SEW EURODRIVE

Catalog



Gear Units

Edition 03/2023

27797880/EN

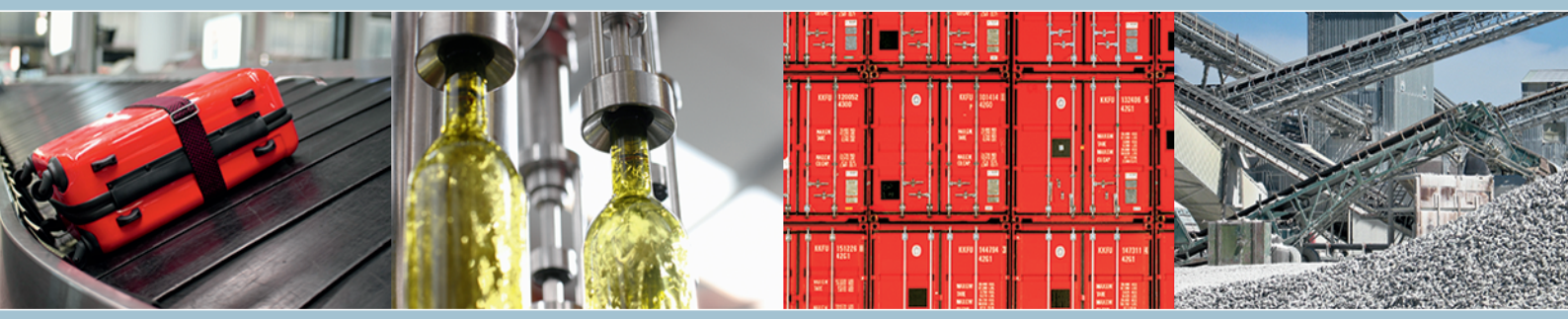


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1 Introduction

1.1 SEW-EURODRIVE

1.1.1 What do we stand for?

For a reliable partnership!

Humanity and partnership, solutions and services, responsibility and quality, tradition and innovation: SEW-EURODRIVE, the owner-managed family business, has stood for all this and much more for more than 90 years.

As a market leader in drive and automation technology, we don't just power countless applications in virtually every industry. With over 20000 employees, we are also playing a key role in shaping the future of drive technology. For you. Ensuring you, your systems and machines are always at the cutting edge. Not just now, but in the future as well. We want you to succeed together with us.

1.1.2 Where can you find us?

We are always nearby!

Our 17 production plants and 88 Drive Technology Centers in 54 countries mean we are at your service on every continent and in every corner of the world, always working with you as an equal partner and ensuring everything runs smoothly.

What makes us truly stand out from other manufacturers? With our broad customer support and service network worldwide, you never have to wait long for spare parts, repairs or professional advice.



54
Countries



17
Production plants



88
Drive Technology Centers



> 20000
Employees



Global service



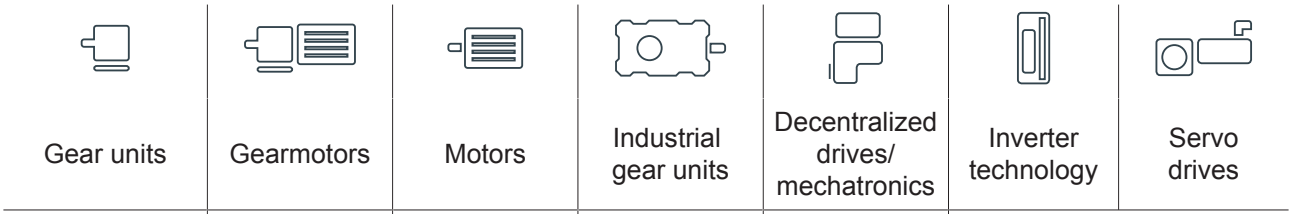
Countless industries

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1.1.3 What do we offer?

State-of-the-art drive technology and automation solutions from a single source!

Looking to modernize your processes or to construct a new system? We offer you one of the most extensive ranges of drive technology products, solutions, and services on the market. A single contact person for everything: that sounds good, doesn't it?



From the very outset, our customers have been able to rely on our high quality, committed advice and support and fast delivery times. We offer a portfolio of modular solutions that are comprehensive and unique and meet every possible need.

- Perfect combination options and solutions for every application
- Energy efficiency up to IE5
- Quick and easy selection process and project planning
- Comprehensive portfolio – from drives and motors for continuous operation to high-precision servo drives
- Special designs in stainless steel, with explosion protection, or for electrified monorail systems
- Ideal solutions for every application
- Complete automation solutions for your machine or factory and many other areas

Independent of the project scope and the complexity of your requirements: We rise to the challenge, working with you to develop the perfect solution for you – including an all-round service package throughout your entire system life cycle on request.

Right now, predictive maintenance is one of the top service trends. Early diagnosis and end-to-end condition monitoring have been an essential part of our offering for many years. That's because one thing in particular matters to us – the satisfaction and trust of our customers. From planning and the operation phase all the way to modernization. Where necessary, we also take care of drives from other manufacturers.

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1.1.4 What are the goals we want to reach with you?

We want to take you to the top!

Nothing excites us more than the future of production. We are already using Industry 4.0 principles to transform our manufacturing operations. As far as we are concerned, Industry 4.0 ceased to be a distant vision long ago – it is already a successful reality thanks to our smart factory. As a result, we have become one of the world's pioneers in this field.

Yet we don't just focus on increasing our performance to ever greater levels. We also pass on to you the expertise, experience and technical solutions we have gathered in implementing Industry 4.0 in our production halls. Why not find out more?

1.1.5 Why should you choose SEW-EURODRIVE?

Because these ten reasons speak for themselves:



1. **You will be more flexible**

   However much the requirements for your processes and production systems increase, we're there for you every step of the way. With rapid conversions, short delivery times, enhanced capacity and faster format changeovers, we're at your side – from evaluating your needs and implementing an appropriate solution all the way to Life Cycle Services.



2. **You will be more satisfied**

   Our name stands for the best quality. But we do not rest on our laurels. Quite the contrary, in fact. To ensure we meet all standards – both ours and yours – we undergo annual testing, including certification processes. That's because only one thing matters to us – the satisfaction and trust of our customers.



3. **You will know more**

   We're happy to share with you the industry and application expertise we have gained over decades that extends far beyond drive technology areas. We work with you to plan and put into practice your tailored solutions in a process where you constantly evolve in tandem with us.



4. **You will be more sustainable**

   We take responsibility for our employees, customers and business partners but also the environment in which we live and work. As a family business, we think in generations and always look beyond today and tomorrow. With us, you too can drive the future.



5. **You will be more successful**

   Like you, we cannot afford to stand still. We provide continuous training for our employees and customers. We constantly expand our horizons and enhance our products, solutions and services, and thus your processes. You can only continue to be successful in the future with optimized workflows.

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6. **You will be more energy efficient**

   We go out of our way to find new approaches and make our drives more efficient while always staying well ahead of international regulations. And, if you wish, we work with you to plan your systems and machines so that you can make the best possible use of energy recovery.



7. **You will be more innovative**

   What's the point of innovations if they remain out of your reach? We listen to you, which makes us fully aware of your future challenges, and we respond accordingly. With our approximately 800 researchers, we drive forward innovative technologies and help bring your processes up to date.



8. **You will save more money**

   With us, you can lower your overall operating costs. After all, it isn't just a matter of procurement expenses. Your TCO is significantly determined by the subsequent utilization and service life of your drive technology. We provide you with comprehensive advice on how to reduce your costs through sustainable operations.



9. **You will be close to us**

   Wherever in the world your system is running, our comprehensive service network and experts mean we're always ready to provide advice and practical assistance when you need it. All-in-one, on-site service that knows no bounds and significantly reduces or even eliminates downtimes.



10. **You will be faster**

    Throughout the world, our service staff ensure spare parts get to you fast, and faulty drives – including third-party products – are collected and repaired quickly. Software tools make engineering and startup easier for you. Services covering your entire system life cycle help make you faster and more efficient.

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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

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 from our website at **www.sew-eurodrive.com**.

Catalogs

- AC motors
- 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

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1.3 Recycling, reprocessing, reuse

SEW-EURODRIVE GmbH & Co KG strives to use as few new natural resources as possible in the production of its products. An important aspect of this is the circular economy with the recycling of materials as well as the inspection and/or reprocessing of returned components and their reuse in new products. SEW-EURODRIVE GmbH & Co KG only uses these processes if the resulting materials and components are of the same quality as new parts.

1.4 Decimal separator in numerical values

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

Example: 30.5 kg

1.5 Product names and trademarks

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

1.6 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..10 – W..30	CLP PG VG460	-20 °C to +40 °C
W..19 – W..59	CLP PG VG220	-25 °C to +40 °C

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

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 from SEW-EURODRIVE are designed for use in a temperature range between -20 °C and +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.

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.

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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 apply 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 specified power ratings and torques refer to mounting position M1 and comparable mounting positions in which the input stage does not completely run under oil. In addition, the gearmotors are assumed to be standard versions with standard lubrication and under normal ambient conditions.

2.1.4 Noise

The sound power levels of the gear units, gearmotors, and motors correspond to ISO 8579-1 for gear units and gearmotors and comply with the limit values of EN 60034 for motors.

2.1.5 Painting

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

Type	Painting
R.., F.., K.., S.., W.. gear units	Blue gray RAL 7031

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.

Also observe the notes in the motor dimension sheets in the "AC Motors" catalog.

2.1.8 Weights

Note that the weight information shown in the catalogs only apply 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 the exact weight, refer to the quotation or the order confirmation.

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For recommended lubricant fill quantities depending on the mounting position, refer to chapter "Lubricant fill quantities" (→ 🗎 144).

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 significantly smaller than that of the standard designs which means that positioning tasks can be solved with great precision. The rotational clearance is specified in angular minutes in the selection tables. The rotational clearance $\varphi_{(/R)}$ for the output shaft is specified without load (max. 1% of the rated output torque) with blocked gear unit input side. The specified values have a tolerance of ±2 angular minutes. For further information, refer to chapter "Dimension sheet information" (→ 🗎 201).

Helical-bevel gear units K..9 and SPIROPLAN® gear units W..9 are not available with reduced backlash.

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.

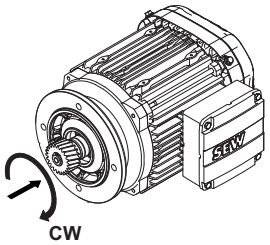
2.1.11 Directions of rotation

Direction of rotation of the motor shaft

In accordance with the standard IEC 60034-8 defined as standard:

Clockwise (CW) direction of rotation when looking onto the pinion shaft end of the motor.

Prerequisite: Connection U1-V1-W1



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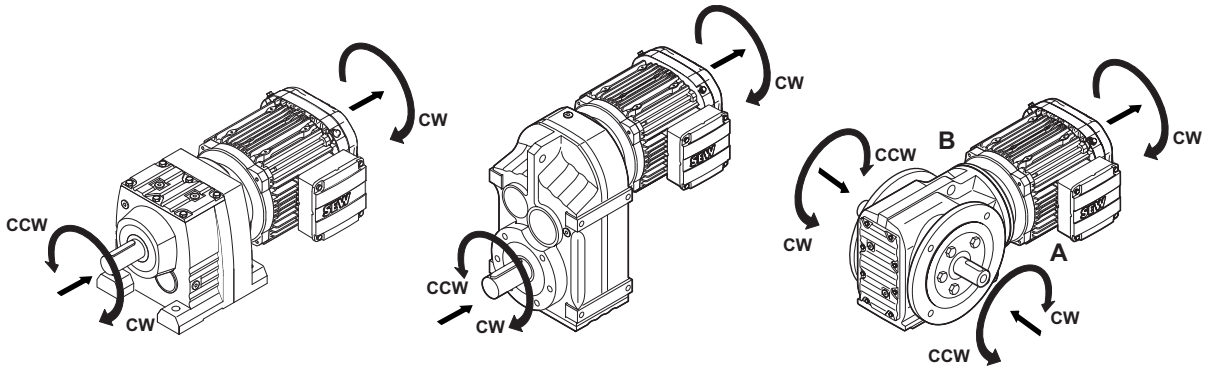
Direction of rotation of the output shaft

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



Direction of rotation of the gear unit

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 the 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 the output shaft[1)]	
				View of output end A	View of output end B
K	19 – 49	2	A	CW	
			AB	CW	CCW
			B		CCW
K	37 – 187	3	A	CCW	
			AB	CCW	CW
			B		CCW
S	37 – 97	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 the output shaft[1]	
				View of output end A	View of output end B
W	10 – 30	1	A	CCW	
			AB	CCW	CW
			B		CW
W	19 – 59	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" (→ 🗎 26).

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.

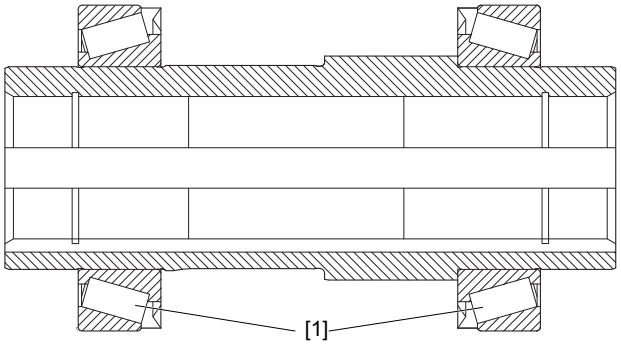
The wear-free gearing and the life-long lubrication facilitate long periods of maintenance-free operation. The identical hole spacing in the foot and face as well as the same shaft height to both makes for a number of mounting options.

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

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2.1.14 Reinforced hollow shaft bearing

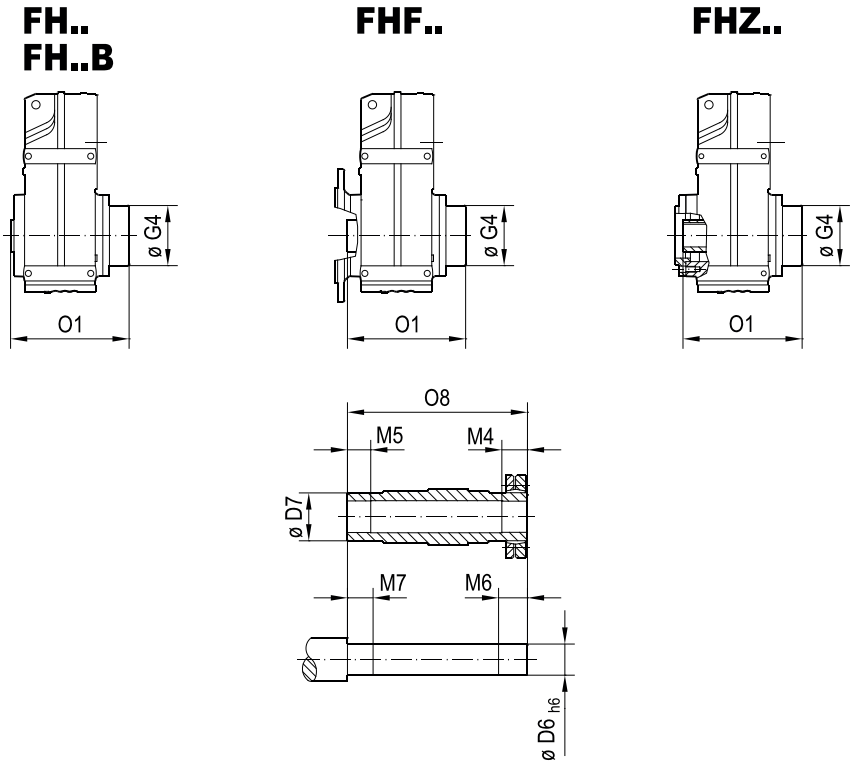
With the reinforced hollow shaft bearing, the standard deep groove ball bearings are replaced with tapered roller bearings. This measure enables considerably higher overhung and axial loads and at the same time an increased service life of the bearings. Contact SEW-EURODRIVE for additional information.



[1] Tapered roller bearings

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

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2.1.15 International markets

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

CE	CE marking to state compliance with European Directives (see EU Declaration of Conformity).
Ex	ATEX mark to state compliance with the European Directive 2014/34/EU.
UR	UR mark to confirm that UL (Underwriters Laboratory) is informed about the registered components; register number by UL: E189357
UKCA	The UKCA mark states compliance with British guidelines.
MC170602 CSA	CSA mark to confirm the market conformity of the Canadian Standard Association (CSA).
EAC	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.
UA.TR. 013	The UA.TR mark declares conformity with the technical regulations of Ukraine.
CMIM	CMIM logo to confirm compliance with technical regulations of Morocco.

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.

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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
- OS surface protection for motors and gear units

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

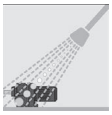
Optional preventive measures are also available for the output shafts.

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. 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 indoor spaces with neutral atmospheres. According to corrosivity category:[3)] • C1 (negligible)	• Machinery and systems in the automotive industry • Transport systems in the logistics area • 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)	• 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)	• 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)	• Sewage treatment plants • Port cranes • Mining applications

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Surface protection[1)2)]		Ambient conditions	Sample applications
OS4		Suitable for environments with permanent humidity and severe atmospheric or chemical contamination. Regular acidic and caustic wet cleaning, also with chemical cleaning agents. Based on corrosivity category[3)]: • C5 (very high)	• 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 ISO 12944-2 classification of the ambient conditions.

2.2.3 Special protection measures

Output shafts for gear units and gearmotors can be treated with special optional protective measures for operation subject to severe environmental pollution or in particularly demanding applications.

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 hollow shaft gear units. 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 also order NOCO® fluid in larger quantities from SEW-EURODRIVE.

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

NOCO® fluid is a food grade substance according to NSF-H1. The food-grade NOCO® fluid has a corresponding NSF-H1 label on the packaging.

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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	• 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 (Nitrile butadiene rubber)[1]
FKM Sealing system for increased rotational speeds and/or increased temperatures	• 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[2] Premium sealing system for longer service life	• 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 CLP PG NSF H1 lubricants • Especially recommended with GearOil by SEW-EURODRIVE	Premium Sine Seal according to Fig. 2	≈ 20000 h	High-quality FKM (fluorocarbon rubber)[1]
Premium Sine Seal conductive[2] Sealing system to avoid current passage	• Speeds up to 4500 min^{-1} • Temperature range from -25 °C to +115 °C • S3 operation (high switching frequencies) • Current passage in the motor bearings • Especially recommended with GearOil by SEW-EURODRIVE	Premium Sine Seal with electrically conductive properties based on fig. 3	≈ 10000 h	High-quality FKM (fluorocarbon rubber)[1], fleece with electrically conductive properties

1) Nitrile butadiene rubber, fluorocarbon rubber according to SEW-EURODRIVE specification 97 118_15.

2) Premium Sine Seal is designated only for the A-side of the motor. An FKM oil seal is used on the B-side.

= Oil side

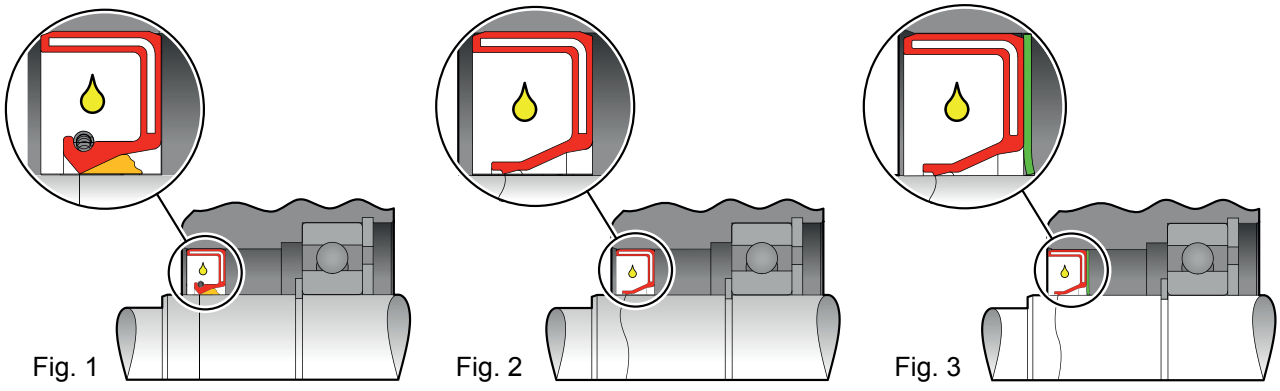


Fig. 1 Fig. 2 Fig. 3

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2.3.2 Output seals

Sealing system	Recommended use	Sealing system design	Recommended maintenance interval	Material
NBR Standard sealing system	• Temperature range from -40 °C to +80 °C • Moderate ambient conditions	Oil seal with dust lip according to fig. 4	≈ 10000 h	High-quality NBR (Nitrile butadiene rubber)[1)]
FKM Sealing system for elevated temperatures	• Temperature range from -25 °C to +115 °C • S3 operation (high switching frequencies) • Moderate ambient conditions	Oil seal with dust lip according to fig. 4	≈ 10000 h	High-quality FKM (fluorocarbon rubber)[1)]
NBR/FKM Combination seal – premium sealing system for longer service life, especially at low temperatures	• 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. 5	≈ 20000 h	High-quality NBR in combination with high-quality FKM (fluorocarbon rubber)[1)]
FKM/FKM Combination seal – premium sealing system for longer service life at elevated temperatures	• Temperature range from -25 °C to +115 °C • S3 operation (high switching frequencies) • Moderate ambient conditions • Extended maintenance interval • Especially recommended with CLP PG NSF H1 lubricants • Especially recommended with GearOil by SEW-EURODRIVE	Combination seal comprising FKM oil seal with dust lip and FKM sine seal according to fig. 5	≈ 20000 h	High-quality FKM (fluorocarbon rubber)[1)]
FKM + fleece On request: Sealing system for very demanding ambient conditions	• 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. 6	≈ 10000 h	High-quality FKM (fluorocarbon rubber)[1)] + special fleece

1) Nitrile butadiene rubber, fluorocarbon rubber according to SEW-EURODRIVE specification 97 118_15.

= Oil side

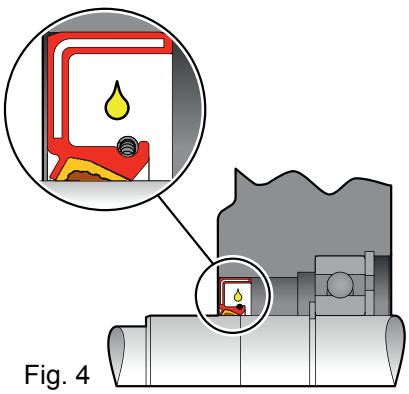


Fig. 4

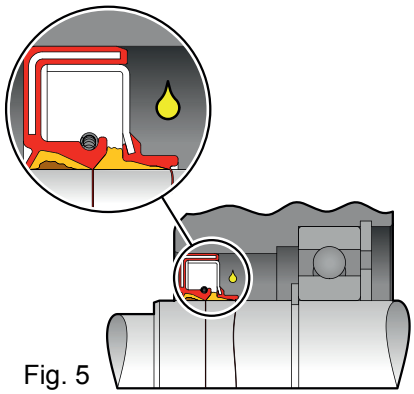


Fig. 5

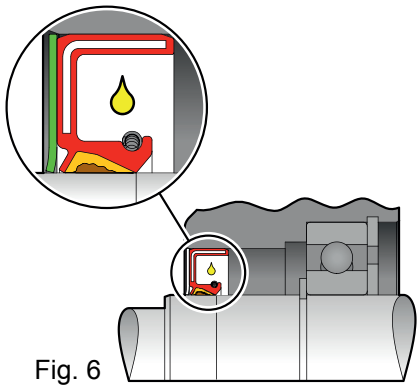


Fig. 6

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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 (**v**olatile **c**orrosion **i**nhibitors) is added to the lubricant of these gear units. 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.

The gear units come with the oil fill according to the specified mounting position (M1 – M6). To prevent the VCI anti-corrosion agent from evaporating, the gear units in "extended storage" design must remain tightly sealed until startup.

For W..0 gear units, the extended storage option is not available.

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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)	• Packed in containers • With desiccant and moisture indicator sealed in the plastic wrap	• Roofed • Protected against rain and snow • And shocks	Up to 4 years with regular inspection of the packaging and humidity indicator (rel. humidity < 50%)
	Open	• 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 • Check for cleanness and mechanical damage during the inspection • Check corrosion protection
Tropical (Asia, Africa, Central and South America, Australia, New Zealand excluding temperate zones)	• Packed in containers • With desiccant and moisture indicator sealed in the plastic wrap • Protected against insect damage and mildew by chemical treatment	• Roofed • Protected against rain and snow • And shocks	Up to 3 years with regular inspection of the packaging and humidity indicator (rel. humidity < 50%)
	Open	• 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 • Protected against insect damage	2 years or more with regular inspections • 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.

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2.5 Condition monitoring

2.5.1 Oil aging sensor /DUO10A

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. The remaining service life is displayed 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 advantages result in a reduction in maintenance and maintenance costs and an increase in system availability.

For the technical data and part numbers of the DUO10A oil aging sensor, refer to chapter "Information on oil aging sensor /DUO10A" (→ 🗎 192).

2.5.2 Vibration monitoring system /DUV40A

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" (→ 🗎 194).

2.6 Oil expansion tank

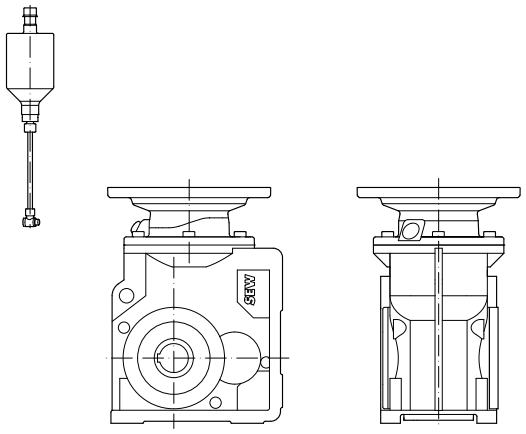
The oil fill level for gear units in mounting position M4 is set due to technical reasons. In case of unfavorable circumstances, oil may leak from the breather valve of these gear units. Use an oil expansion tank to reliably prevent oil from leaking. The oil expansion tank provides additional space for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

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 min^{-1}
- For sizes 77 to 97 and input speeds > 1800 min^{-1}
- For gear units and gearmotors from size 107

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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.

Transverse acceleration is not permitted for gear units with expansion tanks with fixed piping for third-party motors and for servomotors.

For more information, contact your SEW-EURODRIVE sales consultant.

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, 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 is 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 stages)
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

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	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 stages)
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:

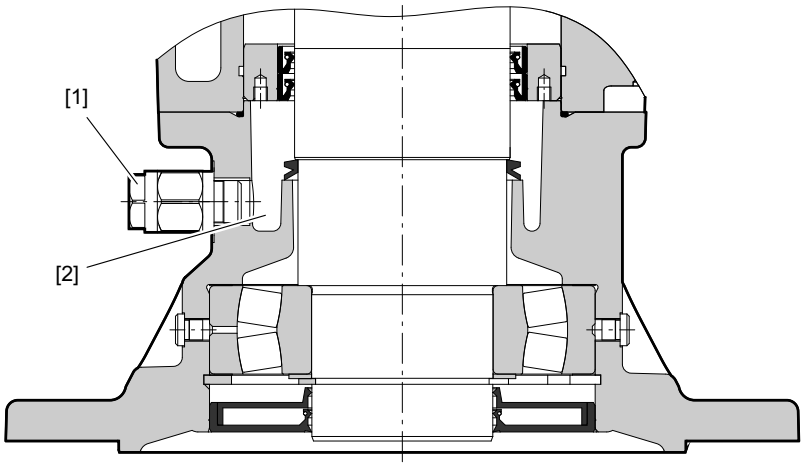
- Double oil seal on the output end for additional protection against leakage
- Grease nipple for relubrication of output shaft bearings
- The gear units use series housings and series gearing components. The special flange is bolted to the output end of the standard gear unit.
- Energy efficiency classes 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

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

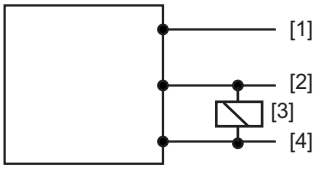
A Drywell design with level sensor is optionally available for FM.., FAM.., KM.. and KAM.. agitator drives.

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

Level sensor for sizes 67 – 97

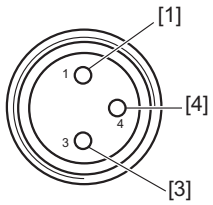
Electrical connection



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

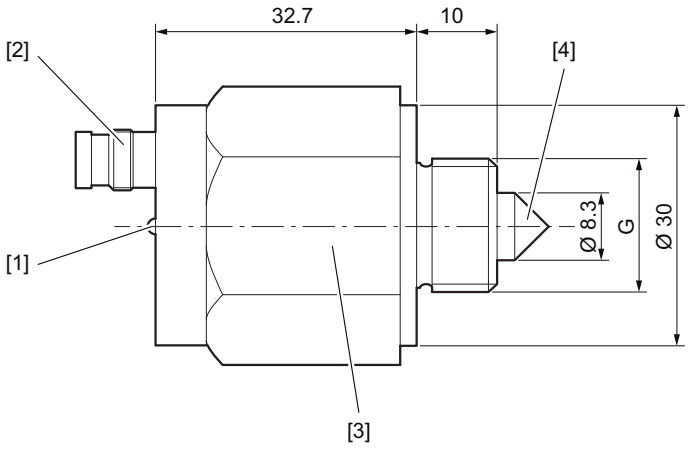
Pin assignment



23527590411

[1] DC 12 V to 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

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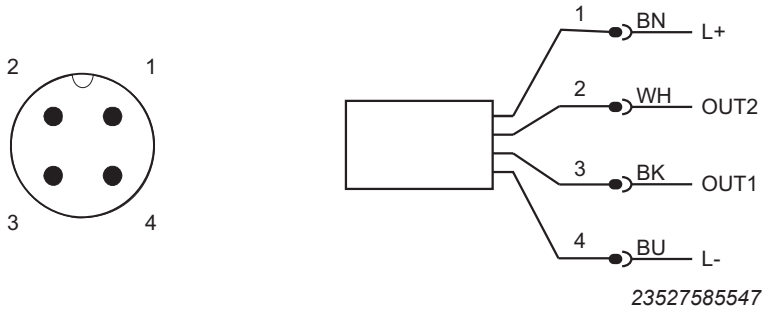
Mounting position	Any
Optical display of the switching status	1 LED
Process connection	Male thread G 3/8", G 1/2" or M12 × 1

For more information, contact SEW-EURODRIVE.

Level sensor for sizes 107 – 157

Electrical connection

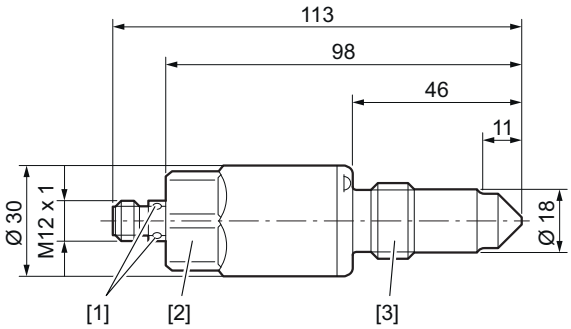
M12 plug-in connector:



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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

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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-protected 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 design types 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

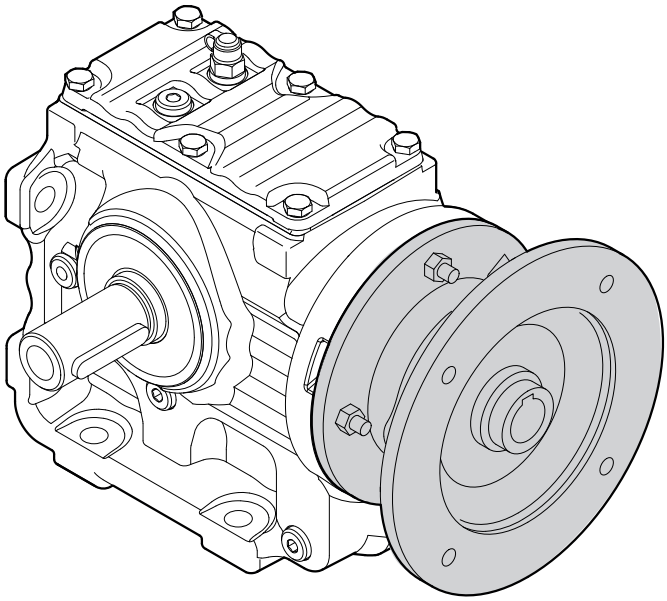
For detailed information about explosion-protected SEW-EURODRIVE products, refer to the "Explosion-Protected DRN.. gearmotors (IE3) in ATEX and IECEx" catalog and the "Explosion-Protected AC Motors" catalog.

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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.

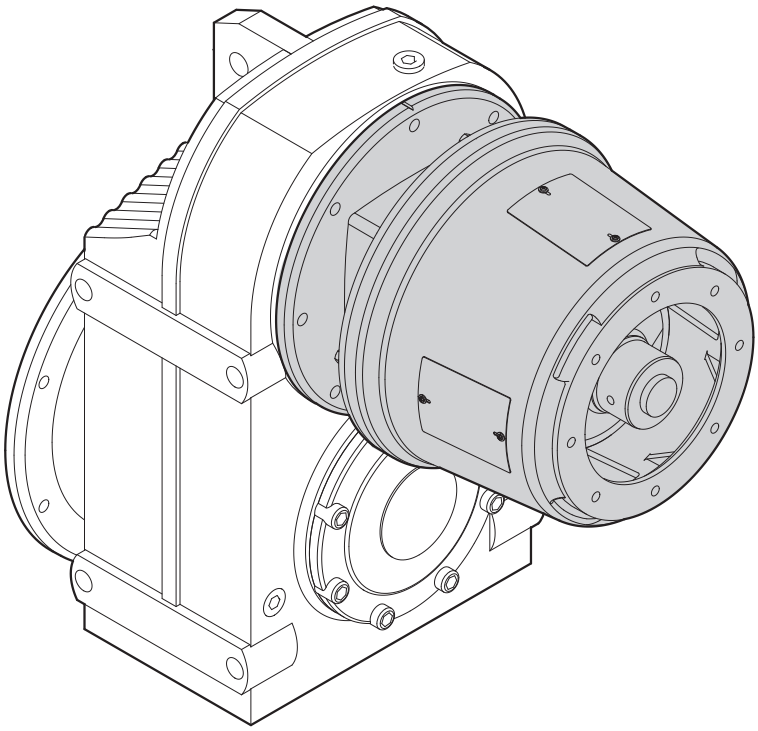
An extended adapter is used for certain AMS.. adapter combinations with parallel-shaft helical gear units to avoid collisions with the safety cover. This changes the dimension Z5, see dimension sheet "Dimensional deviations for certain AMS.. adapter combinations with parallel-shaft helical gear units" (→ 🗎 205).

For more information, refer to the project planning chapter "Gear units with IEC or NEMA AMS.. adapter" (→ 🗎 67).

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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.

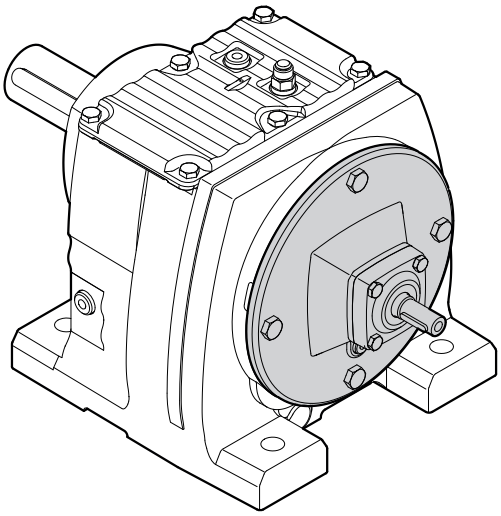
Preferred speeds are 1400 min^{-1} and 2800 min^{-1} for 4- or 2-pole attached motors. The noise level increases when using the 2-pole drive combination.

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

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2.9.3 AD.. input shaft assembly

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



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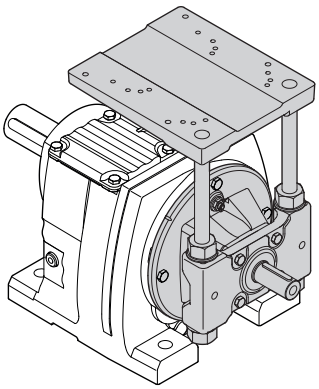
Helical, parallel-shaft helical, helical-bevel, helical-worm, and SPIROPLAN® gear units are equipped with an input shaft assembly for the drive via an exposed shaft-end. The dimensions of the drive shafts are given in metric units according to IEC standard (inch dimensions on request). The end of the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



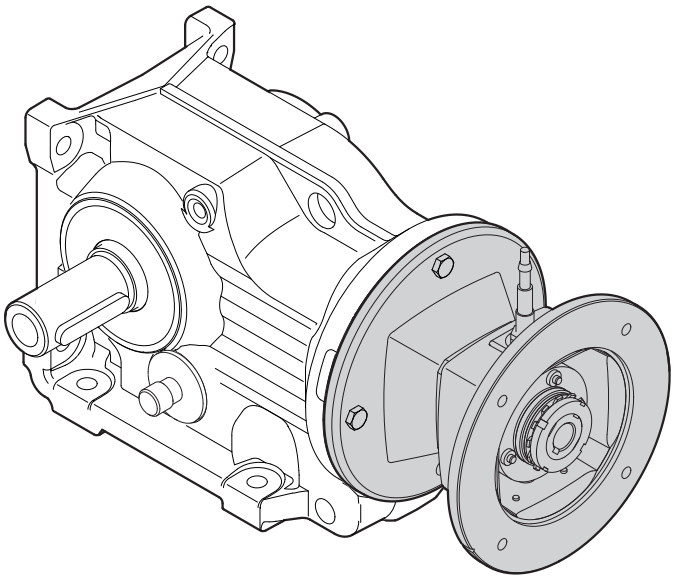
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Belt drives are available with an adjustable motor platform for space-saving installation. The motor platform is arranged parallel to the drive shaft and has tapped holes for IEC standard motors (also available without tapped holes on request). The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

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2.9.4 AR.. adapter with slip clutch

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



21431290763

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).

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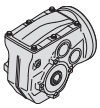
3 Overview of types and type designations

3.1 Overview of gear units

3.1.1 Axially parallel gear units

Gear unit type		RX.. (→ 🗎 212)	R.. (→ 🗎 212)	F.. (→ 🗎 325)
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
Reduced backlash option	/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 (→ 🗎 444)	K..9 (→ 🗎 444)	S../S..p (→ 🗎 585)	W..9 (→ 🗎 722)
Technical data					
Figure					
Maximum continuous torque	M_{amax}	200 – 8000 Nm	80 – 500 Nm	92 – 720 Nm	80 – 600 Nm
Gear ratio range	i	3.98 – 197.37	2.81 – 75.20	3.97 – 75.06	4.68 – 210.49
Reduced backlash option	/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.

