | 1910 | 5 | - | | | | |
| 63.00* | 22 | 2700 | 6.7 | 26200 | 1870 | 5 | - | | K 87 | AD3 | 98 571 |
| 56.64 | 25 | 2700 | 7.4 | 25000 | 1840 | 5 | - | | KF 87 | AD3 | 105 571 |
| 49.16 | 28 | 2700 | 8.6 | 23500 | 1780 | 5 | - | | KA 87 | AD3 | 85 571 |
| 44.02 | 32 | 2600 | 9.2 | 22800 | 1760 | 6 | - | | KAF 87 | AD3 | 99 571 |
| 36.52* | 38 | 2500 | 10.7 | 21400 | 1700 | 6 | - | | | | |
| 31.39 | 45 | 2700 | 13.2 | 19200 | 2770 | 6 | - | | | | |
| 27.88 | 50 | 2600 | 14.3 | 18500 | 2770 | 6 | - | | | | |
| 24.92 | 56 | 2500 | 15.4 | 18000 | 2780 | 6 | - | | | | |
| 22.41 | 62 | 2300 | 15.7 | 17900 | 2860 | 6 | - | | K 87 | AD4 | 105 571 |
| 19.45 | 72 | 2300 | 18.1 | 16800 | 2760 | 6 | - | | KF 87 | AD4 | 115 571 |
| 17.42 | 80 | 2200 | 19.4 | 16300 | 2750 | 6 | - | | KA 87 | AD4 | 92 571 |
| 16.00 | 88 | 1800 | 17.2 | 16000 | 2090 | 6 | - | | KAF 87 | AD4 | 105 571 |
| 14.45 | 97 | 2100 | 22 | 15300 | 2660 | 6 | - | | | | |
| 12.56 | 111 | 2000 | 24 | 14800 | 2640 | 6 | - | | | | |
| 11.17 | 125 | 1500 | 21 | 14900 | 2440 | 7 | - | | | | |
| 10.00 | 140 | 1500 | 23 | 14200 | 5590 | 7 | - | | K 87 | AD5 | 120 571 |
| 8.29 | 169 | 1400 | 26 | 13500 | 5550 | 7 | - | | KF 87 | AD5 | 130 571 |
| 7.21 | 194 | 1300 | 28 | 13200 | 5590 | 7 | - | | KA 87 | AD5 | 105 571 |
| | | | | | | | | | KAF 87 | AD5 | 120 571 |


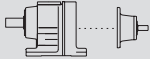

| K97 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 4300 Nm | |
|--|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|---|--------|---------|---|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) |  |  | | m kg |  |
| 176.05* | 8.0 | 4300 | 3.9 | 40000 | 1780 | 7 | - | | | | |
| 153.21* | 9.1 | 4300 | 4.4 | 40000 | 1760 | 7 | - | | | | |
| 140.28 | 10.0 | 4300 | 4.8 | 40000 | 1740 | 7 | - | | | | |
| 123.93* | 11 | 4300 | 5.5 | 40000 | 1710 | 7 | - | | K 97 | AD3 | 160 571 |
| 105.13 | 13 | 4300 | 6.4 | 40000 | 1670 | 7 | - | | KF 97 | AD3 | 180 571 |
| 96.80 | 14 | 4300 | 7.0 | 40000 | 1640 | 7 | - | | KA 97 | AD3 | 140 571 |
| 86.52 | 16 | 4300 | 7.8 | 38800 | 1600 | 7 | - | | KAF 97 | AD3 | 165 571 |
| 77.89* | 18 | 4300 | 8.7 | 37100 | 1570 | 7 | - | | | | |
| 70.54 | 20 | 4300 | 9.6 | 35600 | 1520 | 7 | - | | | | |
| 62.55 | 22 | 4300 | 10.8 | 33800 | 3510 | 7 | - | | K 97 | AD4 | 165 571 |
| 56.55 | 25 | 4300 | 12.0 | 32300 | 3460 | 7 | - | | KF 97 | AD4 | 185 571 |
| 47.93* | 29 | 4300 | 14.1 | 30000 | 3380 | 7 | - | | KA 97 | AD4 | 145 571 |
| 41.87 | 33 | 4300 | 16.2 | 28300 | 3300 | 7 | - | | KAF 97 | AD4 | 170 571 |
| 38.30 | 37 | 4300 | 17.3 | 27100 | 5300 | 7 | - | | | | |
| 34.23 | 41 | 4300 | 19.3 | 25700 | 5220 | 7 | - | | | | |
| 30.82 | 45 | 4300 | 21 | 24500 | 5150 | 7 | - | | K 97 | AD5 | 180 571 |
| 27.91 | 50 | 4300 | 24 | 23300 | 5070 | 8 | - | | KF 97 | AD5 | 200 571 |
| 24.75 | 57 | 4300 | 27 | 22000 | 4980 | 8 | - | | KA 97 | AD5 | 160 571 |
| 22.37 | 63 | 4300 | 30 | 20900 | 4880 | 8 | - | | KAF 97 | AD5 | 185 571 |
| 18.96 | 74 | 4300 | 35 | 19100 | 4680 | 8 | - | | | | |
| 16.56 | 85 | 4300 | 40 | 17800 | 4520 | 8 | - | | | | |
| 13.85 | 101 | 4300 | 48 | 16100 | 7200 | 8 | - | | K 97 | AD6 | 195 571 |
| 11.99 | 117 | 3890 | 50 | 16200 | 7300 | 8 | M2,4-6 | | KF 97 | AD6 | 215 571 |
| | | | | | | | | | KA 97 | AD6 | 175 571 |
| | | | | | | | | | KAF 97 | AD6 | 200 571 |
| 10.41 | 134 | 2870 | 42 | 16400 | 4320 | 10 | - | | K 97 | AD5 | 180 571 |
| | | | | | | | | | KF 97 | AD5 | 200 571 |
| | | | | | | | | | KA 97 | AD5 | 160 571 |
| | | | | | | | | | KAF 97 | AD5 | 185 571 |
| 8.71 | 161 | 2660 | 47 | 15800 | 7250 | 10 | - | | K 97 | AD6 | 195 571 |
| 7.54 | 186 | 2400 | 49 | 15700 | 7360 | 10 | - | | KF 97 | AD6 | 215 571 |
| | | | | | | | | | KA 97 | AD6 | 175 571 |
| | | | | | | | | | KAF 97 | AD6 | 200 571 |




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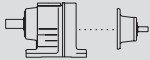

K.. helical-bevel gear units

Selection tables for input shaft assembly (AD..)

| K107 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 8000 Nm | |
|---|----------------------------|-------------------------|-------------|----------------------------|----------------------|--------------|---|--|---------|---|--|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{\text{Ra}}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | |
| 143.47* | 9.8 | 8000 | 8.7 | 65000 | 3090 | 6 | - | | | | |
| 121.46 | 12 | 8000 | 10.3 | 61500 | 3030 | 6 | - | | | | |
| 112.41* | 12 | 8000 | 11.1 | 59300 | 2980 | 6 | - | | | | |
| 100.75 | 14 | 8000 | 12.4 | 56200 | 2930 | 6 | - | K 107 | AD4 | 280 571 | |
| 90.96* | 15 | 8000 | 13.8 | 53500 | 2850 | 6 | - | KF 107 | AD4 | 290 571 | |
| 82.61 | 17 | 8000 | 15.2 | 50900 | 2800 | 6 | - | KA 107 | AD4 | 250 571 | |
| 73.30 | 19 | 8000 | 17.1 | 47900 | 2730 | 6 | - | KAF 107 | AD4 | 275 571 | |
| 66.52* | 21 | 8000 | 18.8 | 45400 | 2670 | 6 | - | | | | |
| 57.17* | 24 | 8000 | 22 | 41700 | 2550 | 6 | - | | | | |
| 49.90 | 28 | 7840 | 25 | 39300 | 2480 | 6 | - | | | | |
| 42.33* | 33 | 7360 | 27 | 37900 | 5700 | 6 | - | K 107 | AD5 | 290 571 | |
| 37.00* | 38 | 7200 | 31 | 35800 | 5620 | 6 | - | KF 107 | AD5 | 305 571 | |
| 32.69 | 43 | 7200 | 34 | 33200 | 3360 | 6 | - | KA 107 | AD5 | 265 571 | |
| 31.28* | 45 | 6800 | 34 | 34200 | 5590 | 6 | - | KAF 107 | AD5 | 290 571 | |
| 29.00 | 48 | 7200 | 38 | 30700 | 6610 | 6 | - | | | | |
| 26.32 | 53 | 7200 | 42 | 28800 | 6500 | 6 | - | | | | |
| 22.62 | 62 | 7200 | 49 | 25800 | 6280 | 6 | - | | | | |
| 19.74 | 71 | 7170 | 56 | 23400 | 6090 | 6 | - | | | | |
| 16.75 | 84 | 6080 | 56 | 26200 | 6500 | 7 | - | K 107 | AD6 | 305 571 | |
| 14.64 | 96 | 5310 | 56 | 27800 | 6790 | 7 | - | KF 107 | AD6 | 320 571 | |
| 13.43 | 104 | 4300 | 49 | 29200 | 6260 | 9 | - | KA 107 | AD6 | 280 571 | |
| 11.73 | 119 | 4260 | 56 | 27600 | 6090 | 9 | - | KAF 107 | AD6 | 300 571 | |
| 9.94 | 141 | 3610 | 56 | 27800 | 6500 | 9 | - | | | | |
| 8.69 | 161 | 3150 | 56 | 27800 | 6800 | 9 | - | | | | |
| 7.35 | 191 | 2660 | 56 | 27600 | 7150 | 9 | - | | | | |
| K127 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 13000 Nm | |
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{\text{Ra}}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | |
| 146.07 | 9.6 | 13000 | 13.9 | 79200 | 2390 | 5 | - | K 127 | AD4 | 435 571 | |
| 136.14 | 10 | 13000 | 14.9 | 79200 | 2340 | 5 | - | KF 127 | AD4 | 480 571 | |
| 122.48 | 11 | 13000 | 16.6 | 79200 | 2240 | 5 | - | KA 127 | AD4 | 410 571 | |
| 110.18 | 13 | 13000 | 18.4 | 79200 | 2100 | 5 | - | KAF 127 | AD4 | 445 571 | |
| 89.89 | 16 | 13000 | 23 | 75100 | 5360 | 5 | - | | | | |
| 81.98 | 17 | 13000 | 25 | 72100 | 5300 | 5 | - | K 127 | AD5 | 450 571 | |
| 70.95* | 20 | 13000 | 29 | 67700 | 5180 | 5 | M2-6 | KF 127 | AD5 | 490 571 | |
| 62.60 | 22 | 13000 | 32 | 64000 | 5080 | 5 | M1-6 | KA 127 | AD5 | 420 571 | |
| 54.07 | 26 | 13000 | 38 | 59800 | 4930 | 5 | M1-6 | KAF 127 | AD5 | 460 571 | |
| 47.82 | 29 | 13000 | 43 | 56500 | 4790 | 5 | M1-6 | | | | |
| 40.19 | 35 | 13000 | 51 | 52000 | 7500 | 5 | M1-6 | K 127 | AD6 | 460 571 | |
| | | | | | | | | KF 127 | AD6 | 500 571 | |
| | | | | | | | | KA 127 | AD6 | 430 571 | |
| | | | | | | | | KAF 127 | AD6 | 470 571 | |
| 36.25 | 39 | 13000 | 55 | 49400 | 11400 | 6 | M1-6 | K 127 | AD7 | 460 571 | |
| 31.37 | 45 | 13000 | 63 | 45900 | 10500 | 6 | M1-6 | KF 127 | AD7 | 500 571 | |
| 27.68 | 51 | 13000 | 72 | 43000 | 9650 | 6 | M1-6 | KA 127 | AD7 | 430 571 | |
| 23.91 | 59 | 13000 | 83 | 39800 | 8490 | 6 | M1-6 | KAF 127 | AD7 | 470 571 | |
| 21.15 | 66 | 13000 | 94 | 37200 | 24500 | 6 | M1-6 | | | | |
| 17.77 | 79 | 13000 | 112 | 32600 | 24100 | 6 | M1-6 | K 127 | AD8 | 480 571 | |
| 14.35 | 98 | 12100 | 129 | 31000 | 23900 | 6 | M1-6 | KF 127 | AD8 | 520 571 | |
| 12.79 | 110 | 8530 | 102 | 35400 | 24100 | 8 | M1-6 | KA 127 | AD8 | 455 571 | |
| 10.74 | 130 | 8000 | 114 | 33900 | 24000 | 8 | M1-6 | KAF 127 | AD8 | 490 571 | |
| 8.68 | 161 | 7230 | 128 | 32500 | 24000 | 8 | M1-6 | | | | |
| K157 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 20000 Nm | |
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{\text{Ra}}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | |
| 150.41 | 9.3 | 20000 | 21 | 111100 | 4900 | 5 | - | | | | |
| 122.39 | 11 | 20000 | 25 | 102100 | 4760 | 5 | - | | | | |
| 100.22 | 14 | 20000 | 31 | 93700 | 4560 | 5 | - | K 157 | AD5 | 680 572 | |
| 91.65 | 15 | 20000 | 34 | 90000 | 4480 | 5 | - | KF 157 | AD5 | 760 572 | |
| 79.75 | 18 | 20000 | 39 | 84500 | 4340 | 5 | - | KA 157 | AD5 | 650 572 | |
| 70.38 | 20 | 20000 | 44 | 79800 | 4200 | 5 | M2-6 | KAF 157 | AD5 | 710 572 | |
| 61.02 | 23 | 18100 | 46 | 78800 | 4380 | 5 | M1-6 | | | | |

| K157 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 20000 Nm | |
|---|----------------------------|-------------------------|-------------|---------------------|---------------|--------------|---|--|---------|---|--|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | |
| 54.29 | 26 | 20000 | 57 | 70600 | 6840 | 5 | M1-6 | K 157 AD6 KF 157 AD6 KA 157 AD6 KAF 157 AD6 | 700 | 572 | |
| | | | | | | | | | 780 | 572 | |
| | | | | | | | | | 660 | 572 | |
| | | | | | | | | | 720 | 572 | |
| 46.79 | 30 | 20000 | 67 | 65600 | 16700 | 5 | M1-6 | K 157 AD7 KF 157 AD7 KA 157 AD7 KAF 157 AD7 | 700 | 572 | |
| 38.02 | 37 | 20000 | 82 | 59000 | 16400 | 5 | M1-6 | | 770 | 572 | |
| | | | | | | | | | 660 | 572 | |
| | | | | | | | | | 720 | 572 | |
| 31.30 | 45 | 18300 | 89 | 56900 | 23500 | 6 | M1-6 | K 157 AD8 KF 157 AD8 KA 157 AD8 KAF 157 AD8 | 720 | 572 | |
| 27.62 | 51 | 17500 | 97 | 55100 | 23500 | 6 | M1-6 | | 800 | 572 | |
| 23.95 | 58 | 20000 | 128 | 45700 | 22200 | 6 | M1-6 | | 680 | 572 | |
| 21.31 | 66 | 20000 | 143 | 42600 | 21900 | 6 | M1-6 | | 740 | 572 | |
| 18.37 | 76 | 20000 | 166 | 38800 | 21500 | 6 | M1-6 | | | | |
| 14.92 | 94 | 19700 | 202 | 34500 | 20800 | 6 | M1-6 | | | | |
| 12.65 | 111 | 18300 | 221 | 33800 | 20700 | 6 | M1-6 | | | | |

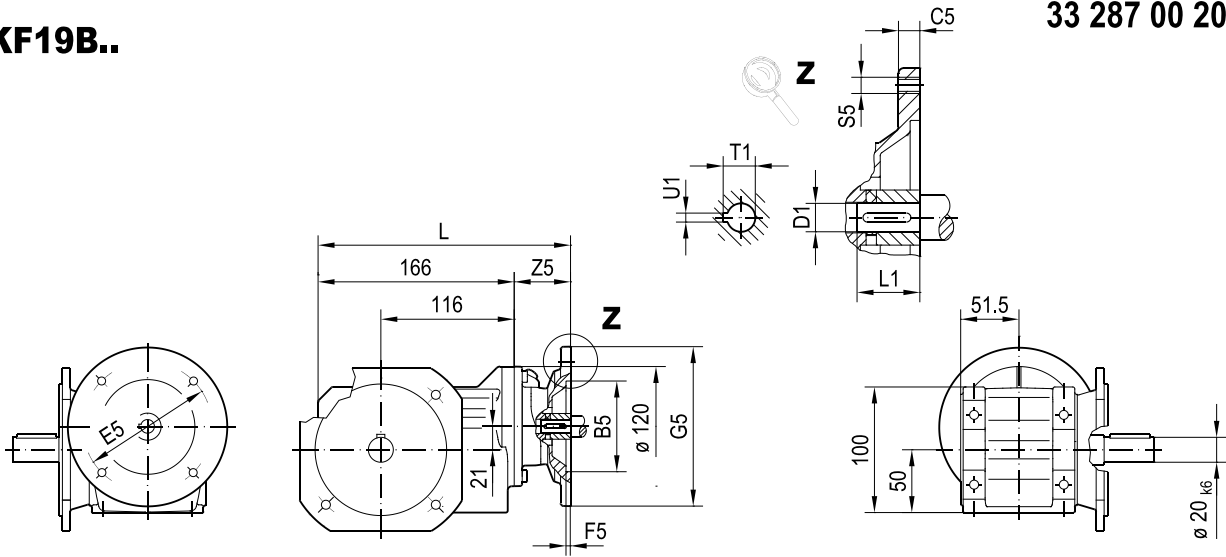
| K167 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 35000 Nm | |
|---|----------------------------|-------------------------|-------------|---------------------|---------------|--------------|---|--|---------|---|--|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | |
| 164.50 | 8.5 | 29500 | 28 | 150000 | 2960 | 4 | - | K 167 AD5 KH 167 AD5 | 1080 | 572 | |
| | | | | | | | | | 1040 | 572 | |
| 134.99 | 10 | 34600 | 40 | 150000 | 5000 | 4 | - | K 167 AD6 KH 167 AD6 | 1100 | 572 | |
| 109.83 | 13 | 35000 | 49 | 150000 | 4360 | 5 | - | | 1060 | 572 | |
| 87.86 | 16 | 35000 | 62 | 141700 | 11000 | 5 | M2-6 | K 167 AD7 KH 167 AD7 | 1090 | 572 | |
| 78.14 | 18 | 35000 | 69 | 134600 | 10500 | 5 | M1-6 | | 1050 | 572 | |
| 68.07 | 21 | 35000 | 80 | 126500 | 9560 | 5 | M1-6 | | | | |
| 60.74 | 23 | 35000 | 89 | 120100 | 8700 | 5 | M1-6 | | | | |
| 51.77 | 27 | 35000 | 105 | 111500 | 24500 | 5 | M1-6 | | | | |
| 42.89 | 33 | 35000 | 127 | 101900 | 24000 | 5 | M1-6 | K 167 AD8 KH 167 AD8 | 1110 | 572 | |
| 36.61 | 38 | 35000 | 149 | 94200 | 23600 | 5 | M1-6 | | 1070 | 572 | |
| 32.25 | 43 | 30300 | 144 | 96900 | 20800 | 5 | M1-6 | | | | |
| 28.77 | 49 | 27000 | 144 | 97800 | 21500 | 5 | M1-6 | | | | |
| 24.52 | 57 | 35000 | 218 | 76200 | 18300 | 5 | M1-6 | | | | |
| 20.32 | 69 | 35000 | 263 | 68500 | 16400 | 5 | M1-6 | | | | |
| 17.34 | 81 | 31400 | 277 | 69000 | 17800 | 5 | M1-6 | | | | |

| K187 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 53000 Nm | |
|---|----------------------------|-------------------------|-------------|---------------------|---------------|--------------|---|--|---------|---|--|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | |
| 179.86 | 7.8 | 53000 | 46 | 190000 | 5390 | 4 | - | K 187 AD6 KH 187 AD6 | 1680 | 572 | |
| 165.21 | 8.5 | 53000 | 50 | 190000 | 5230 | 4 | - | | 1610 | 572 | |
| 144.59 | 9.7 | 53000 | 57 | 181500 | 4900 | 4 | - | | | | |
| 129.69 | 11 | 53000 | 64 | 173100 | 12900 | 4 | - | K 187 AD7 KH 187 AD7 | 1670 | 572 | |
| 112.60 | 12 | 53000 | 73 | 162500 | 12100 | 4 | M2-6 | | 1600 | 572 | |
| 102.16 | 14 | 53000 | 81 | 155400 | 11700 | 4 | M1-6 | K 187 AD8 KH 187 AD8 | | | |
| 88.00 | 16 | 53000 | 94 | 145000 | 25200 | 4 | M1-6 | | | | |
| 73.96 | 19 | 53000 | 112 | 133500 | 24800 | 4 | M1-6 | | | | |
| 64.04 | 22 | 53000 | 129 | 124400 | 24500 | 4 | M1-6 | | | | |
| 53.36 | 26 | 53000 | 155 | 113400 | 24000 | 4 | M1-6 | | | | |
| 45.50* | 31 | 52300 | 179 | 105400 | 23600 | 4 | M1-6 | | | | |
| 42.51 | 33 | 39900 | 144 | 120800 | 21000 | 4 | M1-6 | | 1690 | 572 | |
| 38.57 | 36 | 36100 | 143 | 121400 | 21700 | 4 | M1-6 | | 1630 | 572 | |
| 33.23 | 42 | 51700 | 238 | 89500 | 15100 | 4 | M1-6 | | | | |
| 27.92 | 50 | 49600 | 271 | 84200 | 14600 | 4 | M1-6 | | | | |
| 24.18 | 58 | 43800 | 277 | 86300 | 18000 | 4 | M1-6 | | | | |
| 20.15 | 69 | 36400 | 277 | 89600 | 19100 | 4 | M1-6 | | | | |
| 17.18 | 82 | 31000 | 277 | 91100 | 20000 | 4 | M1-6 | | | | |

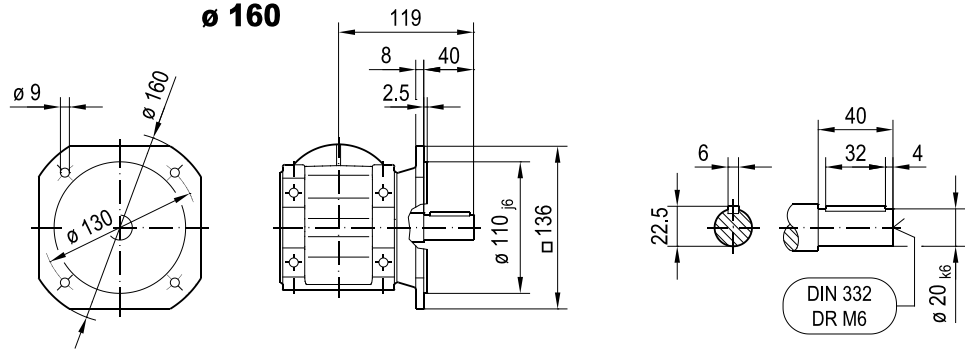
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KF19B..

33 287 00 20

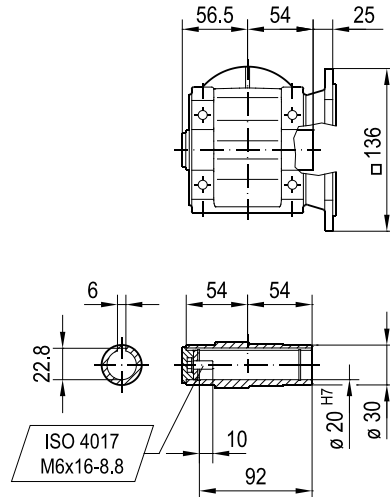


ø 160



KAF19B..

ø 160

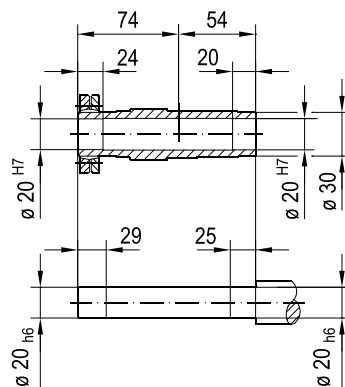
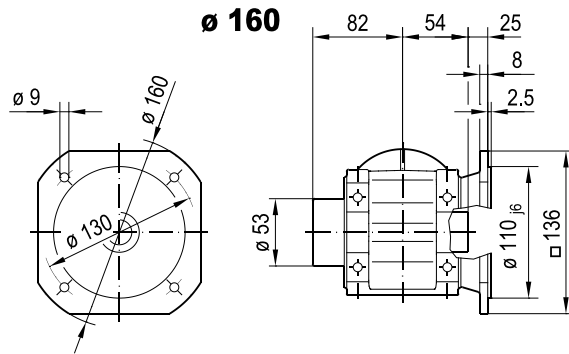
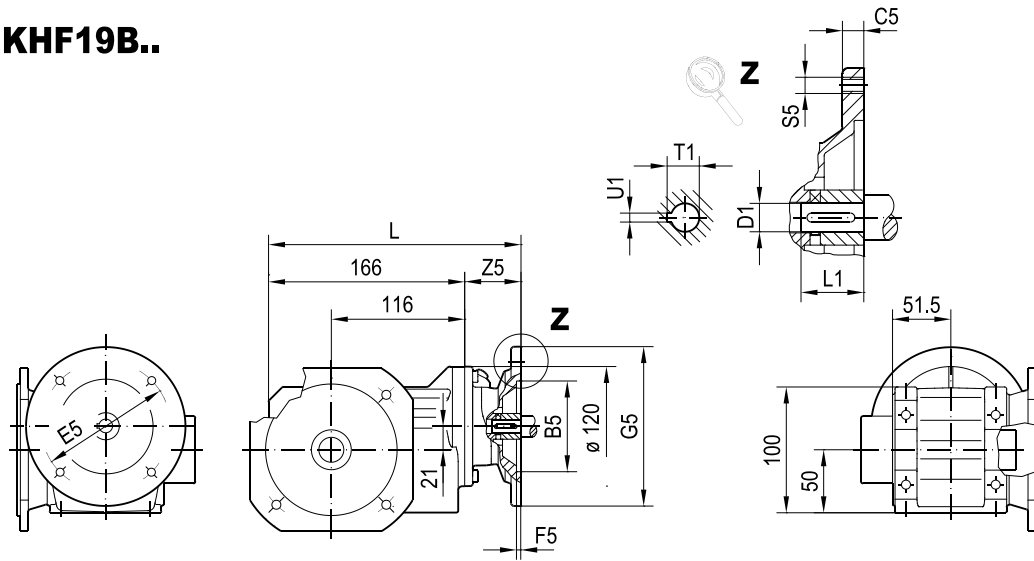


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 223 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 223 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 240 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 253 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

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33 288 00 20

KHF19B..

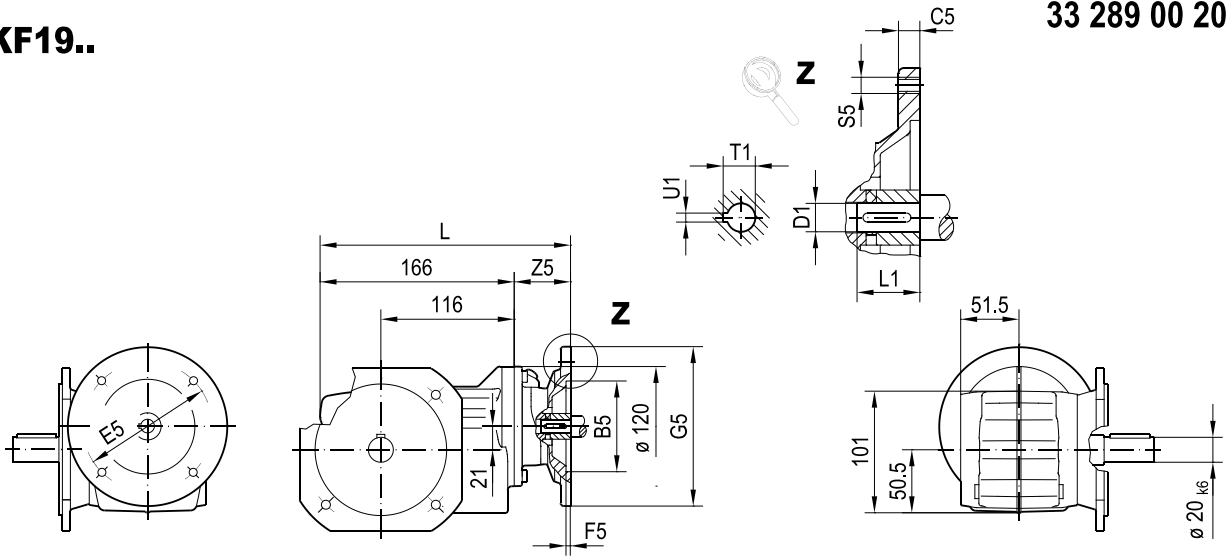


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 223 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 223 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 240 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 253 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

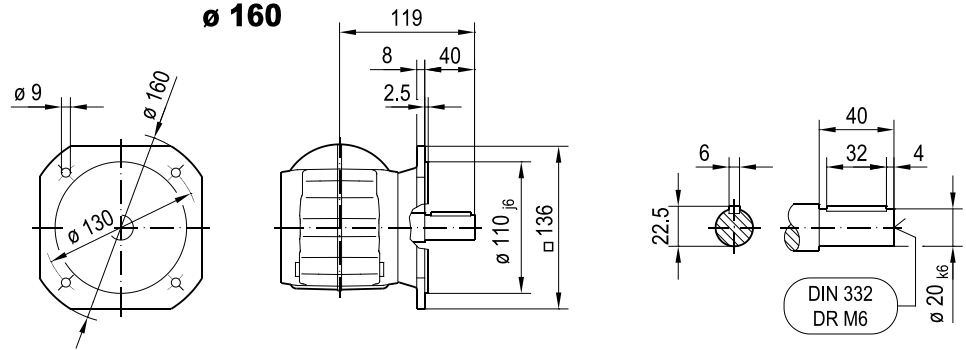
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KF19..

33 289 00 20

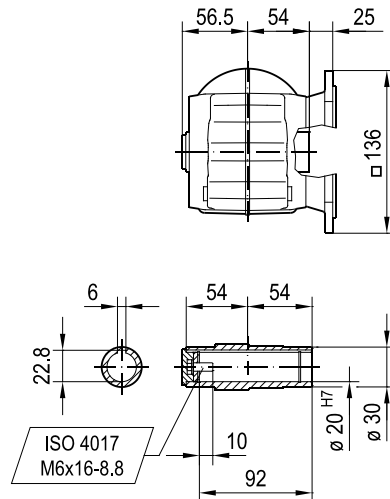


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KAF19..

∅ 160

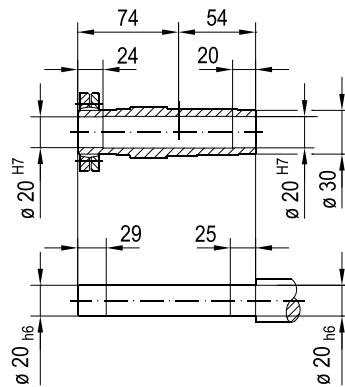
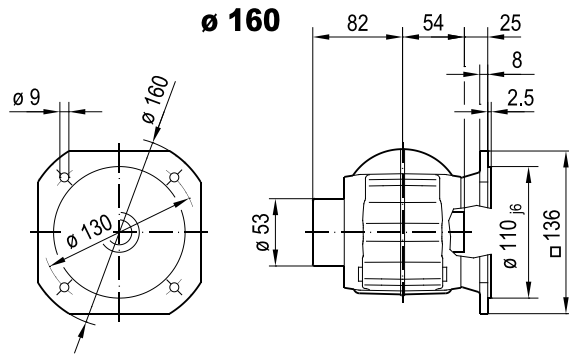
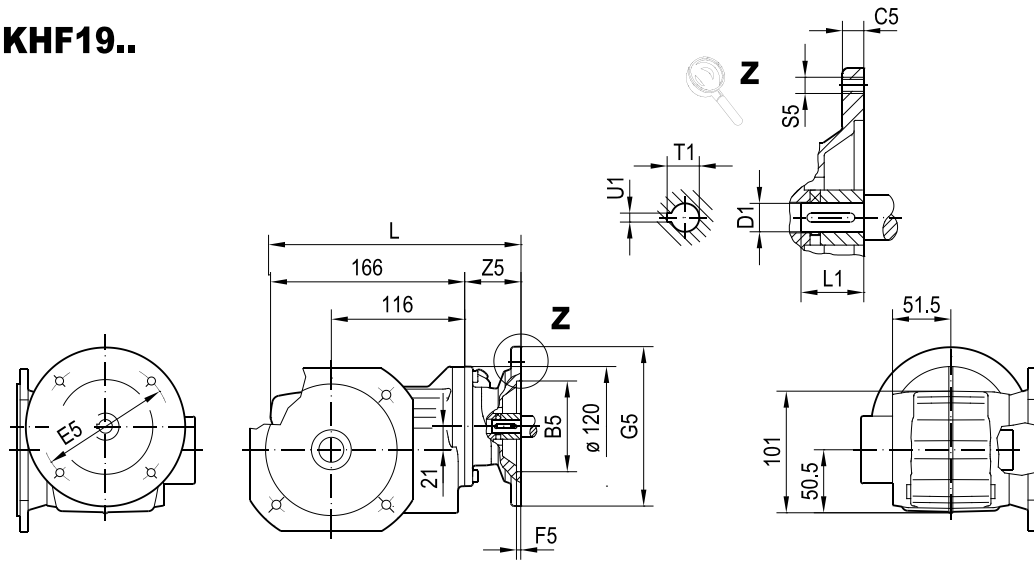


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 223 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 223 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 240 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 253 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

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33 290 00 20

KHF19..

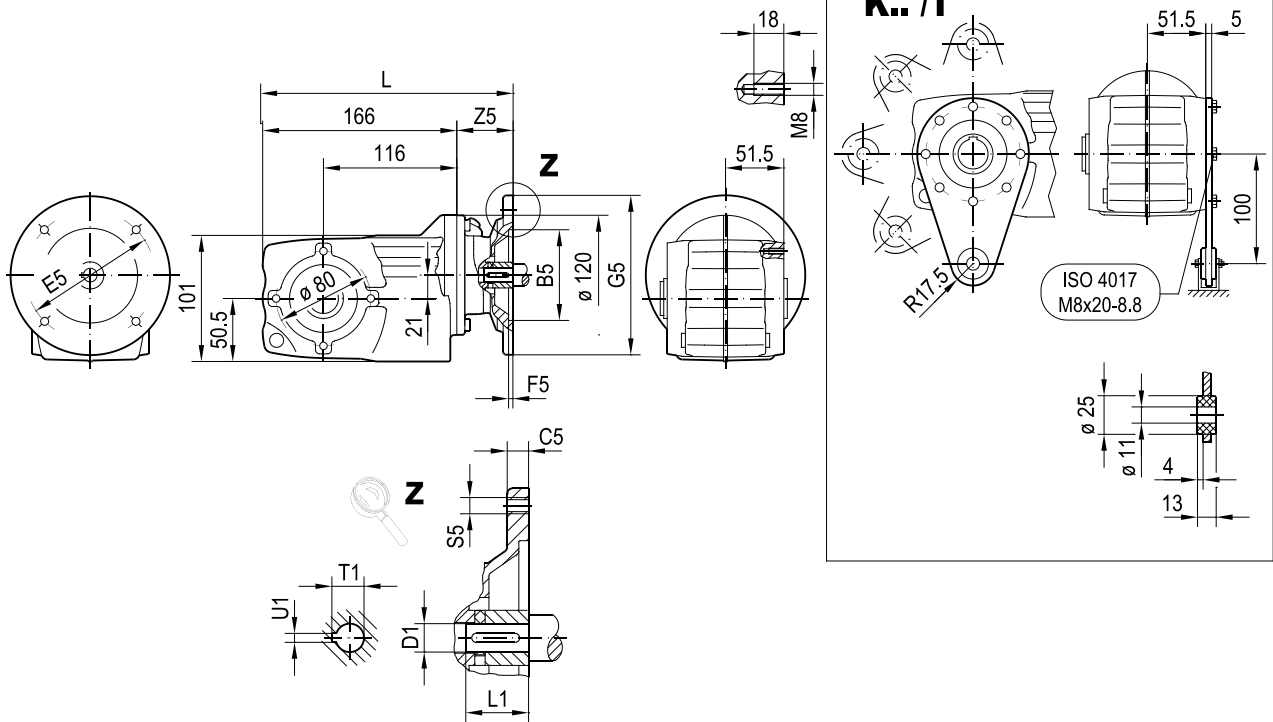


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 223 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 223 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 240 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 253 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

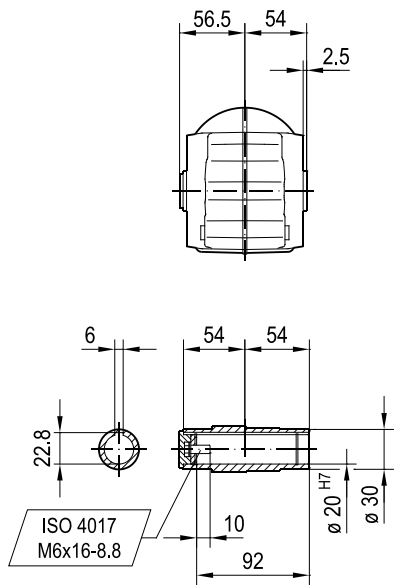
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33 291 00 20

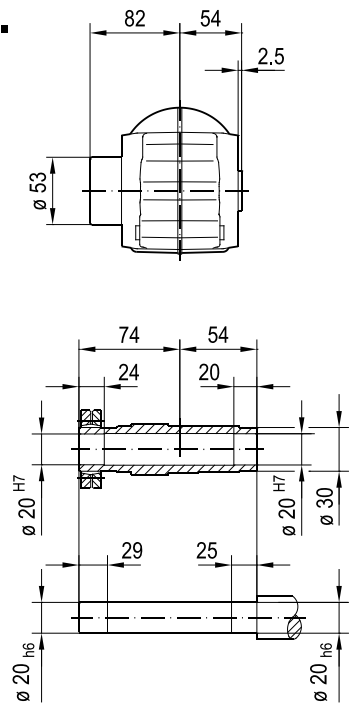
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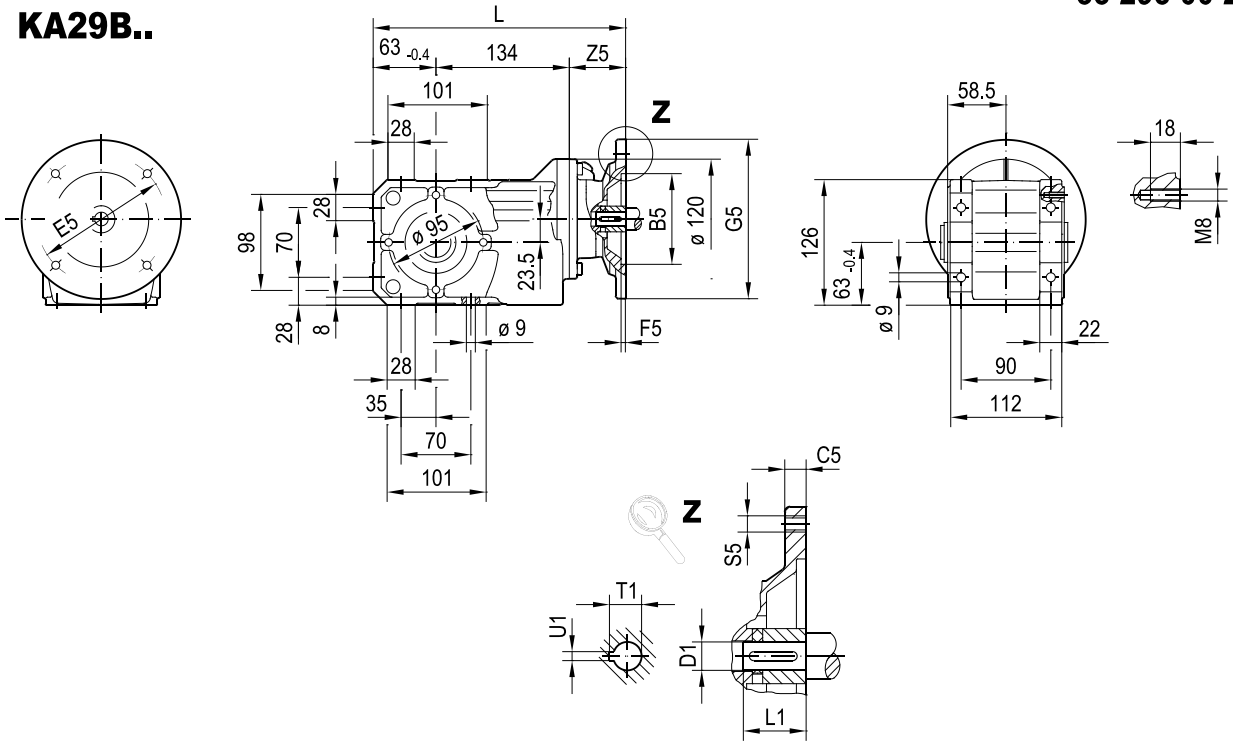


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 223 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 223 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 240 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 253 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

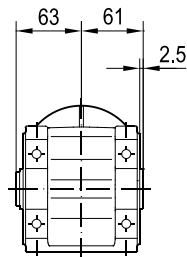
26878585/EN – 11/2021

33 293 00 20

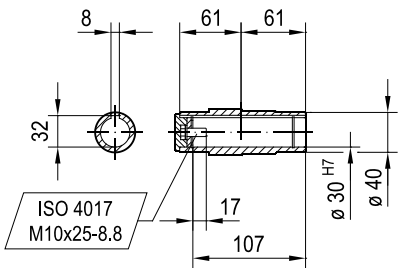
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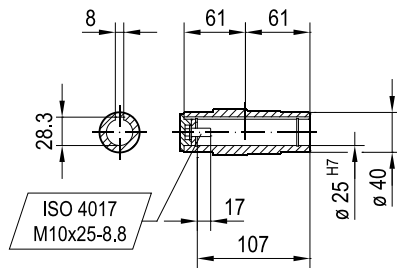
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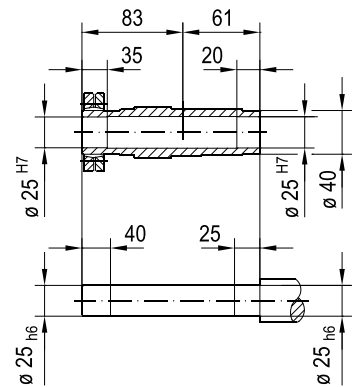
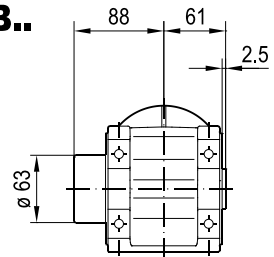
**Ø 30 H7
DIN 6885-3**



Ø 25 H7



KH29B..

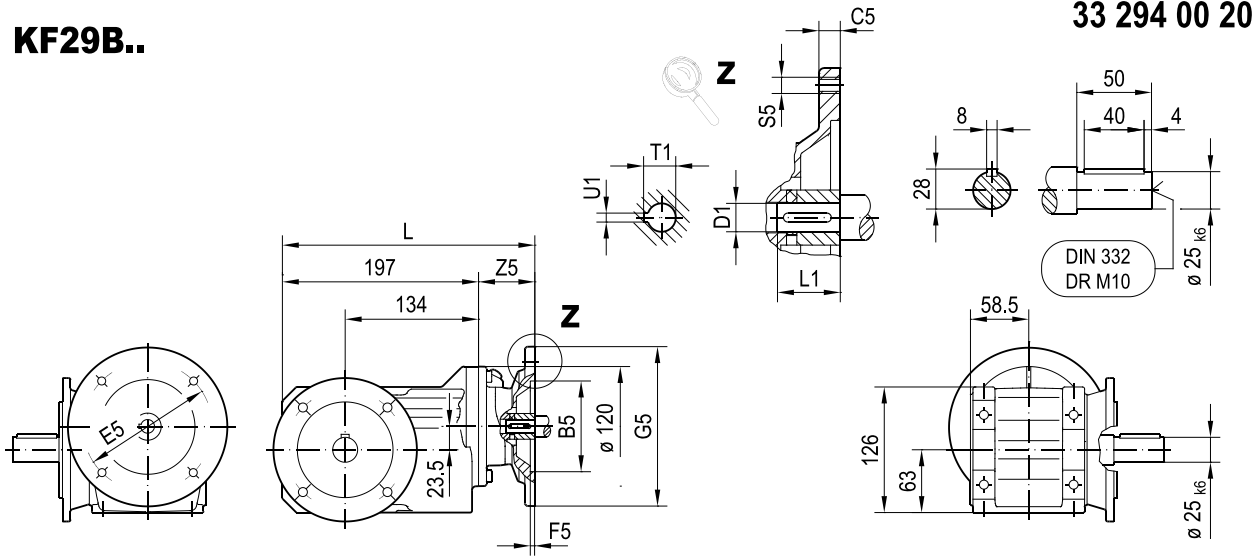


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 254 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 254 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 271 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 284 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

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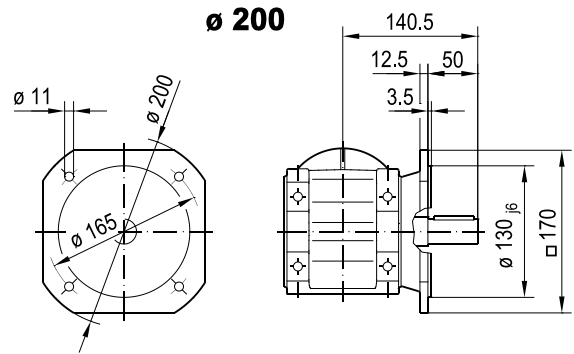
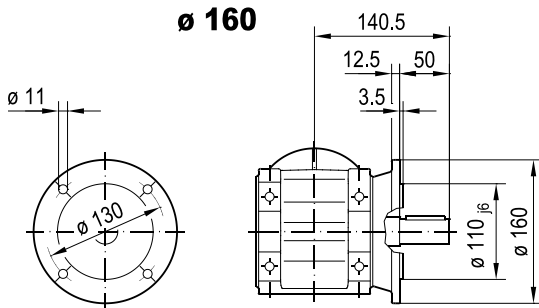
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33 294 00 20



ø 160

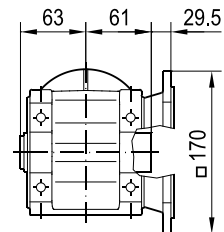
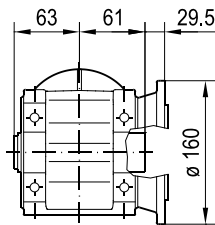
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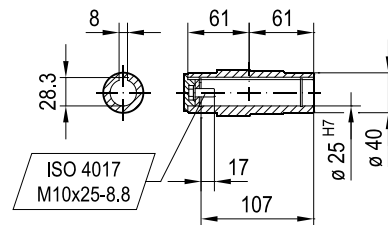
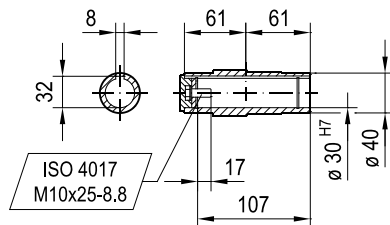
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ø 200



ø 30 H7
DIN 6885-3

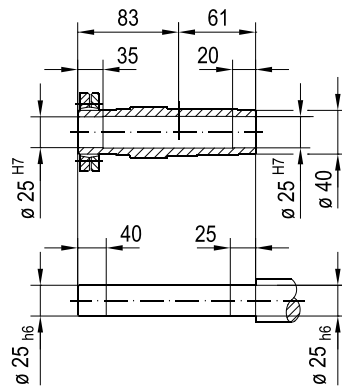
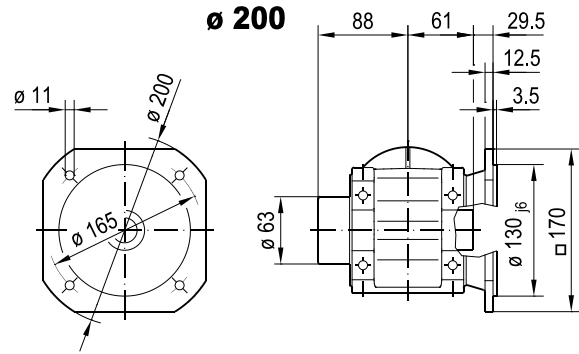
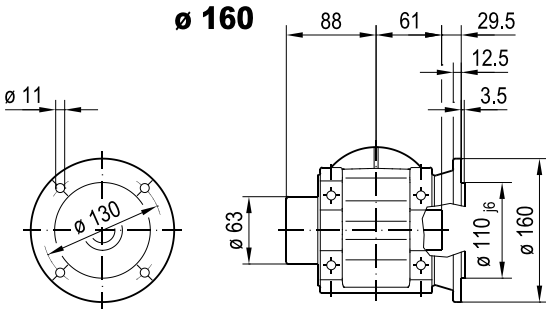
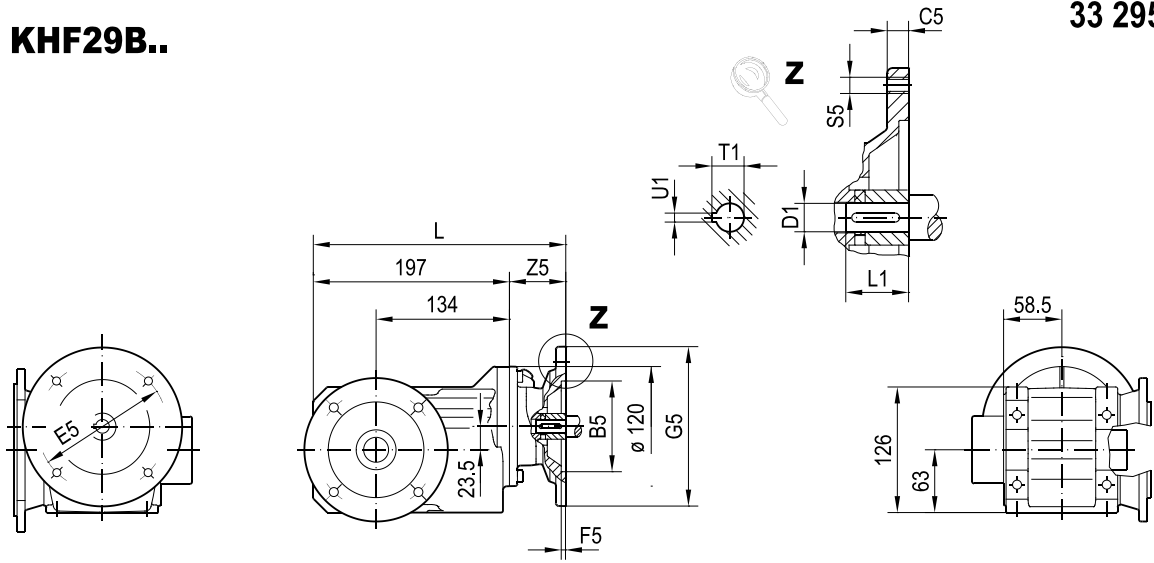
ø 25 H7



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 254 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 254 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 271 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 284 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

KHF29B..

33 295 00 20

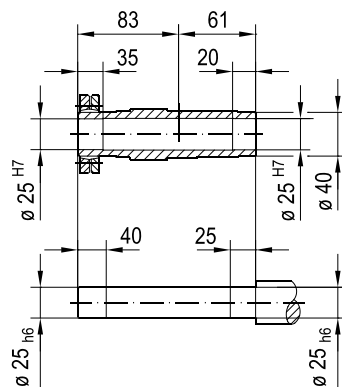
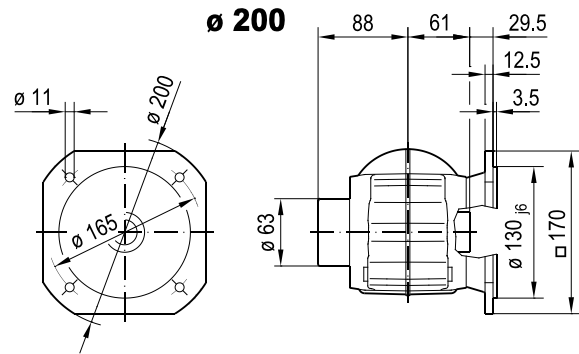
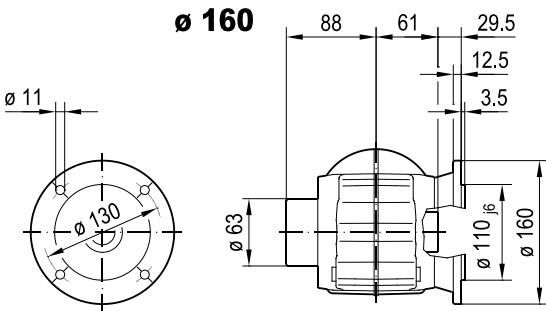
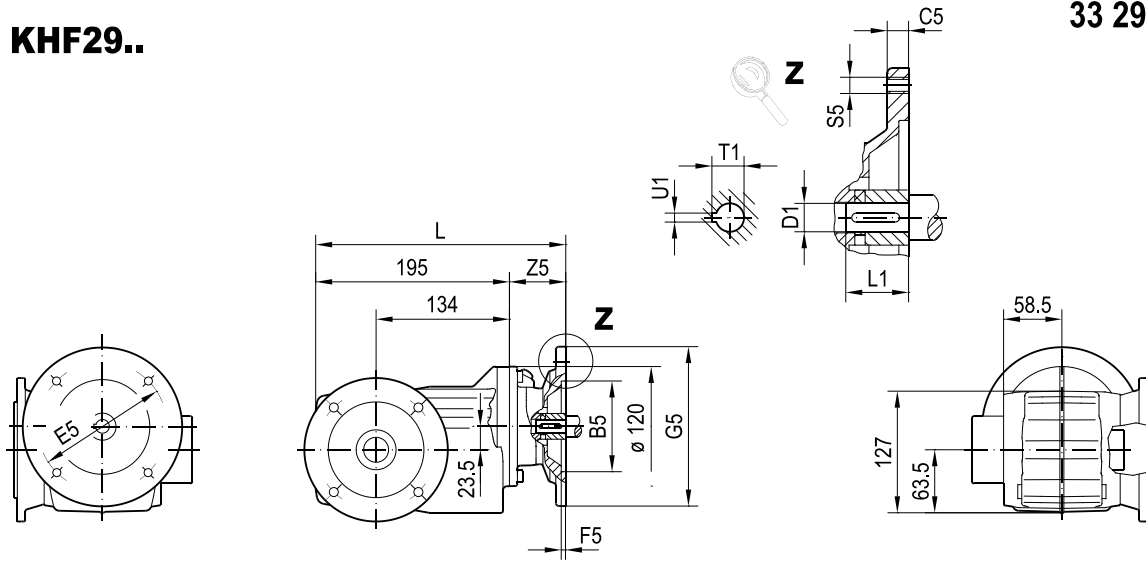


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 254 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 254 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 271 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 284 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

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KHF29..

33 297 00 20

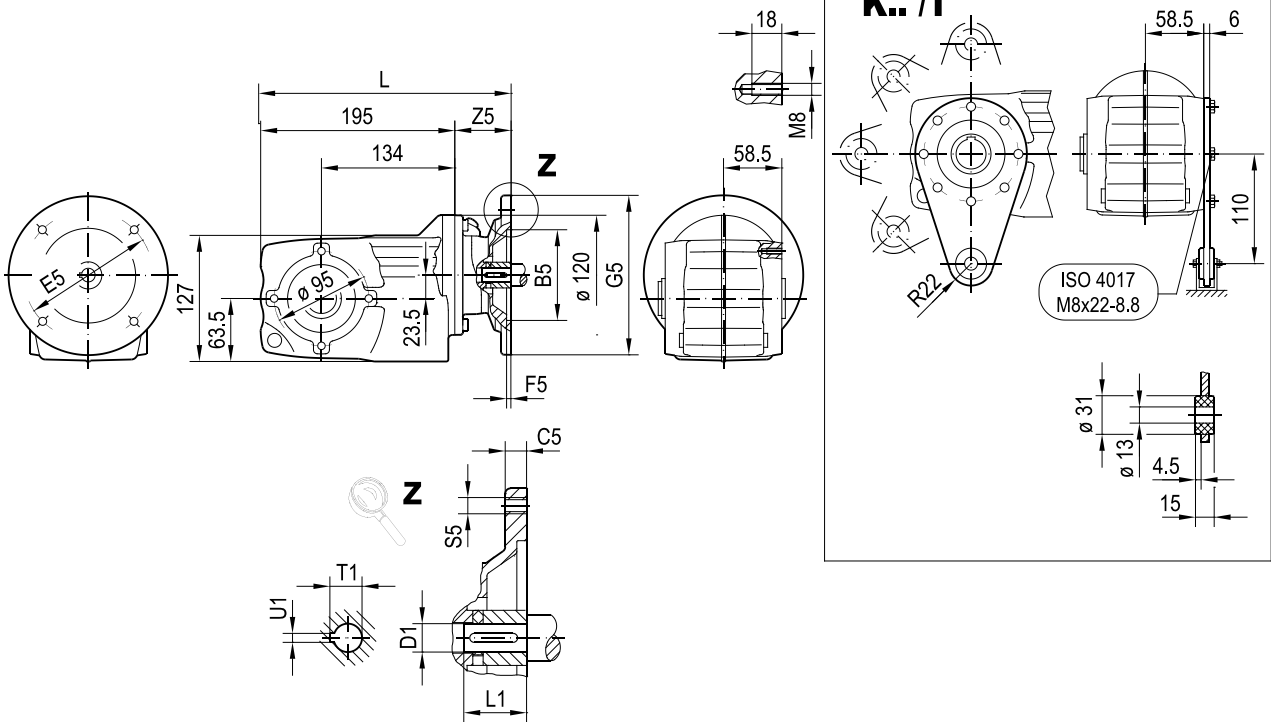


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 252 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 252 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 269 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 282 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

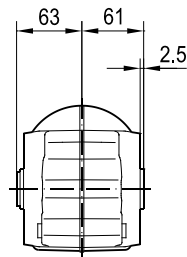
26878585/EN – 11/2021

33 298 00 20

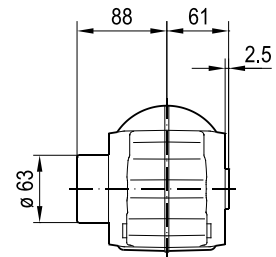
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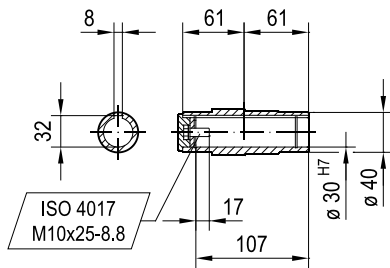
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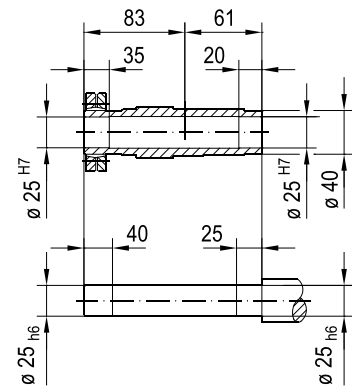
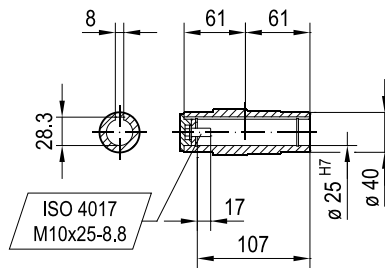
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$\varnothing 30$ H7
DIN 6885-3



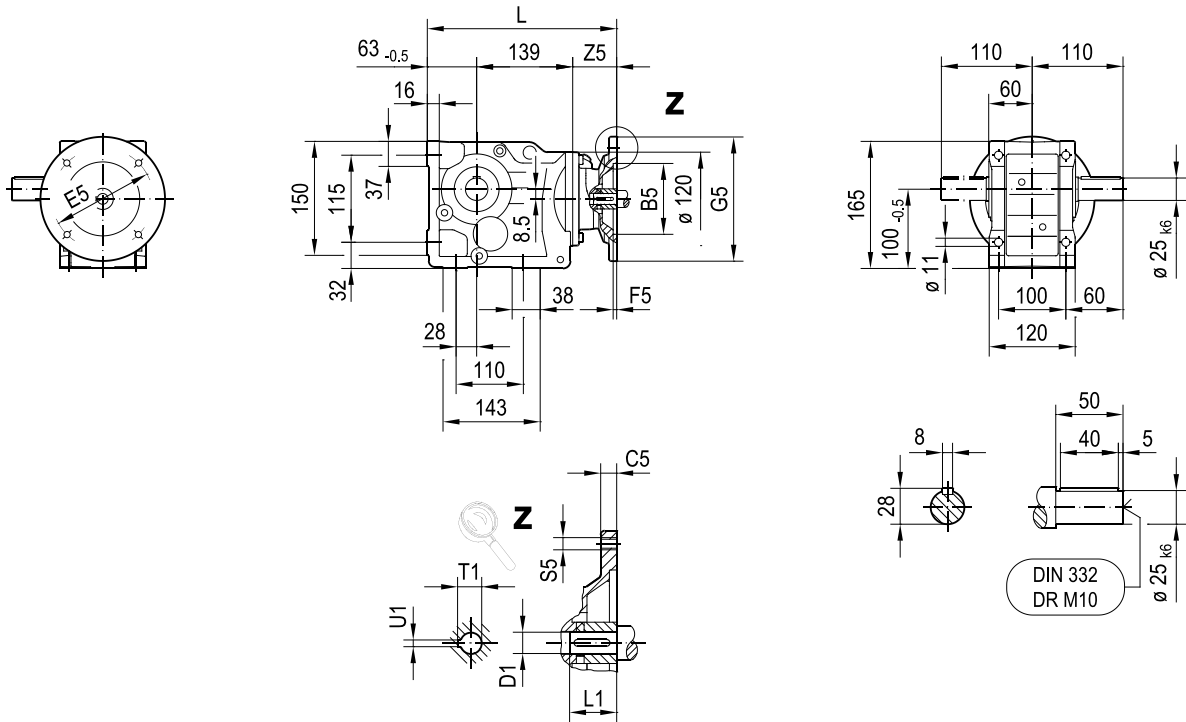
$\varnothing 25$ H7



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 252 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 252 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 269 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 282 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

33 299 00 20

K37..

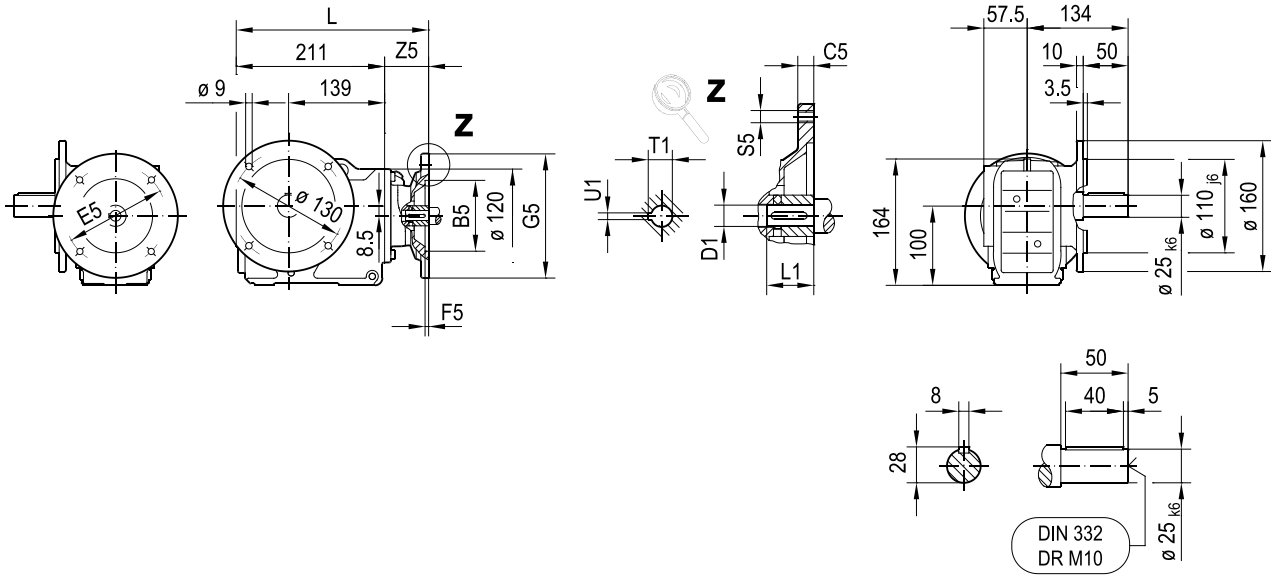


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 259 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 259 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 276 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 289 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

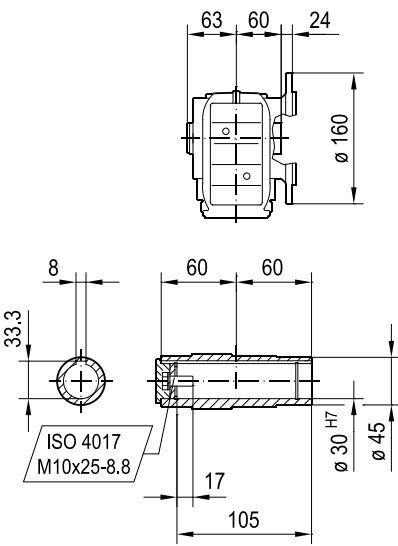
26878585/EN – 11/2021

33 300 00 20

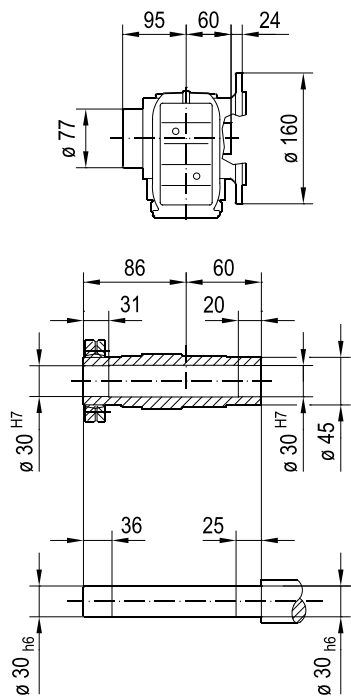
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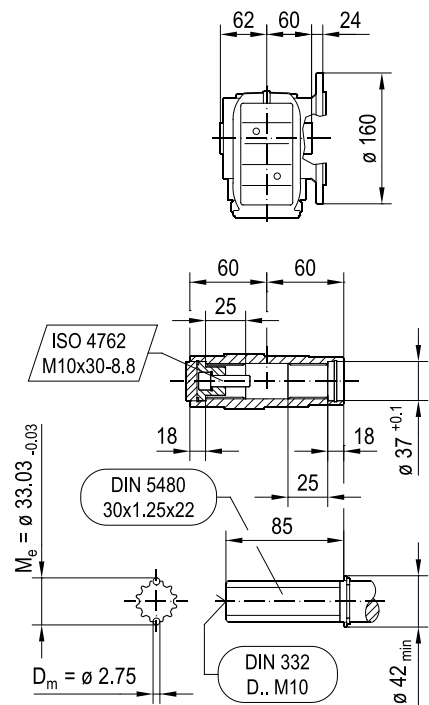
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KHF37..



KVF37..

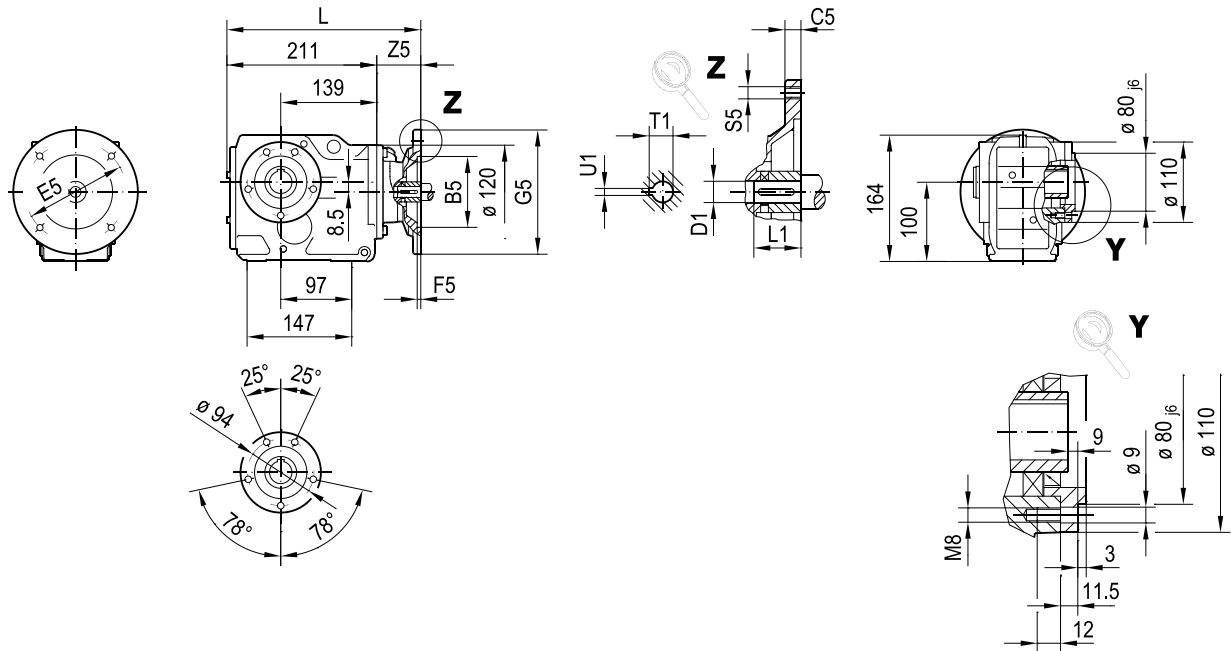


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 268 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 268 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 285 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 298 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

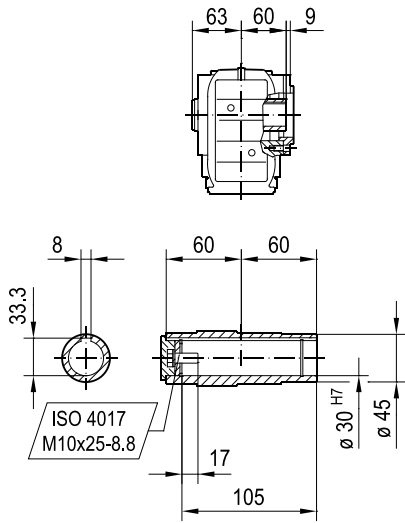
26878565/EN - 11/2021

33 302 00 20

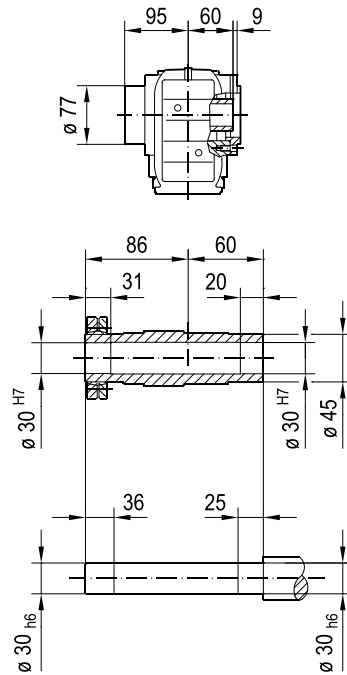
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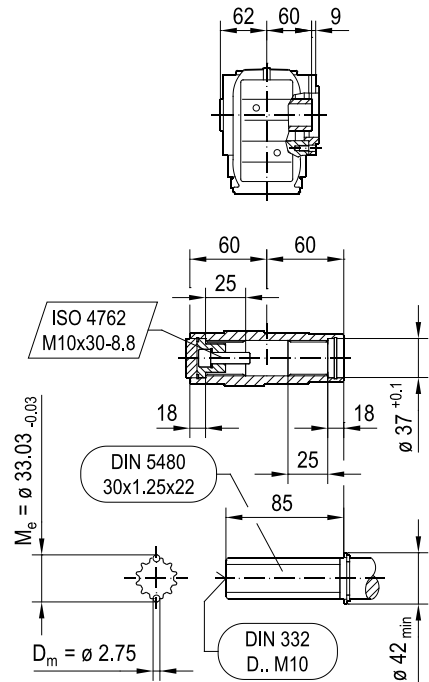
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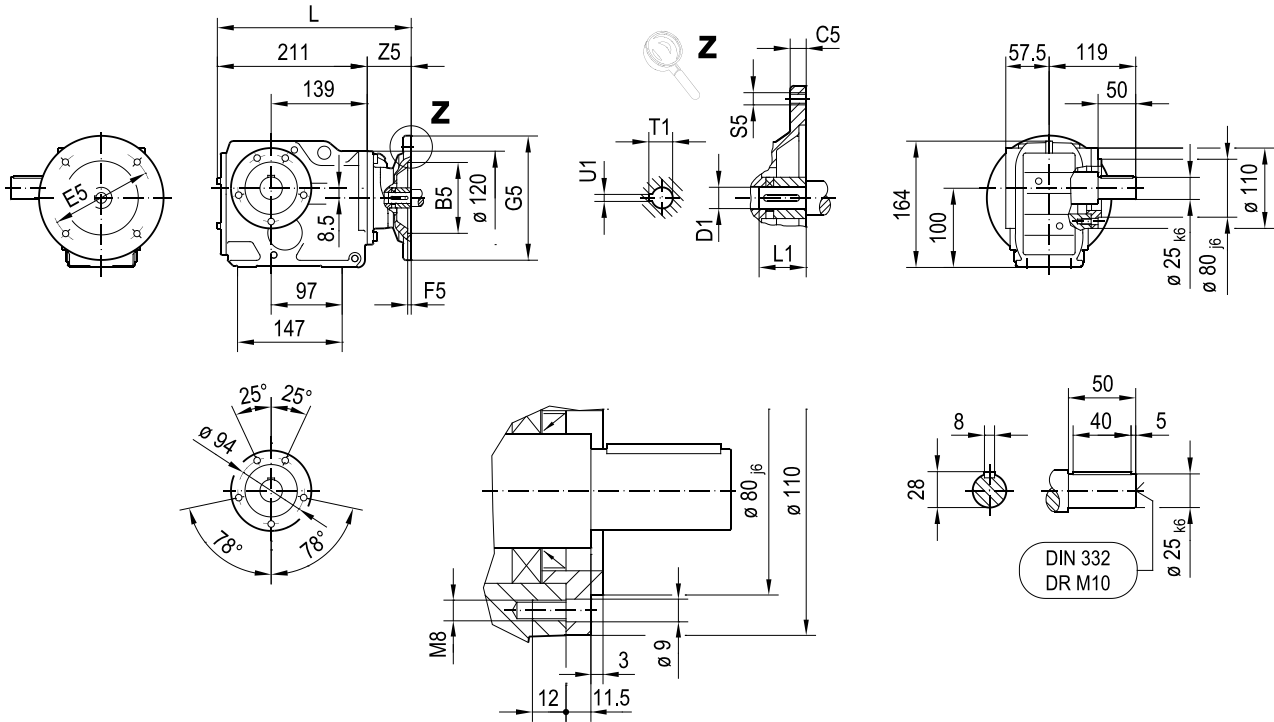


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 268 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 268 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 285 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 298 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

26878565/EN – 11/2021

33 303 00 20

KZ37..

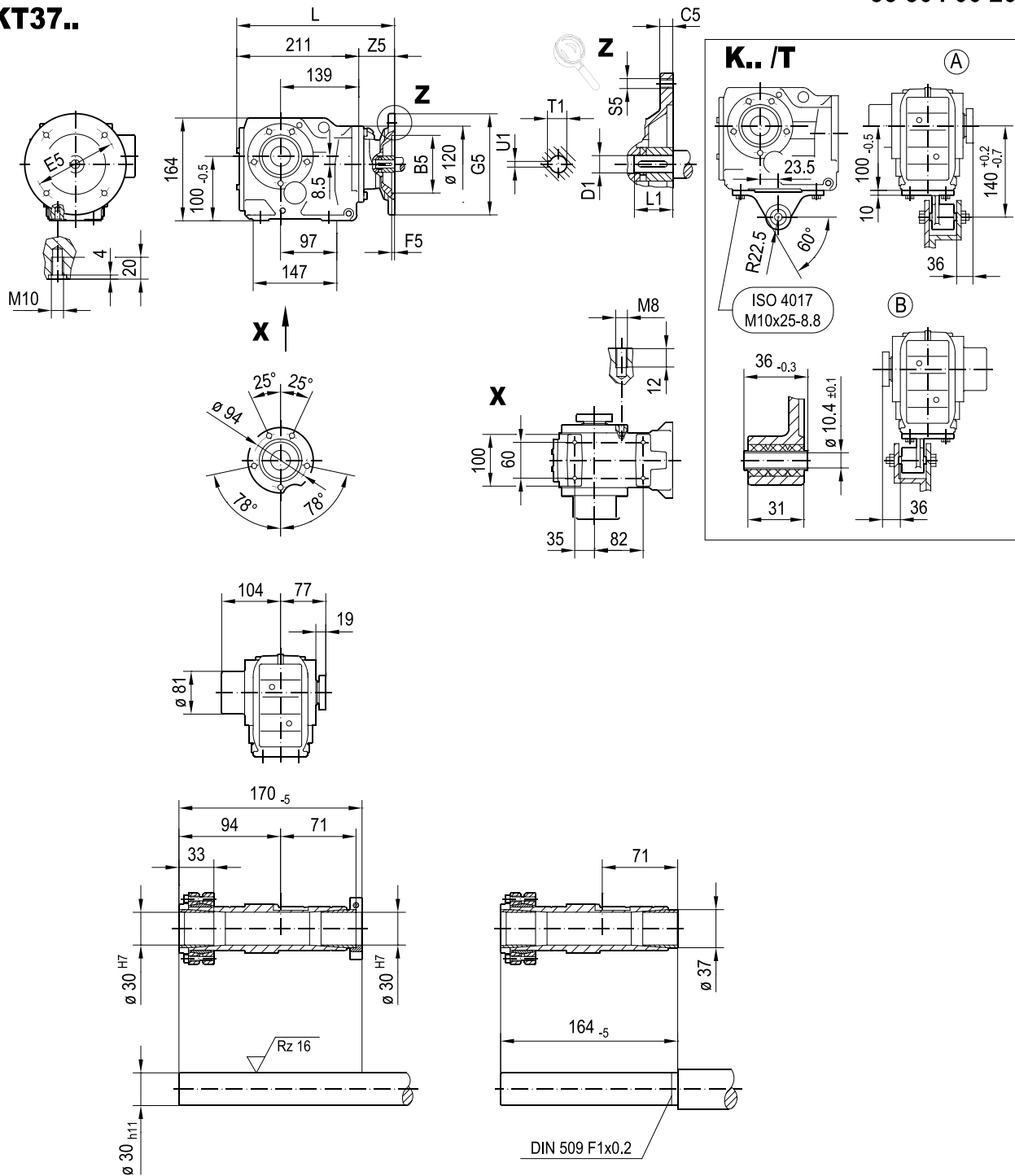


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 268 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 268 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 285 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 298 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

26878585/EN – 11/2021

33 304 00 20

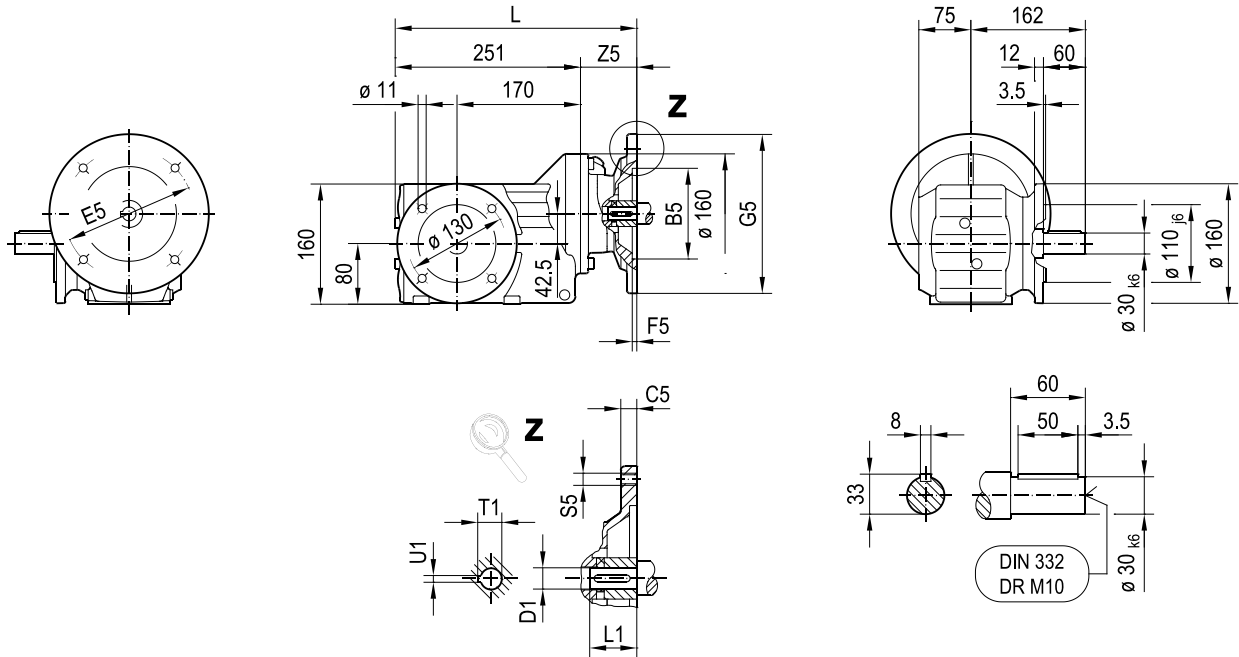
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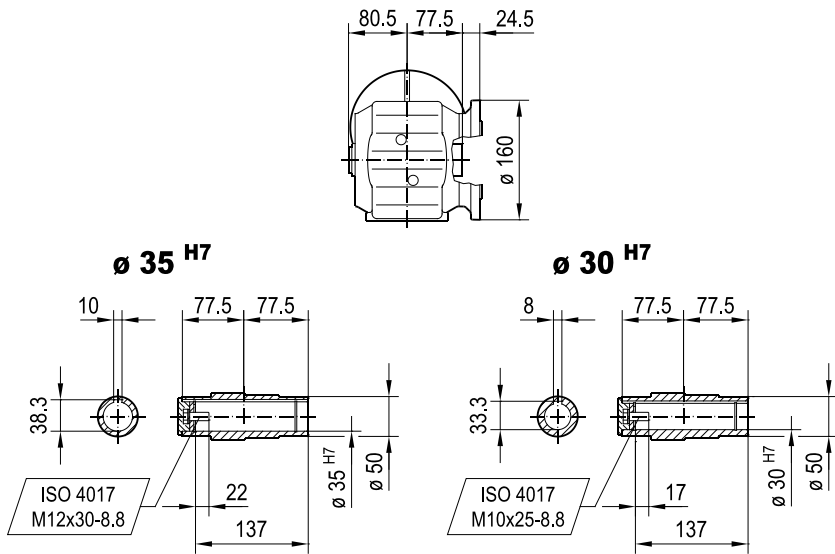
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 268 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 268 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 285 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 298 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

33 306 00 20

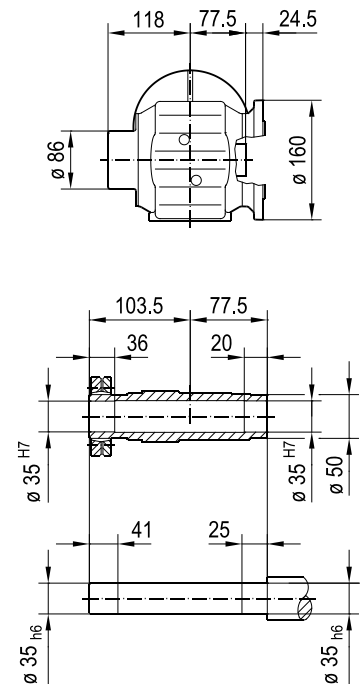
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KAF39..



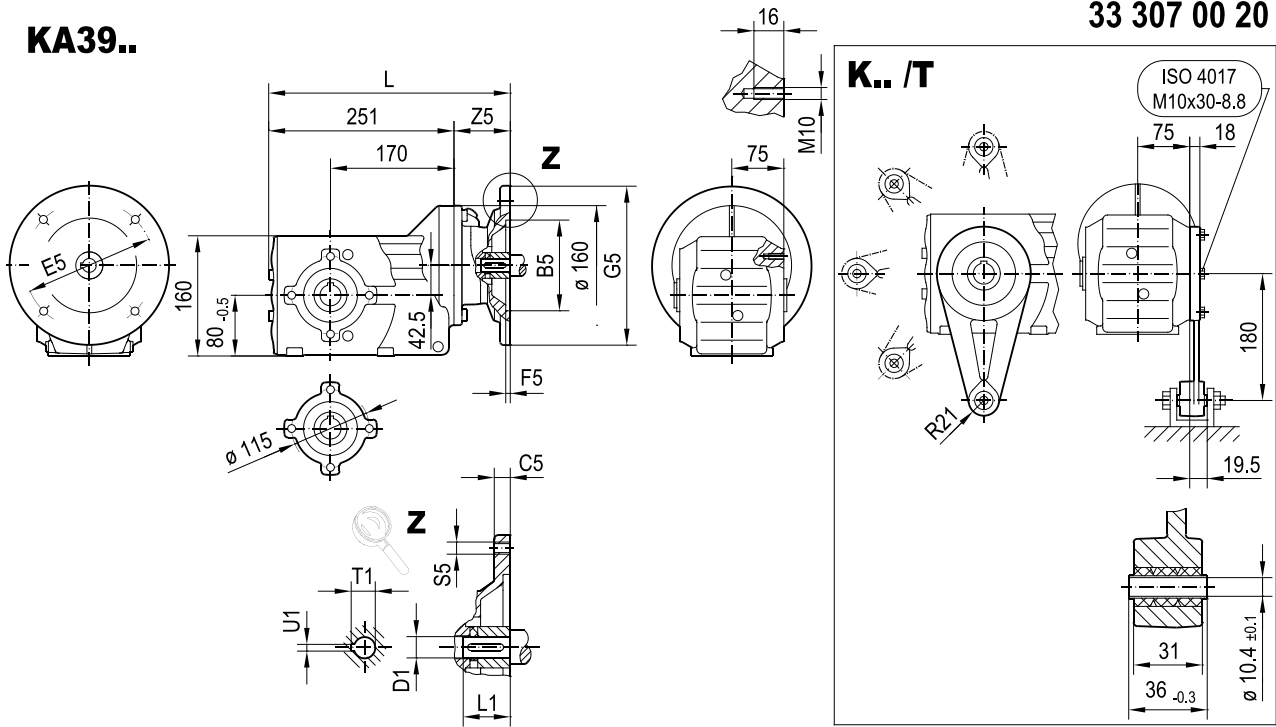
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| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 301 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 301 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 318 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 331 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 360 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 360 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |

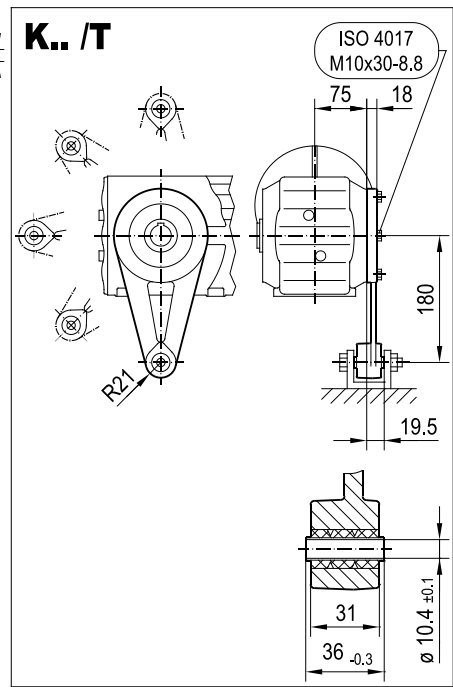
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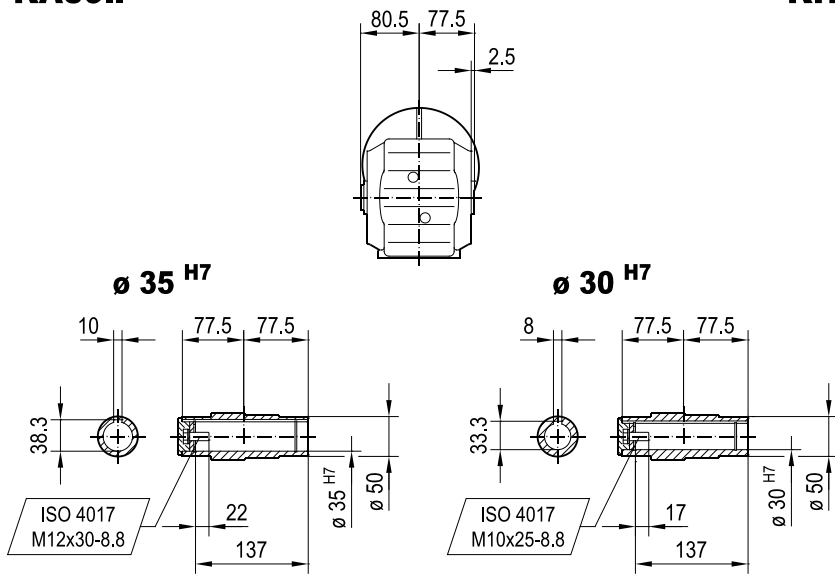


33 307 00 20

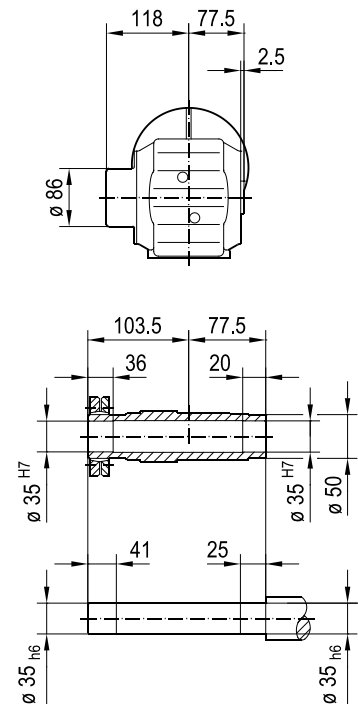
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KA39..



KH39..

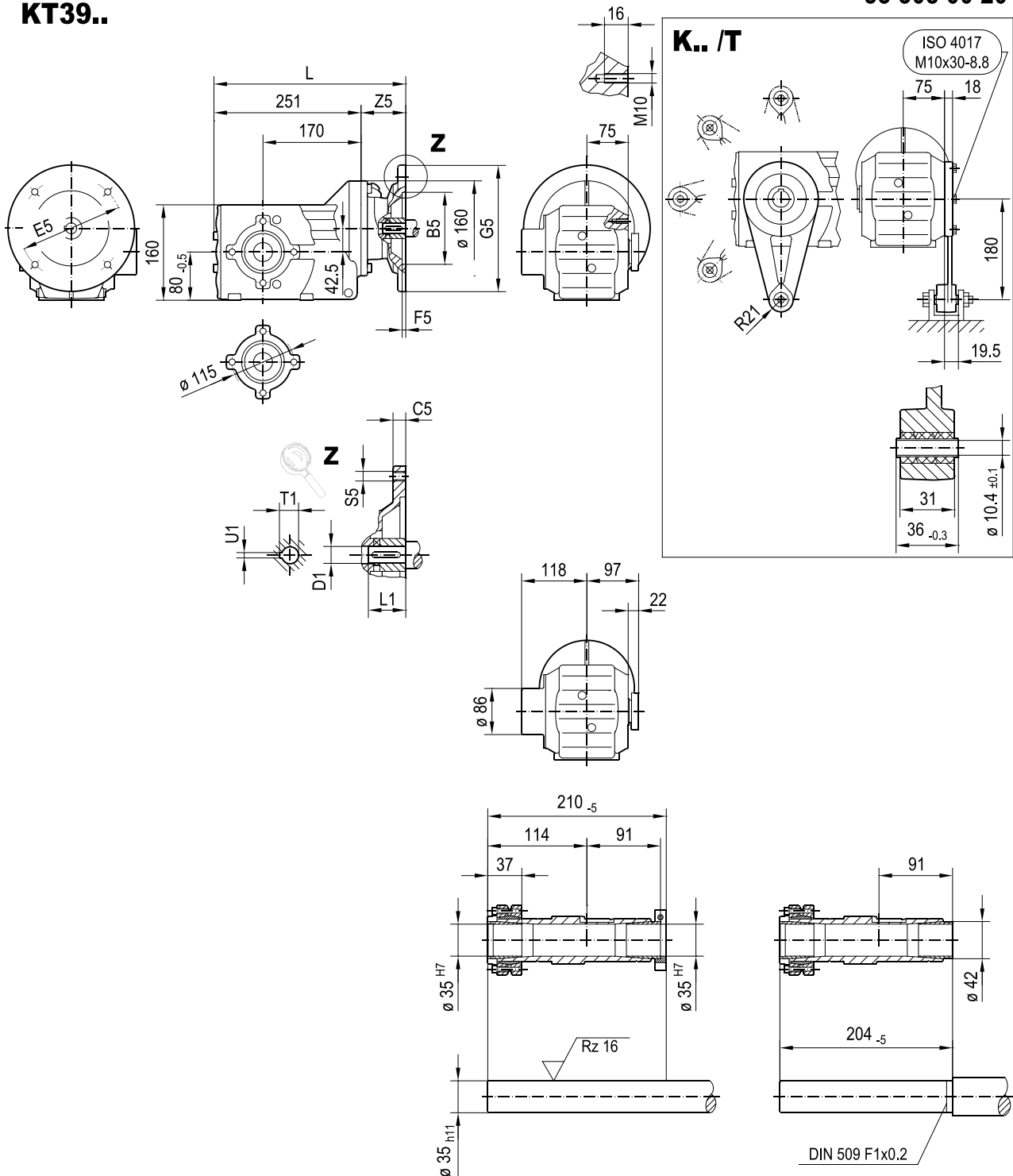


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 301 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 301 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 318 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 331 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 360 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
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KT39..

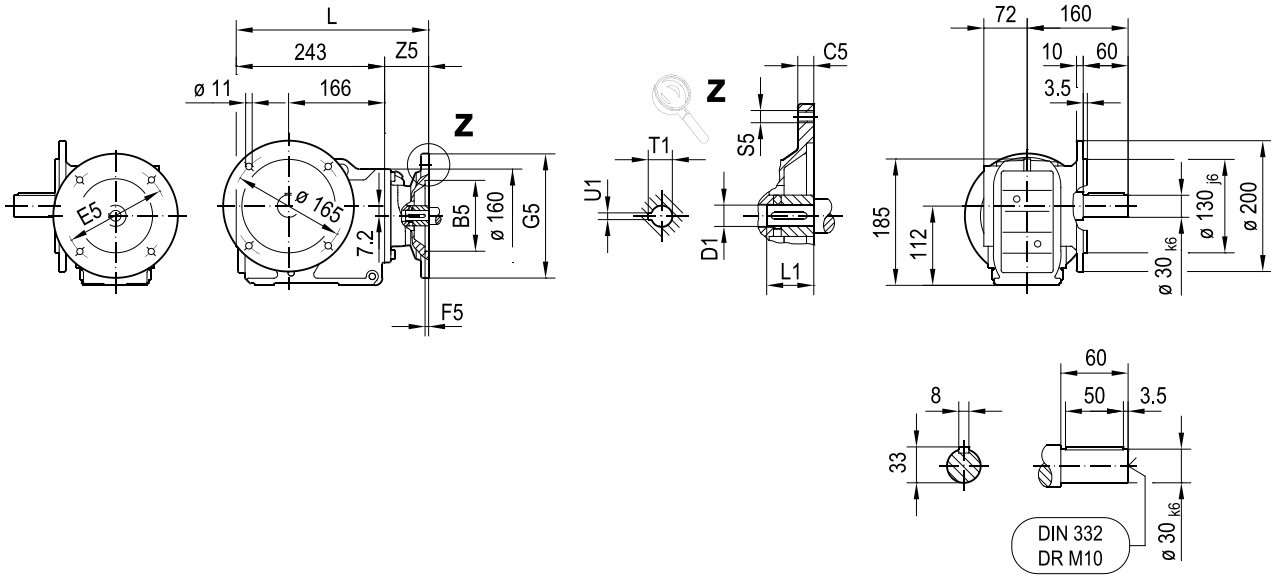


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|---------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 301 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 301 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 318 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 331 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 360 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
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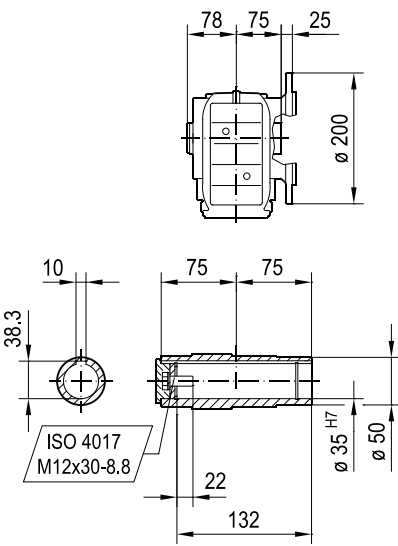
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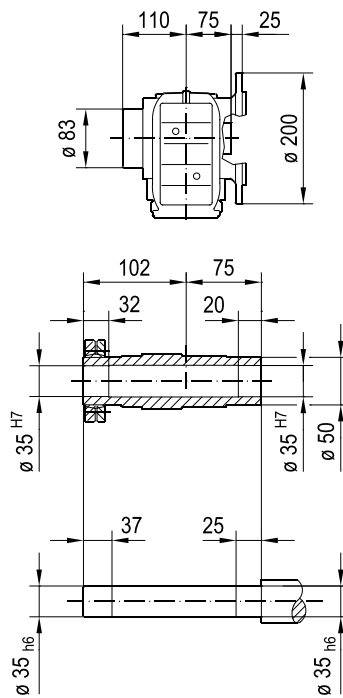
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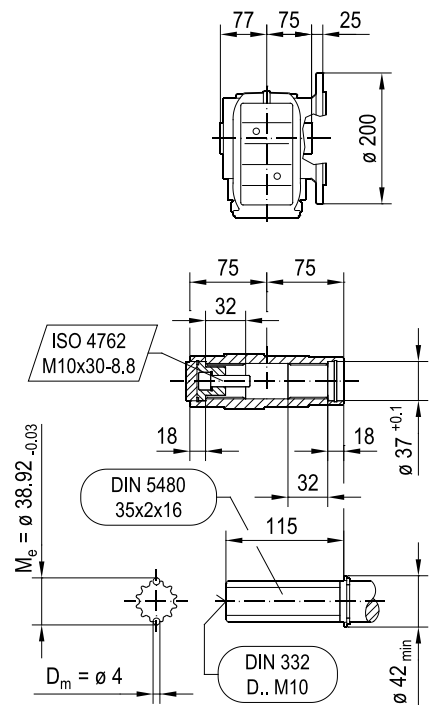
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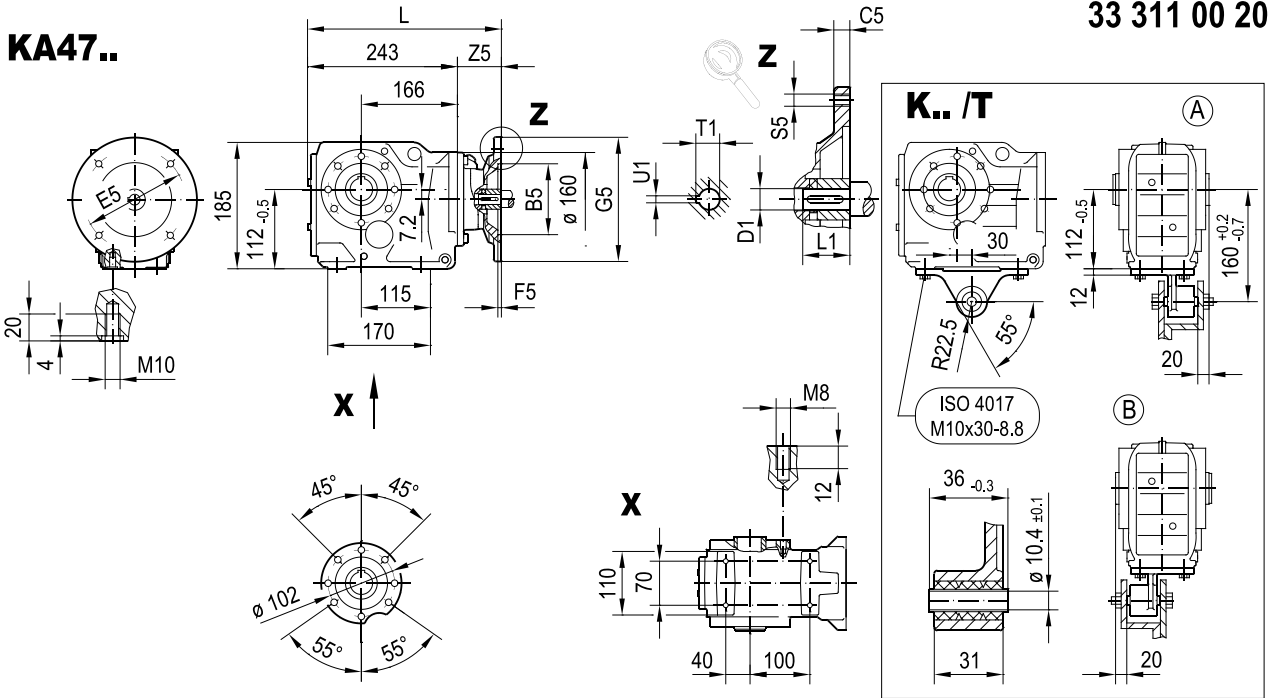
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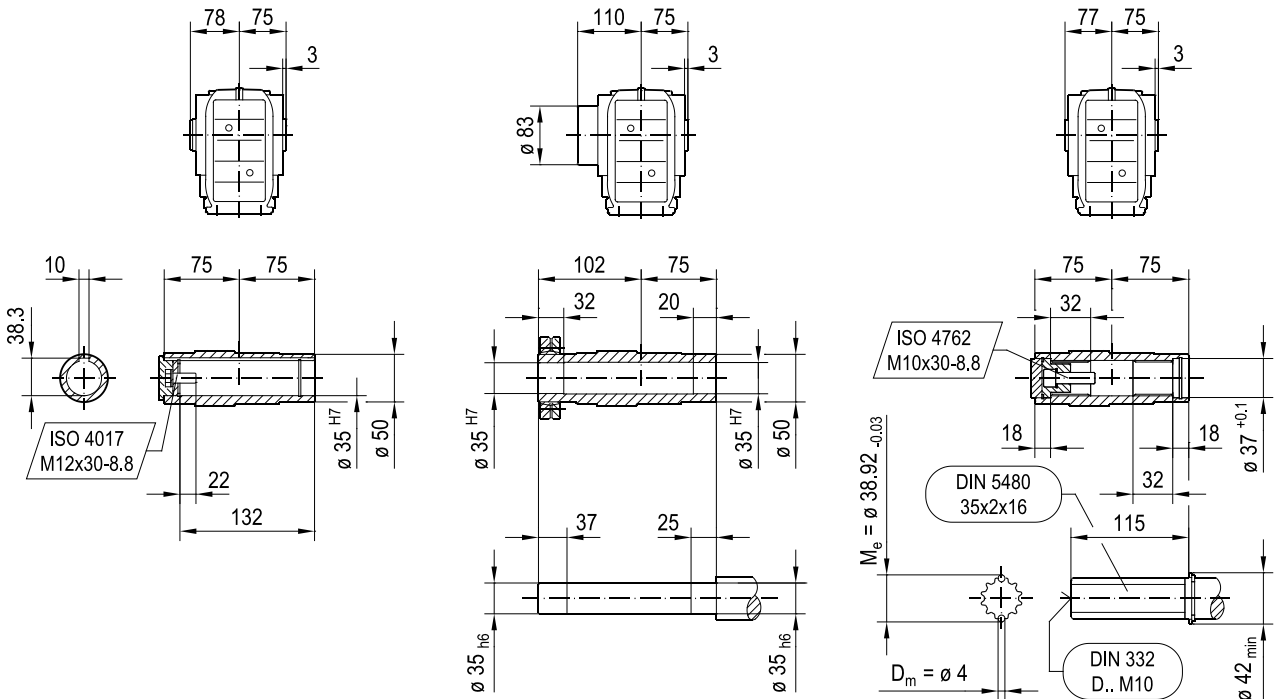
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|---------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 293 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 293 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 310 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 323 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 352 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
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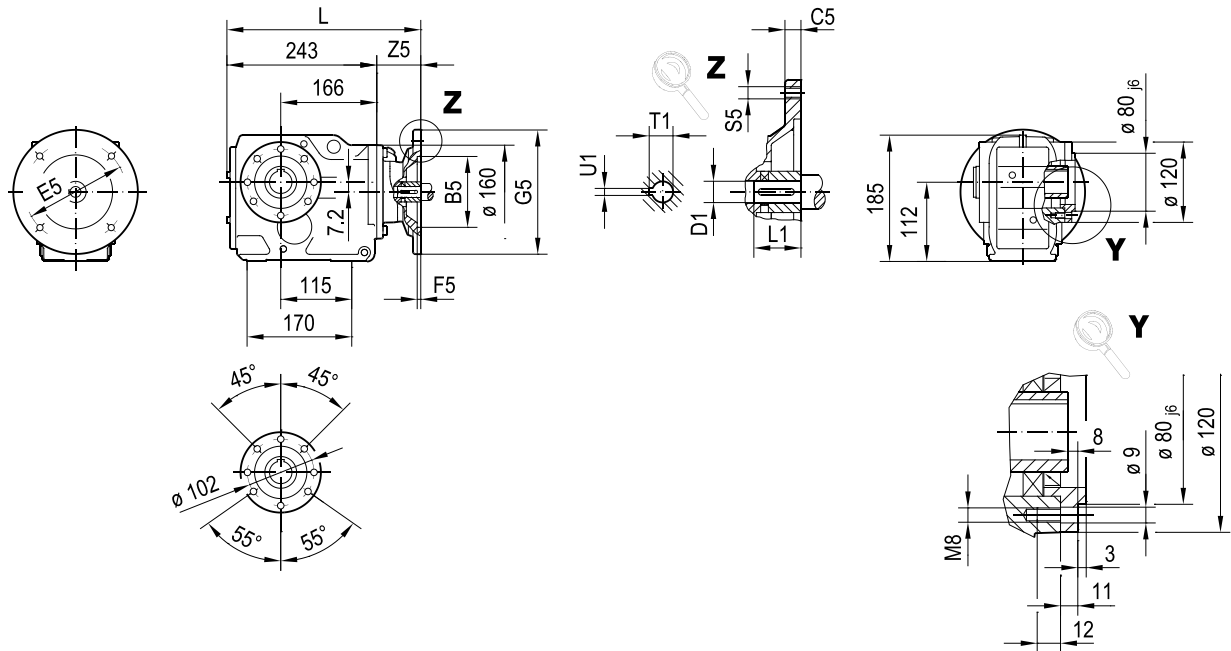


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|---------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 293 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 293 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 310 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 323 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 352 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
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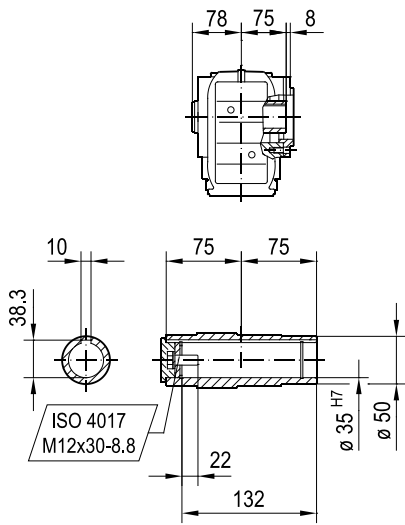
26878585/EN – 11/2021

33 312 00 20

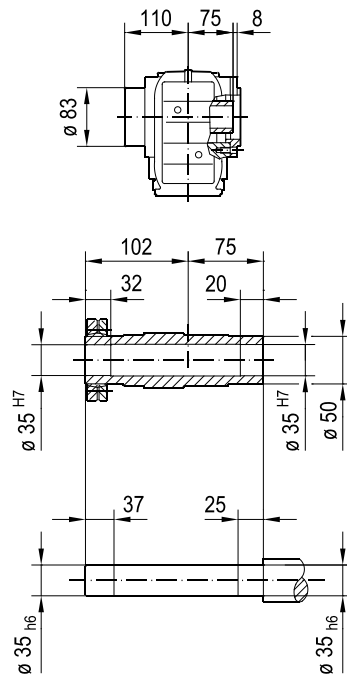
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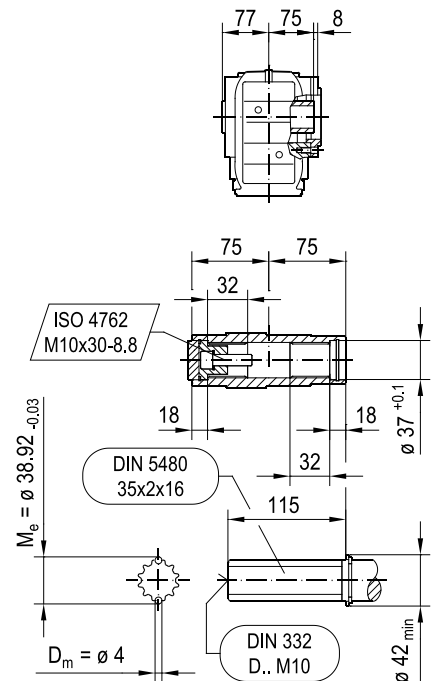
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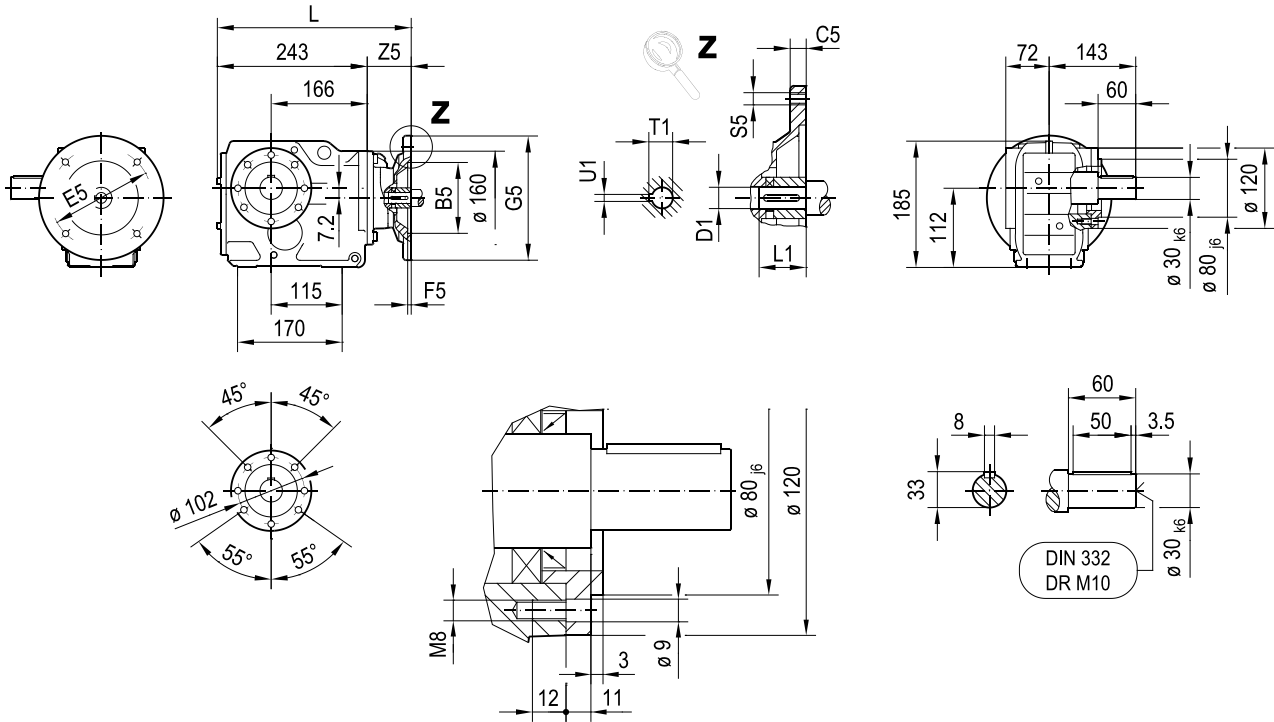
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| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
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| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 293 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 293 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 310 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 323 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 352 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
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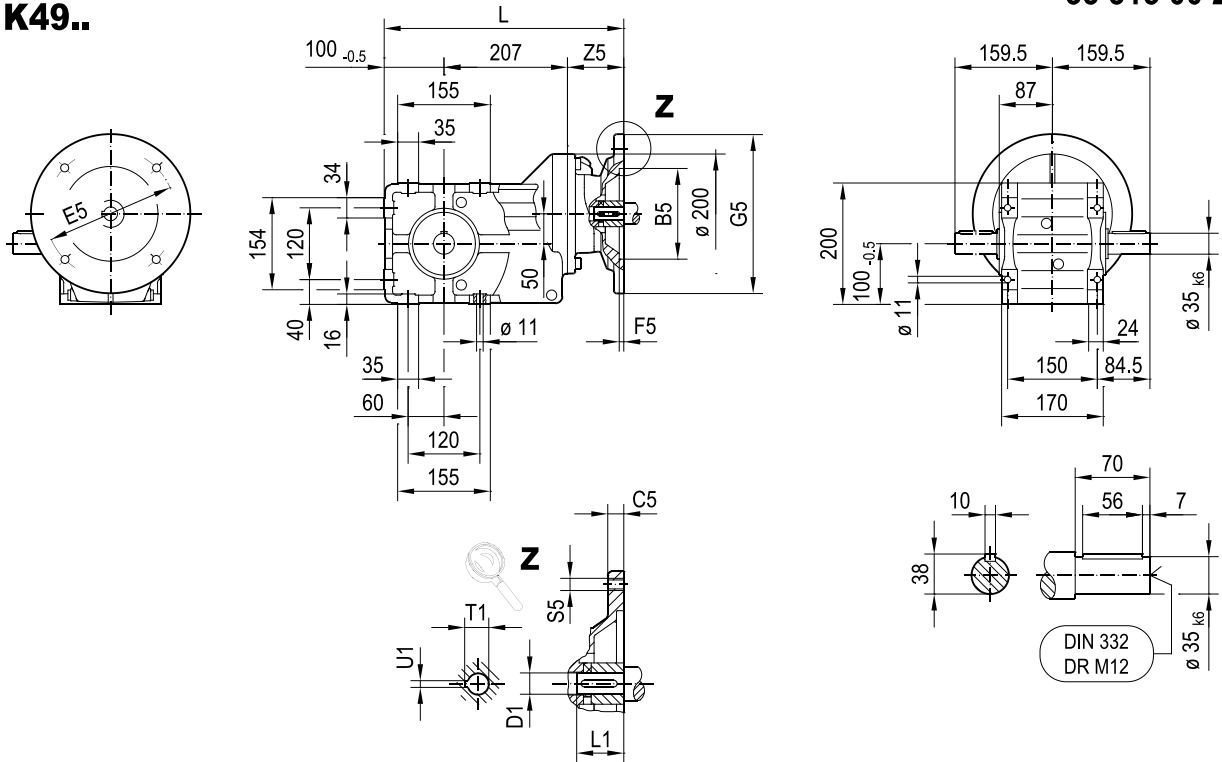


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|---------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 293 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 293 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 310 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 323 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 352 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
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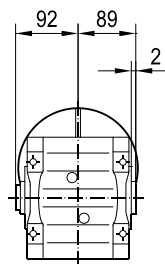
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33 315 00 20

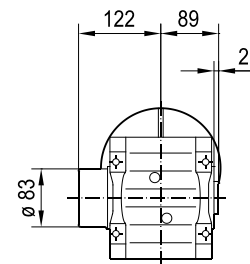
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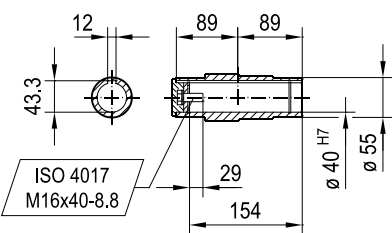
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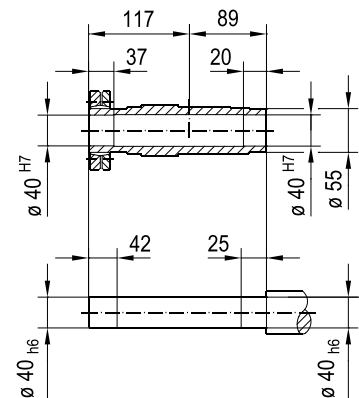
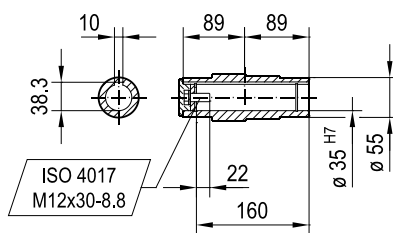
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ø 40 H7



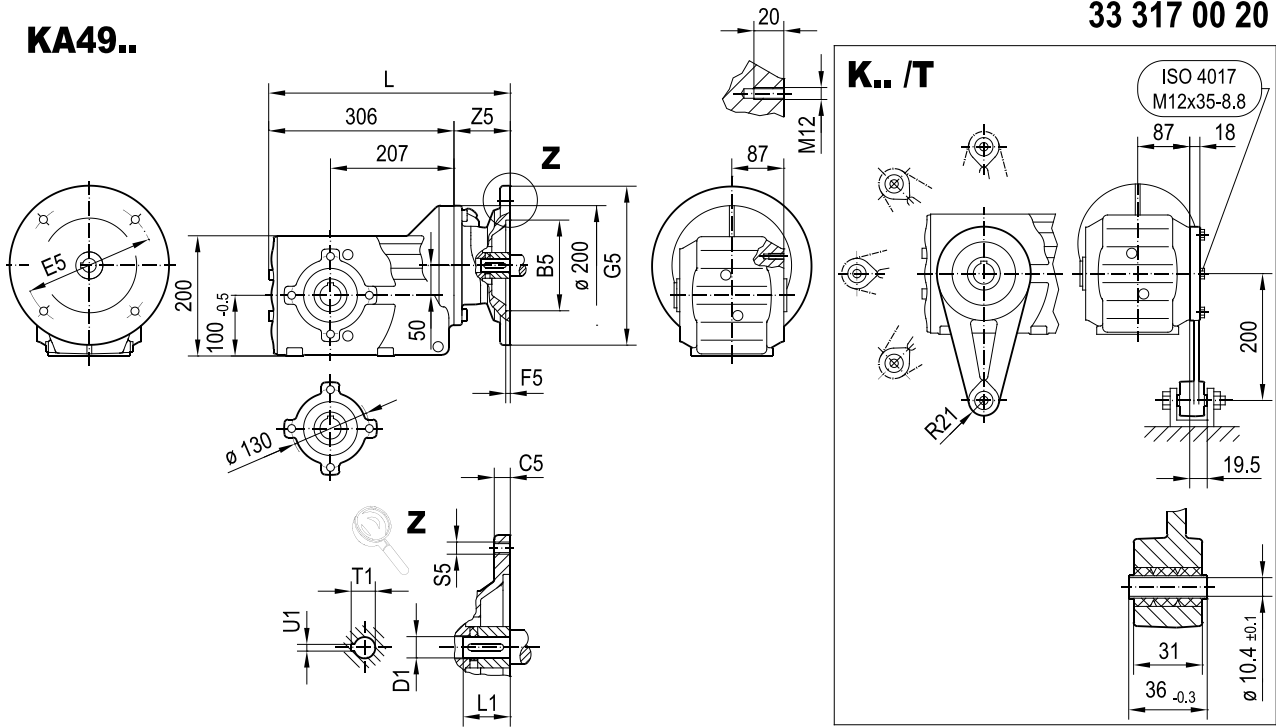
ø 35 H7



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 351 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 351 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 367 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 380 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 408 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 408 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 433 | M12 | 126 | 38 | 80 | 41.3 | 10 |

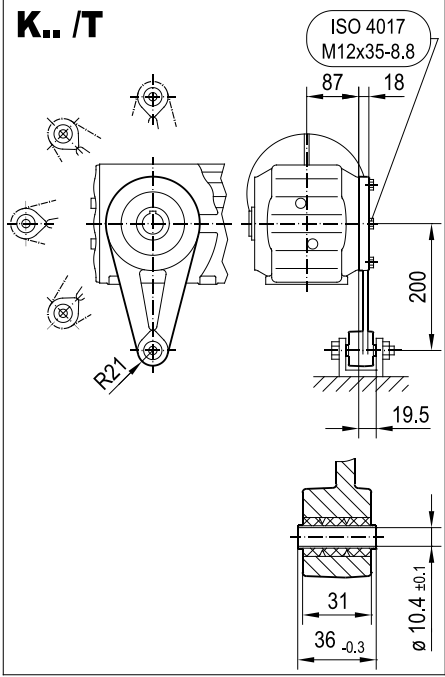
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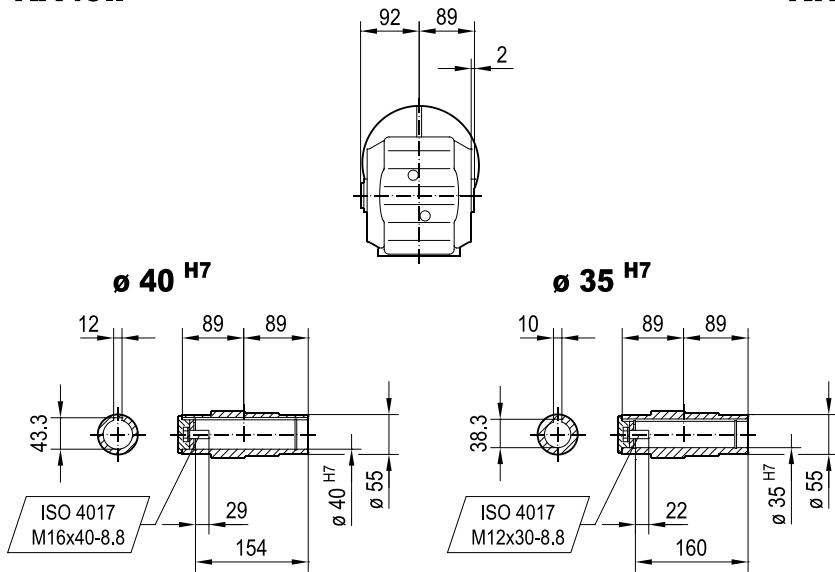


33 317 00 20

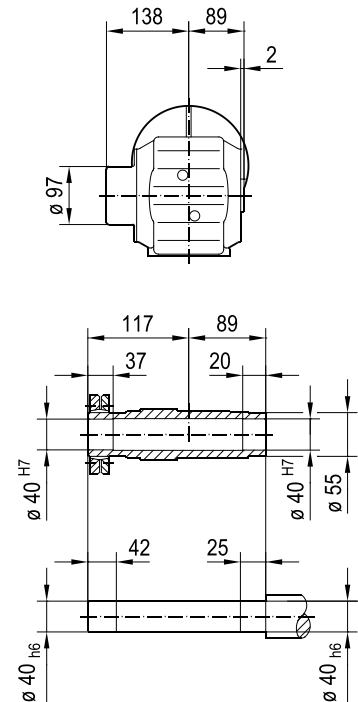
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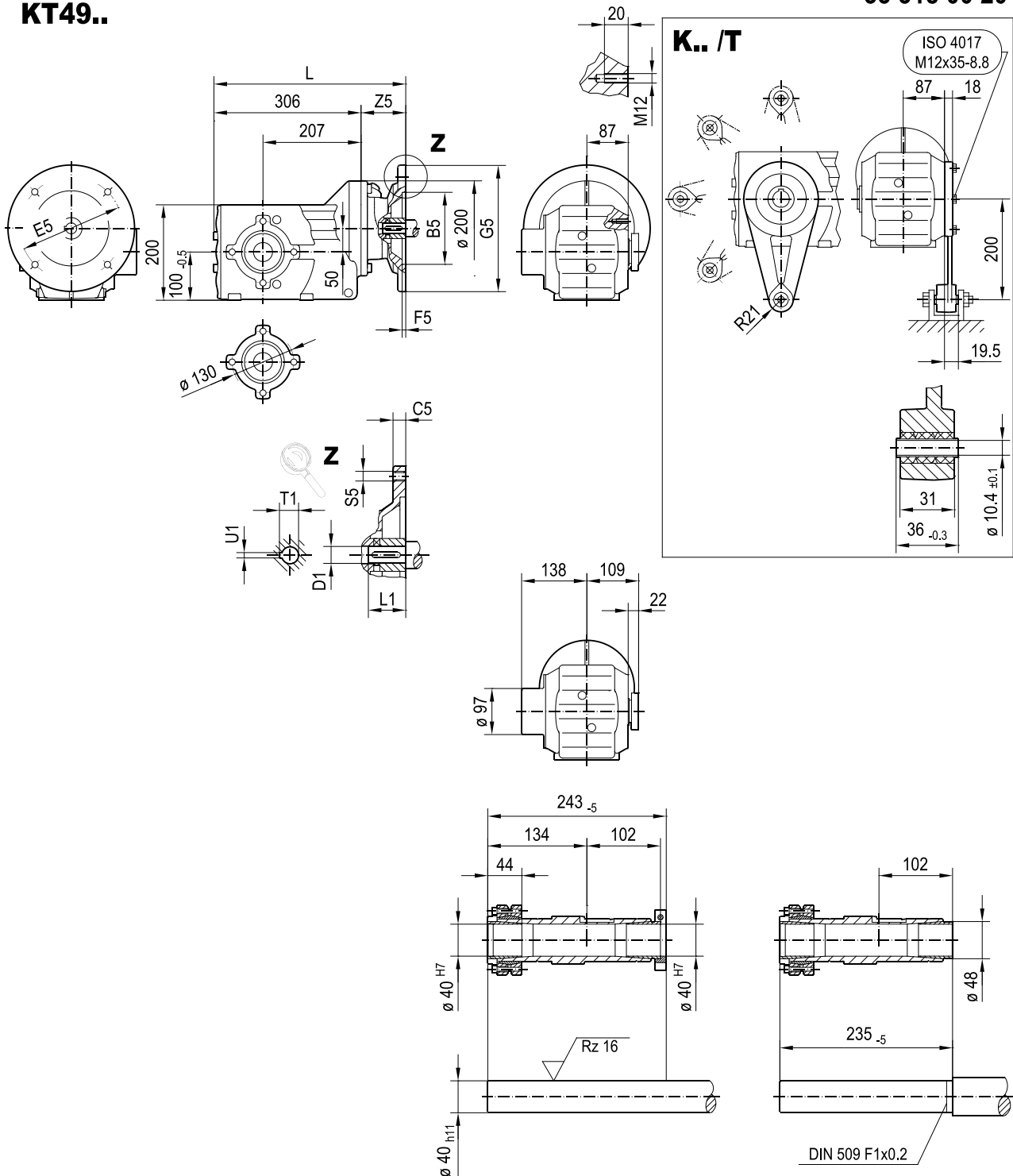


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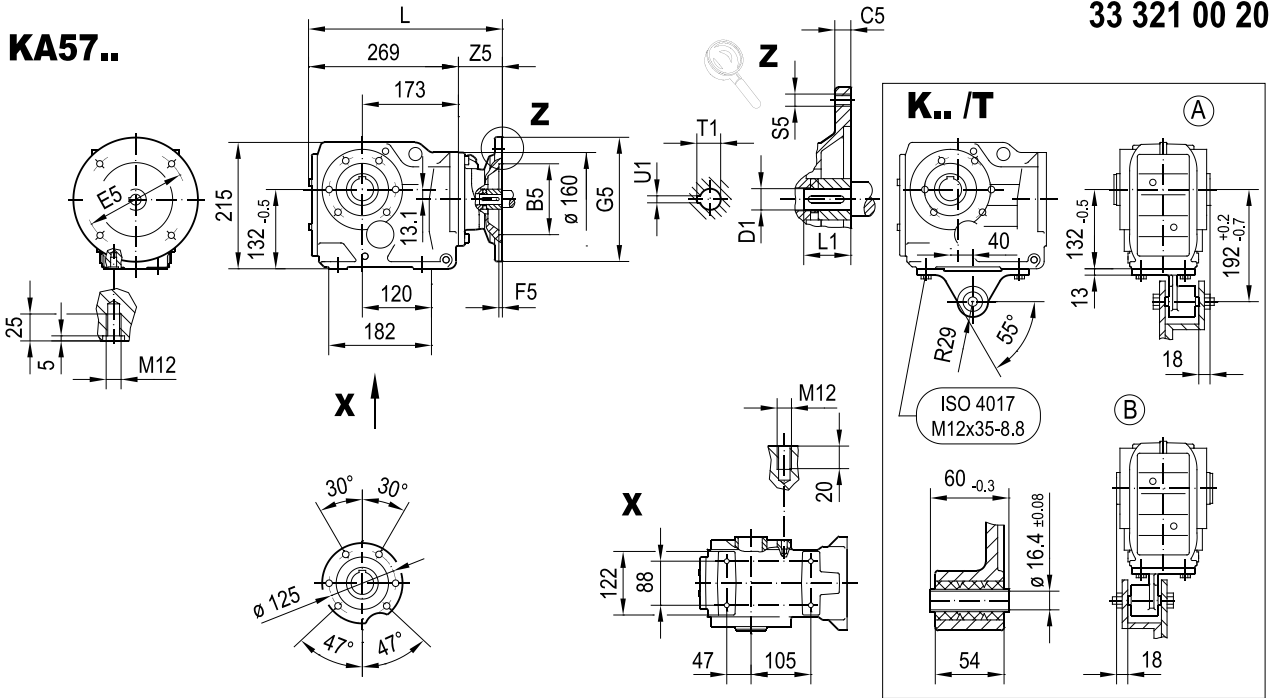
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 350 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 350 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 366 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 379 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 407 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 407 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 432 | M12 | 126 | 38 | 80 | 41.3 | 10 |

33 318 00 20

KT49..



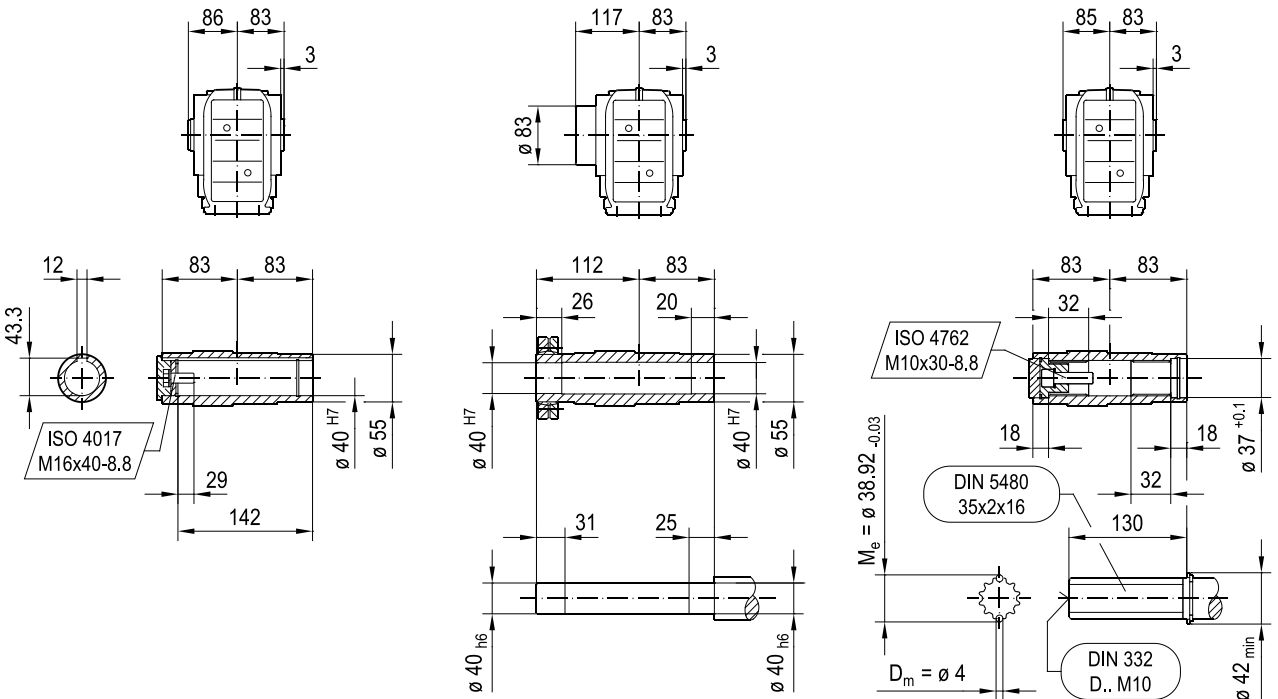
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 350 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 350 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 366 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 379 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 407 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 407 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 432 | M12 | 126 | 38 | 80 | 41.3 | 10 |



KA57..

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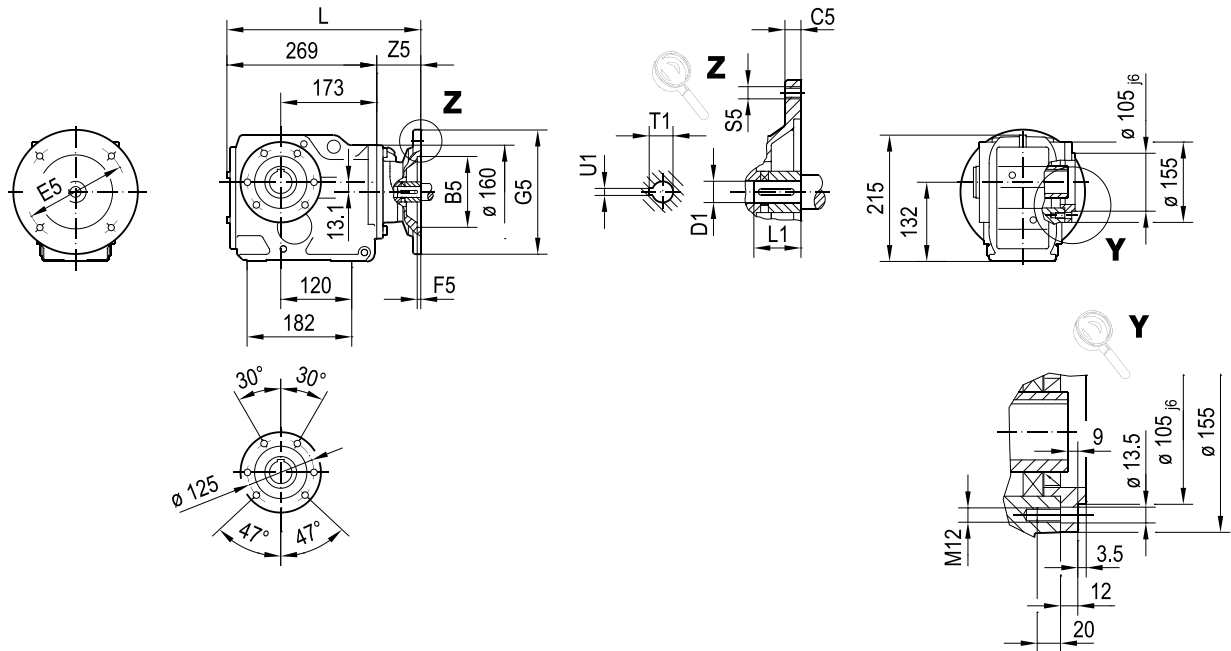


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 319 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 319 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 336 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 349 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 378 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 378 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 403 | M12 | 134 | 38 | 80 | 41.3 | 10 |

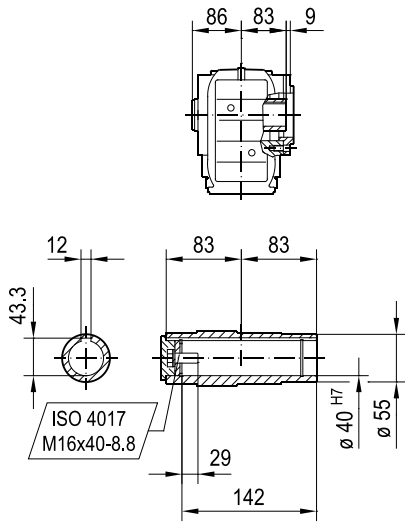
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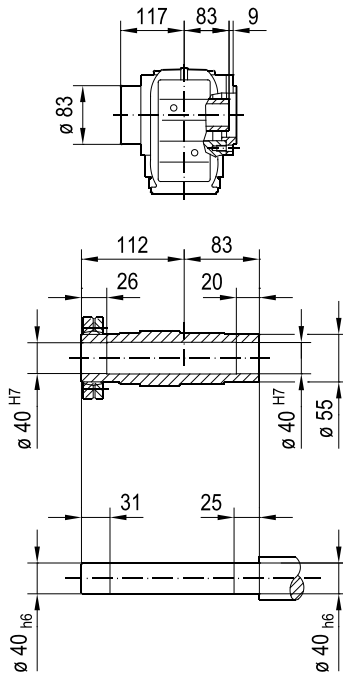
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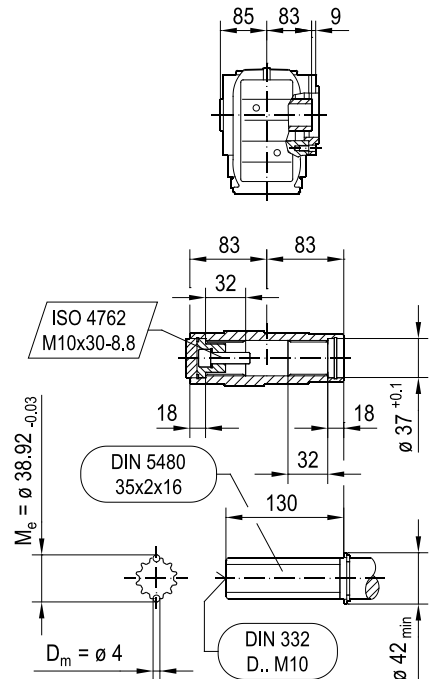
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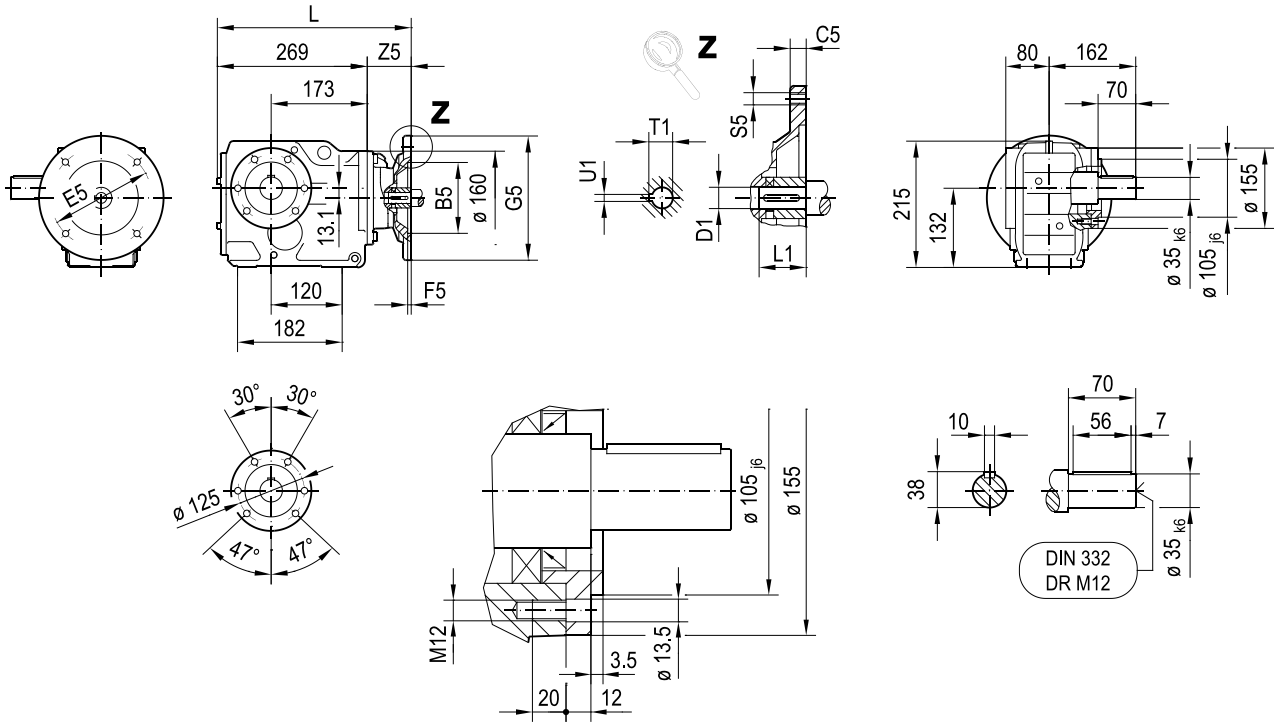
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|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 319 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 319 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 336 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 349 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 378 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 378 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 403 | M12 | 134 | 38 | 80 | 41.3 | 10 |

33 323 00 20

KZ57..

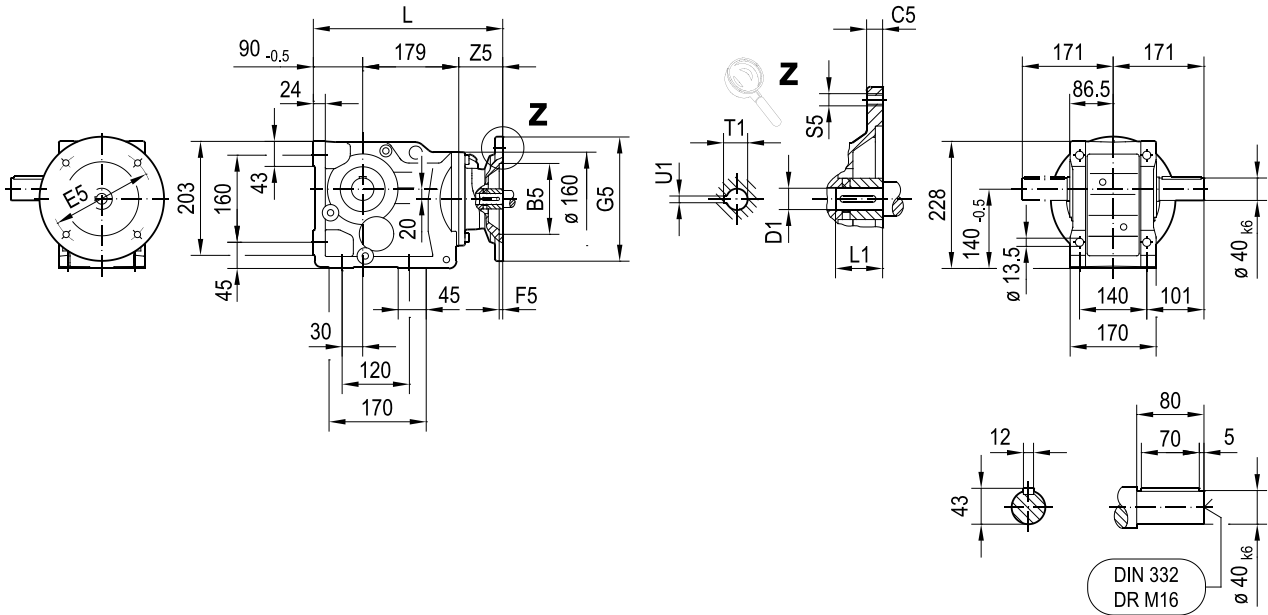


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 319 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 319 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 336 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 349 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 378 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 378 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
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33 325 00 20

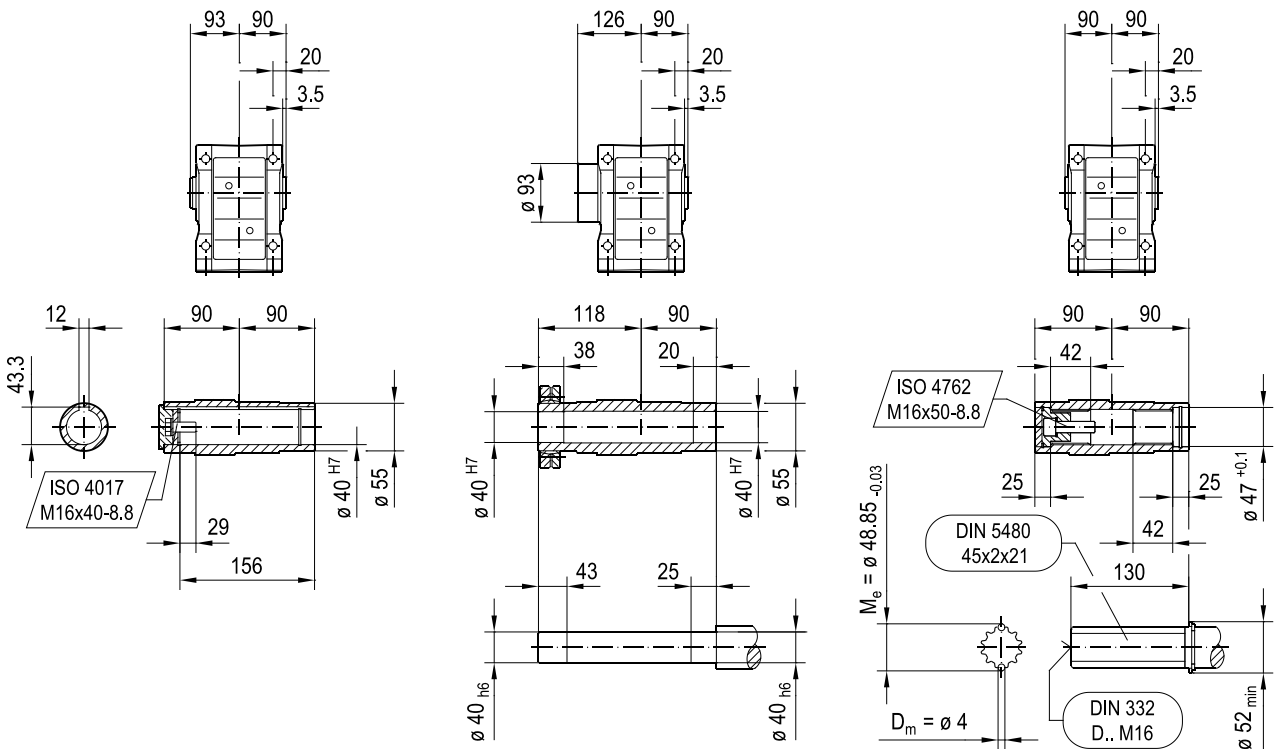
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KA67B..

KH67B..

KV67B..

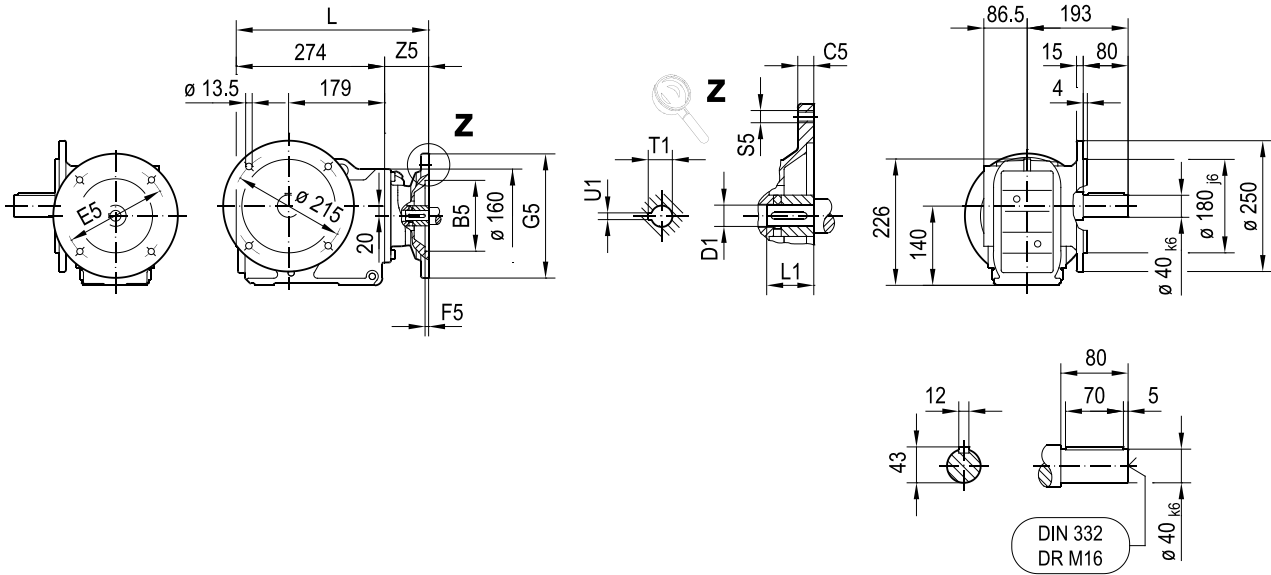


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 319 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 319 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 336 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 349 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 378 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 378 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
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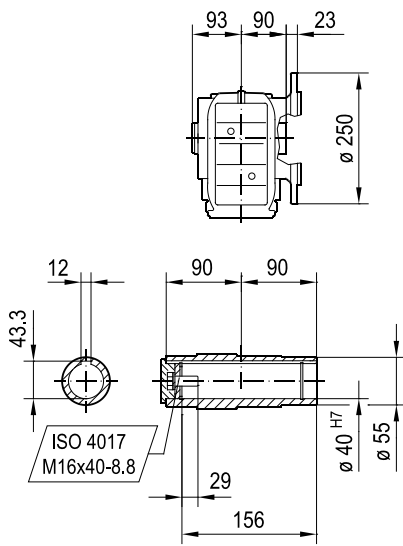
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33 326 00 20

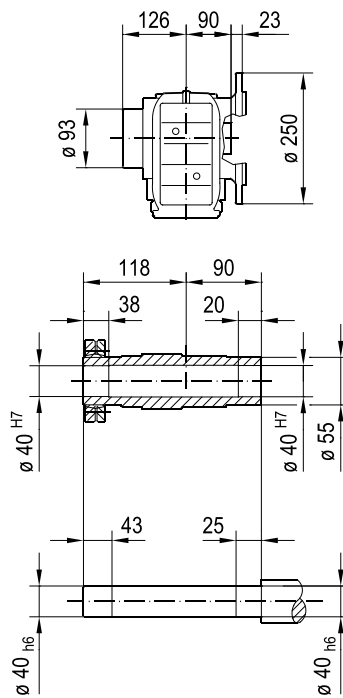
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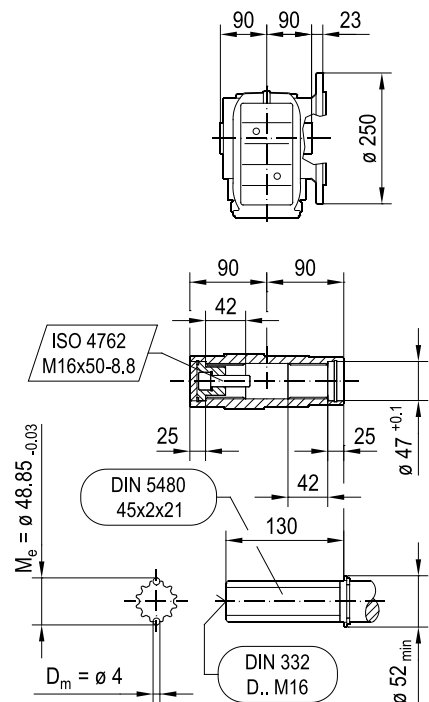
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KHF67..



KVF67..