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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

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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 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 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 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
ST..	Hollow shaft with TorqLOC® hollow shaft mounting system
SAZ..	B14 flange-mounted design and hollow shaft with keyway

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Designation	Description
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

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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 monitoring
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

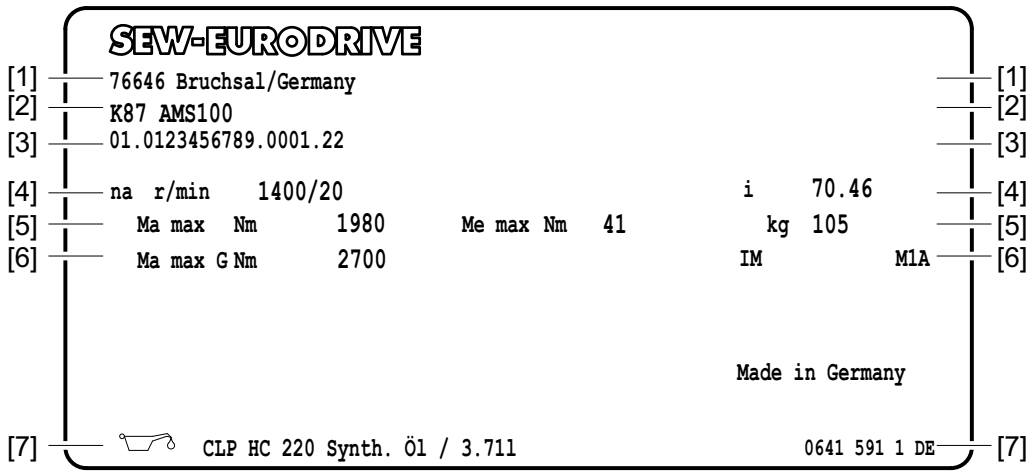
Designation	Option
AD../P	Input shaft assembly with motor platform
AD../RS	Input shaft assembly with backstop
AD../ZR	Input shaft assembly with centering shoulder

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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.**	**22**
Sales Organization	Order number	Item number	Year of manufacture

Nameplate 2



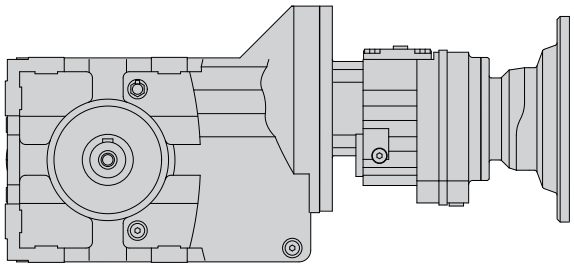
	Product label with QR code. The QR code on the product can be scanned. You will be redirected to the Digital Services of SEW-EURODRIVE. There, you have access to product-specific data, documents, and further services.

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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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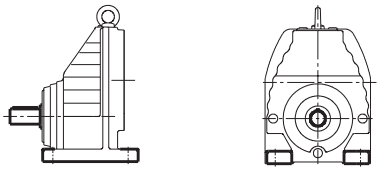
3.5 Gear unit designs

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.

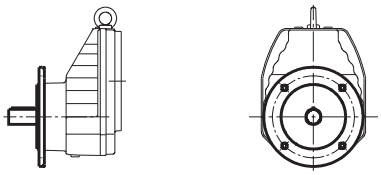
3.5.1 Helical gear units

The following design types of helical gear units are available:



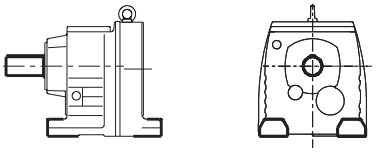
RX..

Single-stage helical gear units in foot-mounted design



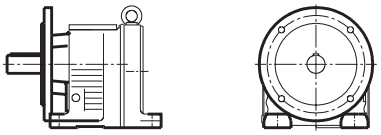
RXF..

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



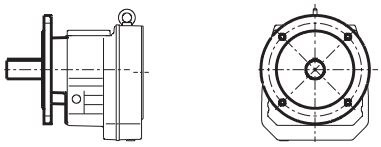
R..

Helical gear units in foot-mounted design



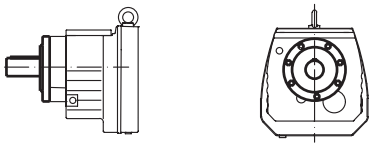
R..F

Helical gear units in foot and B5 flange-mounted design



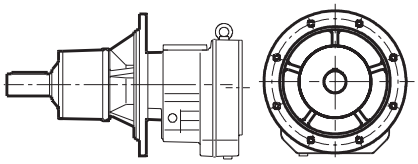
RF..

Helical gear units in B5 flange-mounted design



RZ..

Helical gear units in B14 flange-mounted design



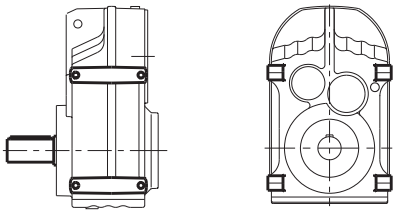
RM..

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

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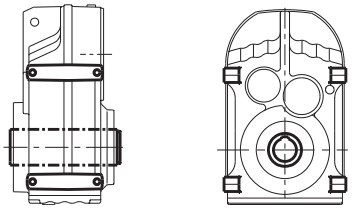
3.5.2 Parallel-shaft helical gear units

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



F..

Parallel-shaft helical gear units in foot-mounted design

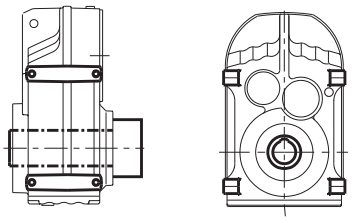


FA..B

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

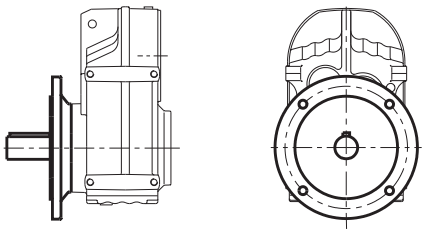
FV..B

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



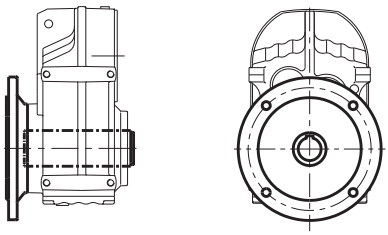
FH..B

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

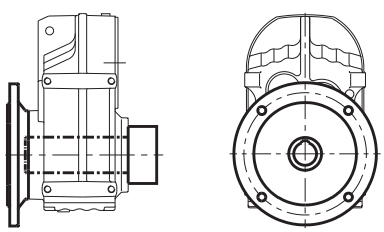


FAF..

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

FVF..

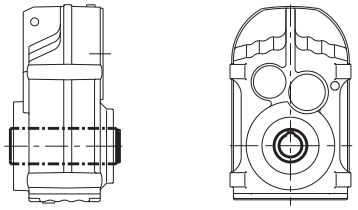
Parallel-shaft helical gear units in B5 flange-mounted design with
splined hollow shaft according to DIN 5480



FHF..

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

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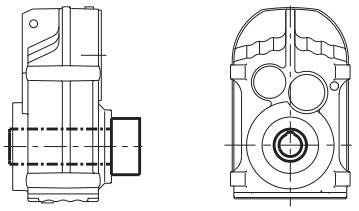


FA..

Parallel-shaft helical gear units with hollow shaft

FV..

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

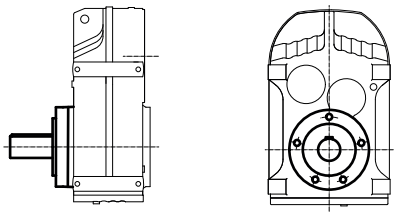


FH..

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

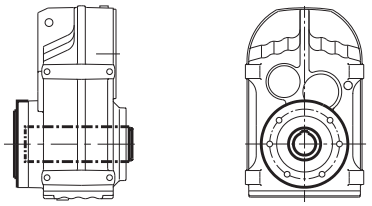
FT..

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

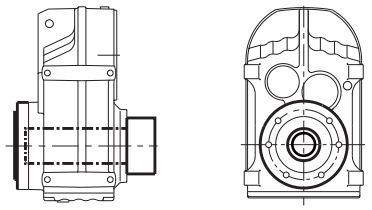


FAZ..

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

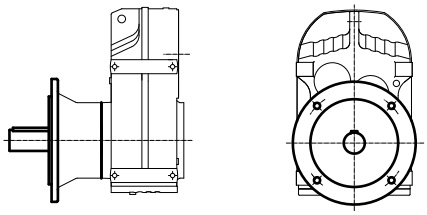
FVZ..

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



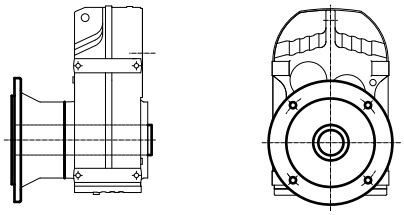
FHZ..

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



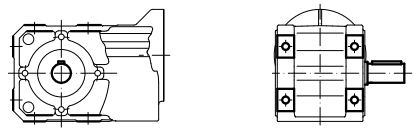
FAM..

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

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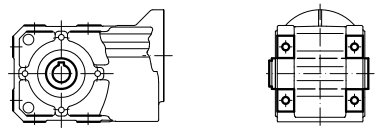
3.5.3 Helical-bevel gear units, gear unit sizes K..19 and K..29

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



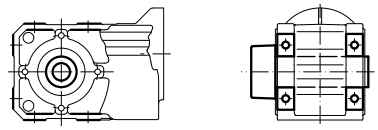
K19, K29

Helical-bevel gear units in foot-mounted design



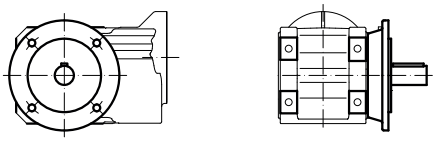
KA19B, KA29B

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



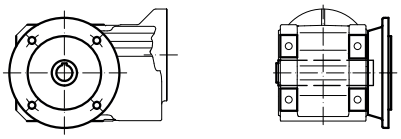
KH19B, KH29B

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



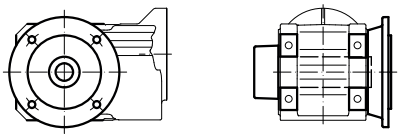
KF19B, KF29B

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



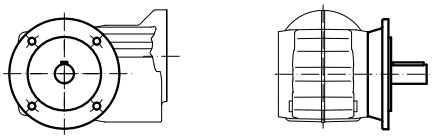
KAF19B, KAF29B

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



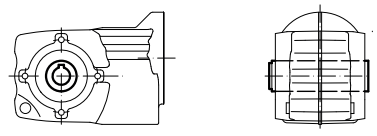
KHF19B, KHF29B

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



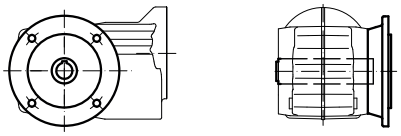
KF19, KF29

Helical-bevel gear units in B5 flange-mounted design



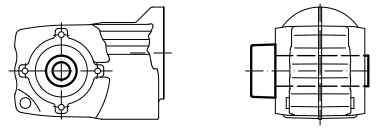
KA19, KA29

Helical-bevel gear units with hollow shaft



KAF19, KAF29

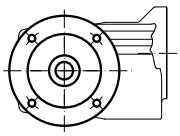
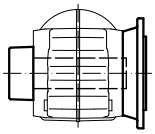
Helical-bevel gear units in B5 flange-mounted design with hollow shaft



KH19, KH29

Helical-bevel gear units with hollow shaft and shrink disk

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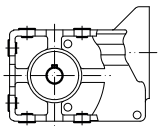
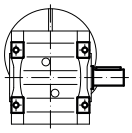



KHF19, KHF29

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

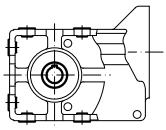
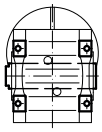
3.5.4 Helical-bevel gear units, gear unit sizes K..39 and K..49

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

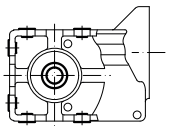
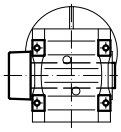
K39, K49

Helical-bevel gear units in foot-mounted design

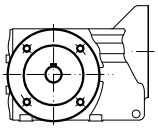
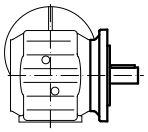
KA39B, KA49B

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

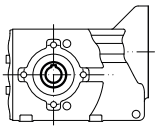
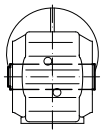
KH39B, KH49B

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

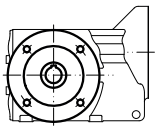
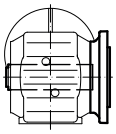
KF39, KF49

Helical-bevel gear units in B5 flange-mounted design

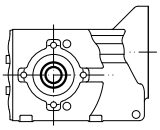
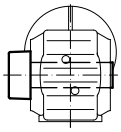
KA39, KA49

Helical-bevel gear units with hollow shaft

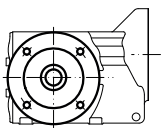
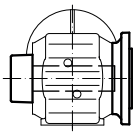
KAF39, KAF49

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

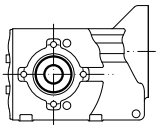
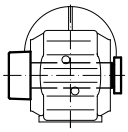
KH39, KH49

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

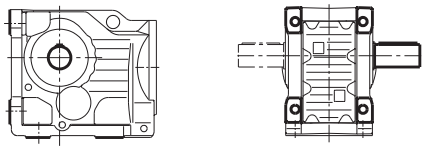
KT39, KT49

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

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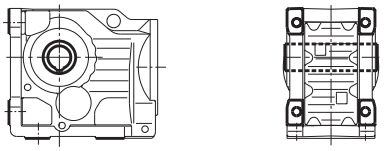
3.5.5 Helical-bevel gear units, gear unit sizes K..7

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



K..7

Helical-bevel gear units in foot-mounted design

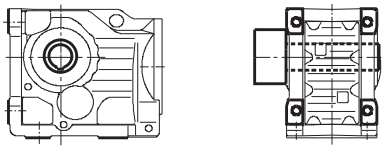


KA..7B

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

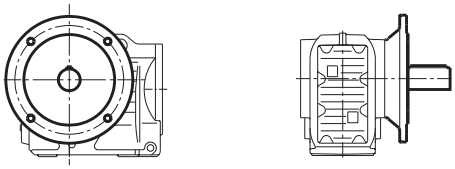
KV..7B

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



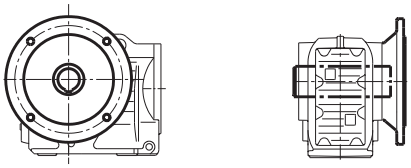
KH..7B

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

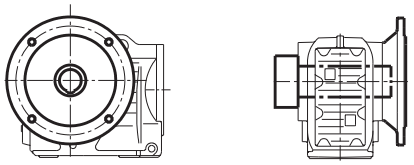


KAF..7

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

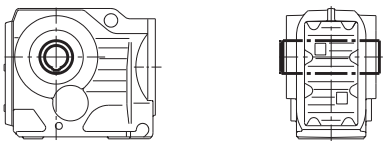
KVF..7

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



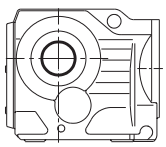
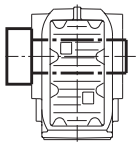
KA..7

Helical-bevel gear units with hollow shaft

KV..7

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

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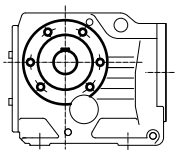
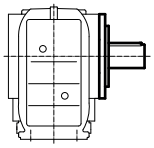



KH..7

Helical-bevel gear units with hollow shaft and shrink disk

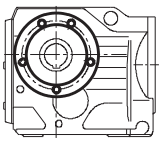
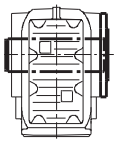
KT..7

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

KZ..7

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

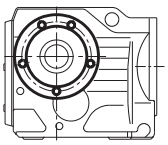
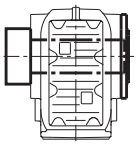



KAZ..7

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

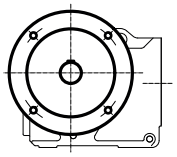
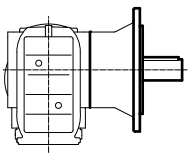
KVZ..7

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

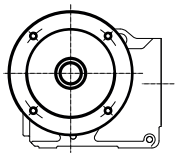
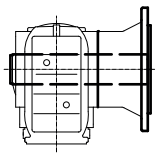
KHZ..7

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

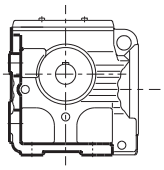
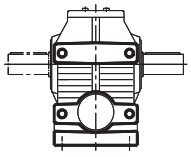



KAM..7

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

3.5.6 Helical-worm gear units

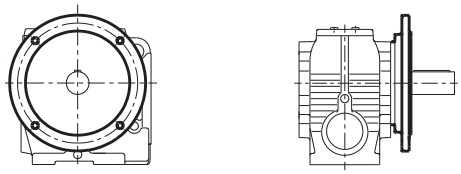
The following designs of helical-worm gear units are available:

S..

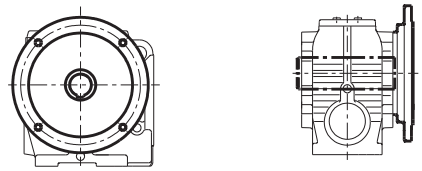
Helical-worm gear units in foot-mounted design

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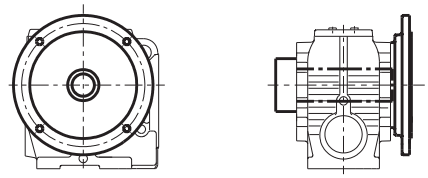
SF..

Helical-worm gear units in B5 flange-mounted design



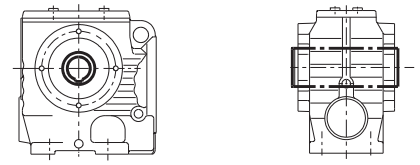
SAF..

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



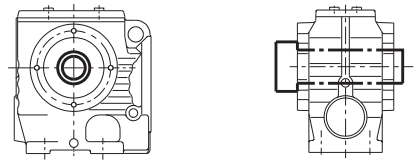
SHF..

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



SA..

Helical-worm gear units with hollow shaft

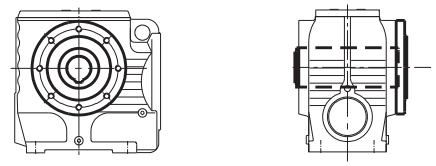


SH...

Helical-worm gear units with hollow shaft and shrink disk

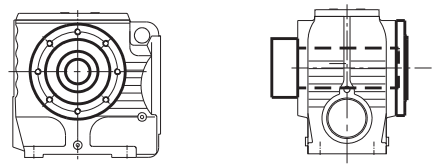
ST..

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

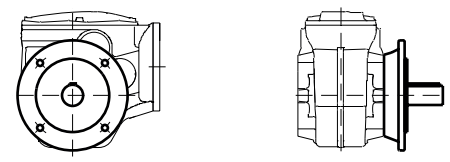


SHZ..

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

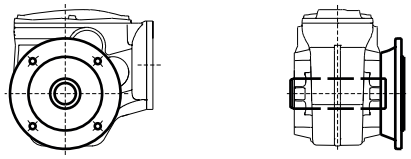
The following designs of SPIROPLAN® gear unit sizes W..9 are available:



WF.9

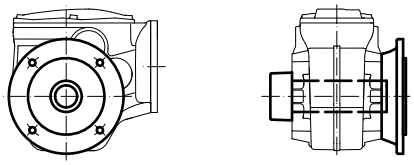
SPIROPLAN® gear units in B5 flange-mounted design

27797880/EN – 03/2023



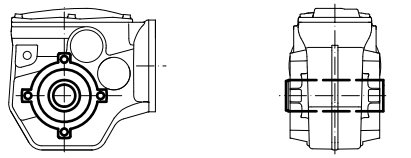
WAF.9

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



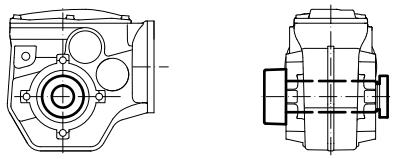
WHF.9

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

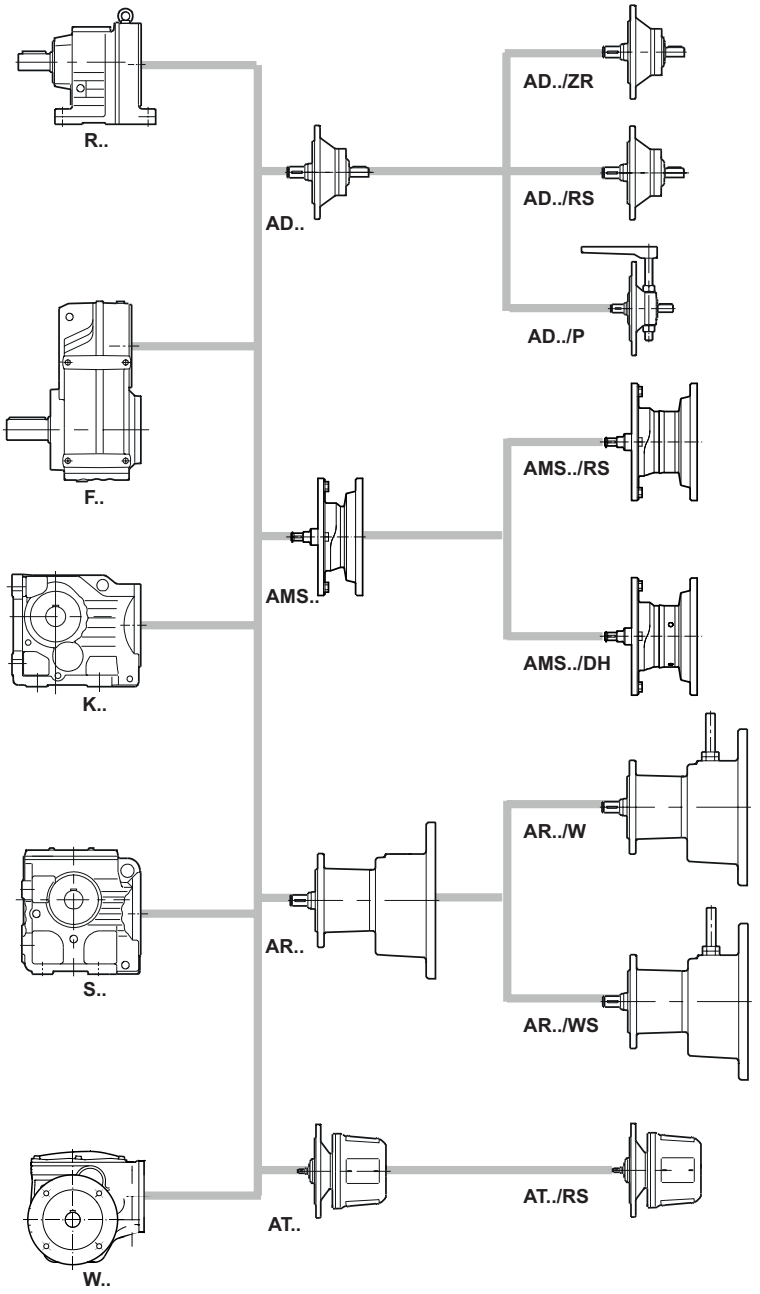
WT.9

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

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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.

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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 Additional publications

For more detailed information about the project planning for drives, refer to the website of SEW-EURODRIVE where you can order or download the following documentations.

- Drive Engineering – Practical Implementation
  - EMC in Drive Engineering – Basic Theoretical Principles and EMC-Compliant Installation in Practice
  - Efficient Plant Automation with Mechatronic Drive Solutions
- Manuals
  - Project Planning for BE.. Brakes
  - Project Planning Manual – Project Planning for Controlled and Non-Controlled Drives

4.2 Drive and gear unit selection data

Determining application data

To select the proper drive, you first need the data (weight, speed, setting range, etc.) of the machine to be driven. 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	–
i_{tot}	Total gear unit ratio	–
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

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Designation	Meaning	Unit
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	Required gear unit type and mounting position	–
T_{amb}	Ambient temperature	°C
S.., ..% ED	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}

4.3 Project planning sequence

The following flow diagram illustrates the project planning procedure for a gear unit with a component on the input side

Required information about the machine to be driven

- Technical data
- Positioning accuracy
- Speed setting range
- Required duty type
- Travel cycle
- Other specifications (such as minimum or maximum acceleration, run-up time, etc.)
- Ambient conditions
- Country of use
- Required approvals and certifications
- Installation situation, available space

↓

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

↓

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Selection of the drive-side components

- Definition of the component type and design
- Determining the 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.

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

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

4.4.1 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 especially pronounced in the case of helical-worm and SPIROPLAN® right-angle gear units.

For information on churning losses and thermal rating, refer to chapter "Churning losses and thermal rating" (→ 🗎 56).

R, F, K gear units

The gearing efficiency of helical, parallel-shaft and helical-bevel gear units varies with the number of gear stages, between 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 helical-worm gear units.

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

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Self-locking

With regenerative torques on helical-worm gear units, the efficiency η' = 2 - 1/η applies, which is significantly less favorable than the forward efficiency η. The helical-worm gear unit is statically self-locking if the forward efficiency is η ≤ 0.5. If the braking effect of self-locking is to be used technically, contact SEW-EURODRIVE.

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.

	Helical-worm gear unit	
	i range	**η reduction**
1-speed	Approx. 50 – 280	Approx. 12%
2-speed	Approx. 20 – 75	Approx. 6%
3-speed	Approx. 20 – 90	Approx. 3%
5-speed	Approx. 6 – 25	Approx. 3%
6-speed	Approx. 7 – 25	Approx. 2%

	SPIROPLAN® gear units 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. 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.

4.4.2 Churning losses and thermal rating

* (→ 🗎 X)

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

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- A mounting position where the first gear unit stage is completely 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" (→ 🗎 57)) 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.

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

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 °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

4.5 Service factor

4.5.1 Service factor f_B

The determination of the maximum permitted output torque M_{amax} and the resulting operating factor $f_B = M_{amax}/M_a$ is not standardized and very much dependent on the manufacturer. With a service factor $f_B = 1$, the gear units from SEW-EURODRIVE offer a maximum of safety and reliability in the area of fatigue strength (exceptions: low temperatures and wear of the worm gear with helical-worm gear units). The service factor might not be comparable to the specifications of other gear unit manufacturers. Contact SEW-EURODRIVE if necessary.

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

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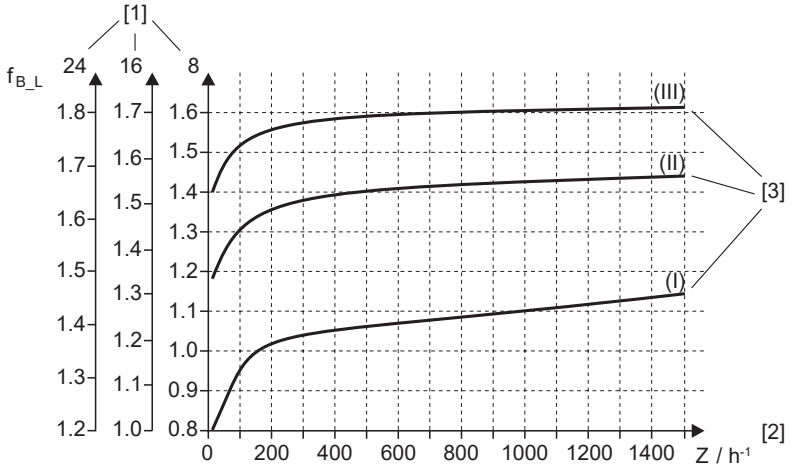
4.5.2 Required service factor f_{B_req}

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.

4.5.3 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 classificatoins 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 acceleration factor

The mass acceleration factor is calculated as follows:

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

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f_a = Mass acceleration factor

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J_{Lx} = Load moment of inertia reduced to the motor shaft [J_{Lx}] = kgm²

J_{Mot} = Motor moment of inertia [J_{Mot}] = kgm²

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

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

Reducing the mass moment of inertia to the motor shaft

The reduction to the motor speed is calculated using the following formula:

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

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J_{Lx} = Load moment of inertia reduced to the motor shaft [J_{Lx}] = kgm²

J_L = Mass moment of inertia with reference to the output speed of the gear unit [J_L] = kgm²

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 these cases.

4.5.4 Service factor at low temperatures

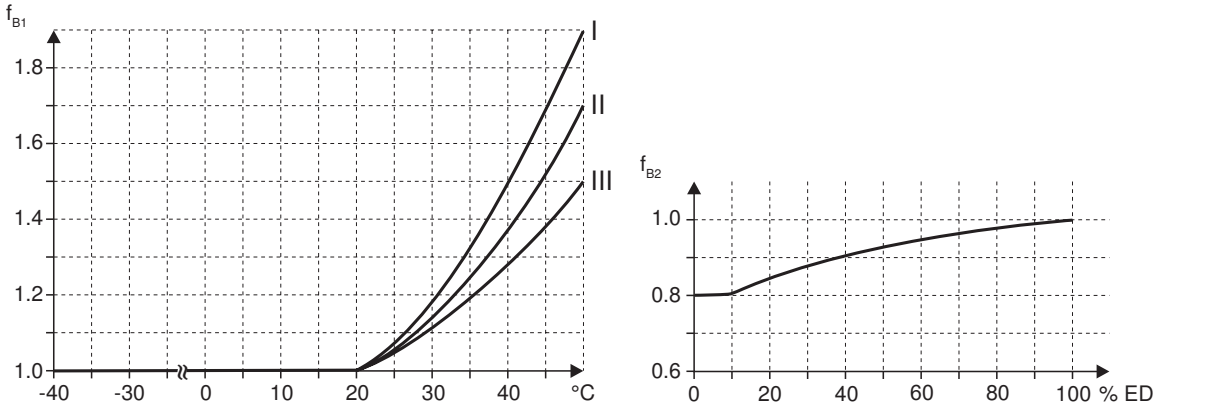
At an ambient temperature of < -30 °C, observe the additional service factor f_{B3} = 1.2.

4.5.5 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 [cdf] = %
t_L = Time under load [t_{L_tot}] = min h^{-1}

4.5.6 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.

$$f_{B_req} \le f_B$$

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

or

$$M_a \times f_{B_req} \le M_{amax}$$

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

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 ($M_{Mot} \times i_G$) Nm
M_{amax} = Maximum permitted output torque Nm

4.5.7 Examples

- An application with mass acceleration factor 2.5 (load classification II), operating time 14 hours/day (read off at 16 h/day (→ 🗎 58)) 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:

  → f_{B1} = 1.36 (read off at load classification II (→ 🗎 59))

  Time under load = 40 min/h → cdf = 66.67% → 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 $f_B \ge 1.94$.

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

4.6.1 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, pretensioned	2.00	Consider influence of pre-tension force
Gear rack pinion, not pretensioned	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] = N
M_{max} = Torque [M_{max}] = 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] = mm

4.6.2 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, contact SEW-EURODRIVE.

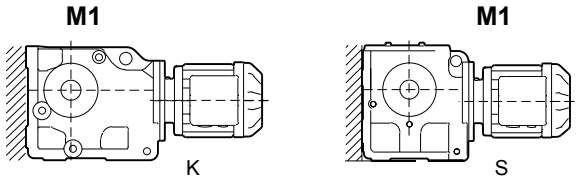
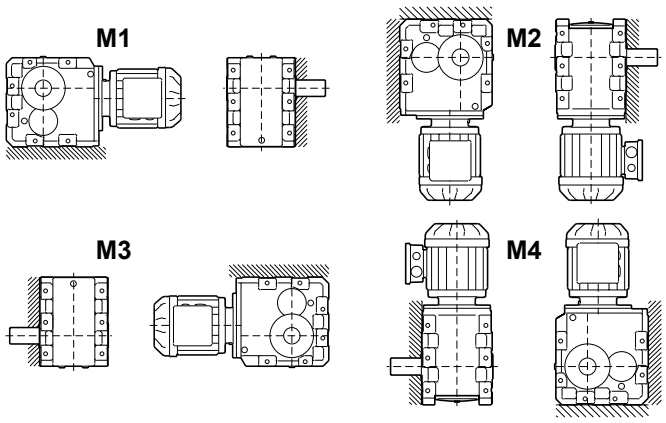
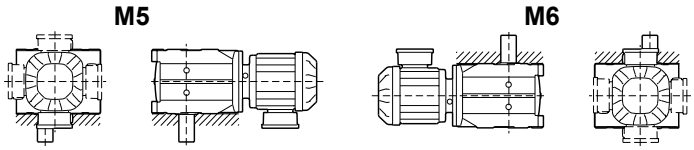
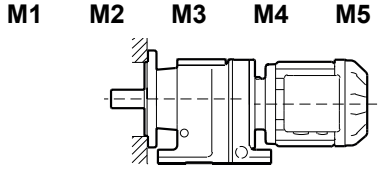
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The overhung load data refers to a force application at the center of the output shaft 0.5 × l. With right-angle gear units, the application point is assumed to be at the A-side.

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	Limitations
	K37 – K157 S37 – S97 S37p – S97p	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. In case of deviating mounting, a maximum of 50% of the overhung load F_{Ra} specified in the selection tables is permitted.
	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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4.6.3 Higher permitted overhung loads

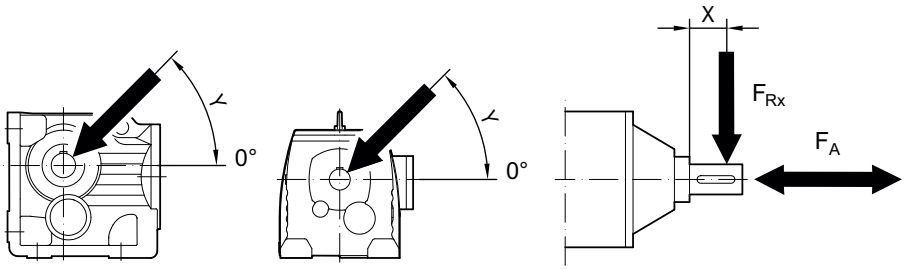
Exactly considering the force application angle γ and the direction of rotation makes it possible to achieve a higher overhung load than listed in the selection tables.

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.

4.6.4 Definition of the force application

Force application is defined according to the following figure:



γ	=	Force application angle	[γ] = °
F_{Rx}	=	Permitted overhung load at distance x	[F_{Rx}] = N
F_A	=	Permitted axial force	[F_A] = N

4.6.5 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

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.

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

For project planning for gear units with input shaft assembly and off-center force application, contact SEW-EURODRIVE.

4.6.7 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 × L (solid shaft).

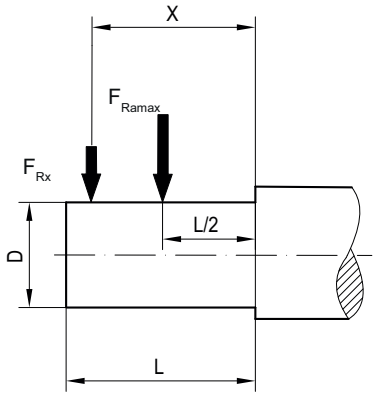
The following conditions must be met:

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

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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
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

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Gear unit type	a mm	b mm	c Nmm	f mm	d mm	l mm
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
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

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Gear unit type	a mm	b mm	c Nmm	f mm	d mm	l mm
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.

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4.7 Project planning for components on the input end

4.7.1 Gear units with IEC or NEMA AMS.. adapter

Selecting the gear unit

Perform the gear unit selection as follows:

Determine the gear unit type
↓
Determine the gear unit size in the selection tables for gear units with AMS.. adapter by means of the following parameters: • Maximum output torque (M_{amax}) • Gear unit ratio (i)
↓
Check the maximum permitted overhung load value on the output (F_{Ra}).
↓
Check the maximum permitted input power at the adapter (P_{Mot}) (See chapter "Permissible power ratings and mass moments of inertia").
↓
Is the required adapter size available?
↓
Is the desired combination possible?

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 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.

Permitted power ratings and mass moments of inertia

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

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

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Adapter		P_m 1)	$J_{Adapter}$
IEC	NEMA	kW	kg × m²
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^{-1}.

2) An extended adapter is used for certain adapter combinations with parallel-shaft helical gear units (see following table) to avoid collisions with the safety cover. This changes the mass moment of inertia.

3) $J_{AMS80\ (VL)} = J_{AMS90} = 2.5 \times 10^{-4}$ kg × m²

The specified mass moments of inertia apply to the standard adapter and the adapter with reinforced bearings (VL). An exception is the AMS80 adapter with reinforced bearing (VL), which has the same inertia as the AMS90 adapter. 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 "Adapters with backstop AMS../RS" and "Adapters with drain hole AMS../DH".

Deviating mass moments of inertia for certain adapter combinations with parallel-shaft helical gear units

IEC adapter	Gear unit size	Gear unit safety cover			$J_{Adapter}$
		High fixed plastic safety cover	Fixed sheet metal safety cover (standard for TorqLOC® and ATEX)	Rotating safety cover	kg × m²
AMS71	F..37	X	X	FH37	0.6 × 10^{-4}
AMS801)	F..37, F..47	X	X	FH37, FH47	1.8 × 10^{-4}
	F..57	X	X		
AMS90	F..37, F..47	X	X		3.1 × 10^{-4}
	F..57	X	X		
AMS100 **AMS112**	F..57		X		11 × 10^{-4}
AMS132	F..77		X		31 × 10^{-4}

1) $J_{AMS80\ (VL)} = J_{AMS90} = 3.1 \times 10^{-4}$ kg × m²

The specified mass moments of inertia apply for the standard adapter and the adapter with reinforced bearings (VL). An exception is the AMS80 adapter with reinforced bearing (VL), which has the same inertia as the AMS90 adapter. 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 "Adapters with backstop AMS../RS" and "Adapters with drain hole AMS../DH".

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AMS.. adapter with backstop (RS)

AMS.. adapter with backstop option (RS)

If the application requires only one permitted direction of rotation, the AMS.. adapter can be configured with an integrated 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.

Adapter		Max. locking torque of the backstop	Minimum lift-off speed	$J_{Adapter}$	Additional weight compared to AMS.. adapter
IEC	NEMA	Nm	min^{-1}	$kg \times m^2$	kg
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)

AMS.. adapter with drain hole option (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.

Adapter		Maximum permitted speed	$J_{Adapter}$	Additional weight compared to AMS.. adapter
IEC	NEMA	min^{-1}	$kg \times m^2$	kg
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

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Adapter		Maximum permitted speed	$J_{Adapter}$	Additional weight compared to AMS.. adapter
IEC	NEMA	min^{-1}	$kg \times m^2$	kg
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. An exception is the AMS80 adapter with reinforced bearing (VL). It has the same length as the AMS90 adapter.

4.7.2 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.

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Torques, slip torques

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

Type	P_{Mot} [1]	M_{slip} [2]	M_{slip} [2]	M_{slip} [2]	Additional weight compared to AMS.. adapter
	kW	Nm	Nm	Nm	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.

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Speed monitor option /W

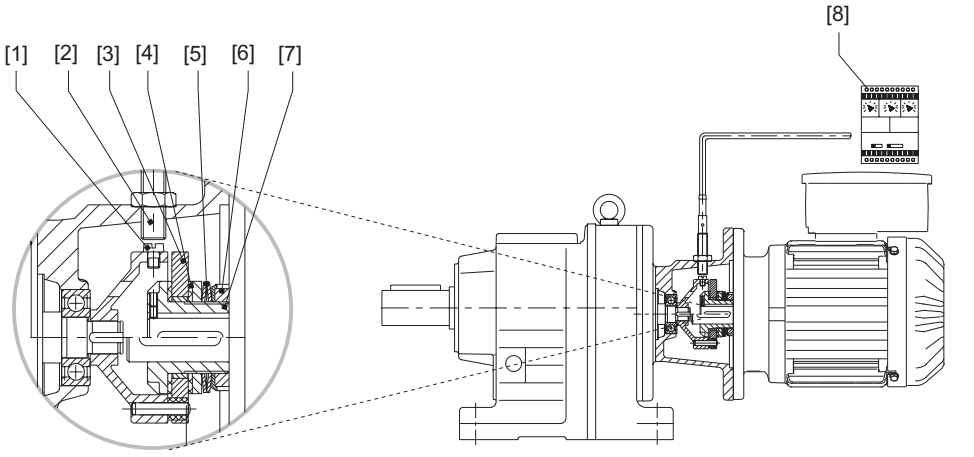
Part number 19139438

To prevent uncontrolled slipping of the coupling and the associated wear of the friction lining, the speed of the coupling is monitored by a speed monitor.

The speed of the coupling half on the output end of the slip clutch is detected contactless via a switching cam and an inductive incremental encoder. The speed monitor compares the encoder pulses with a defined reference speed. If the speed drops below the specified speed (overload), the output relay switches (NC contact or NO contact option). To avoid fault messages during the startup phase, the monitor is equipped with a start-up override that can be set in a time interval of 0.5 – 15 seconds.

Reference speed, start-up override and switching hysteresis can be set on the speed monitor.

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



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

Connection /W

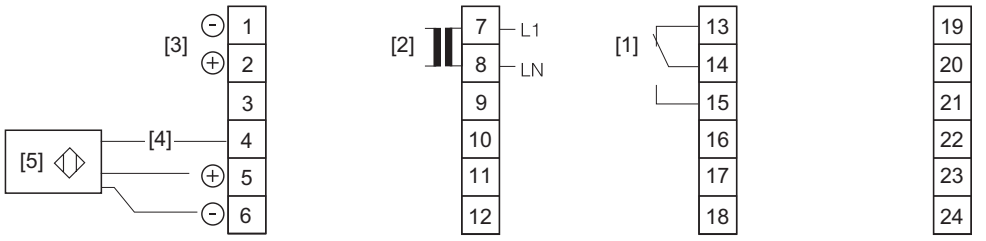
The encoder is connected to the monitor via a 2- or 3-core cable (depending on the encoder type).

- Maximum cable length: 500 m with a cable cross section of 1.5 mm^2
- Standard supply cable: 3-core, 2 m
- Route signal cables separately (not in multi-core cables) and shield 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)

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Terminal assignment /W

The following figure shows the terminal assignment /W:

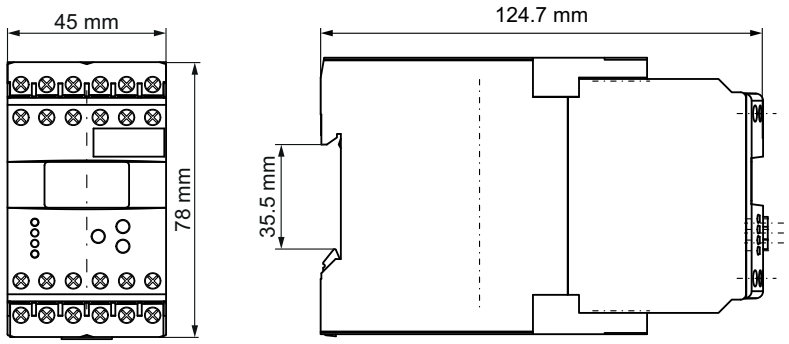


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[1] Relay output
[2] AC 110 – 240 V connection voltage (47 – 63 Hz)
[3] DC 24 V connection voltage
[4] Signal (pnp)
[5] Encoder

Dimensions /W

The following figure shows the dimensions for /W:



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Slip monitor option /WS

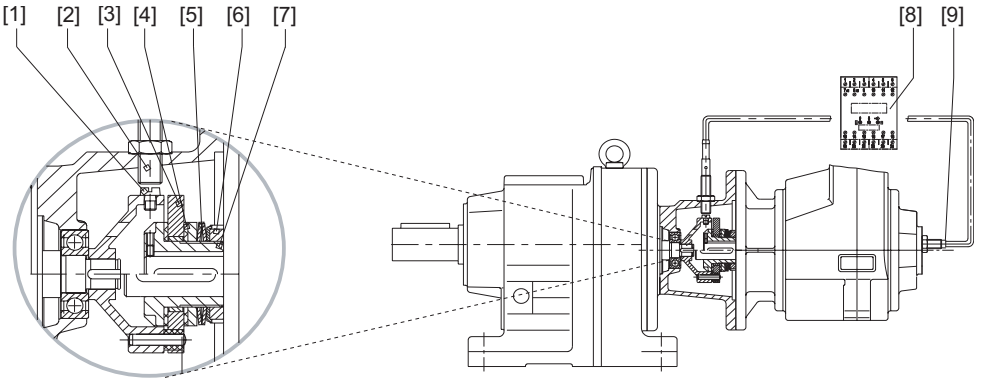
Part number: 01649493

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:



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

Connection /WS

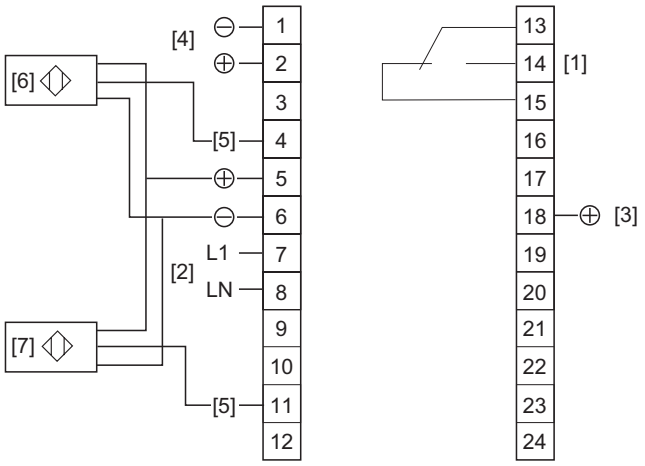
The IG voltage encoder is connected to the WS slip monitor via a 2 or 3-core cable depending on the type.

- Maximum cable length: 500 m with a cable cross section of 1.5 mm^2
- 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)

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Terminal assignment /WS

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

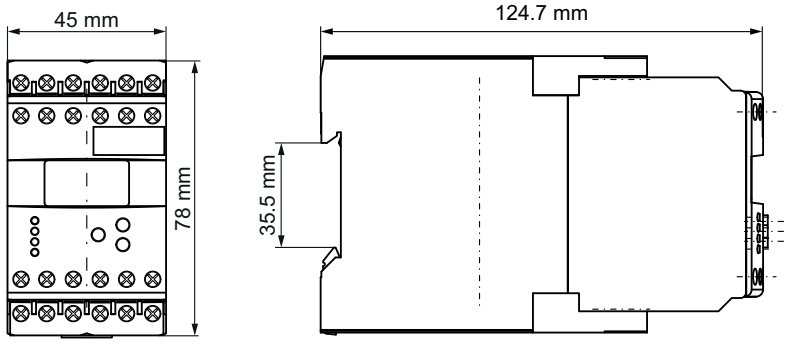


4569288075

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

Dimensions /WS

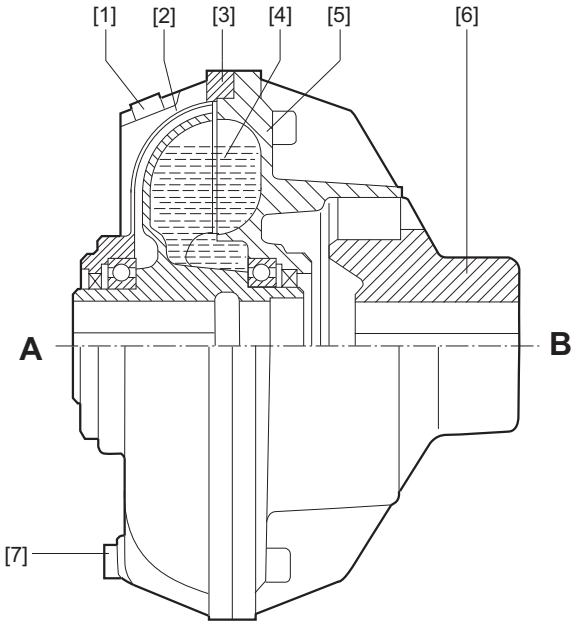
The following figure shows the dimensions /WS:



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4.7.3 AT adapter with hydraulic start-up coupling

Start-up coupling



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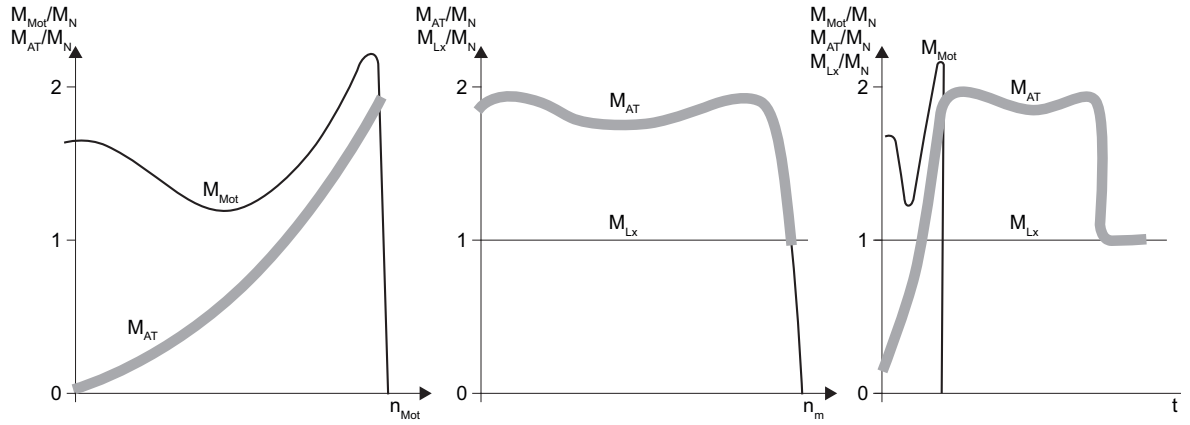
[1] Filling plug
[2] Turbine wheel
[3] Coupling half
[4] Operating fluid (hydraulic oil)
[5] Pump wheel
[6] Flexible connecting coupling
[7] Fusible screw plug
[A] Gear unit side
[B] Motor side

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.

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Characteristic curves



Motor start-up | Driven machine start-up | Torque/time behavior

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M_{Mot}	Motor torque	$[M_{Mot}]$ = Nm
M_N	Nominal torque	$[M_N]$ = Nm
M_{AT}	Coupling torque	$[M_{AT}]$ = Nm
M_{Lx}	Load torque	$[M_{Lx}]$ = Nm
n_{Mot}	Motor speed	$[n_{Mot}]$ = min^{-1}
n_m	Driven machine speed	$[n_m]$ = 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: • 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: • 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 Nm	Lift-off speed min^{-1}
AT311/RS – AT322/RS	425	620
AT421/RS – AT422/RS	850	530
AT522/RS – AT542/RS	1450	480

4.7.4 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: • Maximum output torque (M_{amax}) • Gear unit ratio (i) When selecting AD/P, observe the "selection notes" (→ 🗎 80).
↓
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 chapter "Thermal limit rating for gear units with input shaft assembly" (→ 🗎 79).
↓
Check the overhung load at the input (F_{Re}).
↓
Contact SEW-EURODRIVE if the requirements are more demanding (e.g. higher overhung load on input end).

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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" (→ 🗎 56).

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

[1]

18014422519731723

[1] For gear ratios with a footnote, refer to chapter "Churning losses and thermal rating" (→ 🗎 56).

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

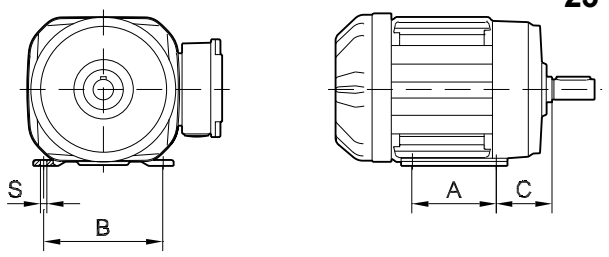
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AD../P motor platform

Available combinations

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

23 005 01 17



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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	

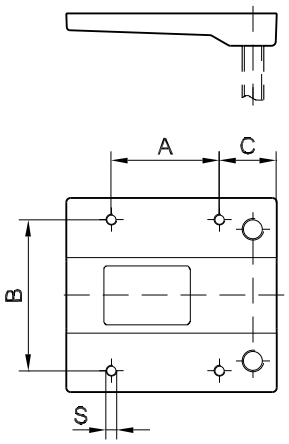
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If the required combination of gear unit cover (motor platform) and motor is not listed, contact SEW-EURODRIVE. You will find available combinations of gear units and motors in the chapters for dimension sheets for input shaft assemblies with motor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

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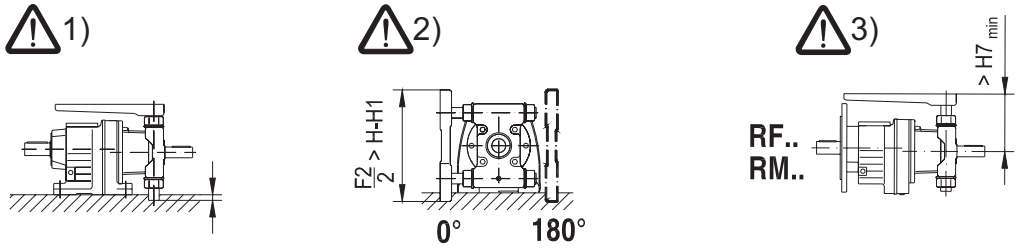
Cover	A mm	B mm	C mm	S	Weight P kg
AD2/P	90	112	42	M6	5.5
	100	125	47	M8	
	100	140	53	M8	
	125	140	53	M8	
AD3/P	100	140	52	M8	11
	125	140	52	M8	
	140	160	59	M10	
	140	190	66	M10	
AD4/P	140	216	86	M10	23
	178	216	86	M12	
	210	254	105	M12	
AD5/P	210	254	105	M12	41
	254	254	105	M12	
	241	279	118	M12	
	279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

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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	

Possible collisions

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



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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	L1 3	L14	T1	U1	⚠ →73

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4.8 Multi-stage gearmotors

4.8.1 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.

4.8.2 Limiting the motor power

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

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	$[M_{Mot}]$ = Nm
M_{amax}	Maximum permitted output torque	$[M_{amax}]$ = 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 previously determined value for the motor torque M_{Mot}. A suitable measure, for example, is to set the tripping current of the motor circuit breaker to this maximum current value. A motor circuit breaker also offers the option of bridging a short-term overload, for example during the motor startup phase. A suitable measure for inverter drives is to limit the output current of the inverter according to the determined motor current.

4.8.3 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 are unclear about the permitted switching frequency of the compound gear unit brakemotor, contact SEW-EURODRIVE.

4.8.4 Preventing blocking

Blocking of the compound gear unit or the compound gearmotor on the output side is not permitted. In this case, undetermined torques and uncontrolled overhung and axial loads can occur. This can destroy the gear units.

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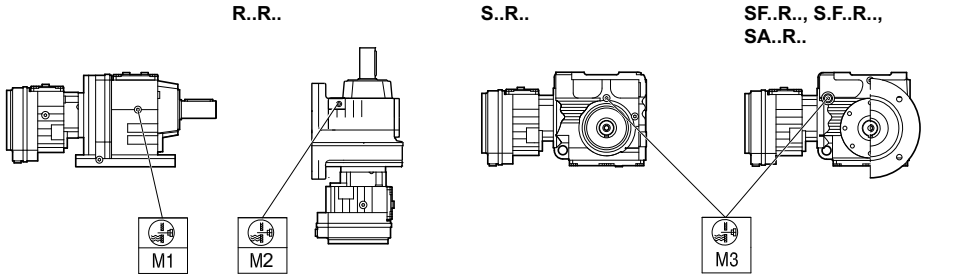
If you cannot rule out the blocking of the compound gear unit or the compound gearmotor due to the application, contact SEW-EURODRIVE.

4.8.5 Position of the oil level plug of compound gear units

To ensure a sufficient lubrication of the first gear unit (larger gear unit) in 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:



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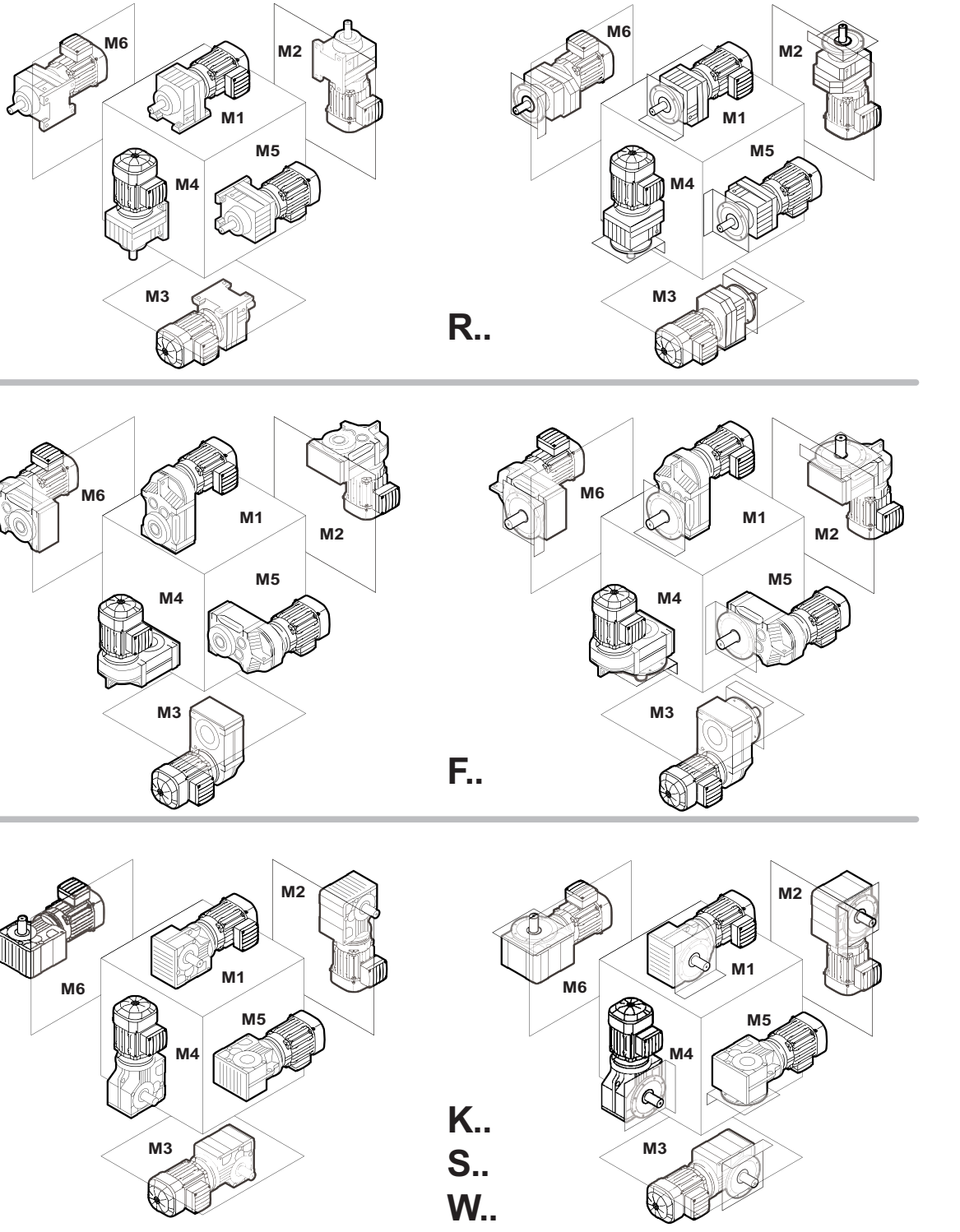
Symbol	Meaning
	Oil level plug

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5 Mounting position of the gearmotors 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:



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5.1.1 Change of mounting position

Observe the following information when operating 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").
- 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 when changing to mounting position M2.
- If you change the mounting position to a mounting position that requires more oil, SEW-EURODRIVE recommends performing a thermal check/doing the project planning again.

5.1.2 Gear units 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" (→ 🗎 144)). Customers will also have to mount the enclosed breather valve at the proper location depending on the mounting position, see chapter "Mounting position sheets".

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.

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5.1.5 Universal mounting position M0

SPIROPLAN® W..10 to W..30 gear units are available in the universal mounting position M0. Due to their small size they are completely enclosed and do not have a breather valve. You can use them in any mounting position from M1 to M6 without needing to make any adjustments to the gear unit.

All W..10 to W..30 gear units of a particular 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.

For gear units with variable mounting position, you must perform mounting position-dependent adjustments before startup. Adjustment of the oil fill quantity is not required.

With 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 if necessary.

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" (→ 🗎 91), 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**

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5.2 Order information

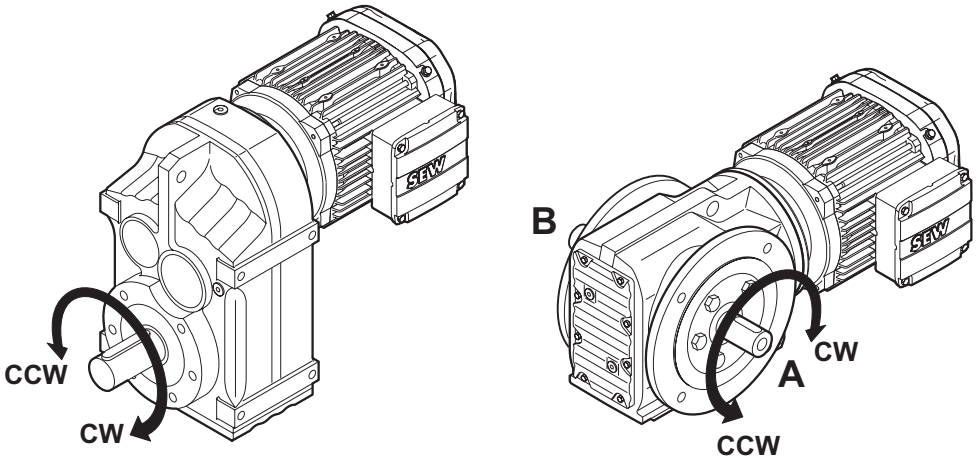
The following order information is required for R, F, K, S, and W gear units or gearmotors in addition to the mounting position. This information is also required for gearmotors that do not depend on a particular mounting position.

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):

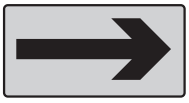
- CW rotation
- CCW rotation



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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:



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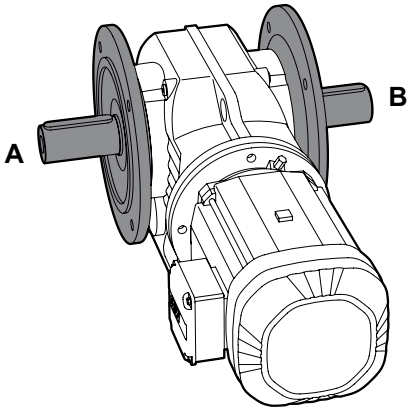
A replacement label is enclosed for the customer.

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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

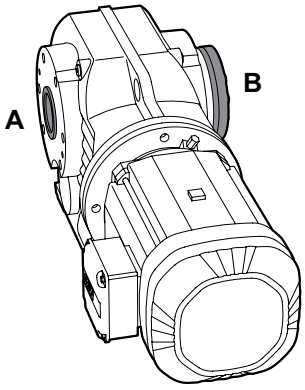


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5.2.3 Position of the output end in right-angle gear units

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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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

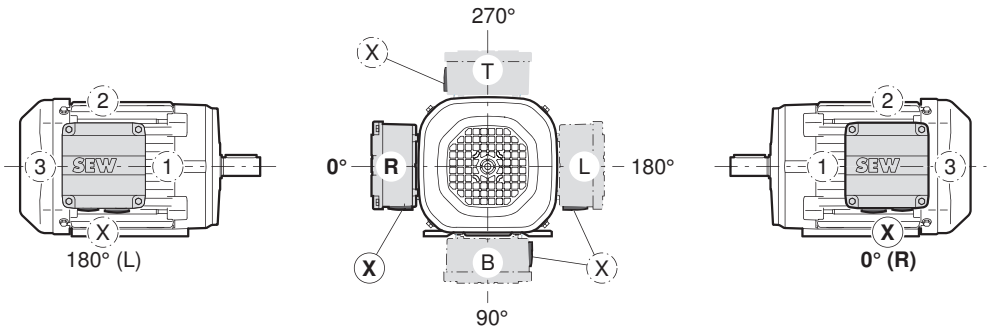
The position of the motor terminal box has so far been indicated with 0°, 90°, 180° or 270° as viewed onto the fan guard (B-side), see the following figure. A change to product standard DIN EN 60034 stipulates that the following designation has to be used for the terminal box position of foot-mounted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

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

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

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



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Without special information on the terminal box, the 0° version is supplied with cable entry "X". For mounting position M3, SEW-EURODRIVE recommends selecting cable entry "2".

For DR2S56.. and DRN63.. motors, only cable entries "X" and "2" are possible. Exception: This restriction does not apply with IS plug connector.

With **terminal box position 90° (B)**, check whether the gearmotor must 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	–	–	–	Clockwise
SF77AT312DRN80M4	M6	AB	AB	–	–	–
KA97AMS184	M4	–	–	B	–	–
KH107AD4	M1	–	–	A	B	–

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5.3 Mounting position sheets

5.3.1 Dimension sheet information

Position of the valves and screws

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.

Representation of the shaft

For gear units with solid shaft, the shaft shown is always on the A-side. For shaft-mounted gear units, the customer's shaft is shown as a dashed line. The output end (output shaft position) is always shown on the A-side.

Gear units W..0

SPIROPLAN® gearmotors W..10, W..20, and W..30 are independent of the mounting position. No breather valves, oil level plugs or oil drain plugs can be installed. For better orientation, mounting positions M1 to M6 are also shown for these SPIROPLAN® gearmotors.

Mounting position M0

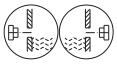
Some gear units can be supplied in mounting position M0. In this case, the gear unit is delivered in a universal mounting position and can be adjusted to various mounting positions by the customer. It may be necessary to contact SEW-EURODRIVE.

Gear units W..9 in mounting position M4 or M2

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

5.3.2 Symbols used

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

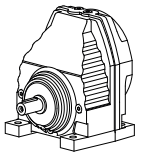
Symbol	Meaning
	Breather valve
	Oil level plug
	Oil drain plug

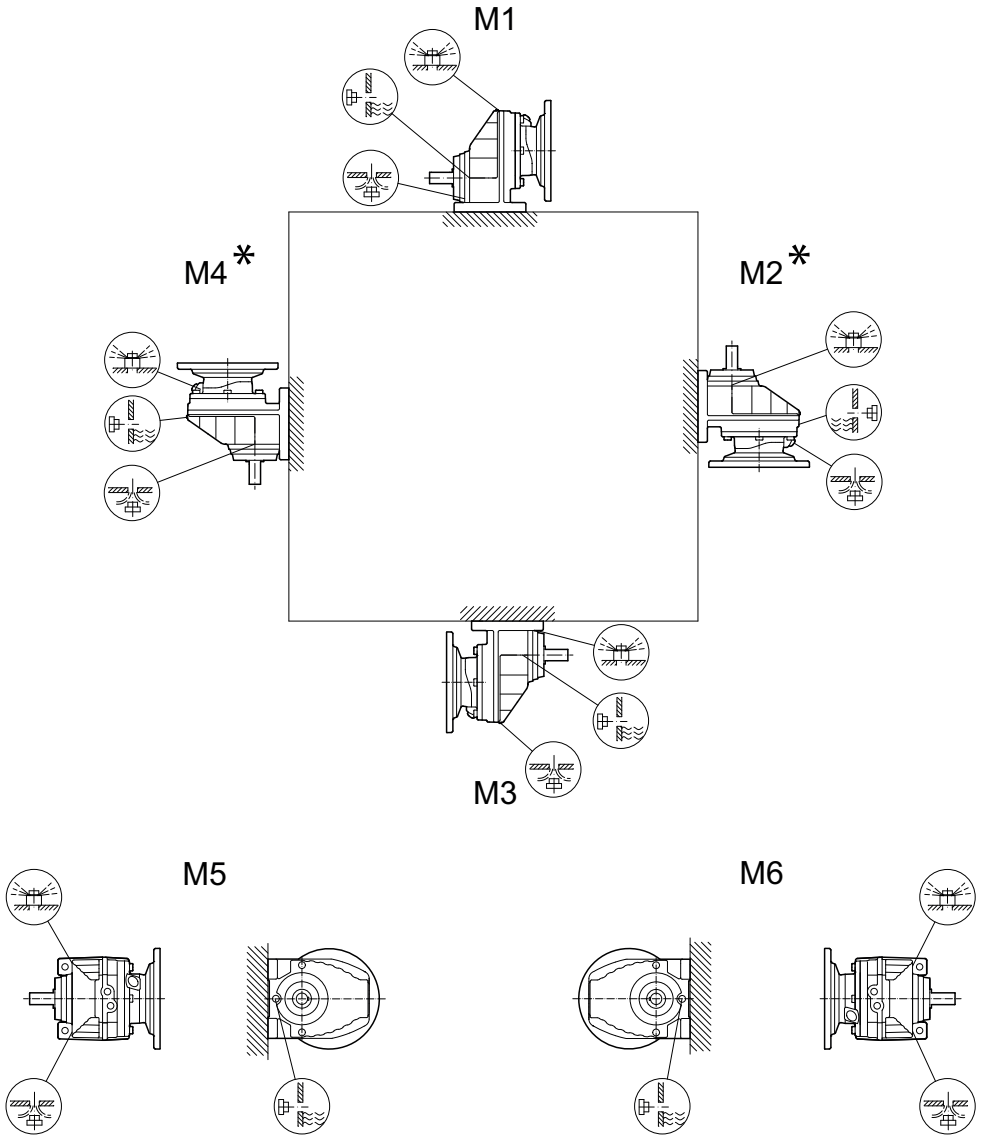
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5.3.3 Mounting positions of helical gear units

RX57 – RX107

01 197 00 20



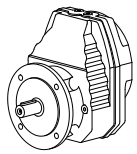


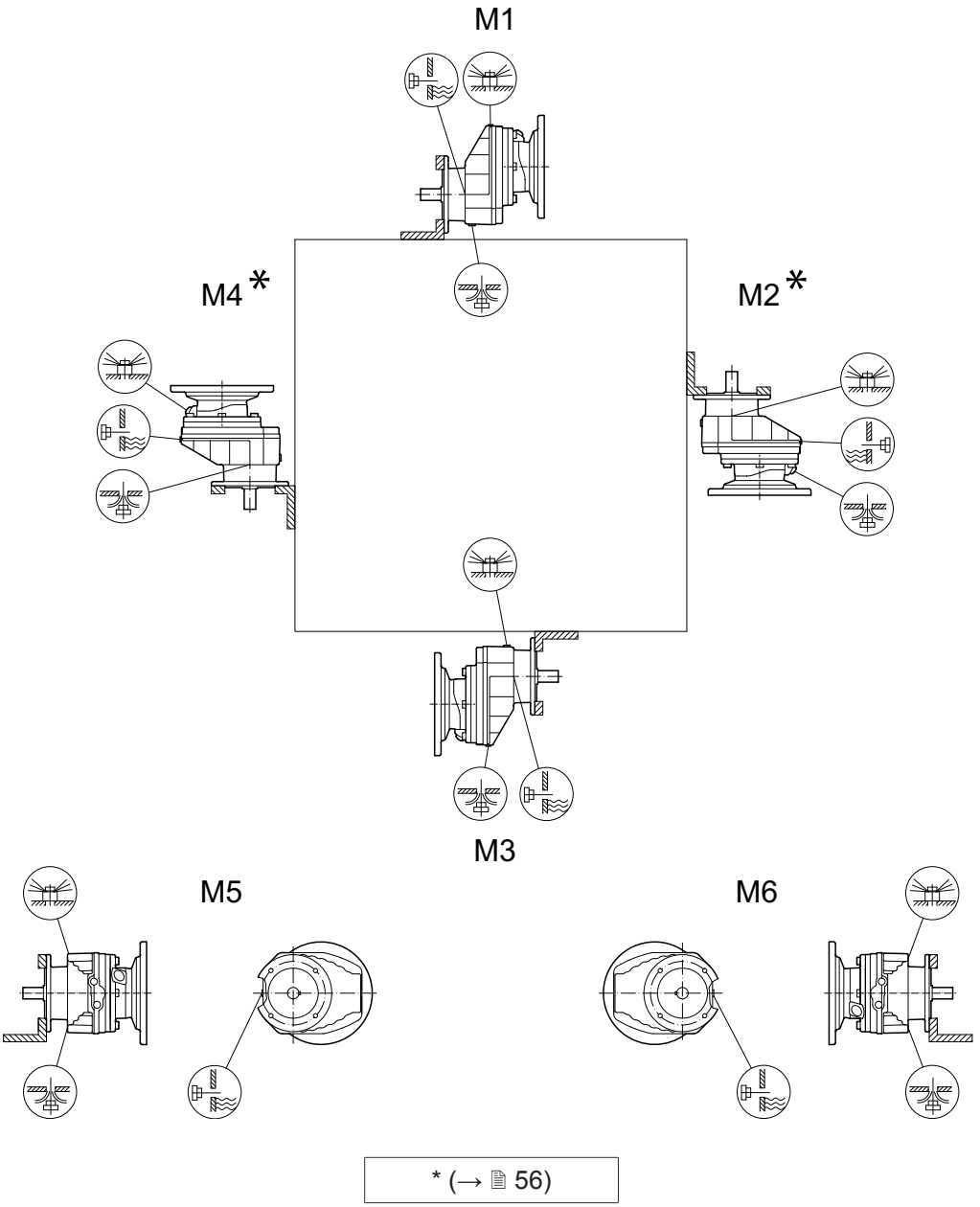
* (→ 🗎 56)

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RXF57 – RXF107

01 198 00 20



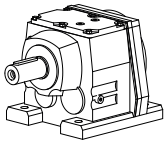


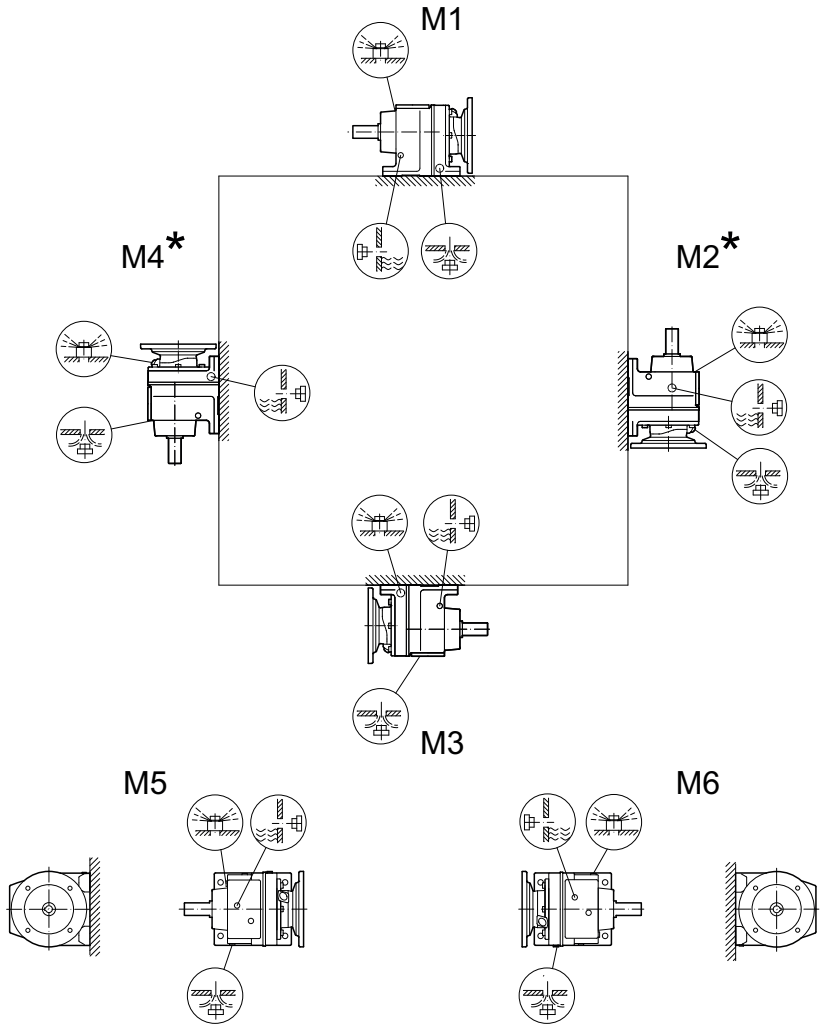
* (→ 🗎 56)

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R07 – R167

01 199 00 20





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

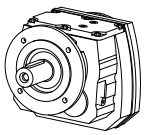
* (→ 🗎 56)

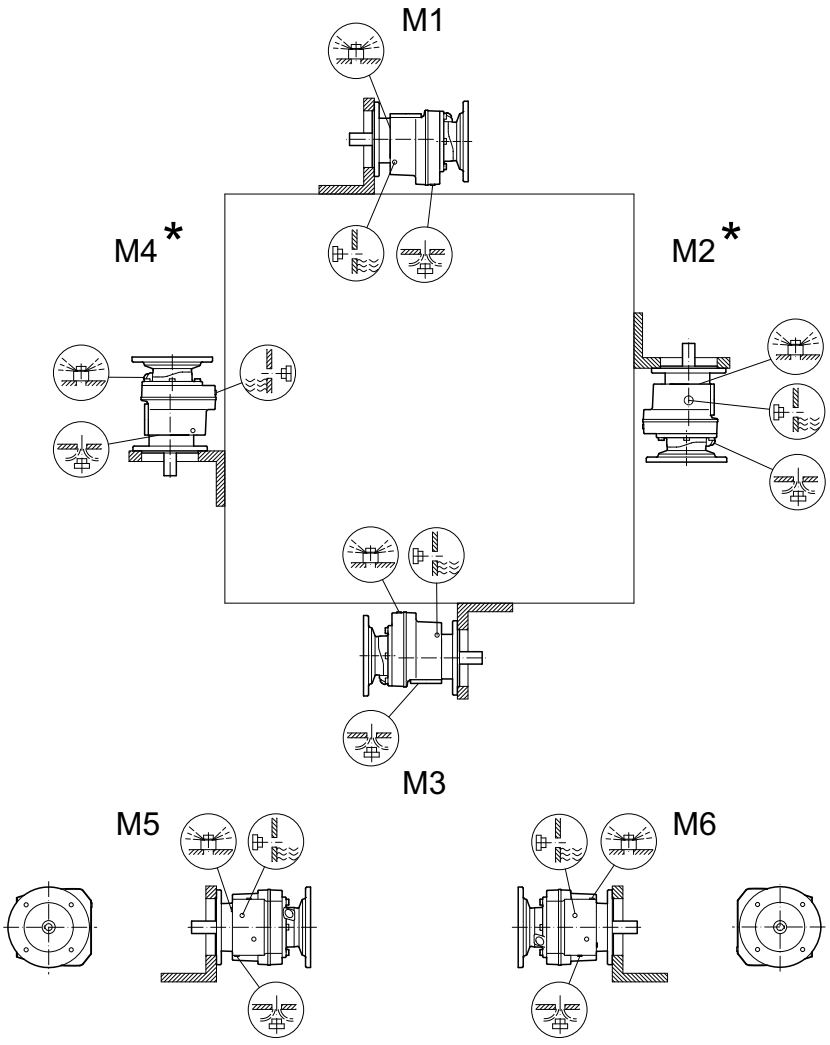
Observe the information in chapter "Overhung and axial loads of R.., F.., K.., S.., W.. gear units" (→ 🗎 61).