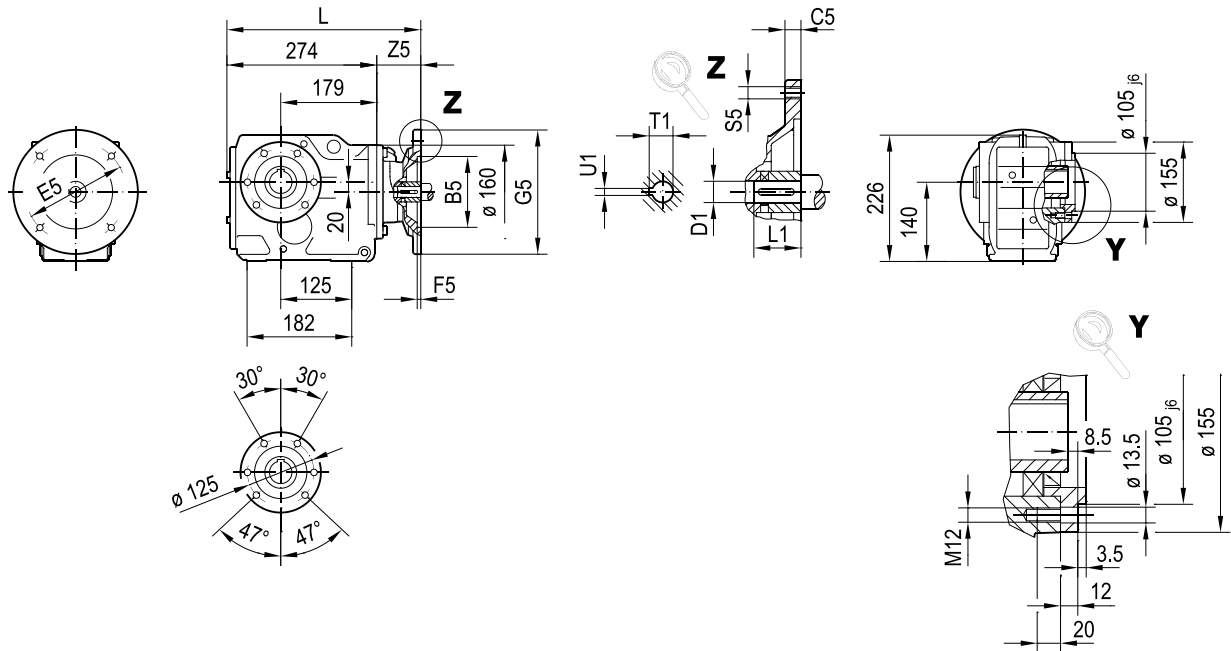


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 324 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 324 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 341 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 354 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 383 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 383 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 408 | M12 | 134 | 38 | 80 | 41.3 | 10 |

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33 329 00 20

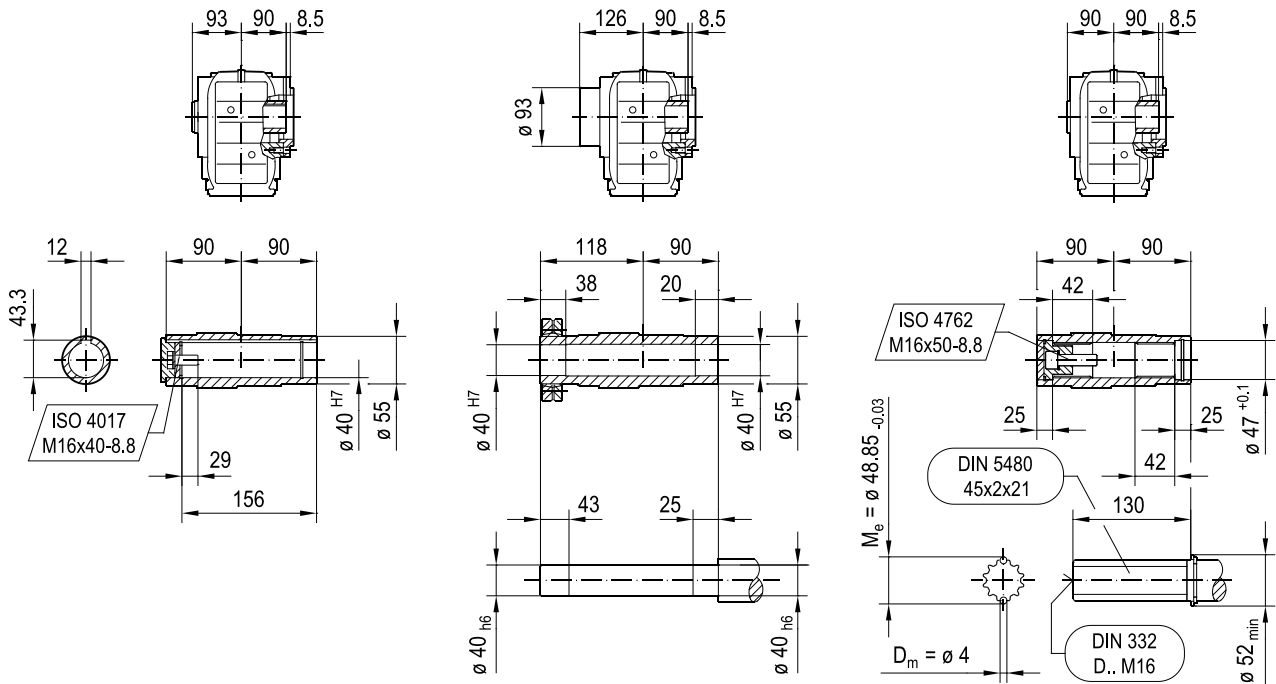
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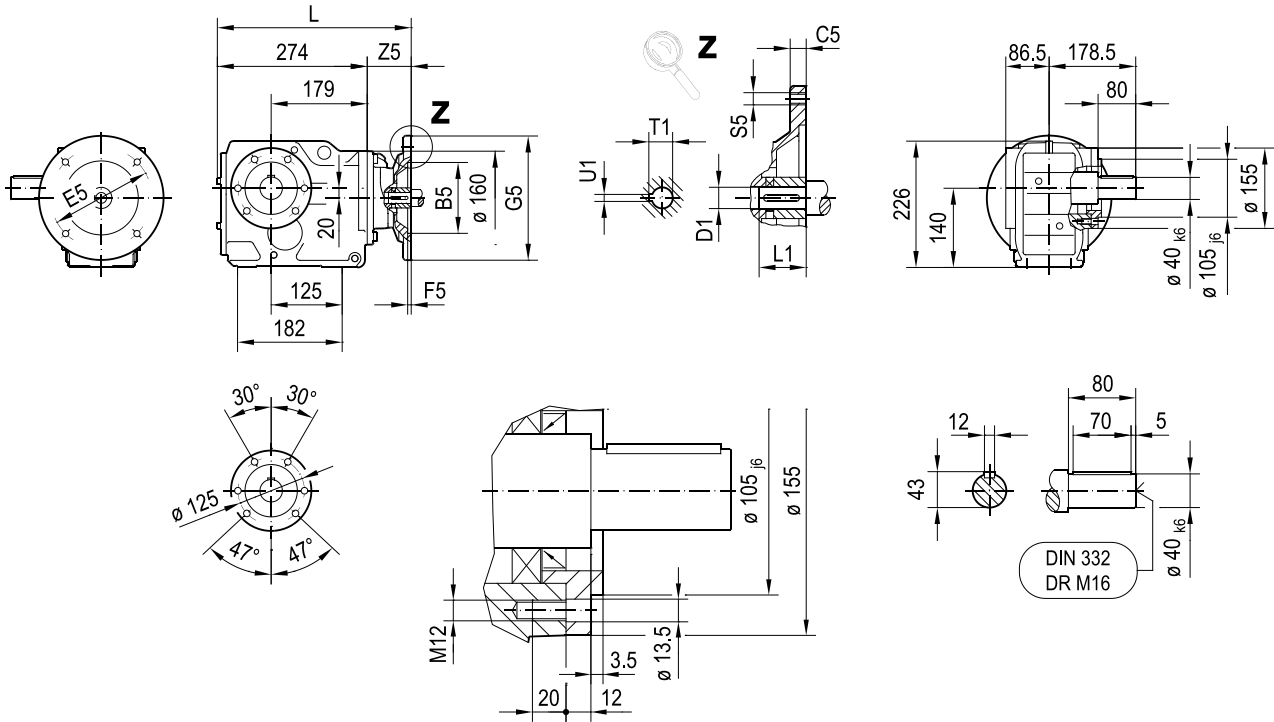


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 324 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 324 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 341 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 354 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 383 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 383 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
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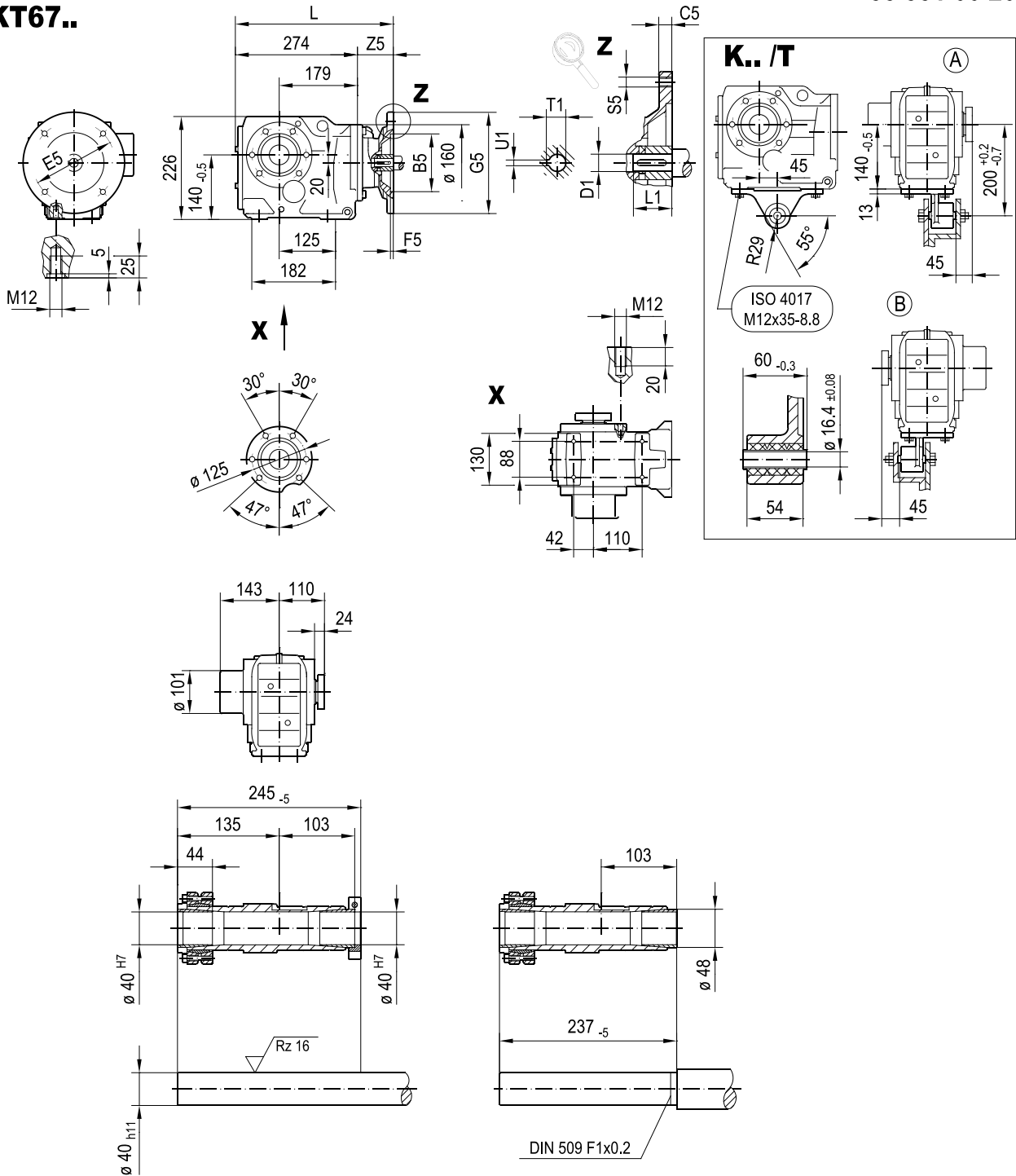
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| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 324 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 324 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 341 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 354 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 383 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 383 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
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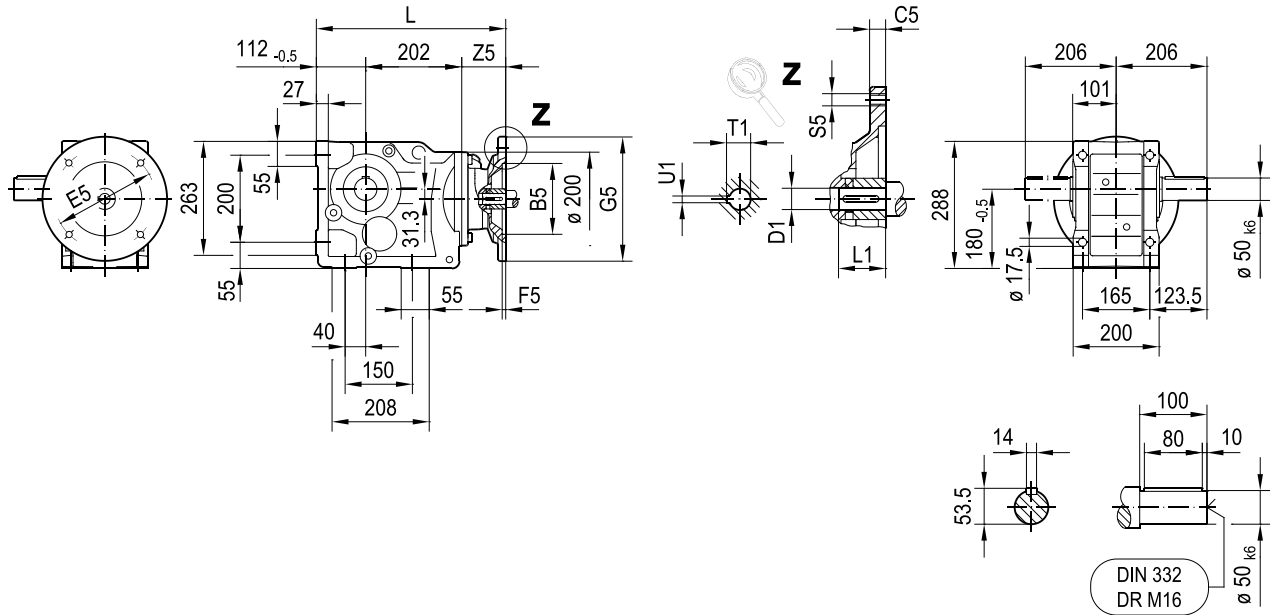


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| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 324 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 324 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 341 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 354 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 383 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 383 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 408 | M12 | 134 | 38 | 80 | 41.3 | 10 |

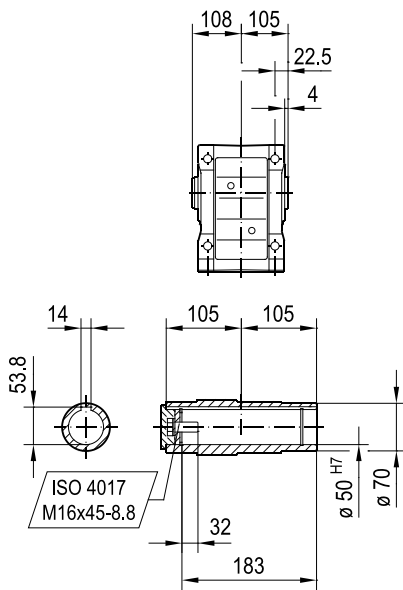
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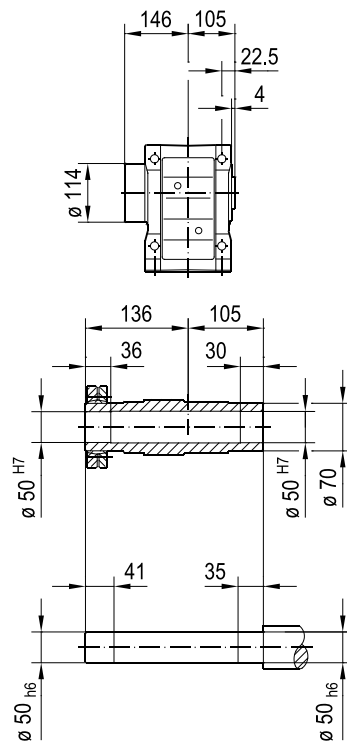
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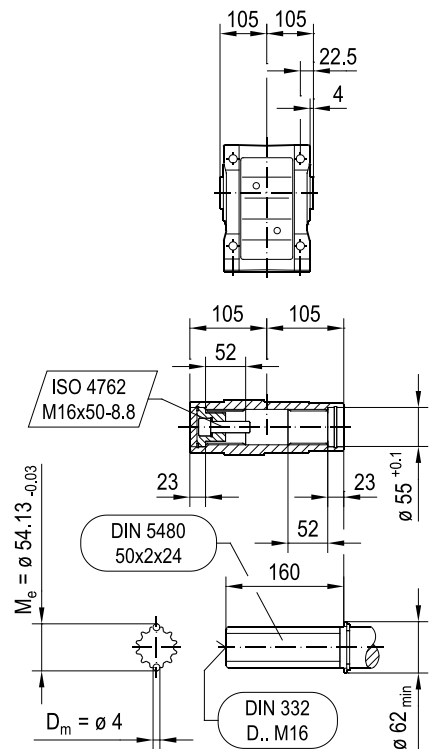
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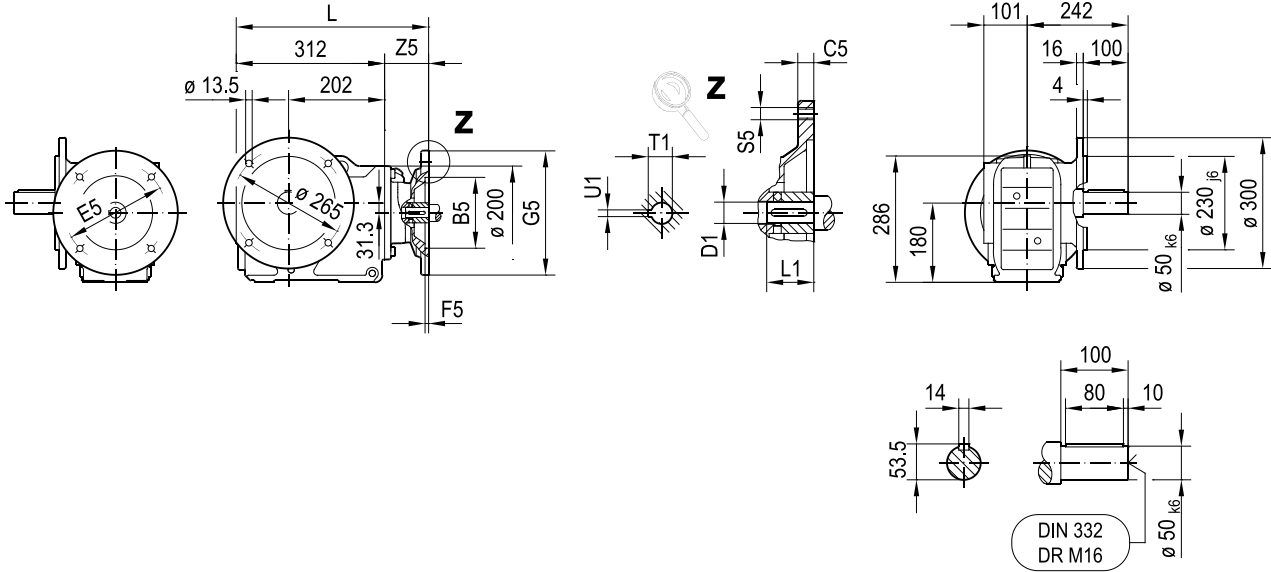
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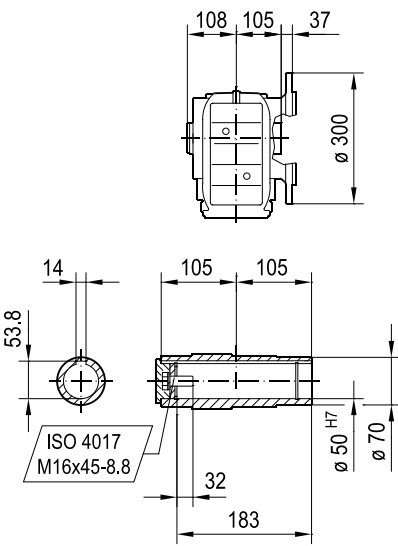
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|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 358 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 358 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 374 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 387 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 415 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 415 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 440 | M12 | 126 | 38 | 80 | 41.3 | 10 |
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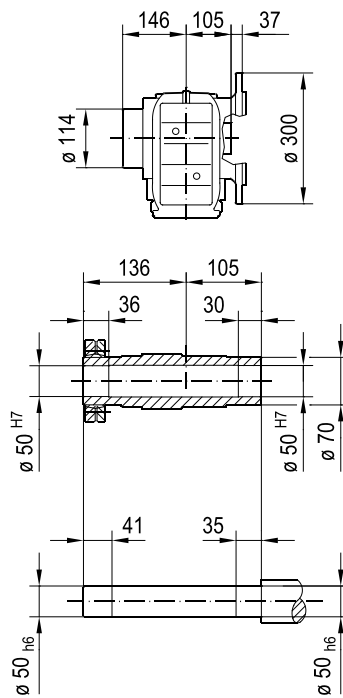
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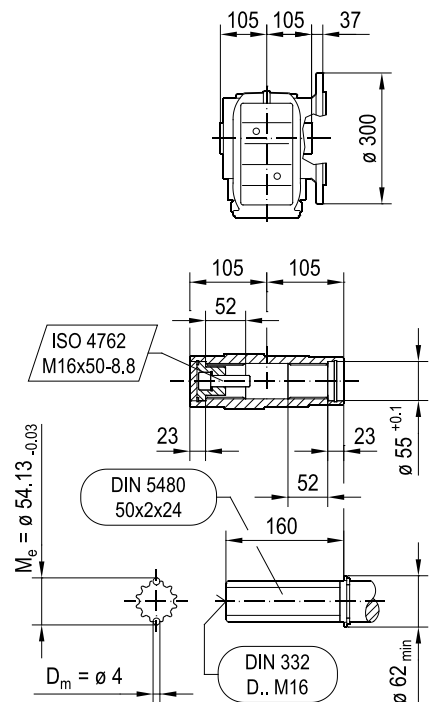
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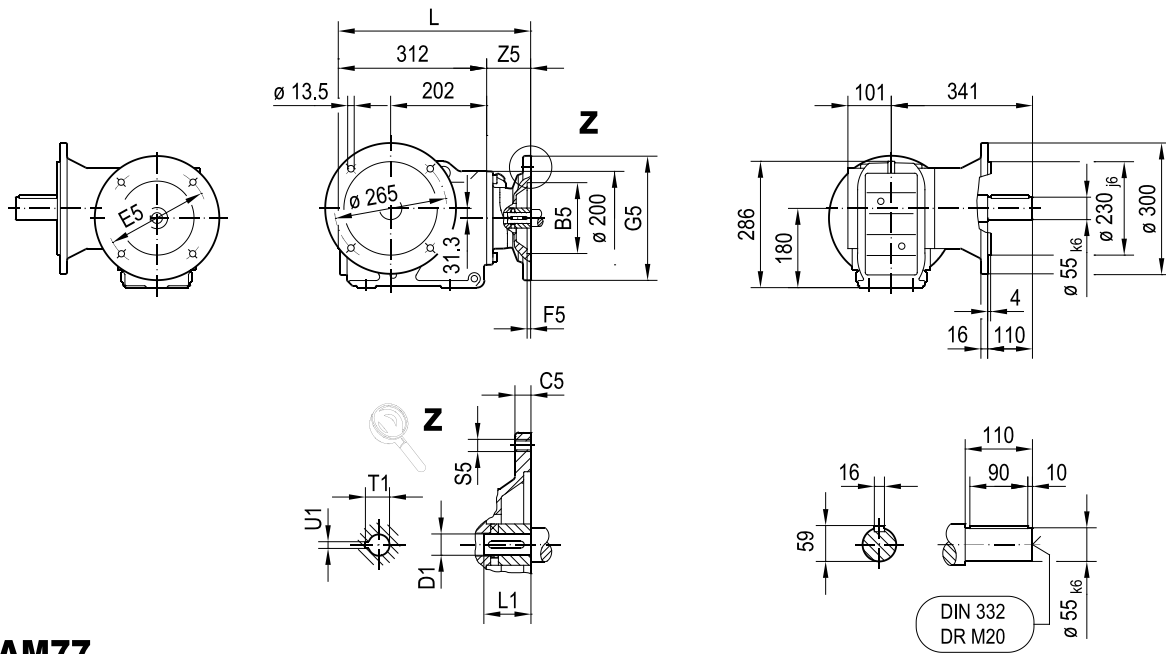


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 356 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 356 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 372 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 385 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 413 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 413 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 438 | M12 | 126 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 438 | M12 | 126 | 38 | 80 | 41.3 | 10 |

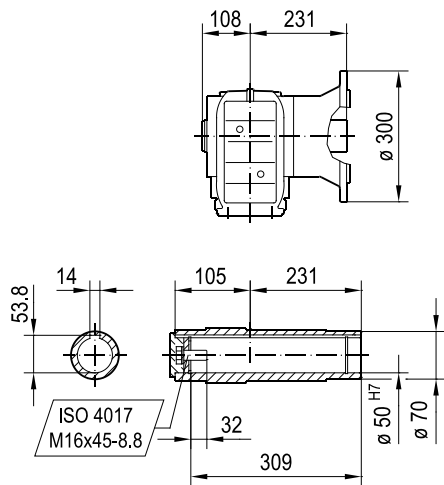
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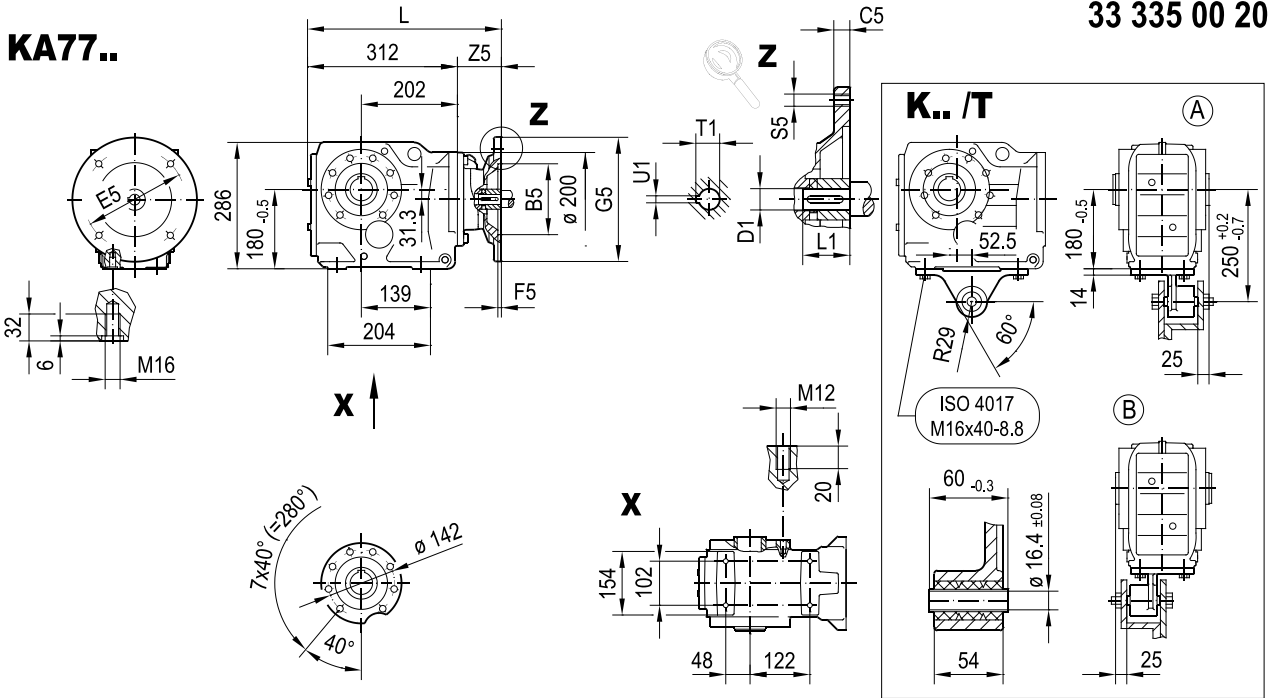


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| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 356 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 356 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 372 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 385 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 413 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 413 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 438 | M12 | 126 | 38 | 80 | 41.3 | 10 |
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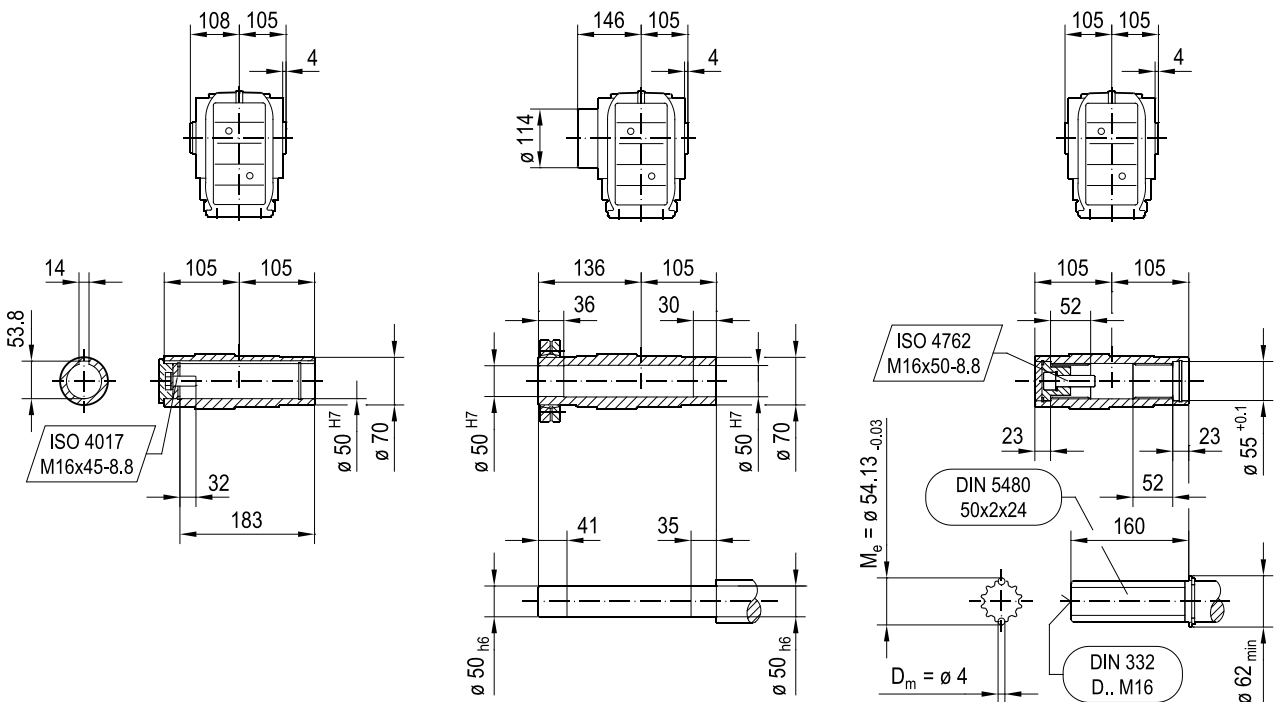
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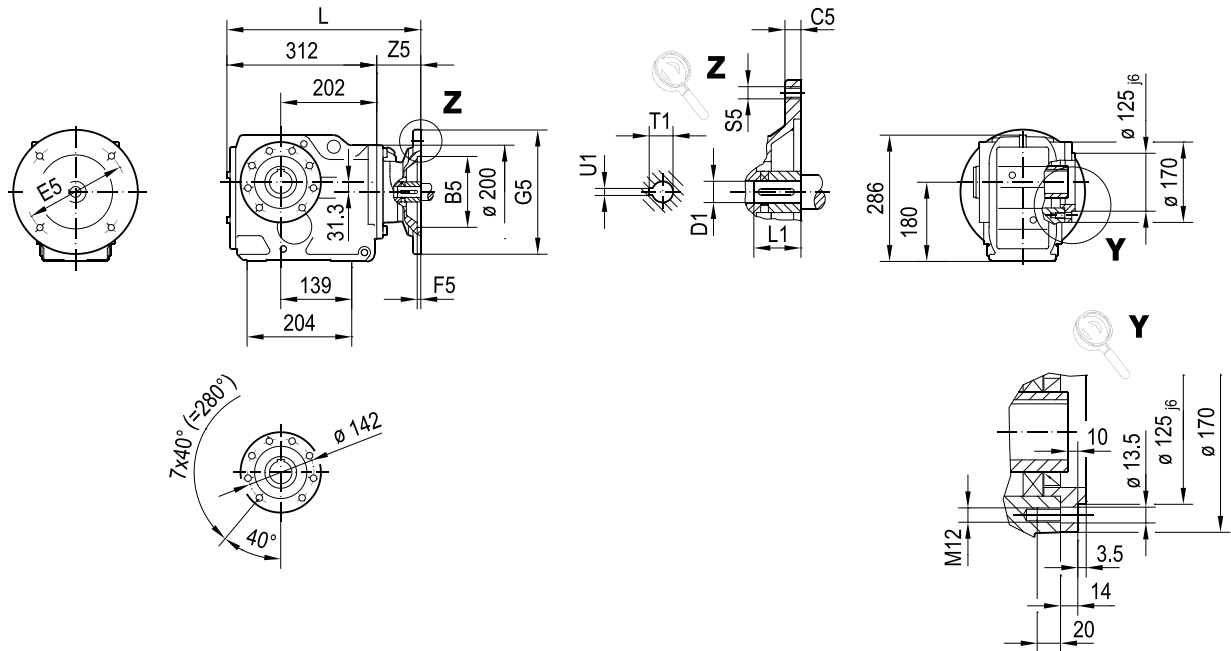


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|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 356 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 356 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 372 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 385 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 413 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 413 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 438 | M12 | 126 | 38 | 80 | 41.3 | 10 |
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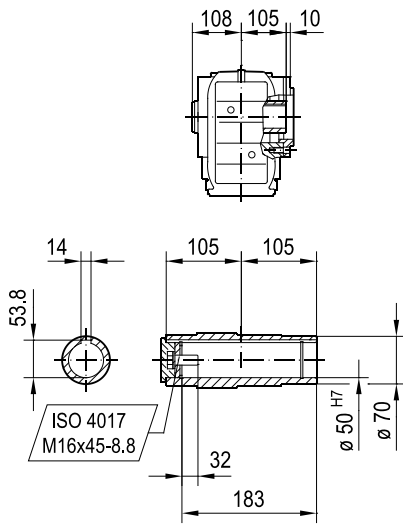
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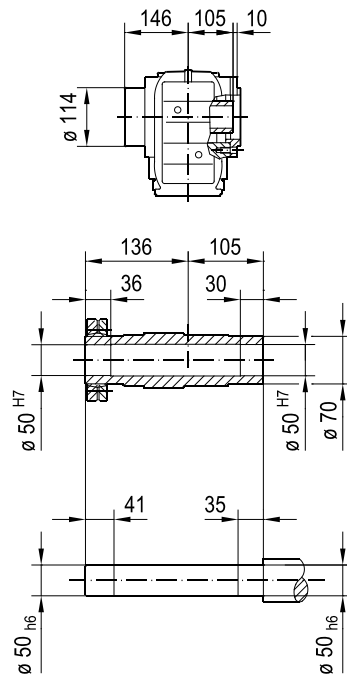
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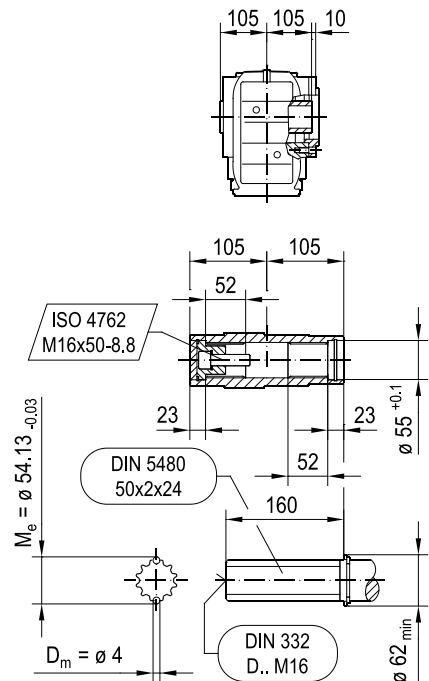
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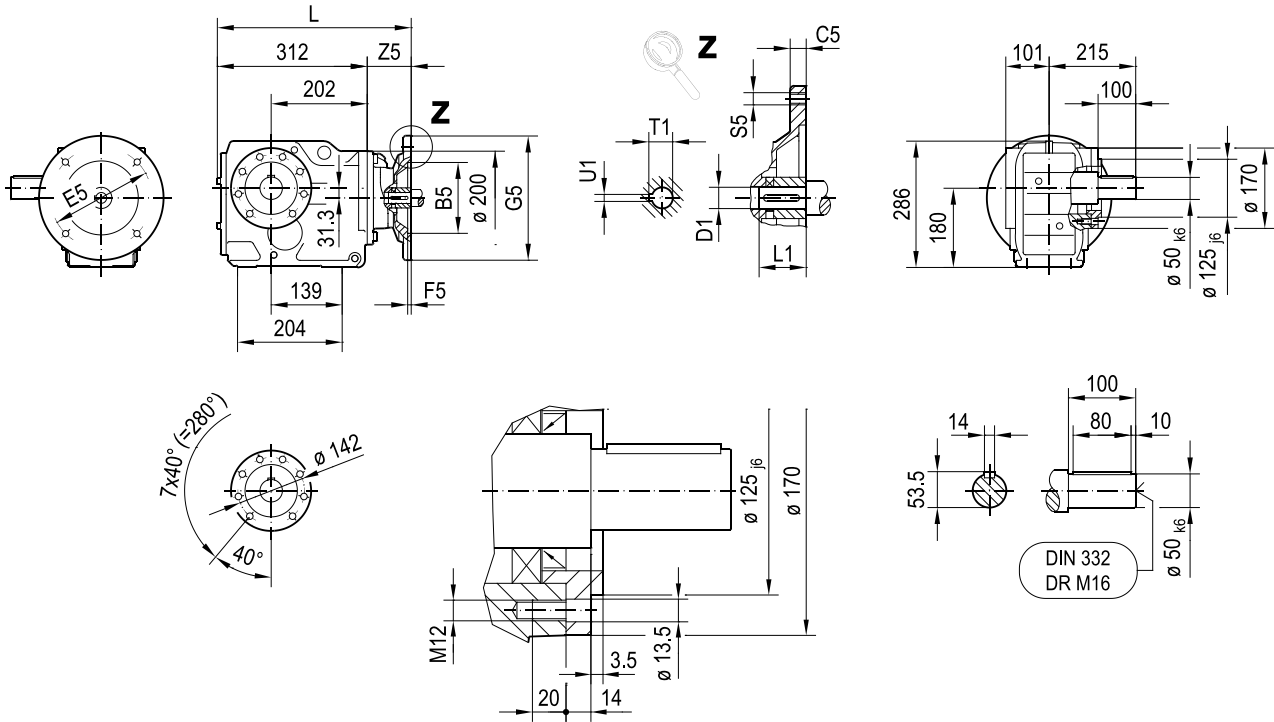
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| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 356 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 356 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 372 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 385 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 413 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 413 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 438 | M12 | 126 | 38 | 80 | 41.3 | 10 |
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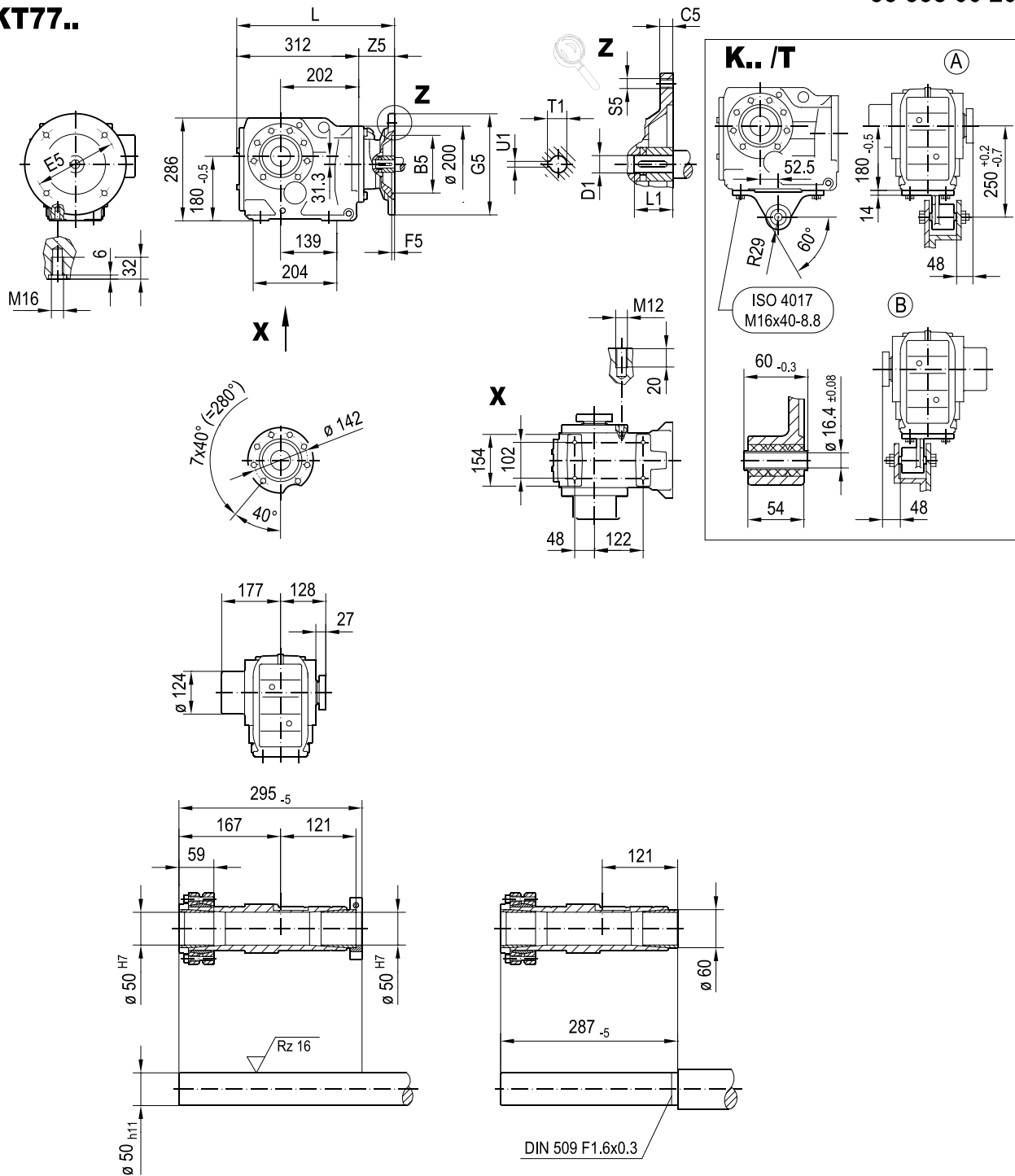


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 356 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 356 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 372 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 385 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 413 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 413 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 438 | M12 | 126 | 38 | 80 | 41.3 | 10 |
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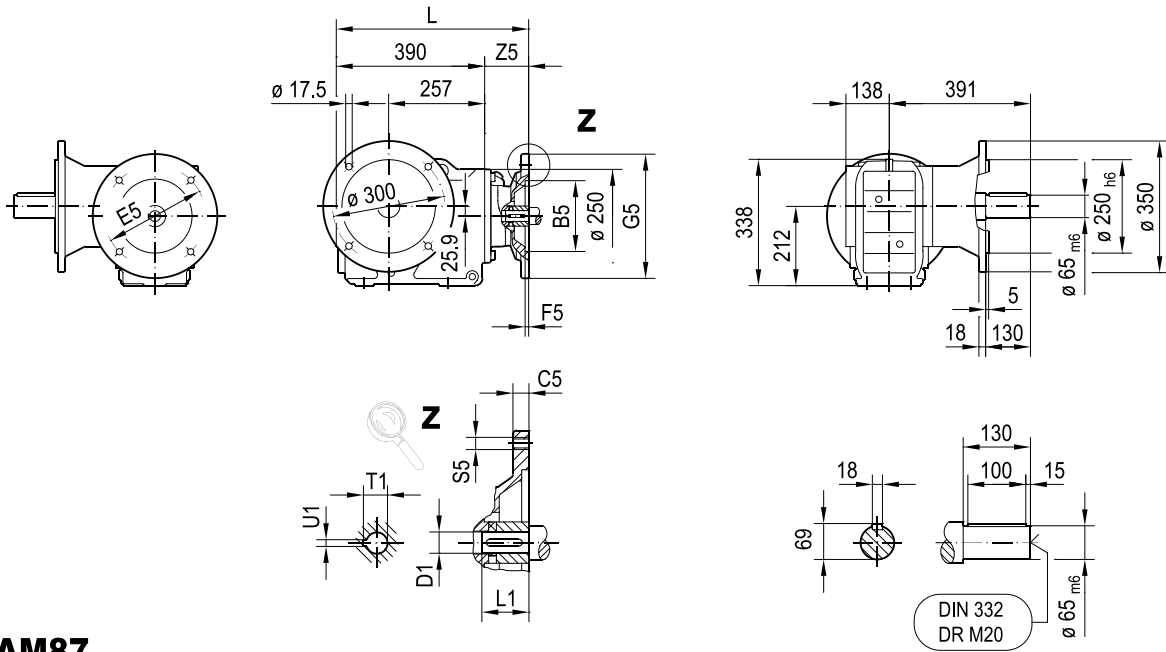


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 356 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 356 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 372 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 385 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 413 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 413 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 438 | M12 | 126 | 38 | 80 | 41.3 | 10 |
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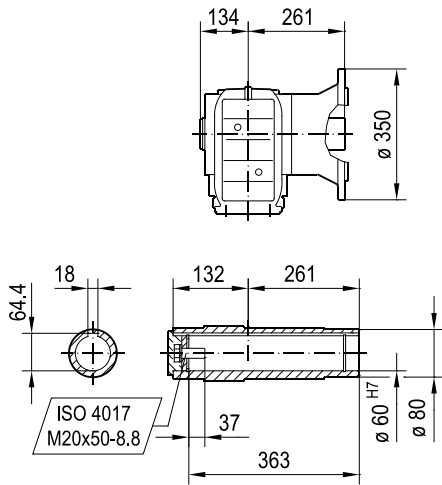
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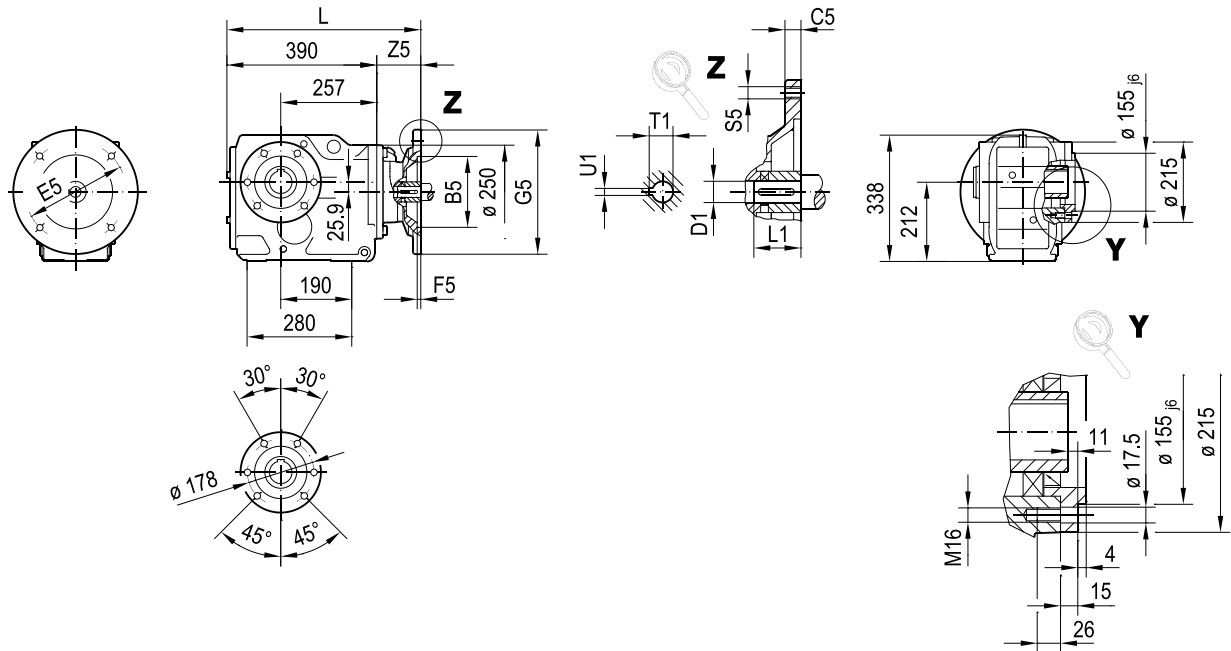


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|-----------|-----|----|-----|-----|-----|-----|-----|------|----|-----|------|----|
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 445 | M10 | 55 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 458 | M10 | 68 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 486 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 486 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 511 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 511 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 574 | M16 | 184 | 42 | 110 | 45.3 | 12 |
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33 343 00 20

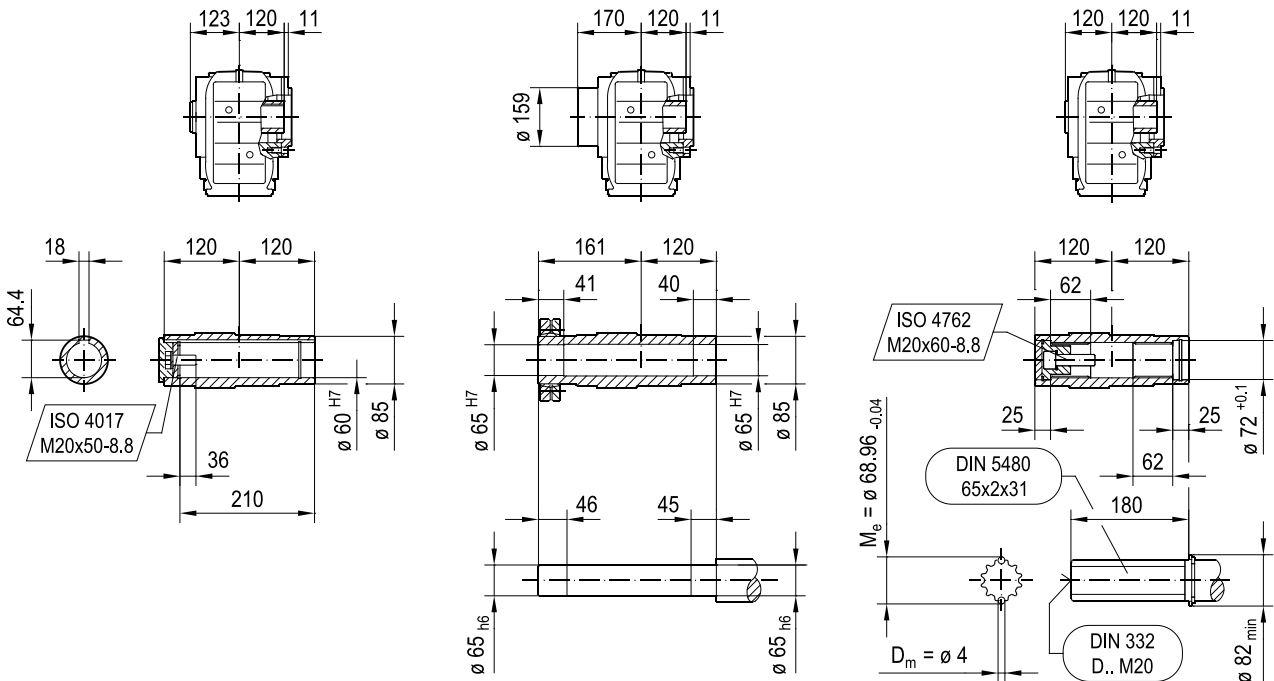
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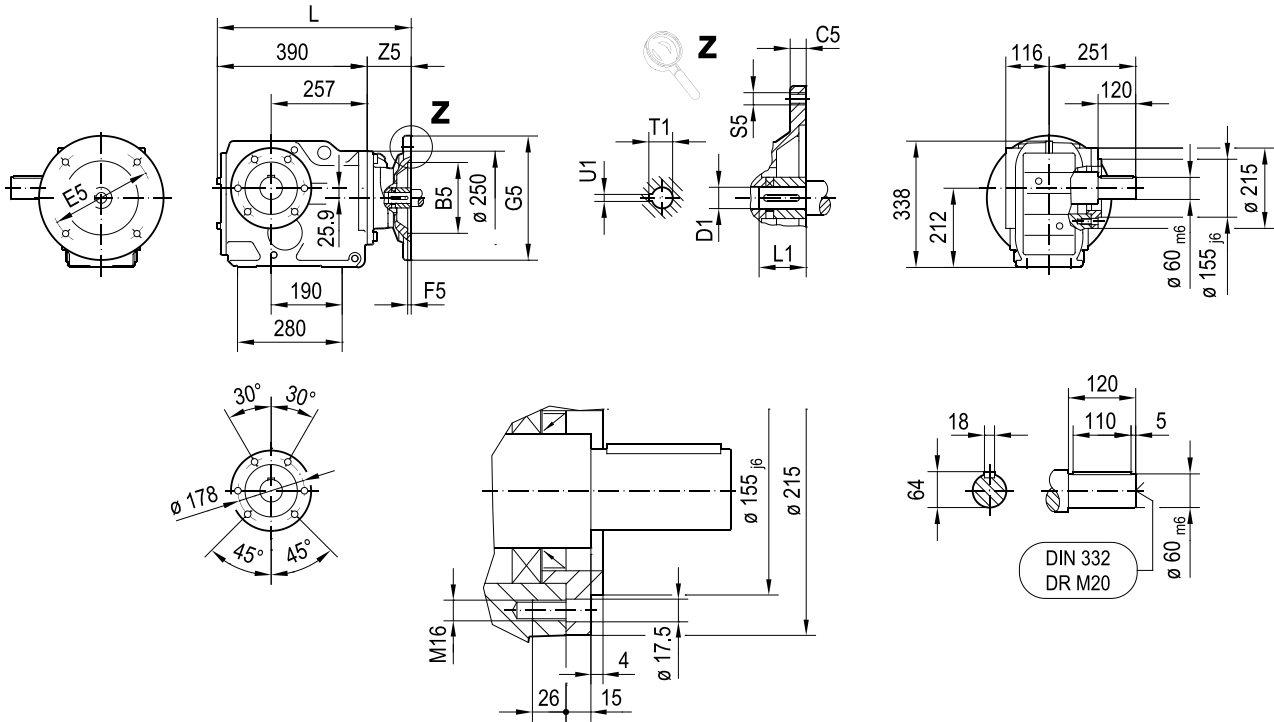


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|------|----|-----|------|----|
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 445 | M10 | 55 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 458 | M10 | 68 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 486 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 486 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 511 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 511 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 574 | M16 | 184 | 42 | 110 | 45.3 | 12 |
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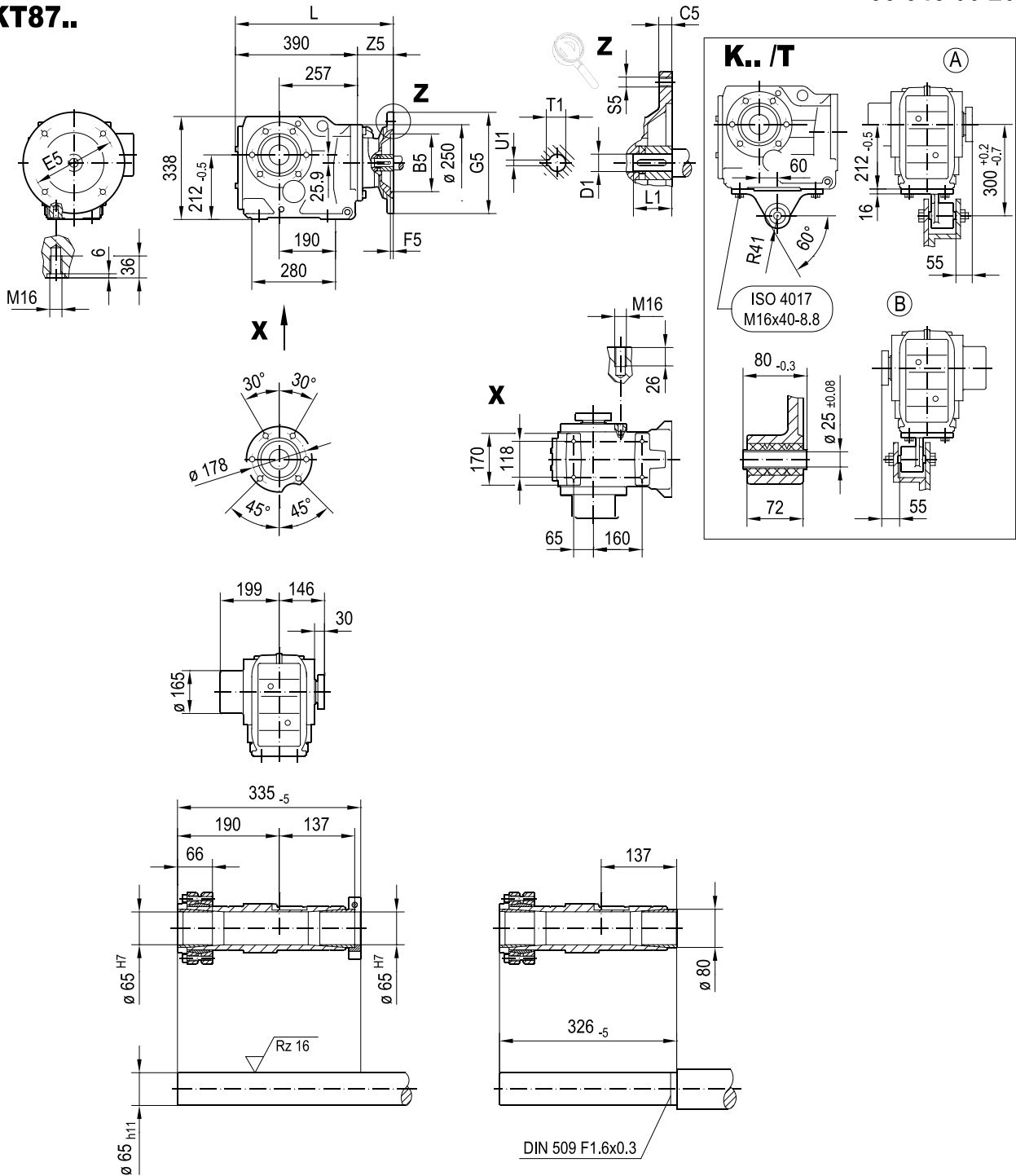


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|------|----|-----|------|----|
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 445 | M10 | 55 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 458 | M10 | 68 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 486 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 486 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 511 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 511 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 574 | M16 | 184 | 42 | 110 | 45.3 | 12 |
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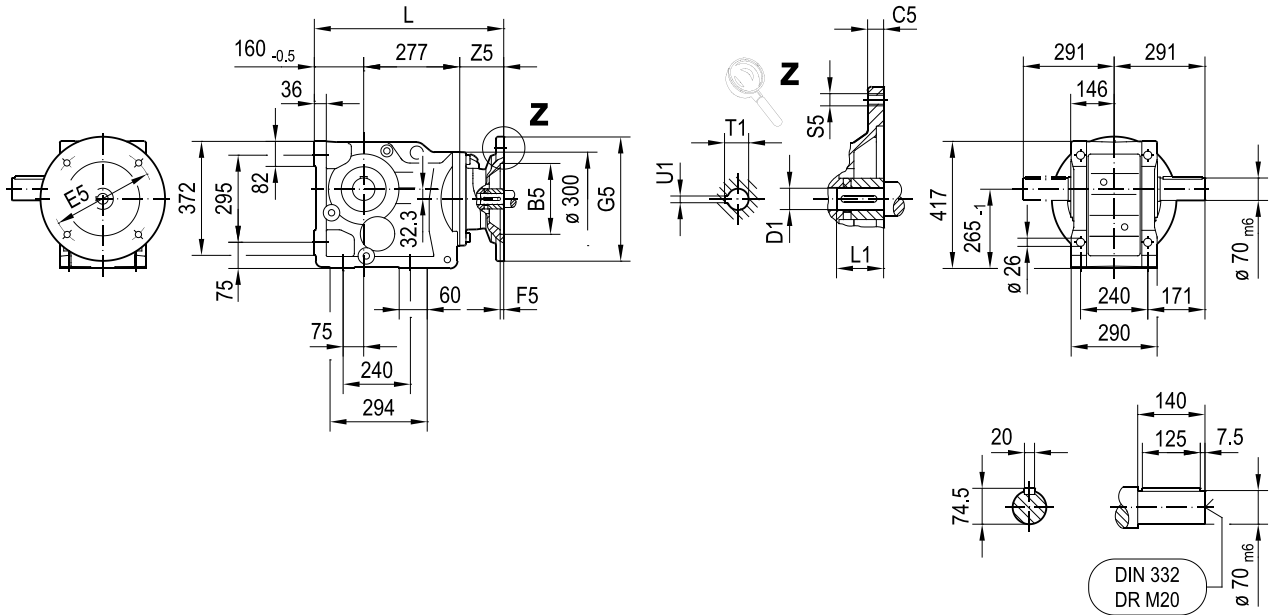


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|------|----|-----|------|----|
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 445 | M10 | 55 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 458 | M10 | 68 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 486 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 486 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 511 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 511 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 574 | M16 | 184 | 42 | 110 | 45.3 | 12 |
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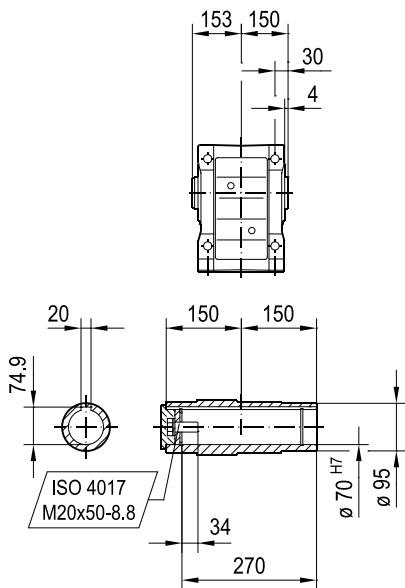
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33 346 00 20

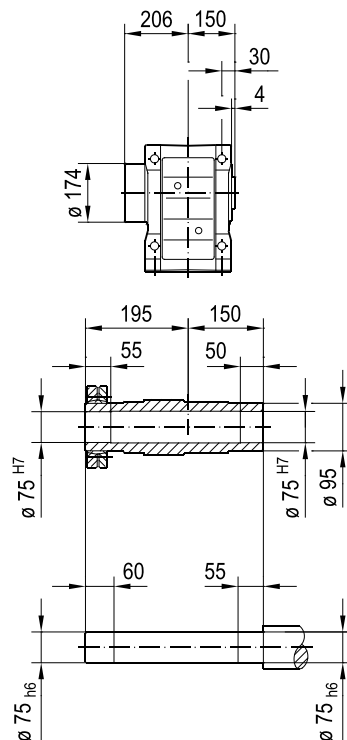
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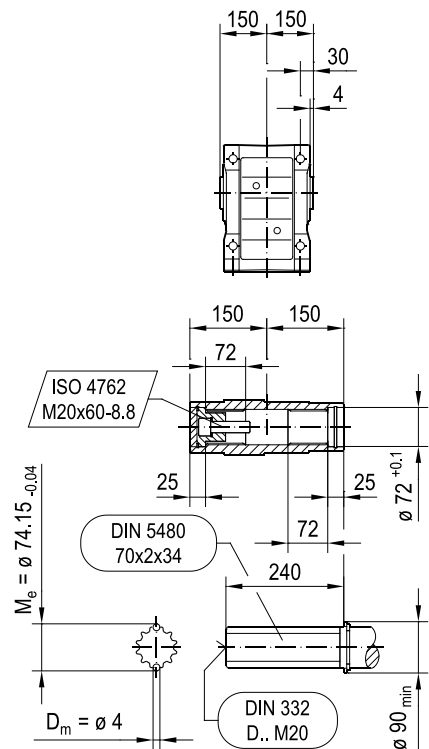
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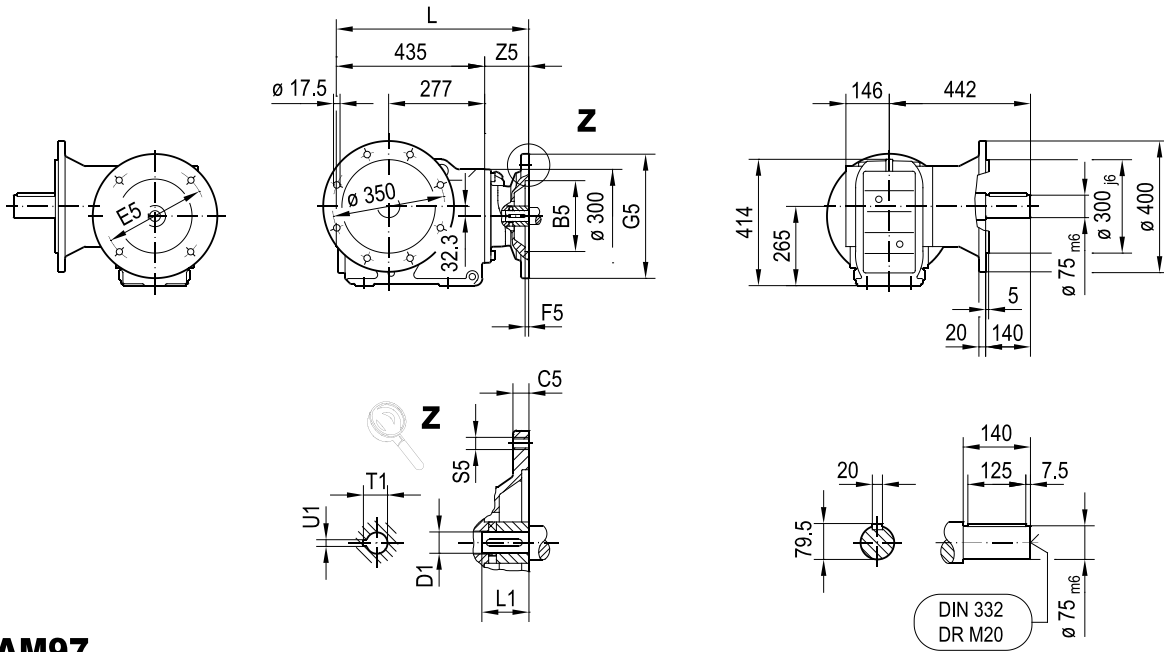


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 528 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 528 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 553 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 553 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 616 | M16 | 179 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 616 | M16 | 179 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 677 | M16 | 240 | 55 | 110 | 59.3 | 16 |
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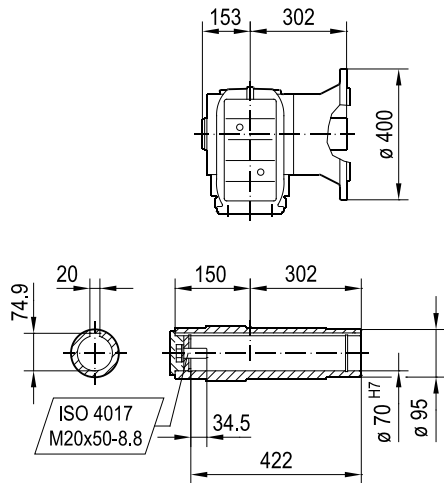
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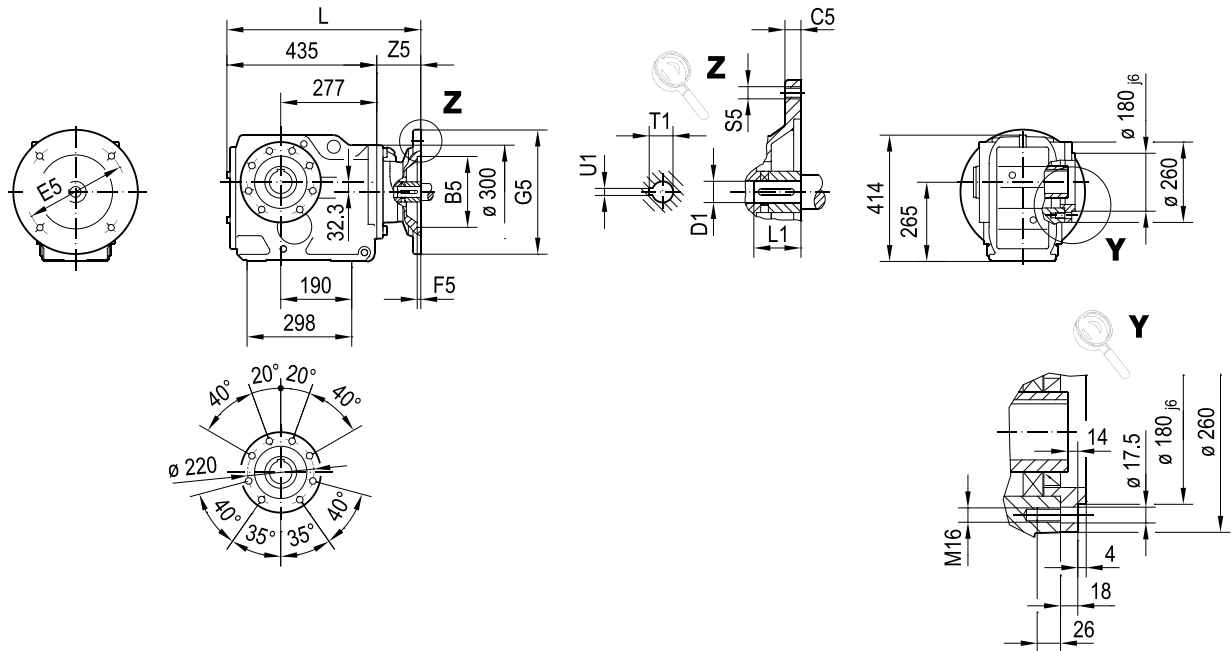


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|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 526 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 526 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 551 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 551 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 614 | M16 | 179 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 614 | M16 | 179 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 675 | M16 | 240 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 690 | M16 | 255 | 60 | 140 | 64.4 | 18 |

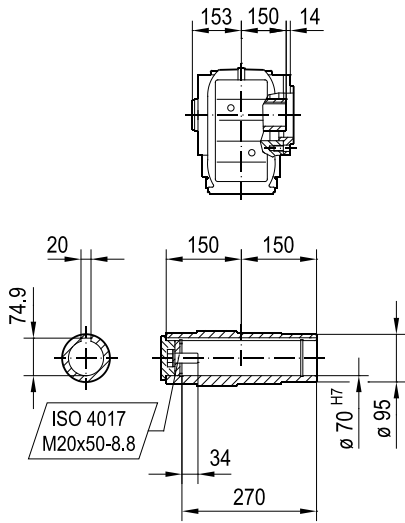
26878565/EN – 11/2021

33 350 00 20

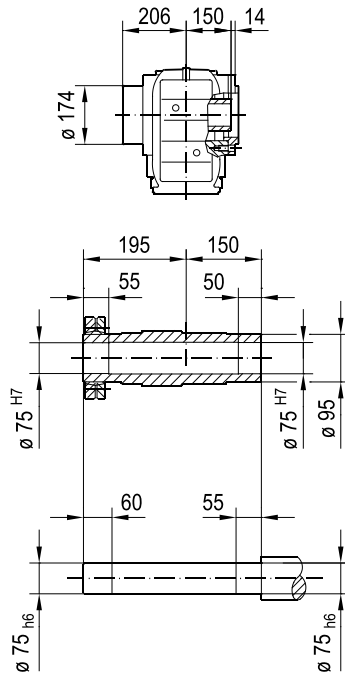
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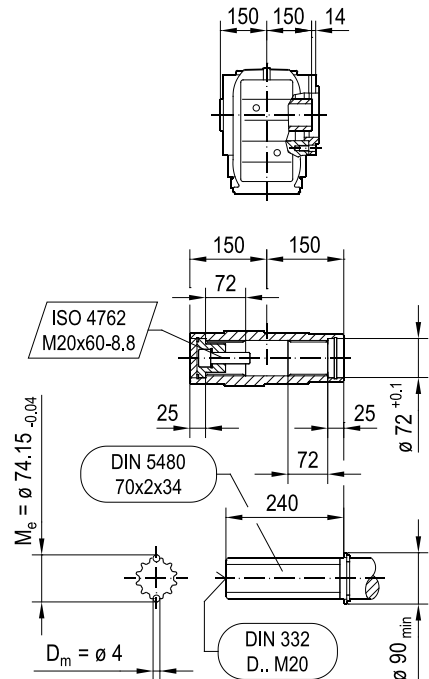
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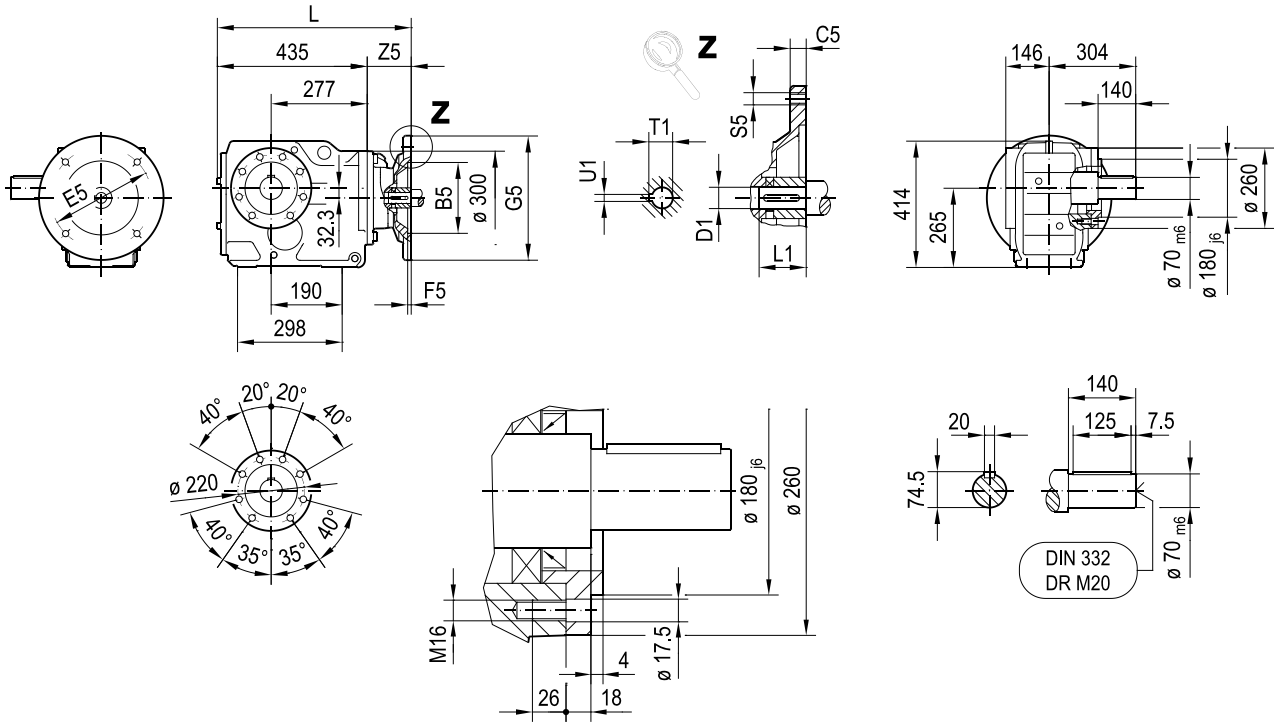
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| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 526 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 526 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 551 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 551 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 614 | M16 | 179 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 614 | M16 | 179 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 675 | M16 | 240 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 690 | M16 | 255 | 60 | 140 | 64.4 | 18 |

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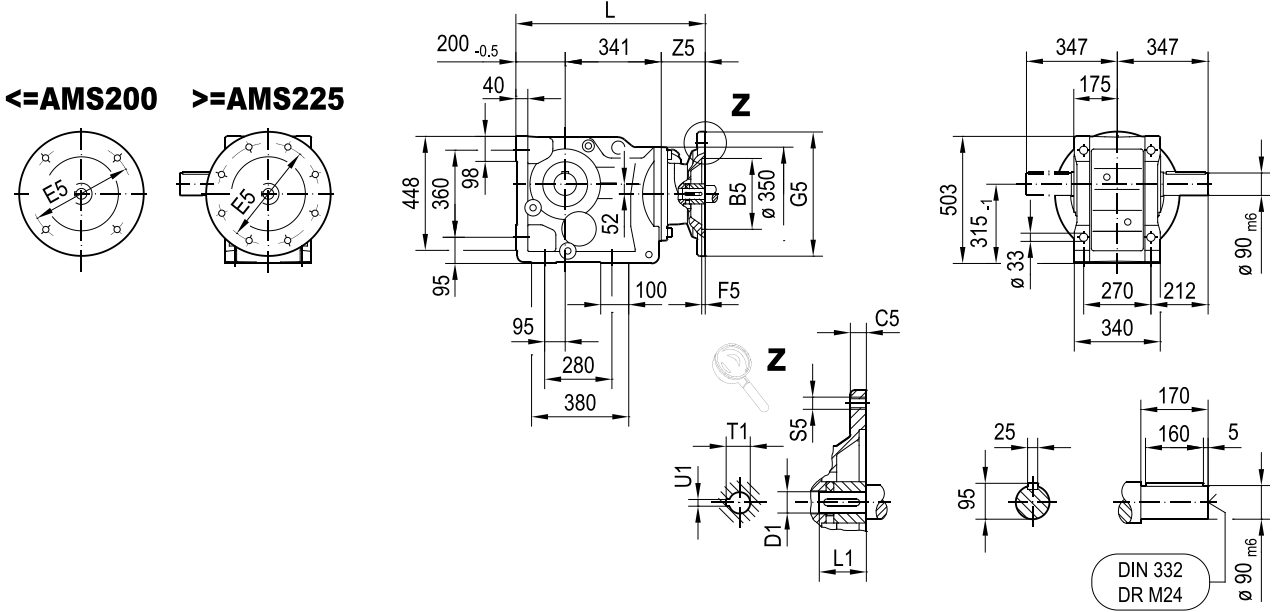


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| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 526 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 526 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 551 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 551 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 614 | M16 | 179 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 614 | M16 | 179 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 675 | M16 | 240 | 55 | 110 | 59.3 | 16 |
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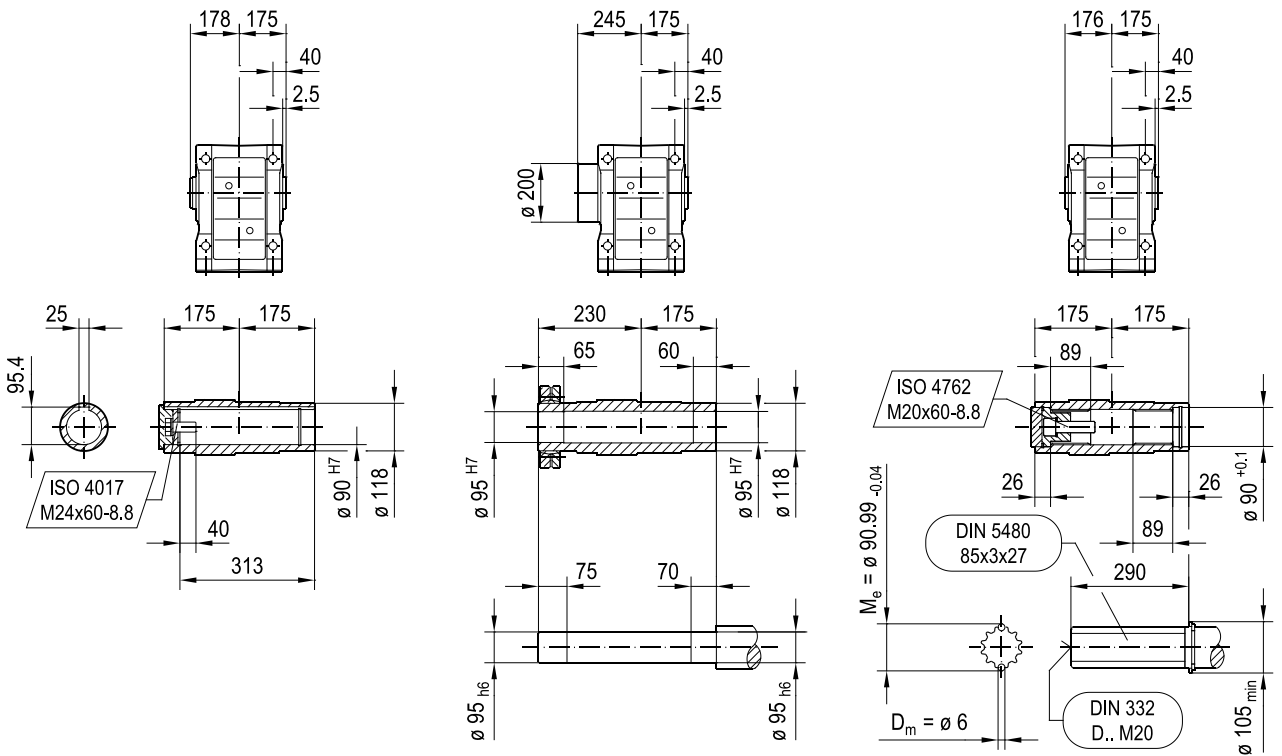
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KA107B..

KH107B..

KV107B..

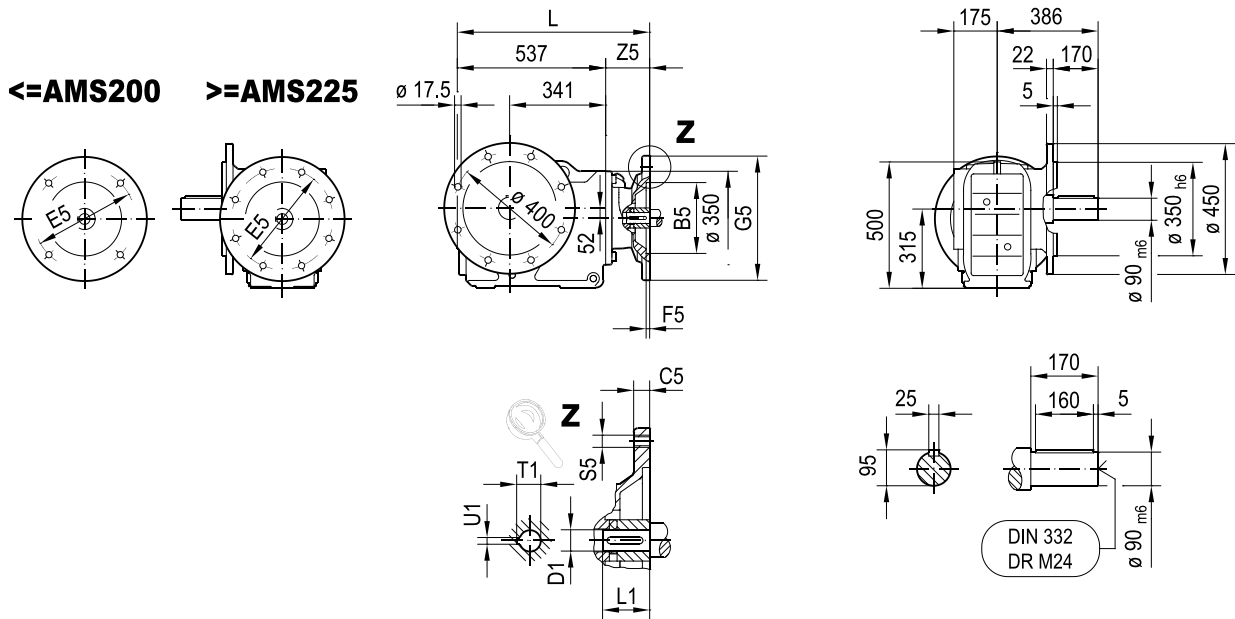


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|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
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| AMS112 | 180 | 15 | 215 | 5 | 250 | 626 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
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| AMS132ML | 230 | 16 | 265 | 5 | 300 | 651 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 714 | M16 | 173 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 714 | M16 | 173 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 775 | M16 | 234 | 55 | 110 | 59.3 | 16 |
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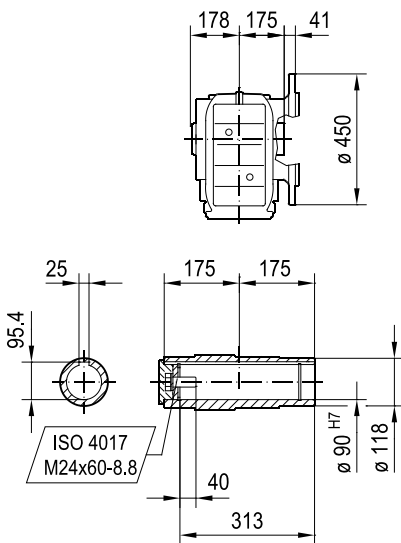
26878585/EN – 11/2021

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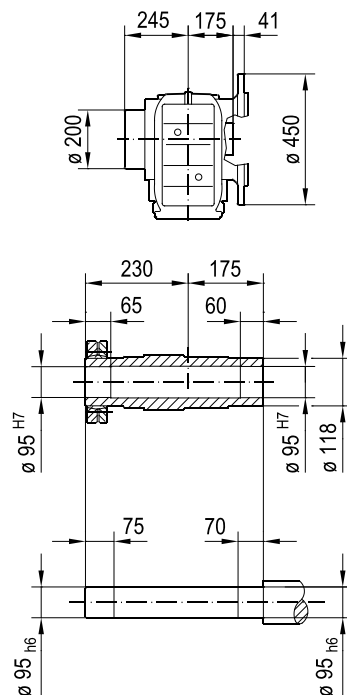
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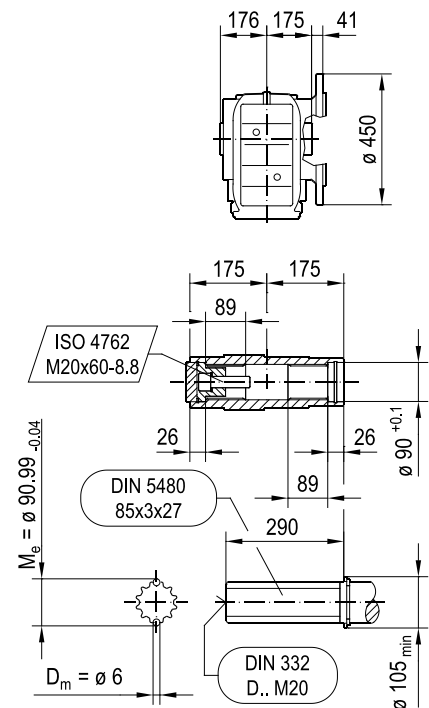
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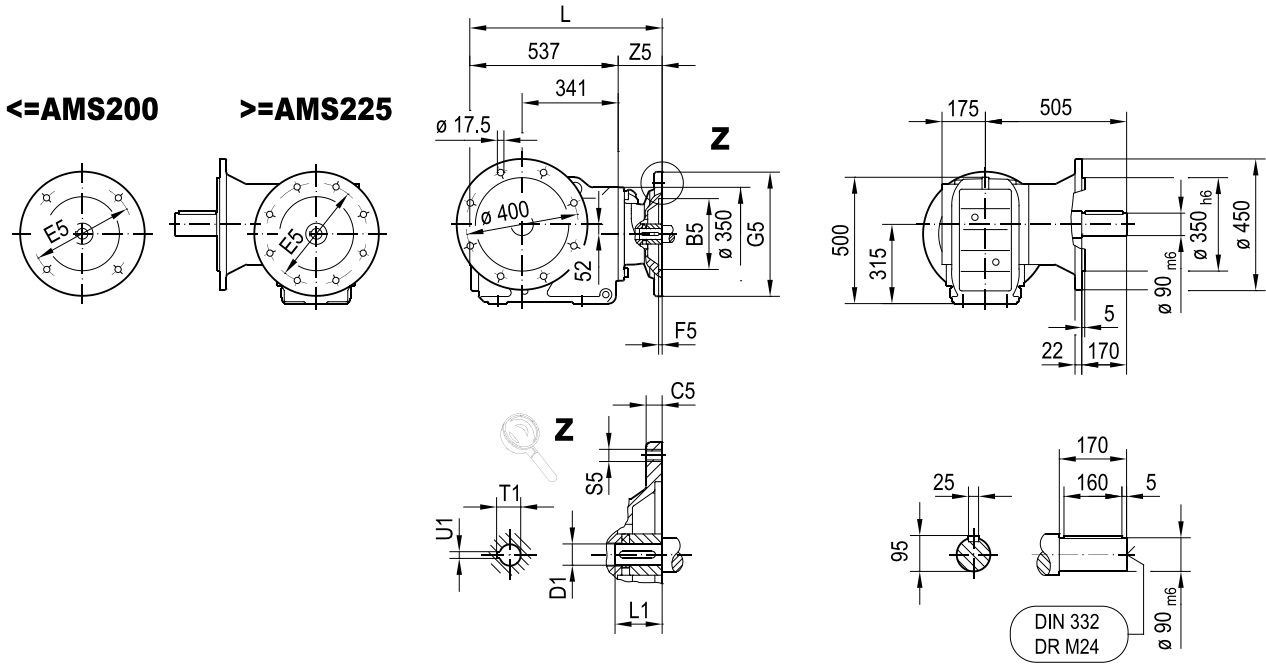
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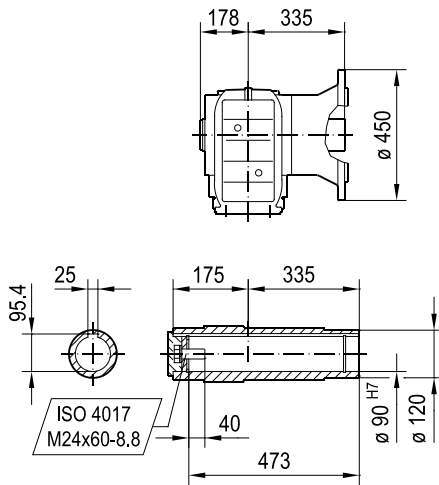
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|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 622 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 622 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 647 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 647 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 710 | M16 | 173 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 710 | M16 | 173 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 771 | M16 | 234 | 55 | 110 | 59.3 | 16 |
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33 355 00 20

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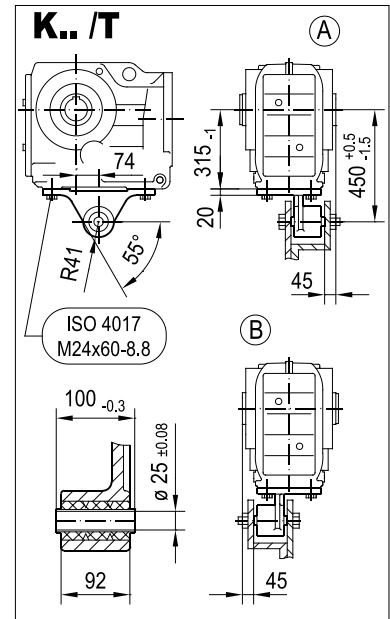
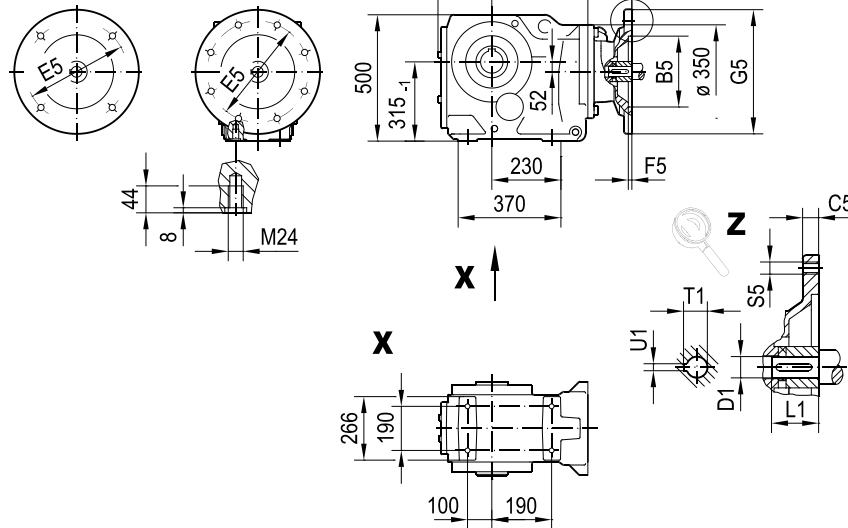
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|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 622 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 622 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 647 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 647 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 710 | M16 | 173 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 710 | M16 | 173 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 771 | M16 | 234 | 55 | 110 | 59.3 | 16 |
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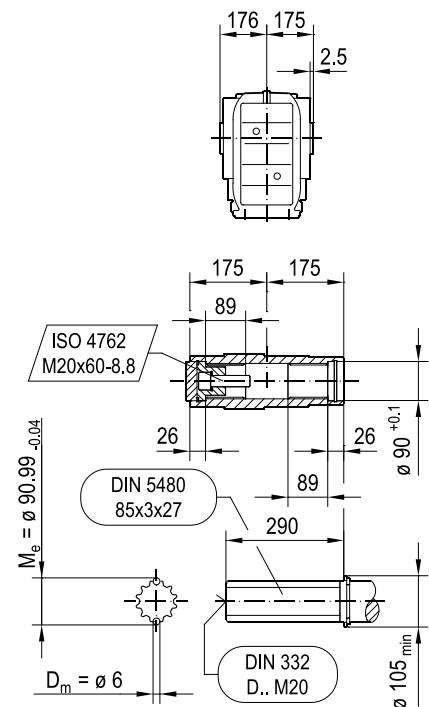
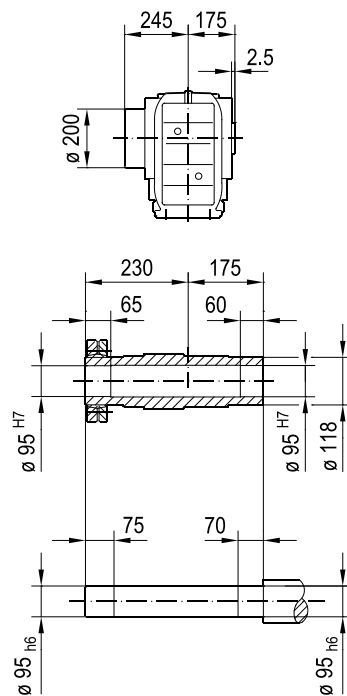
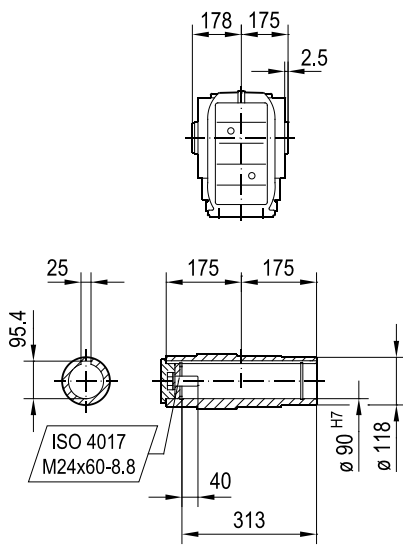
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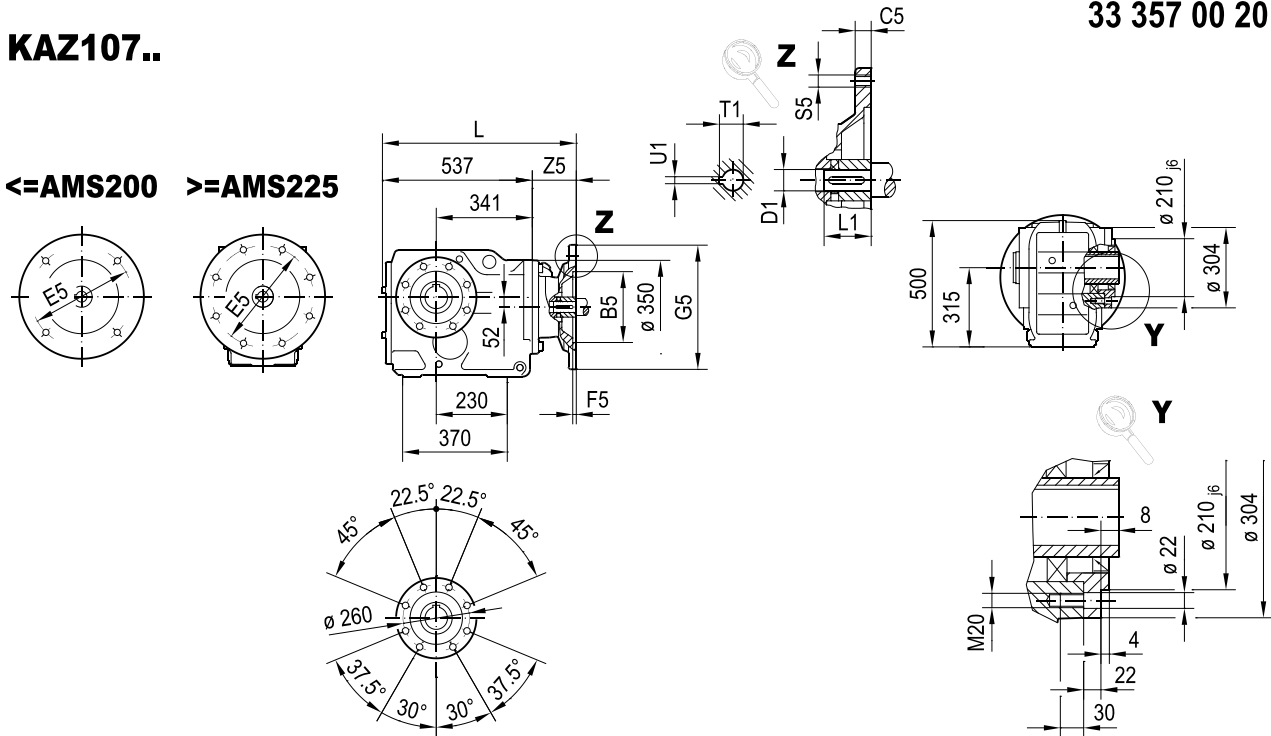
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|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 622 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 622 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 647 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 647 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 710 | M16 | 173 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 710 | M16 | 173 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 771 | M16 | 234 | 55 | 110 | 59.3 | 16 |
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33 357 00 20

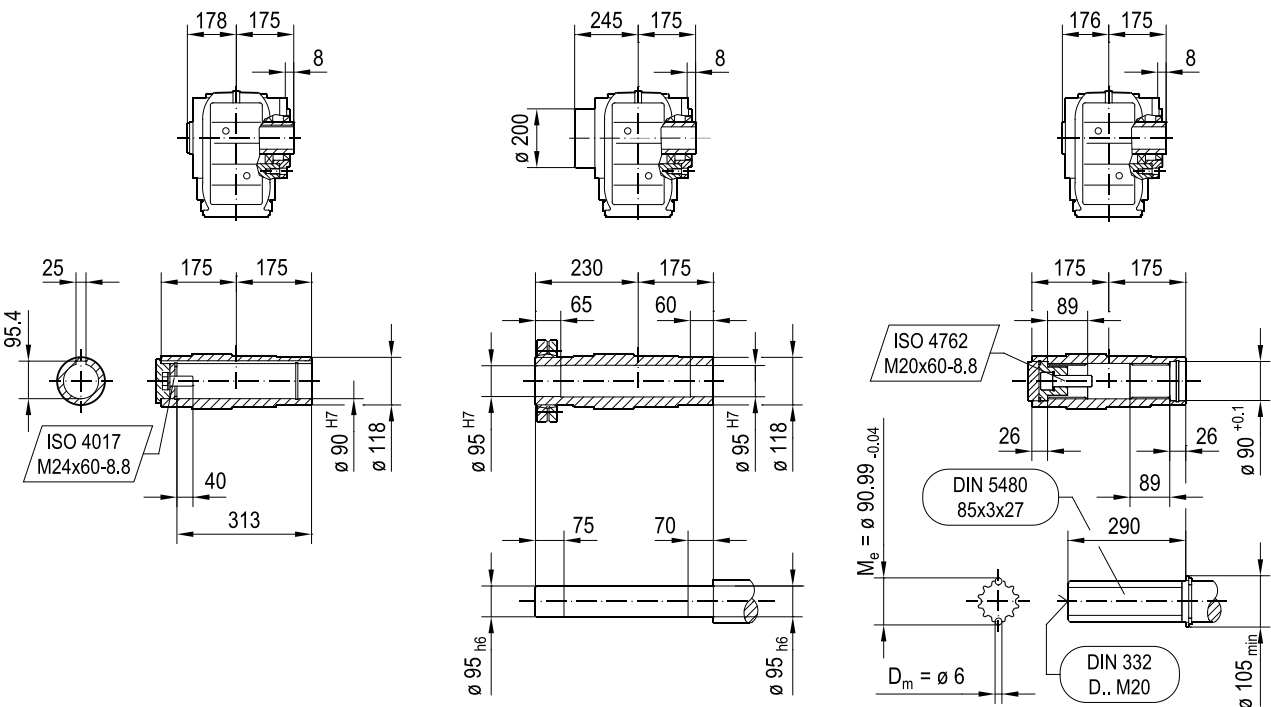
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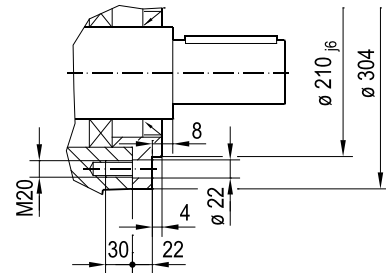
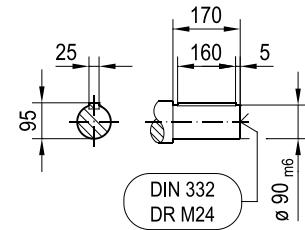
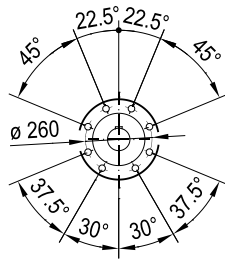
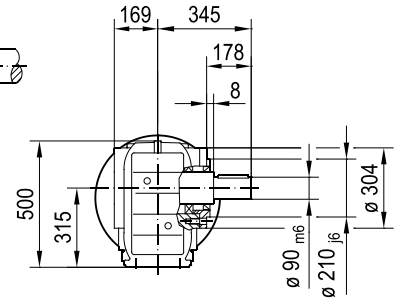
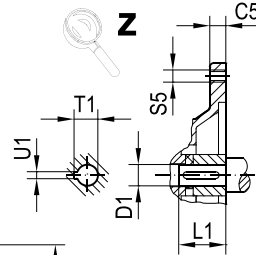
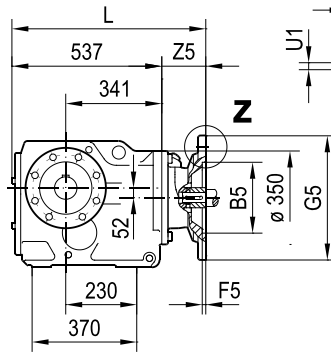
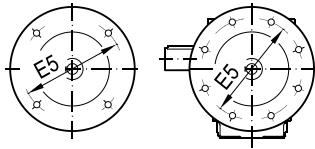
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 622 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 622 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 647 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 647 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 710 | M16 | 173 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 710 | M16 | 173 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 771 | M16 | 234 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 786 | M16 | 249 | 60 | 140 | 64.4 | 18 |

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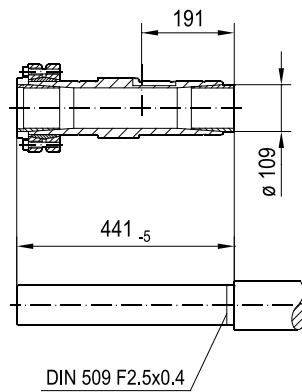
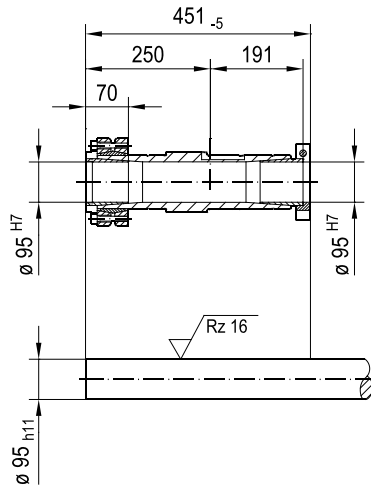
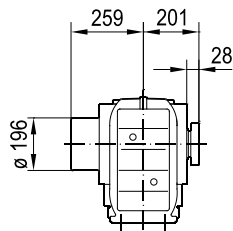
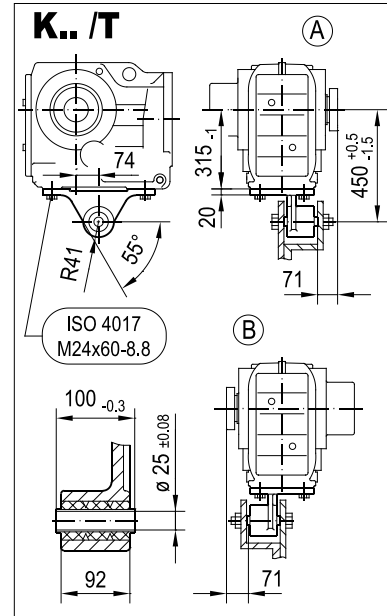
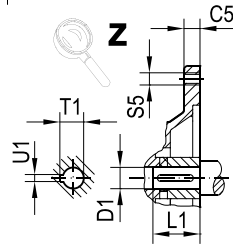
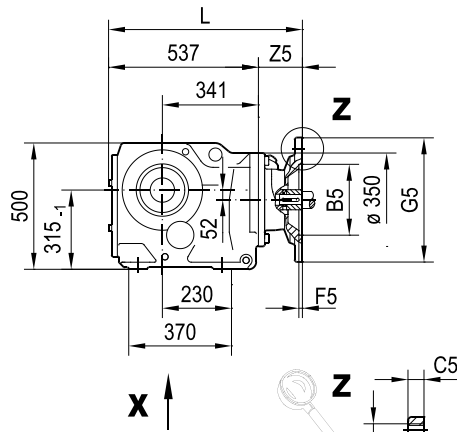
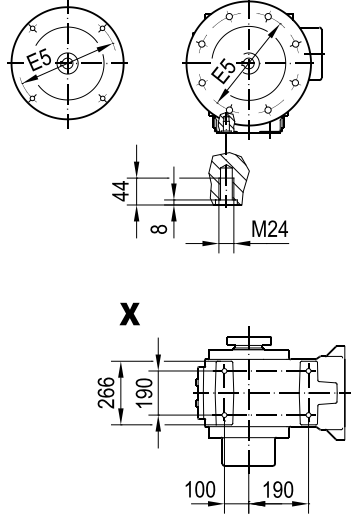
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 622 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 622 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 647 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 647 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 710 | M16 | 173 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 710 | M16 | 173 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 771 | M16 | 234 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 786 | M16 | 249 | 60 | 140 | 64.4 | 18 |

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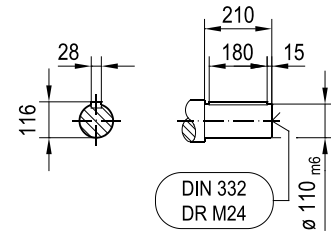
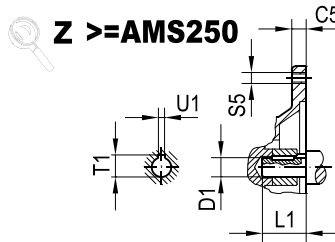
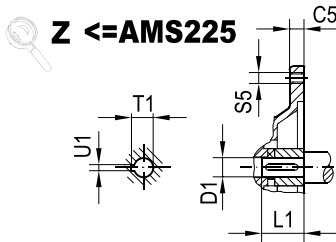
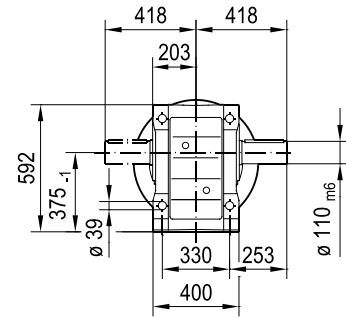
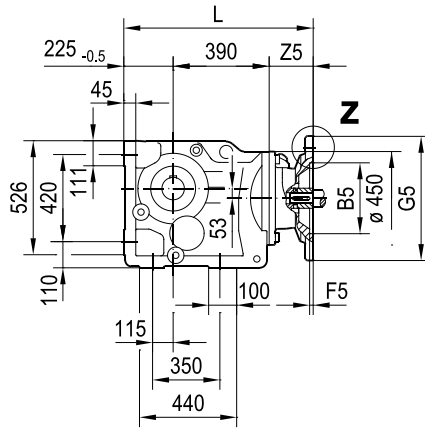
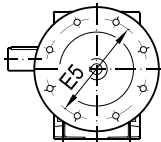
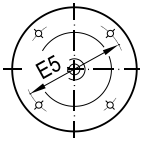
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 622 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 622 | M12 | 84.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 647 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 647 | M12 | 110 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 710 | M16 | 173 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 710 | M16 | 173 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 771 | M16 | 234 | 55 | 110 | 59.3 | 16 |
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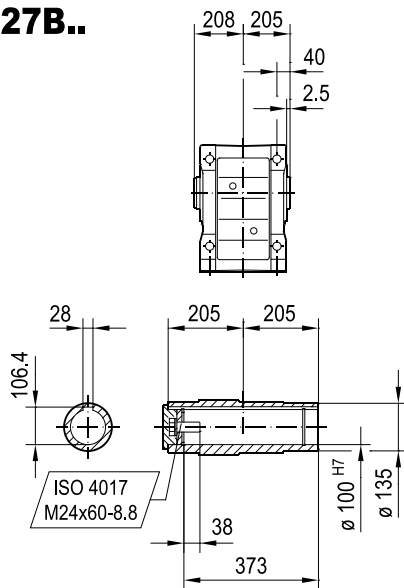
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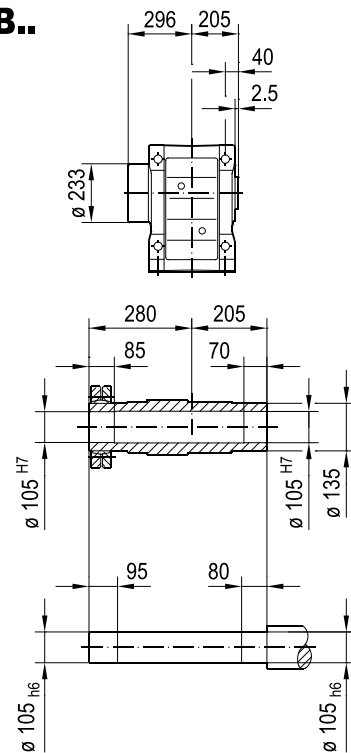
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KH127B..

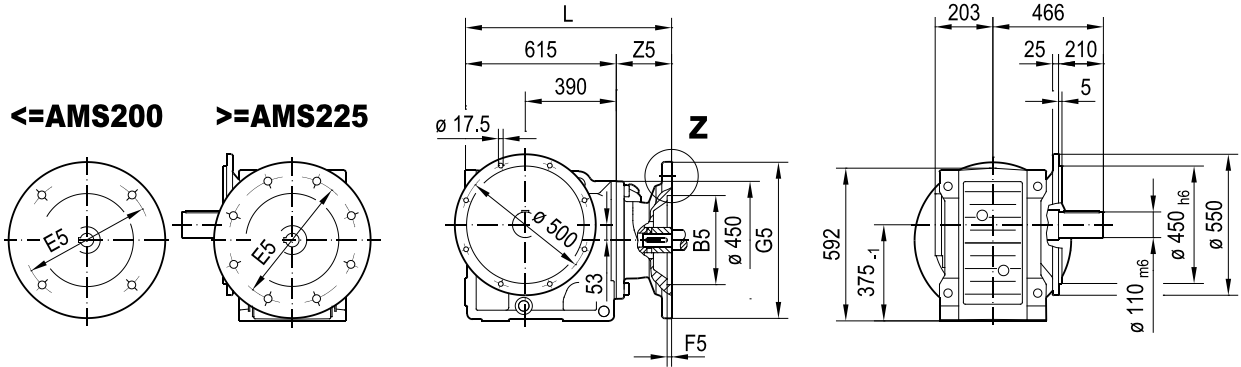


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|-------|----|-----|------|----|
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 710 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 710 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 773 | M16 | 158 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 773 | M16 | 158 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 834 | M16 | 219 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 849 | M16 | 234 | 60 | 140 | 64.4 | 18 |
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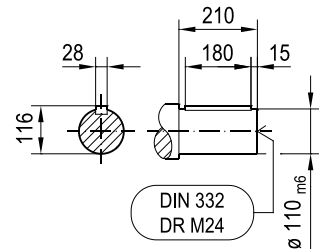
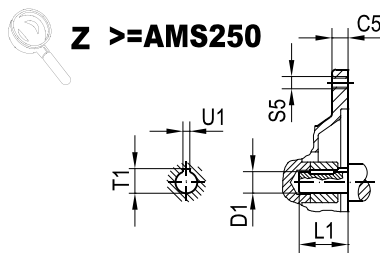
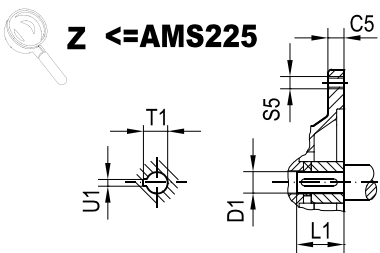
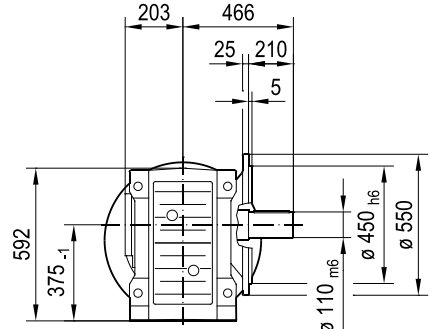
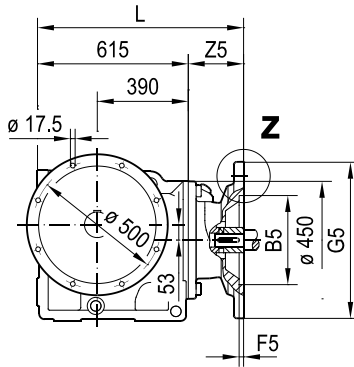
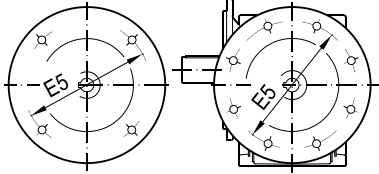
26878665/EN – 11/2021

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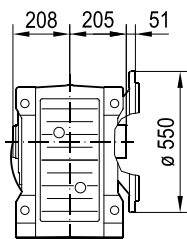
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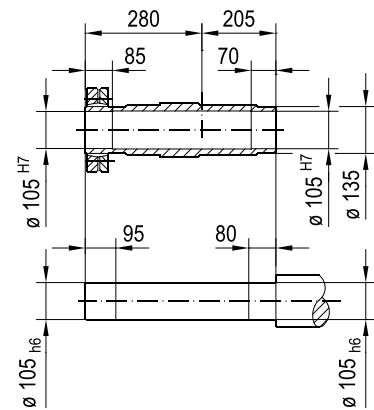
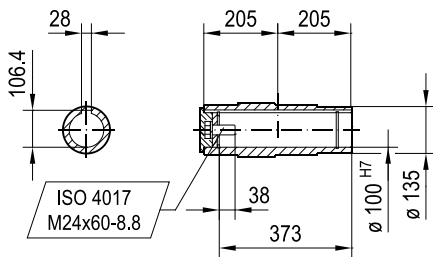
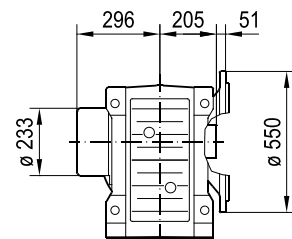
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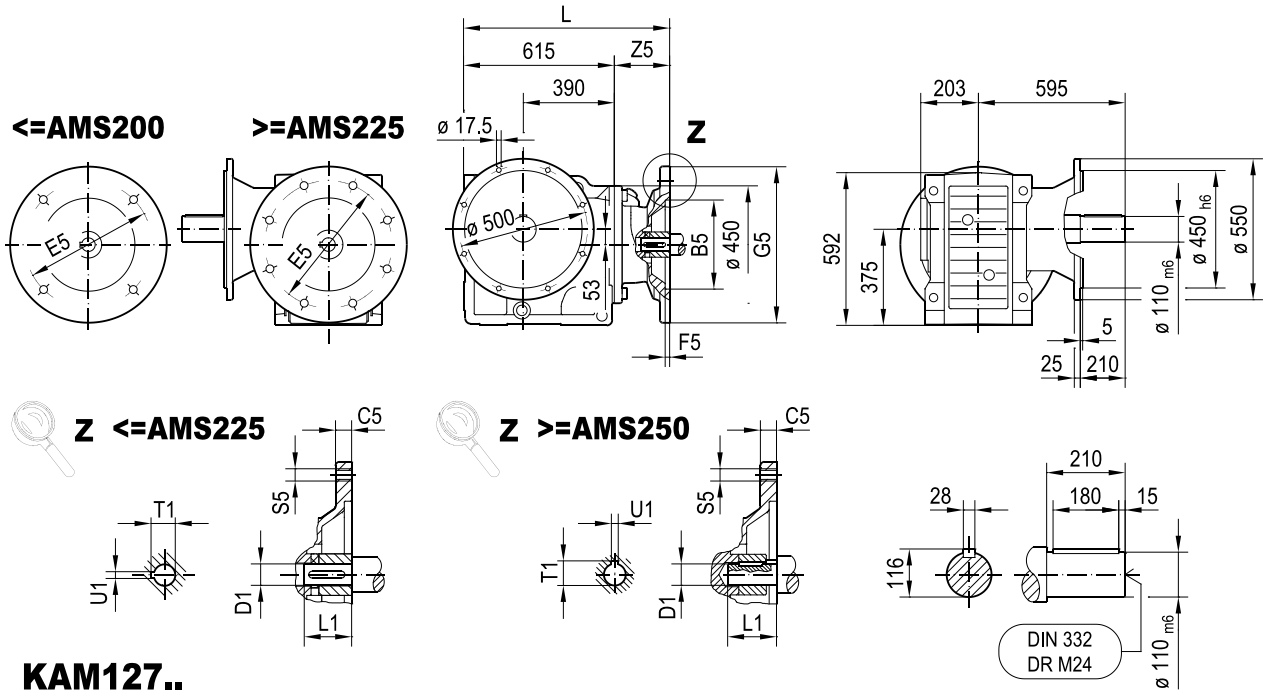


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|-------|----|-----|------|----|
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 710 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 710 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 773 | M16 | 158 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 773 | M16 | 158 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 834 | M16 | 219 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 849 | M16 | 234 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 913 | M16 | 297.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 913 | M16 | 297.5 | 75 | 140 | 79.9 | 20 |

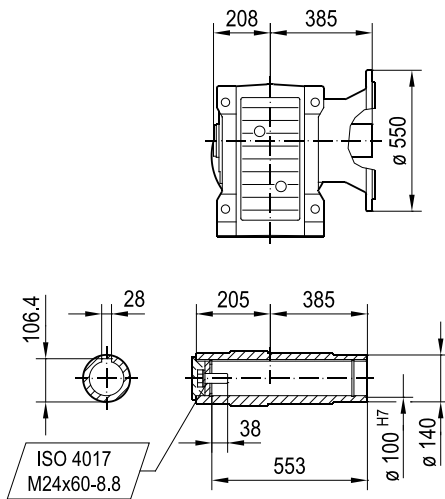
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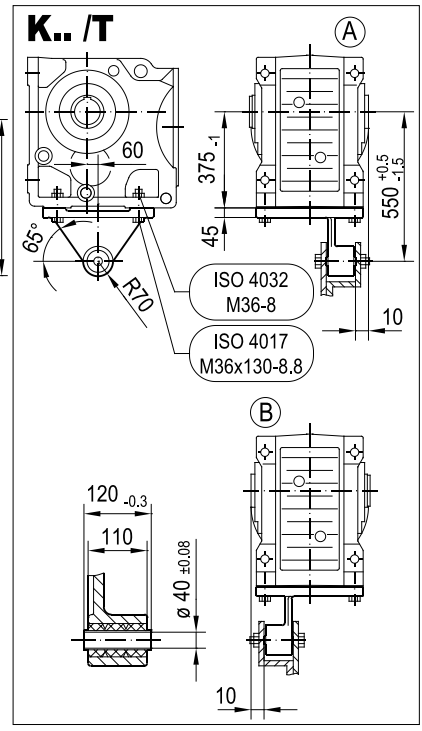
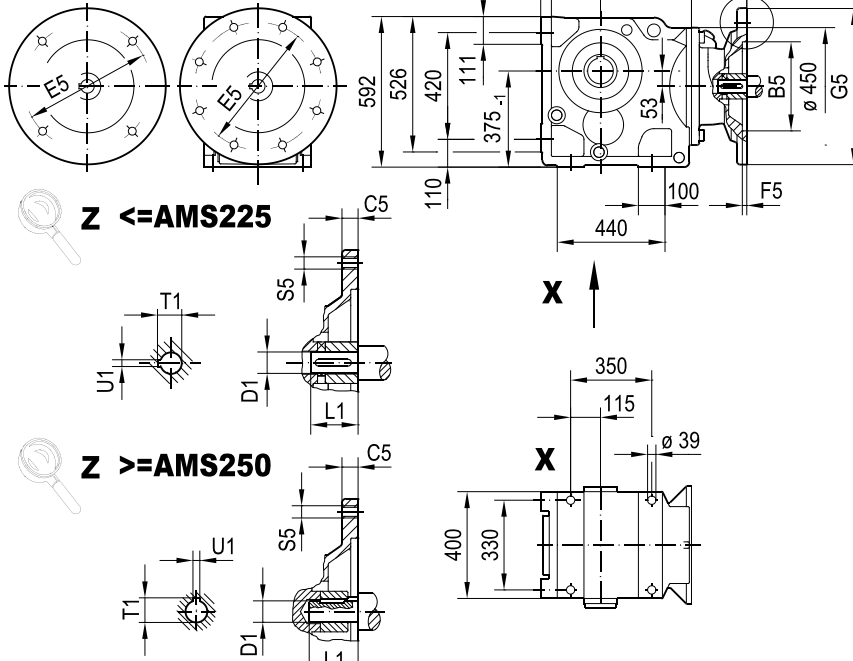


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|-------|----|-----|------|----|
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 710 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 710 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 773 | M16 | 158 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 773 | M16 | 158 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 834 | M16 | 219 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 849 | M16 | 234 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 913 | M16 | 297.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 913 | M16 | 297.5 | 75 | 140 | 79.9 | 20 |

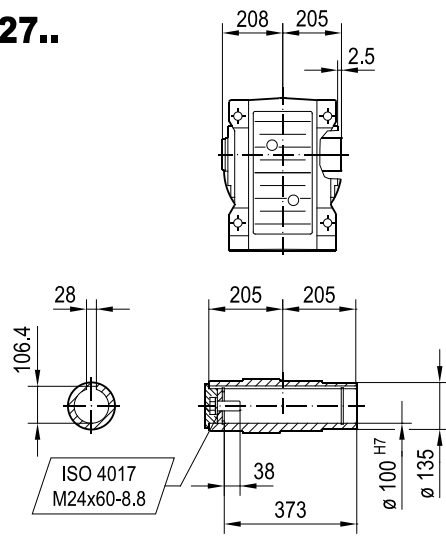
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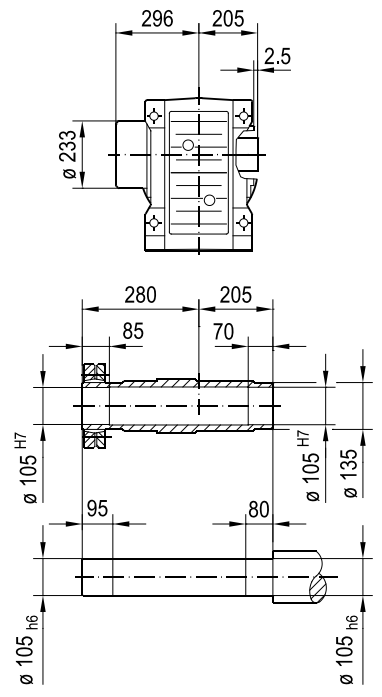
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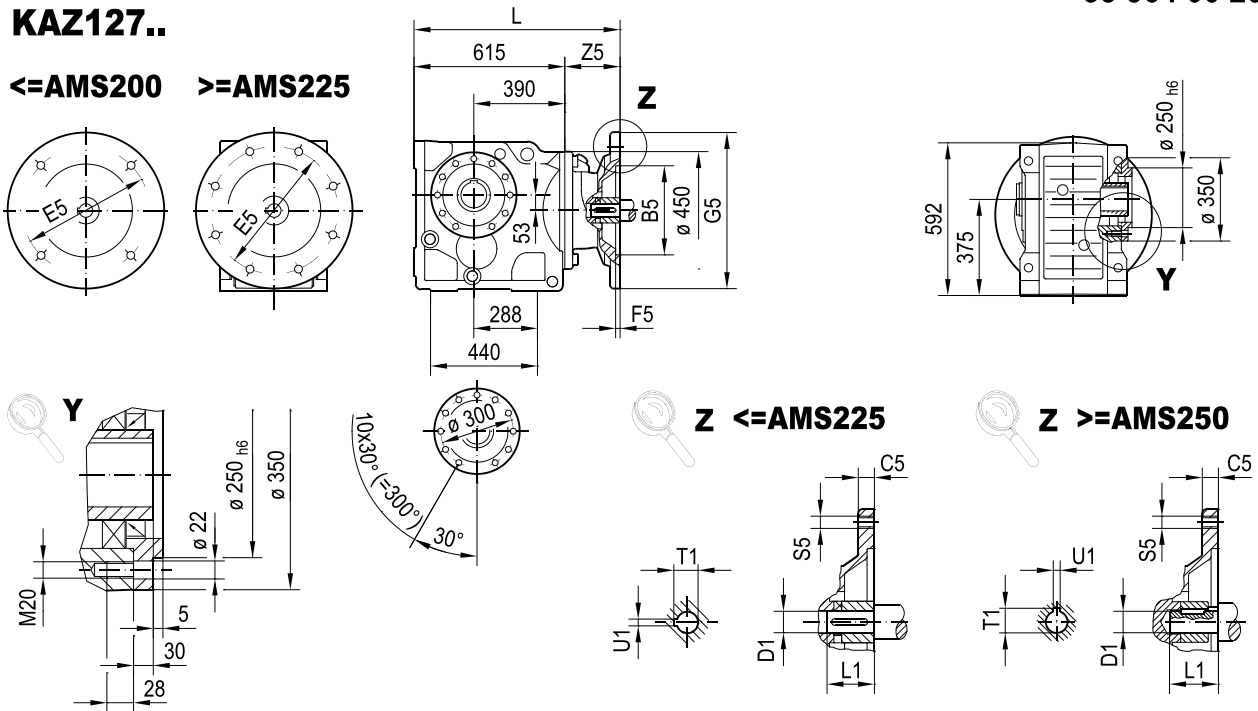
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
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| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 710 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 710 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 773 | M16 | 158 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 773 | M16 | 158 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 834 | M16 | 219 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 849 | M16 | 234 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 913 | M16 | 297.5 | 65 | 140 | 69.4 | 18 |
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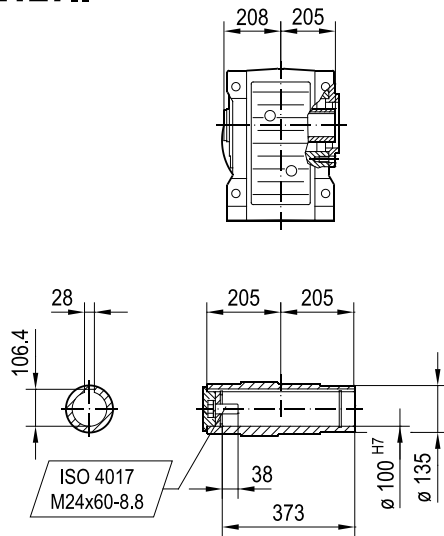
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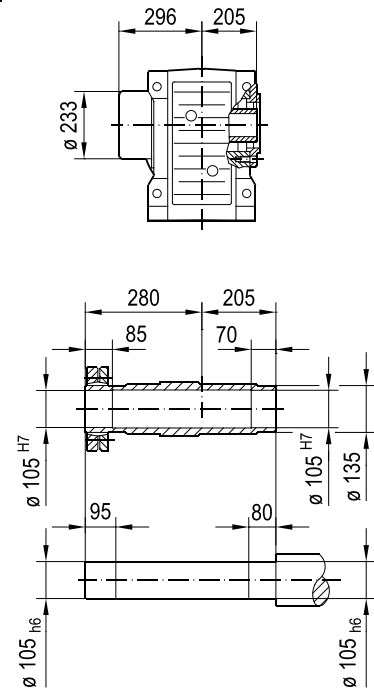
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| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
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| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 710 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 710 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 773 | M16 | 158 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 773 | M16 | 158 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 834 | M16 | 219 | 55 | 110 | 59.3 | 16 |
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| AMS250 | 450 | 25 | 500 | 7 | 550 | 913 | M16 | 297.5 | 65 | 140 | 69.4 | 18 |
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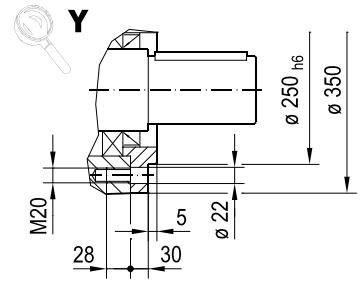
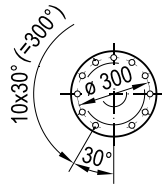
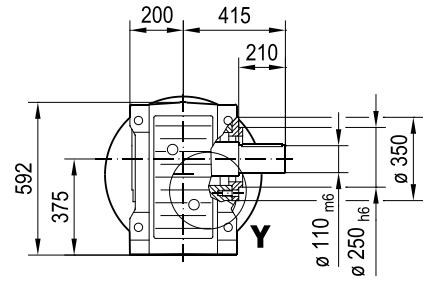
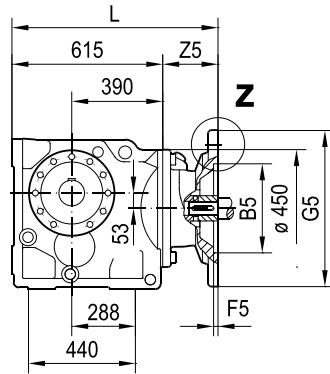
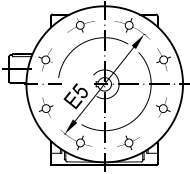
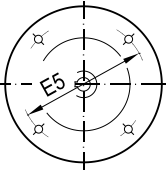
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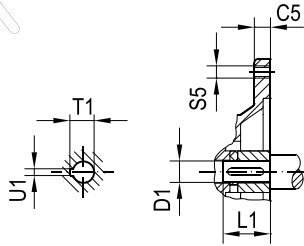
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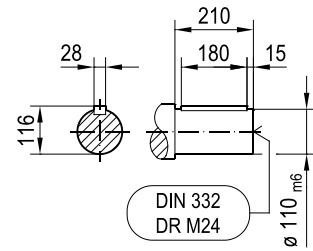
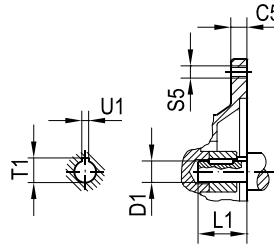
→AMS225



Z ←AMS225



Z ←AMS225



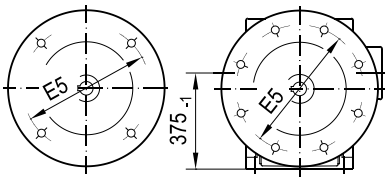
26878585/EN – 11/2021

| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|-------|----|-----|------|----|
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 710 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 710 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 773 | M16 | 158 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 773 | M16 | 158 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 834 | M16 | 219 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 849 | M16 | 234 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 913 | M16 | 297.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 913 | M16 | 297.5 | 75 | 140 | 79.9 | 20 |

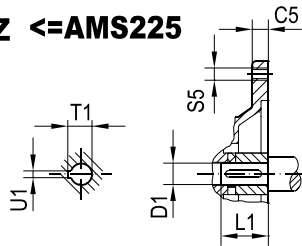
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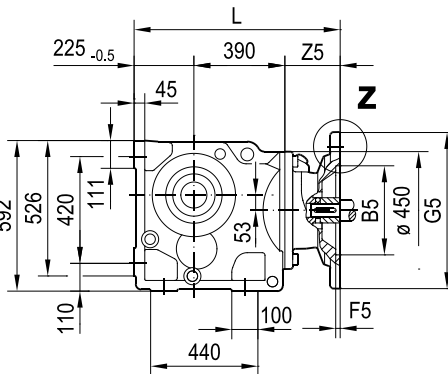
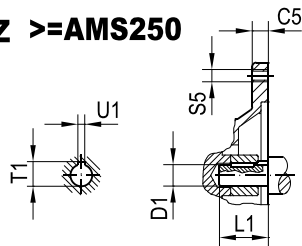
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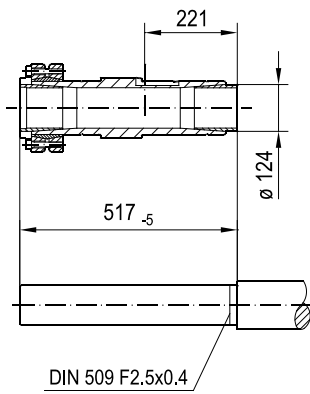
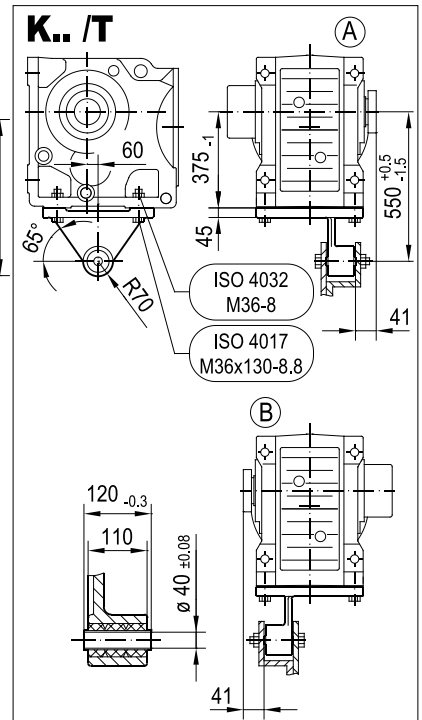
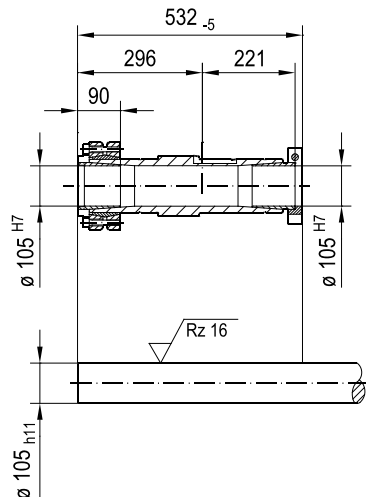
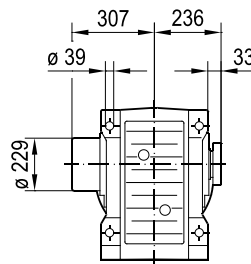
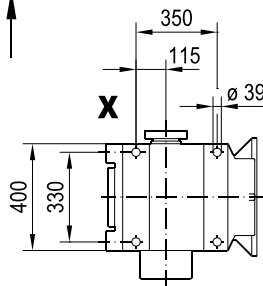
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X

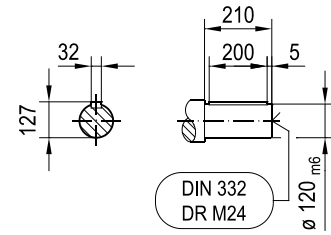
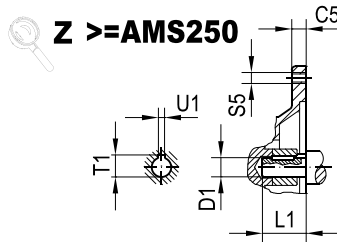
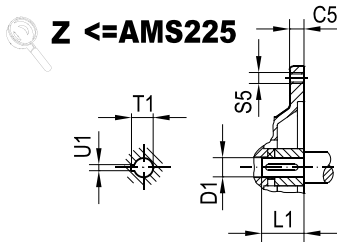
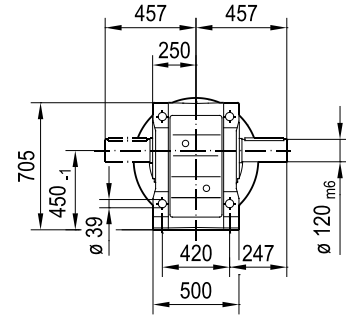
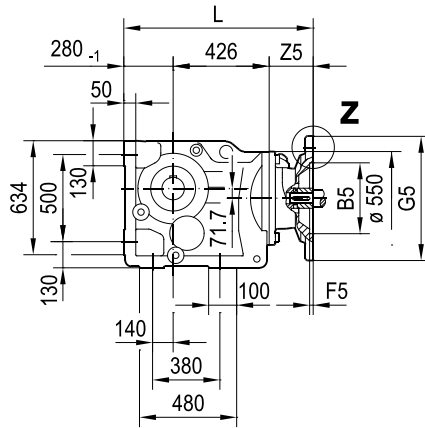
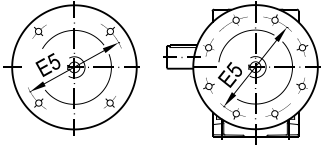


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|-------|----|-----|------|----|
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 710 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 710 | M12 | 95 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 773 | M16 | 158 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 773 | M16 | 158 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 834 | M16 | 219 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 849 | M16 | 234 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 913 | M16 | 297.5 | 65 | 140 | 69.4 | 18 |
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33 367 00 20

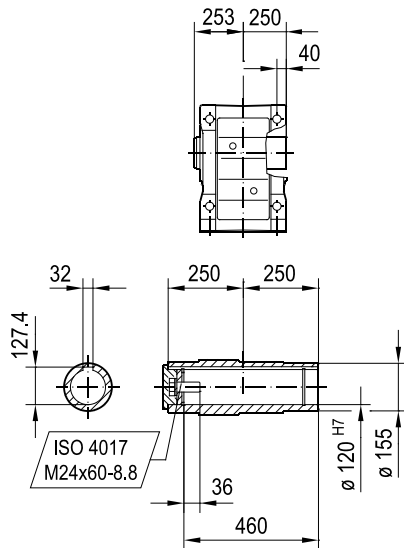
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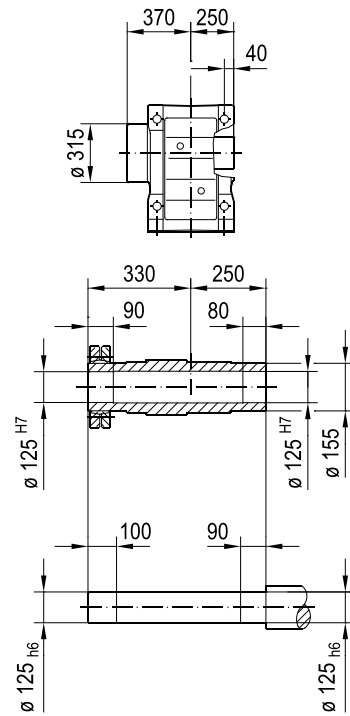


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ISO 4017
M24x60-8.8

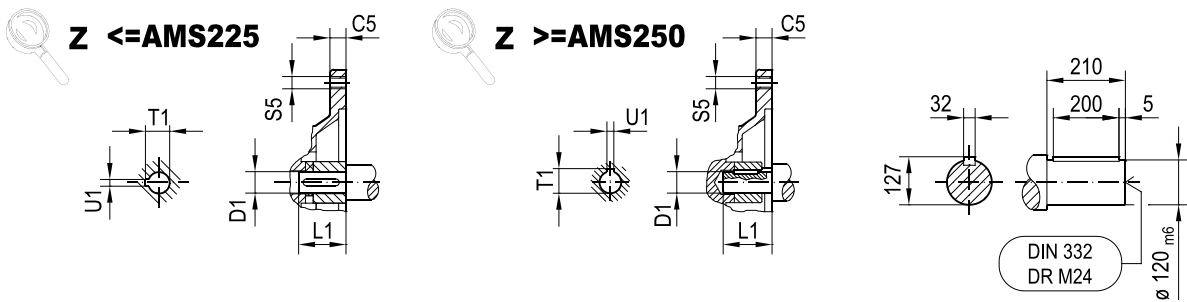
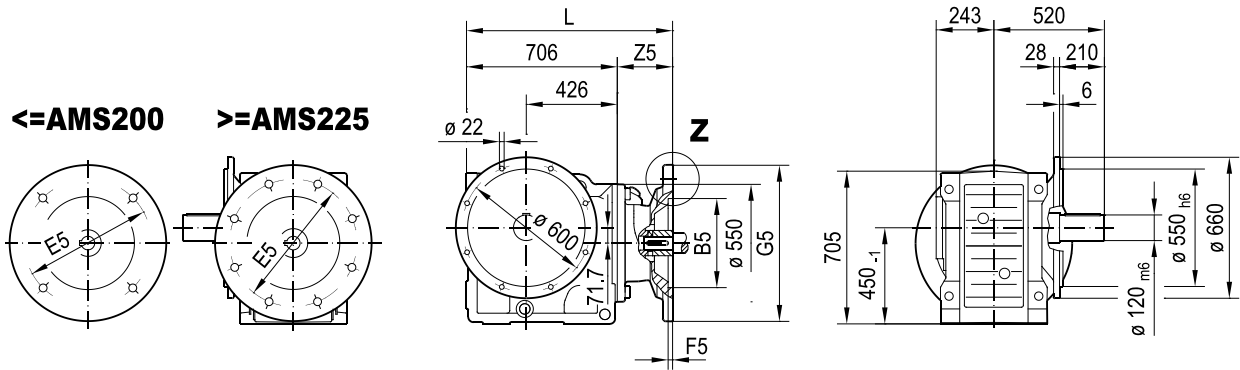


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|----|-----|-----|-----|-------|----|-----|------|----|
| AMS160 | 250 | 18 | 300 | 6 | 350 | 856 | M16 | 150 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 856 | M16 | 150 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 917 | M16 | 211 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 932 | M16 | 226 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 996 | M16 | 289.5 | 65 | 140 | 69.4 | 18 |
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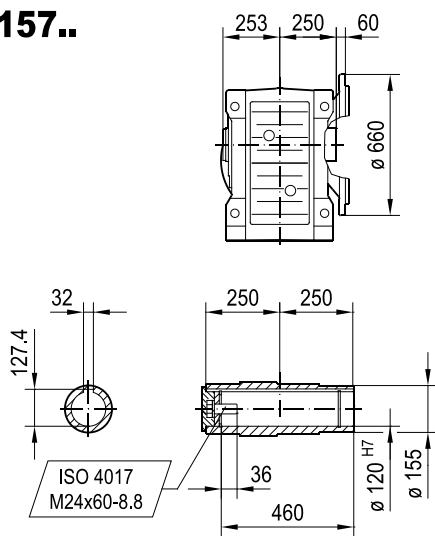
26878585/EN – 11/2021

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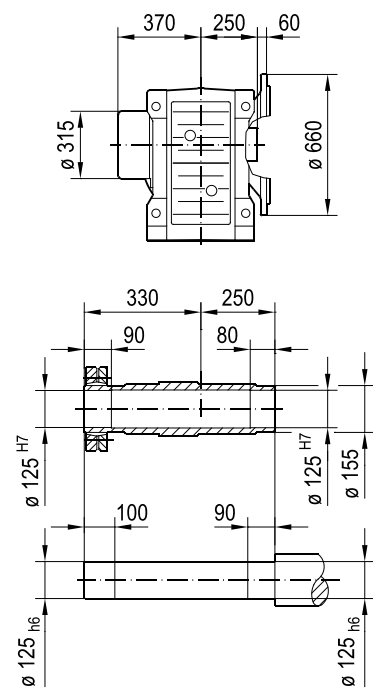
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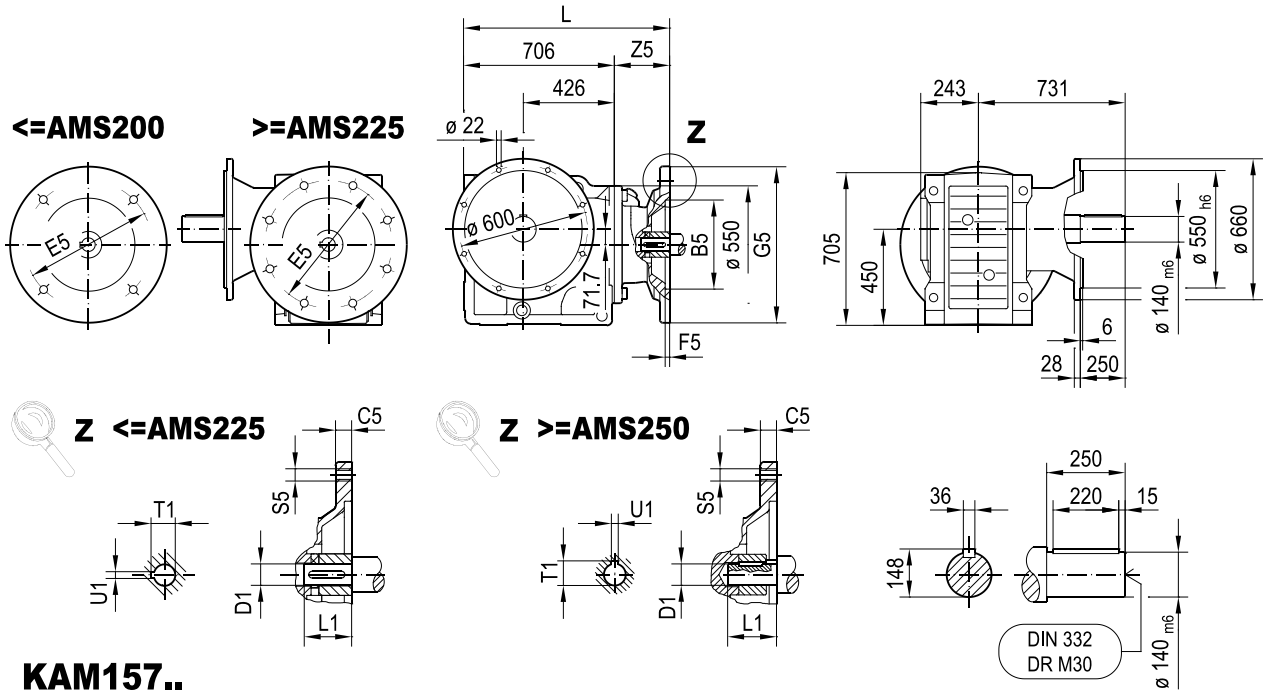
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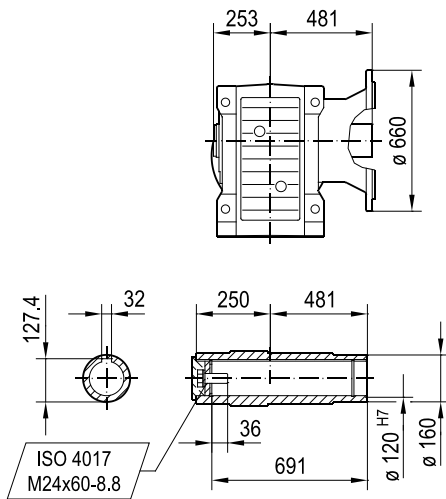
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|---------|-----|----|-----|----|-----|-----|-----|-------|----|-----|------|----|
| AMS160 | 250 | 18 | 300 | 6 | 350 | 856 | M16 | 150 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 856 | M16 | 150 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 917 | M16 | 211 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 932 | M16 | 226 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 996 | M16 | 289.5 | 65 | 140 | 69.4 | 18 |
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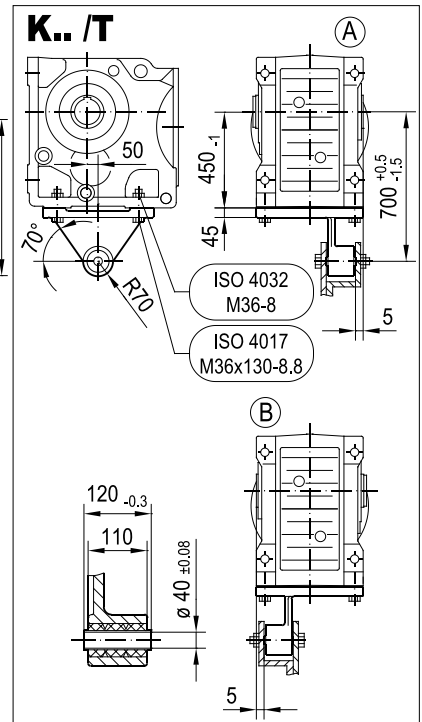
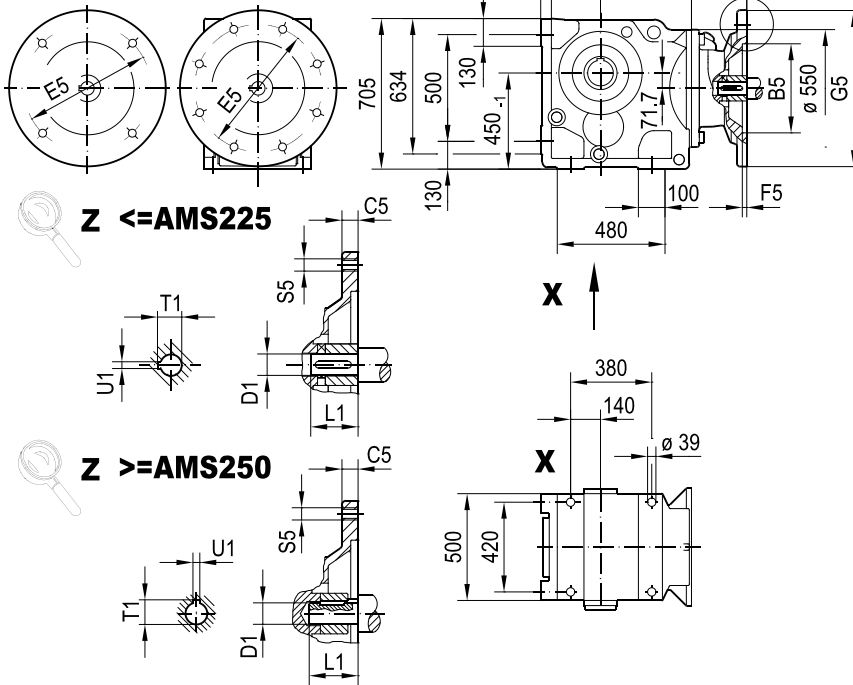
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
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| AMS160 | 250 | 18 | 300 | 6 | 350 | 856 | M16 | 150 | 42 | 110 | 45.3 | 12 |
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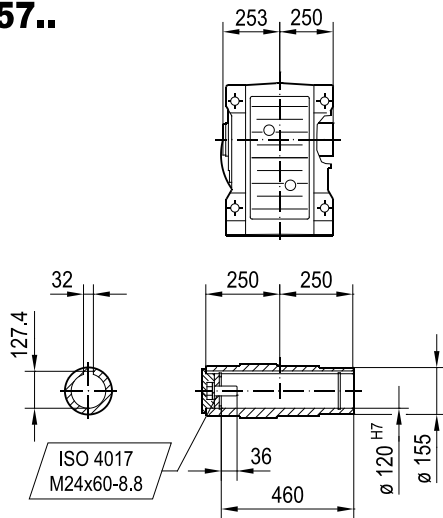
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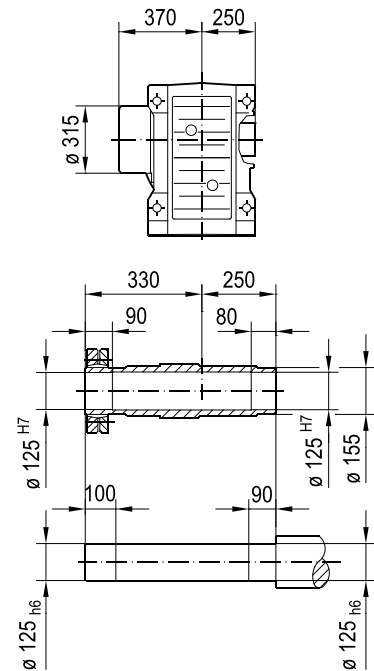
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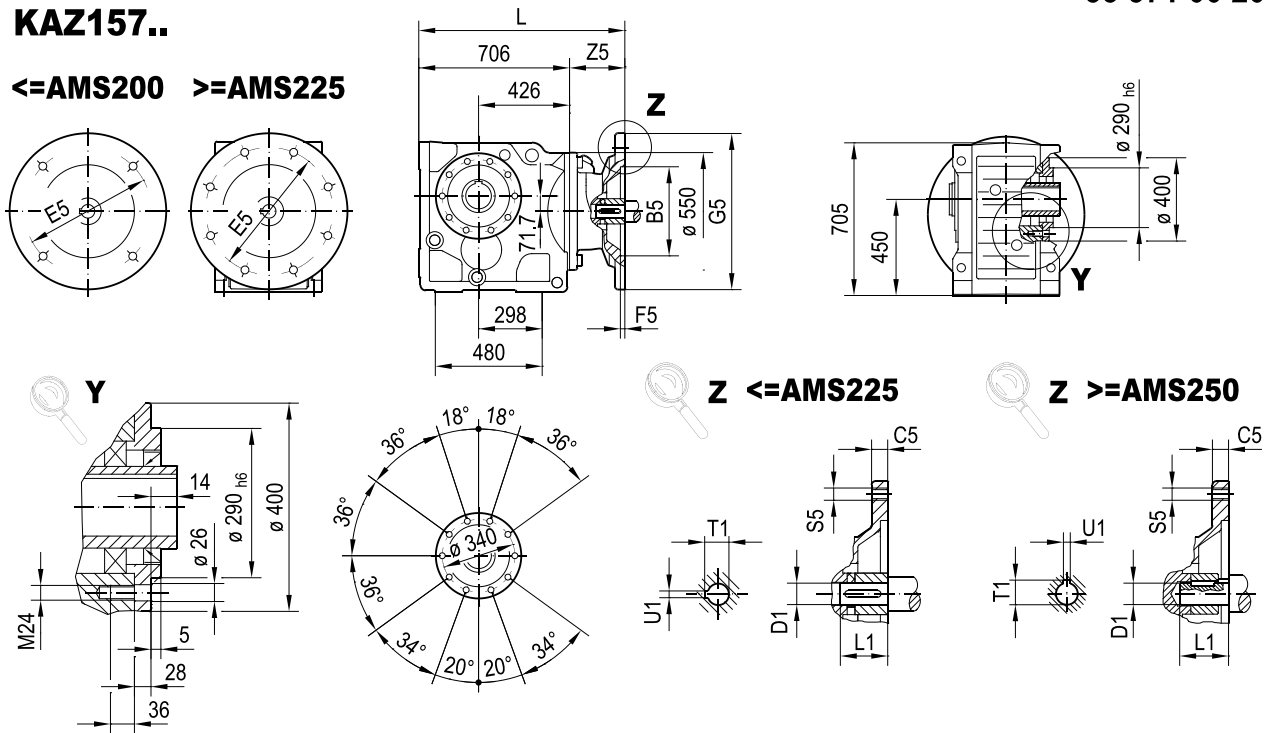


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|----|-----|-----|-----|-------|----|-----|------|----|
| AMS160 | 250 | 18 | 300 | 6 | 350 | 856 | M16 | 150 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 856 | M16 | 150 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 917 | M16 | 211 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 932 | M16 | 226 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 996 | M16 | 289.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 996 | M16 | 289.5 | 75 | 140 | 79.9 | 20 |

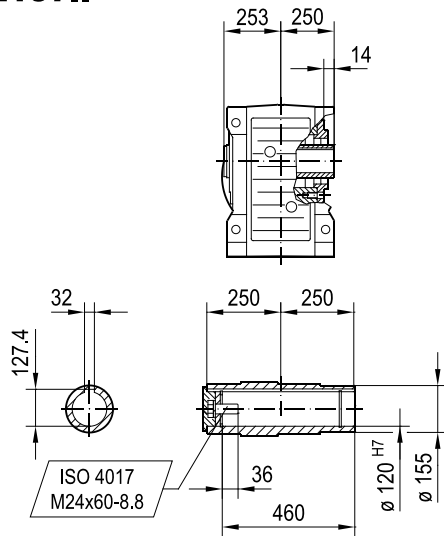
33 371 00 20

KAZ157..

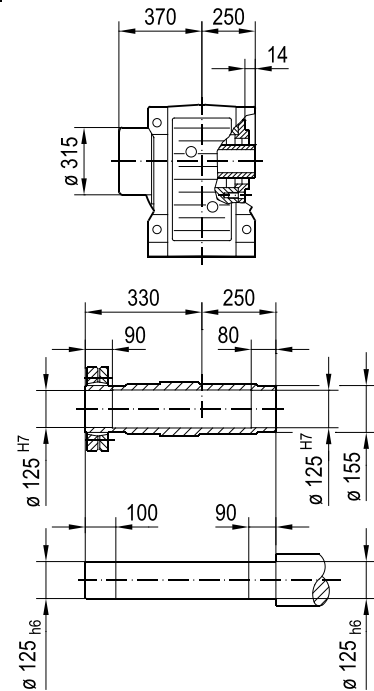
<=AMS200 >=AMS225



KAZ157..



KHZ157..



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|----|-----|-----|-----|-------|----|-----|------|----|
| AMS160 | 250 | 18 | 300 | 6 | 350 | 856 | M16 | 150 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 856 | M16 | 150 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 917 | M16 | 211 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 932 | M16 | 226 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 996 | M16 | 289.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 996 | M16 | 289.5 | 75 | 140 | 79.9 | 20 |

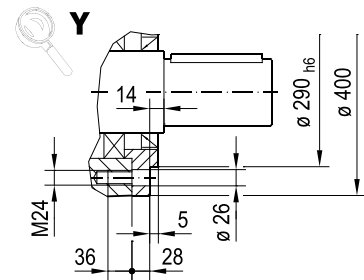
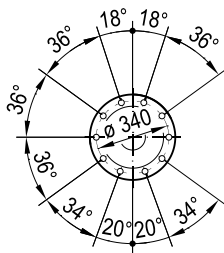
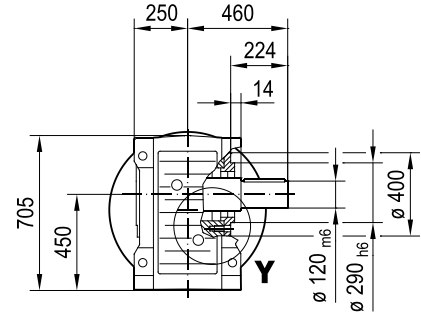
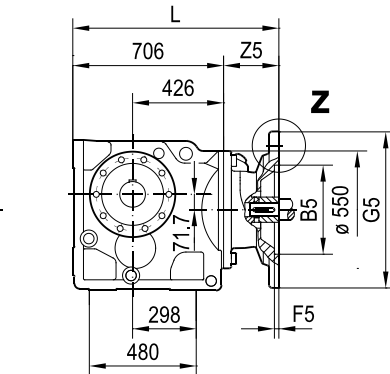
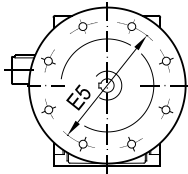
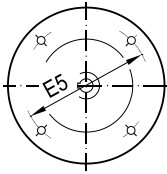
26878585/EN – 11/2021

33 372 00 20

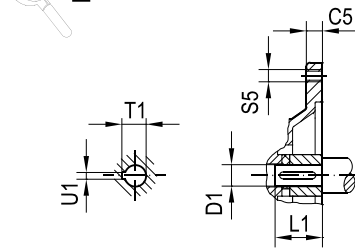
KZ157..

≤AMS200

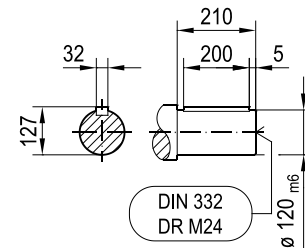
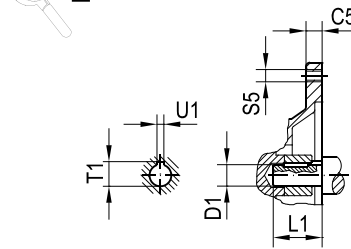
≥AMS225



Z ≤AMS225



Z ≥AMS250

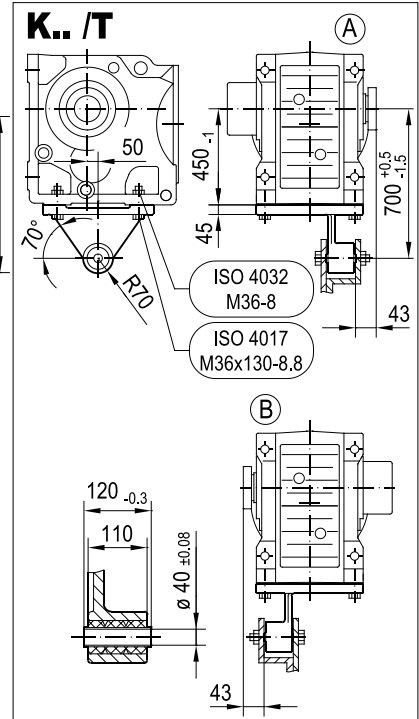
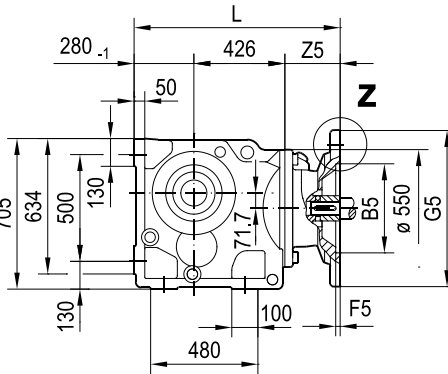
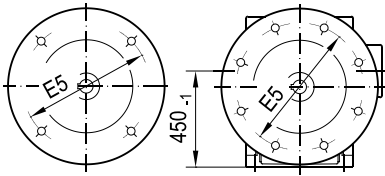


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|----|-----|-----|-----|-------|----|-----|------|----|
| AMS160 | 250 | 18 | 300 | 6 | 350 | 856 | M16 | 150 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 856 | M16 | 150 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 917 | M16 | 211 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 932 | M16 | 226 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 996 | M16 | 289.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 996 | M16 | 289.5 | 75 | 140 | 79.9 | 20 |

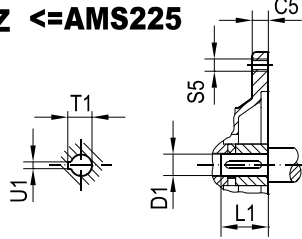
33 373 00 20

KT157..

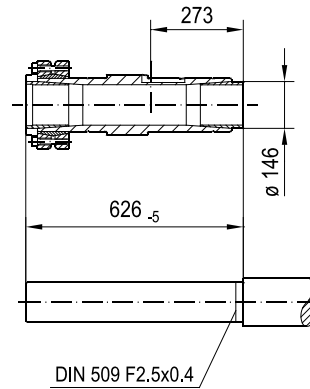
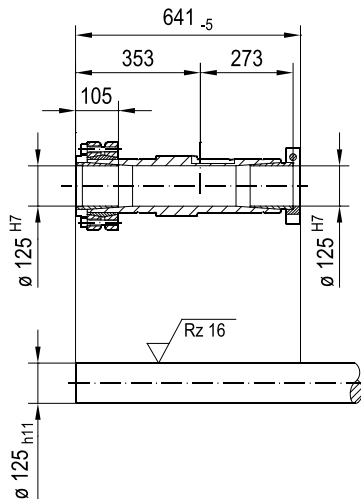
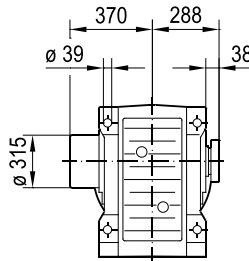
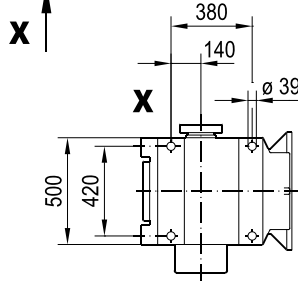
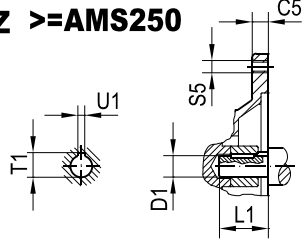
<=AMS200 >=AMS225



Z <=AMS225



Z >=AMS250



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|----|-----|-----|-----|-------|----|-----|------|----|
| AMS160 | 250 | 18 | 300 | 6 | 350 | 856 | M16 | 150 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 856 | M16 | 150 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 917 | M16 | 211 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 932 | M16 | 226 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 996 | M16 | 289.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 996 | M16 | 289.5 | 75 | 140 | 79.9 | 20 |

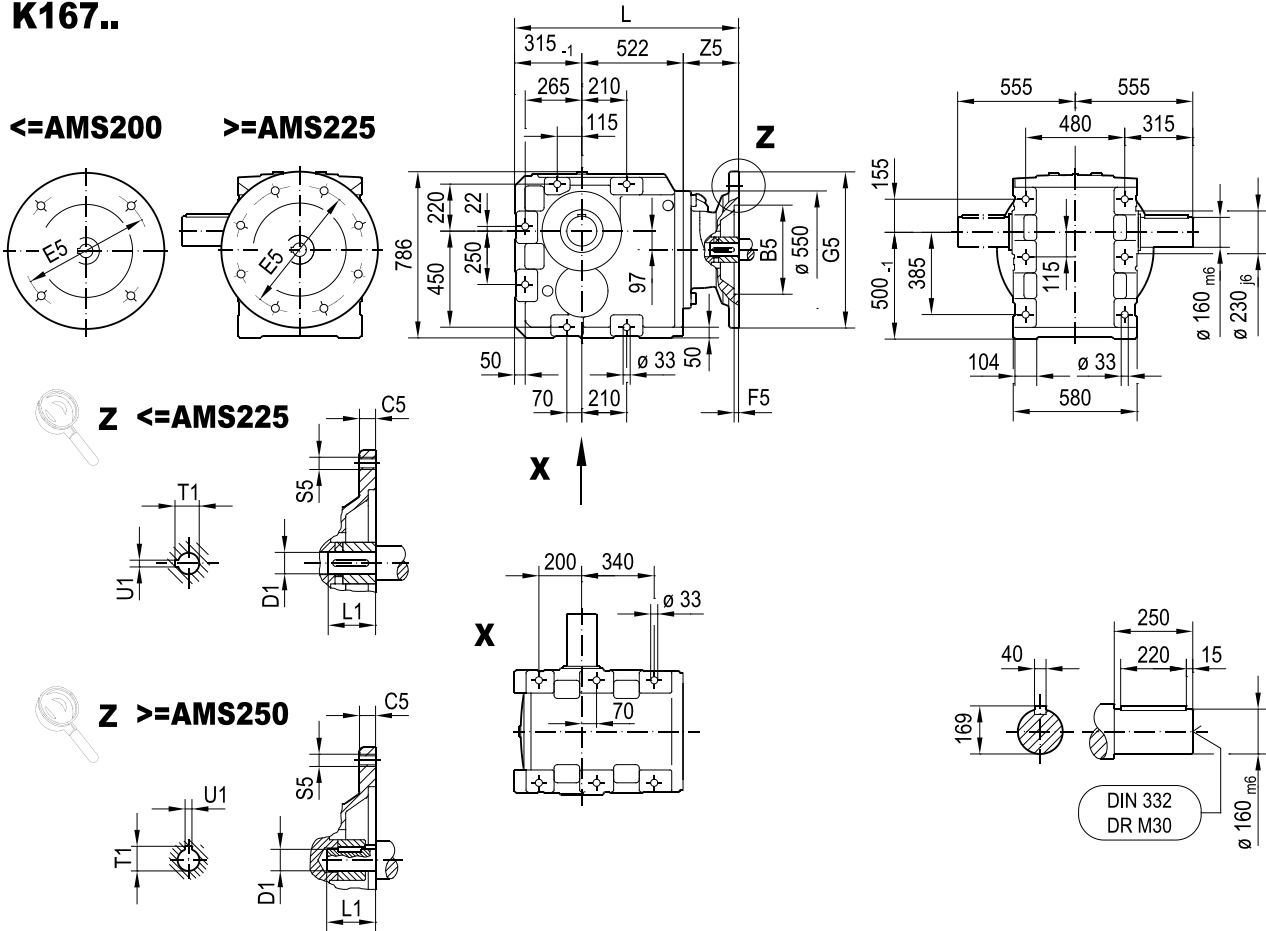
26878585/EN – 11/2021

33 374 00 20

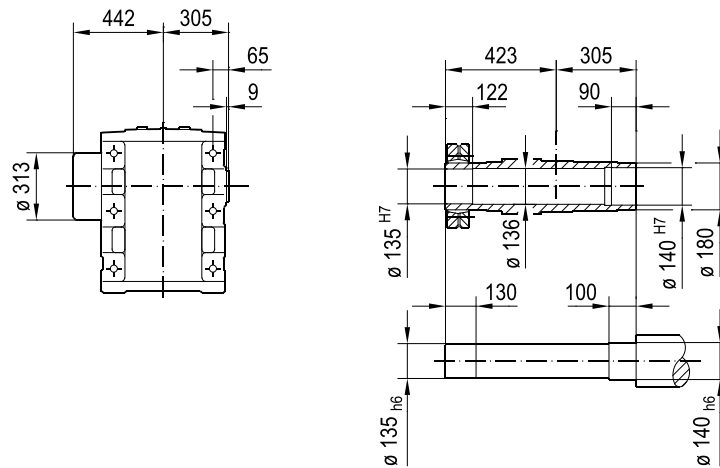
K167..

≤AMS200

≥AMS225



KH167B..



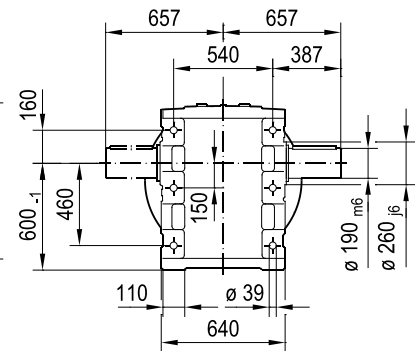
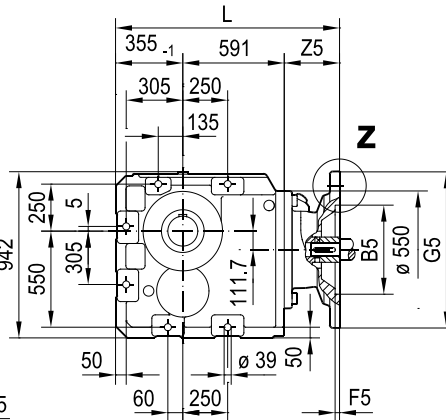
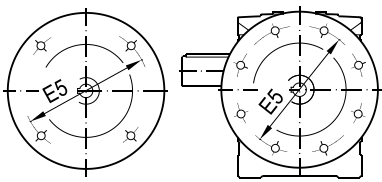
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|----|-----|------|-----|-------|----|-----|------|----|
| AMS160 | 250 | 18 | 300 | 6 | 350 | 987 | M16 | 150 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 987 | M16 | 150 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 1048 | M16 | 211 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 1063 | M16 | 226 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 1127 | M16 | 289.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 1127 | M16 | 289.5 | 75 | 140 | 79.9 | 20 |

33 376 00 20

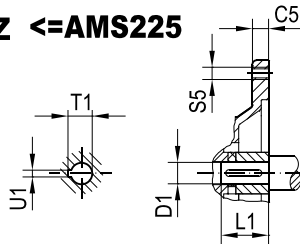
K187..

≤AMS200

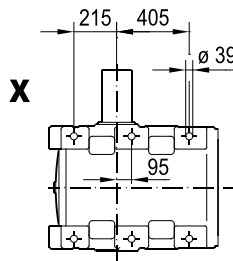
≥AMS225



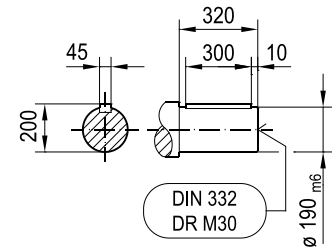
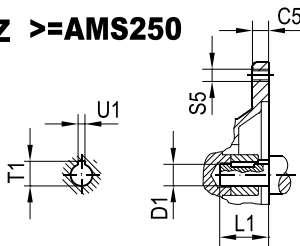
Z ≤AMS225



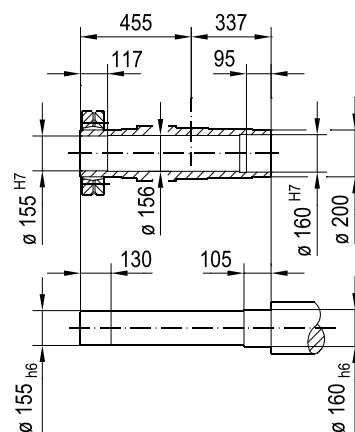
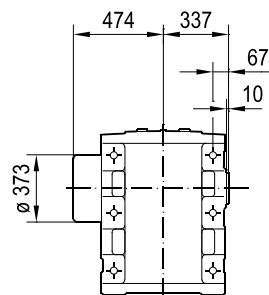
X



Z ≥AMS250



KH187B..

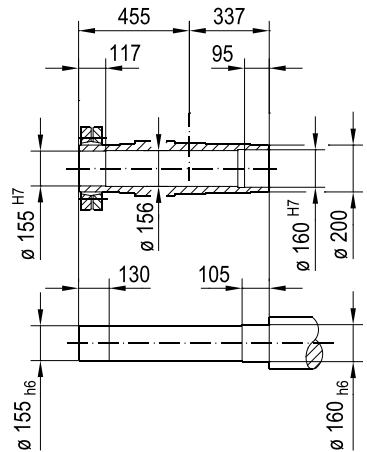
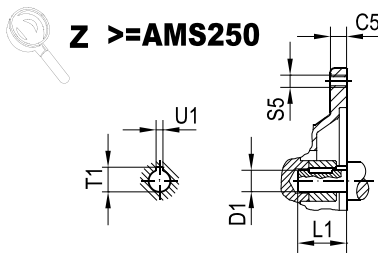
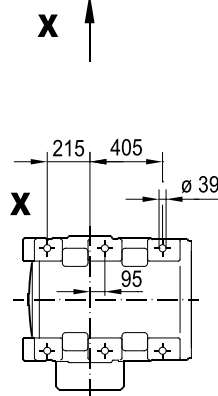
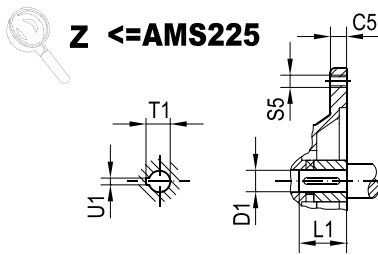
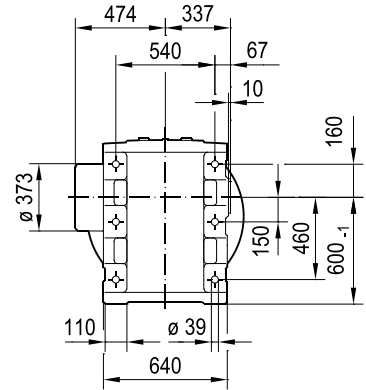
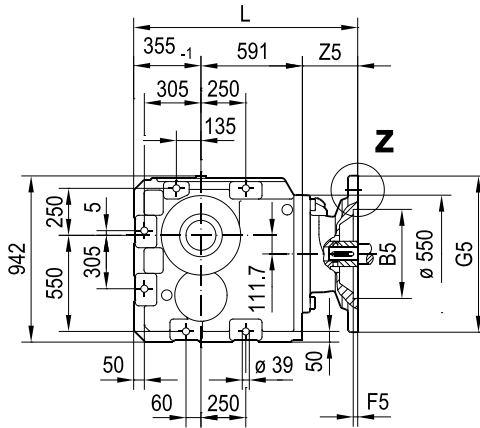
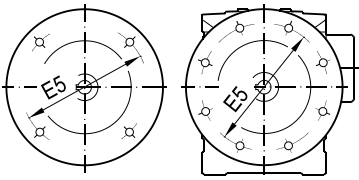


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|----|-----|------|-----|-------|----|-----|------|----|
| AMS160 | 250 | 18 | 300 | 6 | 350 | 1096 | M16 | 150 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 1096 | M16 | 150 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 1157 | M16 | 211 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 1172 | M16 | 226 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 1236 | M16 | 289.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 1236 | M16 | 289.5 | 75 | 140 | 79.9 | 20 |

33 377 00 20

KH187..

<=AMS200 >=AMS225

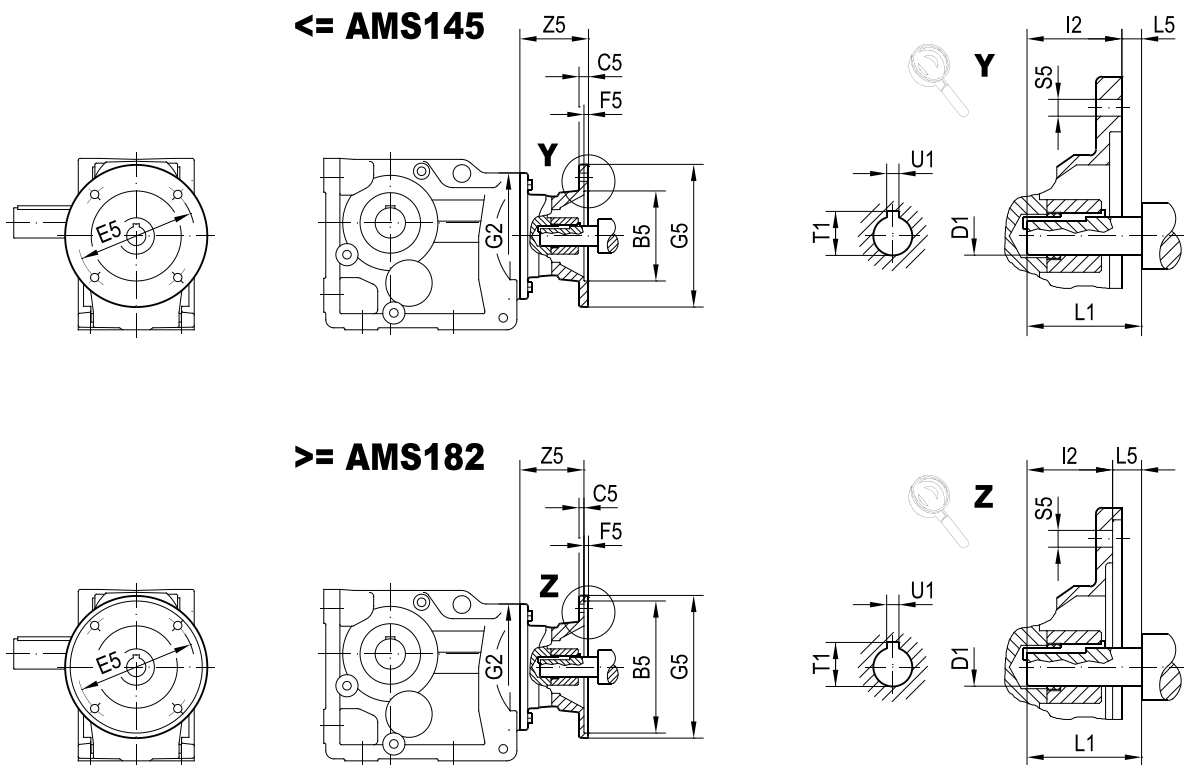


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|----|-----|------|-----|-------|----|-----|------|----|
| AMS160 | 250 | 18 | 300 | 6 | 350 | 1096 | M16 | 150 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 1096 | M16 | 150 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 1157 | M16 | 211 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 1172 | M16 | 226 | 60 | 140 | 64.4 | 18 |
| AMS250 | 450 | 25 | 500 | 7 | 550 | 1236 | M16 | 289.5 | 65 | 140 | 69.4 | 18 |
| AMS280 | 450 | 25 | 500 | 7 | 550 | 1236 | M16 | 289.5 | 75 | 140 | 79.9 | 20 |

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10.5 Dimension sheets for adapters for mounting NEMA motors (AMS..)

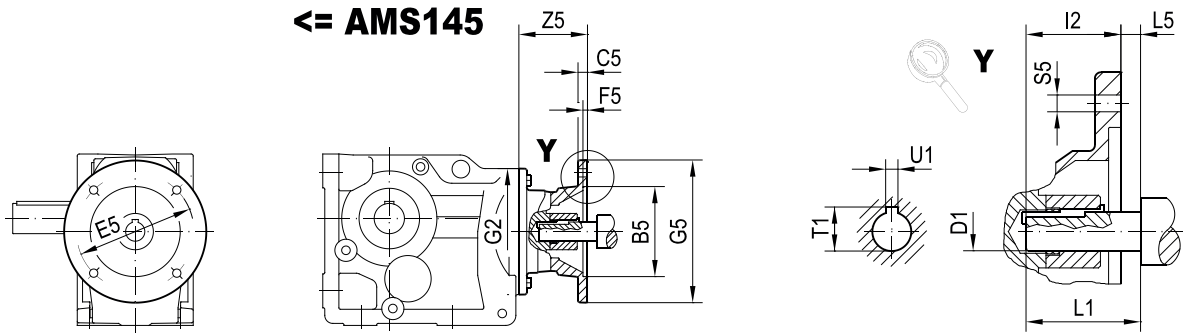
33 378 00 20



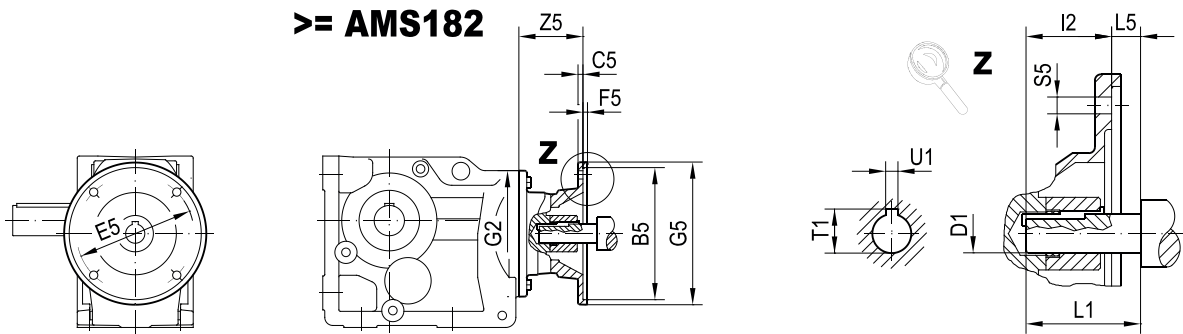
| | | B5 | C5 | E5 | F5 | G2 | G5 | I2 | L5 | S5 | Z5 | D1 | L1 | T1 | U1 |
|----------------------------------|------------|-------|----|-------|-----|-----|-----|-------|------|------|-------|--------|-------|------|------|
| K..19 K..29 K..37 | AMS56 | 114.3 | 11 | 149.2 | 4.5 | 120 | 170 | 52.3 | -4.6 | 10.5 | 81.5 | 15.875 | 47.8 | 18.1 | 4.76 |
| | AMS143 | 114.3 | 12 | 149.2 | 4.5 | 120 | 170 | 53.8 | 3.3 | 10.5 | 93.5 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS145 | 114.3 | 14 | 149.2 | 4.5 | 120 | 170 | 53.8 | 3.3 | 10.5 | 93.5 | 22.225 | 57.2 | 24.7 | 4.76 |
| K..39 K..47 K..57 K..67 | AMS56 | 114.3 | 11 | 149.2 | 4.5 | 160 | 170 | 52.3 | -4.6 | 10.5 | 75 | 15.875 | 47.8 | 18.1 | 4.76 |
| | AMS143 | 114.3 | 12 | 149.2 | 4.5 | 160 | 170 | 53.8 | 3.3 | 10.5 | 87 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS145 | 114.3 | 14 | 149.2 | 4.5 | 160 | 170 | 53.8 | 3.3 | 10.5 | 87 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS182 | 215.9 | 10 | 184 | 5 | 160 | 228 | 66.6 | 3.3 | 15 | 114 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 160 | 228 | 66.6 | 3.3 | 15 | 114 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 160 | 228 | 79.2 | 6.6 | 15 | 138.5 | 34.925 | 85.9 | 38.7 | 7.94 |
| K..49 K..77 | AMS56 | 114.3 | 11 | 149.2 | 4.5 | 200 | 170 | 52.3 | -4.6 | 10.5 | 68 | 15.875 | 47.8 | 18.1 | 4.76 |
| | AMS143 | 114.3 | 12 | 149.2 | 4.5 | 200 | 170 | 53.8 | 3.3 | 10.5 | 80 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS145 | 114.3 | 14 | 149.2 | 4.5 | 200 | 170 | 53.8 | 3.3 | 10.5 | 80 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS182 | 215.9 | 10 | 184 | 5 | 200 | 228 | 66.6 | 3.3 | 15 | 106 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 200 | 228 | 66.6 | 3.3 | 15 | 106 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 200 | 228 | 79.2 | 6.6 | 15 | 130.5 | 34.925 | 85.9 | 38.7 | 7.94 |
| K..87 | AMS143 | 114.3 | 12 | 149.2 | 4.5 | 250 | 170 | 53.8 | 3.3 | 10.5 | 75 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS145 | 114.3 | 14 | 149.2 | 4.5 | 250 | 170 | 53.8 | 3.3 | 10.5 | 75 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS182 | 215.9 | 10 | 184 | 5 | 250 | 228 | 66.6 | 3.3 | 15 | 101 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 250 | 228 | 66.6 | 3.3 | 15 | 101 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 250 | 228 | 79.2 | 6.6 | 15 | 125.5 | 34.925 | 85.9 | 38.7 | 7.94 |
| | AMS254/256 | 215.9 | 12 | 184 | 5 | 250 | 228 | 95.3 | 6.4 | 15 | 185 | 41.275 | 101.6 | 45.8 | 9.53 |
| | AMS284/286 | 266.7 | 15 | 228.6 | 5 | 250 | 286 | 111.3 | 6.1 | 15 | 191.5 | 47.625 | 117.3 | 53.4 | 12.7 |

33 378 00 20

≤ AMS145



≥ AMS182



| | | B5 | C5 | E5 | F5 | G2 | G5 | I2 | L5 | S5 | Z5 | D1 | L1 | T1 | U1 |
|----------------------------|------------|-------|----|-------|----|-----|-----|-------|-----|------|-------|--------|-------|------|-------|
| K..97 | AMS182 | 215.9 | 10 | 184 | 5 | 300 | 228 | 66.6 | 3.3 | 15 | 96 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 300 | 228 | 66.6 | 3.3 | 15 | 96 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 300 | 228 | 79.2 | 6.6 | 15 | 120.5 | 34.925 | 85.9 | 38.7 | 7.94 |
| | AMS254/256 | 215.9 | 12 | 184 | 5 | 300 | 228 | 95.3 | 6.4 | 15 | 180 | 41.275 | 101.6 | 45.8 | 9.53 |
| | AMS284/286 | 266.7 | 15 | 228.6 | 5 | 300 | 286 | 111.3 | 6.1 | 15 | 186.5 | 47.625 | 117.3 | 53.4 | 12.7 |
| | AMS324/326 | 317.5 | 17 | 279.4 | 5 | 300 | 356 | 127 | 6.4 | 17.5 | 252.5 | 53.975 | 133.4 | 60 | 12.7 |
| | AMS364/365 | 317.5 | 17 | 279.4 | 5 | 300 | 356 | 142.7 | 6.6 | 17.5 | 252.5 | 60.325 | 149.4 | 67.6 | 15.88 |
| K..107 | AMS182 | 215.9 | 10 | 184 | 5 | 350 | 228 | 66.6 | 3.3 | 15 | 90 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 350 | 228 | 66.6 | 3.3 | 15 | 90 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 350 | 228 | 79.2 | 6.6 | 15 | 114.5 | 34.925 | 85.9 | 38.7 | 7.94 |
| | AMS254/256 | 215.9 | 12 | 184 | 5 | 350 | 228 | 95.3 | 6.4 | 15 | 174 | 41.275 | 101.6 | 45.8 | 9.53 |
| | AMS284/286 | 266.7 | 15 | 228.6 | 5 | 350 | 286 | 111.3 | 6.1 | 15 | 180.5 | 47.625 | 117.3 | 53.4 | 12.7 |
| | AMS324/326 | 317.5 | 17 | 279.4 | 5 | 350 | 356 | 127 | 6.4 | 17.5 | 246.5 | 53.975 | 133.4 | 60 | 12.7 |
| | AMS364/365 | 317.5 | 17 | 279.4 | 5 | 350 | 356 | 142.7 | 6.6 | 17.5 | 252.5 | 60.325 | 149.4 | 67.6 | 15.88 |
| K..127 | AMS213/215 | 215.9 | 11 | 184 | 5 | 450 | 228 | 79.2 | 6.6 | 15 | 99.5 | 34.925 | 85.9 | 38.7 | 7.94 |
| | AMS254/256 | 215.9 | 12 | 184 | 5 | 450 | 228 | 95.3 | 6.4 | 15 | 159 | 41.275 | 101.6 | 45.8 | 9.53 |
| | AMS284/286 | 266.7 | 15 | 228.6 | 5 | 450 | 286 | 111.3 | 6.1 | 15 | 165.5 | 47.625 | 117.3 | 53.4 | 12.7 |
| | AMS324/326 | 317.5 | 17 | 279.4 | 5 | 450 | 356 | 127 | 6.4 | 17.5 | 231.5 | 53.975 | 133.4 | 60 | 12.7 |
| | AMS364/365 | 317.5 | 17 | 279.4 | 5 | 450 | 356 | 142.7 | 6.6 | 17.5 | 252.5 | 60.325 | 149.4 | 67.6 | 15.88 |
| K..157 K..167 K..187 | AMS254/256 | 215.9 | 12 | 184 | 5 | 550 | 228 | 95.3 | 6.4 | 15 | 151 | 41.275 | 101.6 | 45.8 | 9.53 |
| | AMS284/286 | 266.7 | 15 | 228.6 | 5 | 550 | 286 | 111.3 | 6.1 | 15 | 157.5 | 47.625 | 117.3 | 53.4 | 12.7 |
| | AMS324/326 | 317.5 | 17 | 279.4 | 5 | 550 | 356 | 127 | 6.4 | 17.5 | 223.5 | 53.975 | 133.4 | 60 | 12.7 |
| | AMS364/365 | 317.5 | 17 | 279.4 | 5 | 550 | 356 | 142.7 | 6.6 | 17.5 | 252.5 | 60.325 | 149.4 | 67.6 | 15.88 |

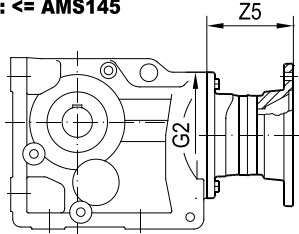
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10.6 Dimension sheets for adapters with backstop (RS..) and drain hole (DH..)

33 393 01 20

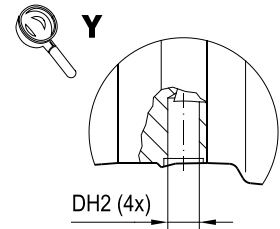
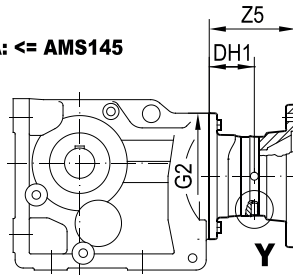
AMS.. /RS

IEC
NEMA: <= AMS145



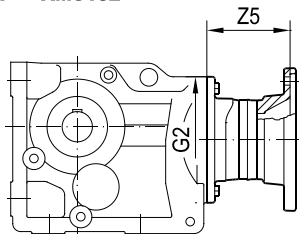
AMS.. /DH

IEC
NEMA: <= AMS145



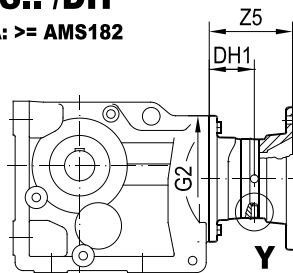
AMS.. /RS


NEMA: >= AMS182




AMS.. /DH

NEMA: >= AMS182




| |  | /RS | | /DH | | | |
|----------------------------------|---|-----|-------|-----|-------|-----|-----|
| | | G2 | Z5 | G2 | Z5 | DH1 | DH2 |
| K..19 K..29 K..37 | AMS56 | - | - | 120 | 105 | 60 | 8 |
| | AMS63 | - | - | 120 | 78.5 | 46 | 8 |
| | AMS71 | - | - | 120 | 78.5 | 46 | 8 |
| | AMS80 | 120 | 121 | 120 | 97.5 | 60 | 8 |
| | AMS90 | 120 | 121 | 120 | 109 | 64 | 8 |
| | AMS143 | 120 | 128.5 | 120 | 116.5 | 64 | 8 |
| | AMS145 | 120 | 128.5 | 120 | 116.5 | 64 | 8 |
| K..39 K..47 K..57 K..67 | AMS56 | - | - | 160 | 98.5 | 54 | 8 |
| | AMS63 | - | - | 160 | 72 | 40 | 8 |
| | AMS71 | - | - | 160 | 72 | 40 | 8 |
| | AMS80 | 160 | 114.5 | 160 | 91 | 54 | 8 |
| | AMS90 | 160 | 114.5 | 160 | 102.5 | 57 | 8 |
| | AMS100 | 160 | 153 | 160 | 153 | 97 | 8 |
| | AMS112 | 160 | 153 | 160 | 153 | 97 | 8 |
| | AMS132S/M | 160 | 181.5 | 160 | 181.5 | 116 | 8 |
| | AMS143 | 160 | 122 | 160 | 110 | 57 | 8 |
| | AMS145 | 160 | 122 | 160 | 110 | 57 | 8 |
| | AMS182 | 160 | 158.5 | 160 | 158.5 | 97 | 8 |
| | AMS184 | 160 | 158.5 | 160 | 158.5 | 97 | 8 |
| | AMS213/215 | 160 | 186 | 160 | 186 | 116 | 8 |

| |  | /RS | | /DH | | | |
|----------------|---|-------|-------|-------|-------|-----|-----|
| | | G2 | Z5 | G2 | Z5 | DH1 | DH2 |
| K..49 K..77 | AMS56 | – | – | 200 | 91.5 | 47 | 8 |
| | AMS63 | – | – | 200 | 66 | 34 | 8 |
| | AMS71 | – | – | 200 | 66 | 34 | 8 |
| | AMS80 | 200 | 107.5 | 200 | 84 | 47 | 8 |
| | AMS90 | 200 | 107.5 | 200 | 95.5 | 50 | 8 |
| | AMS100 | 200 | 145 | 200 | 145 | 89 | 8 |
| | AMS112 | 200 | 145 | 200 | 145 | 89 | 8 |
| | AMS132ML | 200 | 173.5 | 200 | 173.5 | 108 | 8 |
| | AMS132S/M | 200 | 173.5 | 200 | 173.5 | 108 | 8 |
| | AMS143 | 200 | 115 | 200 | 103 | 50 | 8 |
| | AMS145 | 200 | 115 | 200 | 103 | 50 | 8 |
| | AMS182 | 200 | 150.5 | 200 | 150.5 | 89 | 8 |
| | AMS184 | 200 | 150.5 | 200 | 150.5 | 89 | 8 |
| | AMS213/215 | 200 | 178 | 200 | 178 | 108 | 8 |
| K..87 | AMS80 | 250 | 102.5 | 250 | 79 | 42 | 8 |
| | AMS90 | 250 | 102.5 | 250 | 90.5 | 45 | 8 |
| | AMS100 | 250 | 140 | 250 | 140 | 84 | 8 |
| | AMS112 | 250 | 140 | 250 | 140 | 84 | 8 |
| | AMS132ML | 250 | 168.5 | 250 | 168.5 | 103 | 8 |
| | AMS132S/M | 250 | 168.5 | 250 | 168.5 | 103 | 8 |
| | AMS143 | 250 | 110 | 250 | 98 | 45 | 8 |
| | AMS145 | 250 | 110 | 250 | 98 | 45 | 8 |
| | AMS160 | 250 | 184 | 250 | 222 | 124 | 8 |
| | AMS180 | 250 | 184 | 250 | 222 | 124 | 8 |
| | AMS182 | 250 | 145.5 | 250 | 145.5 | 84 | 8 |
| | AMS184 | 250 | 145.5 | 250 | 145.5 | 84 | 8 |
| | AMS213/215 | 250 | 173 | 250 | 173 | 103 | 8 |
| | AMS254/256 | 250 | 185 | 250 | 223.5 | 124 | 8 |
| AMS284/286 | 250 | 191.5 | 250 | 230 | 124 | 8 | |
| K..97 | AMS100 | 300 | 135 | 300 | 135 | 79 | 8 |
| | AMS112 | 300 | 135 | 300 | 135 | 79 | 8 |
| | AMS132ML | 300 | 163.5 | 300 | 163.5 | 98 | 8 |
| | AMS132S/M | 300 | 163.5 | 300 | 163.5 | 98 | 8 |
| | AMS160 | 300 | 179 | 300 | 217 | 119 | 8 |
| | AMS180 | 300 | 179 | 300 | 217 | 119 | 8 |
| | AMS182 | 300 | 140.5 | 300 | 140.5 | 79 | 8 |
| | AMS184 | 300 | 140.5 | 300 | 140.5 | 79 | 8 |
| | AMS200 | 300 | 240 | 300 | 240 | 141 | 8 |
| | AMS213/215 | 300 | 168 | 300 | 168 | 98 | 8 |
| | AMS225 | 300 | 255 | 300 | 255 | 141 | 8 |
| | AMS254/256 | 300 | 180 | 300 | 218.5 | 119 | 8 |
| | AMS284/286 | 300 | 186.5 | 300 | 225 | 119 | 8 |
| | AMS324/326 | 300 | 252.5 | 300 | 252.5 | 152 | 8 |
| AMS364/365 | 300 | 252.5 | 300 | 252.5 | 152 | 8 | |

K.. helical-bevel gear units

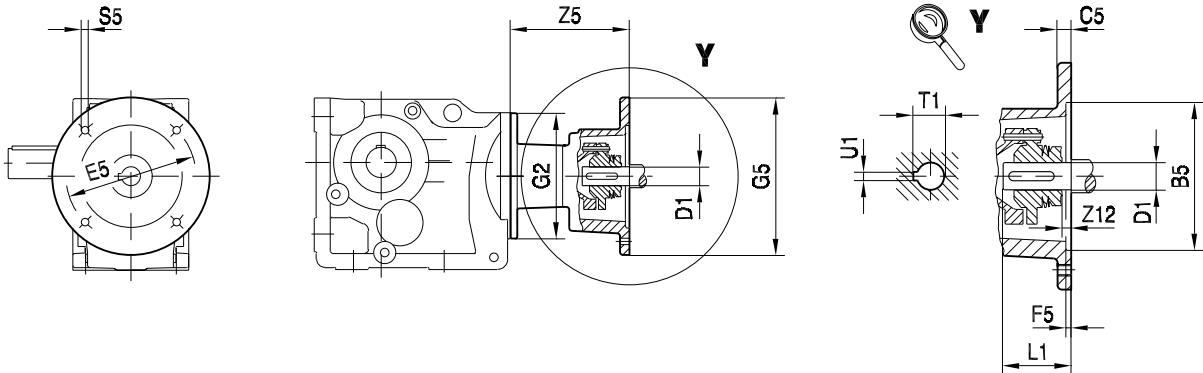
Dimension sheets for adapters with backstop (RS..) and drain hole (DH..)

| |  | /RS | | /DH | | | |
|----------------------------|---|-------|-------|-------|-------|-----|-----|
| | | G2 | Z5 | G2 | Z5 | DH1 | DH2 |
| K..107 | AMS100 | 350 | 129 | 350 | 129 | 73 | 8 |
| | AMS112 | 350 | 129 | 350 | 129 | 73 | 8 |
| | AMS132ML | 350 | 157.5 | 350 | 157.5 | 92 | 8 |
| | AMS132S/M | 350 | 157.5 | 350 | 157.5 | 92 | 8 |
| | AMS160 | 350 | 173 | 350 | 211 | 113 | 8 |
| | AMS180 | 350 | 173 | 350 | 211 | 113 | 8 |
| | AMS182 | 350 | 134.5 | 350 | 134.5 | 73 | 8 |
| | AMS184 | 350 | 134.5 | 350 | 134.5 | 73 | 8 |
| | AMS200 | 350 | 234 | 350 | 234 | 135 | 8 |
| | AMS213/215 | 350 | 162 | 350 | 162 | 92 | 8 |
| | AMS225 | 350 | 249 | 350 | 249 | 135 | 8 |
| | AMS254/256 | 350 | 174 | 350 | 212.5 | 113 | 8 |
| | AMS284/286 | 350 | 180.5 | 350 | 219 | 113 | 8 |
| | AMS324/326 | 350 | 246.5 | 350 | 246.5 | 146 | 8 |
| AMS364/365 | 350 | 246.5 | 350 | 246.5 | 146 | 8 | |
| K..127 | AMS132ML | 450 | 142.5 | 450 | 142.5 | 77 | 8 |
| | AMS132S/M | 450 | 142.5 | 450 | 142.5 | 77 | 8 |
| | AMS160 | 450 | 158 | 450 | 196 | 98 | 8 |
| | AMS180 | 450 | 158 | 450 | 196 | 98 | 8 |
| | AMS200 | 450 | 219 | 450 | 219 | 120 | 8 |
| | AMS213/215 | 450 | 147 | 450 | 147 | 77 | 8 |
| | AMS225 | 450 | 234 | 450 | 234 | 120 | 8 |
| | AMS250 | 450 | 297.5 | 450 | 297.5 | 121 | 8 |
| | AMS254/256 | 450 | 159 | 450 | 197.5 | 98 | 8 |
| | AMS280 | 450 | 297.5 | 450 | 297.5 | 121 | 8 |
| | AMS284/286 | 450 | 165.5 | 450 | 204 | 98 | 8 |
| | AMS324/326 | 450 | 231.5 | 450 | 231.5 | 131 | 8 |
| AMS364/365 | 450 | 231.5 | 450 | 231.5 | 131 | 8 | |
| K..157 K..167 K..187 | AMS160 | 550 | 150 | 550 | 188 | 90 | 8 |
| | AMS180 | 550 | 150 | 550 | 188 | 90 | 8 |
| | AMS200 | 550 | 211 | 550 | 211 | 112 | 8 |
| | AMS225 | 550 | 226 | 550 | 226 | 112 | 8 |
| | AMS250 | 550 | 289.5 | 550 | 289.5 | 113 | 8 |
| | AMS254/256 | 550 | 151 | 550 | 189.5 | 90 | 8 |
| | AMS280 | 550 | 289.5 | 550 | 289.5 | 113 | 8 |
| | AMS284/286 | 550 | 157.5 | 550 | 196 | 90 | 8 |
| | AMS324/326 | 550 | 223.5 | 550 | 223.5 | 123 | 8 |
| AMS364/365 | 550 | 223.5 | 550 | 223.5 | 123 | 8 | |

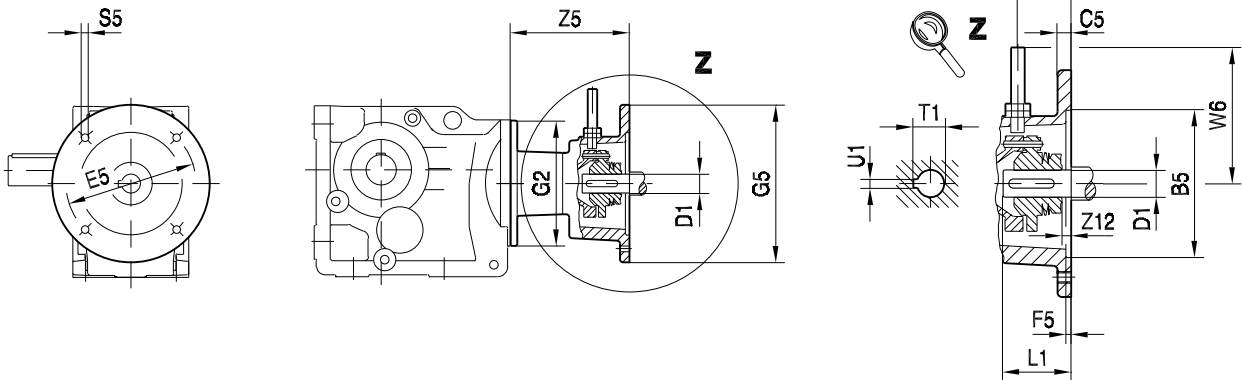
10.7 Dimension sheets for adapters with slip clutch (AR..)

K.. AR..

33 037 03 01



K.. AR../W

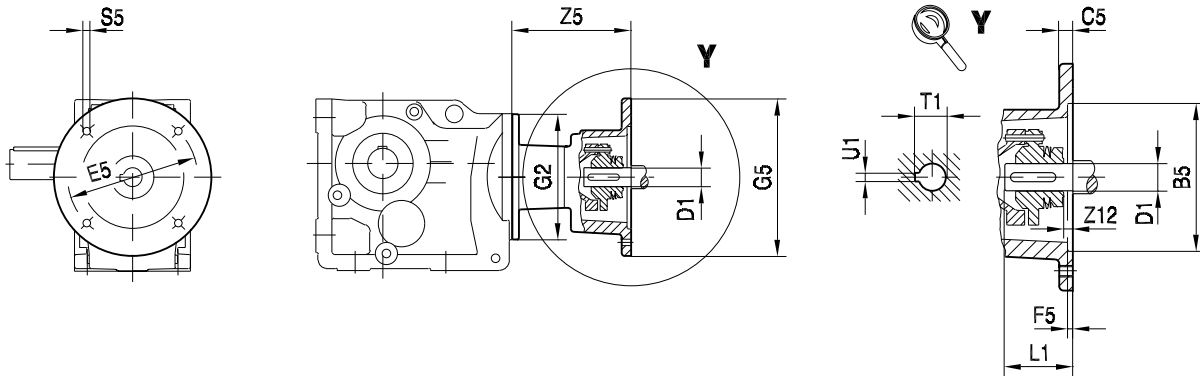


| | | B5 | C5 | E5 | F5 | G2 | G5 | S5 | W6 | Z5 | Z9 | Z12 | D1 | L1 | T1 | U1 | | | |
|----------------------------------|----------|-----|----|-----|-----|-----|------|-----|------|-------|-----|-----|-------|-----|------|----|----|------|----|
| K..19 K..29 K..37 | AR71 | 110 | 10 | 130 | 3.5 | 120 | 160 | M8 | 120 | 104 | 37 | 0 | 14 | 30 | 16.3 | 5 | | | |
| | AR80 | 130 | 12 | 165 | 4.5 | | 200 | M10 | | 140.5 | | | 19 | 40 | 21.8 | 6 | | | |
| | AR90 | | | | | | 24 | 50 | | 27.3 | | | 8 | | | | | | |
| K..39 K..47 K..57 K..67 | AR71 | 110 | 10 | 130 | 3.5 | 160 | 160 | M8 | 120 | 97.5 | 37 | 0 | 14 | 30 | 16.3 | 5 | | | |
| | AR80 | 130 | 12 | 165 | 4.5 | | 200 | M10 | | 134 | | | 19 | 40 | 21.8 | 6 | | | |
| | AR90 | | | | | | 24 | 50 | | 27.3 | | | 8 | | | | | | |
| | AR100 | 180 | 15 | 215 | 5 | | 250 | M12 | | 130 | | | 174.5 | 52 | 5.5 | 28 | 60 | 31.3 | 8 |
| | AR112 | | | | | | 28 | 60 | | 31.3 | | | 8 | | | | | | |
| K..49 K..77 | AR71 | 110 | 10 | 130 | 3.5 | 200 | 160 | M8 | 120 | 91.5 | 37 | 0 | 14 | 30 | 16.3 | 5 | | | |
| | AR80 | 130 | 12 | 165 | 4.5 | | 200 | M10 | | 127 | | | 19 | 40 | 21.8 | 6 | | | |
| | AR90 | | | | | | 24 | 50 | | 27.3 | | | 8 | | | | | | |
| | AR100 | 180 | 15 | 215 | 5 | | 250 | M12 | | 130 | | | 166.5 | 52 | 5.5 | 28 | 60 | 31.3 | 8 |
| | AR112 | | | | | | 28 | 60 | | 31.3 | | | 8 | | | | | | |
| | AR132S/M | 230 | 16 | 265 | 5 | | 300 | M12 | | 145 | | | 234 | 72 | 5 | 38 | 80 | 41.3 | 10 |
| AR132ML | 38 | | | | | 80 | 41.3 | 10 | | | | | | | | | | | |
| K..87 | AR80 | 130 | 12 | 165 | 4.5 | 250 | 200 | M10 | 120 | 122 | 37 | 0 | 19 | 40 | 21.8 | 6 | | | |
| | AR90 | | | | | | 24 | 50 | 27.3 | 8 | | | | | | | | | |
| | AR100 | 180 | 15 | 215 | 5 | | 250 | M12 | 130 | 161.5 | 52 | 5.5 | 28 | 60 | 31.3 | 8 | | | |
| | AR112 | | | | | | 28 | 60 | 31.3 | 8 | | | | | | | | | |
| | AR132S/M | 230 | 16 | 265 | 5 | | 300 | M12 | 145 | 229 | 72 | 5 | 38 | 80 | 41.3 | 10 | | | |
| | AR132ML | | | | | | 38 | 80 | 41.3 | 10 | | | | | | | | | |
| | AR160 | 250 | 18 | 300 | 6 | | 350 | M16 | 165 | 306.5 | 105 | 35 | 42 | 110 | 45.3 | 12 | | | |
| AR180 | 48 | | | | | 110 | 51.8 | 14 | | | | | | | | | | | |

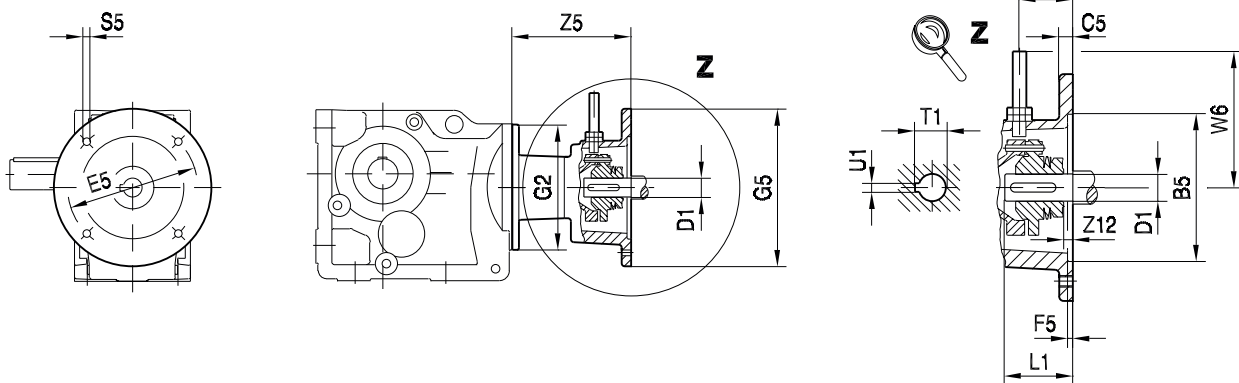
26878585/EN – 11/2021

K.. AR..

33 038 02 01

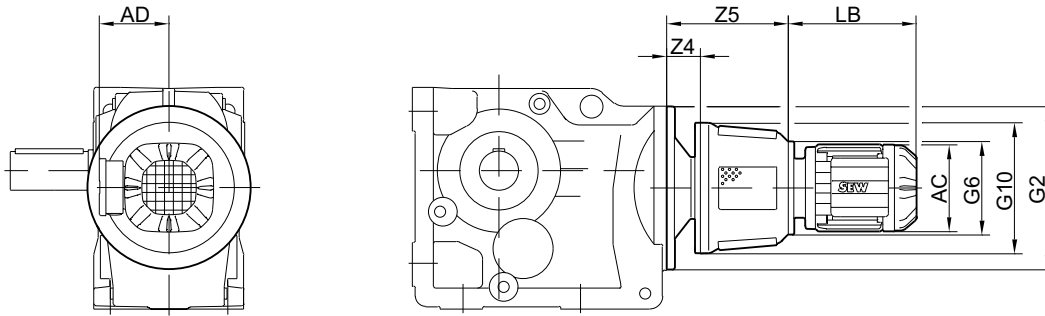


K.. AR../W



| | | B5 | C5 | E5 | F5 | G2 | G5 | S5 | W6 | Z5 | Z9 | Z12 | D1 | L1 | T1 | U1 |
|--------|----------|-----|----|-----|----|-----|-----|-----|------|-------|-----|-----|-----|------|------|----|
| K..97 | AR100 | 180 | 15 | 215 | 5 | 300 | 250 | M12 | 130 | 156.5 | 52 | 5.5 | 28 | 60 | 31.3 | 8 |
| | AR112 | | | | | | 300 | M12 | 145 | 224 | 72 | 5 | 38 | 80 | 41.3 | 10 |
| | AR132S/M | 230 | 16 | 265 | 5 | | 350 | M16 | 165 | 301.5 | 105 | 35 | 42 | 110 | 45.3 | 12 |
| | AR132ML | | | | | | 48 | 110 | 51.8 | 14 | | | | | | |
| | AR180 | 250 | 18 | 300 | 6 | | 350 | M16 | 165 | 295.5 | 105 | 35 | 48 | 110 | 51.8 | 14 |
| K..107 | AR100 | 180 | 15 | 215 | 5 | 350 | 250 | M12 | 130 | 150.5 | 52 | 5.5 | 28 | 60 | 31.3 | 8 |
| | AR112 | | | | | | 300 | M12 | 145 | 218 | 72 | 5 | 38 | 80 | 41.3 | 10 |
| | AR132S/M | 230 | 16 | 265 | 5 | | 350 | M16 | 165 | 295.5 | 105 | 35 | 42 | 110 | 45.3 | 12 |
| | AR132ML | | | | | | 48 | 110 | 51.8 | 14 | | | | | | |
| | AR180 | 250 | 18 | 300 | 6 | | 350 | M16 | 165 | 280.5 | 105 | 35 | 48 | 110 | 51.8 | 14 |
| K..127 | AR132S/M | 230 | 16 | 265 | 5 | 450 | 300 | M12 | 145 | 203 | 72 | 5 | 38 | 80 | 41.3 | 10 |
| | AR132ML | | | | | | 42 | 110 | 45.3 | 12 | | | | | | |
| | AR180 | 250 | 18 | 300 | 6 | | 350 | M16 | 165 | 280.5 | 105 | 35 | 48 | 110 | 51.8 | 14 |
| K..157 | AR160 | 250 | 18 | 300 | 6 | 550 | 350 | M16 | 165 | 272.5 | 105 | 35 | 42 | 110 | 45.3 | 12 |
| K..167 | 48 | | | | | | | | | | | | 110 | 51.8 | 14 | |
| K..187 | AR180 | | | | | | | | | | | | 48 | 110 | 51.8 | 14 |

10.8 Dimension sheets for adapters with hydraulic start-up coupling (K..AT..)

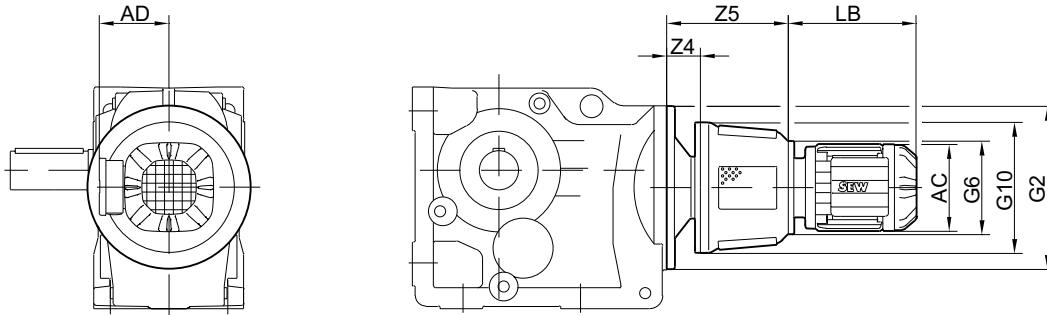


36 001 04 01

| | | | AC | AD | G6 | G10 | LB | Z4 | Z5 | G2 |
|---------|----------------|----------|-----|-----|-----|-----|-----|-----|-----|-----|
| K67 | AT311 AT312 | DRN71M | 139 | 118 | 200 | 280 | 222 | 97 | 286 | 160 |
| | | DRN80MK | | | | | 241 | | | |
| | | DRN80MS | 156 | 128 | | | 259 | | | |
| | | DRN80M | | | | | 287 | | | |
| | | DRN90S | | | | | 281 | | | |
| | | DRN90L | 179 | 140 | | | 313 | | | |
| | | DRN100LM | 197 | 157 | | | 359 | | | |
| | | DRN112M | 221 | 170 | | | 387 | | | |
| | AT321 AT322 | DRN90L | 179 | 140 | 250 | 350 | 313 | 97 | 333 | |
| | | DRN100LS | 197 | 157 | | | 309 | | | |
| DRN100L | | 359 | | | | | | | | |
| K77 | AT311 AT312 | DRN71M | 139 | 118 | 200 | 280 | 222 | 89 | 278 | 200 |
| | | DRN80MK | | | | | 241 | | | |
| | | DRN80MS | 156 | 128 | | | 259 | | | |
| | | DRN80M | | | | | 287 | | | |
| | | DRN90S | | | | | 281 | | | |
| | | DRM90L | 179 | 140 | | | 313 | | | |
| | | DRN100LM | 197 | 157 | | | 359 | | | |
| | | DRN112M | 221 | 170 | | | 387 | | | |
| | AT321 | DRN132S | 221 | 170 | 250 | 350 | 437 | 93 | 328 | |
| | | DRN90L | 179 | 140 | 250 | 350 | 313 | 133 | 368 | |
| | AT421 AT422 | DRN100LS | 197 | 157 | | | 309 | | | |
| | | DRN100L | | | | | 359 | | | |
| | | DRN112M | | | | | 387 | | | |
| | | DRN132S | | | | | 437 | | | |
| K87 | AT311 AT312 | DRN90S | 179 | 140 | 200 | 280 | 281 | 84 | 273 | |
| | | DRM90L | | | | | 313 | | | |
| | | DRN100LM | | | | | 359 | | | |
| | | DRN112M | | | | | 387 | | | |
| | | DRN132S | | | | | 437 | | | |
| | AT321 | DRN132S | 221 | 170 | 250 | 350 | 437 | 84 | 320 | |
| | | DRN90L | 179 | 140 | 250 | 350 | 313 | 128 | 363 | |
| | AT421 AT422 | DRN100LS | 197 | 157 | | | 309 | | | |
| | | DRN100L | | | | | 359 | | | |
| | | DRN112M | | | | | 387 | | | |
| | | DRN132S | | | | | 437 | | | |
| | AT541 AT542 | DRN132S | 221 | 170 | 350 | 470 | 437 | 159 | 478 | |
| | | DRN132M | 261 | 228 | | | 439 | | | |
| | | DRN132L | | | | | 464 | | | |
| DRN160M | | 532 | | | | | | | | |
| DRN160L | | 316 | 253 | 532 | | | | | | |

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36 002 04 01

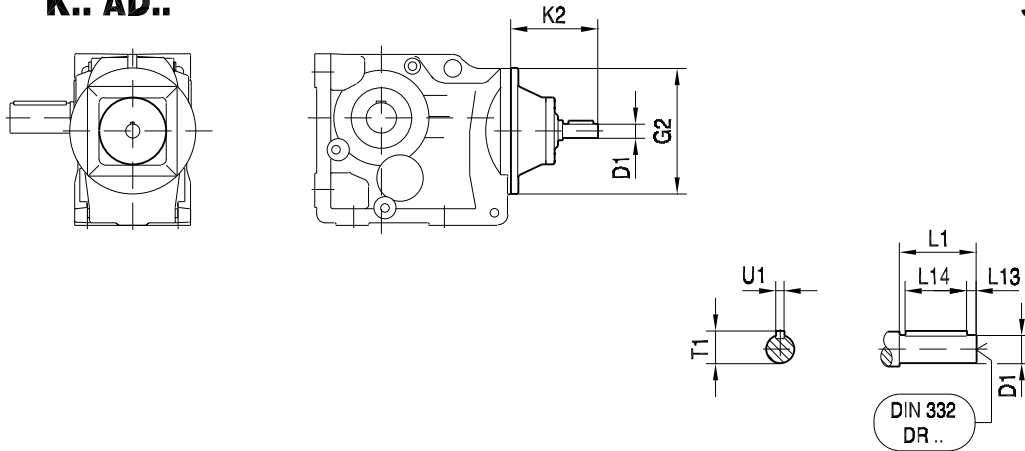


| | | | AC | AD | G6 | G10 | LB | Z4 | Z5 | G2 |
|----------------------|----------------|----------|-----|-----|-----|-----|-----|-----|-----|-----|
| K97 | AT311 AT312 | DRN90S | 179 | 140 | 200 | 280 | 281 | 79 | 268 | 300 |
| | | DRM90L | | | | | 313 | | | |
| | | DRN100LM | 197 | 157 | | | 359 | | | |
| | | DRN112M | 221 | 170 | | | 387 | | | |
| | AT321 | DRN132S | 221 | 170 | 250 | 350 | 437 | 79 | 315 | |
| | AT421 AT422 | DRN90L | 179 | 140 | 250 | 350 | 313 | 123 | 358 | |
| | | DRN100LS | 197 | 157 | | | 309 | | | |
| | | DRN100L | | | | | 359 | | | |
| | | DRN112M | 221 | 170 | | | 387 | | | |
| | | DRN132S | 221 | 170 | | | 437 | | | |
| | AT541 AT542 | DRN132S | 221 | 170 | 350 | 470 | 437 | 154 | 473 | |
| | | DRN132M | 261 | 228 | | | 439 | | | |
| | | DRN132L | | | | | 464 | | | |
| | | DRN160M | 316 | 253 | | | 532 | | | |
| | | DRN160L | | | | | 532 | | | |
| | | DRN180M | 357 | 268 | | | 557 | | | |
| DRN180L | | 557 | | | | | | | | |
| K107 | AT311 AT312 | DRN100LM | 197 | 157 | 200 | 280 | 359 | 73 | 262 | |
| | | DRN112M | 221 | 170 | | | 387 | | | |
| | AT321 | DRN132S | 221 | 170 | 250 | 350 | 437 | 73 | 309 | |
| | AT421 AT422 | DRN100LS | 197 | 157 | 250 | 350 | 309 | 117 | 352 | |
| | | DRN100L | | | | | 359 | | | |
| | | DRN112M | 221 | 170 | | | 387 | | | |
| | | DRN132S | 221 | 170 | | | 437 | | | |
| | AT541 AT542 | DRN132S | 221 | 170 | 350 | 470 | 437 | 148 | 467 | |
| | | DRN132M | 261 | 228 | | | 439 | | | |
| | | DRN132L | | | | | 464 | | | |
| | | DRN160M | 316 | 253 | | | 532 | | | |
| | | DRN160L | | | | | 532 | | | |
| | | DRN180M | 357 | 268 | | | 557 | | | |
| DRN180L | | 557 | | | | | | | | |
| K127 | AT421 | DRN132S | 221 | 170 | 250 | 350 | 437 | 102 | 337 | |
| | AT541 AT542 | DRN132M | 261 | 228 | 350 | 470 | 439 | 133 | 452 | |
| | | DRN132L | | | | | 464 | | | |
| | | DRN160M | 316 | 253 | | | 532 | | | |
| | | DRN160L | | | | | 532 | | | |
| | | DRN180M | 357 | 268 | | | 557 | | | |
| | DRN180L | 557 | | | | | | | | |
| K157 K167 K187 | AT541 AT542 | DRN160M | 316 | 253 | 350 | 470 | 532 | 125 | 444 | 550 |
| | | DRN160L | | | | | 532 | | | |
| | | DRN180M | 357 | 268 | | | 557 | | | |
| | | DRN180L | | | | | 557 | | | |

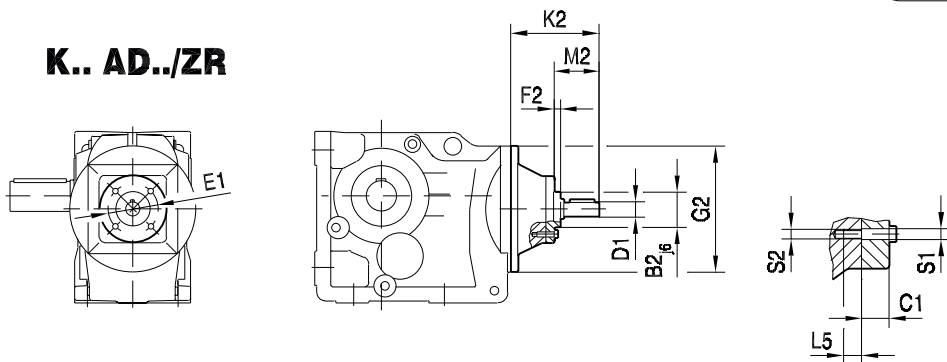
10.9 Dimension sheets for input shaft assembly (AD..)

K.. AD..

33 039 03 01



K.. AD../ZR

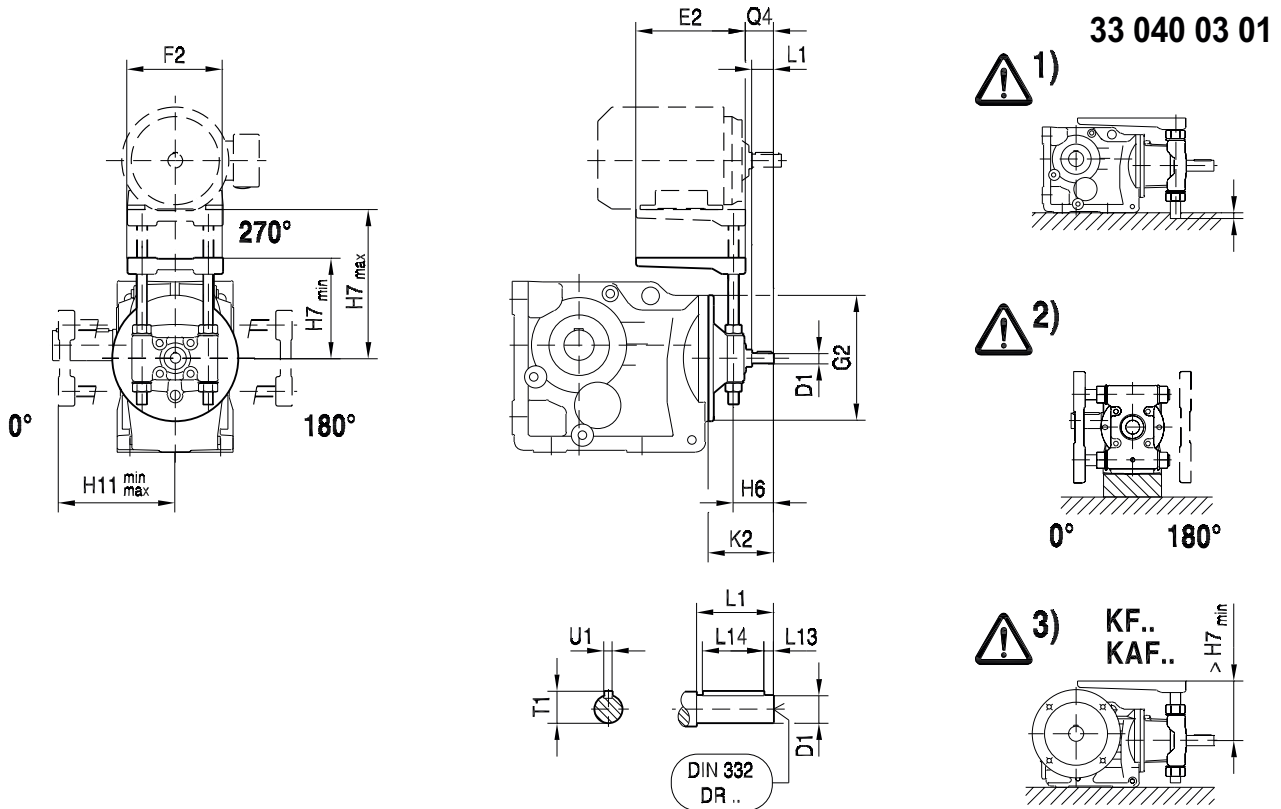


| | | B2 | C1 | E1 | F2 | G2 | K2 | L5 | M2 | S1 | S2 | D1 | L1 | L13 | L14 | T1 | U1 |
|----------------------------------|-------------|-----|------|-----|----|-----|-----|------|-------|------|-----|----|-----|-----|-----|------|----|
| K..19 K..29 K..37 | AD1 | - | - | - | - | 120 | 102 | - | - | - | - | 16 | 40 | 4 | 32 | 18 | 5 |
| | AD2, AD2/ZR | 55 | 13.5 | 80 | 8 | | 130 | 12 | 50 | 9 | M8 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| K..39 K..47 K..57 K..67 | AD2, AD2/ZR | 55 | 13.5 | 80 | 8 | 160 | 123 | 12 | 50 | 9 | M8 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| | AD3, AD3/ZR | 70 | 15.5 | 105 | 8 | | 159 | 16 | 60 | 11 | M10 | 24 | 50 | 5 | 40 | 27 | 8 |
| K..49 K..77 | AD2, AD2/ZR | 55 | 13.5 | 80 | 8 | 200 | 116 | 12 | 50 | 9 | M8 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| | AD3, AD3/ZR | 70 | 15.5 | 105 | 8 | | 151 | 16 | 60 | 11 | M10 | 24 | 50 | 5 | 40 | 27 | 8 |
| | AD4, AD4/ZR | 100 | 16 | 130 | 13 | | 224 | 20 | 95.5 | 13.5 | M12 | 38 | 80 | 5 | 70 | 41 | 10 |
| K..87 | AD2, AD2/ZR | 55 | 13.5 | 80 | 8 | 250 | 111 | 12 | 50 | 9 | M8 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| | AD3, AD3/ZR | 70 | 15.5 | 105 | 8 | | 156 | 16 | 70 | 11 | M10 | 28 | 60 | 5 | 50 | 31 | 8 |
| | AD4, AD4/ZR | 100 | 16 | 130 | 13 | | 219 | 20 | 95.5 | 13.5 | M12 | 38 | 80 | 5 | 70 | 41 | 10 |
| | AD5, AD5/ZR | 120 | 24 | 180 | 11 | | 292 | 20 | 126 | 13.5 | M12 | 42 | 110 | 10 | 70 | 45 | 12 |
| K..97 | AD3, AD3/ZR | 70 | 15.5 | 105 | 8 | 300 | 151 | 16 | 70 | 11 | M10 | 28 | 60 | 5 | 50 | 31 | 8 |
| | AD4, AD4/ZR | 100 | 16 | 130 | 13 | | 214 | 20 | 95.5 | 13.5 | M12 | 38 | 80 | 5 | 70 | 41 | 10 |
| | AD5, AD5/ZR | 120 | 24 | 180 | 11 | | 287 | 20 | 126 | 13.5 | M12 | 42 | 110 | 10 | 70 | 45 | 12 |
| | AD6, AD6/ZR | 130 | 22.5 | 200 | 11 | | 327 | 26 | 130.5 | 17.5 | M16 | 48 | 110 | 10 | 80 | 51.5 | 14 |
| K..107 | AD3, AD3/ZR | 70 | 15.5 | 105 | 8 | 350 | 145 | 16 | 70 | 11 | M10 | 28 | 60 | 5 | 50 | 31 | 8 |
| | AD4, AD4/ZR | 100 | 16 | 130 | 13 | | 208 | 20 | 95.5 | 13.5 | M12 | 38 | 80 | 5 | 70 | 41 | 10 |
| | AD5, AD5/ZR | 120 | 24 | 180 | 11 | | 281 | 20 | 126 | 13.5 | M12 | 42 | 110 | 10 | 70 | 45 | 12 |
| | AD6, AD6/ZR | 130 | 22.5 | 200 | 11 | | 321 | 26 | 130.5 | 17.5 | M16 | 48 | 110 | 10 | 80 | 51.5 | 14 |
| K..127 | AD4, AD4/ZR | 100 | 16 | 130 | 13 | 450 | 193 | 20 | 95.5 | 13.5 | M12 | 38 | 80 | 5 | 70 | 41 | 10 |
| | AD5, AD5/ZR | 120 | 24 | 180 | 11 | | 266 | 20 | 126 | 13.5 | M12 | 42 | 110 | 10 | 70 | 45 | 12 |
| | AD6, AD6/ZR | 130 | 22.5 | 200 | 11 | | 306 | 26 | 130.5 | 17.5 | M16 | 48 | 110 | 10 | 80 | 51.5 | 14 |
| | AD7, AD7/ZR | 125 | 19 | 190 | 13 | | 300 | 30 | 133 | 22 | M20 | 55 | 110 | 10 | 90 | 59 | 16 |
| | AD8, AD8/ZR | 120 | 22.5 | 210 | 5 | | 383 | 19.5 | 155 | 13.5 | M12 | 70 | 140 | 15 | 110 | 74.5 | 20 |

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| | | B2 | C1 | E1 | F2 | G2 | K2 | L5 | M2 | S1 | S2 | D1 | L1 | L13 | L14 | T1 | U1 |
|----------------------------|-------------|-----|------|-----|----|-----|-----|------|-------|------|-----|----|-----|-----|-----|------|----|
| K..157 K..167 K..187 | AD5, AD5/ZR | 120 | 24 | 180 | 11 | 550 | 258 | 20 | 126 | 13.5 | M12 | 42 | 110 | 10 | 70 | 45 | 12 |
| | AD6, AD6/ZR | 130 | 22.5 | 200 | 11 | | 298 | 26 | 130.5 | 17.5 | M16 | 48 | 110 | 10 | 80 | 51.5 | 14 |
| | AD7, AD7/ZR | 125 | 19 | 190 | 13 | | 292 | 30 | 133 | 22 | M20 | 55 | 110 | 10 | 90 | 59 | 16 |
| | AD8, AD8/ZR | 120 | 22.5 | 210 | 5 | | 374 | 19.5 | 155 | 13.5 | M12 | 70 | 140 | 15 | 110 | 74.5 | 20 |

10.10 Dimension sheets for input shaft assembly with motor platform (AD../P)



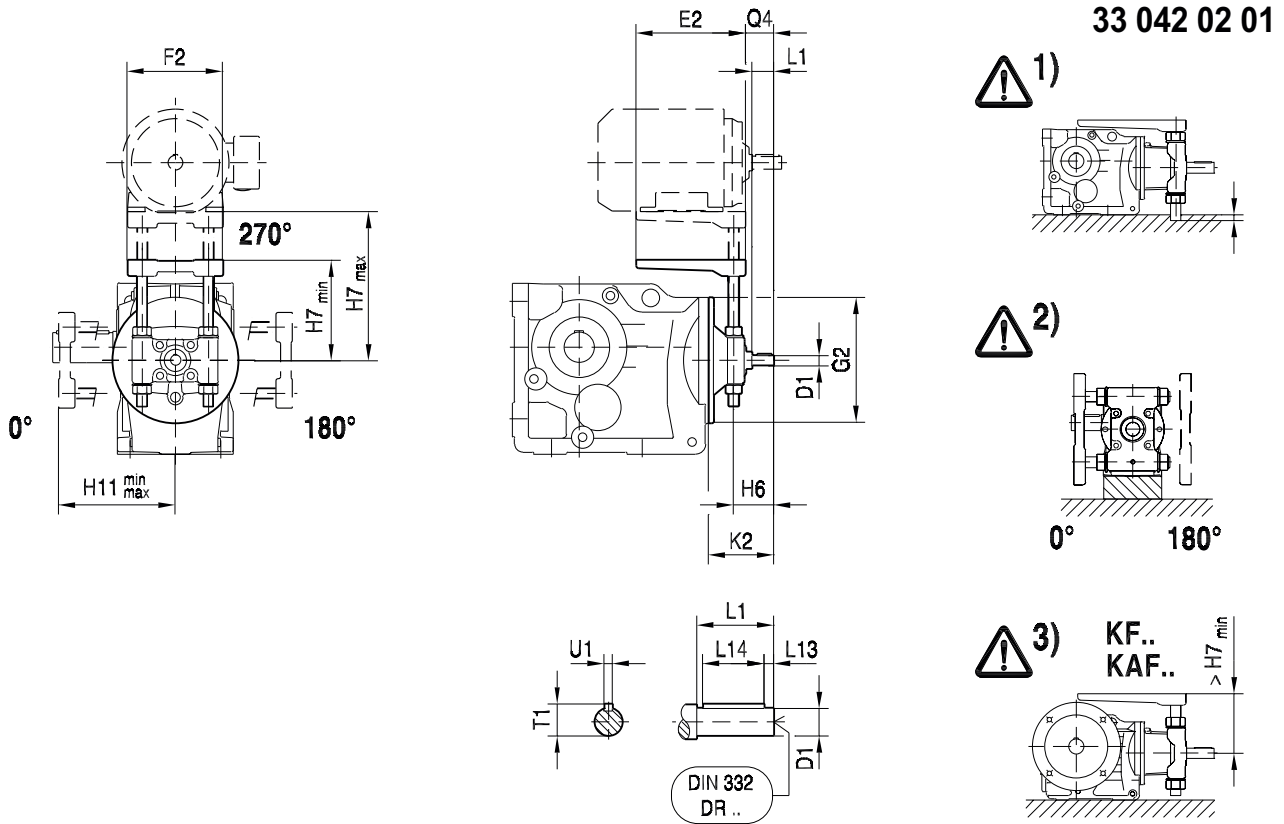
| | | E2 | F2 | G2 | H6 | H7 min | H7 max | H11 min | H11 max | K2 | Q4 | D1 | L1 | L13 | L14 | T1 | U1 | ⚠ (→ 82) |
|-------------------------|-------|-----|-----|-----|-----|--------|--------|---------|---------|-----|-----|----|-----|-----|-----|------|----|-------------|
| K..19 K..29 K..37 | AD2/P | 195 | 180 | 120 | 65 | 100 | 165 | 95 | 165 | 130 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 | 1) |
| K..39 K..47 | AD2/P | 195 | 180 | 160 | 65 | 110 | 165 | 110 | 165 | 123 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 | 1) |
| | AD3/P | 230 | 240 | | 80 | 125 | 175 | 125 | 175 | 159 | 54 | 24 | 50 | 5 | 40 | 27 | 8 | 1), 2) |
| K..57 | AD2/P | 195 | 180 | 160 | 65 | 120 | 165 | 120 | 165 | 123 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 | |
| | AD3/P | 230 | 240 | | 80 | 130 | 175 | 130 | 175 | 159 | 54 | 24 | 50 | 5 | 40 | 27 | 8 | 1), 2), 3) |
| K..67 | AD2/P | 195 | 180 | 160 | 65 | 130 | 200 | 125 | 165 | 123 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 | 1) |
| | AD3/P | 230 | 240 | | 80 | 135 | 175 | 130 | 175 | 159 | 54 | 24 | 50 | 5 | 40 | 27 | 8 | 3) |
| K..49 K..77 | AD2/P | 195 | 180 | 200 | 65 | 160 | 260 | 140 | 260 | 116 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 | 1) |
| | AD3/P | 230 | 240 | | 80 | 160 | 230 | 145 | 175 | 151 | 54 | 24 | 50 | 5 | 40 | 27 | 8 | 1) |
| | AD4/P | 345 | 291 | | 118 | 170 | 210 | 150 | 210 | 224 | 83 | 38 | 80 | 5 | 70 | 41 | 10 | 3) |
| K..87 | AD2/P | 195 | 180 | 250 | 65 | 180 | 260 | 170 | 200 | 111 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 | |
| | AD3/P | 230 | 240 | | 90 | 180 | 230 | 175 | 230 | 156 | 64 | 28 | 60 | 5 | 50 | 31 | 8 | |
| | AD4/P | 345 | 291 | | 118 | 190 | 280 | 180 | 210 | 219 | 83 | 38 | 80 | 5 | 70 | 41 | 10 | 1) |
| | AD5/P | 430 | 355 | | 153 | 190 | 250 | 185 | 250 | 292 | 113 | 42 | 110 | 10 | 70 | 45 | 12 | 1), 3) |
| K..97 | AD3/P | 230 | 240 | 300 | 90 | 210 | 320 | 210 | 320 | 151 | 64 | 28 | 60 | 5 | 50 | 31 | 8 | |
| | AD4/P | 345 | 291 | | 118 | 215 | 280 | 215 | 280 | 214 | 83 | 38 | 80 | 5 | 70 | 41 | 10 | |
| | AD5/P | 430 | 355 | | 153 | 225 | 325 | 215 | 250 | 287 | 113 | 42 | 110 | 10 | 70 | 45 | 12 | 1), 3) |
| K..107 | AD3/P | 230 | 240 | 350 | 90 | 260 | 320 | 220 | 320 | 145 | 64 | 28 | 60 | 5 | 50 | 31 | 8 | |
| | AD4/P | 345 | 291 | | 118 | 265 | 360 | 220 | 280 | 208 | 83 | 38 | 80 | 5 | 70 | 41 | 10 | |
| | AD5/P | 430 | 355 | | 153 | 270 | 325 | 225 | 325 | 281 | 113 | 42 | 110 | 10 | 70 | 45 | 12 | |
| | AD6/P | 495 | 457 | | 163 | 270 | 310 | 250 | 310 | 321 | 114 | 48 | 110 | 10 | 80 | 51.5 | 14 | 3) |

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K.. helical-bevel gear units

Dimension sheets for input shaft assembly with motor platform (AD../P)

For bore dimensions and weight of the motor platform, refer to the chapter "Bore dimensions and weight" (→ 81).

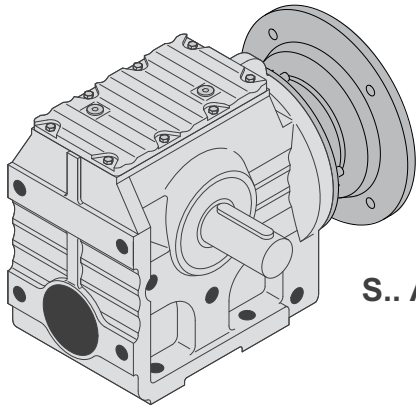


| | | E2 | F2 | G2 | H6 | H7 min | H7 max | H11 min | H11 max | K2 | Q4 | D1 | L1 | L13 | L14 | T1 | U1 | ⚠ (→ 82) |
|--------|-------|-----|-----|-----|-----|--------|--------|---------|---------|-----|-----|----|-----|-----|-----|------|----|-------------|
| K..127 | AD4/P | 345 | 291 | 450 | 118 | 305 | 360 | 245 | 280 | 193 | 83 | 38 | 80 | 5 | 70 | 41 | 10 | |
| | AD5/P | 430 | 355 | | 153 | 310 | 405 | 255 | 325 | 266 | 113 | 42 | 110 | 10 | 70 | 45 | 12 | |
| | AD6/P | 495 | 457 | | 163 | 305 | 360 | 300 | 360 | 306 | 114 | 48 | 110 | 10 | 80 | 51.5 | 14 | 3) |
| | AD7/P | 650 | 570 | | 170 | 305 | 365 | 305 | 365 | 300 | 112 | 55 | 110 | 10 | 90 | 59 | 16 | 3) |
| K..157 | AD5/P | 430 | 355 | 550 | 153 | 360 | 405 | 295 | 325 | 258 | 113 | 42 | 110 | 10 | 70 | 45 | 12 | |
| | AD6/P | 495 | 457 | | 163 | 375 | 475 | 375 | 475 | 298 | 114 | 48 | 110 | 10 | 80 | 51.5 | 14 | 3) |
| | AD7/P | 650 | 570 | | 170 | 375 | 475 | 375 | 475 | 292 | 112 | 55 | 110 | 10 | 90 | 59 | 16 | 3) |
| K..167 | AD5/P | 430 | 355 | 550 | 153 | 415 | 495 | 350 | 405 | 258 | 113 | 42 | 110 | 10 | 70 | 45 | 12 | |
| | AD6/P | 495 | 457 | | 163 | 420 | 475 | 375 | 475 | 298 | 114 | 48 | 110 | 10 | 80 | 51.5 | 14 | |
| | AD7/P | 650 | 570 | | 170 | 420 | 475 | 375 | 475 | 292 | 112 | 55 | 110 | 10 | 90 | 59 | 16 | |
| K..187 | AD5/P | 430 | 355 | 550 | 153 | 480 | 545 | 380 | 495 | 258 | 113 | 42 | 110 | 10 | 70 | 45 | 12 | |
| | AD6/P | 495 | 457 | | 163 | 485 | 525 | 380 | 475 | 298 | 114 | 48 | 110 | 10 | 80 | 51.5 | 14 | |
| | AD7/P | 650 | 570 | | 170 | 485 | 525 | 380 | 475 | 292 | 112 | 55 | 110 | 10 | 90 | 59 | 16 | |

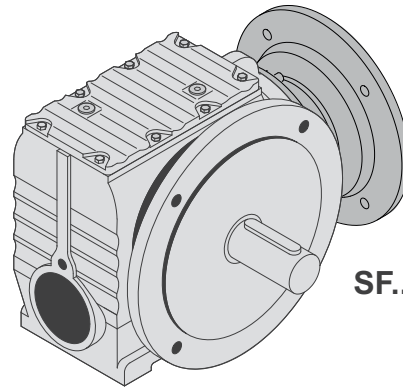
For bore dimensions and weight of the motor platform, refer to the chapter "Bore dimensions and weight" (→ 81).

11 S.. helical-worm gear units

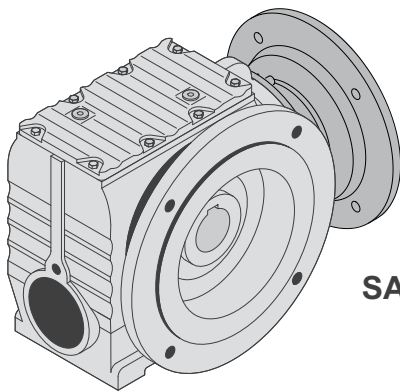
11.1 Selection tables for adapters for mounting IEC/NEMA motors (AMS..)



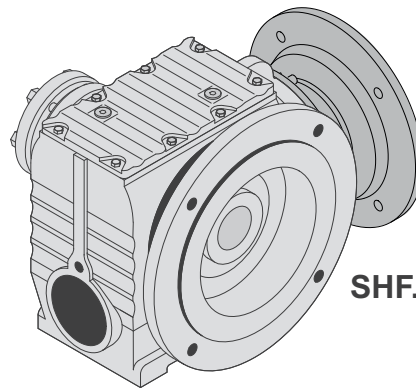
S.. AMS..



SF.. AMS..



SAF.. AMS..

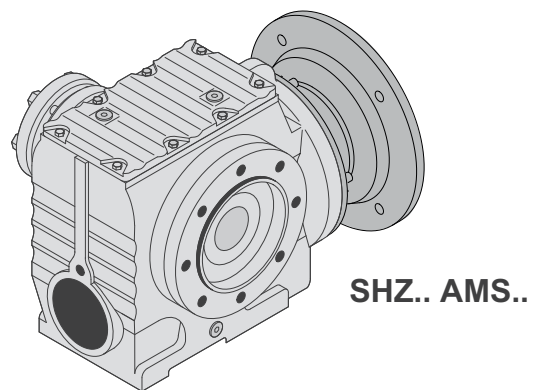
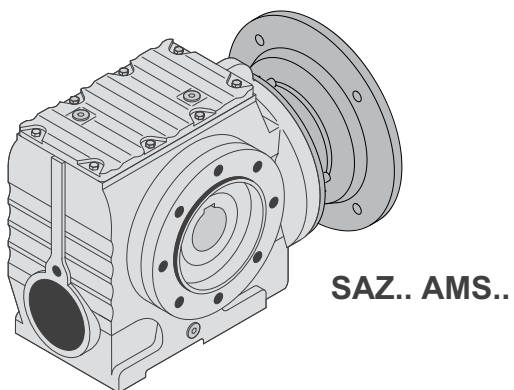
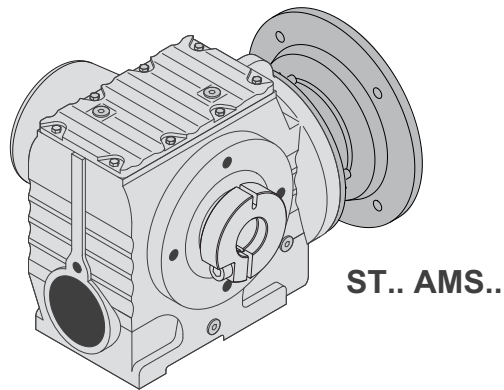
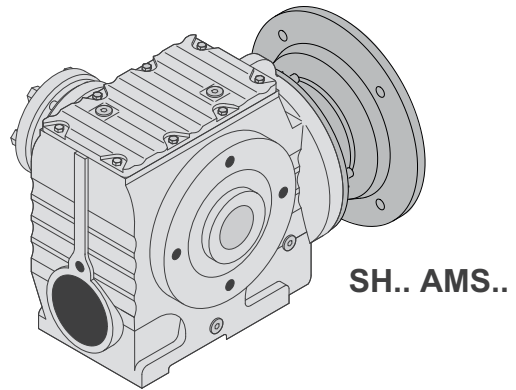
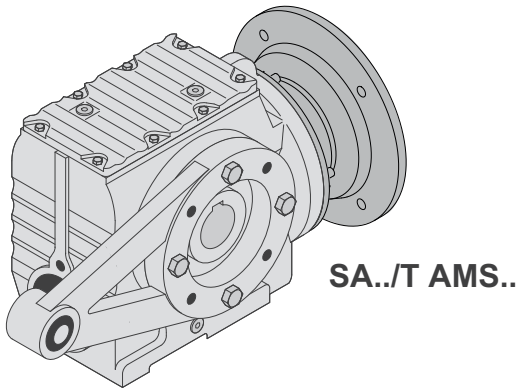


SHF.. AMS..

9007220696342155


S.. helical-worm gear units



Selection tables for adapters for mounting IEC/NEMA motors (AMS..)



9007220696344587

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| S37, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 92 Nm | | | |
|---|----------------------------|-----------------------------|--------------------|-------------------|-------|----|----|----|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{1)}$ N | $\Phi_{(R)}$ ' | AMS | | | |
| | | | | | 63 | 71 | 80 | 90 |
|  2 | | | | | | | | |
| 3.97 ²⁾ | 353 | 32 | 1400 | - | 24 | 24 | 32 | 32 |
| 4.86 ²⁾ | 288 | 33 | 1520 | - | 29 | 29 | 33 | 33 |
| 5.38 ²⁾ | 260 | 34 | 1570 | - | 32 | 32 | 34 | 34 |
| 6.33 ²⁾ | 221 | 35 | 1670 | - | 35 | 35 | 35 | 35 |
| 6.80 ²⁾ | 206 | 43 | 1630 | - | 40 | 40 | 43 | 43 |
| 8.00 ²⁾ | 175 | 45 | 1730 | - | 45 | 45 | 45 | 45 |
| 9.02 ²⁾ | 155 | 46 | 1810 | - | 46 | 46 | 46 | 46 |
| 10.23 ²⁾ | 137 | 47 | 1900 | - | 47 | 47 | 47 | 47 |
| 10.91 ²⁾ | 128 | 48 | 1940 | - | 48 | 48 | 48 | 48 |
| 12.48 ²⁾ | 112 | 48 | 2060 | - | 48 | 48 | 48 | 48 |
| 13.39 ²⁾ | 105 | 49 | 2110 | - | 49 | 49 | 49 | 49 |
| 15.53 | 90 | 50 | 2240 | - | 50 | 50 | | |
| 18.24 | 77 | 52 | 2380 | - | 52 | 52 | | |
| 19.13 ²⁾ | 73 | 71 | 2380 | - | 71 | 71 | 71 | 71 |
| 19.89 | 70 | 52 | 2470 | - | 52 | 52 | | |
| 22.50 ²⁾ | 62 | 73 | 2530 | - | 73 | 73 | 73 | 73 |
| 25.38 ²⁾ | 55 | 74 | 2660 | - | 74 | 74 | 74 | 74 |
| 28.76 ²⁾ | 49 | 75 | 2800 | - | 75 | 75 | 75 | 75 |
| 30.68 ²⁾ | 46 | 76 | 2860 | - | 76 | 76 | 76 | 76 |
| 35.10 ²⁾ | 40 | 78 | 3000 | - | 78 | 78 | 78 | 78 |
| 37.66 ²⁾ | 37 | 79 | 3000 | - | 79 | 79 | 79 | 79 |
| 43.68 | 32 | 81 | 3000 | - | 81 | 81 | 81 | |
| 51.30 | 27 | 81 | 3000 | - | 81 | 81 | | |
| 53.83 ²⁾ | 26 | 80 | 3000 | - | 80 | 80 | 80 | 80 |
| 55.93 | 25 | 81 | 3000 | - | 81 | 81 | | |
| 63.33 ²⁾ | 22 | 82 | 3000 | - | 82 | 82 | 82 | 82 |
| 71.44 ²⁾ | 20 | 84 | 3000 | - | 84 | 84 | 84 | 84 |
| 80.96 ²⁾ | 17 | 85 | 3000 | - | 85 | 85 | 85 | 85 |
| 86.36 ²⁾ | 16 | 86 | 3000 | - | 86 | 86 | 86 | 86 |
| 98.80 ²⁾ | 14 | 87 | 3000 | - | 87 | 87 | 87 | 87 |
| 106.00 ²⁾ | 13 | 88 | 3000 | - | 88 | 88 | 88 | 88 |
| 122.94 ²⁾ | 11 | 91 | 3000 | - | 91 | 91 | 91 | |
| 144.40 | 9.7 | 92 | 3000 | - | 92 | 92 | | |
| 157.43 | 8.9 | 92 | 3000 | - | 92 | 92 | | |


| S37, m /kg | | AMS | | | | |
|------------|------|---|-----|-----|-----|-----|
| S | IEC | s | 63 | 71 | 80 | 90 |
| | |  2 | 8.6 | 8.9 | 11 | 11 |
| | NEMA | s | - | 56 | 143 | 145 |
| | |  2 | - | 9.8 | 10 | 11 |



SF: + 1.3 kg / SA: + -0.25 kg / SAF: + 1.3 kg

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S.. helical-worm gear units



Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| S37p, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}} / \text{Nm}$ | | | | | 105 Nm | | | |
|---|----------------------------|-----------------------------|--------------------|----------------------|--------|-----|-----|-----|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | F_{Ra}^{-1} N | $\varphi_{(R)}$ ' | AMS | | | |
| | | | | | 63 | 71 | 80 | 90 |
|  2 | | | | | | | | |
| 3.97 | 353 | 44 | 1070 | - | 25 | 25 | 44 | 44 |
| 4.86 | 288 | 48 | 1140 | - | 30 | 30 | 48 | 48 |
| 5.38 | 260 | 51 | 1130 | - | 34 | 34 | 51 | 51 |
| 6.33 | 221 | 56 | 1120 | - | 40 | 40 | 56 | 56 |
| 6.80 | 206 | 60 | 1210 | - | 42 | 42 | 60 | 60 |
| 8.00 | 175 | 66 | 1200 | - | 50 | 50 | 66 | 66 |
| 9.02 | 155 | 70 | 1210 | - | 57 | 57 | 70 | 70 |
| 10.23 | 137 | 73 | 1280 | - | 64 | 64 | 73 | 73 |
| 10.91 | 128 | 73 | 1380 | - | 69 | 69 | 73 | 73 |
| 12.48 | 112 | 74 | 1560 | - | 74 | 74 | 74 | 74 |
| 13.39 | 105 | 75 | 1640 | - | 75 | 75 | 75 | 75 |
| 15.53 | 90 | 76 | 1860 | - | 76 | 76 | 76 | |
| 18.24 | 77 | 78 | 2040 | - | 78 | 78 | | |
| 19.13 | 73 | 89 | 2170 | - | 89 | 89 | 89 | 89 |
| 19.89 | 70 | 78 | 2130 | - | 78 | 78 | | |
| 22.50 | 62 | 95 | 2280 | - | 95 | 95 | 95 | 95 |
| 25.38 | 55 | 100 | 2360 | - | 100 | 100 | 100 | 100 |
| 28.76 | 49 | 105 | 2450 | - | 105 | 105 | 105 | 105 |
| 30.68 | 46 | 105 | 2530 | - | 105 | 105 | 105 | 105 |
| 35.10 | 40 | 105 | 2700 | - | 105 | 105 | 105 | 105 |
| 37.66 | 37 | 105 | 2800 | - | 105 | 105 | 105 | 105 |
| 43.68 | 32 | 105 | 3000 | - | 105 | 105 | 105 | |
| 51.30 | 27 | 104 | 3000 | - | 104 | 104 | | |
| 53.83 | 26 | 92 | 3000 | - | 92 | 92 | 92 | 92 |
| 55.93 | 25 | 104 | 3000 | - | 104 | 104 | | |
| 63.33 | 22 | 98 | 3000 | - | 98 | 98 | 98 | 98 |
| 71.44 | 20 | 100 | 3000 | - | 100 | 100 | 100 | 100 |
| 80.96 | 17 | 99 | 3000 | - | 99 | 99 | 99 | 99 |
| 86.36 | 16 | 98 | 3000 | - | 98 | 98 | 98 | 98 |
| 98.80 | 14 | 97 | 3000 | - | 97 | 97 | 97 | 97 |
| 106.00 | 13 | 97 | 3000 | - | 97 | 97 | 97 | 97 |
| 122.94 | 11 | 96 | 3000 | - | 96 | 96 | 96 | |
| 144.40 | 9.7 | 95 | 3000 | - | 95 | 95 | | |
| 157.43 | 8.9 | 94 | 3000 | - | 94 | 94 | | |

| S37p, m /kg | | AMS | | | | |
|-------------|------|---|-----|-----|-----|-----|
| S | IEC | s | 63 | 71 | 80 | 90 |
| | |  2 | 8.6 | 8.9 | 11 | 11 |
| | NEMA | s | - | 56 | 143 | 145 |
| | |  2 | - | 9.8 | 10 | 11 |

SF: + 1.3 kg / SA: + -0.25 kg / SAF: + 1.3 kg

| S47, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 170 Nm | | | |
|---|----------------------------|-----------------------------|--------------------|-------------------|--------|-----|-----|-----|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{1)}$ N | $\Phi_{(R)}$ ' | AMS | | | |
| | | | | | 63 | 71 | 80 | 90 |
|  2 | | | | | | | | |
| 4.00 ²⁾ | 350 | 61 | 1980 | - | 24 | 24 | 61 | 61 |
| 4.76 ²⁾ | 294 | 72 | 2010 | - | 28 | 28 | 72 | 72 |
| 5.39 ²⁾ | 260 | 74 | 2110 | - | 32 | 32 | 74 | 74 |
| 6.40 ²⁾ | 219 | 76 | 2260 | - | 38 | 38 | 76 | 76 |
| 6.83 ²⁾ | 205 | 78 | 2300 | - | 41 | 41 | 78 | 78 |
| 7.28 ²⁾ | 192 | 103 | 2110 | - | 43 | 43 | 103 | 103 |
| 8.64 ²⁾ | 162 | 109 | 2230 | - | 51 | 51 | 109 | 109 |
| 9.23 ²⁾ | 152 | 109 | 2310 | - | 54 | 54 | 109 | 109 |
| 10.80 ²⁾ | 130 | 109 | 2500 | - | 64 | 64 | 109 | 109 |
| 12.10 ²⁾ | 116 | 109 | 2650 | - | 72 | 72 | 109 | 109 |
| 14.24 ²⁾ | 98 | 110 | 2850 | - | 84 | 84 | 110 | 110 |
| 16.47 | 85 | 110 | 3060 | - | 97 | 97 | 110 | 110 |
| 17.62 | 79 | 110 | 3160 | - | 104 | 104 | 110 | 110 |
| 19.54 ²⁾ | 72 | 144 | 3370 | - | | | 144 | 144 |
| 20.33 | 69 | 110 | 3370 | - | 110 | 110 | 110 | |
| 23.20 ²⁾ | 60 | 152 | 3570 | - | 126 | 126 | 152 | 152 |
| 24.77 ²⁾ | 57 | 155 | 3650 | - | 134 | 134 | 155 | 155 |
| 29.00 ²⁾ | 48 | 155 | 3920 | - | 155 | 155 | 155 | 155 |
| 32.48 ²⁾ | 43 | 155 | 4120 | - | 155 | 155 | 155 | 155 |
| 38.23 ²⁾ | 37 | 155 | 4420 | - | 155 | 155 | 155 | 155 |
| 44.22 ²⁾ | 32 | 155 | 4710 | - | 155 | 155 | 155 | 155 |
| 47.32 ²⁾ | 30 | 155 | 4850 | - | 155 | 155 | 155 | 155 |
| 54.59 | 26 | 155 | 5150 | - | 155 | 155 | 155 | |
| 56.61 ²⁾ | 25 | 165 | 5320 | - | | | 165 | 165 |
| 63.80 | 22 | 155 | 5370 | - | 155 | 155 | | |
| 67.20 ²⁾ | 21 | 167 | 5360 | - | 167 | 167 | 167 | 167 |
| 69.39 | 20 | 155 | 5370 | - | 155 | 155 | | |
| 71.75 ²⁾ | 20 | 167 | 5360 | - | 167 | 167 | 167 | 167 |
| 84.00 ²⁾ | 17 | 167 | 5360 | - | 167 | 167 | 167 | 167 |
| 94.08 ²⁾ | 15 | 168 | 5350 | - | 168 | 168 | 168 | 168 |
| 110.73 ²⁾ | 13 | 168 | 5350 | - | 168 | 168 | 168 | 168 |
| 128.10 ²⁾ | 11 | 168 | 5350 | - | 168 | 168 | 168 | 168 |
| 137.05 ²⁾ | 10 | 168 | 5350 | - | 168 | 168 | 168 | 168 |
| 158.12 ²⁾ | 8.9 | 170 | 5340 | - | 170 | 170 | 170 | |
| 184.80 | 7.6 | 170 | 5340 | - | 170 | 170 | | |
| 201.00 | 7.0 | 170 | 5340 | - | 170 | 170 | | |


| S47, m /kg | | AMS | | | | | |
|------------|------|---|----|----|-----|-----|----|
| S | IEC | s | 63 | 71 | 80 | 90 | |
| | |  2 | | 12 | 12 | 14 | 14 |
| | NEMA | s | - | 56 | 143 | 145 | |
| | |  2 | | - | 13 | 14 | 14 |



SF: + 3.6 kg / SA: + 1.1 kg / SAF: + 2.8 kg

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S.. helical-worm gear units



Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| S47p, $n_o = 1400 \text{ min}^{-1}$, $M_{a \text{ max}} / \text{Nm}$ | | | | | 200 Nm | | | |
|---|----------------------------|-----------------------------|---------------------|-------------------|--------|-----|-----|-----|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\Phi_{(R)}$ ' | AMS | | | |
| | | | | | 63 | 71 | 80 | 90 |
|  2 | | | | | | | | |
| 4.00 | 350 | 75 | 1860 | - | 24 | 24 | 71 | 75 |
| 4.76 | 294 | 91 | 1740 | - | 29 | 29 | 84 | 91 |
| 5.39 | 260 | 104 | 1540 | - | 33 | 33 | 95 | 104 |
| 6.40 | 219 | 118 | 1420 | - | 40 | 40 | 114 | 118 |
| 6.83 | 205 | 120 | 1490 | - | 42 | 42 | 120 | 120 |
| 7.28 | 192 | 109 | 2110 | - | 45 | 45 | 109 | 109 |
| 8.64 | 162 | 131 | 1820 | - | 53 | 53 | 131 | 131 |
| 9.23 | 152 | 134 | 1870 | - | 57 | 57 | 134 | 134 |
| 10.80 | 130 | 142 | 1990 | - | 67 | 67 | 142 | 142 |
| 12.10 | 116 | 146 | 2130 | - | 75 | 75 | 146 | 146 |
| 14.24 | 98 | 152 | 2350 | - | 89 | 89 | 152 | 152 |
| 16.47 | 85 | 155 | 2630 | - | 103 | 103 | 155 | 155 |
| 17.62 | 79 | 156 | 2720 | - | 110 | 110 | 156 | 156 |
| 19.54 | 72 | 156 | 3280 | - | | | 156 | 156 |
| 20.33 | 69 | 160 | 2890 | - | 128 | 128 | 160 | |
| 23.20 | 60 | 165 | 3480 | - | 137 | 137 | 165 | 165 |
| 24.77 | 57 | 169 | 3550 | - | 146 | 146 | 169 | 169 |
| 29.00 | 48 | 179 | 3730 | - | 172 | 172 | 179 | 179 |
| 32.48 | 43 | 186 | 3880 | - | 186 | 186 | 186 | 186 |
| 38.23 | 37 | 196 | 4090 | - | 196 | 196 | 196 | 196 |
| 44.22 | 32 | 200 | 4350 | - | 200 | 200 | 200 | 200 |
| 47.32 | 30 | 200 | 4480 | - | 200 | 200 | 200 | 200 |
| 54.59 | 26 | 200 | 4790 | - | 200 | 200 | 200 | |
| 56.61 | 25 | 179 | 5220 | - | | | 179 | 179 |
| 63.80 | 22 | 200 | 5130 | - | 200 | 200 | | |
| 67.20 | 21 | 189 | 5250 | - | 189 | 189 | 189 | 189 |
| 69.39 | 20 | 200 | 5130 | - | 200 | 200 | | |
| 71.75 | 20 | 194 | 5220 | - | 194 | 194 | 194 | 194 |
| 84.00 | 17 | 199 | 5190 | - | 199 | 199 | 199 | 199 |
| 94.08 | 15 | 198 | 5200 | - | 198 | 198 | 198 | 198 |
| 110.73 | 13 | 197 | 5200 | - | 197 | 197 | 197 | 197 |
| 128.10 | 11 | 196 | 5210 | - | 196 | 196 | 196 | 196 |
| 137.05 | 10 | 195 | 5210 | - | 195 | 195 | 195 | 195 |
| 158.12 | 8.9 | 194 | 5220 | - | 194 | 194 | 194 | |
| 184.80 | 7.6 | 193 | 5220 | - | 193 | 193 | | |
| 201.00 | 7.0 | 192 | 5230 | - | 192 | 192 | | |

| S47p, m /kg | | AMS | | | | |
|-------------|------|---|----|----|-----|-----|
| S | IEC | s | 63 | 71 | 80 | 90 |
| | |  2 | 12 | 12 | 14 | 14 |
| | NEMA | s | - | 56 | 143 | 145 |
| | |  2 | - | 13 | 14 | 14 |

SF: + 3.6 kg / SA: + 1.1 kg / SAF: + 2.8 kg

| S57, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 295 Nm | | | |
|---|----------------------------|-----------------------------|--------------------|-------------------|--------|-----|-----|-----|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{1)}$ N | $\Phi_{(R)}$ ' | AMS | | | |
| | | | | | 63 | 71 | 80 | 90 |
|  2 | | | | | | | | |
| 4.00 ²⁾ | 350 | 88 | 3380 | - | 24 | 24 | 68 | 88 |
| 4.76 ²⁾ | 294 | 93 | 3590 | - | 28 | 28 | 82 | 93 |
| 5.39 ²⁾ | 260 | 95 | 3760 | - | 32 | 32 | 92 | 95 |
| 6.40 ²⁾ | 219 | 98 | 4010 | - | 38 | 38 | 98 | 98 |
| 6.83 ²⁾ | 205 | 100 | 4100 | - | 41 | 41 | 100 | 100 |
| 7.28 ²⁾ | 192 | 146 | 3790 | - | 43 | 43 | 123 | 146 |
| 8.64 ²⁾ | 162 | 166 | 3900 | - | 51 | 51 | 146 | 166 |
| 9.23 ²⁾ | 152 | 169 | 3990 | - | 55 | 55 | 156 | 169 |
| 10.80 ²⁾ | 130 | 169 | 4290 | - | 64 | 64 | 169 | 169 |
| 12.10 ²⁾ | 116 | 169 | 4520 | - | 72 | 72 | 169 | 169 |
| 14.24 | 98 | 169 | 4860 | - | 84 | 84 | 169 | 169 |
| 16.47 | 85 | 168 | 5200 | - | 98 | 98 | 168 | 168 |
| 17.62 | 79 | 168 | 5350 | - | 104 | 104 | 168 | 168 |
| 19.54 ²⁾ | 72 | 215 | 5720 | - | | | 215 | 215 |
| 20.33 | 69 | 168 | 5690 | - | 118 | 118 | 168 | |
| 23.20 ²⁾ | 60 | 245 | 5930 | - | 127 | 127 | 245 | 245 |
| 24.77 ²⁾ | 57 | 245 | 6100 | - | 135 | 135 | 245 | 245 |
| 29.00 ²⁾ | 48 | 245 | 6520 | - | 158 | 158 | 245 | 245 |
| 32.48 ²⁾ | 43 | 245 | 6840 | - | 176 | 176 | 245 | 245 |
| 38.23 ²⁾ | 37 | 245 | 7320 | - | 205 | 205 | 245 | 245 |
| 44.22 ²⁾ | 32 | 245 | 7520 | - | 235 | 235 | 245 | 245 |
| 47.32 ²⁾ | 30 | 245 | 7520 | - | 245 | 245 | 245 | 245 |
| 54.59 | 26 | 245 | 7520 | - | 245 | 245 | 245 | |
| 56.61 ²⁾ | 25 | 265 | 7370 | - | | | 265 | 265 |
| 63.80 | 22 | 245 | 7520 | - | 245 | 245 | | |
| 67.20 ²⁾ | 21 | 285 | 7220 | - | 285 | 285 | 285 | 285 |
| 69.39 | 20 | 245 | 7520 | - | 245 | 245 | | |
| 71.75 ²⁾ | 20 | 290 | 7170 | - | 290 | 290 | 290 | 290 |
| 84.00 ²⁾ | 17 | 295 | 7130 | - | 295 | 295 | 295 | 295 |
| 94.08 ²⁾ | 15 | 295 | 7130 | - | 295 | 295 | 295 | 295 |
| 110.73 ²⁾ | 13 | 295 | 7130 | - | 295 | 295 | 295 | 295 |
| 128.10 ²⁾ | 11 | 295 | 7130 | - | 295 | 295 | 295 | 295 |
| 137.05 ²⁾ | 10 | 295 | 7130 | - | 295 | 295 | 295 | 295 |
| 158.12 | 8.9 | 295 | 7130 | - | 295 | 295 | 295 | |
| 184.80 | 7.6 | 295 | 7130 | - | 295 | 295 | | |
| 201.00 | 7.0 | 295 | 7130 | - | 295 | 295 | | |


| S57, m /kg | | AMS | | | | | |
|------------|---|---|----|----|-----|-----|----|
| S | IEC | s | 63 | 71 | 80 | 90 | |
| | |  2 | | 15 | 16 | 17 | 18 |
| | NEMA | s | - | 56 | 143 | 145 | |
| |  2 | | - | 17 | 17 | 17 | |



SF: + 3.8 kg / SA: + -0.30 kg / SAF: + 2.6 kg

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S.. helical-worm gear units



Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| S57p, $n_o = 1400 \text{ min}^{-1}$, $M_{a \text{ max}} / \text{Nm}$ | | | | | 370 Nm | | | |
|---|----------------------------|-----------------------------|---------------------|-------------------|--------|-----|-----|-----|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\Phi_{(R)}$ ' | AMS | | | |
| | | | | | 63 | 71 | 80 | 90 |
|  2 | | | | | | | | |
| 4.00 | 350 | 108 | 3240 | - | 24 | 24 | 70 | 93 |
| 4.76 | 294 | 129 | 3290 | - | 29 | 29 | 84 | 110 |
| 5.39 | 260 | 147 | 3300 | - | 33 | 33 | 95 | 125 |
| 6.40 | 219 | 156 | 3490 | - | 40 | 40 | 113 | 139 |
| 6.83 | 205 | 162 | 3550 | - | 42 | 42 | 121 | 142 |
| 7.28 | 192 | 155 | 3790 | - | 45 | 45 | 128 | 155 |
| 8.64 | 162 | 187 | 3800 | - | 53 | 53 | 152 | 186 |
| 9.23 | 152 | 199 | 3800 | - | 57 | 57 | 163 | 191 |
| 10.80 | 130 | 225 | 3860 | - | 67 | 67 | 186 | 200 |
| 12.10 | 116 | 225 | 4090 | - | 75 | 75 | 200 | 210 |
| 14.24 | 98 | 225 | 4440 | - | 89 | 89 | 210 | 215 |
| 16.47 | 85 | 225 | 4760 | - | 103 | 103 | 225 | 225 |
| 17.62 | 79 | 225 | 4920 | - | 111 | 111 | 225 | 225 |
| 19.54 | 72 | 250 | 5500 | - | | | 250 | 250 |
| 20.33 | 69 | 225 | 5260 | - | 125 | 125 | 225 | |
| 23.20 | 60 | 270 | 5780 | - | 137 | 137 | 270 | 270 |
| 24.77 | 57 | 275 | 5910 | - | 147 | 147 | 275 | 275 |
| 29.00 | 48 | 290 | 6230 | - | 172 | 172 | 290 | 290 |
| 32.48 | 43 | 300 | 6480 | - | 193 | 193 | 300 | 300 |
| 38.23 | 37 | 320 | 6820 | - | 225 | 225 | 320 | 320 |
| 44.22 | 32 | 335 | 6740 | - | 260 | 260 | 335 | 335 |
| 47.32 | 30 | 345 | 6640 | - | 280 | 280 | 345 | 345 |
| 54.59 | 26 | 360 | 6470 | - | 315 | 315 | 360 | |
| 56.61 | 25 | 295 | 7130 | - | | | 295 | 295 |
| 63.80 | 22 | 370 | 6350 | - | 325 | 325 | | |
| 67.20 | 21 | 310 | 6990 | - | 310 | 310 | 310 | 310 |
| 69.39 | 20 | 370 | 6350 | - | 330 | 330 | | |
| 71.75 | 20 | 320 | 6900 | - | 320 | 320 | 320 | 320 |
| 84.00 | 17 | 335 | 6740 | - | 335 | 335 | 335 | 335 |
| 94.08 | 15 | 350 | 6580 | - | 350 | 350 | 350 | 350 |
| 110.73 | 13 | 365 | 6410 | - | 365 | 365 | 365 | 365 |
| 128.10 | 11 | 365 | 6410 | - | 365 | 365 | 365 | 365 |
| 137.05 | 10 | 360 | 6470 | - | 360 | 360 | 360 | 360 |
| 158.12 | 8.9 | 360 | 6470 | - | 360 | 360 | 360 | |
| 184.80 | 7.6 | 355 | 6530 | - | 355 | 355 | | |
| 201.00 | 7.0 | 355 | 6530 | - | 355 | 355 | | |

| S57p, m /kg | | AMS | | | | |
|-------------|------|---|---|----|-----|-----|
| S | IEC | s | 63 | 71 | 80 | 90 |
| | | |  2 | 15 | 16 | 17 |
| | NEMA | s | - | 56 | 143 | 145 |
| | |  2 | - | 17 | 17 | 17 |

SF: + 3.8 kg / SA: + -0.30 kg / SAF: + 2.6 kg


| S67, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | AMS | | | | | | | 520 Nm |
|---|----------------------------|-----------------------------|--------------------|-------------------|-----|-----|-----|-----|-----|-----|--------|--------|
| i | n_a min ⁻¹ | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{1)}$ N | $\Phi_{(R)}$ ' | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M | |
|  2 | | | | | | | | | | | | |
| 7.56 ²⁾ | 185 | 295 | 3220 | - | | | 127 | 167 | 295 | 295 | 295 | |
| 8.69 ²⁾ | 161 | 335 | 2860 | - | 49 | 49 | 146 | 192 | 335 | 335 | 335 | |
| 10.03 ²⁾ | 140 | 340 | 3290 | - | 57 | 57 | 169 | 220 | 340 | 340 | 340 | |
| 11.03 ²⁾ | 127 | 340 | 3660 | - | 63 | 63 | 186 | 240 | 340 | 340 | 340 | |
| 12.96 ²⁾ | 108 | 340 | 4310 | - | 75 | 75 | 215 | 265 | 340 | 340 | 340 | |
| 13.73 ²⁾ | 102 | 340 | 4510 | - | 80 | 80 | 230 | 270 | 340 | 340 | 340 | |
| 15.60 | 90 | 340 | 4820 | - | 91 | 91 | 255 | 275 | 340 | 340 | | |
| 17.28 | 81 | 340 | 5080 | - | 101 | 101 | 275 | 285 | 340 | 340 | | |
| 20.30 ²⁾ | 69 | 425 | 5760 | - | | | | | | 425 | 425 | |
| 20.37 | 69 | 340 | 5520 | - | 120 | 120 | 290 | 295 | 340 | | | |
| 23.22 | 60 | 340 | 5890 | - | 136 | 136 | 300 | 310 | | | | |
| 23.33 ²⁾ | 60 | 480 | 5810 | - | | | | | 480 | 480 | 480 | |
| 24.44 | 57 | 340 | 6040 | - | 144 | 144 | 300 | 310 | | | | |
| 26.93 ²⁾ | 52 | 480 | 6240 | - | 143 | 143 | 415 | 480 | 480 | 480 | 480 | |
| 29.63 ²⁾ | 47 | 480 | 6540 | - | 158 | 158 | 455 | 480 | 480 | 480 | 480 | |
| 34.80 ²⁾ | 40 | 480 | 7060 | - | 185 | 185 | 480 | 480 | 480 | 480 | 480 | |
| 36.85 ²⁾ | 38 | 480 | 7250 | - | 196 | 196 | 480 | 480 | 480 | 480 | 480 | |
| 41.89 ²⁾ | 33 | 480 | 7690 | - | 220 | 220 | 480 | 480 | 480 | 480 | | |
| 46.40 ²⁾ | 30 | 480 | 8060 | - | 245 | 245 | 480 | 480 | 480 | 480 | | |
| 54.70 | 26 | 480 | 8670 | - | 290 | 290 | 480 | 480 | 480 | | | |
| 58.80 ²⁾ | 24 | 500 | 8850 | - | | | | | | 500 | 500 | |
| 62.35 | 22 | 480 | 9020 | - | 330 | 330 | 480 | 480 | | | | |
| 65.63 | 21 | 480 | 9020 | - | 345 | 345 | 480 | 480 | | | | |
| 67.57 ²⁾ | 21 | 520 | 8680 | - | | | | | 520 | 520 | 520 | |
| 75.06 | 19 | 480 | 9020 | - | 390 | 390 | 480 | | | | | |
| 78.00 ²⁾ | 18 | 520 | 8680 | - | | | 520 | 520 | 520 | 520 | 520 | |
| 85.83 ²⁾ | 16 | 520 | 8680 | - | 370 | 370 | 520 | 520 | 520 | 520 | 520 | |
| 100.80 ²⁾ | 14 | 520 | 8680 | - | 435 | 435 | 520 | 520 | 520 | 520 | 520 | |
| 106.75 ²⁾ | 13 | 520 | 8680 | - | 460 | 460 | 520 | 520 | 520 | 520 | 520 | |
| 121.33 ²⁾ | 12 | 520 | 8680 | - | 520 | 520 | 520 | 520 | 520 | 520 | | |
| 134.40 ²⁾ | 10 | 520 | 8680 | - | 520 | 520 | 520 | 520 | 520 | 520 | | |
| 158.45 ²⁾ | 8.8 | 520 | 8680 | - | 520 | 520 | 520 | 520 | 520 | | | |
| 180.60 ²⁾ | 7.8 | 520 | 8680 | - | 520 | 520 | 520 | 520 | | | | |
| 190.11 ²⁾ | 7.4 | 520 | 8680 | - | 520 | 520 | 520 | 520 | | | | |
| 217.41 | 6.4 | 520 | 8680 | - | 520 | 520 | 520 | | | | | |



| S67, m /kg | | AMS | | | | | | | |
|------------|------|---|----|----|-----|-----|-----|-----|---------|
| S | IEC | s | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M |
| | |  2 | 27 | 27 | 29 | 30 | 34 | 34 | 39 |
| | NEMA | s | - | 56 | 143 | 145 | 182 | 184 | 213/215 |
| | |  2 | - | 28 | 29 | 29 | 32 | 32 | 36 |

SF: + 6.5 kg / SA: + 1.0 kg / SAF: + 5.5 kg


S.. helical-worm gear units



Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| S67p, $n_o = 1400 \text{ min}^{-1}$, $M_{a \text{ max}} / \text{Nm}$ | | | | | AMS | | | | | | | 720 Nm |
|---|----------------------------|-----------------------------|---------------------|-------------------|-----|-----|-----|-----|-----|-----|--------|--------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\Phi_{(R)}$ ' | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M | |
|  2 | | | | | | | | | | | | |
| 7.56 | 185 | 330 | 2680 | - | | | 131 | 173 | 330 | 330 | 330 | |
| 8.69 | 161 | 350 | 2780 | - | 51 | 51 | 151 | 199 | 350 | 350 | 350 | |
| 10.03 | 140 | 365 | 3020 | - | 60 | 60 | 175 | 230 | 365 | 365 | 365 | |
| 11.03 | 127 | 375 | 3190 | - | 66 | 66 | 193 | 250 | 375 | 375 | 375 | |
| 12.96 | 108 | 390 | 3550 | - | 78 | 78 | 225 | 275 | 390 | 390 | 390 | |
| 13.73 | 102 | 395 | 3690 | - | 83 | 83 | 240 | 280 | 395 | 395 | 395 | |
| 15.60 | 90 | 410 | 3960 | - | 95 | 95 | 265 | 290 | 410 | 410 | | |
| 17.28 | 81 | 415 | 4320 | - | 106 | 106 | 285 | 300 | 415 | 415 | | |
| 20.30 | 69 | 450 | 5490 | - | | | | | | 450 | 450 | |
| 20.37 | 69 | 435 | 4700 | - | 126 | 126 | 305 | 310 | 435 | | | |
| 23.22 | 60 | 420 | 5300 | - | 144 | 144 | 320 | 325 | | | | |
| 23.33 | 60 | 525 | 5440 | - | | | | | 525 | 525 | 525 | |
| 24.44 | 57 | 415 | 5480 | - | 152 | 152 | 320 | 325 | | | | |
| 26.93 | 52 | 600 | 5410 | - | 153 | 153 | 450 | 590 | 600 | 600 | 600 | |
| 29.63 | 47 | 620 | 5580 | - | 170 | 170 | 495 | 620 | 620 | 620 | 620 | |
| 34.80 | 40 | 640 | 5970 | - | 200 | 200 | 580 | 640 | 640 | 640 | 640 | |
| 36.85 | 38 | 655 | 6070 | - | 210 | 210 | 615 | 655 | 655 | 655 | 655 | |
| 41.89 | 33 | 670 | 6420 | - | 240 | 240 | 670 | 670 | 670 | 670 | | |
| 46.40 | 30 | 680 | 6720 | - | 270 | 270 | 680 | 680 | 680 | 680 | | |
| 54.70 | 26 | 705 | 7170 | - | 320 | 320 | 705 | 705 | 705 | | | |
| 58.80 | 24 | 625 | 8320 | - | | | | | | 625 | 625 | |
| 62.35 | 22 | 720 | 7580 | - | 365 | 365 | 720 | 720 | | | | |
| 65.63 | 21 | 720 | 7790 | - | 385 | 385 | 720 | 720 | | | | |
| 67.57 | 21 | 650 | 8740 | - | | | | | 650 | 650 | 650 | |
| 75.06 | 19 | 720 | 8340 | - | 435 | 435 | 720 | | | | | |
| 78.00 | 18 | 660 | 9280 | - | | | 660 | 660 | 660 | 660 | 660 | |
| 85.83 | 16 | 660 | 9700 | - | 435 | 435 | 660 | 660 | 660 | 660 | 660 | |
| 100.80 | 14 | 645 | 10100 | - | 515 | 515 | 645 | 645 | 645 | 645 | 645 | |
| 106.75 | 13 | 645 | 10100 | - | 545 | 545 | 645 | 645 | 645 | 645 | 645 | |
| 121.33 | 12 | 645 | 10100 | - | 625 | 625 | 645 | 645 | 645 | 645 | | |
| 134.40 | 10 | 645 | 10100 | - | 645 | 645 | 645 | 645 | 645 | 645 | | |
| 158.45 | 8.8 | 645 | 10100 | - | 645 | 645 | 645 | 645 | 645 | | | |
| 180.60 | 7.8 | 645 | 10100 | - | 645 | 645 | 645 | 645 | | | | |
| 190.11 | 7.4 | 640 | 10100 | - | 640 | 640 | 640 | 640 | | | | |
| 217.41 | 6.4 | 640 | 10100 | - | 640 | 640 | 640 | | | | | |

| S67p, m /kg | | AMS | | | | | | | |
|-------------|------|---|----|----|-----|-----|-----|-----|---------|
| S | IEC | s | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M |
| | |  2 | 27 | 27 | 29 | 30 | 34 | 34 | 39 |
| | NEMA | s | - | 56 | 143 | 145 | 182 | 184 | 213/215 |
| | |  2 | - | 28 | 29 | 29 | 32 | 32 | 36 |

SF: + 6.5 kg / SA: + 1.0 kg / SAF: + 5.5 kg

| S77, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | | | | | | | | | 1270 Nm |
|---|----------------------------|-----------------------------|--------------------|-------------------|------|------|------|------|------|------|--------|-------|---------|
| i | n_a min ⁻¹ | $M_{a \text{ max G}}$ Nm | F_{Ra}^{-1} N | $\Phi_{(R)}$ ' | AMS | | | | | | | | |
| | | | | | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M | 132ML | |
|  2 | | | | | | | | | | | | | |
| 8.06 ²⁾ | 174 | 680 | 440 | - | | | 133 | 177 | 385 | 445 | 680 | 680 | |
| 9.44 ²⁾ | 148 | 725 | 415 | - | | | 157 | 205 | 440 | 525 | 725 | 725 | |
| 10.65 ²⁾ | 131 | 720 | 1130 | - | | | 178 | 235 | 490 | 590 | 720 | 720 | |
| 12.07 ²⁾ | 116 | 720 | 1800 | - | 66 | 66 | 200 | 265 | 540 | 670 | 720 | 720 | |
| 13.76 ²⁾ | 102 | 710 | 2710 | - | 77 | 77 | 230 | 305 | 600 | 710 | 710 | 710 | |
| 15.28 | 92 | 710 | 3320 | - | 86 | 86 | 255 | 335 | 650 | 710 | 710 | | |
| 17.45 | 80 | 710 | 4120 | - | 99 | 99 | 290 | 370 | 710 | 710 | 710 | | |
| 18.42 | 76 | 705 | 4550 | - | 105 | 105 | 310 | 375 | 705 | 705 | 705 | | |
| 18.97 ²⁾ | 74 | 930 | 6390 | - | | | | | | | 930 | 930 | |
| 20.99 | 67 | 705 | 5380 | - | 121 | 121 | 350 | 385 | 705 | 705 | | | |
| 22.22 ²⁾ | 63 | 980 | 6740 | - | | | | | | | 980 | 980 | |
| 22.89 | 61 | 705 | 5960 | - | 132 | 132 | 380 | 390 | 705 | 705 | | | |
| 25.07 ²⁾ | 56 | 1020 | 7010 | - | | | 395 | 525 | 1020 | 1020 | 1020 | 1020 | |
| 28.41 ²⁾ | 49 | 1050 | 7370 | - | 149 | 149 | 450 | 595 | 1050 | 1050 | 1050 | 1050 | |
| 32.38 ²⁾ | 43 | 1090 | 7720 | - | 172 | 172 | 515 | 680 | 1090 | 1090 | 1090 | 1090 | |
| 35.94 ²⁾ | 39 | 1100 | 8140 | - | 192 | 192 | 570 | 755 | 1100 | 1100 | 1100 | | |
| 41.07 ²⁾ | 34 | 1100 | 8750 | - | 220 | 220 | 655 | 820 | 1100 | 1100 | 1100 | | |
| 43.33 ²⁾ | 32 | 1100 | 9010 | - | 230 | 230 | 690 | 830 | 1100 | 1100 | 1100 | | |
| 49.38 | 28 | 1100 | 9650 | - | 265 | 265 | 785 | 860 | 1100 | 1100 | | | |
| 53.87 | 26 | 1100 | 10100 | - | 290 | 290 | 850 | 860 | 1100 | 1100 | | | |
| 56.92 ²⁾ | 25 | 990 | 11600 | - | | | 765 | 990 | 990 | 990 | 990 | 990 | |
| 63.03 | 22 | 1100 | 10900 | - | 345 | 345 | 870 | 890 | 1100 | | | | |
| 66.67 ²⁾ | 21 | 1040 | 12300 | - | | | 890 | 1040 | 1040 | 1040 | 1040 | 1040 | |
| 71.33 | 20 | 1100 | 11600 | - | 390 | 390 | 920 | 930 | | | | | |
| 75.09 | 19 | 1100 | 11900 | - | 410 | 410 | 920 | 930 | | | | | |
| 75.20 ²⁾ | 19 | 1070 | 12800 | - | | | | | 1070 | 1070 | 1070 | 1070 | |
| 85.22 ²⁾ | 16 | 1100 | 13100 | - | 375 | 375 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | |
| 97.14 ²⁾ | 14 | 1140 | 12800 | - | 430 | 430 | 1140 | 1140 | 1140 | 1140 | 1140 | 1140 | |
| 107.83 ²⁾ | 13 | 1170 | 12600 | - | 475 | 475 | 1170 | 1170 | 1170 | 1170 | 1170 | | |
| 123.20 ²⁾ | 11 | 1200 | 12300 | - | 545 | 545 | 1200 | 1200 | 1200 | 1200 | 1200 | | |
| 130.00 ²⁾ | 11 | 1210 | 12200 | - | 575 | 575 | 1210 | 1210 | 1210 | 1210 | 1210 | | |
| 148.15 ²⁾ | 9.4 | 1240 | 12000 | - | 655 | 655 | 1240 | 1240 | 1240 | 1240 | | | |
| 161.60 ²⁾ | 8.7 | 1260 | 11800 | - | 715 | 715 | 1260 | 1260 | 1260 | 1260 | | | |
| 189.09 ²⁾ | 7.4 | 1270 | 11700 | - | 830 | 830 | 1270 | 1270 | 1270 | | | | |
| 214.00 | 6.5 | 1270 | 11700 | - | 940 | 940 | 1270 | 1270 | | | | | |
| 225.26 | 6.2 | 1270 | 11700 | - | 990 | 990 | 1270 | 1270 | | | | | |
| 256.47 | 5.5 | 1270 | 11700 | - | 1120 | 1120 | 1270 | | | | | | |


| S77, m /kg | | | AMS | | | | | | | | |
|------------|------|---|-----|----|-----|-----|-----|-----|---------|-------|----|
| S | IEC | s | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M | 132ML | |
| | |  | 2 | 47 | 47 | 49 | 49 | 54 | 54 | 59 | 59 |
| | NEMA | s | - | 56 | 143 | 145 | 182 | 184 | 213/215 | - | - |
| | |  | 2 | - | 48 | 49 | 49 | 53 | 53 | 56 | - |



SF: + 9.7 kg / SA: + -0.55 kg / SAF: + 6.2 kg

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S.. helical-worm gear units



Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| S77p, $n_o = 1400 \text{ min}^{-1}$, $M_{a \text{ max}} / \text{Nm}$ | | | | | AMS | | | | | | | | 1500 Nm |
|--|----------------------------|-----------------------------|--------------------|-------------------|------|------|------|------|------|------|--------|-------|---------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | F_{Ra}^{-1} N | $\Phi_{(R)}$ ' | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M | 132ML | |
| | | | | | | | | | | | | | |
|  2 | | | | | | | | | | | | | |
| 8.06 | 174 | 680 | 920 | - | | | 137 | 182 | 395 | 460 | 680 | 680 | |
| 9.44 | 148 | 725 | 940 | - | | | 162 | 210 | 455 | 540 | 725 | 725 | |
| 10.65 | 131 | 720 | 1650 | - | | | 183 | 240 | 505 | 610 | 720 | 720 | |
| 12.07 | 116 | 720 | 2330 | - | 68 | 68 | 205 | 275 | 560 | 690 | 720 | 720 | |
| 13.76 | 102 | 745 | 2650 | - | 79 | 79 | 235 | 315 | 620 | 745 | 745 | 745 | |
| 15.28 | 92 | 765 | 2930 | - | 89 | 89 | 265 | 350 | 675 | 765 | 765 | | |
| 17.45 | 80 | 795 | 3240 | - | 103 | 103 | 305 | 385 | 745 | 795 | 795 | | |
| 18.42 | 76 | 800 | 3490 | - | 109 | 109 | 320 | 390 | 775 | 800 | 800 | | |
| 18.97 | 74 | 1010 | 5960 | - | | | | | | | 1010 | 1010 | |
| 20.99 | 67 | 820 | 4010 | - | 126 | 126 | 365 | 400 | 820 | 820 | | | |
| 22.22 | 63 | 1070 | 6260 | - | | | | | | | 1070 | 1070 | |
| 22.89 | 61 | 840 | 4260 | - | 138 | 138 | 395 | 405 | 840 | 840 | | | |
| 25.07 | 56 | 1100 | 6580 | - | | | 420 | 555 | 1100 | 1100 | 1100 | 1100 | |
| 28.41 | 49 | 1140 | 6890 | - | 157 | 157 | 475 | 630 | 1140 | 1140 | 1140 | 1140 | |
| 32.38 | 43 | 1180 | 7250 | - | 182 | 182 | 545 | 720 | 1180 | 1180 | 1180 | 1180 | |
| 35.94 | 39 | 1210 | 7560 | - | 200 | 200 | 605 | 800 | 1210 | 1210 | 1210 | | |
| 41.07 | 34 | 1240 | 8020 | - | 235 | 235 | 695 | 880 | 1240 | 1240 | 1240 | | |
| 43.33 | 32 | 1250 | 8220 | - | 250 | 250 | 735 | 890 | 1250 | 1250 | 1250 | | |
| 49.38 | 28 | 1280 | 8710 | - | 285 | 285 | 840 | 920 | 1280 | 1280 | | | |
| 53.87 | 26 | 1300 | 9050 | - | 315 | 315 | 910 | 930 | 1300 | 1300 | | | |
| 56.92 | 25 | 1230 | 10400 | - | | | 850 | 1130 | 1230 | 1230 | 1230 | 1230 | |
| 63.03 | 22 | 1320 | 9770 | - | 370 | 370 | 940 | 960 | 1320 | | | | |
| 66.67 | 21 | 1290 | 11000 | - | | | 1000 | 1290 | 1290 | 1290 | 1290 | 1290 | |
| 71.33 | 20 | 1350 | 10300 | - | 420 | 420 | 990 | 1010 | | | | | |
| 75.09 | 19 | 1360 | 10500 | - | 445 | 445 | 990 | 1010 | | | | | |
| 75.20 | 19 | 1340 | 11500 | - | | | | | 1340 | 1340 | 1340 | 1340 | |
| 85.22 | 16 | 1390 | 12000 | - | 425 | 425 | 1290 | 1390 | 1390 | 1390 | 1390 | 1390 | |
| 97.14 | 14 | 1440 | 12600 | - | 490 | 490 | 1440 | 1440 | 1440 | 1440 | 1440 | 1440 | |
| 107.83 | 13 | 1470 | 12500 | - | 545 | 545 | 1470 | 1470 | 1470 | 1470 | 1470 | | |
| 123.20 | 11 | 1500 | 12400 | - | 630 | 630 | 1500 | 1500 | 1500 | 1500 | 1500 | | |
| 130.00 | 11 | 1500 | 12400 | - | 670 | 670 | 1500 | 1500 | 1500 | 1500 | 1500 | | |
| 148.15 | 9.4 | 1500 | 12400 | - | 765 | 765 | 1500 | 1500 | 1500 | 1500 | | | |
| 161.60 | 8.7 | 1500 | 12400 | - | 840 | 840 | 1500 | 1500 | 1500 | 1500 | | | |
| 189.09 | 7.4 | 1500 | 12400 | - | 990 | 990 | 1500 | 1500 | 1500 | | | | |
| 214.00 | 6.5 | 1500 | 12400 | - | 1120 | 1120 | 1500 | 1500 | | | | | |
| 225.26 | 6.2 | 1500 | 12400 | - | 1180 | 1180 | 1500 | 1500 | | | | | |
| 256.47 | 5.5 | 1500 | 12400 | - | 1340 | 1340 | 1500 | | | | | | |

| S77p, m /kg | | | AMS | | | | | | | | | |
|-------------|------|---|-----|----|-----|-----|-----|-----|---------|-------|----|--|
| S | IEC | s | 63 | 71 | 80 | 90 | 100 | 112 | 132S/M | 132ML | | |
| | |  | 2 | 47 | 47 | 49 | 49 | 54 | 54 | 59 | 59 | |
| | NEMA | s | - | 56 | 143 | 145 | 182 | 184 | 213/215 | - | | |
| | |  | 2 | - | 48 | 49 | 49 | 53 | 53 | 56 | - | |

SF: + 9.7 kg / SA: + -0.55 kg / SAF: + 6.2 kg


| S87, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | | | | | | | 2280 Nm | |
|---|----------------------------|-----------------------------|--------------------|-------------------|------|------|------|------|--------|-------|---------|------|
| i | n_a min ⁻¹ | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{1)}$ N | $\Phi_{(R)}$ ' | AMS | | | | | | | |
| | | | | | 80 | 90 | 100 | 112 | 132S/M | 132ML | 160 | |
|  2 | | | | | | | | | | | | |
| 7.88 ²⁾ | 178 | 1010 | 15700 | - | | | | | | 820 | 1010 | 1010 |
| 9.07 ²⁾ | 154 | 1140 | 15900 | - | | | 455 | 500 | 940 | 1140 | 1140 | 1140 |
| 10.93 ²⁾ | 128 | 1240 | 16400 | - | | | 540 | 605 | 1130 | 1240 | 1240 | 1240 |
| 12.21 ²⁾ | 115 | 1240 | 17400 | - | 199 | 265 | 595 | 675 | 1240 | 1240 | 1240 | 1240 |
| 14.06 ²⁾ | 100 | 1240 | 18500 | - | 230 | 305 | 675 | 780 | 1240 | 1240 | 1240 | 1240 |
| 15.64 ²⁾ | 90 | 1240 | 19300 | - | 255 | 340 | 740 | 860 | 1240 | 1240 | 1240 | 1240 |
| 17.49 | 80 | 1240 | 20200 | - | 290 | 385 | 810 | 970 | 1240 | 1240 | 1240 | 1240 |
| 19.70 | 71 | 1240 | 21100 | - | 325 | 430 | 890 | 1050 | 1240 | 1240 | 1240 | 1240 |
| 20.27 ²⁾ | 69 | 1600 | 22100 | - | | | | | | 1600 | 1600 | 1600 |
| 21.43 | 65 | 1240 | 21800 | - | 355 | 470 | 950 | 1070 | 1240 | | | |
| 24.43 ²⁾ | 57 | 1600 | 23700 | - | | | | | | 1600 | 1600 | 1600 |
| 25.50 | 55 | 1240 | 23400 | - | 425 | 525 | 1080 | 1120 | 1240 | | | |
| 27.28 ²⁾ | 51 | 1600 | 24700 | - | 425 | 570 | 1280 | 1450 | 1600 | 1600 | 1600 | 1600 |
| 31.43 ²⁾ | 45 | 1600 | 26000 | - | 495 | 660 | 1450 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 34.96 ²⁾ | 40 | 1600 | 27100 | - | 550 | 735 | 1580 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 39.10 ²⁾ | 36 | 1600 | 28200 | - | 620 | 820 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 44.03 ²⁾ | 32 | 1600 | 29000 | - | 700 | 930 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 47.91 | 29 | 1600 | 29000 | - | 765 | 1010 | 1600 | 1600 | 1600 | | | |
| 57.00 | 25 | 1600 | 29000 | - | 910 | 1120 | 1600 | 1600 | 1600 | | | |
| 64.00 ²⁾ | 22 | 1700 | 28900 | - | | | | | 1700 | 1700 | 1700 | 1700 |
| 64.27 | 22 | 1600 | 29000 | - | 1020 | 1140 | 1600 | 1600 | | | | |
| 70.43 | 20 | 1600 | 29000 | - | 1120 | 1160 | 1600 | 1600 | | | | |
| 77.14 ²⁾ | 18 | 1820 | 28700 | - | | | 1820 | 1820 | 1820 | 1820 | 1820 | 1820 |
| 81.76 | 17 | 1600 | 29000 | - | 1140 | 1190 | 1600 | | | | | |
| 86.15 ²⁾ | 16 | 1880 | 28600 | - | 1150 | 1540 | 1880 | 1880 | 1880 | 1880 | 1880 | 1880 |
| 91.20 | 15 | 1510 | 29100 | - | 1190 | 1210 | | | | | | |
| 99.26 ²⁾ | 14 | 1960 | 28500 | - | 1330 | 1770 | 1960 | 1960 | 1960 | 1960 | 1960 | 1960 |
| 110.40 ²⁾ | 13 | 2000 | 28400 | - | 1480 | 1970 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 |
| 123.48 ²⁾ | 11 | 2060 | 28300 | - | 1650 | 2060 | 2060 | 2060 | 2060 | 2060 | 2060 | 2060 |
| 139.05 ²⁾ | 10 | 2100 | 28300 | - | 1860 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 |
| 151.30 ²⁾ | 9.3 | 2150 | 28200 | - | 2020 | 2150 | 2150 | 2150 | 2150 | | | |
| 180.00 ²⁾ | 7.8 | 2210 | 28100 | - | 2210 | 2210 | 2210 | 2210 | 2210 | | | |
| 202.96 | 6.9 | 2260 | 28000 | - | 2260 | 2260 | 2260 | 2260 | | | | |
| 222.40 | 6.3 | 2280 | 27900 | - | 2280 | 2280 | 2280 | 2280 | | | | |
| 258.18 | 5.4 | 2280 | 27900 | - | 2280 | 2280 | 2280 | | | | | |
| 288.00 | 4.9 | 2280 | 27900 | - | 2280 | 2280 | | | | | | |



| S87, m /kg | | AMS | | | | | | | |
|------------|------|---|-----|-----|-----|-----|---------|-------|---------|
| S | IEC | s | 80 | 90 | 100 | 112 | 132S/M | 132ML | 160 |
| | |  2 | 85 | 85 | 90 | 90 | 96 | 96 | 110 |
| | NEMA | s | 143 | 145 | 182 | 184 | 213/215 | - | 254/256 |
| | |  2 | 85 | 85 | 89 | 89 | 93 | - | 105 |

SF: + 22 kg / SA: + -2.4 kg / SAF: + 14 kg


S.. helical-worm gear units



Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| S87p, $n_o = 1400 \text{ min}^{-1}$, $M_{a \text{ max}} / \text{Nm}$ | | | | | 3000 Nm | | | | | | | |
|---|----------------------------|-----------------------------|---------------------|-------------------|---------|------|------|------|--------|-------|------|------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\Phi_{(R)}$ ' | AMS | | | | | | | |
| | | | | | 80 | 90 | 100 | 112 | 132S/M | 132ML | 160 | |
|  2 | | | | | | | | | | | | |
| 7.88 | 178 | 1010 | 16100 | - | | | | | | 830 | 1010 | 1010 |
| 9.07 | 154 | 1140 | 16300 | - | | | 465 | 510 | 960 | 1140 | 1140 | 1140 |
| 10.93 | 128 | 1240 | 16800 | - | | | 555 | 620 | 1160 | 1240 | 1240 | 1240 |
| 12.21 | 115 | 1240 | 17800 | - | 200 | 270 | 610 | 695 | 1240 | 1240 | 1240 | 1240 |
| 14.06 | 100 | 1240 | 18900 | - | 235 | 315 | 695 | 800 | 1240 | 1240 | 1240 | 1240 |
| 15.64 | 90 | 1260 | 19600 | - | 265 | 350 | 760 | 890 | 1260 | 1260 | 1260 | 1260 |
| 17.49 | 80 | 1310 | 20200 | - | 295 | 395 | 830 | 1000 | 1310 | 1310 | 1310 | 1310 |
| 19.70 | 71 | 1370 | 20900 | - | 335 | 445 | 920 | 1080 | 1370 | 1370 | 1370 | 1370 |
| 20.27 | 69 | 1760 | 21600 | - | | | | | | 1760 | 1760 | 1760 |
| 21.43 | 65 | 1420 | 21400 | - | 370 | 490 | 980 | 1110 | 1420 | | | |
| 24.43 | 57 | 1890 | 22700 | - | | | | | | 1890 | 1890 | 1890 |
| 25.50 | 55 | 1440 | 22800 | - | 440 | 545 | 1120 | 1160 | 1440 | | | |
| 27.28 | 51 | 1970 | 23400 | - | 445 | 595 | 1340 | 1520 | 1970 | 1970 | 1970 | 1970 |
| 31.43 | 45 | 2040 | 24500 | - | 520 | 690 | 1520 | 1750 | 2040 | 2040 | 2040 | 2040 |
| 34.96 | 40 | 2090 | 25400 | - | 580 | 770 | 1660 | 1950 | 2090 | 2090 | 2090 | 2090 |
| 39.10 | 36 | 2160 | 26200 | - | 655 | 860 | 1830 | 2160 | 2160 | 2160 | 2160 | 2160 |
| 44.03 | 32 | 2210 | 27300 | - | 740 | 980 | 2010 | 2210 | 2210 | 2210 | 2210 | 2210 |
| 47.91 | 29 | 2260 | 28000 | - | 800 | 1070 | 2150 | 2260 | 2260 | | | |
| 57.00 | 25 | 2330 | 27800 | - | 960 | 1190 | 2330 | 2330 | 2330 | | | |
| 64.00 | 22 | 2160 | 28200 | - | | | | | 2160 | 2160 | 2160 | 2160 |
| 64.27 | 22 | 2380 | 27700 | - | 1090 | 1220 | 2380 | 2380 | | | | |
| 70.43 | 20 | 2400 | 27700 | - | 1190 | 1240 | 2400 | 2400 | | | | |
| 77.14 | 18 | 2280 | 27900 | - | | | 2280 | 2280 | 2280 | 2280 | 2280 | 2280 |
| 81.76 | 17 | 2460 | 27500 | - | 1220 | 1270 | 2460 | | | | | |
| 86.15 | 16 | 2360 | 27800 | - | 1280 | 1710 | 2360 | 2360 | 2360 | 2360 | 2360 | 2360 |
| 91.20 | 15 | 2490 | 27500 | - | 1270 | 1300 | | | | | | |
| 99.26 | 14 | 2440 | 27600 | - | 1490 | 1980 | 2440 | 2440 | 2440 | 2440 | 2440 | 2440 |
| 110.40 | 13 | 2510 | 27500 | - | 1660 | 2210 | 2510 | 2510 | 2510 | 2510 | 2510 | 2510 |
| 123.48 | 11 | 2580 | 27300 | - | 1870 | 2480 | 2580 | 2580 | 2580 | 2580 | 2580 | 2580 |
| 139.05 | 10 | 2670 | 27100 | - | 2110 | 2670 | 2670 | 2670 | 2670 | 2670 | 2670 | 2670 |
| 151.30 | 9.3 | 2680 | 27100 | - | 2310 | 2680 | 2680 | 2680 | 2680 | | | |
| 180.00 | 7.8 | 2780 | 26200 | - | 2750 | 2780 | 2780 | 2780 | 2780 | | | |
| 202.96 | 6.9 | 2820 | 25500 | - | 2820 | 2820 | 2820 | 2820 | | | | |
| 222.40 | 6.3 | 2860 | 24400 | - | 2860 | 2860 | 2860 | 2860 | | | | |
| 258.18 | 5.4 | 2920 | 22600 | - | 2920 | 2920 | 2920 | | | | | |
| 288.00 | 4.9 | 3000 | 19800 | - | 3000 | 3000 | | | | | | |

| S87p, m /kg | | AMS | | | | | | | |
|-------------|------|---|---|-----|-----|-----|---------|-------|---------|
| S | IEC | s | 80 | 90 | 100 | 112 | 132S/M | 132ML | 160 |
| | | |  2 | 85 | 85 | 90 | 90 | 96 | 96 |
| S | NEMA | s | 143 | 145 | 182 | 184 | 213/215 | - | 254/256 |
| | |  2 | 85 | 85 | 89 | 89 | 93 | - | 105 |

SF: + 22 kg / SA: + -2.4 kg / SAF: + 14 kg


| S97, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | | | | | | | | | 4000 Nm |
|---|----------------------------|-----------------------------|--------------------|-------------------|------|------|--------|-------|------|------|------|------|---------|
| i | n_a min ⁻¹ | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{1)}$ N | $\Phi_{(R)}$ ' | AMS | | | | | | | | |
| | | | | | 100 | 112 | 132S/M | 132ML | 160 | 180 | 200 | 225 | |
|  2 | | | | | | | | | | | | | |
| 8.26 ²⁾ | 169 | 1770 | 18800 | - | | | 860 | 1310 | 1440 | 1770 | 1770 | 1770 | |
| 9.55 ²⁾ | 147 | 2040 | 18200 | - | | | 990 | 1510 | 1670 | 2040 | 2040 | 2040 | |
| 11.41 ²⁾ | 123 | 2210 | 18400 | - | | | 1190 | 1810 | 2000 | 2210 | 2210 | 2210 | |
| 13.07 ²⁾ | 107 | 2330 | 18800 | - | 640 | 720 | 1360 | 1890 | 2290 | 2330 | 2330 | 2330 | |
| 15.42 ²⁾ | 91 | 2470 | 19400 | - | 740 | 850 | 1610 | 2020 | 2470 | 2470 | 2470 | 2470 | |
| 17.05 ²⁾ | 82 | 2570 | 19700 | - | 810 | 940 | 1780 | 2080 | 2570 | 2570 | 2570 | 2570 | |
| 19.23 | 73 | 2600 | 21200 | - | 890 | 1070 | 2010 | 2140 | 2600 | 2600 | | | |
| 21.23 | 66 | 2600 | 22800 | - | 960 | 1180 | 2200 | 2200 | 2600 | 2600 | | | |
| 23.59 | 59 | 2600 | 24500 | - | 1050 | 1310 | 2250 | 2250 | 2600 | | | | |
| 24.13 ²⁾ | 58 | 2870 | 28000 | - | | | | | | 2870 | 2870 | 2870 | |
| 26.39 | 53 | 2600 | 26100 | - | 1140 | 1390 | 2310 | 2310 | 2600 | | | | |
| 27.63 ²⁾ | 51 | 3010 | 29000 | - | | | | | | 3010 | 3010 | 3010 | |
| 32.60 ²⁾ | 43 | 3200 | 30400 | - | 1510 | 1740 | 3200 | 3200 | 3200 | 3200 | 3200 | 3200 | |
| 36.05 ²⁾ | 39 | 3300 | 31300 | - | 1650 | 1930 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | |
| 40.65 ²⁾ | 34 | 3300 | 32800 | - | 1820 | 2180 | 3300 | 3300 | 3300 | 3300 | | | |
| 44.89 ²⁾ | 31 | 3300 | 34100 | - | 1970 | 2400 | 3300 | 3300 | 3300 | 3300 | | | |
| 49.87 | 28 | 3300 | 34500 | - | 2130 | 2670 | 3300 | 3300 | 3300 | | | | |
| 55.79 | 25 | 3300 | 34500 | - | 2320 | 2830 | 3300 | 3300 | 3300 | | | | |
| 60.59 | 23 | 3300 | 34500 | - | 2460 | 2890 | 3300 | | | | | | |
| 65.45 ²⁾ | 21 | 2900 | 35100 | - | | | 2900 | 2900 | 2900 | 2900 | 2900 | 2900 | |
| 71.43 | 20 | 3300 | 34500 | - | 2750 | 2970 | 3300 | | | | | | |
| 78.26 ²⁾ | 18 | 3080 | 34800 | - | | | 3080 | 3080 | 3080 | 3080 | 3080 | 3080 | |
| 80.85 | 17 | 3230 | 34600 | - | 3020 | 3030 | | | | | | | |
| 89.60 ²⁾ | 16 | 3240 | 34600 | - | 3240 | 3240 | 3240 | 3240 | 3240 | 3240 | 3240 | 3240 | |
| 105.71 ²⁾ | 13 | 3440 | 34300 | - | 3440 | 3440 | 3440 | 3440 | 3440 | 3440 | 3440 | 3440 | |
| 116.92 ²⁾ | 12 | 3510 | 34100 | - | 3510 | 3510 | 3510 | 3510 | 3510 | 3510 | 3510 | 3510 | |
| 131.85 ²⁾ | 11 | 3650 | 33900 | - | 3650 | 3650 | 3650 | 3650 | 3650 | 3650 | | | |
| 145.60 ²⁾ | 9.6 | 3730 | 33700 | - | 3730 | 3730 | 3730 | 3730 | 3730 | 3730 | | | |
| 161.74 ²⁾ | 8.7 | 3840 | 33500 | - | 3840 | 3840 | 3840 | 3840 | 3840 | | | | |
| 180.95 ²⁾ | 7.7 | 3920 | 33400 | - | 3920 | 3920 | 3920 | 3920 | 3920 | | | | |
| 196.52 ²⁾ | 7.1 | 4000 | 33200 | - | 4000 | 4000 | 4000 | | | | | | |
| 231.67 ²⁾ | 6.0 | 4000 | 33200 | - | 4000 | 4000 | 4000 | | | | | | |
| 262.22 | 5.3 | 4000 | 33200 | - | 4000 | 4000 | | | | | | | |
| 286.40 | 4.9 | 4000 | 33200 | - | 4000 | 4000 | | | | | | | |



| S97, m /kg | | | AMS | | | | | | | |
|------------|------|---|-----|-----|---------|-------|---------|---------|---------|---------|
| S | IEC | s | 100 | 112 | 132S/M | 132ML | 160 | 180 | 200 | 225 |
| | |  2 | 150 | 150 | 155 | 155 | 170 | 170 | 190 | 195 |
| | NEMA | s | 182 | 184 | 213/215 | - | 254/256 | 284/286 | 324/326 | 364/365 |
| | |  2 | 150 | 150 | 150 | - | 165 | 170 | 190 | 190 |

SF: + 33 kg / SA: + -5.4 kg / SAF: + 21 kg

S.. helical-worm gear units

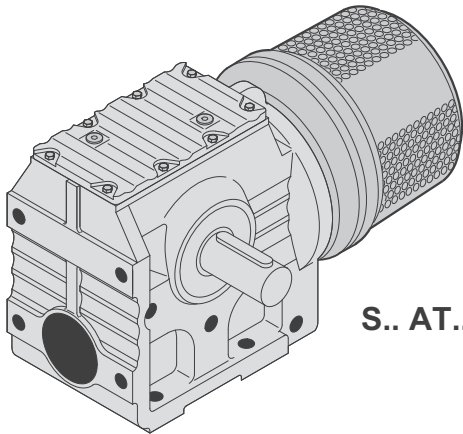
Selection tables for adapters for mounting IEC/NEMA motors (AMS..)

| S97p, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}} / \text{Nm}$ | | | | | 4300 Nm | | | | | | | |
|---|----------------------------|-----------------------------|---------------------|----------------------|---------|------|--------|-------|------|------|------|------|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{(1)}$ N | $\varphi_{(R)}$ ' | AMS | | | | | | | |
| | | | | | 100 | 112 | 132S/M | 132ML | 160 | 180 | 200 | 225 |
|  2 | | | | | | | | | | | | |
| 8.26 | 169 | 1770 | 19200 | - | | | 870 | 1330 | 1470 | 1770 | 1770 | 1770 |
| 9.55 | 147 | 2040 | 18600 | - | | | 1010 | 1540 | 1700 | 2040 | 2040 | 2040 |
| 11.41 | 123 | 2210 | 18900 | - | | | 1210 | 1850 | 2040 | 2210 | 2210 | 2210 |
| 13.07 | 107 | 2330 | 19300 | - | 650 | 735 | 1390 | 1930 | 2330 | 2330 | 2330 | 2330 |
| 15.42 | 91 | 2470 | 20000 | - | 755 | 870 | 1640 | 2060 | 2470 | 2470 | 2470 | 2470 |
| 17.05 | 82 | 2570 | 20300 | - | 820 | 970 | 1820 | 2130 | 2570 | 2570 | 2570 | 2570 |
| 19.23 | 73 | 2600 | 21900 | - | 910 | 1090 | 2060 | 2200 | 2600 | 2600 | | |
| 21.23 | 66 | 2600 | 23500 | - | 990 | 1210 | 2260 | 2260 | 2600 | 2600 | | |
| 23.59 | 59 | 2600 | 25300 | - | 1080 | 1350 | 2320 | 2320 | 2600 | | | |
| 24.13 | 58 | 3080 | 27500 | - | | | | | | 3080 | 3080 | 3080 |
| 26.39 | 53 | 2600 | 26800 | - | 1170 | 1430 | 2380 | 2380 | 2600 | | | |
| 27.63 | 51 | 3230 | 28600 | - | | | | | | 3230 | 3230 | 3230 |
| 32.60 | 43 | 3390 | 30000 | - | 1570 | 1810 | 3390 | 3390 | 3390 | 3390 | 3390 | 3390 |
| 36.05 | 39 | 3500 | 30900 | - | 1710 | 2010 | 3500 | 3500 | 3500 | 3500 | 3500 | 3500 |
| 40.65 | 34 | 3600 | 32200 | - | 1890 | 2270 | 3600 | 3600 | 3600 | 3600 | | |
| 44.89 | 31 | 3710 | 33100 | - | 2050 | 2510 | 3710 | 3710 | 3710 | 3710 | | |
| 49.87 | 28 | 3810 | 33600 | - | 2230 | 2800 | 3810 | 3810 | 3810 | | | |
| 55.79 | 25 | 3910 | 33400 | - | 2430 | 2970 | 3910 | 3910 | 3910 | | | |
| 60.59 | 23 | 3980 | 33200 | - | 2590 | 3040 | 3980 | | | | | |
| 65.45 | 21 | 3520 | 34100 | - | | | 3520 | 3520 | 3520 | 3520 | 3520 | 3520 |
| 71.43 | 20 | 4100 | 33000 | - | 2900 | 3130 | 4100 | | | | | |
| 78.26 | 18 | 3910 | 33400 | - | | | 3910 | 3910 | 3910 | 3910 | 3910 | 3910 |
| 80.85 | 17 | 3700 | 33800 | - | 3200 | 3200 | | | | | | |
| 89.60 | 16 | 4070 | 33000 | - | 4010 | 4070 | 4070 | 4070 | 4070 | 4070 | 4070 | 4070 |
| 105.71 | 13 | 4290 | 32600 | - | 4290 | 4290 | 4290 | 4290 | 4290 | 4290 | 4290 | 4290 |
| 116.92 | 12 | 4300 | 32500 | - | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 |
| 131.85 | 11 | 4300 | 32500 | - | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | | |
| 145.60 | 9.6 | 4300 | 32500 | - | 4300 | 4300 | 4300 | 4300 | 4300 | 4300 | | |
| 161.74 | 8.7 | 4300 | 32500 | - | 4300 | 4300 | 4300 | 4300 | 4300 | | | |
| 180.95 | 7.7 | 4300 | 32500 | - | 4300 | 4300 | 4300 | 4300 | 4300 | | | |
| 196.52 | 7.1 | 4300 | 32500 | - | 4300 | 4300 | 4300 | | | | | |
| 231.67 | 6.0 | 4300 | 32500 | - | 4300 | 4300 | 4300 | | | | | |
| 262.22 | 5.3 | 4300 | 32500 | - | 4300 | 4300 | | | | | | |
| 286.40 | 4.9 | 4300 | 32500 | - | 4300 | 4300 | | | | | | |

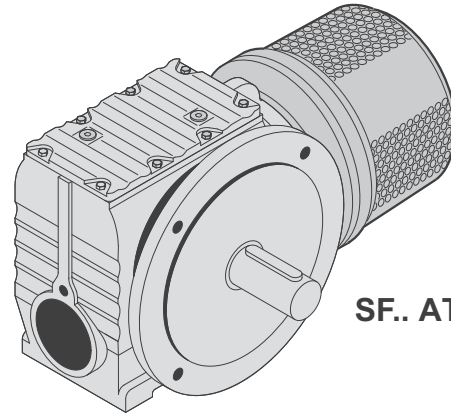
| S97p, m /kg | | AMS | | | | | | | | |
|-------------|------|---|-----|-----|---------|-------|---------|---------|---------|---------|
| S | IEC | s | 100 | 112 | 132S/M | 132ML | 160 | 180 | 200 | 225 |
| | |  2 | 150 | 150 | 155 | 155 | 170 | 170 | 190 | 195 |
| | NEMA | s | 182 | 184 | 213/215 | - | 254/256 | 284/286 | 324/326 | 364/365 |
| | |  2 | 150 | 150 | 150 | - | 165 | 170 | 190 | 190 |

SF: + 33 kg / SA: + -5.4 kg / SAF: + 21 kg

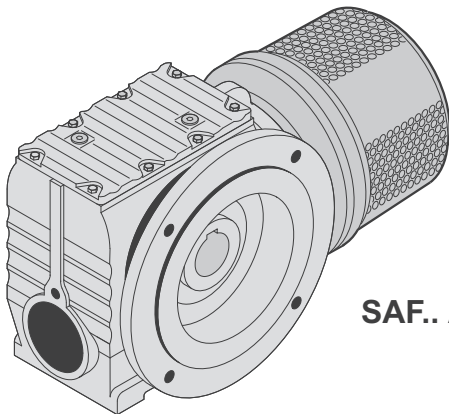
11.2 Selection tables for adapters with hydraulic start-up coupling (AT..)