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RF07 – RF167, RZ07 – RZ87, RM57 – RM167

01 200 00 20





RF/RZ27 M1, M3 , M5 , M6

RF/RZ27

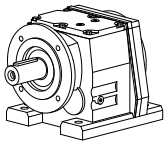
RF/RZ47, 57 M5

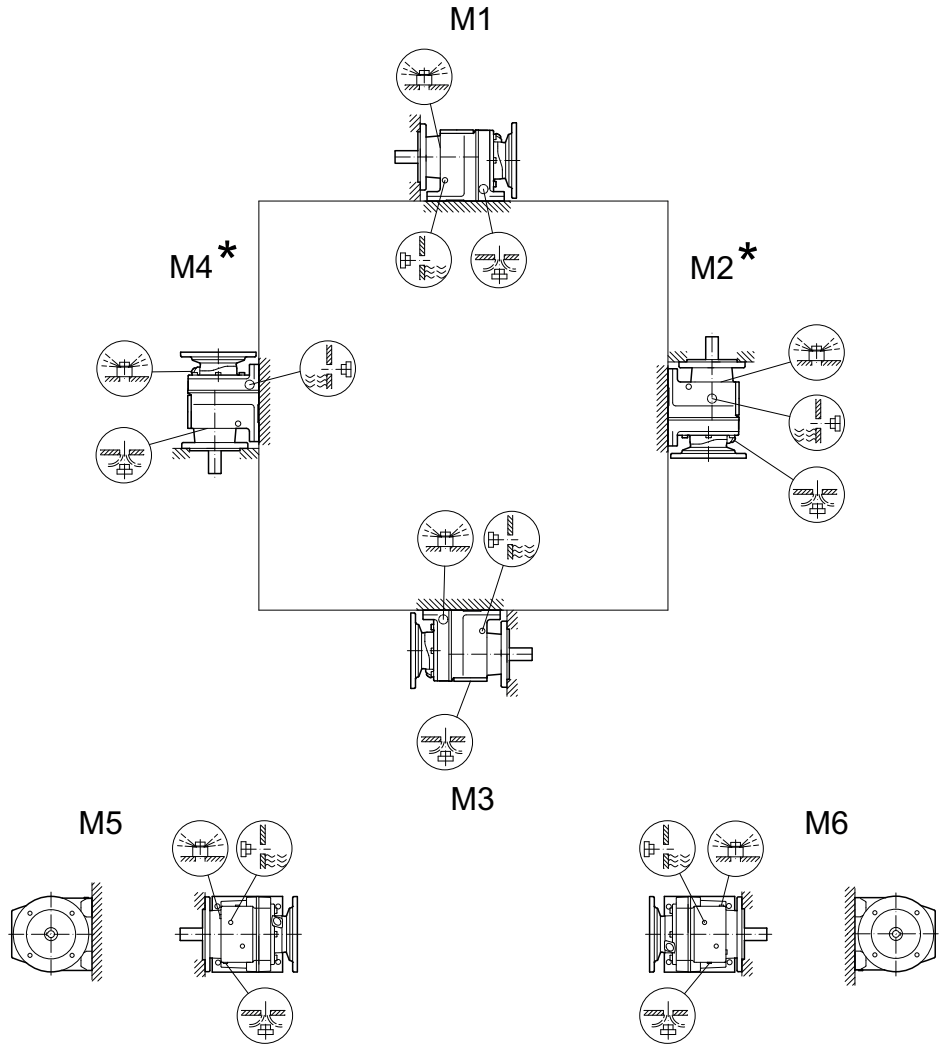
* (→ 🗎 56)

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R07F – R87F

01 201 00 20





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

* (→ 🗎 56)

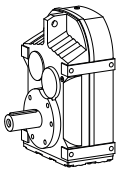
Observe the information in chapter "Overhung and axial loads of R.., F.., K.., S.., W.. gear units" (→ 🗎 61).

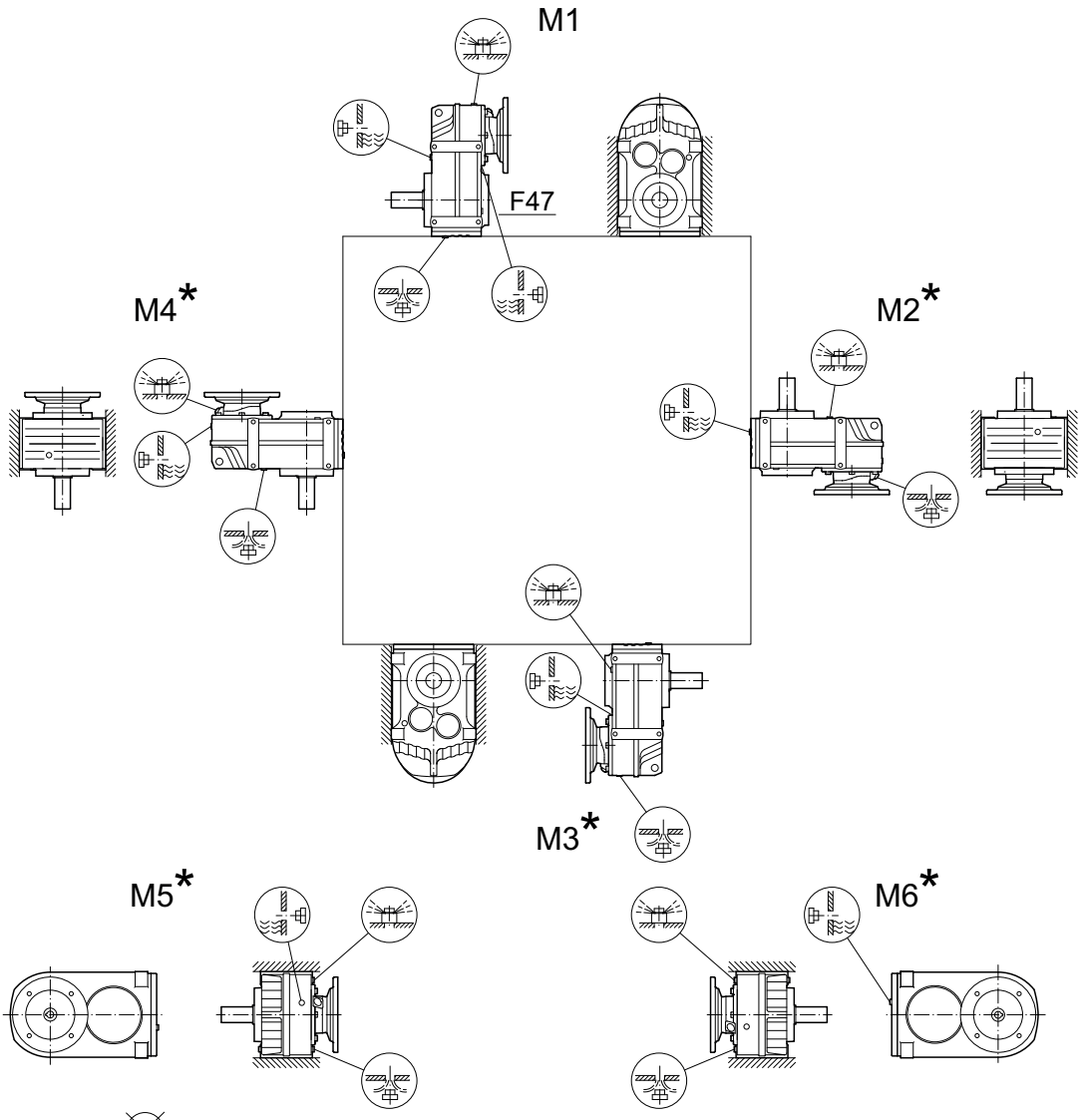
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5.3.4 Mounting positions of parallel-shaft helical gear units

F/FA..B/FH27B – 157B, FV27B – 107B

42 282 00 20





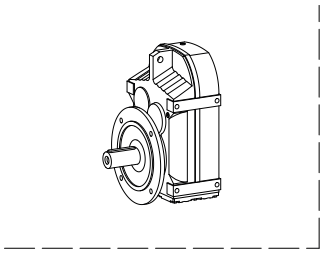
F..27	⊗	M1, M3, M5, M6
F..27	⊗	M1 - M6
F..27	⊗	M1, M3, M5, M6

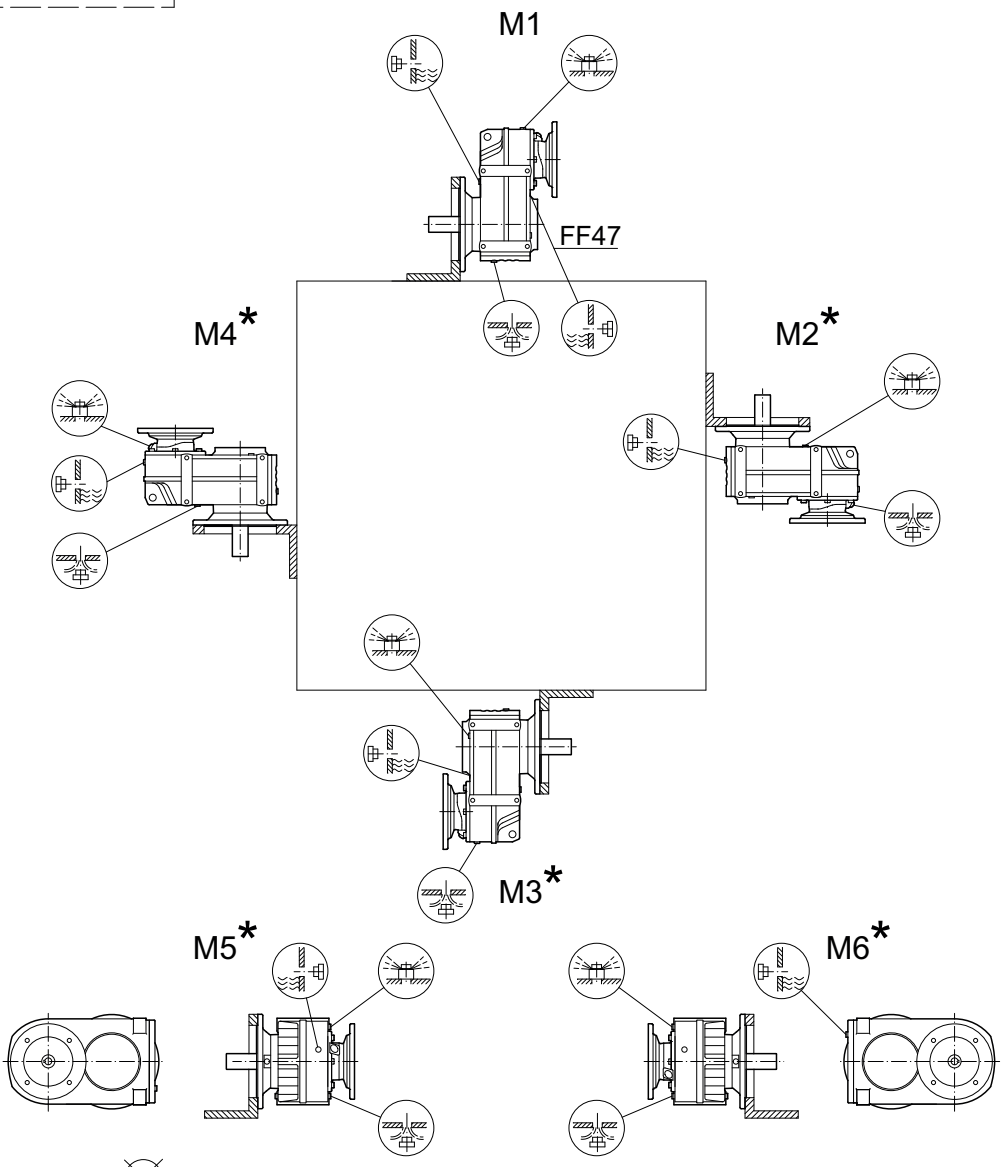
* (→ 🗎 56)

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

42 283 00 20





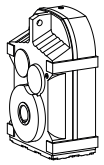
F..27		M1, M3, M5, M6
F..27		M1 - M6
F..27		M1, M3, M5, M6

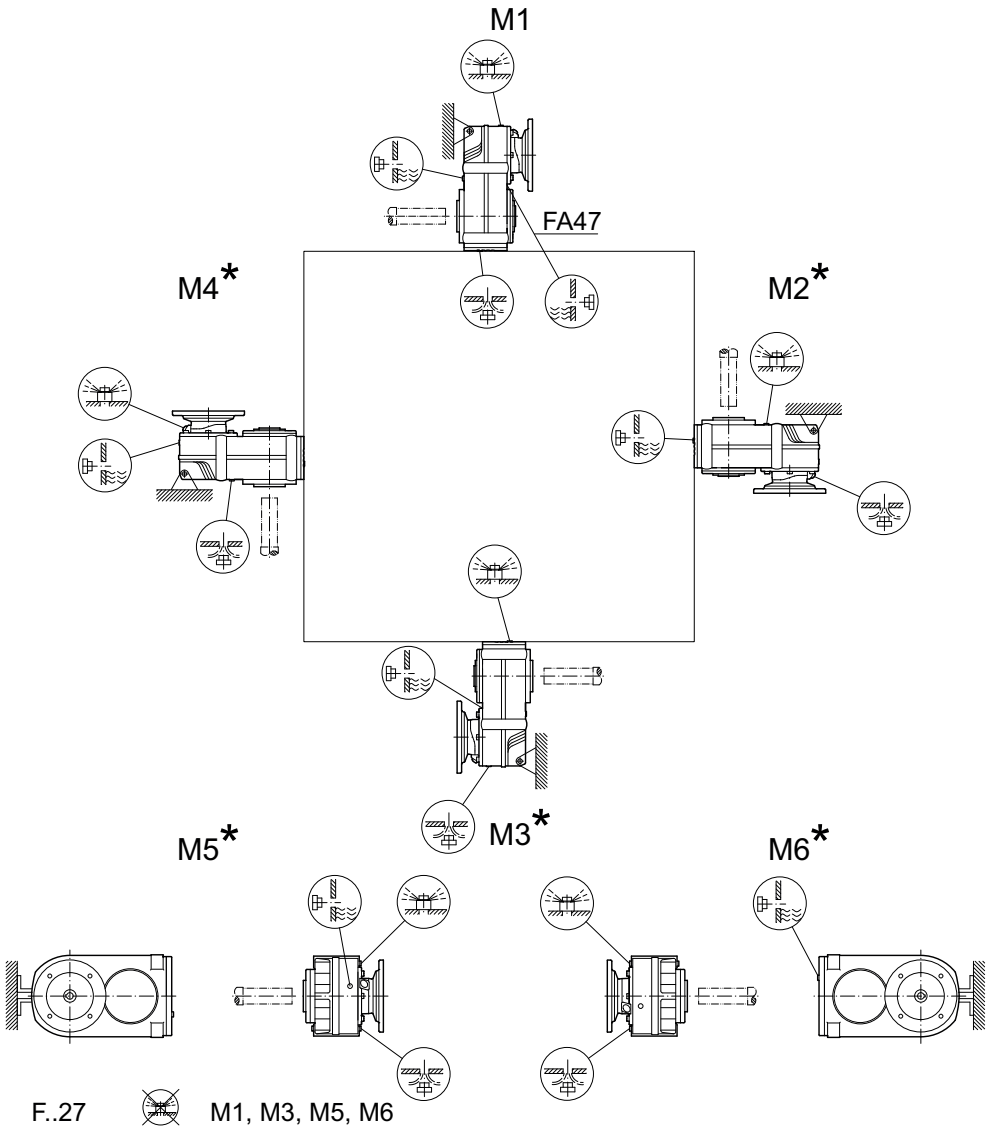
* (→ 🗎 56)

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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

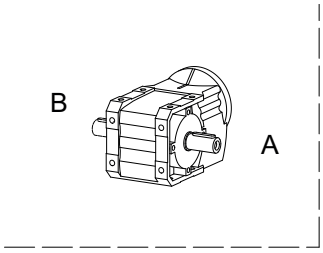
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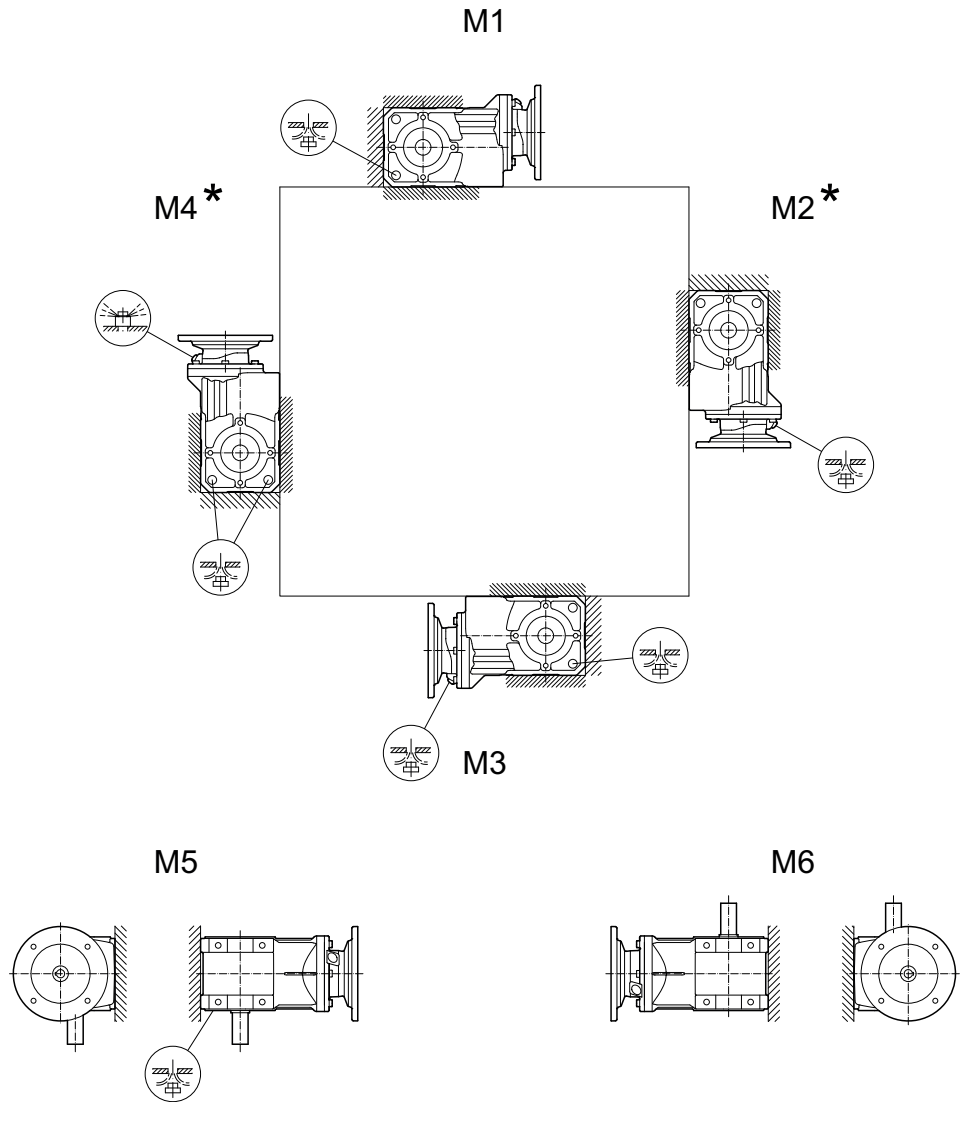
27797880/EN – 03/2023

5.3.5 Mounting positions of helical-bevel gear units

K/KA..B/KH19B – 29B

33 380 00 20





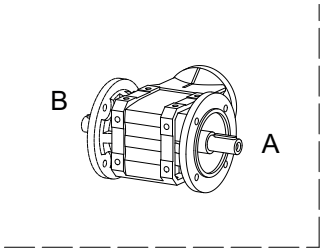
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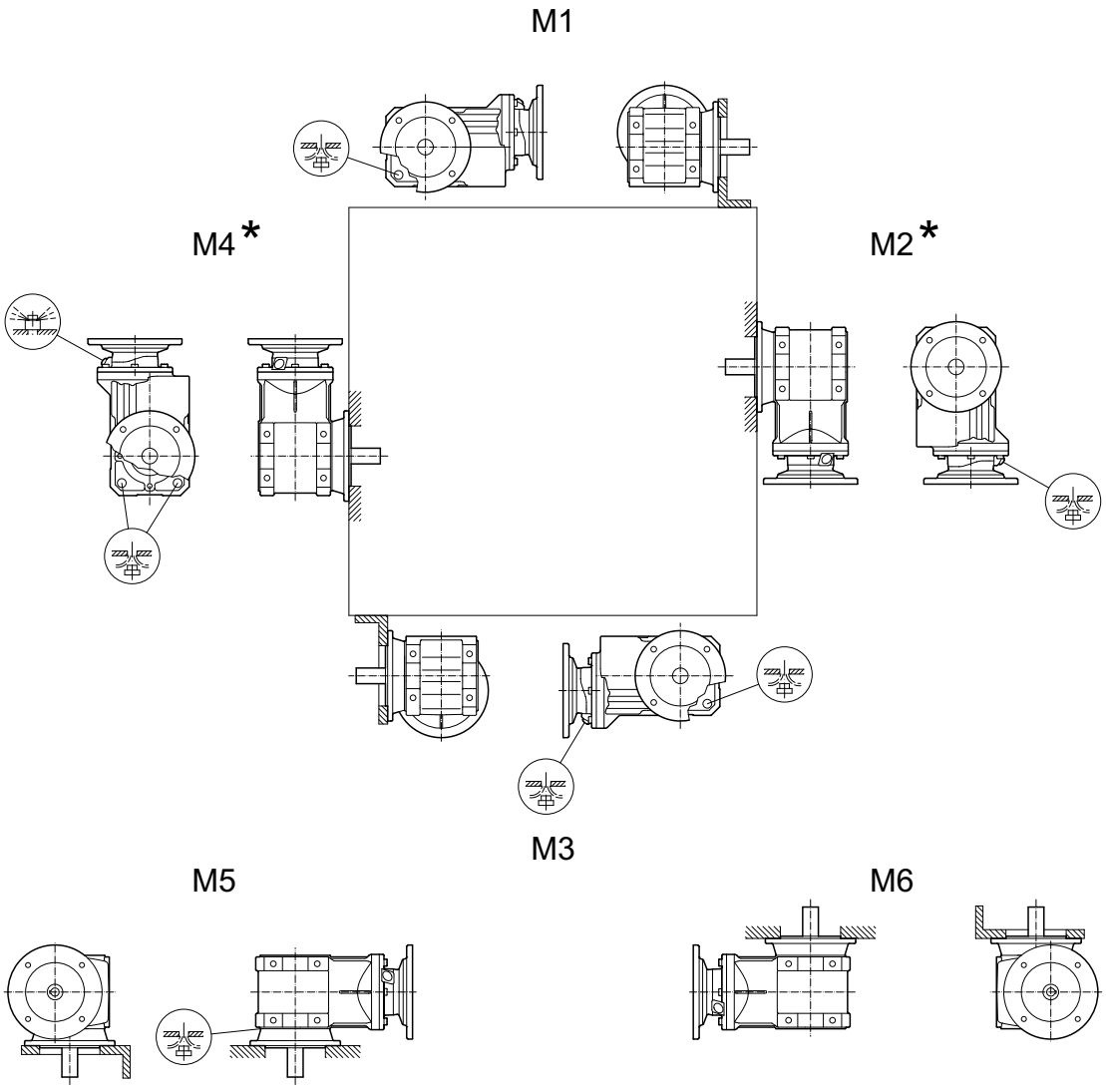
Observe the information in chapter "Overhung and axial loads of R.., F.., K.., S.., W.. gear units" (→ 🗎 61).

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KF..B/KAF..B/KHF19B – 29B

33 381 00 20





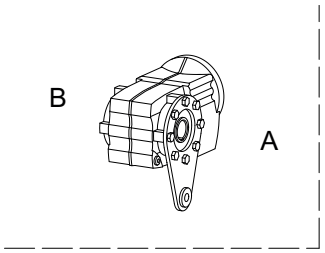
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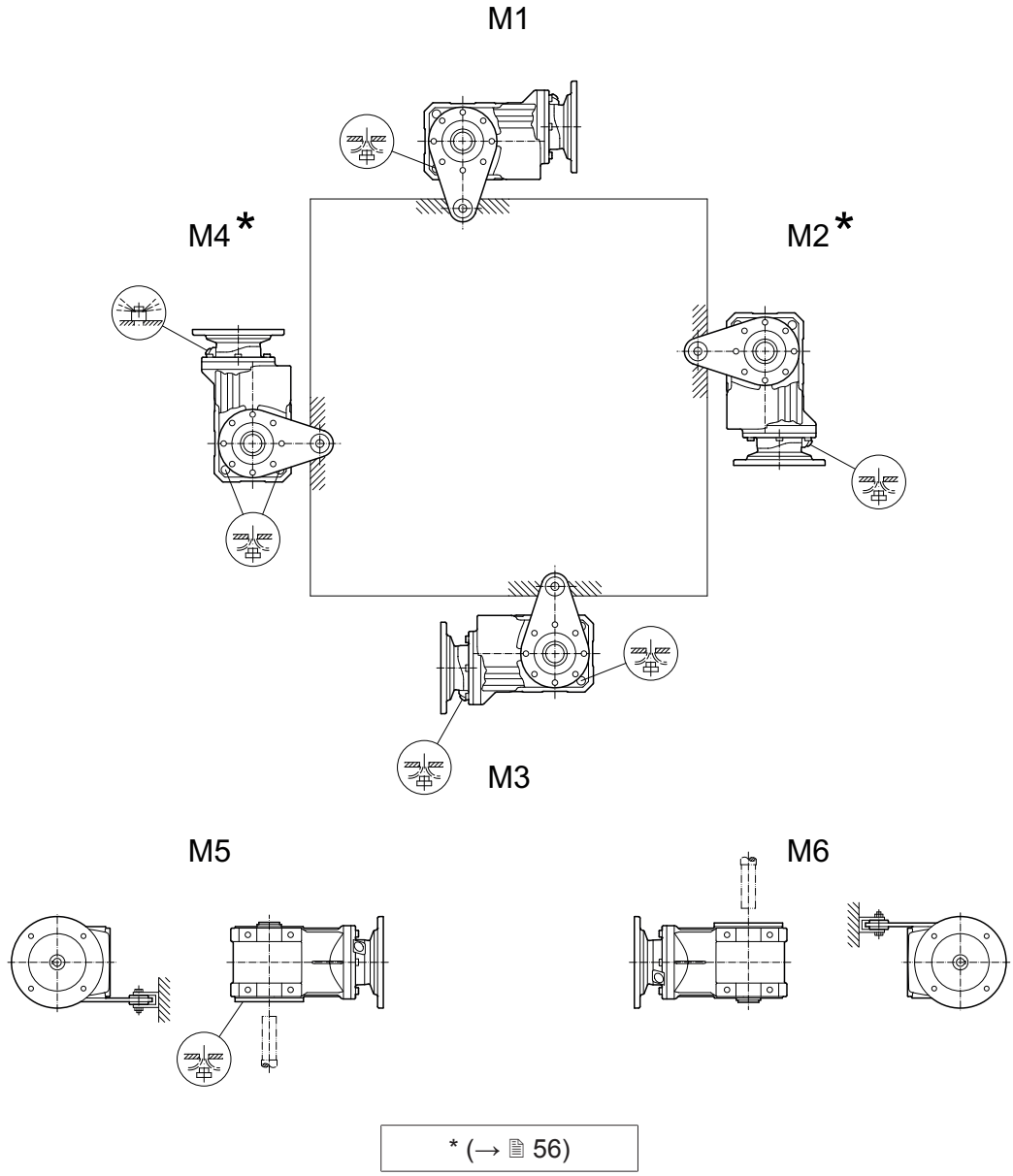
Observe the information in chapter "Overhung and axial loads of R.., F.., K.., S.., W.. gear units" (→ 🗎 61).

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KA..B/KH19B – 29B

33 382 00 20





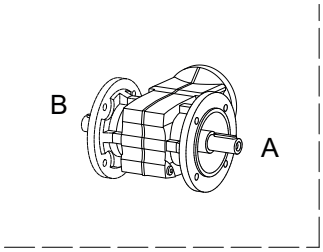
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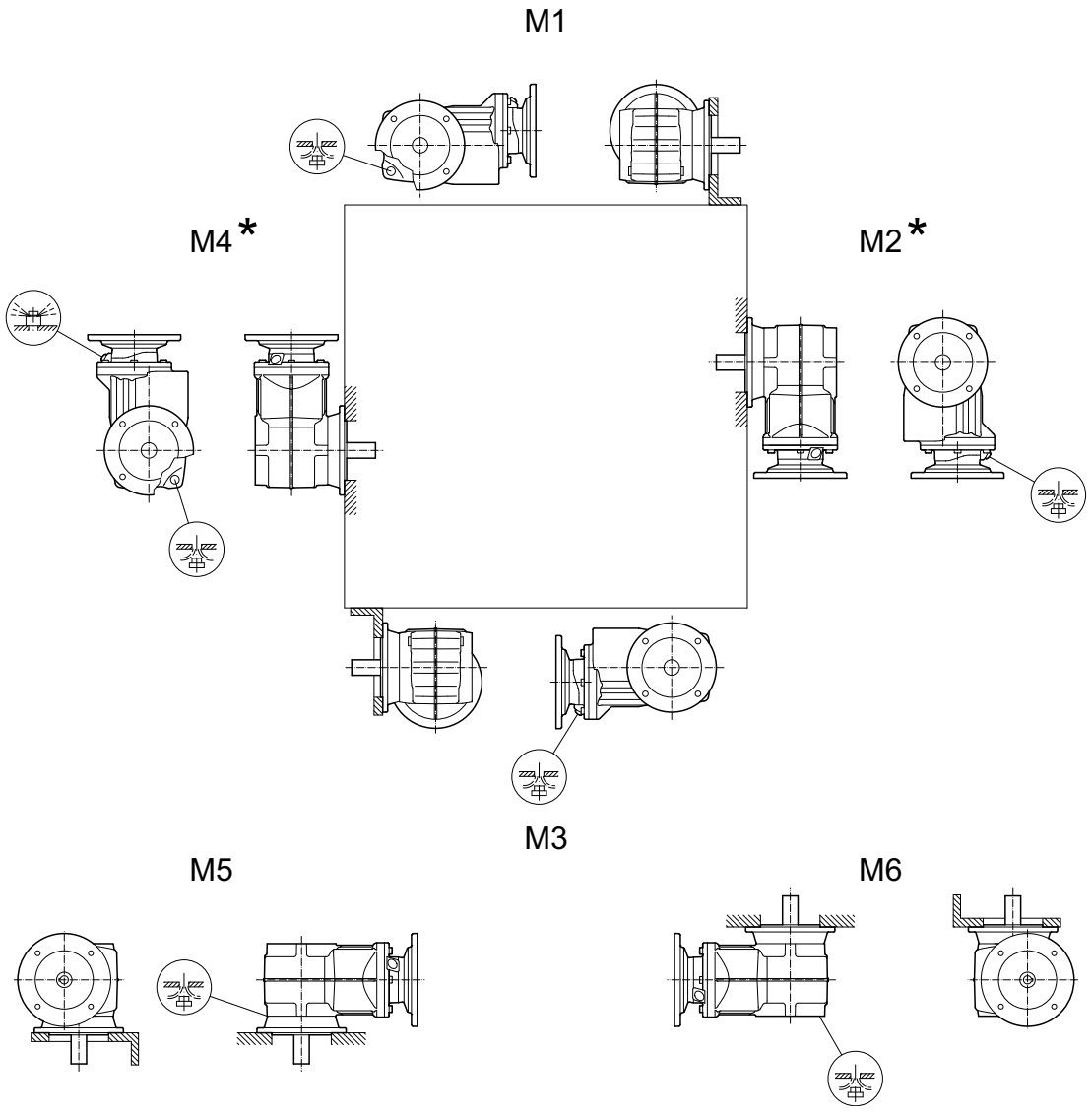
Observe the information in chapter "Overhung and axial loads of R.., F.., K.., S.., W.. gear units" (→ 🗎 61).

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KF/KAF/KHF19 – 29

33 383 00 20





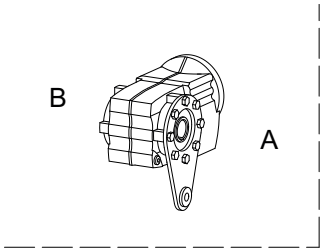
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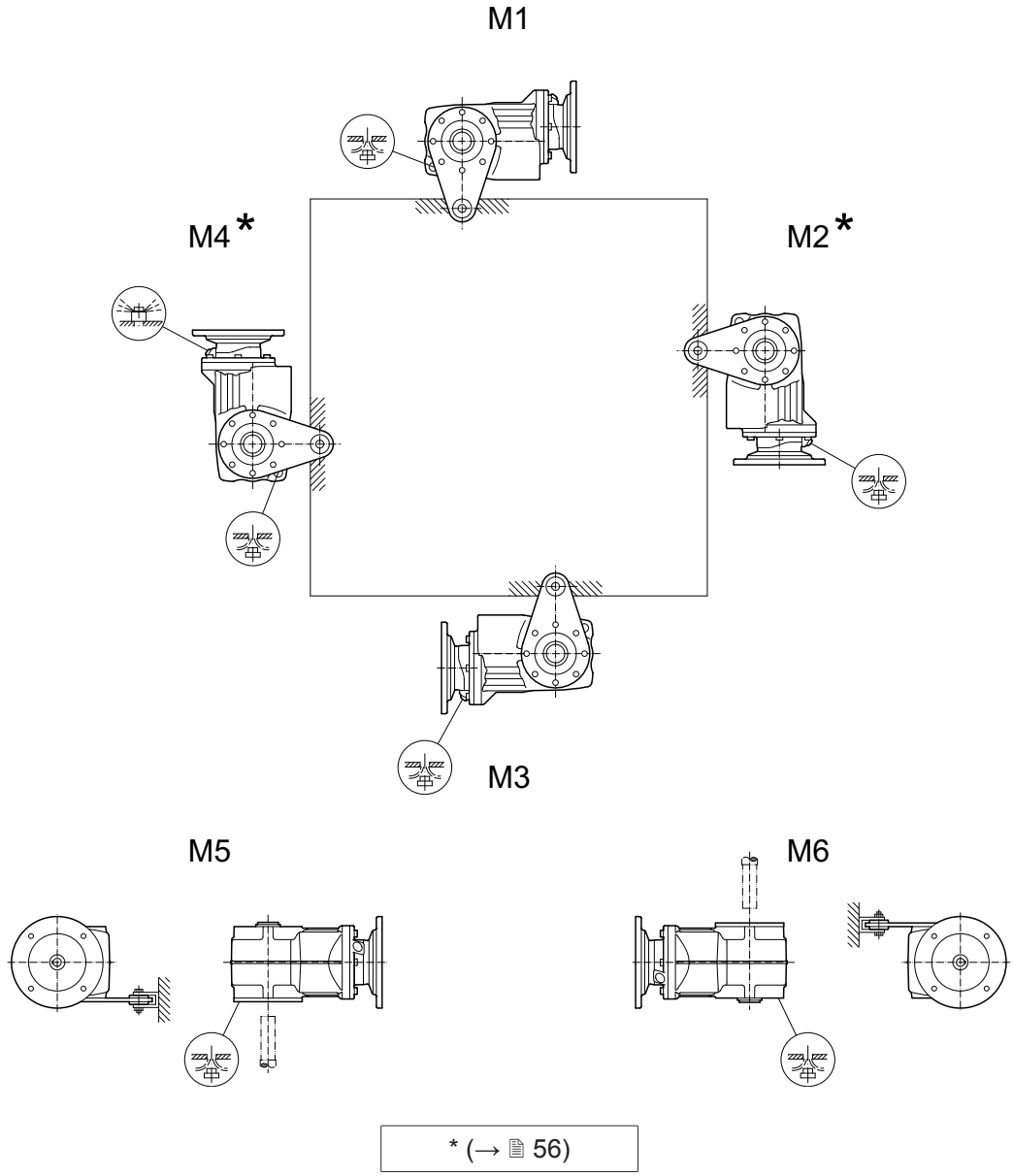
Observe the information in chapter "Overhung and axial loads of R.., F.., K.., S.., W.. gear units" (→ 🗎 61).

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KA/KH/KT19 – 29

33 384 00 20



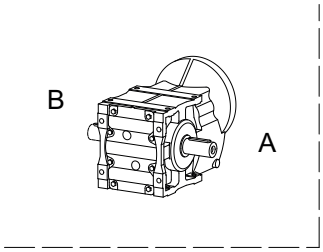


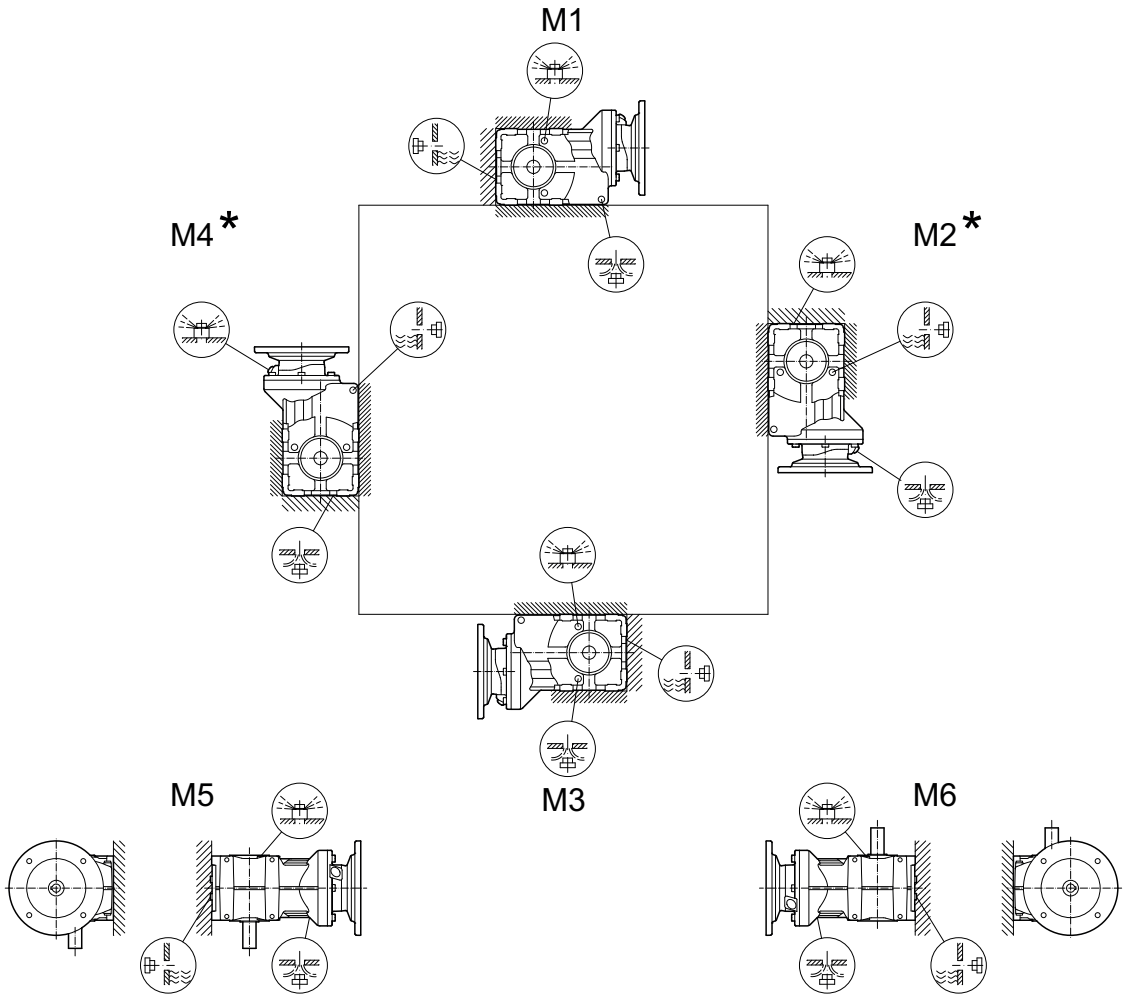
* (→ 🗎 56)

27797880/EN – 03/2023

K/KA..B39 – 49

33 385 00 20

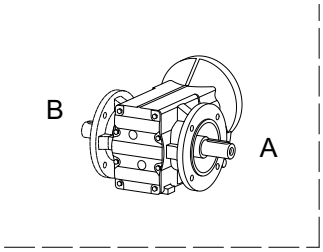


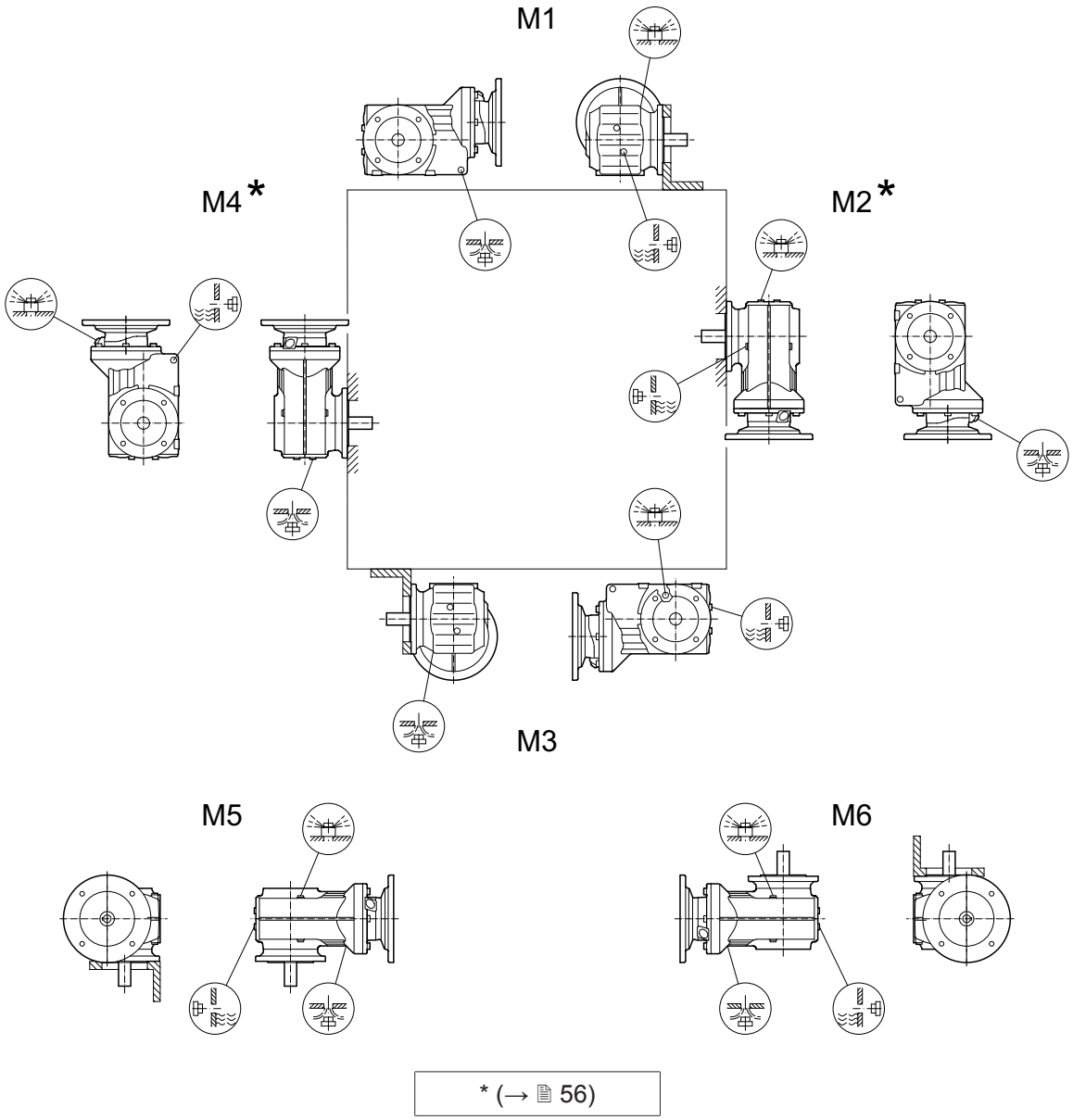


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KF/KAF/KHF39 – 49

33 386 00 20



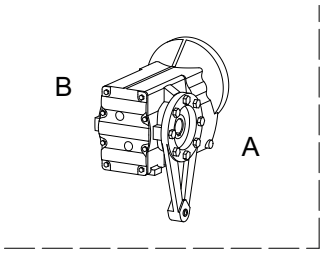


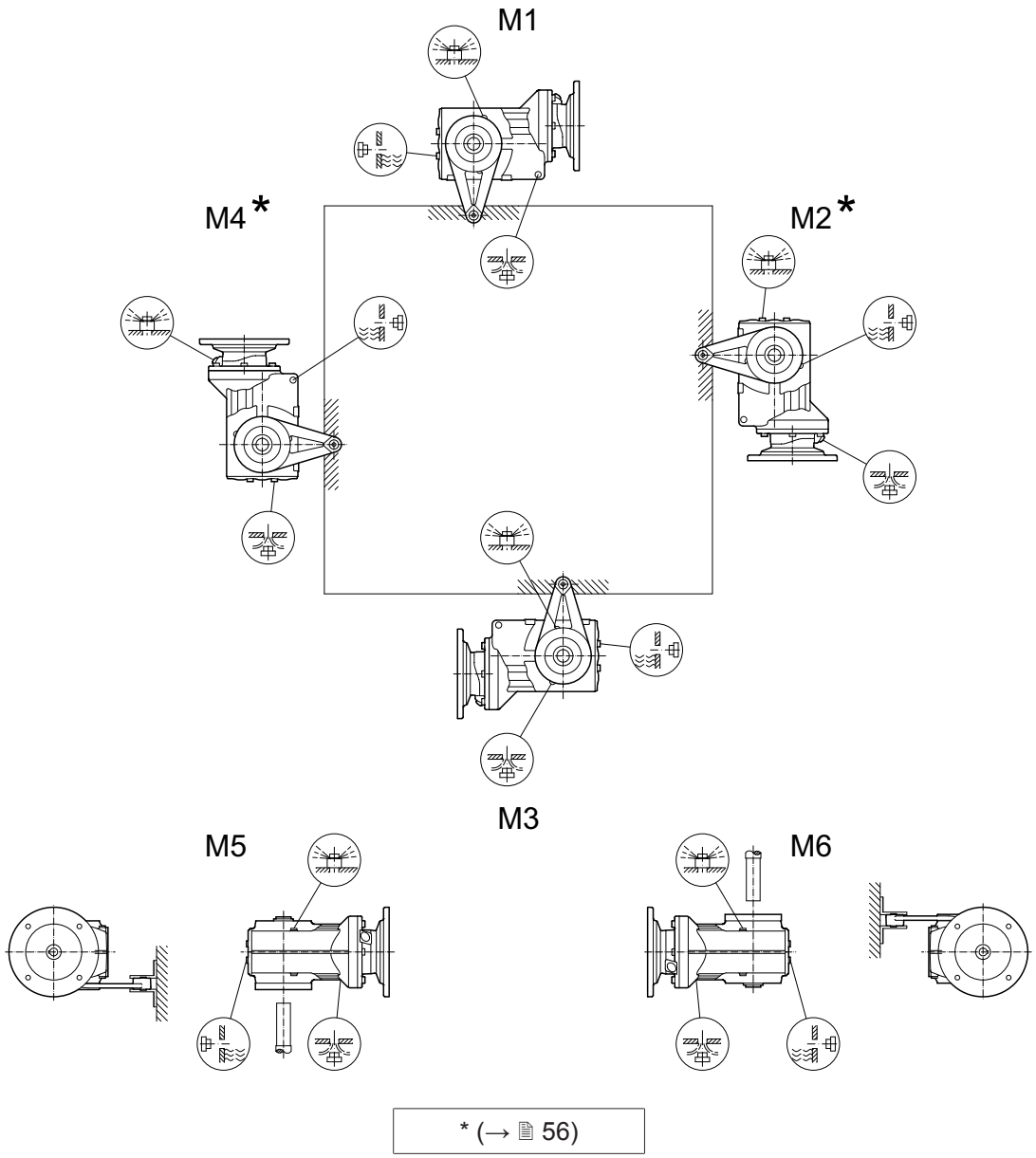
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27797880/EN – 03/2023

KA/KH/KT39 – 49

33 387 00 20

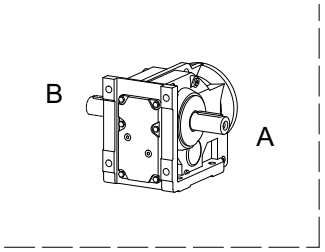


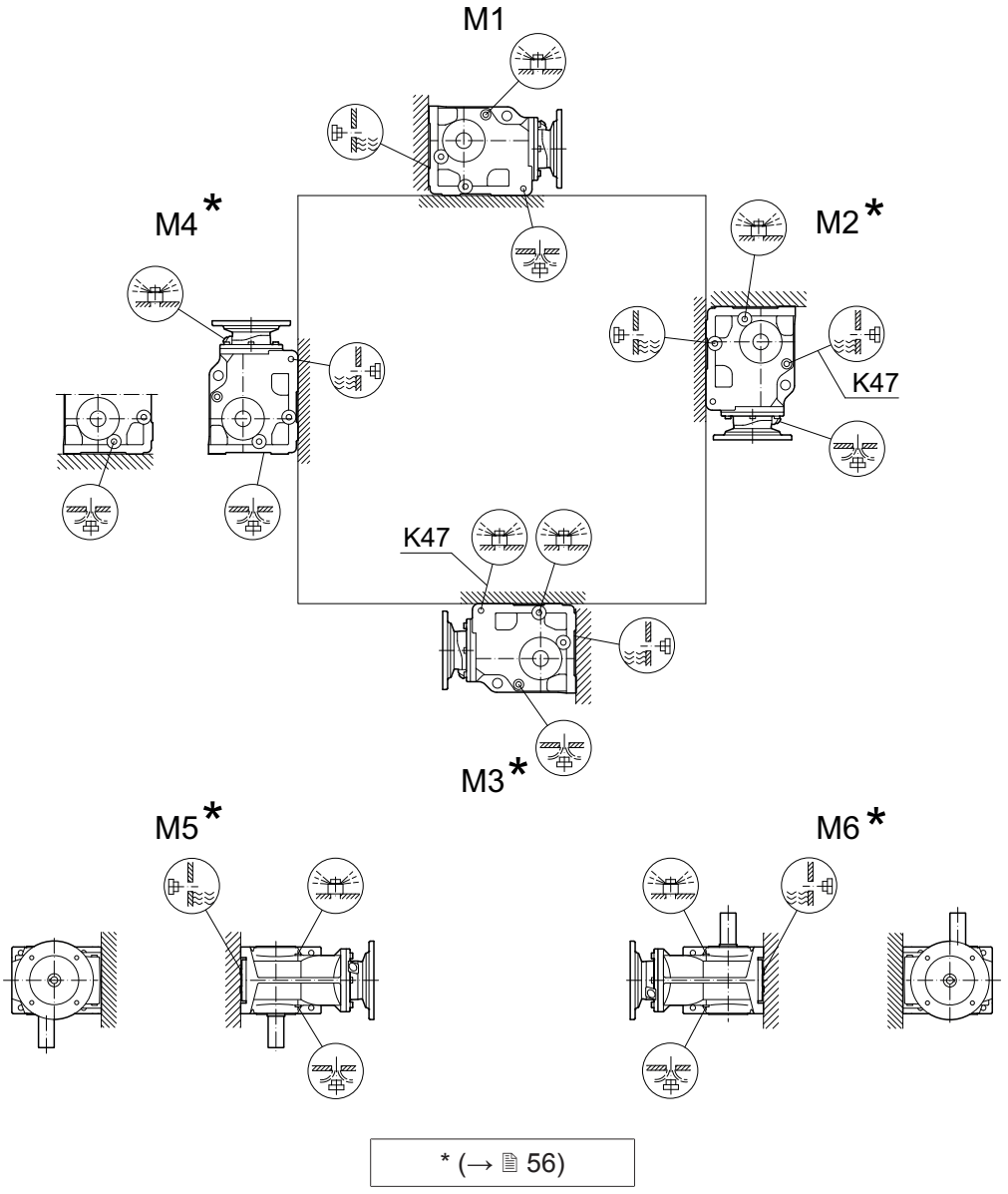


* (→ 🗎 56)

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

33 388 00 20





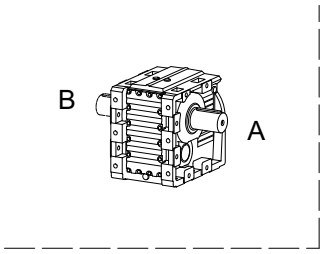
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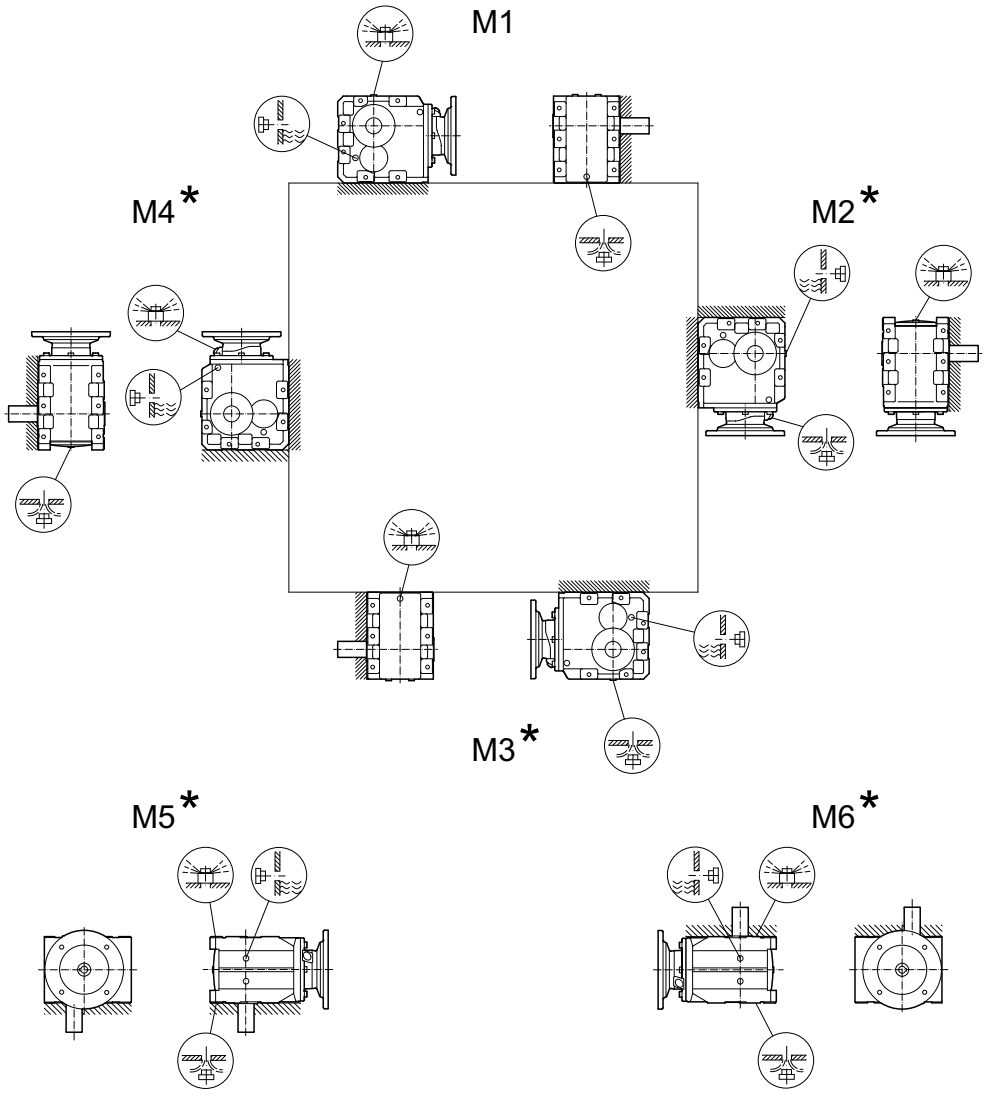
Observe the information in chapter "Overhung and axial loads of R.., F.., K.., S.., W.. gear units" (→ 🗎 61).

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K167 – 187, KH167B – 187B

33 389 00 20





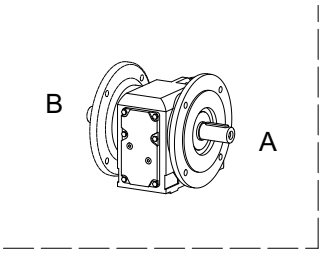
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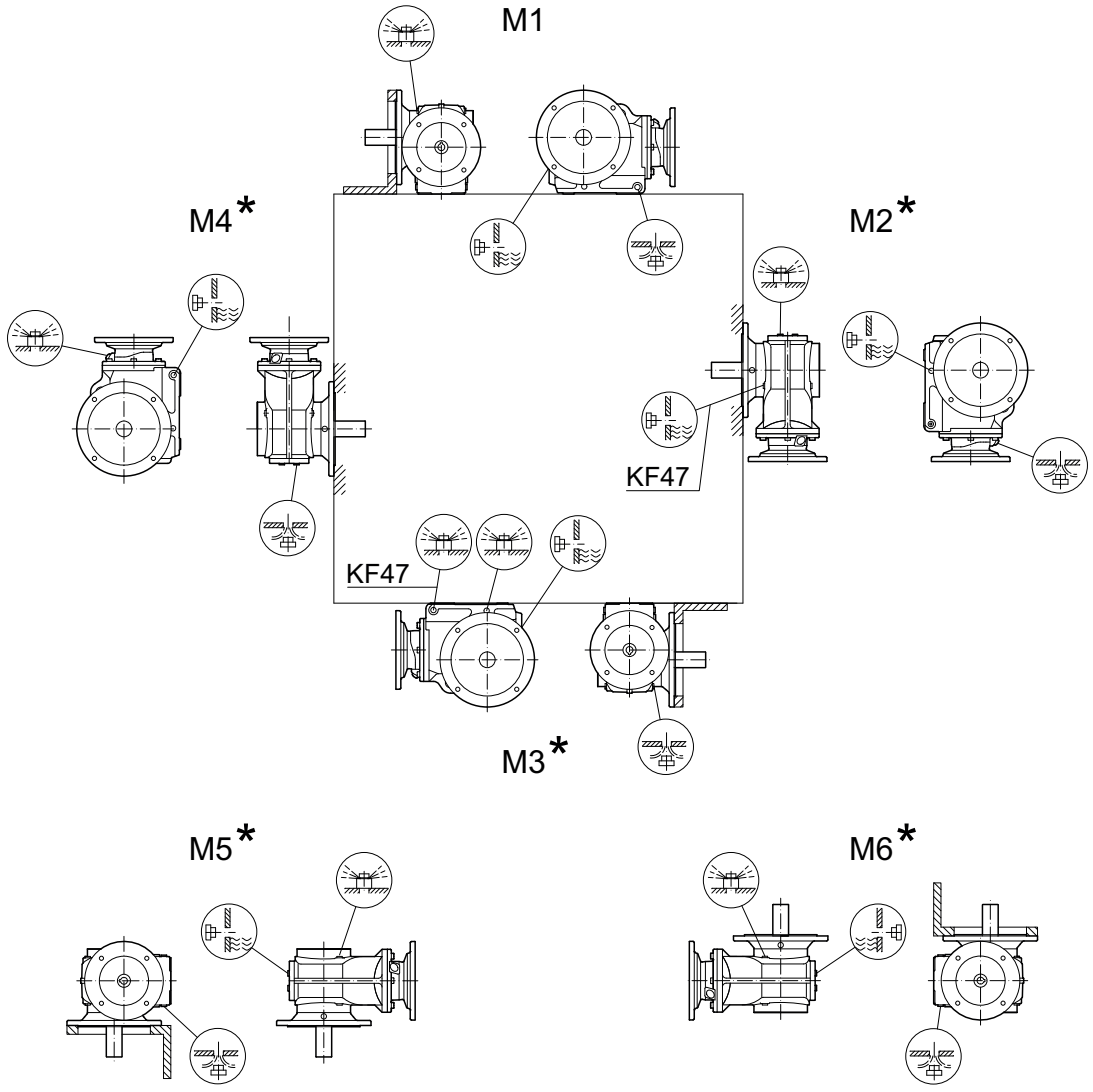
Observe the information in chapter "Overhung and axial loads of R.., F.., K.., S.., W.. gear units" (→ 🗎 61).

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

33 390 00 20



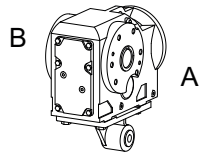


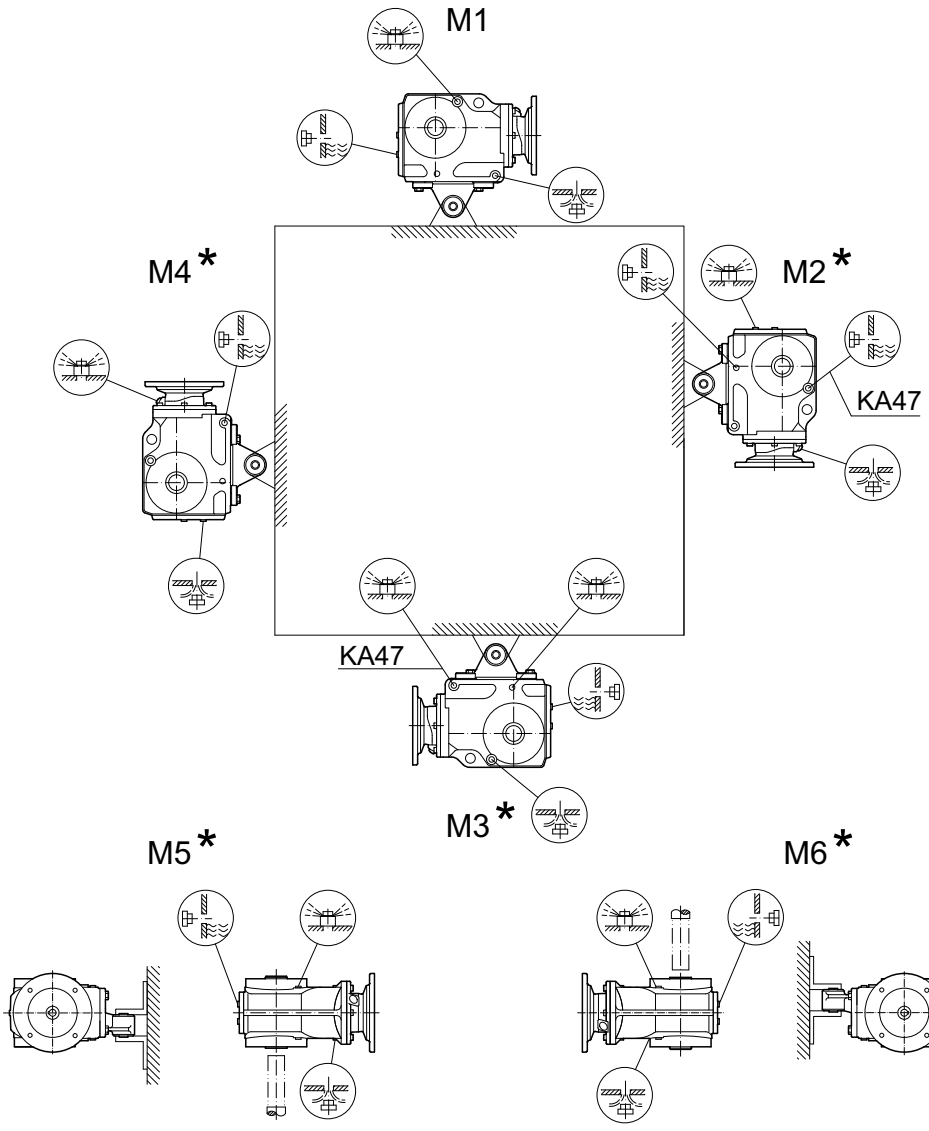
* (→ 🗎 56)

27797880/EN – 03/2023

KA/KH37 – 157, KV37 – 107, KT37 – 157

33 391 00 20



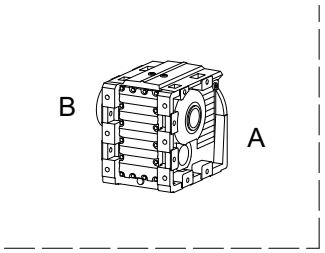


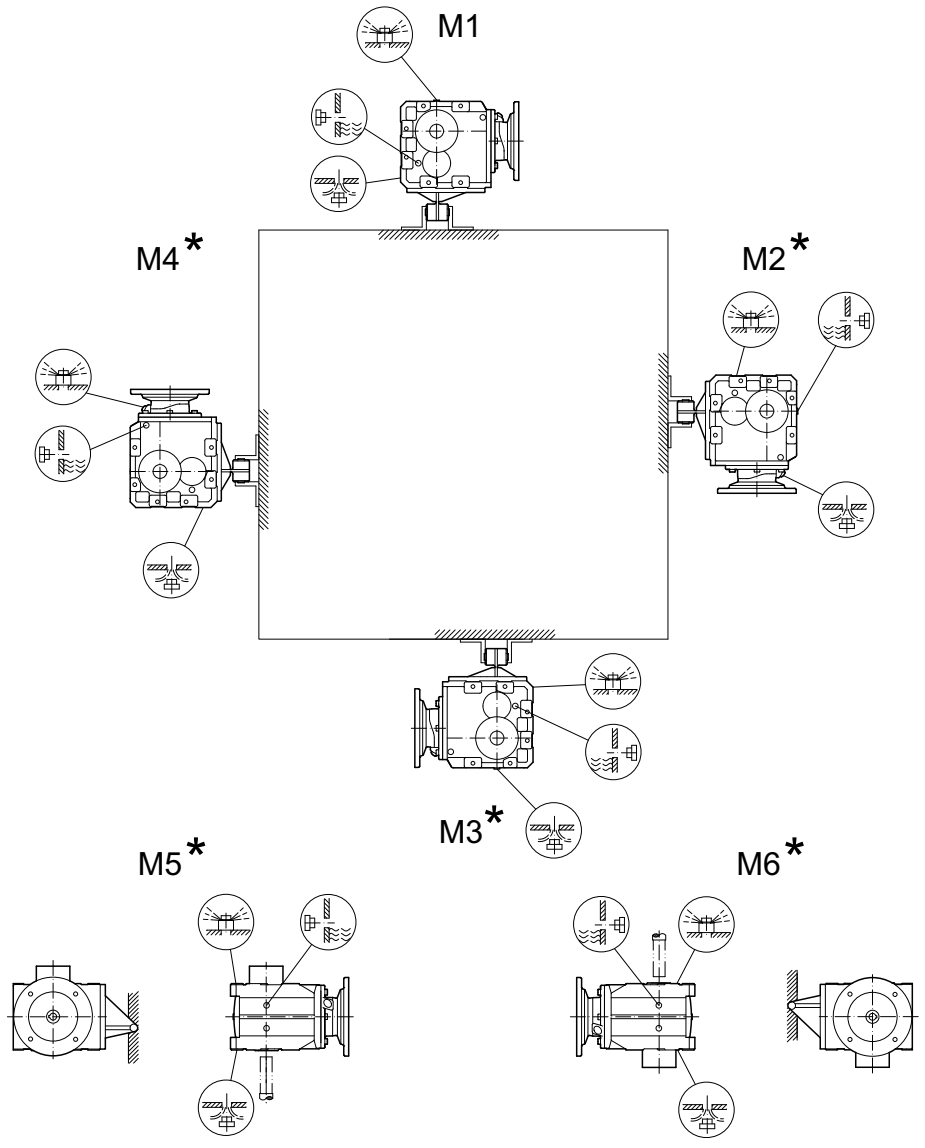
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27797880/EN – 03/2023

KH167 – 187

33 392 00 20





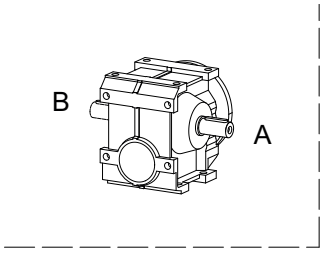
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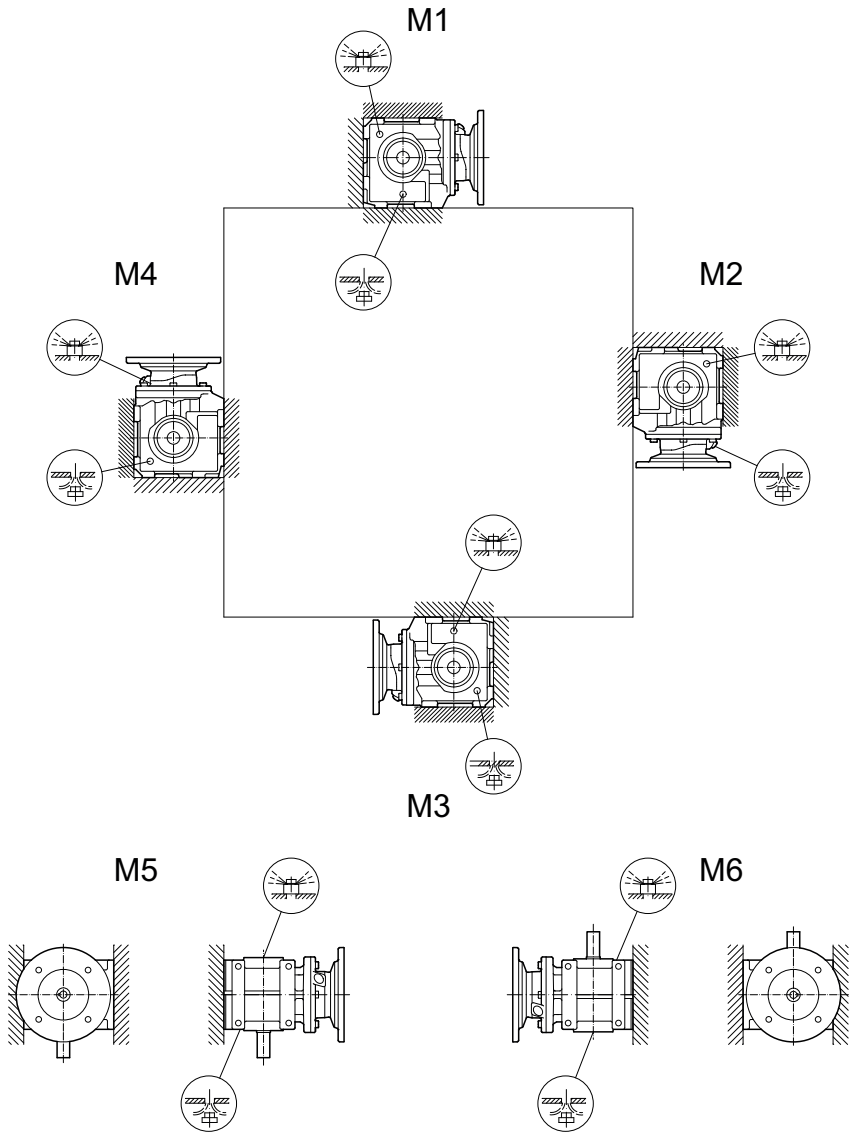
27797880/EN – 03/2023

5.3.6 Mounting positions of helical-worm gear units

S37

02 156 00 20



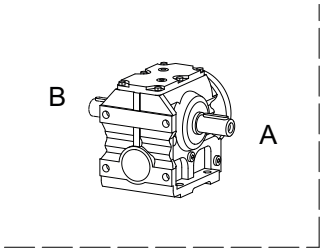


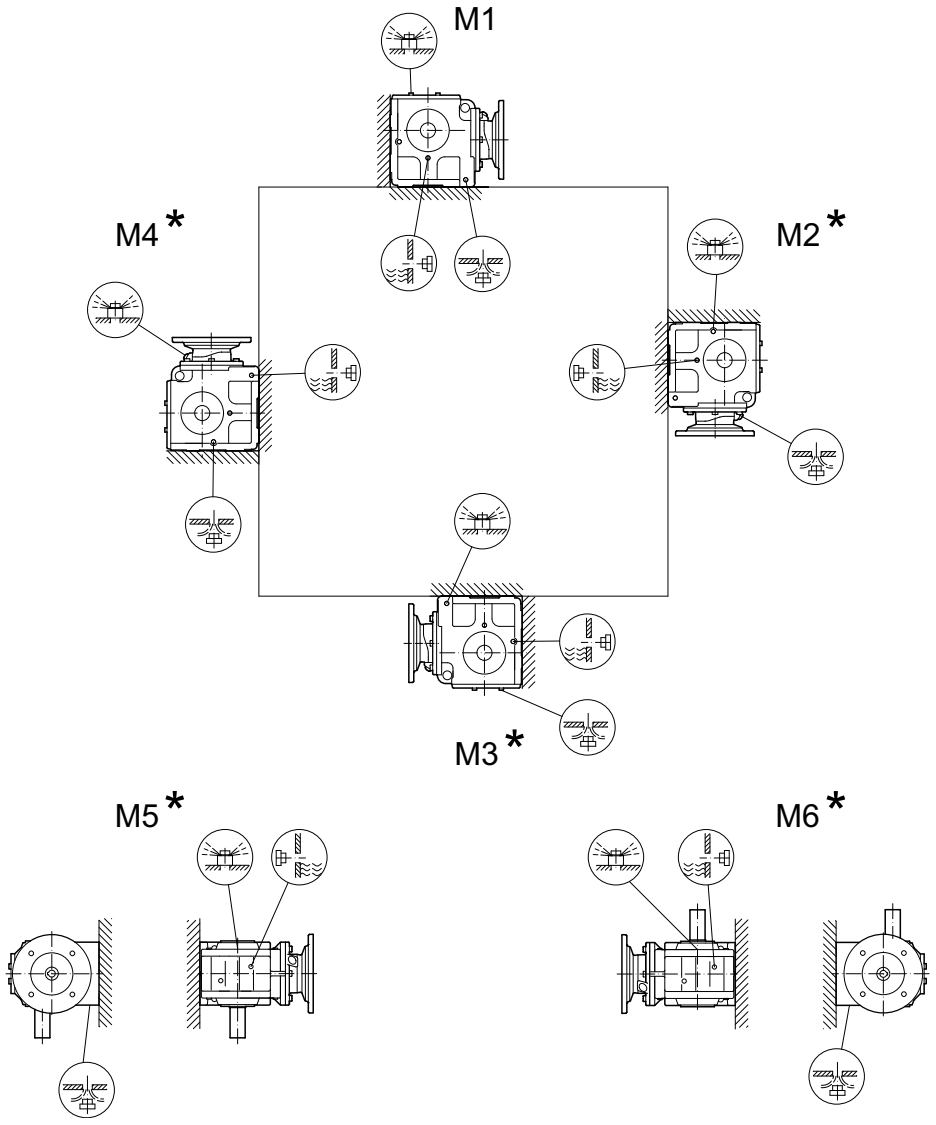
Observe the notes in chapter "Overhung and axial loads of R.., F.., K.., S.., W.. gear units" (→ 🖹 61).

27797880/EN – 03/2023

S47 – S97

02 157 00 20





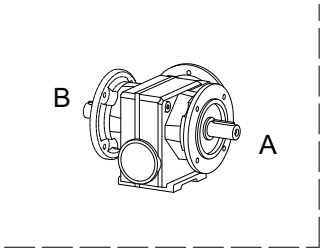
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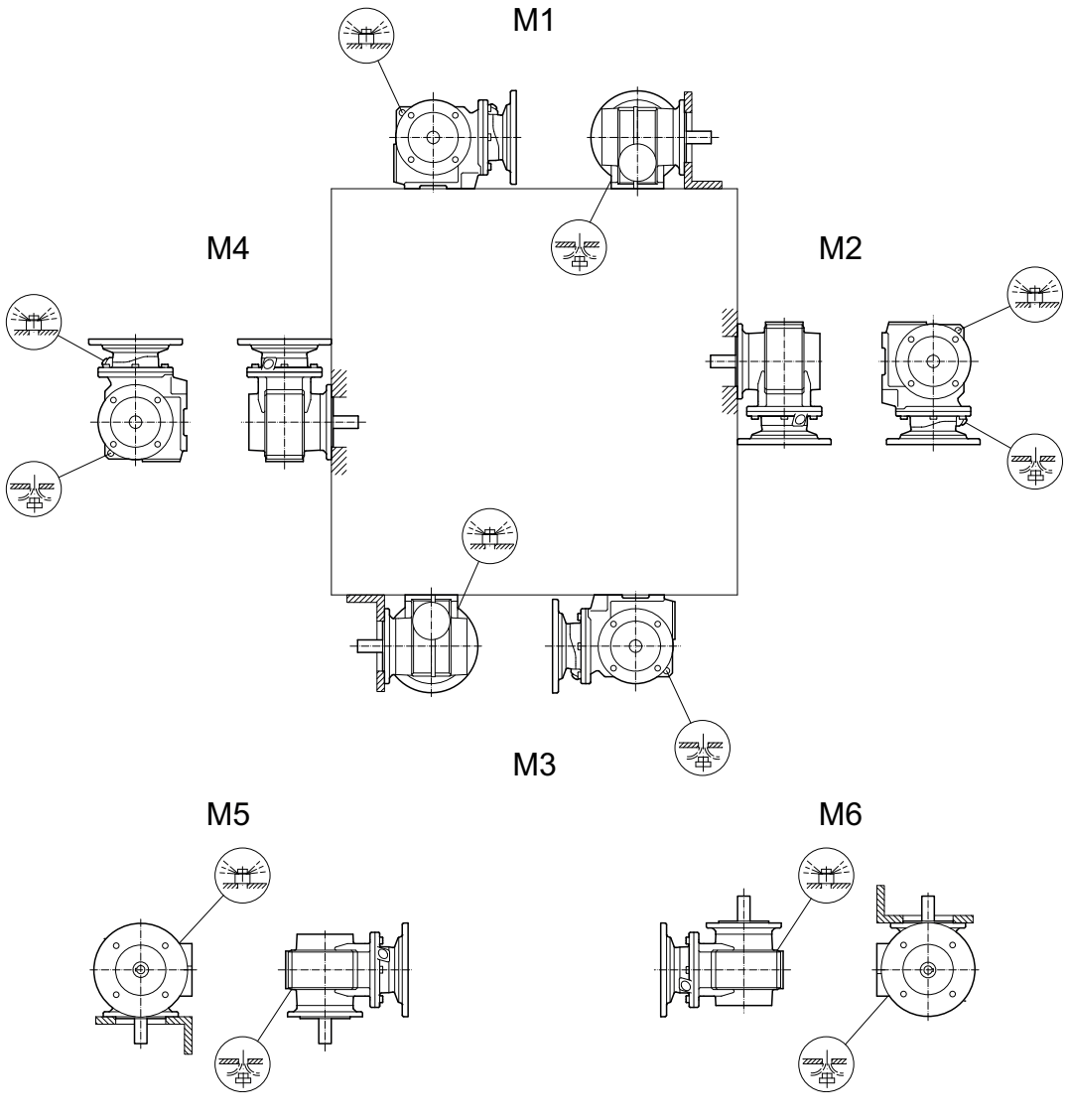
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27797880/EN – 03/2023