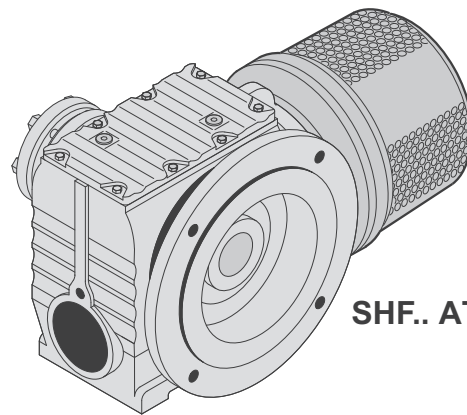
S.. AT..



SF.. AT..



SAF.. AT..

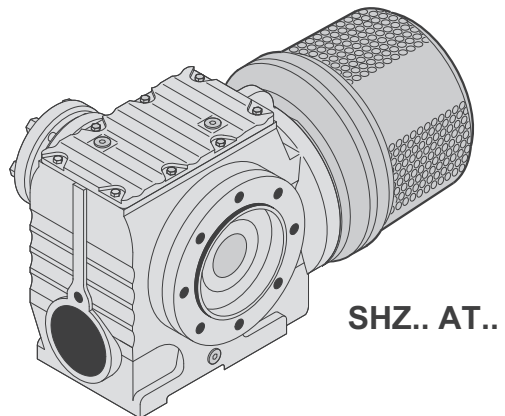
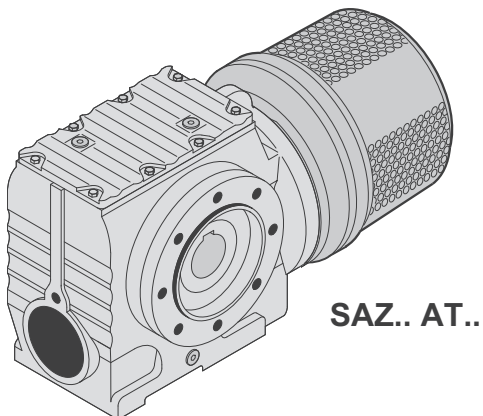
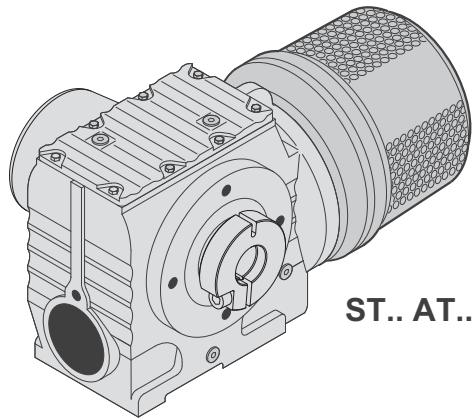
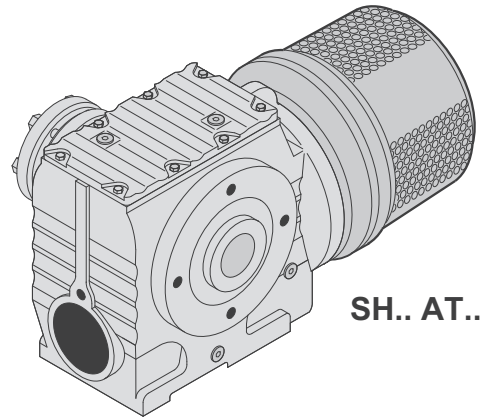
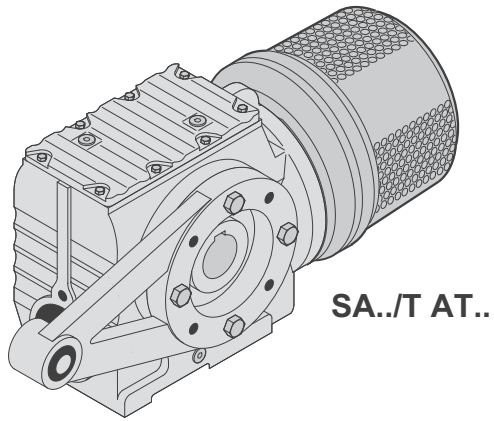


SHF.. AT..

21441543051








S.. helical-worm gear units

Selection tables for adapters with hydraulic start-up coupling (AT..)










21441545483

11.2.1 S..AT/DRN..4








|  |  | P_{Mot} kW |  |  |  | Sn % |  |
|---|---|------------------------------|---|--|---|----------------|---|
| S67 | DRN71M4 | 0.37 | AT311 | T11 | 0.42 | 12 | (→  652) |
| | DRN80MK4 | 0.55 | AT312 | T11D | 0.55 | 11 | |
| | DRN80M4 | 0.75 | AT312 | T11D | 0.7 | 11 | |
| | DRN90S4 | 1.1 | AT312 | T11D | 0.72 | 15 | |
| | DRN90L4 | 1.5 | AT321 | T21 | 0.85 | 9 | |
| | DRN100LS4 | 2.2 | AT321 | T21 | 0.9 | 13 | |
| | DRN100L4 | 3 | AT322 | T21D | 1.53 | 11 | |
| S77 | DRN71M4 | 0.37 | AT311 | T11 | 0.42 | 12 | |
| | DRN80MK4 | 0.55 | AT312 | T11D | 0.55 | 11 | |
| | DRN80M4 | 0.75 | AT312 | T11D | 0.7 | 11 | |
| | DRN90S4 | 1.1 | AT312 | T11D | 0.72 | 15 | |
| | DRN90L4 | 1.5 | AT421 | T21 | 0.85 | 9 | |
| | DRN100LS4 | 2.2 | AT421 | T21 | 0.9 | 13 | |
| | DRN100L4 | 3 | AT422 | T21D | 1.53 | 11 | |
| S87 | DRN112M4 | 4 | AT422 | T21D | 1.6 | 12 | |
| | DRN90S4 | 1.1 | AT312 | T11D | 0.72 | 15 | |
| | DRN90L4 | 1.5 | AT421 | T21 | 0.85 | 9 | |
| | DRN100LS4 | 2.2 | AT421 | T21 | 0.9 | 13 | |
| | DRN100L4 | 3 | AT422 | T21D | 1.53 | 11 | |
| | DRN112M4 | 4 | AT422 | T21D | 1.6 | 12 | |
| | DRN132S4 | 5.5 | AT541 | T41 | 2 | 6 | |
| | DRN132M4 | 7.5 | AT541 | T41 | 2.4 | 8 | |
| | DRN132L4 | 9.2 | AT541 | T41 | 2.5 | 10 | |
| | DRN160M4 | 11 | AT541 | T41 | 2.5 | 13 | |
| DRN160L4 | 15 | AT542 | T41D | 4.2 | 8 | | |

S.. helical-worm gear units

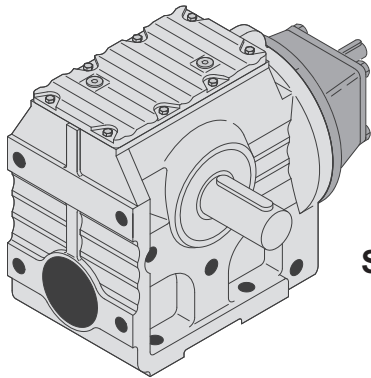
Selection tables for adapters with hydraulic start-up coupling (AT..)

|  |  | P_{Mot} kW |  |  |  | Sn % |  |
|---|---|-------------------------------------|---|--|---|-----------------------|---|
| S97 | DRN90S4 | 1.1 | AT312 | T11D | 0.72 | 15 | (→  652) |
| | DRN90L4 | 1.5 | AT421 | T21 | 0.85 | 9 | |
| | DRN100LS4 | 2.2 | AT421 | T21 | 0.9 | 13 | |
| | DRN100L4 | 3 | AT422 | T21D | 1.53 | 11 | |
| | DRN112M4 | 4 | AT422 | T21D | 1.6 | 12 | |
| | DRN132S4 | 5.5 | AT541 | T41 | 2 | 6 | |
| | DRN132M4 | 7.5 | AT541 | T41 | 2.4 | 8 | |
| | DRN132L4 | 9.2 | AT541 | T41 | 2.5 | 10 | |
| | DRN160M4 | 11 | AT541 | T41 | 2.5 | 13 | |
| | DRN160L4 | 15 | AT542 | T41D | 4.2 | 8 | |
| | DRN180M4 | 18.5 | AT542 | T41D | 4.3 | 10 | |
| | DRN180L4 | 22 | AT542 | T41D | 4.3 | 14 | |

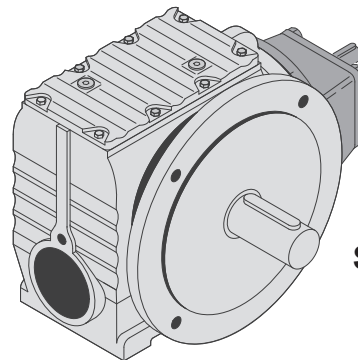
11.2.2 S..AT/DRN..2

|  |  | P_{Mot} kW |  |  |  | Sn |  |
|---|---|-----------------|---|--|---|------|---|
| S67 | DRN71M2 | 0.55 | AT311 | T11 | 0.19 | 3 | (→  652) |
| | DRN80MS2 | 0.75 | AT311 | T11 | 0.22 | 4.5 | |
| | DRN80M2 | 1.1 | AT311 | T11 | 0.27 | 6 | |
| | DRN90S2 | 1.5 | AT311 | T11 | 0.29 | 8.5 | |
| | DRN90L2 | 2.2 | AT311 | T11 | 0.31 | 11.5 | |
| | DRN100LM2 | 3 | AT311 | T11 | 0.4 | 12 | |
| | DRN112M2 | 4 | AT312 | T11D | 0.52 | 10 | |
| S77 | DRN71M2 | 0.55 | AT311 | T11 | 0.19 | 3 | |
| | DRN80MS2 | 0.75 | AT311 | T11 | 0.22 | 4.5 | |
| | DRN80M2 | 1.1 | AT311 | T11 | 0.27 | 6 | |
| | DRN90S2 | 1.5 | AT311 | T11 | 0.29 | 8.5 | |
| | DRN90L2 | 2.2 | AT311 | T11 | 0.31 | 11.5 | |
| | DRN100LM2 | 3 | AT311 | T11 | 0.4 | 12 | |
| | DRN112M2 | 4 | AT312 | T11D | 0.52 | 10 | |
| S87 | DRN132S2 | 5.5 | AT321 | T21 | 0.6 | 8 | |
| | DRN132S2 | 5.5 | AT421 | T21 | 0.6 | 8 | |
| | DRN90S2 | 1.5 | AT311 | T11 | 0.29 | 8.5 | |
| | DRN90L2 | 2.2 | AT311 | T11 | 0.31 | 11.5 | |
| | DRN100LM2 | 3 | AT311 | T11 | 0.4 | 12 | |
| | DRN112M2 | 4 | AT312 | T11D | 0.52 | 10 | |
| S97 | DRN132S2 | 5.5 | AT321 | T21 | 0.6 | 8 | |
| | DRN132S2 | 5.5 | AT421 | T21 | 0.6 | 8 | |
| | DRN90S2 | 1.5 | AT311 | T11 | 0.29 | 8.5 | |
| | DRN90L2 | 2.2 | AT311 | T11 | 0.31 | 11.5 | |
| | DRN100LM2 | 3 | AT311 | T11 | 0.4 | 12 | |
| | DRN112M2 | 4 | AT312 | T11D | 0.52 | 10 | |

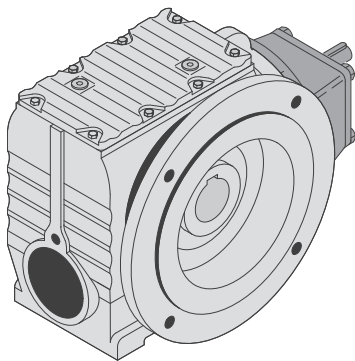
11.3 Selection tables for input shaft assembly (AD..)



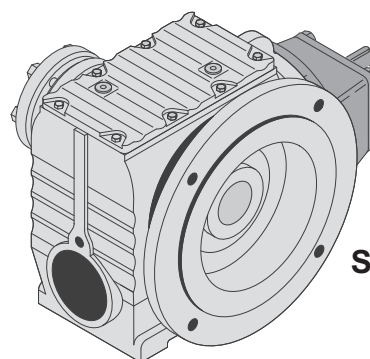
S.. AD..



SF.. AD..



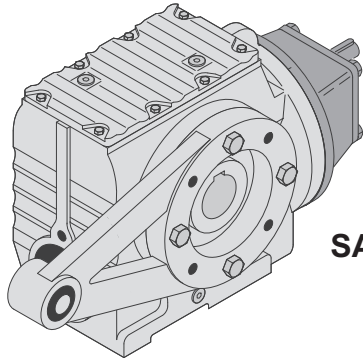
SAF.. AD..



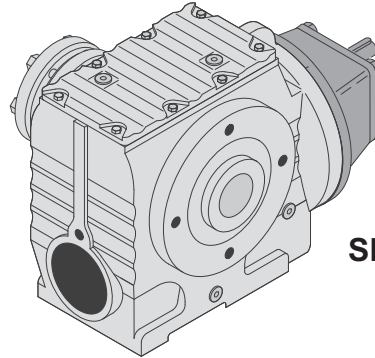
SHF.. AD..

21460891787

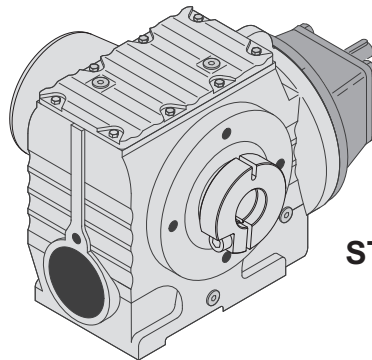
26878565/EN – 11/2021



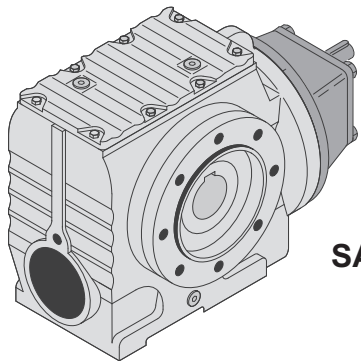
SA../T AD..



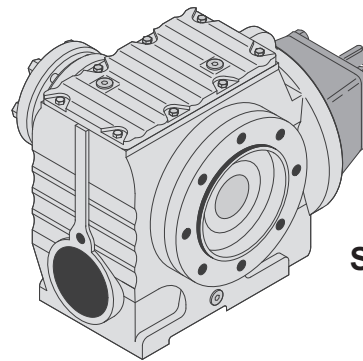
SH.. AD..



ST.. AD..



SAZ.. AD..




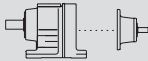


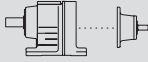

SHZ.. AD..


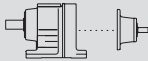

26878585/EN – 11/2021


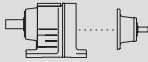

21460894219

S.. helical-worm gear units

Selection tables for input shaft assembly (AD..)


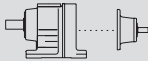

| S37 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 92 Nm | |
|---|----------------------------|------------------|-------------|---------------------|---------------|--------------|---|--|-----|---------|---|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | | m kg |  |
| 157.43 | 8.9 | 92 | 0.18 | 3000 | 745 | - | - | | | | |
| 144.40* | 9.7 | 92 | 0.19 | 3000 | 745 | - | - | | | | |
| 122.94 | 11 | 91 | 0.22 | 3000 | 740 | - | - | | | | |
| 106.00* | 13 | 88 | 0.24 | 3000 | 745 | - | - | S 37 | AD1 | 8.3 | 654 |
| 98.80* | 14 | 87 | 0.25 | 3000 | 745 | - | - | SF 37 | AD1 | 9.6 | 654 |
| 86.36 | 16 | 86 | 0.27 | 3000 | 740 | - | - | SA 37 | AD1 | 8.0 | 654 |
| 80.96 | 17 | 85 | 0.29 | 3000 | 740 | - | - | SAF 37 | AD1 | 9.5 | 654 |
| 71.44* | 20 | 84 | 0.31 | 3000 | 740 | - | - | | | | |
| 63.33 | 22 | 82 | 0.34 | 3000 | 740 | - | - | | | | |
| 55.93 | 25 | 81 | 0.31 | 3000 | 575 | - | - | | | | |
| 53.83 | 26 | 80 | 0.39 | 3000 | 1820 | - | - | S 37 | AD2 | 9.4 | 654 |
| | | | | | | | | SF 37 | AD2 | 11 | 654 |
| | | | | | | | | SA 37 | AD2 | 9.1 | 654 |
| | | | | | | | | SAF 37 | AD2 | 11 | 654 |
| 51.30* | 27 | 81 | 0.33 | 3000 | 565 | - | - | | | | |
| 43.68 | 32 | 81 | 0.38 | 3000 | 555 | - | - | | | | |
| 37.66 | 37 | 79 | 0.43 | 3000 | 555 | - | - | | | | |
| 35.10* | 40 | 78 | 0.45 | 3000 | 550 | - | - | S 37 | AD1 | 8.3 | 654 |
| 30.68 | 46 | 76 | 0.49 | 2860 | 550 | - | - | SF 37 | AD1 | 9.6 | 654 |
| 28.76 | 49 | 75 | 0.52 | 2800 | 545 | - | - | SA 37 | AD1 | 8.0 | 654 |
| 25.38* | 55 | 74 | 0.57 | 2660 | 535 | - | - | SAF 37 | AD1 | 9.5 | 654 |
| 22.50* | 62 | 73 | 0.63 | 2530 | 520 | - | - | | | | |
| 19.89 | 70 | 52 | 0.47 | 2470 | 330 | - | - | | | | |
| 19.13* | 73 | 71 | 0.72 | 2380 | 1740 | - | - | S 37 | AD2 | 9.4 | 654 |
| | | | | | | | | SF 37 | AD2 | 11 | 654 |
| | | | | | | | | SA 37 | AD2 | 9.1 | 654 |
| | | | | | | | | SAF 37 | AD2 | 11 | 654 |
| 18.24* | 77 | 52 | 0.51 | 2380 | 320 | - | - | S 37 | AD1 | 8.3 | 654 |
| 15.53 | 90 | 50 | 0.57 | 2240 | 320 | - | - | SF 37 | AD1 | 9.6 | 654 |
| | | | | | | | | SA 37 | AD1 | 8.0 | 654 |
| | | | | | | | | SAF 37 | AD1 | 9.5 | 654 |
| 13.39 | 105 | 49 | 0.65 | 2110 | 1500 | - | - | | | | |
| 12.48* | 112 | 48 | 0.68 | 2060 | 1500 | - | - | | | | |
| 10.91 | 128 | 48 | 0.78 | 1940 | 1470 | - | - | | | | |
| 10.23 | 137 | 47 | 0.81 | 1900 | 1470 | - | - | | | | |
| 9.02* | 155 | 46 | 0.89 | 1810 | 1460 | - | - | S 37 | AD2 | 9.4 | 654 |
| 8.00* | 175 | 45 | 0.98 | 1730 | 1440 | - | - | SF 37 | AD2 | 11 | 654 |
| 6.80* | 206 | 43 | 1.1 | 1630 | 1660 | - | - | SA 37 | AD2 | 9.1 | 654 |
| 6.33 | 221 | 35 | 0.95 | 1670 | 1670 | - | - | SAF 37 | AD2 | 11 | 654 |
| 5.38 | 260 | 34 | 1.1 | 1570 | 1660 | - | - | | | | |
| 4.86* | 288 | 33 | 1.1 | 1520 | 1650 | - | - | | | | |
| 3.97 | 353 | 32 | 1.4 | 1400 | 1630 | - | - | | | | |
| S37p AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 105 Nm | |
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | | m kg |  |
| 157.43 | 8.9 | 94 | 0.14 | 3000 | 770 | - | - | | | | |
| 144.40* | 9.7 | 95 | 0.15 | 3000 | 765 | - | - | | | | |
| 122.94 | 11 | 96 | 0.17 | 3000 | 765 | - | - | | | | |
| 106.00* | 13 | 97 | 0.20 | 3000 | 765 | - | - | S 37p | AD1 | 8.3 | 654 |
| 98.80* | 14 | 97 | 0.21 | 3000 | 760 | - | - | SF 37p | AD1 | 9.6 | 654 |
| 86.36 | 16 | 98 | 0.24 | 3000 | 760 | - | - | SA 37p | AD1 | 8.0 | 654 |
| 80.96 | 17 | 99 | 0.26 | 3000 | 755 | - | - | SAF 37p | AD1 | 9.5 | 654 |
| 71.44* | 20 | 100 | 0.29 | 3000 | 750 | - | - | | | | |
| 63.33 | 22 | 98 | 0.32 | 3000 | 750 | - | - | | | | |
| 55.93 | 25 | 104 | 0.33 | 3000 | 555 | - | - | | | | |
| 53.83 | 26 | 92 | 0.35 | 3000 | 1840 | - | - | S 37p | AD2 | 9.4 | 654 |
| | | | | | | | | SF 37p | AD2 | 11 | 654 |
| | | | | | | | | SA 37p | AD2 | 9.1 | 654 |
| | | | | | | | | SAF 37p | AD2 | 11 | 654 |


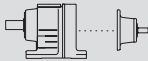

| S37p AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 105 Nm | |
|---|-------------------------------------|-------------------------|----------------------|------------------------------------|----------------------|-------------------|---|--|---------|---|-----|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | |
| 51.30* | 27 | 104 | 0.36 | 3000 | 545 | - | - | S 37p SF 37p SA 37p SAF 37p | AD1 | 8.3 | 654 |
| 43.68 | 32 | 105 | 0.42 | 3000 | 530 | - | - | | | | |
| 37.66 | 37 | 105 | 0.49 | 2800 | 510 | - | - | | | | |
| 35.10* | 40 | 105 | 0.52 | 2700 | 500 | - | - | | | | |
| 30.68 | 46 | 105 | 0.59 | 2530 | 480 | - | - | | | | |
| 28.76 | 49 | 105 | 0.63 | 2450 | 470 | - | - | | | | |
| 25.38* | 55 | 100 | 0.68 | 2360 | 475 | - | - | | | | |
| 22.50* | 62 | 95 | 0.73 | 2280 | 475 | - | - | | | | |
| 19.89 | 70 | 78 | 0.64 | 2130 | 133 | - | - | | | | |
| 19.13* | 73 | 89 | 0.80 | 2170 | 1740 | - | - | | | | |
| | | | | | | | | | AD2 | 11 | 654 |
| | | | | | | | | | AD2 | 9.1 | 654 |
| | | | | | | | | | AD2 | 11 | 654 |
| 18.24* | 77 | 78 | 0.69 | 2040 | 118 | - | - | S 37p SF 37p SA 37p SAF 37p | AD1 | 8.3 | 654 |
| 15.53 | 90 | 76 | 0.79 | 1860 | 109 | - | - | | AD1 | 9.6 | 654 |
| | | | | | | | | | AD1 | 8.0 | 654 |
| | | | | | | | | | AD1 | 9.5 | 654 |
| 13.39 | 105 | 75 | 0.90 | 1640 | 1190 | - | - | S 37p SF 37p SA 37p SAF 37p | AD2 | 9.4 | 654 |
| 12.48* | 112 | 74 | 0.95 | 1560 | 1180 | - | - | | | | |
| 10.91 | 128 | 69 | 1.0 | 1540 | 1220 | - | - | | | | |
| 10.23 | 137 | 64 | 1.0 | 1640 | 1280 | - | - | | | | |
| 9.02* | 155 | 57 | 1.0 | 1680 | 1350 | - | - | | | | |
| 8.00* | 175 | 50 | 1.0 | 1690 | 1440 | - | - | | | | |
| 6.80* | 206 | 60 | 1.4 | 1210 | 1610 | - | - | | | | |
| 6.33 | 221 | 56 | 1.4 | 1120 | 1580 | - | - | | | | |
| 5.38 | 260 | 51 | 1.5 | 1130 | 1590 | - | - | | | | |
| 4.86* | 288 | 48 | 1.6 | 1140 | 1590 | - | - | | | | |
| 3.97 | 353 | 44 | 1.8 | 1070 | 1580 | - | - | | | | |


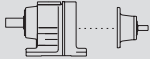

| S47 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 170 Nm | | | | | |
|--|-------------------------------------|-------------------------|----------------------|------------------------------------|----------------------|-------------------|---|--|---------|---|-----|----------------------------------|-----|----|-----|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | | | | | |
| 201.00* | 7.0 | 170 | 0.25 | 5340 | 680 | - | - | S 47 SF 47 SA 47 SAF 47 | AD1 | 11 | 654 | | | | |
| 184.80* | 7.6 | 170 | 0.27 | 5340 | 680 | - | - | | | | | | | | |
| 158.12 | 8.8 | 170 | 0.30 | 5340 | 670 | - | - | | | | | | | | |
| 137.05 | 10 | 168 | 0.34 | 5350 | 670 | - | - | | | | | | | | |
| 128.10* | 11 | 168 | 0.36 | 5350 | 665 | - | - | | | | | | | | |
| 110.73 | 13 | 168 | 0.40 | 5350 | 655 | - | - | | | | | | | | |
| 94.08* | 15 | 168 | 0.46 | 5350 | 645 | - | - | | | | | | | | |
| 84.00* | 17 | 167 | 0.51 | 5360 | 640 | - | - | | | | | | | | |
| 71.75* | 20 | 167 | 0.58 | 5360 | 625 | - | - | | | | | | | | |
| 69.39 | 20 | 155 | 0.46 | 5370 | 385 | - | - | | | | | | | | |
| 67.20* | 21 | 167 | 0.62 | 5360 | 615 | - | - | | | | | | | | |
| 63.80* | 22 | 155 | 0.50 | 5370 | 380 | - | - | | | | | | | | |
| 56.61 | 25 | 165 | 0.72 | 5320 | 1780 | - | - | | | | | S 47 SF 47 SA 47 SAF 47 | AD2 | 12 | 654 |
| | | | | | | | | | | | | | AD2 | 16 | 654 |
| | | | | | | | | | | | | | AD2 | 14 | 654 |
| | | | | | | | | | AD2 | 15 | 654 | | | | |
| 54.59 | 26 | 155 | 0.57 | 5150 | 360 | - | - | S 47 SF 47 SA 47 SAF 47 | AD1 | 11 | 654 | | | | |
| 47.32 | 30 | 155 | 0.65 | 4850 | 345 | - | - | | AD1 | 15 | 654 | | | | |
| 44.22* | 32 | 155 | 0.69 | 4710 | 335 | - | - | | AD1 | 12 | 654 | | | | |
| | | | | | | | | | AD1 | 14 | 654 | | | | |


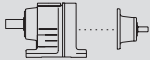

S.. helical-worm gear units

Selection tables for input shaft assembly (AD..)

| S47 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 170 Nm | |
|--|----------------------------|------------------|-------------|---------------------|---------------|--------------|---|--|---------|---|--|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | |
| 38.23 | 37 | 155 | 0.80 | 4420 | 1480 | - | - | | | | |
| 32.48* | 43 | 155 | 0.93 | 4120 | 1460 | - | - | | | | |
| 29.00* | 48 | 155 | 1.0 | 3920 | 1430 | - | - | | | | |
| 24.77 | 57 | 155 | 1.2 | 3650 | 1660 | - | - | | | | |
| 23.20* | 60 | 152 | 1.2 | 3570 | 1660 | - | - | | | | |
| 20.33 | 69 | 110 | 0.95 | 3370 | 990 | - | - | | | | |
| 19.54 | 72 | 144 | 1.4 | 3370 | 1650 | - | - | | | | |
| 17.62 | 79 | 110 | 1.1 | 3160 | 1560 | - | - | | | | |
| 16.47* | 85 | 110 | 1.2 | 3060 | 1550 | - | - | S 47 | AD2 | 12 654 | |
| 14.24 | 98 | 110 | 1.3 | 2850 | 1530 | - | - | SF 47 | AD2 | 16 654 | |
| 12.10* | 116 | 109 | 1.6 | 2650 | 1520 | - | M1-6 | SA 47 | AD2 | 14 654 | |
| 10.80* | 130 | 109 | 1.7 | 2500 | 1510 | - | M1-6 | SAF 47 | AD2 | 15 654 | |
| 9.23* | 152 | 109 | 2.0 | 2310 | 1480 | - | M1-6 | | | | |
| 8.64* | 162 | 109 | 2.1 | 2230 | 1470 | - | M1-6 | | | | |
| 7.28 | 192 | 103 | 2.4 | 2110 | 1460 | - | M1-6 | | | | |
| 6.83 | 205 | 78 | 1.9 | 2300 | 1500 | - | M1-6 | | | | |
| 6.40* | 219 | 76 | 2.0 | 2260 | 1500 | - | M1-6 | | | | |
| 5.39 | 260 | 74 | 2.3 | 2110 | 1480 | - | M1-6 | | | | |
| 4.76 | 294 | 72 | 2.5 | 2010 | 1460 | - | M1-6 | | | | |
| 4.00* | 350 | 61 | 2.5 | 1980 | 1500 | - | M1-6 | | | | |


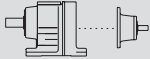

| S47p AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 200 Nm | |
|---|----------------------------|------------------|-------------|---------------------|---------------|--------------|---|--|---------|---|--|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | |
| 201.00* | 7.0 | 192 | 0.21 | 5230 | 710 | - | - | | | | |
| 184.80* | 7.6 | 193 | 0.23 | 5220 | 705 | - | - | | | | |
| 158.12 | 8.8 | 194 | 0.27 | 5220 | 700 | - | - | | | | |
| 137.05 | 10 | 195 | 0.30 | 5210 | 695 | - | - | | | | |
| 128.10* | 11 | 196 | 0.32 | 5210 | 685 | - | - | S 47p | AD1 | 11 654 | |
| 110.73 | 13 | 197 | 0.37 | 5200 | 670 | - | - | SF 47p | AD1 | 15 654 | |
| 94.08* | 15 | 198 | 0.43 | 5200 | 660 | - | - | SA 47p | AD1 | 12 654 | |
| 84.00* | 17 | 199 | 0.48 | 5190 | 645 | - | - | SAF 47p | AD1 | 14 654 | |
| 71.75* | 20 | 194 | 0.55 | 5220 | 640 | - | - | | | | |
| 69.39 | 20 | 200 | 0.51 | 5130 | 300 | - | - | | | | |
| 67.20* | 21 | 189 | 0.57 | 5250 | 640 | - | - | | | | |
| 63.80* | 22 | 200 | 0.55 | 5130 | 290 | - | - | | | | |
| 56.61 | 25 | 179 | 0.64 | 5220 | 1790 | - | - | S 47p | AD2 | 12 654 | |
| | | | | | | | | SF 47p | AD2 | 16 654 | |
| | | | | | | | | SA 47p | AD2 | 14 654 | |
| | | | | | | | | SAF 47p | AD2 | 15 654 | |
| 54.59 | 26 | 200 | 0.64 | 4790 | 270 | - | - | S 47p | AD1 | 11 654 | |
| 47.32 | 30 | 200 | 0.73 | 4480 | 250 | - | - | SF 47p | AD1 | 15 654 | |
| 44.22* | 32 | 200 | 0.78 | 4350 | 235 | - | - | SA 47p | AD1 | 12 654 | |
| | | | | | | | | SAF 47p | AD1 | 14 654 | |
| 38.23 | 37 | 196 | 0.88 | 4090 | 1360 | - | - | | | | |
| 32.48* | 43 | 186 | 0.98 | 3880 | 1380 | - | - | | | | |
| 29.00* | 48 | 172 | 1.0 | 3790 | 1420 | - | - | | | | |
| 24.77 | 57 | 169 | 1.2 | 3550 | 1660 | - | - | | | | |
| 23.20* | 60 | 165 | 1.2 | 3480 | 1660 | - | - | | | | |
| 20.33 | 69 | 128 | 1.0 | 3260 | 860 | - | - | | | | |
| 19.54 | 72 | 156 | 1.4 | 3280 | 1650 | - | - | | | | |
| 17.62 | 79 | 156 | 1.4 | 2720 | 1440 | - | - | | | | |
| 16.47* | 85 | 155 | 1.5 | 2630 | 1440 | - | - | S 47p | AD2 | 12 654 | |
| 14.24 | 98 | 152 | 1.7 | 2350 | 1420 | - | - | SF 47p | AD2 | 16 654 | |
| 12.10* | 116 | 146 | 1.9 | 2130 | 1420 | - | - | SA 47p | AD2 | 14 654 | |
| 10.80* | 130 | 142 | 2.1 | 1990 | 1410 | - | - | SAF 47p | AD2 | 15 654 | |
| 9.23* | 152 | 134 | 2.3 | 1870 | 1410 | - | - | | | | |
| 8.64* | 162 | 131 | 2.4 | 1820 | 1410 | - | - | | | | |
| 7.28 | 192 | 109 | 2.4 | 2110 | 1460 | - | - | | | | |
| 6.83 | 205 | 120 | 2.8 | 1490 | 1310 | - | - | | | | |
| 6.40* | 219 | 118 | 2.9 | 1420 | 1300 | - | - | | | | |
| 5.39 | 260 | 104 | 3.0 | 1540 | 1330 | - | - | | | | |
| 4.76 | 294 | 91 | 3.0 | 1740 | 1370 | - | - | | | | |
| 4.00* | 350 | 75 | 3.0 | 1860 | 1420 | - | - | | | | |




| S57 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 295 Nm | |
|--|----------------------------|------------------|-------------|---------------------|---------------|--------------|---|--|---------|---|--|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | |
| 201.00* | 7.0 | 295 | 0.40 | 7130 | 455 | - | - | | | | |
| 184.80* | 7.6 | 295 | 0.43 | 7130 | 455 | - | - | | | | |
| 158.12 | 8.8 | 295 | 0.49 | 7130 | 450 | - | - | S 57 | AD1 | 15 654 | |
| 137.05 | 10 | 295 | 0.55 | 7130 | 440 | - | - | SF 57 | AD1 | 19 654 | |
| 128.10* | 11 | 295 | 0.58 | 7130 | 435 | - | - | SA 57 | AD1 | 15 654 | |
| 110.73 | 13 | 295 | 0.66 | 7130 | 410 | - | - | SAF 57 | AD1 | 18 654 | |
| 94.08* | 15 | 295 | 0.76 | 7130 | 395 | - | - | | | | |
| 84.00* | 17 | 295 | 0.84 | 7130 | 380 | - | - | | | | |
| 71.75* | 20 | 290 | 0.96 | 7170 | 1570 | - | - | | | | |
| 69.39 | 20 | 245 | 0.71 | 7520 | 1120 | - | - | | | | |
| 67.20* | 21 | 285 | 1.0 | 7220 | 1570 | - | - | | | | |
| 63.80* | 22 | 245 | 0.77 | 7520 | 1100 | - | - | | | | |
| 56.61 | 25 | 265 | 1.1 | 7370 | 1700 | - | - | | | | |
| 54.59 | 26 | 245 | 0.88 | 7520 | 1080 | - | - | | | | |
| 47.32 | 30 | 245 | 1.0 | 7520 | 1050 | - | - | | | | |
| 44.22* | 32 | 245 | 1.1 | 7520 | 1570 | - | - | | | | |
| 38.23 | 37 | 245 | 1.2 | 7320 | 1560 | - | - | | | | |
| 32.48* | 43 | 245 | 1.4 | 6840 | 1540 | - | - | | | | |
| 29.00* | 48 | 245 | 1.6 | 6520 | 1530 | - | - | | | | |
| 24.77 | 57 | 245 | 1.8 | 6100 | 1510 | - | - | | | | |
| 23.20* | 60 | 245 | 1.9 | 5930 | 1500 | - | - | S 57 | AD2 | 16 654 | |
| 20.33 | 69 | 168 | 1.4 | 5690 | 1380 | - | - | SF 57 | AD2 | 20 654 | |
| 19.54 | 72 | 215 | 2.0 | 5720 | 1520 | - | - | SA 57 | AD2 | 16 654 | |
| 17.62 | 79 | 168 | 1.6 | 5350 | 1360 | - | - | SAF 57 | AD2 | 19 654 | |
| 16.47* | 85 | 168 | 1.8 | 5200 | 1350 | - | - | | | | |
| 14.24 | 98 | 169 | 2.0 | 4860 | 1320 | - | - | | | | |
| 12.10* | 116 | 169 | 2.4 | 4520 | 1300 | - | - | | | | |
| 10.80* | 130 | 169 | 2.6 | 4290 | 1270 | - | - | | | | |
| 9.23* | 152 | 169 | 3.1 | 3990 | 1230 | - | M1-6 | | | | |
| 8.64* | 162 | 166 | 3.2 | 3900 | 1230 | - | M1-6 | | | | |
| 7.28 | 192 | 146 | 3.3 | 3790 | 1260 | - | M1-6 | | | | |
| 6.83 | 205 | 100 | 2.4 | 4100 | 1380 | - | M1-6 | | | | |
| 6.40* | 219 | 98 | 2.5 | 4010 | 1370 | - | M1-6 | | | | |
| 5.39 | 260 | 95 | 2.9 | 3760 | 1340 | - | M1-6 | | | | |
| 4.76 | 294 | 93 | 3.2 | 3590 | 1320 | - | M1-6 | | | | |
| 4.00* | 350 | 88 | 3.6 | 3380 | 1300 | - | M1-6 | | | | |

| S57p AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 370 Nm | |
|---|----------------------------|------------------|-------------|---------------------|---------------|--------------|---|--|---------|---|--|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | |
| 201.00* | 7.0 | 355 | 0.37 | 6530 | 475 | - | - | | | | |
| 184.80* | 7.6 | 355 | 0.40 | 6530 | 475 | - | - | | | | |
| 158.12 | 8.8 | 360 | 0.47 | 6470 | 460 | - | - | S 57p | AD1 | 15 654 | |
| 137.05 | 10 | 360 | 0.53 | 6470 | 445 | - | - | SF 57p | AD1 | 19 654 | |
| 128.10* | 11 | 365 | 0.57 | 6410 | 430 | - | - | SA 57p | AD1 | 15 654 | |
| 110.73 | 13 | 365 | 0.66 | 6410 | 405 | - | - | SAF 57p | AD1 | 18 654 | |
| 94.08* | 15 | 350 | 0.73 | 6580 | 410 | - | - | | | | |
| 84.00* | 17 | 335 | 0.78 | 6740 | 415 | - | - | | | | |

S.. helical-worm gear units

Selection tables for input shaft assembly (AD..)

| S57p AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 370 Nm | |
|---|----------------------------|-------------------------|-------------|---------------------|---------------|--------------|---|--|---------|---|--|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | |
| 71.75* | 20 | 320 | 0.87 | 6900 | 1620 | - | - | | | | |
| 69.39 | 20 | 370 | 0.92 | 6350 | 690 | - | - | | | | |
| 67.20* | 21 | 310 | 0.90 | 6990 | 1630 | - | - | | | | |
| 63.80* | 22 | 370 | 1.00 | 6350 | 670 | - | - | | | | |
| 56.61 | 25 | 295 | 1.0 | 7130 | 1710 | - | - | | | | |
| 54.59 | 26 | 325 | 1.0 | 6850 | 840 | - | - | | | | |
| 47.32 | 30 | 280 | 1.0 | 7260 | 1010 | - | - | | | | |
| 44.22* | 32 | 335 | 1.3 | 6740 | 1490 | - | - | | | | |
| 38.23 | 37 | 320 | 1.4 | 6820 | 1490 | - | - | | | | |
| 32.48* | 43 | 300 | 1.6 | 6480 | 1500 | - | - | | | | |
| 29.00* | 48 | 290 | 1.7 | 6230 | 1500 | - | - | | | | |
| 24.77 | 57 | 275 | 1.9 | 5910 | 1500 | - | - | | | | |
| 23.20* | 60 | 270 | 2.0 | 5780 | 1490 | - | - | S 57p | AD2 | 16 654 | |
| 20.33 | 69 | 225 | 1.8 | 5260 | 1240 | - | - | SF 57p | AD2 | 20 654 | |
| 19.54 | 72 | 250 | 2.1 | 5500 | 1490 | - | - | SA 57p | AD2 | 16 654 | |
| 17.62 | 79 | 225 | 2.0 | 4920 | 1220 | - | - | SAF 57p | AD2 | 19 654 | |
| 16.47* | 85 | 225 | 2.2 | 4760 | 1210 | - | - | | | | |
| 14.24 | 98 | 225 | 2.5 | 4440 | 1170 | - | - | | | | |
| 12.10* | 116 | 225 | 3.0 | 4090 | 1130 | - | - | | | | |
| 10.80* | 130 | 225 | 3.3 | 3860 | 1100 | - | - | | | | |
| 9.23* | 152 | 199 | 3.4 | 3800 | 1150 | - | - | | | | |
| 8.64* | 162 | 187 | 3.4 | 3800 | 1170 | - | - | | | | |
| 7.28 | 192 | 155 | 3.4 | 3790 | 1250 | - | - | | | | |
| 6.83 | 205 | 162 | 3.7 | 3550 | 1080 | - | - | | | | |
| 6.40* | 219 | 156 | 3.8 | 3490 | 1090 | - | - | | | | |
| 5.39 | 260 | 147 | 4.3 | 3300 | 1070 | - | - | | | | |
| 4.76 | 294 | 129 | 4.3 | 3290 | 1120 | - | - | | | | |
| 4.00* | 350 | 108 | 4.3 | 3240 | 1180 | - | - | | | | |




| S67 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 520 Nm | |
|--|----------------------------|-------------------------|-------------|---------------------|---------------|--------------|---|--|---------|---|--|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | |
| 217.41 | 6.4 | 520 | 0.62 | 8680 | 1480 | - | - | | | | |
| 190.11 | 7.4 | 520 | 0.70 | 8680 | 1470 | - | - | | | | |
| 180.60* | 7.8 | 520 | 0.73 | 8680 | 1470 | - | - | | | | |
| 158.45 | 8.8 | 520 | 0.82 | 8680 | 1440 | - | - | | | | |
| 134.40* | 10 | 520 | 0.95 | 8680 | 1420 | - | - | | | | |
| 121.33 | 12 | 520 | 1.0 | 8680 | 1400 | - | - | S 67 | AD2 | 27 654 | |
| 106.75* | 13 | 520 | 1.2 | 8680 | 1660 | - | - | SF 67 | AD2 | 34 654 | |
| 100.80* | 14 | 520 | 1.2 | 8680 | 1650 | - | - | SA 67 | AD2 | 28 654 | |
| 85.83 | 16 | 520 | 1.4 | 8680 | 1640 | - | - | SAF 67 | AD2 | 33 654 | |
| 78.00* | 18 | 520 | 1.5 | 8680 | 1630 | - | - | | | | |
| 75.06 | 19 | 480 | 1.2 | 9020 | 1460 | - | - | | | | |
| 67.57 | 21 | 520 | 1.7 | 8680 | 1620 | - | - | | | | |
| 65.63 | 21 | 480 | 1.4 | 9020 | 1450 | - | - | | | | |
| 62.35* | 22 | 480 | 1.5 | 9020 | 1450 | - | - | | | | |
| 58.80* | 24 | 500 | 1.9 | 8850 | 2620 | - | - | S 67 | AD3 | 30 654 | |
| | | | | | | | | SF 67 | AD3 | 37 654 | |
| | | | | | | | | SA 67 | AD3 | 32 654 | |
| | | | | | | | | SAF 67 | AD3 | 36 654 | |
| 54.70 | 26 | 480 | 1.7 | 8670 | 1420 | - | - | | | | |
| 46.40* | 30 | 480 | 1.9 | 8060 | 1410 | - | - | | | | |
| 41.89 | 33 | 480 | 2.1 | 7690 | 1390 | - | - | | | | |
| 36.85 | 38 | 480 | 2.4 | 7250 | 1380 | - | - | | | | |
| 34.80* | 40 | 480 | 2.5 | 7060 | 1370 | - | - | S 67 | AD2 | 27 654 | |
| 29.63 | 47 | 480 | 3.0 | 6540 | 1330 | - | - | SF 67 | AD2 | 34 654 | |
| 26.93 | 52 | 480 | 3.2 | 6240 | 1310 | - | - | SA 67 | AD2 | 28 654 | |
| 24.44 | 57 | 340 | 2.4 | 6040 | 1120 | - | - | SAF 67 | AD2 | 33 654 | |
| 23.33 | 60 | 480 | 3.7 | 5810 | 1280 | - | - | | | | |
| 23.22* | 60 | 340 | 2.5 | 5890 | 1120 | - | - | | | | |
| 20.37 | 69 | 340 | 2.8 | 5520 | 1080 | - | - | | | | |
| 20.30* | 69 | 425 | 3.8 | 5760 | 2340 | - | - | S 67 | AD3 | 30 654 | |
| | | | | | | | | SF 67 | AD3 | 37 654 | |
| | | | | | | | | SA 67 | AD3 | 32 654 | |
| | | | | | | | | SAF 67 | AD3 | 36 654 | |




| S67 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | | 520 Nm | |
|--|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|------|--|--------|---------|--------|-----|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Ψ _(/R) | | | | m kg | | |
| 17.28* | 81 | 340 | 3.3 | 5080 | 1050 | - | - | | S 67 | AD2 | 27 | 654 |
| 15.60* | 90 | 340 | 3.6 | 4820 | 1020 | - | - | | SF 67 | AD2 | 34 | 654 |
| 13.73* | 102 | 340 | 4.1 | 4510 | 1000 | - | - | | SA 67 | AD2 | 28 | 654 |
| 12.96* | 108 | 340 | 4.4 | 4310 | 980 | - | - | | SAF 67 | AD2 | 33 | 654 |
| 11.03 | 127 | 340 | 5.1 | 3660 | 1940 | - | - | | S 67 | AD3 | 30 | 654 |
| 10.03 | 140 | 340 | 5.6 | 3290 | 1910 | - | M1-6 | | SF 67 | AD3 | 37 | 654 |
| 8.69 | 161 | 335 | 6.4 | 2860 | 1860 | - | M1-6 | | SA 67 | AD3 | 32 | 654 |
| 7.56* | 185 | 295 | 6.4 | 3220 | 1930 | - | M1-6 | | SAF 67 | AD3 | 36 | 654 |




| S67p AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | | 720 Nm | |
|---|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|---------|---------|---------|--------|-----|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Ψ _(/R) | | | | m kg | | |
| 217.41 | 6.4 | 640 | 0.60 | 10100 | 1480 | - | - | | | | | |
| 190.11 | 7.4 | 640 | 0.68 | 10100 | 1460 | - | - | | | | | |
| 180.60* | 7.8 | 645 | 0.72 | 10100 | 1460 | - | - | | | | | |
| 158.45 | 8.8 | 645 | 0.81 | 10100 | 1420 | - | - | | | | | |
| 134.40* | 10 | 645 | 0.95 | 10100 | 1390 | - | - | | | | | |
| 121.33 | 12 | 625 | 1.0 | 10200 | 1400 | - | - | | S 67p | AD2 | 27 | 654 |
| 106.75* | 13 | 645 | 1.2 | 10100 | 1650 | - | - | | SF 67p | AD2 | 34 | 654 |
| 100.80* | 14 | 645 | 1.3 | 10100 | 1640 | - | - | | SA 67p | AD2 | 28 | 654 |
| 85.83 | 16 | 660 | 1.5 | 9700 | 1620 | - | - | | SAF 67p | AD2 | 33 | 654 |
| 78.00* | 18 | 660 | 1.6 | 9280 | 1610 | - | - | | | | | |
| 75.06 | 19 | 720 | 1.6 | 8340 | 1300 | - | - | | | | | |
| 67.57 | 21 | 650 | 1.9 | 8740 | 1590 | - | - | | | | | |
| 65.63 | 21 | 720 | 1.9 | 7790 | 1290 | - | - | | | | | |
| 62.35* | 22 | 720 | 2.0 | 7580 | 1280 | - | - | | | | | |
| 58.80* | 24 | 625 | 2.0 | 8320 | 2600 | - | - | S 67p | AD3 | 30 | 654 | |
| | | | | | | | | SF 67p | AD3 | 37 | 654 | |
| | | | | | | | | SA 67p | AD3 | 32 | 654 | |
| | | | | | | | | SAF 67p | AD3 | 36 | 654 | |
| 54.70 | 26 | 705 | 2.2 | 7170 | 1270 | - | - | | | | | |
| 46.40* | 30 | 680 | 2.5 | 6720 | 1260 | - | - | | | | | |
| 41.89 | 33 | 670 | 2.7 | 6420 | 1250 | - | - | | | | | |
| 36.85 | 38 | 655 | 3.0 | 6070 | 1250 | - | - | | S 67p | AD2 | 27 | 654 |
| 34.80* | 40 | 640 | 3.1 | 5970 | 1250 | - | - | | SF 67p | AD2 | 34 | 654 |
| 29.63 | 47 | 620 | 3.5 | 5580 | 1220 | - | - | | SA 67p | AD2 | 28 | 654 |
| 26.93 | 52 | 600 | 3.7 | 5410 | 1220 | - | - | | SAF 67p | AD2 | 33 | 654 |
| 24.44 | 57 | 365 | 2.4 | 5860 | 1110 | - | - | | | | | |
| 23.33 | 60 | 525 | 3.8 | 5440 | 1260 | - | - | | | | | |
| 23.22* | 60 | 355 | 2.4 | 5790 | 1130 | - | - | | | | | |
| 20.37 | 69 | 435 | 3.4 | 4700 | 910 | - | - | | | | | |
| 20.30* | 69 | 450 | 3.7 | 5490 | 2340 | - | - | S 67p | AD3 | 30 | 654 | |
| | | | | | | | | SF 67p | AD3 | 37 | 654 | |
| | | | | | | | | SA 67p | AD3 | 32 | 654 | |
| | | | | | | | | SAF 67p | AD3 | 36 | 654 | |
| 17.28* | 81 | 415 | 3.8 | 4320 | 910 | - | - | | S 67p | AD2 | 27 | 654 |
| 15.60* | 90 | 410 | 4.2 | 3960 | 890 | - | - | | SF 67p | AD2 | 34 | 654 |
| 13.73* | 102 | 395 | 4.6 | 3690 | 900 | - | - | | SA 67p | AD2 | 28 | 654 |
| 12.96* | 108 | 390 | 4.8 | 3550 | 890 | - | - | | SAF 67p | AD2 | 33 | 654 |
| 11.03 | 127 | 375 | 5.4 | 3190 | 1890 | - | - | | S 67p | AD3 | 30 | 654 |
| 10.03 | 140 | 365 | 5.8 | 3020 | 1870 | - | - | | SF 67p | AD3 | 37 | 654 |
| 8.69 | 161 | 350 | 6.4 | 2780 | 1850 | - | - | | SA 67p | AD3 | 32 | 654 |
| 7.56* | 185 | 330 | 6.9 | 2680 | 1850 | - | - | | SAF 67p | AD3 | 36 | 654 |

S.. helical-worm gear units

Selection tables for input shaft assembly (AD..)

| S67pR37 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 720 Nm |
|--|----------------------------|-------------------------|-------------|----------------------------|----------------------|--------------|---|--|---------|---|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{\text{Ra}}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  |
| 21362 | 0.07 | 645 | <0.05 | 10000 | 820 | - | - | | | |
| 19594 | 0.07 | 645 | <0.05 | 10000 | 820 | - | - | | | |
| 18120 | 0.08 | 645 | <0.05 | 10000 | 820 | - | - | | | |
| 16682 | 0.08 | 645 | <0.05 | 10000 | 820 | - | - | | | |
| 14383 | 0.10 | 645 | <0.05 | 10000 | 820 | - | - | | | |
| 12774 | 0.11 | 645 | <0.05 | 10000 | 820 | - | - | | | |
| 11013 | 0.13 | 645 | <0.05 | 10000 | 820 | - | - | | | |
| 9694 | 0.14 | 645 | <0.05 | 10000 | 820 | - | - | | | |
| 8529 | 0.16 | 645 | <0.05 | 10000 | 820 | - | - | | | |
| 7455 | 0.19 | 645 | 0.05 | 10000 | 820 | - | - | | | |
| 6531 | 0.21 | 645 | 0.06 | 10000 | 820 | - | - | | | |
| 5759 | 0.24 | 720 | <0.05 | 9100 | 820 | - | - | S 67pR37 AD1 | 37 | 654 |
| 4965 | 0.28 | 720 | 0.06 | 9100 | 820 | - | - | SF 67pR37 AD1 | 44 | 654 |
| 4410 | 0.32 | 720 | 0.06 | 9100 | 820 | - | - | SA 67pR37 AD1 | 38 | 654 |
| 3880 | 0.36 | 720 | 0.06 | 9100 | 810 | - | - | SAF 67pR37 AD1 | 43 | 654 |
| 3432 | 0.41 | 720 | 0.07 | 9100 | 810 | - | - | | | |
| 2944 | 0.48 | 700 | 0.07 | 9220 | 810 | - | - | | | |
| 2630 | 0.53 | 720 | 0.08 | 9100 | 810 | - | - | | | |
| 2279 | 0.61 | 660 | 0.09 | 9460 | 810 | - | - | | | |
| 2014 | 0.70 | 720 | 0.10 | 9100 | 800 | - | - | | | |
| 1772 | 0.79 | 720 | 0.11 | 9100 | 795 | - | - | | | |
| 1559 | 0.90 | 700 | 0.12 | 9220 | 795 | - | - | | | |
| 1363 | 1.0 | 700 | 0.14 | 9220 | 795 | - | - | | | |
| 1194 | 1.2 | 720 | 0.16 | 9100 | 790 | - | - | | | |
| 1045 | 1.3 | 640 | 0.15 | 9580 | 780 | - | - | | | |
| 914 | 1.5 | 640 | 0.17 | 9580 | 780 | - | - | | | |
| 809 | 1.7 | 720 | 0.21 | 9100 | 755 | - | - | | | |
| 712 | 2.0 | 720 | 0.24 | 9100 | 745 | - | - | | | |
| 615 | 2.3 | 720 | 0.27 | 9100 | 755 | - | - | | | |
| 543 | 2.6 | 700 | 0.29 | 9230 | 735 | - | - | | | |
| 469 | 3.0 | 720 | 0.34 | 9130 | 750 | - | - | | | |
| 424 | 3.3 | 720 | 0.37 | 9140 | 740 | - | - | S 67pR37 AD1 | 37 | 654 |
| 365 | 3.8 | 720 | 0.41 | 9150 | 630 | - | - | SF 67pR37 AD1 | 43 | 654 |
| 319 | 4.4 | 660 | 0.43 | 9530 | 685 | - | - | SA 67pR37 AD1 | 38 | 654 |
| 281 | 5.0 | 680 | 0.49 | 9420 | 685 | - | - | SAF 67pR37 AD1 | 42 | 654 |
| 246 | 5.7 | 720 | 0.57 | 9190 | 480 | - | - | | | |
| 221 | 6.3 | 640 | 0.57 | 9670 | 635 | - | - | | | |
| 198 | 7.1 | 680 | 0.65 | 9440 | 405 | - | - | | | |
| 168 | 8.3 | 680 | 0.75 | 9450 | 390 | - | - | | | |
| 156 | 9.0 | 640 | 0.77 | 9690 | 1490 | - | - | S 67pR37 AD2 | 38 | 654 |
| | | | | | | | | SF 67pR37 AD2 | 45 | 654 |
| | | | | | | | | SA 67pR37 AD2 | 39 | 654 |
| | | | | | | | | SAF 67pR37 AD2 | 43 | 654 |


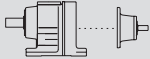

| S77 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 1270 Nm | |
|--|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|--|---------|---|--|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | |
| 256.47 | 5.5 | 1270 | 1.2 | 11700 | 1510 | - | - | | | | |
| 225.26 | 6.2 | 1270 | 1.3 | 11700 | 1500 | - | - | | | | |
| 214.00* | 6.5 | 1270 | 1.4 | 11700 | 1510 | - | - | | | | |
| 189.09 | 7.4 | 1270 | 1.5 | 11700 | 1480 | - | - | | | | |
| 161.60* | 8.7 | 1260 | 1.8 | 11800 | 1480 | - | - | | | | |
| 148.15 | 9.4 | 1240 | 1.9 | 12000 | 1480 | - | - | | | | |
| 130.00* | 11 | 1210 | 2.0 | 12200 | 1480 | - | - | | | | |
| 123.20* | 11 | 1200 | 2.1 | 12300 | 1480 | - | - | | | | |
| 107.83 | 13 | 1170 | 2.4 | 12600 | 1470 | - | - | S 77 | AD2 | 47 654 | |
| 97.14 | 14 | 1140 | 2.5 | 12800 | 1460 | - | - | SF 77 | AD2 | 57 654 | |
| 85.22 | 16 | 1100 | 2.8 | 13100 | 1460 | - | - | SA 77 | AD2 | 47 654 | |
| 75.20* | 19 | 1070 | 3.0 | 12800 | 1450 | - | - | SAF 77 | AD2 | 53 654 | |
| 75.09 | 19 | 1100 | 2.6 | 11900 | 1090 | - | - | | | | |
| 71.33 | 20 | 1100 | 2.8 | 11600 | 1090 | - | - | | | | |
| 66.67 | 21 | 1040 | 3.3 | 12300 | 1440 | - | - | | | | |
| 63.03 | 22 | 1100 | 3.1 | 10900 | 1040 | - | - | | | | |
| 56.92 | 25 | 990 | 3.6 | 11600 | 1430 | - | - | | | | |
| 53.87 | 26 | 1100 | 3.6 | 10100 | 1010 | - | - | | | | |
| 49.38 | 28 | 1100 | 3.9 | 9650 | 1000 | - | - | | | | |
| 43.33 | 32 | 1100 | 4.4 | 9010 | 970 | - | - | | | | |
| 41.07 | 34 | 1100 | 4.7 | 8750 | 950 | - | - | | | | |
| 35.94 | 39 | 1100 | 5.3 | 8140 | 1950 | - | - | | | | |
| 32.38 | 43 | 1090 | 5.8 | 7720 | 1920 | - | - | | | | |
| 28.41 | 49 | 1050 | 6.4 | 7370 | 1910 | - | - | | | | |
| 25.07 | 56 | 1020 | 7.0 | 7010 | 1890 | - | - | | | | |
| 22.89 | 61 | 705 | 5.1 | 5960 | 1680 | - | - | S 77 | AD3 | 50 654 | |
| 22.22 | 63 | 980 | 7.5 | 6740 | 1880 | - | - | SF 77 | AD3 | 60 654 | |
| 20.99 | 67 | 705 | 5.6 | 5380 | 1660 | - | - | SA 77 | AD3 | 50 654 | |
| 18.97 | 74 | 930 | 8.3 | 6390 | 1860 | - | - | SAF 77 | AD3 | 57 654 | |
| 18.42 | 76 | 705 | 6.3 | 4550 | 1620 | - | - | | | | |
| 17.45 | 80 | 710 | 6.7 | 4120 | 1590 | - | - | | | | |
| 15.28 | 92 | 710 | 7.6 | 3320 | 1540 | - | - | | | | |
| 13.76 | 102 | 710 | 8.4 | 2710 | 1480 | - | - | | | | |
| 12.07 | 116 | 720 | 9.7 | 1800 | 1390 | - | M1-6 | | | | |
| 10.65 | 131 | 720 | 11.0 | 1130 | 3300 | - | M1-6 | S 77 | AD4 | 57 654 | |
| 9.44 | 148 | 725 | 12.4 | 415 | 3220 | - | M1-6 | SF 77 | AD4 | 66 654 | |
| 8.06 | 174 | 680 | 13.6 | 440 | 3210 | - | M1-6 | SA 77 | AD4 | 56 654 | |
| | | | | | | | | SAF 77 | AD4 | 63 654 | |


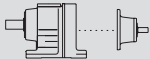

| S77p AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 1500 Nm | |
|---|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|--|---------|---|--|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | |
| 256.47 | 5.5 | 1500 | 1.1 | 12400 | 1520 | - | - | | | | |
| 225.26 | 6.2 | 1500 | 1.3 | 12400 | 1510 | - | - | | | | |
| 214.00* | 6.5 | 1500 | 1.3 | 12400 | 1510 | - | - | | | | |
| 189.09 | 7.4 | 1500 | 1.5 | 12400 | 1480 | - | - | | | | |
| 161.60* | 8.7 | 1500 | 1.8 | 12400 | 1470 | - | - | | | | |
| 148.15 | 9.4 | 1500 | 1.9 | 12400 | 1460 | - | - | | | | |
| 130.00* | 11 | 1500 | 2.2 | 12400 | 1450 | - | - | | | | |
| 123.20* | 11 | 1500 | 2.3 | 12400 | 1440 | - | - | | | | |
| 107.83 | 13 | 1470 | 2.5 | 12500 | 1430 | - | - | | | | |
| 97.14 | 14 | 1440 | 2.8 | 12600 | 1420 | - | - | S 77p | AD2 | 47 654 | |
| 85.22 | 16 | 1390 | 3.0 | 12000 | 1410 | - | - | SF 77p | AD2 | 57 654 | |
| 75.20* | 19 | 1340 | 3.3 | 11500 | 1400 | - | - | SA 77p | AD2 | 47 654 | |
| 75.09 | 19 | 1260 | 2.8 | 11000 | 1040 | - | - | SAF 77p | AD2 | 53 654 | |
| 71.33 | 20 | 1220 | 2.8 | 10900 | 1070 | - | - | | | | |
| 66.67 | 21 | 1290 | 3.6 | 11000 | 1400 | - | - | | | | |
| 63.03 | 22 | 1320 | 3.4 | 9770 | 940 | - | - | | | | |
| 56.92 | 25 | 1230 | 4.0 | 10400 | 1380 | - | - | | | | |
| 53.87 | 26 | 1300 | 3.9 | 9050 | 920 | - | - | | | | |
| 49.38 | 28 | 1280 | 4.2 | 8710 | 920 | - | - | | | | |
| 43.33 | 32 | 1250 | 4.7 | 8220 | 910 | - | - | | | | |
| 41.07 | 34 | 1240 | 4.9 | 8020 | 900 | - | - | | | | |


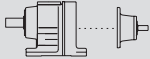

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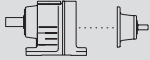

S.. helical-worm gear units

Selection tables for input shaft assembly (AD..)

| S77p AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 1500 Nm | |
|---|----------------------------|------------------|-------------|---------------------|---------------|--------------|---|--|---------|---|-----|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | |
| 35.94 | 39 | 1210 | 5.5 | 7560 | 1920 | - | - | | | | |
| 32.38 | 43 | 1180 | 5.9 | 7250 | 1900 | - | - | | | | |
| 28.41 | 49 | 1140 | 6.5 | 6890 | 1880 | - | - | | | | |
| 25.07 | 56 | 1100 | 7.1 | 6580 | 1870 | - | - | | | | |
| 22.89 | 61 | 840 | 5.8 | 4260 | 1500 | - | - | | | | |
| 22.22 | 63 | 1070 | 7.8 | 6260 | 1840 | - | - | S 77p | AD3 | 50 | 654 |
| 20.99 | 67 | 820 | 6.2 | 4010 | 1520 | - | - | SF 77p | AD3 | 60 | 654 |
| 18.97 | 74 | 1010 | 8.6 | 5960 | 1820 | - | - | SA 77p | AD3 | 50 | 654 |
| 18.42 | 76 | 800 | 6.8 | 3490 | 1510 | - | - | SAF 77p | AD3 | 57 | 654 |
| 17.45 | 80 | 795 | 7.2 | 3240 | 1490 | - | - | | | | |
| 15.28 | 92 | 765 | 7.9 | 2930 | 1490 | - | - | | | | |
| 13.76 | 102 | 745 | 8.5 | 2650 | 1460 | - | - | | | | |
| 12.07 | 116 | 720 | 9.4 | 2330 | 1430 | - | - | | | | |
| 10.65 | 131 | 720 | 10.6 | 1650 | 3360 | - | - | S 77p | AD4 | 57 | 654 |
| 9.44 | 148 | 725 | 12.0 | 940 | 3280 | - | - | SF 77p | AD4 | 66 | 654 |
| 8.06 | 174 | 680 | 13.2 | 920 | 3270 | - | - | SA 77p | AD4 | 56 | 654 |
| | | | | | | | | SAF 77p | AD4 | 63 | 654 |

| S77pR37 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 1500 Nm | |
|--|----------------------------|------------------|-------------|---------------------|---------------|--------------|---|--|---------|---|-----|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | |
| 25493 | 0.05 | 1500 | <0.05 | 12200 | 820 | - | - | | | | |
| 21787 | 0.06 | 1500 | <0.05 | 12200 | 820 | - | - | | | | |
| 19907 | 0.07 | 1500 | <0.05 | 12200 | 820 | - | - | | | | |
| 17013 | 0.08 | 1500 | <0.05 | 12200 | 820 | - | - | | | | |
| 14668 | 0.10 | 1500 | 0.05 | 12200 | 820 | - | - | | | | |
| 13110 | 0.11 | 1500 | 0.06 | 12200 | 820 | - | - | | | | |
| 11569 | 0.12 | 1500 | 0.06 | 12200 | 820 | - | - | | | | |
| 9887 | 0.14 | 1500 | 0.07 | 12200 | 820 | - | - | | | | |
| 8817 | 0.16 | 1500 | 0.07 | 12200 | 810 | - | - | | | | |
| 7735 | 0.18 | 1500 | 0.07 | 12200 | 810 | - | - | | | | |
| 6735 | 0.21 | 1500 | 0.09 | 12200 | 810 | - | - | | | | |
| 5943 | 0.24 | 1500 | 0.10 | 12200 | 810 | - | - | S 77pR37 | AD1 | 56 | 654 |
| 5214 | 0.27 | 1500 | 0.10 | 12200 | 800 | - | - | SF 77pR37 | AD1 | 66 | 654 |
| 4618 | 0.30 | 1500 | 0.12 | 12200 | 810 | - | - | SA 77pR37 | AD1 | 56 | 654 |
| 3992 | 0.35 | 1500 | 0.13 | 12200 | 800 | - | - | SAF 77pR37 | AD1 | 62 | 654 |
| 3540 | 0.40 | 1500 | 0.14 | 12200 | 800 | - | - | | | | |
| 3098 | 0.45 | 1500 | 0.16 | 12200 | 795 | - | - | | | | |
| 2753 | 0.51 | 1440 | 0.12 | 11500 | 785 | - | - | | | | |
| 2374 | 0.59 | 1440 | 0.14 | 11500 | 785 | - | - | | | | |
| 2083 | 0.67 | 1440 | 0.16 | 11500 | 780 | - | - | | | | |
| 1813 | 0.77 | 1440 | 0.18 | 11500 | 780 | - | - | | | | |
| 1745 | 0.80 | 1450 | 0.19 | 11500 | 780 | - | - | | | | |
| 1600 | 0.87 | 1440 | 0.20 | 11500 | 775 | - | - | | | | |
| 1404 | 1.0 | 1440 | 0.23 | 11500 | 770 | - | - | | | | |
| 1245 | 1.1 | 1440 | 0.26 | 11500 | 765 | - | - | | | | |
| 1100 | 1.3 | 1440 | 0.28 | 11500 | 690 | - | - | | | | |
| 954 | 1.5 | 1440 | 0.32 | 11500 | 680 | - | - | | | | |
| 837 | 1.7 | 1440 | 0.36 | 11500 | 635 | - | - | | | | |
| 714 | 2.0 | 1450 | 0.42 | 11500 | 670 | - | - | S 77pR37 | AD1 | 56 | 654 |
| 637 | 2.2 | 1450 | 0.47 | 11500 | 655 | - | - | SF 77pR37 | AD1 | 66 | 654 |
| 574 | 2.4 | 1440 | 0.51 | 11500 | 595 | - | - | SA 77pR37 | AD1 | 56 | 654 |
| 499 | 2.8 | 1440 | 0.58 | 11600 | 610 | - | - | SAF 77pR37 | AD1 | 62 | 654 |
| 438 | 3.2 | 1440 | 0.64 | 11600 | 565 | - | - | | | | |
| 389 | 3.6 | 1400 | 0.70 | 11800 | 545 | - | - | | | | |
| 327 | 4.3 | 1400 | 0.81 | 11800 | 520 | - | - | | | | |
| 289 | 4.8 | 1440 | 0.93 | 11700 | 1300 | - | - | S 77pR37 | AD2 | 57 | 654 |
| 250 | 5.6 | 1440 | 1.1 | 11700 | 1650 | - | - | SF 77pR37 | AD2 | 67 | 654 |
| 219 | 6.4 | 1440 | 1.2 | 11700 | 1620 | - | - | SA 77pR37 | AD2 | 57 | 654 |
| | | | | | | | | SAF 77pR37 | AD2 | 63 | 654 |

| S87 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 2280 Nm | |
|--|-------------------------------------|-------------------------|----------------------|------------------------------------|----------------------|-------------------|---|--|---------|---|--|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | |
| 288.00* | 4.9 | 2280 | 1.8 | 27900 | 1390 | - | - | | | | |
| 258.18 | 5.4 | 2280 | 1.9 | 27900 | 1380 | - | - | | | | |
| 222.40* | 6.3 | 2280 | 2.2 | 27900 | 1370 | - | - | | | | |
| 202.96 | 6.9 | 2260 | 2.4 | 28000 | 1370 | - | - | | | | |
| 180.00* | 7.8 | 2210 | 2.6 | 28100 | 1370 | - | - | | | | |
| 151.30 | 9.2 | 2150 | 3.0 | 28200 | 1360 | - | - | | | | |
| 139.05 | 10 | 2100 | 3.2 | 28300 | 1360 | - | - | S 87 | AD2 | 83 654 | |
| 123.48 | 11 | 2060 | 3.5 | 28300 | 1360 | - | - | SF 87 | AD2 | 105 654 | |
| 110.40* | 13 | 2000 | 3.8 | 28400 | 1350 | - | - | SA 87 | AD2 | 80 654 | |
| 99.26 | 14 | 1960 | 4.1 | 28500 | 1340 | - | - | SAF 87 | AD2 | 97 654 | |
| 91.20* | 15 | 1510 | 2.9 | 29100 | 1040 | - | - | | | | |
| 86.15 | 16 | 1880 | 4.5 | 28600 | 1340 | - | - | | | | |
| 81.76 | 17 | 1600 | 3.4 | 29000 | 970 | - | - | | | | |
| 77.14 | 18 | 1820 | 4.8 | 28700 | 1330 | - | - | | | | |
| 70.43 | 20 | 1600 | 4.0 | 29000 | 950 | - | - | | | | |
| 64.27 | 22 | 1600 | 4.3 | 29000 | 930 | - | - | | | | |
| 64.00* | 22 | 1700 | 5.3 | 28900 | 2250 | - | - | S 87 | AD3 | 87 654 | |
| | | | | | | | | SF 87 | AD3 | 110 654 | |
| | | | | | | | | SA 87 | AD3 | 85 654 | |
| | | | | | | | | SAF 87 | AD3 | 100 654 | |
| 57.00* | 25 | 1600 | 4.9 | 29000 | 910 | - | - | S 87 | AD2 | 83 654 | |
| | | | | | | | | SF 87 | AD2 | 105 654 | |
| | | | | | | | | SA 87 | AD2 | 80 654 | |
| | | | | | | | | SAF 87 | AD2 | 97 654 | |
| 47.91 | 29 | 1600 | 5.8 | 29000 | 1820 | - | - | | | | |
| 44.03 | 32 | 1600 | 6.2 | 29000 | 1800 | - | - | S 87 | AD3 | 87 654 | |
| 39.10 | 36 | 1600 | 7.0 | 28200 | 1760 | - | - | SF 87 | AD3 | 110 654 | |
| 34.96* | 40 | 1600 | 7.8 | 27100 | 1720 | - | - | SA 87 | AD3 | 85 654 | |
| 31.43 | 45 | 1600 | 8.6 | 26000 | 1680 | - | - | SAF 87 | AD3 | 100 654 | |
| 27.28 | 51 | 1600 | 9.9 | 24700 | 1620 | - | - | | | | |
| 25.50* | 55 | 1240 | 8.0 | 23400 | 3310 | - | - | | | | |
| 24.43 | 57 | 1600 | 11.1 | 23700 | 3590 | - | - | | | | |
| 21.43 | 65 | 1240 | 9.5 | 21800 | 3260 | - | - | | | | |
| 20.27 | 69 | 1600 | 13.2 | 22100 | 3490 | - | - | | | | |
| 19.70 | 71 | 1240 | 10.3 | 21100 | 3200 | - | - | S 87 | AD4 | 93 654 | |
| 17.49 | 80 | 1240 | 11.5 | 20200 | 3150 | - | - | SF 87 | AD4 | 115 654 | |
| 15.64* | 90 | 1240 | 12.8 | 19300 | 3100 | - | - | SA 87 | AD4 | 91 654 | |
| 14.06 | 100 | 1240 | 14.3 | 18500 | 3040 | - | - | SAF 87 | AD4 | 105 654 | |
| 12.21 | 115 | 1240 | 16.4 | 17400 | 2950 | - | M1-6 | | | | |
| 10.93 | 128 | 1240 | 18.2 | 16400 | 2870 | - | M1-6 | | | | |
| 9.07 | 154 | 1140 | 20 | 15900 | 2860 | - | M1-6 | | | | |
| 7.88 | 178 | 1010 | 21 | 15700 | 2980 | - | M1-6 | | | | |

| S87p AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 3000 Nm | |
|---|-------------------------------------|-------------------------|----------------------|------------------------------------|----------------------|-------------------|---|--|---------|---|--|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | |
| 288.00* | 4.9 | 2950 | 1.9 | 21600 | 1340 | - | - | | | | |
| 258.18 | 5.4 | 2920 | 2.1 | 22600 | 1330 | - | - | | | | |
| 222.40* | 6.3 | 2860 | 2.4 | 24400 | 1330 | - | - | | | | |
| 202.96 | 6.9 | 2820 | 2.6 | 25500 | 1330 | - | - | | | | |
| 180.00* | 7.8 | 2780 | 2.8 | 26200 | 1320 | - | - | | | | |
| 151.30 | 9.2 | 2680 | 3.2 | 27100 | 1320 | - | - | | | | |
| 139.05 | 10 | 2670 | 3.5 | 27100 | 1300 | - | - | S 87p | AD2 | 83 654 | |
| 123.48 | 11 | 2580 | 3.8 | 27300 | 1300 | - | - | SF 87p | AD2 | 105 654 | |
| 110.40* | 13 | 2510 | 4.1 | 27500 | 1290 | - | - | SA 87p | AD2 | 80 654 | |
| 99.26 | 14 | 2440 | 4.5 | 27600 | 1280 | - | - | SAF 87p | AD2 | 97 654 | |
| 91.20* | 15 | 1580 | 2.8 | 29000 | 1060 | - | - | | | | |
| 86.15 | 16 | 2360 | 5.0 | 27800 | 1270 | - | - | | | | |
| 81.76 | 17 | 2460 | 4.9 | 27500 | 235 | - | - | | | | |
| 77.14 | 18 | 2280 | 5.4 | 27900 | 1260 | - | - | | | | |
| 70.43 | 20 | 2400 | 5.5 | 27700 | 245 | - | - | | | | |
| 64.27 | 22 | 2380 | 6.0 | 27700 | 200 | - | - | | | | |
| 64.00* | 22 | 2160 | 6.1 | 28200 | 2170 | - | - | S 87p | AD3 | 87 654 | |
| | | | | | | | | SF 87p | AD3 | 110 654 | |
| | | | | | | | | SA 87p | AD3 | 85 654 | |
| | | | | | | | | SAF 87p | AD3 | 100 654 | |


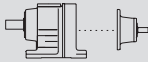

26878585/EN – 11/2021




S.. helical-worm gear units

Selection tables for input shaft assembly (AD..)

| S87p AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | | 3000 Nm | |
|---|-------------------------------------|-------------------------|----------------------|------------------------------------|----------------------|-------------------|---|--|---------|---------|---------|-----|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ¹⁾ N | F _{Re} N | Ψ _(/R) | | | | m kg | | |
| 57.00* | 25 | 2290 | 6.5 | 27900 | 280 | - | - | | S 87p | AD2 | 83 | 654 |
| | | | | | | | | | SF 87p | AD2 | 105 | 654 |
| | | | | | | | | | SA 87p | AD2 | 80 | 654 |
| | | | | | | | | | SAF 87p | AD2 | 97 | 654 |
| 47.91 | 29 | 2260 | 7.6 | 28000 | 1500 | - | - | | S 87p | AD3 | 87 | 654 |
| 44.03 | 32 | 2210 | 8.1 | 27300 | 1500 | - | - | | SF 87p | AD3 | 110 | 654 |
| 39.10 | 36 | 2160 | 8.9 | 26200 | 1480 | - | - | | SA 87p | AD3 | 85 | 654 |
| 34.96* | 40 | 2090 | 9.6 | 25400 | 1470 | - | - | | SAF 87p | AD3 | 100 | 654 |
| 31.43 | 45 | 2040 | 10.4 | 24500 | 1450 | - | - | | | | | |
| 27.28 | 51 | 1970 | 11.6 | 23400 | 1420 | - | - | | | | | |
| 25.50* | 55 | 1440 | 8.8 | 22800 | 3150 | - | - | | | | | |
| 24.43 | 57 | 1890 | 12.4 | 22700 | 3460 | - | - | | | | | |
| 21.43 | 65 | 1420 | 10.4 | 21400 | 3100 | - | - | | | | | |
| 20.27 | 69 | 1760 | 13.9 | 21600 | 3430 | - | - | | | | | |
| 19.70 | 71 | 1370 | 10.9 | 20900 | 3120 | - | - | | S 87p | AD4 | 93 | 654 |
| 17.49 | 80 | 1310 | 11.7 | 20200 | 3130 | - | - | | SF 87p | AD4 | 115 | 654 |
| 15.64* | 90 | 1260 | 12.6 | 19600 | 3140 | - | - | | SA 87p | AD4 | 91 | 654 |
| 14.06 | 100 | 1240 | 13.8 | 18900 | 3100 | - | - | | SAF 87p | AD4 | 105 | 654 |
| 12.21 | 115 | 1240 | 15.9 | 17800 | 3010 | - | - | | | | | |
| 10.93 | 128 | 1240 | 17.7 | 16800 | 2940 | - | - | | | | | |
| 9.07 | 154 | 1140 | 19.6 | 16300 | 2920 | - | - | | | | | |
| 7.88 | 178 | 1010 | 20 | 16100 | 3030 | - | - | | | | | |

| S87pR57 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | | 3000 Nm | |
|--|-------------------------------------|-------------------------|----------------------|------------------------------------|----------------------|-------------------|---|--|------------|---------|---------|-----|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ¹⁾ N | F _{Re} N | Ψ _(/R) | | | | m kg | | |
| 25987 | 0.05 | 3000 | 0.06 | 19800 | 1890 | - | - | | | | | |
| 23940 | 0.06 | 3000 | 0.07 | 19800 | 1890 | - | - | | | | | |
| 20568 | 0.07 | 3000 | 0.07 | 19800 | 1890 | - | - | | | | | |
| 18265 | 0.08 | 3000 | 0.08 | 19800 | 1890 | - | - | | | | | |
| 16774 | 0.08 | 3000 | 0.08 | 19800 | 1890 | - | - | | | | | |
| 14820 | 0.09 | 3000 | 0.09 | 19800 | 1890 | - | - | | | | | |
| 13160 | 0.11 | 3000 | 0.09 | 19800 | 1890 | - | - | | S 87pR57 | AD2 | 105 | 654 |
| 11200 | 0.13 | 3000 | 0.11 | 19800 | 1890 | - | - | | SF 87pR57 | AD2 | 130 | 654 |
| 9904 | 0.14 | 2900 | 0.11 | 23200 | 1880 | - | - | | SA 87pR57 | AD2 | 105 | 654 |
| 8549 | 0.16 | 3000 | 0.12 | 19800 | 1880 | - | - | | SAF 87pR57 | AD2 | 120 | 654 |
| 7643 | 0.18 | 2950 | 0.13 | 21600 | 1870 | - | - | | | | | |
| 6706 | 0.21 | 3000 | 0.15 | 19800 | 1880 | - | - | | | | | |
| 5875 | 0.24 | 2950 | 0.16 | 21600 | 1870 | - | - | | | | | |
| 5187 | 0.27 | 3000 | 0.19 | 19800 | 1870 | - | - | | | | | |
| 4606 | 0.30 | 3000 | 0.21 | 19800 | 1870 | - | - | | | | | |
| 3872 | 0.36 | 2950 | 0.24 | 21600 | 1860 | - | - | | | | | |
| 3475 | 0.40 | 3000 | 0.25 | 19800 | 1840 | - | - | | | | | |
| 2905 | 0.48 | 2950 | 0.29 | 21600 | 1820 | - | - | | | | | |
| 2586 | 0.54 | 3000 | 0.33 | 19800 | 1830 | - | - | | | | | |
| 2335 | 0.60 | 3000 | 0.36 | 19800 | 1830 | - | - | | | | | |
| 2054 | 0.68 | 3000 | 0.40 | 19800 | 1830 | - | - | | | | | |
| 1824 | 0.77 | 3000 | 0.44 | 19800 | 1820 | - | - | | | | | |
| 1631 | 0.86 | 2950 | 0.47 | 21600 | 1810 | - | - | | | | | |
| 1332 | 1.1 | 3000 | 0.56 | 19800 | 1810 | - | - | | | | | |
| 1191 | 1.2 | 2950 | 0.60 | 21600 | 1800 | - | - | | | | | |
| 1032 | 1.4 | 2950 | 0.67 | 21600 | 1800 | - | - | | | | | |
| 930 | 1.5 | 3000 | 0.73 | 19800 | 1760 | - | - | | S 87pR57 | AD2 | 105 | 654 |
| 831 | 1.7 | 2950 | 0.78 | 21600 | 1750 | - | - | | SF 87pR57 | AD2 | 130 | 654 |
| 719 | 1.9 | 3000 | 0.90 | 19800 | 1750 | - | - | | SA 87pR57 | AD2 | 105 | 654 |
| 624 | 2.2 | 3000 | 1.0 | 19800 | 1740 | - | - | | SAF 87pR57 | AD2 | 120 | 654 |
| 558 | 2.5 | 2950 | 1.1 | 21600 | 1730 | - | - | | | | | |
| 485 | 2.9 | 2950 | 1.2 | 21600 | 1720 | - | - | | | | | |
| 435 | 3.2 | 2900 | 1.3 | 23200 | 1690 | - | - | | | | | |
| 378 | 3.7 | 2900 | 1.5 | 23200 | 1680 | - | - | | | | | |
| 323 | 4.3 | 2900 | 1.7 | 23200 | 1620 | - | - | | | | | |
| 281 | 5.0 | 2900 | 2.0 | 23200 | 1610 | - | - | | | | | |
| 255 | 5.5 | 2590 | 1.8 | 27000 | 1610 | - | - | | | | | |
| 222 | 6.3 | 2660 | 2.1 | 26000 | 1560 | - | - | | | | | |
| 205 | 6.8 | 2590 | 2.2 | 27100 | 1460 | - | - | | | | | |


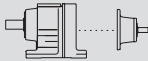

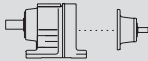
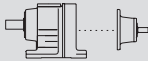
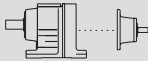
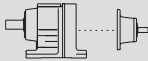
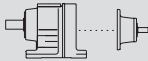

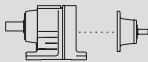

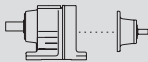
| S97 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 4000 Nm | |
|--|-------------------------------------|-------------------------|----------------------|------------------------------------|----------------------|-------------------|---|--|---------|---|--|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | |
| 286.40* | 4.9 | 4000 | 3.0 | 33200 | 2100 | - | - | | | | |
| 262.22 | 5.3 | 4000 | 3.2 | 33200 | 2100 | - | - | | | | |
| 231.67 | 6.0 | 4000 | 3.6 | 33200 | 2080 | - | - | | | | |
| 196.52 | 7.1 | 4000 | 4.2 | 33200 | 2060 | - | - | | | | |
| 180.95 | 7.7 | 3920 | 4.5 | 33400 | 2060 | - | - | S 97 | AD3 | 145 654 | |
| 161.74 | 8.7 | 3840 | 4.8 | 33500 | 2060 | - | - | SF 97 | AD3 | 180 654 | |
| 145.60* | 9.6 | 3730 | 5.2 | 33700 | 2060 | - | - | SA 97 | AD3 | 140 654 | |
| 131.85 | 11 | 3650 | 5.6 | 33900 | 2060 | - | - | SAF 97 | AD3 | 165 654 | |
| 116.92 | 12 | 3510 | 6.0 | 34100 | 2060 | - | - | | | | |
| 105.71 | 13 | 3440 | 6.5 | 34300 | 2060 | - | - | | | | |
| 89.60* | 16 | 3240 | 7.2 | 34600 | 2050 | - | - | | | | |
| 80.85 | 17 | 3230 | 6.8 | 34600 | 1280 | - | - | | | | |
| 78.26 | 18 | 3080 | 7.8 | 34800 | 2050 | - | - | | | | |
| 71.43 | 20 | 3300 | 7.9 | 34500 | 3300 | - | - | S 97 | AD4 | 150 654 | |
| | | | | | | | | SF 97 | AD4 | 185 654 | |
| | | | | | | | | SA 97 | AD4 | 145 654 | |
| | | | | | | | | SAF 97 | AD4 | 170 654 | |
| 65.45 | 21 | 2900 | 8.7 | 35100 | 2030 | - | - | S 97 | AD3 | 145 654 | |
| | | | | | | | | SF 97 | AD3 | 180 654 | |
| | | | | | | | | SA 97 | AD3 | 140 654 | |
| | | | | | | | | SAF 97 | AD3 | 165 654 | |
| 60.59 | 23 | 3300 | 9.2 | 34500 | 3260 | - | - | | | | |
| 55.79 | 25 | 3300 | 10.0 | 34500 | 3210 | - | - | | | | |
| 49.87 | 28 | 3300 | 11.1 | 34500 | 3180 | - | - | S 97 | AD4 | 150 654 | |
| 44.89 | 31 | 3300 | 12.3 | 34100 | 3130 | - | - | SF 97 | AD4 | 185 654 | |
| 40.65 | 34 | 3300 | 13.6 | 32800 | 3090 | - | - | SA 97 | AD4 | 145 654 | |
| 36.05 | 39 | 3300 | 15.3 | 31300 | 3040 | - | - | SAF 97 | AD4 | 170 654 | |
| 32.60 | 43 | 3200 | 16.3 | 30400 | 3030 | - | - | | | | |
| 27.63 | 51 | 3010 | 18.1 | 29000 | 6220 | - | - | S 97 | AD5 | 170 654 | |
| | | | | | | | | SF 97 | AD5 | 200 654 | |
| | | | | | | | | SA 97 | AD5 | 165 654 | |
| | | | | | | | | SAF 97 | AD5 | 190 654 | |
| 26.39 | 53 | 2600 | 15.8 | 26100 | 2040 | - | - | S 97 | AD4 | 150 654 | |
| | | | | | | | | SF 97 | AD4 | 185 654 | |
| | | | | | | | | SA 97 | AD4 | 145 654 | |
| | | | | | | | | SAF 97 | AD4 | 170 654 | |
| 24.13 | 58 | 2870 | 19.7 | 28000 | 6220 | - | - | | | | |
| 23.59 | 59 | 2600 | 17.7 | 24500 | 5470 | - | - | | | | |
| 21.23 | 66 | 2600 | 19.6 | 22800 | 5410 | - | - | | | | |
| 19.23 | 73 | 2600 | 22 | 21200 | 5350 | - | - | S 97 | AD5 | 170 654 | |
| 17.05 | 82 | 2570 | 24 | 19700 | 5300 | - | M1-6 | SF 97 | AD5 | 200 654 | |
| 15.42 | 91 | 2470 | 26 | 19400 | 5320 | - | M1-6 | SA 97 | AD5 | 165 654 | |
| 13.07 | 107 | 2330 | 28 | 18800 | 5300 | - | M1-6 | SAF 97 | AD5 | 190 654 | |
| 11.41 | 123 | 2210 | 31 | 18400 | 5310 | - | M1-6 | | | | |
| 9.55 | 147 | 2040 | 34 | 18200 | 5310 | - | M1-6 | | | | |
| 8.26 | 169 | 1770 | 34 | 18800 | 5480 | - | M1-6 | | | | |


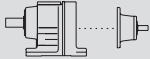

| S97p AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 4300 Nm | |
|---|-------------------------------------|-------------------------|----------------------|------------------------------------|----------------------|-------------------|---|--|---------|---|--|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | |
| 286.40* | 4.9 | 4300 | 2.8 | 32500 | 2150 | - | - | | | | |
| 262.22 | 5.3 | 4300 | 3.0 | 32500 | 2140 | - | - | | | | |
| 231.67 | 6.0 | 4300 | 3.4 | 32500 | 2120 | - | - | | | | |
| 196.52 | 7.1 | 4300 | 4.0 | 32500 | 2100 | - | - | | | | |
| 180.95 | 7.7 | 4300 | 4.3 | 32500 | 2080 | - | - | | | | |
| 161.74 | 8.7 | 4300 | 4.8 | 32500 | 2060 | - | - | S 97p | AD3 | 145 654 | |
| 145.60* | 9.6 | 4300 | 5.3 | 32500 | 2040 | - | - | SF 97p | AD3 | 180 654 | |
| 131.85 | 11 | 4300 | 5.9 | 32500 | 2020 | - | - | SA 97p | AD3 | 140 654 | |
| 116.92 | 12 | 4300 | 6.6 | 32500 | 1990 | - | - | SAF 97p | AD3 | 165 654 | |
| 105.71 | 13 | 4290 | 7.3 | 32600 | 1960 | - | - | | | | |
| 89.60* | 16 | 4070 | 8.1 | 33000 | 1940 | - | - | | | | |
| 80.85 | 17 | 3230 | 6.4 | 34600 | 1400 | - | - | | | | |
| 78.26 | 18 | 3910 | 8.9 | 33400 | 1930 | - | - | | | | |

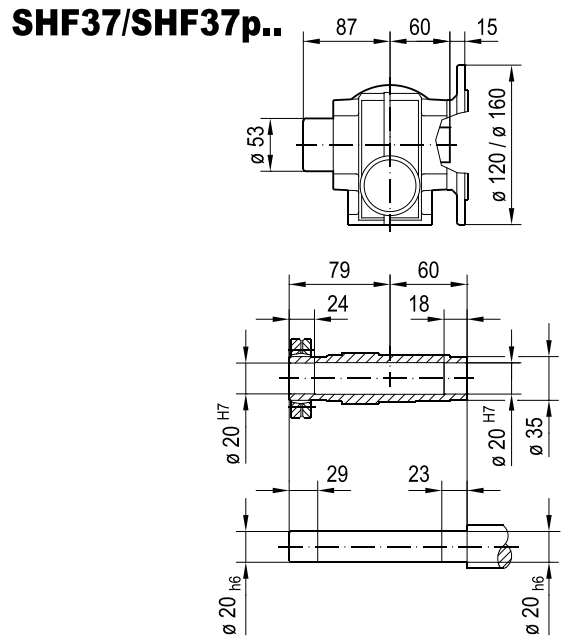
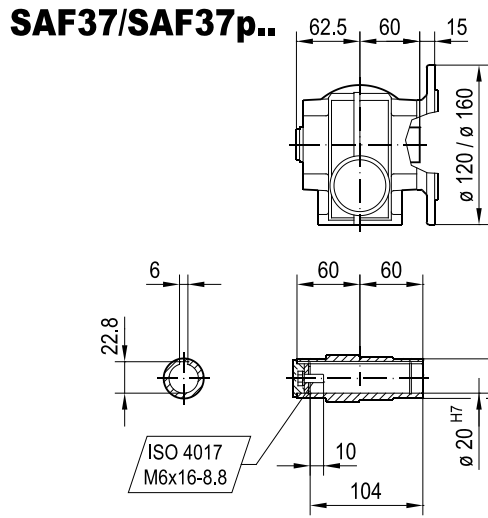
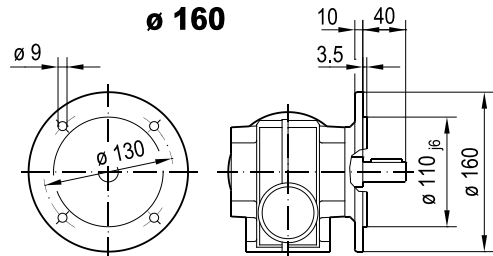
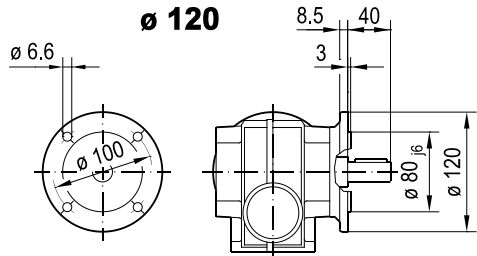
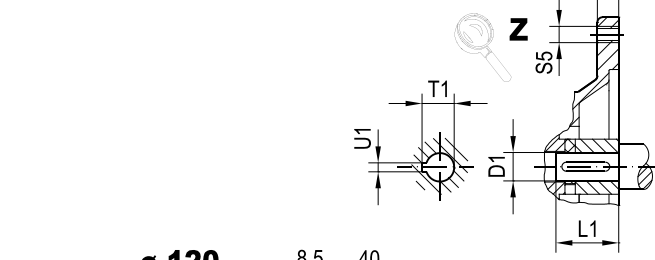
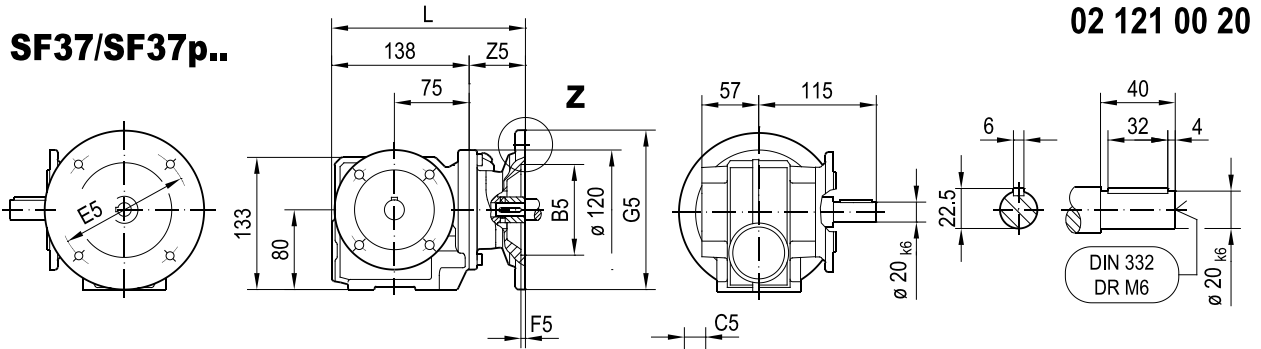
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S.. helical-worm gear units

Selection tables for input shaft assembly (AD..)

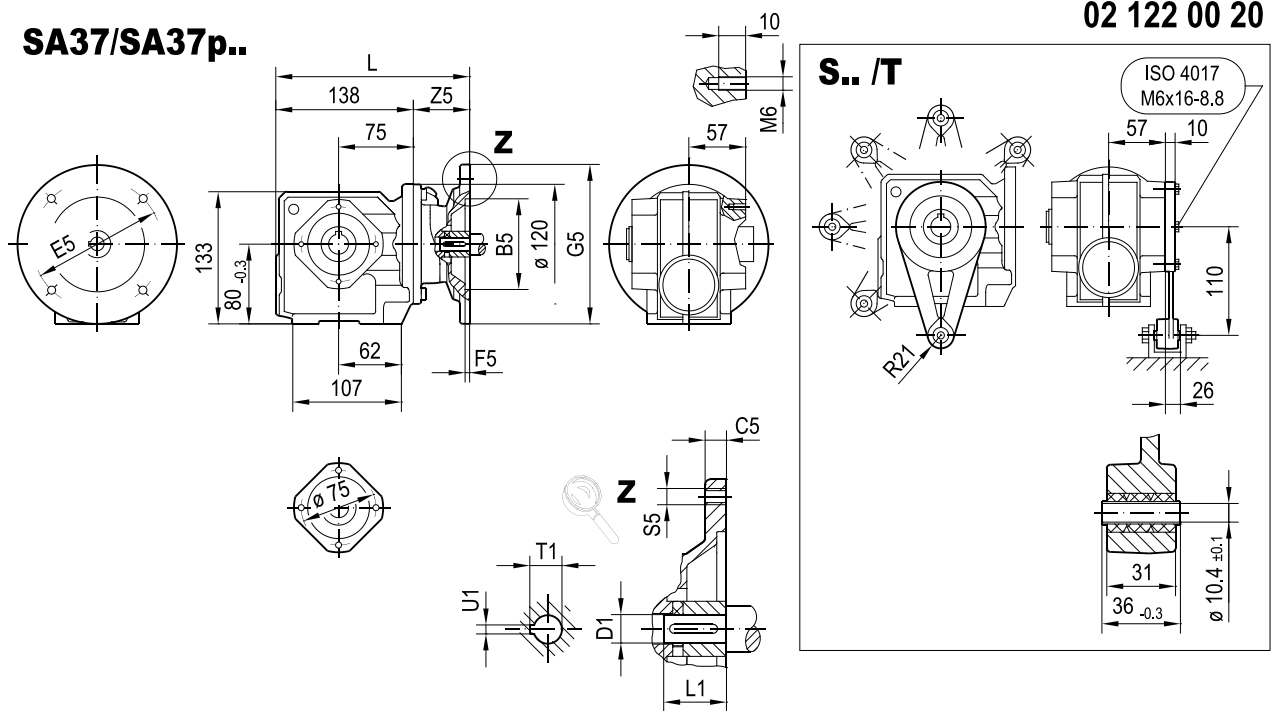
| S97p AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 4300 Nm | | |
|--|----------------------------|-------------------------|-------------|----------------------------|----------------------|--------------|---|--|------------|---------|---|-----|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{\text{Ra}}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | | m kg |  | |
| 71.43 | 20 | 4100 | 9.2 | 33000 | 3060 | - | - |  | S 97p | AD4 | 150 | 654 |
| | | | | | | | | | SF 97p | AD4 | 185 | 654 |
| | | | | | | | | | SA 97p | AD4 | 145 | 654 |
| | | | | | | | | | SAF 97p | AD4 | 170 | 654 |
| 65.45 | 21 | 3520 | 9.6 | 34100 | 1940 | - | - |  | S 97p | AD3 | 145 | 654 |
| | | | | | | | | | SF 97p | AD3 | 180 | 654 |
| | | | | | | | | | SA 97p | AD3 | 140 | 654 |
| | | | | | | | | | SAF 97p | AD3 | 165 | 654 |
| 60.59 | 23 | 3980 | 10.5 | 33200 | 3060 | - | - |  | | | | |
| 55.79 | 25 | 3910 | 11.2 | 33400 | 3040 | - | - | | S 97p | AD4 | 150 | 654 |
| 49.87 | 28 | 3810 | 12.2 | 33600 | 3040 | - | - | | SF 97p | AD4 | 185 | 654 |
| 44.89 | 31 | 3710 | 13.2 | 33100 | 3040 | - | - | | SA 97p | AD4 | 145 | 654 |
| 40.65 | 34 | 3600 | 14.1 | 32200 | 3040 | - | - | | SAF 97p | AD4 | 170 | 654 |
| 36.05 | 39 | 3500 | 15.5 | 30900 | 3020 | - | - | | | | | |
| 32.60 | 43 | 3390 | 16.6 | 30000 | 3020 | - | - | | | | | |
| 27.63 | 51 | 3230 | 18.6 | 28600 | 6180 | - | - | | S 97p | AD5 | 170 | 654 |
| | | | | | | | | SF 97p | AD5 | 200 | 654 | |
| | | | | | | | | SA 97p | AD5 | 165 | 654 | |
| | | | | | | | | SAF 97p | AD5 | 190 | 654 | |
| 26.39 | 53 | 2600 | 15.3 | 26800 | 2210 | - | - |  | S 97p | AD4 | 150 | 654 |
| | | | | | | | | | SF 97p | AD4 | 185 | 654 |
| | | | | | | | | | SA 97p | AD4 | 145 | 654 |
| | | | | | | | | | SAF 97p | AD4 | 170 | 654 |
| 24.13 | 58 | 3080 | 20 | 27500 | 6180 | - | - |  | | | | |
| 23.59 | 59 | 2600 | 17.1 | 25300 | 5560 | - | - | | | | | |
| 21.23 | 66 | 2600 | 19.0 | 23500 | 5500 | - | - | | | | | |
| 19.23 | 73 | 2600 | 21 | 21900 | 5430 | - | - | | S 97p | AD5 | 170 | 654 |
| 17.05 | 82 | 2570 | 23 | 20300 | 5380 | - | - | | SF 97p | AD5 | 200 | 654 |
| 15.42 | 91 | 2470 | 25 | 20000 | 5390 | - | - | | SA 97p | AD5 | 165 | 654 |
| 13.07 | 107 | 2330 | 28 | 19300 | 5370 | - | - | | SAF 97p | AD5 | 190 | 654 |
| 11.41 | 123 | 2210 | 30 | 18900 | 5380 | - | - | | | | | |
| 9.55 | 147 | 2040 | 33 | 18600 | 5370 | - | - | | | | | |
| 8.26 | 169 | 1770 | 33 | 19200 | 5540 | - | - | | | | | |
| S97pR57 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 4300 Nm | | |
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{\text{Ra}}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | | m kg |  | |
| 33818 | 0.04 | 4300 | 0.07 | 32500 | 1890 | - | - |  | | | | |
| 31154 | 0.04 | 4300 | 0.07 | 32500 | 1890 | - | - | | | | | |
| 27847 | 0.05 | 4300 | 0.07 | 32500 | 1890 | - | - | | | | | |
| 24641 | 0.06 | 4300 | 0.08 | 32500 | 1880 | - | - | | | | | |
| 21537 | 0.07 | 4300 | 0.08 | 32500 | 1890 | - | - | | | | | |
| 18749 | 0.07 | 4300 | 0.09 | 32500 | 1890 | - | - | | | | | |
| 16233 | 0.09 | 4300 | 0.10 | 32500 | 1890 | - | - | | | | | |
| 14576 | 0.10 | 4300 | 0.11 | 32500 | 1890 | - | - | | | | | |
| 12752 | 0.11 | 4300 | 0.12 | 32500 | 1880 | - | - | | | | | |
| 11267 | 0.12 | 4300 | 0.13 | 32500 | 1880 | - | - | | | | | |
| 10078 | 0.14 | 4300 | 0.14 | 32500 | 1870 | - | - | | | | | |
| 8608 | 0.16 | 4300 | 0.16 | 32500 | 1870 | - | - | | S 97pR57 | AD2 | 165 | 654 |
| 7554 | 0.19 | 4300 | 0.18 | 32500 | 1860 | - | - | | SF 97pR57 | AD2 | 200 | 654 |
| 6640 | 0.21 | 4300 | 0.15 | 30200 | 1860 | - | - | | SA 97pR57 | AD2 | 160 | 654 |
| 5780 | 0.24 | 4300 | 0.17 | 30200 | 1860 | - | - | | SAF 97pR57 | AD2 | 190 | 654 |
| 4937 | 0.28 | 4300 | 0.20 | 30200 | 1860 | - | - | | | | | |
| 4444 | 0.32 | 4300 | 0.22 | 30200 | 1850 | - | - | | | | | |
| 4017 | 0.35 | 4300 | 0.24 | 30200 | 1860 | - | - | | | | | |
| 3453 | 0.41 | 4300 | 0.27 | 30200 | 1830 | - | - | | | | | |
| 3108 | 0.45 | 4300 | 0.29 | 30200 | 1820 | - | - | | | | | |
| 2654 | 0.53 | 4300 | 0.34 | 30200 | 1820 | - | - | | | | | |
| 2329 | 0.60 | 4300 | 0.38 | 30200 | 1800 | - | - | | | | | |
| 2081 | 0.67 | 4300 | 0.43 | 30200 | 1820 | - | - | | | | | |
| 1860 | 0.75 | 4300 | 0.47 | 30200 | 1810 | - | - | | | | | |
| 1574 | 0.89 | 4300 | 0.55 | 30200 | 1800 | - | - | | | | | |

| S97pR57 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 4300 Nm | | |
|--|----------------------------|------------------|-------------|--------------------|---------------|--------------|---|--|---------|---|-----|-----|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{Ra}^{1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | | |
| 1394 | 1.0 | 4300 | 0.60 | 30200 | 1650 | - | - | | | | | |
| 1223 | 1.1 | 4300 | 0.68 | 30200 | 1620 | - | - | | | | | |
| 1070 | 1.3 | 4300 | 0.77 | 30200 | 1380 | - | - | | | | | |
| 928 | 1.5 | 4300 | 0.89 | 30200 | 1490 | - | - | | | | | |
| 824 | 1.7 | 4300 | 0.99 | 30200 | 1700 | - | - | | | | | |
| 714 | 2.0 | 4300 | 1.2 | 32500 | 1650 | - | - | | | | | |
| 626 | 2.2 | 4300 | 1.3 | 30300 | 1650 | - | - | S | 97pR57 | AD2 | 165 | 654 |
| 538 | 2.6 | 4300 | 1.5 | 30400 | 1650 | - | - | SF | 97pR57 | AD2 | 200 | 654 |
| 484 | 2.9 | 4300 | 1.6 | 30500 | 1620 | - | - | SA | 97pR57 | AD2 | 160 | 654 |
| 420 | 3.3 | 4300 | 1.8 | 30500 | 1610 | - | - | SAF | 97pR57 | AD2 | 185 | 654 |
| 376 | 3.7 | 4300 | 2.0 | 30600 | 1500 | - | - | | | | | |
| 327 | 4.3 | 4300 | 2.3 | 30600 | 1370 | - | - | | | | | |
| 287 | 4.9 | 4300 | 2.6 | 30700 | 1360 | - | - | | | | | |
| 252 | 5.6 | 4300 | 2.9 | 30700 | 1430 | - | - | | | | | |
| 219 | 6.4 | 4300 | 3.3 | 30700 | 1400 | - | - | | | | | |
| 205 | 6.8 | 4300 | 3.5 | 30700 | 1320 | - | - | | | | | |

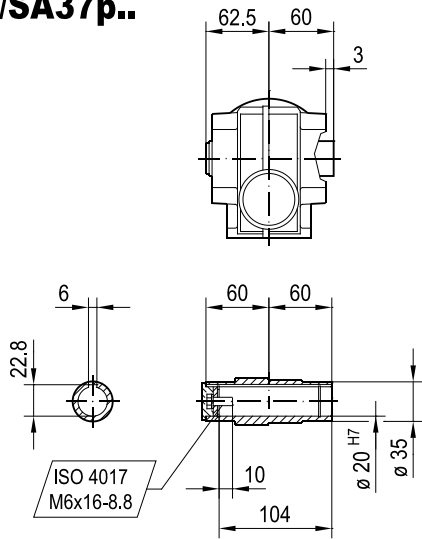


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 195 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 195 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 212 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 225 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

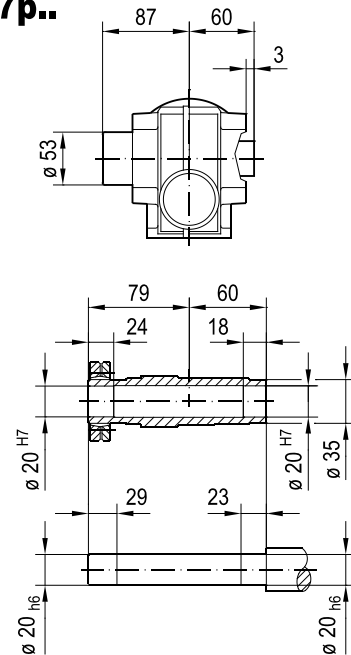
26878585/EN – 11/2021



SA37/SA37p..



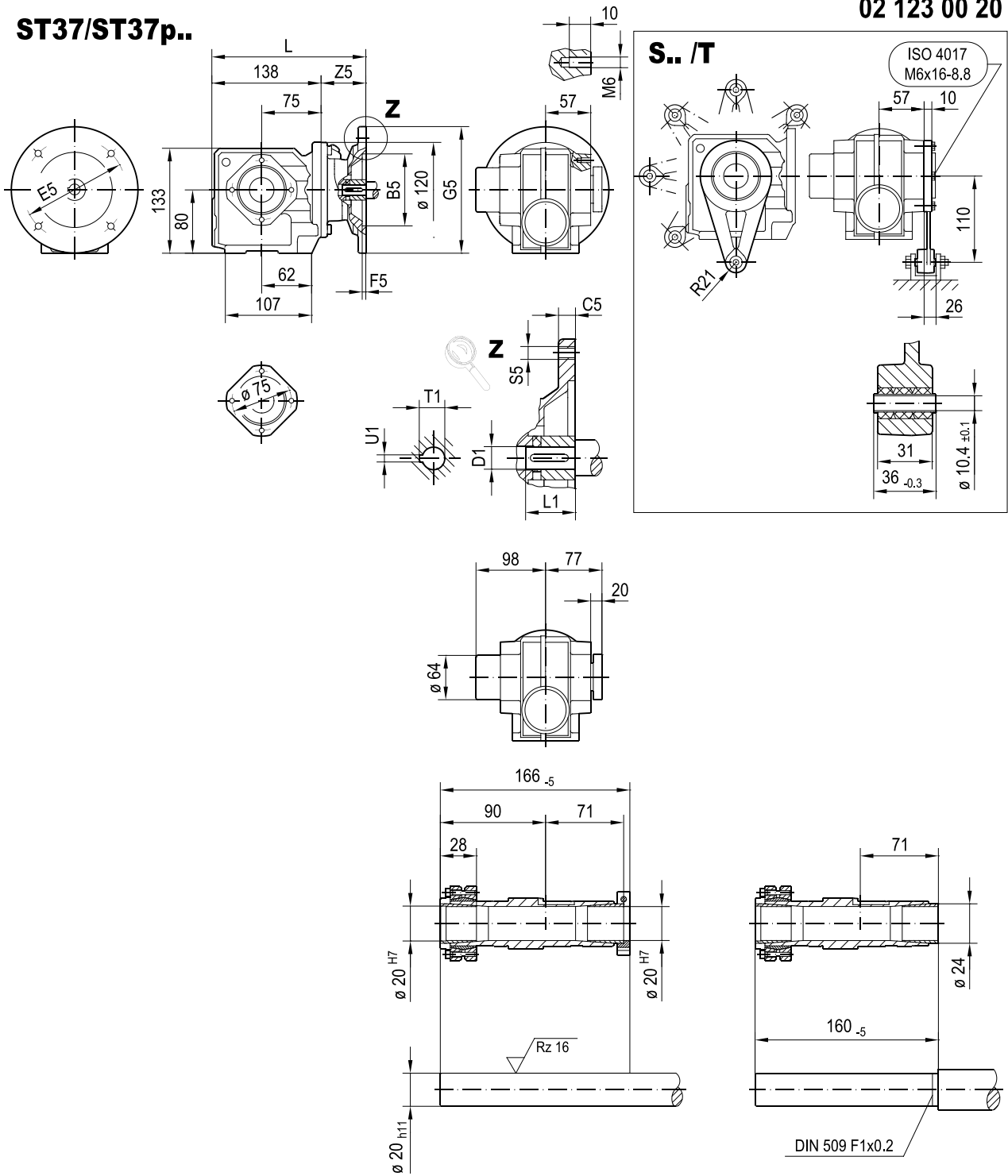
SH37/SH37p..



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 195 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 195 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 212 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 225 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

ST37/ST37p..

02 123 00 20

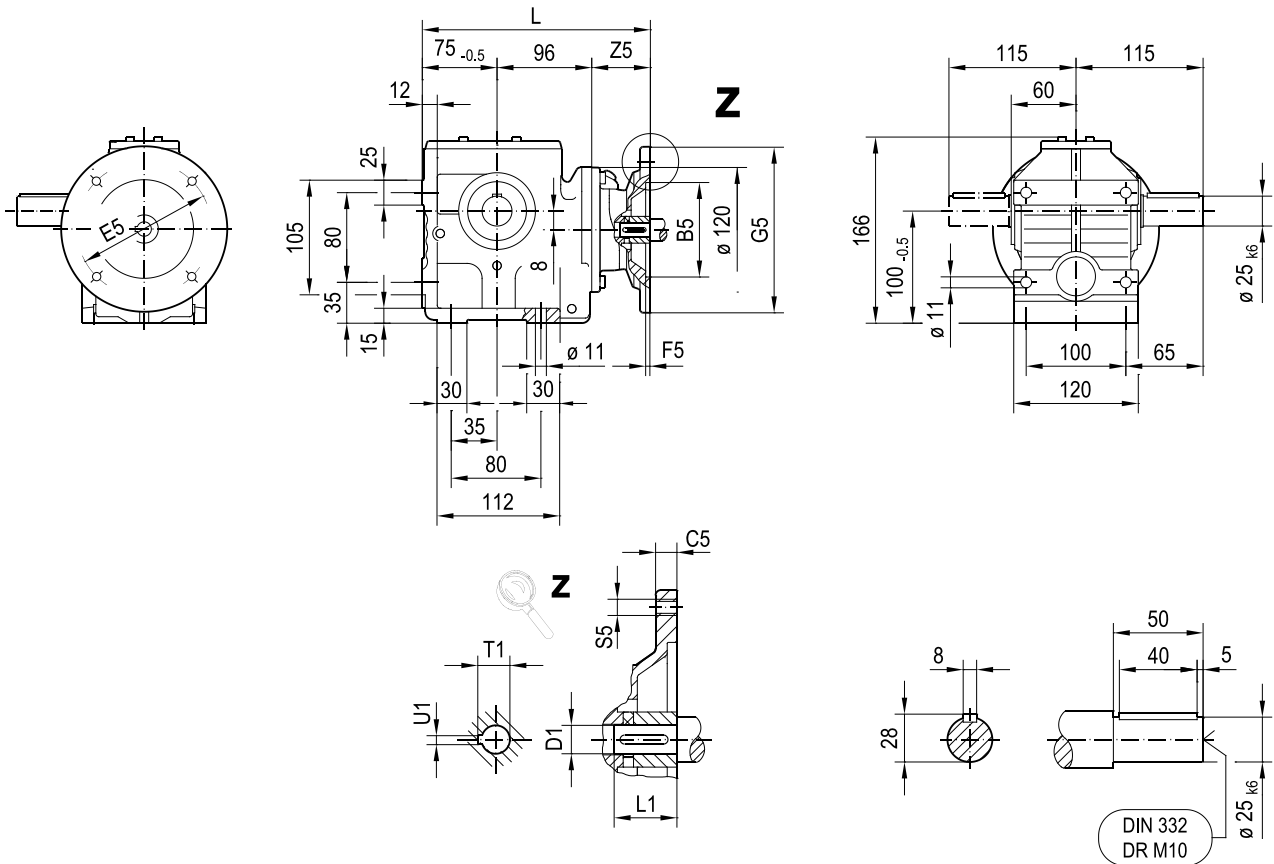


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 195 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 195 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 212 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 225 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

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02 124 00 20

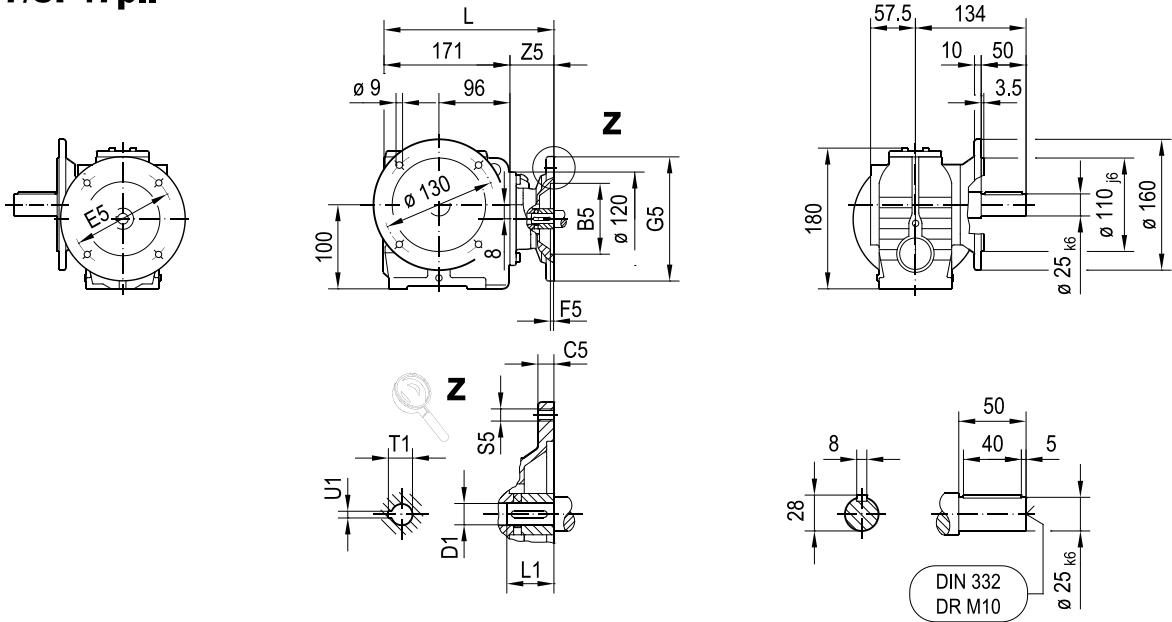
S47/S47p..



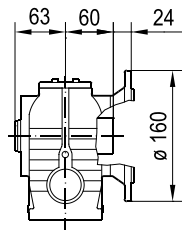
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 228 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 228 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 245 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 258 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

02 125 00 20

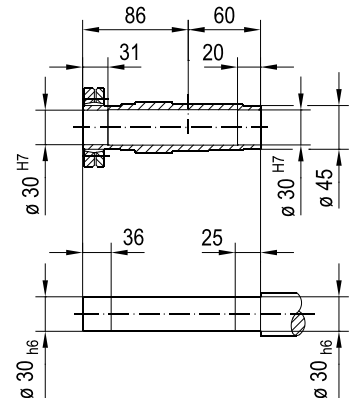
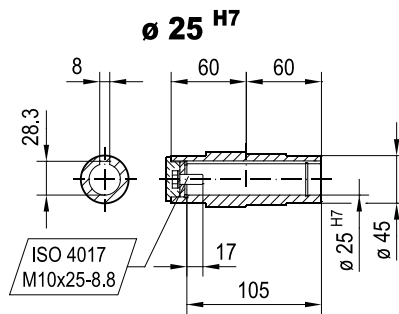
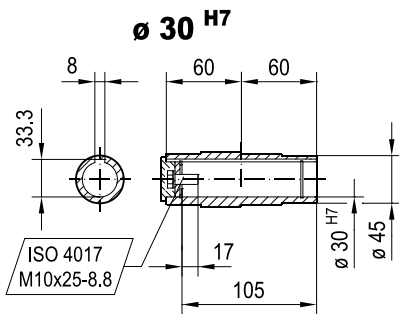
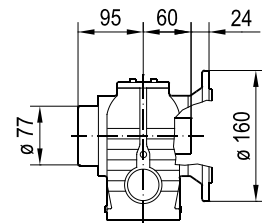
SF47/SF47p..



SAF47/SAF47p..



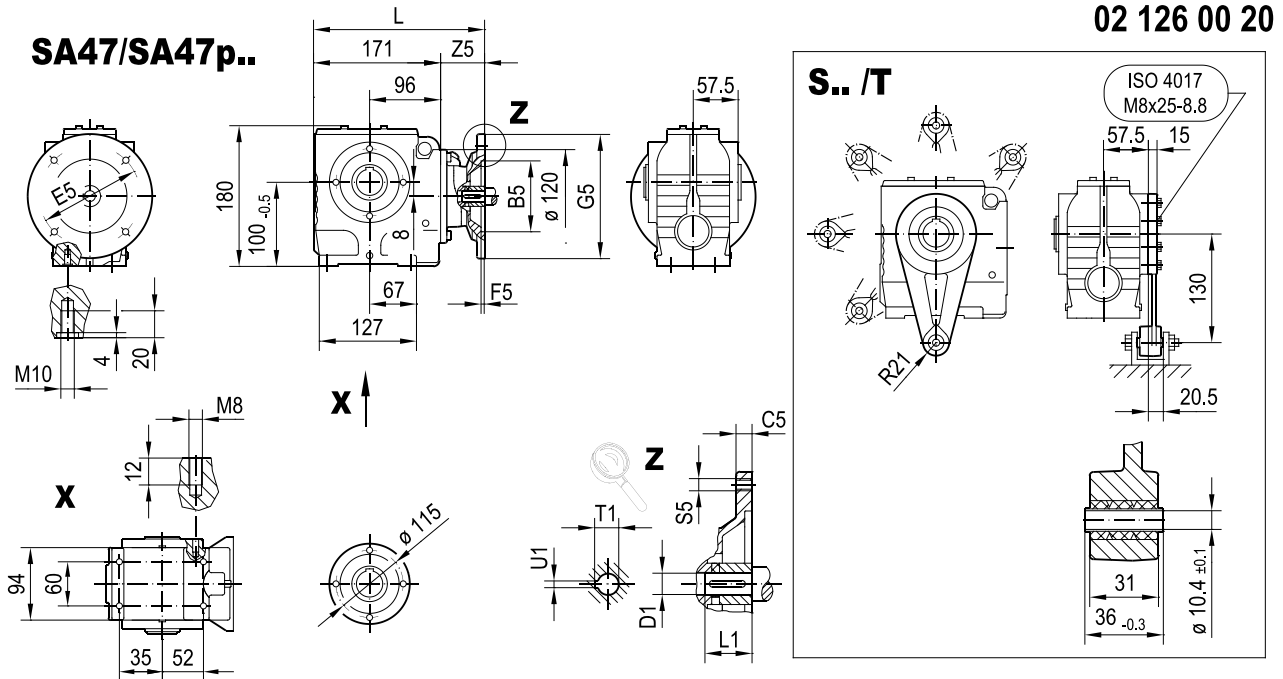
SHF47/SHF47p..



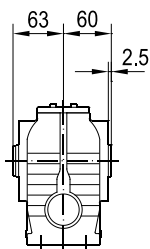
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 228 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 228 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 245 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 258 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

S.. helical-worm gear units

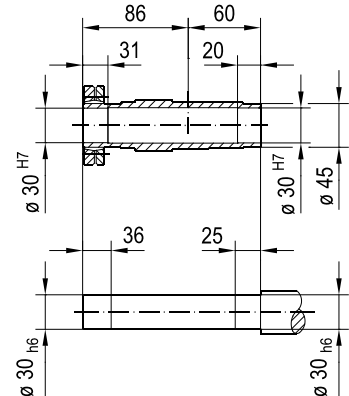
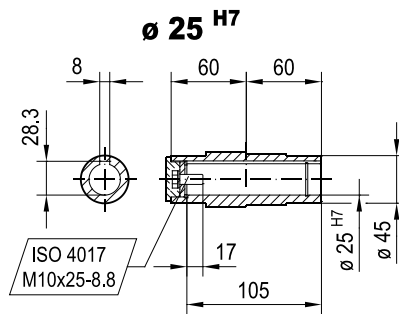
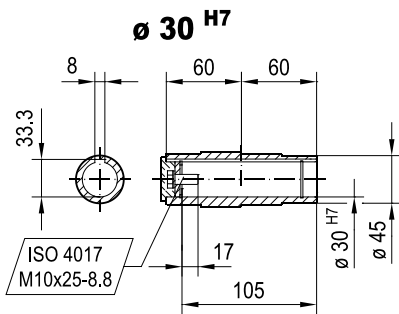
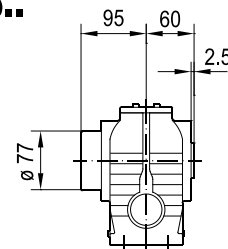
Dimension sheets for adapters for mounting IEC motors (AMS..)



SA47/SA47p..



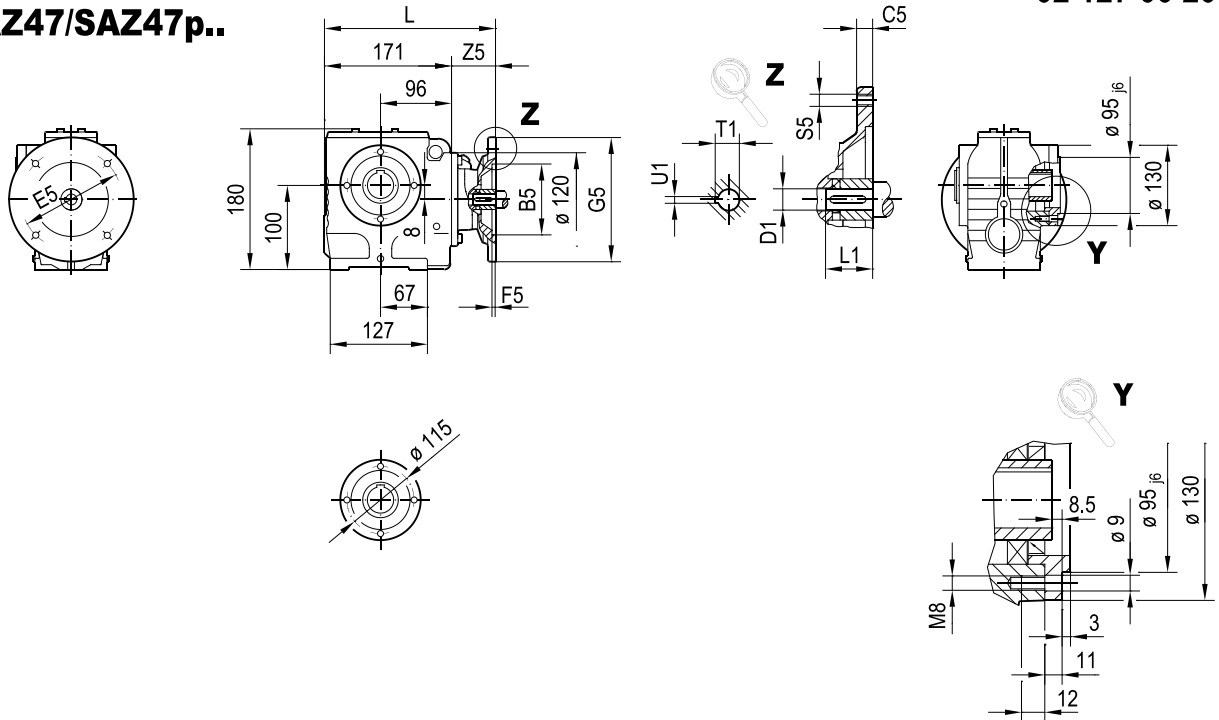
SH47/SH47p..



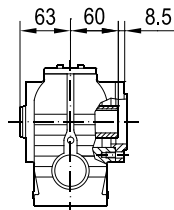
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 228 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 228 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 245 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 258 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

02 127 00 20

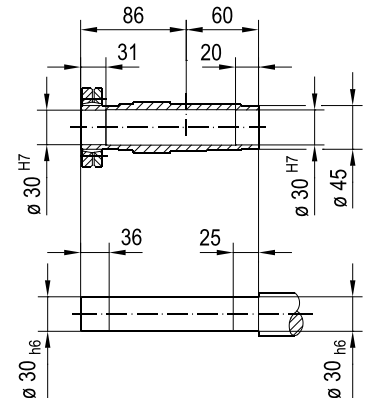
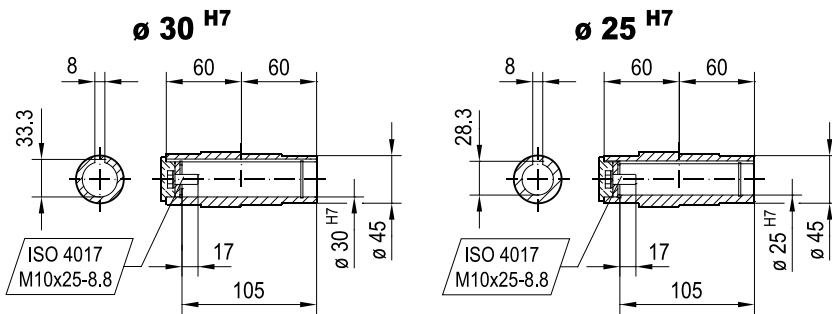
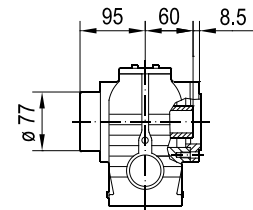
SAZ47/SAZ47p..



SAZ47/SAZ47p..



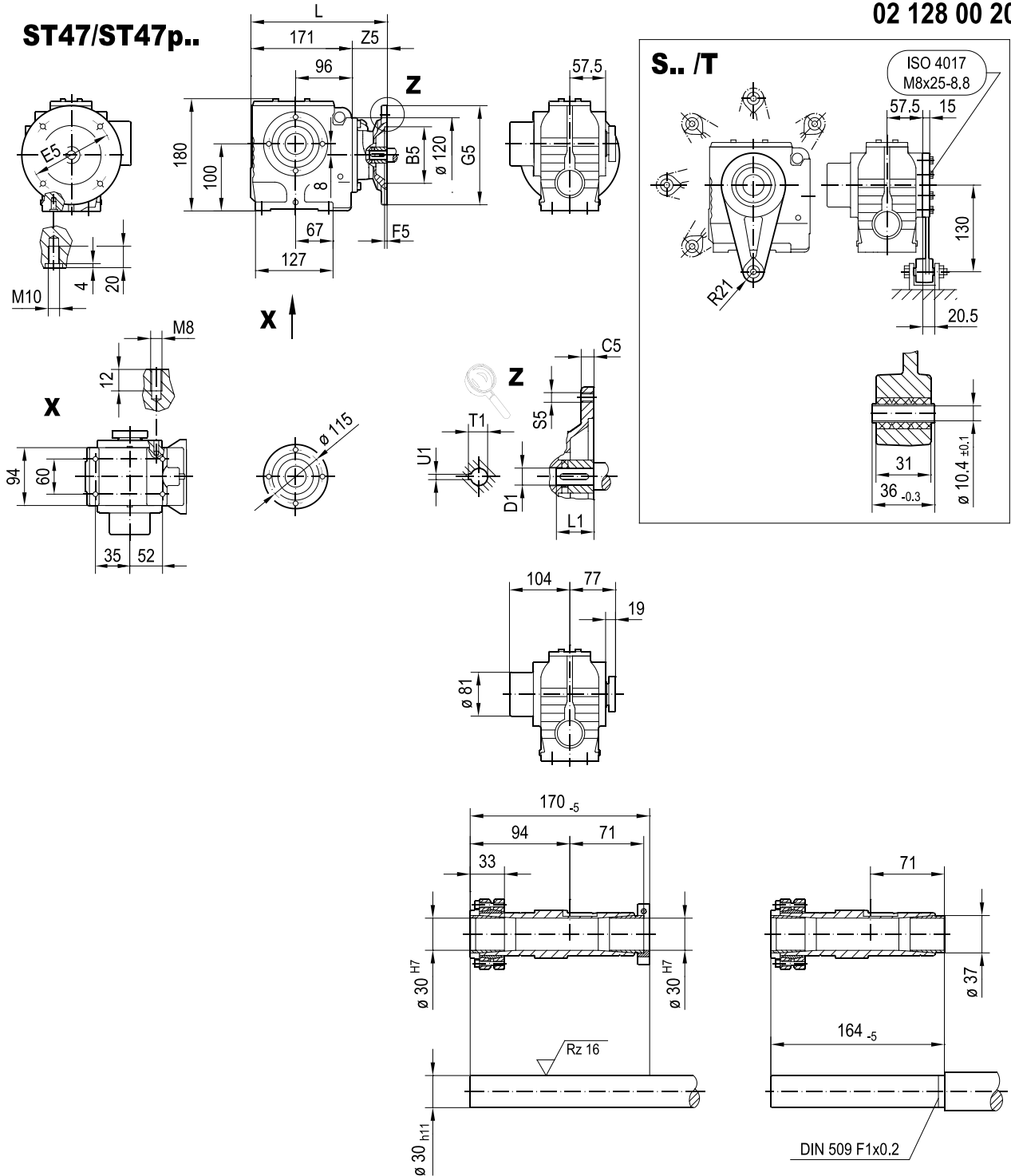
SHZ47/SHZ47p..



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 228 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 228 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 245 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 258 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

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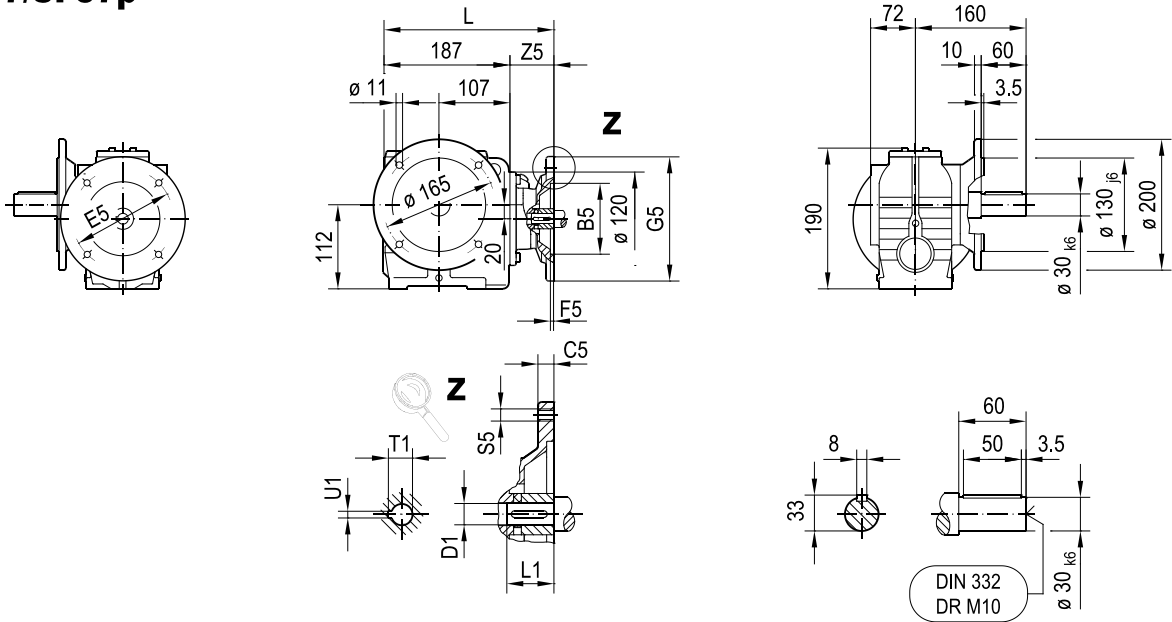
02 128 00 20



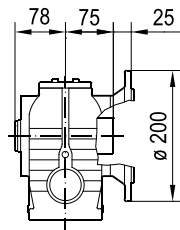
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 228 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 228 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 245 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 258 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

02 130 00 20

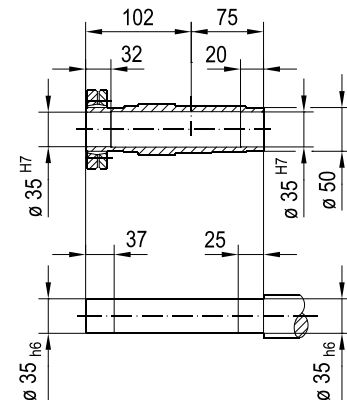
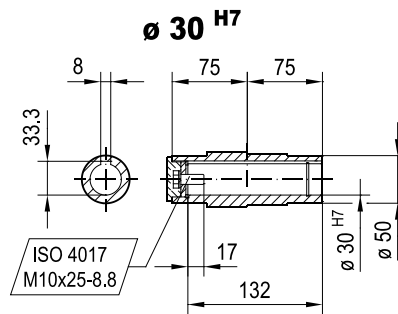
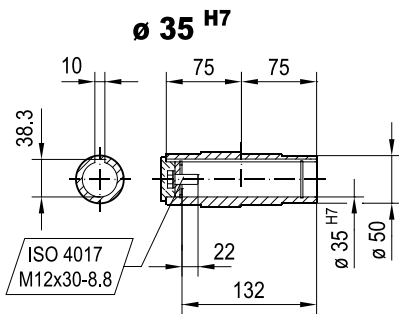
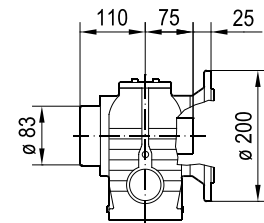
SF57/SF57p



SAF57/SAF57p..

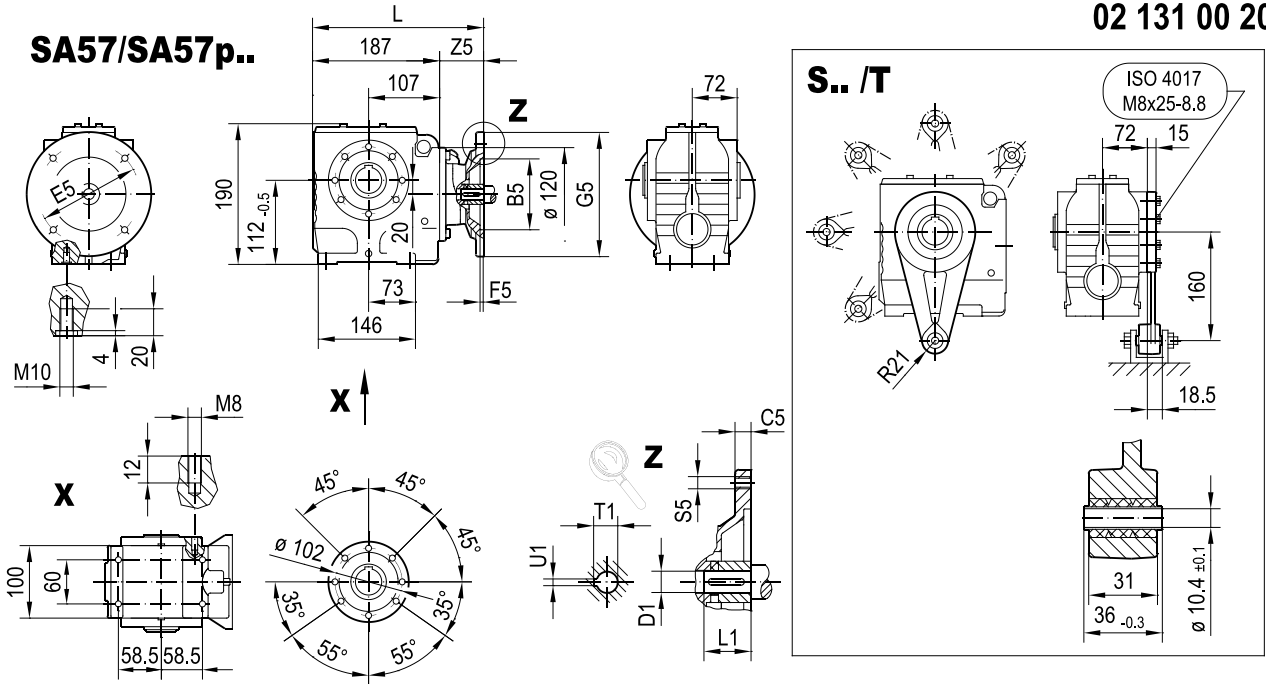


SHF57/SHF57p..



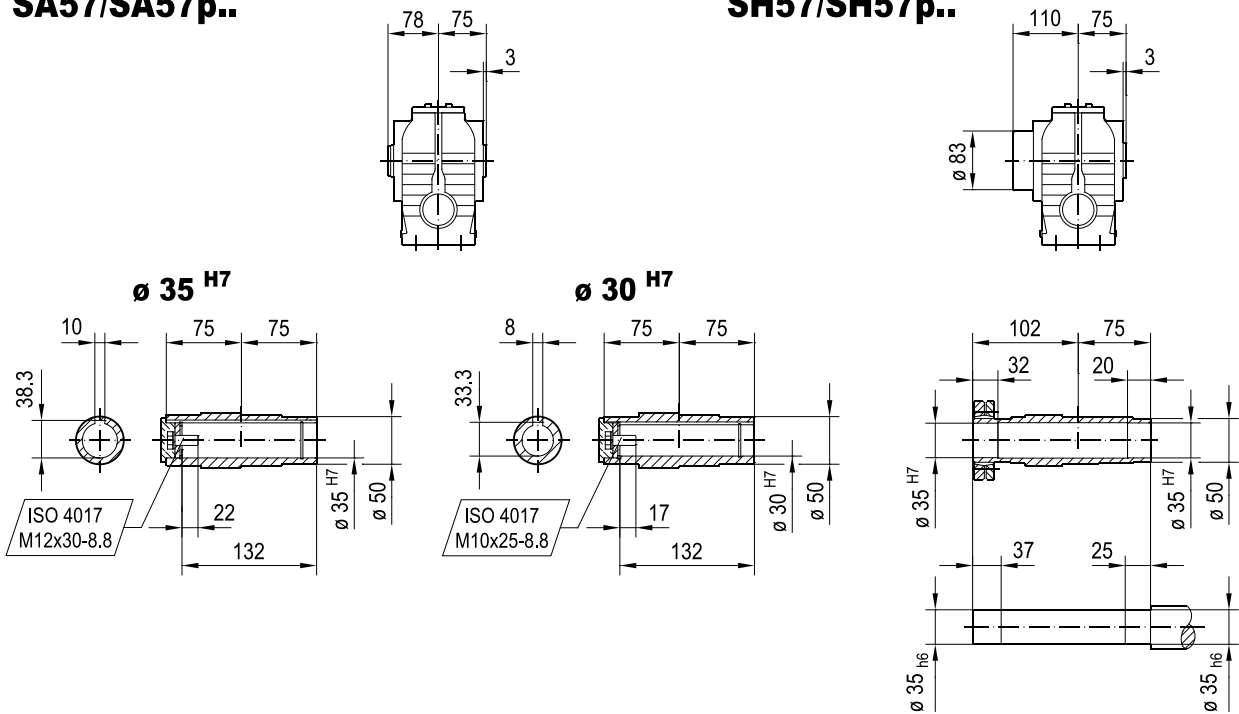
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 244 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 244 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 261 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 274 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

02 131 00 20



SA57/SA57p..

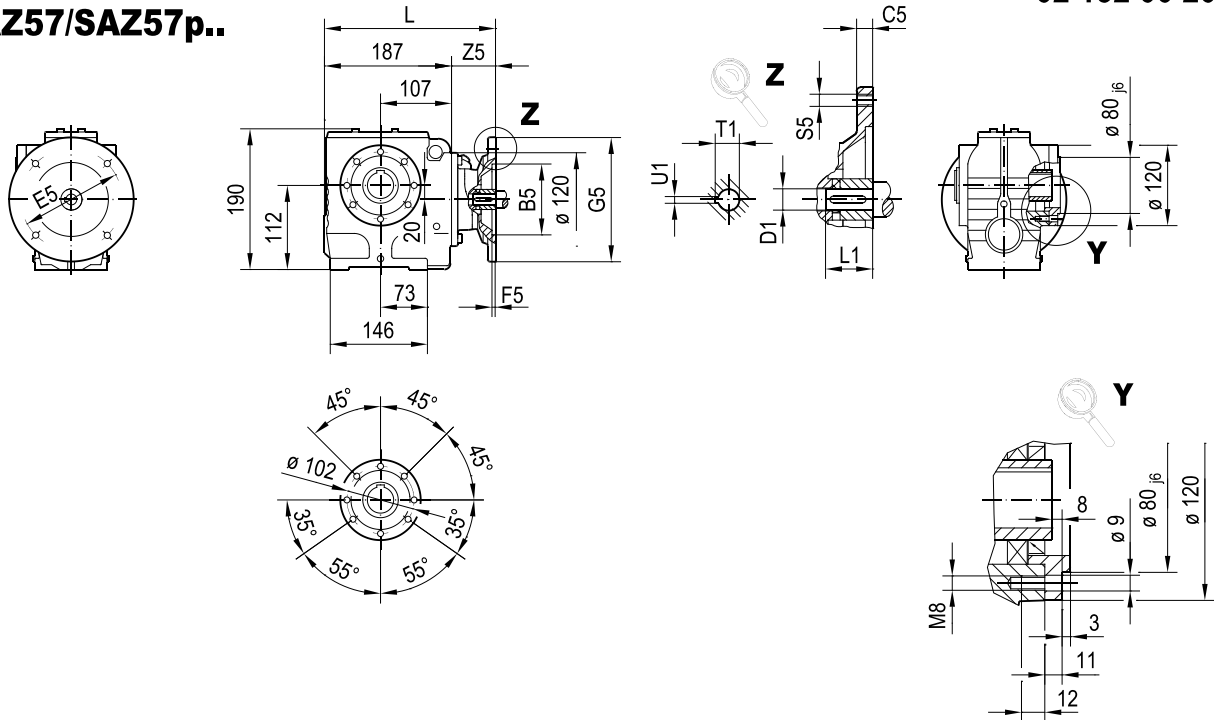
SH57/SH57p..



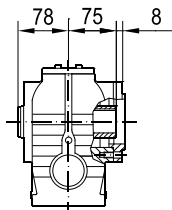
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 244 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 244 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 261 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 274 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

02 132 00 20

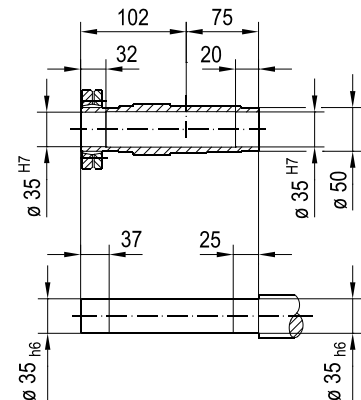
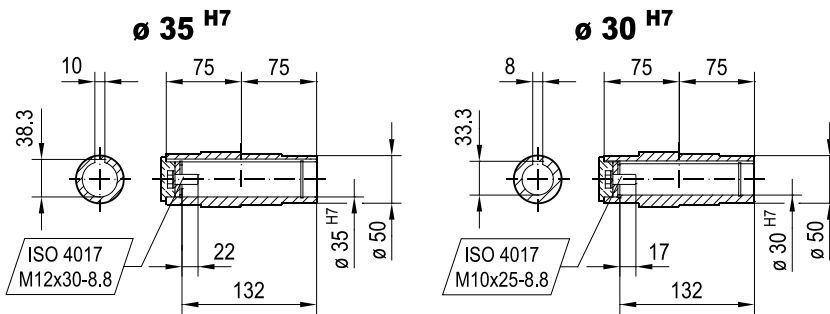
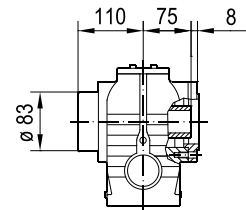
SAZ57/SAZ57p..



SAZ57/SAZ57p..



SHZ57/SHZ57p..

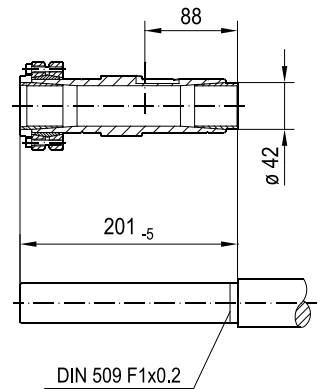
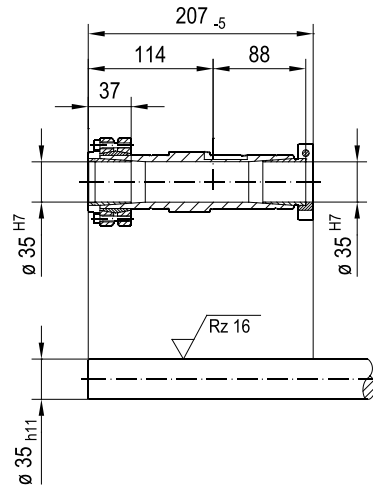
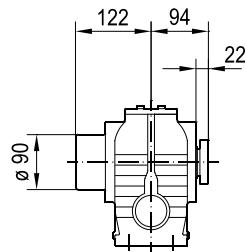
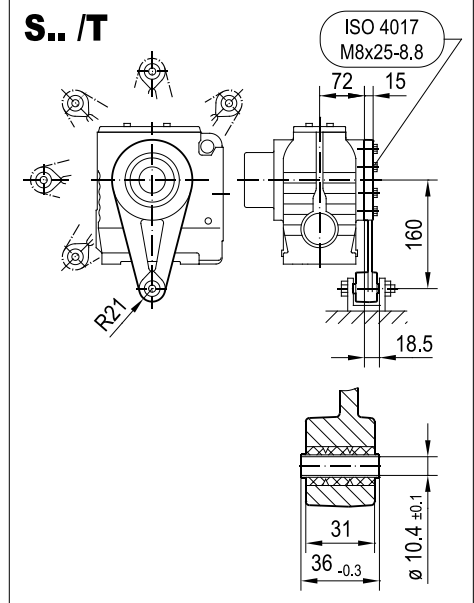
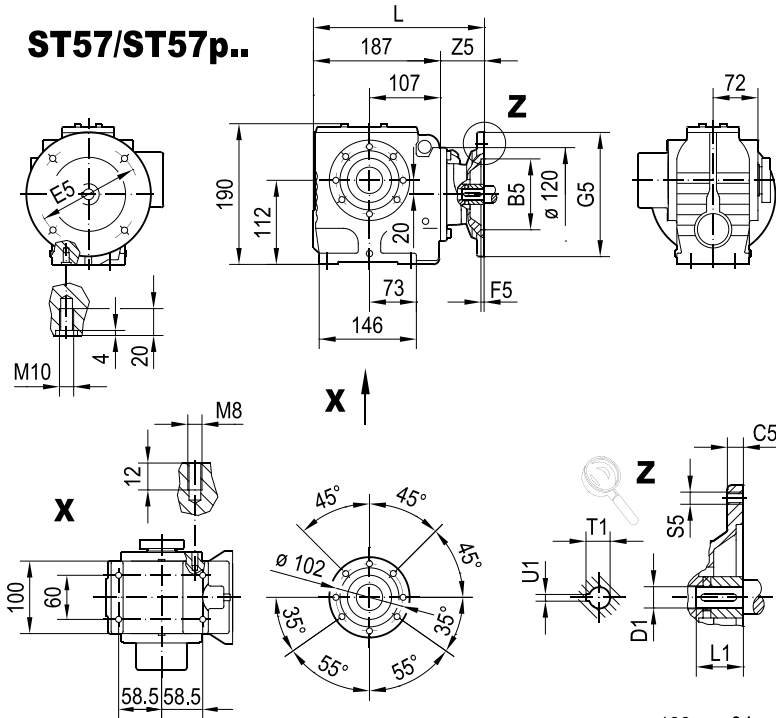


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 244 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 244 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 261 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 274 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

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02 133 00 20

ST57/ST57p..

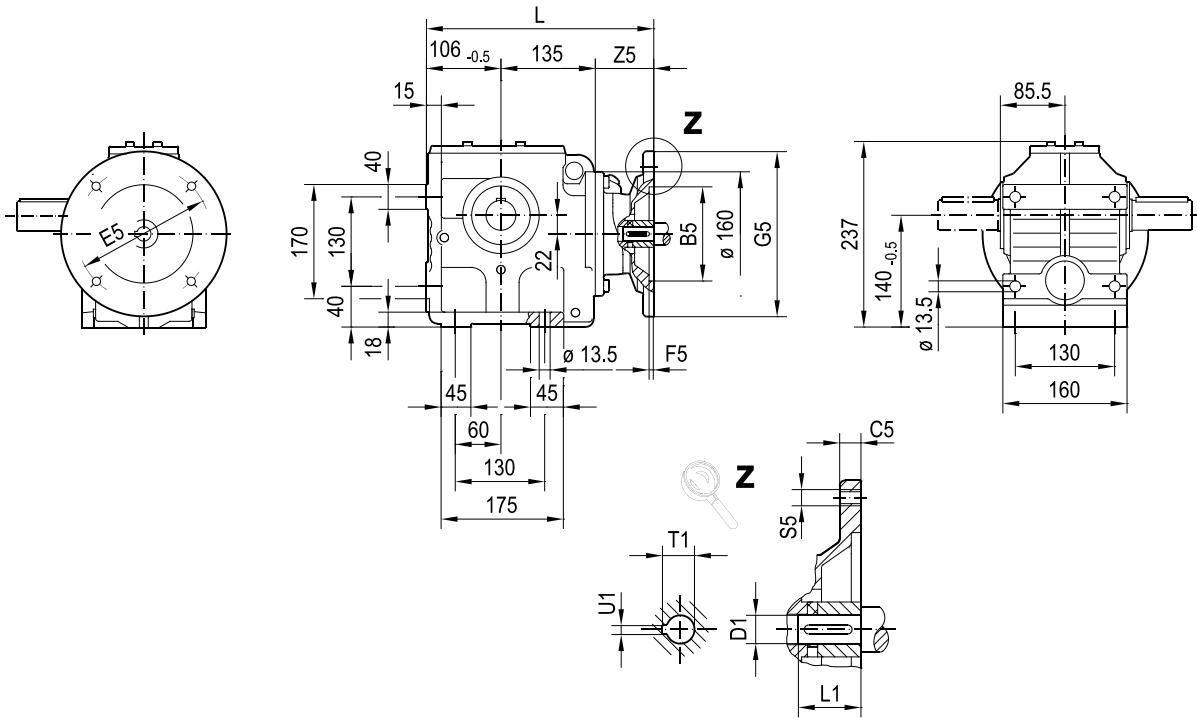


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 244 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 244 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 261 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 274 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

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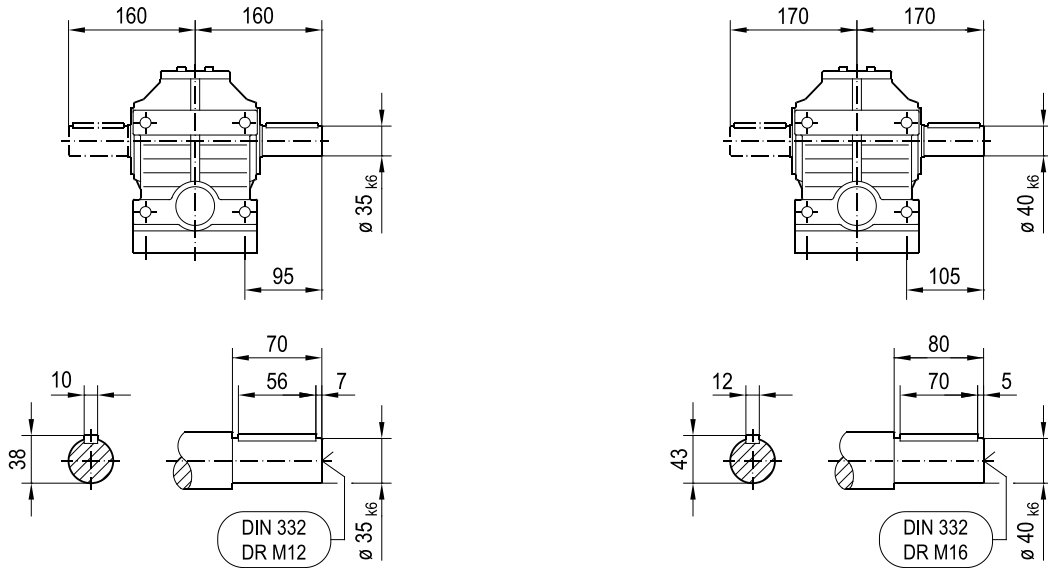
S67/S67p..

02 134 00 20



S67..

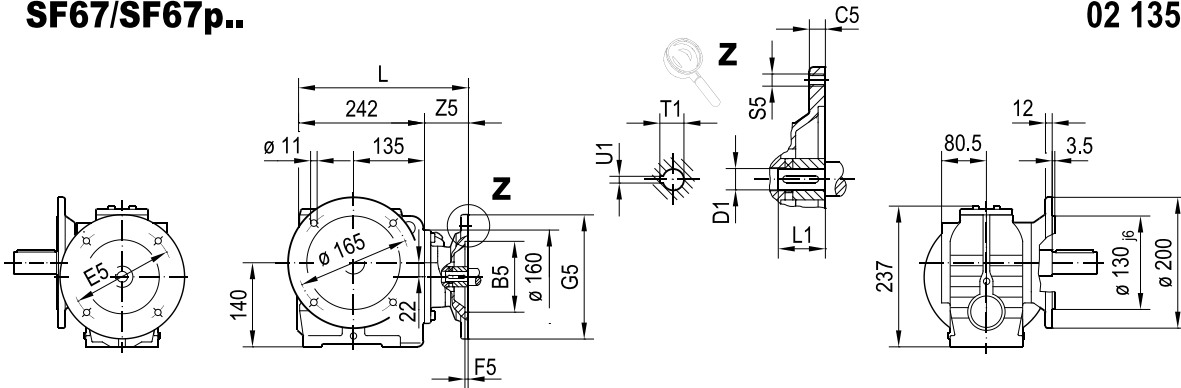
S67/S67p..



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 291 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 291 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 308 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 321 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 350 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 350 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 375 | M12 | 134 | 38 | 80 | 41.3 | 10 |

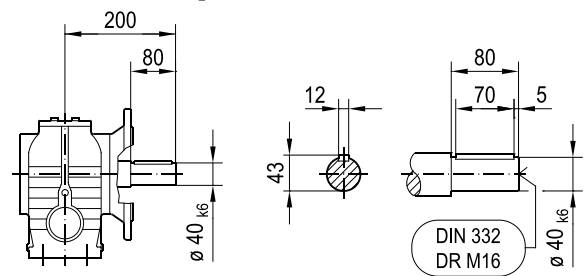
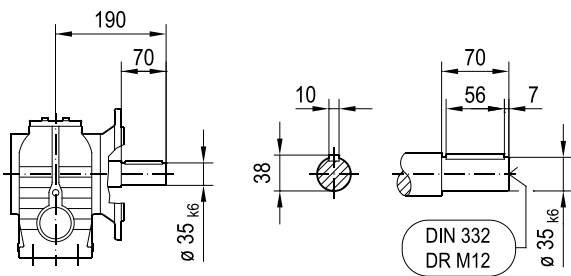
SF67/SF67p..

02 135 00 20



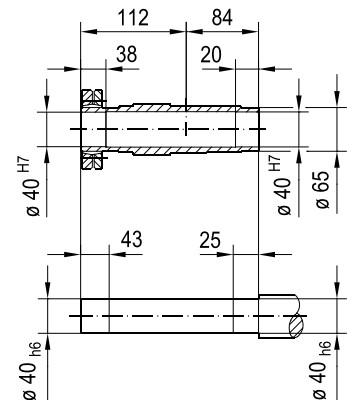
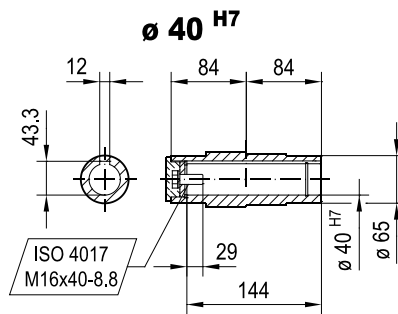
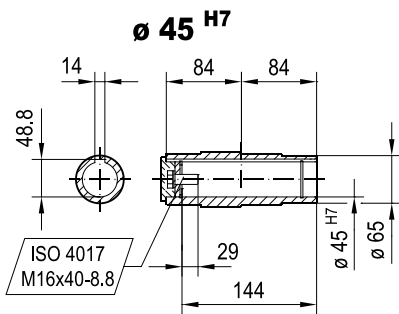
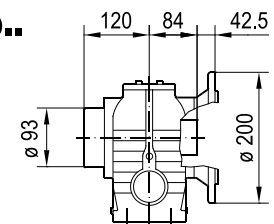
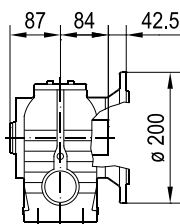
SF67..

SF67/SF67p..



SAF67/SAF67p..

SHF67/SHF67p..

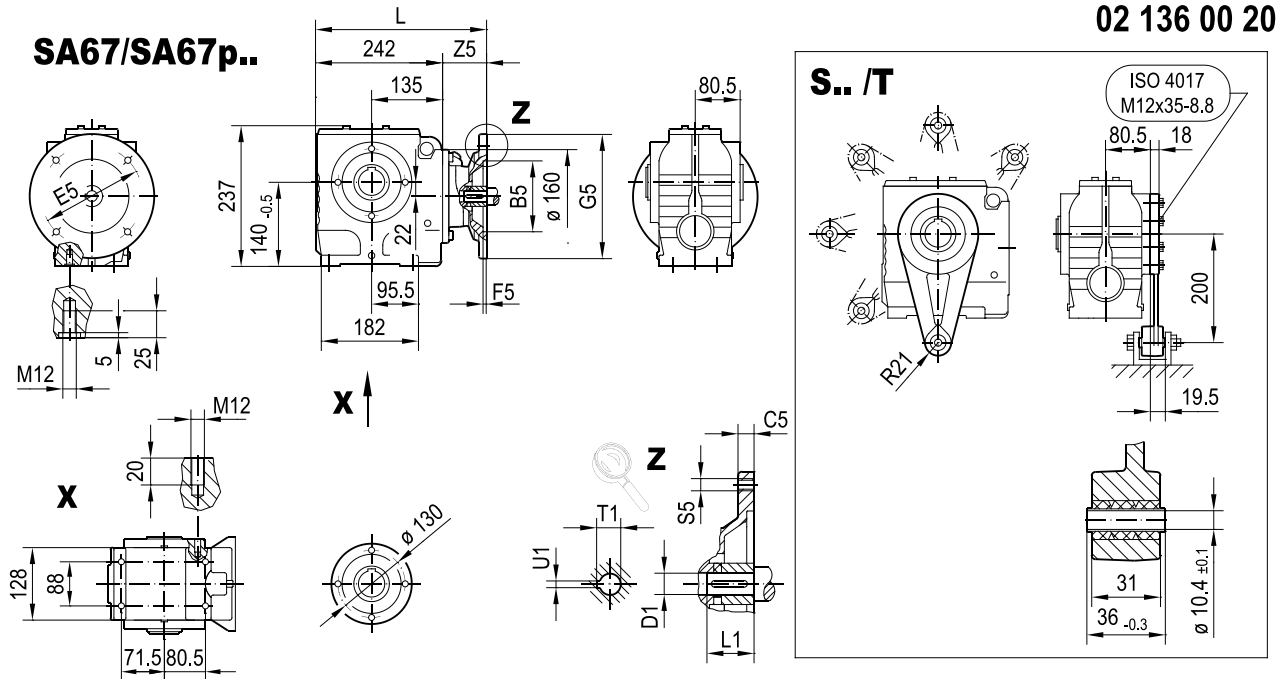


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 292 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 292 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 309 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 322 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 351 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 351 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 376 | M12 | 134 | 38 | 80 | 41.3 | 10 |

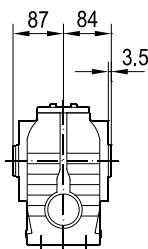
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S.. helical-worm gear units

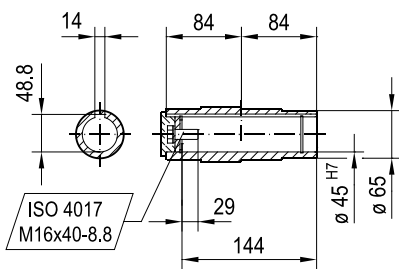
Dimension sheets for adapters for mounting IEC motors (AMS..)



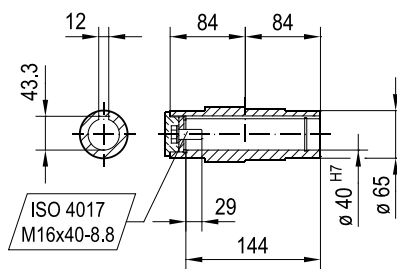
SA67/SA67p..



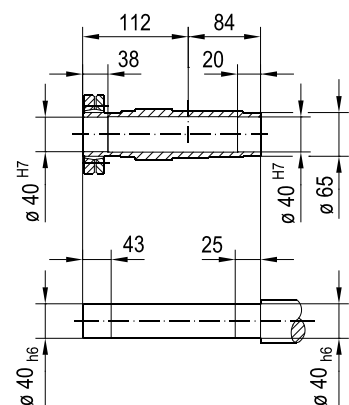
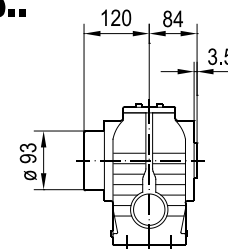
$\varnothing 45^{H7}$



$\varnothing 40^{H7}$



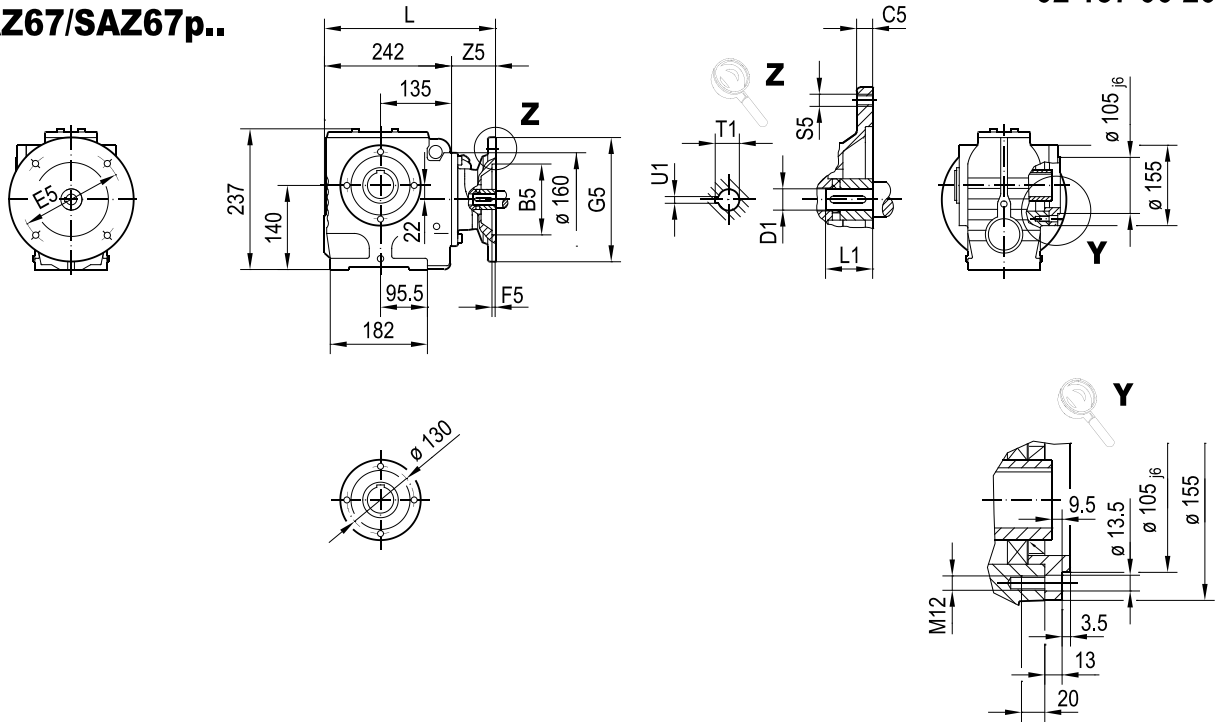
SH67/SH67p..



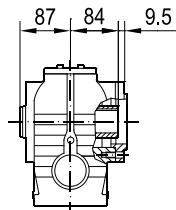
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 292 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 292 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 309 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 322 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 351 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 351 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 376 | M12 | 134 | 38 | 80 | 41.3 | 10 |

02 137 00 20

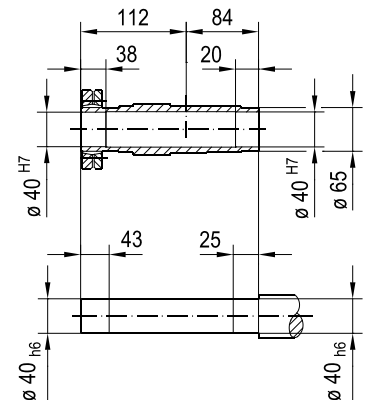
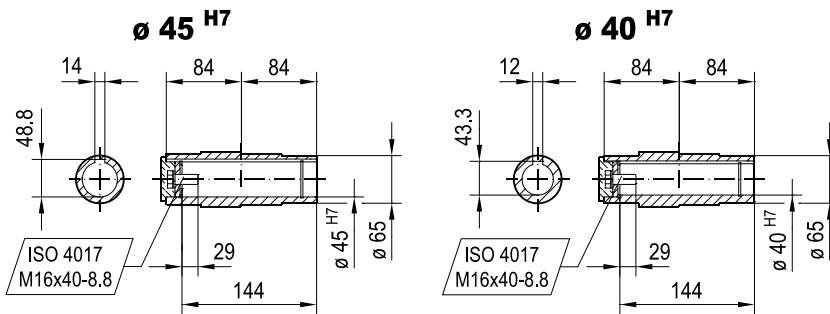
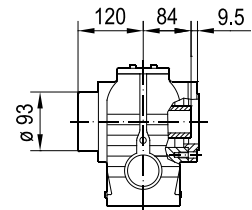
SAZ67/SAZ67p..



SAZ67/SAZ67p..



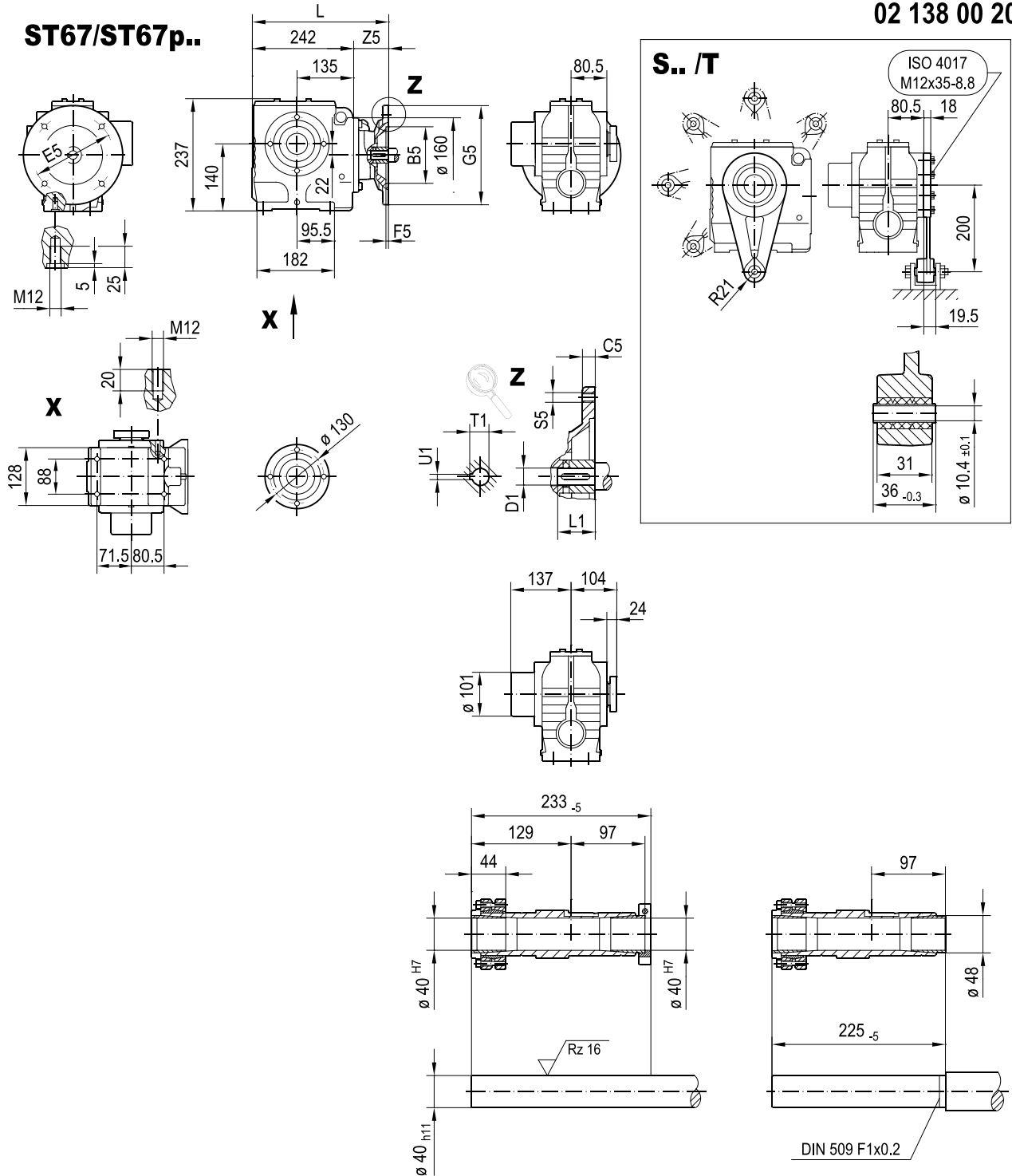
SHZ67/SHZ67p..



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 292 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 292 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 309 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 322 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 351 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 351 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 376 | M12 | 134 | 38 | 80 | 41.3 | 10 |

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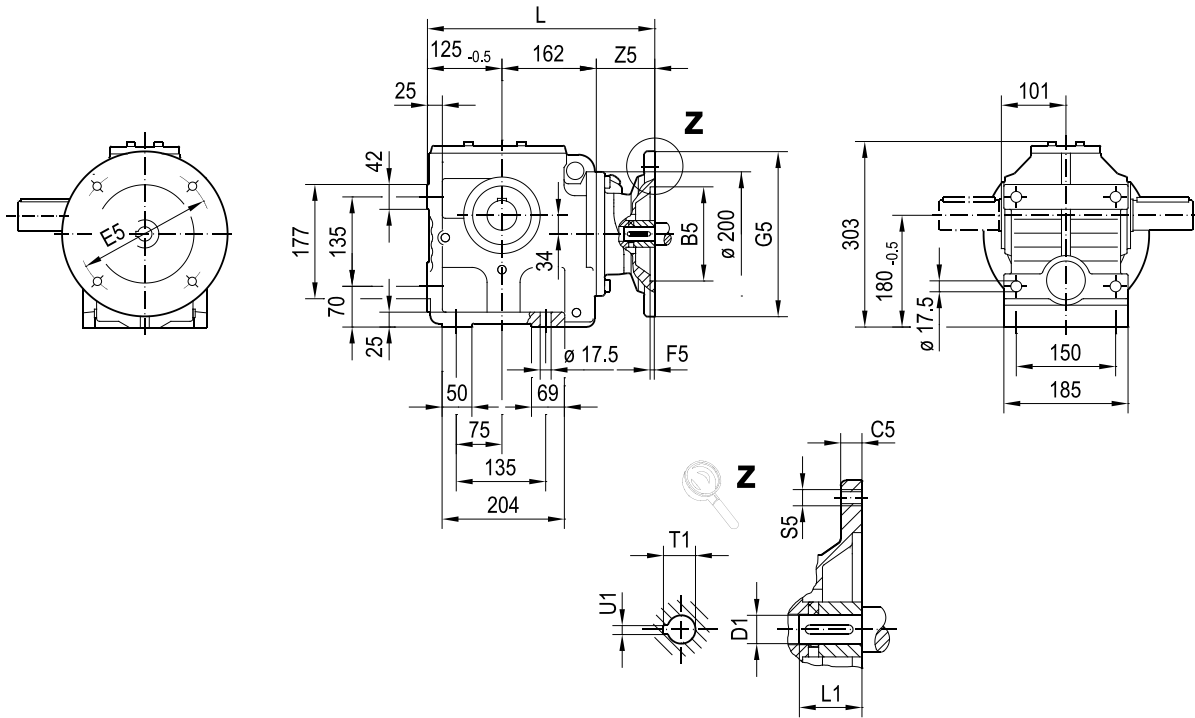
02 138 00 20



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 292 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 292 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 309 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 322 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 351 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 351 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 376 | M12 | 134 | 38 | 80 | 41.3 | 10 |

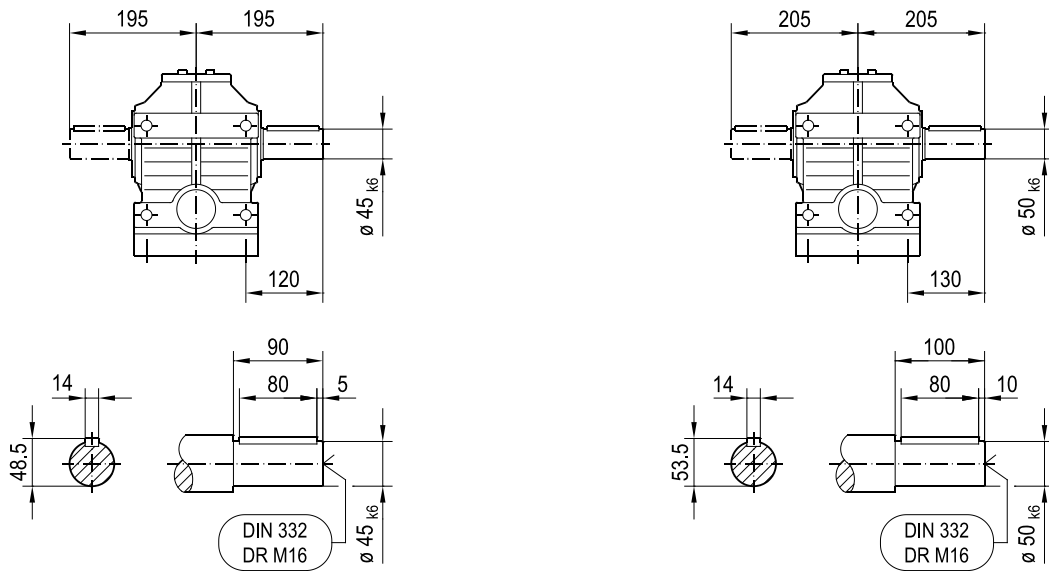
S77/S77p..

02 139 00 20



S77..

S77/S77p..



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 331 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 331 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 347 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 360 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 388 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 388 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 413 | M12 | 126 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 413 | M12 | 126 | 38 | 80 | 41.3 | 10 |

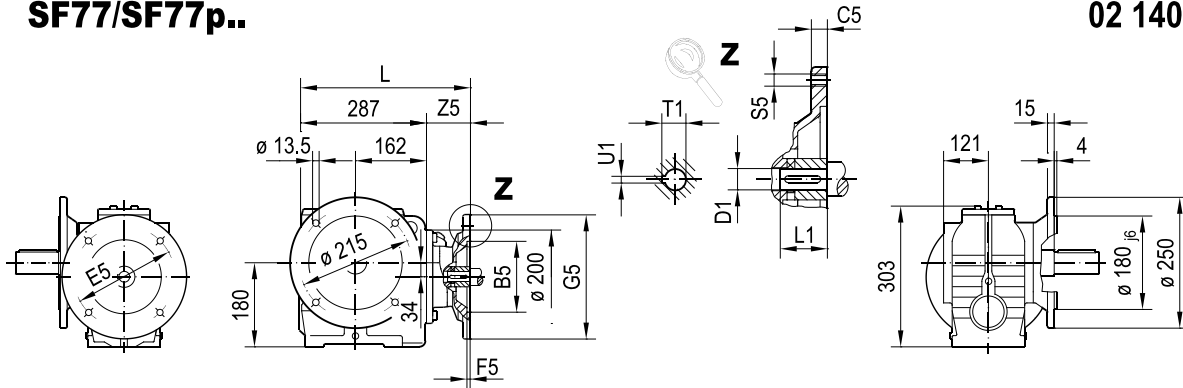
26878585/EN – 11/2021

S.. helical-worm gear units

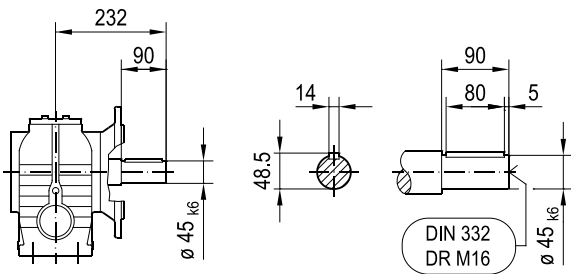
Dimension sheets for adapters for mounting IEC motors (AMS..)

SF77/SF77p..

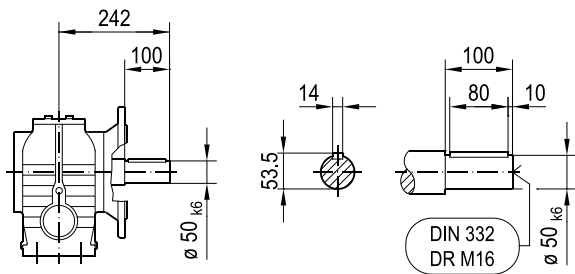
02 140 00 20



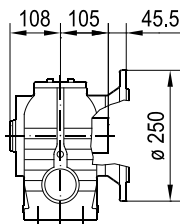
SF77..



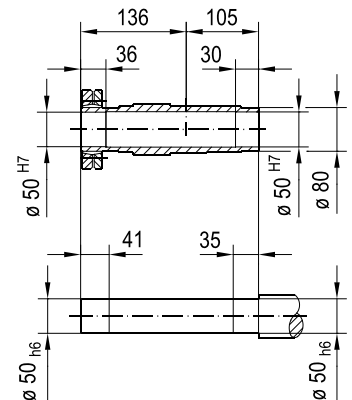
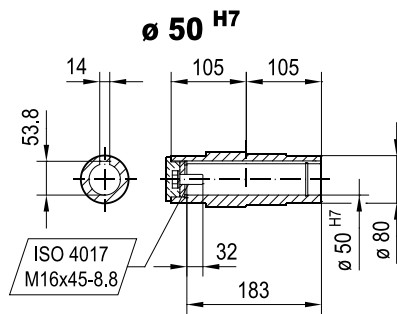
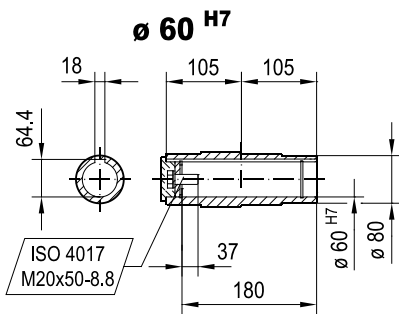
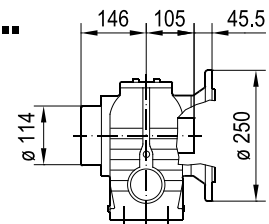
SF77/SF77p..



SAF77/SAF77p..



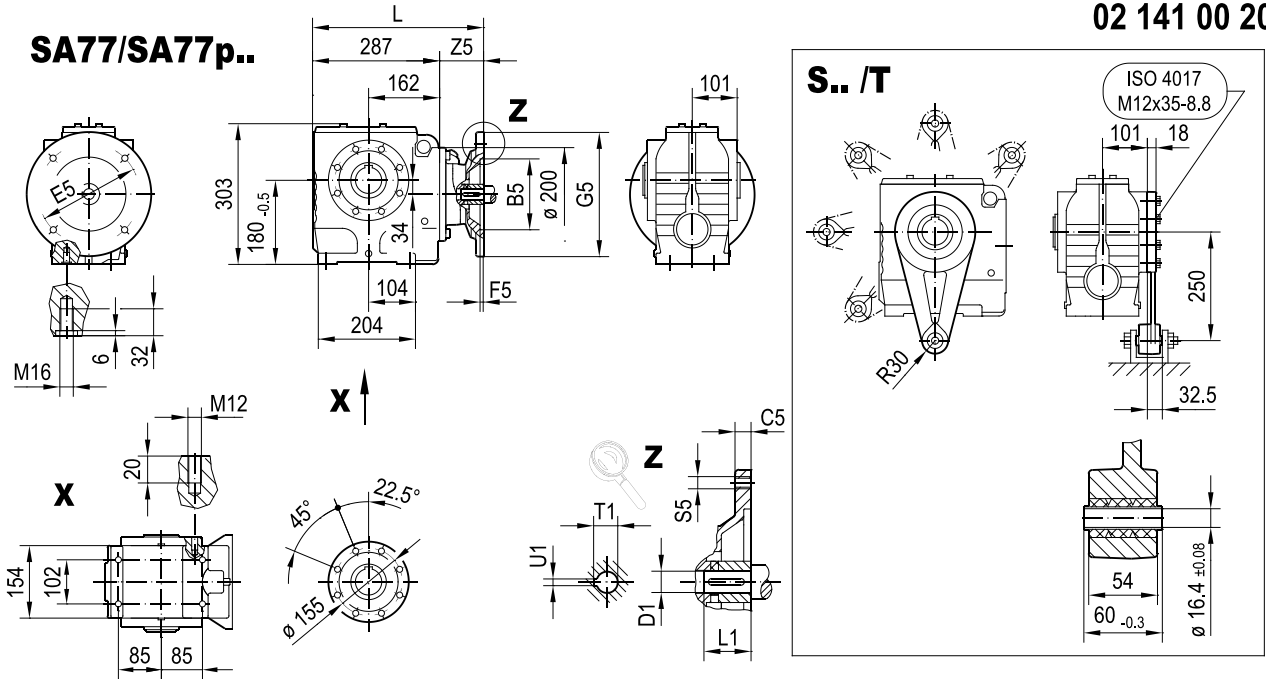
SHF77/SHF77p..



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 331 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 331 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 347 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 360 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 388 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 388 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 413 | M12 | 126 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 413 | M12 | 126 | 38 | 80 | 41.3 | 10 |

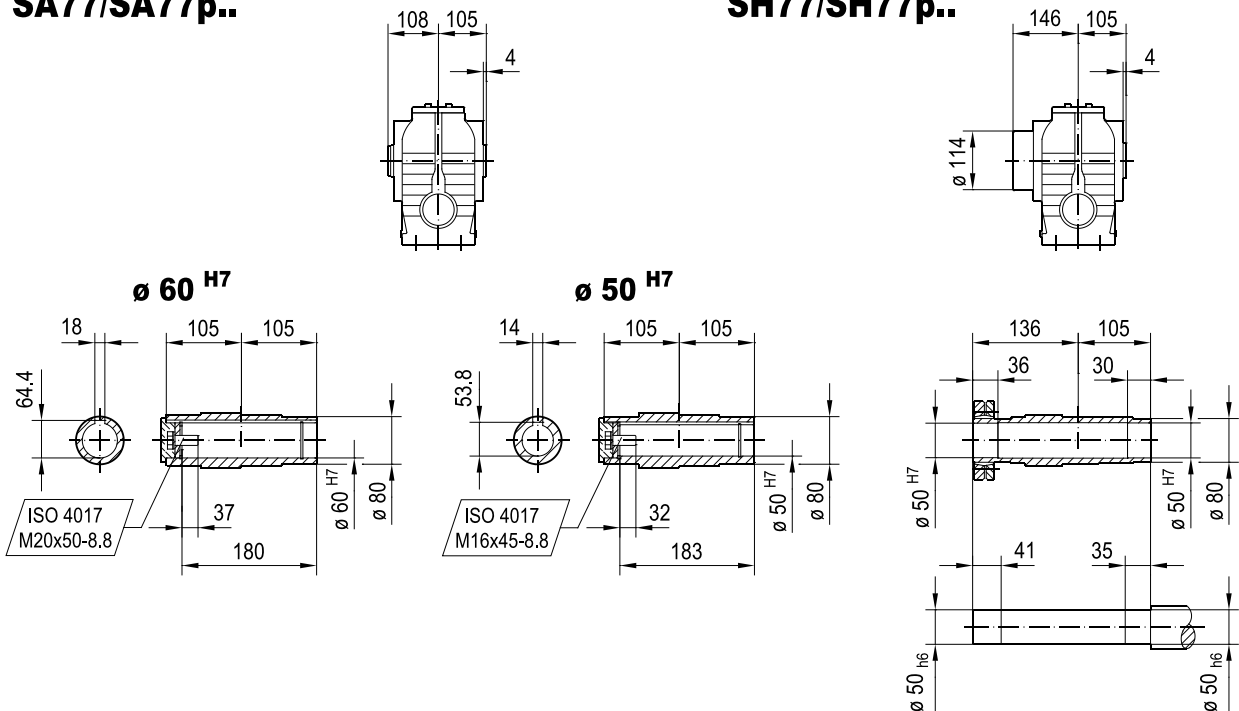
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02 141 00 20



SA77/SA77p..

SH77/SH77p..

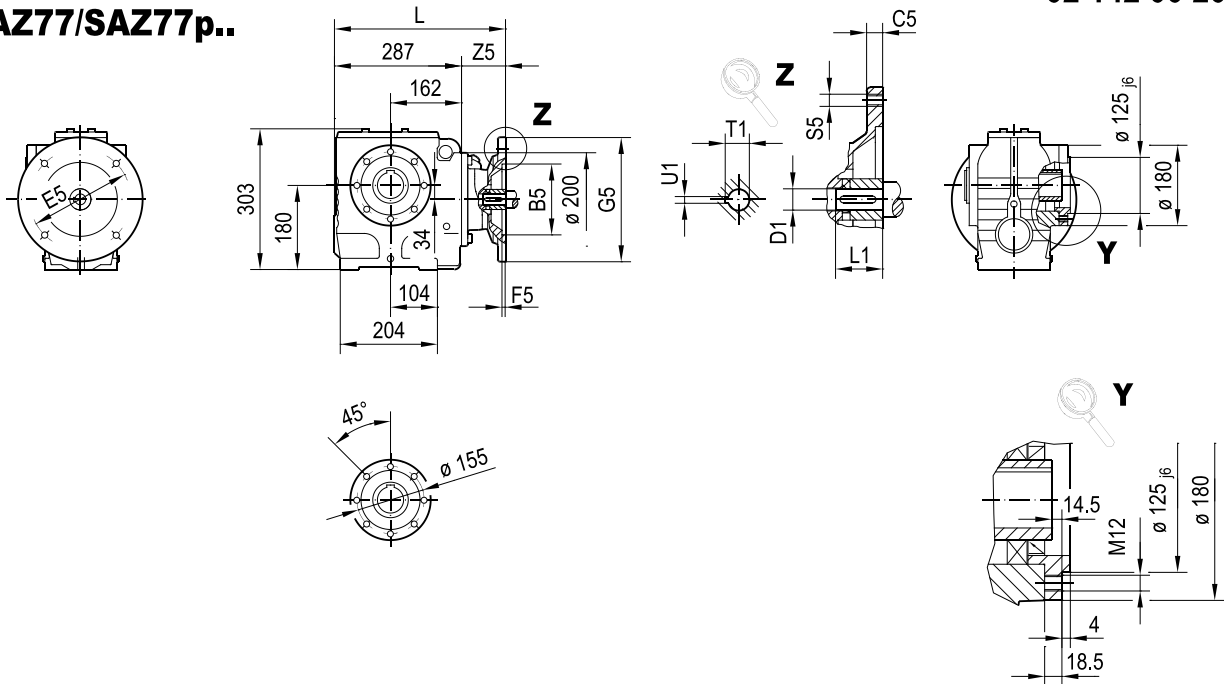


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 331 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 331 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 347 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 360 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 388 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 388 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 413 | M12 | 126 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 413 | M12 | 126 | 38 | 80 | 41.3 | 10 |

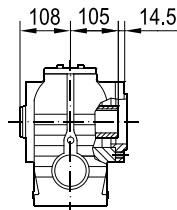
26878585/EN – 11/2021

02 142 00 20

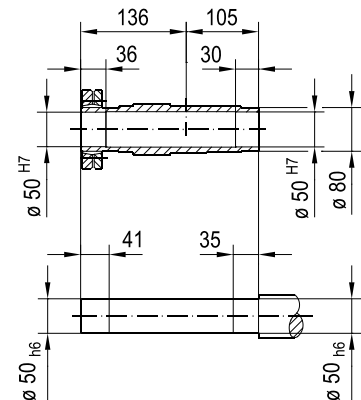
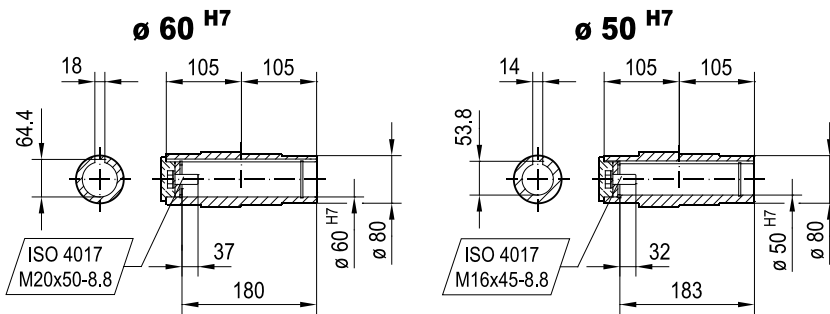
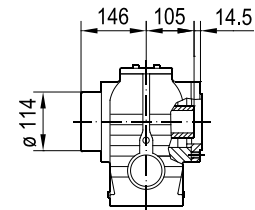
SAZ77/SAZ77p..



SAZ77/SAZ77p..



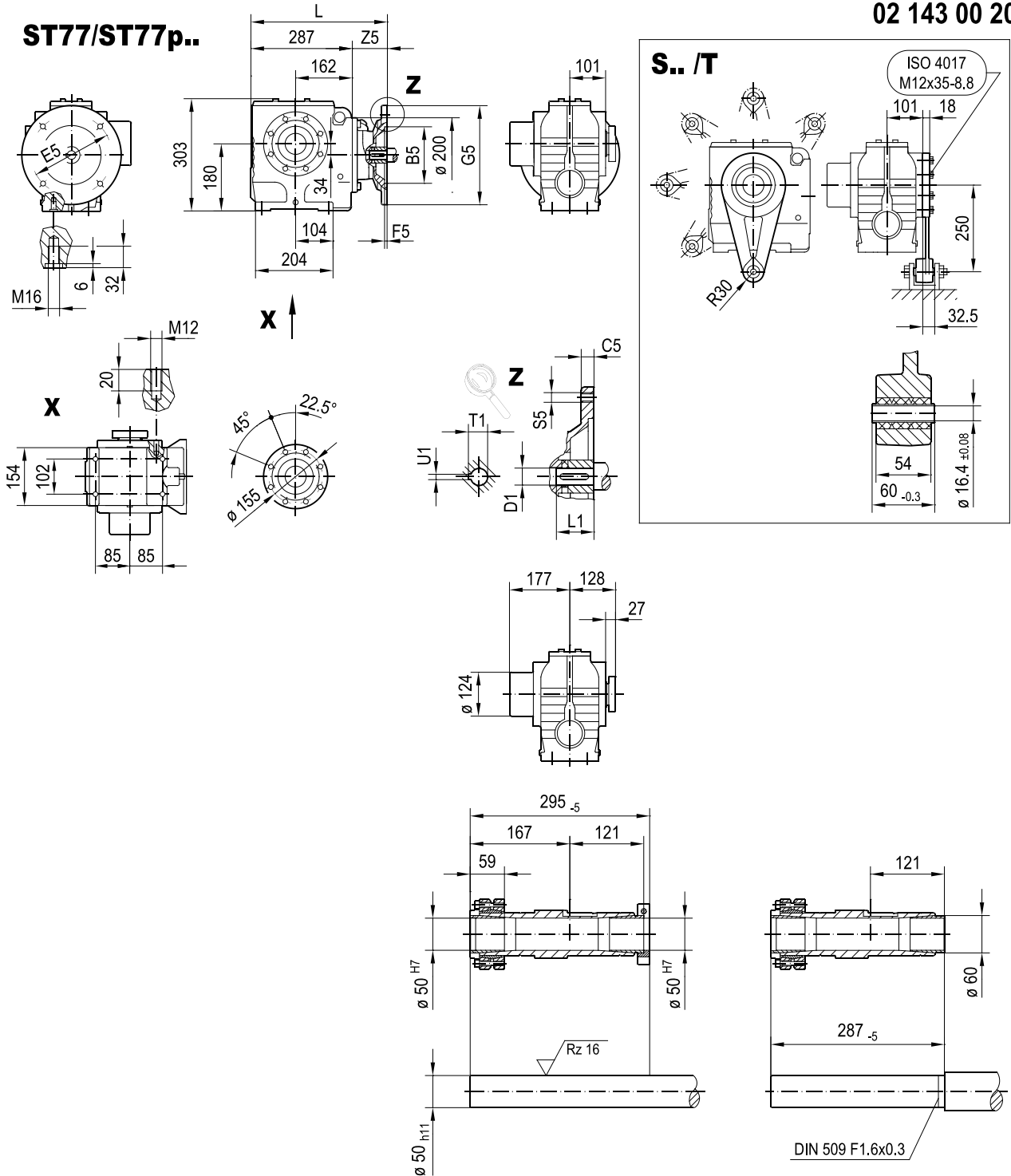
SHZ77/SHZ77p..



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 331 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 331 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 347 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 360 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 388 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 388 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 413 | M12 | 126 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 413 | M12 | 126 | 38 | 80 | 41.3 | 10 |

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02 143 00 20

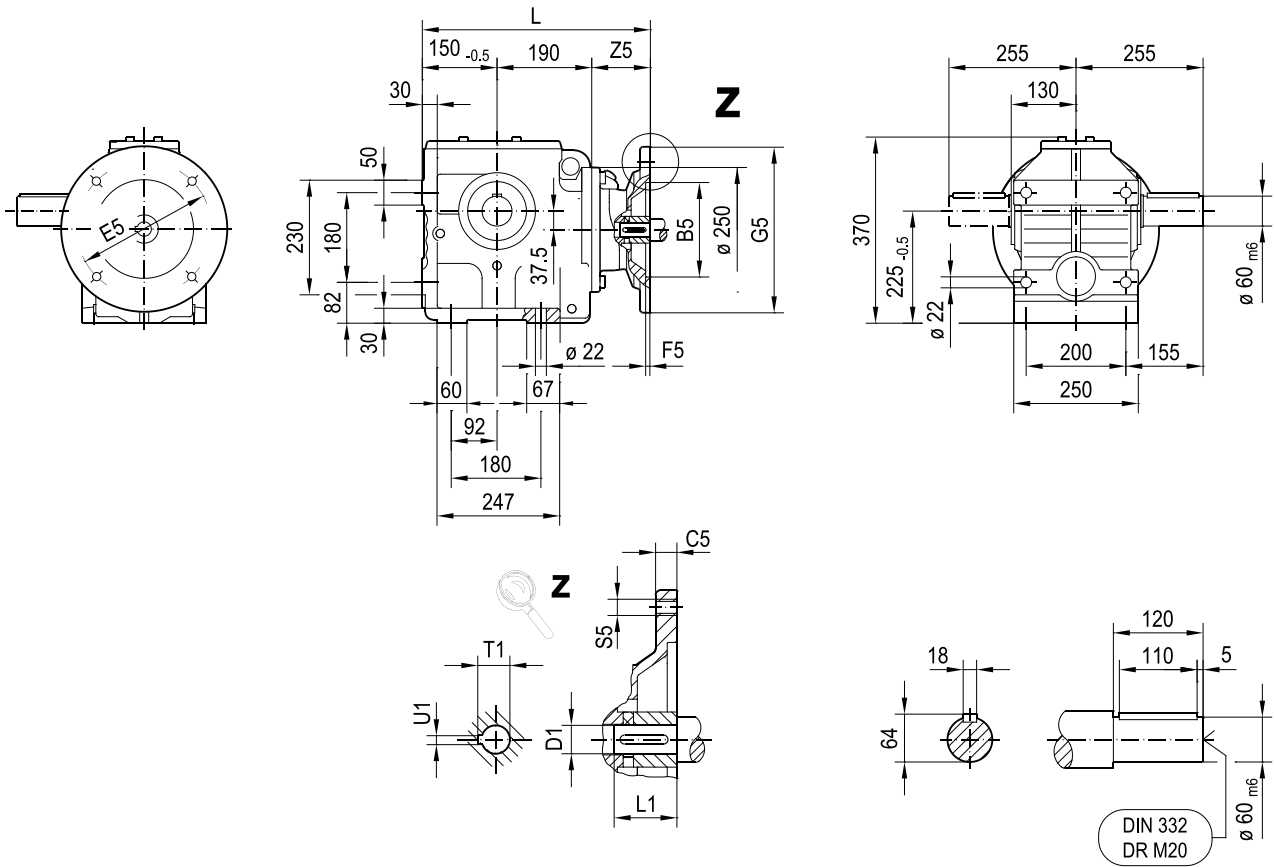


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 331 | M8 | 44 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 331 | M8 | 44 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 347 | M10 | 60 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 360 | M10 | 73 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 388 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 388 | M12 | 100.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 413 | M12 | 126 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 413 | M12 | 126 | 38 | 80 | 41.3 | 10 |

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02 144 00 20

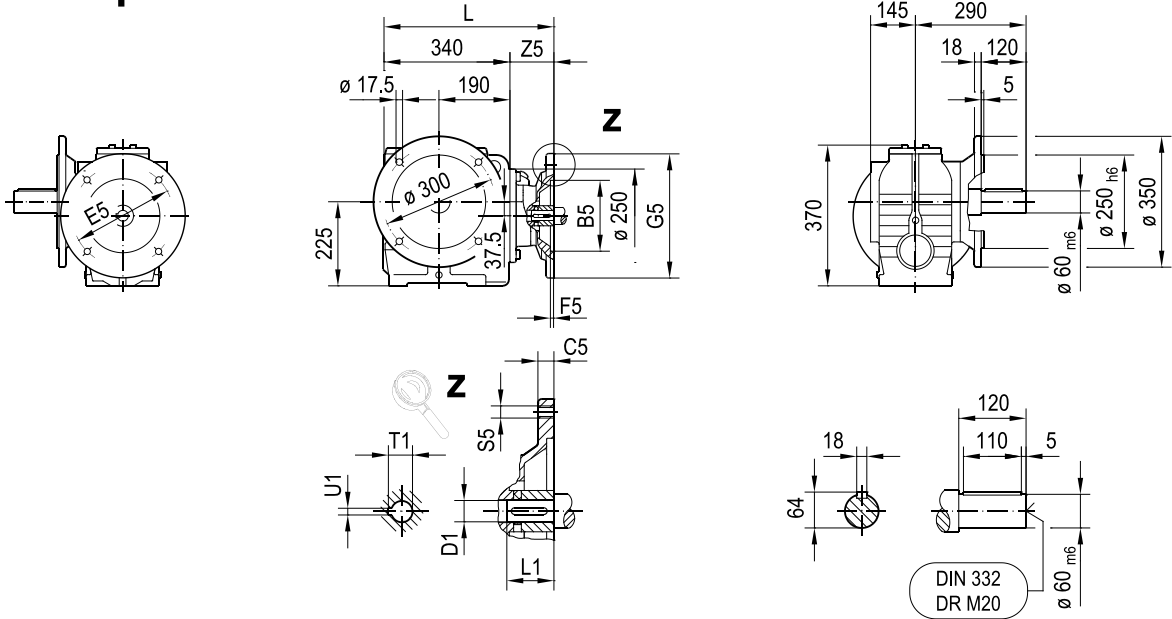
S87/S87p..



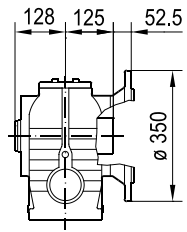
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|------|----|-----|------|----|
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 395 | M10 | 55 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 408 | M10 | 68 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 436 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 436 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 461 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 461 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 524 | M16 | 184 | 42 | 110 | 45.3 | 12 |

02 145 00 20

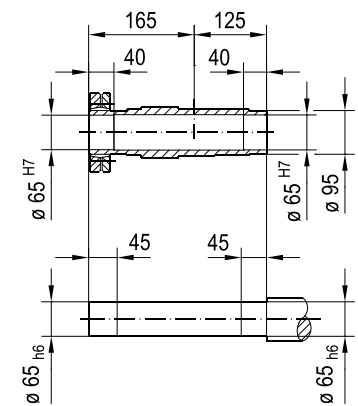
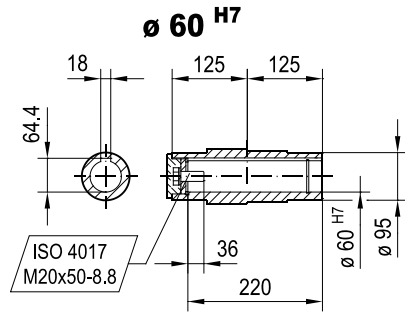
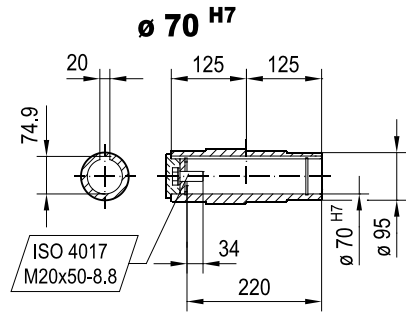
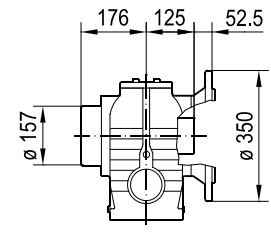
SF87/SF87p..



SAF87/SAF87p..



SHF87/SHF87p..



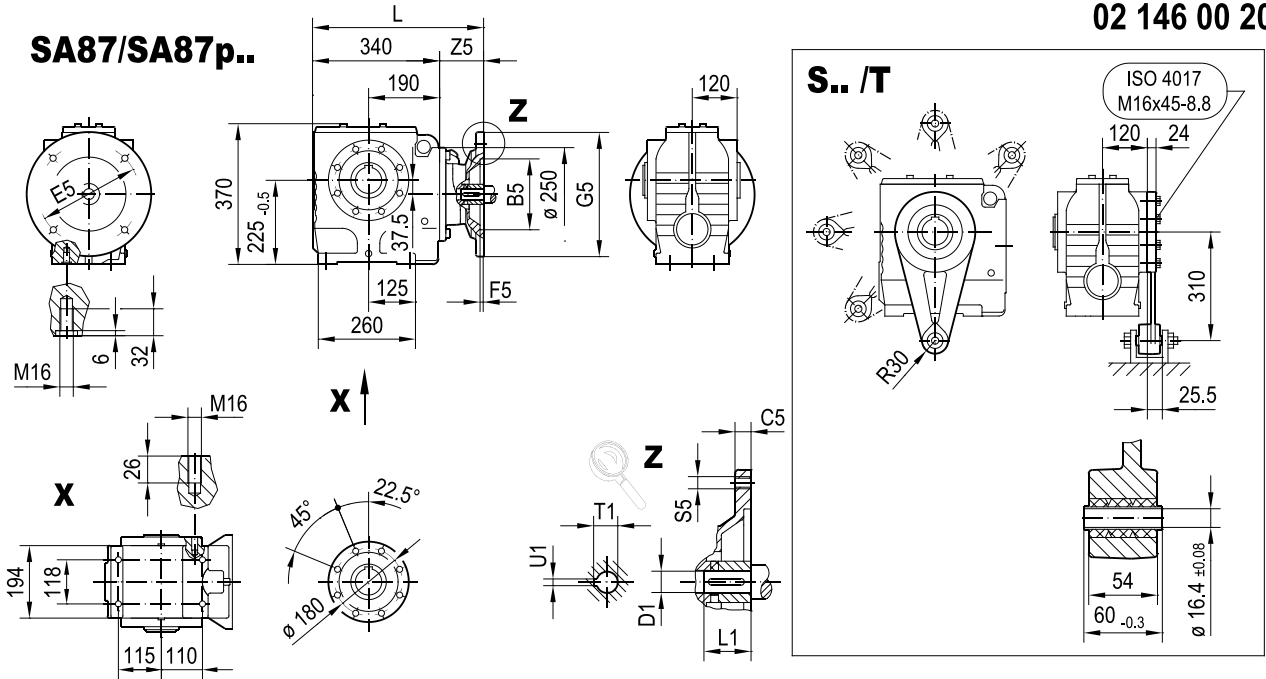
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|------|----|-----|------|----|
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 395 | M10 | 55 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 408 | M10 | 68 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 436 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 436 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 461 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 461 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 524 | M16 | 184 | 42 | 110 | 45.3 | 12 |

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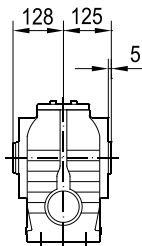
S.. helical-worm gear units

Dimension sheets for adapters for mounting IEC motors (AMS..)

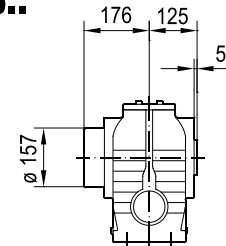
02 146 00 20



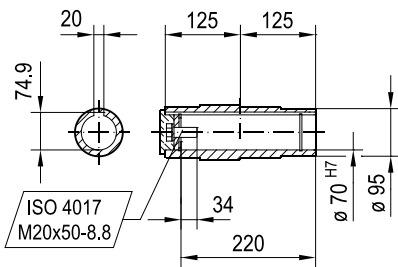
SA87/SA87p..



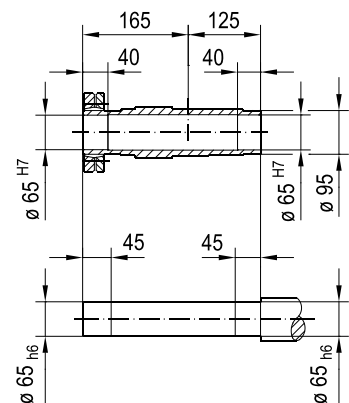
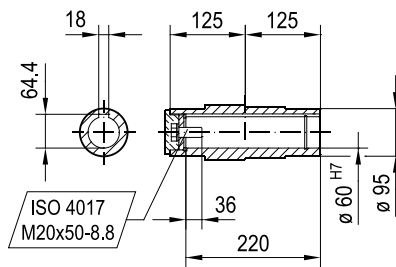
SH87/SH87p..



$\varnothing 70 \text{ H7}$



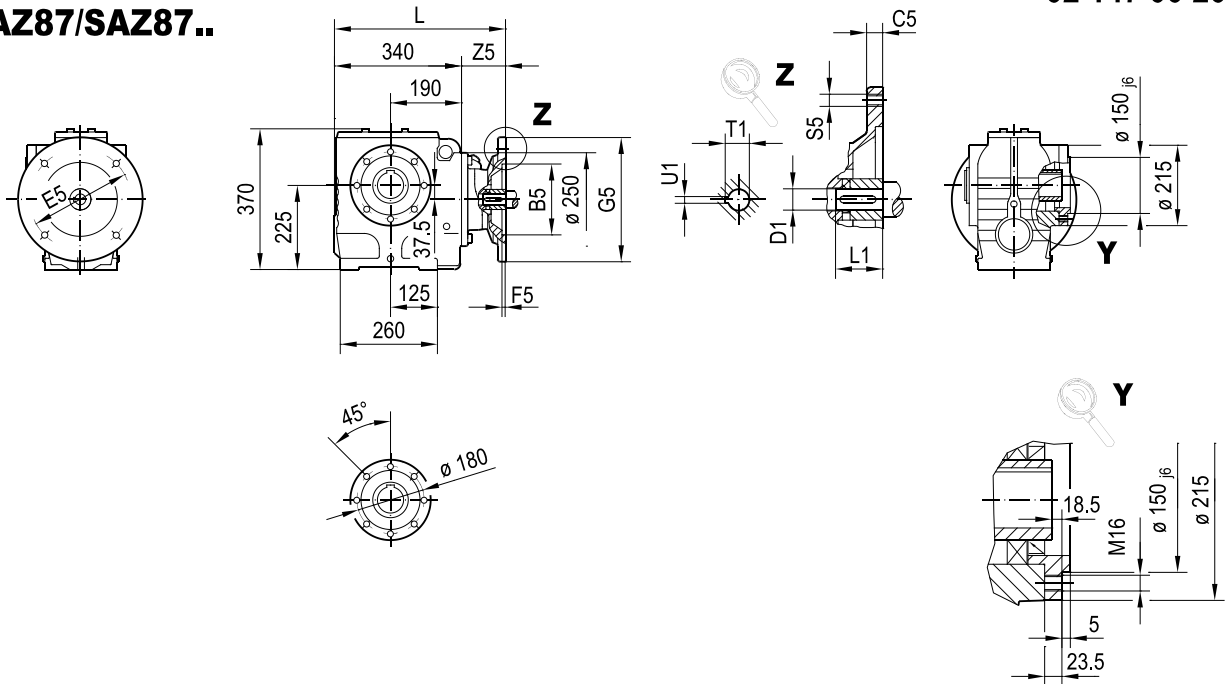
$\varnothing 60 \text{ H7}$



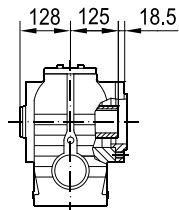
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|------|----|-----|------|----|
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 395 | M10 | 55 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 408 | M10 | 68 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 436 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 436 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 461 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 461 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 524 | M16 | 184 | 42 | 110 | 45.3 | 12 |

02 147 00 20

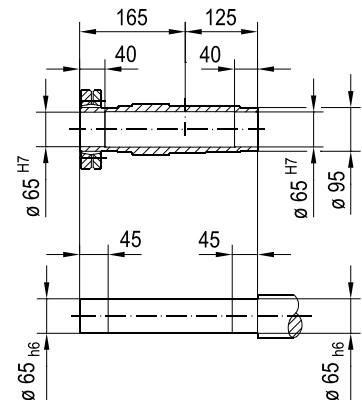
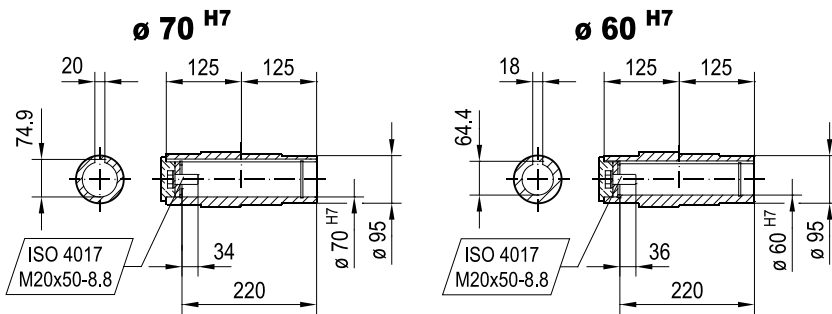
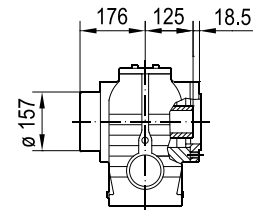
SAZ87/SAZ87..



SAZ87/SAZ87..



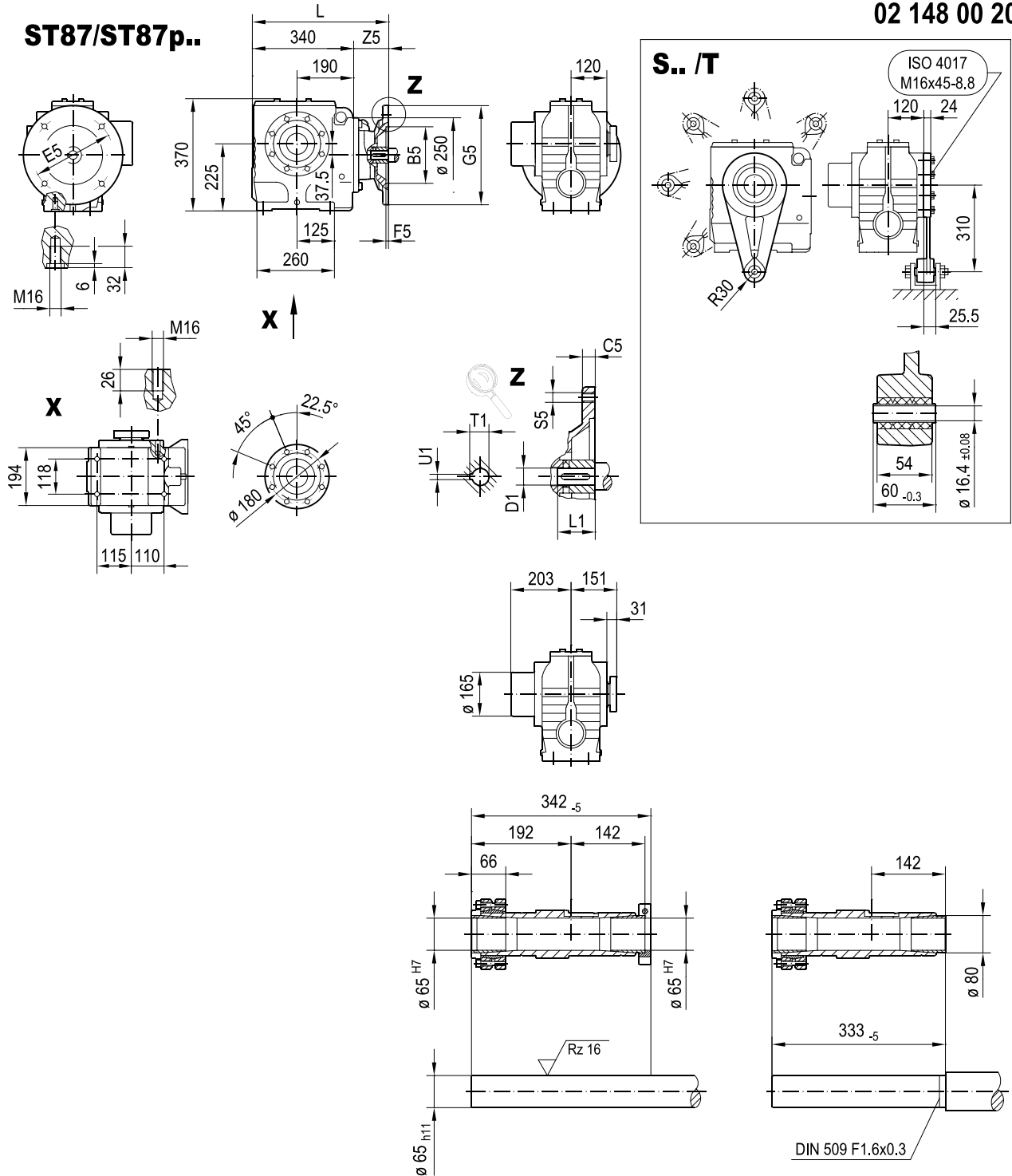
SHZ87/SHZ87..



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|------|----|-----|------|----|
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 395 | M10 | 55 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 408 | M10 | 68 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 436 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 436 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 461 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 461 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 524 | M16 | 184 | 42 | 110 | 45.3 | 12 |

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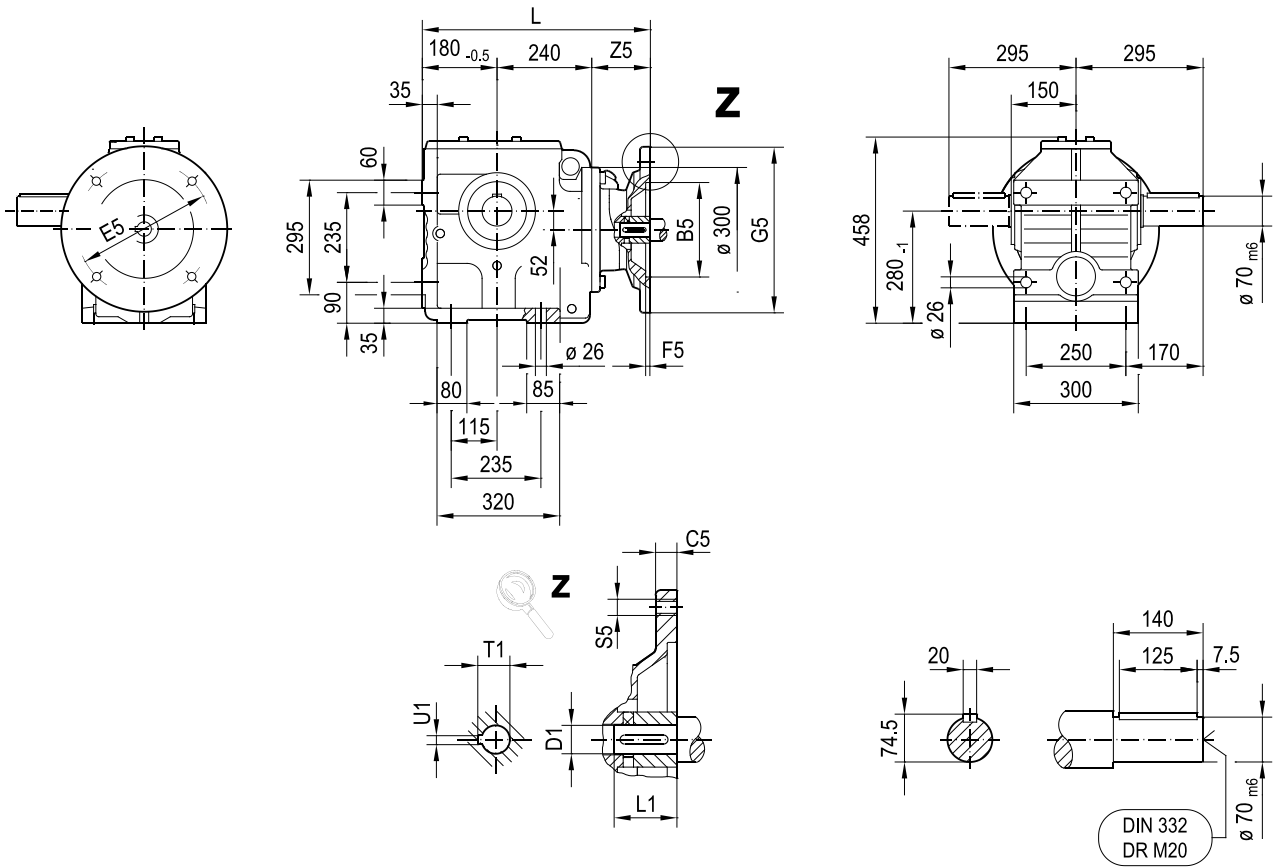
02 148 00 20



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|-----|-----|-----|-----|------|----|-----|------|----|
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 395 | M10 | 55 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 408 | M10 | 68 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 436 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 436 | M12 | 95.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 461 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 461 | M12 | 121 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 524 | M16 | 184 | 42 | 110 | 45.3 | 12 |

02 149 00 20

S97/S97p..

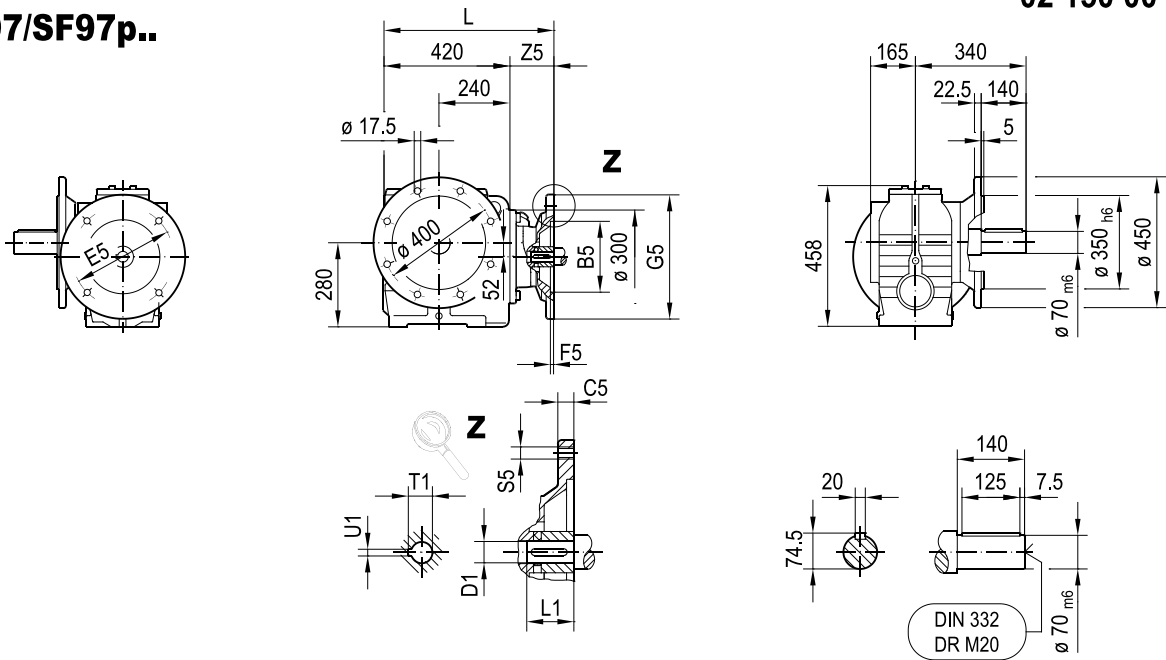


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 511 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 511 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 536 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 536 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 599 | M16 | 179 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 599 | M16 | 179 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 660 | M16 | 240 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 675 | M16 | 255 | 60 | 140 | 64.4 | 18 |

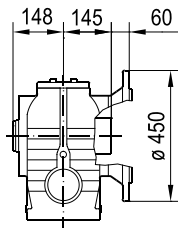
26878585/EN – 11/2021

02 150 00 20

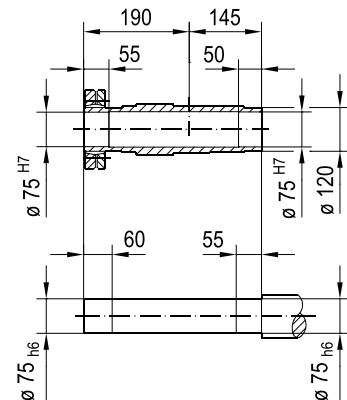
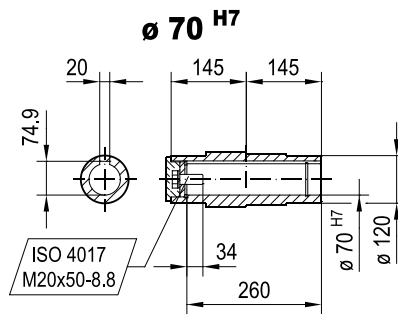
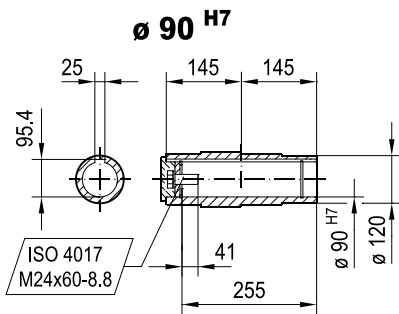
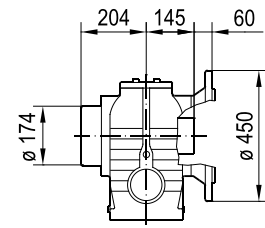
SF97/SF97p..



SAF97/SAF97p..

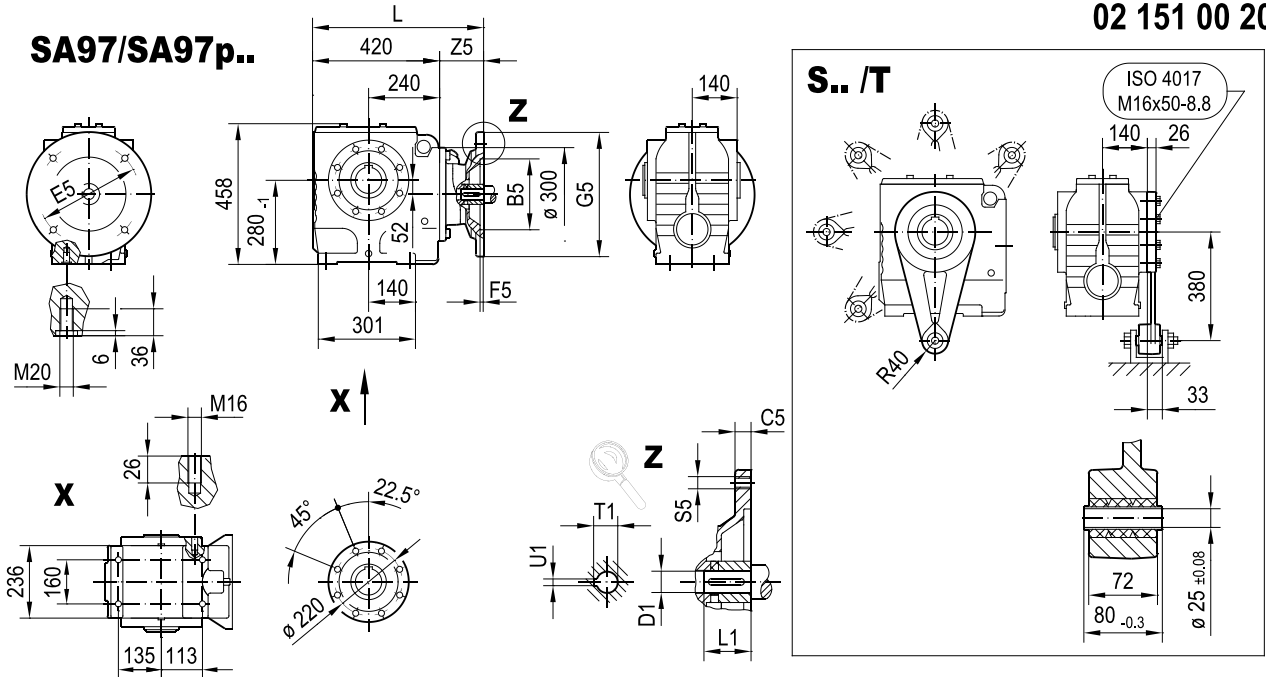


SHF97/SHF97p..



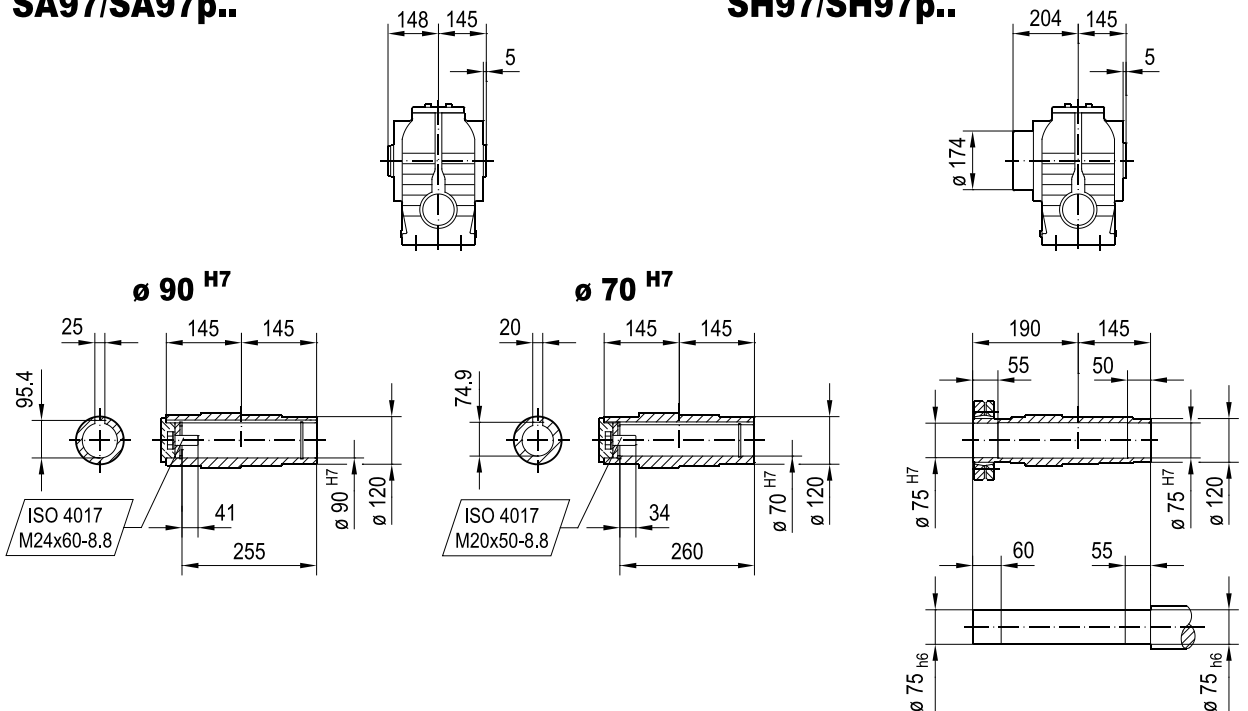
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 511 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 511 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 536 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 536 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 599 | M16 | 179 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 599 | M16 | 179 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 660 | M16 | 240 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 675 | M16 | 255 | 60 | 140 | 64.4 | 18 |

02 151 00 20



SA97/SA97p..

SH97/SH97p..

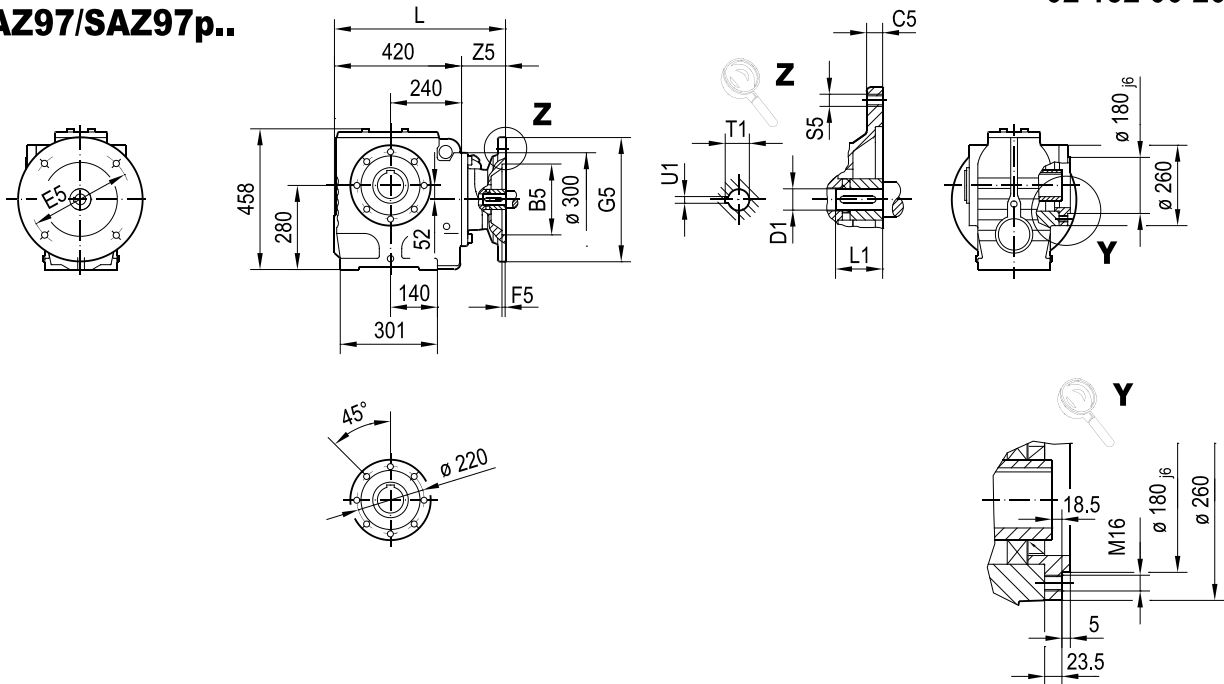


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 511 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 511 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 536 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 536 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 599 | M16 | 179 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 599 | M16 | 179 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 660 | M16 | 240 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 675 | M16 | 255 | 60 | 140 | 64.4 | 18 |

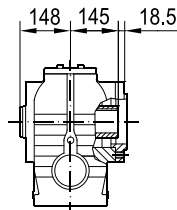
26878585/EN – 11/2021

02 152 00 20

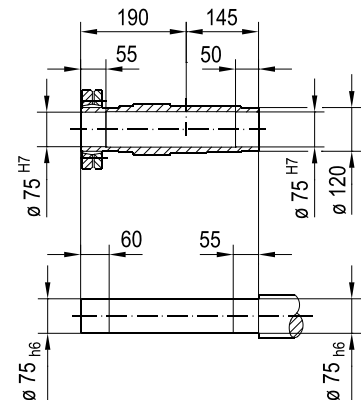
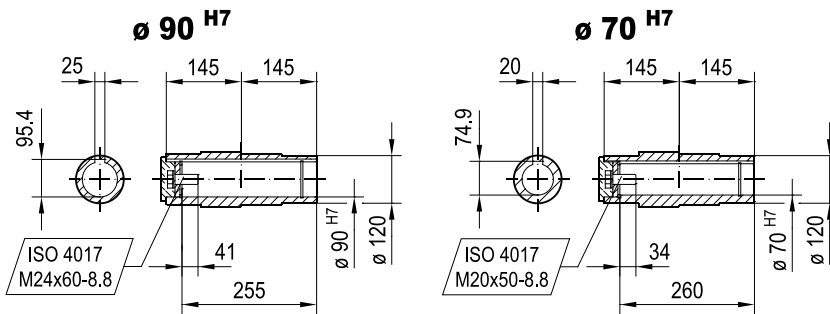
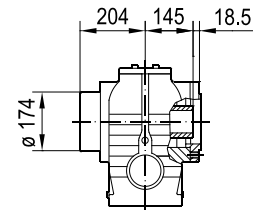
SAZ97/SAZ97p..



SAZ97/SAZ97p..



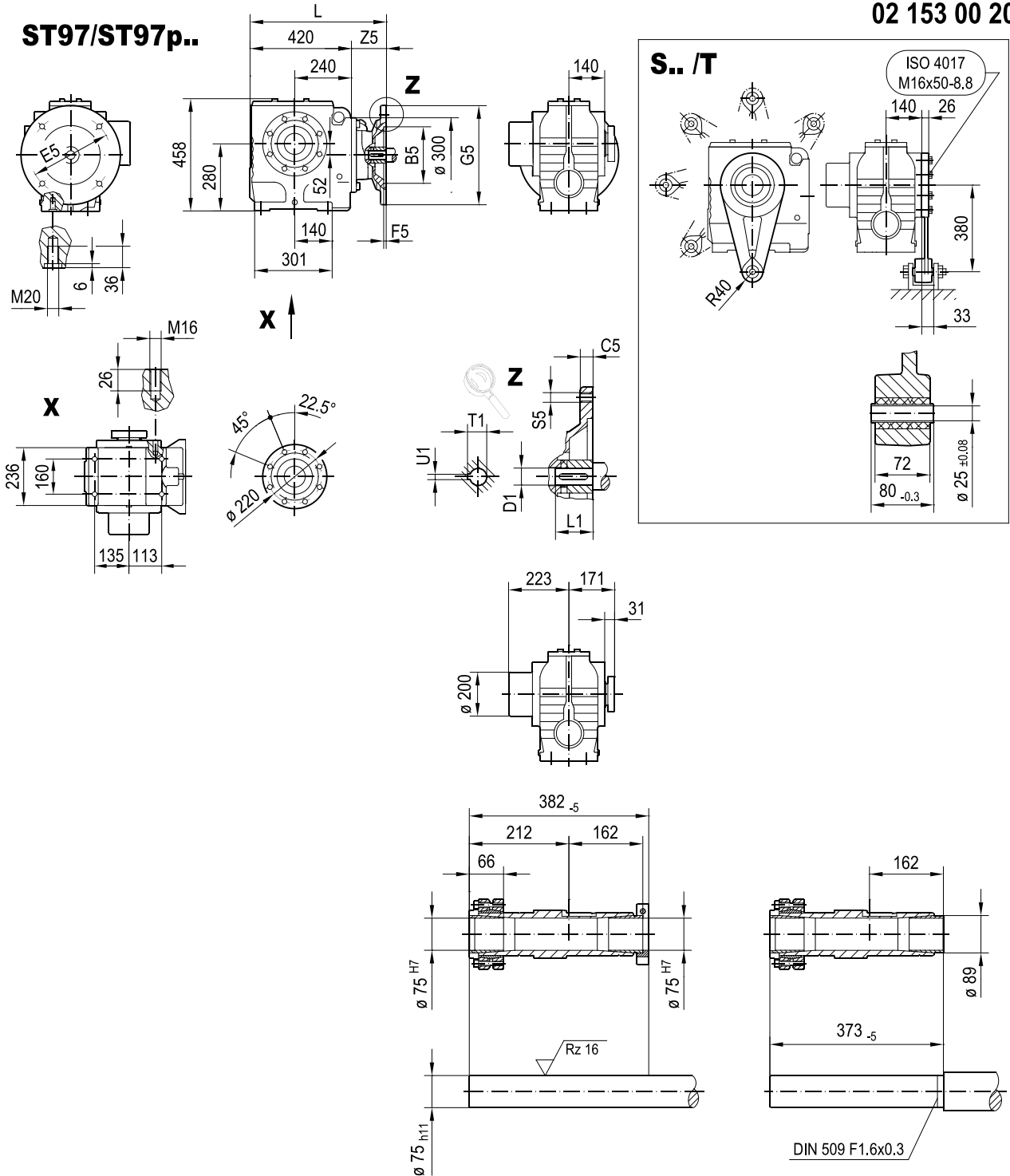
SHZ97/SHZ97p..



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 511 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 511 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 536 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 536 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 599 | M16 | 179 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 599 | M16 | 179 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 660 | M16 | 240 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 675 | M16 | 255 | 60 | 140 | 64.4 | 18 |

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02 153 00 20

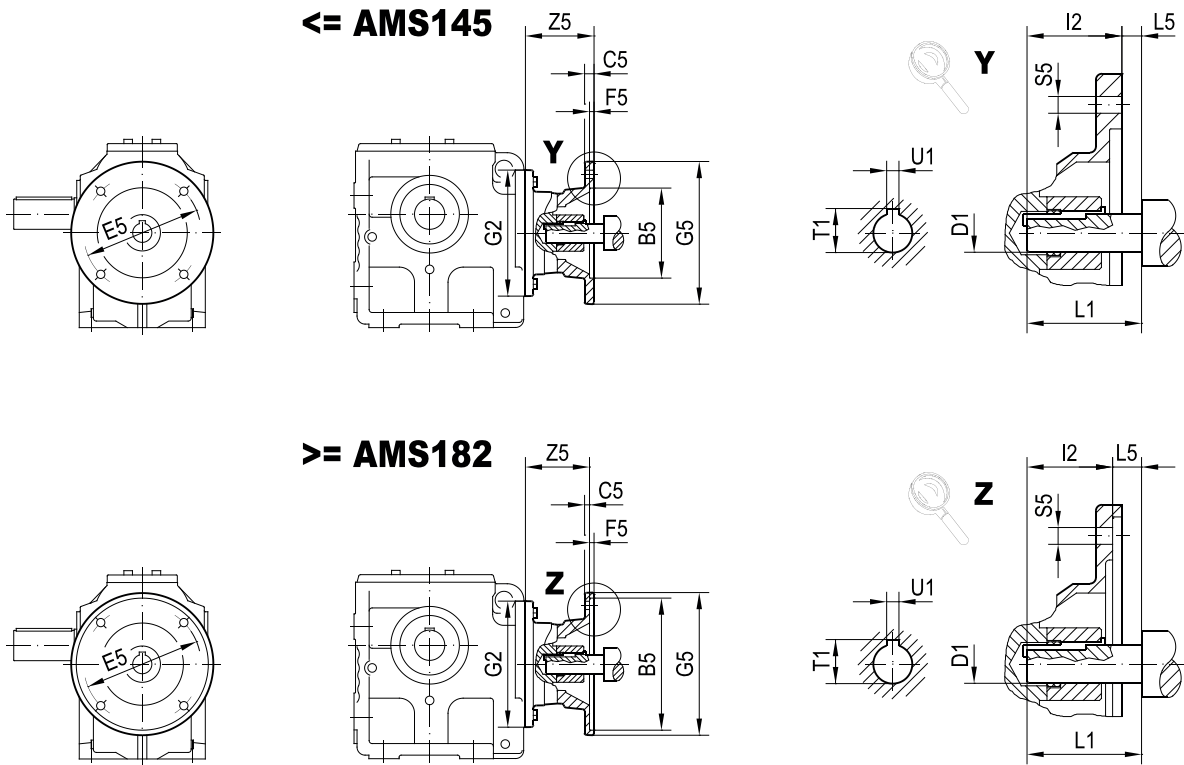


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------|-----|----|-----|----|-----|-----|-----|------|----|-----|------|----|
| AMS100 | 180 | 15 | 215 | 5 | 250 | 511 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS112 | 180 | 15 | 215 | 5 | 250 | 511 | M12 | 90.5 | 28 | 60 | 31.3 | 8 |
| AMS132S/M | 230 | 16 | 265 | 5 | 300 | 536 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS132ML | 230 | 16 | 265 | 5 | 300 | 536 | M12 | 116 | 38 | 80 | 41.3 | 10 |
| AMS160 | 250 | 18 | 300 | 6 | 350 | 599 | M16 | 179 | 42 | 110 | 45.3 | 12 |
| AMS180 | 250 | 18 | 300 | 6 | 350 | 599 | M16 | 179 | 48 | 110 | 51.8 | 14 |
| AMS200 | 300 | 20 | 350 | 7 | 400 | 660 | M16 | 240 | 55 | 110 | 59.3 | 16 |
| AMS225 | 350 | 22 | 400 | 7 | 450 | 675 | M16 | 255 | 60 | 140 | 64.4 | 18 |

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11.5 Dimension sheets for adapters for mounting NEMA motors (AMS..)

02 154 00 20

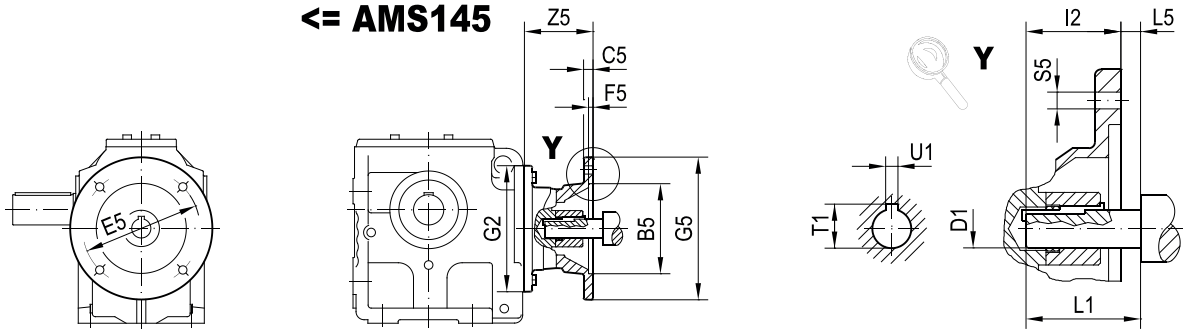


| | | B5 | C5 | E5 | F5 | G2 | G5 | I2 | L5 | S5 | Z5 | D1 | L1 | T1 | U1 |
|---|------------|-------|----|-------|-----|-----|-----|------|------|------|-------|--------|-------|------|------|
| S..37 S..37p S..47 S..47p S..57 S..57p | AMS56 | 114.3 | 11 | 149.2 | 4.5 | 120 | 170 | 52.3 | 4.6 | 10.5 | 81.5 | 15.875 | 47.75 | 18.0 | 4.76 |
| | AMS143 | 114.3 | 12 | 149.2 | 4.5 | 120 | 170 | 53.8 | 3.3 | 10.5 | 93.5 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS145 | 114.3 | 14 | 149.2 | 4.5 | 120 | 170 | 53.8 | 3.3 | 10.5 | 93.5 | 22.225 | 57.2 | 24.7 | 4.76 |
| S..67 S..67p | AMS56 | 114.3 | 11 | 149.2 | 4.5 | 160 | 170 | 52.3 | -4.6 | 10.5 | 75.0 | 15.875 | 47.8 | 18.1 | 4.76 |
| | AMS143 | 114.3 | 12 | 149.2 | 4.5 | 160 | 170 | 53.8 | 3.3 | 10.5 | 85.0 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS145 | 114.3 | 14 | 149.2 | 4.5 | 160 | 170 | 53.8 | 3.3 | 10.5 | 85.0 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS182 | 215.9 | 10 | 184 | 5 | 160 | 228 | 66.6 | 3.3 | 15 | 115.0 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 160 | 228 | 66.6 | 3.3 | 15 | 115.0 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 160 | 228 | 79.2 | 6.6 | 15 | 140.0 | 34.925 | 85.9 | 38.7 | 7.94 |
| S..77 S..77p | AMS56 | 114.3 | 11 | 149.2 | 4.5 | 200 | 170 | 52.3 | -4.6 | 10.5 | 70.0 | 15.875 | 47.8 | 18.1 | 4.76 |
| | AMS143 | 114.3 | 12 | 149.2 | 4.5 | 200 | 170 | 53.8 | 3.3 | 10.5 | 80.0 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS145 | 114.3 | 14 | 149.2 | 4.5 | 200 | 170 | 53.8 | 3.3 | 10.5 | 80.0 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS182 | 215.9 | 10 | 184 | 5 | 200 | 228 | 66.6 | 3.3 | 15 | 105.0 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 200 | 228 | 66.6 | 3.3 | 15 | 105.0 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 200 | 228 | 79.2 | 6.6 | 15 | 130.0 | 34.925 | 85.9 | 38.7 | 7.94 |
| S..87 S..87p | AMS143 | 114.3 | 12 | 149.2 | 4.5 | 250 | 170 | 53.8 | 3.3 | 10.5 | 75.0 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS145 | 114.3 | 14 | 149.2 | 4.5 | 250 | 170 | 53.8 | 3.3 | 10.5 | 75.0 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS182 | 215.9 | 10 | 184 | 5 | 250 | 228 | 66.6 | 3.3 | 15 | 100.0 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 250 | 228 | 66.6 | 3.3 | 15 | 100.0 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 250 | 228 | 79.2 | 6.6 | 15 | 125.0 | 34.925 | 85.9 | 38.7 | 7.94 |
| | AMS254/256 | 215.9 | 12 | 184 | 5 | 250 | 228 | 95.3 | 6.4 | 15 | 185.0 | 41.275 | 101.6 | 45.8 | 9.53 |

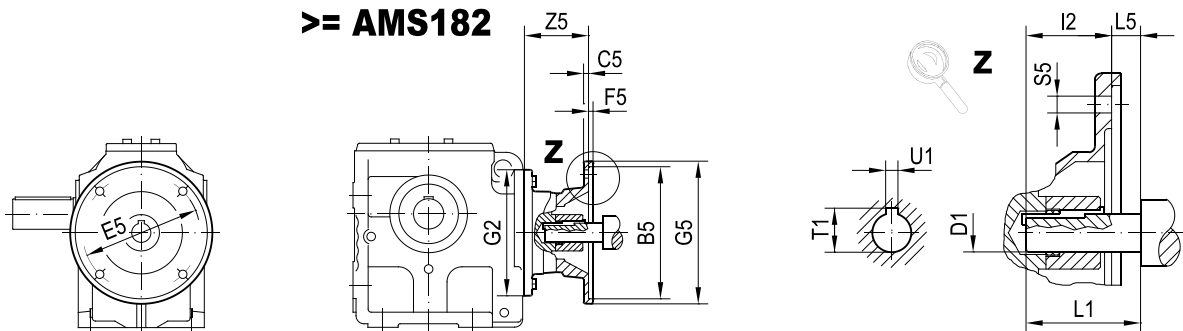
26878565/EN - 11/2021

02 154 00 20

←= AMS145



≥= AMS182



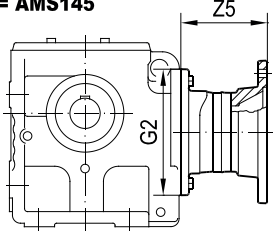
| | | B5 | C5 | E5 | F5 | G2 | G5 | I2 | L5 | S5 | Z5 | D1 | L1 | T1 | U1 |
|-----------------|------------|-------|----|-------|----|-----|-----|-------|-----|------|-------|--------|-------|------|-------|
| S..97 S..97p | AMS182 | 215.9 | 10 | 184 | 5 | 300 | 228 | 66.6 | 3.3 | 15 | 95.0 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS184 | 215.9 | 10 | 184 | 5 | 300 | 228 | 66.6 | 3.3 | 15 | 95.0 | 28.575 | 69.9 | 31.7 | 6.35 |
| | AMS213/215 | 215.9 | 11 | 184 | 5 | 300 | 228 | 79.2 | 6.6 | 15 | 120.0 | 34.925 | 85.9 | 38.7 | 7.94 |
| | AMS254/256 | 215.9 | 12 | 184 | 5 | 300 | 228 | 95.3 | 6.4 | 15 | 180.0 | 41.275 | 101.6 | 45.8 | 9.53 |
| | AMS284/286 | 266.7 | 15 | 228.6 | 5 | 300 | 286 | 111.3 | 6.1 | 15 | 185.0 | 47.625 | 117.3 | 53.4 | 12.7 |
| | AMS324/326 | 317.5 | 17 | 279.4 | 5 | 300 | 356 | 127.0 | 6.4 | 17.5 | 250.0 | 53.975 | 133.4 | 60.0 | 12.7 |
| | AMS364/365 | 317.5 | 17 | 279.4 | 5 | 300 | 356 | 142.7 | 6.6 | 17.5 | 250.0 | 60.325 | 149.4 | 67.6 | 15.88 |

11.6 Dimension sheets for adapters with backstop (RS..) and drain hole (DH..)

02 162 01 20

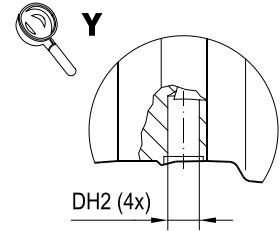
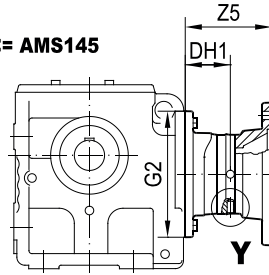
AMS.. /RS

IEC
NEMA: <= AMS145



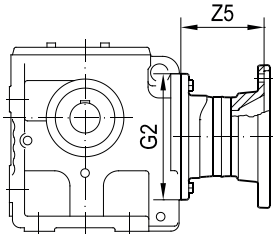
AMS.. /DH

IEC
NEMA: <= AMS145



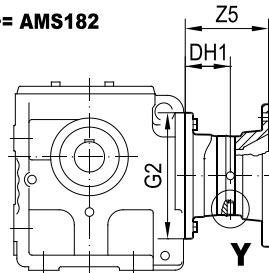
AMS.. /RS

NEMA: >= AMS182




AMS.. /DH

NEMA: >= AMS182



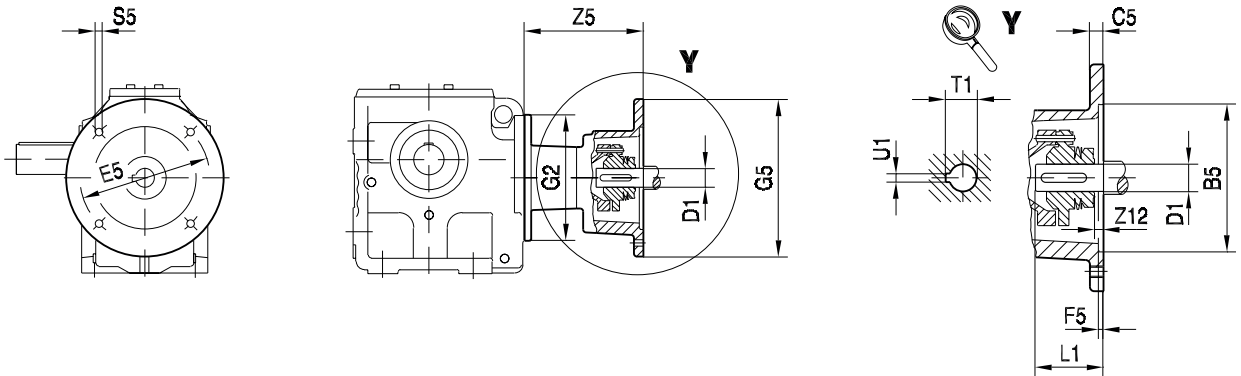
| | | /RS | | /DH | | | |
|---|------------|-----|-------|-----|-------|-----|-----|
| | | G2 | Z5 | G2 | Z5 | DH1 | DH2 |
| S..37, S..37p S..47, S..47p S..57, S..57p | AMS56 | - | - | 120 | 105 | 60 | 8 |
| | AMS63 | - | - | 120 | 78.5 | 46 | 8 |
| | AMS71 | - | - | 120 | 78.5 | 46 | 8 |
| | AMS80 | 120 | 121 | 120 | 97.5 | 60 | 8 |
| | AMS90 | 120 | 121 | 120 | 109 | 64 | 8 |
| | AMS143 | 120 | 128.5 | 120 | 116.5 | 64 | 8 |
| | AMS145 | 120 | 128.5 | 120 | 116.5 | 64 | 8 |
| S..67, S..67p | AMS56 | - | - | 160 | 98.5 | 54 | 8 |
| | AMS63 | - | - | 160 | 72 | 40 | 8 |
| | AMS71 | - | - | 160 | 72 | 40 | 8 |
| | AMS80 | 160 | 114.5 | 160 | 91 | 54 | 8 |
| | AMS90 | 160 | 114.5 | 160 | 102.5 | 57 | 8 |
| | AMS100 | 160 | 153 | 160 | 153 | 97 | 8 |
| | AMS112 | 160 | 153 | 160 | 153 | 97 | 8 |
| | AMS132S/M | 160 | 181.5 | 160 | 181.5 | 116 | 8 |
| | AMS143 | 160 | 122 | 160 | 110 | 57 | 8 |
| | AMS145 | 160 | 122 | 160 | 110 | 57 | 8 |
| | AMS182 | 160 | 158.5 | 160 | 158.5 | 97 | 8 |
| | AMS184 | 160 | 158.5 | 160 | 158.5 | 97 | 8 |
| | AMS213/215 | 160 | 186 | 160 | 186 | 116 | 8 |

| |  | /RS | | /DH | | | |
|----------------------|---|-------|-------|-------|-------|-----|-----|
| | | G2 | Z5 | G2 | Z5 | DH1 | DH2 |
| S..77, S..77p | AMS56 | – | – | 200 | 91.5 | 47 | 8 |
| | AMS63 | – | – | 200 | 66 | 34 | 8 |
| | AMS71 | – | – | 200 | 66 | 34 | 8 |
| | AMS80 | 200 | 107.5 | 200 | 84 | 47 | 8 |
| | AMS90 | 200 | 107.5 | 200 | 95.5 | 50 | 8 |
| | AMS100 | 200 | 145 | 200 | 145 | 89 | 8 |
| | AMS112 | 200 | 145 | 200 | 145 | 89 | 8 |
| | AMS132ML | 200 | 173.5 | 200 | 173.5 | 108 | 8 |
| | AMS132S/M | 200 | 173.5 | 200 | 173.5 | 108 | 8 |
| | AMS143 | 200 | 115 | 200 | 103 | 50 | 8 |
| | AMS145 | 200 | 115 | 200 | 103 | 50 | 8 |
| | AMS182 | 200 | 150.5 | 200 | 150.5 | 89 | 8 |
| | AMS184 | 200 | 150.5 | 200 | 150.5 | 89 | 8 |
| | AMS213/215 | 200 | 178 | 200 | 178 | 108 | 8 |
| S..87, S..87p | AMS80 | 250 | 102.5 | 250 | 79 | 42 | 8 |
| | AMS90 | 250 | 102.5 | 250 | 90.5 | 45 | 8 |
| | AMS100 | 250 | 140 | 250 | 140 | 84 | 8 |
| | AMS112 | 250 | 140 | 250 | 140 | 84 | 8 |
| | AMS132ML | 250 | 168.5 | 250 | 168.5 | 103 | 8 |
| | AMS132S/M | 250 | 168.5 | 250 | 168.5 | 103 | 8 |
| | AMS143 | 250 | 110 | 250 | 98 | 45 | 8 |
| | AMS145 | 250 | 110 | 250 | 98 | 45 | 8 |
| | AMS160 | 250 | 184 | 250 | 222 | 124 | 8 |
| | AMS182 | 250 | 145.5 | 250 | 145.5 | 84 | 8 |
| | AMS184 | 250 | 145.5 | 250 | 145.5 | 84 | 8 |
| | AMS213/215 | 250 | 173 | 250 | 173 | 103 | 8 |
| | AMS254/256 | 250 | 185 | 250 | 223.5 | 124 | 8 |
| S..97, S..97p | AMS100 | 300 | 135 | 300 | 135 | 79 | 8 |
| | AMS112 | 300 | 135 | 300 | 135 | 79 | 8 |
| | AMS132ML | 300 | 163.5 | 300 | 163.5 | 98 | 8 |
| | AMS132S/M | 300 | 163.5 | 300 | 163.5 | 98 | 8 |
| | AMS160 | 300 | 179 | 300 | 217 | 119 | 8 |
| | AMS180 | 300 | 179 | 300 | 217 | 119 | 8 |
| | AMS182 | 300 | 140.5 | 300 | 140.5 | 79 | 8 |
| | AMS184 | 300 | 140.5 | 300 | 140.5 | 79 | 8 |
| | AMS200 | 300 | 240 | 300 | 240 | 141 | 8 |
| | AMS213/215 | 300 | 168 | 300 | 168 | 98 | 8 |
| | AMS225 | 300 | 255 | 300 | 255 | 141 | 8 |
| | AMS254/256 | 300 | 180 | 300 | 218.5 | 119 | 8 |
| | AMS284/286 | 300 | 186.5 | 300 | 225 | 119 | 8 |
| | AMS324/326 | 300 | 252.5 | 300 | 252.5 | 152 | 8 |
| AMS364/365 | 300 | 252.5 | 300 | 252.5 | 152 | 8 | |

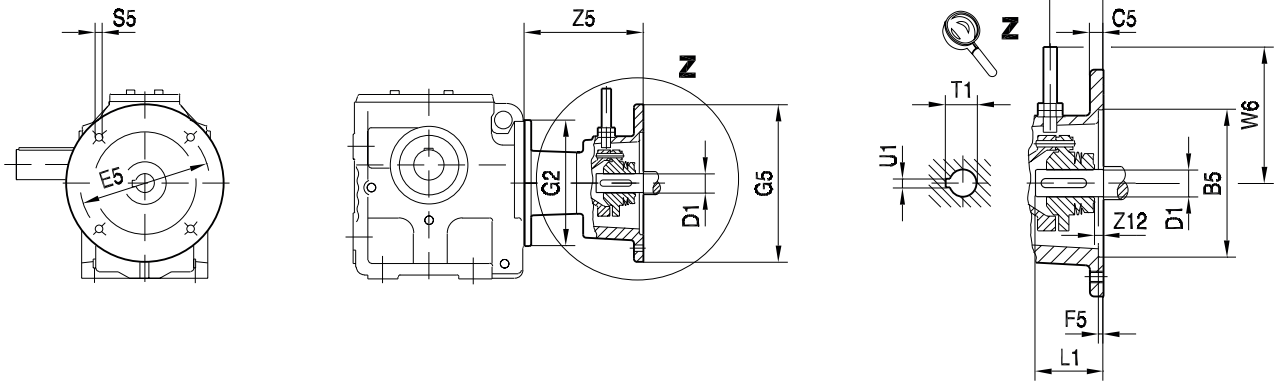
11.7 Dimension sheets for adapters with slip clutch (AR..)

S.. AR..

02 028 02 01



S.. AR../W



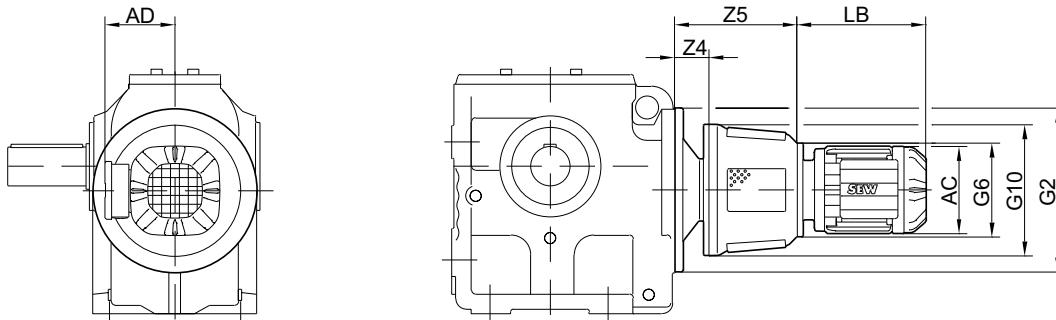
| | | B5 | C5 | E5 | F5 | G2 | G5 | S5 | W6 | Z5 | Z9 | Z12 | D1 | L1 | T1 | U1 | | | |
|---|---------------------|-----|----|-----|-----|-----|-----|-----|-----|-------|-----|-----|-------|-----|------|----|----|------|----|
| S..37, S..37p S..47, S..47p S..57, S..57p | AR71 | 110 | 10 | 130 | 3.5 | 120 | 160 | M8 | 120 | 104 | 37 | 0 | 14 | 30 | 16.3 | 5 | | | |
| | AR80 | 130 | 12 | 165 | 4.5 | | 200 | M10 | | 140.5 | | | 19 | 40 | 21.8 | 6 | | | |
| | AR90 | | | | | | 24 | 50 | | 27.3 | | | 8 | | | | | | |
| S..67, S..67p | AR71 | 110 | 10 | 130 | 3.5 | 160 | 160 | M8 | 120 | 97.5 | 37 | 0 | 14 | 30 | 16.3 | 5 | | | |
| | AR80 | 130 | 12 | 165 | 4.5 | | 200 | M10 | | 134 | | | 19 | 40 | 21.8 | 6 | | | |
| | AR90 | | | | | | 24 | 50 | | 27.3 | | | 8 | | | | | | |
| | AR100 | 180 | 15 | 215 | 5 | | 250 | M12 | | 130 | | | 174.5 | 52 | 5.5 | 28 | 60 | 31.3 | 8 |
| | AR112 | 230 | 16 | 265 | 5 | | 300 | M12 | | 145 | | | 234 | 72 | 5 | 38 | 80 | 41.3 | 10 |
| AR132S/M AR132ML | | | | | | | | | | | | | | | | | | | |
| S..77, S..77p | AR71 | 110 | 10 | 130 | 3.5 | 200 | 160 | M8 | 120 | 91.5 | 37 | 0 | 14 | 30 | 16.3 | 5 | | | |
| | AR80 | 130 | 12 | 165 | 4.5 | | 200 | M10 | | 127 | | | 19 | 40 | 21.8 | 6 | | | |
| | AR90 | | | | | | 24 | 50 | | 27.3 | | | 8 | | | | | | |
| | AR100 | 180 | 15 | 215 | 5 | | 250 | M12 | | 130 | | | 166.5 | 52 | 5.5 | 28 | 60 | 31.3 | 8 |
| | AR132S/M AR132ML | 230 | 16 | 265 | 5 | | 300 | M12 | | 145 | | | 234 | 72 | 5 | 38 | 80 | 41.3 | 10 |
| | | | | | | | | | | | | | | | | | | | |
| S..87, S..87p | AR80 | 130 | 12 | 165 | 4.5 | 250 | 200 | M10 | 120 | 122 | 37 | 0 | 19 | 40 | 21.8 | 6 | | | |
| | AR90 | | | | | | | | | | | | 24 | 50 | 27.3 | 8 | | | |
| | AR100 | 180 | 15 | 215 | 5 | | 250 | M12 | 130 | 161.5 | 52 | 5.5 | 28 | 60 | 31.3 | 8 | | | |
| | AR132S/M AR132ML | 230 | 16 | 265 | 5 | | 300 | M12 | 145 | 229 | 72 | 5 | 38 | 80 | 41.3 | 10 | | | |
| | | | | | | | | | | | | | | | | | | | |
| | AR160 | 250 | 18 | 300 | 6 | | 350 | M16 | 165 | 306.5 | 105 | 35 | 42 | 110 | 45.3 | 12 | | | |
| | AR180 | | | | | | | | | | | | 48 | 110 | 51.8 | 14 | | | |

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| | | B5 | C5 | E5 | F5 | G2 | G5 | S5 | W6 | Z5 | Z9 | Z12 | D1 | L1 | T1 | U1 |
|---------------|----------|-----|----|-----|----|------|-----|-----|-----|-------|-----|-----|----|-----|------|----|
| S..97, S..97p | AR100 | 180 | 15 | 215 | 5 | 300 | 250 | M12 | 130 | 156.5 | 52 | 5.5 | 28 | 60 | 31.3 | 8 |
| | AR112 | | | | | | | | | | | | | | | |
| | AR132S/M | 230 | 16 | 265 | 5 | | 300 | M12 | 145 | 224 | 72 | 5 | 38 | 80 | 41.3 | 10 |
| | AR132ML | | | | | | | | | | | | | | | |
| | AR160 | 250 | 18 | 300 | 6 | | 350 | M16 | 165 | 301.5 | 105 | 35 | 42 | 110 | 45.3 | 12 |
| AR180 | 48 | | | | | 51.8 | | | | | | | 14 | | | |

11.8 Dimension sheets for adapters with hydraulic start-up coupling (S..AT..)

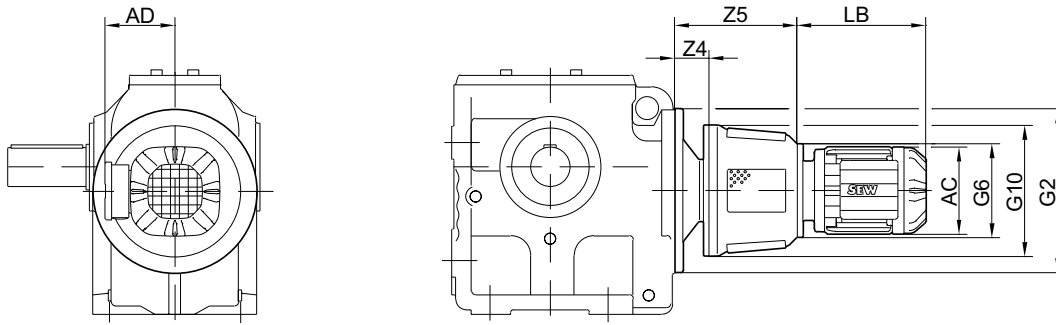
26 001 04 01



| | | | AC | AD | G6 | G10 | LB | Z4 | Z5 | G2 |
|---------------|----------------|----------|-----|-----|-----|-----|-----|-----|-----|-----|
| S..67, S..67p | AT311 AT312 | DRN71M | 139 | 118 | 200 | 280 | 222 | 97 | 286 | 160 |
| | | DRN80MK | | | | | 241 | | | |
| | | DRN80MS | 156 | 128 | | | 259 | | | |
| | | DRN80M | | | | | 287 | | | |
| | | DRN90S | 179 | 140 | | | 281 | | | |
| | | DRN90L | | | | | 313 | | | |
| | | DRN100LM | 197 | 157 | | | 359 | | | |
| | | DRN112M | 221 | 170 | | | 387 | | | |
| | AT321 AT322 | DRN90L | 179 | 140 | 250 | 350 | 313 | 97 | 333 | |
| | | DRN100LS | | | | | 309 | | | |
| | | DRN100L | 197 | 157 | | | 359 | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| S..77, S..77p | AT311 AT312 | DRN71M | 139 | 118 | 200 | 280 | 222 | 89 | 278 | 200 |
| | | DRN80MK | | | | | 241 | | | |
| | | DRN80MS | 156 | 128 | | | 259 | | | |
| | | DRN80M | | | | | 287 | | | |
| | | DRN90S | 179 | 140 | | | 281 | | | |
| | | DRM90L | | | | | 313 | | | |
| | | DRN100LM | 197 | 157 | | | 359 | | | |
| | | DRN112M | 221 | 170 | | | 387 | | | |
| | AT321 | DRN132S | 221 | 170 | 250 | 350 | 437 | 93 | 328 | |
| | AT421 AT422 | DRN90L | 179 | 140 | 250 | 350 | 313 | 133 | 368 | |
| | | DRN100LS | | | | | 309 | | | |
| | | DRN100L | 197 | 157 | | | 359 | | | |
| | | DRN112M | | | | | 387 | | | |
| | | DRN132S | 221 | 170 | | | 437 | | | |
| | | | | | | | | | | |
| S..87, S..87p | AT311 AT312 | DRN90S | 179 | 140 | 200 | 280 | 281 | 84 | 273 | |
| | | DRM90L | | | | | 313 | | | |
| | | DRN100LM | | | | | 359 | | | |
| | | DRN112M | | | | | 387 | | | |
| | AT321 | DRN132S | 221 | 170 | 250 | 350 | 437 | 84 | 320 | |
| | AT421 AT422 | DRN90L | 179 | 140 | 250 | 350 | 313 | 128 | 363 | |
| | | DRN100LS | | | | | 309 | | | |
| | | DRN100L | 197 | 157 | | | 359 | | | |
| | | DRN112M | | | | | 387 | | | |
| | | DRN132S | 221 | 170 | | | 437 | | | |
| | AT541 AT542 | DRN132S | 221 | 170 | 350 | 470 | 437 | 159 | 478 | |
| | | DRN132M | | | | | 439 | | | |
| | | DRN132L | 261 | 228 | | | 464 | | | |
| | | DRN160M | | | | | 532 | | | |
| DRN160L | | 316 | 253 | 532 | | | | | | |

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26 002 04 01

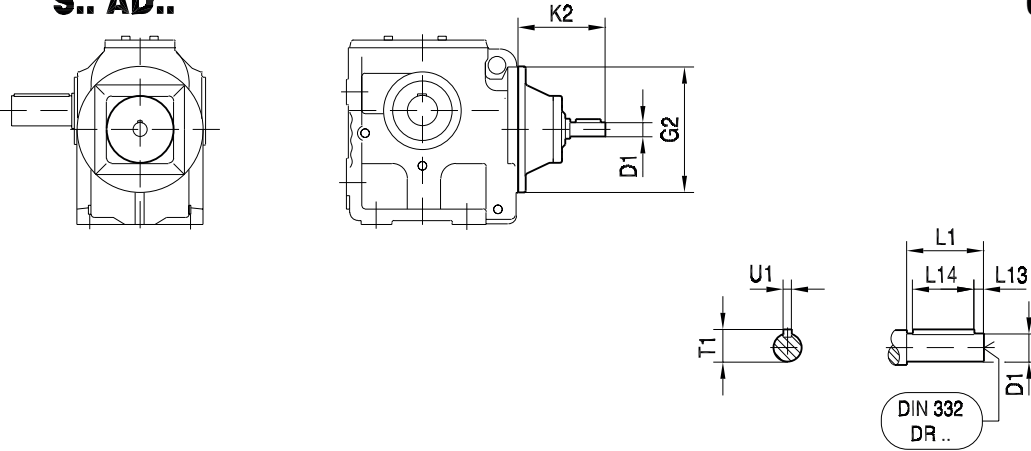


| | | | AC | AD | G6 | G10 | LB | Z4 | Z5 | G2 |
|---------------|----------------|----------|-----|-----|-----|-----|-----|-----|-----|-----|
| S..97, S..97p | AT311 AT312 | DRN90S | 179 | 140 | 200 | 280 | 281 | 79 | 268 | 300 |
| | | DRM90L | | | | | 313 | | | |
| | | DRN100LM | 197 | 157 | | | 359 | | | |
| | | DRN112M | 221 | 170 | | | 387 | | | |
| | AT321 | DRN132S | 221 | 170 | 250 | 350 | 437 | 79 | 315 | |
| | AT421 AT422 | DRN90L | 179 | 140 | 250 | 350 | 313 | 123 | 358 | |
| | | DRN100LS | 197 | 157 | | | 309 | | | |
| | | DRN100L | | | | | 359 | | | |
| | | DRN112M | 221 | 170 | | | 387 | | | |
| | | DRN132S | 221 | 170 | | | 437 | | | |
| | AT541 AT542 | DRN132S | 221 | 170 | 350 | 470 | 437 | 154 | 473 | |
| | | DRN132M | 261 | 228 | | | 439 | | | |
| | | DRN132L | | | | | 464 | | | |
| | | DRN160M | 316 | 253 | | | 532 | | | |
| | | DRN160L | | | | | 532 | | | |
| | | DRN180M | 357 | 268 | | | 557 | | | |
| DRN180L | 557 | | | | | | | | | |

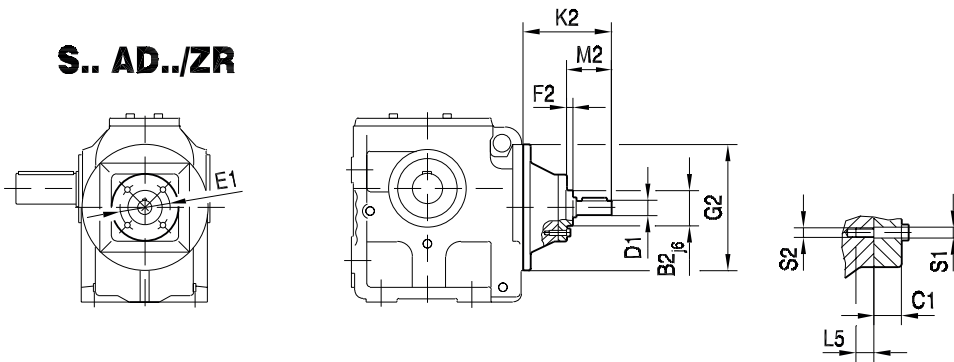
11.9 Dimension sheets for input shaft assembly (AD..)

S.. AD..

02 029 02 01



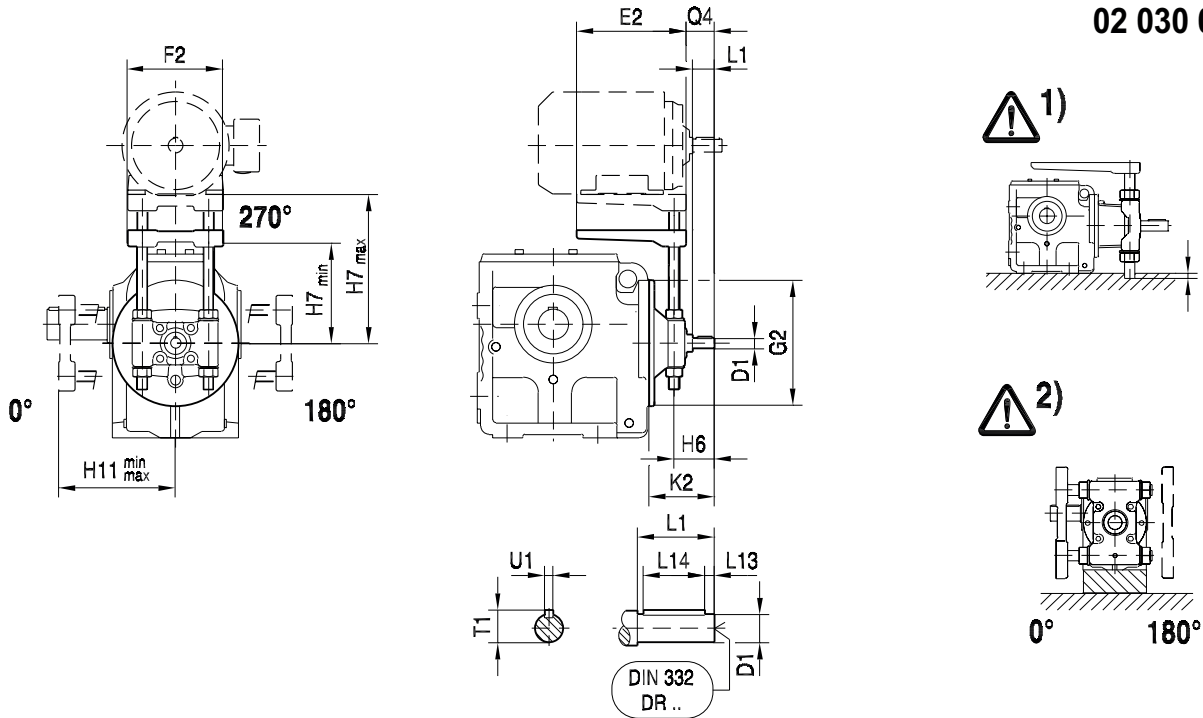
S.. AD../ZR



| | | B2 | C1 | E1 | F2 | G2 | K2 | L5 | M2 | S1 | S2 | D1 | L1 | L13 | L14 | T1 | U1 |
|---|-------------|-----|------|-----|----|-----|-----|----|-------|------|-----|----|-----|-----|-----|------|----|
| S..37, S..37p S..47, S..47p S..57, S..57p | AD1 | - | - | - | - | 120 | 102 | - | - | - | - | 16 | 40 | 4 | 32 | 18 | 5 |
| | AD2, AD2/ZR | 55 | 13.5 | 80 | 8 | | 130 | 12 | 50 | 9 | M8 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| S..67, S..67p | AD2, AD2/ZR | 55 | 13.5 | 80 | 8 | 160 | 123 | 12 | 50 | 9 | M8 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| | AD3, AD3/ZR | 70 | 15.5 | 105 | 8 | | 159 | 16 | 60 | 11 | M10 | 24 | 50 | 5 | 40 | 27 | 8 |
| S..77, S..77p | AD2, AD2/ZR | 55 | 13.5 | 80 | 8 | 200 | 116 | 12 | 50 | 9 | M8 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| | AD3, AD3/ZR | 70 | 15.5 | 105 | 8 | | 151 | 16 | 60 | 11 | M10 | 24 | 50 | 5 | 40 | 27 | 8 |
| | AD4, AD4/ZR | 100 | 16 | 130 | 13 | | 224 | 20 | 95.5 | 13.5 | M12 | 38 | 80 | 5 | 70 | 41 | 10 |
| S..87, S..87p | AD2, AD2/ZR | 55 | 13.5 | 80 | 8 | 250 | 111 | 12 | 50 | 9 | M8 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| | AD3, AD3/ZR | 70 | 15.5 | 105 | 8 | | 156 | 16 | 70 | 11 | M10 | 28 | 60 | 5 | 50 | 31 | 8 |
| | AD4, AD4/ZR | 100 | 16 | 130 | 13 | | 219 | 20 | 95.5 | 13.5 | M12 | 38 | 80 | 5 | 70 | 41 | 10 |
| | AD5, AD5/ZR | 120 | 24 | 180 | 11 | | 292 | 20 | 126 | 13.5 | M12 | 42 | 110 | 10 | 70 | 45 | 12 |
| S..97, S..97p | AD3, AD3/ZR | 70 | 15.5 | 105 | 8 | 300 | 151 | 16 | 70 | 11 | M10 | 28 | 60 | 5 | 50 | 31 | 8 |
| | AD4, AD4/ZR | 100 | 16 | 130 | 13 | | 214 | 20 | 95.5 | 13.5 | M12 | 38 | 80 | 5 | 70 | 41 | 10 |
| | AD5, AD5/ZR | 120 | 24 | 180 | 11 | | 287 | 20 | 126 | 13.5 | M12 | 42 | 110 | 10 | 70 | 45 | 12 |
| | AD6, AD6/ZR | 130 | 22.5 | 200 | 11 | | 327 | 26 | 130.5 | 17.5 | M16 | 48 | 110 | 10 | 80 | 51.5 | 14 |

11.10 Dimension sheets for input shaft assembly with motor platform (AD../P)

02 030 02 01



| | | E2 | F2 | G2 | H6 | H7 min | H7 max | H11 min | H11 max | K2 | Q4 | D1 | L1 | L13 | L14 | T1 | U1 | ⚠ (→ 82) |
|--------------------------------|-------|-----|-----|-----|-----|--------|--------|---------|---------|-----|-----|----|-----|-----|-----|------|----|-------------|
| S..37, S..37p S..47, S..47p | AD2/P | 195 | 180 | 120 | 65 | 110 | 165 | 95 | 165 | 130 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 | 1), 2) |
| S..57, S..57p | AD2/P | 195 | 180 | 120 | 65 | 140 | 200 | 110 | 165 | 130 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 | 1) |
| S..67, S..67p | AD2/P | 195 | 180 | 160 | 65 | 140 | 200 | 125 | 165 | 123 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 | 1) |
| | AD3/P | 230 | 240 | | 80 | 145 | 175 | 130 | 175 | 159 | 54 | 24 | 50 | 5 | 40 | 27 | 8 | 2) |
| S..77, S..77p | AD2/P | 195 | 180 | 200 | 65 | 175 | 260 | 145 | 200 | 116 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 | |
| | AD3/P | 230 | 240 | | 80 | 180 | 230 | 150 | 230 | 151 | 54 | 24 | 50 | 5 | 40 | 27 | 8 | |
| | AD4/P | 345 | 291 | | 118 | 190 | 280 | 150 | 210 | 224 | 83 | 38 | 80 | 5 | 70 | 41 | 10 | 1) |
| S..87, S..87p | AD2/P | 195 | 180 | 250 | 65 | 215 | 260 | 165 | 200 | 111 | 43 | 19 | 40 | 4 | 32 | 21.5 | 6 | |
| | AD3/P | 230 | 240 | | 90 | 230 | 320 | 170 | 230 | 156 | 64 | 28 | 60 | 5 | 50 | 31 | 8 | |
| | AD4/P | 345 | 291 | | 118 | 250 | 360 | 170 | 210 | 219 | 83 | 38 | 80 | 5 | 70 | 41 | 10 | 1) |
| | AD5/P | 430 | 355 | | 153 | 260 | 325 | 185 | 250 | 292 | 113 | 42 | 110 | 10 | 70 | 45 | 12 | 1), 2) |
| S..97, S..97p | AD3/P | 230 | 240 | 300 | 90 | 275 | 320 | 190 | 230 | 151 | 64 | 28 | 60 | 5 | 50 | 31 | 8 | |
| | AD4/P | 345 | 291 | | 118 | 305 | 360 | 190 | 280 | 214 | 83 | 38 | 80 | 5 | 70 | 41 | 10 | |
| | AD5/P | 430 | 355 | | 153 | 315 | 405 | 200 | 250 | 287 | 113 | 42 | 110 | 10 | 70 | 45 | 12 | |

For bore dimensions and weight of the motor platform, refer to the chapter "Bore dimensions and weight" (→ 81).

11.11 Technical data of S., SF., SA., SAF 37

3400 - 2800 min⁻¹

| i _{tot} | i _s | n _e = 3400 min ⁻¹ | | | | n _e = 3200 min ⁻¹ | | | | n _e = 2800 min ⁻¹ | | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 157.43 | 38/1 | 21 | 78 | 0.31 | 56 | 20 | 80 | 0.30 | 56 | 17 | 82 | 0.28 | 56 | |
| 144.40 | | 23 | 76 | 0.33 | 57 | 22 | 78 | 0.32 | 56 | 19 | 80 | 0.29 | 56 | |
| 122.94 | | 27 | 74 | 0.37 | 57 | 26 | 75 | 0.36 | 57 | 22 | 78 | 0.33 | 57 | |
| 106.00 | | 32 | 71 | 0.41 | 58 | 30 | 72 | 0.39 | 58 | 26 | 76 | 0.36 | 58 | |
| 98.80 | | 34 | 70 | 0.43 | 58 | 32 | 72 | 0.42 | 58 | 28 | 75 | 0.38 | 58 | |
| 86.36 | | 39 | 68 | 0.48 | 59 | 37 | 69 | 0.45 | 59 | 32 | 72 | 0.42 | 59 | |
| 80.96 | | 41 | 66 | 0.49 | 59 | 39 | 68 | 0.48 | 59 | 34 | 72 | 0.44 | 59 | |
| 71.44 | | 47 | 55 | 0.47 | 59 | 44 | 64 | 0.50 | 60 | 39 | 70 | 0.48 | 60 | |
| 63.33 | | 53 | 37 | 0.37 | 56 | 50 | 51 | 0.46 | 59 | 44 | 67 | 0.52 | 60 | |
| 53.83 | | 63 | 29 | 0.35 | 54 | 59 | 32 | 0.36 | 55 | 52 | 53 | 0.49 | 60 | |
| 55.93 | | 27/2 | 60 | 70 | 0.59 | 76 | 57 | 71 | 0.56 | 76 | 50 | 72 | 0.50 | 75 |
| 51.30 | | | 66 | 68 | 0.62 | 76 | 62 | 70 | 0.60 | 76 | 54 | 72 | 0.55 | 76 |
| 43.68 | | | 77 | 66 | 0.70 | 77 | 73 | 67 | 0.67 | 76 | 64 | 70 | 0.62 | 76 |
| 37.66 | 90 | | 64 | 0.78 | 77 | 84 | 65 | 0.75 | 77 | 74 | 68 | 0.69 | 77 | |
| 35.10 | 96 | | 62 | 0.81 | 77 | 91 | 64 | 0.79 | 77 | 79 | 66 | 0.72 | 77 | |
| 30.68 | 110 | | 61 | 0.91 | 78 | 104 | 62 | 0.87 | 78 | 91 | 64 | 0.79 | 77 | |
| 28.76 | 118 | | 58 | 0.92 | 78 | 111 | 61 | 0.91 | 78 | 97 | 64 | 0.84 | 78 | |
| 25.38 | 133 | | 47 | 0.85 | 77 | 126 | 53 | 0.90 | 78 | 110 | 62 | 0.92 | 78 | |
| 22.50 | 151 | | 31 | 0.65 | 75 | 142 | 43 | 0.83 | 77 | 124 | 57 | 0.95 | 78 | |
| 19.13 | 177 | | 24 | 0.61 | 74 | 167 | 27 | 0.63 | 75 | 146 | 44 | 0.87 | 78 | |
| 19.89 | 24/5 | | 170 | 42 | 0.88 | 85 | 160 | 43 | 0.85 | 85 | 140 | 44 | 0.76 | 85 |
| 18.24 | | | 186 | 41 | 0.93 | 86 | 175 | 42 | 0.90 | 86 | 153 | 44 | 0.83 | 85 |
| 15.53 | | | 218 | 39 | 1.0 | 86 | 206 | 40 | 1.0 | 86 | 180 | 42 | 0.93 | 86 |
| 13.39 | | 253 | 37 | 1.1 | 86 | 238 | 39 | 1.1 | 86 | 209 | 41 | 1.0 | 86 | |
| 12.48 | | 272 | 37 | 1.2* | 86 | 256 | 38 | 1.2* | 86 | 224 | 40 | 1.1 | 86 | |
| 10.91 | | 311 | 35 | 1.3* | 86 | 293 | 36 | 1.3* | 86 | 256 | 39 | 1.2* | 86 | |
| 10.23 | | 332 | 35 | 1.4* | 86 | 312 | 36 | 1.4* | 86 | 273 | 38 | 1.3* | 86 | |
| 9.02 | | 376 | 31 | 1.4* | 85 | 354 | 34 | 1.5* | 86 | 310 | 36 | 1.4* | 86 | |
| 8.00 | | 425 | 20 | 1.0 | 85 | 400 | 29 | 1.4* | 85 | 350 | 35 | 1.5* | 86 | |
| 6.80 | | 500 | 16 | 1.0 | 84 | 470 | 18 | 1.0 | 85 | 411 | 29 | 1.5* | 85 | |
| 6.33 | | 19/5 | 537 | 24 | 1.5* | 87 | 505 | 27 | 1.6* | 88 | 442 | 32 | 1.7* | 88 |
| 5.38 | | | 631 | 20 | 1.5* | 87 | 594 | 22 | 1.6* | 87 | 520 | 26 | 1.6* | 88 |
| 4.86 | | | 699 | 18 | 1.5* | 87 | 658 | 19 | 1.5* | 87 | 576 | 24 | 1.6* | 88 |
| 3.97 | 856 | | 14 | 1.5* | 86 | 806 | 15 | 1.5* | 87 | 705 | 19 | 1.6* | 88 | |

* P_{Mot_max} = 1.1 kW

2200 - 1400 min⁻¹

| i _{tot} | i _s | n _e = 2200 min ⁻¹ | | | | n _e = 1700 min ⁻¹ | | | | n _e = 1400 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 157.43 | 38/1 | 13 | 87 | 0.23 | 54 | 10 | 91 | 0.19 | 53 | 8.8 | 92 | 0.16 | 52 |
| 144.40 | | 15 | 86 | 0.25 | 55 | 11 | 90 | 0.21 | 54 | 9.6 | 92 | 0.18 | 53 |
| 122.94 | | 17 | 83 | 0.28 | 56 | 13 | 87 | 0.23 | 55 | 11 | 91 | 0.20 | 54 |
| 106.00 | | 20 | 81 | 0.31 | 57 | 16 | 86 | 0.26 | 56 | 13 | 88 | 0.22 | 55 |
| 98.80 | | 22 | 80 | 0.33 | 57 | 17 | 85 | 0.27 | 56 | 14 | 87 | 0.23 | 55 |
| 86.36 | | 25 | 78 | 0.36 | 58 | 19 | 82 | 0.30 | 57 | 16 | 86 | 0.26 | 56 |
| 80.96 | | 27 | 77 | 0.38 | 58 | 20 | 82 | 0.31 | 57 | 17 | 85 | 0.27 | 56 |
| 71.44 | | 30 | 75 | 0.41 | 59 | 23 | 80 | 0.34 | 58 | 19 | 84 | 0.30 | 57 |
| 63.33 | | 34 | 73 | 0.44 | 60 | 26 | 79 | 0.38 | 59 | 22 | 82 | 0.33 | 58 |
| 53.83 | | 40 | 69 | 0.49 | 60 | 31 | 76 | 0.42 | 60 | 26 | 80 | 0.37 | 59 |
| 55.93 | 27/2 | 39 | 77 | 0.43 | 74 | 30 | 81 | 0.35 | 73 | 25 | 81 | 0.29 | 73 |
| 51.30 | | 42 | 76 | 0.46 | 75 | 33 | 80 | 0.38 | 74 | 27 | 81 | 0.32 | 73 |
| 43.68 | | 50 | 74 | 0.52 | 76 | 38 | 78 | 0.43 | 75 | 32 | 81 | 0.37 | 74 |
| 37.66 | | 58 | 72 | 0.58 | 76 | 45 | 76 | 0.48 | 75 | 37 | 79 | 0.41 | 75 |
| 35.10 | | 62 | 71 | 0.61 | 76 | 48 | 75 | 0.50 | 76 | 39 | 78 | 0.43 | 75 |
| 30.68 | | 71 | 70 | 0.68 | 77 | 55 | 73 | 0.56 | 76 | 45 | 76 | 0.48 | 76 |
| 28.76 | | 76 | 68 | 0.71 | 77 | 59 | 73 | 0.59 | 77 | 48 | 75 | 0.50 | 76 |
| 25.38 | | 86 | 67 | 0.78 | 78 | 66 | 71 | 0.65 | 77 | 55 | 74 | 0.56 | 76 |
| 22.50 | | 97 | 66 | 0.86 | 78 | 75 | 70 | 0.71 | 78 | 62 | 73 | 0.62 | 77 |
| 19.13 | | 115 | 63 | 0.96 | 79 | 88 | 68 | 0.81 | 78 | 73 | 71 | 0.70 | 78 |
| 19.89 | 24/5 | 110 | 48 | 0.66 | 85 | 85 | 50 | 0.53 | 84 | 70 | 52 | 0.46 | 84 |
| 18.24 | | 120 | 47 | 0.70 | 85 | 93 | 49 | 0.57 | 84 | 76 | 52 | 0.50 | 84 |
| 15.53 | | 141 | 45 | 0.78 | 85 | 109 | 48 | 0.65 | 85 | 90 | 50 | 0.56 | 84 |
| 13.39 | | 164 | 44 | 0.88 | 86 | 126 | 47 | 0.73 | 85 | 104 | 49 | 0.63 | 85 |
| 12.48 | | 176 | 43 | 0.92 | 86 | 136 | 46 | 0.77 | 86 | 112 | 48 | 0.66 | 85 |
| 10.91 | | 201 | 42 | 1.0 | 86 | 155 | 45 | 0.85 | 86 | 128 | 48 | 0.75 | 86 |
| 10.23 | | 215 | 41 | 1.1 | 86 | 166 | 45 | 0.91 | 86 | 136 | 47 | 0.79 | 86 |
| 9.02 | | 243 | 40 | 1.2* | 87 | 188 | 43 | 0.98 | 86 | 155 | 46 | 0.87 | 86 |
| 8.00 | | 275 | 39 | 1.3* | 86 | 212 | 43 | 1.1 | 87 | 175 | 45 | 0.95 | 86 |
| 6.80 | | 323 | 37 | 1.5* | 86 | 250 | 41 | 1.2* | 87 | 205 | 43 | 1.1 | 87 |
| 6.33 | 19/5 | 347 | 35 | 1.4* | 88 | 268 | 35 | 1.1 | 88 | 221 | 35 | 0.93 | 87 |
| 5.38 | | 408 | 34 | 1.6* | 88 | 315 | 34 | 1.3* | 88 | 260 | 34 | 1.1 | 88 |
| 4.86 | | 452 | 32 | 1.7* | 89 | 349 | 33 | 1.4* | 88 | 288 | 33 | 1.1 | 88 |
| 3.97 | | 554 | 26 | 1.7* | 88 | 428 | 32 | 1.6* | 89 | 352 | 32 | 1.3* | 88 |

* P_{Mot_max} = 1.1 kW

1100 - 700 min⁻¹

| i _{tot} | i _s | n _e = 1100 min ⁻¹ | | | | n _e = 900 min ⁻¹ | | | | n _e = 700 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 157.43 | 38/1 | 6.9 | 92 | 0.13 | 51 | 5.7 | 92 | 0.11 | 50 | 4.4 | 92 | 0.09 | 48 |
| 144.40 | | 7.6 | 92 | 0.14 | 51 | 6.2 | 92 | 0.12 | 50 | 4.8 | 92 | 0.10 | 49 |
| 122.94 | | 8.9 | 92 | 0.17 | 52 | 7.3 | 92 | 0.14 | 51 | 5.6 | 92 | 0.11 | 50 |
| 106.00 | | 10 | 92 | 0.19 | 53 | 8.4 | 92 | 0.16 | 52 | 6.6 | 92 | 0.13 | 51 |
| 98.80 | | 11 | 92 | 0.20 | 54 | 9.1 | 92 | 0.17 | 53 | 7.0 | 92 | 0.13 | 51 |
| 86.36 | | 12 | 90 | 0.22 | 55 | 10 | 92 | 0.19 | 54 | 8.1 | 92 | 0.15 | 52 |
| 80.96 | | 13 | 89 | 0.23 | 55 | 11 | 92 | 0.20 | 54 | 8.6 | 92 | 0.16 | 53 |
| 71.44 | | 15 | 87 | 0.25 | 56 | 12 | 91 | 0.22 | 55 | 9.7 | 92 | 0.18 | 53 |
| 63.33 | | 17 | 86 | 0.28 | 57 | 14 | 89 | 0.24 | 56 | 11 | 92 | 0.20 | 54 |
| 53.83 | | 20 | 84 | 0.31 | 58 | 16 | 87 | 0.27 | 57 | 13 | 91 | 0.22 | 56 |
| 55.93 | 27/2 | 19 | 87 | 0.25 | 72 | 16 | 91 | 0.22 | 71 | 12 | 92 | 0.17 | 69 |
| 51.30 | | 21 | 87 | 0.27 | 72 | 17 | 90 | 0.23 | 71 | 13 | 92 | 0.19 | 70 |
| 43.68 | | 25 | 84 | 0.30 | 73 | 20 | 87 | 0.26 | 72 | 16 | 92 | 0.22 | 71 |
| 37.66 | | 29 | 82 | 0.34 | 74 | 23 | 86 | 0.30 | 73 | 18 | 89 | 0.24 | 72 |
| 35.10 | | 31 | 82 | 0.36 | 74 | 25 | 84 | 0.31 | 73 | 19 | 88 | 0.26 | 72 |
| 30.68 | | 35 | 80 | 0.40 | 75 | 29 | 82 | 0.34 | 74 | 22 | 87 | 0.29 | 73 |
| 28.76 | | 38 | 79 | 0.42 | 75 | 31 | 82 | 0.36 | 74 | 24 | 86 | 0.30 | 73 |
| 25.38 | | 43 | 78 | 0.47 | 76 | 35 | 81 | 0.40 | 75 | 27 | 84 | 0.33 | 74 |
| 22.50 | | 48 | 77 | 0.52 | 76 | 40 | 79 | 0.44 | 75 | 31 | 82 | 0.36 | 74 |
| 19.13 | | 57 | 75 | 0.59 | 77 | 47 | 78 | 0.50 | 76 | 36 | 81 | 0.41 | 75 |
| 19.89 | 24/5 | 55 | 55 | 0.38 | 83 | 45 | 58 | 0.33 | 82 | 35 | 60 | 0.27 | 81 |
| 18.24 | | 60 | 54 | 0.41 | 83 | 49 | 56 | 0.35 | 83 | 38 | 60 | 0.30 | 82 |
| 15.53 | | 70 | 53 | 0.47 | 84 | 57 | 55 | 0.40 | 83 | 45 | 58 | 0.33 | 82 |
| 13.39 | | 82 | 52 | 0.53 | 84 | 67 | 54 | 0.45 | 84 | 52 | 56 | 0.37 | 83 |
| 12.48 | | 88 | 51 | 0.56 | 85 | 72 | 53 | 0.48 | 84 | 56 | 55 | 0.39 | 83 |
| 10.91 | | 100 | 50 | 0.62 | 85 | 82 | 52 | 0.53 | 84 | 64 | 54 | 0.43 | 84 |
| 10.23 | | 107 | 49 | 0.65 | 85 | 87 | 51 | 0.56 | 85 | 68 | 54 | 0.46 | 84 |
| 9.02 | | 121 | 48 | 0.72 | 86 | 99 | 50 | 0.61 | 85 | 77 | 53 | 0.51 | 84 |
| 8.00 | | 137 | 47 | 0.79 | 86 | 112 | 49 | 0.68 | 85 | 87 | 52 | 0.56 | 85 |
| 6.80 | | 161 | 46 | 0.90 | 86 | 132 | 48 | 0.77 | 86 | 102 | 51 | 0.64 | 85 |
| 6.33 | 19/5 | 173 | 45 | 0.94 | 87 | 142 | 45 | 0.77 | 87 | 110 | 45 | 0.61 | 86 |
| 5.38 | | 204 | 43 | 1.1 | 88 | 167 | 43 | 0.86 | 87 | 130 | 43 | 0.68 | 87 |
| 4.86 | | 226 | 42 | 1.1 | 88 | 185 | 42 | 0.93 | 88 | 144 | 42 | 0.73 | 87 |
| 3.97 | | 277 | 40 | 1.3* | 88 | 226 | 40 | 1.1 | 88 | 176 | 40 | 0.84 | 88 |

* P_{Mot_max} = 1.1 kW

500 - 10 min⁻¹

| i _{tot} | i _s | n _e = 500 min ⁻¹ | | | | n _e = 250 min ⁻¹ | | | | n _e = 10 min ⁻¹ | | | |
|------------------|----------------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|---------------------------------------|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 157.43 | 38/1 | 3.1 | 92 | 0.07 | 47 | 1.5 | 92 | <0.05 | 46 | 0.06 | 92 | <0.05 | 46 |
| 144.40 | | 3.4 | 92 | 0.07 | 47 | 1.7 | 92 | <0.05 | 46 | 0.06 | 92 | <0.05 | 46 |
| 122.94 | | 4.0 | 92 | 0.08 | 48 | 2.0 | 92 | <0.05 | 46 | 0.08 | 92 | <0.05 | 46 |
| 106.00 | | 4.7 | 92 | 0.09 | 49 | 2.3 | 92 | <0.05 | 46 | 0.09 | 92 | <0.05 | 47 |
| 98.80 | | 5.0 | 92 | 0.10 | 49 | 2.5 | 92 | 0.05 | 46 | 0.10 | 92 | <0.05 | 47 |
| 86.36 | | 5.7 | 92 | 0.11 | 50 | 2.8 | 92 | 0.06 | 47 | 0.11 | 92 | <0.05 | 47 |
| 80.96 | | 6.1 | 92 | 0.12 | 50 | 3.0 | 92 | 0.06 | 47 | 0.12 | 92 | <0.05 | 47 |
| 71.44 | | 6.9 | 92 | 0.13 | 51 | 3.4 | 92 | 0.07 | 48 | 0.13 | 92 | <0.05 | 47 |
| 63.33 | | 7.8 | 92 | 0.15 | 52 | 3.9 | 92 | 0.08 | 48 | 0.15 | 92 | <0.05 | 47 |
| 53.83 | | 9.2 | 92 | 0.17 | 53 | 4.6 | 92 | 0.09 | 49 | 0.18 | 92 | <0.05 | 47 |
| 55.93 | 27/2 | 8.9 | 92 | 0.13 | 68 | 4.4 | 92 | 0.06 | 67 | 0.17 | 92 | <0.05 | 67 |
| 51.30 | | 9.7 | 92 | 0.14 | 68 | 4.8 | 92 | 0.07 | 67 | 0.19 | 92 | <0.05 | 67 |
| 43.68 | | 11 | 92 | 0.16 | 69 | 5.7 | 92 | 0.08 | 67 | 0.22 | 92 | <0.05 | 67 |
| 37.66 | | 13 | 92 | 0.18 | 70 | 6.6 | 92 | 0.10 | 67 | 0.26 | 92 | <0.05 | 67 |
| 35.10 | | 14 | 92 | 0.20 | 70 | 7.1 | 92 | 0.10 | 67 | 0.28 | 92 | <0.05 | 67 |
| 30.68 | | 16 | 92 | 0.22 | 71 | 8.1 | 92 | 0.12 | 68 | 0.32 | 92 | <0.05 | 67 |
| 28.76 | | 17 | 91 | 0.23 | 71 | 8.6 | 92 | 0.12 | 68 | 0.34 | 92 | <0.05 | 67 |
| 25.38 | | 19 | 89 | 0.25 | 72 | 9.8 | 92 | 0.14 | 69 | 0.39 | 92 | <0.05 | 67 |
| 22.50 | | 22 | 87 | 0.28 | 73 | 11 | 92 | 0.15 | 69 | 0.44 | 92 | <0.05 | 67 |
| 19.13 | | 26 | 85 | 0.32 | 74 | 13 | 92 | 0.18 | 70 | 0.52 | 92 | <0.05 | 67 |
| 19.89 | 24/5 | 25 | 68 | 0.22 | 80 | 12 | 72 | 0.12 | 79 | 0.50 | 72 | <0.05 | 79 |
| 18.24 | | 27 | 66 | 0.23 | 81 | 13 | 72 | 0.13 | 79 | 0.54 | 72 | <0.05 | 79 |
| 15.53 | | 32 | 63 | 0.26 | 81 | 16 | 72 | 0.15 | 79 | 0.64 | 72 | <0.05 | 79 |
| 13.39 | | 37 | 61 | 0.29 | 82 | 18 | 72 | 0.18 | 80 | 0.74 | 72 | <0.05 | 79 |
| 12.48 | | 40 | 59 | 0.30 | 82 | 20 | 72 | 0.19 | 80 | 0.8 | 72 | <0.05 | 79 |
| 10.91 | | 45 | 58 | 0.34 | 83 | 22 | 71 | 0.21 | 80 | 0.91 | 71 | <0.05 | 79 |
| 10.23 | | 48 | 57 | 0.35 | 83 | 24 | 70 | 0.22 | 81 | 0.97 | 70 | <0.05 | 79 |
| 9.02 | | 55 | 56 | 0.39 | 83 | 27 | 66 | 0.24 | 81 | 1.1 | 66 | <0.05 | 79 |
| 8.00 | | 62 | 55 | 0.43 | 84 | 31 | 63 | 0.25 | 81 | 1.2 | 63 | <0.05 | 79 |
| 6.80 | | 73 | 54 | 0.49 | 84 | 36 | 61 | 0.29 | 82 | 1.4 | 61 | <0.05 | 79 |
| 6.33 | 19/5 | 78 | 45 | 0.44 | 85 | 39 | 45 | 0.23 | 83 | 1.5 | 45 | <0.05 | 80 |
| 5.38 | | 92 | 43 | 0.49 | 86 | 46 | 43 | 0.25 | 83 | 1.8 | 43 | <0.05 | 80 |
| 4.86 | | 102 | 42 | 0.53 | 86 | 51 | 42 | 0.27 | 84 | 2.0 | 42 | <0.05 | 80 |
| 3.97 | | 125 | 40 | 0.61 | 87 | 62 | 40 | 0.31 | 84 | 0.06 | 92 | <0.05 | 80 |

11.12 Technical data of S., SF., SA., SAF 47

3400 - 2800 min⁻¹

| i _{tot} | i _s | n _e = 3400 min ⁻¹ | | | | n _e = 3200 min ⁻¹ | | | | n _e = 2800 min ⁻¹ | | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 201.00 | 42/1 | 16 | 150 | 0.46 | 57 | 15 | 150 | 0.44 | 57 | 13 | 150 | 0.39 | 56 | |
| 184.80 | | 18 | 150 | 0.50 | 58 | 17 | 150 | 0.47 | 58 | 15 | 150 | 0.42 | 57 | |
| 158.12 | | 21 | 150 | 0.58 | 59 | 20 | 150 | 0.54 | 58 | 17 | 150 | 0.48 | 58 | |
| 137.05 | | 24 | 150 | 0.65 | 60 | 23 | 150 | 0.62 | 59 | 20 | 150 | 0.55 | 59 | |
| 128.10 | | 26 | 150 | 0.69 | 60 | 24 | 150 | 0.66 | 60 | 21 | 150 | 0.58 | 59 | |
| 110.73 | | 30 | 138 | 0.73 | 60 | 28 | 148 | 0.74 | 61 | 25 | 150 | 0.66 | 60 | |
| 94.08 | | 36 | 113 | 0.71 | 60 | 34 | 123 | 0.73 | 60 | 29 | 146 | 0.75 | 61 | |
| 84.00 | | 40 | 95 | 0.68 | 59 | 38 | 107 | 0.71 | 60 | 33 | 130 | 0.75 | 61 | |
| 71.75 | | 47 | 58 | 0.52 | 56 | 44 | 82 | 0.65 | 59 | 39 | 107 | 0.72 | 61 | |
| 67.20 | | 50 | 53 | 0.51 | 55 | 47 | 68 | 0.59 | 58 | 41 | 99 | 0.72 | 60 | |
| 56.61 | | 60 | 40 | 0.48 | 53 | 56 | 46 | 0.50 | 54 | 49 | 75 | 0.66 | 59 | |
| 69.39 | | 29/2 | 48 | 140 | 0.94 | 77 | 46 | 140 | 0.88 | 77 | 40 | 140 | 0.78 | 76 |
| 63.80 | | | 53 | 140 | 1.0 | 77 | 50 | 140 | 0.96 | 77 | 43 | 140 | 0.84 | 76 |
| 54.59 | | | 62 | 140 | 1.2 | 78 | 58 | 140 | 1.1 | 78 | 51 | 140 | 0.98 | 77 |
| 47.32 | 71 | | 139 | 1.3 | 78 | 67 | 140 | 1.3 | 78 | 59 | 140 | 1.1 | 78 | |
| 44.22 | 76 | | 129 | 1.3 | 78 | 72 | 139 | 1.3 | 78 | 63 | 140 | 1.2 | 78 | |
| 38.23 | 88 | | 112 | 1.3 | 78 | 83 | 120 | 1.3 | 79 | 73 | 139 | 1.4 | 79 | |
| 32.48 | 104 | | 91 | 1.3 | 78 | 98 | 100 | 1.3 | 78 | 86 | 117 | 1.3 | 79 | |
| 29.00 | 117 | | 76 | 1.2 | 77 | 110 | 86 | 1.3 | 78 | 96 | 104 | 1.3 | 79 | |
| 24.77 | 137 | | 47 | 0.91 | 75 | 129 | 66 | 1.2 | 77 | 113 | 87 | 1.3 | 78 | |
| 23.20 | 146 | | 42 | 0.87 | 74 | 137 | 54 | 1.0 | 76 | 120 | 79 | 1.3 | 78 | |
| 19.54 | 174 | | 32 | 0.81 | 72 | 163 | 37 | 0.86 | 74 | 143 | 59 | 1.1 | 77 | |
| 20.33 | 27/5 | | 167 | 100 | 2.0* | 86 | 157 | 100 | 1.9* | 86 | 137 | 100 | 1.7* | 86 |
| 17.62 | | | 192 | 97 | 2.3* | 86 | 181 | 100 | 2.2* | 86 | 158 | 100 | 1.9* | 86 |
| 16.47 | | | 206 | 90 | 2.3* | 86 | 194 | 97 | 2.3* | 86 | 170 | 100 | 2.1* | 86 |
| 14.24 | | 238 | 78 | 2.3* | 86 | 224 | 83 | 2.3* | 86 | 196 | 97 | 2.3* | 86 | |
| 12.10 | | 280 | 63 | 2.2* | 86 | 264 | 69 | 2.2* | 86 | 231 | 82 | 2.3* | 86 | |
| 10.80 | | 314 | 53 | 2.1* | 85 | 296 | 60 | 2.2* | 85 | 259 | 72 | 2.3* | 86 | |
| 9.23 | | 368 | 32 | 1.5 | 85 | 346 | 45 | 1.9* | 85 | 303 | 60 | 2.2* | 86 | |
| 8.64 | | 393 | 29 | 1.4 | 84 | 370 | 37 | 1.7* | 85 | 324 | 55 | 2.2* | 86 | |
| 7.28 | | 467 | 22 | 1.3 | 83 | 439 | 25 | 1.4 | 84 | 384 | 41 | 1.9* | 85 | |
| 6.83 | | 20/5 | 497 | 34 | 2.0* | 87 | 468 | 37 | 2.1* | 88 | 409 | 45 | 2.2* | 88 |
| 6.4 | 531 | | 31 | 2.0* | 87 | 500 | 34 | 2.0* | 87 | 437 | 42 | 2.2* | 88 | |
| 5.39 | 630 | | 24 | 1.8* | 86 | 593 | 27 | 1.9* | 87 | 519 | 34 | 2.1* | 88 | |
| 4.76 | 714 | | 20 | 1.8* | 85 | 672 | 23 | 1.9* | 86 | 588 | 29 | 2.0* | 87 | |
| 4 | 850 | | 16 | 1.7* | 85 | 800 | 18 | 1.8* | 85 | 700 | 23 | 1.9* | 87 | |