SF/SAF/SHF37

02 158 00 20

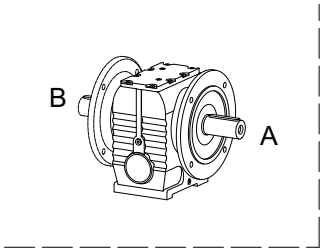


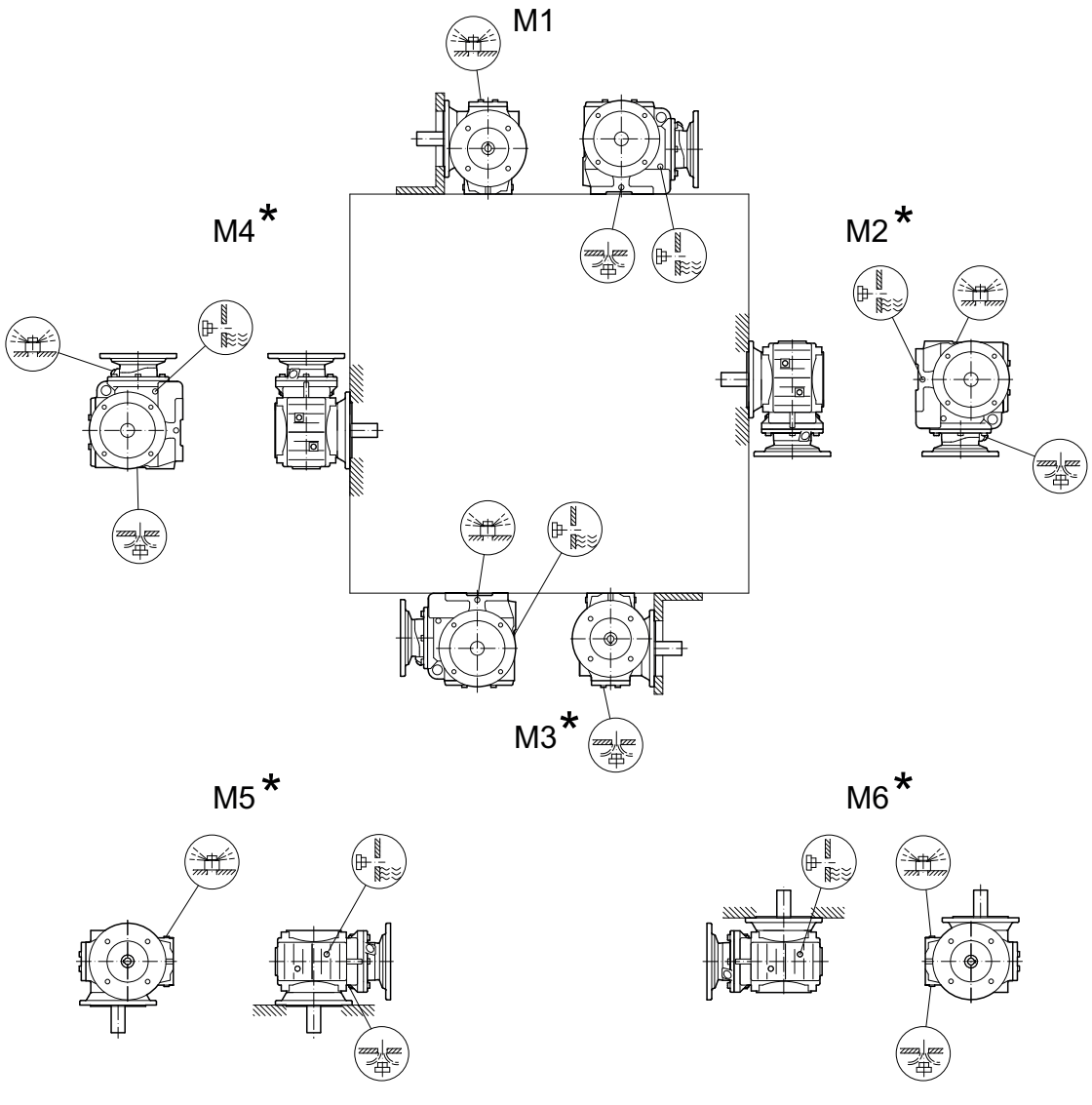


27797880/EN – 03/2023

SF/SAF/SHF/SAZ/SHZ47 – 97

02 159 00 20



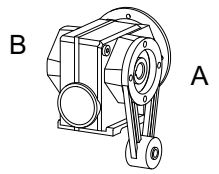


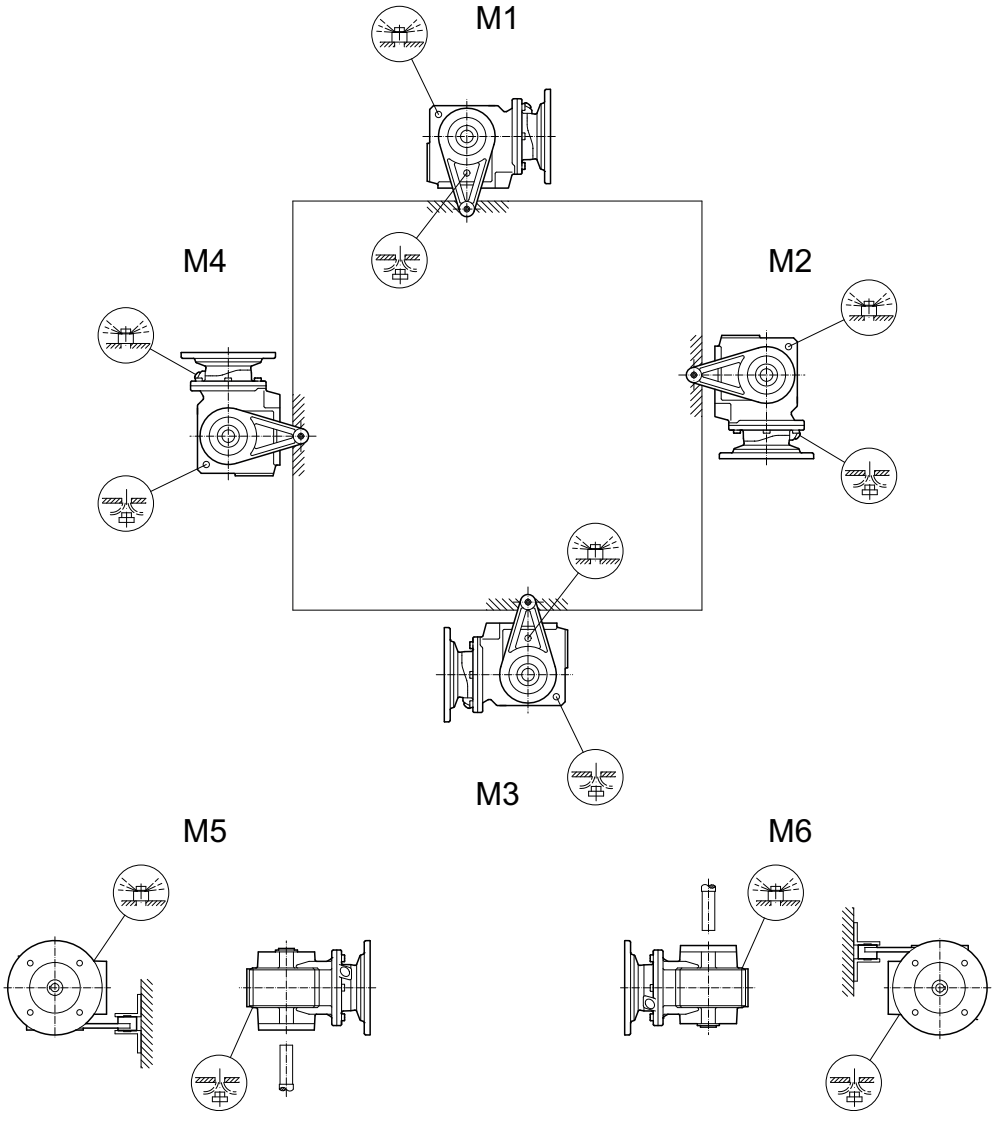
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27797880/EN – 03/2023

SA/SH/ST37

02 160 00 20

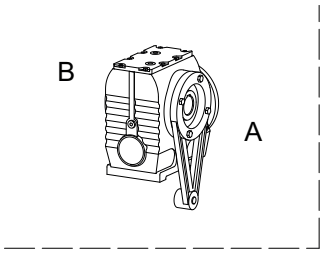


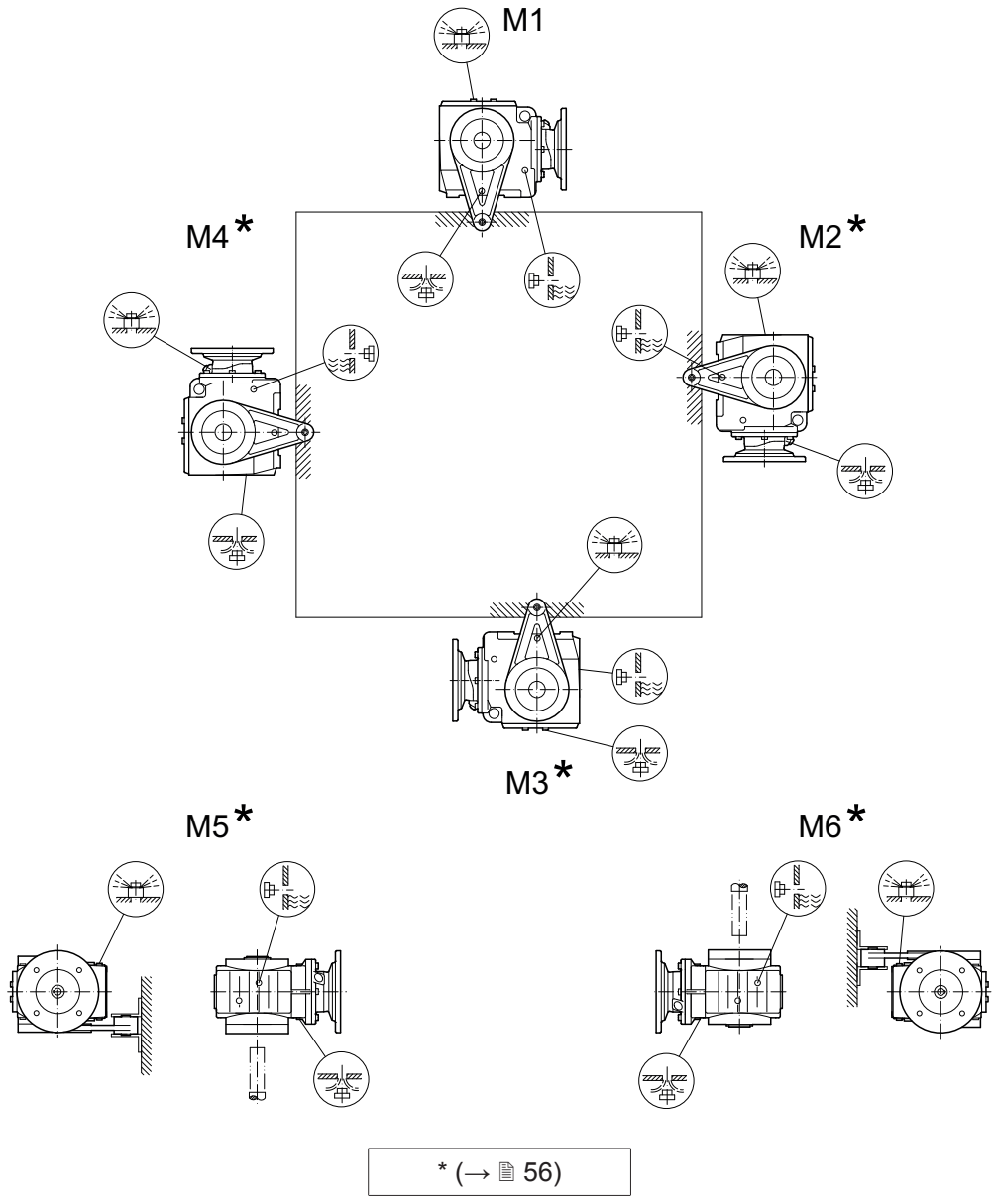


27797880/EN – 03/2023

SA/SH/ST47 – 97

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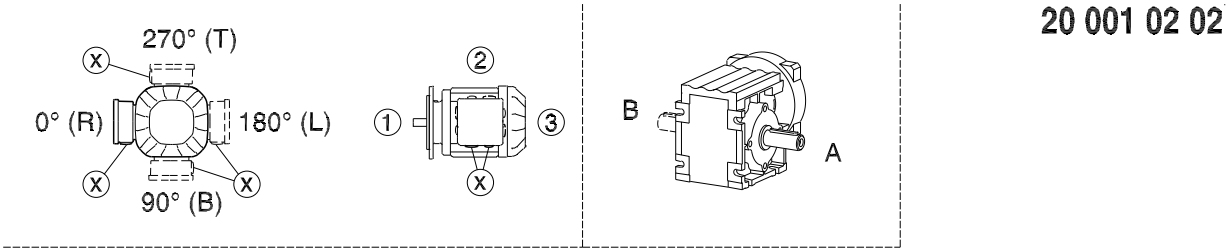




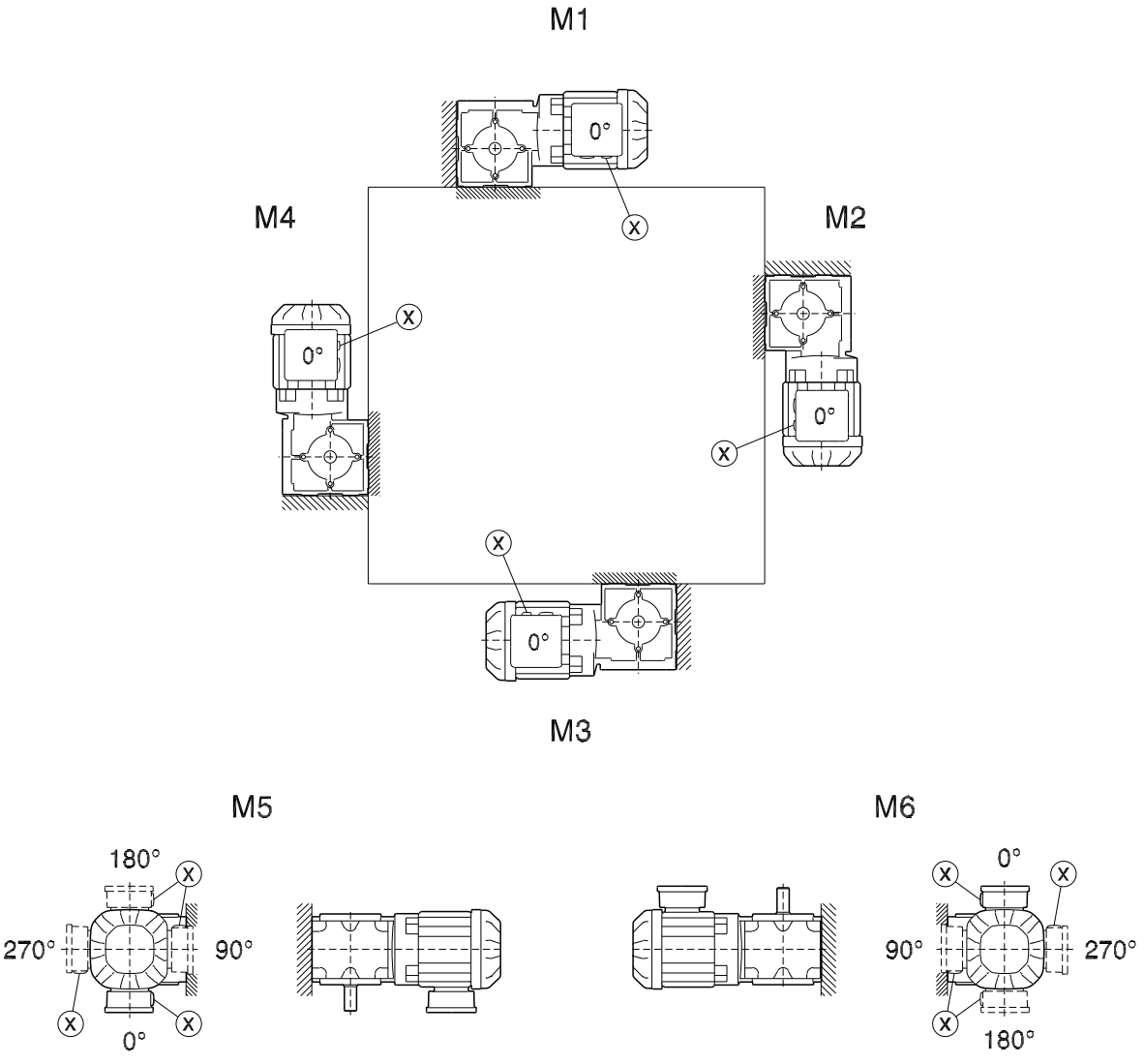
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5.3.7 Mounting positions of SPIROPLAN® gear units

W10 – 30

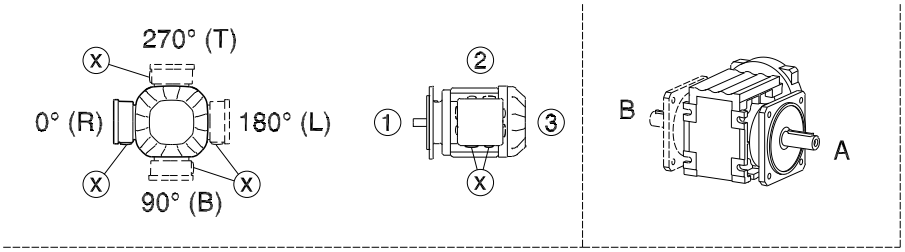


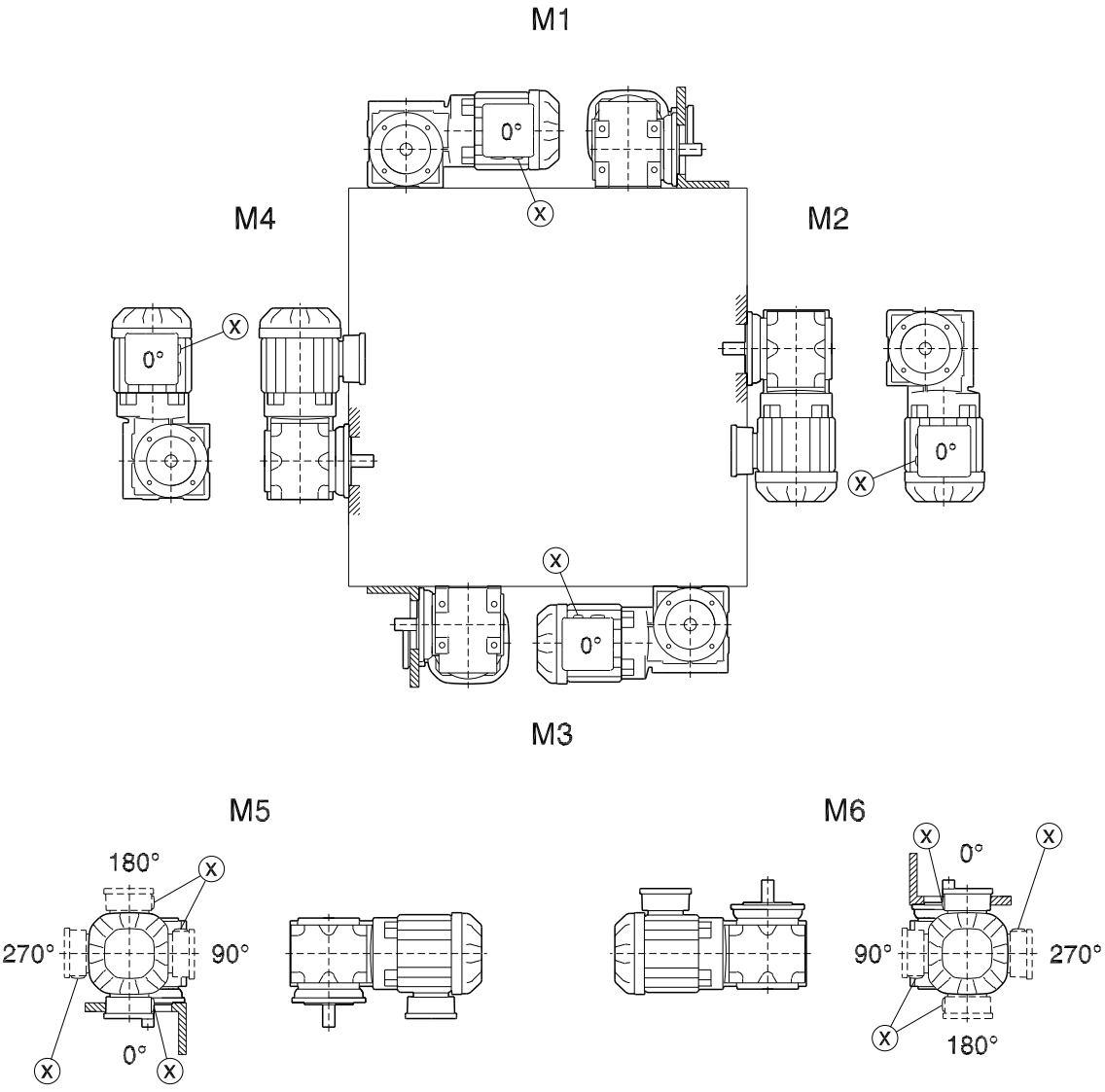
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WF10 – 30

20 002 02 02

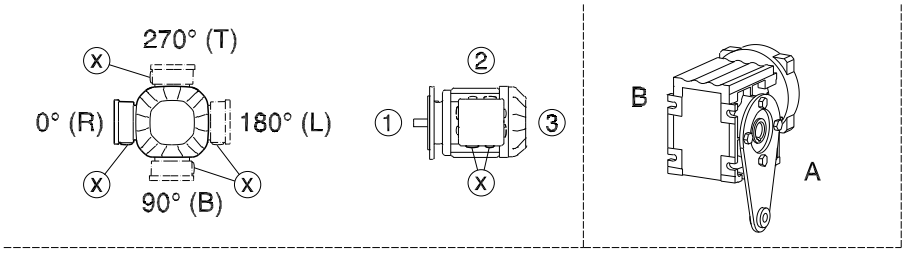


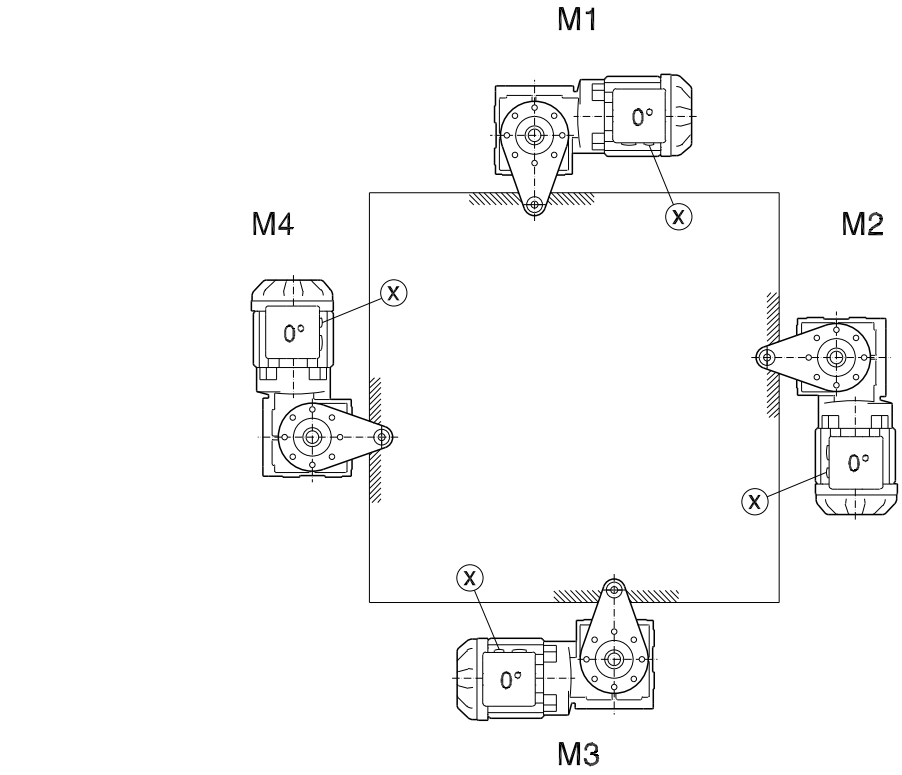


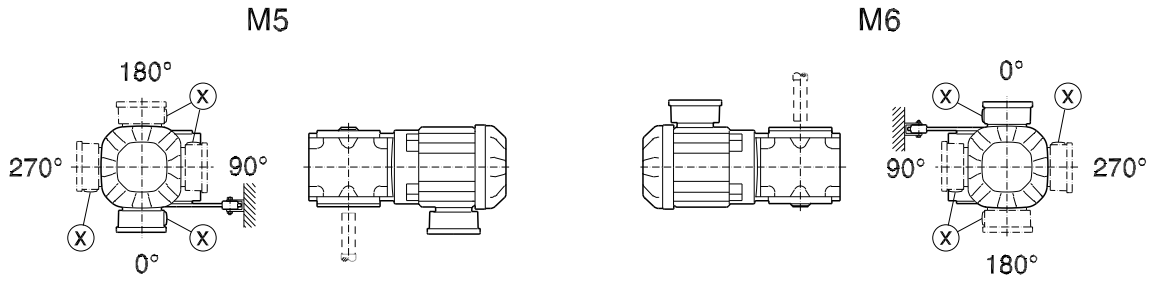
27797880/EN – 03/2023

WA10 – 30

20 003 03 02



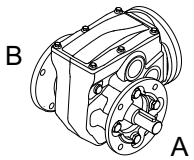


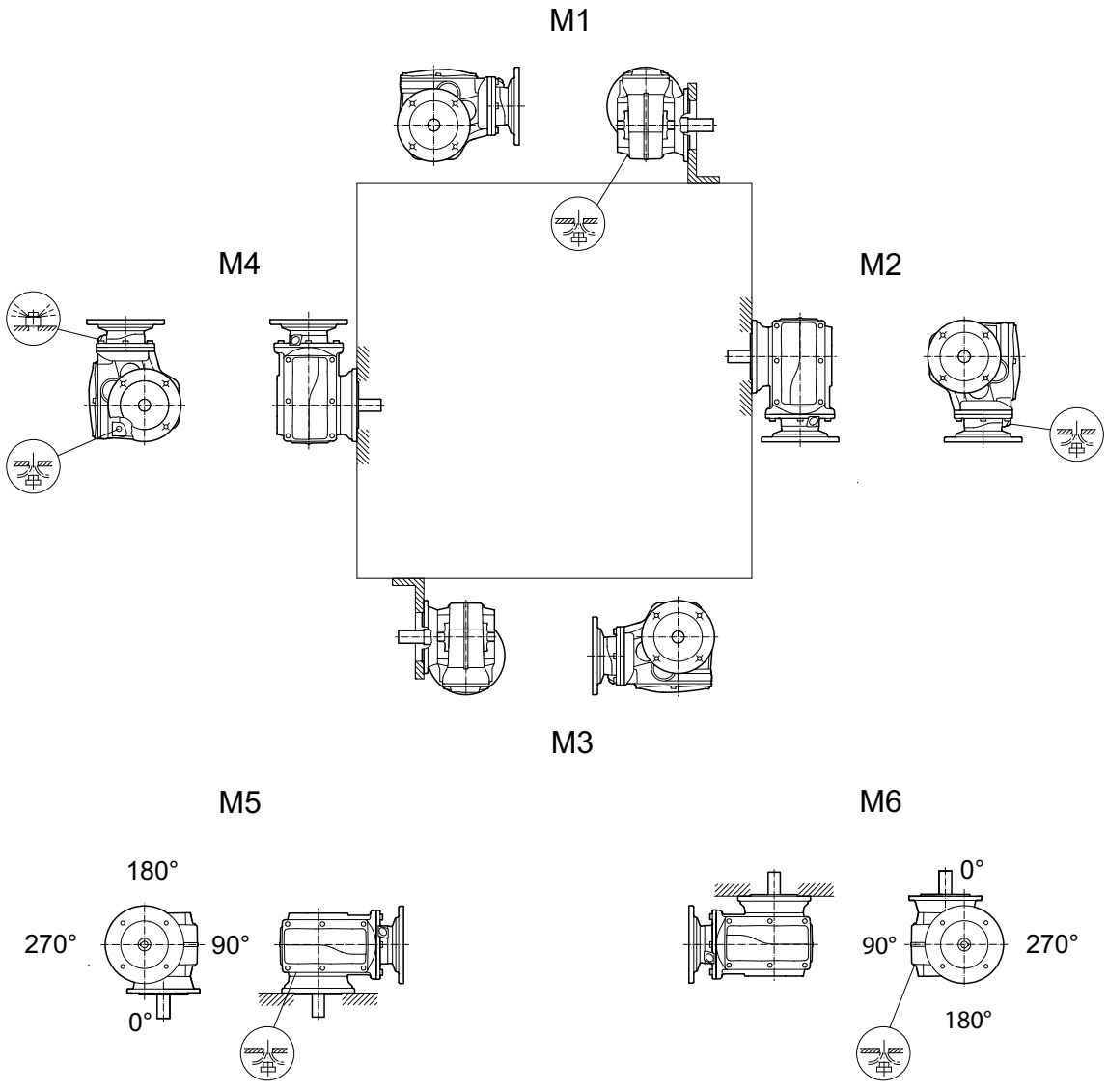


27797880/EN – 03/2023

WF/WAF19 – 59, WHF29 – 59

20 179 00 20

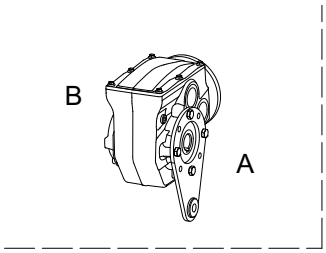


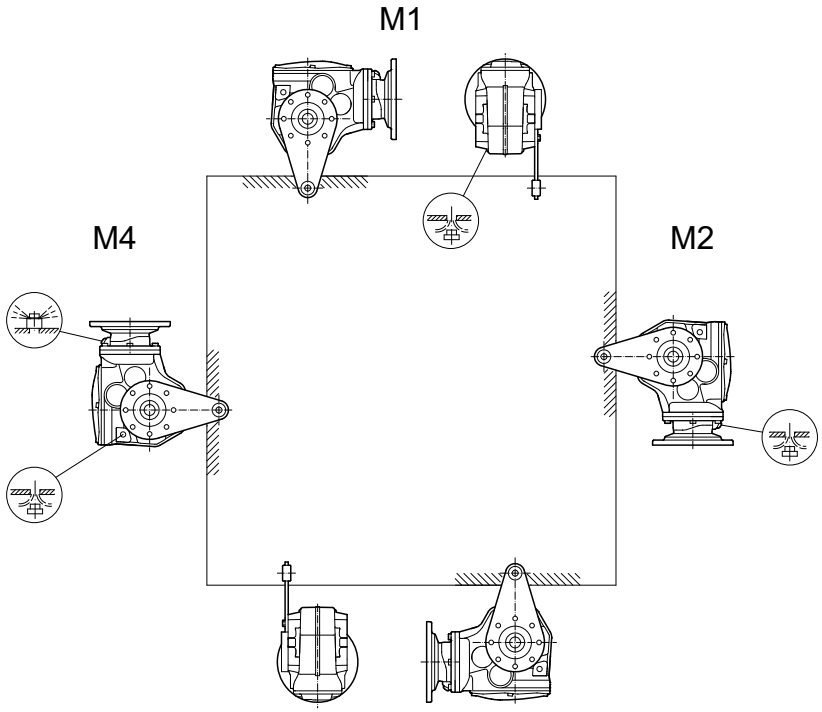


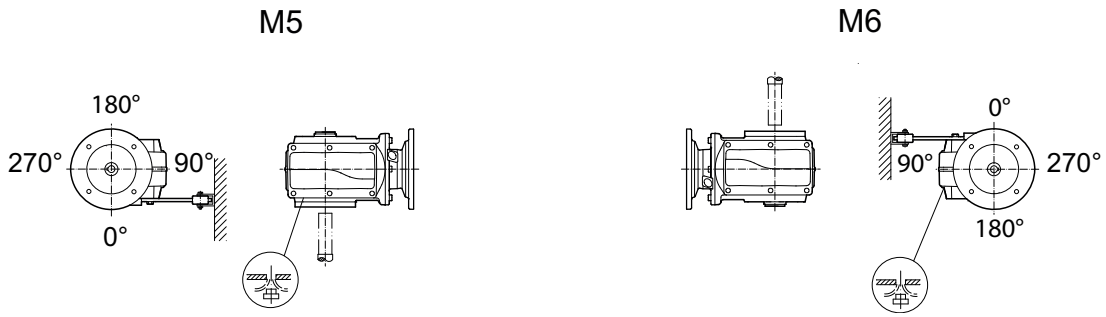
27797880/EN – 03/2023

WA19 – 59, WH/WT29 – 59

20 180 00 20



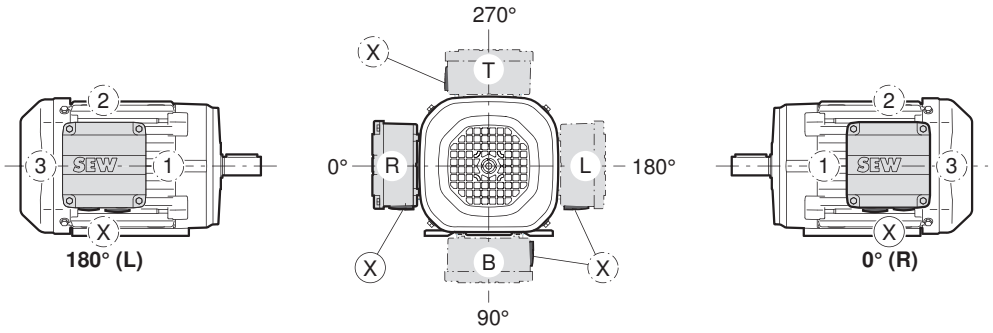




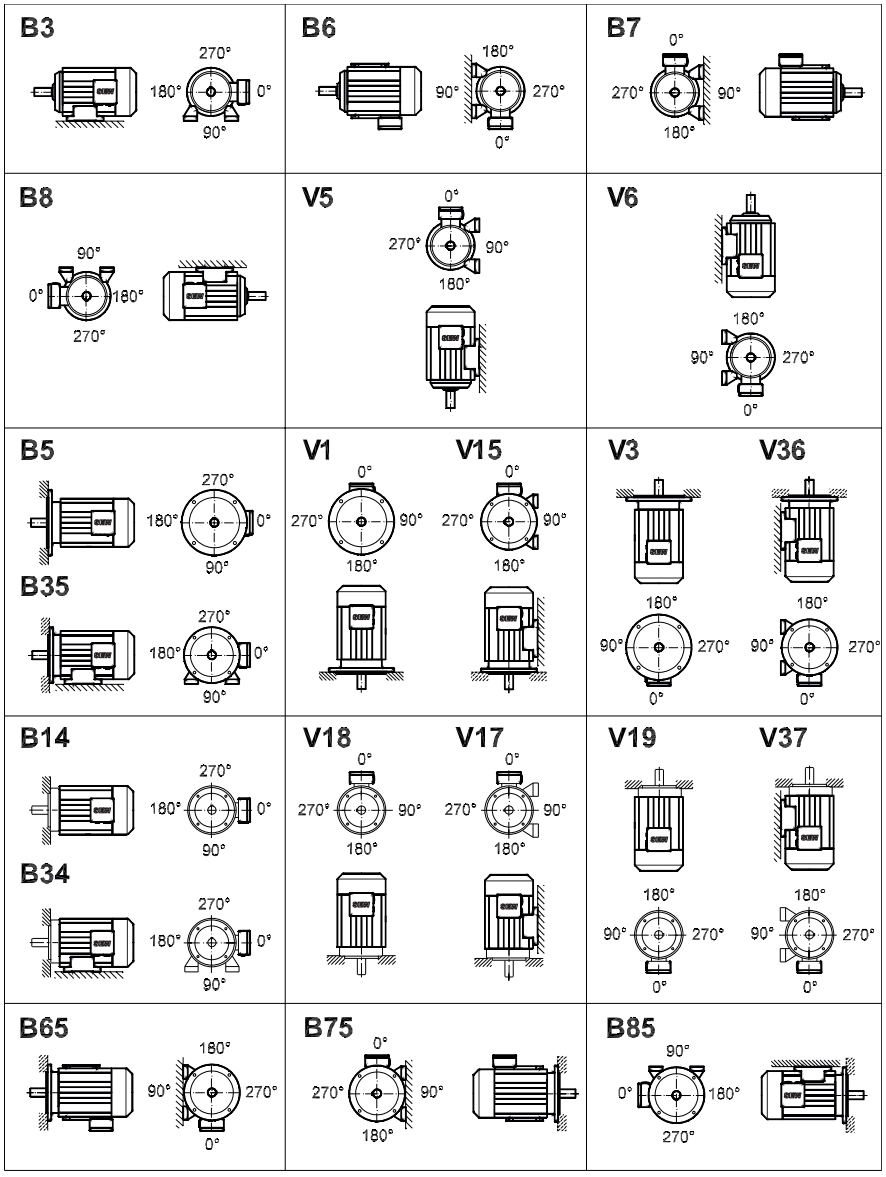
27797880/EN – 03/2023

5.4 Mounting positions of AC motors

5.4.1 Motor terminal box position and cable entry



5.4.2 Mounting positions



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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 – premium 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 amounts available to order and the respective 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	–	–	–	03287726	03096742
GearOil Base 460 E1	–	–	–	03287718	03096734
GearOil Base 680 E1	–	–	03287815	03287696	–
GearOil Base 680 S E1	03044432	–	03287807	03287688	03096718

GearOil Poly	Can 1 liter	Can 5 liters	Can 20 liters	Barrel 205 liters
GearOil Poly 150 E1	–	03099296	–	03099172

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GearOil Poly	Can 1 liter	Can 5 liters	Can 20 liters	Barrel 205 liters
GearOil Poly 220 E1	03044211	03099288	–	03099164
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	03099180	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, refer to the lubricant tables, see chapter "Lubricant table" (→ 🗎 128). Technical data sheets and safety data sheets are available from SEW-EURODRIVE on request.

6.1.2 GearFluid by SEW-EURODRIVE – CO_2-reduced premium lubricant for gear units

GearFluid by SEW-EURODRIVE is the environmentally friendly alternative to lubricants made from fossil raw materials.

GearFluid by SEW-EURODRIVE is produced using sustainable biomass, such as biowaste and food residues. In a complex synthesis process, biomass is used to produce a high-quality lubricant. As proven by a certified mass balance approach, the GearFluid does not use fossil raw materials. Compared to conventional polyglycol base oils, the production of GearFluid base oil releases 84 percent less CO_2 emissions, which reduces your company-specific footprint. You will also save money as the lubricant lasts 50 percent longer and helps to extend maintenance intervals. In addition, according to Directive OECD 301 B, GearFluid is easily biodegradable and therefore suitable for use in environmentally sensitive areas. The sustainable GearFluid lubricant can be used in almost all standard gear units and servo gear units from SEW- EURODRIVE.

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Compared to conventional bio oils, GearFluid by SEW-EURODRIVE extends the lubricant change interval by up to 300 percent. In addition, there are no restrictions on the use of various oil seals and seal materials.

GearFluid Poly	20 liter can
GearFluid Poly 220 E1	03049000
GearFluid Poly 220 H1 E1	03050556

= Lubricant suitable for the food and feed industry

39507923979

For further information on the use of GearOil lubricants and their essential technical properties, refer to the lubricant tables, see chapter "Lubricant table" (→ 🗎 128). Technical data sheets and safety data sheets are available from SEW-EURODRIVE on request.

6.1.3 Grease by SEW-EURODRIVE – lubricant for rolling bearings

Lubricant	500 g cartridge
Grease HL2 E1	03041476
Grease HL2 H1 E1	03041484

= Lubricant suitable for the food and feed industry

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6.1.4 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.

The table shows the lubricants recommended by SEW-EURODRIVE:

Area of application	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) Easily biodegradable lubricant for environmentally sensitive areas.

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.

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6.1.5 Lubricant table

The lubricant recommendation provided in the lubricant table in no way represents a guarantee as to the quality of the lubricant delivered by each respective supplier. Each lubricant manufacturer is responsible for the quality of their product.

Oils of the same viscosity class from different manufacturers do not have the same characteristics. In particular, the minimum and maximum permitted oil bath temperatures are manufacturer-specific. These temperatures are specified in the lubricant tables.

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 values specified in the lubricant tables apply as of the time of printing of this document. The data of the lubricants are subject to dynamic change on the part of the lubricant manufacturers. For the latest information about the lubricants, visit: **www.sew-eurodrive.de/lubricants**.

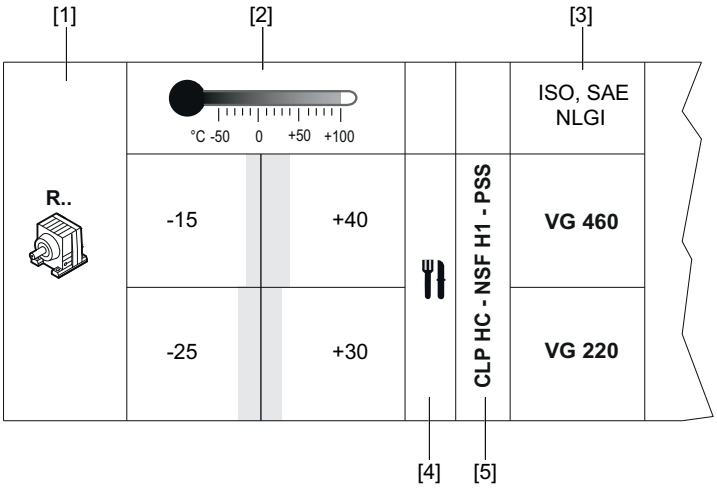
NOTICE

Damage to the gear unit due to improper lubricants.

Possible damage to property.

- Do not mix synthetic lubricants.
- Do not mix synthetic lubricants and mineral lubricants.

Information on the table structure



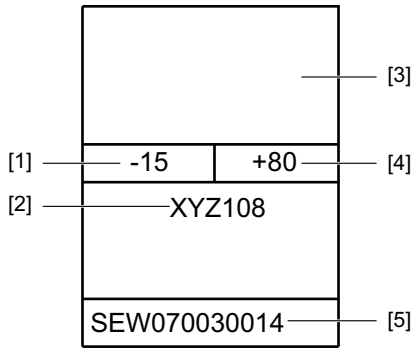
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[1] Gear unit type
[2] Ambient temperature range
[3] Viscosity class
[4] Note on special approvals
[5] Lubricant type

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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
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

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Restrictions 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	1	FKM 00934

Examples:

S11: Only the elastomer 72NBR902 from Freudenberg 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.

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Key

The following table shows the symbols and abbreviations used in the used in the lubricant table and their meaning:

Abbreviation/symbol	Meaning
	Synthetic lubricant (marked gray)
	Mineral lubricant
CLP	Mineral oil
CLP PG	Polyglycol (PG)
rPCF	Reduced Product Carbon Footprint
CLP HC	Synthetic hydrocarbons to polyalphaolefins (PAO)
E	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
	Lubricants with particularly reduced CO_2 footprint (cradle-to-gate) with sustainable raw materials.
	Lubricants with slight bio-degradability for environmentally sensitive areas (> 60% according to OECD 301 or according to appendix A of EPA 2013 VGP)
	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.

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Lubricant table for R.., F.., and K..7 gear units

The lubricant table is valid on the day this document is published. See **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" (→ 🗎 129).

R.. RES K..7 KES HK.. F..	[3] °C -50 0 +50 +100	[1]	[2]	ISO,SAE NLGI	SEW EURODRIVE	bremer & leguil	Castrol	FUCHS	Mobil	KLÜBER LUBRICATION	Shell	SINOPEC	TOTAL
[4] -15	+40		CLP	VG 220	-15 | +80 GearOil Base 220 E1/US1/CN1/BR1 SEW07004031 3		-15 | +80 Optigear BM 220	-15 | +80 Renolin CLP 220 Plus SEW07004031 3	-15 | +80 Mobilgear 600 XP 220 SEW07004001 3	-15 | +80 Klüberoil GEM 1-220 N	-15 | +80 Shell Omala SG 220	-15 | +80 AP-SGO 220 SEW07004031 3	-15 | +80 Cater EP 220
-20	+30			VG 150	-20 | +80 GearOil Base 150 E1/US1/CN1/BR1 SEW07004031 3		-20 | +80 Optigear BM 150	-20 | +80 Renolin CLP150 Plus SEW07004031 3	-20 | +80 Mobilgear 600 XP 150 SEW07004001 3	-20 | +80 Klüberoil GEM 1-150 N	-20 | +80 Shell Omala SG 150	-20 | +80 AP-SGO 150 SEW07004031 3	-20 | +80 Cater EP 150
[4] -15	+40		CLP PSS	VG 220	-15 | +80 GearOil Base 220 E1/US1/CN1/BR1 SEW07004031 3			-15 | +80 Renolin CLP 220 Plus SEW07004031 3	-15 | +80 Mobilgear 600 XP 220 SEW07004001 3			-15 | +80 AP-SGO 220 SEW07004031 3	
-20	+30			VG 150	-20 | +80 GearOil Base 150 E1/US1/CN1/BR1 SEW07004031 3			-20 | +80 Renolin CLP150 Plus SEW07004031 3	-20 | +80 Mobilgear 600 XP 150 SEW07004001 3			-20 | +80 AP-SGO 150 SEW07004031 3	

[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

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The lubricant table is valid on the day this document is published. See **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" (→ 🖹 129).

R.., RES, K..7, KES, HK.., F..	[3] °C -50 0 +50 +100	[1]	[2]	ISO,SAE NLGI	SEW EURODRIVE	bremer & leguil	Castrol	FUCHS	Mobil	KLÜBER LUBRICATION	Shell	SINOPEC	TOTAL
	[4] -25 +80		CLP PG	VG 220	-25 | +115 GearOil Poly 220 E1 SEW070040313		-25 | +115 Optigear Synthetic 800/220	-25 | +115 Renolin PG220	-25 | +115 Mobil Glycoyle 220	-25 | +115 Klübersyth GH 6-220	-25 | +115 Shell Omala S4 WE 220		-25 | +115 Cater SY 220
	-30 +70			VG 150	-30 | +115 GearOil Poly 150 E1 SEW070040313					-30 | +115 Klübersyth GH 6-150			
	[4] -25 +80		CLP PG (PSS)	VG 220	-25 | +115 GearOil Poly 220 E1 SEW070040313					-25 | +115 Klübersyth GH 6-220			
	-30 +70			VG 150	-30 | +115 GearOil Poly 150 E1 SEW070040313					-30 | +115 Klübersyth UH1 6-150			
	-25 +80		CLP PG rPCF (PSS)	VG 220	-25 | +115 GearFluid Poly 220 E1 SEW070040313								
	[4] -25 +40		CLP PG NSF H1 (PSS)	VG 220	-25 | +95 GearOil Poly 220 H1 E1 SEW070040313					-25 | +95 Klübersyth UH1 6-220			
	-20 +80			VG 460	-20 | +115 GearOil Poly 460 H1 E1 SEW070040313					-20 | +115 Klübersyth UH1 6-460			
	-30 +30			VG 150	-30 | +80 GearOil Poly 150 H1 E1 SEW070040313					-30 | +80 Klübersyth UH1 6- 50			

[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. See **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" (→ 🖹 129).



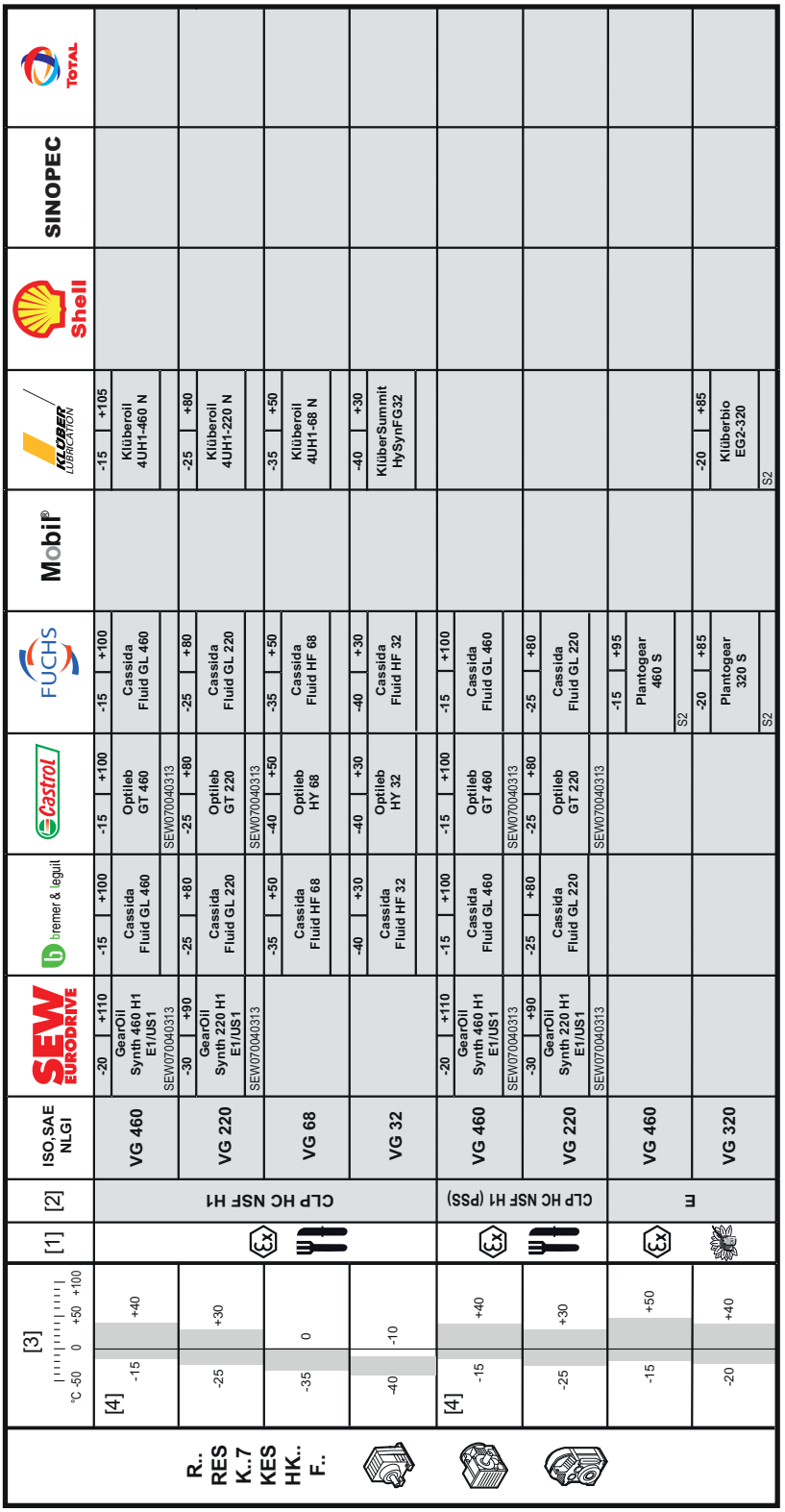
R.. RES K..7 KES HK.. F..	[3] °C -50 0 +50 +100	[1]	[2]	ISO,SAE NLGI	SEW EURODRIVE	bremer & leguil	Castrol	FUCHS	Mobil®	KLÜBER LUBRICATION	Shell	SINOPEC	TOTAL
	[4] -25 … +60	Ex	CLP HC	3) VG 220	-30 | +110 GearOil Synth 220 E1/US1 SEW0700403 13			-25 | +110 Renolin Unisyn CLP220	-25 | +110 Mobil SHC 630	-25 | +110 Klübersynth GEM 4-220 N	-25 | +110 Shell Omala S4 GX 220		-25 | +110 Cater SH 220
	[4] -30 … +50	Ex	CLP HC	3) VG 150	-35 | +105 GearOil Synth 150 E1/US1 SEW0700403 13			-30 | +95 Renolin Unisyn CLP150	-30 | +100 Mobil SHC 629	-30 | +100 Klübersynth GEM 4-150 N	-30 | +100 Shell Omala S4 GX 150		-30 | +95 Cater SH 150
	[4] -35 … +20		CLP HC	VG 68				-35 | +75 Renolin Unisyn CLP68	-40 | +75 Mobil SHC 626		-40 | +75 Shell Omala S4 GX 68		
	[4] -40 … 0		CLP HC	VG 32				-40 | +50 Renolin Unisyn OL32	-40 | +50 Mobil SHC 624				-40 | +50 Dacnis SH 32
	[4] -25 … +60	Ex	CLP HC (PSS)	3) VG 220	-30 | +110 GearOil Synth 220 E1/US1 SEW0700403 13				-25 | +110 Mobil SHC 630				
	[4] -30 … +50	Ex	CLP HC (PSS)	3) VG 150	-35 | +105 GearOil Synth 150 E1/US1 SEW0700403 13				-30 | +100 Mobil SHC 629				

[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

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The lubricant table is valid on the day this document is published. See **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" (→ 🖹 129).



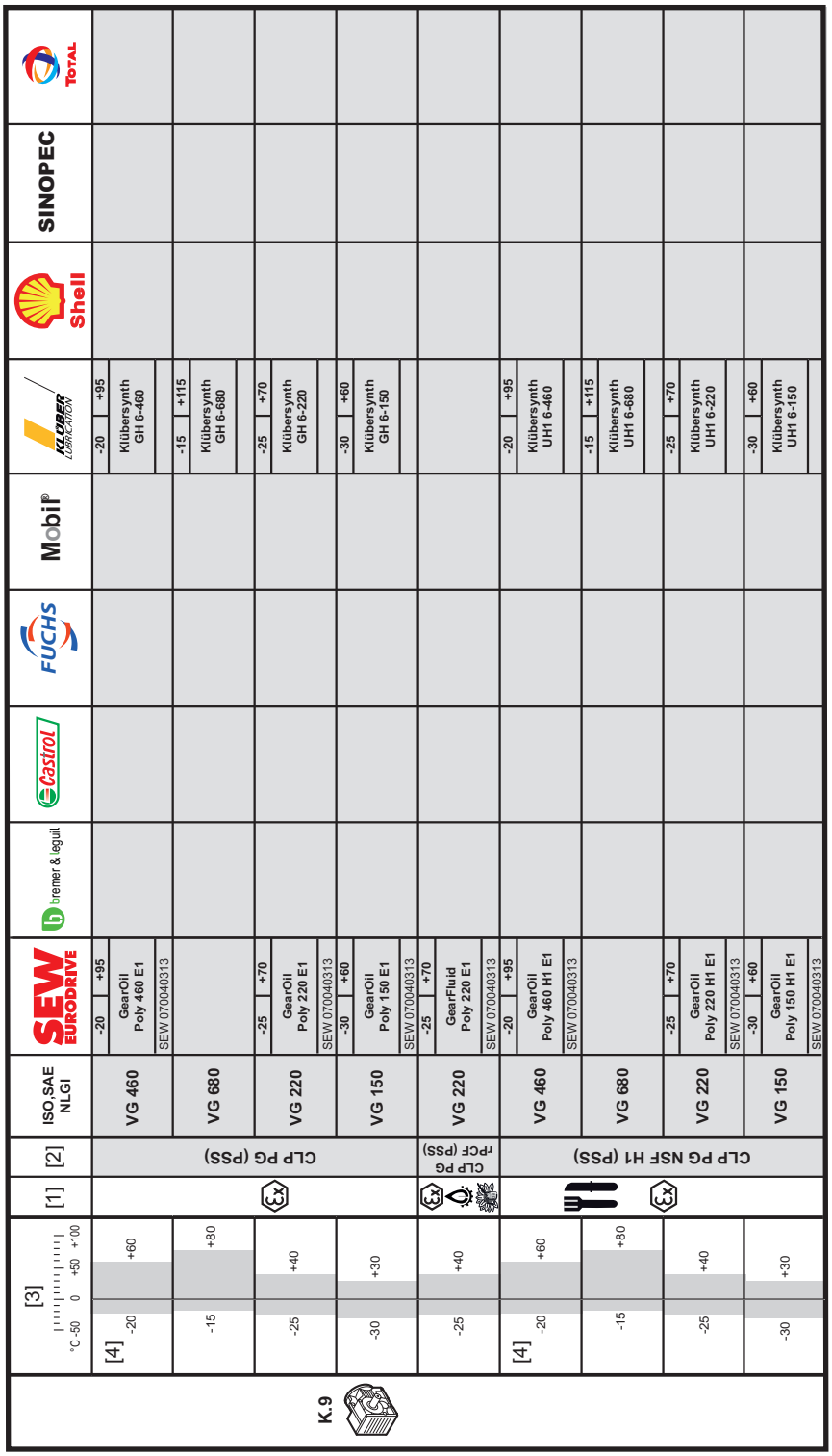
R.. RES K..7 KES HK.. F..	[3] °C -50 0 +50 +100	[1]	[2]	ISO,SAE NLGI	SEW EURODRIVE	bremer & leguil	Castrol	FUCHS	Mobil®	KLÜBER LUBRICATION	Shell	SINOPEC	TOTAL
	[4] -15 +40		CLP HC NSF H1	VG 460	-20 | +110 GearOil Synth 460 H1 E1/US1 SEW07004031	-15 | +100 Cassida Fluid GL 460	-15 | +100 Optileb GT 460 SEW07004031	-15 | +100 Cassida Fluid GL 460		-15 | +105 Klüberoil 4UH1-460 N			
	-25 +30			VG 220	-30 | +90 GearOil Synth 220 H1 E1/US1 SEW07004031	-25 | +80 Cassida Fluid GL 220	-25 | +80 Optileb GT 220 SEW07004031	-25 | +80 Cassida Fluid GL 220		-25 | +80 Klüberoil 4UH1-220 N			
	-35 0			VG 68		-35 | +50 Cassida Fluid HF 68	-40 | +50 Optileb HY 68	-35 | +50 Cassida Fluid HF 68		-35 | +50 Klüberoil 4UH1-68 N			
	-40 -10			VG 32		-40 | +30 Cassida Fluid HF 32	-40 | +30 Optileb HY 32	-40 | +30 Cassida Fluid HF 32		-40 | +30 KlüberSummit HySynFG32			
	[4] -15 +40		CLP HC NSF H1 (PSS)	VG 460	-20 | +110 GearOil Synth 460 H1 E1/US1 SEW07004031	-15 | +100 Cassida Fluid GL 460	-15 | +100 Optileb GT 460 SEW07004031	-15 | +100 Cassida Fluid GL 460					
	-25 +30			VG 220	-30 | +90 GearOil Synth 220 H1 E1/US1 SEW07004031	-25 | +80 Cassida Fluid GL 220	-25 | +80 Optileb GT 220 SEW07004031	-25 | +80 Cassida Fluid GL 220					
	-15 +50		E	VG 460				-15 | +95 Plantogear 460 S S2					
	-20 +40			VG 320				-20 | +85 Plantogear 320 S S2		-20 | +85 Klüberbio EG2-320 S2			

[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. See **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" (→ 🗎 129).



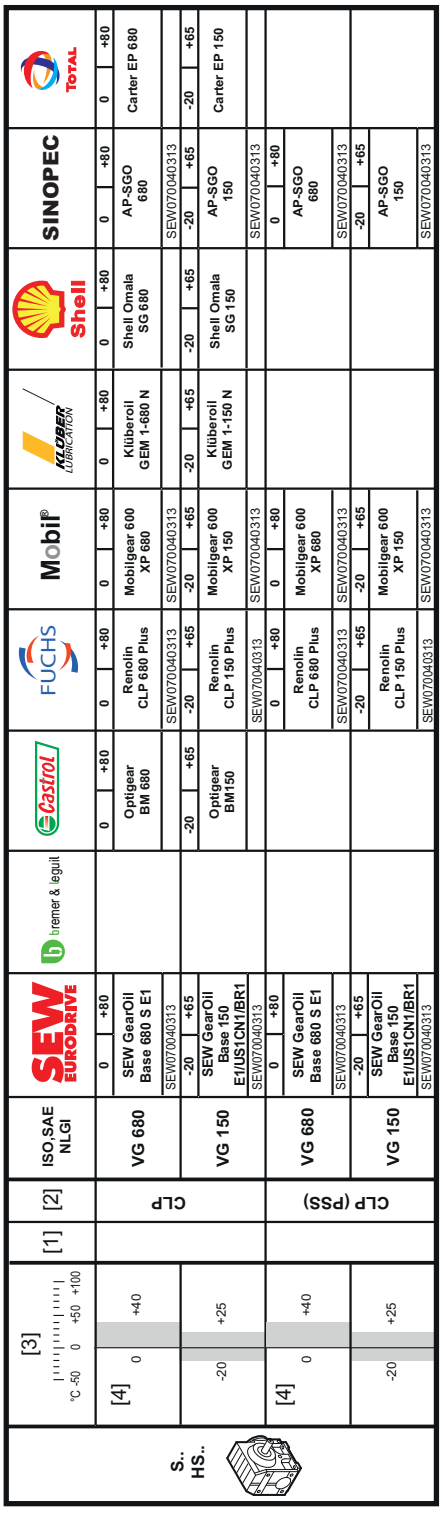
[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

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Lubricant table for S.. gear units

The lubricant table is valid on the day this document is published. See **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" (→ 🗎 129).

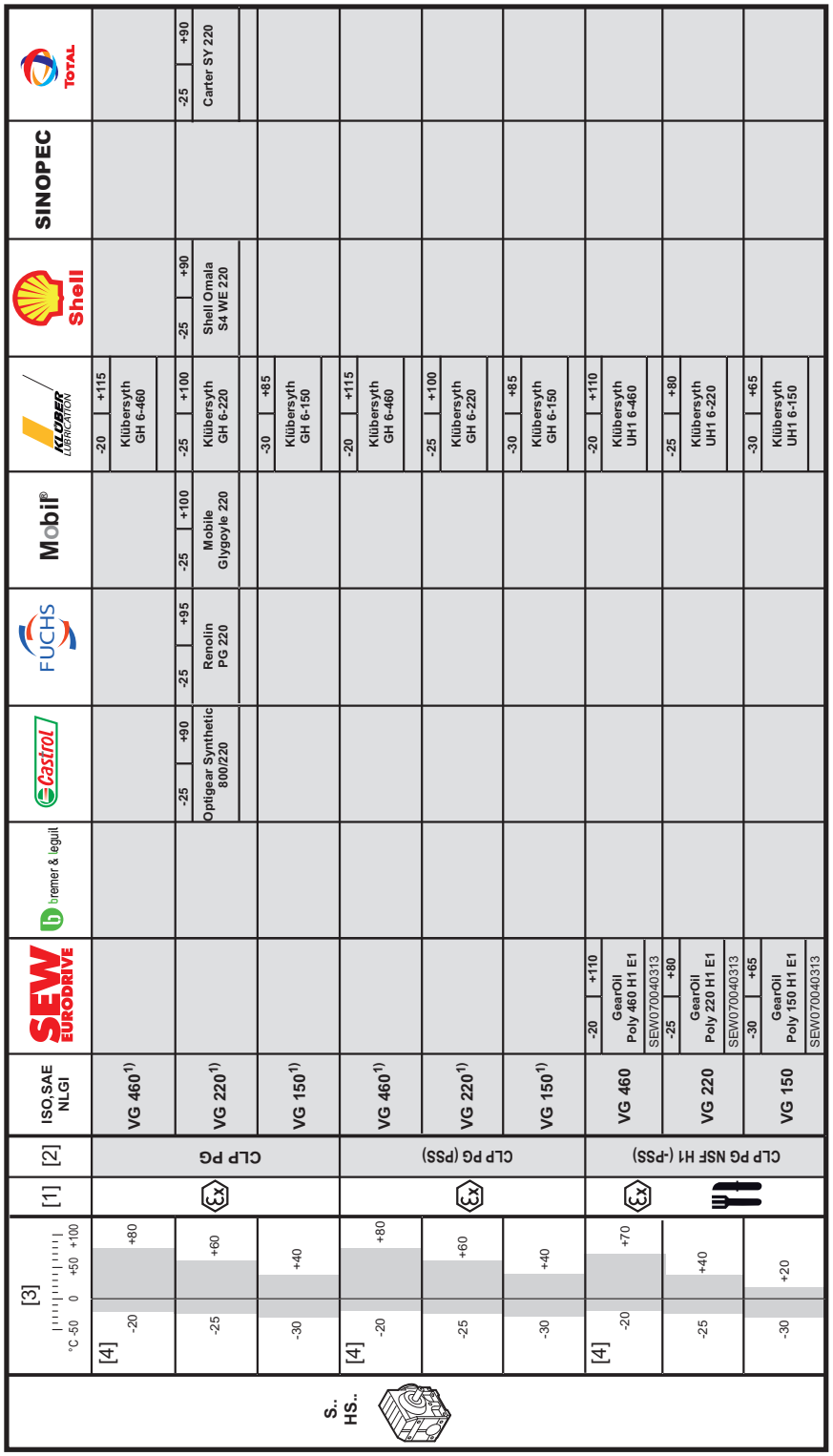


S.. HS..	[3] °C -50 0 +50 +100	[1]	[2]	ISO,SAE NLGI	SEW EURODRIVE	bremer & leguil	Castrol	FUCHS	Mobil	KLÜBER LUBRICATION	Shell	SINOPEC	TOTAL
	[4] 0 +40		CLP	VG 680	0 +80 SEW GearOil Base 680 S E1 SEW07040313		0 +80 Optigear BM 680	0 +80 Renolin CLP 680 Plus SEW07040313	0 +80 Mobilgear 600 XP 680 SEW07040313	0 +80 Klüberoil GEM 1-680 N	0 +80 Shell Omala SG 680	0 +80 AP-SGO 680 SEW07040313	0 +80 Carter EP 680
	-20 +25			VG 150	-20 +65 SEW GearOil Base 150 E1/US1CN1/BR1 SEW07040313		-20 +65 Optigear BM150	-20 +65 Renolin CLP 150 Plus SEW07040313	-20 +65 Mobilgear 600 XP 150 SEW07040313	-20 +65 Klüberoil GEM 1-150 N	-20 +65 Shell Omala SG 150	-20 +65 AP-SGO 150 SEW07040313	-20 +65 Carter EP 150
	[4] 0 +40		CLP (PSS)	VG 680	0 +80 SEW GearOil Base 680 S E1 SEW07040313			0 +80 Renolin CLP 680 Plus SEW07040313	0 +80 Mobilgear 600 XP 680 SEW07040313			0 +80 AP-SGO 680 SEW07040313	
	-20 +25			VG 150	-20 +65 SEW GearOil Base 150 E1/US1CN1/BR1 SEW07040313			-20 +65 Renolin CLP 150 Plus SEW07040313	-20 +65 Mobilgear 600 XP 150 SEW07040313			-20 +65 AP-SGO 150 SEW07040313	

[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. See **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" (→ 🖹 129).



S.. HS..	[3] °C -50 0 +50 +100	[1]	[2]	ISO,SAE NLGI	SEW EURODRIVE	b bremer & leguil	Castrol	FUCHS	Mobil	KLÜBER LUBRICATION	Shell	SINOPEC	TOTAL
	[4] -20 +80	Ex	CLP PG	VG 460[1]	-20 +110 GearOil Poly 460 H1 E1 SEW070040313		-25 +90 Optigear Synthetic 800/220	-25 +95 Renolin PG 220	-25 +100 Mobile Glygoyle 220	-20 +115 Klübersyth GH 6-460	-25 +90 Shell Omala S4 WE 220		-25 +90 Carter SY 220
	-25 +60			VG 220[1]						-25 +100 Klübersyth GH 6-220			
	-30 +40			VG 150[1]						-30 +85 Klübersyth GH 6-150			
	[4] -20 +80	Ex	CLP PG (PSS)	VG 460[1]						-20 +115 Klübersyth GH 6-460			
	-25 +60			VG 220[1]						-25 +100 Klübersyth GH 6-220			
	-30 +40			VG 150[1]						-30 +85 Klübersyth GH 6-150			
	[4] -20 +70	Ex	CLP PG NSF H1 (-PSS)	VG 460	-20 +110 GearOil Poly 460 H1 E1 SEW070040313					-20 +110 Klübersyth UH1 6-460			
	-25 +40			VG 220	-25 +80 GearOil Poly 220 H1 E1 SEW070040313					-25 +80 Klübersyth UH1 6-220			
	-30 +20			VG 150	-30 +65 GearOil Poly 150 H1 E1 SEW070040313					-30 +65 Klübersyth UH1 6-150			

[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

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

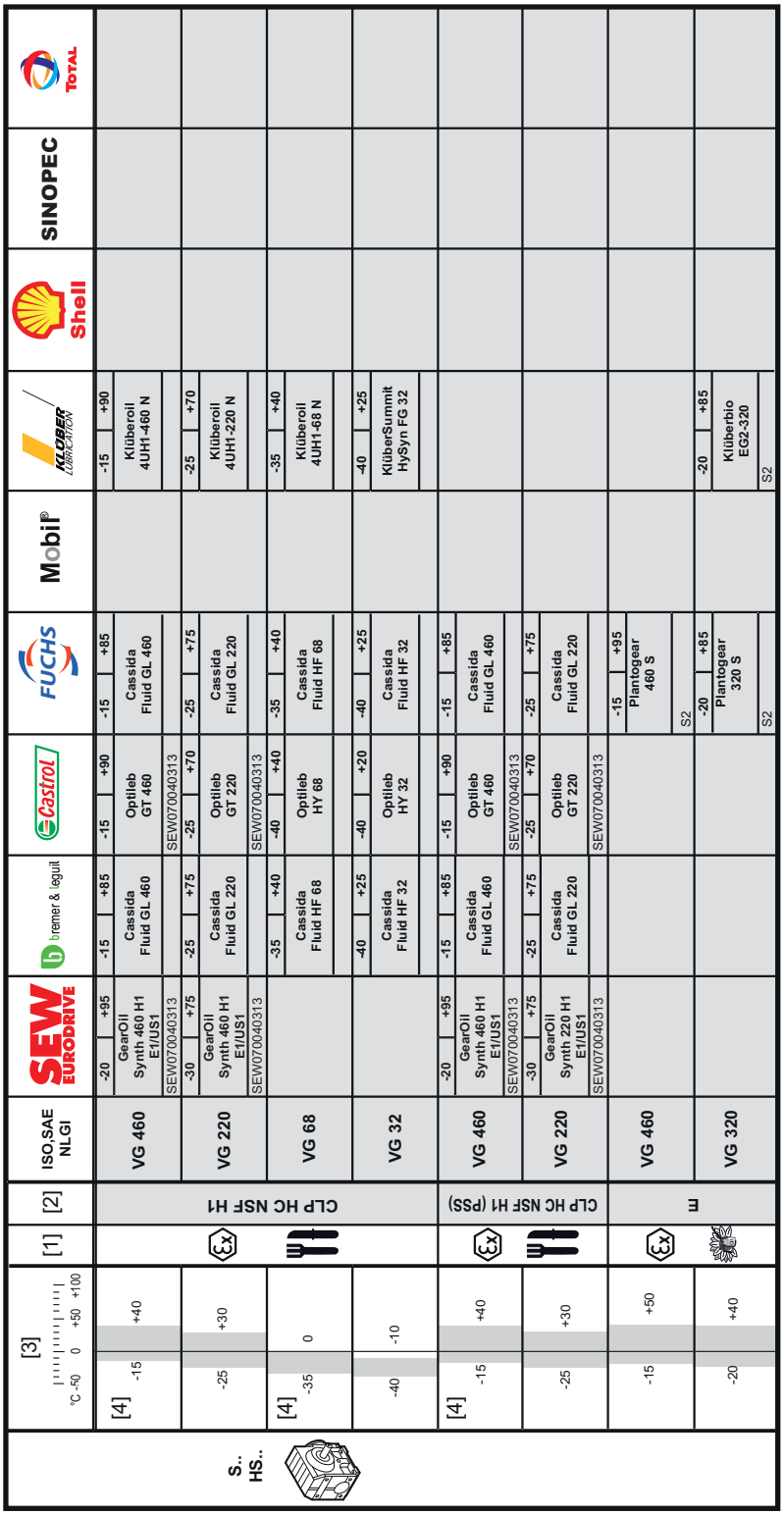
Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→ 🖹 129).



[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. See **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" (→ 🖹 129).



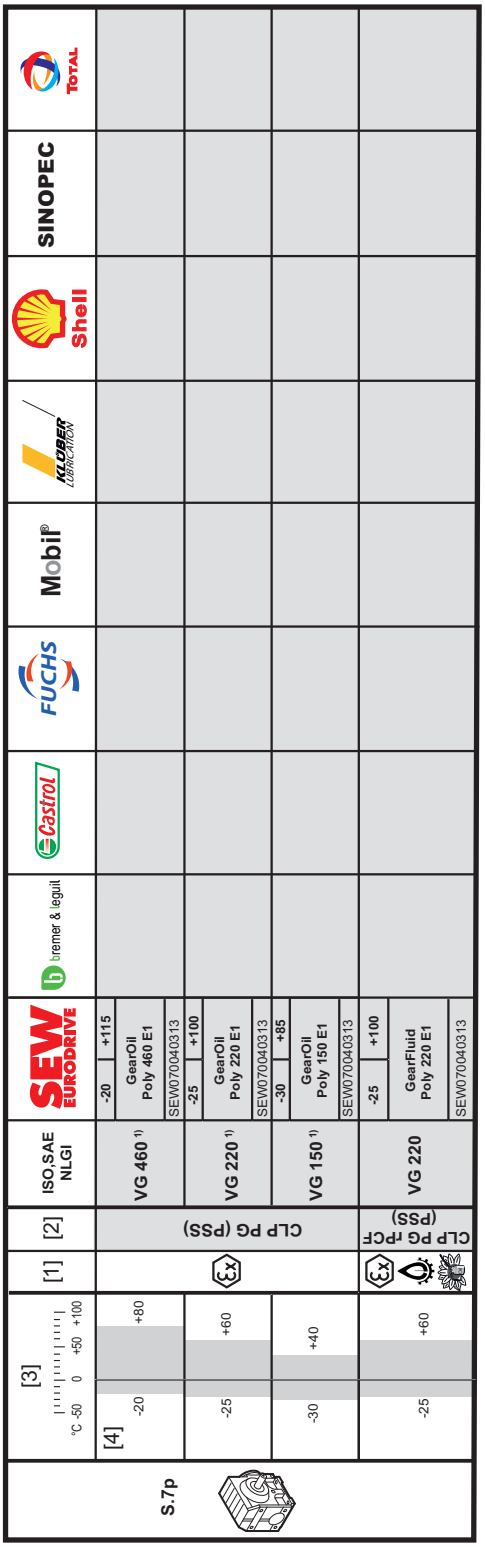
S.. HS..	[3] °C -50 0 +50 +100	[1]	[2]	ISO,SAE NLGI	SEW EURODRIVE	bremer & leguil	Castrol	FUCHS	Mobil	KLÜBER LUBRICATION	Shell	SINOPEC	TOTAL
	[4] -15 +40	Ex	CLP HC NSF H1	VG 460	-20 | +95 GearOil Synth 460 H1 E1/US1 SEW07004031	-15 | +85 Cassida Fluid GL 460	-15 | +90 Optileb GT 460 SEW07004031	-15 | +85 Cassida Fluid GL 460		-15 | +90 Klüberoil 4UH1-460 N			
	-25 +30			VG 220	-30 | +75 GearOil Synth 460 H1 E1/US1 SEW07004031	-25 | +75 Cassida Fluid GL 220	-25 | +70 Optileb GT 220 SEW07004031	-25 | +75 Cassida Fluid GL 220		-25 | +70 Klüberoil 4UH1-220 N			
	[4] -35 0			VG 68	SEW07004031	-35 | +40 Cassida Fluid HF 68	-40 | +40 Optileb HY 68	-35 | +40 Cassida Fluid HF 68		-35 | +40 Klüberoil 4UH1-68 N			
	-40 -10			VG 32		-40 | +25 Cassida Fluid HF 32	-40 | +20 Optileb HY 32	-40 | +25 Cassida Fluid HF 32		-40 | +25 KlüberSummit HySyn FG 32			
	[4] -15 +40	Ex	CLP HC NSF H1 (PSS)	VG 460	-20 | +95 GearOil Synth 460 H1 E1/US1 SEW07004031	-15 | +85 Cassida Fluid GL 460	-15 | +90 Optileb GT 460 SEW07004031	-15 | +85 Cassida Fluid GL 460					
	-25 +30			VG 220	-30 | +75 GearOil Synth 220 H1 E1/US1 SEW07004031	-25 | +75 Cassida Fluid GL 220	-25 | +70 Optileb GT 220 SEW07004031	-25 | +75 Cassida Fluid GL 220					
	-15 +50	Ex	E	VG 460				-15 | +95 Plantogear 460 S S2					
	-20 +40			VG 320				-20 | +85 Plantogear 320 S S2		-20 | +85 Klüberbio EG2-320 S2			

[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

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Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→ 🖹 129).



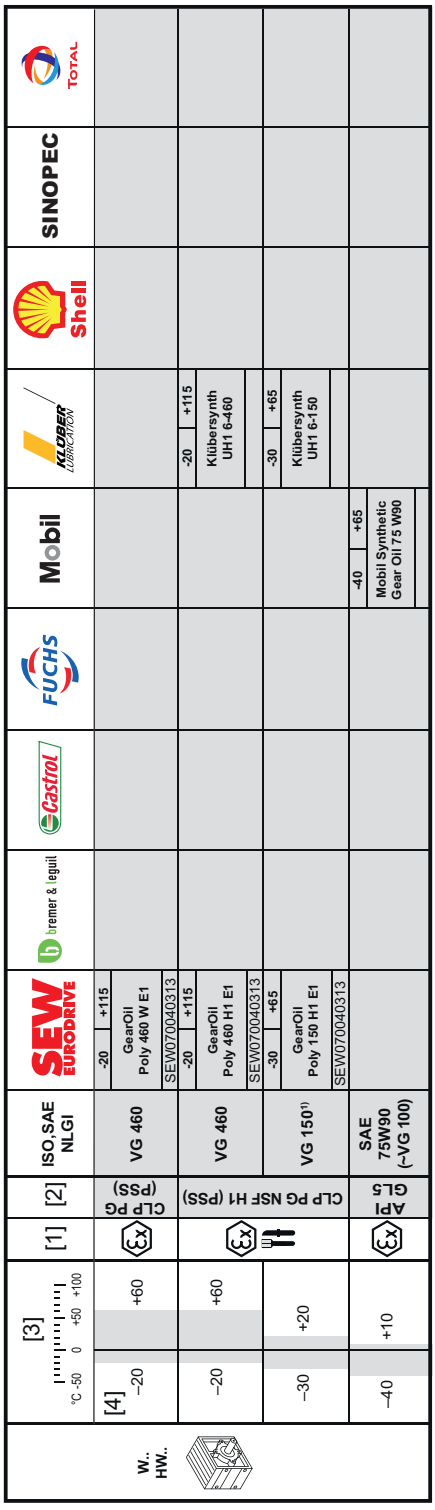
	[3] °C -50 0 +50 +100	[1]	[2]	ISO,SAE NLGI	SEW EURODRIVE	bremer & leguil	Castrol	FUCHS	Mobil	KLÜBER LUBRICATION	Shell	SINOPEC	TOTAL
S.7p	[4] -20 +80		CLP PG (PSS)	VG 460 [1]	-20 | +115 GearOil Poly 460 E1 SEW07040313								
	-25 +60			VG 220 [1]	-25 | +100 GearOil Poly 220 E1 SEW07040313								
	-30 +40			VG 150 [1]	-30 | +85 GearOil Poly 150 E1 SEW07040313								
	-25 +60		CLP PG rPCF (PSS)	VG 220	-25 | +100 GearFluid Poly 220 E1 SEW07040313								

[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. See **www.sew-eurodrive.de/lubricants** for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oils seals" (→ 🗎 129).



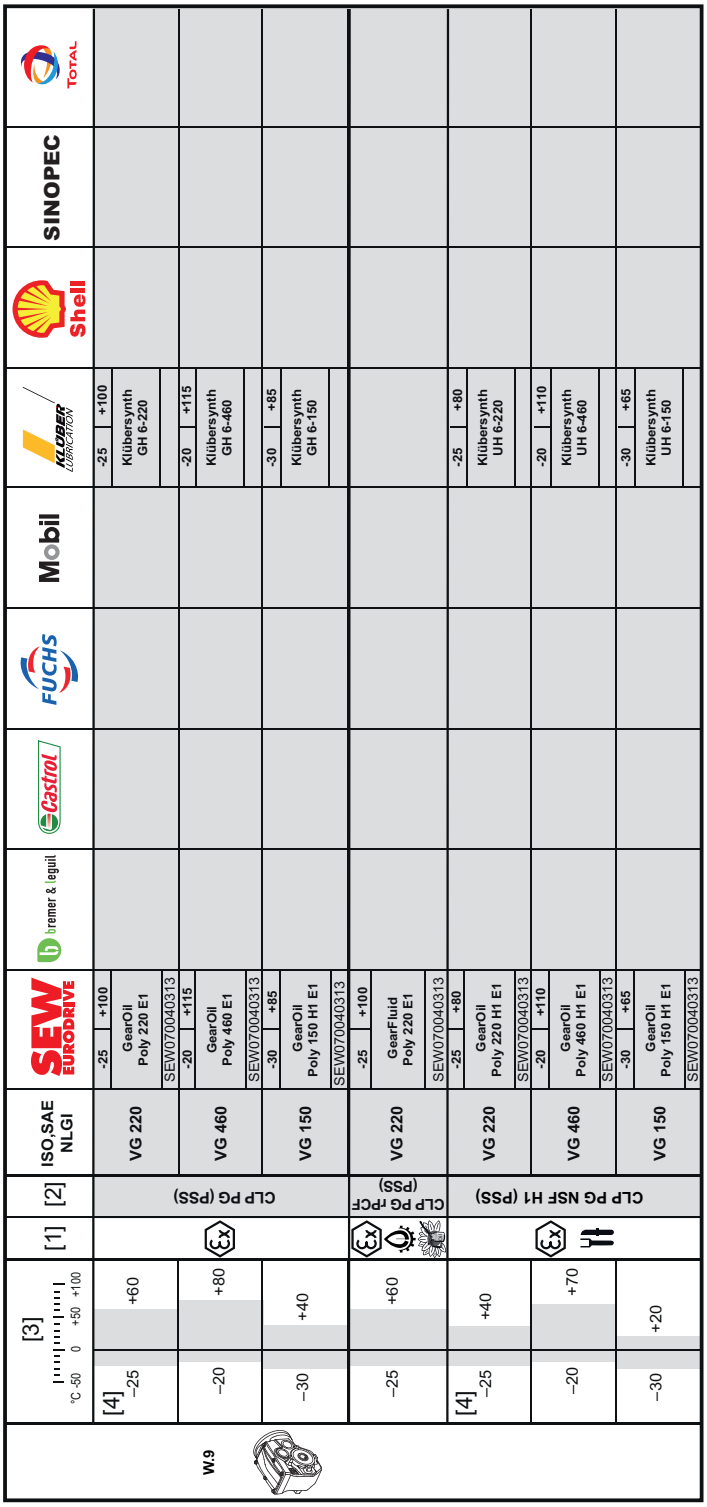
W.. HW..	[4]	[3] °C	[1]	[2]	ISO,SAE NLGI	SEW EURODRIVE	Lubrigard	Castrol	FUCHS	Mobil	KLÜBER LUBRICATION	Shell	SINOPEC	TOTAL
	–20	+60	Ex	CLP PG (PSS)	VG 460	-20 +115 GearOil Poly 460 W E1 SEW07004031 3								
	–20	+60	Ex	CLP PG NSF H1 (PSS)	VG 460	-20 +115 GearOil Poly 460 H1 E1 SEW07004031 3					-20 +115 Klübersynth UH1 6-460			
	–30	+20	Ex	CLP PG NSF H1 (PSS)	VG 150[1]	-30 +65 GearOil Poly 150 H1 E1 SEW07004031 3					-30 +65 Klübersynth UH1 6-150			
	–40	+10	Ex	API GL5	SAE 75W90 (~VG 100)					-40 +65 Mobil Synthetic Gear Oil 75 W90				

[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

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The lubricant table is valid on the day this document is published. See **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" (→ 🖹 129).