* P_{Mot_max} = 1.5 kW

2200 - 1400 min⁻¹

| i _{tot} | i _s | n _e = 2200 min ⁻¹ | | | | n _e = 1700 min ⁻¹ | | | | n _e = 1400 min ⁻¹ | | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 201.00 | 42/1 | 10 | 167 | 0.35 | 55 | 8.4 | 170 | 0.28 | 54 | 6.9 | 170 | 0.23 | 53 | |
| 184.80 | | 11 | 167 | 0.37 | 56 | 9.1 | 168 | 0.30 | 55 | 7.5 | 170 | 0.25 | 53 | |
| 158.12 | | 13 | 167 | 0.43 | 57 | 10 | 168 | 0.34 | 56 | 8.8 | 170 | 0.29 | 54 | |
| 137.05 | | 16 | 165 | 0.48 | 58 | 12 | 167 | 0.38 | 57 | 10 | 168 | 0.32 | 55 | |
| 128.10 | | 17 | 165 | 0.51 | 58 | 13 | 167 | 0.41 | 57 | 10 | 168 | 0.34 | 56 | |
| 110.73 | | 19 | 165 | 0.58 | 59 | 15 | 167 | 0.46 | 58 | 12 | 168 | 0.39 | 57 | |
| 94.08 | | 23 | 165 | 0.67 | 60 | 18 | 167 | 0.53 | 59 | 14 | 168 | 0.45 | 58 | |
| 84.00 | | 26 | 162 | 0.73 | 61 | 20 | 167 | 0.59 | 60 | 16 | 167 | 0.50 | 59 | |
| 71.75 | | 30 | 145 | 0.76 | 62 | 23 | 167 | 0.68 | 61 | 19 | 167 | 0.57 | 60 | |
| 67.20 | | 32 | 137 | 0.76 | 62 | 25 | 164 | 0.71 | 61 | 20 | 167 | 0.60 | 60 | |
| 56.61 | | 38 | 115 | 0.76 | 62 | 30 | 152 | 0.77 | 62 | 24 | 165 | 0.69 | 62 | |
| 69.39 | | 29/2 | 31 | 155 | 0.68 | 75 | 24 | 155 | 0.54 | 74 | 20 | 155 | 0.45 | 73 |
| 63.80 | 34 | | 155 | 0.74 | 76 | 26 | 155 | 0.58 | 75 | 21 | 155 | 0.48 | 74 | |
| 54.59 | 40 | | 155 | 0.86 | 77 | 31 | 155 | 0.67 | 75 | 25 | 155 | 0.56 | 75 | |
| 47.32 | 46 | | 155 | 0.98 | 77 | 35 | 155 | 0.77 | 76 | 29 | 155 | 0.64 | 75 | |
| 44.22 | 49 | | 155 | 1.0 | 78 | 38 | 155 | 0.82 | 77 | 31 | 155 | 0.68 | 76 | |
| 38.23 | 57 | | 154 | 1.2 | 78 | 44 | 155 | 0.93 | 77 | 36 | 155 | 0.78 | 77 | |
| 32.48 | 67 | | 146 | 1.3 | 79 | 52 | 155 | 1.1 | 78 | 43 | 155 | 0.91 | 77 | |
| 29.00 | 75 | | 137 | 1.4 | 79 | 58 | 154 | 1.2 | 79 | 48 | 155 | 1.0 | 78 | |
| 24.77 | 88 | | 117 | 1.4 | 79 | 68 | 145 | 1.3 | 79 | 56 | 155 | 1.2 | 79 | |
| 23.20 | 94 | | 111 | 1.4 | 79 | 73 | 142 | 1.4 | 79 | 60 | 152 | 1.2 | 79 | |
| 19.54 | 112 | | 92 | 1.4 | 79 | 87 | 123 | 1.4 | 80 | 71 | 144 | 1.4 | 79 | |
| 20.33 | 27/5 | | 108 | 109 | 1.4 | 86 | 83 | 110 | 1.1 | 86 | 68 | 110 | 0.93 | 85 |
| 17.62 | | 124 | 108 | 1.6* | 87 | 96 | 109 | 1.3 | 86 | 79 | 110 | 1.1 | 86 | |
| 16.47 | | 133 | 108 | 1.7* | 87 | 103 | 109 | 1.4 | 86 | 85 | 110 | 1.1 | 86 | |
| 14.24 | | 154 | 108 | 2.0* | 87 | 119 | 109 | 1.6* | 87 | 98 | 110 | 1.3 | 86 | |
| 12.10 | | 181 | 105 | 2.3* | 87 | 140 | 109 | 1.8* | 87 | 115 | 109 | 1.5 | 87 | |
| 10.80 | | 203 | 95 | 2.3* | 87 | 157 | 108 | 2.1* | 87 | 129 | 109 | 1.7* | 87 | |
| 9.23 | | 238 | 82 | 2.4* | 87 | 184 | 105 | 2.3* | 87 | 151 | 109 | 2.0* | 87 | |
| 8.64 | | 254 | 77 | 2.4* | 86 | 196 | 100 | 2.4* | 87 | 162 | 109 | 2.1* | 87 | |
| 7.28 | | 302 | 64 | 2.3* | 86 | 233 | 86 | 2.4* | 87 | 192 | 103 | 2.4* | 87 | |
| 6.83 | | 20/5 | 322 | 62 | 2.4* | 89 | 248 | 78 | 2.3* | 89 | 204 | 78 | 1.9* | 89 |
| 6.40 | | | 343 | 58 | 2.3* | 89 | 265 | 76 | 2.4* | 89 | 218 | 76 | 2.0* | 89 |
| 5.39 | | | 408 | 48 | 2.3* | 89 | 315 | 65 | 2.4* | 89 | 259 | 74 | 2.3* | 89 |
| 4.76 | 462 | | 42 | 2.3* | 89 | 357 | 58 | 2.4* | 89 | 294 | 72 | 2.5* | 90 | |
| 4.00 | 550 | | 34 | 2.2* | 88 | 425 | 48 | 2.4* | 89 | 350 | 61 | 2.5* | 90 | |

* P_{Mot_max} = 1.5 kW

1100 - 700 min⁻¹

| i _{tot} | i _s | n _e = 1100 min ⁻¹ | | | | n _e = 900 min ⁻¹ | | | | n _e = 700 min ⁻¹ | | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 201.00 | 42/1 | 5.4 | 176 | 0.20 | 52 | 4.4 | 180 | 0.17 | 50 | 3.4 | 185 | 0.14 | 49 | |
| 184.80 | | 5.9 | 174 | 0.21 | 52 | 4.8 | 178 | 0.18 | 51 | 3.7 | 183 | 0.15 | 50 | |
| 158.12 | | 6.9 | 172 | 0.24 | 53 | 5.6 | 176 | 0.20 | 52 | 4.4 | 180 | 0.17 | 51 | |
| 137.05 | | 8.0 | 171 | 0.27 | 54 | 6.5 | 172 | 0.22 | 53 | 5.1 | 178 | 0.19 | 51 | |
| 128.10 | | 8.5 | 171 | 0.28 | 55 | 7.0 | 172 | 0.24 | 53 | 5.4 | 176 | 0.19 | 52 | |
| 110.73 | | 9.9 | 169 | 0.32 | 56 | 8.1 | 171 | 0.27 | 54 | 6.3 | 174 | 0.22 | 53 | |
| 94.08 | | 11 | 169 | 0.37 | 57 | 9.5 | 171 | 0.31 | 55 | 7.4 | 172 | 0.25 | 54 | |
| 84.00 | | 13 | 169 | 0.40 | 58 | 10 | 169 | 0.34 | 56 | 8.3 | 171 | 0.27 | 55 | |
| 71.75 | | 15 | 169 | 0.46 | 59 | 12 | 169 | 0.39 | 57 | 9.7 | 171 | 0.31 | 56 | |
| 67.20 | | 16 | 169 | 0.49 | 59 | 13 | 169 | 0.41 | 58 | 10 | 171 | 0.33 | 56 | |
| 56.61 | | 19 | 169 | 0.57 | 60 | 15 | 169 | 0.48 | 59 | 12 | 171 | 0.38 | 58 | |
| 69.39 | | 29/2 | 15 | 173 | 0.40 | 72 | 12 | 176 | 0.33 | 71 | 10 | 180 | 0.27 | 70 |
| 63.80 | 17 | | 173 | 0.43 | 73 | 14 | 175 | 0.36 | 72 | 10 | 180 | 0.29 | 71 | |
| 54.59 | 20 | | 171 | 0.49 | 74 | 16 | 173 | 0.41 | 73 | 12 | 176 | 0.33 | 72 | |
| 47.32 | 23 | | 171 | 0.56 | 74 | 19 | 173 | 0.47 | 74 | 14 | 175 | 0.38 | 72 | |
| 44.22 | 24 | | 171 | 0.60 | 75 | 20 | 171 | 0.49 | 74 | 15 | 175 | 0.40 | 73 | |
| 38.23 | 28 | | 169 | 0.67 | 76 | 23 | 171 | 0.56 | 75 | 18 | 173 | 0.45 | 73 | |
| 32.48 | 33 | | 169 | 0.78 | 76 | 27 | 171 | 0.66 | 76 | 21 | 171 | 0.52 | 74 | |
| 29.00 | 37 | | 170 | 0.88 | 77 | 31 | 171 | 0.73 | 76 | 24 | 171 | 0.58 | 75 | |
| 24.77 | 44 | | 169 | 1.0 | 78 | 36 | 170 | 0.84 | 77 | 28 | 171 | 0.67 | 76 | |
| 23.20 | 47 | | 164 | 1.0 | 78 | 38 | 170 | 0.89 | 77 | 30 | 171 | 0.71 | 76 | |
| 19.54 | 56 | | 154 | 1.2 | 79 | 46 | 165 | 1.0 | 78 | 35 | 170 | 0.83 | 77 | |
| 20.33 | 27/5 | | 54 | 112 | 0.75 | 84 | 44 | 114 | 0.63 | 84 | 34 | 116 | 0.51 | 83 |
| 17.62 | | 62 | 112 | 0.86 | 85 | 51 | 113 | 0.72 | 84 | 39 | 115 | 0.57 | 83 | |
| 16.47 | | 66 | 112 | 0.92 | 85 | 54 | 113 | 0.77 | 84 | 42 | 114 | 0.61 | 84 | |
| 14.24 | | 77 | 111 | 1.1 | 86 | 63 | 112 | 0.87 | 85 | 49 | 113 | 0.69 | 84 | |
| 12.10 | | 90 | 111 | 1.2 | 86 | 74 | 111 | 1.0 | 86 | 57 | 113 | 0.81 | 85 | |
| 10.80 | | 101 | 111 | 1.4 | 86 | 83 | 111 | 1.1 | 86 | 64 | 112 | 0.89 | 85 | |
| 9.23 | | 119 | 110 | 1.6* | 87 | 97 | 111 | 1.3 | 86 | 75 | 112 | 1.0 | 86 | |
| 8.64 | | 127 | 109 | 1.7* | 87 | 104 | 111 | 1.4 | 87 | 81 | 112 | 1.1 | 86 | |
| 7.28 | | 151 | 109 | 2.0* | 87 | 123 | 111 | 1.6* | 87 | 96 | 111 | 1.3 | 87 | |
| 6.83 | | 20/5 | 161 | 95 | 1.8* | 89 | 131 | 95 | 1.5* | 88 | 102 | 95 | 1.2 | 88 |
| 6.40 | | | 171 | 93 | 1.9* | 89 | 140 | 93 | 1.6* | 88 | 109 | 93 | 1.2 | 88 |
| 5.39 | | | 204 | 89 | 2.1* | 89 | 166 | 89 | 1.8* | 89 | 129 | 89 | 1.4 | 88 |
| 4.76 | 231 | | 87 | 2.4* | 89 | 189 | 87 | 1.9* | 89 | 147 | 87 | 1.5 | 89 | |
| 4.00 | 275 | | 78 | 2.5* | 90 | 225 | 84 | 2.2* | 89 | 175 | 84 | 1.7* | 89 | |

* P_{Mot_max} = 1.5 kW

500 - 10 min⁻¹

| i _{tot} | i _s | n _e = 500 min ⁻¹ | | | | n _e = 250 min ⁻¹ | | | | n _e = 10 min ⁻¹ | | | | |
|------------------|----------------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|---------------------------------------|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 201.00 | 42/1 | 2.4 | 185 | 0.10 | 47 | 1.2 | 185 | 0.05 | 47 | 0.04 | 185 | <0.05 | 47 | |
| 184.80 | | 2.7 | 185 | 0.11 | 48 | 1.3 | 185 | 0.06 | 47 | 0.05 | 185 | <0.05 | 47 | |
| 158.12 | | 3.1 | 185 | 0.13 | 49 | 1.5 | 185 | 0.07 | 47 | 0.06 | 185 | <0.05 | 47 | |
| 137.05 | | 3.6 | 185 | 0.14 | 50 | 1.8 | 185 | 0.08 | 47 | 0.07 | 185 | <0.05 | 47 | |
| 128.10 | | 3.9 | 183 | 0.15 | 50 | 1.9 | 185 | 0.08 | 47 | 0.07 | 185 | <0.05 | 47 | |
| 110.73 | | 4.5 | 181 | 0.17 | 51 | 2.2 | 185 | 0.09 | 47 | 0.09 | 185 | <0.05 | 48 | |
| 94.08 | | 5.3 | 178 | 0.19 | 52 | 2.6 | 185 | 0.11 | 48 | 0.10 | 185 | <0.05 | 48 | |
| 84.00 | | 5.9 | 176 | 0.21 | 53 | 2.9 | 185 | 0.12 | 49 | 0.11 | 185 | <0.05 | 48 | |
| 71.75 | | 6.9 | 174 | 0.24 | 54 | 3.4 | 185 | 0.14 | 50 | 0.13 | 185 | <0.05 | 48 | |
| 67.20 | | 7.4 | 172 | 0.25 | 54 | 3.7 | 185 | 0.14 | 50 | 0.14 | 185 | <0.05 | 48 | |
| 56.61 | | 8.8 | 172 | 0.29 | 56 | 4.4 | 181 | 0.16 | 51 | 0.17 | 181 | <0.05 | 48 | |
| 69.39 | | 29/2 | 7.2 | 185 | 0.20 | 69 | 3.6 | 185 | 0.10 | 67 | 0.14 | 185 | <0.05 | 67 |
| 63.80 | | | 7.8 | 185 | 0.22 | 69 | 3.9 | 185 | 0.11 | 67 | 0.15 | 185 | <0.05 | 67 |
| 54.59 | | | 9.1 | 185 | 0.25 | 70 | 4.5 | 185 | 0.13 | 67 | 0.18 | 185 | <0.05 | 67 |
| 47.32 | 10 | | 181 | 0.28 | 71 | 5.2 | 185 | 0.15 | 68 | 0.21 | 185 | <0.05 | 68 | |
| 44.22 | 11 | | 180 | 0.30 | 71 | 5.6 | 185 | 0.16 | 68 | 0.22 | 185 | <0.05 | 68 | |
| 38.23 | 13 | | 178 | 0.34 | 72 | 6.5 | 185 | 0.18 | 69 | 0.26 | 185 | <0.05 | 68 | |
| 32.48 | 15 | | 174 | 0.39 | 73 | 7.6 | 185 | 0.22 | 69 | 0.30 | 185 | <0.05 | 68 | |
| 29.00 | 17 | | 174 | 0.43 | 73 | 8.6 | 185 | 0.24 | 70 | 0.34 | 185 | <0.05 | 68 | |
| 24.77 | 20 | | 172 | 0.49 | 74 | 10 | 183 | 0.27 | 71 | 0.40 | 183 | <0.05 | 68 | |
| 23.20 | 21 | | 172 | 0.52 | 75 | 10 | 181 | 0.29 | 71 | 0.43 | 181 | <0.05 | 68 | |
| 19.54 | 25 | | 172 | 0.61 | 76 | 12 | 178 | 0.33 | 72 | 0.51 | 178 | <0.05 | 68 | |
| 20.33 | 27/5 | | 24 | 124 | 0.39 | 82 | 12 | 157 | 0.25 | 80 | 0.49 | 157 | <0.05 | 79 |
| 17.62 | | | 28 | 120 | 0.43 | 82 | 14 | 149 | 0.28 | 80 | 0.56 | 149 | <0.05 | 80 |
| 16.47 | | | 30 | 118 | 0.46 | 82 | 15 | 145 | 0.29 | 80 | 0.60 | 145 | <0.05 | 80 |
| 14.24 | | 35 | 116 | 0.51 | 83 | 17 | 138 | 0.31 | 81 | 0.70 | 138 | <0.05 | 80 | |
| 12.10 | | 41 | 115 | 0.60 | 84 | 20 | 131 | 0.35 | 81 | 0.82 | 131 | <0.05 | 80 | |
| 10.80 | | 46 | 114 | 0.66 | 84 | 23 | 127 | 0.38 | 82 | 0.92 | 127 | <0.05 | 80 | |
| 9.23 | | 54 | 113 | 0.76 | 85 | 27 | 121 | 0.42 | 82 | 1.0 | 121 | <0.05 | 80 | |
| 8.64 | | 57 | 113 | 0.81 | 85 | 28 | 120 | 0.44 | 83 | 1.1 | 120 | <0.05 | 80 | |
| 7.28 | | 68 | 112 | 0.94 | 86 | 34 | 117 | 0.51 | 83 | 1.3 | 117 | <0.05 | 80 | |
| 6.83 | | 20/5 | 73 | 95 | 0.84 | 87 | 36 | 95 | 0.43 | 84 | 1.4 | 95 | <0.05 | 81 |
| 6.40 | | | 78 | 93 | 0.88 | 87 | 39 | 93 | 0.45 | 85 | 1.5 | 93 | <0.05 | 81 |
| 5.39 | | | 92 | 89 | 0.99 | 87 | 46 | 89 | 0.51 | 85 | 1.8 | 89 | <0.05 | 81 |
| 4.76 | | | 105 | 87 | 1.1 | 88 | 52 | 87 | 0.56 | 86 | 2.1 | 87 | <0.05 | 81 |
| 4.00 | | | 125 | 84 | 1.2 | 88 | 62 | 84 | 0.64 | 86 | 2.5 | 84 | <0.05 | 81 |

11.13 Technical data of S., SF., SA., SAF 57

3400 - 2800 min⁻¹

| i _{tot} | i _s | n _e = 3400 min ⁻¹ | | | | n _e = 3200 min ⁻¹ | | | | n _e = 2800 min ⁻¹ | | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 201.00 | 42/1 | 16 | 270 | 0.78 | 61 | 15 | 270 | 0.74 | 61 | 13 | 270 | 0.66 | 60 | |
| 184.80 | | 18 | 270 | 0.84 | 62 | 17 | 270 | 0.79 | 62 | 15 | 270 | 0.70 | 61 | |
| 158.12 | | 21 | 270 | 0.97 | 63 | 20 | 270 | 0.92 | 63 | 17 | 270 | 0.81 | 62 | |
| 137.05 | | 24 | 255 | 1.0 | 64 | 23 | 270 | 1.0 | 63 | 20 | 270 | 0.92 | 63 | |
| 128.10 | | 26 | 245 | 1.1 | 64 | 24 | 255 | 1.0 | 64 | 21 | 270 | 0.98 | 63 | |
| 110.73 | | 30 | 215 | 1.1 | 64 | 28 | 230 | 1.1 | 64 | 25 | 255 | 1.1 | 64 | |
| 94.08 | | 36 | 184 | 1.1 | 64 | 34 | 196 | 1.1 | 64 | 29 | 225 | 1.1 | 64 | |
| 84.00 | | 40 | 165 | 1.1 | 64 | 38 | 175 | 1.1 | 64 | 33 | 200 | 1.1 | 64 | |
| 71.75 | | 47 | 139 | 1.1 | 64 | 44 | 149 | 1.1 | 64 | 39 | 174 | 1.1 | 65 | |
| 67.20 | | 50 | 128 | 1.1 | 64 | 47 | 139 | 1.1 | 64 | 41 | 164 | 1.1 | 65 | |
| 56.61 | | 60 | 103 | 1.0 | 63 | 56 | 114 | 1.1 | 64 | 49 | 138 | 1.1 | 65 | |
| 69.39 | | 29/2 | 48 | 220 | 1.4 | 79 | 46 | 220 | 1.4 | 79 | 40 | 220 | 1.2 | 78 |
| 63.80 | | | 53 | 220 | 1.5 | 79 | 50 | 220 | 1.5 | 79 | 43 | 220 | 1.3 | 79 |
| 54.59 | | | 62 | 220 | 1.8 | 80 | 58 | 220 | 1.7 | 80 | 51 | 220 | 1.5 | 79 |
| 47.32 | 71 | | 210 | 2.0 | 80 | 67 | 220 | 1.9 | 80 | 59 | 220 | 1.7 | 80 | |
| 44.22 | 76 | | 197 | 2.0 | 80 | 72 | 205 | 1.9 | 80 | 63 | 220 | 1.8 | 80 | |
| 38.23 | 88 | | 174 | 2.0 | 81 | 83 | 184 | 2.0 | 81 | 73 | 205 | 2.0 | 81 | |
| 32.48 | 104 | | 148 | 2.0 | 81 | 98 | 157 | 2.0 | 81 | 86 | 180 | 2.0 | 81 | |
| 29.00 | 117 | | 131 | 2.0 | 81 | 110 | 141 | 2.0 | 81 | 96 | 162 | 2.0 | 81 | |
| 24.77 | 137 | | 111 | 2.0 | 80 | 129 | 120 | 2.0 | 81 | 113 | 139 | 2.0 | 81 | |
| 23.20 | 146 | | 102 | 2.0 | 80 | 137 | 111 | 2.0 | 81 | 120 | 131 | 2.0 | 81 | |
| 19.54 | 174 | | 81 | 1.9 | 80 | 163 | 90 | 1.9 | 80 | 143 | 109 | 2.0 | 81 | |
| 20.33 | 27/5 | | 167 | 160 | 3.2* | 88 | 157 | 160 | 3.0 | 88 | 137 | 160 | 2.6 | 88 |
| 17.62 | | | 192 | 140 | 3.2* | 88 | 181 | 149 | 3.2* | 88 | 158 | 160 | 3.0 | 88 |
| 16.47 | | | 206 | 132 | 3.2* | 88 | 194 | 140 | 3.2* | 88 | 170 | 158 | 3.2* | 88 |
| 14.24 | | 238 | 116 | 3.3* | 88 | 224 | 123 | 3.3* | 88 | 196 | 139 | 3.2* | 88 | |
| 12.10 | | 280 | 99 | 3.3* | 88 | 264 | 105 | 3.3* | 88 | 231 | 121 | 3.3* | 88 | |
| 10.80 | | 314 | 88 | 3.3* | 88 | 296 | 94 | 3.3* | 88 | 259 | 108 | 3.3* | 88 | |
| 9.23 | | 368 | 73 | 3.2* | 88 | 346 | 79 | 3.3* | 88 | 303 | 93 | 3.3* | 88 | |
| 8.64 | | 393 | 68 | 3.2* | 88 | 370 | 74 | 3.3* | 88 | 324 | 87 | 3.3* | 88 | |
| 7.28 | | 467 | 54 | 3.0 | 88 | 439 | 60 | 3.1* | 88 | 384 | 72 | 3.3* | 88 | |
| 6.8 | | 20/5 | 497 | 54 | 3.2* | 89 | 468 | 58 | 3.2* | 89 | 409 | 69 | 3.3* | 90 |
| 6.4 | | | 531 | 50 | 3.1* | 89 | 500 | 54 | 3.2* | 89 | 437 | 64 | 3.3* | 89 |
| 5.4 | | | 630 | 41 | 3.1* | 89 | 593 | 44 | 3.1* | 89 | 519 | 53 | 3.2* | 89 |
| 4.8 | | | 714 | 35 | 3.0 | 88 | 672 | 38 | 3.0 | 89 | 588 | 46 | 3.2* | 89 |
| 4.0 | | | 850 | 28 | 2.8 | 88 | 800 | 31 | 2.9 | 88 | 700 | 38 | 3.1* | 89 |

* P_{Mot_max} = 3.0 kW

2200 - 1400 min⁻¹

| i _{tot} | i _s | n _e = 2200 min ⁻¹ | | | | n _e = 1700 min ⁻¹ | | | | n _e = 1400 min ⁻¹ | | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 201.00 | 42/1 | 10 | 295 | 0.58 | 59 | 8.4 | 295 | 0.46 | 57 | 6.9 | 295 | 0.39 | 56 | |
| 184.80 | | 11 | 295 | 0.62 | 60 | 9.1 | 295 | 0.49 | 58 | 7.5 | 295 | 0.41 | 56 | |
| 158.12 | | 13 | 295 | 0.71 | 61 | 10 | 295 | 0.56 | 59 | 8.8 | 295 | 0.47 | 58 | |
| 137.05 | | 16 | 295 | 0.80 | 62 | 12 | 295 | 0.64 | 60 | 10 | 295 | 0.54 | 59 | |
| 128.10 | | 17 | 295 | 0.85 | 62 | 13 | 295 | 0.68 | 61 | 10 | 295 | 0.57 | 59 | |
| 110.73 | | 19 | 290 | 0.96 | 63 | 15 | 295 | 0.77 | 62 | 12 | 295 | 0.65 | 60 | |
| 94.08 | | 23 | 275 | 1.1 | 64 | 18 | 300 | 0.91 | 63 | 14 | 295 | 0.75 | 62 | |
| 84.00 | | 26 | 250 | 1.1 | 64 | 20 | 285 | 0.95 | 63 | 16 | 295 | 0.83 | 62 | |
| 71.75 | | 30 | 220 | 1.1 | 65 | 23 | 275 | 1.1 | 64 | 19 | 290 | 0.94 | 63 | |
| 67.20 | | 32 | 210 | 1.1 | 65 | 25 | 260 | 1.1 | 64 | 20 | 285 | 0.98 | 64 | |
| 56.61 | | 38 | 179 | 1.1 | 65 | 30 | 225 | 1.1 | 65 | 24 | 265 | 1.1 | 65 | |
| 69.39 | | 29/2 | 31 | 245 | 1.1 | 77 | 24 | 245 | 0.83 | 76 | 20 | 245 | 0.69 | 75 |
| 63.80 | | | 34 | 245 | 1.1 | 78 | 26 | 245 | 0.89 | 77 | 21 | 245 | 0.74 | 76 |
| 54.59 | 40 | | 245 | 1.3 | 79 | 31 | 245 | 1.0 | 78 | 25 | 245 | 0.86 | 77 | |
| 47.32 | 46 | | 245 | 1.5 | 79 | 35 | 245 | 1.2 | 78 | 29 | 245 | 0.98 | 77 | |
| 44.22 | 49 | | 245 | 1.6 | 80 | 38 | 245 | 1.3 | 79 | 31 | 245 | 1.0 | 78 | |
| 38.23 | 57 | | 245 | 1.8 | 80 | 44 | 245 | 1.4 | 79 | 36 | 245 | 1.2 | 78 | |
| 32.48 | 67 | | 225 | 2.0 | 81 | 52 | 245 | 1.7 | 80 | 43 | 245 | 1.4 | 79 | |
| 29.00 | 75 | | 200 | 2.0 | 81 | 58 | 245 | 1.9 | 80 | 48 | 245 | 1.6 | 80 | |
| 24.77 | 88 | | 177 | 2.0 | 81 | 68 | 220 | 2.0 | 81 | 56 | 245 | 1.8 | 80 | |
| 23.20 | 94 | | 167 | 2.0 | 81 | 73 | 210 | 2.0 | 81 | 60 | 245 | 1.9 | 81 | |
| 19.54 | 112 | | 143 | 2.1 | 81 | 87 | 183 | 2.1 | 81 | 71 | 215 | 2.0 | 81 | |
| 20.33 | 27/5 | | 108 | 168 | 2.2 | 87 | 83 | 168 | 1.7 | 87 | 68 | 168 | 1.4 | 86 |
| 17.62 | | | 124 | 168 | 2.5 | 88 | 96 | 168 | 2.0 | 87 | 79 | 168 | 1.6 | 86 |
| 16.47 | | 133 | 169 | 2.7 | 88 | 103 | 168 | 2.1 | 87 | 85 | 168 | 1.7 | 87 | |
| 14.24 | | 154 | 169 | 3.1* | 88 | 119 | 169 | 2.4 | 88 | 98 | 169 | 2.0 | 87 | |
| 12.10 | | 181 | 150 | 3.2* | 88 | 140 | 169 | 2.8 | 88 | 115 | 169 | 2.3 | 88 | |
| 10.80 | | 203 | 136 | 3.3* | 88 | 157 | 169 | 3.2* | 88 | 129 | 169 | 2.6 | 88 | |
| 9.23 | | 238 | 119 | 3.4* | 88 | 184 | 149 | 3.3* | 88 | 151 | 169 | 3.0 | 88 | |
| 8.64 | | 254 | 112 | 3.4* | 89 | 196 | 141 | 3.3* | 89 | 162 | 166 | 3.2* | 88 | |
| 7.28 | | 302 | 96 | 3.4* | 89 | 233 | 122 | 3.4* | 89 | 192 | 146 | 3.3* | 89 | |
| 6.8 | | 20/5 | 322 | 91 | 3.4* | 90 | 248 | 100 | 2.9 | 90 | 204 | 100 | 2.4 | 89 |
| 6.4 | | | 343 | 85 | 3.4* | 90 | 265 | 98 | 3.0 | 90 | 218 | 98 | 2.5 | 89 |
| 5.4 | | | 408 | 72 | 3.4* | 90 | 315 | 95 | 3.5* | 90 | 259 | 95 | 2.9 | 90 |
| 4.8 | | | 462 | 63 | 3.4* | 90 | 357 | 84 | 3.5* | 90 | 294 | 93 | 3.2* | 90 |
| 4.0 | 550 | | 53 | 3.4* | 90 | 425 | 71 | 3.5* | 90 | 350 | 88 | 3.6* | 90 | |

* P_{Mot_max} = 3.0 kW

1100 - 700 1/min⁻¹

| i _{tot} | i _s | n _e = 1100 min ⁻¹ | | | | n _e = 900 min ⁻¹ | | | | n _e = 700 min ⁻¹ | | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 201.00 | 42/1 | 5.4 | 295 | 0.31 | 54 | 4.4 | 300 | 0.27 | 53 | 3.4 | 310 | 0.22 | 51 | |
| 184.80 | | 5.9 | 295 | 0.34 | 55 | 4.8 | 300 | 0.29 | 54 | 3.7 | 305 | 0.23 | 52 | |
| 158.12 | | 6.9 | 295 | 0.38 | 56 | 5.6 | 295 | 0.32 | 55 | 4.4 | 300 | 0.26 | 53 | |
| 137.05 | | 8.0 | 295 | 0.43 | 57 | 6.5 | 295 | 0.36 | 56 | 5.1 | 300 | 0.29 | 54 | |
| 128.10 | | 8.5 | 295 | 0.46 | 58 | 7.0 | 295 | 0.38 | 57 | 5.4 | 295 | 0.31 | 55 | |
| 110.73 | | 9.9 | 295 | 0.52 | 59 | 8.1 | 295 | 0.44 | 58 | 6.3 | 295 | 0.35 | 56 | |
| 94.08 | | 11 | 295 | 0.60 | 60 | 9.5 | 295 | 0.50 | 59 | 7.4 | 295 | 0.40 | 57 | |
| 84.00 | | 13 | 295 | 0.67 | 61 | 10 | 295 | 0.56 | 60 | 8.3 | 295 | 0.44 | 58 | |
| 71.75 | | 15 | 295 | 0.77 | 62 | 12 | 295 | 0.64 | 61 | 9.7 | 295 | 0.51 | 59 | |
| 67.20 | | 16 | 300 | 0.82 | 62 | 13 | 295 | 0.68 | 61 | 10 | 295 | 0.54 | 60 | |
| 56.61 | | 19 | 290 | 0.93 | 64 | 15 | 300 | 0.80 | 62 | 12 | 295 | 0.63 | 61 | |
| 69.39 | | 29/2 | 15 | 270 | 0.61 | 74 | 12 | 270 | 0.50 | 73 | 10 | 270 | 0.40 | 72 |
| 63.80 | 17 | | 270 | 0.65 | 75 | 14 | 270 | 0.54 | 74 | 10 | 270 | 0.43 | 72 | |
| 54.59 | 20 | | 270 | 0.75 | 76 | 16 | 270 | 0.62 | 75 | 12 | 270 | 0.50 | 73 | |
| 47.32 | 23 | | 270 | 0.86 | 76 | 19 | 270 | 0.71 | 75 | 14 | 270 | 0.56 | 74 | |
| 44.22 | 24 | | 270 | 0.92 | 77 | 20 | 270 | 0.76 | 76 | 15 | 270 | 0.60 | 75 | |
| 38.23 | 28 | | 270 | 1.0 | 78 | 23 | 270 | 0.87 | 77 | 18 | 270 | 0.69 | 75 | |
| 32.48 | 33 | | 270 | 1.2 | 78 | 27 | 270 | 1.0 | 77 | 21 | 270 | 0.80 | 76 | |
| 29.00 | 37 | | 270 | 1.4 | 79 | 31 | 270 | 1.1 | 78 | 24 | 270 | 0.89 | 77 | |
| 24.77 | 44 | | 270 | 1.6 | 80 | 36 | 270 | 1.3 | 79 | 28 | 270 | 1.0 | 78 | |
| 23.20 | 47 | | 270 | 1.7 | 80 | 38 | 270 | 1.4 | 79 | 30 | 270 | 1.1 | 78 | |
| 19.54 | 56 | | 250 | 1.8 | 81 | 46 | 270 | 1.6 | 80 | 35 | 270 | 1.3 | 79 | |
| 20.33 | 27/5 | | 54 | 168 | 1.1 | 85 | 44 | 170 | 0.93 | 84 | 34 | 172 | 0.74 | 84 |
| 17.62 | | 62 | 169 | 1.3 | 86 | 51 | 169 | 1.1 | 85 | 39 | 170 | 0.84 | 84 | |
| 16.47 | | 66 | 168 | 1.4 | 86 | 54 | 168 | 1.1 | 85 | 42 | 170 | 0.90 | 84 | |
| 14.24 | | 77 | 168 | 1.6 | 86 | 63 | 168 | 1.3 | 86 | 49 | 170 | 1.0 | 85 | |
| 12.10 | | 90 | 169 | 1.9 | 87 | 74 | 169 | 1.5 | 86 | 57 | 169 | 1.2 | 86 | |
| 10.80 | | 101 | 169 | 2.1 | 87 | 83 | 169 | 1.7 | 87 | 64 | 169 | 1.3 | 86 | |
| 9.23 | | 119 | 170 | 2.4 | 88 | 97 | 168 | 2.0 | 87 | 75 | 168 | 1.5 | 87 | |
| 8.64 | | 127 | 170 | 2.6 | 88 | 104 | 169 | 2.1 | 87 | 81 | 168 | 1.6 | 87 | |
| 7.28 | | 151 | 170 | 3.0 | 88 | 123 | 170 | 2.5 | 88 | 96 | 170 | 2.0 | 87 | |
| 6.8 | | 20/5 | 161 | 120 | 2.3 | 89 | 131 | 120 | 1.9 | 89 | 102 | 120 | 1.5 | 88 |
| 6.4 | | | 171 | 117 | 2.4 | 89 | 140 | 117 | 1.9 | 89 | 109 | 117 | 1.5 | 88 |
| 5.4 | | | 204 | 111 | 2.6 | 90 | 166 | 111 | 2.2 | 89 | 129 | 111 | 1.7 | 89 |
| 4.8 | 231 | | 108 | 2.9 | 90 | 189 | 108 | 2.4 | 90 | 147 | 108 | 1.9 | 89 | |
| 4.0 | 275 | | 103 | 3.3* | 90 | 225 | 103 | 2.7 | 90 | 175 | 103 | 2.1 | 89 | |

* P_{Mot_max} = 3.0 kW

500 - 10 min⁻¹

| i _{tot} | i _s | n _e = 500 min ⁻¹ | | | | n _e = 250 min ⁻¹ | | | | n _e = 10 min ⁻¹ | | | | |
|------------------|----------------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|---------------------------------------|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 201.00 | 42/1 | 2.4 | 330 | 0.17 | 50 | 1.2 | 330 | 0.09 | 48 | 0.04 | 330 | <0.05 | 48 | |
| 184.80 | | 2.7 | 330 | 0.19 | 50 | 1.3 | 330 | 0.10 | 48 | 0.05 | 330 | <0.05 | 48 | |
| 158.12 | | 3.1 | 315 | 0.20 | 51 | 1.5 | 330 | 0.11 | 48 | 0.06 | 330 | <0.05 | 48 | |
| 137.05 | | 3.6 | 310 | 0.23 | 52 | 1.8 | 330 | 0.13 | 49 | 0.07 | 330 | <0.05 | 48 | |
| 128.10 | | 3.9 | 305 | 0.24 | 53 | 1.9 | 330 | 0.14 | 49 | 0.07 | 330 | <0.05 | 49 | |
| 110.73 | | 4.5 | 300 | 0.26 | 54 | 2.2 | 330 | 0.16 | 50 | 0.09 | 330 | <0.05 | 49 | |
| 94.08 | | 5.3 | 300 | 0.30 | 55 | 2.6 | 330 | 0.18 | 51 | 0.10 | 330 | <0.05 | 49 | |
| 84.00 | | 5.9 | 295 | 0.33 | 56 | 2.9 | 325 | 0.20 | 51 | 0.11 | 325 | <0.05 | 49 | |
| 71.75 | | 6.9 | 295 | 0.38 | 57 | 3.4 | 310 | 0.22 | 52 | 0.13 | 310 | <0.05 | 49 | |
| 67.20 | | 7.4 | 295 | 0.40 | 57 | 3.7 | 310 | 0.23 | 53 | 0.14 | 310 | <0.05 | 49 | |
| 56.61 | | 8.8 | 295 | 0.47 | 59 | 4.4 | 300 | 0.26 | 54 | 0.17 | 300 | <0.05 | 49 | |
| 69.39 | | 29/2 | 7.2 | 300 | 0.32 | 70 | 3.6 | 300 | 0.17 | 68 | 0.14 | 300 | <0.05 | 68 |
| 63.80 | | | 7.8 | 300 | 0.35 | 71 | 3.9 | 300 | 0.18 | 68 | 0.15 | 300 | <0.05 | 68 |
| 54.59 | | | 9.1 | 300 | 0.40 | 72 | 4.5 | 300 | 0.21 | 68 | 0.18 | 300 | <0.05 | 68 |
| 47.32 | 10 | | 300 | 0.46 | 73 | 5.2 | 300 | 0.24 | 69 | 0.21 | 300 | <0.05 | 68 | |
| 44.22 | 11 | | 300 | 0.49 | 73 | 5.6 | 300 | 0.26 | 69 | 0.22 | 300 | <0.05 | 68 | |
| 38.23 | 13 | | 295 | 0.55 | 74 | 6.5 | 300 | 0.29 | 70 | 0.26 | 300 | <0.05 | 68 | |
| 32.48 | 15 | | 295 | 0.64 | 75 | 7.6 | 300 | 0.34 | 71 | 0.30 | 300 | <0.05 | 68 | |
| 29.00 | 17 | | 295 | 0.71 | 75 | 8.6 | 300 | 0.38 | 72 | 0.34 | 300 | <0.05 | 68 | |
| 24.77 | 20 | | 295 | 0.82 | 76 | 10 | 300 | 0.44 | 73 | 0.40 | 300 | <0.05 | 68 | |
| 23.20 | 21 | | 295 | 0.87 | 76 | 10 | 300 | 0.46 | 73 | 0.43 | 300 | <0.05 | 68 | |
| 19.54 | 25 | | 295 | 1.0 | 77 | 12 | 295 | 0.54 | 74 | 0.51 | 295 | <0.05 | 68 | |
| 20.33 | 27/5 | | 24 | 181 | 0.57 | 82 | 12 | 215 | 0.35 | 80 | 0.49 | 215 | <0.05 | 79 |
| 17.62 | | | 28 | 175 | 0.63 | 83 | 14 | 210 | 0.39 | 80 | 0.56 | 210 | <0.05 | 79 |
| 16.47 | | | 30 | 174 | 0.66 | 83 | 15 | 205 | 0.40 | 81 | 0.60 | 205 | <0.05 | 79 |
| 14.24 | | 35 | 172 | 0.75 | 84 | 17 | 198 | 0.45 | 81 | 0.70 | 198 | <0.05 | 79 | |
| 12.10 | | 41 | 170 | 0.87 | 84 | 20 | 188 | 0.50 | 82 | 0.82 | 188 | <0.05 | 79 | |
| 10.80 | | 46 | 170 | 0.97 | 85 | 23 | 184 | 0.54 | 82 | 0.92 | 184 | <0.05 | 79 | |
| 9.23 | | 54 | 170 | 1.1 | 85 | 27 | 177 | 0.61 | 83 | 1.0 | 177 | <0.05 | 79 | |
| 8.64 | | 57 | 170 | 1.2 | 86 | 28 | 175 | 0.64 | 83 | 1.1 | 175 | <0.05 | 79 | |
| 7.28 | | 68 | 170 | 1.4 | 86 | 34 | 172 | 0.74 | 84 | 1.3 | 172 | <0.05 | 79 | |
| 6.8 | | 20/5 | 73 | 120 | 1.1 | 87 | 36 | 120 | 0.54 | 85 | 1.4 | 120 | <0.05 | 81 |
| 6.4 | | | 78 | 117 | 1.1 | 87 | 39 | 117 | 0.56 | 85 | 1.5 | 117 | <0.05 | 81 |
| 5.4 | | | 92 | 111 | 1.2 | 88 | 46 | 111 | 0.63 | 86 | 1.8 | 111 | <0.05 | 81 |
| 4.8 | | | 105 | 108 | 1.3 | 88 | 52 | 108 | 0.69 | 86 | 2.1 | 108 | <0.05 | 81 |
| 4.0 | | | 125 | 103 | 1.5 | 89 | 62 | 103 | 0.78 | 87 | 2.5 | 103 | <0.05 | 81 |

11.14 Technical data of S., SF., SA., SAF 67

3400 - 2800 min⁻¹

| i _{tot} | i _s | n _e = 3400 min ⁻¹ | | | | n _e = 3200 min ⁻¹ | | | | n _e = 2800 min ⁻¹ | | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 217.41 | 42/1 | 15 | 465 | 1.2 | 63 | 14 | 465 | 1.2 | 62 | 12 | 465 | 1.0 | 62 | |
| 190.11 | | 17 | 465 | 1.4 | 63 | 16 | 465 | 1.3 | 63 | 14 | 465 | 1.2 | 62 | |
| 180.60 | | 18 | 465 | 1.4 | 63 | 17 | 465 | 1.4 | 63 | 15 | 465 | 1.2 | 63 | |
| 158.45 | | 21 | 465 | 1.6 | 64 | 20 | 465 | 1.5 | 64 | 17 | 465 | 1.4 | 63 | |
| 134.40 | | 25 | 465 | 1.9 | 65 | 23 | 465 | 1.8 | 65 | 20 | 465 | 1.6 | 64 | |
| 121.33 | | 28 | 455 | 2.0 | 65 | 26 | 465 | 2.0 | 65 | 23 | 465 | 1.7 | 65 | |
| 106.75 | | 31 | 405 | 2.1 | 65 | 29 | 430 | 2.1 | 66 | 26 | 465 | 2.0 | 65 | |
| 100.80 | | 33 | 380 | 2.1 | 65 | 31 | 410 | 2.1 | 66 | 27 | 465 | 2.1 | 66 | |
| 85.83 | | 39 | 320 | 2.0 | 65 | 37 | 345 | 2.1 | 65 | 32 | 400 | 2.1 | 66 | |
| 78.00 | | 43 | 285 | 2.0 | 65 | 41 | 310 | 2.0 | 65 | 35 | 365 | 2.1 | 66 | |
| 67.57 | | 50 | 235 | 1.9 | 64 | 47 | 260 | 2.0 | 65 | 41 | 315 | 2.1 | 66 | |
| 58.80 | | 57 | 184 | 1.8 | 62 | 54 | 215 | 1.9 | 64 | 47 | 270 | 2.1 | 65 | |
| 75.06 | | 29/2 | 45 | 435 | 2.6 | 80 | 42 | 435 | 2.4 | 80 | 37 | 435 | 2.1 | 79 |
| 65.63 | | | 51 | 435 | 2.9 | 80 | 48 | 435 | 2.8 | 80 | 42 | 435 | 2.4 | 80 |
| 62.35 | 54 | | 435 | 3.1 | 81 | 51 | 435 | 2.9 | 80 | 44 | 435 | 2.6 | 80 | |
| 54.70 | 62 | | 435 | 3.5 | 81 | 58 | 435 | 3.3 | 81 | 51 | 435 | 2.9 | 81 | |
| 46.40 | 73 | | 395 | 3.7 | 81 | 68 | 415 | 3.7 | 81 | 60 | 435 | 3.4 | 81 | |
| 41.89 | 81 | | 355 | 3.7 | 81 | 76 | 380 | 3.7 | 81 | 66 | 430 | 3.7 | 81 | |
| 36.85 | 92 | | 310 | 3.7 | 81 | 86 | 335 | 3.8 | 81 | 75 | 380 | 3.7 | 81 | |
| 34.80 | 97 | | 295 | 3.7 | 81 | 91 | 315 | 3.7 | 81 | 80 | 365 | 3.8 | 81 | |
| 29.63 | 114 | | 250 | 3.7 | 81 | 107 | 270 | 3.8 | 81 | 94 | 310 | 3.8 | 81 | |
| 26.93 | 126 | | 220 | 3.6 | 80 | 118 | 240 | 3.7 | 81 | 103 | 280 | 3.7 | 81 | |
| 23.33 | 145 | | 182 | 3.5 | 80 | 137 | 200 | 3.6 | 80 | 120 | 245 | 3.8 | 81 | |
| 20.30 | 167 | | 141 | 3.1 | 79 | 157 | 164 | 3.4 | 80 | 137 | 205 | 3.7 | 81 | |
| 24.44 | 27/5 | | 139 | 315 | 5.2 | 89 | 130 | 315 | 4.9 | 89 | 114 | 315 | 4.3 | 88 |
| 23.22 | | | 146 | 315 | 5.4 | 89 | 137 | 315 | 5.1 | 89 | 120 | 315 | 4.5 | 89 |
| 20.37 | | 166 | 315 | 6.2* | 89 | 157 | 315 | 5.8* | 89 | 137 | 315 | 5.1 | 89 | |
| 17.28 | | 196 | 270 | 6.3* | 89 | 185 | 290 | 6.3* | 89 | 162 | 315 | 6.0* | 89 | |
| 15.60 | | 217 | 245 | 6.3* | 89 | 205 | 260 | 6.3* | 89 | 179 | 295 | 6.2* | 89 | |
| 13.73 | | 247 | 215 | 6.3* | 89 | 233 | 230 | 6.3* | 89 | 203 | 265 | 6.4* | 89 | |
| 12.96 | | 262 | 200 | 6.2* | 89 | 246 | 215 | 6.3* | 89 | 216 | 250 | 6.4* | 89 | |
| 11.03 | | 308 | 169 | 6.2* | 88 | 290 | 183 | 6.3* | 89 | 253 | 215 | 6.4* | 89 | |
| 10.03 | | 338 | 151 | 6.1* | 88 | 319 | 164 | 6.2* | 88 | 279 | 194 | 6.4* | 89 | |
| 8.69 | | 391 | 124 | 5.8* | 88 | 368 | 137 | 6.0* | 88 | 322 | 166 | 6.3* | 89 | |
| 7.56 | 449 | 95 | 5.1 | 87 | 423 | 112 | 5.7* | 88 | 370 | 141 | 6.2* | 88 | | |

* P_{Mot_max} = 5.5 kW

2200 - 1400 min⁻¹

| i _{tot} | i _s | n _e = 2200 min ⁻¹ | | | | n _e = 1700 min ⁻¹ | | | | n _e = 1400 min ⁻¹ | | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 217.41 | 42/1 | 10 | 520 | 0.91 | 61 | 7.8 | 520 | 0.72 | 59 | 6.4 | 520 | 0.60 | 58 | |
| 190.11 | | 11 | 520 | 1.0 | 62 | 8.9 | 520 | 0.81 | 60 | 7.3 | 520 | 0.68 | 59 | |
| 180.60 | | 12 | 520 | 1.1 | 62 | 9.4 | 520 | 0.85 | 61 | 7.7 | 520 | 0.71 | 59 | |
| 158.45 | | 13 | 520 | 1.2 | 63 | 10 | 520 | 0.95 | 61 | 8.8 | 520 | 0.80 | 60 | |
| 134.40 | | 16 | 520 | 1.4 | 64 | 12 | 520 | 1.1 | 62 | 10 | 520 | 0.93 | 61 | |
| 121.33 | | 18 | 520 | 1.5 | 64 | 14 | 520 | 1.2 | 63 | 11 | 520 | 1.0 | 62 | |
| 106.75 | | 20 | 520 | 1.7 | 65 | 15 | 520 | 1.4 | 64 | 13 | 520 | 1.1 | 63 | |
| 100.80 | | 21 | 510 | 1.8 | 65 | 16 | 520 | 1.4 | 64 | 13 | 520 | 1.2 | 63 | |
| 85.83 | | 25 | 490 | 2.0 | 66 | 19 | 520 | 1.7 | 65 | 16 | 520 | 1.4 | 64 | |
| 78.00 | | 28 | 465 | 2.1 | 66 | 21 | 510 | 1.8 | 66 | 17 | 520 | 1.5 | 65 | |
| 67.57 | | 32 | 410 | 2.1 | 67 | 25 | 495 | 2.0 | 66 | 20 | 520 | 1.7 | 66 | |
| 58.80 | | 37 | 360 | 2.1 | 67 | 28 | 460 | 2.1 | 67 | 23 | 500 | 1.9 | 66 | |
| 75.06 | | 29/2 | 29 | 480 | 1.9 | 79 | 22 | 480 | 1.5 | 78 | 18 | 480 | 1.2 | 77 |
| 65.63 | | | 33 | 480 | 2.1 | 79 | 25 | 480 | 1.7 | 78 | 21 | 480 | 1.4 | 78 |
| 62.35 | 35 | | 480 | 2.2 | 80 | 27 | 480 | 1.7 | 79 | 22 | 480 | 1.5 | 78 | |
| 54.70 | 40 | | 480 | 2.5 | 80 | 31 | 480 | 2.0 | 79 | 25 | 480 | 1.6 | 78 | |
| 46.40 | 47 | | 480 | 3.0 | 81 | 36 | 480 | 2.3 | 80 | 30 | 480 | 1.9 | 79 | |
| 41.89 | 52 | | 480 | 3.3 | 81 | 40 | 480 | 2.5 | 80 | 33 | 480 | 2.1 | 80 | |
| 36.85 | 59 | | 475 | 3.6 | 81 | 46 | 480 | 2.9 | 81 | 37 | 480 | 2.4 | 80 | |
| 34.80 | 63 | | 450 | 3.7 | 82 | 48 | 480 | 3.0 | 81 | 40 | 480 | 2.5 | 80 | |
| 29.63 | 74 | | 395 | 3.8 | 82 | 57 | 480 | 3.5 | 82 | 47 | 480 | 2.9 | 81 | |
| 26.93 | 81 | | 360 | 3.8 | 82 | 63 | 455 | 3.7 | 82 | 51 | 480 | 3.2 | 81 | |
| 23.33 | 94 | | 320 | 3.9 | 82 | 72 | 405 | 3.8 | 82 | 60 | 480 | 3.7 | 82 | |
| 20.30 | 108 | | 280 | 3.9 | 82 | 83 | 360 | 3.8 | 82 | 68 | 425 | 3.7 | 82 | |
| 24.44 | 27/5 | | 90 | 340 | 3.6 | 88 | 69 | 340 | 2.8 | 87 | 57 | 340 | 2.3 | 87 |
| 23.22 | | | 94 | 340 | 3.8 | 88 | 73 | 340 | 3.0 | 88 | 60 | 340 | 2.5 | 87 |
| 20.37 | | 108 | 340 | 4.3 | 88 | 83 | 340 | 3.4 | 88 | 68 | 340 | 2.8 | 87 | |
| 17.28 | | 127 | 340 | 5.1 | 89 | 98 | 340 | 4.0 | 88 | 81 | 340 | 3.3 | 88 | |
| 15.60 | | 141 | 340 | 5.6* | 89 | 108 | 340 | 4.4 | 89 | 89 | 340 | 3.6 | 88 | |
| 13.73 | | 160 | 330 | 6.2* | 89 | 123 | 340 | 5.0 | 89 | 101 | 340 | 4.1 | 89 | |
| 12.96 | | 169 | 315 | 6.3* | 89 | 131 | 340 | 5.2 | 89 | 108 | 340 | 4.3 | 89 | |
| 11.03 | | 199 | 275 | 6.4* | 89 | 154 | 340 | 6.2* | 89 | 126 | 340 | 5.1 | 89 | |
| 10.03 | | 219 | 250 | 6.4* | 89 | 169 | 315 | 6.3* | 89 | 139 | 340 | 5.6* | 89 | |
| 8.69 | | 253 | 220 | 6.6* | 89 | 195 | 280 | 6.4* | 89 | 161 | 335 | 6.3* | 89 | |
| 7.56 | | 291 | 192 | 6.6* | 89 | 224 | 250 | 6.6* | 89 | 185 | 295 | 6.4* | 89 | |

* P_{Mot_max} = 5.5 kW

1100 - 700 min⁻¹

| i _{tot} | i _s | n _e = 1100 min ⁻¹ | | | | n _e = 900 min ⁻¹ | | | | n _e = 700 min ⁻¹ | | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 217.41 | 42/1 | 5.0 | 555 | 0.52 | 57 | 4.1 | 560 | 0.44 | 56 | 3.2 | 570 | 0.35 | 54 | |
| 190.11 | | 5.7 | 555 | 0.58 | 58 | 4.7 | 560 | 0.49 | 57 | 3.6 | 565 | 0.40 | 55 | |
| 180.60 | | 6.0 | 555 | 0.61 | 58 | 4.9 | 555 | 0.51 | 57 | 3.8 | 565 | 0.41 | 55 | |
| 158.45 | | 6.9 | 550 | 0.68 | 59 | 5.6 | 555 | 0.57 | 58 | 4.4 | 560 | 0.46 | 56 | |
| 134.40 | | 8.1 | 550 | 0.78 | 60 | 6.6 | 550 | 0.65 | 59 | 5.2 | 555 | 0.53 | 57 | |
| 121.33 | | 9.0 | 550 | 0.86 | 61 | 7.4 | 550 | 0.72 | 60 | 5.7 | 555 | 0.58 | 58 | |
| 106.75 | | 10 | 550 | 0.96 | 62 | 8.4 | 550 | 0.80 | 61 | 6.5 | 555 | 0.65 | 59 | |
| 100.80 | | 10 | 550 | 1.0 | 62 | 8.9 | 550 | 0.84 | 61 | 6.9 | 555 | 0.68 | 59 | |
| 85.83 | | 12 | 550 | 1.2 | 63 | 10 | 550 | 0.97 | 62 | 8.1 | 550 | 0.78 | 61 | |
| 78.00 | | 14 | 550 | 1.3 | 64 | 11 | 550 | 1.1 | 63 | 8.9 | 550 | 0.84 | 61 | |
| 67.57 | | 16 | 550 | 1.4 | 65 | 13 | 550 | 1.2 | 64 | 10 | 550 | 0.96 | 62 | |
| 58.80 | | 18 | 530 | 1.6 | 66 | 15 | 550 | 1.4 | 65 | 11 | 550 | 1.1 | 63 | |
| 75.06 | | 29/2 | 14 | 525 | 1.1 | 76 | 11 | 525 | 0.88 | 75 | 9.3 | 525 | 0.69 | 74 |
| 65.63 | | | 16 | 525 | 1.2 | 77 | 13 | 525 | 1.00 | 76 | 10 | 525 | 0.79 | 75 |
| 62.35 | 17 | | 525 | 1.3 | 77 | 14 | 525 | 1.0 | 76 | 11 | 525 | 0.83 | 75 | |
| 54.70 | 20 | | 525 | 1.4 | 78 | 16 | 525 | 1.2 | 77 | 12 | 525 | 0.93 | 75 | |
| 46.40 | 23 | | 525 | 1.7 | 78 | 19 | 525 | 1.4 | 78 | 15 | 525 | 1.1 | 76 | |
| 41.89 | 26 | | 525 | 1.8 | 79 | 21 | 525 | 1.5 | 78 | 16 | 525 | 1.2 | 77 | |
| 36.85 | 29 | | 525 | 2.1 | 79 | 24 | 525 | 1.7 | 79 | 18 | 525 | 1.3 | 78 | |
| 34.80 | 31 | | 525 | 2.2 | 80 | 25 | 525 | 1.8 | 79 | 20 | 525 | 1.4 | 78 | |
| 29.63 | 37 | | 525 | 2.5 | 80 | 30 | 525 | 2.1 | 80 | 23 | 525 | 1.7 | 79 | |
| 26.93 | 40 | | 525 | 2.8 | 81 | 33 | 525 | 2.3 | 80 | 25 | 525 | 1.8 | 79 | |
| 23.33 | 47 | | 525 | 3.2 | 81 | 38 | 525 | 2.6 | 81 | 30 | 525 | 2.1 | 80 | |
| 20.30 | 54 | | 520 | 3.6 | 82 | 44 | 525 | 3.0 | 81 | 34 | 525 | 2.4 | 80 | |
| 24.44 | 27/5 | | 45 | 355 | 1.9 | 86 | 36 | 360 | 1.6 | 86 | 28 | 365 | 1.3 | 85 |
| 23.22 | | | 47 | 355 | 2.0 | 86 | 38 | 360 | 1.7 | 86 | 30 | 365 | 1.4 | 85 |
| 20.37 | | 54 | 355 | 2.3 | 87 | 44 | 355 | 1.9 | 86 | 34 | 365 | 1.5 | 86 | |
| 17.28 | | 63 | 355 | 2.7 | 87 | 52 | 355 | 2.2 | 87 | 40 | 360 | 1.8 | 86 | |
| 15.60 | | 70 | 350 | 3.0 | 88 | 57 | 355 | 2.5 | 87 | 44 | 355 | 1.9 | 86 | |
| 13.73 | | 80 | 350 | 3.3 | 88 | 65 | 355 | 2.8 | 88 | 50 | 355 | 2.2 | 87 | |
| 12.96 | | 84 | 350 | 3.5 | 88 | 69 | 350 | 2.9 | 88 | 54 | 355 | 2.3 | 87 | |
| 11.03 | | 99 | 350 | 4.1 | 89 | 81 | 350 | 3.4 | 88 | 63 | 355 | 2.7 | 88 | |
| 10.03 | | 109 | 345 | 4.5 | 89 | 89 | 350 | 3.7 | 88 | 69 | 355 | 3.0 | 88 | |
| 8.69 | | 126 | 345 | 5.1 | 89 | 103 | 350 | 4.3 | 89 | 80 | 350 | 3.3 | 88 | |
| 7.56 | | 145 | 345 | 5.9* | 89 | 119 | 345 | 4.8 | 89 | 92 | 350 | 3.8 | 89 | |

* P_{Mot_max} = 5.5 kW

500 - 10 min⁻¹

| i _{tot} | i _s | n _e = 500 min ⁻¹ | | | | n _e = 250 min ⁻¹ | | | | n _e = 10 min ⁻¹ | | | | |
|------------------|----------------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|---------------------------------------|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 217.41 | 42/1 | 2.2 | 570 | 0.26 | 52 | 1.1 | 570 | 0.14 | 50 | 0.04 | 570 | <0.05 | 51 | |
| 190.11 | | 2.6 | 570 | 0.30 | 53 | 1.3 | 570 | 0.16 | 50 | 0.05 | 570 | <0.05 | 51 | |
| 180.60 | | 2.7 | 570 | 0.31 | 53 | 1.3 | 570 | 0.17 | 50 | 0.05 | 570 | <0.05 | 51 | |
| 158.45 | | 3.1 | 570 | 0.35 | 54 | 1.5 | 570 | 0.19 | 51 | 0.06 | 570 | <0.05 | 51 | |
| 134.40 | | 3.7 | 565 | 0.40 | 55 | 1.8 | 570 | 0.22 | 52 | 0.07 | 570 | <0.05 | 51 | |
| 121.33 | | 4.1 | 560 | 0.43 | 56 | 2.0 | 570 | 0.24 | 52 | 0.08 | 570 | <0.05 | 51 | |
| 106.75 | | 4.6 | 560 | 0.48 | 57 | 2.3 | 570 | 0.27 | 53 | 0.09 | 570 | <0.05 | 51 | |
| 100.80 | | 4.9 | 560 | 0.51 | 57 | 2.4 | 570 | 0.28 | 53 | 0.09 | 570 | <0.05 | 51 | |
| 85.83 | | 5.8 | 555 | 0.58 | 58 | 2.9 | 570 | 0.32 | 54 | 0.11 | 570 | <0.05 | 51 | |
| 78.00 | | 6.4 | 555 | 0.63 | 59 | 3.2 | 570 | 0.35 | 55 | 0.12 | 570 | <0.05 | 51 | |
| 67.57 | | 7.3 | 555 | 0.71 | 60 | 3.6 | 565 | 0.39 | 56 | 0.14 | 565 | <0.05 | 51 | |
| 58.80 | | 8.5 | 550 | 0.80 | 61 | 4.2 | 560 | 0.44 | 57 | 0.17 | 560 | <0.05 | 51 | |
| 75.06 | | 29/2 | 6.6 | 570 | 0.55 | 72 | 3.3 | 570 | 0.29 | 69 | 0.13 | 570 | <0.05 | 70 |
| 65.63 | | | 7.6 | 570 | 0.62 | 73 | 3.8 | 570 | 0.33 | 70 | 0.15 | 570 | <0.05 | 70 |
| 62.35 | 8.0 | | 570 | 0.65 | 73 | 4.0 | 570 | 0.34 | 70 | 0.16 | 570 | <0.05 | 70 | |
| 54.70 | 9.1 | | 570 | 0.74 | 74 | 4.5 | 570 | 0.39 | 71 | 0.18 | 570 | <0.05 | 70 | |
| 46.40 | 10 | | 570 | 0.86 | 75 | 5.3 | 570 | 0.45 | 71 | 0.21 | 570 | <0.05 | 70 | |
| 41.89 | 11 | | 570 | 0.95 | 75 | 5.9 | 570 | 0.50 | 72 | 0.23 | 570 | <0.05 | 70 | |
| 36.85 | 13 | | 570 | 1.1 | 76 | 6.7 | 570 | 0.56 | 73 | 0.27 | 570 | <0.05 | 70 | |
| 34.80 | 14 | | 570 | 1.1 | 76 | 7.1 | 570 | 0.59 | 73 | 0.28 | 570 | <0.05 | 70 | |
| 29.63 | 16 | | 565 | 1.3 | 77 | 8.4 | 570 | 0.68 | 74 | 0.33 | 570 | <0.05 | 70 | |
| 26.93 | 18 | | 565 | 1.4 | 78 | 9.2 | 570 | 0.75 | 74 | 0.37 | 570 | <0.05 | 70 | |
| 23.33 | 21 | | 565 | 1.6 | 78 | 10 | 570 | 0.85 | 75 | 0.42 | 570 | <0.05 | 70 | |
| 20.30 | 24 | | 565 | 1.8 | 79 | 12 | 570 | 0.97 | 76 | 0.49 | 570 | <0.05 | 70 | |
| 24.44 | 27/5 | | 20 | 365 | 0.93 | 84 | 10 | 355 | 0.47 | 82 | 0.40 | 355 | <0.05 | 81 |
| 23.22 | | | 21 | 365 | 0.98 | 84 | 10 | 355 | 0.49 | 82 | 0.43 | 355 | <0.05 | 81 |
| 20.37 | | 24 | 380 | 1.2 | 85 | 12 | 365 | 0.57 | 82 | 0.49 | 365 | <0.05 | 81 | |
| 17.28 | | 28 | 365 | 1.3 | 85 | 14 | 435 | 0.80 | 83 | 0.57 | 435 | <0.05 | 81 | |
| 15.60 | | 32 | 365 | 1.4 | 85 | 16 | 430 | 0.87 | 83 | 0.64 | 430 | <0.05 | 81 | |
| 13.73 | | 36 | 365 | 1.6 | 86 | 18 | 415 | 0.95 | 84 | 0.72 | 415 | <0.05 | 81 | |
| 12.96 | | 38 | 360 | 1.7 | 86 | 19 | 410 | 0.99 | 84 | 0.77 | 410 | <0.05 | 81 | |
| 11.03 | | 45 | 355 | 1.9 | 87 | 22 | 390 | 1.1 | 84 | 0.90 | 390 | <0.05 | 81 | |
| 10.03 | | 49 | 355 | 2.1 | 87 | 24 | 380 | 1.2 | 85 | 0.99 | 380 | <0.05 | 81 | |
| 8.69 | | 57 | 355 | 2.4 | 87 | 28 | 370 | 1.3 | 85 | 1.1 | 370 | 0.06 | 81 | |
| 7.56 | | 66 | 355 | 2.8 | 88 | 33 | 365 | 1.5 | 86 | 1.3 | 365 | 0.06 | 81 | |

11.15 Technical data of S., S.F., SA., SAF 77

3400 - 2800 min⁻¹

| i _{tot} | i _s | n _e = 3400 min ⁻¹ | | | | n _e = 3200 min ⁻¹ | | | | n _e = 2800 min ⁻¹ | | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 256.47 | 40/1 | 13 | 1160 | 2.4 | 68 | 12 | 1160 | 2.2 | 67 | 10 | 1160 | 2.0 | 67 | |
| 225.26 | | 15 | 1130 | 2.6 | 68 | 14 | 1150 | 2.5 | 68 | 12 | 1160 | 2.2 | 68 | |
| 214.00 | | 15 | 1110 | 2.7 | 68 | 14 | 1140 | 2.6 | 68 | 13 | 1160 | 2.3 | 68 | |
| 189.09 | | 17 | 1080 | 3.0 | 69 | 16 | 1100 | 2.8 | 69 | 14 | 1140 | 2.6 | 68 | |
| 161.60 | | 21 | 1040 | 3.3 | 69 | 19 | 1050 | 3.1 | 69 | 17 | 1090 | 2.9 | 69 | |
| 148.15 | | 22 | 1010 | 3.5 | 70 | 21 | 1030 | 3.4 | 70 | 18 | 1070 | 3.1 | 69 | |
| 130.00 | | 26 | 970 | 3.8 | 70 | 24 | 990 | 3.7 | 70 | 21 | 1030 | 3.3 | 70 | |
| 123.20 | | 27 | 950 | 3.9 | 70 | 25 | 970 | 3.8 | 70 | 22 | 1010 | 3.4 | 70 | |
| 107.83 | | 31 | 900 | 4.2 | 70 | 29 | 920 | 4.1 | 70 | 25 | 970 | 3.8 | 70 | |
| 97.14 | | 35 | 860 | 4.5 | 71 | 32 | 880 | 4.3 | 71 | 28 | 930 | 4.0 | 71 | |
| 85.22 | | 39 | 770 | 4.6 | 71 | 37 | 820 | 4.6 | 71 | 32 | 880 | 4.3 | 71 | |
| 75.20 | | 45 | 675 | 4.5 | 70 | 42 | 725 | 4.6 | 71 | 37 | 830 | 4.6 | 71 | |
| 66.67 | | 50 | 585 | 4.5 | 70 | 47 | 635 | 4.5 | 70 | 41 | 745 | 4.6 | 71 | |
| 56.92 | | 59 | 485 | 4.4 | 69 | 56 | 530 | 4.5 | 70 | 49 | 635 | 4.6 | 71 | |
| 75.09 | | 40/3 | 45 | 1020 | 5.7 | 85 | 42 | 1020 | 5.4 | 85 | 37 | 1020 | 4.7 | 84 |
| 71.33 | | | 47 | 1020 | 6.0 | 85 | 44 | 1020 | 5.7 | 85 | 39 | 1020 | 5.0 | 84 |
| 63.03 | 53 | | 1020 | 6.8 | 85 | 50 | 1020 | 6.4 | 85 | 44 | 1020 | 5.6 | 85 | |
| 53.87 | 63 | | 980 | 7.6 | 86 | 59 | 1000 | 7.3 | 85 | 51 | 1020 | 6.5 | 85 | |
| 49.38 | 68 | | 950 | 8.0 | 86 | 64 | 970 | 7.7 | 86 | 56 | 1010 | 7.0 | 85 | |
| 43.33 | 78 | | 910 | 8.7 | 86 | 73 | 930 | 8.4 | 86 | 64 | 970 | 7.7 | 86 | |
| 41.07 | 82 | | 900 | 9.1 | 86 | 77 | 910 | 8.7 | 86 | 68 | 950 | 7.9 | 86 | |
| 35.94 | 94 | | 800 | 9.2 | 86 | 89 | 850 | 9.2 | 86 | 77 | 910 | 8.6 | 86 | |
| 32.38 | 105 | | 725 | 9.3* | 86 | 98 | 770 | 9.3* | 86 | 86 | 880 | 9.3 | 86 | |
| 28.41 | 119 | | 635 | 9.3* | 86 | 112 | 680 | 9.3* | 86 | 98 | 780 | 9.3 | 86 | |
| 25.07 | 135 | | 560 | 9.3* | 86 | 127 | 600 | 9.3* | 86 | 111 | 695 | 9.4 | 86 | |
| 22.22 | 153 | | 485 | 9.1 | 85 | 144 | 525 | 9.2 | 86 | 126 | 615 | 9.4 | 86 | |
| 18.97 | 179 | | 395 | 8.7 | 85 | 168 | 440 | 9.1 | 85 | 147 | 520 | 9.4 | 86 | |
| 22.89 | 34/6 | | 148 | 590 | 10.*2 | 90 | 139 | 590 | 9.6* | 90 | 122 | 590 | 8.4 | 90 |
| 20.99 | | | 161 | 590 | 11.1* | 90 | 152 | 590 | 10.5* | 90 | 133 | 590 | 9.1 | 90 |
| 18.42 | | | 184 | 590 | 12.7* | 90 | 173 | 590 | 11.9* | 90 | 152 | 590 | 10.4 | 90 |
| 17.45 | | 194 | 590 | 13.4* | 90 | 183 | 590 | 12.6* | 90 | 160 | 590 | 11.0 | 90 | |
| 15.28 | | 222 | 530 | 13.8* | 90 | 209 | 560 | 13.7* | 90 | 183 | 590 | 12.6 | 90 | |
| 13.76 | | 247 | 480 | 13.9* | 90 | 232 | 505 | 13.7* | 90 | 203 | 585 | 13.9* | 90 | |
| 12.07 | | 281 | 415 | 13.7* | 89 | 265 | 445 | 13.8* | 89 | 231 | 515 | 13.9* | 90 | |
| 10.65 | | 319 | 365 | 13.7* | 89 | 300 | 390 | 13.8* | 89 | 262 | 455 | 14.0* | 90 | |
| 9.44 | | 360 | 315 | 13.4* | 89 | 338 | 345 | 13.8* | 89 | 296 | 405 | 14.1* | 89 | |
| 8.06 | | 421 | 260 | 13.0* | 88 | 397 | 285 | 13.4* | 89 | 347 | 340 | 13.9* | 89 | |

* P_{Mot_max} = 9.2 kW

2200 - 1400 min⁻¹

| i _{tot} | i _s | n _e = 2200 min ⁻¹ | | | | n _e = 1700 min ⁻¹ | | | | n _e = 1400 min ⁻¹ | | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 256.47 | 40/1 | 8.5 | 1260 | 1.7 | 66 | 6.6 | 1270 | 1.4 | 64 | 5.4 | 1270 | 1.1 | 63 | |
| 225.26 | | 9.7 | 1230 | 1.9 | 67 | 7.5 | 1270 | 1.5 | 65 | 6.2 | 1270 | 1.3 | 64 | |
| 214.00 | | 10 | 1220 | 2.0 | 67 | 7.9 | 1270 | 1.6 | 66 | 6.5 | 1270 | 1.4 | 64 | |
| 189.09 | | 11 | 1200 | 2.2 | 67 | 8.9 | 1240 | 1.8 | 66 | 7.4 | 1270 | 1.5 | 65 | |
| 161.60 | | 13 | 1160 | 2.4 | 68 | 10 | 1220 | 2.0 | 67 | 8.6 | 1260 | 1.7 | 66 | |
| 148.15 | | 14 | 1140 | 2.6 | 69 | 11 | 1200 | 2.1 | 68 | 9.4 | 1240 | 1.8 | 67 | |
| 130.00 | | 16 | 1100 | 2.8 | 69 | 13 | 1170 | 2.4 | 68 | 10 | 1210 | 2.0 | 67 | |
| 123.20 | | 17 | 1080 | 2.9 | 69 | 13 | 1150 | 2.4 | 68 | 11 | 1200 | 2.1 | 68 | |
| 107.83 | | 20 | 1040 | 3.2 | 70 | 15 | 1110 | 2.7 | 69 | 12 | 1170 | 2.3 | 68 | |
| 97.14 | | 22 | 1010 | 3.4 | 70 | 17 | 1090 | 2.9 | 70 | 14 | 1140 | 2.5 | 69 | |
| 85.22 | | 25 | 970 | 3.7 | 71 | 19 | 1050 | 3.1 | 70 | 16 | 1100 | 2.7 | 69 | |
| 75.20 | | 29 | 920 | 4.0 | 71 | 22 | 1010 | 3.4 | 71 | 18 | 1070 | 3.0 | 70 | |
| 66.67 | | 32 | 880 | 4.3 | 71 | 25 | 970 | 3.6 | 71 | 20 | 1040 | 3.2 | 71 | |
| 56.92 | | 38 | 830 | 4.7 | 72 | 29 | 920 | 4.0 | 72 | 24 | 990 | 3.6 | 71 | |
| 75.09 | | 40/3 | 29 | 1100 | 4.0 | 84 | 22 | 1100 | 3.1 | 83 | 18 | 1100 | 2.6 | 82 |
| 71.33 | 30 | | 1100 | 4.2 | 84 | 23 | 1100 | 3.3 | 83 | 19 | 1100 | 2.7 | 82 | |
| 63.03 | 34 | | 1100 | 4.8 | 84 | 26 | 1100 | 3.7 | 84 | 22 | 1100 | 3.1 | 83 | |
| 53.87 | 40 | | 1100 | 5.5 | 85 | 31 | 1100 | 4.3 | 84 | 25 | 1100 | 3.6 | 83 | |
| 49.38 | 44 | | 1080 | 5.9 | 85 | 34 | 1100 | 4.7 | 84 | 28 | 1100 | 3.9 | 84 | |
| 43.33 | 50 | | 1050 | 6.5 | 85 | 39 | 1100 | 5.3 | 85 | 32 | 1100 | 4.4 | 84 | |
| 41.07 | 53 | | 1030 | 6.8 | 85 | 41 | 1100 | 5.6 | 85 | 34 | 1100 | 4.7 | 84 | |
| 35.94 | 61 | | 980 | 7.3 | 86 | 47 | 1060 | 6.2 | 85 | 38 | 1100 | 5.3 | 85 | |
| 32.38 | 67 | | 960 | 8.0 | 86 | 52 | 1040 | 6.7 | 86 | 43 | 1090 | 5.8 | 85 | |
| 28.41 | 77 | | 920 | 8.7 | 86 | 59 | 990 | 7.2 | 86 | 49 | 1050 | 6.3 | 86 | |
| 25.07 | 87 | | 870 | 9.3* | 86 | 67 | 960 | 7.9 | 86 | 55 | 1020 | 7.0 | 86 | |
| 22.22 | 99 | | 790 | 9.5* | 86 | 76 | 920 | 8.5 | 86 | 63 | 980 | 7.5 | 86 | |
| 18.97 | 115 | | 680 | 9.6* | 86 | 89 | 860 | 9.3* | 87 | 73 | 930 | 8.3 | 86 | |
| 22.89 | 34/6 | | 96 | 710 | 7.9 | 90 | 74 | 705 | 6.1 | 89 | 61 | 705 | 5.1 | 89 |
| 20.99 | | | 104 | 710 | 8.7 | 90 | 80 | 705 | 6.7 | 90 | 66 | 705 | 5.5 | 89 |
| 18.42 | | 119 | 720 | 10.0* | 90 | 92 | 710 | 7.6 | 90 | 76 | 705 | 6.3 | 90 | |
| 17.45 | | 126 | 720 | 10.5* | 90 | 97 | 710 | 8.0 | 90 | 80 | 710 | 6.7 | 90 | |
| 15.28 | | 143 | 720 | 12.0* | 90 | 111 | 720 | 9.3* | 90 | 91 | 710 | 7.6 | 90 | |
| 13.76 | | 159 | 725 | 13.5* | 90 | 123 | 720 | 10.3* | 90 | 101 | 710 | 8.4 | 90 | |
| 12.07 | | 182 | 650 | 13.8* | 90 | 140 | 725 | 11.8* | 90 | 115 | 720 | 9.7* | 90 | |
| 10.65 | | 206 | 580 | 13.9* | 90 | 159 | 725 | 13.4* | 90 | 131 | 720 | 11.0* | 91 | |
| 9.44 | | 233 | 520 | 14.1* | 90 | 180 | 655 | 13.7* | 90 | 148 | 725 | 12.4* | 91 | |
| 8.06 | | 272 | 445 | 14.1* | 90 | 210 | 575 | 14.1* | 90 | 173 | 680 | 13.7* | 91 | |

* P_{Mot_max} = 9.2 kW

1100 - 700 min⁻¹

| i _{tot} | i _s | n _e = 1100 min ⁻¹ | | | | n _e = 900 min ⁻¹ | | | | n _e = 700 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 256.47 | 40/1 | 4.2 | 1270 | 0.92 | 62 | 3.5 | 1270 | 0.77 | 61 | 2.7 | 1270 | 0.61 | 59 |
| 225.26 | | 4.8 | 1270 | 1.0 | 63 | 3.9 | 1270 | 0.86 | 62 | 3.1 | 1270 | 0.69 | 60 |
| 214.00 | | 5.1 | 1270 | 1.1 | 63 | 4.2 | 1270 | 0.90 | 62 | 3.2 | 1270 | 0.72 | 60 |
| 189.09 | | 5.8 | 1270 | 1.2 | 64 | 4.7 | 1270 | 1.0 | 63 | 3.7 | 1270 | 0.81 | 61 |
| 161.60 | | 6.8 | 1270 | 1.4 | 65 | 5.5 | 1270 | 1.2 | 64 | 4.3 | 1270 | 0.93 | 62 |
| 148.15 | | 7.4 | 1270 | 1.5 | 65 | 6.0 | 1270 | 1.3 | 64 | 4.7 | 1270 | 1.0 | 63 |
| 130.00 | | 8.4 | 1260 | 1.7 | 66 | 6.9 | 1270 | 1.4 | 65 | 5.3 | 1270 | 1.1 | 64 |
| 123.20 | | 8.9 | 1250 | 1.8 | 67 | 7.3 | 1270 | 1.5 | 65 | 5.6 | 1270 | 1.2 | 64 |
| 107.83 | | 10 | 1220 | 1.9 | 67 | 8.3 | 1260 | 1.7 | 66 | 6.4 | 1270 | 1.3 | 65 |
| 97.14 | | 11 | 1200 | 2.1 | 68 | 9.2 | 1250 | 1.8 | 67 | 7.2 | 1270 | 1.5 | 66 |
| 85.22 | | 12 | 1170 | 2.3 | 69 | 10 | 1220 | 2.0 | 68 | 8.2 | 1270 | 1.6 | 66 |
| 75.20 | | 14 | 1140 | 2.5 | 69 | 11 | 1190 | 2.2 | 68 | 9.3 | 1250 | 1.8 | 67 |
| 66.67 | | 16 | 1110 | 2.7 | 70 | 13 | 1160 | 2.4 | 69 | 10 | 1220 | 2.0 | 68 |
| 56.92 | | 19 | 1060 | 3.0 | 71 | 15 | 1120 | 2.7 | 70 | 12 | 1190 | 2.2 | 69 |
| 75.09 | 40/3 | 14 | 1120 | 2.1 | 81 | 11 | 1130 | 1.8 | 81 | 9.3 | 1170 | 1.4 | 80 |
| 71.33 | | 15 | 1120 | 2.2 | 82 | 12 | 1130 | 1.9 | 81 | 9.8 | 1120 | 1.4 | 80 |
| 63.03 | | 17 | 1120 | 2.5 | 82 | 14 | 1120 | 2.1 | 81 | 11 | 1130 | 1.6 | 80 |
| 53.87 | | 20 | 1120 | 2.9 | 83 | 16 | 1120 | 2.4 | 82 | 12 | 1120 | 1.9 | 81 |
| 49.38 | | 22 | 1120 | 3.1 | 83 | 18 | 1120 | 2.6 | 82 | 14 | 1120 | 2.0 | 81 |
| 43.33 | | 25 | 1130 | 3.6 | 84 | 20 | 1120 | 2.9 | 83 | 16 | 1120 | 2.3 | 82 |
| 41.07 | | 26 | 1130 | 3.8 | 84 | 21 | 1120 | 3.1 | 83 | 17 | 1120 | 2.4 | 82 |
| 35.94 | | 30 | 1150 | 4.4 | 84 | 25 | 1130 | 3.5 | 84 | 19 | 1120 | 2.8 | 83 |
| 32.38 | | 33 | 1130 | 4.8 | 85 | 27 | 1130 | 3.9 | 84 | 21 | 1120 | 3.1 | 83 |
| 28.41 | | 38 | 1110 | 5.3 | 85 | 31 | 1150 | 4.5 | 84 | 24 | 1130 | 3.5 | 84 |
| 25.07 | | 43 | 1080 | 5.8 | 85 | 35 | 1120 | 5.0 | 85 | 27 | 1130 | 3.9 | 84 |
| 22.22 | | 49 | 1050 | 6.4 | 86 | 40 | 1100 | 5.5 | 85 | 31 | 1150 | 4.5 | 85 |
| 18.97 | | 57 | 1010 | 7.1 | 86 | 47 | 1060 | 6.1 | 86 | 36 | 1120 | 5.1 | 85 |
| 22.89 | | 34/6 | 48 | 695 | 4.0 | 89 | 39 | 695 | 3.3 | 88 | 30 | 705 | 2.6 |
| 20.99 | 52 | | 705 | 4.4 | 89 | 42 | 695 | 3.5 | 88 | 33 | 705 | 2.8 | 88 |
| 18.42 | 59 | | 700 | 4.9 | 89 | 48 | 700 | 4.0 | 89 | 38 | 700 | 3.2 | 88 |
| 17.45 | 63 | | 700 | 5.2 | 89 | 51 | 700 | 4.3 | 89 | 40 | 700 | 3.3 | 88 |
| 15.28 | 71 | | 710 | 6.0 | 90 | 58 | 700 | 4.8 | 89 | 45 | 700 | 3.8 | 89 |
| 13.76 | 79 | | 710 | 6.6 | 90 | 65 | 700 | 5.4 | 89 | 50 | 700 | 4.2 | 89 |
| 12.07 | 91 | | 710 | 7.5 | 90 | 74 | 710 | 6.2 | 90 | 57 | 700 | 4.8 | 89 |
| 10.65 | 103 | | 715 | 8.6 | 90 | 84 | 710 | 7.0 | 90 | 65 | 710 | 5.5 | 90 |
| 9.44 | 116 | | 720 | 9.7* | 91 | 95 | 715 | 7.9 | 90 | 74 | 710 | 6.1 | 90 |
| 8.06 | 136 | | 725 | 11.4* | 91 | 111 | 720 | 9.3* | 91 | 86 | 710 | 7.2 | 90 |

* P_{Mot_max} = 9.2 kW

500 - 10 min⁻¹

| i _{tot} | i _s | n _e = 500 min ⁻¹ | | | | n _e = 250 min ⁻¹ | | | | n _e = 10 min ⁻¹ | | | | |
|------------------|----------------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|---------------------------------------|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 256.47 | 40/1 | 1.9 | 1270 | 0.45 | 57 | 0.97 | 1270 | 0.24 | 55 | 0.03 | 1270 | <0.05 | 55 | |
| 225.26 | | 2.2 | 1270 | 0.51 | 58 | 1.1 | 1270 | 0.27 | 55 | 0.04 | 1270 | <0.05 | 55 | |
| 214.00 | | 2.3 | 1270 | 0.53 | 58 | 1.1 | 1270 | 0.28 | 55 | 0.04 | 1270 | <0.05 | 55 | |
| 189.09 | | 2.6 | 1270 | 0.59 | 59 | 1.3 | 1270 | 0.32 | 55 | 0.05 | 1270 | <0.05 | 55 | |
| 161.60 | | 3.0 | 1270 | 0.68 | 60 | 1.5 | 1270 | 0.37 | 56 | 0.06 | 1270 | <0.05 | 55 | |
| 148.15 | | 3.3 | 1270 | 0.74 | 61 | 1.6 | 1270 | 0.40 | 57 | 0.06 | 1270 | <0.05 | 55 | |
| 130.00 | | 3.8 | 1270 | 0.83 | 62 | 1.9 | 1270 | 0.45 | 57 | 0.07 | 1270 | <0.05 | 55 | |
| 123.20 | | 4.0 | 1270 | 0.87 | 62 | 2.0 | 1270 | 0.47 | 58 | 0.08 | 1270 | <0.05 | 55 | |
| 107.83 | | 4.6 | 1270 | 0.98 | 63 | 2.3 | 1270 | 0.53 | 59 | 0.09 | 1270 | <0.05 | 55 | |
| 97.14 | | 5.1 | 1270 | 1.1 | 64 | 2.5 | 1270 | 0.58 | 59 | 0.10 | 1270 | <0.05 | 55 | |
| 85.22 | | 5.8 | 1270 | 1.2 | 64 | 2.9 | 1270 | 0.65 | 60 | 0.11 | 1270 | <0.05 | 55 | |
| 75.20 | | 6.6 | 1270 | 1.4 | 65 | 3.3 | 1270 | 0.73 | 61 | 0.13 | 1270 | <0.05 | 55 | |
| 66.67 | | 7.4 | 1270 | 1.5 | 66 | 3.7 | 1270 | 0.81 | 62 | 0.14 | 1270 | <0.05 | 55 | |
| 56.92 | | 8.7 | 1260 | 1.7 | 67 | 4.3 | 1270 | 0.93 | 63 | 0.17 | 1270 | <0.05 | 55 | |
| 75.09 | | 40/3 | 6.6 | 1160 | 1.0 | 78 | 3.3 | 1120 | 0.52 | 76 | 0.13 | 1120 | <0.05 | 76 |
| 71.33 | 7.0 | | 1110 | 1.0 | 78 | 3.5 | 1060 | 0.51 | 76 | 0.14 | 1060 | <0.05 | 76 | |
| 63.03 | 7.9 | | 1230 | 1.3 | 79 | 3.9 | 1200 | 0.65 | 76 | 0.15 | 1200 | <0.05 | 76 | |
| 53.87 | 9.2 | | 1180 | 1.4 | 80 | 4.6 | 1240 | 0.78 | 77 | 0.18 | 1240 | <0.05 | 76 | |
| 49.38 | 10 | | 1160 | 1.5 | 80 | 5.0 | 1240 | 0.85 | 77 | 0.20 | 1240 | <0.05 | 76 | |
| 43.33 | 11 | | 1120 | 1.7 | 81 | 5.7 | 1240 | 0.96 | 78 | 0.23 | 1240 | <0.05 | 76 | |
| 41.07 | 12 | | 1120 | 1.8 | 81 | 6.0 | 1240 | 1.0 | 78 | 0.24 | 1240 | <0.05 | 76 | |
| 35.94 | 13 | | 1120 | 2.0 | 81 | 6.9 | 1240 | 1.1 | 79 | 0.27 | 1240 | <0.05 | 76 | |
| 32.38 | 15 | | 1120 | 2.2 | 82 | 7.7 | 1240 | 1.3 | 79 | 0.30 | 1240 | 0.05 | 76 | |
| 28.41 | 17 | | 1120 | 2.5 | 82 | 8.7 | 1190 | 1.4 | 80 | 0.35 | 1190 | 0.06 | 76 | |
| 25.07 | 19 | | 1120 | 2.8 | 83 | 9.9 | 1170 | 1.5 | 80 | 0.39 | 1170 | 0.06 | 76 | |
| 22.22 | 22 | | 1130 | 3.2 | 83 | 11 | 1130 | 1.6 | 81 | 0.45 | 1130 | 0.07 | 76 | |
| 18.97 | 26 | | 1130 | 3.7 | 84 | 13 | 1120 | 1.9 | 81 | 0.52 | 1120 | 0.08 | 76 | |
| 22.89 | 34/6 | | 21 | 690 | 1.8 | 86 | 10 | 675 | 0.92 | 84 | 0.43 | 675 | <0.05 | 83 |
| 20.99 | | | 23 | 725 | 2.1 | 87 | 11 | 740 | 1.1 | 85 | 0.47 | 740 | <0.05 | 83 |
| 18.42 | | 27 | 705 | 2.3 | 87 | 13 | 830 | 1.4 | 85 | 0.54 | 830 | 0.06 | 83 | |
| 17.45 | | 28 | 705 | 2.4 | 87 | 14 | 810 | 1.4 | 85 | 0.57 | 810 | 0.06 | 83 | |
| 15.28 | | 32 | 705 | 2.8 | 88 | 16 | 785 | 1.6 | 86 | 0.65 | 785 | 0.06 | 83 | |
| 13.76 | | 36 | 695 | 3.0 | 88 | 18 | 770 | 1.7 | 86 | 0.72 | 770 | 0.07 | 83 | |
| 12.07 | | 41 | 695 | 3.4 | 88 | 20 | 750 | 1.9 | 86 | 0.82 | 750 | 0.08 | 83 | |
| 10.65 | | 46 | 695 | 3.9 | 89 | 23 | 725 | 2.1 | 87 | 0.93 | 725 | 0.09 | 83 | |
| 9.44 | | 52 | 705 | 4.4 | 89 | 26 | 705 | 2.2 | 87 | 1.0 | 705 | 0.09 | 83 | |
| 8.06 | | 62 | 705 | 5.1 | 90 | 31 | 705 | 2.6 | 88 | 1.2 | 705 | 0.11 | 83 | |

11.16 Technical data of S.., SF.., SA.., SAF 87

3400 - 2800 min⁻¹

| i _{tot} | i _s | n _e = 3400 min ⁻¹ | | | | n _e = 3200 min ⁻¹ | | | | n _e = 2800 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 288.00 | 40/1 | 11 | 2030 | 3.6 | 70 | 11 | 2070 | 3.4 | 70 | 9.7 | 2070 | 3.0 | 70 |
| 258.18 | | 13 | 1990 | 3.9 | 71 | 12 | 2010 | 3.7 | 71 | 10 | 2070 | 3.4 | 70 |
| 222.40 | | 15 | 1910 | 4.3 | 71 | 14 | 1950 | 4.1 | 71 | 12 | 2010 | 3.8 | 71 |
| 202.96 | | 16 | 1850 | 4.6 | 71 | 15 | 1890 | 4.4 | 71 | 13 | 1970 | 4.0 | 71 |
| 180.00 | | 18 | 1800 | 5.0 | 72 | 17 | 1830 | 4.8 | 72 | 15 | 1910 | 4.4 | 71 |
| 151.30 | | 22 | 1690 | 5.5 | 72 | 21 | 1730 | 5.3 | 72 | 18 | 1800 | 4.9 | 72 |
| 139.05 | | 24 | 1630 | 5.8 | 72 | 23 | 1680 | 5.6 | 72 | 20 | 1760 | 5.2 | 72 |
| 123.48 | | 27 | 1570 | 6.3 | 72 | 25 | 1600 | 6.0 | 72 | 22 | 1690 | 5.6 | 72 |
| 110.40 | | 30 | 1430 | 6.4 | 72 | 28 | 1540 | 6.4 | 73 | 25 | 1620 | 5.9 | 73 |
| 99.26 | | 34 | 1260 | 6.3 | 72 | 32 | 1380 | 6.4 | 72 | 28 | 1550 | 6.3 | 73 |
| 86.15 | | 39 | 1030 | 6.0 | 71 | 37 | 1150 | 6.2 | 72 | 32 | 1390 | 6.5 | 73 |
| 77.14 | | 44 | 830 | 5.5 | 70 | 41 | 970 | 5.9 | 71 | 36 | 1220 | 6.4 | 72 |
| 64.00 | | 53 | 500 | 4.3 | 65 | 50 | 620 | 4.8 | 68 | 43 | 960 | 6.2 | 72 |
| 91.20 | | 38/3 | 37 | 1470 | 6.7 | 86 | 35 | 1470 | 6.3 | 86 | 30 | 1470 | 5.5 |
| 81.76 | 41 | | 1470 | 7.5 | 86 | 39 | 1470 | 7.0 | 86 | 34 | 1470 | 6.2 | 86 |
| 70.43 | 48 | | 1470 | 8.6 | 86 | 45 | 1470 | 8.1 | 86 | 39 | 1470 | 7.1 | 86 |
| 64.27 | 52 | | 1470 | 9.4 | 86 | 49 | 1470 | 8.9 | 86 | 43 | 1470 | 7.8 | 86 |
| 57.00 | 59 | | 1470 | 10.6 | 87 | 56 | 1470 | 10.0 | 87 | 49 | 1470 | 8.8 | 86 |
| 47.91 | 70 | | 1470 | 12.6 | 87 | 66 | 1470 | 11.8 | 87 | 58 | 1470 | 10.4 | 87 |
| 44.03 | 77 | | 1470 | 13.6 | 87 | 72 | 1470 | 12.8 | 87 | 63 | 1470 | 11.3 | 87 |
| 39.10 | 86 | | 1300 | 13.6 | 87 | 81 | 1400 | 13.8 | 87 | 71 | 1470 | 12.6 | 87 |
| 34.96 | 97 | | 1140 | 13.4 | 87 | 91 | 1240 | 13.6 | 87 | 80 | 1440 | 13.8 | 87 |
| 31.43 | 108 | | 1000 | 13.1 | 87 | 101 | 1090 | 13.4 | 87 | 89 | 1290 | 13.8 | 87 |
| 27.28 | 124 | | 810 | 12.3 | 86 | 117 | 910 | 12.9 | 87 | 102 | 1110 | 13.7 | 87 |
| 24.43 | 139 | | 660 | 11.3 | 85 | 130 | 775 | 12.4 | 86 | 114 | 960 | 13.3 | 87 |
| 20.27 | 167 | | 395 | 8.4 | 83 | 157 | 490 | 9.6 | 84 | 138 | 755 | 12.7 | 86 |
| 25.50 | 34/6 | | 133 | 990 | 15.2* | 91 | 125 | 990 | 14.3 | 91 | 109 | 990 | 12.6 |
| 21.43 | | 158 | 990 | 18.1* | 91 | 149 | 990 | 17.0* | 91 | 130 | 990 | 14.9 | 91 |
| 19.70 | | 172 | 990 | 20* | 91 | 162 | 990 | 19* | 91 | 142 | 990 | 16.2* | 91 |
| 17.49 | | 194 | 870 | 20* | 90 | 182 | 930 | 20* | 91 | 160 | 990 | 18.3* | 91 |
| 15.64 | | 217 | 760 | 19* | 90 | 204 | 830 | 20* | 90 | 179 | 960 | 20* | 91 |
| 14.06 | | 241 | 660 | 19* | 90 | 227 | 725 | 19* | 90 | 199 | 860 | 20* | 91 |
| 12.21 | | 278 | 540 | 17.6* | 90 | 262 | 605 | 18.5* | 90 | 229 | 730 | 19* | 90 |
| 10.93 | | 311 | 440 | 16.0* | 89 | 292 | 510 | 17.4* | 90 | 256 | 645 | 19* | 90 |
| 9.07 | | 374 | 255 | 11.5 | 87 | 352 | 325 | 13.5 | 89 | 308 | 500 | 18.0* | 90 |
| 7.88 | | 431 | 200 | 10.5 | 86 | 406 | 230 | 11.2 | 87 | 355 | 375 | 15.6* | 89 |

* P_{Mot_max} = 15 kW

2200 - 1400 min⁻¹

| i _{tot} | i _s | n _e = 2200 min ⁻¹ | | | | n _e = 1700 min ⁻¹ | | | | n _e = 1400 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 288.00 | 40/1 | 7.6 | 2210 | 2.6 | 69 | 5.9 | 2280 | 2.1 | 67 | 4.8 | 2280 | 1.7 | 66 |
| 258.18 | | 8.5 | 2170 | 2.8 | 69 | 6.5 | 2260 | 2.3 | 68 | 5.4 | 2280 | 1.9 | 67 |
| 222.40 | | 9.8 | 2130 | 3.2 | 70 | 7.6 | 2210 | 2.6 | 69 | 6.2 | 2280 | 2.2 | 68 |
| 202.96 | | 10 | 2080 | 3.4 | 70 | 8.3 | 2190 | 2.8 | 69 | 6.8 | 2260 | 2.4 | 68 |
| 180.00 | | 12 | 2020 | 3.7 | 71 | 9.4 | 2130 | 3.0 | 70 | 7.7 | 2210 | 2.6 | 69 |
| 151.30 | | 14 | 1940 | 4.1 | 71 | 11 | 2060 | 3.4 | 71 | 9.2 | 2150 | 3.0 | 70 |
| 139.05 | | 15 | 1880 | 4.4 | 72 | 12 | 2020 | 3.6 | 71 | 10 | 2100 | 3.2 | 70 |
| 123.48 | | 17 | 1820 | 4.7 | 72 | 13 | 1960 | 4.0 | 71 | 11 | 2060 | 3.5 | 71 |
| 110.40 | | 19 | 1770 | 5.1 | 72 | 15 | 1900 | 4.3 | 72 | 12 | 2000 | 3.7 | 71 |
| 99.26 | | 22 | 1700 | 5.4 | 73 | 17 | 1840 | 4.6 | 72 | 14 | 1960 | 4.0 | 72 |
| 86.15 | | 25 | 1620 | 5.9 | 73 | 19 | 1770 | 5.0 | 73 | 16 | 1880 | 4.4 | 72 |
| 77.14 | | 28 | 1540 | 6.3 | 73 | 22 | 1700 | 5.4 | 73 | 18 | 1820 | 4.8 | 73 |
| 64.00 | | 34 | 1360 | 6.7 | 73 | 26 | 1580 | 6.0 | 74 | 21 | 1700 | 5.3 | 73 |
| 91.20 | | 38/3 | 24 | 1540 | 4.6 | 85 | 18 | 1520 | 3.5 | 84 | 15 | 1510 | 2.9 |
| 81.76 | 26 | | 1600 | 5.3 | 85 | 20 | 1600 | 4.1 | 84 | 17 | 1600 | 3.4 | 84 |
| 70.43 | 31 | | 1600 | 6.1 | 86 | 24 | 1600 | 4.8 | 85 | 19 | 1600 | 3.9 | 84 |
| 64.27 | 34 | | 1600 | 6.7 | 86 | 26 | 1600 | 5.2 | 85 | 21 | 1600 | 4.3 | 85 |
| 57.00 | 38 | | 1600 | 7.5 | 86 | 29 | 1600 | 5.8 | 86 | 24 | 1600 | 4.8 | 85 |
| 47.91 | 45 | | 1600 | 8.9 | 87 | 35 | 1600 | 6.9 | 86 | 29 | 1600 | 5.7 | 86 |
| 44.03 | 49 | | 1600 | 9.7 | 87 | 38 | 1600 | 7.5 | 86 | 31 | 1600 | 6.2 | 86 |
| 39.10 | 56 | | 1600 | 10.8 | 87 | 43 | 1600 | 8.4 | 87 | 35 | 1600 | 7.0 | 86 |
| 34.96 | 62 | | 1600 | 12.1 | 87 | 48 | 1600 | 9.4 | 87 | 40 | 1600 | 7.8 | 87 |
| 31.43 | 69 | | 1600 | 13.4 | 88 | 54 | 1600 | 10.4 | 87 | 44 | 1600 | 8.6 | 87 |
| 27.28 | 80 | | 1450 | 14.0 | 88 | 62 | 1600 | 11.9 | 88 | 51 | 1600 | 9.9 | 87 |
| 24.43 | 90 | | 1310 | 14.1 | 88 | 69 | 1600 | 13.3 | 88 | 57 | 1600 | 11.0 | 87 |
| 20.27 | 108 | | 1080 | 14.0 | 88 | 83 | 1420 | 14.2 | 88 | 69 | 1600 | 13.2 | 88 |
| 25.50 | 34/6 | | 86 | 1240 | 12.4 | 91 | 66 | 1240 | 9.6 | 90 | 54 | 1240 | 7.9 |
| 21.43 | | 102 | 1240 | 14.6 | 91 | 79 | 1240 | 11.4 | 91 | 65 | 1240 | 9.4 | 90 |
| 19.70 | | 111 | 1240 | 15.9* | 91 | 86 | 1240 | 12.3 | 91 | 71 | 1240 | 10.2 | 91 |
| 17.49 | | 125 | 1240 | 17.9* | 91 | 97 | 1240 | 13.9 | 91 | 80 | 1240 | 11.4 | 91 |
| 15.64 | | 140 | 1230 | 20* | 91 | 108 | 1240 | 15.5* | 91 | 89 | 1240 | 12.8 | 91 |
| 14.06 | | 156 | 1110 | 20* | 91 | 120 | 1240 | 17.2* | 91 | 99 | 1240 | 14.2 | 91 |
| 12.21 | | 180 | 970 | 20* | 91 | 139 | 1240 | 20* | 91 | 114 | 1240 | 16.3* | 91 |
| 10.93 | | 201 | 870 | 20* | 91 | 155 | 1130 | 20* | 91 | 128 | 1240 | 18.2* | 91 |
| 9.07 | | 242 | 720 | 20* | 91 | 187 | 950 | 20* | 91 | 154 | 1140 | 20* | 91 |
| 7.88 | | 279 | 605 | 20* | 90 | 215 | 830 | 21* | 91 | 177 | 1010 | 21* | 91 |

* P_{Mot_max} = 15 kW

1100 - 700 min⁻¹

| i _{tot} | i _s | n _e = 1100 min ⁻¹ | | | | n _e = 900 min ⁻¹ | | | | n _e = 700 min ⁻¹ | | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 288.00 | 40/1 | 3.8 | 2400 | 1.5 | 65 | 3.1 | 2450 | 1.3 | 64 | 2.4 | 2480 | 1.0 | 63 | |
| 258.18 | | 4.2 | 2380 | 1.6 | 66 | 3.4 | 2430 | 1.4 | 65 | 2.7 | 2470 | 1.1 | 63 | |
| 222.40 | | 4.9 | 2350 | 1.8 | 67 | 4.0 | 2400 | 1.6 | 66 | 3.1 | 2450 | 1.3 | 64 | |
| 202.96 | | 5.4 | 2330 | 2.0 | 67 | 4.4 | 2380 | 1.7 | 66 | 3.4 | 2430 | 1.4 | 65 | |
| 180.00 | | 6.1 | 2280 | 2.2 | 68 | 5.0 | 2350 | 1.8 | 67 | 3.8 | 2400 | 1.5 | 65 | |
| 151.30 | | 7.2 | 2240 | 2.5 | 69 | 5.9 | 2310 | 2.1 | 68 | 4.6 | 2350 | 1.7 | 67 | |
| 139.05 | | 7.9 | 2190 | 2.6 | 69 | 6.4 | 2260 | 2.2 | 68 | 5.0 | 2330 | 1.8 | 67 | |
| 123.48 | | 8.9 | 2150 | 2.9 | 70 | 7.2 | 2240 | 2.5 | 69 | 5.6 | 2310 | 2.0 | 68 | |
| 110.40 | | 9.9 | 2110 | 3.1 | 70 | 8.1 | 2190 | 2.7 | 70 | 6.3 | 2280 | 2.2 | 68 | |
| 99.26 | | 11 | 2070 | 3.4 | 71 | 9.0 | 2150 | 2.9 | 70 | 7.0 | 2240 | 2.4 | 69 | |
| 86.15 | | 12 | 2000 | 3.7 | 72 | 10 | 2090 | 3.2 | 71 | 8.1 | 2190 | 2.7 | 70 | |
| 77.14 | | 14 | 1940 | 4.0 | 72 | 11 | 2040 | 3.5 | 71 | 9.0 | 2150 | 2.9 | 70 | |
| 64.00 | | 17 | 1840 | 4.5 | 73 | 14 | 1960 | 4.0 | 72 | 10 | 2070 | 3.3 | 71 | |
| 91.20 | | 38/3 | 12 | 1490 | 2.3 | 83 | 9.8 | 1480 | 1.9 | 82 | 7.6 | 1460 | 1.4 | 81 |
| 81.76 | | | 13 | 1760 | 3.0 | 83 | 11 | 1760 | 2.5 | 83 | 8.5 | 1760 | 1.9 | 82 |
| 70.43 | 15 | | 1760 | 3.4 | 84 | 12 | 1760 | 2.8 | 83 | 9.9 | 1760 | 2.2 | 82 | |
| 64.27 | 17 | | 1760 | 3.8 | 84 | 14 | 1760 | 3.1 | 84 | 10 | 1760 | 2.4 | 83 | |
| 57.00 | 19 | | 1760 | 4.2 | 85 | 15 | 1760 | 3.5 | 84 | 12 | 1760 | 2.7 | 83 | |
| 47.91 | 22 | | 1760 | 5.0 | 85 | 18 | 1760 | 4.1 | 85 | 14 | 1760 | 3.2 | 84 | |
| 44.03 | 24 | | 1760 | 5.4 | 85 | 20 | 1760 | 4.4 | 85 | 15 | 1760 | 3.5 | 84 | |
| 39.10 | 28 | | 1760 | 6.0 | 86 | 23 | 1760 | 5.0 | 85 | 17 | 1760 | 3.9 | 85 | |
| 34.96 | 31 | | 1760 | 6.7 | 86 | 25 | 1760 | 5.5 | 86 | 20 | 1760 | 4.3 | 85 | |
| 31.43 | 34 | | 1760 | 7.5 | 86 | 28 | 1760 | 6.1 | 86 | 22 | 1760 | 4.8 | 85 | |
| 27.28 | 40 | | 1760 | 8.6 | 87 | 32 | 1760 | 7.0 | 86 | 25 | 1760 | 5.5 | 86 | |
| 24.43 | 45 | | 1760 | 9.5 | 87 | 36 | 1760 | 7.8 | 87 | 28 | 1760 | 6.1 | 86 | |
| 20.27 | 54 | | 1760 | 11.4 | 88 | 44 | 1760 | 9.4 | 87 | 34 | 1760 | 7.3 | 87 | |
| 25.50 | 34/6 | | 43 | 1340 | 6.7 | 90 | 35 | 1340 | 5.6 | 89 | 27 | 1340 | 4.3 | 89 |
| 21.43 | | | 51 | 1340 | 8.0 | 90 | 41 | 1340 | 6.6 | 90 | 32 | 1340 | 5.1 | 89 |
| 19.70 | | 55 | 1340 | 8.7 | 90 | 45 | 1340 | 7.1 | 90 | 35 | 1340 | 5.6 | 89 | |
| 17.49 | | 62 | 1340 | 9.8 | 91 | 51 | 1340 | 8.0 | 90 | 40 | 1340 | 6.3 | 90 | |
| 15.64 | | 70 | 1340 | 10.9 | 91 | 57 | 1340 | 8.9 | 90 | 44 | 1340 | 7.0 | 90 | |
| 14.06 | | 78 | 1340 | 12.1 | 91 | 64 | 1340 | 9.9 | 91 | 49 | 1340 | 7.8 | 90 | |
| 12.21 | | 90 | 1340 | 13.9 | 91 | 73 | 1340 | 11.4 | 91 | 57 | 1340 | 8.9 | 90 | |
| 10.93 | | 100 | 1340 | 15.5* | 91 | 82 | 1340 | 12.7 | 91 | 64 | 1340 | 9.9 | 91 | |
| 9.07 | | 121 | 1340 | 19* | 91 | 99 | 1340 | 15.2* | 91 | 77 | 1340 | 11.9 | 91 | |
| 7.88 | | 139 | 1260 | 20* | 92 | 114 | 1340 | 17.5* | 92 | 88 | 1340 | 13.7 | 91 | |

* P_{Mot_max} = 15 kW

500 - 10 min⁻¹

| i _{tot} | i _s | n _e = 500 min ⁻¹ | | | | n _e = 250 min ⁻¹ | | | | n _e = 10 min ⁻¹ | | | |
|------------------|----------------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|---------------------------------------|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 288.00 | 40/1 | 1.7 | 2500 | 0.75 | 61 | 0.86 | 2500 | 0.39 | 58 | 0.03 | 2500 | <0.05 | 58 |
| 258.18 | | 1.9 | 2500 | 0.83 | 61 | 0.96 | 2500 | 0.44 | 58 | 0.03 | 2500 | <0.05 | 58 |
| 222.40 | | 2.2 | 2500 | 0.95 | 62 | 1.1 | 2500 | 0.50 | 59 | 0.04 | 2500 | <0.05 | 58 |
| 202.96 | | 2.4 | 2480 | 1.0 | 63 | 1.2 | 2500 | 0.55 | 59 | 0.04 | 2500 | <0.05 | 58 |
| 180.00 | | 2.7 | 2480 | 1.1 | 64 | 1.3 | 2500 | 0.61 | 60 | 0.05 | 2500 | <0.05 | 58 |
| 151.30 | | 3.3 | 2430 | 1.3 | 65 | 1.6 | 2500 | 0.71 | 61 | 0.06 | 2500 | <0.05 | 58 |
| 139.05 | | 3.5 | 2430 | 1.4 | 65 | 1.7 | 2500 | 0.77 | 61 | 0.07 | 2500 | <0.05 | 58 |
| 123.48 | | 4.0 | 2400 | 1.5 | 66 | 2.0 | 2500 | 0.86 | 62 | 0.08 | 2500 | <0.05 | 58 |
| 110.40 | | 4.5 | 2380 | 1.7 | 67 | 2.2 | 2500 | 0.95 | 63 | 0.09 | 2500 | <0.05 | 58 |
| 99.26 | | 5.0 | 2330 | 1.8 | 67 | 2.5 | 2470 | 1.0 | 63 | 0.10 | 2470 | <0.05 | 58 |
| 86.15 | | 5.8 | 2310 | 2.1 | 68 | 2.9 | 2450 | 1.2 | 64 | 0.11 | 2450 | 0.05 | 59 |
| 77.14 | | 6.4 | 2260 | 2.2 | 69 | 3.2 | 2430 | 1.3 | 65 | 0.12 | 2430 | 0.06 | 59 |
| 64.00 | | 7.8 | 2220 | 2.6 | 70 | 3.9 | 2400 | 1.5 | 66 | 0.15 | 2400 | 0.07 | 59 |
| 91.20 | | 38/3 | 5.4 | 1450 | 1.0 | 80 | 2.7 | 1390 | 0.51 | 78 | 0.10 | 1390 | <0.05 |
| 81.76 | 6.1 | | 1960 | 1.6 | 81 | 3.0 | 1880 | 0.77 | 78 | 0.12 | 1880 | <0.05 | 78 |
| 70.43 | 7.0 | | 1980 | 1.8 | 81 | 3.5 | 1980 | 0.93 | 79 | 0.14 | 1980 | <0.05 | 78 |
| 64.27 | 7.7 | | 1980 | 2.0 | 82 | 3.8 | 1980 | 1.0 | 79 | 0.15 | 1980 | <0.05 | 78 |
| 57.00 | 8.7 | | 1980 | 2.2 | 82 | 4.3 | 1980 | 1.1 | 80 | 0.17 | 1980 | <0.05 | 78 |
| 47.91 | 10 | | 1980 | 2.6 | 83 | 5.2 | 1980 | 1.3 | 80 | 0.2 | 1980 | 0.06 | 78 |
| 44.03 | 11 | | 1980 | 2.8 | 83 | 5.6 | 1980 | 1.5 | 81 | 0.22 | 1980 | 0.06 | 78 |
| 39.10 | 12 | | 1980 | 3.2 | 84 | 6.3 | 1980 | 1.6 | 81 | 0.25 | 1980 | 0.07 | 79 |
| 34.96 | 14 | | 1980 | 3.5 | 84 | 7.1 | 1980 | 1.8 | 82 | 0.28 | 1980 | 0.08 | 79 |
| 31.43 | 15 | | 1980 | 3.9 | 84 | 7.9 | 1980 | 2.0 | 82 | 0.31 | 1980 | 0.08 | 79 |
| 27.28 | 18 | | 1980 | 4.5 | 85 | 9.1 | 1980 | 2.3 | 83 | 0.36 | 1980 | 0.10 | 79 |
| 24.43 | 20 | | 1980 | 5.0 | 85 | 10 | 1980 | 2.6 | 83 | 0.40 | 1980 | 0.11 | 79 |
| 20.27 | 24 | | 1980 | 5.9 | 86 | 12 | 1980 | 3.1 | 84 | 0.49 | 1980 | 0.13 | 79 |
| 25.50 | 34/6 | | 19 | 1430 | 3.3 | 88 | 9.8 | 1390 | 1.7 | 86 | 0.39 | 1390 | 0.07 |
| 21.43 | | 23 | 1420 | 3.9 | 88 | 11 | 1510 | 2.1 | 87 | 0.46 | 1510 | 0.09 | 85 |
| 19.70 | | 25 | 1410 | 4.2 | 89 | 12 | 1570 | 2.4 | 87 | 0.50 | 1570 | 0.10 | 85 |
| 17.49 | | 28 | 1390 | 4.7 | 89 | 14 | 1570 | 2.7 | 87 | 0.57 | 1570 | 0.11 | 85 |
| 15.64 | | 31 | 1390 | 5.2 | 89 | 15 | 1540 | 2.9 | 87 | 0.63 | 1540 | 0.12 | 85 |
| 14.06 | | 35 | 1390 | 5.8 | 90 | 17 | 1510 | 3.2 | 88 | 0.71 | 1510 | 0.13 | 85 |
| 12.21 | | 40 | 1390 | 6.6 | 90 | 20 | 1460 | 3.5 | 88 | 0.81 | 1460 | 0.15 | 85 |
| 10.93 | | 45 | 1390 | 7.4 | 90 | 22 | 1430 | 3.9 | 89 | 0.91 | 1430 | 0.16 | 85 |
| 9.07 | | 55 | 1410 | 9.0 | 91 | 27 | 1390 | 4.5 | 89 | 1.1 | 1390 | 0.19 | 85 |
| 7.88 | | 63 | 1410 | 10.3 | 91 | 31 | 1390 | 5.2 | 89 | 1.2 | 1390 | 0.22 | 85 |

11.17 Technical data of S., SF., SA., SAF 97

3400 - 2800 min⁻¹

| i _{tot} | i _s | n _e = 3400 min ⁻¹ | | | | n _e = 3200 min ⁻¹ | | | | n _e = 2800 min ⁻¹ | | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 286.40 | 40/1 | 11 | 3520 | 6.0 | 73 | 11 | 3590 | 5.8 | 73 | 9.7 | 3700 | 5.2 | 72 | |
| 262.22 | | 12 | 3450 | 6.4 | 73 | 12 | 3520 | 6.2 | 73 | 10 | 3630 | 5.6 | 73 | |
| 231.67 | | 14 | 3310 | 6.9 | 73 | 13 | 3380 | 6.7 | 73 | 12 | 3520 | 6.1 | 73 | |
| 196.52 | | 17 | 3120 | 7.7 | 74 | 16 | 3210 | 7.4 | 74 | 14 | 3350 | 6.8 | 73 | |
| 180.95 | | 18 | 3030 | 8.1 | 74 | 17 | 3120 | 7.8 | 74 | 15 | 3250 | 7.2 | 74 | |
| 161.74 | | 21 | 2910 | 8.7 | 74 | 19 | 2970 | 8.3 | 74 | 17 | 3120 | 7.7 | 74 | |
| 145.60 | | 23 | 2760 | 9.1 | 74 | 21 | 2850 | 8.9 | 74 | 19 | 3000 | 8.2 | 74 | |
| 131.85 | | 25 | 2660 | 9.7 | 74 | 24 | 2740 | 9.4 | 74 | 21 | 2880 | 8.6 | 74 | |
| 116.92 | | 29 | 2320 | 9.6 | 74 | 27 | 2550 | 9.8 | 74 | 23 | 2740 | 9.2 | 74 | |
| 105.71 | | 32 | 1980 | 9.1 | 73 | 30 | 2210 | 9.5 | 74 | 26 | 2630 | 9.8 | 74 | |
| 89.60 | | 37 | 1280 | 7.3 | 70 | 35 | 1670 | 8.6 | 72 | 31 | 2210 | 9.8 | 74 | |
| 78.26 | | 43 | 920 | 6.2 | 67 | 40 | 1040 | 6.5 | 69 | 35 | 1770 | 9.1 | 73 | |
| 65.45 | | 51 | 675 | 5.7 | 64 | 48 | 775 | 6.0 | 66 | 42 | 1030 | 6.7 | 69 | |
| 80.85 | | 37/3 | 42 | 3150 | 15.7 | 88 | 39 | 3150 | 14.8 | 88 | 34 | 3150 | 13.0 | 88 |
| 71.43 | | | 47 | 3090 | 17.4 | 88 | 44 | 3150 | 16.8 | 88 | 39 | 3150 | 14.7 | 88 |
| 60.59 | | | 56 | 2910 | 19 | 88 | 52 | 2970 | 19 | 88 | 46 | 3120 | 17.1 | 88 |
| 55.79 | | | 60 | 2820 | 20 | 89 | 57 | 2880 | 20 | 89 | 50 | 3030 | 18.0 | 88 |
| 49.87 | | | 68 | 2710 | 22 | 89 | 64 | 2760 | 21 | 89 | 56 | 2910 | 19 | 89 |
| 44.89 | 75 | | 2430 | 22 | 89 | 71 | 2630 | 22 | 89 | 62 | 2790 | 21 | 89 | |
| 40.65 | 83 | | 2170 | 22 | 88 | 78 | 2350 | 22 | 89 | 68 | 2680 | 22 | 89 | |
| 36.05 | 94 | | 1830 | 21 | 88 | 88 | 2020 | 21 | 88 | 77 | 2400 | 22 | 89 | |
| 32.60 | 104 | | 1560 | 19 | 88 | 98 | 1760 | 21 | 88 | 85 | 2150 | 22 | 89 | |
| 27.63 | 123 | | 1010 | 15.2 | 86 | 115 | 1320 | 18.4 | 87 | 101 | 1740 | 21 | 88 | |
| 24.13 | 140 | | 725 | 12.7 | 84 | 132 | 820 | 13.4 | 85 | 116 | 1390 | 19 | 88 | |
| 26.39 | 35/6 | | 128 | 1750 | 26* | 92 | 121 | 1750 | 24* | 92 | 106 | 1750 | 21 | 92 |
| 23.59 | | | 144 | 1750 | 29* | 92 | 135 | 1750 | 27* | 92 | 118 | 1750 | 24* | 92 |
| 21.23 | | | 160 | 1750 | 32* | 91 | 150 | 1750 | 30* | 92 | 131 | 1750 | 26* | 92 |
| 19.23 | | | 176 | 1550 | 31* | 91 | 166 | 1680 | 32* | 91 | 145 | 1750 | 29* | 92 |
| 17.05 | | | 199 | 1320 | 30* | 91 | 187 | 1450 | 31* | 91 | 164 | 1730 | 33* | 92 |
| 15.42 | | | 220 | 1110 | 28* | 91 | 207 | 1260 | 30* | 91 | 181 | 1540 | 32* | 91 |
| 13.07 | | | 260 | 725 | 22 | 90 | 244 | 940 | 27* | 91 | 214 | 1240 | 31* | 91 |
| 11.41 | | 297 | 515 | 18.1 | 89 | 280 | 585 | 19 | 90 | 245 | 1000 | 28* | 91 | |
| 9.55 | | 356 | 375 | 16.0 | 87 | 335 | 435 | 17.3 | 88 | 293 | 580 | 20 | 90 | |
| 8.26 | | 411 | 290 | 14.6 | 86 | 387 | 335 | 15.6 | 87 | 338 | 455 | 18.1 | 89 | |

* P_{Mot_max} = 22 kW

2200 - 1400 min⁻¹

| i _{tot} | i _s | n _e = 2200 min ⁻¹ | | | | n _e = 1700 min ⁻¹ | | | | n _e = 1400 min ⁻¹ | | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 286.40 | 40/1 | 7.6 | 3920 | 4.4 | 72 | 5.9 | 4000 | 3.5 | 70 | 4.8 | 4000 | 3.0 | 69 | |
| 262.22 | | 8.3 | 3840 | 4.7 | 72 | 6.4 | 4000 | 3.8 | 71 | 5.3 | 4000 | 3.2 | 70 | |
| 231.67 | | 9.4 | 3770 | 5.2 | 72 | 7.3 | 3960 | 4.3 | 72 | 6.0 | 4000 | 3.6 | 71 | |
| 196.52 | | 11 | 3580 | 5.8 | 73 | 8.6 | 3840 | 4.8 | 72 | 7.1 | 4000 | 4.2 | 71 | |
| 180.95 | | 12 | 3510 | 6.1 | 73 | 9.3 | 3770 | 5.1 | 73 | 7.7 | 3920 | 4.4 | 72 | |
| 161.74 | | 13 | 3410 | 6.6 | 74 | 10 | 3650 | 5.5 | 73 | 8.6 | 3840 | 4.8 | 72 | |
| 145.60 | | 15 | 3270 | 7.0 | 74 | 11 | 3550 | 5.9 | 73 | 9.6 | 3730 | 5.2 | 73 | |
| 131.85 | | 16 | 3170 | 7.5 | 74 | 12 | 3440 | 6.3 | 74 | 10 | 3650 | 5.6 | 73 | |
| 116.92 | | 18 | 3020 | 8.0 | 74 | 14 | 3340 | 6.9 | 74 | 11 | 3510 | 6.0 | 74 | |
| 105.71 | | 20 | 2930 | 8.6 | 75 | 16 | 3210 | 7.3 | 74 | 13 | 3440 | 6.5 | 74 | |
| 89.60 | | 24 | 2730 | 9.4 | 75 | 18 | 3020 | 8.0 | 75 | 15 | 3240 | 7.1 | 74 | |
| 78.26 | | 28 | 2540 | 10.0 | 75 | 21 | 2870 | 8.7 | 75 | 17 | 3080 | 7.7 | 75 | |
| 65.45 | | 33 | 2120 | 10.0 | 75 | 25 | 2650 | 9.6 | 75 | 21 | 2900 | 8.6 | 75 | |
| 80.85 | | 37/3 | 27 | 3300 | 10.8 | 87 | 21 | 3270 | 8.3 | 87 | 17 | 3230 | 6.8 | 86 |
| 71.43 | 30 | | 3300 | 12.1 | 88 | 23 | 3300 | 9.4 | 87 | 19 | 3300 | 7.8 | 87 | |
| 60.59 | 36 | | 3300 | 14.3 | 88 | 28 | 3300 | 11.1 | 88 | 23 | 3300 | 9.2 | 87 | |
| 55.79 | 39 | | 3270 | 15.3 | 88 | 30 | 3300 | 12.0 | 88 | 25 | 3300 | 9.9 | 87 | |
| 49.87 | 44 | | 3170 | 16.6 | 88 | 34 | 3300 | 13.4 | 88 | 28 | 3300 | 11.1 | 88 | |
| 44.89 | 49 | | 3050 | 17.7 | 89 | 37 | 3300 | 14.8 | 88 | 31 | 3300 | 12.3 | 88 | |
| 40.65 | 54 | | 2950 | 19 | 89 | 41 | 3230 | 16.0 | 88 | 34 | 3300 | 13.5 | 88 | |
| 36.05 | 61 | | 2810 | 20 | 89 | 47 | 3110 | 17.3 | 89 | 38 | 3300 | 15.2 | 88 | |
| 32.60 | 67 | | 2700 | 21 | 89 | 52 | 2980 | 18.3 | 89 | 42 | 3200 | 16.3 | 89 | |
| 27.63 | 79 | | 2390 | 22 | 89 | 61 | 2810 | 20 | 89 | 50 | 3010 | 18.0 | 89 | |
| 24.13 | 91 | | 2060 | 22 | 89 | 70 | 2670 | 22 | 89 | 58 | 2870 | 20 | 89 | |
| 26.39 | 35/6 | | 83 | 2550 | 24* | 92 | 64 | 2600 | 19 | 92 | 53 | 2600 | 15.8 | 92 |
| 23.59 | | | 93 | 2450 | 26* | 92 | 72 | 2600 | 21 | 92 | 59 | 2600 | 17.6 | 92 |
| 21.23 | | | 103 | 2380 | 28* | 92 | 80 | 2570 | 23* | 92 | 65 | 2600 | 20 | 92 |
| 19.23 | | 114 | 2280 | 30* | 92 | 88 | 2500 | 25* | 92 | 72 | 2600 | 21 | 92 | |
| 17.05 | | 129 | 2170 | 32* | 92 | 99 | 2400 | 27* | 92 | 82 | 2570 | 24* | 92 | |
| 15.42 | | 142 | 2040 | 33* | 92 | 110 | 2300 | 29* | 92 | 90 | 2470 | 25* | 92 | |
| 13.07 | | 168 | 1720 | 33* | 92 | 130 | 2170 | 32* | 92 | 107 | 2330 | 28* | 92 | |
| 11.41 | | 192 | 1480 | 33* | 92 | 148 | 2000 | 34* | 92 | 122 | 2210 | 31* | 92 | |
| 9.55 | | 230 | 1200 | 32* | 91 | 178 | 1670 | 34* | 92 | 146 | 2040 | 34* | 92 | |
| 8.26 | | 266 | 980 | 30* | 91 | 205 | 1440 | 34* | 92 | 169 | 1770 | 34* | 92 | |

* P_{Mot_max} = 22 kW

1100 - 700 min⁻¹

| i _{tot} | i _s | n _e = 1100 min ⁻¹ | | | | n _e = 900 min ⁻¹ | | | | n _e = 700 min ⁻¹ | | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 286.40 | 40/1 | 3.8 | 4200 | 2.5 | 68 | 3.1 | 4200 | 2.1 | 67 | 2.4 | 4200 | 1.6 | 66 | |
| 262.22 | | 4.1 | 4200 | 2.7 | 69 | 3.4 | 4200 | 2.2 | 68 | 2.6 | 4200 | 1.8 | 66 | |
| 231.67 | | 4.7 | 4200 | 3.0 | 70 | 3.8 | 4200 | 2.5 | 68 | 3.0 | 4200 | 2.0 | 67 | |
| 196.52 | | 5.5 | 4160 | 3.5 | 70 | 4.5 | 4200 | 2.9 | 69 | 3.5 | 4200 | 2.3 | 68 | |
| 180.95 | | 6.0 | 4120 | 3.7 | 71 | 4.9 | 4200 | 3.1 | 70 | 3.8 | 4200 | 2.5 | 69 | |
| 161.74 | | 6.8 | 4030 | 4.0 | 71 | 5.5 | 4160 | 3.4 | 71 | 4.3 | 4200 | 2.8 | 69 | |
| 145.60 | | 7.5 | 3950 | 4.3 | 72 | 6.1 | 4080 | 3.7 | 71 | 4.8 | 4200 | 3.0 | 70 | |
| 131.85 | | 8.3 | 3880 | 4.7 | 72 | 6.8 | 4030 | 4.0 | 72 | 5.3 | 4200 | 3.3 | 70 | |
| 116.92 | | 9.4 | 3760 | 5.1 | 73 | 7.6 | 3910 | 4.4 | 72 | 5.9 | 4120 | 3.6 | 71 | |
| 105.71 | | 10 | 3650 | 5.4 | 73 | 8.5 | 3840 | 4.7 | 73 | 6.6 | 4030 | 3.9 | 72 | |
| 89.60 | | 12 | 3500 | 6.1 | 74 | 10 | 3690 | 5.3 | 73 | 7.8 | 3910 | 4.4 | 72 | |
| 78.26 | | 14 | 3370 | 6.7 | 74 | 11 | 3580 | 5.8 | 74 | 8.9 | 3800 | 4.9 | 73 | |
| 65.45 | | 16 | 3170 | 7.4 | 75 | 13 | 3400 | 6.6 | 75 | 10 | 3650 | 5.5 | 74 | |
| 80.85 | | 37/3 | 13 | 3230 | 5.4 | 86 | 11 | 3200 | 4.4 | 85 | 8.6 | 3170 | 3.4 | 84 |
| 71.43 | 15 | | 3600 | 6.7 | 86 | 12 | 3600 | 5.5 | 86 | 9.7 | 3600 | 4.4 | 85 | |
| 60.59 | 18 | | 3600 | 7.9 | 87 | 14 | 3600 | 6.5 | 86 | 11 | 3600 | 5.1 | 85 | |
| 55.79 | 19 | | 3600 | 8.6 | 87 | 16 | 3600 | 7.0 | 86 | 12 | 3600 | 5.5 | 86 | |
| 49.87 | 22 | | 3600 | 9.5 | 87 | 18 | 3600 | 7.8 | 87 | 14 | 3600 | 6.2 | 86 | |
| 44.89 | 24 | | 3600 | 10.6 | 88 | 20 | 3600 | 8.7 | 87 | 15 | 3600 | 6.8 | 86 | |
| 40.65 | 27 | | 3600 | 11.6 | 88 | 22 | 3600 | 9.6 | 87 | 17 | 3600 | 7.5 | 87 | |
| 36.05 | 30 | | 3530 | 12.8 | 88 | 24 | 3600 | 10.7 | 88 | 19 | 3600 | 8.4 | 87 | |
| 32.60 | 33 | | 3420 | 13.7 | 88 | 27 | 3600 | 11.8 | 88 | 21 | 3600 | 9.3 | 87 | |
| 27.63 | 39 | | 3260 | 15.4 | 89 | 32 | 3460 | 13.4 | 88 | 25 | 3600 | 10.9 | 88 | |
| 24.13 | 45 | | 3130 | 16.8 | 89 | 37 | 3320 | 14.7 | 89 | 29 | 3560 | 12.3 | 88 | |
| 26.39 | 35/6 | | 41 | 2650 | 12.7 | 91 | 34 | 2620 | 10.3 | 91 | 26 | 2620 | 8.0 | 91 |
| 23.59 | | | 46 | 2650 | 14.1 | 92 | 38 | 2650 | 11.6 | 91 | 29 | 2620 | 9.0 | 91 |
| 21.23 | | | 51 | 2650 | 15.7 | 92 | 42 | 2650 | 12.9 | 91 | 32 | 2620 | 9.9 | 91 |
| 19.23 | | 57 | 2650 | 17.3 | 92 | 46 | 2650 | 14.2 | 92 | 36 | 2620 | 11.0 | 91 | |
| 17.05 | | 64 | 2670 | 20 | 92 | 52 | 2650 | 16.0 | 92 | 41 | 2650 | 12.5 | 91 | |
| 15.42 | | 71 | 2670 | 22* | 92 | 58 | 2650 | 17.6 | 92 | 45 | 2650 | 13.8 | 92 | |
| 13.07 | | 84 | 2540 | 24* | 92 | 68 | 2670 | 21 | 92 | 53 | 2650 | 16.2 | 92 | |
| 11.41 | | 96 | 2420 | 26* | 92 | 78 | 2590 | 23* | 92 | 61 | 2650 | 18.5 | 92 | |
| 9.55 | | 115 | 2280 | 30* | 92 | 94 | 2440 | 26* | 93 | 73 | 2650 | 22 | 92 | |
| 8.26 | | 133 | 2140 | 32* | 92 | 108 | 2320 | 29* | 93 | 84 | 2540 | 24* | 93 | |

* P_{Mot_max} = 22 kW

500 - 10 min⁻¹

| i _{tot} | i _s | n _e = 500 min ⁻¹ | | | | n _e = 250 min ⁻¹ | | | | n _e = 10 min ⁻¹ | | | | |
|------------------|----------------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|---------------------------------------|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 286.40 | 40/1 | 1.7 | 4200 | 1.2 | 64 | 0.87 | 4200 | 0.64 | 60 | 0.03 | 4200 | <0.05 | 60 | |
| 262.22 | | 1.9 | 4200 | 1.3 | 64 | 0.95 | 4200 | 0.69 | 61 | 0.03 | 4200 | <0.05 | 60 | |
| 231.67 | | 2.1 | 4200 | 1.5 | 65 | 1 | 4200 | 0.77 | 61 | 0.04 | 4200 | <0.05 | 60 | |
| 196.52 | | 2.5 | 4200 | 1.7 | 66 | 1.2 | 4200 | 0.90 | 62 | 0.05 | 4200 | <0.05 | 60 | |
| 180.95 | | 2.7 | 4200 | 1.8 | 67 | 1.3 | 4200 | 0.97 | 63 | 0.05 | 4200 | <0.05 | 60 | |
| 161.74 | | 3 | 4200 | 2.0 | 67 | 1.5 | 4200 | 1.1 | 63 | 0.06 | 4200 | <0.05 | 60 | |
| 145.60 | | 3.4 | 4200 | 2.2 | 68 | 1.7 | 4200 | 1.2 | 64 | 0.06 | 4200 | 0.05 | 60 | |
| 131.85 | | 3.7 | 4200 | 2.4 | 69 | 1.8 | 4200 | 1.3 | 65 | 0.07 | 4200 | 0.06 | 60 | |
| 116.92 | | 4.2 | 4200 | 2.7 | 69 | 2.1 | 4200 | 1.4 | 65 | 0.08 | 4200 | 0.06 | 60 | |
| 105.71 | | 4.7 | 4200 | 3.0 | 70 | 2.3 | 4200 | 1.6 | 66 | 0.09 | 4200 | 0.07 | 60 | |
| 89.60 | | 5.5 | 4160 | 3.4 | 71 | 2.7 | 4200 | 1.8 | 67 | 0.11 | 4200 | 0.08 | 60 | |
| 78.26 | | 6.3 | 4080 | 3.8 | 72 | 3.1 | 4200 | 2.1 | 68 | 0.12 | 4200 | 0.09 | 60 | |
| 65.45 | | 7.6 | 3910 | 4.3 | 73 | 3.8 | 4200 | 2.4 | 69 | 0.15 | 4200 | 0.11 | 60 | |
| 80.85 | | 37/3 | 6.1 | 3110 | 2.4 | 83 | 3 | 3010 | 1.2 | 81 | 0.12 | 3010 | <0.05 | 80 |
| 71.43 | 6.9 | | 4200 | 3.7 | 84 | 3.4 | 4160 | 1.9 | 82 | 0.13 | 4160 | 0.08 | 80 | |
| 60.59 | 8.2 | | 4200 | 4.3 | 84 | 4.1 | 4080 | 2.1 | 82 | 0.16 | 4080 | 0.09 | 80 | |
| 55.79 | 8.9 | | 4200 | 4.7 | 85 | 4.4 | 4200 | 2.4 | 82 | 0.17 | 4200 | 0.10 | 80 | |
| 49.87 | 10 | | 4200 | 5.2 | 85 | 5 | 4200 | 2.7 | 83 | 0.20 | 4200 | 0.11 | 80 | |
| 44.89 | 11 | | 4160 | 5.7 | 86 | 5.5 | 4200 | 2.9 | 83 | 0.22 | 4200 | 0.12 | 80 | |
| 40.65 | 12 | | 4120 | 6.2 | 86 | 6.1 | 4200 | 3.2 | 84 | 0.24 | 4200 | 0.13 | 80 | |
| 36.05 | 13 | | 4080 | 6.9 | 86 | 6.9 | 4200 | 3.6 | 84 | 0.27 | 4200 | 0.15 | 80 | |
| 32.60 | 15 | | 3990 | 7.4 | 87 | 7.6 | 4200 | 4.0 | 84 | 0.30 | 4200 | 0.17 | 80 | |
| 27.63 | 18 | | 3910 | 8.5 | 87 | 9 | 4200 | 4.7 | 85 | 0.36 | 4200 | 0.20 | 80 | |
| 24.13 | 20 | | 3800 | 9.4 | 87 | 10 | 4200 | 5.3 | 85 | 0.41 | 4200 | 0.23 | 80 | |
| 26.39 | 35/6 | | 18 | 2590 | 5.7 | 90 | 9.4 | 2540 | 2.9 | 88 | 0.37 | 2540 | 0.12 | 86 |
| 23.59 | | | 21 | 2590 | 6.4 | 90 | 10 | 2540 | 3.2 | 88 | 0.42 | 2540 | 0.13 | 86 |
| 21.23 | | | 23 | 2590 | 7.1 | 90 | 11 | 2570 | 3.6 | 89 | 0.47 | 2570 | 0.15 | 86 |
| 19.23 | | 26 | 2620 | 7.9 | 91 | 13 | 2570 | 3.9 | 89 | 0.52 | 2570 | 0.16 | 86 | |
| 17.05 | | 29 | 2620 | 8.9 | 91 | 14 | 2570 | 4.4 | 89 | 0.58 | 2570 | 0.18 | 86 | |
| 15.42 | | 32 | 2620 | 9.8 | 91 | 16 | 2570 | 4.9 | 90 | 0.64 | 2570 | 0.20 | 86 | |
| 13.07 | | 38 | 2650 | 11.6 | 91 | 19 | 2590 | 5.8 | 90 | 0.76 | 2590 | 0.24 | 86 | |
| 11.41 | | 43 | 2650 | 13.3 | 92 | 21 | 2590 | 6.6 | 90 | 0.87 | 2590 | 0.27 | 87 | |
| 9.55 | | 52 | 2650 | 15.8 | 92 | 26 | 2620 | 7.9 | 91 | 1.0 | 2620 | 0.33 | 87 | |
| 8.26 | | 60 | 2650 | 18.2 | 92 | 30 | 2620 | 9.1 | 91 | 1.2 | 2620 | 0.38 | 87 | |

11.18 Technical data of S., SF., SA., SAF 37p

3400 – 2800 min⁻¹

| i _{tot} | i _s | n _e = 3400 min ⁻¹ | | | | n _e = 3200 min ⁻¹ | | | | n _e = 2800 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 157.43 | 38/1 | 21 | 94 | 0.31 | 69 | 20 | 94 | 0.29 | 69 | 17 | 94 | 0.26 | 68 |
| 144.40 | | 23 | 94 | 0.34 | 69 | 22 | 94 | 0.32 | 69 | 19 | 94 | 0.28 | 69 |
| 122.94 | | 27 | 89 | 0.37 | 69 | 26 | 91 | 0.36 | 69 | 22 | 95 | 0.33 | 69 |
| 106.00 | | 32 | 84 | 0.41 | 69 | 30 | 86 | 0.39 | 69 | 26 | 91 | 0.36 | 70 |
| 98.80 | | 34 | 81 | 0.42 | 69 | 32 | 83 | 0.41 | 69 | 28 | 88 | 0.38 | 70 |
| 86.36 | | 39 | 77 | 0.46 | 69 | 37 | 79 | 0.44 | 69 | 32 | 83 | 0.41 | 70 |
| 80.96 | | 41 | 75 | 0.48 | 69 | 39 | 77 | 0.46 | 69 | 34 | 81 | 0.42 | 70 |
| 71.44 | | 47 | 71 | 0.51 | 69 | 44 | 73 | 0.49 | 69 | 39 | 77 | 0.45 | 70 |
| 63.33 | | 53 | 62 | 0.51 | 68 | 50 | 69 | 0.53 | 69 | 44 | 73 | 0.49 | 70 |
| 53.83 | | 63 | 45 | 0.45 | 66 | 59 | 53 | 0.49 | 67 | 52 | 69 | 0.54 | 70 |
| 55.93 | 27/2 | 60 | 95 | 0.72 | 84 | 57 | 97 | 0.69 | 84 | 50 | 103 | 0.64 | 84 |
| 51.30 | | 66 | 91 | 0.75 | 84 | 62 | 94 | 0.73 | 84 | 54 | 99 | 0.67 | 84 |
| 43.68 | | 77 | 86 | 0.83 | 84 | 73 | 88 | 0.80 | 84 | 64 | 93 | 0.74 | 85 |
| 37.66 | | 90 | 81 | 0.91 | 84 | 84 | 83 | 0.87 | 84 | 74 | 87 | 0.80 | 85 |
| 35.10 | | 96 | 78 | 0.94 | 84 | 91 | 80 | 0.90 | 84 | 79 | 85 | 0.84 | 85 |
| 30.68 | | 110 | 73 | 1.0 | 84 | 104 | 76 | 0.98 | 84 | 91 | 80 | 0.90 | 85 |
| 28.76 | | 118 | 72 | 1.1 | 84 | 111 | 73 | 1.0 | 84 | 97 | 78 | 0.94 | 85 |
| 25.38 | | 133 | 62 | 1.0 | 84 | 126 | 69 | 1.1 | 84 | 110 | 74 | 1.0 | 85 |
| 22.50 | | 151 | 50 | 0.96 | 83 | 142 | 58 | 1.0 | 84 | 124 | 71 | 1.1 | 85 |
| 19.13 | | 177 | 37 | 0.85 | 81 | 167 | 42 | 0.90 | 82 | 146 | 58 | 1.1 | 84 |
| 19.89 | 24/5 | 170 | 69 | 1.4 | 91 | 160 | 70 | 1.3 | 91 | 140 | 72 | 1.2 | 91 |
| 18.24 | | 186 | 67 | 1.4 | 91 | 175 | 68 | 1.4 | 91 | 153 | 70 | 1.2 | 91 |
| 15.53 | | 218 | 57 | 1.4 | 91 | 206 | 59 | 1.4 | 91 | 180 | 68 | 1.4 | 91 |
| 13.39 | | 253 | 53 | 1.6* | 91 | 238 | 57 | 1.6* | 91 | 209 | 60 | 1.4 | 91 |
| 12.48 | | 272 | 53 | 1.7* | 91 | 256 | 55 | 1.6* | 91 | 224 | 58 | 1.5 | 91 |
| 10.91 | | 311 | 44 | 1.6* | 91 | 293 | 49 | 1.7* | 91 | 256 | 58 | 1.7* | 91 |
| 10.23 | | 332 | 40 | 1.5 | 90 | 312 | 44 | 1.6* | 91 | 273 | 54 | 1.7* | 91 |
| 9.02 | | 376 | 34 | 1.5 | 90 | 354 | 37 | 1.5 | 90 | 310 | 46 | 1.6* | 91 |
| 8.00 | | 425 | 26 | 1.3 | 89 | 400 | 32 | 1.5 | 90 | 350 | 39 | 1.6* | 90 |
| 6.80 | | 500 | 20 | 1.2 | 88 | 470 | 23 | 1.3 | 89 | 411 | 31 | 1.5 | 90 |
| 6.33 | 19/5 | 537 | 28 | 1.7* | 90 | 505 | 31 | 1.8* | 91 | 442 | 38 | 1.9* | 91 |
| 5.38 | | 631 | 22 | 1.6* | 90 | 594 | 24 | 1.7* | 90 | 520 | 31 | 1.9* | 91 |
| 4.86 | | 699 | 19 | 1.6* | 89 | 658 | 21 | 1.6* | 90 | 576 | 27 | 1.8* | 91 |
| 3.97 | | 856 | 14 | 1.4 | 88 | 806 | 16 | 1.5 | 89 | 705 | 20 | 1.6* | 90 |

* P_{Mot_max} = 1.5 kW

2200 - 1400 min⁻¹

| i _{tot} | i _s | n _e = 2200 min ⁻¹ | | | | n _e = 1700 min ⁻¹ | | | | n _e = 1400 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 157.43 | 38/1 | 13 | 94 | 0.20 | 67 | 10 | 94 | 0.16 | 66 | 8.8 | 94 | 0.14 | 64 |
| 144.40 | | 15 | 95 | 0.22 | 68 | 11 | 95 | 0.18 | 67 | 9.6 | 95 | 0.15 | 65 |
| 122.94 | | 17 | 96 | 0.26 | 69 | 13 | 96 | 0.21 | 68 | 11 | 96 | 0.17 | 67 |
| 106.00 | | 20 | 97 | 0.30 | 69 | 16 | 97 | 0.24 | 69 | 13 | 97 | 0.20 | 68 |
| 98.80 | | 22 | 97 | 0.32 | 70 | 17 | 97 | 0.25 | 69 | 14 | 97 | 0.21 | 68 |
| 86.36 | | 25 | 92 | 0.35 | 70 | 19 | 98 | 0.29 | 70 | 16 | 98 | 0.24 | 69 |
| 80.96 | | 27 | 90 | 0.37 | 70 | 20 | 99 | 0.31 | 70 | 17 | 99 | 0.26 | 70 |
| 71.44 | | 30 | 85 | 0.39 | 70 | 23 | 95 | 0.34 | 70 | 19 | 100 | 0.29 | 70 |
| 63.33 | | 34 | 81 | 0.42 | 70 | 26 | 91 | 0.36 | 71 | 22 | 98 | 0.32 | 71 |
| 53.83 | | 40 | 76 | 0.46 | 70 | 31 | 85 | 0.40 | 71 | 26 | 92 | 0.35 | 71 |
| 55.93 | 27/2 | 39 | 104 | 0.51 | 84 | 30 | 104 | 0.40 | 83 | 25 | 104 | 0.33 | 82 |
| 51.30 | | 42 | 104 | 0.55 | 84 | 33 | 104 | 0.43 | 84 | 27 | 104 | 0.36 | 83 |
| 43.68 | | 50 | 103 | 0.64 | 85 | 38 | 105 | 0.51 | 84 | 32 | 105 | 0.42 | 84 |
| 37.66 | | 58 | 97 | 0.70 | 85 | 45 | 105 | 0.59 | 85 | 37 | 105 | 0.49 | 84 |
| 35.10 | | 62 | 94 | 0.73 | 85 | 48 | 105 | 0.63 | 85 | 39 | 105 | 0.52 | 84 |
| 30.68 | | 71 | 89 | 0.79 | 85 | 55 | 99 | 0.68 | 85 | 45 | 105 | 0.59 | 85 |
| 28.76 | | 76 | 87 | 0.82 | 85 | 59 | 97 | 0.71 | 85 | 48 | 105 | 0.63 | 85 |
| 25.38 | | 86 | 82 | 0.88 | 85 | 66 | 92 | 0.76 | 85 | 55 | 100 | 0.68 | 85 |
| 22.50 | | 97 | 78 | 0.94 | 85 | 75 | 87 | 0.81 | 85 | 62 | 95 | 0.73 | 85 |
| 19.13 | | 115 | 73 | 1.0 | 85 | 88 | 82 | 0.89 | 85 | 73 | 89 | 0.80 | 86 |
| 19.89 | 24/5 | 110 | 74 | 0.94 | 91 | 85 | 77 | 0.76 | 91 | 70 | 78 | 0.64 | 90 |
| 18.24 | | 120 | 73 | 1.0 | 91 | 93 | 76 | 0.82 | 91 | 76 | 78 | 0.69 | 90 |
| 15.53 | | 141 | 72 | 1.2 | 91 | 109 | 74 | 0.93 | 91 | 90 | 76 | 0.79 | 91 |
| 13.39 | | 164 | 70 | 1.3 | 91 | 126 | 74 | 1.1 | 91 | 104 | 75 | 0.90 | 91 |
| 12.48 | | 176 | 68 | 1.4 | 91 | 136 | 72 | 1.1 | 91 | 112 | 74 | 0.95 | 91 |
| 10.91 | | 201 | 63 | 1.5 | 91 | 155 | 70 | 1.2 | 91 | 128 | 73 | 1.1 | 91 |
| 10.23 | | 215 | 59 | 1.5 | 91 | 166 | 67 | 1.3 | 91 | 136 | 73 | 1.1 | 91 |
| 9.02 | | 243 | 55 | 1.5 | 91 | 188 | 64 | 1.4 | 92 | 155 | 70 | 1.2 | 92 |
| 8.00 | | 275 | 50 | 1.6* | 91 | 212 | 56 | 1.4 | 91 | 175 | 66 | 1.3 | 92 |
| 6.80 | | 323 | 45 | 1.7* | 91 | 250 | 52 | 1.5 | 91 | 205 | 60 | 1.4 | 92 |
| 6.33 | 19/5 | 347 | 44 | 1.7* | 92 | 268 | 49 | 1.5 | 92 | 221 | 56 | 1.4 | 92 |
| 5.38 | | 408 | 40 | 1.9* | 92 | 315 | 47 | 1.7* | 92 | 260 | 51 | 1.5 | 92 |
| 4.86 | | 452 | 36 | 1.9* | 92 | 349 | 43 | 1.7* | 92 | 288 | 48 | 1.6* | 92 |
| 3.97 | | 554 | 31 | 2.0* | 91 | 428 | 40 | 1.9* | 92 | 352 | 44 | 1.8* | 92 |

* P_{Mot,max} = 1.5 kW

1100 - 700 min⁻¹

| i _{tot} | i _s | n _e = 1100 min ⁻¹ | | | | n _e = 900 min ⁻¹ | | | | n _e = 700 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 157.43 | 38/1 | 6.9 | 94 | 0.11 | 62 | 5.7 | 95 | 0.09 | 60 | 4.4 | 95 | 0.08 | 58 |
| 144.40 | | 7.6 | 95 | 0.12 | 63 | 6.2 | 96 | 0.10 | 61 | 4.8 | 96 | 0.08 | 59 |
| 122.94 | | 8.9 | 96 | 0.14 | 65 | 7.3 | 97 | 0.12 | 63 | 5.6 | 97 | 0.10 | 61 |
| 106.00 | | 10 | 97 | 0.16 | 66 | 8.4 | 98 | 0.13 | 65 | 6.6 | 98 | 0.11 | 62 |
| 98.80 | | 11 | 97 | 0.17 | 67 | 9.1 | 98 | 0.14 | 65 | 7.0 | 98 | 0.12 | 63 |
| 86.36 | | 12 | 98 | 0.19 | 68 | 10 | 99 | 0.16 | 67 | 8.1 | 99 | 0.13 | 65 |
| 80.96 | | 13 | 99 | 0.21 | 68 | 11 | 99 | 0.17 | 67 | 8.6 | 99 | 0.14 | 65 |
| 71.44 | | 15 | 100 | 0.23 | 69 | 12 | 100 | 0.19 | 68 | 9.7 | 100 | 0.15 | 67 |
| 63.33 | | 17 | 100 | 0.26 | 70 | 14 | 101 | 0.22 | 69 | 11 | 101 | 0.17 | 68 |
| 53.83 | | 20 | 101 | 0.30 | 71 | 16 | 102 | 0.25 | 70 | 13 | 102 | 0.20 | 69 |
| 55.93 | 27/2 | 19 | 104 | 0.26 | 81 | 16 | 104 | 0.22 | 80 | 12 | 104 | 0.17 | 78 |
| 51.30 | | 21 | 104 | 0.29 | 82 | 17 | 104 | 0.24 | 81 | 13 | 104 | 0.19 | 79 |
| 43.68 | | 25 | 105 | 0.34 | 83 | 20 | 105 | 0.28 | 82 | 16 | 105 | 0.22 | 80 |
| 37.66 | | 29 | 105 | 0.39 | 83 | 23 | 105 | 0.32 | 82 | 18 | 105 | 0.25 | 81 |
| 35.10 | | 31 | 105 | 0.41 | 84 | 25 | 105 | 0.34 | 83 | 19 | 105 | 0.27 | 82 |
| 30.68 | | 35 | 105 | 0.47 | 84 | 29 | 105 | 0.39 | 84 | 22 | 105 | 0.30 | 82 |
| 28.76 | | 38 | 105 | 0.50 | 84 | 31 | 105 | 0.41 | 84 | 24 | 105 | 0.32 | 83 |
| 25.38 | | 43 | 105 | 0.56 | 85 | 35 | 105 | 0.46 | 84 | 27 | 105 | 0.36 | 83 |
| 22.50 | | 48 | 105 | 0.63 | 85 | 40 | 105 | 0.52 | 85 | 31 | 105 | 0.41 | 84 |
| 19.13 | | 57 | 98 | 0.69 | 86 | 47 | 105 | 0.61 | 85 | 36 | 105 | 0.47 | 85 |
| 19.89 | 24/5 | 55 | 80 | 0.52 | 90 | 45 | 81 | 0.43 | 89 | 35 | 81 | 0.34 | 88 |
| 18.24 | | 60 | 80 | 0.56 | 90 | 49 | 81 | 0.47 | 89 | 38 | 82 | 0.37 | 88 |
| 15.53 | | 70 | 78 | 0.64 | 90 | 57 | 80 | 0.54 | 90 | 45 | 81 | 0.43 | 89 |
| 13.39 | | 82 | 78 | 0.74 | 91 | 67 | 78 | 0.61 | 90 | 52 | 80 | 0.49 | 90 |
| 12.48 | | 88 | 76 | 0.77 | 91 | 72 | 78 | 0.65 | 90 | 56 | 80 | 0.52 | 90 |
| 10.91 | | 100 | 75 | 0.87 | 91 | 82 | 78 | 0.74 | 91 | 64 | 79 | 0.59 | 90 |
| 10.23 | | 107 | 75 | 0.93 | 91 | 87 | 76 | 0.77 | 91 | 68 | 78 | 0.62 | 90 |
| 9.02 | | 121 | 73 | 1.0 | 91 | 99 | 75 | 0.86 | 91 | 77 | 77 | 0.69 | 91 |
| 8.00 | | 137 | 72 | 1.1 | 92 | 112 | 74 | 0.95 | 91 | 87 | 77 | 0.78 | 91 |
| 6.80 | | 161 | 70 | 1.3 | 92 | 132 | 72 | 1.1 | 92 | 102 | 75 | 0.88 | 91 |
| 6.33 | 19/5 | 173 | 65 | 1.3 | 92 | 142 | 68 | 1.1 | 92 | 110 | 69 | 0.87 | 92 |
| 5.38 | | 204 | 63 | 1.5 | 92 | 167 | 66 | 1.3 | 92 | 130 | 68 | 1.0 | 92 |
| 4.86 | | 226 | 61 | 1.6* | 92 | 185 | 63 | 1.3 | 92 | 144 | 68 | 1.1 | 92 |
| 3.97 | | 277 | 56 | 1.8* | 93 | 226 | 58 | 1.5 | 93 | 176 | 61 | 1.2 | 92 |

* P_{Mot,max} = 1.5 kW

500 - 10 min⁻¹

| i _{tot} | i _s | n _e = 500 min ⁻¹ | | | | n _e = 250 min ⁻¹ | | | | n _e = 10 min ⁻¹ | | | |
|------------------|----------------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|---------------------------------------|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 157.43 | 38/1 | 3.1 | 97 | 0.06 | 54 | 1.5 | 98 | <0.05 | 47 | 0.06 | 105 | <0.05 | 48 |
| 144.40 | | 3.4 | 97 | 0.06 | 55 | 1.7 | 98 | <0.05 | 48 | 0.06 | 105 | <0.05 | 48 |
| 122.94 | | 4.0 | 98 | 0.07 | 57 | 2.0 | 99 | <0.05 | 49 | 0.08 | 105 | <0.05 | 48 |
| 106.00 | | 4.7 | 99 | 0.08 | 59 | 2.3 | 100 | <0.05 | 50 | 0.09 | 105 | <0.05 | 48 |
| 98.80 | | 5.0 | 100 | 0.09 | 60 | 2.5 | 100 | 0.05 | 51 | 0.10 | 105 | <0.05 | 48 |
| 86.36 | | 5.7 | 101 | 0.10 | 61 | 2.8 | 101 | 0.06 | 53 | 0.11 | 105 | <0.05 | 49 |
| 80.96 | | 6.1 | 101 | 0.11 | 62 | 3.0 | 101 | 0.06 | 54 | 0.12 | 105 | <0.05 | 49 |
| 71.44 | | 6.9 | 102 | 0.12 | 64 | 3.4 | 102 | 0.07 | 56 | 0.13 | 105 | <0.05 | 49 |
| 63.33 | | 7.8 | 102 | 0.13 | 65 | 3.9 | 102 | 0.07 | 57 | 0.15 | 105 | <0.05 | 49 |
| 53.83 | | 9.2 | 102 | 0.15 | 67 | 4.6 | 102 | 0.08 | 60 | 0.18 | 105 | <0.05 | 49 |
| 55.93 | 27/2 | 8.9 | 104 | 0.13 | 75 | 4.4 | 104 | 0.07 | 68 | 0.17 | 105 | <0.05 | 68 |
| 51.30 | | 9.7 | 104 | 0.14 | 76 | 4.8 | 104 | 0.08 | 69 | 0.19 | 105 | <0.05 | 68 |
| 43.68 | | 11 | 105 | 0.16 | 77 | 5.7 | 105 | 0.09 | 71 | 0.22 | 105 | <0.05 | 68 |
| 37.66 | | 13 | 105 | 0.19 | 79 | 6.6 | 105 | 0.10 | 72 | 0.26 | 105 | <0.05 | 69 |
| 35.10 | | 14 | 105 | 0.20 | 79 | 7.1 | 105 | 0.11 | 73 | 0.28 | 105 | <0.05 | 69 |
| 30.68 | | 16 | 105 | 0.22 | 8 | 8.1 | 105 | 0.12 | 74 | 0.32 | 105 | <0.05 | 69 |
| 28.76 | | 17 | 105 | 0.24 | 81 | 8.6 | 105 | 0.13 | 75 | 0.34 | 105 | <0.05 | 69 |
| 25.38 | | 19 | 105 | 0.27 | 82 | 9.8 | 105 | 0.14 | 76 | 0.39 | 105 | <0.05 | 69 |
| 22.50 | | 22 | 105 | 0.30 | 83 | 11 | 105 | 0.16 | 78 | 0.44 | 105 | <0.05 | 69 |
| 19.13 | | 26 | 105 | 0.34 | 83 | 13 | 105 | 0.18 | 79 | 0.52 | 105 | <0.05 | 69 |
| 19.89 | 24/5 | 25 | 81 | 0.25 | 86 | 12 | 82 | 0.13 | 81 | 0.50 | 83 | <0.05 | 80 |
| 18.24 | | 27 | 82 | 0.27 | 87 | 13 | 82 | 0.14 | 82 | 0.54 | 83 | <0.05 | 80 |
| 15.53 | | 32 | 82 | 0.32 | 88 | 16 | 83 | 0.17 | 83 | 0.64 | 83 | <0.05 | 80 |
| 13.39 | | 37 | 82 | 0.36 | 88 | 18 | 83 | 0.19 | 84 | 0.74 | 83 | <0.05 | 80 |
| 12.48 | | 40 | 81 | 0.38 | 89 | 20 | 83 | 0.21 | 85 | 0.80 | 83 | <0.05 | 80 |
| 10.91 | | 45 | 81 | 0.44 | 89 | 22 | 83 | 0.23 | 86 | 0.91 | 83 | <0.05 | 80 |
| 10.23 | | 48 | 81 | 0.46 | 90 | 24 | 83 | 0.25 | 86 | 0.97 | 83 | <0.05 | 81 |
| 9.02 | | 55 | 80 | 0.52 | 90 | 27 | 82 | 0.27 | 87 | 1.1 | 82 | <0.05 | 81 |
| 8.00 | | 62 | 79 | 0.57 | 90 | 31 | 82 | 0.31 | 88 | 1.2 | 82 | <0.05 | 81 |
| 6.80 | | 73 | 78 | 0.66 | 91 | 36 | 82 | 0.36 | 89 | 1.4 | 82 | <0.05 | 81 |
| 6.33 | 19/5 | 78 | 69 | 0.63 | 91 | 39 | 69 | 0.32 | 89 | 1.5 | 69 | <0.05 | 81 |
| 5.38 | | 92 | 68 | 0.72 | 92 | 46 | 68 | 0.37 | 90 | 1.8 | 68 | <0.05 | 81 |
| 4.86 | | 102 | 68 | 0.80 | 92 | 51 | 68 | 0.41 | 90 | 2.0 | 68 | <0.05 | 81 |
| 3.97 | | 125 | 68 | 0.97 | 92 | 62 | 68 | 0.49 | 91 | 2.5 | 68 | <0.05 | 81 |

11.19 Technical data of S., SF., SA., SAF 47p

3400 – 2800 min⁻¹

| i _{tot} | i _s | n _e = 3400 min ⁻¹ | | | | n _e = 3200 min ⁻¹ | | | | n _e = 2800 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 201.00 | 42/1 | 16 | 192 | 0.49 | 70 | 15 | 192 | 0.46 | 70 | 13 | 192 | 0.40 | 70 |
| 184.80 | | 18 | 193 | 0.53 | 70 | 17 | 193 | 0.50 | 70 | 15 | 193 | 0.44 | 70 |
| 158.12 | | 21 | 188 | 0.60 | 71 | 20 | 192 | 0.58 | 71 | 17 | 194 | 0.51 | 71 |
| 137.05 | | 24 | 179 | 0.66 | 71 | 23 | 183 | 0.63 | 71 | 20 | 191 | 0.58 | 71 |
| 128.10 | | 26 | 175 | 0.69 | 71 | 24 | 179 | 0.66 | 71 | 21 | 187 | 0.60 | 71 |
| 110.73 | | 30 | 167 | 0.76 | 71 | 28 | 170 | 0.72 | 71 | 25 | 178 | 0.66 | 71 |
| 94.08 | | 36 | 126 | 0.69 | 69 | 34 | 139 | 0.71 | 70 | 29 | 168 | 0.73 | 71 |
| 84.00 | | 40 | 106 | 0.66 | 68 | 38 | 118 | 0.68 | 69 | 33 | 147 | 0.73 | 71 |
| 71.75 | | 47 | 83 | 0.62 | 66 | 44 | 93 | 0.65 | 67 | 39 | 118 | 0.69 | 69 |
| 67.20 | | 50 | 79 | 0.64 | 66 | 47 | 85 | 0.64 | 67 | 41 | 108 | 0.68 | 69 |
| 56.61 | | 60 | 60 | 0.60 | 63 | 56 | 69 | 0.63 | 65 | 49 | 90 | 0.69 | 68 |
| 69.39 | 29/2 | 48 | 179 | 1.1 | 85 | 46 | 183 | 1.0 | 85 | 40 | 191 | 0.95 | 85 |
| 63.80 | | 53 | 174 | 1.1 | 85 | 50 | 177 | 1.1 | 85 | 43 | 186 | 1.0 | 85 |
| 54.59 | | 62 | 165 | 1.3 | 85 | 58 | 168 | 1.2 | 85 | 51 | 176 | 1.1 | 85 |
| 47.32 | | 71 | 157 | 1.4 | 85 | 67 | 160 | 1.3 | 85 | 59 | 168 | 1.2 | 85 |
| 44.22 | | 76 | 154 | 1.5 | 85 | 72 | 157 | 1.4 | 85 | 63 | 164 | 1.3 | 85 |
| 38.23 | | 88 | 131 | 1.4 | 85 | 83 | 142 | 1.5 | 85 | 73 | 156 | 1.4 | 85 |
| 32.48 | | 104 | 103 | 1.3 | 84 | 98 | 114 | 1.4 | 84 | 86 | 139 | 1.5 | 85 |
| 29.00 | | 117 | 87 | 1.3 | 83 | 110 | 96 | 1.3 | 84 | 96 | 121 | 1.4 | 85 |
| 24.77 | | 137 | 68 | 1.2 | 82 | 129 | 76 | 1.2 | 82 | 113 | 96 | 1.4 | 84 |
| 23.20 | | 146 | 61 | 1.2 | 81 | 137 | 69 | 1.2 | 82 | 120 | 88 | 1.3 | 84 |
| 19.54 | | 174 | 45 | 1.0 | 79 | 163 | 53 | 1.1 | 80 | 143 | 69 | 1.3 | 82 |
| 20.33 | 27/5 | 167 | 117 | 2.2 | 91 | 157 | 127 | 2.3* | 91 | 137 | 141 | 2.2 | 92 |
| 17.62 | | 192 | 98 | 2.2 | 91 | 181 | 107 | 2.2 | 91 | 158 | 127 | 2.3* | 92 |
| 16.47 | | 206 | 90 | 2.1 | 91 | 194 | 98 | 2.2 | 91 | 170 | 118 | 2.3* | 91 |
| 14.24 | | 238 | 78 | 2.2 | 91 | 224 | 83 | 2.2 | 91 | 196 | 98 | 2.2 | 91 |
| 12.10 | | 280 | 63 | 2.1 | 90 | 264 | 69 | 2.1 | 90 | 231 | 82 | 2.2 | 91 |
| 10.80 | | 314 | 53 | 2.0 | 89 | 296 | 60 | 2.1 | 90 | 259 | 72 | 2.2 | 91 |
| 9.23 | | 368 | 38 | 1.7 | 88 | 346 | 45 | 1.8 | 89 | 303 | 60 | 2.1 | 90 |
| 8.64 | | 393 | 34 | 1.6 | 87 | 370 | 39 | 1.7 | 88 | 324 | 55 | 2.1 | 90 |
| 7.28 | | 467 | 25 | 1.4 | 86 | 439 | 30 | 1.6 | 87 | 384 | 41 | 1.9 | 89 |
| 6.83 | 20/5 | 497 | 36 | 2.1 | 90 | 468 | 41 | 2.2 | 90 | 409 | 52 | 2.5* | 91 |
| 6.40 | | 531 | 33 | 2.1 | 89 | 500 | 37 | 2.2 | 90 | 437 | 47 | 2.4* | 91 |
| 5.39 | | 630 | 25 | 1.9 | 88 | 593 | 28 | 2.0 | 89 | 519 | 37 | 2.2 | 90 |
| 4.76 | | 714 | 20 | 1.7 | 87 | 672 | 23 | 1.8 | 88 | 588 | 30 | 2.1 | 90 |
| 4.00 | | 850 | 16 | 1.7 | 86 | 800 | 18 | 1.7 | 87 | 700 | 23 | 1.9 | 89 |

* P_{Mot_max} = 2.2 kW

2200 – 1400 min⁻¹

| i _{tot} | i _s | n _e = 2200 min ⁻¹ | | | | n _e = 1700 min ⁻¹ | | | | n _e = 1400 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 201.00 | 42/1 | 10 | 192 | 0.32 | 69 | 8.4 | 192 | 0.25 | 67 | 6.9 | 192 | 0.21 | 66 |
| 184.80 | | 11 | 193 | 0.35 | 69 | 9.1 | 193 | 0.27 | 68 | 7.5 | 193 | 0.23 | 67 |
| 158.12 | | 13 | 194 | 0.40 | 70 | 10 | 194 | 0.32 | 69 | 8.8 | 194 | 0.27 | 68 |
| 137.05 | | 16 | 195 | 0.46 | 71 | 12 | 195 | 0.36 | 70 | 10 | 195 | 0.30 | 69 |
| 128.10 | | 17 | 196 | 0.50 | 71 | 13 | 196 | 0.39 | 70 | 10 | 196 | 0.32 | 69 |
| 110.73 | | 19 | 193 | 0.56 | 71 | 15 | 197 | 0.45 | 71 | 12 | 197 | 0.37 | 70 |
| 94.08 | | 23 | 182 | 0.62 | 72 | 18 | 198 | 0.52 | 72 | 14 | 198 | 0.43 | 71 |
| 84.00 | | 26 | 176 | 0.67 | 72 | 20 | 191 | 0.56 | 72 | 16 | 199 | 0.49 | 72 |
| 71.75 | | 30 | 167 | 0.75 | 72 | 23 | 181 | 0.62 | 72 | 19 | 194 | 0.55 | 72 |
| 67.20 | | 32 | 156 | 0.75 | 72 | 25 | 178 | 0.65 | 72 | 20 | 189 | 0.57 | 72 |
| 56.61 | | 38 | 126 | 0.72 | 71 | 30 | 168 | 0.73 | 73 | 24 | 179 | 0.64 | 73 |
| 69.39 | 29/2 | 31 | 200 | 0.78 | 85 | 24 | 200 | 0.61 | 84 | 20 | 200 | 0.51 | 83 |
| 63.80 | | 34 | 200 | 0.85 | 85 | 26 | 200 | 0.66 | 84 | 21 | 200 | 0.55 | 84 |
| 54.59 | | 40 | 191 | 0.95 | 85 | 31 | 200 | 0.77 | 85 | 25 | 200 | 0.64 | 84 |
| 47.32 | | 46 | 182 | 1.0 | 85 | 35 | 198 | 0.88 | 85 | 29 | 200 | 0.73 | 85 |
| 44.22 | | 49 | 178 | 1.1 | 85 | 38 | 193 | 0.91 | 85 | 31 | 200 | 0.78 | 85 |
| 38.23 | | 57 | 169 | 1.2 | 85 | 44 | 184 | 1.0 | 85 | 36 | 196 | 0.88 | 85 |
| 32.48 | | 67 | 160 | 1.3 | 86 | 52 | 174 | 1.1 | 86 | 43 | 186 | 0.98 | 86 |
| 29.00 | | 75 | 154 | 1.4 | 86 | 58 | 167 | 1.2 | 86 | 48 | 179 | 1.1 | 86 |
| 24.77 | | 88 | 139 | 1.5 | 85 | 68 | 159 | 1.3 | 86 | 56 | 169 | 1.2 | 86 |
| 23.20 | | 94 | 129 | 1.5 | 85 | 73 | 155 | 1.4 | 86 | 60 | 165 | 1.2 | 86 |
| 19.54 | | 112 | 103 | 1.4 | 85 | 87 | 146 | 1.5 | 86 | 71 | 156 | 1.4 | 86 |
| 20.33 | 27/5 | 108 | 149 | 1.8 | 92 | 83 | 155 | 1.5 | 91 | 68 | 160 | 1.3 | 91 |
| 17.62 | | 124 | 145 | 2.1 | 92 | 96 | 152 | 1.7 | 92 | 79 | 156 | 1.4 | 91 |
| 16.47 | | 133 | 142 | 2.2 | 92 | 103 | 149 | 1.8 | 92 | 85 | 155 | 1.5 | 91 |
| 14.24 | | 154 | 134 | 2.4* | 92 | 119 | 146 | 2.0 | 92 | 98 | 152 | 1.7 | 92 |
| 12.10 | | 181 | 111 | 2.3* | 92 | 140 | 138 | 2.2 | 92 | 115 | 146 | 1.9 | 92 |
| 10.80 | | 203 | 96 | 2.2 | 91 | 157 | 133 | 2.4* | 92 | 129 | 142 | 2.1 | 92 |
| 9.23 | | 238 | 82 | 2.2 | 91 | 184 | 112 | 2.4* | 92 | 151 | 134 | 2.3* | 92 |
| 8.64 | | 254 | 77 | 2.3* | 91 | 196 | 104 | 2.3* | 92 | 162 | 131 | 2.4* | 92 |
| 7.28 | | 302 | 64 | 2.2 | 91 | 233 | 86 | 2.3* | 91 | 192 | 109 | 2.4* | 92 |
| 6.83 | 20/5 | 322 | 76 | 2.8* | 92 | 248 | 107 | 3.0* | 93 | 204 | 120 | 2.8* | 93 |
| 6.40 | | 343 | 70 | 2.7* | 92 | 265 | 99 | 3.0* | 93 | 218 | 118 | 2.9* | 93 |
| 5.39 | | 408 | 56 | 2.6* | 92 | 315 | 82 | 2.9* | 93 | 259 | 104 | 3.0* | 93 |
| 4.76 | | 462 | 48 | 2.5* | 91 | 357 | 71 | 2.9* | 92 | 294 | 91 | 3.0* | 93 |
| 4.00 | | 550 | 37 | 2.3* | 91 | 425 | 57 | 2.8* | 92 | 350 | 75 | 3.0* | 93 |

* P_{Mot,max} = 2.2 kW

1100 – 700 min⁻¹

| i _{tot} | i _s | n _e = 1100 min ⁻¹ | | | | n _e = 900 min ⁻¹ | | | | n _e = 700 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 201.00 | 42/1 | 5.4 | 192 | 0.17 | 64 | 4.4 | 192 | 0.15 | 62 | 3.4 | 192 | 0.12 | 59 |
| 184.80 | | 5.9 | 193 | 0.19 | 65 | 4.8 | 193 | 0.16 | 63 | 3.7 | 193 | 0.13 | 60 |
| 158.12 | | 6.9 | 194 | 0.21 | 66 | 5.6 | 194 | 0.18 | 64 | 4.4 | 194 | 0.15 | 62 |
| 137.05 | | 8.0 | 195 | 0.24 | 67 | 6.5 | 195 | 0.20 | 66 | 5.1 | 195 | 0.16 | 63 |
| 128.10 | | 8.5 | 196 | 0.26 | 68 | 7.0 | 196 | 0.22 | 66 | 5.4 | 196 | 0.17 | 64 |
| 110.73 | | 9.9 | 197 | 0.30 | 69 | 8.1 | 197 | 0.25 | 68 | 6.3 | 197 | 0.20 | 66 |
| 94.08 | | 11 | 198 | 0.35 | 70 | 9.5 | 198 | 0.29 | 69 | 7.4 | 198 | 0.23 | 67 |
| 84.00 | | 13 | 199 | 0.39 | 71 | 10 | 199 | 0.32 | 70 | 8.3 | 199 | 0.25 | 68 |
| 71.75 | | 15 | 200 | 0.45 | 72 | 12 | 200 | 0.37 | 71 | 9.7 | 200 | 0.29 | 70 |
| 67.20 | | 16 | 200 | 0.48 | 72 | 13 | 200 | 0.39 | 71 | 10 | 200 | 0.31 | 70 |
| 56.61 | | 19 | 194 | 0.54 | 73 | 15 | 200 | 0.46 | 72 | 12 | 200 | 0.36 | 71 |
| 69.39 | 29/2 | 15 | 200 | 0.41 | 82 | 12 | 200 | 0.34 | 81 | 10 | 200 | 0.27 | 79 |
| 63.80 | | 17 | 200 | 0.44 | 82 | 14 | 200 | 0.36 | 81 | 10 | 200 | 0.29 | 80 |
| 54.59 | | 20 | 200 | 0.51 | 83 | 16 | 200 | 0.42 | 82 | 12 | 200 | 0.33 | 81 |
| 47.32 | | 23 | 200 | 0.58 | 84 | 19 | 200 | 0.48 | 83 | 14 | 200 | 0.38 | 82 |
| 44.22 | | 24 | 200 | 0.62 | 84 | 20 | 200 | 0.51 | 83 | 15 | 200 | 0.40 | 82 |
| 38.23 | | 28 | 200 | 0.71 | 85 | 23 | 200 | 0.59 | 84 | 18 | 200 | 0.46 | 83 |
| 32.48 | | 33 | 200 | 0.83 | 85 | 27 | 200 | 0.69 | 85 | 21 | 200 | 0.54 | 84 |
| 29.00 | | 37 | 193 | 0.90 | 86 | 31 | 200 | 0.76 | 85 | 24 | 200 | 0.60 | 84 |
| 24.77 | | 44 | 183 | 0.99 | 86 | 36 | 196 | 0.87 | 86 | 28 | 200 | 0.70 | 85 |
| 23.20 | | 47 | 179 | 1.0 | 86 | 38 | 191 | 0.91 | 86 | 30 | 200 | 0.74 | 85 |
| 19.54 | | 56 | 169 | 1.2 | 86 | 46 | 180 | 1.0 | 86 | 35 | 196 | 0.86 | 86 |
| 20.33 | 27/5 | 54 | 163 | 1.0 | 91 | 44 | 166 | 0.85 | 90 | 34 | 169 | 0.68 | 89 |
| 17.62 | | 62 | 161 | 1.2 | 91 | 51 | 164 | 0.97 | 91 | 39 | 167 | 0.77 | 90 |
| 16.47 | | 66 | 159 | 1.2 | 91 | 54 | 164 | 1.0 | 91 | 42 | 167 | 0.82 | 90 |
| 14.24 | | 77 | 156 | 1.4 | 91 | 63 | 161 | 1.2 | 91 | 49 | 164 | 0.93 | 91 |
| 12.10 | | 90 | 153 | 1.6 | 92 | 74 | 158 | 1.3 | 91 | 57 | 162 | 1.1 | 91 |
| 10.80 | | 101 | 151 | 1.8 | 92 | 83 | 155 | 1.5 | 92 | 64 | 161 | 1.2 | 91 |
| 9.23 | | 119 | 145 | 2.0 | 92 | 97 | 152 | 1.7 | 92 | 75 | 158 | 1.4 | 92 |
| 8.64 | | 127 | 141 | 2.0 | 92 | 104 | 149 | 1.8 | 92 | 81 | 156 | 1.4 | 92 |
| 7.28 | | 151 | 132 | 2.3* | 92 | 123 | 142 | 2.0 | 92 | 96 | 152 | 1.7 | 92 |
| 6.83 | 20/5 | 161 | 128 | 2.3* | 93 | 131 | 133 | 2.0 | 93 | 102 | 139 | 1.6 | 93 |
| 6.40 | | 171 | 125 | 2.4* | 93 | 140 | 132 | 2.1 | 93 | 109 | 138 | 1.7 | 93 |
| 5.39 | | 204 | 120 | 2.8* | 93 | 166 | 126 | 2.4* | 93 | 129 | 133 | 1.9 | 93 |
| 4.76 | | 231 | 114 | 3.0* | 93 | 189 | 122 | 2.6* | 93 | 147 | 130 | 2.2 | 93 |
| 4.00 | | 275 | 101 | 3.1* | 93 | 225 | 113 | 2.9* | 93 | 175 | 123 | 2.4* | 93 |

* P_{Mot,max} = 2.2 kW

500 – 10 min⁻¹

| i _{tot} | i _s | n _e = 500 min ⁻¹ | | | | n _e = 250 min ⁻¹ | | | | n _e = 10 min ⁻¹ | | | |
|------------------|----------------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|---------------------------------------|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 201.00 | 42/1 | 2.4 | 192 | 0.09 | 54 | 1.2 | 193 | 0.05 | 48 | 0.04 | 200 | <0.05 | 48 |
| 184.80 | | 2.7 | 193 | 0.10 | 56 | 1.3 | 193 | 0.06 | 48 | 0.05 | 200 | <0.05 | 48 |
| 158.12 | | 3.1 | 194 | 0.11 | 58 | 1.5 | 194 | 0.07 | 49 | 0.06 | 200 | <0.05 | 49 |
| 137.05 | | 3.6 | 195 | 0.12 | 60 | 1.8 | 195 | 0.07 | 51 | 0.07 | 200 | <0.05 | 49 |
| 128.10 | | 3.9 | 196 | 0.13 | 61 | 1.9 | 196 | 0.08 | 52 | 0.07 | 200 | <0.05 | 49 |
| 110.73 | | 4.5 | 197 | 0.15 | 62 | 2.2 | 197 | 0.09 | 54 | 0.09 | 200 | <0.05 | 49 |
| 94.08 | | 5.3 | 198 | 0.17 | 64 | 2.6 | 198 | 0.10 | 56 | 0.10 | 200 | <0.05 | 49 |
| 84.00 | | 5.9 | 199 | 0.19 | 66 | 2.9 | 199 | 0.11 | 58 | 0.11 | 200 | <0.05 | 49 |
| 71.75 | | 6.9 | 200 | 0.22 | 67 | 3.4 | 200 | 0.12 | 60 | 0.13 | 200 | <0.05 | 50 |
| 67.20 | | 7.4 | 200 | 0.23 | 68 | 3.7 | 200 | 0.13 | 61 | 0.14 | 200 | <0.05 | 50 |
| 56.61 | 8.8 | 200 | 0.27 | 69 | 4.4 | 200 | 0.15 | 63 | 0.17 | 200 | <0.05 | 50 | |
| 69.39 | 29/2 | 7.2 | 200 | 0.20 | 76 | 3.6 | 200 | 0.11 | 69 | 0.14 | 200 | <0.05 | 68 |
| 63.80 | | 7.8 | 200 | 0.21 | 77 | 3.9 | 200 | 0.12 | 70 | 0.15 | 200 | <0.05 | 69 |
| 54.59 | | 9.1 | 200 | 0.25 | 78 | 4.5 | 200 | 0.13 | 72 | 0.18 | 200 | <0.05 | 69 |
| 47.32 | | 10 | 200 | 0.28 | 79 | 5.2 | 200 | 0.15 | 73 | 0.21 | 200 | <0.05 | 69 |
| 44.22 | | 11 | 200 | 0.30 | 80 | 5.6 | 200 | 0.16 | 74 | 0.22 | 200 | <0.05 | 69 |
| 38.23 | | 13 | 200 | 0.34 | 81 | 6.5 | 200 | 0.18 | 75 | 0.26 | 200 | <0.05 | 69 |
| 32.48 | | 15 | 200 | 0.39 | 82 | 7.6 | 200 | 0.21 | 77 | 0.30 | 200 | <0.05 | 69 |
| 29.00 | | 17 | 200 | 0.44 | 83 | 8.6 | 200 | 0.23 | 78 | 0.34 | 200 | <0.05 | 69 |
| 24.77 | | 20 | 200 | 0.50 | 84 | 10 | 200 | 0.27 | 79 | 0.40 | 200 | <0.05 | 69 |
| 23.20 | | 21 | 200 | 0.54 | 84 | 10 | 200 | 0.28 | 80 | 0.43 | 200 | <0.05 | 69 |
| 19.54 | 25 | 200 | 0.63 | 85 | 12 | 200 | 0.33 | 81 | 0.51 | 200 | <0.05 | 69 | |
| 20.33 | 27/5 | 24 | 171 | 0.50 | 88 | 12 | 174 | 0.27 | 84 | 0.49 | 174 | <0.05 | 81 |
| 17.62 | | 28 | 171 | 0.57 | 89 | 14 | 174 | 0.31 | 85 | 0.56 | 174 | <0.05 | 81 |
| 16.47 | | 30 | 171 | 0.61 | 89 | 15 | 174 | 0.33 | 85 | 0.60 | 174 | <0.05 | 81 |
| 14.24 | | 35 | 169 | 0.69 | 90 | 17 | 174 | 0.37 | 86 | 0.70 | 174 | <0.05 | 81 |
| 12.10 | | 41 | 167 | 0.80 | 90 | 20 | 173 | 0.43 | 87 | 0.82 | 174 | <0.05 | 81 |
| 10.80 | | 46 | 166 | 0.89 | 91 | 23 | 173 | 0.48 | 88 | 0.92 | 174 | <0.05 | 81 |
| 9.23 | | 54 | 164 | 1.0 | 91 | 27 | 172 | 0.55 | 89 | 1.00 | 174 | <0.05 | 81 |
| 8.64 | | 57 | 162 | 1.1 | 91 | 28 | 171 | 0.58 | 89 | 1.1 | 174 | <0.05 | 81 |
| 7.28 | | 68 | 159 | 1.2 | 92 | 34 | 170 | 0.68 | 90 | 1.3 | 174 | <0.05 | 81 |
| 6.83 | | 20/5 | 73 | 145 | 1.2 | 92 | 36 | 155 | 0.66 | 91 | 1.4 | 165 | <0.05 |
| 6.40 | 78 | | 145 | 1.3 | 92 | 39 | 153 | 0.69 | 91 | 1.5 | 165 | <0.05 | 83 |
| 5.39 | 92 | | 142 | 1.5 | 93 | 46 | 152 | 0.81 | 91 | 1.8 | 164 | <0.05 | 83 |
| 4.76 | 105 | | 139 | 1.6 | 93 | 52 | 151 | 0.91 | 92 | 2.1 | 164 | <0.05 | 83 |
| 4.00 | 125 | | 134 | 1.9 | 93 | 62 | 149 | 1.1 | 92 | 2.5 | 164 | 0.05 | 83 |

11.20 Technical data of S., SF., SA., SAF 57p

3400 – 2800 min⁻¹

| i _{tot} | i _s | n _e = 3400 min ⁻¹ | | | | n _e = 3200 min ⁻¹ | | | | n _e = 2800 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 201.00 | 42/1 | 16 | 335 | 0.81 | 74 | 15 | 345 | 0.78 | 73 | 13 | 355 | 0.71 | 73 |
| 184.80 | | 18 | 325 | 0.85 | 74 | 17 | 335 | 0.82 | 74 | 15 | 350 | 0.75 | 74 |
| 158.12 | | 21 | 310 | 0.94 | 74 | 20 | 315 | 0.90 | 74 | 17 | 330 | 0.83 | 74 |
| 137.05 | | 24 | 295 | 1.0 | 74 | 23 | 300 | 0.99 | 74 | 20 | 315 | 0.91 | 74 |
| 128.10 | | 26 | 290 | 1.1 | 74 | 24 | 295 | 1.0 | 74 | 21 | 310 | 0.95 | 74 |
| 110.73 | | 30 | 265 | 1.1 | 74 | 28 | 280 | 1.1 | 74 | 25 | 295 | 1.0 | 75 |
| 94.08 | | 36 | 215 | 1.1 | 73 | 34 | 235 | 1.1 | 74 | 29 | 275 | 1.2 | 75 |
| 84.00 | | 40 | 188 | 1.1 | 73 | 38 | 205 | 1.1 | 73 | 33 | 245 | 1.2 | 74 |
| 71.75 | | 47 | 143 | 1.00 | 71 | 44 | 157 | 1.0 | 72 | 39 | 200 | 1.1 | 74 |
| 67.20 | | 50 | 131 | 0.98 | 71 | 47 | 145 | 1.0 | 72 | 41 | 187 | 1.1 | 73 |
| 56.61 | | 60 | 103 | 0.93 | 69 | 56 | 115 | 0.97 | 70 | 49 | 142 | 1.0 | 72 |
| 69.39 | 29/2 | 48 | 290 | 1.7 | 86 | 46 | 300 | 1.7 | 86 | 40 | 310 | 1.5 | 86 |
| 63.80 | | 53 | 285 | 1.8 | 87 | 50 | 290 | 1.8 | 87 | 43 | 305 | 1.6 | 87 |
| 54.59 | | 62 | 270 | 2.0 | 87 | 58 | 275 | 1.9 | 87 | 51 | 285 | 1.8 | 87 |
| 47.32 | | 71 | 255 | 2.2 | 87 | 67 | 260 | 2.1 | 87 | 59 | 275 | 2.0 | 87 |
| 44.22 | | 76 | 235 | 2.2 | 87 | 72 | 255 | 2.2 | 87 | 63 | 265 | 2.0 | 87 |
| 38.23 | | 88 | 200 | 2.2 | 86 | 83 | 215 | 2.2 | 87 | 73 | 255 | 2.3 | 87 |
| 32.48 | | 104 | 164 | 2.1 | 86 | 98 | 178 | 2.1 | 86 | 86 | 210 | 2.2 | 87 |
| 29.00 | | 117 | 131 | 1.9 | 85 | 110 | 154 | 2.1 | 86 | 96 | 186 | 2.2 | 86 |
| 24.77 | | 137 | 111 | 1.9 | 85 | 129 | 120 | 1.9 | 85 | 113 | 153 | 2.1 | 86 |
| 23.20 | | 146 | 102 | 1.9 | 84 | 137 | 111 | 1.9 | 85 | 120 | 131 | 1.9 | 85 |
| 19.54 | | 174 | 81 | 1.8 | 83 | 163 | 90 | 1.8 | 84 | 143 | 109 | 1.9 | 85 |
| 20.33 | 27/5 | 167 | 171 | 3.3* | 92 | 157 | 184 | 3.3* | 92 | 137 | 225 | 3.5* | 92 |
| 17.62 | | 192 | 144 | 3.2* | 92 | 181 | 155 | 3.2* | 92 | 158 | 183 | 3.3* | 92 |
| 16.47 | | 206 | 134 | 3.2* | 92 | 194 | 143 | 3.2* | 92 | 170 | 169 | 3.3* | 92 |
| 14.24 | | 238 | 116 | 3.2* | 91 | 224 | 123 | 3.2* | 92 | 196 | 143 | 3.2* | 92 |
| 12.10 | | 280 | 99 | 3.2* | 91 | 264 | 105 | 3.2* | 91 | 231 | 121 | 3.2* | 92 |
| 10.80 | | 314 | 88 | 3.2* | 91 | 296 | 94 | 3.2* | 91 | 259 | 108 | 3.2* | 91 |
| 9.23 | | 368 | 73 | 3.1* | 91 | 346 | 79 | 3.2* | 91 | 303 | 93 | 3.2* | 91 |
| 8.64 | | 393 | 68 | 3.1* | 90 | 370 | 74 | 3.2* | 91 | 324 | 87 | 3.2* | 91 |
| 7.28 | | 467 | 54 | 2.9 | 90 | 439 | 60 | 3.1* | 90 | 384 | 72 | 3.2* | 91 |
| 6.83 | 20/5 | 497 | 59 | 3.4* | 91 | 468 | 66 | 3.5* | 92 | 409 | 80 | 3.7* | 92 |
| 6.40 | | 531 | 54 | 3.3* | 91 | 500 | 60 | 3.4* | 91 | 437 | 74 | 3.7* | 92 |
| 5.39 | | 630 | 42 | 3.1* | 90 | 593 | 47 | 3.2* | 91 | 519 | 59 | 3.5* | 92 |
| 4.76 | | 714 | 35 | 2.9 | 90 | 672 | 40 | 3.1* | 91 | 588 | 50 | 3.4* | 91 |
| 4.00 | | 850 | 28 | 2.8 | 89 | 800 | 31 | 2.9 | 90 | 700 | 40 | 3.2* | 91 |

* P_{Mot_max} = 3.0 kW

2200 – 1400 min⁻¹

| i _{tot} | i _s | n _e = 2200 min ⁻¹ | | | | n _e = 1700 min ⁻¹ | | | | n _e = 1400 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 201.00 | 42/1 | 10 | 355 | 0.56 | 72 | 8.4 | 355 | 0.44 | 71 | 6.9 | 355 | 0.37 | 69 |
| 184.80 | | 11 | 355 | 0.61 | 73 | 9.1 | 355 | 0.48 | 72 | 7.5 | 355 | 0.40 | 70 |
| 158.12 | | 13 | 360 | 0.71 | 74 | 10 | 360 | 0.56 | 73 | 8.8 | 360 | 0.46 | 72 |
| 137.05 | | 16 | 340 | 0.77 | 74 | 12 | 360 | 0.64 | 74 | 10 | 360 | 0.53 | 73 |
| 128.10 | | 17 | 335 | 0.81 | 74 | 13 | 365 | 0.69 | 74 | 10 | 365 | 0.57 | 73 |
| 110.73 | | 19 | 320 | 0.89 | 75 | 15 | 345 | 0.75 | 74 | 12 | 365 | 0.65 | 74 |
| 94.08 | | 23 | 300 | 0.98 | 75 | 18 | 330 | 0.84 | 75 | 14 | 350 | 0.73 | 74 |
| 84.00 | | 26 | 290 | 1.1 | 75 | 20 | 315 | 0.89 | 75 | 16 | 335 | 0.78 | 75 |
| 71.75 | | 30 | 275 | 1.2 | 75 | 23 | 300 | 0.99 | 75 | 19 | 320 | 0.87 | 75 |
| 67.20 | | 32 | 255 | 1.2 | 75 | 25 | 290 | 1.0 | 75 | 20 | 310 | 0.90 | 75 |
| 56.61 | | 38 | 210 | 1.1 | 74 | 30 | 275 | 1.1 | 75 | 24 | 295 | 1.0 | 76 |
| 69.39 | 29/2 | 31 | 335 | 1.3 | 86 | 24 | 365 | 1.1 | 86 | 20 | 370 | 0.92 | 85 |
| 63.80 | | 34 | 330 | 1.4 | 86 | 26 | 355 | 1.2 | 86 | 21 | 370 | 1.00 | 85 |
| 54.59 | | 40 | 310 | 1.5 | 87 | 31 | 340 | 1.3 | 86 | 25 | 360 | 1.1 | 86 |
| 47.32 | | 46 | 295 | 1.7 | 87 | 35 | 325 | 1.4 | 87 | 29 | 345 | 1.2 | 86 |
| 44.22 | | 49 | 290 | 1.7 | 87 | 38 | 315 | 1.5 | 87 | 31 | 335 | 1.3 | 87 |
| 38.23 | | 57 | 275 | 1.9 | 87 | 44 | 300 | 1.6 | 87 | 36 | 320 | 1.4 | 87 |
| 32.48 | | 67 | 260 | 2.1 | 87 | 52 | 285 | 1.8 | 87 | 43 | 300 | 1.6 | 87 |
| 29.00 | | 75 | 250 | 2.3 | 87 | 58 | 270 | 1.9 | 87 | 48 | 290 | 1.7 | 87 |
| 24.77 | | 88 | 210 | 2.3 | 87 | 68 | 255 | 2.1 | 87 | 56 | 275 | 1.9 | 87 |
| 23.20 | | 94 | 195 | 2.2 | 87 | 73 | 250 | 2.2 | 87 | 60 | 270 | 2.0 | 87 |
| 19.54 | | 112 | 160 | 2.2 | 86 | 87 | 220 | 2.3 | 87 | 71 | 250 | 2.1 | 87 |
| 20.33 | 27/5 | 108 | 225 | 2.8 | 92 | 83 | 225 | 2.1 | 92 | 68 | 225 | 1.8 | 92 |
| 17.62 | | 124 | 225 | 3.2* | 92 | 96 | 225 | 2.5 | 92 | 79 | 225 | 2.0 | 92 |
| 16.47 | | 133 | 225 | 3.4* | 92 | 103 | 225 | 2.6 | 92 | 85 | 225 | 2.2 | 92 |
| 14.24 | | 154 | 190 | 3.3* | 92 | 119 | 225 | 3.0 | 92 | 98 | 225 | 2.5 | 92 |
| 12.10 | | 181 | 159 | 3.3* | 92 | 140 | 220 | 3.5* | 92 | 115 | 225 | 3.0 | 92 |
| 10.80 | | 203 | 139 | 3.2* | 92 | 157 | 191 | 3.4* | 92 | 129 | 225 | 3.3* | 92 |
| 9.23 | | 238 | 119 | 3.2* | 92 | 184 | 159 | 3.3* | 92 | 151 | 199 | 3.4* | 92 |
| 8.64 | | 254 | 112 | 3.3* | 92 | 196 | 148 | 3.3* | 92 | 162 | 187 | 3.4* | 92 |
| 7.28 | | 302 | 96 | 3.3* | 92 | 233 | 123 | 3.3* | 92 | 192 | 155 | 3.4* | 92 |
| 6.83 | 20/5 | 322 | 112 | 4.1* | 93 | 248 | 152 | 4.3* | 93 | 204 | 162 | 3.7* | 93 |
| 6.40 | | 343 | 103 | 4.0* | 93 | 265 | 141 | 4.2* | 93 | 218 | 156 | 3.8* | 93 |
| 5.39 | | 408 | 84 | 3.9* | 92 | 315 | 118 | 4.2* | 93 | 259 | 147 | 4.3* | 93 |
| 4.76 | | 462 | 72 | 3.8* | 92 | 357 | 103 | 4.2* | 93 | 294 | 129 | 4.3* | 93 |
| 4.00 | | 550 | 58 | 3.6* | 92 | 425 | 84 | 4.0* | 93 | 350 | 108 | 4.3* | 93 |

* P_{Mot_max} = 3.0 kW

1100 – 700 min⁻¹

| i _{tot} | i _s | n _e = 1100 min ⁻¹ | | | | n _e = 900 min ⁻¹ | | | | n _e = 700 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 201.00 | 42/1 | 5.4 | 355 | 0.30 | 67 | 4.4 | 355 | 0.25 | 65 | 3.4 | 360 | 0.21 | 63 |
| 184.80 | | 5.9 | 360 | 0.33 | 68 | 4.8 | 360 | 0.28 | 67 | 3.7 | 360 | 0.22 | 64 |
| 158.12 | | 6.9 | 360 | 0.37 | 70 | 5.6 | 360 | 0.31 | 68 | 4.4 | 360 | 0.25 | 66 |
| 137.05 | | 8.0 | 365 | 0.43 | 71 | 6.5 | 365 | 0.36 | 70 | 5.1 | 365 | 0.29 | 68 |
| 128.10 | | 8.5 | 365 | 0.46 | 72 | 7.0 | 365 | 0.38 | 70 | 5.4 | 365 | 0.31 | 68 |
| 110.73 | | 9.9 | 365 | 0.52 | 73 | 8.1 | 365 | 0.43 | 72 | 6.3 | 365 | 0.35 | 70 |
| 94.08 | | 11 | 370 | 0.61 | 74 | 9.5 | 370 | 0.51 | 73 | 7.4 | 370 | 0.41 | 71 |
| 84.00 | | 13 | 365 | 0.67 | 74 | 10 | 370 | 0.57 | 73 | 8.3 | 370 | 0.45 | 72 |
| 71.75 | | 15 | 345 | 0.74 | 75 | 12 | 370 | 0.65 | 74 | 9.7 | 370 | 0.52 | 73 |
| 67.20 | | 16 | 340 | 0.78 | 75 | 13 | 360 | 0.68 | 75 | 10 | 370 | 0.55 | 74 |
| 56.61 | | 19 | 320 | 0.86 | 75 | 15 | 340 | 0.75 | 75 | 12 | 370 | 0.64 | 74 |
| 69.39 | 29/2 | 15 | 370 | 0.73 | 84 | 12 | 370 | 0.61 | 83 | 10 | 370 | 0.48 | 81 |
| 63.80 | | 17 | 370 | 0.79 | 84 | 14 | 370 | 0.66 | 83 | 10 | 370 | 0.52 | 82 |
| 54.59 | | 20 | 370 | 0.92 | 85 | 16 | 370 | 0.76 | 84 | 12 | 370 | 0.60 | 83 |
| 47.32 | | 23 | 370 | 1.0 | 86 | 19 | 370 | 0.87 | 85 | 14 | 370 | 0.68 | 84 |
| 44.22 | | 24 | 365 | 1.1 | 86 | 20 | 370 | 0.92 | 85 | 15 | 370 | 0.73 | 84 |
| 38.23 | | 28 | 345 | 1.2 | 86 | 23 | 370 | 1.1 | 86 | 18 | 370 | 0.83 | 85 |
| 32.48 | | 33 | 325 | 1.3 | 87 | 27 | 350 | 1.2 | 86 | 21 | 370 | 0.97 | 86 |
| 29.00 | | 37 | 315 | 1.4 | 87 | 31 | 335 | 1.3 | 87 | 24 | 365 | 1.1 | 86 |
| 24.77 | | 44 | 295 | 1.6 | 87 | 36 | 320 | 1.4 | 87 | 28 | 345 | 1.2 | 87 |
| 23.20 | | 47 | 290 | 1.7 | 87 | 38 | 310 | 1.4 | 87 | 30 | 340 | 1.2 | 87 |
| 19.54 | | 56 | 275 | 1.9 | 87 | 46 | 290 | 1.6 | 87 | 35 | 315 | 1.4 | 87 |
| 20.33 | 27/5 | 54 | 225 | 1.4 | 91 | 44 | 225 | 1.1 | 91 | 34 | 225 | 0.90 | 90 |
| 17.62 | | 62 | 225 | 1.6 | 92 | 51 | 225 | 1.3 | 91 | 39 | 225 | 1.0 | 91 |
| 16.47 | | 66 | 225 | 1.7 | 92 | 54 | 225 | 1.4 | 91 | 42 | 225 | 1.1 | 91 |
| 14.24 | | 77 | 225 | 2.0 | 92 | 63 | 225 | 1.6 | 92 | 49 | 225 | 1.3 | 91 |
| 12.10 | | 90 | 225 | 2.3 | 92 | 74 | 225 | 1.9 | 92 | 57 | 225 | 1.5 | 92 |
| 10.80 | | 101 | 225 | 2.6 | 92 | 83 | 225 | 2.1 | 92 | 64 | 225 | 1.7 | 92 |
| 9.23 | | 119 | 215 | 2.9 | 92 | 97 | 225 | 2.5 | 92 | 75 | 225 | 1.9 | 92 |
| 8.64 | | 127 | 205 | 3.0 | 92 | 104 | 215 | 2.5 | 92 | 81 | 225 | 2.1 | 92 |
| 7.28 | | 151 | 185 | 3.2* | 92 | 123 | 210 | 2.9 | 92 | 96 | 215 | 2.3 | 92 |
| 6.83 | 20/5 | 161 | 170 | 3.1* | 93 | 131 | 195 | 2.9 | 93 | 102 | 205 | 2.4 | 93 |
| 6.40 | | 171 | 165 | 3.2* | 93 | 140 | 185 | 2.9 | 93 | 109 | 190 | 2.3 | 93 |
| 5.39 | | 204 | 155 | 3.6* | 93 | 166 | 175 | 3.3* | 93 | 129 | 180 | 2.6 | 93 |
| 4.76 | | 231 | 145 | 3.8* | 93 | 189 | 160 | 3.4* | 93 | 147 | 170 | 2.8 | 93 |
| 4.00 | | 275 | 130 | 4.0* | 93 | 225 | 150 | 3.8* | 93 | 175 | 160 | 3.1* | 93 |

* P_{Mot_max} = 3.0 kW

500 – 10 min⁻¹

| i _{tot} | i _s | n _e = 500 min ⁻¹ | | | | n _e = 250 min ⁻¹ | | | | n _e = 10 min ⁻¹ | | | |
|------------------|----------------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|---------------------------------------|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 201.00 | 42/1 | 2.4 | 360 | 0.16 | 58 | 1.2 | 360 | 0.09 | 50 | 0.04 | 370 | <0.05 | 50 |
| 184.80 | | 2.7 | 360 | 0.17 | 60 | 1.3 | 360 | 0.10 | 51 | 0.05 | 370 | <0.05 | 50 |
| 158.12 | | 3.1 | 360 | 0.19 | 62 | 1.5 | 360 | 0.11 | 53 | 0.06 | 370 | <0.05 | 50 |
| 137.05 | | 3.6 | 365 | 0.22 | 64 | 1.8 | 365 | 0.13 | 55 | 0.07 | 370 | <0.05 | 50 |
| 128.10 | | 3.9 | 365 | 0.23 | 65 | 1.9 | 365 | 0.13 | 56 | 0.07 | 370 | <0.05 | 50 |
| 110.73 | | 4.5 | 365 | 0.26 | 67 | 2.2 | 365 | 0.15 | 58 | 0.09 | 370 | <0.05 | 50 |
| 94.08 | | 5.3 | 370 | 0.30 | 68 | 2.6 | 370 | 0.17 | 60 | 0.10 | 370 | <0.05 | 50 |
| 84.00 | | 5.9 | 370 | 0.33 | 70 | 2.9 | 370 | 0.19 | 62 | 0.11 | 370 | <0.05 | 51 |
| 71.75 | | 6.9 | 370 | 0.38 | 71 | 3.4 | 370 | 0.21 | 64 | 0.13 | 370 | <0.05 | 51 |
| 67.20 | | 7.4 | 370 | 0.40 | 71 | 3.7 | 370 | 0.22 | 65 | 0.14 | 370 | <0.05 | 51 |
| 56.61 | 8.8 | 370 | 0.47 | 73 | 4.4 | 370 | 0.26 | 67 | 0.17 | 370 | <0.05 | 51 | |
| 69.39 | 29/2 | 7.2 | 370 | 0.36 | 78 | 3.6 | 370 | 0.20 | 71 | 0.14 | 370 | <0.05 | 69 |
| 63.80 | | 7.8 | 370 | 0.38 | 79 | 3.9 | 370 | 0.21 | 72 | 0.15 | 370 | <0.05 | 69 |
| 54.59 | | 9.1 | 370 | 0.44 | 81 | 4.5 | 370 | 0.24 | 74 | 0.18 | 370 | <0.05 | 69 |
| 47.32 | | 10 | 370 | 0.50 | 82 | 5.2 | 370 | 0.27 | 76 | 0.21 | 370 | <0.05 | 69 |
| 44.22 | | 11 | 370 | 0.53 | 82 | 5.6 | 370 | 0.29 | 77 | 0.22 | 370 | <0.05 | 69 |
| 38.23 | | 13 | 370 | 0.61 | 83 | 6.5 | 370 | 0.32 | 78 | 0.26 | 370 | <0.05 | 70 |
| 32.48 | | 15 | 370 | 0.71 | 84 | 7.6 | 370 | 0.38 | 80 | 0.30 | 370 | <0.05 | 70 |
| 29.00 | | 17 | 370 | 0.79 | 85 | 8.6 | 370 | 0.41 | 81 | 0.34 | 370 | <0.05 | 70 |
| 24.77 | | 20 | 370 | 0.91 | 86 | 10 | 370 | 0.48 | 82 | 0.40 | 370 | <0.05 | 70 |
| 23.20 | | 21 | 370 | 0.97 | 86 | 10 | 370 | 0.51 | 82 | 0.43 | 370 | <0.05 | 70 |
| 19.54 | 25 | 355 | 1.1 | 86 | 12 | 370 | 0.59 | 84 | 0.51 | 370 | <0.05 | 70 | |
| 20.33 | 27/5 | 24 | 225 | 0.65 | 89 | 12 | 225 | 0.34 | 85 | 0.49 | 225 | <0.05 | 80 |
| 17.62 | | 28 | 225 | 0.75 | 90 | 14 | 225 | 0.39 | 86 | 0.56 | 225 | <0.05 | 80 |
| 16.47 | | 30 | 225 | 0.80 | 90 | 15 | 225 | 0.41 | 86 | 0.60 | 225 | <0.05 | 80 |
| 14.24 | | 35 | 225 | 0.92 | 90 | 17 | 225 | 0.47 | 87 | 0.70 | 225 | <0.05 | 80 |
| 12.10 | | 41 | 225 | 1.1 | 91 | 20 | 225 | 0.55 | 88 | 0.82 | 225 | <0.05 | 80 |
| 10.80 | | 46 | 225 | 1.2 | 91 | 23 | 225 | 0.61 | 89 | 0.92 | 225 | <0.05 | 80 |
| 9.23 | | 54 | 225 | 1.4 | 92 | 27 | 225 | 0.71 | 90 | 1.0 | 225 | <0.05 | 80 |
| 8.64 | | 57 | 225 | 1.5 | 92 | 28 | 225 | 0.76 | 90 | 1.1 | 225 | <0.05 | 80 |
| 7.28 | | 68 | 225 | 1.8 | 92 | 34 | 225 | 0.89 | 90 | 1.3 | 225 | <0.05 | 80 |
| 6.83 | | 20/5 | 73 | 200 | 1.7 | 93 | 36 | 200 | 0.84 | 91 | 1.4 | 200 | <0.05 |
| 6.40 | 78 | | 200 | 1.8 | 93 | 39 | 200 | 0.90 | 91 | 1.5 | 200 | <0.05 | 82 |
| 5.39 | 92 | | 205 | 2.1 | 93 | 46 | 205 | 1.1 | 92 | 1.8 | 205 | <0.05 | 82 |
| 4.76 | 105 | | 205 | 2.4 | 93 | 52 | 205 | 1.2 | 92 | 2.1 | 205 | 0.05 | 82 |
| 4.00 | 125 | | 194 | 2.7 | 93 | 62 | 194 | 1.4 | 93 | 2.5 | 194 | 0.06 | 82 |

11.21 Technical data of S., SF., SA., SAF 67p

3400 – 2800 min⁻¹

| i _{tot} | i _s | n _e = 3400 min ⁻¹ | | | | n _e = 3200 min ⁻¹ | | | | n _e = 2800 min ⁻¹ | | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 217.41 | 42/1 | 15 | 635 | 1.4 | 74 | 14 | 635 | 1.3 | 74 | 12 | 640 | 1.2 | 74 | |
| 190.11 | | 17 | 640 | 1.6 | 75 | 16 | 640 | 1.5 | 75 | 14 | 640 | 1.3 | 74 | |
| 180.60 | | 18 | 640 | 1.7 | 75 | 17 | 640 | 1.6 | 75 | 15 | 640 | 1.4 | 74 | |
| 158.45 | | 21 | 640 | 1.9 | 75 | 20 | 645 | 1.8 | 75 | 17 | 645 | 1.6 | 75 | |
| 134.40 | | 25 | 525 | 1.9 | 74 | 23 | 610 | 2.0 | 75 | 20 | 645 | 1.9 | 75 | |
| 121.33 | | 28 | 460 | 1.8 | 74 | 26 | 505 | 1.9 | 74 | 23 | 635 | 2.0 | 75 | |
| 106.75 | | 31 | 405 | 1.9 | 73 | 29 | 430 | 1.8 | 73 | 26 | 515 | 1.9 | 74 | |
| 100.80 | | 33 | 380 | 1.9 | 72 | 31 | 410 | 1.9 | 73 | 27 | 475 | 1.9 | 74 | |
| 85.83 | | 39 | 320 | 1.9 | 72 | 37 | 345 | 1.9 | 72 | 32 | 400 | 1.9 | 73 | |
| 78.00 | | 43 | 285 | 1.8 | 71 | 41 | 310 | 1.9 | 72 | 35 | 365 | 1.9 | 73 | |
| 67.57 | | 50 | 235 | 1.8 | 69 | 47 | 260 | 1.8 | 70 | 41 | 315 | 1.9 | 72 | |
| 58.80 | | 57 | 184 | 1.7 | 67 | 54 | 215 | 1.8 | 69 | 47 | 270 | 1.9 | 71 | |
| 75.06 | | 29/2 | 45 | 625 | 3.4 | 87 | 42 | 635 | 3.3 | 87 | 37 | 660 | 3.0 | 87 |
| 65.63 | | | 51 | 580 | 3.6 | 87 | 48 | 620 | 3.6 | 87 | 42 | 635 | 3.3 | 87 |
| 62.35 | | | 54 | 540 | 3.6 | 87 | 51 | 585 | 3.6 | 87 | 44 | 630 | 3.4 | 87 |
| 54.70 | | | 62 | 465 | 3.5 | 87 | 58 | 505 | 3.6 | 87 | 51 | 595 | 3.7 | 87 |
| 46.40 | | | 73 | 415 | 3.7 | 86 | 68 | 415 | 3.5 | 86 | 60 | 490 | 3.6 | 87 |
| 41.89 | 81 | | 365 | 3.6 | 86 | 76 | 395 | 3.7 | 86 | 66 | 435 | 3.5 | 87 | |
| 36.85 | 92 | | 310 | 3.5 | 85 | 86 | 335 | 3.6 | 86 | 75 | 405 | 3.7 | 86 | |
| 34.80 | 97 | | 295 | 3.5 | 85 | 91 | 315 | 3.5 | 86 | 80 | 380 | 3.7 | 86 | |
| 29.63 | 114 | | 250 | 3.6 | 85 | 107 | 270 | 3.6 | 85 | 94 | 310 | 3.6 | 86 | |
| 26.93 | 126 | | 220 | 3.5 | 84 | 118 | 240 | 3.5 | 85 | 103 | 280 | 3.6 | 85 | |
| 23.33 | 145 | 182 | 3.3 | 83 | 137 | 200 | 3.4 | 84 | 120 | 245 | 3.6 | 85 | | |
| 20.30 | 167 | 141 | 3.0 | 82 | 157 | 164 | 3.3 | 83 | 137 | 205 | 3.5 | 84 | | |
| 24.44 | 27/5 | 139 | 365 | 5.8* | 92 | 130 | 370 | 5.5 | 92 | 114 | 385 | 5.0 | 92 | |
| 23.22 | | 146 | 360 | 6.0* | 92 | 137 | 365 | 5.7* | 92 | 120 | 380 | 5.2 | 92 | |
| 20.37 | | 166 | 345 | 6.5* | 92 | 157 | 350 | 6.2* | 92 | 137 | 365 | 5.7* | 92 | |
| 17.28 | | 196 | 275 | 6.2* | 92 | 185 | 300 | 6.3* | 92 | 162 | 350 | 6.4* | 92 | |
| 15.60 | | 217 | 245 | 6.1* | 92 | 205 | 265 | 6.2* | 92 | 179 | 320 | 6.5* | 92 | |
| 13.73 | | 247 | 215 | 6.1* | 91 | 233 | 230 | 6.1* | 92 | 203 | 270 | 6.3* | 92 | |
| 12.96 | | 262 | 200 | 6.0* | 91 | 246 | 215 | 6.1* | 91 | 216 | 250 | 6.2* | 92 | |
| 11.03 | | 308 | 169 | 6.0* | 91 | 290 | 183 | 6.1* | 91 | 253 | 215 | 6.2* | 92 | |
| 10.03 | | 338 | 151 | 5.9* | 91 | 319 | 164 | 6.0* | 91 | 279 | 194 | 6.2* | 91 | |
| 8.69 | | 391 | 124 | 5.7* | 90 | 368 | 137 | 5.9* | 90 | 322 | 166 | 6.2* | 91 | |
| 7.56 | 449 | 95 | 5.0* | 89 | 423 | 112 | 5.5* | 90 | 370 | 141 | 6.0* | 91 | | |

* P_{Mot_max} = 5.5 kW

2200 – 1400 min⁻¹

| i _{tot} | i _s | n _e = 2200 min ⁻¹ | | | | n _e = 1700 min ⁻¹ | | | | n _e = 1400 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 217.41 | 42/1 | 10 | 640 | 0.92 | 73 | 7.8 | 640 | 0.72 | 73 | 6.4 | 640 | 0.60 | 72 |
| 190.11 | | 11 | 640 | 1.0 | 74 | 8.9 | 640 | 0.82 | 73 | 7.3 | 640 | 0.68 | 72 |
| 180.60 | | 12 | 640 | 1.1 | 74 | 9.4 | 645 | 0.87 | 73 | 7.7 | 645 | 0.72 | 73 |
| 158.45 | | 13 | 645 | 1.3 | 75 | 10 | 645 | 0.98 | 74 | 8.8 | 645 | 0.81 | 73 |
| 134.40 | | 16 | 645 | 1.5 | 75 | 12 | 645 | 1.1 | 75 | 10 | 645 | 0.95 | 74 |
| 121.33 | | 18 | 645 | 1.6 | 75 | 14 | 645 | 1.3 | 75 | 11 | 645 | 1.0 | 74 |
| 106.75 | | 20 | 645 | 1.8 | 75 | 15 | 645 | 1.4 | 75 | 13 | 645 | 1.2 | 75 |
| 100.80 | | 21 | 645 | 2.0 | 76 | 16 | 645 | 1.5 | 75 | 13 | 645 | 1.3 | 75 |
| 85.83 | | 25 | 550 | 2.0 | 75 | 19 | 660 | 1.8 | 76 | 16 | 660 | 1.5 | 76 |
| 78.00 | | 28 | 485 | 1.9 | 75 | 21 | 645 | 1.9 | 76 | 17 | 660 | 1.6 | 76 |
| 67.57 | | 32 | 410 | 1.9 | 74 | 25 | 580 | 2.0 | 76 | 20 | 650 | 1.9 | 76 |
| 58.80 | | 37 | 360 | 1.9 | 74 | 28 | 495 | 2.0 | 76 | 23 | 625 | 2.0 | 76 |
| 75.06 | 29/2 | 29 | 685 | 2.4 | 87 | 22 | 720 | 2.0 | 87 | 18 | 720 | 1.6 | 86 |
| 65.63 | | 33 | 670 | 2.7 | 87 | 25 | 700 | 2.2 | 87 | 21 | 720 | 1.9 | 87 |
| 62.35 | | 35 | 665 | 2.8 | 87 | 27 | 700 | 2.3 | 87 | 22 | 720 | 2.0 | 87 |
| 54.70 | | 40 | 645 | 3.1 | 87 | 31 | 680 | 2.5 | 87 | 25 | 705 | 2.2 | 87 |
| 46.40 | | 47 | 620 | 3.5 | 87 | 36 | 660 | 2.9 | 87 | 30 | 680 | 2.5 | 87 |
| 41.89 | | 52 | 585 | 3.7 | 87 | 40 | 645 | 3.1 | 87 | 33 | 670 | 2.7 | 87 |
| 36.85 | | 59 | 505 | 3.6 | 87 | 46 | 625 | 3.5 | 88 | 37 | 655 | 3.0 | 87 |
| 34.80 | | 63 | 470 | 3.6 | 87 | 48 | 610 | 3.6 | 88 | 40 | 640 | 3.1 | 88 |
| 29.63 | | 74 | 435 | 3.9 | 87 | 57 | 545 | 3.7 | 88 | 47 | 620 | 3.5 | 88 |
| 26.93 | | 81 | 385 | 3.8 | 87 | 63 | 485 | 3.7 | 87 | 51 | 600 | 3.7 | 88 |
| 23.33 | | 94 | 320 | 3.7 | 86 | 72 | 455 | 4.0 | 87 | 60 | 525 | 3.8 | 88 |
| 20.30 | | 108 | 280 | 3.7 | 86 | 83 | 390 | 3.9 | 87 | 68 | 450 | 3.7 | 87 |
| 24.44 | 27/5 | 90 | 410 | 4.2 | 92 | 69 | 415 | 3.3 | 92 | 57 | 415 | 2.7 | 92 |
| 23.22 | | 94 | 405 | 4.4 | 92 | 73 | 420 | 3.5 | 92 | 60 | 420 | 2.9 | 92 |
| 20.37 | | 108 | 390 | 4.8 | 92 | 83 | 415 | 3.9 | 92 | 68 | 435 | 3.4 | 92 |
| 17.28 | | 127 | 375 | 5.4 | 92 | 98 | 400 | 4.5 | 92 | 81 | 415 | 3.8 | 92 |
| 15.60 | | 141 | 360 | 5.8* | 92 | 108 | 390 | 4.8 | 93 | 89 | 410 | 4.2 | 93 |
| 13.73 | | 160 | 350 | 6.4* | 92 | 123 | 380 | 5.3 | 93 | 101 | 395 | 4.6 | 93 |
| 12.96 | | 169 | 340 | 6.5* | 92 | 131 | 375 | 5.6* | 93 | 108 | 390 | 4.8 | 93 |
| 11.03 | | 199 | 285 | 6.5* | 92 | 154 | 355 | 6.2* | 93 | 126 | 375 | 5.4 | 93 |
| 10.03 | | 219 | 255 | 6.4* | 92 | 169 | 340 | 6.5* | 93 | 139 | 365 | 5.8* | 93 |
| 8.69 | | 253 | 220 | 6.4* | 92 | 195 | 300 | 6.6* | 93 | 161 | 350 | 6.4* | 93 |
| 7.56 | | 291 | 192 | 6.4* | 92 | 224 | 260 | 6.6* | 92 | 185 | 330 | 6.9* | 93 |

* P_{Mot_max} = 5.5 kW

1100 – 700 min⁻¹

| i _{tot} | i _s | n _e = 1100 min ⁻¹ | | | | n _e = 900 min ⁻¹ | | | | n _e = 700 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 217.41 | 42/1 | 5.0 | 640 | 0.49 | 70 | 4.1 | 640 | 0.41 | 68 | 3.2 | 645 | 0.33 | 66 |
| 190.11 | | 5.7 | 645 | 0.55 | 71 | 4.7 | 645 | 0.46 | 70 | 3.6 | 645 | 0.37 | 67 |
| 180.60 | | 6.0 | 645 | 0.58 | 71 | 4.9 | 645 | 0.48 | 70 | 3.8 | 645 | 0.39 | 68 |
| 158.45 | | 6.9 | 645 | 0.65 | 72 | 5.6 | 645 | 0.54 | 71 | 4.4 | 645 | 0.43 | 69 |
| 134.40 | | 8.1 | 645 | 0.76 | 73 | 6.6 | 645 | 0.63 | 72 | 5.2 | 645 | 0.50 | 71 |
| 121.33 | | 9.0 | 645 | 0.83 | 74 | 7.4 | 645 | 0.69 | 73 | 5.7 | 645 | 0.55 | 71 |
| 106.75 | | 10 | 645 | 0.94 | 74 | 8.4 | 645 | 0.77 | 74 | 6.5 | 645 | 0.61 | 72 |
| 100.80 | | 10 | 645 | 0.99 | 74 | 8.9 | 645 | 0.82 | 74 | 6.9 | 645 | 0.65 | 73 |
| 85.83 | | 12 | 660 | 1.2 | 75 | 10 | 660 | 0.97 | 75 | 8.1 | 660 | 0.76 | 74 |
| 78.00 | | 14 | 665 | 1.3 | 76 | 11 | 665 | 1.1 | 75 | 8.9 | 665 | 0.84 | 74 |
| 67.57 | | 16 | 665 | 1.5 | 76 | 13 | 665 | 1.2 | 76 | 10 | 665 | 0.96 | 75 |
| 58.80 | | 18 | 655 | 1.7 | 76 | 15 | 655 | 1.4 | 76 | 11 | 655 | 1.1 | 76 |
| 75.06 | | 29/2 | 14 | 720 | 1.3 | 85 | 11 | 720 | 1.1 | 84 | 9.3 | 720 | 0.85 |
| 65.63 | 16 | | 720 | 1.5 | 86 | 13 | 720 | 1.2 | 85 | 10 | 720 | 0.96 | 84 |
| 62.35 | 17 | | 720 | 1.5 | 86 | 14 | 720 | 1.3 | 85 | 11 | 720 | 1.0 | 84 |
| 54.70 | 20 | | 720 | 1.8 | 86 | 16 | 720 | 1.4 | 86 | 12 | 720 | 1.1 | 85 |
| 46.40 | 23 | | 715 | 2.0 | 87 | 19 | 720 | 1.7 | 86 | 15 | 720 | 1.3 | 86 |
| 41.89 | 26 | | 700 | 2.2 | 87 | 21 | 700 | 1.8 | 87 | 16 | 700 | 1.4 | 86 |
| 36.85 | 29 | | 670 | 2.4 | 87 | 24 | 670 | 2.0 | 87 | 18 | 670 | 1.5 | 86 |
| 34.80 | 31 | | 640 | 2.4 | 87 | 25 | 640 | 2.0 | 87 | 20 | 640 | 1.6 | 86 |
| 29.63 | 37 | | 620 | 2.8 | 88 | 30 | 620 | 2.3 | 87 | 23 | 620 | 1.8 | 87 |
| 26.93 | 40 | | 600 | 2.9 | 88 | 33 | 600 | 2.4 | 87 | 25 | 600 | 1.9 | 87 |
| 23.33 | 47 | | 580 | 3.3 | 88 | 38 | 580 | 2.7 | 88 | 30 | 580 | 2.1 | 87 |
| 20.30 | 54 | | 550 | 3.6 | 88 | 44 | 550 | 2.9 | 88 | 34 | 550 | 2.3 | 88 |
| 24.44 | 27/5 | | 45 | 415 | 2.1 | 92 | 36 | 415 | 1.8 | 91 | 28 | 415 | 1.4 |
| 23.22 | | 47 | 420 | 2.3 | 92 | 38 | 420 | 1.9 | 92 | 30 | 420 | 1.5 | 91 |
| 20.37 | | 54 | 450 | 2.8 | 92 | 44 | 455 | 2.3 | 92 | 34 | 455 | 1.8 | 91 |
| 17.28 | | 63 | 435 | 3.1 | 92 | 52 | 450 | 2.7 | 92 | 40 | 455 | 2.1 | 92 |
| 15.60 | | 70 | 430 | 3.4 | 92 | 57 | 440 | 2.9 | 92 | 44 | 455 | 2.3 | 92 |
| 13.73 | | 80 | 420 | 3.8 | 93 | 65 | 435 | 3.2 | 92 | 50 | 455 | 2.6 | 92 |
| 12.96 | | 84 | 415 | 4.0 | 93 | 69 | 430 | 3.4 | 92 | 54 | 450 | 2.8 | 92 |
| 11.03 | | 99 | 400 | 4.5 | 93 | 81 | 415 | 3.8 | 93 | 63 | 435 | 3.1 | 92 |
| 10.03 | | 109 | 390 | 4.8 | 93 | 89 | 410 | 4.2 | 93 | 69 | 430 | 3.4 | 93 |
| 8.69 | | 126 | 375 | 5.4 | 93 | 103 | 400 | 4.7 | 93 | 80 | 420 | 3.8 | 93 |
| 7.56 | | 145 | 360 | 5.9* | 93 | 119 | 385 | 5.2 | 93 | 92 | 410 | 4.3 | 93 |

* P_{Mot_max} = 5.5 kW

500 – 10 min⁻¹

| i _{tot} | i _s | n _e = 500 min ⁻¹ | | | | n _e = 250 min ⁻¹ | | | | n _e = 10 min ⁻¹ | | | |
|------------------|----------------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|---------------------------------------|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 217.41 | 42/1 | 2.2 | 645 | 0.25 | 62 | 1.1 | 645 | 0.15 | 54 | 0.04 | 645 | <0.05 | 52 |
| 190.11 | | 2.6 | 645 | 0.28 | 64 | 1.3 | 645 | 0.16 | 55 | 0.05 | 645 | <0.05 | 52 |
| 180.60 | | 2.7 | 645 | 0.29 | 64 | 1.3 | 645 | 0.17 | 56 | 0.05 | 645 | <0.05 | 52 |
| 158.45 | | 3.1 | 645 | 0.32 | 66 | 1.5 | 645 | 0.19 | 58 | 0.06 | 645 | <0.05 | 52 |
| 134.40 | | 3.7 | 645 | 0.37 | 68 | 1.8 | 645 | 0.21 | 60 | 0.07 | 645 | <0.05 | 52 |
| 121.33 | | 4.1 | 645 | 0.41 | 69 | 2.0 | 645 | 0.23 | 61 | 0.08 | 645 | <0.05 | 52 |
| 106.75 | | 4.6 | 645 | 0.45 | 70 | 2.3 | 645 | 0.25 | 63 | 0.09 | 645 | <0.05 | 52 |
| 100.80 | | 4.9 | 645 | 0.48 | 70 | 2.4 | 645 | 0.26 | 63 | 0.09 | 645 | <0.05 | 52 |
| 85.83 | | 5.8 | 660 | 0.56 | 72 | 2.9 | 660 | 0.31 | 66 | 0.11 | 695 | <0.05 | 53 |
| 78.00 | | 6.4 | 665 | 0.61 | 73 | 3.2 | 665 | 0.33 | 67 | 0.12 | 685 | <0.05 | 53 |
| 67.57 | | 7.3 | 665 | 0.70 | 74 | 3.6 | 665 | 0.38 | 68 | 0.14 | 675 | <0.05 | 53 |
| 58.80 | 8.5 | 655 | 0.78 | 74 | 4.2 | 655 | 0.42 | 70 | 0.17 | 655 | <0.05 | 53 | |
| 75.06 | 29/2 | 6.6 | 720 | 0.62 | 81 | 3.3 | 720 | 0.34 | 75 | 0.13 | 720 | <0.05 | 71 |
| 65.63 | | 7.6 | 720 | 0.70 | 82 | 3.8 | 720 | 0.38 | 76 | 0.15 | 720 | <0.05 | 71 |
| 62.35 | | 8.0 | 720 | 0.74 | 82 | 4.0 | 720 | 0.40 | 76 | 0.16 | 720 | <0.05 | 71 |
| 54.70 | | 9.1 | 720 | 0.83 | 83 | 4.5 | 720 | 0.44 | 78 | 0.18 | 720 | <0.05 | 71 |
| 46.40 | | 10 | 720 | 0.97 | 84 | 5.3 | 720 | 0.51 | 79 | 0.21 | 720 | <0.05 | 71 |
| 41.89 | | 11 | 720 | 1.1 | 85 | 5.9 | 720 | 0.56 | 80 | 0.23 | 720 | <0.05 | 71 |
| 36.85 | | 13 | 720 | 1.2 | 85 | 6.7 | 720 | 0.63 | 81 | 0.27 | 720 | <0.05 | 71 |
| 34.80 | | 14 | 700 | 1.2 | 86 | 7.1 | 700 | 0.65 | 82 | 0.28 | 700 | <0.05 | 71 |
| 29.63 | | 16 | 680 | 1.4 | 86 | 8.4 | 680 | 0.73 | 83 | 0.33 | 680 | <0.05 | 71 |
| 26.93 | | 18 | 660 | 1.5 | 86 | 9.2 | 660 | 0.77 | 83 | 0.37 | 660 | <0.05 | 71 |
| 23.33 | | 21 | 640 | 1.7 | 87 | 10 | 640 | 0.85 | 84 | 0.42 | 640 | <0.05 | 71 |
| 20.30 | 24 | 620 | 1.8 | 87 | 12 | 620 | 0.94 | 85 | 0.49 | 620 | <0.05 | 71 | |
| 24.44 | 27/5 | 20 | 415 | 0.99 | 90 | 10 | 415 | 0.52 | 86 | 0.40 | 415 | <0.05 | 82 |
| 23.22 | | 21 | 420 | 1.1 | 90 | 10 | 420 | 0.55 | 86 | 0.43 | 420 | <0.05 | 82 |
| 20.37 | | 24 | 455 | 1.3 | 90 | 12 | 455 | 0.67 | 87 | 0.49 | 455 | <0.05 | 82 |
| 17.28 | | 28 | 455 | 1.5 | 91 | 14 | 455 | 0.78 | 88 | 0.57 | 455 | <0.05 | 82 |
| 15.60 | | 32 | 455 | 1.7 | 91 | 16 | 455 | 0.86 | 89 | 0.64 | 455 | <0.05 | 82 |
| 13.73 | | 36 | 455 | 1.9 | 92 | 18 | 455 | 0.97 | 89 | 0.72 | 455 | <0.05 | 82 |
| 12.96 | | 38 | 455 | 2.0 | 92 | 19 | 455 | 1.0 | 90 | 0.77 | 455 | <0.05 | 82 |
| 11.03 | | 45 | 455 | 2.3 | 92 | 22 | 455 | 1.2 | 90 | 0.90 | 455 | 0.05 | 82 |
| 10.03 | | 49 | 450 | 2.5 | 92 | 24 | 455 | 1.3 | 91 | 0.99 | 455 | 0.06 | 82 |
| 8.69 | | 57 | 440 | 2.9 | 92 | 28 | 455 | 1.5 | 91 | 1.1 | 455 | 0.07 | 82 |
| 7.56 | | 66 | 435 | 3.3 | 93 | 33 | 455 | 1.7 | 92 | 1.3 | 455 | 0.08 | 82 |

11.22 Technical data of S., SF., SA., SAF 77p

3400 – 2800 min⁻¹

| i _{tot} | i _s | n _e = 3400 min ⁻¹ | | | | n _e = 3200 min ⁻¹ | | | | n _e = 2800 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 256.47 | 40/1 | 13 | 1470 | 2.6 | 78 | 12 | 1480 | 2.5 | 78 | 10 | 1500 | 2.2 | 78 |
| 225.26 | | 15 | 1420 | 2.9 | 78 | 14 | 1440 | 2.7 | 78 | 12 | 1480 | 2.5 | 78 |
| 214.00 | | 15 | 1410 | 3.0 | 78 | 14 | 1420 | 2.8 | 78 | 13 | 1470 | 2.6 | 78 |
| 189.09 | | 17 | 1370 | 3.3 | 78 | 16 | 1380 | 3.1 | 78 | 14 | 1420 | 2.8 | 78 |
| 161.60 | | 21 | 1290 | 3.6 | 78 | 19 | 1330 | 3.5 | 78 | 17 | 1370 | 3.2 | 78 |
| 148.15 | | 22 | 1260 | 3.9 | 78 | 21 | 1280 | 3.7 | 78 | 18 | 1340 | 3.4 | 78 |
| 130.00 | | 26 | 1210 | 4.2 | 78 | 24 | 1230 | 4.1 | 78 | 21 | 1290 | 3.7 | 78 |
| 123.20 | | 27 | 1130 | 4.2 | 78 | 25 | 1210 | 4.2 | 78 | 22 | 1260 | 3.8 | 78 |
| 107.83 | | 31 | 950 | 4.1 | 77 | 29 | 1040 | 4.2 | 78 | 25 | 1210 | 4.2 | 78 |
| 97.14 | | 35 | 860 | 4.1 | 77 | 32 | 900 | 4.0 | 77 | 28 | 1100 | 4.3 | 78 |
| 85.22 | | 39 | 770 | 4.2 | 76 | 37 | 820 | 4.2 | 77 | 32 | 930 | 4.1 | 78 |
| 75.20 | | 45 | 675 | 4.2 | 76 | 42 | 725 | 4.2 | 76 | 37 | 830 | 4.2 | 77 |
| 66.67 | | 50 | 585 | 4.2 | 75 | 47 | 635 | 4.2 | 75 | 41 | 745 | 4.3 | 77 |
| 56.92 | | 59 | 485 | 4.1 | 74 | 56 | 530 | 4.2 | 74 | 49 | 635 | 4.3 | 76 |
| 75.09 | 40/3 | 45 | 1160 | 6.1 | 90 | 42 | 1190 | 5.9 | 90 | 37 | 1210 | 5.3 | 90 |
| 71.33 | | 47 | 1150 | 6.4 | 90 | 44 | 1170 | 6.1 | 90 | 39 | 1210 | 5.5 | 90 |
| 63.03 | | 53 | 1110 | 7.0 | 90 | 50 | 1140 | 6.7 | 90 | 44 | 1170 | 6.1 | 90 |
| 53.87 | | 63 | 1070 | 7.9 | 90 | 59 | 1080 | 7.5 | 90 | 51 | 1120 | 6.8 | 90 |
| 49.38 | | 68 | 1030 | 8.3 | 90 | 64 | 1060 | 8.0 | 90 | 56 | 1100 | 7.3 | 90 |
| 43.33 | | 78 | 910 | 8.4 | 90 | 73 | 1010 | 8.7 | 90 | 64 | 1060 | 8.0 | 90 |
| 41.07 | | 82 | 900 | 8.7 | 90 | 77 | 910 | 8.3 | 90 | 68 | 1050 | 8.3 | 90 |
| 35.94 | | 94 | 800 | 8.9 | 89 | 89 | 850 | 8.9 | 89 | 77 | 910 | 8.3 | 90 |
| 32.38 | | 105 | 725 | 9.0 | 89 | 98 | 770 | 8.9 | 89 | 86 | 880 | 8.9 | 90 |
| 28.41 | | 119 | 635 | 9.0 | 89 | 112 | 680 | 9.0 | 89 | 98 | 780 | 9.0 | 89 |
| 25.07 | | 135 | 560 | 9.0 | 88 | 127 | 600 | 9.1 | 89 | 111 | 695 | 9.1 | 89 |
| 22.22 | | 153 | 485 | 8.8 | 88 | 144 | 525 | 9.0 | 88 | 126 | 615 | 9.1 | 89 |
| 18.97 | | 179 | 395 | 8.5 | 87 | 168 | 440 | 8.9 | 88 | 147 | 520 | 9.1 | 89 |
| 22.89 | 34/6 | 148 | 665 | 11.1* | 93 | 139 | 680 | 10.7 | 93 | 122 | 710 | 9.8 | 93 |
| 20.99 | | 161 | 620 | 11.3* | 93 | 152 | 660 | 11.3* | 93 | 133 | 690 | 10.4 | 93 |
| 18.42 | | 184 | 590 | 12.3* | 93 | 173 | 590 | 11.6* | 93 | 152 | 660 | 11.3* | 93 |
| 17.45 | | 194 | 590 | 13.0* | 93 | 183 | 590 | 12.2* | 93 | 160 | 635 | 11.5* | 93 |
| 15.28 | | 222 | 530 | 13.3* | 93 | 209 | 560 | 13.2* | 93 | 183 | 590 | 12.2* | 93 |
| 13.76 | | 247 | 480 | 13.4* | 93 | 232 | 505 | 13.3* | 93 | 203 | 585 | 13.4* | 93 |
| 12.07 | | 281 | 415 | 13.3* | 92 | 265 | 445 | 13.4* | 92 | 231 | 515 | 13.5* | 93 |
| 10.65 | | 319 | 365 | 13.3* | 92 | 300 | 390 | 13.3 | 92 | 262 | 455 | 13.5* | 93 |
| 9.44 | | 360 | 315 | 13.0* | 92 | 338 | 345 | 13.3* | 92 | 296 | 405 | 13.6* | 92 |
| 8.06 | | 421 | 260 | 12.6* | 91 | 397 | 285 | 12.9* | 92 | 347 | 340 | 13.4* | 92 |

* P_{Mot_max} = 11.0 kW

2200 – 1400 min⁻¹

| i _{tot} | i _s | n _e = 2200 min ⁻¹ | | | | n _e = 1700 min ⁻¹ | | | | n _e = 1400 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 256.47 | 40/1 | 8.5 | 1500 | 1.7 | 77 | 6.6 | 1500 | 1.4 | 77 | 5.4 | 1500 | 1.1 | 76 |
| 225.26 | | 9.7 | 1500 | 2.0 | 78 | 7.5 | 1500 | 1.5 | 77 | 6.2 | 1500 | 1.3 | 76 |
| 214.00 | | 10 | 1500 | 2.1 | 78 | 7.9 | 1500 | 1.6 | 77 | 6.5 | 1500 | 1.3 | 77 |
| 189.09 | | 11 | 1490 | 2.3 | 78 | 8.9 | 1500 | 1.8 | 78 | 7.4 | 1500 | 1.5 | 77 |
| 161.60 | | 13 | 1450 | 2.6 | 78 | 10 | 1500 | 2.1 | 78 | 8.6 | 1500 | 1.7 | 78 |
| 148.15 | | 14 | 1420 | 2.8 | 79 | 11 | 1500 | 2.3 | 78 | 9.4 | 1500 | 1.9 | 78 |
| 130.00 | | 16 | 1380 | 3.1 | 79 | 13 | 1470 | 2.6 | 79 | 10 | 1500 | 2.2 | 78 |
| 123.20 | | 17 | 1370 | 3.3 | 79 | 13 | 1460 | 2.7 | 79 | 11 | 1500 | 2.3 | 79 |
| 107.83 | | 20 | 1320 | 3.6 | 79 | 15 | 1410 | 3.0 | 79 | 12 | 1470 | 2.5 | 79 |
| 97.14 | | 22 | 1270 | 3.8 | 79 | 17 | 1370 | 3.2 | 79 | 14 | 1440 | 2.8 | 79 |
| 85.22 | | 25 | 1220 | 4.2 | 79 | 19 | 1320 | 3.5 | 79 | 16 | 1390 | 3.0 | 79 |
| 75.20 | | 29 | 1120 | 4.4 | 79 | 22 | 1270 | 3.8 | 79 | 18 | 1340 | 3.3 | 79 |
| 66.67 | | 32 | 960 | 4.2 | 78 | 25 | 1220 | 4.1 | 79 | 20 | 1290 | 3.6 | 79 |
| 56.92 | | 38 | 830 | 4.3 | 78 | 29 | 1140 | 4.5 | 79 | 24 | 1230 | 4.0 | 80 |
| 75.09 | 40/3 | 29 | 1280 | 4.4 | 90 | 22 | 1320 | 3.5 | 89 | 18 | 1360 | 3.0 | 89 |
| 71.33 | | 30 | 1270 | 4.6 | 90 | 23 | 1320 | 3.7 | 90 | 19 | 1350 | 3.1 | 89 |
| 63.03 | | 34 | 1230 | 5.0 | 90 | 26 | 1290 | 4.1 | 90 | 22 | 1320 | 3.4 | 90 |
| 53.87 | | 40 | 1200 | 5.7 | 90 | 31 | 1250 | 4.6 | 90 | 25 | 1300 | 3.9 | 90 |
| 49.38 | | 44 | 1170 | 6.1 | 90 | 34 | 1230 | 4.9 | 90 | 28 | 1280 | 4.2 | 90 |
| 43.33 | | 50 | 1130 | 6.7 | 90 | 39 | 1210 | 5.5 | 90 | 32 | 1250 | 4.7 | 90 |
| 41.07 | | 53 | 1110 | 6.9 | 90 | 41 | 1190 | 5.7 | 90 | 34 | 1240 | 4.9 | 90 |
| 35.94 | | 61 | 1080 | 7.7 | 90 | 47 | 1150 | 6.3 | 90 | 38 | 1210 | 5.5 | 90 |
| 32.38 | | 67 | 1040 | 8.2 | 90 | 52 | 1120 | 6.8 | 90 | 43 | 1180 | 5.9 | 90 |
| 28.41 | | 77 | 930 | 8.4 | 90 | 59 | 1080 | 7.5 | 90 | 49 | 1140 | 6.5 | 90 |
| 25.07 | | 87 | 870 | 8.9 | 90 | 67 | 1040 | 8.2 | 90 | 55 | 1100 | 7.1 | 90 |
| 22.22 | | 99 | 790 | 9.1 | 90 | 76 | 970 | 8.6 | 90 | 63 | 1070 | 7.8 | 90 |
| 18.97 | | 115 | 680 | 9.2 | 90 | 89 | 860 | 9.0 | 90 | 73 | 1010 | 8.6 | 91 |
| 22.89 | 34/6 | 96 | 760 | 8.2 | 93 | 74 | 810 | 6.8 | 93 | 61 | 840 | 5.8 | 93 |
| 20.99 | | 104 | 745 | 8.8 | 93 | 80 | 790 | 7.2 | 93 | 66 | 820 | 6.2 | 93 |
| 18.42 | | 119 | 720 | 9.7 | 93 | 92 | 765 | 7.9 | 93 | 76 | 800 | 6.8 | 93 |
| 17.45 | | 126 | 720 | 10.2 | 93 | 97 | 760 | 8.3 | 93 | 80 | 795 | 7.2 | 93 |
| 15.28 | | 143 | 720 | 11.6* | 93 | 111 | 730 | 9.1 | 93 | 91 | 765 | 7.9 | 93 |
| 13.76 | | 159 | 725 | 13.0* | 93 | 123 | 720 | 10.0 | 93 | 101 | 745 | 8.5 | 93 |
| 12.07 | | 182 | 650 | 13.3* | 93 | 140 | 725 | 11.4* | 93 | 115 | 720 | 9.4 | 93 |
| 10.65 | | 206 | 580 | 13.5* | 93 | 159 | 725 | 13.0* | 93 | 131 | 720 | 10.6 | 93 |
| 9.44 | | 233 | 520 | 13.7* | 93 | 180 | 655 | 13.2* | 93 | 148 | 725 | 12.0* | 94 |
| 8.06 | | 272 | 445 | 13.7* | 93 | 210 | 575 | 13.6* | 93 | 173 | 680 | 13.2* | 94 |

* P_{Mot_max} = 11.0 kW

1100 – 700 min⁻¹

| i _{tot} | i _s | n _e = 1100 min ⁻¹ | | | | n _e = 900 min ⁻¹ | | | | n _e = 700 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 256.47 | 40/1 | 4.2 | 1500 | 0.91 | 74 | 3.5 | 1500 | 0.76 | 73 | 2.7 | 1500 | 0.61 | 71 |
| 225.26 | | 4.8 | 1500 | 1.0 | 75 | 3.9 | 1500 | 0.85 | 74 | 3.1 | 1500 | 0.68 | 72 |
| 214.00 | | 5.1 | 1500 | 1.1 | 76 | 4.2 | 1500 | 0.89 | 74 | 3.2 | 1500 | 0.71 | 72 |
| 189.09 | | 5.8 | 1500 | 1.2 | 76 | 4.7 | 1500 | 0.99 | 75 | 3.7 | 1500 | 0.79 | 74 |
| 161.60 | | 6.8 | 1500 | 1.4 | 77 | 5.5 | 1500 | 1.1 | 76 | 4.3 | 1500 | 0.91 | 75 |
| 148.15 | | 7.4 | 1500 | 1.5 | 77 | 6.0 | 1500 | 1.2 | 77 | 4.7 | 1500 | 0.99 | 75 |
| 130.00 | | 8.4 | 1500 | 1.7 | 78 | 6.9 | 1500 | 1.4 | 77 | 5.3 | 1500 | 1.1 | 76 |
| 123.20 | | 8.9 | 1500 | 1.8 | 78 | 7.3 | 1500 | 1.5 | 77 | 5.6 | 1500 | 1.2 | 76 |
| 107.83 | | 10 | 1500 | 2.0 | 79 | 8.3 | 1500 | 1.7 | 78 | 6.4 | 1500 | 1.3 | 77 |
| 97.14 | | 11 | 1500 | 2.3 | 79 | 9.2 | 1500 | 1.9 | 78 | 7.2 | 1500 | 1.5 | 78 |
| 85.22 | | 12 | 1470 | 2.5 | 79 | 10 | 1500 | 2.1 | 79 | 8.2 | 1500 | 1.6 | 78 |
| 75.20 | | 14 | 1430 | 2.8 | 79 | 11 | 1490 | 2.4 | 79 | 9.3 | 1500 | 1.9 | 79 |
| 66.67 | | 16 | 1380 | 3.0 | 80 | 13 | 1450 | 2.6 | 79 | 10 | 1500 | 2.1 | 79 |
| 56.92 | | 19 | 1330 | 3.4 | 80 | 15 | 1400 | 2.9 | 80 | 12 | 1480 | 2.4 | 80 |
| 75.09 | 40/3 | 14 | 1390 | 2.4 | 89 | 11 | 1420 | 2.0 | 88 | 9.3 | 1440 | 1.6 | 87 |
| 71.33 | | 15 | 1390 | 2.5 | 89 | 12 | 1410 | 2.1 | 88 | 9.8 | 1440 | 1.7 | 87 |
| 63.03 | | 17 | 1380 | 2.8 | 89 | 14 | 1390 | 2.3 | 89 | 11 | 1430 | 1.9 | 88 |
| 53.87 | | 20 | 1350 | 3.2 | 89 | 16 | 1380 | 2.7 | 89 | 12 | 1400 | 2.2 | 88 |
| 49.38 | | 22 | 1320 | 3.4 | 90 | 18 | 1360 | 2.9 | 89 | 14 | 1390 | 2.3 | 89 |
| 43.33 | | 25 | 1300 | 3.8 | 90 | 20 | 1350 | 3.3 | 90 | 16 | 1380 | 2.6 | 89 |
| 41.07 | | 26 | 1300 | 4.1 | 90 | 21 | 1330 | 3.4 | 90 | 17 | 1380 | 2.8 | 89 |
| 35.94 | | 30 | 1270 | 4.5 | 90 | 25 | 1300 | 3.8 | 90 | 19 | 1350 | 3.1 | 90 |
| 32.38 | | 33 | 1240 | 4.9 | 90 | 27 | 1290 | 4.2 | 90 | 21 | 1320 | 3.3 | 90 |
| 28.41 | | 38 | 1210 | 5.4 | 90 | 31 | 1250 | 4.6 | 90 | 24 | 1280 | 3.7 | 90 |
| 25.07 | | 43 | 1180 | 6.0 | 90 | 35 | 1230 | 5.1 | 90 | 27 | 1240 | 4.0 | 90 |
| 22.22 | | 49 | 1140 | 6.5 | 91 | 40 | 1200 | 5.6 | 91 | 31 | 1200 | 4.4 | 90 |
| 18.97 | | 57 | 1090 | 7.3 | 91 | 47 | 1150 | 6.3 | 91 | 36 | 1150 | 4.9 | 90 |
| 22.89 | 34/6 | 48 | 850 | 4.6 | 93 | 39 | 850 | 3.8 | 93 | 30 | 850 | 2.9 | 92 |
| 20.99 | | 52 | 850 | 5.0 | 93 | 42 | 850 | 4.1 | 93 | 33 | 850 | 3.2 | 93 |
| 18.42 | | 59 | 840 | 5.6 | 93 | 48 | 850 | 4.7 | 93 | 38 | 850 | 3.6 | 93 |
| 17.45 | | 63 | 830 | 5.9 | 93 | 51 | 850 | 4.9 | 93 | 40 | 850 | 3.8 | 93 |
| 15.28 | | 71 | 820 | 6.6 | 93 | 58 | 840 | 5.6 | 93 | 45 | 850 | 4.4 | 93 |
| 13.76 | | 79 | 795 | 7.1 | 93 | 65 | 830 | 6.1 | 93 | 50 | 850 | 4.9 | 93 |
| 12.07 | | 91 | 765 | 7.8 | 93 | 74 | 810 | 6.8 | 93 | 57 | 840 | 5.5 | 93 |
| 10.65 | | 103 | 750 | 8.7 | 93 | 84 | 785 | 7.4 | 93 | 65 | 830 | 6.1 | 93 |
| 9.44 | | 116 | 720 | 9.4 | 94 | 95 | 765 | 8.2 | 94 | 74 | 810 | 6.7 | 94 |
| 8.06 | | 136 | 725 | 11.1* | 94 | 111 | 730 | 9.1 | 94 | 86 | 785 | 7.6 | 94 |

* P_{Mot_max} = 11.0 kW

500 – 10 min⁻¹

| i _{tot} | i _s | n _e = 500 min ⁻¹ | | | | n _e = 250 min ⁻¹ | | | | n _e = 10 min ⁻¹ | | | |
|------------------|----------------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|---------------------------------------|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 256.47 | 40/1 | 1.9 | 1500 | 0.46 | 67 | 0.97 | 1500 | 0.26 | 59 | 0.03 | 1500 | <0.05 | 57 |
| 225.26 | | 2.2 | 1500 | 0.51 | 69 | 1.1 | 1500 | 0.29 | 60 | 0.04 | 1500 | <0.05 | 57 |
| 214.00 | | 2.3 | 1500 | 0.53 | 69 | 1.1 | 1500 | 0.30 | 61 | 0.04 | 1500 | <0.05 | 57 |
| 189.09 | | 2.6 | 1500 | 0.59 | 71 | 1.3 | 1500 | 0.33 | 63 | 0.05 | 1500 | <0.05 | 57 |
| 161.60 | | 3.0 | 1500 | 0.67 | 72 | 1.5 | 1500 | 0.38 | 65 | 0.06 | 1500 | <0.05 | 57 |
| 148.15 | | 3.3 | 1500 | 0.73 | 73 | 1.6 | 1500 | 0.40 | 66 | 0.06 | 1500 | <0.05 | 57 |
| 130.00 | | 3.8 | 1500 | 0.82 | 74 | 1.9 | 1500 | 0.45 | 67 | 0.07 | 1500 | <0.05 | 57 |
| 123.20 | | 4.0 | 1500 | 0.86 | 74 | 2.0 | 1500 | 0.47 | 68 | 0.08 | 1500 | <0.05 | 57 |
| 107.83 | | 4.6 | 1500 | 0.97 | 75 | 2.3 | 1500 | 0.52 | 70 | 0.09 | 1500 | <0.05 | 57 |
| 97.14 | | 5.1 | 1500 | 1.1 | 76 | 2.5 | 1500 | 0.57 | 71 | 0.10 | 1500 | <0.05 | 57 |
| 85.22 | | 5.8 | 1500 | 1.2 | 77 | 2.9 | 1500 | 0.64 | 72 | 0.11 | 1500 | <0.05 | 57 |
| 75.20 | | 6.6 | 1500 | 1.3 | 78 | 3.3 | 1500 | 0.71 | 73 | 0.13 | 1500 | <0.05 | 57 |
| 66.67 | | 7.4 | 1500 | 1.5 | 78 | 3.7 | 1500 | 0.79 | 74 | 0.14 | 1500 | <0.05 | 57 |
| 56.92 | | 8.7 | 1500 | 1.8 | 79 | 4.3 | 1500 | 0.91 | 76 | 0.17 | 1500 | <0.05 | 57 |
| 75.09 | 40/3 | 6.6 | 1450 | 1.2 | 85 | 3.3 | 1460 | 0.64 | 80 | 0.13 | 1500 | <0.05 | 77 |
| 71.33 | | 7.0 | 1460 | 1.3 | 85 | 3.5 | 1460 | 0.67 | 80 | 0.14 | 1500 | <0.05 | 77 |
| 63.03 | | 7.9 | 1460 | 1.4 | 86 | 3.9 | 1460 | 0.74 | 82 | 0.15 | 1460 | <0.05 | 77 |
| 53.87 | | 9.2 | 1450 | 1.6 | 87 | 4.6 | 1450 | 0.85 | 83 | 0.18 | 1450 | <0.05 | 77 |
| 49.38 | | 10 | 1440 | 1.7 | 87 | 5.0 | 1440 | 0.92 | 83 | 0.20 | 1440 | <0.05 | 77 |
| 43.33 | | 11 | 1430 | 2.0 | 88 | 5.7 | 1440 | 1.0 | 84 | 0.23 | 1440 | <0.05 | 77 |
| 41.07 | | 12 | 1400 | 2.0 | 88 | 6.0 | 1400 | 1.1 | 85 | 0.24 | 1400 | <0.05 | 77 |
| 35.94 | | 13 | 1360 | 2.2 | 89 | 6.9 | 1360 | 1.2 | 86 | 0.27 | 1360 | 0.05 | 77 |
| 32.38 | | 15 | 1320 | 2.4 | 89 | 7.7 | 1320 | 1.2 | 86 | 0.30 | 1320 | 0.06 | 77 |
| 28.41 | | 17 | 1280 | 2.6 | 89 | 8.7 | 1280 | 1.4 | 87 | 0.35 | 1280 | 0.06 | 77 |
| 25.07 | | 19 | 1240 | 2.9 | 90 | 9.9 | 1240 | 1.5 | 87 | 0.39 | 1240 | 0.07 | 77 |
| 22.22 | | 22 | 1200 | 3.1 | 90 | 11 | 1200 | 1.6 | 88 | 0.45 | 1200 | 0.07 | 77 |
| 18.97 | | 26 | 1150 | 3.5 | 90 | 13 | 1150 | 1.8 | 89 | 0.52 | 1150 | 0.08 | 77 |
| 22.89 | | 34/6 | 21 | 850 | 2.1 | 92 | 10 | 850 | 1.1 | 89 | 0.43 | 850 | <0.05 |
| 20.99 | 23 | | 850 | 2.3 | 92 | 11 | 850 | 1.2 | 89 | 0.47 | 850 | 0.05 | 84 |
| 18.42 | 27 | | 850 | 2.6 | 92 | 13 | 850 | 1.3 | 90 | 0.54 | 850 | 0.06 | 84 |
| 17.45 | 28 | | 850 | 2.8 | 92 | 14 | 850 | 1.4 | 90 | 0.57 | 850 | 0.06 | 84 |
| 15.28 | 32 | | 850 | 3.1 | 93 | 16 | 850 | 1.6 | 91 | 0.65 | 850 | 0.07 | 84 |
| 13.76 | 36 | | 850 | 3.5 | 93 | 18 | 850 | 1.8 | 91 | 0.72 | 850 | 0.08 | 84 |
| 12.07 | 41 | | 850 | 4.0 | 93 | 20 | 850 | 2.0 | 92 | 0.82 | 850 | 0.09 | 84 |
| 10.65 | 46 | | 850 | 4.5 | 93 | 23 | 850 | 2.3 | 92 | 0.93 | 850 | 0.10 | 84 |
| 9.44 | 52 | | 850 | 5.1 | 93 | 26 | 850 | 2.6 | 92 | 1.0 | 850 | 0.11 | 84 |
| 8.06 | 62 | | 830 | 5.8 | 94 | 31 | 850 | 3.0 | 93 | 1.2 | 850 | 0.13 | 84 |

11.23 Technical data of S., SF., SA., SAF 87p

3400 – 2800 min⁻¹

| i _{tot} | i _s | n _e = 3400 min ⁻¹ | | | | n _e = 3200 min ⁻¹ | | | | n _e = 2800 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 288.00 | 40/1 | 11 | 2580 | 4.0 | 80 | 11 | 2600 | 3.8 | 80 | 9.7 | 2680 | 3.4 | 80 |
| 258.18 | | 13 | 2500 | 4.3 | 80 | 12 | 2520 | 4.1 | 80 | 10 | 2600 | 3.7 | 80 |
| 222.40 | | 15 | 2400 | 4.8 | 80 | 14 | 2430 | 4.6 | 80 | 12 | 2520 | 4.2 | 80 |
| 202.96 | | 16 | 2350 | 5.2 | 80 | 15 | 2370 | 4.9 | 80 | 13 | 2460 | 4.4 | 80 |
| 180.00 | | 18 | 2240 | 5.6 | 80 | 17 | 2300 | 5.4 | 80 | 15 | 2380 | 4.9 | 80 |
| 151.30 | | 22 | 1950 | 5.8 | 79 | 21 | 2120 | 5.9 | 80 | 18 | 2260 | 5.5 | 80 |
| 139.05 | | 24 | 1860 | 6.0 | 79 | 23 | 1900 | 5.8 | 79 | 20 | 2210 | 5.8 | 80 |
| 123.48 | | 27 | 1580 | 5.8 | 78 | 25 | 1730 | 6.0 | 79 | 22 | 1970 | 5.9 | 80 |
| 110.40 | | 30 | 1430 | 5.9 | 78 | 28 | 1540 | 6.0 | 78 | 25 | 1820 | 6.1 | 79 |
| 99.26 | | 34 | 1260 | 5.9 | 77 | 32 | 1380 | 6.0 | 78 | 28 | 1570 | 5.9 | 79 |
| 86.15 | | 39 | 1030 | 5.6 | 76 | 37 | 1150 | 5.8 | 77 | 32 | 1390 | 6.1 | 78 |
| 77.14 | | 44 | 830 | 5.2 | 74 | 41 | 970 | 5.6 | 75 | 36 | 1220 | 6.0 | 77 |
| 64.00 | | 53 | 500 | 4.1 | 69 | 50 | 620 | 4.5 | 71 | 43 | 960 | 5.8 | 76 |
| 91.20 | 38/3 | 37 | 2140 | 9.2 | 91 | 35 | 2180 | 8.8 | 91 | 30 | 2230 | 7.9 | 91 |
| 81.76 | | 41 | 2070 | 9.9 | 91 | 39 | 2100 | 9.5 | 91 | 34 | 2180 | 8.6 | 91 |
| 70.43 | | 48 | 1980 | 11.0 | 91 | 45 | 2030 | 10.6 | 91 | 39 | 2090 | 9.6 | 91 |
| 64.27 | | 52 | 1940 | 11.8 | 91 | 49 | 1970 | 11.3 | 91 | 43 | 2060 | 10.3 | 91 |
| 57.00 | | 59 | 1860 | 12.8 | 91 | 56 | 1900 | 12.3 | 91 | 49 | 1980 | 11.2 | 91 |
| 47.91 | | 70 | 1600 | 13.2 | 90 | 66 | 1760 | 13.6 | 91 | 58 | 1880 | 12.7 | 91 |
| 44.03 | | 77 | 1470 | 13.2 | 90 | 72 | 1570 | 13.2 | 90 | 63 | 1830 | 13.4 | 91 |
| 39.10 | | 86 | 1300 | 13.2 | 90 | 81 | 1400 | 13.3 | 90 | 71 | 1620 | 13.4 | 91 |
| 34.96 | | 97 | 1140 | 13.0 | 90 | 91 | 1240 | 13.2 | 90 | 80 | 1440 | 13.4 | 90 |
| 31.43 | | 108 | 1000 | 12.7 | 89 | 101 | 1090 | 13.0 | 89 | 89 | 1290 | 13.4 | 90 |
| 27.28 | | 124 | 810 | 12.0 | 88 | 117 | 910 | 12.6 | 89 | 102 | 1110 | 13.3 | 90 |
| 24.43 | | 139 | 660 | 11.0 | 87 | 130 | 775 | 12.0 | 88 | 114 | 960 | 12.9 | 89 |
| 20.27 | | 167 | 395 | 8.2 | 84 | 157 | 490 | 9.4 | 86 | 138 | 755 | 12.3 | 89 |
| 25.50 | 34/6 | 133 | 1070 | 16.0 | 93 | 125 | 1090 | 15.4 | 93 | 109 | 1160 | 14.3 | 93 |
| 21.43 | | 158 | 990 | 17.7 | 93 | 149 | 1020 | 17.1 | 93 | 130 | 1080 | 15.8 | 93 |
| 19.70 | | 172 | 990 | 19.0* | 93 | 162 | 990 | 18.1 | 93 | 142 | 1040 | 16.6 | 93 |
| 17.49 | | 194 | 870 | 19.0* | 93 | 182 | 930 | 19.0* | 93 | 160 | 990 | 17.8 | 93 |
| 15.64 | | 217 | 760 | 19.0* | 93 | 204 | 830 | 19.0* | 93 | 179 | 960 | 19.0* | 93 |
| 14.06 | | 241 | 660 | 18.1 | 92 | 227 | 725 | 19.0* | 93 | 199 | 860 | 19.0* | 93 |
| 12.21 | | 278 | 540 | 17.2 | 92 | 262 | 605 | 18.0 | 92 | 229 | 730 | 19.0* | 93 |
| 10.93 | | 311 | 440 | 15.7 | 91 | 292 | 510 | 17.1 | 92 | 256 | 645 | 19.0* | 92 |
| 9.07 | | 374 | 255 | 11.3 | 89 | 352 | 325 | 13.3 | 90 | 308 | 500 | 17.6 | 92 |
| 7.88 | | 431 | 200 | 10.4 | 87 | 406 | 230 | 11.1 | 88 | 355 | 375 | 15.3 | 91 |

* P_{Mot_max} = 18.5 kW

2200 – 1400 min⁻¹

| i _{tot} | i _s | n _e = 2200 min ⁻¹ | | | | n _e = 1700 min ⁻¹ | | | | n _e = 1400 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 288.00 | 40/1 | 7.6 | 2770 | 2.8 | 80 | 5.9 | 2900 | 2.3 | 79 | 4.8 | 3000 | 2.0 | 78 |
| 258.18 | | 8.5 | 2720 | 3.0 | 80 | 6.5 | 2840 | 2.5 | 79 | 5.4 | 2920 | 2.1 | 79 |
| 222.40 | | 9.8 | 2660 | 3.4 | 80 | 7.6 | 2770 | 2.8 | 80 | 6.2 | 2860 | 2.4 | 79 |
| 202.96 | | 10 | 2610 | 3.7 | 80 | 8.3 | 2730 | 3.0 | 80 | 6.8 | 2820 | 2.6 | 80 |
| 180.00 | | 12 | 2540 | 4.1 | 80 | 9.4 | 2680 | 3.3 | 80 | 7.7 | 2780 | 2.8 | 80 |
| 151.30 | | 14 | 2440 | 4.6 | 80 | 11 | 2580 | 3.8 | 80 | 9.2 | 2680 | 3.2 | 80 |
| 139.05 | | 15 | 2380 | 4.9 | 80 | 12 | 2540 | 4.0 | 80 | 10 | 2670 | 3.5 | 80 |
| 123.48 | | 17 | 2310 | 5.4 | 80 | 13 | 2460 | 4.4 | 80 | 11 | 2580 | 3.8 | 80 |
| 110.40 | | 19 | 2210 | 5.8 | 80 | 15 | 2390 | 4.8 | 81 | 12 | 2510 | 4.1 | 81 |
| 99.26 | | 22 | 2080 | 6.0 | 80 | 17 | 2340 | 5.2 | 81 | 14 | 2440 | 4.5 | 81 |
| 86.15 | | 25 | 1870 | 6.3 | 80 | 19 | 2220 | 5.7 | 81 | 16 | 2360 | 5.0 | 81 |
| 77.14 | | 28 | 1620 | 6.1 | 79 | 22 | 2130 | 6.1 | 81 | 18 | 2280 | 5.4 | 81 |
| 64.00 | | 34 | 1360 | 6.2 | 79 | 26 | 1860 | 6.4 | 80 | 21 | 2160 | 6.1 | 81 |
| 91.20 | 38/3 | 24 | 2330 | 6.5 | 91 | 18 | 2420 | 5.2 | 91 | 15 | 2490 | 4.4 | 90 |
| 81.76 | | 26 | 2280 | 7.1 | 91 | 20 | 2400 | 5.8 | 91 | 17 | 2460 | 4.9 | 90 |
| 70.43 | | 31 | 2210 | 8.0 | 91 | 24 | 2330 | 6.5 | 91 | 19 | 2400 | 5.5 | 91 |
| 64.27 | | 34 | 2190 | 8.6 | 91 | 26 | 2300 | 7.0 | 91 | 21 | 2380 | 6.0 | 91 |
| 57.00 | | 38 | 2110 | 9.4 | 91 | 29 | 2230 | 7.7 | 91 | 24 | 2330 | 6.6 | 91 |
| 47.91 | | 45 | 2030 | 10.7 | 91 | 35 | 2150 | 8.8 | 91 | 29 | 2260 | 7.6 | 91 |
| 44.03 | | 49 | 1970 | 11.3 | 91 | 38 | 2110 | 9.4 | 91 | 31 | 2210 | 8.1 | 91 |
| 39.10 | | 56 | 1890 | 12.3 | 91 | 43 | 2050 | 10.2 | 91 | 35 | 2160 | 8.9 | 91 |
| 34.96 | | 62 | 1820 | 13.2 | 91 | 48 | 1990 | 11.1 | 91 | 40 | 2090 | 9.6 | 91 |
| 31.43 | | 69 | 1720 | 13.9 | 91 | 54 | 1930 | 12.0 | 91 | 44 | 2040 | 10.4 | 91 |
| 27.28 | | 80 | 1450 | 13.5 | 91 | 62 | 1840 | 13.2 | 91 | 51 | 1970 | 11.6 | 91 |
| 24.43 | | 90 | 1310 | 13.7 | 90 | 69 | 1760 | 14.1 | 91 | 57 | 1890 | 12.4 | 91 |
| 20.27 | | 108 | 1080 | 13.6 | 90 | 83 | 1450 | 14.0 | 91 | 69 | 1760 | 13.9 | 91 |
| 25.50 | 34/6 | 86 | 1270 | 12.3 | 94 | 66 | 1410 | 10.5 | 94 | 54 | 1440 | 8.8 | 94 |
| 21.43 | | 102 | 1240 | 14.3 | 94 | 79 | 1320 | 11.7 | 94 | 65 | 1420 | 10.4 | 94 |
| 19.70 | | 111 | 1240 | 15.5 | 94 | 86 | 1270 | 12.3 | 94 | 71 | 1370 | 10.9 | 94 |
| 17.49 | | 125 | 1240 | 17.4 | 94 | 97 | 1240 | 13.5 | 94 | 80 | 1310 | 11.7 | 94 |
| 15.64 | | 140 | 1230 | 19.0* | 94 | 108 | 1240 | 15.1 | 94 | 89 | 1260 | 12.6 | 94 |
| 14.06 | | 156 | 1110 | 19.0* | 94 | 120 | 1240 | 16.8 | 94 | 99 | 1240 | 13.8 | 94 |
| 12.21 | | 180 | 970 | 20.0* | 93 | 139 | 1240 | 19.0* | 94 | 114 | 1240 | 15.9 | 94 |
| 10.93 | | 201 | 870 | 20.0* | 93 | 155 | 1130 | 20.0* | 94 | 128 | 1240 | 17.7 | 94 |
| 9.07 | | 242 | 720 | 20.0* | 93 | 187 | 950 | 20.0* | 94 | 154 | 1140 | 20.0* | 94 |
| 7.88 | | 279 | 605 | 19.0* | 93 | 215 | 830 | 20.0* | 93 | 177 | 1010 | 20.0* | 94 |

* P_{Mot,max} = 18.5 kW

1100 – 700 min⁻¹

| i _{tot} | i _s | n _e = 1100 min ⁻¹ | | | | n _e = 900 min ⁻¹ | | | | n _e = 700 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 288.00 | 40/1 | 3.8 | 3000 | 1.6 | 77 | 3.1 | 3000 | 1.3 | 76 | 2.4 | 3000 | 1.0 | 74 |
| 258.18 | | 4.2 | 2970 | 1.7 | 78 | 3.4 | 2970 | 1.4 | 77 | 2.7 | 2970 | 1.1 | 75 |
| 222.40 | | 4.9 | 2950 | 1.9 | 79 | 4.0 | 2970 | 1.6 | 78 | 3.1 | 2970 | 1.3 | 76 |
| 202.96 | | 5.4 | 2910 | 2.1 | 79 | 4.4 | 2970 | 1.8 | 78 | 3.4 | 2990 | 1.4 | 77 |
| 180.00 | | 6.1 | 2890 | 2.3 | 79 | 5.0 | 2930 | 2.0 | 79 | 3.8 | 2990 | 1.6 | 77 |
| 151.30 | | 7.2 | 2790 | 2.7 | 80 | 5.9 | 2880 | 2.3 | 79 | 4.6 | 2980 | 1.8 | 78 |
| 139.05 | | 7.9 | 2780 | 2.9 | 80 | 6.4 | 2870 | 2.4 | 80 | 5.0 | 2960 | 2.0 | 79 |
| 123.48 | | 8.9 | 2700 | 3.1 | 80 | 7.2 | 2790 | 2.7 | 80 | 5.6 | 2900 | 2.2 | 79 |
| 110.40 | | 9.9 | 2650 | 3.4 | 81 | 8.1 | 2750 | 2.9 | 80 | 6.3 | 2860 | 2.4 | 80 |
| 99.26 | | 11 | 2600 | 3.7 | 81 | 9.0 | 2700 | 3.2 | 81 | 7.0 | 2810 | 2.6 | 80 |
| 86.15 | | 12 | 2510 | 4.2 | 81 | 10 | 2630 | 3.6 | 81 | 8.1 | 2750 | 2.9 | 81 |
| 77.14 | | 14 | 2460 | 4.5 | 81 | 11 | 2560 | 3.9 | 81 | 9.0 | 2700 | 3.2 | 81 |
| 64.00 | | 17 | 2330 | 5.2 | 81 | 14 | 2440 | 4.4 | 81 | 10 | 2600 | 3.7 | 81 |
| 91.20 | | 38/3 | 12 | 2550 | 3.6 | 90 | 9.8 | 2310 | 2.7 | 89 | 7.6 | 2310 | 2.1 |
| 81.76 | 13 | | 2530 | 4.0 | 90 | 11 | 2560 | 3.3 | 90 | 8.5 | 2610 | 2.6 | 89 |
| 70.43 | 15 | | 2470 | 4.5 | 90 | 12 | 2530 | 3.8 | 90 | 9.9 | 2580 | 3.0 | 89 |
| 64.27 | 17 | | 2440 | 4.8 | 91 | 14 | 2500 | 4.1 | 90 | 10 | 2560 | 3.3 | 90 |
| 57.00 | 19 | | 2400 | 5.4 | 91 | 15 | 2470 | 4.5 | 90 | 12 | 2530 | 3.6 | 90 |
| 47.91 | 22 | | 2350 | 6.2 | 91 | 18 | 2410 | 5.2 | 91 | 14 | 2500 | 4.2 | 90 |
| 44.03 | 24 | | 2300 | 6.6 | 91 | 20 | 2400 | 5.7 | 91 | 15 | 2470 | 4.5 | 91 |
| 39.10 | 28 | | 2280 | 7.4 | 91 | 23 | 2350 | 6.2 | 91 | 17 | 2440 | 5.0 | 91 |
| 34.96 | 31 | | 2210 | 8.0 | 91 | 25 | 2300 | 6.8 | 91 | 20 | 2390 | 5.5 | 91 |
| 31.43 | 34 | | 2170 | 8.7 | 91 | 28 | 2250 | 7.4 | 91 | 22 | 2370 | 6.1 | 91 |
| 27.28 | 40 | | 2080 | 9.6 | 91 | 32 | 2190 | 8.3 | 91 | 25 | 2300 | 6.8 | 91 |
| 24.43 | 45 | | 2030 | 10.5 | 91 | 36 | 2140 | 9.0 | 91 | 28 | 2250 | 7.4 | 91 |
| 20.27 | 54 | | 1920 | 11.9 | 91 | 44 | 2030 | 10.3 | 92 | 34 | 2170 | 8.6 | 92 |
| 25.50 | 34/6 | | 43 | 1440 | 7.0 | 93 | 35 | 1440 | 5.7 | 93 | 27 | 1440 | 4.5 |
| 21.43 | | 51 | 1510 | 8.7 | 94 | 41 | 1510 | 7.1 | 94 | 32 | 1510 | 5.5 | 93 |
| 19.70 | | 55 | 1500 | 9.4 | 94 | 45 | 1540 | 7.9 | 94 | 35 | 1570 | 6.3 | 93 |
| 17.49 | | 62 | 1440 | 10.1 | 94 | 51 | 1510 | 8.7 | 94 | 40 | 1570 | 7.0 | 94 |
| 15.64 | | 70 | 1380 | 10.8 | 94 | 57 | 1480 | 9.5 | 94 | 44 | 1540 | 7.7 | 94 |
| 14.06 | | 78 | 1340 | 11.7 | 94 | 64 | 1440 | 10.3 | 94 | 49 | 1510 | 8.4 | 94 |
| 12.21 | | 90 | 1340 | 13.5 | 94 | 73 | 1370 | 11.3 | 94 | 57 | 1460 | 9.3 | 94 |
| 10.93 | | 100 | 1340 | 15.0 | 94 | 82 | 1360 | 12.5 | 94 | 64 | 1440 | 10.3 | 94 |
| 9.07 | | 121 | 1340 | 18.1 | 94 | 99 | 1340 | 14.8 | 94 | 77 | 1380 | 11.9 | 94 |
| 7.88 | | 139 | 1260 | 20.0* | 94 | 114 | 1340 | 17.0 | 94 | 88 | 1340 | 13.3 | 94 |

* P_{Mot,max} = 18.5 kW

500 – 10 min⁻¹

| i _{tot} | i _s | n _e = 500 min ⁻¹ | | | | n _e = 250 min ⁻¹ | | | | n _e = 10 min ⁻¹ | | | |
|------------------|----------------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|---------------------------------------|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 288.00 | 40/1 | 1.7 | 3000 | 0.77 | 71 | 0.86 | 3000 | 0.43 | 63 | 0.03 | 3000 | <0.05 | 60 |
| 258.18 | | 1.9 | 2990 | 0.84 | 72 | 0.96 | 2990 | 0.47 | 64 | 0.03 | 3000 | <0.05 | 60 |
| 222.40 | | 2.2 | 3000 | 0.96 | 73 | 1.1 | 3000 | 0.54 | 66 | 0.04 | 3000 | <0.05 | 60 |
| 202.96 | | 2.4 | 3000 | 1.0 | 74 | 1.2 | 3000 | 0.58 | 67 | 0.04 | 3000 | <0.05 | 60 |
| 180.00 | | 2.7 | 3000 | 1.2 | 75 | 1.3 | 3000 | 0.64 | 68 | 0.05 | 3000 | <0.05 | 60 |
| 151.30 | | 3.3 | 3000 | 1.4 | 77 | 1.6 | 3000 | 0.74 | 70 | 0.06 | 3000 | <0.05 | 60 |
| 139.05 | | 3.5 | 3000 | 1.5 | 77 | 1.7 | 3000 | 0.79 | 71 | 0.07 | 3000 | <0.05 | 60 |
| 123.48 | | 4.0 | 2990 | 1.6 | 78 | 2.0 | 3000 | 0.88 | 73 | 0.08 | 3000 | <0.05 | 60 |
| 110.40 | | 4.5 | 2950 | 1.8 | 79 | 2.2 | 2950 | 0.95 | 74 | 0.09 | 2950 | <0.05 | 60 |
| 99.26 | | 5.0 | 2900 | 1.9 | 79 | 2.5 | 2900 | 1.0 | 75 | 0.10 | 2900 | 0.05 | 60 |
| 86.15 | | 5.8 | 2880 | 2.2 | 80 | 2.9 | 2900 | 1.2 | 76 | 0.11 | 2900 | 0.06 | 60 |
| 77.14 | | 6.4 | 2870 | 2.4 | 80 | 3.2 | 2900 | 1.3 | 77 | 0.12 | 2900 | 0.07 | 60 |
| 64.00 | | 7.8 | 2770 | 2.8 | 81 | 3.9 | 2900 | 1.5 | 78 | 0.15 | 2900 | 0.08 | 60 |
| 91.20 | | 38/3 | 5.4 | 2500 | 1.7 | 87 | 2.7 | 2280 | 0.80 | 82 | 0.10 | 2280 | <0.05 |
| 81.76 | 6.1 | | 2670 | 2.0 | 87 | 3.0 | 2500 | 0.97 | 83 | 0.12 | 2500 | <0.05 | 80 |
| 70.43 | 7.0 | | 2660 | 2.2 | 88 | 3.5 | 2580 | 1.1 | 84 | 0.14 | 2580 | <0.05 | 80 |
| 64.27 | 7.7 | | 2640 | 2.4 | 88 | 3.8 | 2530 | 1.2 | 85 | 0.15 | 2530 | 0.05 | 80 |
| 57.00 | 8.7 | | 2620 | 2.7 | 89 | 4.3 | 2710 | 1.5 | 85 | 0.17 | 2790 | 0.06 | 80 |
| 47.91 | 10 | | 2590 | 3.2 | 90 | 5.2 | 2690 | 1.7 | 86 | 0.20 | 2790 | 0.08 | 80 |
| 44.03 | 11 | | 2560 | 3.4 | 90 | 5.6 | 2660 | 1.8 | 87 | 0.22 | 2790 | 0.08 | 80 |
| 39.10 | 12 | | 2530 | 3.8 | 90 | 6.3 | 2660 | 2.0 | 88 | 0.25 | 2790 | 0.09 | 80 |
| 34.96 | 14 | | 2510 | 4.2 | 90 | 7.1 | 2660 | 2.3 | 88 | 0.28 | 2810 | 0.11 | 80 |
| 31.43 | 15 | | 2470 | 4.5 | 91 | 7.9 | 2610 | 2.5 | 89 | 0.31 | 2810 | 0.12 | 80 |
| 27.28 | 18 | | 2440 | 5.2 | 91 | 9.1 | 2590 | 2.8 | 89 | 0.36 | 2790 | 0.13 | 80 |
| 24.43 | 20 | | 2390 | 5.6 | 91 | 10 | 2590 | 3.1 | 90 | 0.40 | 2790 | 0.15 | 80 |
| 20.27 | 24 | | 2320 | 6.6 | 91 | 12 | 2530 | 3.6 | 90 | 0.49 | 2810 | 0.18 | 80 |
| 25.50 | 34/6 | | 19 | 1440 | 3.2 | 92 | 9.8 | 1440 | 1.6 | 90 | 0.39 | 1440 | 0.07 |
| 21.43 | | 23 | 1510 | 4.0 | 93 | 11 | 1510 | 2.0 | 91 | 0.46 | 1510 | 0.09 | 85 |
| 19.70 | | 25 | 1570 | 4.5 | 93 | 12 | 1570 | 2.3 | 91 | 0.50 | 1570 | 0.10 | 85 |
| 17.49 | | 28 | 1570 | 5.0 | 93 | 14 | 1570 | 2.6 | 92 | 0.57 | 1570 | 0.11 | 85 |
| 15.64 | | 31 | 1540 | 5.5 | 93 | 15 | 1540 | 2.8 | 92 | 0.63 | 1540 | 0.12 | 85 |
| 14.06 | | 35 | 1510 | 6.0 | 94 | 17 | 1510 | 3.0 | 92 | 0.71 | 1510 | 0.13 | 85 |
| 12.21 | | 40 | 1460 | 6.7 | 94 | 20 | 1460 | 3.4 | 93 | 0.81 | 1460 | 0.15 | 85 |
| 10.93 | | 45 | 1440 | 7.4 | 94 | 22 | 1440 | 3.7 | 93 | 0.91 | 1440 | 0.16 | 85 |
| 9.07 | | 55 | 1440 | 8.9 | 94 | 27 | 1440 | 4.5 | 93 | 1.1 | 1440 | 0.19 | 85 |
| 7.88 | | 63 | 1440 | 10.2 | 94 | 31 | 1440 | 5.1 | 94 | 1.2 | 1440 | 0.22 | 85 |

11.24 Technical data of S., SF., SA., SAF 97p

3400 – 2800 min⁻¹

| i _{tot} | i _s | n _e = 3400 min ⁻¹ | | | | n _e = 3200 min ⁻¹ | | | | n _e = 2800 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 286.40 | 40/1 | 11 | 4300 | 6.6 | 81 | 11 | 4300 | 6.2 | 81 | 9.7 | 4300 | 5.4 | 81 |
| 262.22 | | 12 | 4300 | 7.2 | 81 | 12 | 4300 | 6.8 | 81 | 10 | 4300 | 5.9 | 81 |
| 231.67 | | 14 | 4150 | 7.9 | 81 | 13 | 4240 | 7.6 | 81 | 12 | 4300 | 6.7 | 81 |
| 196.52 | | 17 | 3970 | 8.9 | 81 | 16 | 4010 | 8.4 | 81 | 14 | 4210 | 7.7 | 81 |
| 180.95 | | 18 | 3780 | 9.2 | 81 | 17 | 3890 | 8.9 | 81 | 15 | 4090 | 8.2 | 81 |
| 161.74 | | 21 | 3230 | 8.9 | 80 | 19 | 3540 | 9.1 | 81 | 17 | 3970 | 8.9 | 81 |
| 145.60 | | 23 | 2800 | 8.6 | 79 | 21 | 3050 | 8.8 | 80 | 19 | 3720 | 9.3 | 81 |
| 131.85 | | 25 | 2660 | 9.1 | 79 | 24 | 2740 | 8.8 | 79 | 21 | 3250 | 9.0 | 80 |
| 116.92 | | 29 | 2320 | 9.0 | 78 | 27 | 2550 | 9.3 | 79 | 23 | 2760 | 8.7 | 80 |
| 105.71 | | 32 | 1980 | 8.6 | 77 | 30 | 2210 | 9.0 | 78 | 26 | 2630 | 9.2 | 79 |
| 89.60 | 37/3 | 37 | 1280 | 6.9 | 74 | 35 | 1670 | 8.2 | 76 | 31 | 2210 | 9.2 | 79 |
| 78.26 | | 43 | 970 | 6.2 | 71 | 40 | 1130 | 6.6 | 73 | 35 | 1770 | 8.6 | 77 |
| 65.45 | | 51 | 675 | 5.5 | 67 | 48 | 795 | 5.9 | 69 | 42 | 1110 | 6.8 | 73 |
| 80.85 | | 42 | 3410 | 16.4 | 92 | 39 | 3480 | 15.7 | 92 | 34 | 3640 | 14.4 | 92 |
| 71.43 | | 47 | 3280 | 17.8 | 92 | 44 | 3340 | 17.1 | 92 | 39 | 3480 | 15.6 | 92 |
| 60.59 | | 56 | 3020 | 19 | 91 | 52 | 3180 | 19 | 92 | 46 | 3310 | 17.5 | 92 |
| 55.79 | | 60 | 2820 | 20 | 91 | 57 | 2950 | 19 | 91 | 50 | 3210 | 18.4 | 92 |
| 49.87 | | 68 | 2710 | 21 | 91 | 64 | 2760 | 20 | 91 | 56 | 3060 | 20 | 92 |
| 44.89 | | 75 | 2430 | 21 | 91 | 71 | 2630 | 22 | 91 | 62 | 2790 | 20 | 91 |
| 40.65 | | 83 | 2170 | 21 | 91 | 78 | 2350 | 21 | 91 | 68 | 2680 | 21 | 91 |
| 36.05 | 35/6 | 94 | 1830 | 20 | 90 | 88 | 2020 | 21 | 91 | 77 | 2400 | 21 | 91 |
| 32.60 | | 104 | 1560 | 19 | 90 | 98 | 1760 | 20 | 90 | 85 | 2150 | 21 | 91 |
| 27.63 | | 123 | 1070 | 15.6 | 88 | 115 | 1320 | 17.9 | 89 | 101 | 1740 | 20 | 90 |
| 24.13 | | 140 | 810 | 13.8 | 87 | 132 | 940 | 14.9 | 88 | 116 | 1390 | 19 | 90 |
| 26.39 | | 128 | 1800 | 26 | 94 | 121 | 1840 | 25 | 94 | 106 | 1930 | 23 | 94 |
| 23.59 | | 144 | 1750 | 28 | 94 | 135 | 1750 | 27 | 94 | 118 | 1850 | 24 | 94 |
| 21.23 | | 160 | 1750 | 31* | 94 | 150 | 1750 | 29 | 94 | 131 | 1770 | 26 | 94 |
| 19.23 | | 176 | 1550 | 31* | 94 | 166 | 1680 | 31 | 94 | 145 | 1750 | 28 | 94 |
| 17.05 | | 199 | 1320 | 30 | 93 | 187 | 1450 | 30 | 94 | 164 | 1730 | 32* | 94 |
| 15.42 | | 220 | 1110 | 28 | 93 | 207 | 1260 | 29 | 93 | 181 | 1540 | 31* | 94 |
| 13.07 | 260 | 725 | 22 | 92 | 244 | 940 | 26 | 92 | 214 | 1240 | 30 | 93 | |
| 11.41 | 297 | 515 | 17.9 | 90 | 280 | 585 | 19 | 91 | 245 | 1000 | 28 | 93 | |
| 9.55 | 356 | 375 | 15.8 | 88 | 335 | 435 | 17.1 | 89 | 293 | 580 | 20 | 91 | |
| 8.26 | 411 | 290 | 14.4 | 87 | 387 | 335 | 15.5 | 88 | 338 | 455 | 17.9 | 90 | |

* P_{Mot_max} = 30 kW

2200 – 1400 min⁻¹

| i _{tot} | i _s | n _e = 2200 min ⁻¹ | | | | n _e = 1700 min ⁻¹ | | | | n _e = 1400 min ⁻¹ | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|---|-------------------------|------------------------|--------|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % |
| 286.40 | 40/1 | 7.6 | 4300 | 4.3 | 81 | 5.9 | 4300 | 3.3 | 80 | 4.8 | 4300 | 2.8 | 80 |
| 262.22 | | 8.3 | 4300 | 4.7 | 81 | 6.4 | 4300 | 3.6 | 81 | 5.3 | 4300 | 3.0 | 80 |
| 231.67 | | 9.4 | 4300 | 5.3 | 81 | 7.3 | 4300 | 4.1 | 81 | 6 | 4300 | 3.4 | 81 |
| 196.52 | | 11 | 4300 | 6.2 | 81 | 8.6 | 4300 | 4.8 | 81 | 7.1 | 4300 | 4.0 | 81 |
| 180.95 | | 12 | 4300 | 6.7 | 81 | 9.3 | 4300 | 5.2 | 81 | 7.7 | 4300 | 4.3 | 81 |
| 161.74 | | 13 | 4260 | 7.5 | 81 | 10 | 4300 | 5.8 | 81 | 8.6 | 4300 | 4.8 | 81 |
| 145.60 | | 15 | 4150 | 8.1 | 81 | 11 | 4300 | 6.5 | 82 | 9.6 | 4300 | 5.3 | 81 |
| 131.85 | | 16 | 3980 | 8.6 | 81 | 12 | 4300 | 7.1 | 82 | 10 | 4300 | 5.9 | 82 |
| 116.92 | | 18 | 3840 | 9.3 | 81 | 14 | 4170 | 7.8 | 82 | 11 | 4300 | 6.6 | 82 |
| 105.71 | | 20 | 3430 | 9.2 | 81 | 16 | 4030 | 8.3 | 82 | 13 | 4290 | 7.3 | 82 |
| 89.60 | | 24 | 2780 | 8.9 | 80 | 18 | 3800 | 9.3 | 82 | 15 | 4070 | 8.1 | 82 |
| 78.26 | | 28 | 2540 | 9.4 | 80 | 21 | 3360 | 9.4 | 81 | 17 | 3910 | 8.9 | 82 |
| 65.45 | | 33 | 2120 | 9.4 | 79 | 25 | 2690 | 9.1 | 81 | 21 | 3520 | 9.6 | 82 |
| 80.85 | 37/3 | 27 | 3720 | 11.6 | 92 | 21 | 3710 | 8.9 | 92 | 17 | 3700 | 7.3 | 91 |
| 71.43 | | 30 | 3710 | 13.0 | 92 | 23 | 3940 | 10.7 | 92 | 19 | 4100 | 9.2 | 92 |
| 60.59 | | 36 | 3570 | 14.8 | 92 | 28 | 3810 | 12.2 | 92 | 23 | 3980 | 10.5 | 92 |
| 55.79 | | 39 | 3510 | 15.8 | 92 | 30 | 3730 | 13.0 | 92 | 25 | 3910 | 11.2 | 92 |
| 49.87 | | 44 | 3360 | 16.9 | 92 | 34 | 3640 | 14.1 | 92 | 28 | 3810 | 12.2 | 92 |
| 44.89 | | 49 | 3270 | 18.3 | 92 | 37 | 3540 | 15.3 | 92 | 31 | 3710 | 13.2 | 92 |
| 40.65 | | 54 | 3130 | 19 | 92 | 41 | 3420 | 16.3 | 92 | 34 | 3600 | 14.1 | 92 |
| 36.05 | | 61 | 2810 | 20 | 92 | 47 | 3300 | 17.7 | 92 | 38 | 3500 | 15.5 | 92 |
| 32.60 | | 67 | 2700 | 21 | 92 | 52 | 3200 | 19 | 92 | 42 | 3390 | 16.6 | 92 |
| 27.63 | | 79 | 2390 | 22 | 91 | 61 | 2850 | 20 | 92 | 50 | 3230 | 19 | 92 |
| 24.13 | | 91 | 2060 | 22 | 91 | 70 | 2670 | 21 | 92 | 58 | 3080 | 20 | 92 |
| 26.39 | 35/6 | 83 | 2550 | 24 | 94 | 64 | 2600 | 19 | 94 | 53 | 2600 | 15.3 | 94 |
| 23.59 | | 93 | 2450 | 25 | 94 | 72 | 2600 | 21 | 94 | 59 | 2600 | 17.1 | 94 |
| 21.23 | | 103 | 2380 | 27 | 94 | 80 | 2570 | 23 | 94 | 65 | 2600 | 19 | 94 |
| 19.23 | | 114 | 2280 | 29 | 94 | 88 | 2500 | 25 | 94 | 72 | 2600 | 21 | 95 |
| 17.05 | | 129 | 2170 | 31* | 94 | 99 | 2400 | 27 | 94 | 82 | 2570 | 23 | 95 |
| 15.42 | | 142 | 2040 | 32* | 94 | 110 | 2300 | 28 | 94 | 90 | 2470 | 25 | 95 |
| 13.07 | | 168 | 1720 | 32* | 94 | 130 | 2170 | 31* | 94 | 107 | 2330 | 28 | 95 |
| 11.41 | | 192 | 1480 | 32* | 94 | 148 | 2000 | 33* | 94 | 122 | 2210 | 30 | 95 |
| 9.55 | | 230 | 1200 | 31* | 94 | 178 | 1670 | 33* | 94 | 146 | 2040 | 33* | 94 |
| 8.26 | | 266 | 980 | 29 | 93 | 205 | 1440 | 33* | 94 | 169 | 1770 | 33* | 94 |

* P_{Mot,max} = 30 kW

1100 – 700 min⁻¹

| i _{tot} | i _s | n _e = 1100 min ⁻¹ | | | | n _e = 900 min ⁻¹ | | | | n _e = 700 min ⁻¹ | | | | |
|------------------|----------------|---|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 286.40 | 40/1 | 3.8 | 4300 | 2.2 | 79 | 3.1 | 4300 | 1.8 | 78 | 2.4 | 4300 | 1.4 | 77 | |
| 262.22 | | 4.1 | 4300 | 2.4 | 80 | 3.4 | 4300 | 2.0 | 79 | 2.6 | 4300 | 1.6 | 77 | |
| 231.67 | | 4.7 | 4300 | 2.7 | 80 | 3.8 | 4300 | 2.2 | 79 | 3.0 | 4300 | 1.7 | 78 | |
| 196.52 | | 5.5 | 4300 | 3.1 | 80 | 4.5 | 4300 | 2.6 | 80 | 3.5 | 4300 | 2.0 | 79 | |
| 180.95 | | 6.0 | 4300 | 3.4 | 81 | 4.9 | 4300 | 2.8 | 80 | 3.8 | 4300 | 2.2 | 79 | |
| 161.74 | | 6.8 | 4300 | 3.8 | 81 | 5.5 | 4300 | 3.1 | 81 | 4.3 | 4300 | 2.4 | 80 | |
| 145.60 | | 7.5 | 4300 | 4.2 | 81 | 6.1 | 4300 | 3.4 | 81 | 4.8 | 4300 | 2.7 | 80 | |
| 131.85 | | 8.3 | 4300 | 4.6 | 81 | 6.8 | 4300 | 3.8 | 81 | 5.3 | 4300 | 3.0 | 81 | |
| 116.92 | | 9.4 | 4300 | 5.2 | 82 | 7.6 | 4300 | 4.3 | 81 | 5.9 | 4300 | 3.3 | 81 | |
| 105.71 | | 10 | 4300 | 5.7 | 82 | 8.5 | 4300 | 4.7 | 82 | 6.6 | 4300 | 3.7 | 81 | |
| 89.60 | | 12 | 4300 | 6.7 | 82 | 10 | 4300 | 5.5 | 82 | 7.8 | 4300 | 4.3 | 82 | |
| 78.26 | | 14 | 4230 | 7.6 | 82 | 11 | 4300 | 6.3 | 82 | 8.9 | 4300 | 4.9 | 82 | |
| 65.45 | | 16 | 3980 | 8.5 | 82 | 13 | 4240 | 7.4 | 82 | 10 | 4300 | 5.9 | 82 | |
| 80.85 | | 37/3 | 13 | 3690 | 5.8 | 91 | 11 | 3670 | 4.7 | 91 | 8.6 | 3640 | 3.7 | 90 |
| 71.43 | 15 | | 4200 | 7.4 | 92 | 12 | 4200 | 6.1 | 91 | 9.7 | 4200 | 4.8 | 91 | |
| 60.59 | 18 | | 4160 | 8.6 | 92 | 14 | 4270 | 7.3 | 92 | 11 | 4300 | 5.7 | 91 | |
| 55.79 | 19 | | 4110 | 9.2 | 92 | 16 | 4210 | 7.8 | 92 | 12 | 4300 | 6.2 | 91 | |
| 49.87 | 22 | | 4030 | 10.1 | 92 | 18 | 4160 | 8.6 | 92 | 14 | 4300 | 6.9 | 92 | |
| 44.89 | 24 | | 3930 | 11.0 | 92 | 20 | 4070 | 9.3 | 92 | 15 | 4270 | 7.6 | 92 | |
| 40.65 | 27 | | 3860 | 11.9 | 92 | 22 | 4030 | 10.2 | 92 | 17 | 4190 | 8.2 | 92 | |
| 36.05 | 30 | | 3740 | 13.0 | 92 | 24 | 3900 | 11.1 | 92 | 19 | 4110 | 9.1 | 92 | |
| 32.60 | 33 | | 3630 | 13.9 | 92 | 27 | 3820 | 12.0 | 92 | 21 | 4040 | 9.9 | 92 | |
| 27.63 | 39 | | 3490 | 15.8 | 92 | 32 | 3670 | 13.6 | 92 | 25 | 3900 | 11.2 | 92 | |
| 24.13 | 45 | | 3320 | 17.2 | 92 | 37 | 3560 | 15.1 | 92 | 29 | 3770 | 12.4 | 92 | |
| 26.39 | 35/6 | | 41 | 2650 | 12.3 | 94 | 34 | 2620 | 9.9 | 94 | 26 | 2700 | 8.0 | 94 |
| 23.59 | | | 46 | 2650 | 13.7 | 94 | 38 | 2650 | 11.2 | 94 | 29 | 2670 | 8.8 | 94 |
| 21.23 | | | 51 | 2650 | 15.2 | 94 | 42 | 2650 | 12.5 | 94 | 32 | 2620 | 9.6 | 94 |
| 19.23 | | 57 | 2650 | 16.8 | 95 | 46 | 2650 | 13.8 | 94 | 36 | 2620 | 10.6 | 94 | |
| 17.05 | | 64 | 2670 | 19 | 95 | 52 | 2650 | 15.5 | 95 | 41 | 2650 | 12.1 | 94 | |
| 15.42 | | 71 | 2670 | 21 | 95 | 58 | 2650 | 17.1 | 95 | 45 | 2650 | 13.3 | 95 | |
| 13.07 | | 84 | 2540 | 24 | 95 | 68 | 2670 | 20 | 95 | 53 | 2650 | 15.7 | 95 | |
| 11.41 | | 96 | 2420 | 26 | 95 | 78 | 2590 | 23 | 95 | 61 | 2650 | 18.0 | 95 | |
| 9.55 | | 115 | 2280 | 29 | 95 | 94 | 2440 | 25 | 95 | 73 | 2650 | 21 | 95 | |
| 8.26 | | 133 | 2140 | 32* | 95 | 108 | 2320 | 28 | 95 | 84 | 2540 | 24 | 95 | |

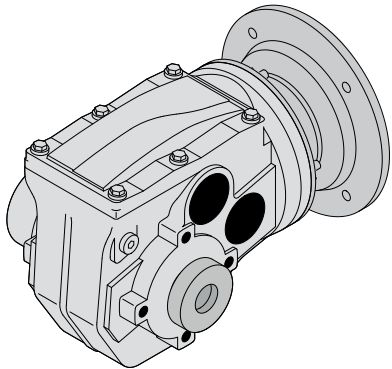
* P_{Mot,max} = 30 kW

500 – 10 min⁻¹

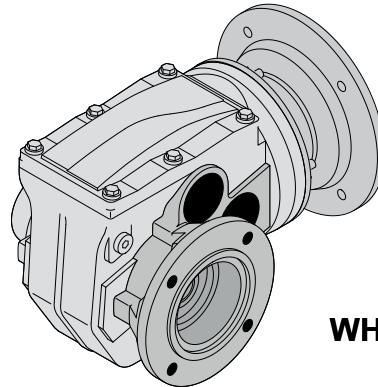
| i _{tot} | i _s | n _e = 500 min ⁻¹ | | | | n _e = 250 min ⁻¹ | | | | n _e = 10 min ⁻¹ | | | | |
|------------------|----------------|--|-------------------------|------------------------|--------|--|-------------------------|------------------------|--------|---------------------------------------|-------------------------|------------------------|--------|----|
| | | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | n _a min ⁻¹ | M _{amax} Nm | P _{Mot} kW | η % | |
| 286.40 | 40/1 | 1.7 | 4300 | 1.1 | 74 | 0.87 | 4300 | 0.58 | 67 | 0.03 | 4300 | <0.05 | 61 | |
| 262.22 | | 1.9 | 4300 | 1.1 | 75 | 0.95 | 4300 | 0.63 | 68 | 0.03 | 4300 | <0.05 | 61 | |
| 231.67 | | 2.1 | 4300 | 1.3 | 76 | 1.0 | 4300 | 0.70 | 70 | 0.04 | 4300 | <0.05 | 61 | |
| 196.52 | | 2.5 | 4300 | 1.5 | 77 | 1.2 | 4300 | 0.80 | 72 | 0.05 | 4300 | <0.05 | 61 | |
| 180.95 | | 2.7 | 4300 | 1.6 | 78 | 1.3 | 4300 | 0.86 | 72 | 0.05 | 4300 | <0.05 | 61 | |
| 161.74 | | 3.0 | 4300 | 1.8 | 79 | 1.5 | 4300 | 0.95 | 74 | 0.06 | 4300 | <0.05 | 61 | |
| 145.60 | | 3.4 | 4300 | 2.0 | 79 | 1.7 | 4300 | 1.0 | 75 | 0.06 | 4300 | 0.05 | 61 | |
| 131.85 | | 3.7 | 4300 | 2.1 | 80 | 1.8 | 4300 | 1.1 | 75 | 0.07 | 4300 | 0.06 | 61 | |
| 116.92 | | 4.2 | 4300 | 2.4 | 80 | 2.1 | 4300 | 1.3 | 76 | 0.08 | 4300 | 0.06 | 61 | |
| 105.71 | | 4.7 | 4300 | 2.6 | 81 | 2.3 | 4300 | 1.4 | 77 | 0.09 | 4300 | 0.07 | 61 | |
| 89.60 | | 5.5 | 4300 | 3.1 | 81 | 2.7 | 4300 | 1.6 | 78 | 0.11 | 4300 | 0.08 | 61 | |
| 78.26 | | 6.3 | 4300 | 3.5 | 82 | 3.1 | 4300 | 1.8 | 79 | 0.12 | 4300 | 0.09 | 61 | |
| 65.45 | | 7.6 | 4300 | 4.2 | 82 | 3.8 | 4300 | 2.1 | 80 | 0.15 | 4300 | 0.11 | 61 | |
| 80.85 | | 37/3 | 6.1 | 3600 | 2.6 | 89 | 3.0 | 3250 | 1.2 | 86 | 0.12 | 3250 | 0.05 | 81 |
| 71.43 | 6.9 | | 4200 | 3.4 | 90 | 3.4 | 4160 | 1.8 | 87 | 0.13 | 4160 | 0.08 | 81 | |
| 60.59 | 8.2 | | 4300 | 4.1 | 90 | 4.1 | 4300 | 2.1 | 88 | 0.16 | 4300 | 0.09 | 81 | |
| 55.79 | 8.9 | | 4300 | 4.5 | 91 | 4.4 | 4300 | 2.3 | 88 | 0.17 | 4300 | 0.10 | 81 | |
| 49.87 | 10 | | 4300 | 5.0 | 91 | 5.0 | 4300 | 2.6 | 89 | 0.20 | 4300 | 0.11 | 81 | |
| 44.89 | 11 | | 4300 | 5.5 | 91 | 5.5 | 4300 | 2.8 | 89 | 0.22 | 4300 | 0.12 | 81 | |
| 40.65 | 12 | | 4300 | 6.1 | 91 | 6.1 | 4300 | 3.1 | 89 | 0.24 | 4300 | 0.14 | 81 | |
| 36.05 | 13 | | 4290 | 6.8 | 92 | 6.9 | 4300 | 3.5 | 90 | 0.27 | 4300 | 0.15 | 81 | |
| 32.60 | 15 | | 4280 | 7.5 | 92 | 7.6 | 4300 | 3.8 | 90 | 0.30 | 4300 | 0.17 | 81 | |
| 27.63 | 18 | | 4150 | 8.5 | 92 | 9.0 | 4300 | 4.5 | 91 | 0.36 | 4300 | 0.20 | 81 | |
| 24.13 | 20 | | 4070 | 9.6 | 92 | 10 | 4300 | 5.1 | 91 | 0.41 | 4300 | 0.23 | 81 | |
| 26.39 | 35/6 | | 18 | 2790 | 5.9 | 94 | 9.4 | 2790 | 3.0 | 92 | 0.37 | 2790 | 0.13 | 87 |
| 23.59 | | | 21 | 2710 | 6.4 | 94 | 10 | 2710 | 3.3 | 93 | 0.42 | 2710 | 0.14 | 87 |
| 21.23 | | | 23 | 2740 | 7.2 | 94 | 11 | 2790 | 3.7 | 93 | 0.47 | 2790 | 0.16 | 87 |
| 19.23 | | 26 | 2700 | 7.8 | 94 | 13 | 2790 | 4.1 | 93 | 0.52 | 2790 | 0.17 | 87 | |
| 17.05 | | 29 | 2670 | 8.7 | 94 | 14 | 2790 | 4.6 | 93 | 0.58 | 2790 | 0.20 | 87 | |
| 15.42 | | 32 | 2620 | 9.4 | 94 | 16 | 2790 | 5.1 | 94 | 0.64 | 2790 | 0.22 | 87 | |
| 13.07 | | 38 | 2650 | 11.2 | 95 | 19 | 2790 | 6.0 | 94 | 0.76 | 2790 | 0.26 | 87 | |
| 11.41 | | 43 | 2650 | 12.9 | 95 | 21 | 2780 | 6.8 | 94 | 0.87 | 2790 | 0.29 | 87 | |
| 9.55 | | 52 | 2650 | 15.3 | 95 | 26 | 2700 | 7.8 | 94 | 1.0 | 2790 | 0.35 | 87 | |
| 8.26 | | 60 | 2650 | 17.7 | 95 | 30 | 2670 | 9.0 | 95 | 1.2 | 2790 | 0.41 | 87 | |

12 SPIROPLAN® W.. gear units

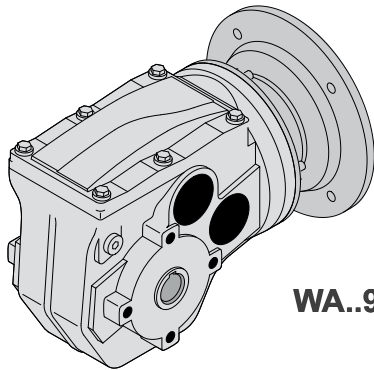
12.1 Selection tables for adapters for mounting IEC/NEMA motors (AMS..)



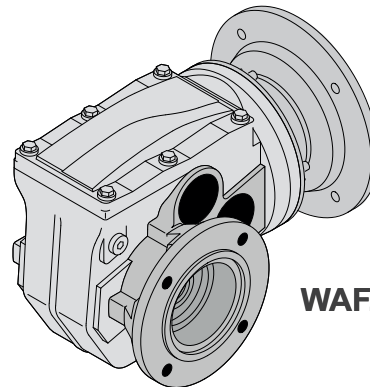
WT..9 AMS..



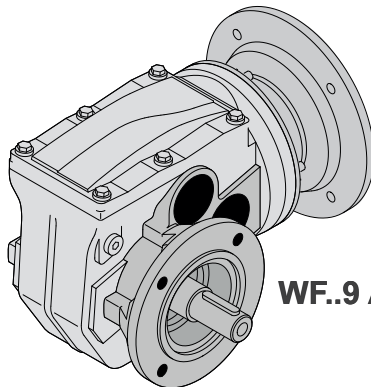
WHF..9 AMS..



WA..9 AMS..





WAF..9 AMS..







WF..9 AMS..



35392015243





26878565/EN – 11/2021

| WA19, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 80 Nm | | |
|---|----------------------------|-----------------------------|--------------------|----------------------|-------|----|----|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | $F_{Ra}^{1)}$ N | $\varphi_{(R)}$ ' | AMS | | |
| | | | | | 63 | 71 | 80 |
|  2 | | | | | | | |
| 5.90 | 237 | 34 | 1850 | - | 32 | 32 | 34 |
| 6.49 | 216 | 32 | 1970 | - | 32 | 32 | 32 |
| 7.62 | 184 | 43 | 1970 | - | 42 | 42 | 43 |
| 8.38 | 167 | 41 | 2090 | - | 41 | 41 | 41 |
| 9.31 | 150 | 50 | 2140 | - | 50 | 50 | 50 |
| 10.24 | 137 | 50 | 2200 | - | 50 | 50 | 50 |
| 12.16 | 115 | 56 | 2200 | - | 56 | 56 | 56 |
| 13.38 | 105 | 57 | 2200 | - | 57 | 57 | 57 |
| 16.16 | 87 | 62 | 2200 | - | 62 | 62 | 62 |
| 17.77 | 79 | 63 | 2200 | - | 63 | 63 | 63 |
| 20.86 | 67 | 61 | 2200 | - | 59 | 59 | 61 |
| 27.71 | 51 | 68 | 2200 | - | 68 | 68 | 68 |
|  3 | | | | | | | |
| 30.68 | 46 | 80 | 2200 | - | 80 | 80 | 80 |
| 33.74 | 41 | 80 | 2200 | - | 80 | 80 | 80 |
| 40.07 | 35 | 80 | 2200 | - | 80 | 80 | 80 |
| 44.07 | 32 | 80 | 2200 | - | 80 | 80 | 80 |
| 47.28 | 30 | 80 | 2200 | - | 80 | 80 | 80 |
| 52.61 | 27 | 80 | 2200 | - | 80 | 80 | 80 |
| 56.14 | 25 | 80 | 2200 | - | 80 | 80 | 80 |
| 61.75 | 23 | 80 | 2200 | - | 80 | 80 | 80 |
| 68.71 | 20 | 80 | 2200 | - | 80 | 80 | 80 |
| 74.57 | 19 | 80 | 2200 | - | 80 | 80 | 80 |
| 82.03 | 17 | 80 | 2200 | - | 80 | 80 | 80 |
| 90.04 | 16 | 80 | 2200 | - | 80 | 80 | |
| 96.28 | 15 | 80 | 2200 | - | 80 | 80 | 80 |
| 119.61 | 12 | 80 | 2200 | - | 80 | 80 | |
| 127.90 | 11 | 80 | 2200 | - | 80 | 80 | 80 |
| 167.59 | 8.4 | 80 | 2200 | - | 80 | 80 | |



| WA19, m /kg | | AMS | | | |
|-------------|------|---|-----|-----|-----|
| WA | IEC | s | 63 | 71 | 80 |
| | |  | 4.7 | 4.9 | 6.7 |
| | |  | 5.1 | 5.4 | 7.2 |
| | NEMA | s | - | 56 | - |
| | |  | - | 5.9 | - |
| | |  | - | 6.3 | - |





WAF: + 0.15 kg / WF: + 0.75 kg

| WA29, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 130 Nm | | |
|---|----------------------------|-----------------------------|--------------------|----------------------|--------|-----|-----|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | F_{Ra}^{-1} N | $\varphi_{(R)}$ ' | AMS | | |
| | | | | | 63 | 71 | 80 |
|  2 | | | | | | | |
| 4.68 | 299 | 43 | 2640 | - | 26 | 26 | 43 |
| 5.09 | 275 | 43 | 2740 | - | 28 | 28 | 43 |
| 5.60 | 250 | 41 | 2890 | - | 28 | 28 | 41 |
| 6.68 | 210 | 62 | 2860 | - | 37 | 37 | 62 |
| 7.27 | 193 | 62 | 2960 | - | 40 | 40 | 62 |
| 8.00 | 175 | 58 | 3160 | - | 41 | 41 | 58 |
| 9.66 | 145 | 89 | 3190 | - | 53 | 53 | 89 |
| 10.51 | 133 | 90 | 3300 | - | 58 | 58 | 90 |
| 11.56 | 121 | 85 | 3510 | - | 59 | 59 | 85 |
| 13.57 | 103 | 124 | 3360 | - | 75 | 75 | 124 |
| 14.77 | 95 | 126 | 3480 | - | 81 | 81 | 126 |
| 16.25 | 86 | 120 | 3710 | - | 83 | 83 | 120 |
| 19.45 | 72 | 130 | 4000 | - | 108 | 108 | 130 |
| 21.17 | 66 | 130 | 4160 | - | 117 | 117 | 130 |
| 23.29 | 60 | 130 | 4340 | - | 120 | 120 | 130 |
|  3 | | | | | | | |
| 25.89 | 54 | 130 | 4350 | - | 130 | 130 | 130 |
| 28.17 | 50 | 130 | 4520 | - | 130 | 130 | 130 |
| 30.99 | 45 | 130 | 4720 | - | 130 | 130 | 130 |
| 36.38 | 38 | 130 | 5000 | - | 130 | 130 | 130 |
| 38.73 | 36 | 130 | 5000 | - | 130 | 130 | 130 |
| 43.54 | 32 | 130 | 5000 | - | 130 | 130 | 130 |
| 49.58 | 28 | 130 | 5000 | - | 130 | 130 | 130 |
| 52.14 | 27 | 130 | 5000 | - | 130 | 130 | 130 |
| 56.74 | 25 | 130 | 5000 | - | 130 | 130 | 130 |
| 62.41 | 22 | 130 | 5000 | - | 130 | 130 | 130 |
| 69.68 | 20 | 130 | 5000 | - | 130 | 130 | 130 |
| 74.19 | 19 | 130 | 5000 | - | 130 | 130 | 130 |
| 78.02 | 18 | 130 | 5000 | - | 130 | 130 | 130 |
| 83.41 | 17 | 130 | 5000 | - | 130 | 130 | 130 |
| 93.58 | 15 | 130 | 5000 | - | 130 | 130 | 130 |
| 99.87 | 14 | 130 | 5000 | - | 130 | 130 | 130 |
| 108.68 | 13 | 130 | 5000 | - | 130 | 130 | 130 |
| 119.55 | 12 | 130 | 5000 | - | 130 | 130 | 130 |
| 131.50 | 11 | 130 | 5000 | - | 130 | 130 | 130 |
| 149.43 | 9.4 | 130 | 5000 | - | 130 | 130 | 130 |
| 188.47 | 7.4 | 130 | 5000 | - | 130 | 130 | 130 |

| WA29, m /kg | | | AMS | | |
|-------------|---|---|-----|-----------|------------|
| WA | IEC | s | 63 | 71 | 80 |
| | |  2 | 6.6 | 6.9 | 8.7 |
| | |  3 | 6.8 | 7.1 | 8.9 |
| | NEMA | s | - | 56 | 143 |
| | |  2 | - | 7.8 | 8.5 |
| |  3 | - | 8.1 | 8.8 | |



WAF: + 0.25 kg / WF: + 0.65 kg





| WA39, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 200 Nm | | | |
|---|----------------------------|-----------------------------|--------------------|----------------------|--------|-----|-----|-----|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | F_{Ra}^{-1} N | $\varphi_{(R)}$ ' | AMS | | | |
| | | | | | 63 | 71 | 80 | 90 |
|  2 | | | | | | | | |
| 4.72 | 297 | 59 | 2160 | - | 29 | 29 | 47 | 57 |
| 5.14 | 272 | 59 | 2250 | - | 30 | 30 | 51 | 59 |
| 5.65 | 248 | 66 | 2240 | - | 32 | 32 | 55 | 62 |
| 6.35 | 220 | 80 | 2280 | - | 39 | 39 | 64 | 77 |
| 6.91 | 203 | 80 | 2380 | - | 41 | 41 | 69 | 80 |
| 7.61 | 184 | 88 | 2380 | - | 43 | 43 | 74 | 84 |
| 9.14 | 153 | 124 | 2350 | - | 57 | 57 | 92 | 112 |
| 9.94 | 141 | 127 | 2430 | - | 59 | 59 | 100 | 115 |
| 10.94 | 128 | 125 | 2580 | - | 62 | 62 | 107 | 121 |
| 13.27 | 106 | 175 | 2350 | - | 83 | 83 | 134 | 162 |
| 14.44 | 97 | 175 | 2480 | - | 86 | 86 | 146 | 167 |
| 15.89 | 88 | 170 | 2690 | - | 90 | 90 | 156 | 170 |
| 19.78 | 71 | 200 | 2890 | - | 124 | 124 | 200 | 200 |
| 21.53 | 65 | 200 | 3030 | - | 128 | 128 | 200 | 200 |
| 23.68 | 59 | 200 | 3200 | - | 135 | 135 | 200 | 200 |
|  3 | | | | | | | | |
| 28.38 | 49 | 196 | 3240 | - | 176 | 176 | 196 | 196 |
| 30.88 | 45 | 196 | 3400 | - | 181 | 181 | 196 | 196 |
| 33.97 | 41 | 196 | 3590 | - | 191 | 191 | 196 | 196 |
| 41.22 | 34 | 200 | 4090 | - | 200 | 200 | 200 | 200 |
| 44.85 | 31 | 200 | 4280 | - | 200 | 200 | 200 | 200 |
| 49.34 | 28 | 200 | 4490 | - | 200 | 200 | 200 | 200 |
| 53.04 | 26 | 186 | 4690 | - | 186 | 186 | 186 | 186 |
| 58.34 | 24 | 186 | 4920 | - | 186 | 186 | 186 | 186 |
| 61.43 | 23 | 200 | 5220 | - | 200 | 200 | 200 | 200 |
| 66.85 | 21 | 200 | 5430 | - | 200 | 200 | 200 | 200 |
| 70.79 | 20 | 200 | 5380 | - | 200 | 200 | 200 | 200 |
| 73.53 | 19 | 200 | 5680 | - | 200 | 200 | 200 | 200 |
| 77.03 | 18 | 200 | 5600 | - | 200 | 200 | 200 | 200 |
| 84.74 | 17 | 200 | 5860 | - | 200 | 200 | 200 | 200 |
| 91.92 | 15 | 200 | 6280 | - | 200 | 200 | 200 | |
| 97.24 | 14 | 186 | 6270 | - | 186 | 186 | 186 | |
| 105.50 | 13 | 200 | 6680 | - | 200 | 200 | 200 | 200 |
| 114.81 | 12 | 200 | 6820 | - | 200 | 200 | 200 | 200 |
| 126.29 | 11 | 200 | 6820 | - | 200 | 200 | 200 | 200 |
| 141.23 | 9.9 | 200 | 6620 | - | 200 | 200 | 200 | |
| 157.87 | 8.9 | 200 | 6820 | - | 200 | 200 | 200 | |
| 210.49 | 6.7 | 200 | 6820 | - | 200 | 200 | 200 | |

| WA39, m /kg | | AMS | | | | |
|-------------|---|---|-----|-----------|------------|------------|
| WA | IEC | s | 63 | 71 | 80 | 90 |
| | |  | 8.1 | 8.3 | 10 | 11 |
| | |  | 8.8 | 9.1 | 11 | 11 |
| | NEMA | s | - | 56 | 143 | 145 |
| | |  | - | 9.3 | 10.0 | 10 |
| |  | - | 10 | 11 | 11 | |

WAF: + 0.80 kg / WF: + 1.7 kg

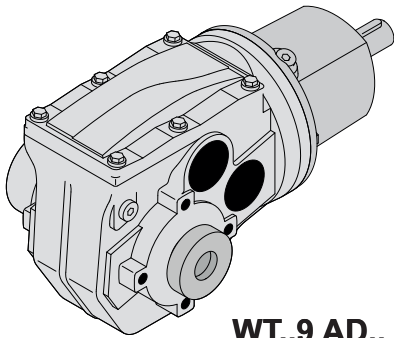
26878585/EN – 11/2021

| WA49, $n_e = 1400 \text{ min}^{-1}$, $M_{a \text{ max}}/\text{Nm}$ | | | | | 400 Nm | | | | |
|--|----------------------------|-----------------------------|--------------------|----------------------|--------|-----|-----|-----|-----|
| i | n_a min^{-1} | $M_{a \text{ max G}}$ Nm | F_{Ra}^{-1} N | $\varphi_{(R)}$ ' | AMS | | | | |
| | | | | | 63 | 71 | 80 | 90 | 100 |
|  2 | | | | | | | | | |
| 7.22 | 194 | 138 | 3060 | - | 47 | 47 | 85 | 103 | 138 |
| 7.88 | 178 | 149 | 3070 | - | 51 | 51 | 90 | 107 | 149 |
| 8.67 | 161 | 131 | 3440 | - | 55 | 55 | 89 | 108 | 131 |
| 10.13 | 138 | 193 | 3140 | - | 66 | 66 | 119 | 144 | 193 |
| 11.05 | 127 | 205 | 3120 | - | 72 | 72 | 126 | 150 | 209 |
| 12.16 | 115 | 184 | 3570 | - | 78 | 78 | 125 | 152 | 184 |
| 14.12 | 99 | 265 | 3120 | - | 93 | 93 | 166 | 200 | 269 |
| 15.40 | 91 | 290 | 3080 | - | 100 | 100 | 176 | 205 | 290 |
| 16.94 | 83 | 255 | 3610 | - | 108 | 108 | 174 | 210 | 258 |
| 18.91 | 74 | 325 | 3300 | - | 124 | 124 | 220 | 270 | 327 |
| 20.63 | 68 | 335 | 3420 | - | 135 | 135 | 235 | 280 | 335 |
| 22.69 | 62 | 340 | 3560 | - | 145 | 145 | 230 | 285 | 342 |
|  3 | | | | | | | | | |
| 26.11 | 54 | 375 | 3040 | - | 169 | 169 | 300 | 365 | 378 |
| 28.48 | 49 | 375 | 3250 | - | 184 | 184 | 320 | 378 | 378 |
| 31.33 | 45 | 375 | 3490 | - | 198 | 198 | 315 | 378 | 378 |
| 36.38 | 38 | 400 | 3960 | - | 235 | 235 | 400 | 400 | 400 |
| 39.69 | 35 | 400 | 4200 | - | 255 | 255 | 400 | 400 | 400 |
| 43.66 | 32 | 400 | 4470 | - | 275 | 275 | 400 | 400 | 400 |
| 48.73 | 29 | 395 | 5040 | - | 315 | 315 | 396 | 396 | 396 |
| 53.16 | 26 | 395 | 5310 | - | 340 | 340 | 396 | 396 | 396 |
| 58.48 | 24 | 395 | 5600 | - | 370 | 370 | 396 | 396 | 396 |
| 61.58 | 23 | 400 | 5200 | - | 395 | 395 | 400 | 400 | 400 |
| 67.73 | 21 | 400 | 5510 | - | 400 | 400 | 400 | 400 | 400 |
| 70.25 | 20 | 395 | 6000 | - | 385 | 385 | 396 | | |
| 78.66 | 18 | 400 | 6000 | - | 400 | 400 | 400 | 400 | 400 |
| 85.81 | 16 | 400 | 6000 | - | 400 | 400 | 400 | 400 | 400 |
| 92.86 | 15 | 395 | 6000 | - | 375 | 375 | 396 | | |
| 94.39 | 15 | 400 | 6000 | - | 400 | 400 | 400 | 400 | 400 |
| 105.36 | 13 | 395 | 6000 | - | 396 | 396 | 396 | 396 | 396 |
| 114.94 | 12 | 395 | 6000 | - | 396 | 396 | 396 | 396 | 396 |
| 126.43 | 11 | 395 | 6000 | - | 396 | 396 | 396 | 396 | 396 |
| 149.88 | 9.3 | 400 | 6000 | - | 400 | 400 | 400 | | |
| 151.87 | 9.2 | 395 | 6000 | - | 396 | 396 | 396 | | |
| 200.76 | 7.0 | 395 | 6000 | - | 396 | 396 | 396 | | |

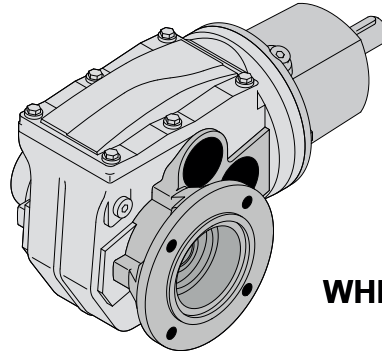
| WA49, m /kg | | AMS | | | | | |
|-------------|---|---|----|-----------|------------|------------|------------|
| WA | IEC | s | 63 | 71 | 80 | 90 | 100 |
| | |  | 12 | 12 | 14 | 15 | 19 |
| | |  | 14 | 14 | 16 | 17 | 21 |
| | NEMA | s | - | 56 | 143 | 145 | 182 |
| | |  | - | 14 | 14 | 14 | 18 |
| |  | - | 15 | 16 | 16 | 20 | |

WAF: + 0.75 kg / WF: + 1.5 kg

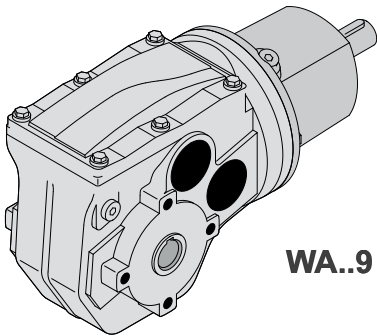
12.2 Selection tables for input shaft assembly (AD..)



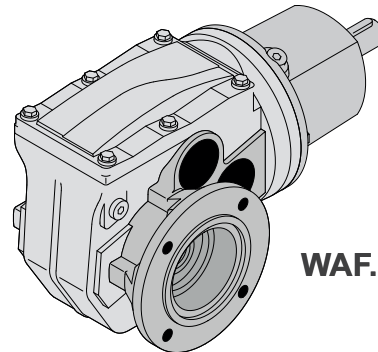
WT..9 AD..



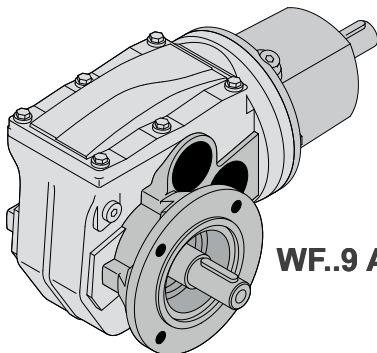
WHF..9 AD..



WA..9 AD..


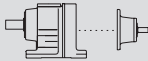






WAF..9 AD..


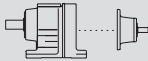




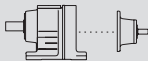

WF..9 AD..




27021619225119627

| WA19 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 80 Nm | |
|---|----------------------------|-------------------------|-------------|----------------------------|----------------------|--------------|---|--|---------|---|--|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{\text{Ra}}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | |
| 167.59 | 8.3 | 80 | 0.08 | 2200 | 810 | - | - | | | | |
| 127.90 | 11 | 80 | 0.10 | 2200 | 820 | - | - | | | | |
| 119.61 | 12 | 80 | 0.11 | 2200 | 755 | - | - | | | | |
| 96.28 | 15 | 80 | 0.14 | 2200 | 785 | - | - | | | | |
| 90.04 | 16 | 80 | 0.15 | 2200 | 630 | - | - | | | | |
| 82.03 | 17 | 80 | 0.15 | 2200 | 840 | - | - | | | | |
| 74.57 | 19 | 80 | 0.17 | 2200 | 840 | - | - | | | | |
| 68.71 | 20 | 80 | 0.19 | 2200 | 680 | - | - | WA 19 | AD01 | 4.0 737 | |
| 61.75 | 23 | 80 | 0.20 | 2200 | 810 | - | - | WAF 19 | AD01 | 4.2 737 | |
| 56.14 | 25 | 80 | 0.22 | 2200 | 810 | - | - | WF 19 | AD01 | 4.8 737 | |
| 52.61 | 27 | 80 | 0.25 | 2200 | 535 | - | - | | | | |
| 47.28 | 30 | 80 | 0.27 | 2200 | 775 | - | - | | | | |
| 44.07 | 32 | 80 | 0.29 | 2200 | 750 | - | - | | | | |
| 40.07 | 35 | 80 | 0.31 | 2200 | 740 | - | - | | | | |
| 33.74 | 41 | 80 | 0.37 | 1980 | 630 | - | - | | | | |
| 30.68 | 46 | 80 | 0.41 | 1890 | 615 | - | - | | | | |
| 27.71 | 51 | 68 | 0.40 | 2000 | 179 | - | - | | | | |
| 20.86 | 67 | 60 | 0.46 | 1810 | 14 | - | - | | | | |
| 17.77 | 79 | 63 | 0.55 | 1680 | 390 | - | - | | | | |
| 16.16 | 87 | 62 | 0.59 | 1620 | 380 | - | - | | | | |
| 13.38 | 105 | 57 | 0.66 | 1510 | 235 | - | - | | | | |
| 12.16 | 115 | 56 | 0.71 | 1460 | 230 | - | - | WA 19 | AD01 | 3.6 737 | |
| 10.24 | 137 | 50 | 0.76 | 1370 | 104 | - | - | WAF 19 | AD01 | 3.7 737 | |
| 9.31 | 150 | 50 | 0.83 | 1310 | 76 | - | - | WF 19 | AD01 | 4.3 737 | |
| 8.38 | 167 | 41 | 0.76 | 1280 | 102 | - | - | | | | |
| 7.62 | 184 | 43 | 0.87 | 1200 | 22 | - | - | | | | |
| 6.49* | 216 | 32 | 0.77 | 1210 | 94 | - | - | | | | |
| 5.90 | 237 | 33 | 0.86 | 1140 | 32 | - | - | | | | |




| WA29 AD.. , $n_e = 1400 \text{ min}^{-1}$ | | | | | | | | | | 130 Nm | |
|---|----------------------------|-------------------------|-------------|----------------------------|----------------------|--------------|---|--|---------|---|--|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{\text{Ra}}^{(1)}$ N | F_{Re} N | $\Phi_{(R)}$ |  |  | m kg |  | |
| 188.47 | 7.4 | 130 | 0.13 | 3490 | 720 | - | - | | | | |
| 149.43 | 9.4 | 130 | 0.15 | 3490 | 740 | - | - | | | | |
| 131.50 | 11 | 130 | 0.17 | 3490 | 595 | - | - | | | | |
| 119.55 | 12 | 130 | 0.19 | 3490 | 745 | - | - | | | | |
| 108.68 | 13 | 130 | 0.20 | 3490 | 740 | - | - | | | | |
| 99.87 | 14 | 130 | 0.22 | 3490 | 730 | - | - | | | | |
| 93.58 | 15 | 130 | 0.24 | 3490 | 430 | - | - | | | | |
| 83.41 | 17 | 130 | 0.26 | 3490 | 650 | - | - | | | | |
| 78.02 | 18 | 130 | 0.28 | 3490 | 530 | - | - | | | | |
| 74.19 | 19 | 130 | 0.29 | 3490 | 505 | - | - | | | | |
| 69.68 | 20 | 130 | 0.31 | 3490 | 610 | - | - | WA 29 | AD1 | 6.5 737 | |
| 62.41 | 22 | 130 | 0.34 | 3490 | 525 | - | - | WAF 29 | AD1 | 6.8 737 | |
| 56.74 | 25 | 130 | 0.37 | 3490 | 515 | - | - | WF 29 | AD1 | 7.2 737 | |
| 52.14 | 27 | 130 | 0.40 | 3490 | 480 | - | - | | | | |
| 49.58 | 28 | 130 | 0.42 | 3490 | 450 | - | - | | | | |
| 43.54 | 32 | 130 | 0.49 | 3490 | 320 | - | - | | | | |
| 38.73* | 36 | 130 | 0.55 | 3390 | 45 | - | - | | | | |
| 36.38 | 38 | 130 | 0.57 | 3370 | 250 | - | - | | | | |
| 30.99* | 45 | 130 | 0.68 | 3070 | 41 | - | - | | | | |
| 28.17 | 50 | 130 | 0.74 | 2940 | 17 | - | - | | | | |
| 25.89 | 54 | 130 | 0.81 | 2830 | 1560 | - | - | WA 29 | AD2 | 7.7 737 | |
| | | | | | | | | WAF 29 | AD2 | 7.9 737 | |
| | | | | | | | | WF 29 | AD2 | 8.3 737 | |

| WA29 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 130 Nm | |
|---|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|--|---------|---|--|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | |
| 23.29 | 60 | 130 | 0.90 | 2820 | 1500 | - | - | | | | |
| 21.17 | 66 | 130 | 0.97 | 2700 | 1490 | - | - | | | | |
| 19.45 | 72 | 130 | 1.1 | 2600 | 1460 | - | - | | | | |
| 16.25 | 86 | 120 | 1.2 | 2410 | 1370 | - | - | | | | |
| 14.77 | 95 | 111 | 1.2 | 2380 | 1400 | - | - | | | | |
| 13.57 | 103 | 102 | 1.2 | 2360 | 1400 | - | - | | | | |
| 11.56* | 121 | 85 | 1.2 | 2280 | 1370 | - | - | WA 29 | AD2 | 7.4 737 | |
| 10.51 | 133 | 79 | 1.2 | 2240 | 1400 | - | - | WAF 29 | AD2 | 7.7 737 | |
| 9.66 | 145 | 72 | 1.2 | 2220 | 1400 | - | - | WF 29 | AD2 | 8.0 737 | |
| 8.00 | 175 | 58 | 1.2 | 2050 | 1380 | - | - | | | | |
| 7.27 | 193 | 55 | 1.2 | 2000 | 1390 | - | - | | | | |
| 6.68 | 210 | 50 | 1.2 | 1980 | 1400 | - | - | | | | |
| 5.60 | 250 | 41 | 1.2 | 1880 | 1370 | - | - | | | | |
| 5.09 | 275 | 38 | 1.2 | 1840 | 1400 | - | - | | | | |
| 4.68 | 299 | 35 | 1.2 | 1810 | 1400 | - | - | | | | |

| WA39 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 200 Nm | |
|---|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|--|---------|---|--|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | |
| 210.49 | 6.7 | 200 | 0.17 | 4410 | 635 | - | - | | | | |
| 157.87 | 8.9 | 200 | 0.21 | 4410 | 665 | - | - | | | | |
| 141.23 | 9.9 | 200 | 0.25 | 4260 | 455 | - | - | | | | |
| 126.29 | 11 | 200 | 0.26 | 4410 | 680 | - | - | | | | |
| 114.81 | 12 | 200 | 0.29 | 4410 | 660 | - | - | | | | |
| 105.50 | 13 | 200 | 0.31 | 4320 | 650 | - | - | | | | |
| 97.24 | 14 | 186 | 0.33 | 4040 | 260 | - | - | | | | |
| 91.92 | 15 | 200 | 0.36 | 4060 | 415 | - | - | | | | |
| 84.74 | 17 | 200 | 0.39 | 3760 | 520 | - | - | WA 39 | AD1 | 8.6 737 | |
| 77.03 | 18 | 200 | 0.42 | 3600 | 495 | - | - | WAF 39 | AD1 | 9.3 737 | |
| 73.53 | 19 | 200 | 0.45 | 3670 | 445 | - | - | WF 39 | AD1 | 10 737 | |
| 70.79 | 20 | 200 | 0.45 | 3450 | 480 | - | - | | | | |
| 66.85 | 21 | 200 | 0.48 | 3510 | 415 | - | - | | | | |
| 61.43 | 23 | 200 | 0.52 | 3370 | 395 | - | - | | | | |
| 58.34 | 24 | 186 | 0.52 | 3170 | 350 | - | - | | | | |
| 53.04 | 26 | 186 | 0.56 | 3020 | 310 | - | - | | | | |
| 49.34 | 28 | 200 | 0.66 | 2880 | 170 | - | - | | | | |
| 44.85 | 31 | 200 | 0.71 | 2740 | 124 | - | - | | | | |
| 41.22 | 34 | 200 | 0.77 | 2620 | 99 | - | - | | | | |
| 33.97 | 41 | 196 | 0.94 | 2310 | 1520 | - | - | WA 39 | AD2 | 9.7 737 | |
| 30.88 | 45 | 196 | 1.0 | 2190 | 1500 | - | - | WAF 39 | AD2 | 10 737 | |
| 28.38 | 49 | 196 | 1.1 | 2080 | 1480 | - | - | WF 39 | AD2 | 11 737 | |
| 23.68* | 59 | 200 | 1.3 | 2070 | 1350 | - | - | | | | |
| 21.53 | 65 | 200 | 1.5 | 1960 | 1320 | - | - | | | | |
| 19.78 | 71 | 200 | 1.6 | 1870 | 1300 | - | - | | | | |
| 15.89 | 88 | 156 | 1.6 | 1830 | 1130 | - | - | | | | |
| 14.44 | 97 | 146 | 1.6 | 1810 | 1230 | - | - | | | | |
| 13.27 | 105 | 134 | 1.6 | 1820 | 1300 | - | - | | | | |
| 10.94 | 128 | 108 | 1.6 | 1800 | 1120 | - | - | WA 39 | AD2 | 8.9 737 | |
| 9.94 | 141 | 100 | 1.6 | 1780 | 1240 | - | - | WAF 39 | AD2 | 9.7 737 | |
| 9.14 | 153 | 92 | 1.6 | 1780 | 1300 | - | - | WF 39 | AD2 | 10 737 | |
| 7.61 | 184 | 74 | 1.5 | 1670 | 1150 | - | - | | | | |
| 6.91 | 202 | 70 | 1.6 | 1640 | 1230 | - | - | | | | |
| 6.35 | 220 | 64 | 1.6 | 1630 | 1300 | - | - | | | | |
| 5.65 | 248 | 56 | 1.6 | 1560 | 1110 | - | - | | | | |
| 5.14 | 272 | 52 | 1.6 | 1530 | 1230 | - | - | | | | |
| 4.72 | 296 | 48 | 1.6 | 1520 | 1290 | - | - | | | | |

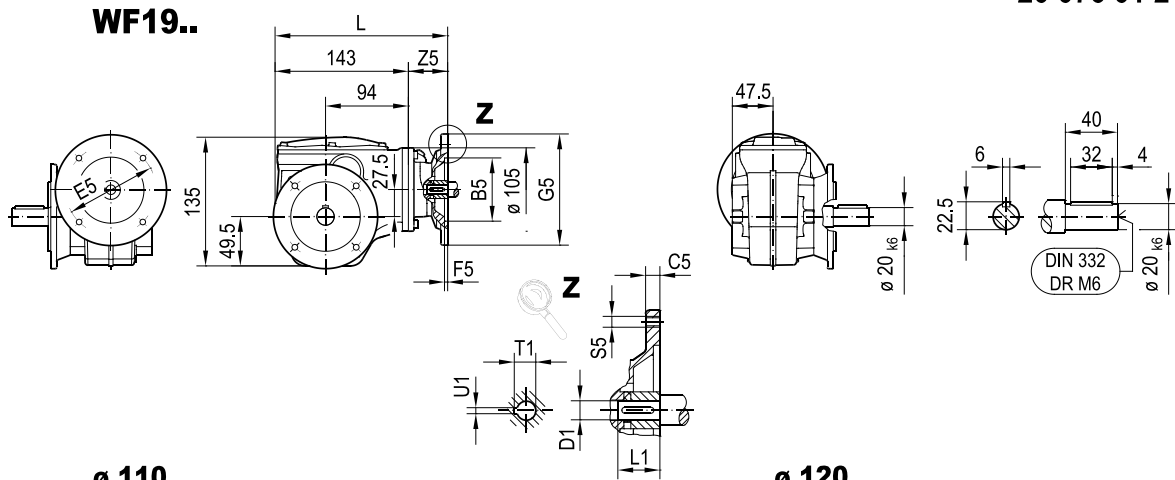
| WA49 AD.. , n _e = 1400 min ⁻¹ | | | | | | | | | | 400 Nm | |
|---|-------------------------------------|-------------------------|----------------------|-------------------------------------|----------------------|-------------------|---|--|---------|---|--|
| i | n _a min ⁻¹ | M _{amax} Nm | P _e kW | F _{Ra} ⁽¹⁾ N | F _{Re} N | Φ _(/R) |  |  | m kg |  | |
| 200.76 | 7.0 | 390 | 0.33 | 6000 | 1730 | - | - | WA 49 | AD2 | 15 737 | |
| 151.87 | 9.2 | 390 | 0.42 | 6000 | 1730 | - | - | WAF 49 | AD2 | 15 737 | |
| 149.88 | 9.3 | 400 | 0.45 | 6000 | 1660 | - | - | WF 49 | AD2 | 16 737 | |

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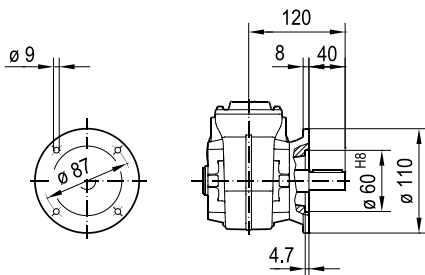
| WA49 AD.. , $n_o = 1400 \text{ min}^{-1}$ | | | | | | | | | | | 400 Nm | |
|---|----------------------------|-------------------------|-------------|----------------------------|----------------------|-----------------|---|--|-----|---------|---|--|
| i | n_a min^{-1} | M_{amax} Nm | P_e kW | $F_{\text{Ra}}^{(1)}$ N | F_{Re} N | $\varphi_{(R)}$ |  |  | | m kg |  | |
| 126.43 | 11 | 390 | 0.53 | 6000 | 2730 | - | - | WA 49 | AD3 | 18 | 737 | |
| 114.94 | 12 | 390 | 0.57 | 6000 | 2730 | - | - | WAF 49 | AD3 | 18 | 737 | |
| 105.36 | 13 | 390 | 0.62 | 6000 | 2720 | - | - | WF 49 | AD3 | 19 | 737 | |
| 94.39 | 15 | 400 | 0.69 | 6000 | 1660 | - | - | | | | | |
| 92.86 | 15 | 390 | 0.69 | 6000 | 1520 | - | - | | | | | |
| 85.81 | 16 | 400 | 0.75 | 6000 | 1650 | - | - | WA 49 | AD2 | 15 | 737 | |
| 78.66 | 18 | 400 | 0.82 | 6000 | 1640 | - | - | WAF 49 | AD2 | 15 | 737 | |
| 70.25 | 20 | 390 | 0.89 | 6000 | 1530 | - | - | WF 49 | AD2 | 16 | 737 | |
| 67.73 | 21 | 400 | 0.95 | 6000 | 1550 | - | - | | | | | |
| 61.58 | 23 | 400 | 1.0 | 6000 | 1550 | - | - | | | | | |
| 58.48 | 24 | 390 | 1.1 | 6000 | 2520 | - | - | WA 49 | AD3 | 18 | 737 | |
| 53.16 | 26 | 390 | 1.2 | 6000 | 2520 | - | - | WAF 49 | AD3 | 18 | 737 | |
| 48.73 | 29 | 390 | 1.3 | 6000 | 2500 | - | - | WF 49 | AD3 | 19 | 737 | |
| 43.66 | 32 | 400 | 1.5 | 5570 | 1360 | - | - | | | | | |
| 39.69 | 35 | 400 | 1.6 | 5310 | 1350 | - | - | | | | | |
| 36.38 | 38 | 400 | 1.7 | 5070 | 1330 | - | - | WA 49 | AD2 | 15 | 737 | |
| 31.33 | 45 | 375 | 1.9 | 4640 | 960 | - | - | WAF 49 | AD2 | 15 | 737 | |
| 28.48 | 49 | 375 | 2.1 | 4400 | 1080 | - | - | WF 49 | AD2 | 16 | 737 | |
| 26.11 | 54 | 375 | 2.3 | 4190 | 1030 | - | - | | | | | |
| 22.69 | 62 | 340 | 2.4 | 4460 | 485 | - | - | | | | | |
| 20.63 | 68 | 335 | 2.5 | 4290 | 675 | - | - | | | | | |
| 18.91 | 74 | 325 | 2.7 | 4160 | 675 | - | - | | | | | |
| 16.94 | 83 | 255 | 2.4 | 4300 | 460 | - | - | | | | | |
| 15.40 | 91 | 290 | 2.9 | 3880 | 310 | - | - | | | | | |
| 14.12 | 99 | 265 | 3.0 | 3860 | 440 | - | - | WA 49 | AD2 | 13 | 737 | |
| 12.16 | 115 | 184 | 2.4 | 4090 | 475 | - | - | WAF 49 | AD2 | 14 | 737 | |
| 11.05 | 127 | 205 | 3.0 | 3720 | 295 | - | - | WF 49 | AD2 | 14 | 737 | |
| 10.13 | 138 | 193 | 3.0 | 3690 | 440 | - | - | | | | | |
| 8.67 | 162 | 131 | 2.4 | 3820 | 480 | - | - | | | | | |
| 7.88 | 178 | 149 | 3.0 | 3510 | 295 | - | - | | | | | |
| 7.22 | 194 | 138 | 3.0 | 3470 | 430 | - | - | | | | | |

12.3 Dimension sheets for adapters for mounting IEC motors (AMS..)

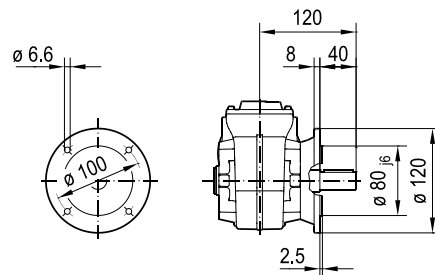
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ø 110

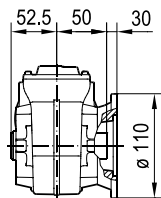


ø 120

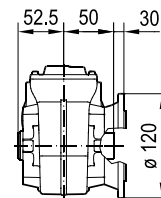


WAF19..

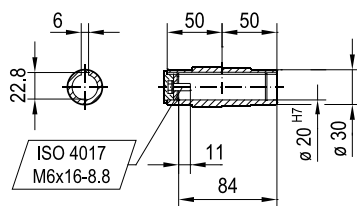
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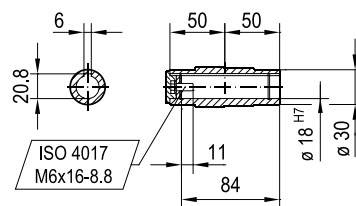
ø 120



ø 20 H7



ø 18 H7

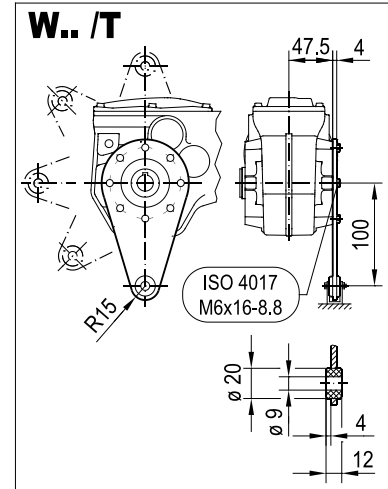
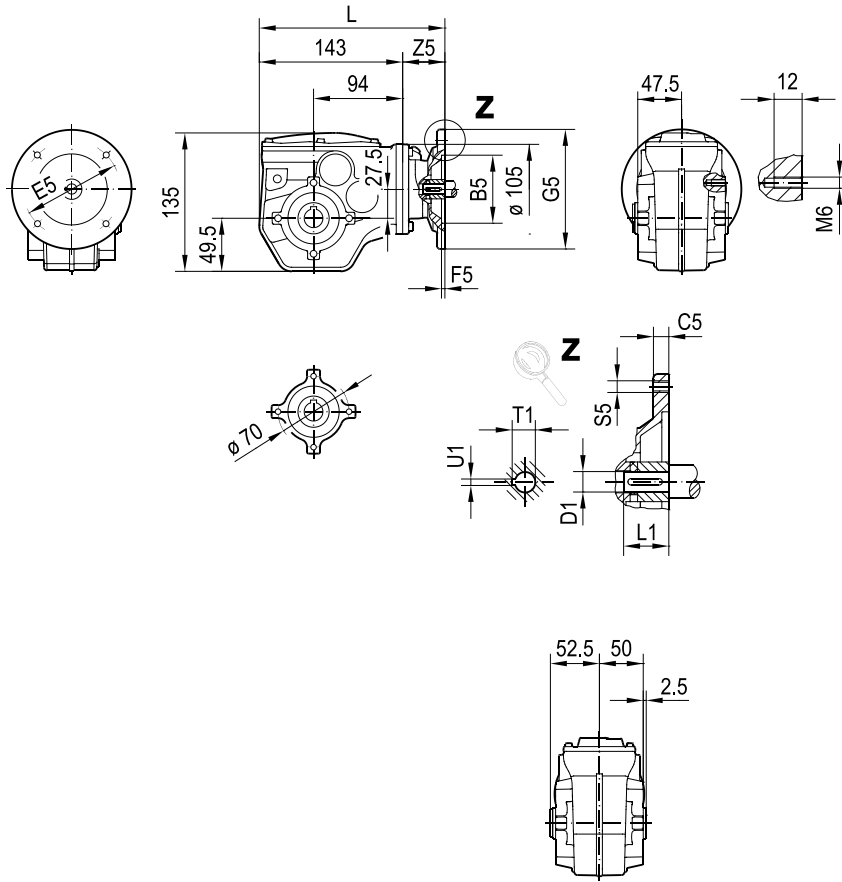


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 200 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 200 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 217 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |

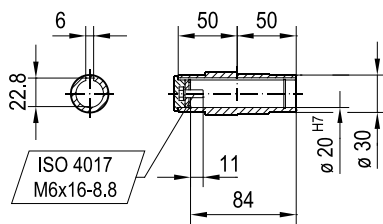
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20 077 01 21

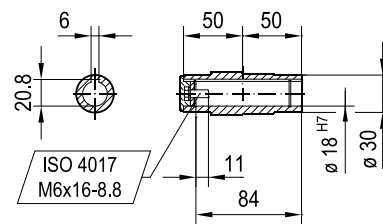
WA19..



ø 20 H7



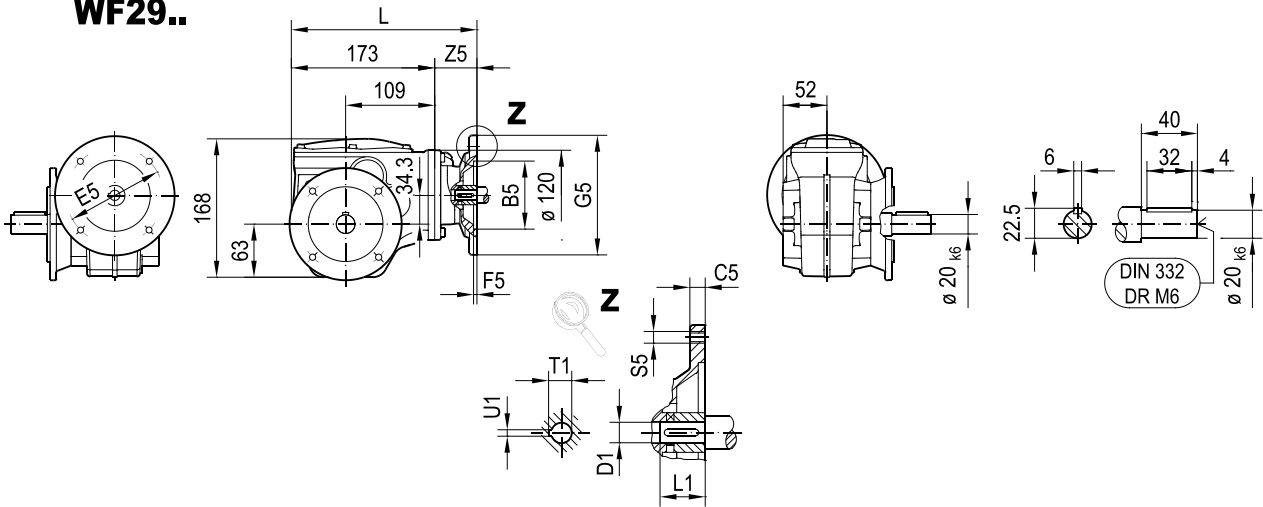
ø 18 H7



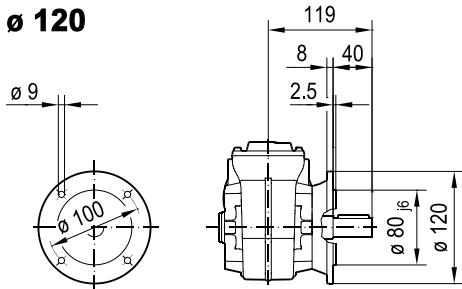
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 200 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 200 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 217 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |

20 160 00 20

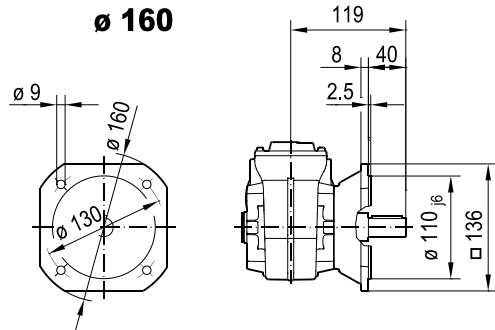
WF29..



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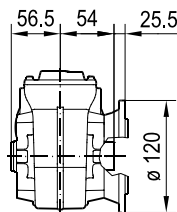


ø 160

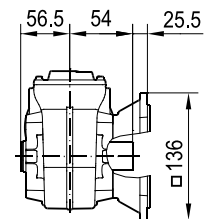


WAF29..

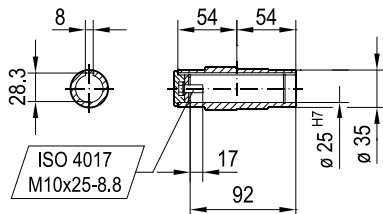
ø 120



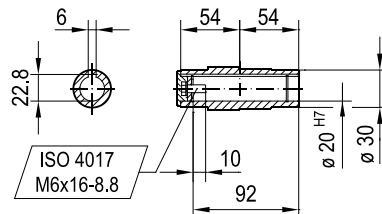
ø 160



ø 25 H7



ø 20 H7

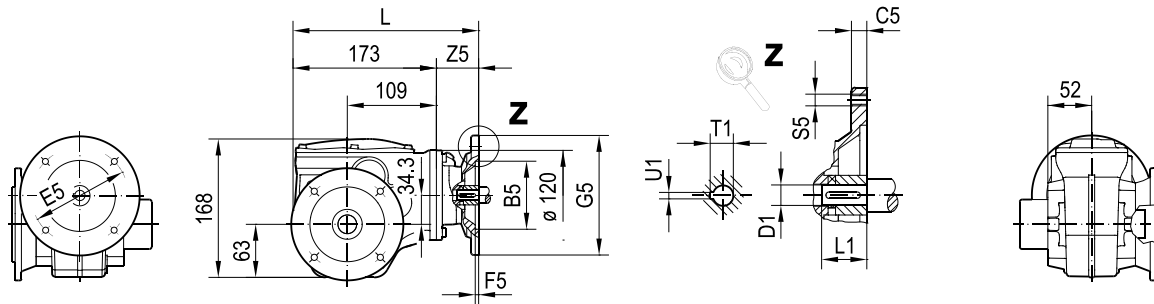


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 230 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 230 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 247 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |

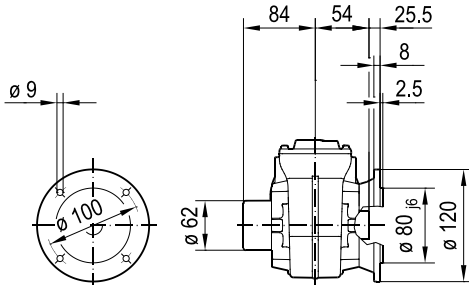
26878585/EN – 11/2021

20 161 00 20

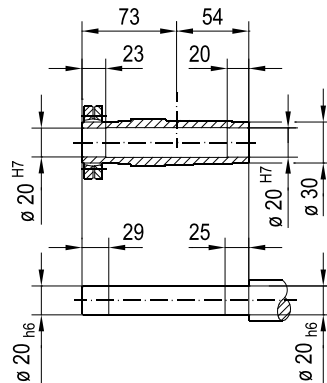
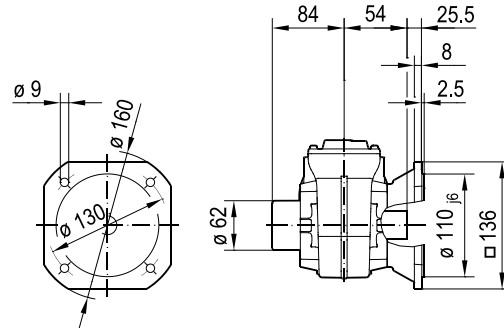
WHF29..



ø 120



ø 160

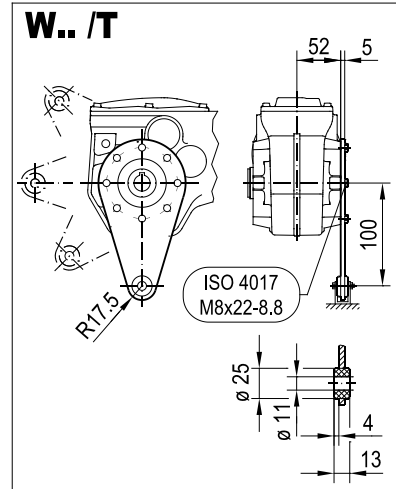
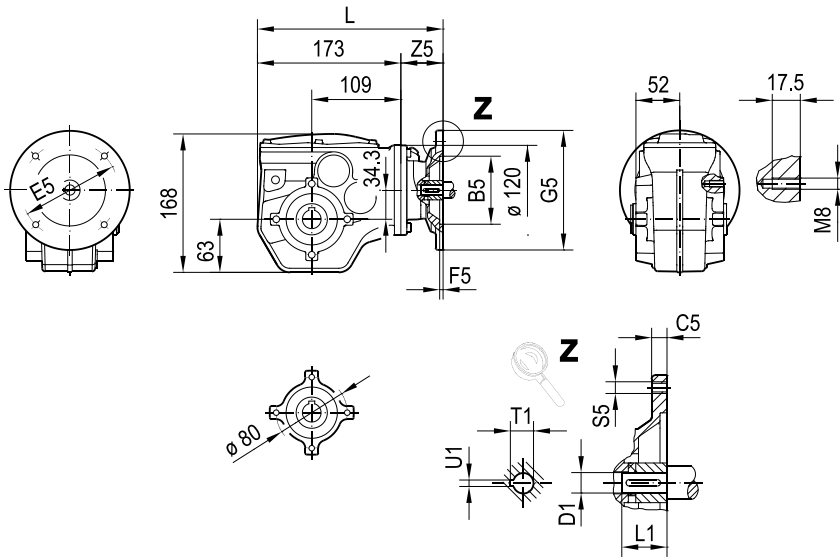


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 230 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 230 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 247 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |

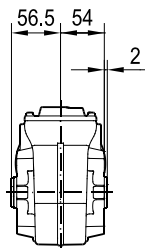
26878565/EN – 11/2021

20 162 00 20

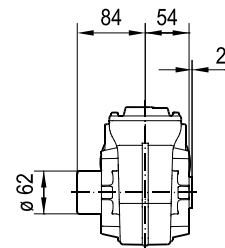
WA29..



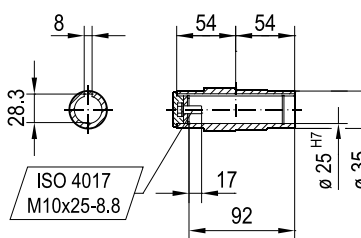
WA29..



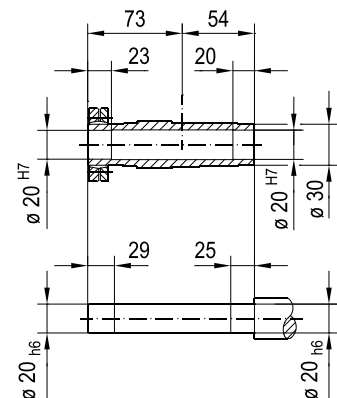
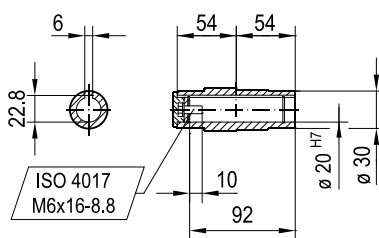
WH29..



Ø 25 H7



Ø 20 H7

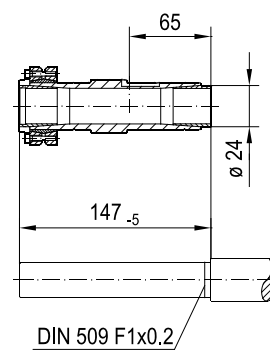
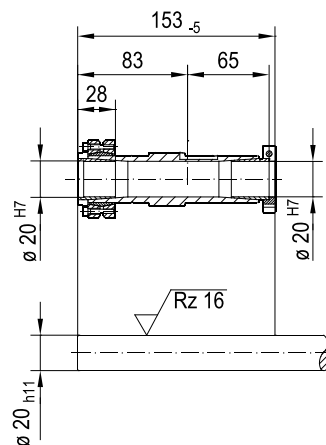
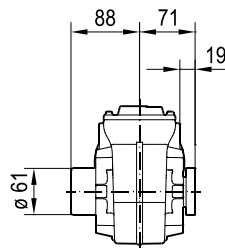
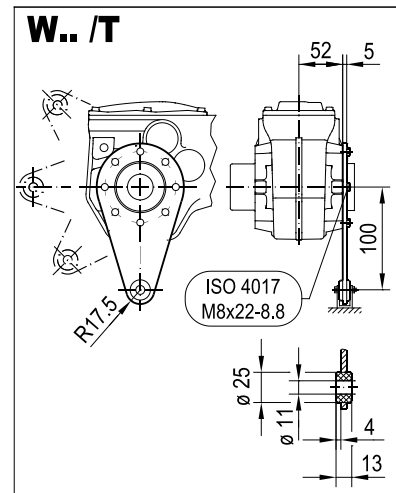
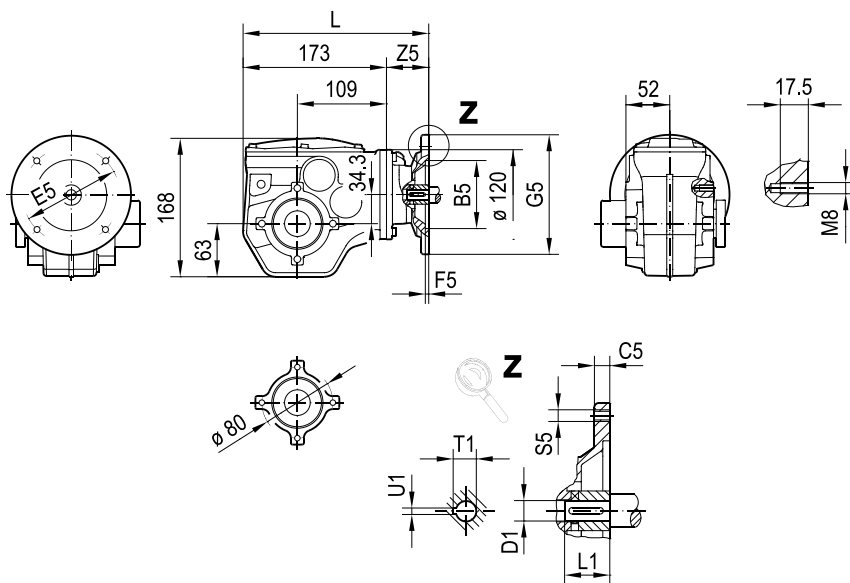


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 230 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 230 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 247 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |

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20 177 00 20

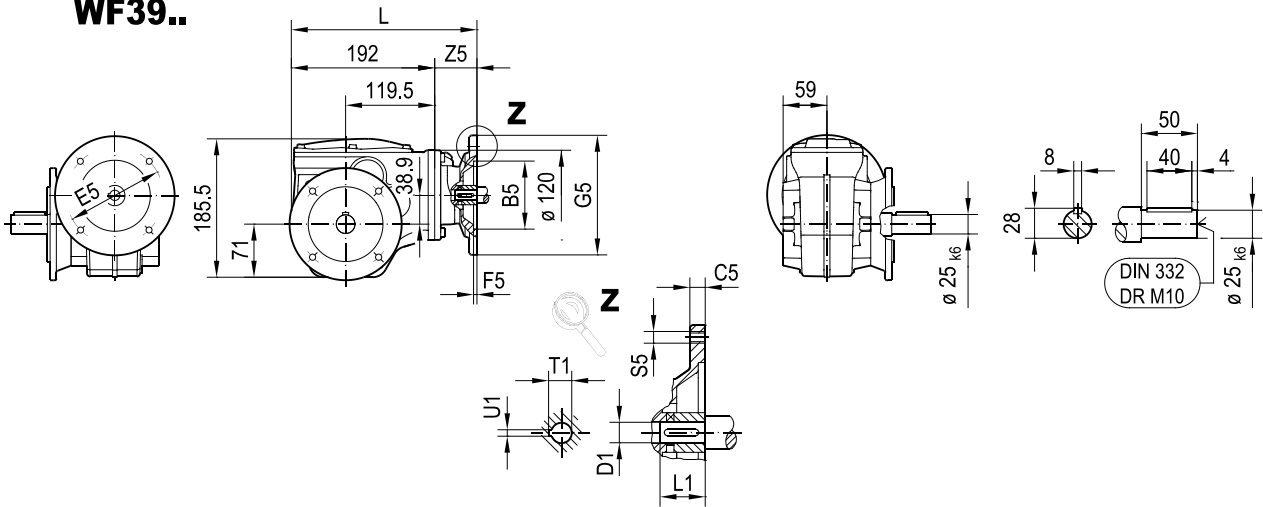
WT29..



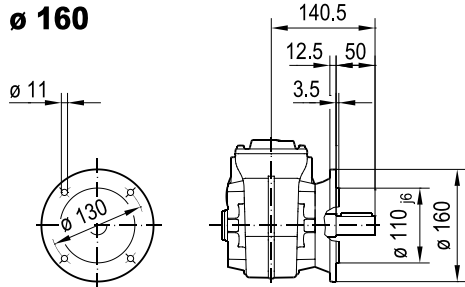
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 230 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 230 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 247 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |

20 163 00 20

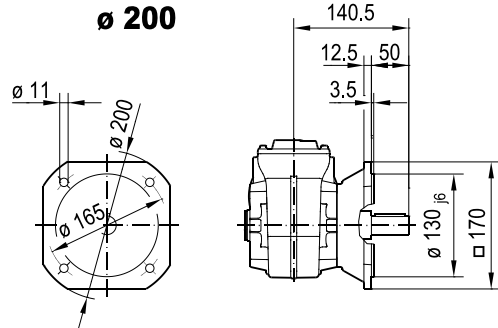
WF39..



ø 160

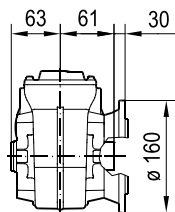


ø 200

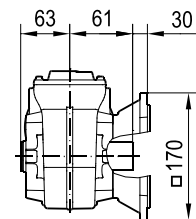


WAF39..

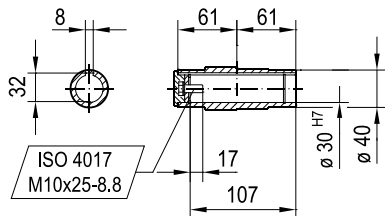
ø 160



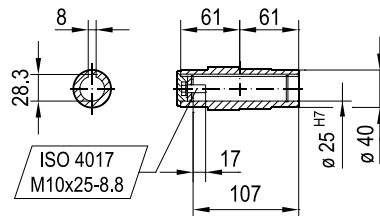
ø 200



**ø 30 H7
DIN 6885-3**



ø 25 H7

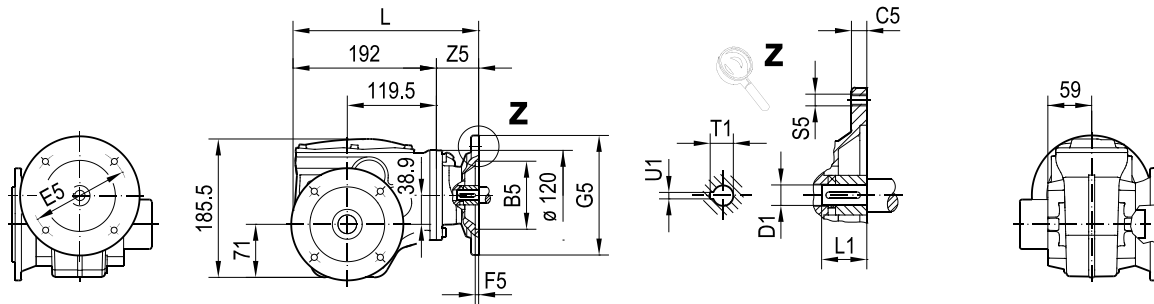


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 249 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 249 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 266 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 279 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

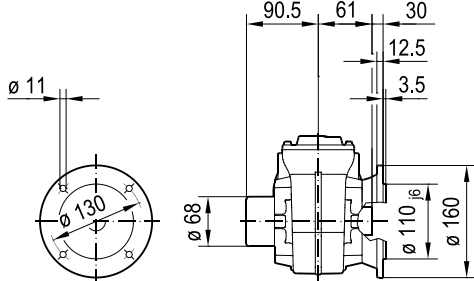
26878585/EN – 11/2021

20 164 00 20

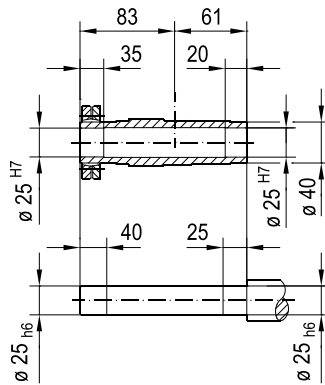
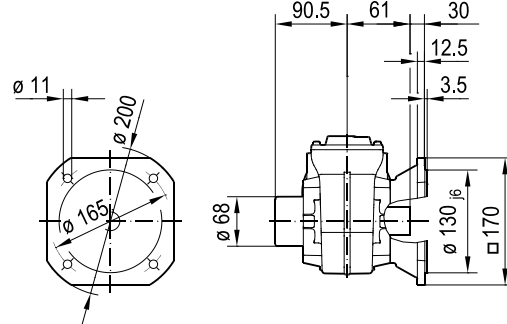
WHF39..



ø 160



ø 200

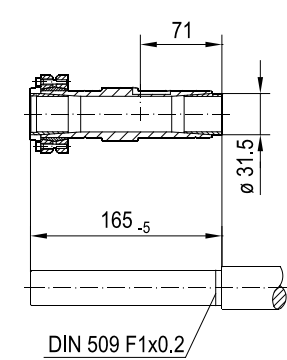
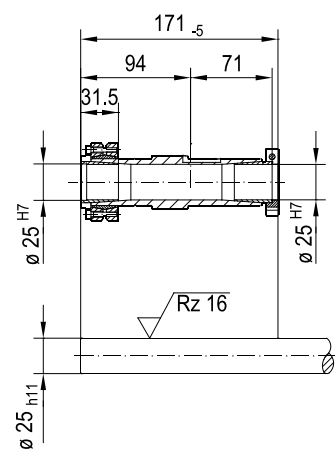
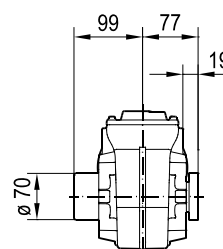
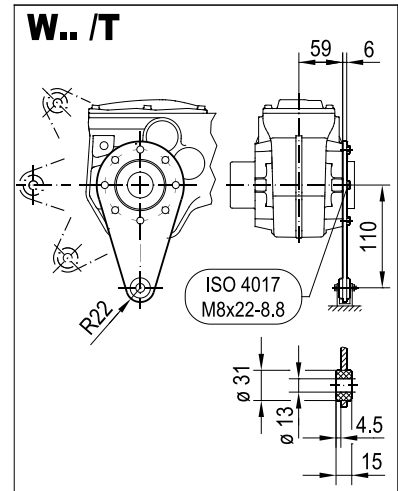
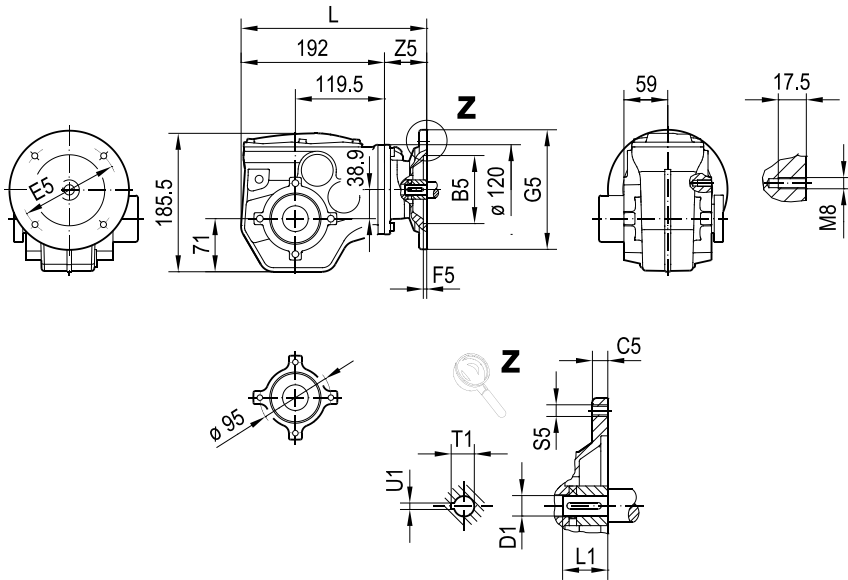


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 249 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 249 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 266 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 279 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

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20 178 00 20

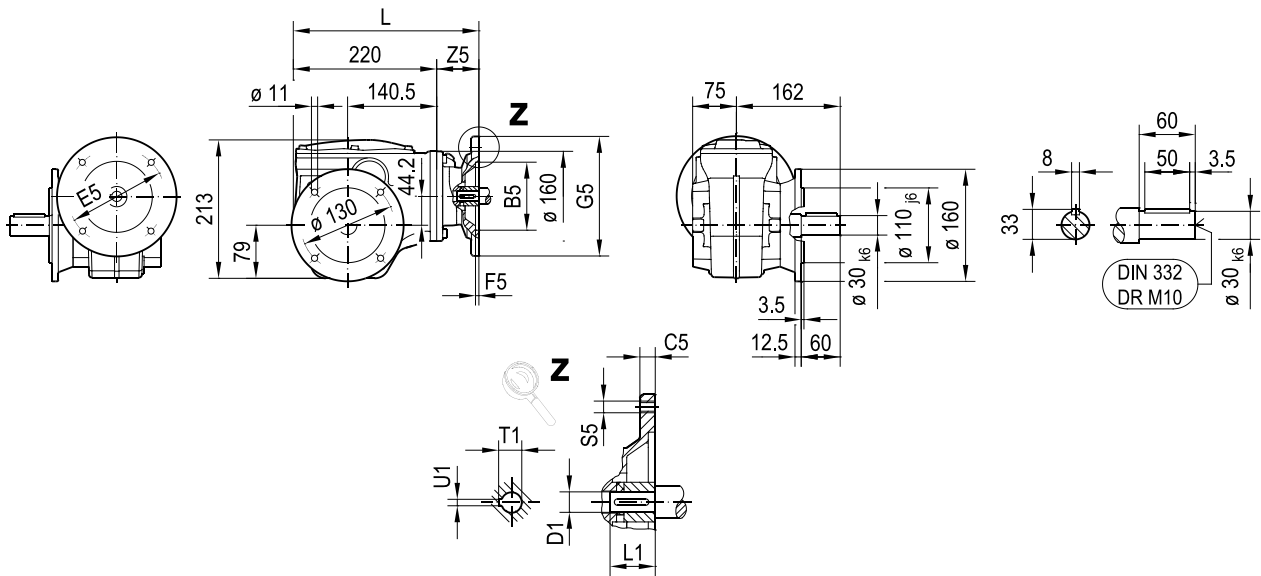
WT39..



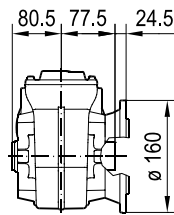
| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 249 | M8 | 56.5 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 249 | M8 | 56.5 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 266 | M10 | 73.5 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 279 | M10 | 86.5 | 24 | 50 | 27.3 | 8 |

20 078 01 21

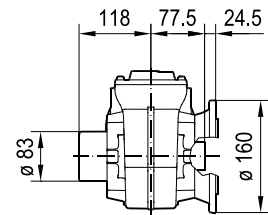
WF49..



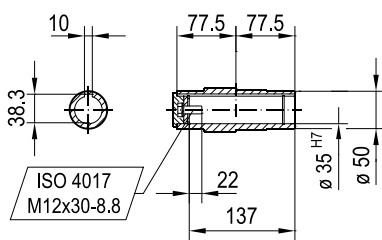
WAF49..



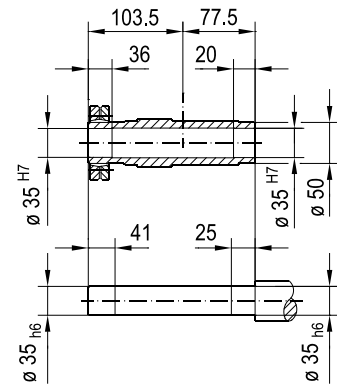
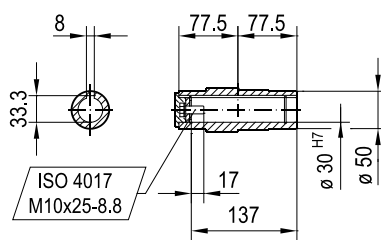
WHF49..



∅ 35 H7



∅ 30 H7

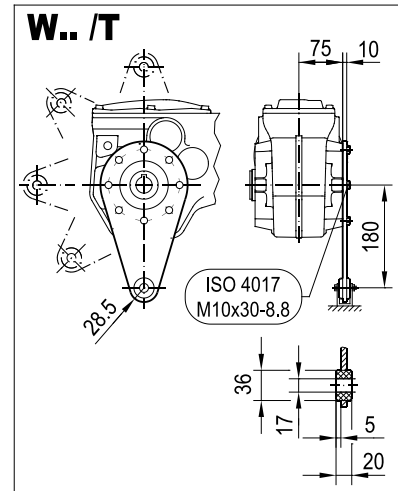
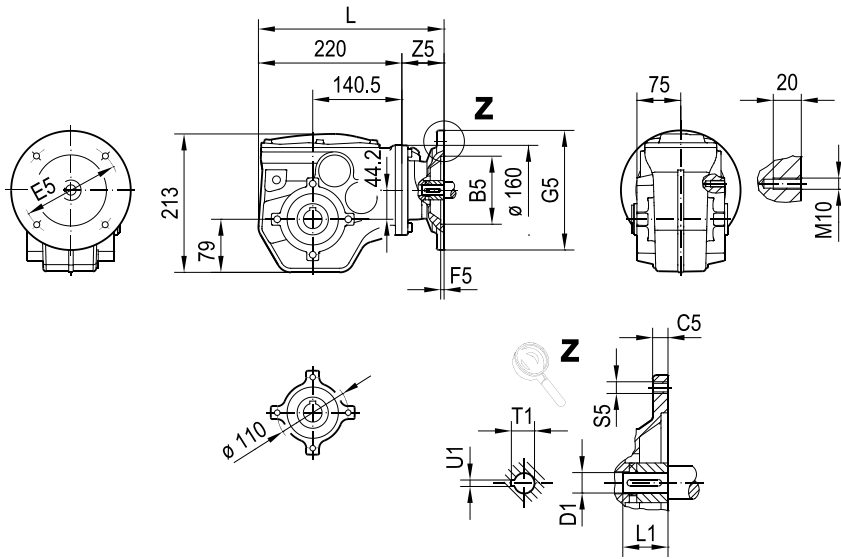


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 270 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 270 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 287 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 300 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 329 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |

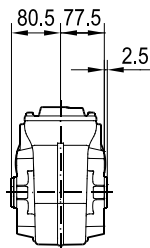
26878585/EN – 11/2021

20 079 01 21

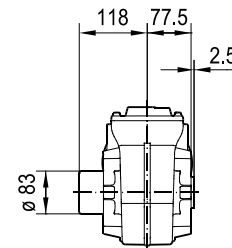
WA49..



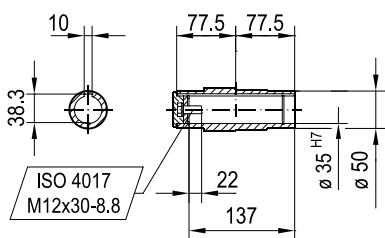
WA49..



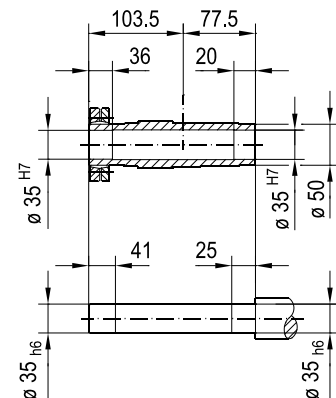
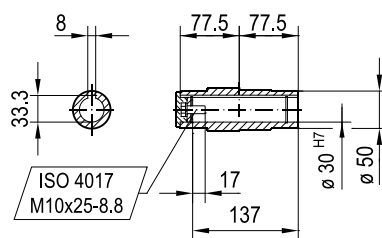
WH49..



$\varnothing 35$ H7



$\varnothing 30$ H7

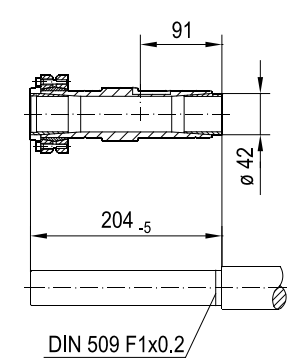
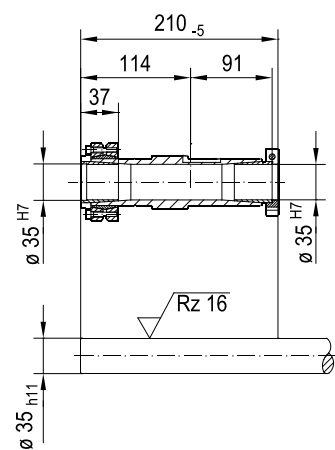
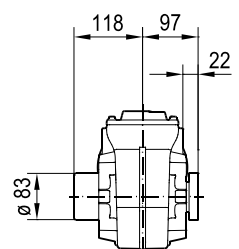
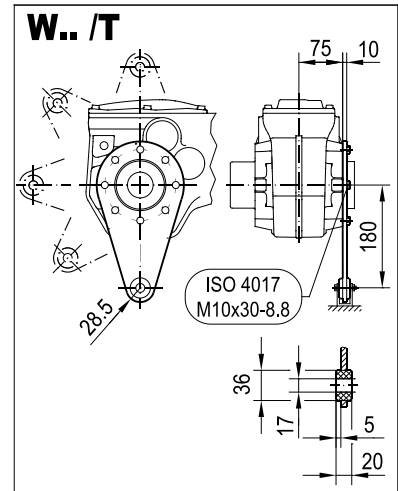
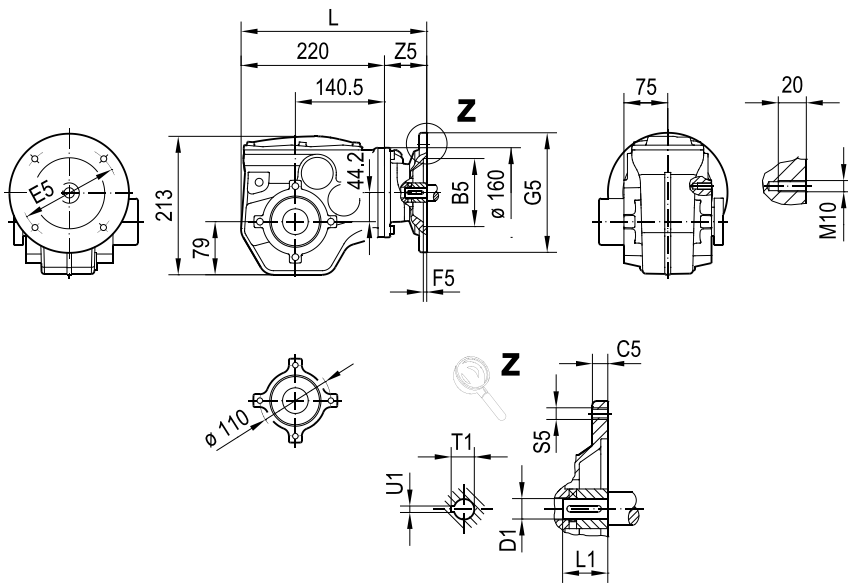


| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 270 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 270 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 287 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 300 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 329 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |

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20 080 01 21

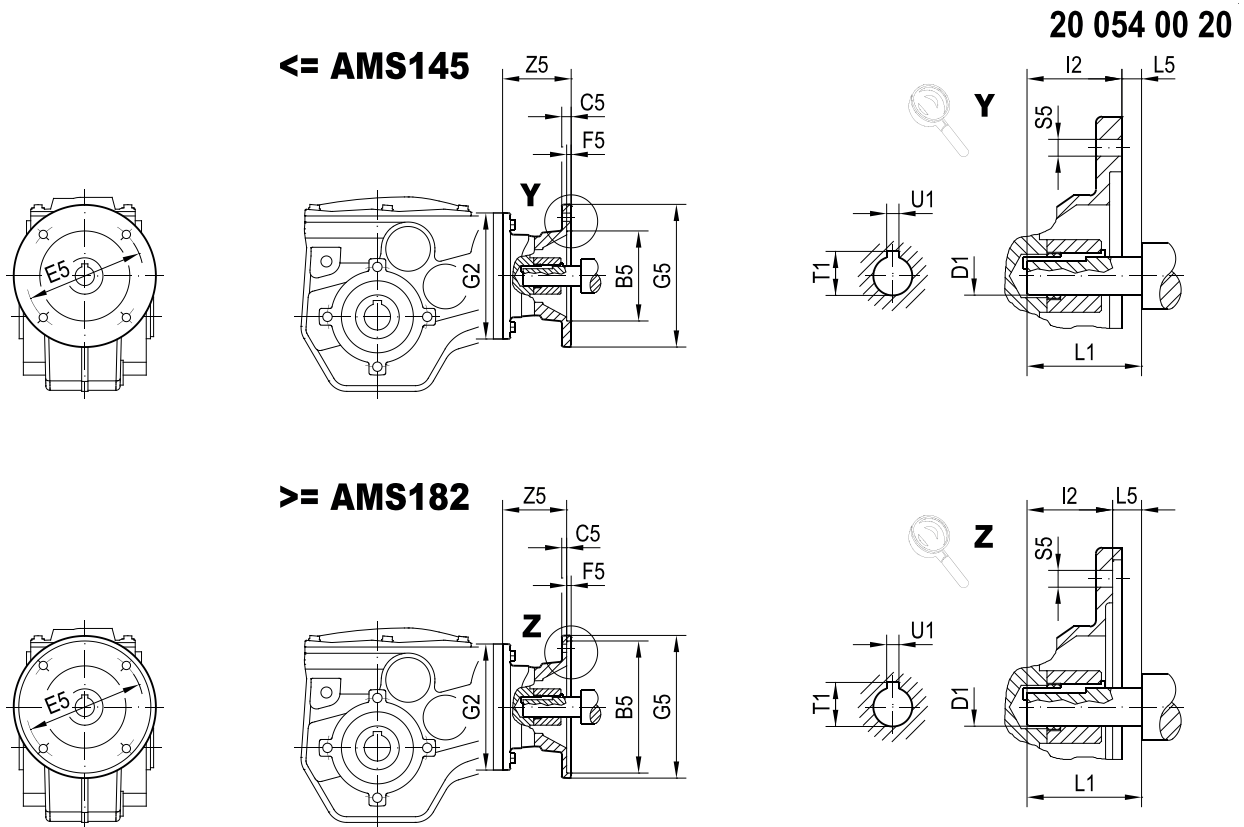
WT49..



| (→ 7.2) | B5 | C5 | E5 | F5 | G5 | L | S5 | Z5 | D1 | L1 | T1 | U1 |
|---------|-----|----|-----|-----|-----|-----|-----|-------|----|----|------|----|
| AMS63 | 95 | 10 | 115 | 3.5 | 140 | 270 | M8 | 50 | 11 | 23 | 12.8 | 4 |
| AMS71 | 110 | 10 | 130 | 4 | 160 | 270 | M8 | 50 | 14 | 30 | 16.3 | 5 |
| AMS80 | 130 | 12 | 165 | 4.5 | 200 | 287 | M10 | 67 | 19 | 40 | 21.8 | 6 |
| AMS90 | 130 | 12 | 165 | 4.5 | 200 | 300 | M10 | 80 | 24 | 50 | 27.3 | 8 |
| AMS100 | 180 | 15 | 215 | 5 | 250 | 329 | M12 | 108.5 | 28 | 60 | 31.3 | 8 |

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12.4 Dimension sheets for adapters for mounting NEMA motors (AMS..)



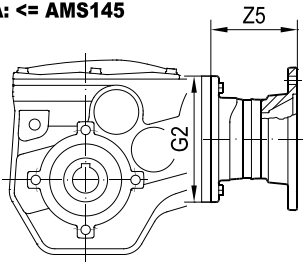
| | | B5 | C5 | E5 | F5 | G2 | G5 | I2 | L5 | S5 | Z5 | Z12 | D1 | L1 | T1 | U1 |
|----------------|--------|-------|----|-------|-----|-----|-----|------|------|------|------|------|--------|------|------|------|
| W..19 | AMS56 | 114.3 | 11 | 149.2 | 4.5 | 105 | 170 | 52.3 | -4.6 | 10.5 | 81.5 | 3.1 | 15.875 | 47.8 | 18.1 | 4.76 |
| | AMS56 | 114.3 | 11 | 149.2 | 4.5 | 120 | 170 | 52.3 | -4.6 | 10.5 | 81.5 | 3.1 | 15.875 | 47.8 | 18.1 | 4.76 |
| W..29 W..39 | AMS143 | 114.3 | 12 | 149.2 | 4.5 | 120 | 170 | 53.8 | 3.3 | 10.5 | 93.5 | 10.7 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS145 | 114.3 | 14 | 149.2 | 4.5 | 120 | 170 | 53.8 | 3.3 | 10.5 | 93.5 | 10.7 | 22.225 | 57.2 | 24.7 | 4.76 |
| W..49 | AMS56 | 114.3 | 11 | 149.2 | 4.5 | 160 | 170 | 52.3 | -4.6 | 10.5 | 75 | 3.1 | 15.875 | 47.8 | 18.1 | 4.76 |
| | AMS143 | 114.3 | 12 | 149.2 | 4.5 | 160 | 170 | 53.8 | 3.3 | 10.5 | 87 | 10.7 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS145 | 114.3 | 14 | 149.2 | 4.5 | 160 | 170 | 53.8 | 3.3 | 10.5 | 87 | 10.7 | 22.225 | 57.2 | 24.7 | 4.76 |
| | AMS182 | 215.9 | 10 | 184 | 5 | 160 | 228 | 66.6 | 3.3 | 15 | 115 | 9 | 28.575 | 69.9 | 31.7 | 6.35 |

12.5 Dimension sheets for adapters with backstop (RS..) and drain hole (DH..)

20 058 01 20

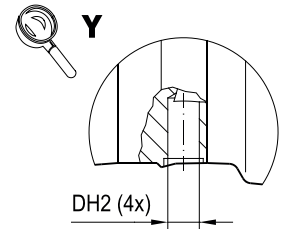
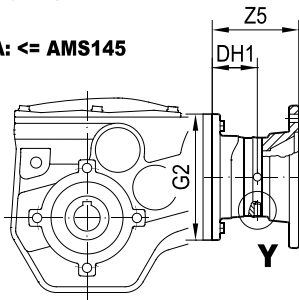
AMS.. /RS

IEC
NEMA: <= AMS145



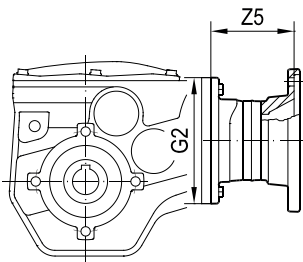
AMS.. /DH

IEC
NEMA: <= AMS145



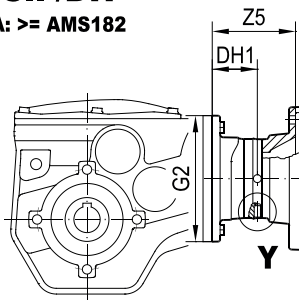
AMS.. /RS

NEMA: >= AMS182



AMS.. /DH

NEMA: >= AMS182



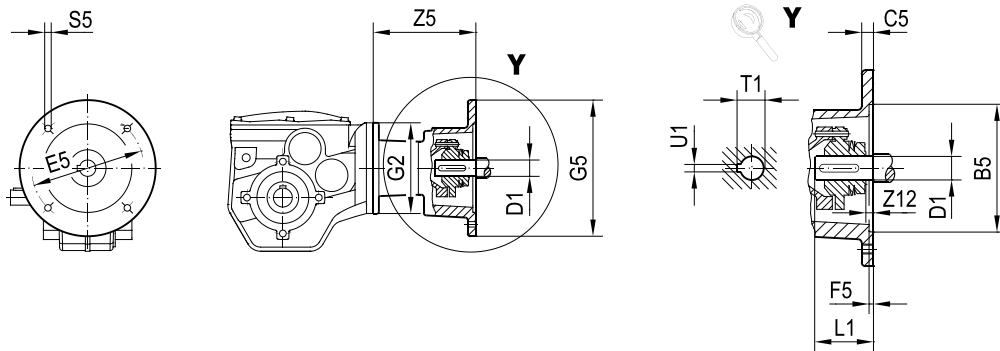
| | | /RS | | /DH | | | |
|----------------|--------|-----|-------|-----|-------|-----|-----|
| | | G2 | Z5 | G2 | Z5 | DH1 | DH2 |
| W..19 | AMS56 | 105 | – | 105 | – | 60 | 8 |
| | AMS63 | 105 | – | 105 | – | 46 | 8 |
| | AMS71 | 105 | – | 105 | – | 46 | 8 |
| | AMS80 | 105 | – | 105 | – | 60 | 8 |
| W..29 W..39 | AMS56 | – | – | 120 | 105 | 60 | 8 |
| | AMS63 | – | – | 120 | 78.5 | 46 | 8 |
| | AMS71 | – | – | 120 | 78.5 | 46 | 8 |
| | AMS80 | 120 | 121 | 120 | 97.5 | 60 | 8 |
| | AMS90 | 120 | 121 | 120 | 109 | 64 | 8 |
| | AMS143 | 120 | 128.5 | 120 | 116.5 | 64 | 8 |
| W..49 | AMS145 | 120 | 128.5 | 120 | 116.5 | 64 | 8 |
| | AMS56 | – | – | 160 | 105 | 54 | 8 |
| | AMS63 | – | – | 160 | 78.5 | 40 | 8 |
| | AMS71 | – | – | 160 | 78.5 | 40 | 8 |
| | AMS80 | 160 | 114.5 | 160 | 97.5 | 54 | 8 |
| | AMS90 | 160 | 114.5 | 160 | 109 | 57 | 8 |
| | AMS100 | 160 | 153 | 160 | 153 | 97 | 8 |
| | AMS143 | 160 | 122 | 160 | 110 | 57 | 8 |
| AMS145 | 160 | 122 | 160 | 110 | 57 | 8 | |
| | AMS182 | 160 | 158.5 | 160 | 158.5 | 97 | 8 |

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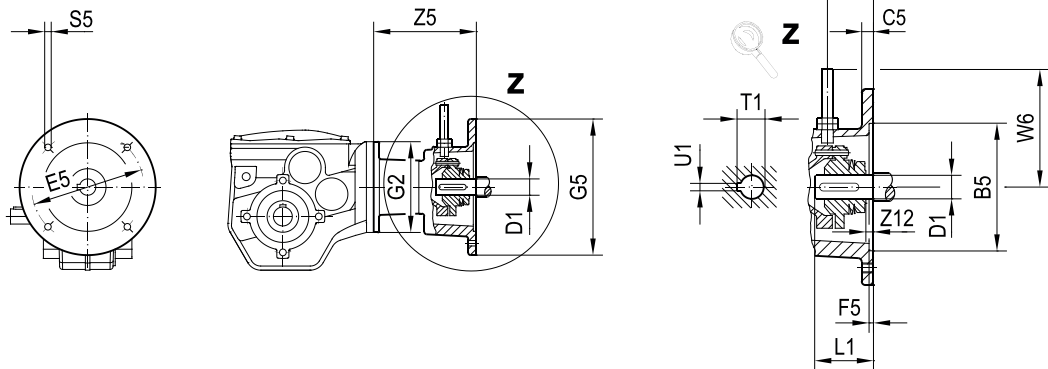
12.6 Dimension sheets for adapters with slip clutch (AR..)

W.. AR..

20 130 00 20



W.. AR../W

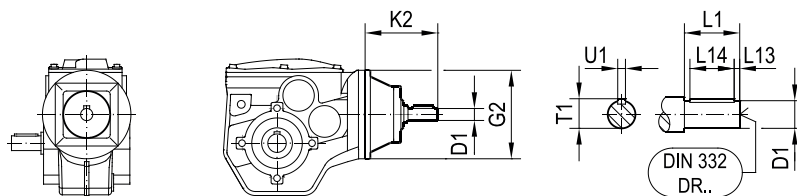


| | | B5 | C5 | E5 | F5 | G2 | G5 | S5 | W6 | Z5 | Z9 | Z12 | D1 | L1 | T1 | U1 |
|-------|------|-----|----|-----|-----|-----|-----|-----|-----|-------|----|-----|----|----|------|----|
| W..29 | AR71 | 110 | 10 | 130 | 3.5 | 120 | 160 | M8 | 120 | 104 | 37 | 0 | 14 | 30 | 16.3 | 5 |
| | AR80 | 130 | 12 | 165 | 4.5 | | 200 | M10 | | 140.5 | | | 19 | 40 | 21.8 | 6 |
| | AR90 | | | | | | 24 | 50 | | 27.3 | | | 8 | | | |
| W..39 | AR71 | 110 | 10 | 130 | 3.5 | 120 | 160 | M8 | 120 | 104 | 37 | 0 | 14 | 30 | 16.3 | 5 |
| | AR80 | 130 | 12 | 165 | 4.5 | | 200 | M10 | | 140.5 | | | 19 | 40 | 21.8 | 6 |
| | AR90 | | | | | | 24 | 50 | | 27.3 | | | 8 | | | |
| W..49 | AR71 | 110 | 10 | 130 | 3.5 | 160 | 160 | M8 | 120 | 104 | 37 | 0 | 14 | 30 | 16.3 | 5 |
| | AR80 | 130 | 12 | 165 | 4.5 | | 200 | M10 | | 134 | | | 19 | 40 | 21.8 | 6 |
| | AR90 | | | | | | 24 | 50 | | 27.3 | | | 8 | | | |

12.7 Dimension sheets for input shaft assembly (AD..)

20 131 00 20

W.. AD..



| | | G2 | K2 | D1 | L1 | L13 | L14 | T1 | U1 |
|-------|------|-----|------|----|----|-----|-----|------|----|
| W..19 | AD01 | 105 | 72.2 | 14 | 30 | 4 | 22 | 16 | 5 |
| W..29 | AD1 | 120 | 102 | 16 | 40 | 4 | 32 | 18 | 5 |
| | AD2 | | 130 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| W..39 | AD1 | 120 | 102 | 16 | 40 | 4 | 32 | 18 | 5 |
| | AD2 | | 130 | 19 | 40 | 4 | 32 | 21.5 | 6 |
| W..49 | AD2 | 160 | 123 | 19 | 40 | 4 | 32 | 21.5 | 6 |

For bore dimensions and weight of the motor platform, refer to the chapter "Bore dimensions and weight" (→ 81).

13 Address directory SEW-EURODRIVE

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| | Oulu | SEW Industrial Gears Oy Paulaharjuntie 22 90530 Oulu | Tel. +358 201 589 300 sew@sew.fi |
| | Vaasa | SEW Industrial Gears Oy Asemakatu 7 65100 Vaasa | Tel. +358 201 589-300 sew@sew.fi |
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Gabon

Representation: Cameroon

Germany

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| Langenfeld | SEW-EURODRIVE GmbH & Co KG Siemensstraße 1 40764 Langenfeld | Tel. +49 2173 8507-10 Fax +49 2173 8507-50 tb-langenfeld@sew-eurodrive.de |
| Ludwigshafen | SEW-EURODRIVE GmbH & Co KG Edisonstrasse 15 // Halle 7 68623 Lampertheim | Tel. +49 7251 75 3764 Fax +49 7251 75 503715 tb-ludwigshafen@sew-eurodrive.de |
| Magdeburg | SEW-EURODRIVE GmbH & Co KG Breiteweg 53 39179 Barleben | Tel. +49 39203 7577-1 Fax +49 39203 7577-9 tb-magdeburg@sew-eurodrive.de |
| Mannheim | SEW-EURODRIVE GmbH & Co KG Besselstraße 26 68219 Mannheim | Tel. +49 621 71683-10 Fax +49 621 71683-22 tb-mannheim@sew-eurodrive.de |
| München | SEW-EURODRIVE GmbH & Co KG Domagkstraße 5 85551 Kirchheim | Tel. +49 89 90955-110 Fax +49 89 90955-150 tb-muenchen@sew-eurodrive.de |
| Münster | SEW-EURODRIVE GmbH & Co KG Hafenplatz 4 48155 Münster | Tel. +49 251 41475-11 Fax +49 251 41475-50 tb-muenster@sew-eurodrive.de |
| Nuremberg | SEW-EURODRIVE GmbH & Co KG Lina-Ammon-Straße 22 90471 Nürnberg | Tel. +49 911 98884-50 Fax +49 911 98884-60 tb-nuernberg@sew-eurodrive.de |
| Regensburg | SEW-EURODRIVE GmbH & Co KG Im Gewerbepark A15 93059 Regensburg | Tel. +49 941 46668-68 Fax +49 941 46668-66 tb-regensburg@sew-eurodrive.de |
| Rhine-Main | SEW-EURODRIVE GmbH & Co KG Niederstedter Weg 5 61348 Bad Homburg | Tel. +49 6172 9617-0 Fax +49 6172 9617-50 tb-rheinmain@sew-eurodrive.de |
| Stuttgart | SEW-EURODRIVE GmbH & Co KG Friedrich-List-Straße 46 70771 Leinfelden-Echterdingen | Tel. +49 711 16072-0 Fax +49 711 16072-72 tb-stuttgart@sew-eurodrive.de |
| Zwickau / Meerane | SEW-EURODRIVE GmbH & Co KG Dänkritzter Weg1 08393 Meerane | Tel. +49 3764 7606-0 Fax +49 3764 7606-20 tb-zwickau@sew-eurodrive.de |

Great Britain

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|------------------------------|-----------------------|--|--|
| Assembly Sales Service | Normanton | SEW-EURODRIVE Ltd. DeVilliers Way Trident Park Normanton West Yorkshire WF6 1GX | Tel. +44 1924 893-855 Fax +44 1924 893-702 http://www.sew-eurodrive.co.uk info@sew-eurodrive.co.uk |
| Service Competence Center | Southern Eng- land | SEW-EURODRIVE Ltd. Unit 41 Easter Park Benyon Road Silchester Reading Berkshire RG7 2PQ | Tel. +44 1189 701-699 Fax +44 1189 701-021 |
| Technical Offices | Midlands | SEW-EURODRIVE Ltd. 5 Sugar Brook court Aston Road Bromsgrove Worcs. B60 3EX | Tel. +44 1527 877-319 Fax +44 1527 575-245 |
| | Northern Ire- land | Heyn Engineering (NI) Ltd. 1 Corry Place, Belfast, BT3 9AH | Tel. +44 02890350022 Fax +44 02890350012 http://www.heyne.co.uk info@heyne.co.uk |
| Drive Center | Scotland | SEW-EURODRIVE Ltd. 133-135 Deerdyles View Cumbernauld G68 9HF | Tel. +44 17 8647-8730 |

| Greece | | | |
|---|--------------|--|---|
| Sales | Athens | Christ. Boznos & Son S.A. 12, K. Mavromichali Street P.O. Box 80136 18545 Piraeus | Tel. +30 2 1042 251-34 Fax +30 2 1042 251-59 http://www.boznos.gr info@boznos.gr |
| Technical Office | Thessaloniki | Christ. Boznos & Son S.A. Asklipiou 26 562 24 Evosmos, Thessaloniki | Tel. +30 2 310 7054-00 Fax +30 2 310 7055-15 info@boznos.gr |
| Hungary | | | |
| Sales Service | Budapest | SEW-EURODRIVE Kft. Csillaghegyi út 13. 1037 Budapest | Tel. +36 1 437 06-58 Fax +36 1 437 06-50 http://www.sew-eurodrive.hu office@sew-eurodrive.hu |
| Iceland | | | |
| Sales | Reykjavik | Varma & Vélaverk ehf. Knarrarvogi 4 104 Reykjavik | Tel. +354 585 1070 Fax +354 585)1071 https://vov.is/ vov@vov.is |
| India | | | |
| Registered Office Assembly Sales Service | Vadodara | SEW-EURODRIVE India Private Limited 302, NOTUS IT PARK, Sarabhai Campus, Beside Notus Pride, Genda Circle, Vadodara 390023 Gujarat | Tel. +91 265 3045200 Fax +91 265 3045300 http://www.seweurodriveindia.com salesvadodara@seweurodriveindia.com |
| Assembly Sales Service | Chennai | SEW-EURODRIVE India Private Limited Plot No. K3/1, Sipcot Industrial Park Phase II Mambakkam Village Sriperumbudur - 602105 Kancheepuram Dist, Tamil Nadu | Tel. +91 44 37188888 Fax +91 44 37188811 saleschennai@seweurodriveindia.com |
| | Pune | SEW-EURODRIVE India Private Limited Plant: Plot No. D236/1, Chakan Industrial Area Phase- II, Warale, Tal- Khed, Pune-410501, Maharashtra | Tel. +91 21 35 628700 Fax +91 21 35 628715 salespune@seweurodriveindia.com |
| Sales Service | Gurgaon | SEW-EURODRIVE India Private Limited Drive Center Gurugram Plot no 395, Phase-IV, UdyogVihar Gurugram , 122016 Haryana | Tel. +91 99588 78855 salesgurgaon@seweurodriveindia.com |
| Technical Offices | Ahmedabad | SEW-EURODRIVE India Private Limited 306, Shaan office complex, Behind Sakar-IV, Ellisebridge, Ashram Road Ahmedabad – 380006, Gujarat | Tel. +91 79 40072067 / 68 Fax +91 79 40072069 salesahmedabad@seweurodriveindia.com |
| | Aurangabad | SEW-EURODRIVE India Private Limited Flat.No.403 , Prism Appt. The Venus Housing Society. Beed Bypass Road, Behind Nishant Park Hotel, Aurangabad – 431005, Maharashtra. | Tel. +91 86000 12333 salesaurangabad@seweurodriveindia.com |
| | Bangalore | SEW-EURODRIVE India Private Limited Sy.no:41-P3, Peenya1, Phase 1A, Peenya Vil- lage, Yeswanthapura Hobli, Bangalore North Taluk, Bangalore - 560058, Karnataka | Tel. +91 80 28370664 Fax +91 80 28370665 salesbangalore@seweurodriveindia.com |
| | Bangalore | SEW-EURODRIVE India Private Limited # C-104, 3rd Block, KSSIDC Complex, Electronic City. Bangalore – 560100, Karnataka | Tel. +91 80 28522662 / 28522663 salesbangalore@seweurodriveindia.com |
| | Bellary | SEW-EURODRIVE India Private Limited Door no-56/279 Ward No-15, Sindhigi compound, Near Raghavendra talkies, Bellary-583101, Karnataka | Tel. +91 77609 88668 salesbellary@seweurodriveindia.com |

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| Chandigarh | SEW-EURODRIVE India Private Limited #5358/59, Gali No.-4, SBS Nagar, Adjoining Utsav Palace, Rupnagar - 140001 Ropar, Punjab | Tel. +91 81462 67606 saleschandigarh@seweurodriveindia.com |
| Chennai | SEW-EURODRIVE India Private Limited 2nd Floor, Josmans Complex, No. 5, McNichols Road, Chetpet Chennai - 600031, Tamil Nadu | Tel. +91 44 42849812 / 13 / 14 / 15 Fax +91 44 42849816 saleschennai@seweurodriveindia.com |
| Coimbatore | SEW-EURODRIVE India Private Limited JK Center No.55, ofc No.1, I Floor Sowripalayam Pirivu Road, Opp.Kannapiran Mills Coimbatore - 641028, Tamil Nadu | Tel. +91 422 2322420 Fax +91 422 2323988 salescoimbatore@seweurodriveindia.com |
| Cuttack | SEW-EURODRIVE India Private Limited Plot No.: F/56, Chandaka Industrial Estate, P.O.- K I I T, Bhubaneswar – 751024. Orissa | Tel. +91 9937446333 salescuttack@seweurodriveindia.com |
| Dhaka | SEW-EURODRIVE India Private Limited ROSE DALE 653, 6Th Floor, Flat-6E Jahan Box Lane, Gabtola, Moghbazar, Ramna 1217 Bangladesh | Tel. +88 01729 097309 salesdhaka@seweurodrivebangladesh.com |
| Faridabad | SEW-EURODRIVE India Private Limited H.No.:-1172 ,Sector-9 , Near St Anthony School Faridabad 121006 | Tel. +91 99580 09275 salesfaridabad@seweurodriveindia.com |
| Gandhinagar | SEW-EURODRIVE India Private Limited Office No. 304, Siddhraj Zavod, Between Kh-0 & G-0 Circle, Sarkhej Gandhinagar Highway, Sargasan, Gandhinagar – 382423 | Tel. +91 787 8601656 salesgandhinagar@seweurodriveindia.com |
| Hyderabad | SEW-EURODRIVE India Private Limited 408, 4th Floor, Meridian Place Green Park Road, Amerpeet Hyderabad - 500016, Telangana | Tel. +91 40 23414698 Fax +91 40 23413884 saleshyderabad@seweurodriveindia.com |
| Jaipur | SEW-EURODRIVE India Private Limited E-54, Roop Vihar, Near vivek vihar metro station, New sanganer Road Jaipur 302019, Rajasthan. | Tel. +91 7728896489 salesjaipur@seweurodriveindia.com |
| Jamshedpur | SEW-EURODRIVE India Private Limited Flat No :- S1 "Kashi Kunj",h. No. 60, New Rani Kudar Road No - 3, P.o. + P.s. - Kadma Jamshedpur - 831005, Jharkhand | Tel. +91 99341 23671 salesjamshedpur@seweurodriveindia.com |
| Kochi | SEW-EURODRIVE India Private Limited House No: 30/1168 A Kaniyampuzha Road Vyttila Post Office Cochin – 682019, Kerala | Tel. +91 98951 30375 salescochin@seweurodriveindia.com |
| Kolhapur | SEW-EURODRIVE India Private Limited C/O. Mr.S.V.Pawar.461/37, Abhideep Resid- ency, Opp-Shriram Petrol Pump, Kasaba Bawada, Kolhapur - 416 122, Maharashtra | Tel. +91 86000 20846 saleskolhapur@seweurodriveindia.com |
| Kolkata | SEW-EURODRIVE India Private Limited 2nd floor, Room No. 35 Chowringhee Court 55, Chowringhee Road Kolkata - 700 071, West Bengal | Tel. +91 33 22827457 Fax +91 33 22894204 saleskolkata@seweurodriveindia.com |
| Lucknow | SEW-EURODRIVE India Private Limited 69, Shiv Vihar Colony Vikas Nagar – Sector 5 Lucknow - 226022, Uttar Pradesh | Tel. +91 97936 27333 saleslucknow@seweurodriveindia.com |
| Ludhiana | SEW-EURODRIVE India Private Limited B-31, 605/24 Street No 1, Sukhdev Nagar, Bhamian Road Focal Point Ludhiana, Pin Code - 141010, Punjab | Tel. +91 9878746730 |

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| Mumbai | SEW-EURODRIVE India Private Limited 312 A, 3rd Floor, Acme Plaza, J.B. Nagar, Andheri Kurla Road, Andheri (E) Mumbai - 400059, Maharashtra | Tel. +91 22 28348440 Fax +91 22 28217858 salesmumbai@seweurodriveindia.com |
| Nagpur | SEW-EURODRIVE India Private Limited Plot No 49, New Kailash Nager, Samta colony, Nagpur-440027, Maharashtra | Tel. +91 95610 89525 salesnagpur@seweurodriveindia.com |
| Nashik | SEW-EURODRIVE India Private Limited 107, "YOG" Bungalow, Mahatama Nagar, Trimbak Road, Nashik – 422 007, Maharashtra | Tel. +91 96657 52978 salesnashik@seweurodriveindia.com |
| New Delhi | SEW-EURODRIVE India Private Limited # B-206 DLF Towers-B District Centre Jasola New Delhi -110044 | Tel. +91 11 26944551 Fax +91 11 26944467 salesdelhi@seweurodriveindia.com |
| Navi Mumbai | SEW-EURODRIVE India Private Limited No.202, Shivam Yeshoram Plot No. 262/257, Sector 19 Kopar Khairane, Navi Mumbai - 400 709, Maharashtra | Tel. +91 99677 21324 salesmumbai@seweurodriveindia.com |
| Pune | SEW-EURODRIVE India Private Limited Plot No. 7,"Shri Shantadurga Niwas" Shivaji Co –operative Housing Society Ltd., Behind J.W. Marriot. Off Senapati Bapat Marg. Pune –411 016, Maharashtra | Tel. +91 20 27290180 salespune@seweurodriveindia.com |
| Pune | SEW-EURODRIVE India Private Limited Jai Tuljabhavani Complex. Office No:- 15 First Floor, Opp. Century Enka Company, MIDC Bhosari , Pune 411 026 | Tel. +91 20-65118890 / 91 Fax +91 20 25380721 salespune@seweurodriveindia.com |
| Raipur | SEW-EURODRIVE India Private Limited Shop No. 204, 2nd Floor, Lalganga Business Park, Pachpedi Naka, NH -43 Dhamtari Road, Raipur 492 001 - Chhattisgarh | Tel. +91 771 4090765 Fax +91 771 4090765 salesraipur@seweurodriveindia.com |
| Rajkot | SEW-EURODRIVE India Private Limited Block No:64, Ajanta Park, Sadhu Vaswani Marg, University Road Rajkot 360005 - Gujarat | Tel. +91 8511149383 Fax +91 8511149383 |
| Tiruchirappalli | SEW-EURODRIVE India Pvt.Ltd. V.S.Residency, 2nd floor, Flat no B-3 Elango Adigal street, Anna nagar, Near Thillai nagar, Thenur, 620017 Tamil Nadu | Tel. +91 97899 79855 salestrichy@seweurodriveindia.com |
| Vadodara | SEW-EURODRIVE India Private Limited Unit No. 301, Savorite Bldg, Plot No. 143, Vinayak Society, off old Padra Road, Vadodara - 390 007, Gujarat | Tel. +91 265 2325258 / 6560482 salesvadodara@seweurodriveindia.com |
| Vellore | SEW-EURODRIVE India Private Limited 23/2, 3rd Main road, Vani Vidyalaya School Road, Bharathi Nagar Extension, Katpadi Vellore - 632007, Tamilnadu | Tel. +91 96000 02247 salesvellore@seweurodriveindia.com |
| Vijayawada | SEW-EURODRIVE India Private Limited III Floor, H NO. 8-164, Masjid Street, Gollapdudi, Vijayawada - 521225 Andhra Pradesh | Tel. +91 8978861212 |
| Indonesia | | |
| Sales | Medan | PT. Serumpun Indah Lestari Jl.Pulau Solor no. 8, Kawasan Industri Medan II Medan 20252 |
| | | Tel. +62 61 687 1221 Fax +62 61 6871429 / +62 61 6871458 / +62 61 30008041 sil@serumpunindah.com serumpunindah@yahoo.com http://www.serumpunindah.com |

Indonesia

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| Jakarta | PT. Cahaya Sukses Abadi Komplek Rukan Puri Mutiara Blok A no 99, Sunter Jakarta 14350 | Tel. +62 21 65310599 Fax +62 21 65310600 csajkt@cbn.net.id |
| Jakarta | PT. Agrindo Putra Lestari JL.Pantai Indah Selatan, Komplek Sentra In- dustri Terpadu, Pantai indah Kapuk Tahap III, Blok E No. 27 Jakarta 14470 | Tel. +62 21 2921-8899 Fax +62 21 2921-8988 aplindo@indosat.net.id http://www.aplindo.com |
| Surabaya | PT. TRIAGRI JAYA ABADI Jl. Sukosemolo No. 63, Galaxi Bumi Permai G6 No. 11 Surabaya 60111 | Tel. +62 31 5990128 Fax +62 31 5962666 sales@triagri.co.id http://www.triagri.co.id |
| Surabaya | CV. Multi Mas Jl. Raden Saleh 43A Kav. 18 Surabaya 60174 | Tel. +62 31 5458589 Fax +62 31 5317220 sianhwa@sby.centrin.net.id http://www.cvmultimas.com |

Ireland

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| Sales Service | Dublin | Alperton Engineering Ltd. 48 Moyle Road Dublin Industrial Estate Glasnevin, Dublin 11 | Tel. +353 1 830-6277 Fax +353 1 830-6458 http://www.alperton.ie info@alperton.ie |
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Israel

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| Sales | Tel Aviv | Liraz Handasa Ltd. Ahofer Str 34B / 228 58858 Holon | Tel. +972 3 5599511 Fax +972 3 5599512 http://www.liraz-handasa.co.il office@liraz-handasa.co.il |
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Italy

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| Assembly Sales Service | Milan | SEW-EURODRIVE S.a.s. di SEW S.r.l. & Co. Via Bernini,12 20033 Solaro (Milano) | Tel. +39 02 96 980229 Fax +39 02 96 980 999 http://www.sew-eurodrive.it milano@sew-eurodrive.it |
| Drive Center | Bologna | SEW-EURODRIVE S.a.s. di SEW S.r.l. & Co. Via della Grafica, 47 40064 Ozzano dell'Emilia (Bo) | Tel. +39 051 65-23-801 Fax +39 02 96 980 499 bologna@sew-eurodrive.it |
| | Caserta | SEW-EURODRIVE S.a.s. di SEW S.r.l. & Co. Viale Carlo III Km. 23,300 81020 S. Nicola la Strada (Caserta) | Tel. +39 0823 219011 Fax +39 02 96 980 599 caserta@sew-eurodrive.it |
| | Pescara | SEW-EURODRIVE S.a.s. di SEW S.r.l. & Co. Viale Europa,132 65010 Villa Raspa di Spoltore (PE) | Tel. +39 085 41-59-427 Fax +39 02 96 980 699 pescara@sew-eurodrive.it |
| | Turin | SEW-EURODRIVE S.a.s. di SEW S.r.l. & Co. Filiale Torino c.so Unione Sovietica 612/15 - int. C 10135 Torino | Tel. +39 011 3473780 Fax +39 02 96 980 799 torino@sew-eurodrive.it |
| | Verona | SEW-EURODRIVE S.a.s. di SEW S.r.l. & Co. Via Antonio Meucci, 5 37042 - Caldiero (VR) | Tel. +39 045 89-239-11 Fax +39 02 96 980 814 verona@sew-eurodrive.it |

Ivory Coast

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| Sales | Abidjan | SEW-EURODRIVE SARL Ivory Coast Rue des Pêcheurs, Zone 3 26 BP 916 Abidjan 26 | Tel. +225 27 21 21 81 05 Fax +225 27 21 25 30 47 info@sew-eurodrive.ci http://www.sew-eurodrive.ci |
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Japan

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| Assembly Sales Service | Iwata | SEW-EURODRIVE JAPAN CO., LTD 250-1, Shimoman-no, Iwata Shizuoka 438-0818 | Tel. +81 538 373811 Fax +81 538 373814 http://www.sew-eurodrive.co.jp sewjapan@sew-eurodrive.co.jp |
| Technical Offices | Kyoto | SEW-EURODRIVE JAPAN CO., LTD Kyoto Operation Center 9-1-11 Seikadai, Seika-cho, Souraku-gun, Kyoto 619-0238 | Tel. +81 774 98-2750 Fax +81 774 93-2100 kyoto@sew-eurodrive.co.jp |

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| Tokio | SEW-EURODRIVE JAPAN CO., LTD Renai Partire Shiodome 5th floor 2-18-3 Higashi-Shinbashi, Minato-Ku, Tokyo 105-0021 | Tel. +81 3 5408-0521 Fax +81 3 5408-7550 tokyo@sew-eurodrive.co.jp |
| Nagoya | SEW-EURODRIVE JAPAN CO., LTD Nagoya Toho building, 1-2-7, Sakae, Naka-ku Nagoya 460-0008, Aichi | Tel. +81 52-228-8608 Fax +81 52-203-2820 nagoya@sew-eurodrive.co.jp |
| Osaka | SEW-EURODRIVE JAPAN CO., LTD Higobashi Shimizu Bldg. 10th floor 1-3-7 Tosabori, Nishi-ku Osaka, 550-0001 | Tel. +81 6 6444--8330 Fax +81 6 6444--8338 osaka@sew-eurodrive.co.jp |
| Fukuoka | SEW-EURODRIVE JAPAN CO., LTD 8th-floor, Imon-Hakata-Bldg.-East. 2-2-1, Sumiyoshi, Hakata-ku Fukuoka, 812-0018 | Tel. +81 92 291-3600 Fax +81 92 291-3602 fukuoka@sew-eurodrive.co.jp |

Kazakhstan

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| Sales Service | Almaty | SEW-EURODRIVE LLP 291-291A, Tole bi street 050031, Almaty | Tel. +7 (727) 350 5156 Fax +7 (727) 350 5156 http://www.sew-eurodrive.com kazakhstan@sew-eurodrive.com |
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| | Tashkent | Representative Office SEW-EURODRIVE Representative office in Uzbekistan 95A Amir Temur ave, office 401/3 100084 Tashkent | Tel. +998 97 134 01 99 http://www.sew-eurodrive.uz sew@sew-eurodrive.uz |
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| | Ulaanbaatar | IM Trading LLC Olympic street 28B/3 Sukhbaatar district, Ulaanbaatar 14230, MN | Tel. +976-77109997 Fax +976-77109997 imt@imt.mn |
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| Technical Offices | Karagandy | SEW-EURODRIVE LLP 82, Molokov Street 100004, Karagandy | Tel. +7 (7212) 955 956 Fax +7 (7212) 955 956 karagandy@sew-eurodrive.com |
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| | Oskemen | SEW-EURODRIVE LLP 62 Satpaev ave. office 313 070016, Ust-Kamenogorsk | Tel. +7 (723) 291 37 48 (ext 760) Fax +7 (727) 350 5156 (ext 709) ust-Kamenogorsk@sew-eurodrive.com |
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| | Aktobe | SEW-EURODRIVE LLP 52/1 Marat Ospanov str., office 11 030000, Aktobe | Tel. +7 (771) 993 0915 aktobe@sew-eurodrive.com |
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| | Pavlodar | SEW-EURODRIVE LLP 6/2, Lunacharsky str., office 46 140000, Pavlodar | Tel. +7 (771) 993 09 16 pavlodar@sew-eurodrive.com |
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Latvia

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| Sales | Riga | SIA Alas-Kuul Kattakalna 11C 1073 Riga | Tel. +371 6 7139253 Fax +371 6 7139386 http://www.alas-kuul.lv info@alas-kuul.com |
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Lebanon

| | | | |
|-----------------|--------|--|---|
| Sales (Lebanon) | Beirut | Gabriel Acar & Fils sarl B. P. 80484 Bourj Hammoud, Beirut | Tel. +961 1 510 532 Fax +961 1 494 971 ssacar@inco.com.lb |
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| Sales (Jordan, Kuwait, Beirut, Saudi Arabia, Syria) | | Middle East Drives S.A.L. (offshore) Sin El Fil. B. P. 55-378 Beirut | Tel. +961 1 494 786 Fax +961 1 494 971 http://www.medrives.com info@medrives.com |
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Lithuania

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| Sales | Alytus | UAB Irseva Statybininku 106C 63431 Alytus | Tel. +370 315 79204 Fax +370 315 56175 http://www.irseva.lt irmantas@irseva.lt |
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Luxembourg

Representation: Belgium

| Macedonia | | | |
|------------------------------|---------------|---|--|
| Sales | Skopje | Boznos DOOEL Dime Anicin 2A/7A 1000 Skopje | Tel. +389 23256553 Fax +389 23256554 http://www.boznos.mk |
| Malaysia | | | |
| Assembly Sales Service | Johor | SEW-EURODRIVE SDN BHD No. 95, Jalan Seroja 39, Taman Johor Jaya 81000 Johor Bahru, Johor West Malaysia | Tel. +60 7 3549409 Fax +60 7 3541404 sales@sew-eurodrive.com.my |
| Technical Offices | Kuala Lumpur | SEW-EURODRIVE SDN BHD No. 2, Jalan Anggerik Mokara 31/46 Kota Kemuning Seksyen 31 40460 Shah Alam Selangor Darul Ehsan West Malaysia | Tel. +60 3 51229633 Fax +60 3 51229622 sewsa@sew-eurodrive.com.my |
| | Penang | SEW-EURODRIVE SDN BHD No. 38, Jalan Bawal Kimsar Garden 13700 Prai, Penang West Malaysia | Tel. +60 4 3999349 Fax +60 4 3999348 sewpg@sew-eurodrive.com.my |
| | Kuching | SEW-EURODRIVE SDN BHD No. 69, Lot 10899 1st Floor, Jalan Tun Jugah 93350 Kuching Sarawak East Malaysia | Tel. +60 82 572780 Fax +60 82 571780 sewswk@sew-eurodrive.com.my |
| | Kota Kinabalu | SEW-EURODRIVE SDN BHD East Malaysia | Tel. +60 19 7539395 sales@sew-eurodrive.com.my |
| | Ipoh | SEW-EURODRIVE SDN BHD West Malaysia | Tel. +60 19 7177366 sewsa@sew-eurodrive.com.my |
| Mexico | | | |
| Assembly Sales Service | Quéretaro | SEW-EURODRIVE MEXICO S.A. de C.V. SEM-981118-M93 Tequisquiapan No. 102 Parque Industrial Quéretaro C.P. 76220 Querétaro, México | Tel. +52 442 1030-300 Fax +52 442 1030-301 http://www.sew-eurodrive.com.mx scmexico@seweurodrive.com.mx |
| Sales Service | Puebla | SEW-EURODRIVE MEXICO S.A. de C.V. Calzada Zavaleta No. 3922 Piso 2 Local 6 Col. Santa Cruz Buenavista C.P. 72154 Puebla, México | Tel. +52 (222) 221 248 http://www.sew-eurodrive.com.mx scmexico@seweurodrive.com.mx |
| Mongolia | | | |
| Technical Office | Ulaanbaatar | IM Trading LLC Olympic street 28B/3 Sukhbaatar district, Ulaanbaatar 14230, MN | Tel. +976-77109997 Tel. +976-99070395 Fax +976-77109997 http://imt.mn/ imt@imt.mn |
| Morocco | | | |
| Sales Service Assembly | Bouskoura | SEW-EURODRIVE Morocco SARL Parc Industriel CFCIM, Lot. 55/59 27182 Bouskoura Grand Casablanca | Tel. +212 522 88 85 00 Fax +212 522 88 84 50 http://www.sew-eurodrive.ma sew@sew-eurodrive.ma |
| Namibia | | | |
| Sales | Swakopmund | DB MINING & INDUSTRIAL SUPPLIES CC Einstein Street Strauss Industrial Park Unit1 Swakopmund | Tel. +264 64 462 738 Fax +264 64 462 734 anton@dbminingnam.com |

Netherlands

| | | | |
|------------------------------|-----------|---|---|
| Assembly Sales Service | Rotterdam | SEW-EURODRIVE B.V. Industrieweg 175 3044 AS Rotterdam Postbus 10085 3004 AB Rotterdam | Tel. +31 10 4463-700 Fax +31 10 4155-552 Service: 0800-SEWHELP http://www.sew-eurodrive.nl info@sew-eurodrive.nl |
|------------------------------|-----------|---|---|

New Zealand

| | | | |
|------------------------------|------------------|--|--|
| Assembly Sales Service | Auckland | SEW-EURODRIVE NEW ZEALAND LTD. P.O. Box 58-428 82 Greenmount drive East Tamaki Auckland | Tel. +64 9 2745627 Fax +64 9 2740165 http://www.sew-eurodrive.co.nz sales@sew-eurodrive.co.nz |
| | Christchurch | SEW-EURODRIVE NEW ZEALAND LTD. 30 Lodestar Avenue, Wigram Christchurch | Tel. +64 3 384-6251 Fax +64 3 384-6455 sales@sew-eurodrive.co.nz |
| Technical Office | Palmerston North | SEW-EURODRIVE NEW ZEALAND LTD. C/-Grant Shearman, RD 5, Aronui Road Palmerston North | Tel. +64 6 355-2165 Fax +64 6 355-2316 sales@sew-eurodrive.co.nz |

Nigeria

| | | | |
|-------|-------|--|---|
| Sales | Lagos | Greenpeg Nig. Ltd 64C Toyin Street Opebi-Allen Ikeja Lagos-Nigeria | Tel. +234-701-821-9200-1 http://www.greenpeg ltd.com sales@greenpeg ltd.com |
|-------|-------|--|---|

Norway

| | | | |
|------------------------------|------|--|--|
| Assembly Sales Service | Moss | SEW-EURODRIVE A/S Solgaard skog 71 1599 Moss | Tel. +47 69 24 10 20 Fax +47 69 24 10 40 http://www.sew-eurodrive.no sew@sew-eurodrive.no |
|------------------------------|------|--|--|

Pakistan

| | | | |
|-------|---------|--|---|
| Sales | Karachi | Industrial Power Drives Al-Fatah Chamber A/3, 1st Floor Central Commercial Area, Sultan Ahmed Shah Road, Block 7/8, Karachi | Tel. +92 21 452 9369 Fax +92-21-454 7365 seweurodrive@cyber.net.pk |
|-------|---------|--|---|

Paraguay

| | | | |
|-------|---------------------|---|---|
| Sales | Fernando de la Mora | SEW-EURODRIVE PARAGUAY S.R.L Nu Guazu No. 642 casi Campo Esperanza Santisima Trinidad Asuncion | Tel. +595 991 519695 Fax +595 21 3285539 sewpy@sew-eurodrive.com.py |
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Peru

| | | | |
|------------------------------|------|--|--|
| Assembly Sales Service | Lima | SEW EURODRIVE DEL PERU S.A.C. Los Calderos, 120-124 Urbanizacion Industrial Vulcano, ATE, Lima | Tel. +51 1 3495280 Fax +51 1 3493002 http://www.sew-eurodrive.com.pe sewperu@sew-eurodrive.com.pe |
|------------------------------|------|--|--|

Philippines

| | | | |
|-------|--------|---|--|
| Sales | Makati | P.T. Cerna Corporation 4137 Ponte St., Brgy. Sta. Cruz Makati City 1205 | Tel. +63 2 519 6214 Fax +63 2 890 2802 mec_h_drive_sys@ptcerna.com http://www.ptcerna.com |
|-------|--------|---|--|

Poland

| | | | |
|------------------------------|---------|---|--|
| Assembly Sales Service | Łódź | SEW-EURODRIVE Polska Sp.z.o.o. ul. Techniczna 5 92-518 Łódź | Tel. +48 42 293 00 00 Fax +48 42 293 00 49 http://www.sew-eurodrive.pl sew@sew-eurodrive.pl |
| | Service | Tel. +48 42 293 0030 Fax +48 42 293 0043 | 24 Hour Service Tel. +48 602 739 739 (+48 602 SEW SEW) serwis@sew-eurodrive.pl |
| Technical Offices | Tychy | SEW-EURODRIVE Polska Sp.z.o.o. ul. Strzelecka 66 43-109 Tychy | Tel. +48 32 32 32 610 Fax +48 32 32 32 648 tychy@sew-eurodrive.pl |

| | | |
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| Bydgoszcz | SEW-EURODRIVE Polska Sp.z.o.o. ul. Fordońska 246 85-766 Bydgoszcz | Tel.+48 52 567 30 00 Fax +48 52 567 30 09 bydgoszcz@sew-eurodrive.pl |
| Gdansk | SEW-EURODRIVE Polska Sp.z.o.o. ul. Galaktyczna 30A 80-299 Gdańsk | Tel. +48 58 762 70 00 Fax +48 58 762 70 09 |
| Posen | SEW-EURODRIVE Polska Sp.z.o.o. ul. Wschodnia 7B 62-080 Swadzim k. Poznania | Tel. +48 61 6465500 Fax +48 61 6465519 |
| Radom | SEW-EURODRIVE Polska Sp.z.o.o. ul. Wrocławska 10, biuro nr 7 26-600 Radom | Tel. +48 48 679 47 00 Fax +48 48 679 47 09 radom@sew-eurodrive.pl |
| Rzeszów | SEW-EURODRIVE Polska Sp.z.o.o. ul. Armii Krajowej 80 35-307 Rzeszów | Tel. +48 17 784 27 00 Fax +48 17 784 27 09 rzeszow@sew-eurodrive.pl |

Portugal

| | | | |
|------------------------------|---------|--|--|
| Assembly Sales Service | Coimbra | SEW-EURODRIVE, LDA. Av. da Fonte Nova, n.º 86 3050-379 Mealhada | Tel. +351 231 20 9670 Fax +351 231 20 3685 http://www.sew-eurodrive.pt infosew@sew-eurodrive.pt |
| Service Competence Center | Lisbon | SEW-EURODRIVE, LDA. Núcleo Empresarial I de São Julião do Tojal Rua de Entremuros, 54 Fracção I 2660-533 São Julião do Tojal | Tel. +351 21 958-0198 / +351 939 598 717 Fax +351 21 958-0245 esc.lisboa@sew-eurodrive.pt |
| Technical Office | Porto | SEW-EURODRIVE, LDA. Rua Monte da Bela, N.º 191, Fração X 4445-294 Ermesinde | Tel. +351 229 350 383 / +351 932 559 110 Fax +351 229 350 384 esc.porto@sew-eurodrive.pt |

Romania

| | | | |
|------------------|-----------|--|--|
| Sales Service | Bucharest | Sialco Trading SRL str. Brazilia nr. 36 011783 Bucuresti | Tel. +40 21 230-1328 Fax +40 21 230-7170 http://www.sialco.ro sialco@sialco.ro |
|------------------|-----------|--|--|

Russia

| | | | |
|------------------------------|----------------|---|---|
| Assembly Sales Service | St. Petersburg | ЗАО «СЕВ-ЕВРОДРАЙФ» 188660, Russia, Leningrad Region, Vse- volozhsky District, Korabselki, Aleksandra Nevskogo str. building 4, block 1 P.O. Box 36 195220 St. Petersburg | Tel. +7 812 3332522 / +7 812 5357142 Fax +7 812 3332523 http://www.sew-eurodrive.ru sew@sew-eurodrive.ru |
| Technical Offices | Ekaterinburg | ЗАО «СЕВ-ЕВРОДРАЙФ» Kominterna Str. 16 Office 614 620078 Ekaterinburg | Tel. +7 343 310 3977 Fax +7 343 310 3978 eso@sew-eurodrive.ru |
| | Irkutsk | ЗАО «СЕВ-ЕВРОДРАЙФ» 5-Armii Str., 31 664011 Irkutsk | Tel. +7 3952 25 5880 Fax +7 3952 25 5881 iso@sew-eurodrive.ru |
| | Moscow | ЗАО «СЕВ-ЕВРОДРАЙФ» Malaja Semjonovskaja Str. д. 9, корпус 2 107023 Moskau | Tel. +7 495 9337090 Fax +7 495 9337094 mso@sew-eurodrive.ru |
| | Novosibirsk | ЗАО «СЕВ-ЕВРОДРАЙФ» pr. K Marksa 30 630087 Novosibirsk | Tel. +7 383 3350200 Fax +7 383 3462544 nso@sew-eurodrive.ru |
| | Perm | ЗАО «СЕВ-ЕВРОДРАЙФ» Stakhanovskaya str., 45 Office 512 614066 Perm | Tel. +7 342 2219494 Fax +7 342 2219444 pso@sew-eurodrive.ru |
| | Togliatti | ЗАО «СЕВ-ЕВРОДРАЙФ» Sportivnaya Str. 4B, office 2 Samarskaya obl. 445057 Togliatti | Tel. +7 8482 710529 Fax +7 8482 810590 tso@sew-eurodrive.ru |

Zambia

Representation: South Africa

Senegal

| | | | |
|-------|-------|---|--|
| Sales | Dakar | SENEMECA Mécanique Générale Km 8, Route de Rufisque B.P. 3251, Dakar | Tel. +221 338 494 770 Fax +221 338 494 771 http://www.senemeca.com senemeca@senemeca.sn |
|-------|-------|---|--|

Serbia

| | | | |
|-------|----------|---|---|
| Sales | Belgrade | DIPAR d.o.o. Ustanička 128a PC Košum, IV floor 11000 Beograd | Tel. +381 11 347 3244 / +381 11 288 0393 Fax +381 11 347 1337 office@dipar.rs |
|-------|----------|---|---|

Singapore

| | | | |
|------------------------------|-----------|---|--|
| Assembly Sales Service | Singapore | SEW-EURODRIVE PTE. LTD. No 9, Tuas Drive 2 Jurong Industrial Estate Singapore 638644 | Tel. +65 68621701 Fax +65 68612827 http://www.sew-eurodrive.com.sg sewsingapore@sew-eurodrive.com |
|------------------------------|-----------|---|--|

Slovakia

| | | | |
|-------|-------------|---|---|
| Sales | Bernolákovo | SEW-Eurodrive SK s.r.o. Priemyselná ulica 6267/7 900 27 Bernolákovo | Tel. +421 2 48 212 800 http://www.sew-eurodrive.sk sew@sew-eurodrive.sk |
|-------|-------------|---|---|

Slovenia

| | | | |
|------------------|-------|--|--|
| Sales Service | Celje | Pakman - Pogonska Tehnika d.o.o. Ul. XIV. divizije 14 3000 Celje | Tel. +386 3 490 83-20 Fax +386 3 490 83-21 pakman@siol.net |
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South Africa

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|------------------------------|----------------|---|--|
| Assembly Sales Service | Johannesburg | SEW-EURODRIVE (PROPRIETARY) LIMITED Eurodrive House Cnr. Adcock Ingram and Aerodrome Roads Aeroton Ext. 2 Johannesburg 2013 P.O.Box 90004 Bertsham 2013 | Tel. +27 11 248-7000 Fax +27 11 248-7289 http://www.sew.co.za info@sew.co.za |
| | Cape Town | SEW-EURODRIVE (PROPRIETARY) LIMITED Rainbow Park Cnr. Racecourse & Omuramba Road Montague Gardens Cape Town P.O.Box 36556 Chempet 7442 | Tel. +27 21 552-9820 Fax +27 21 552-9830 Telex 576 062 bgriffiths@sew.co.za |
| | Durban | SEW-EURODRIVE (PROPRIETARY) LIMITED 48 Prospecton Road Isipingo Durban P.O. Box 10433, Ashwood 3605 | Tel. +27 31 902 3815 Fax +27 31 902 3826 cdejager@sew.co.za |
| | Nelspruit | SEW-EURODRIVE (PROPRIETARY) LIMITED 7 Christie Crescent Vintonia P.O.Box 1942 Nelspruit 1200 | Tel. +27 13 752-8007 Fax +27 13 752-8008 robermeyer@sew.co.za |
| Technical Office | Port Elizabeth | SEW-EURODRIVE (PROPRIETARY) LIMITED 8 Ruan Access Park Old Cape Road Greenbushes 6000 Port Elizabeth | Tel. +27 41 3722246 Fax +27 41 3722247 http://www.sew.co.za fsieberhagen@sew-co-za |

South Korea

| | | | |
|------------------------------|-------|--|--|
| Assembly Sales Service | Ansan | SEW-EURODRIVE Korea Co., Ltd. 7, Dangjaengi-ro, Danwon-gu, Ansan-si, Gyeonggi-do, Zip 425-839 | Tel. +82 31 492-8051 Fax +82 31 492-8056 http://www.sew-eurodrive.kr master.korea@sew-eurodrive.com |
|------------------------------|-------|--|--|

South Korea

| | | | |
|-------------------|---------|--|---|
| | Busan | SEW-EURODRIVE Korea Co., Ltd. 28, Noksansandan 262-ro 50beon-gil, Gangseo-gu, Busan, Zip 618-820 | Tel. +82 51 832-0204 Fax +82 51 832-0230 |
| Assembly Service | Siheung | SEW-EURODRIVE Korea Co., Ltd. 35, Emtibeui 26-ro 58beon-gil, Siheung-si, Gyeonggi-do | http://www.sew-eurodrive.kr |
| Technical Offices | Daegu | SEW-EURODRIVE Korea Co., Ltd. No.303 Sungan officetel, 1834, Dalgubeol-daero, Dalseo-gu, Daegu, Zip 704-712 | Tel. +82 53 650-7111 Fax +82 53 650-7112 |
| | Daejeon | SEW-EURODRIVE Korea Co., Ltd. No.302 Hongin officetel, 28, Daehak-ro, Yuseong-gu, Daejeon, Zip 305-710 | Tel. +82 42 828-6461 Fax +82 42 828-6463 |
| | Gwangju | SEW-EURODRIVE Korea Co., Ltd. 5fl., Hyundai B/D B, 40, Bungmun-daero, Buk-gu, Gwangju, Zip 500-855 | Tel. +82 62 511-9172 Fax +82 62 511-9174 |
| | Seoul | SEW-EURODRIVE Korea Co., Ltd. No.1804 Ace Hiend Tower 8th, 84, Gasan digital 1-ro, Geumcheon-gu, Seoul, Zip 153-797 | Tel. +82 2 862-8051 Fax +82 2 862-8199 |

Spain

| | | | |
|------------------------|-----------|---|---|
| Assembly Sales Service | Bilbao | SEW-EURODRIVE ESPAÑA, S.L. Parque Tecnológico, Edificio, 302 48170 Zamudio (Vizcaya) | Tel. +34 94 43184-70 http://www.sew-eurodrive.es sew.spain@sew-eurodrive.es |
| Technical Offices | Barcelona | SEW-EURODRIVE ESPAÑA, S.L. Avda. Francesc Macià, 60 – Planta 12, porta 3 Eix Macià – “Torre Milenium” 08208 Sabadell (Barcelona) | Tel. +34 93 7162200 |
| | Madrid | SEW-EURODRIVE ESPAÑA, S.L. Gran Via. 48-2° A-D 28220 Majadahonda (Madrid) | Tel. +34 91 6342250 |

Sri Lanka

| | | | |
|-------|---------|---|---|
| Sales | Colombo | SM International (Pte) Ltd 254, Galle Raod Colombo 4, Sri Lanka | Tel. +94 1 2584887 Fax +94 1 2582981 |
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Swaziland

Representation: South Africa

Sweden

| | | | |
|------------------------|------------|---|--|
| Assembly Sales Service | Jönköping | SEW-EURODRIVE AB Gnejsvägen 6-8 553 03 Jönköping Box 3100 S-550 03 Jönköping | Tel. +46 36 34 42 00 Fax +46 36 34 42 80 http://www.sew-eurodrive.se jonkoping@sew.se |
| Sales | Gothemburg | SEW-EURODRIVE AB Stora Avägen 21 436 34 Askim | Tel. +46 31 709 68 80 Fax +46 31 709 68 93 goteborg@sew.se |
| | Stockholm | SEW-EURODRIVE AB Björkholmsvägen 10 141 46 Huddinge | Tel. +46 8 449 86 80 Fax +46 8 449 86 93 stockholm@sew.se |
| | Malmö | SEW-EURODRIVE AB Borrgatan 5 211 24 Malmö | Tel. +46 40 680 64 80 Fax +46 40 680 64 93 malmö@sew.se |
| | Skellefteå | SEW-EURODRIVE AB Trädgårdsgatan 8 931 31 Skellefteå | Tel. +46 910 71 53 80 Fax +46 910 71 53 93 skelleftea@sew.se |

| Switzerland | | | |
|------------------------------|--|--|--|
| Assembly Sales Service | Basel | Alfred Imhof A.G. Jurastrasse 10 4142 Münchenstein bei Basel | Tel. +41 61 417 1717 Fax +41 61 417 1700 http://www.imhof-sew.ch info@imhof-sew.ch |
| Technical Offices | Rhaetian Switzerland | Ivan Grumelli Z.I. Moulin du choc C 1122 Romanel-sur-Morges, VD | Tel. +41 79 725 4499 Fax +41 61 417 1700 |
| | Bern / Solo- thurn | Rudolf Bühler Muntersweg 5 2540 Grenchen | Tel. +41 32 652 2339 Fax +41 32 652 2331 |
| | Central Switzerland, Aargau | Armin Pfister Stierenweid 4950 Huttwil, BE | Tel. +41 62 962 54 55 Fax +41 62 962 54 56 |
| | Zürich, Ticino | Gian-Michele Muletta Fischerstrasse 61 8132 Egg bei Zürich | Tel. +41 44 994 81 15 Fax +41 44 994 81 16 |
| | Lake Con- stance and East Switzer- land | Markus Künzle Eichweg 4 9403 Goldach | Tel. +41 71 845 2808 Fax +41 71 845 2809 |
| Taiwan | | | |
| Sales | Taipei | Ting Shou Trading Co., Ltd. 6F-3, No. 267, Sec. 2 Tung Huw S. Road Taipei | Tel. +886 2 27383535 Fax +886 2 27368268 Telex 27 245 sewtwn@ms63.hinet.net http://www.tingshou.com.tw |
| | Nan Tou | Ting Shou Trading Co., Ltd. No. 55 Kung Yeh N. Road Industrial District Nan Tou 540 | Tel. +886 49 255353 Fax +886 49 257878 sewtwn@ms63.hinet.net http://www.tingshou.com.tw |
| Tanzania | | | |
| Sales | Daressalam | SEW-EURODRIVE PTY LIMITED TANZANIA Plot 52, Regent Estate PO Box 106274 Dar Es Salaam | Tel. +255 0 22 277 5780 Fax +255 0 22 277 5788 http://www.sew-eurodrive.co.tz info@sew.co.tz |
| Thailand | | | |
| Assembly Sales Service | Chonburi | SEW-EURODRIVE (Thailand) Ltd. 700/456, Moo.7, Donhuaroh Muang Chonburi 20000 | Tel. +66 38 454281 Fax +66 38 454288 sewthailand@sew-eurodrive.com |
| Technical Offices | Bangkok | SEW-EURODRIVE (Thailand) Ltd. 6th floor, TPS Building 1023, Phattanakarn Road Suanluang Bangkok,10250 | Tel. +66 2 7178149 Fax +66 2 7178152 sewthailand@sew-eurodrive.com |
| | Hat Yai | SEW-EURODRIVE (Thailand) Ltd. Hadyai Country Home Condominium 59/101 Soi.17/1 Rachas-Utid Road. Hadyai, Songkhla 90110 | Tel. +66 74 359441 Fax +66 74 359442 sewthailand@sew-eurodrive.com |
| | Khon Kaen | SEW-EURODRIVE (Thailand) Ltd. 4th Floor, Kaow-U-HA MOTOR Bldg, 359/2, Mitrphab Road. Muang District Khonkaen 40000 | Tel. +66 43 225745 Fax +66 43 324871 sewthailand@sew-eurodrive.com |
| Tunisia | | | |
| Sales | Tunis | T. M.S. Technic Marketing Service Zone Industrielle Mghira 2 Lot No. 39 2082 Fouchana | Tel. +216 79 40 88 77 Fax +216 79 40 88 66 http://www.tms.com.tn tms@tms.com.tn |

Turkey

| | | | |
|------------------------------|---------------|---|---|
| Assembly Sales Service | Kocaeli-Gebze | SEW-EURODRIVE Ana Merkez Gebze Organize Sanayi Böl. 400 Sok No. 401 41480 Gebze Kocaeli | Tel. +90 262 9991000 04 Fax +90 262 9991009 http://www.sew-eurodrive.com.tr sew@sew-eurodrive.com.tr |
| Technical Offices | | SEW-EURODRIVE Home Ofis | Tel. +90 533 491 81 77 / +90 542 660 34 89 |
| | Ankara | SEW-EURODRIVE Ankara Ofis 1368.Cadde Eminel İş Merkezi No: 18/68 İvedik OSB/Yenimahalle/Ankara | Tel. +90 312 385 33 90 |
| | Bursa | SEW-EURODRIVE Bursa Ofis Beşevler Mah. Yıldırım Cd. No: 254 Karya Güçlü İş Merkezi B Blok Kat:5 No: 28 Nilüfer/Bursa | Tel. +90 224 443 45 60 |
| | Istanbul | SEW-EURODRIVE İstanbul Ofis Yakuplu Merkez Mh. Hürriyet Bulvarı Skyport Residence No:1 D:66 Beylikdüzü/İSTANBUL | Tel. +90 212 438 41 62-63 |
| | İzmir | SEW-EURODRIVE İzmir Ofis IAOSB Küçük Parseller Grubu Sosyal Tesis merkezi 1030 Sokak No: 16 / 110 Kara Hasan Atlı İş Merkezi Kat:6 Çiğli/İzmir | Tel. +90 232 469 62 64 |

United Arab Emirates

| | | | |
|----------------------------|-------|---|---|
| Drive Technology Center | Dubai | SEW-EURODRIVE FZE PO Box 263835 Jebel Ali Free Zone – South, P.O. Box Dubai, United Arab Emirates | Tel. +971 (0)4 8806461 Fax +971 (0)4 8806464 info@sew-eurodrive.ae |
|----------------------------|-------|---|---|

Ukraine

| | | | |
|------------------------------|-----------------|--|--|
| Assembly Sales Service | Dnipropetrovsk | SEW-EURODRIVE, LLC Robochya str., bld. 23-B, office 409 49008 Dnipro | Tel. +380 56 370 3211 Fax +380 56 372 2078 http://www.sew-eurodrive.ua sew@sew-eurodrive.ua |
| Sales | Kiev | SEW-EURODRIVE, LLC Velyka Vasylykivska street, 77-A 03150 Kiev | Tel. +380 44 503 95 77 Fax +380 44 503 95 78 kso@sew-eurodrive.ua |
| | Ivano-Frankivsk | SEW-EURODRIVE, LLC Nezavisimosty str, bld. 4, office 303 76000 Ivano-Frankovsk | Tel. +380 342 725 190 Fax +380 342 725 191 ifso@sew-eurodrive.ua |

Uruguay

| | | | |
|-------------------|------------|---|---|
| Assembly Sales | Montevideo | SEW-EURODRIVE Uruguay, S. A. Jose Serrato 3569 Esqina Corumbe CP 12000 Montevideo | Tel. +598 2 21181-89 Fax +598 2 21181-90 sewuy@sew-eurodrive.com.uy |
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USA

| | | | |
|--|---------------------|--|---|
| Production Assembly Sales Service | Southeast Region | SEW-EURODRIVE INC. 220 Finch Rd P.O. Box 518 Wellford SC , 29385 | Tel. +1 864 439-7537 Fax Sales +1 864 439-7830 Fax Production +1 864 439-9948 Fax Assembly +1 864 439-0566 Fax Confidential/HR +1 864 949-5557 http://www.seweurodrive.com cslyman@seweurodrive.com |
| Assembly Sales Service | Northeast Region | SEW-EURODRIVE INC. Pureland Ind. Complex 2107 High Hill Road, P.O. Box 481 Bridgeport, New Jersey 08014 | Tel. +1 856 467-2277 Fax +1 856 845-3179 csbridgeport@seweurodrive.com |
| | Midwest Region | SEW-EURODRIVE INC. 2001 West Main Street Troy, Ohio 45373 | Tel. +1 937 335-0036 Fax +1 937 332-0038 cstroy@seweurodrive.com |
| | Southwest Region | SEW-EURODRIVE INC. 3950 Platinum Way Dallas, Texas 75237 | Tel. +1 214 330-4824 Fax +1 214 330-4724 csdallas@seweurodrive.com |

USA

| | | |
|----------------|--|---|
| Western Region | SEW-EURODRIVE INC. 30599 San Antonio St. Hayward, CA 94544 | Tel. +1 510 487-3560 Fax +1 510 487-6433 cshayward@seweurodrive.com |
| Wellford | SEW-EURODRIVE INC. 148/150 Finch Rd. Wellford, S.C. 29385 | Tel. +1 864 439-7537 Fax +1 864 661 1167 IGOrders@seweurodrive.com |

Additional addresses for service provided on request!

Vietnam

| | | | |
|-------|------------------|---|--|
| Sales | Ho Chi Minh City | SEW-EURODRIVE PTE. LTD. RO at Ho Chi Minh City Floor 8, KV I, Loyal building, 151-151 Bis Vo Thi Sau street, ward 6, District 3, Ho Chi Minh City, Vietnam | Tel. +84 937 299 700 huytam.phan@sew-eurodrive.com |
| | Hanoi | MICO LTD Quảng Trị - North Vietnam / All sectors except Construction Materials 8th Floor, Ocean Park Building, 01 Dao Duy Anh St, Ha Noi, Viet Nam | Tel. +84 4 39386666 Fax +84 4 3938 6888 nam_ph@micogroup.com.vn http://www.micogroup.com.vn |

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Inquiry/order



Customer data:

Company: _____ Customer no.: _____
 Department: _____
 Name: _____ Phone: _____
 Street/P.O. box: _____ Fax: _____
 _____ Email: _____
 Zip code/city: _____

Contact at SEW:

Name: _____ Phone: _____
 Technical office: _____ Fax: _____

Technical data:

Quantity: _____ Desired delivery date: _____
 Catalog designation: _____

Gear unit type:

Helical gear units Parallel-shaft helical gear units Helical-bevel gear unit Helical-worm gear unit Spiroplan® gear units
 Double gear units Servo gear units Variable-speed gear unit Electrified monorail system Miscellaneous: _____

Power: _____ kW **Output speed:** _____ rpm **Output torque:** _____ Nm

Cycles/hour: _____ c/h **Cyclic duration factor:** S _____ / _____ % cdf
 1-shift operation 2-shift operation 3-shift operation
 Regular Irregular Very irregular

Mounting position: ¹⁾

M1 M2 M3 M4 M5 M6 Pivoted

Housing form:

Foot-mounted Flange (bore) Flange (thread)
 Torque arm Miscellaneous: _____

Shaft design:

Solid shaft with key Shrink disk Shaft/hollow shaft Ø: _____ mm
 Hollow shaft with key TorqLOC® Flange Ø: _____ mm

Shaft position (for right-angle gear units):

A | B | AB

Terminal box position:

0°(R) 90°(B) | 180°(L) | 270°(T) X 1 | 2 | 3

Cable entry:

Degree of protection:

IP54 IP55 IP56 IP65 IP66 IP69K

Thermal class:

130(B) 155(F) 180(H)

Surface/corrosion protection:

KS OS1 OS2 OS3 OS4

Line voltage: _____ V

Line frequency: 50Hz 60Hz

Connection type:

Δ | Y | YY | Y/Y

Energy efficiency class:

IE1 | IE2 | IE3 | IE4

For inverter operation: Max. frequency: _____ Hz **Control range:** _____

Required options:

Brake: Voltage _____ V Braking torque: _____ Nm
 Manual brake release: HR or HF
 Forced cooling fan: Forced cooling fan voltage: _____ V
 Motor protection: TF or TH
 Encoder: _____
 Plug connector connection: _____
 Inverter: _____
 RAL 7031 or RAL _____

Further options:

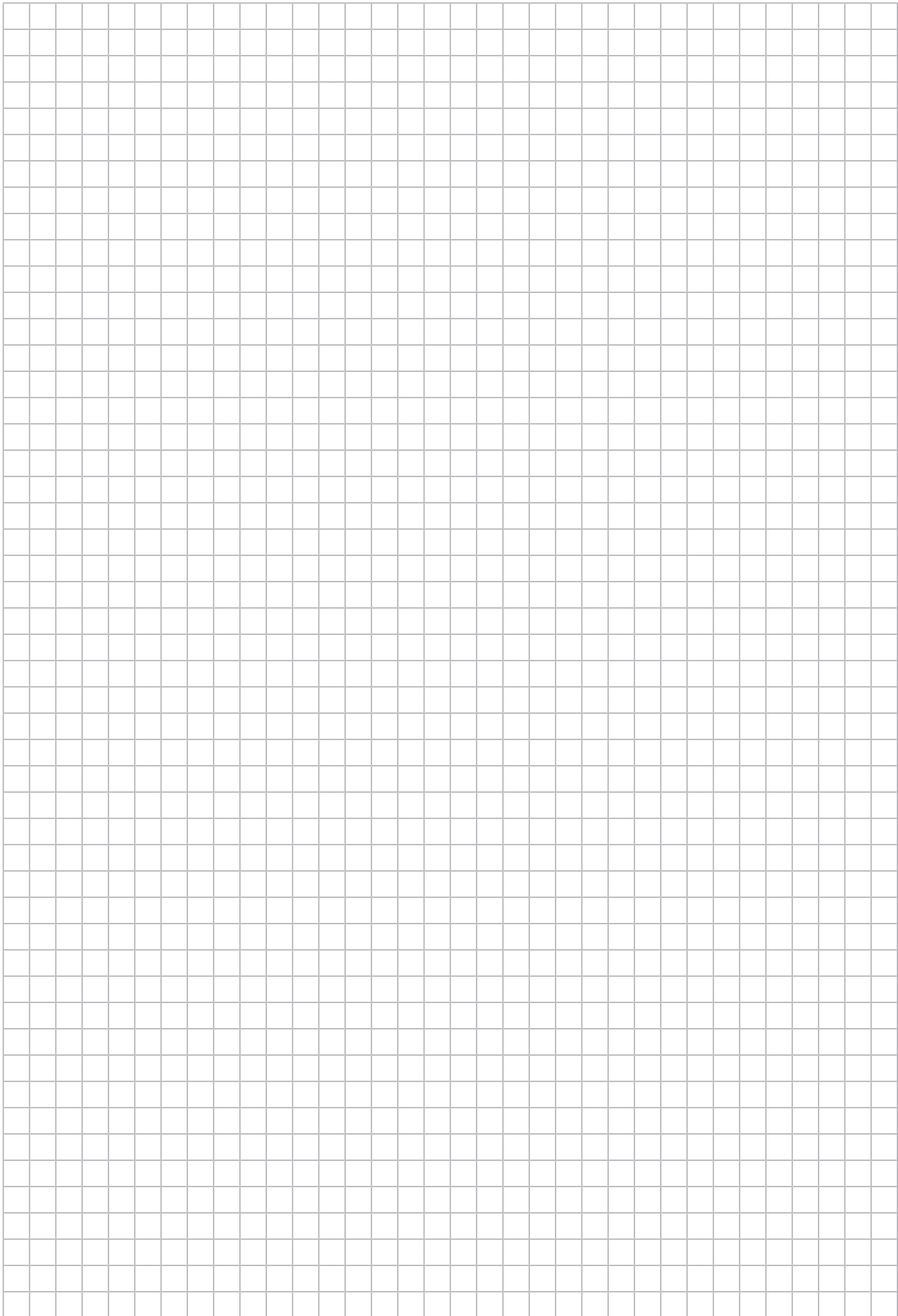
Special ambient conditions:

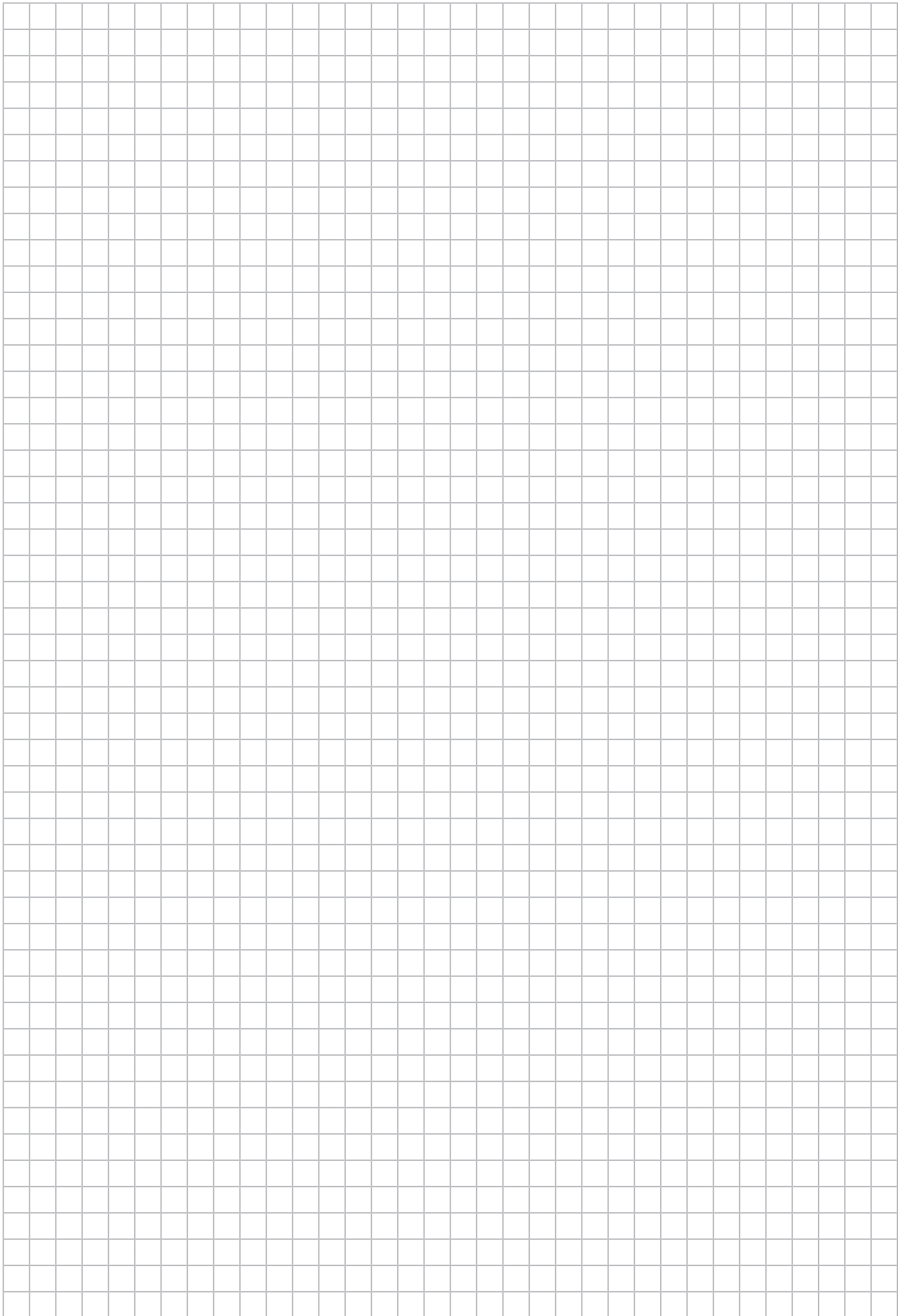
Temperature: from _____ °C to _____ °C | Operation outdoors | Installation altitude >1000m above NN
 Further environmental conditions: _____

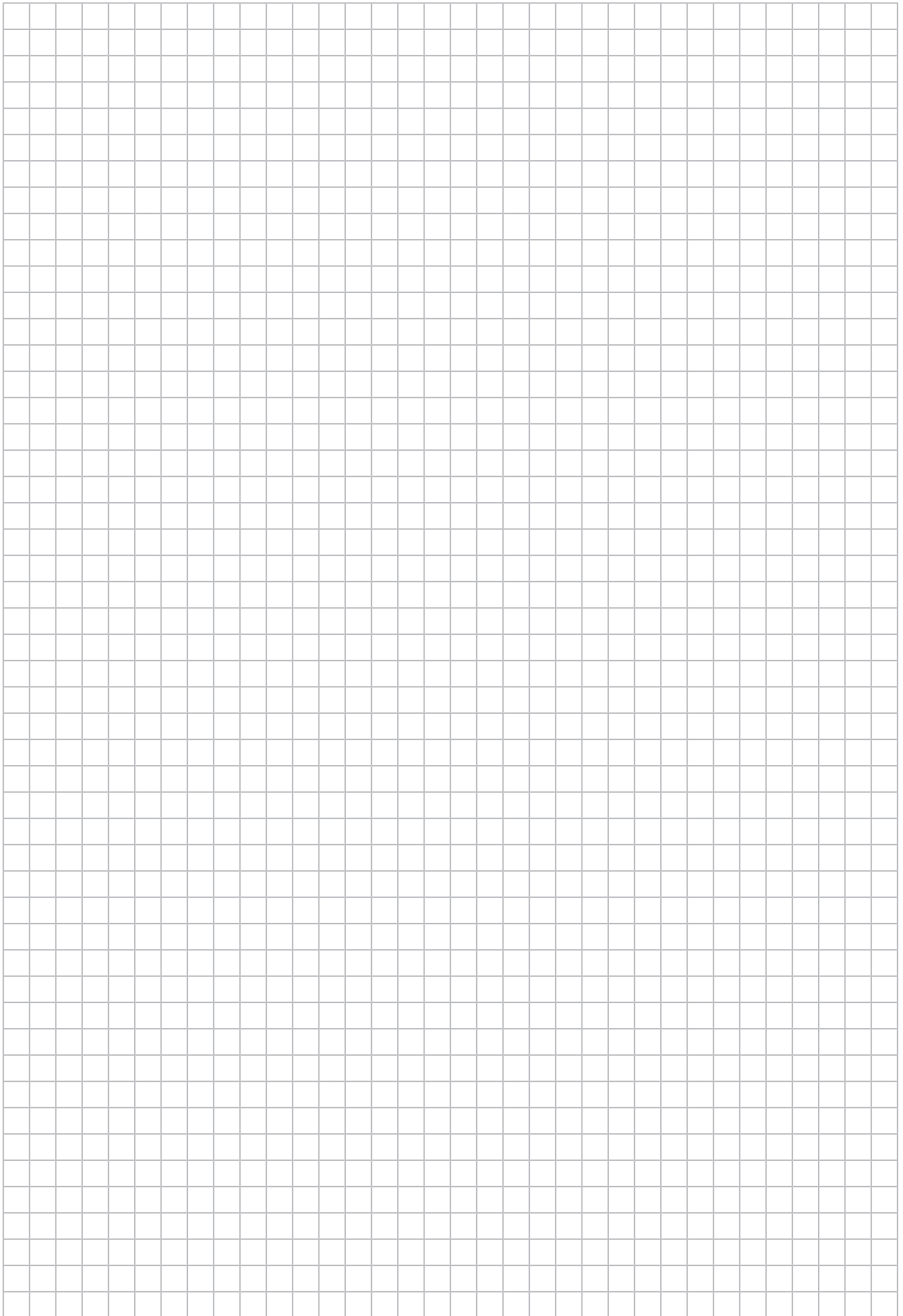
Miscellaneous: _____

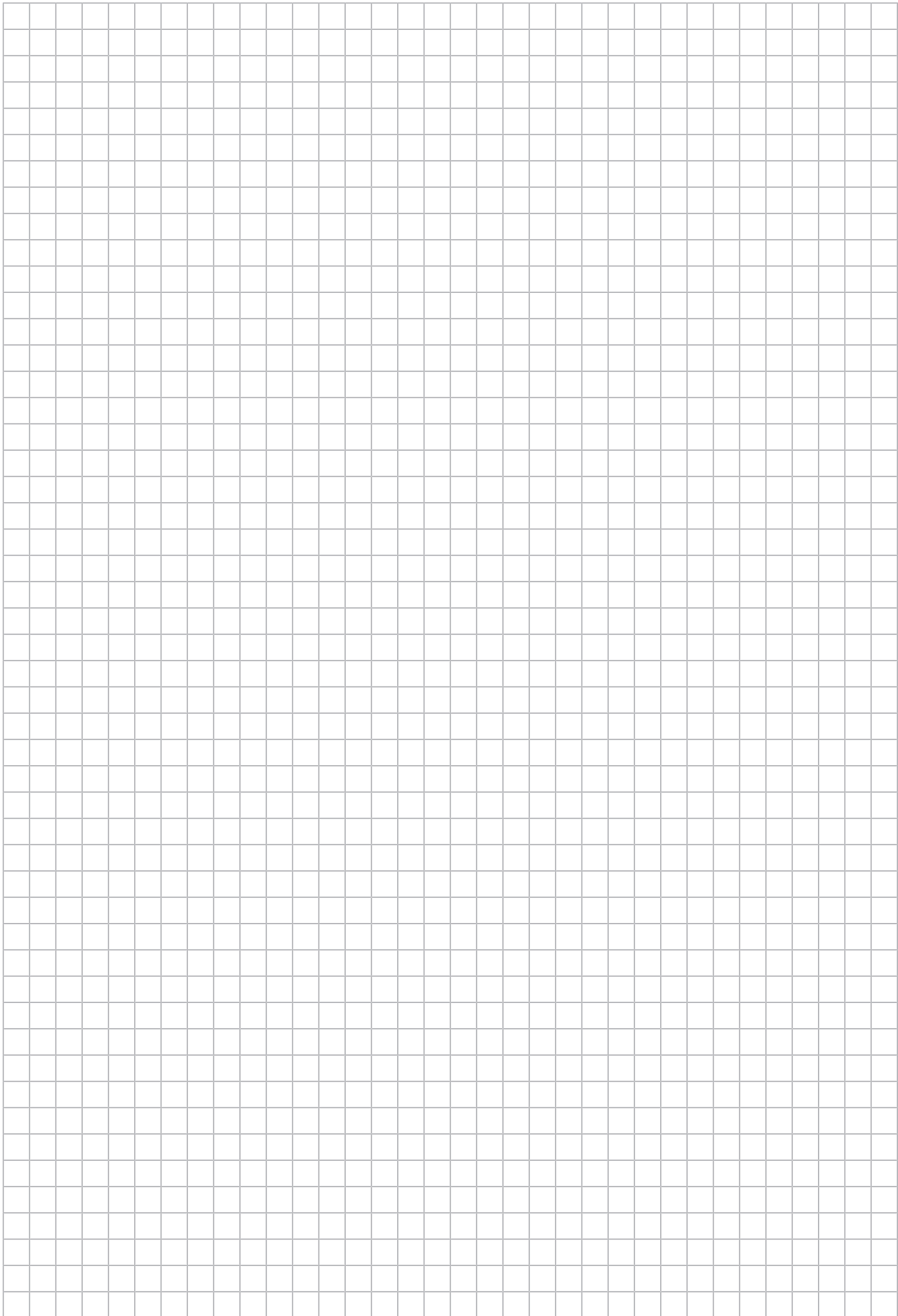
¹⁾ see back

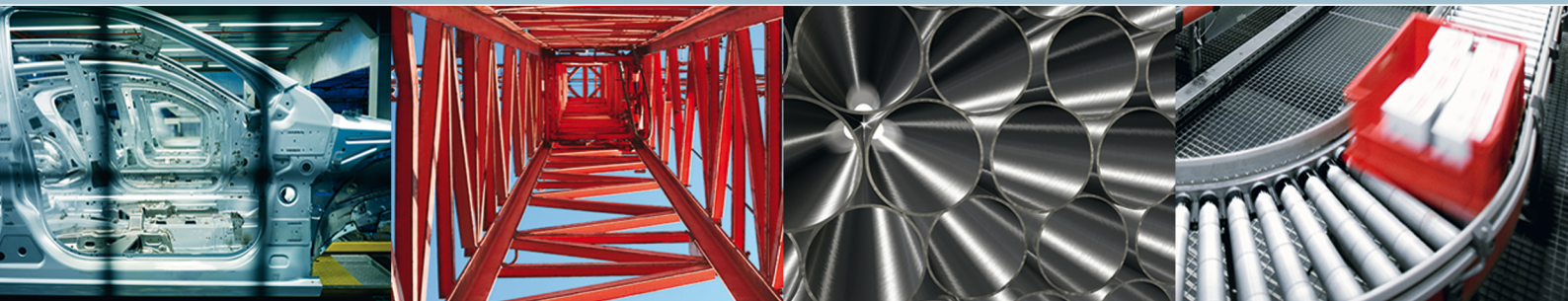
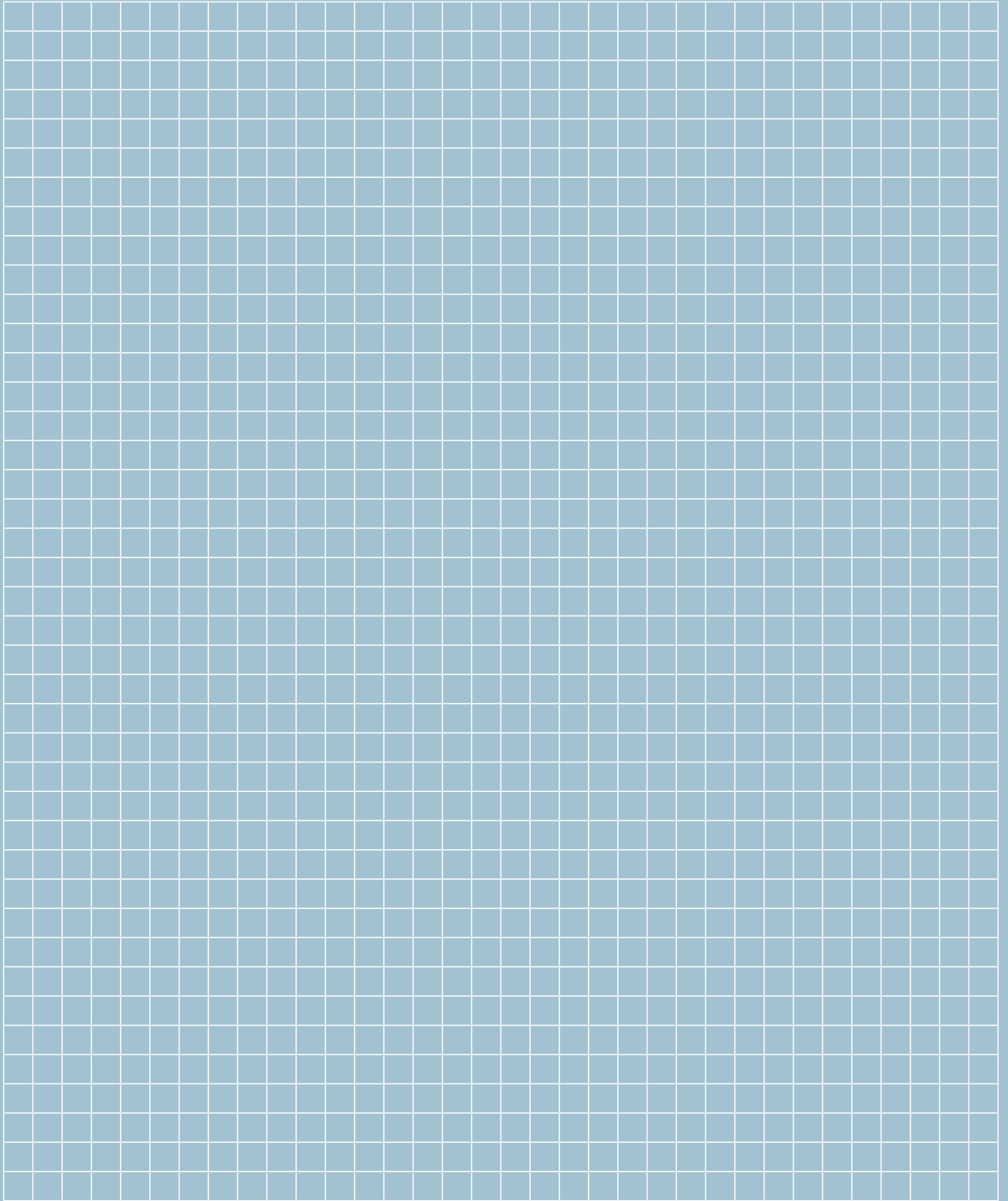
Place, date _____ **Signature:** _____













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