	[3] °C	[1]	[2]	ISO,SAE NLGI	SEW EURODRIVE	bremer & leguil	Castrol	FUCHS	Mobil	KLÜBER LUBRICATION	Shell	SINOPEC	TOTAL
W.9	[4] –25	Ex	CLP PG (PSS)	VG 220	-25 | +100 GearOil Poly 220 E1 SEW07004031					-25 | +100 Klübersynth GH 6-220			
	+60												
	–20	Ex	CLP PG (PSS)	VG 460	-20 | +115 GearOil Poly 460 E1 SEW07004031					-20 | +115 Klübersynth GH 6-460			
	+80												
	–30	Ex	CLP PG (PSS)	VG 150	-30 | +85 GearOil Poly 150 H1 E1 SEW07004031					-30 | +85 Klübersynth GH 6-150			
	+40												
	–25	Ex	CLP PG rPCF (PSS)	VG 220	-25 | +100 GearFluid Poly 220 E1 SEW07004031								
	+60												
	[4] –25	Ex	CLP PG NSF H1 (PSS)	VG 220	-25 | +80 GearOil Poly 220 H1 E1 SEW07004031					-25 | +80 Klübersynth UH 6-220			
	+40												
	–20	Ex	CLP PG NSF H1 (PSS)	VG 460	-20 | +110 GearOil Poly 460 H1 E1 SEW07004031					-20 | +110 Klübersynth UH 6-460			
	+70												
	–30	Ex	CLP PG NSF H1 (PSS)	VG 150	-30 | +65 GearOil Poly 150 H1 E1 SEW07004031					-30 | +65 Klübersynth UH 6-150			
	+20												

[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

6.1.6 Lubricant fill quantities

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

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

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 "Mounting position of the gearmotors 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). Do not change the mounting position without prior consultation with SEW-EURODRIVE, otherwise the rights to claim under limited warranty become void.

Helical (R) gear units

R.., R..F

Gear unit	Fill quantity in liters					
	M1[1)]	M2[1)]	M3[1)]	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	6.5/8.1	7.4/7.2	7.4	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) With compound gear units, the large gear unit must be filled with the larger oil quantity.

RF.., RM.., RZ..

Gear unit	Fill quantity in liters					
	M1[1)]	M2[1)]	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	2.50/3.2	2.70	2.80	1.90	2.10
RF77	1.20/2.60	3.10/4.0	3.30	3.60	2.40	3.00
RF87	2.40/6.0	6.5/8.2	7.3	7.4	6.4	6.5
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	

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Gear unit	Fill quantity in liters					
	M1[1)]	M2[1)]	M3	M4	M5	M6
RF147	16.4/42.0	47.0	48.0	52.0	42.0	
RF167	26.0/70.0	82.0	78.0	88.0	65.0	71.0

1) With compound gear units, the large gear unit 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	1.40	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	
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	
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	11.0	13.1	7.70	14.0	10.9	11.1
F..97	18.8	22.7	12.6	25.5	18.6	20.2
F..107	24.5	32.0	19.5	37.5	27.0	
F..127	40.5	54.5	34.0	61.0	46.3	47.0
F..157	74.0	106.5	63.0	110.0	88.5	80.5

FF..

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
FF27	0.60	0.80	0.65	0.70	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	3.05	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	14.3	11.1	11.3

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Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
FF97	19.3	22.7	12.6	25.9	19.0	20.7
FF107	25.5	32.0	19.5	38.5	18.6	28.0
FF127	41.5	55.5	34.0	63.0	45.0	49.0
FF157	77.0	107.5	64.0	111.0	89.5	81.5

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	
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	14.0	10.9	11.1
F..97	18.8	22.7	12.6	25.5	18.6	20.2
F..107	24.5	32.0	19.5	37.5	27.0	
F..127	39.0	54.5	34.0	61.0	45.0	46.5
F..157	73.0	105.5	62.0	109.0	87.5	79.5

Helical-bevel (K) gear units

K..19 and K..29 gear units have a universal design and are filled with the same quantity of oil regardless of the mounting position, with the exception of M4.

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..37	0.50	1.00		1.25	0.95	
K..39	0.86	1.65	1.55	2.10	1.55	1.30
K..47	0.80	1.30	1.50	2.00	1.60	
K..49	1.65	3.35	2.80	4.20	3.15	2.75
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	10.90	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	19.0	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	
KF37	0.50	1.10		1.40	1.00	
KF39	0.86	1.65	1.55	2.10	1.55	1.30

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Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
KF47	0.80	1.30	1.70	2.20	1.60	
KF49	1.65	3.35	2.80	4.20	3.15	2.75
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	8.30	9.2	11.90	8.60	8.50
KF97	7.0	14.70	17.30	21.50	15.70	16.50
KF107	10.0	21.90	26.0	35.10	25.40	25.30
KF127	19.0	41.50	46.0	55.0	41.0	
KF157	31.0	66.0	69.0	92.0	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..37	0.50	1.00		1.30	1.00	
K..39	0.86	1.65	1.55	2.10	1.55	1.30
K..47	0.80	1.30	1.60	2.0	1.60	
K..49	1.65	3.35	2.80	4.20	3.15	2.75
K..57	1.20	2.20	2.40	3.15	2.70	2.40
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	8.40	9.0	11.10	8.2	
K..97	7.0	14.70	15.70	20.0	15.70	
K..107	10.0	20.80	24.5	32.4	24.5	24.3
K..127	19.0	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	1.00	0.80	
S57	0.50	1.20	1.00/1.20	1.35	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) With compound gear units, the large gear unit must be filled with the larger oil quantity.

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SF..

Gear unit	Fill quantity in liters										
	M1	M2	M3[1)]	M4 Output		M5 Output			M6 Output		
				A/B	A + B	A	B	A + B	A	B	A + B
SF37	0.25	0.40	0.50	0.55	0.6	0.4	0.4	0.4	0.4	0.4	0.4
SF47	0.40	0.90	0.90/1.05	1.10	1.15	1.0	0.9	1.0	0.9	1.0	1.0
SF57	0.50	1.20	1.00/1.50	1.50	1.55	1.4	1.4	1.4	1.4	1.4	1.4
SF67	1.00	2.20	2.30/3.00	3.20	3.5	2.7	2.6	2.7	2.6	2.7	2.7
SF77	1.90	4.10	3.90/5.8	6.5	7.2	4.9	4.6	4.9	4.6	4.9	4.9
SF87	3.80	8.0	7.1/10.1	12.0	13.2	9.1	8.2	9.1	8.2	9.1	9.1
SF97	7.4	15.0	13.8/18.8	23.1	25.2	18.0	17.0	18.0	17.0	18.0	18.0

1) With compound gear units, the large gear unit 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	1.05	0.80	
S..57	0.50	1.10	1.00/1.50	1.45	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) With compound gear units, the large gear unit 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			0.57	0.51	0.515	
W20	0.24						
W29	0.54			0.93	0.78	0.72	
W30	0.40						
W39	0.85			1.5	1.35	1.25	
W49	1.39			2.41	2.19	2.15	
W59	2.0			3.49	3.2	3.0	

6.2 Gear unit venting

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

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6.3 Reduced backlash gear unit design /R

Helical, parallel-shaft helical and helical-bevel gear units with reduced backlash are available from gear unit size 37. The rotational clearance of these gear units is significantly smaller than that of the standard designs which means that positioning tasks can be solved with great precision. The rotational clearance $\varphi_{(/R)}$ is specified in angular minutes in the selection tables. The rotational clearance for the output shaft is specified without load (max. 1% of the rated output torque) with blocked gear unit input side. The specified values have a tolerance of ± 2 angular minutes.

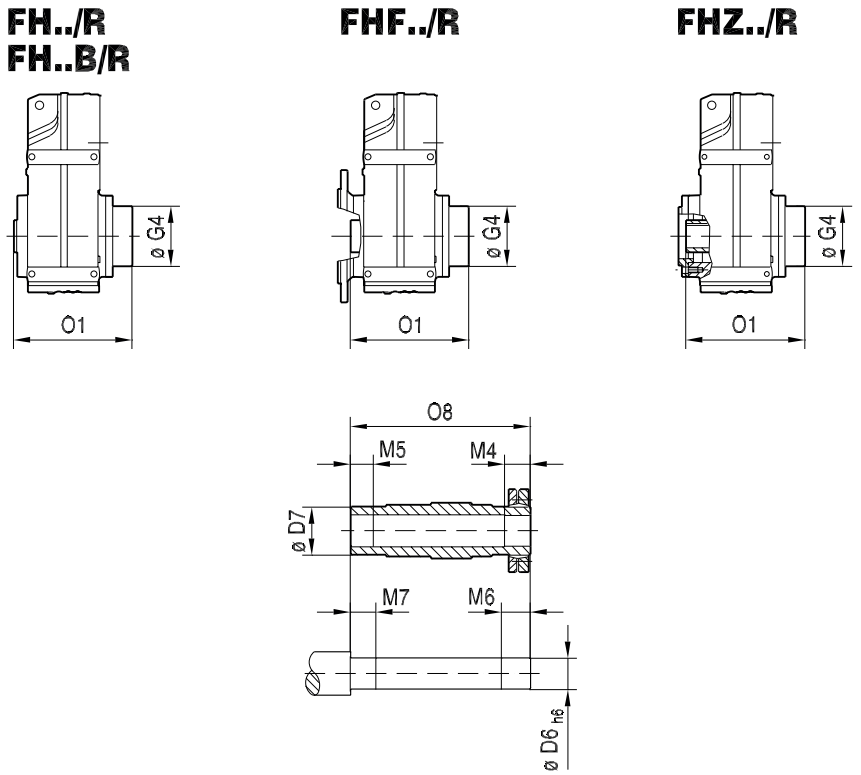
The reduced backlash design is possible for the following gear units:

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

With the exception of reduced backlash parallel-shaft helical gear units FH.87 and FH.57, the dimensions of low-backlash gear units are identical with the dimensions of the standard designs.

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

42 020 00 09



9007205899247883

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

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

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].

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.

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6.4.1 Assembly using supplied fastening parts

The following fastening parts are provided as standard:

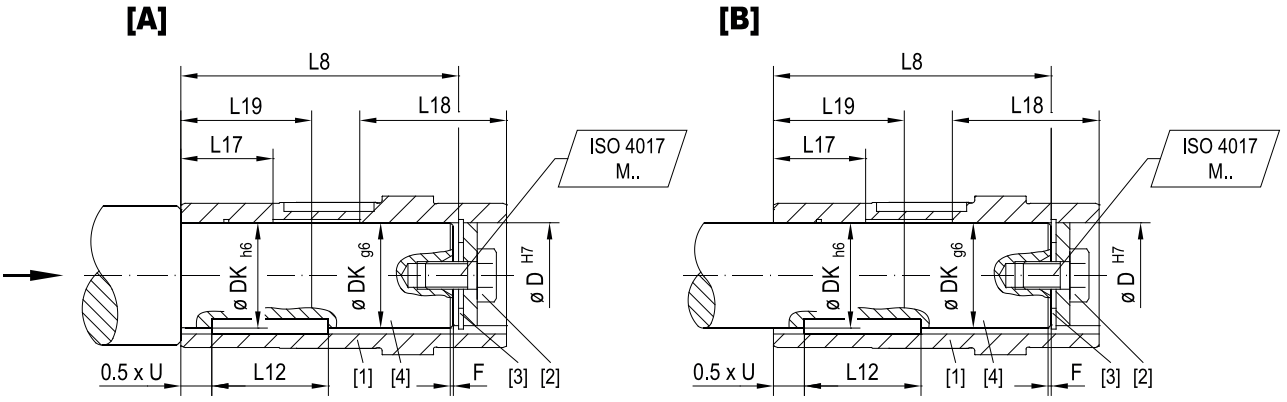
- Retaining screw with washer [2]
- Retaining ring [3]

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 the retaining screw [2] for the 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

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Gear unit type	D^{H7} mm	DK mm	F mm	L8 mm	L17 mm	L18 mm	U mm	MS Nm	ISO 4017 M..
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
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

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Gear unit type	D^{H7} mm	DK mm	F mm	L8 mm	L17 mm	L18 mm	U mm	MS Nm	ISO 4017 M..
WA..19	18		1	84	27	27	6	8	M6 × 16
WA..19	20		1	84	26	30	6	8	M6 × 16
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..29	30		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
WA..59	35		1	160	35	45	10	20	M12 × 30
WA..59	40		1	154	35	45	12	40	M16 × 40

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6.4.2 Mounting/dismounting using the optional assembly/disassembly kit

Assembly

You can also 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]

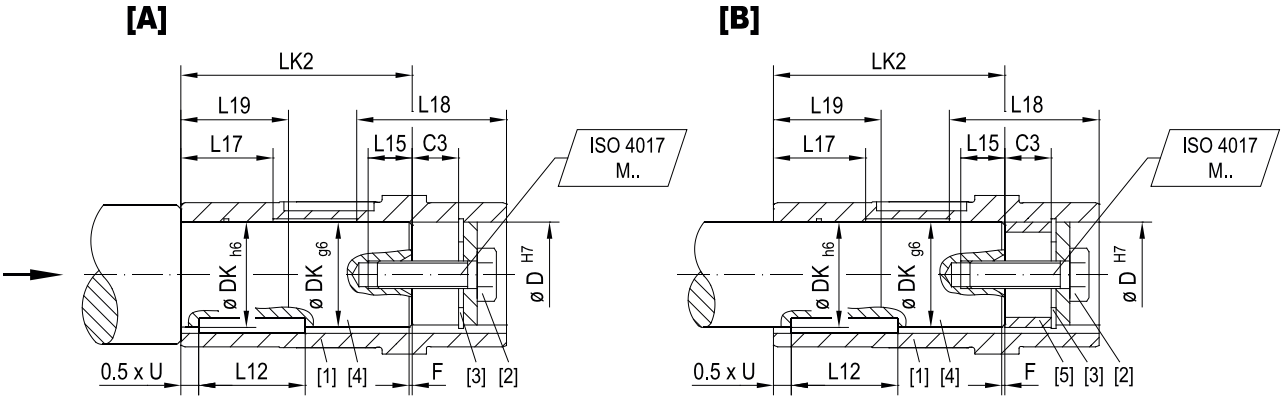
The short retaining screw supplied as standard is not used.

Observe the following information regarding 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 does not have a 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	D^{H7}	DK	L15	L17	L18	LK2	U	MS	ISO 4017	Part number of the assembly/disassembly kit
	mm	mm	mm	mm	mm	mm	mm	mm	Nm	M..	
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

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Type	C3	D^{H7}	DK	L15	L17	L18	LK2	U	MS	ISO 4017	Part number of the assembly/disassembly kit
	mm	mm	mm	mm	mm	mm	mm	mm	Nm	M..	
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..29	16	30		22	28	30	76	8	20	M10 × 35	06436854
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
WA..59	18	35		28	35	45	142	10	20	M12 × 45	06436862
WA..59	18	40		36	35	45	136	12	40	M16 × 50	06436870

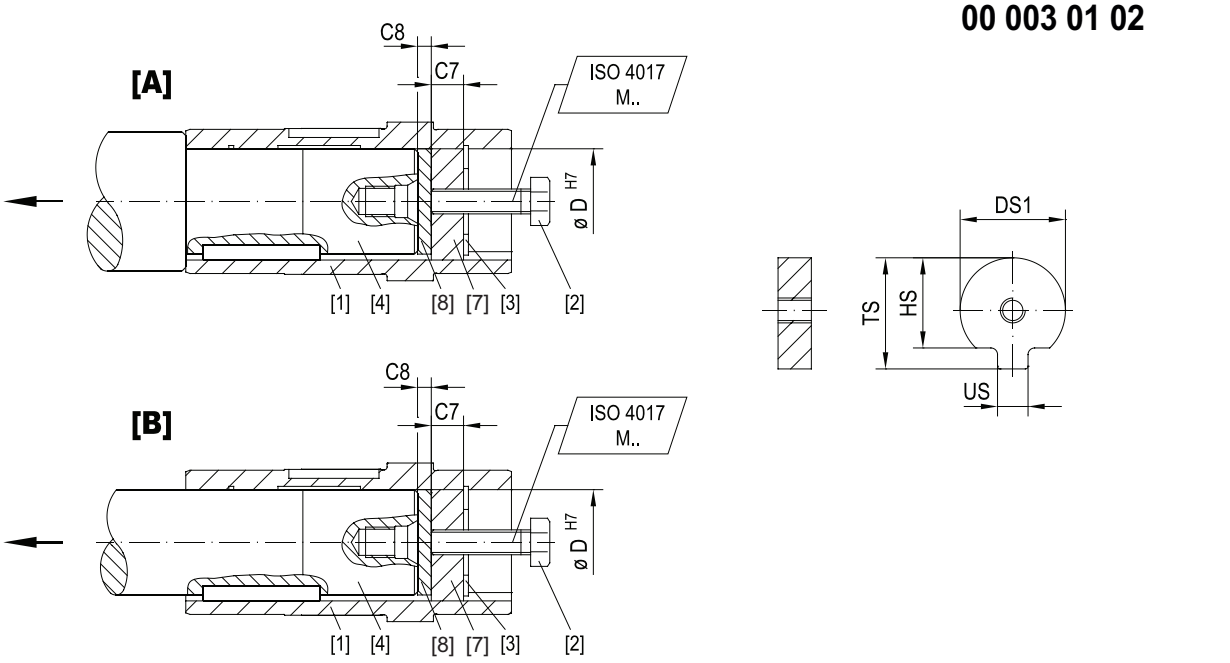
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Disassembly

The assembly kit shown for mounting the customer shaft is a recommendation from SEW-EURODRIVE.

Always check whether this design can compensate for the axial forces present. In special applications (e.g. mounting of agitator shafts), you may have to use a different design for securing the shaft axially. You can use your own devices to secure the shaft axially if it can be ensured that the designs do not cause potential ignition sources according to ISO 80079-36 and -37 (e.g. impact sparks).

00 003 01 02



54043204711118091

C7	Width of fixed nut
C8	Width of forcing washer
D	Diameter of hollow shaft
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 no. of assembly/ disassembly kit
WA..10	16	5	5	12	4.5	18	15.7	M5 × 50	06437125
WA..19, 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..29, WA..30	20	5	6	15.5	5.5	22.5	19.7	M6 × 25	06436838

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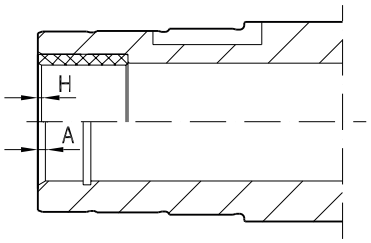
Gear unit	D^{H7} mm	C8 mm	C7 mm	HS mm	US mm	TS mm	DS1 mm	ISO 4017 M..	Part no. of assembly/ disassembly kit
FA..27, KA..29, SA..47,WA..29, WA..39	25	5	10	20	7.5	28	24.7	M10 × 35	06436846
FA..37, KA..29, KA..37, KA..39, SA..47, SA..57, WA..29, WA..39, WA..49	30	5	10	25	7.5	33	29.7	M10 × 35	06436854
FA..47, KA..39, KA..47, KA..49, SA..57, WA..49, WA..59	35	5	12	29	9.5	38	34.7	M12 × 45	06436862
FA..57, KA..57, FA..67, KA..49, KA..67, SA..67, WA..59	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

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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°	0.5 × 45°
F../K../S..47	2 × 30°	0.5 × 45°
K..49, W..59	2 × 30°	0.5 × 45°
S..57	2 × 30°	0.5 × 45°
F../K..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°

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6.5.2 Special motor/gear unit combinations

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.

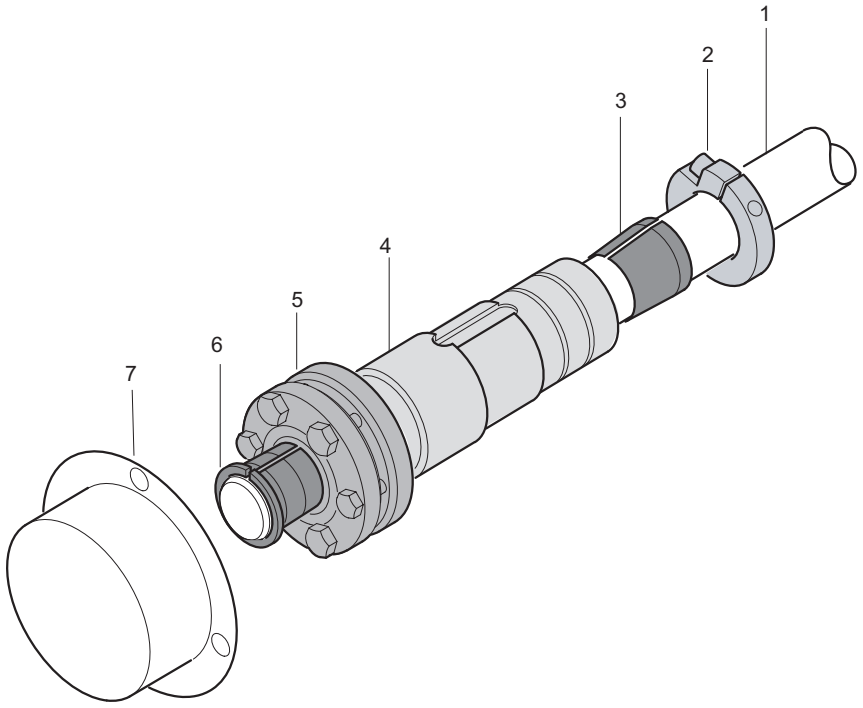
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6.6 TorqLOC® mounting system for gear units with hollow shaft

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:



4309625867

[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.

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6.6.3 Technical data for 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 gear unit sizes 29 to 59 (WT29 – WT59)

Available options

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

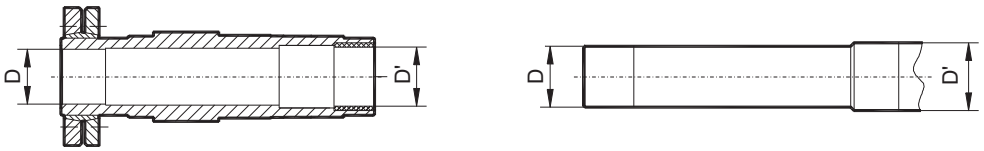
- For helical-bevel, worm and SPIROPLAN® gear units (KT.., ST.., WT.9..): "Torque arm" option (../T).
- For parallel-shaft helical gear units (FT..): "Rubber buffer" option (../G).

6.7 Shouldered hollow shaft option with shrink disk

The following gear units with hollow shaft and shrink disk can be supplied with a larger bore diameter D' as an option:

- Parallel-shaft helical gear units FH/FHF/FHZ37 – 157
- Helical-bevel gear units KH/KHF/KHZ37 – 157
- Helical-worm gear units SH/SHF47 – 97

As standard, D' = D.



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Gear unit	Bore diameter D/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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Gear unit	Bore diameter D/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

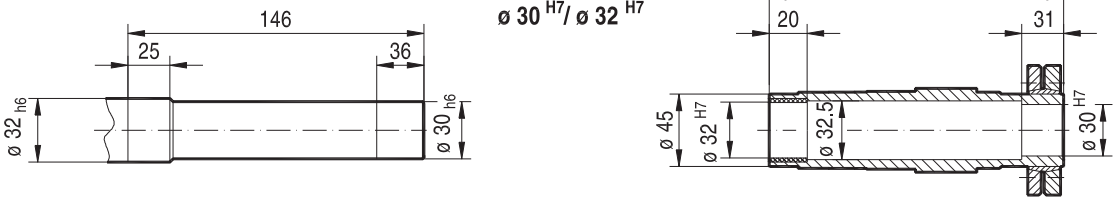
FH37 DRN80M4 with hollow shaft 30/32 mm

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

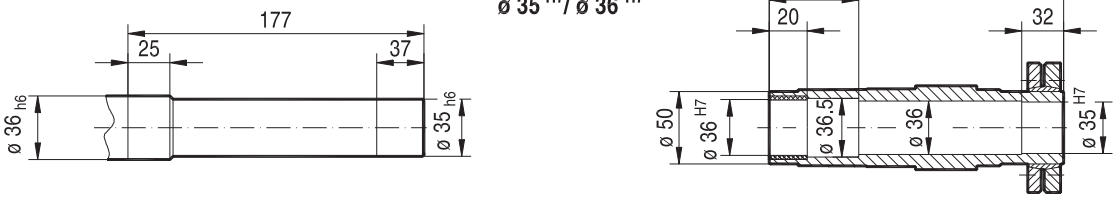
FH / FHF / FHZ37

ø 30 H7/ ø 32 H7



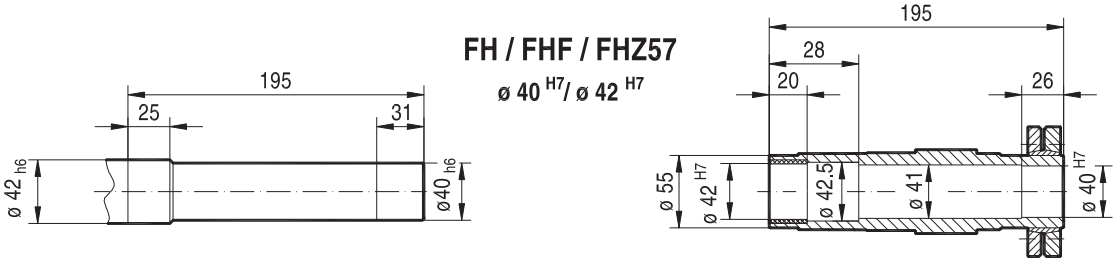
FH / FHF / FHZ47

ø 35 H7/ ø 36 H7



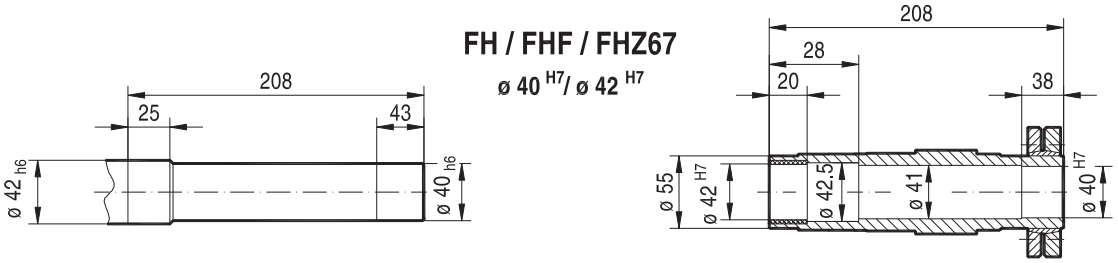
FH / FHF / FHZ57

ø 40 H7/ ø 42 H7



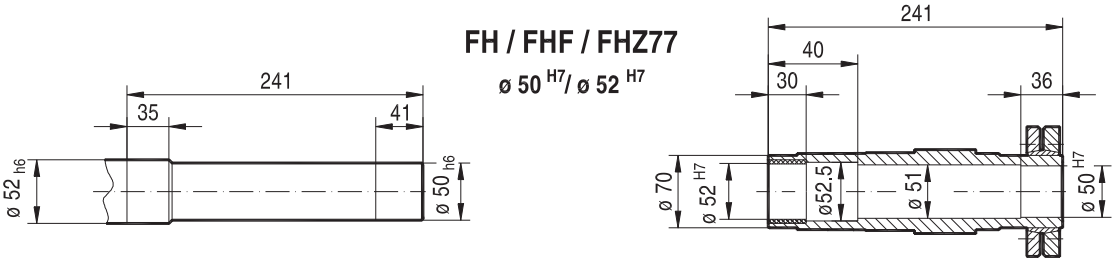
FH / FHF / FHZ67

ø 40 H7/ ø 42 H7



FH / FHF / FHZ77

ø 50 H7/ ø 52 H7

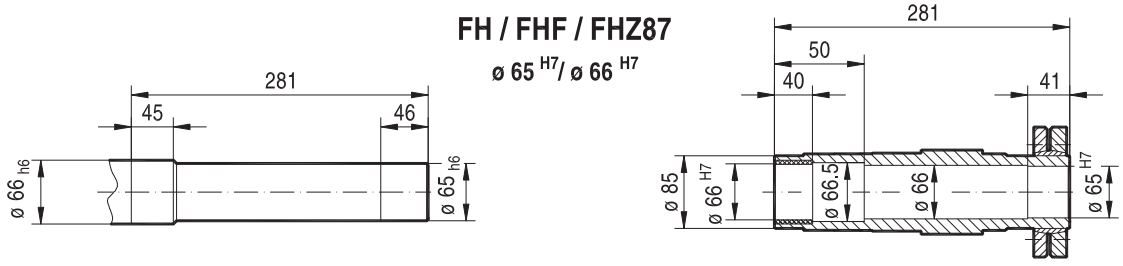


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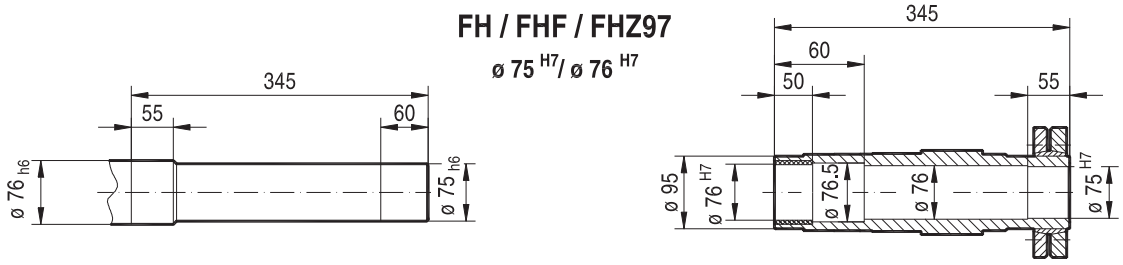
FH / FHF / FHZ87

ø 65 H7/ ø 66 H7



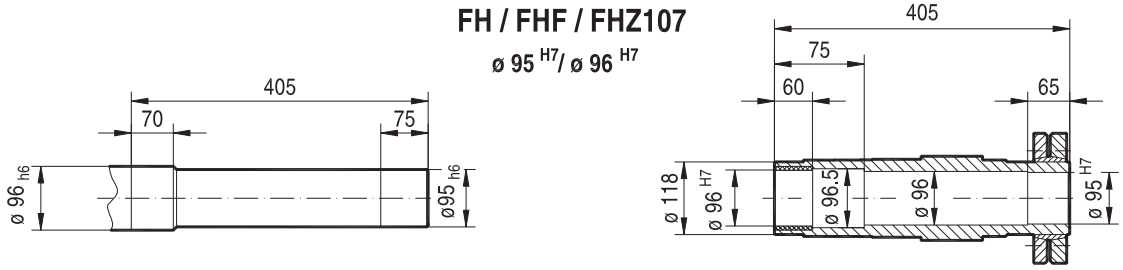
FH / FHF / FHZ97

ø 75 H7/ ø 76 H7



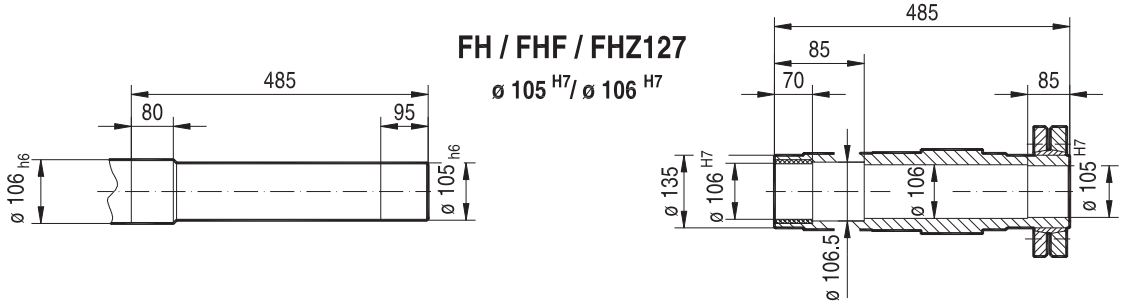
FH / FHF / FHZ107

ø 95 H7/ ø 96 H7



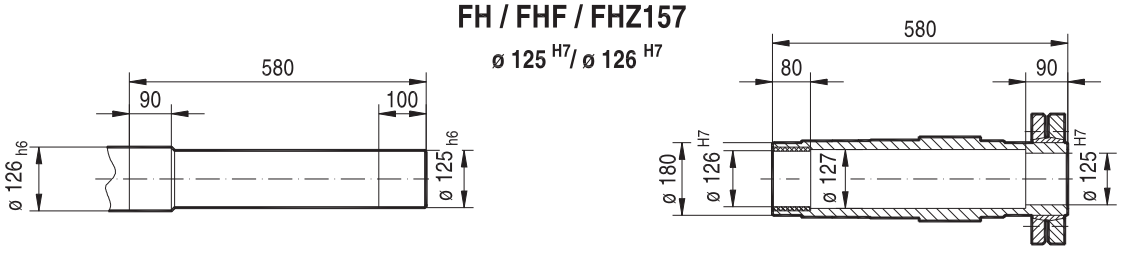
FH / FHF / FHZ127

ø 105 H7/ ø 106 H7



FH / FHF / FHZ157

ø 125 H7/ ø 126 H7



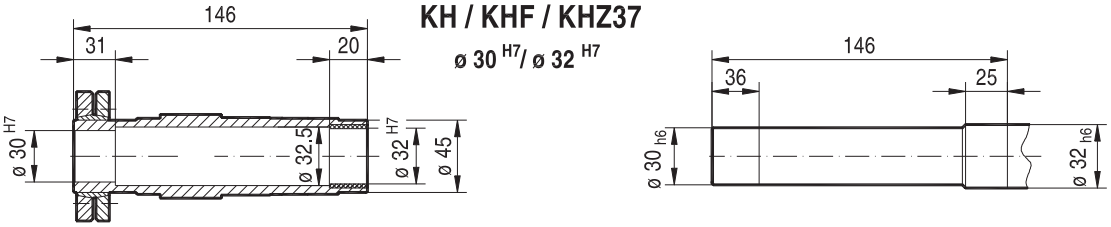
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6.7.3 Helical-bevel gear units with shouldered hollow shaft (dimensions in mm):

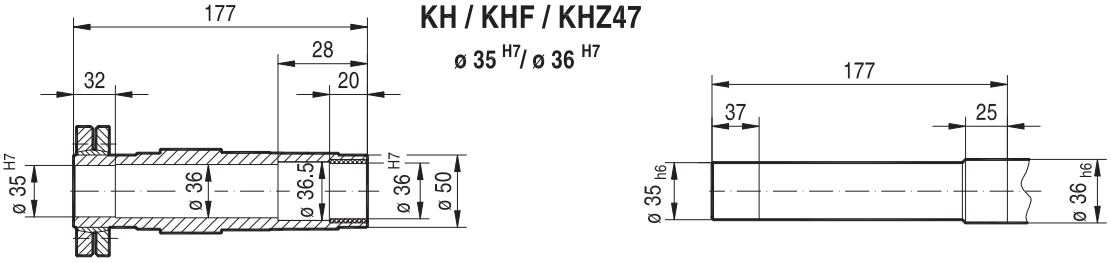
KH / KHF / KHZ37

ø 30 H7/ ø 32 H7



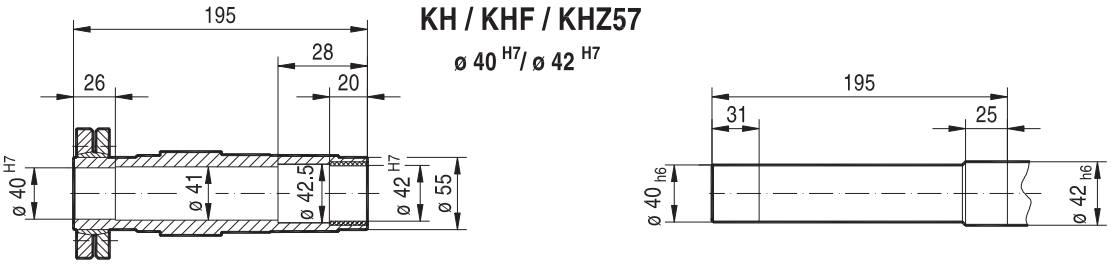
KH / KHF / KHZ47

ø 35 H7/ ø 36 H7



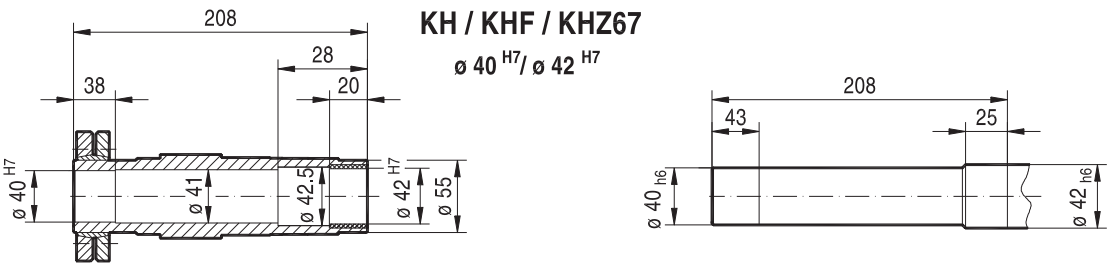
KH / KHF / KHZ57

ø 40 H7/ ø 42 H7



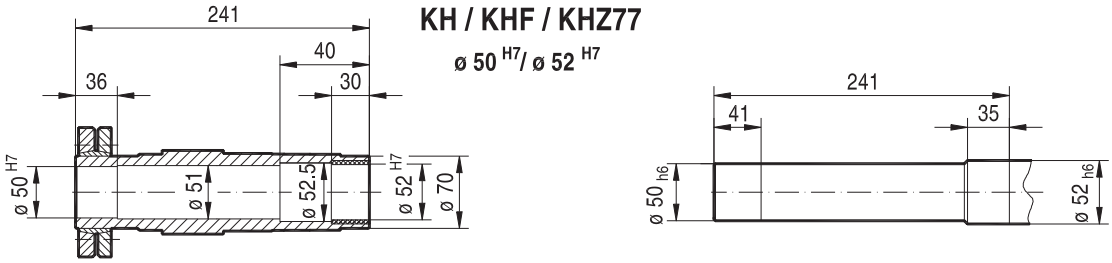
KH / KHF / KHZ67

ø 40 H7/ ø 42 H7



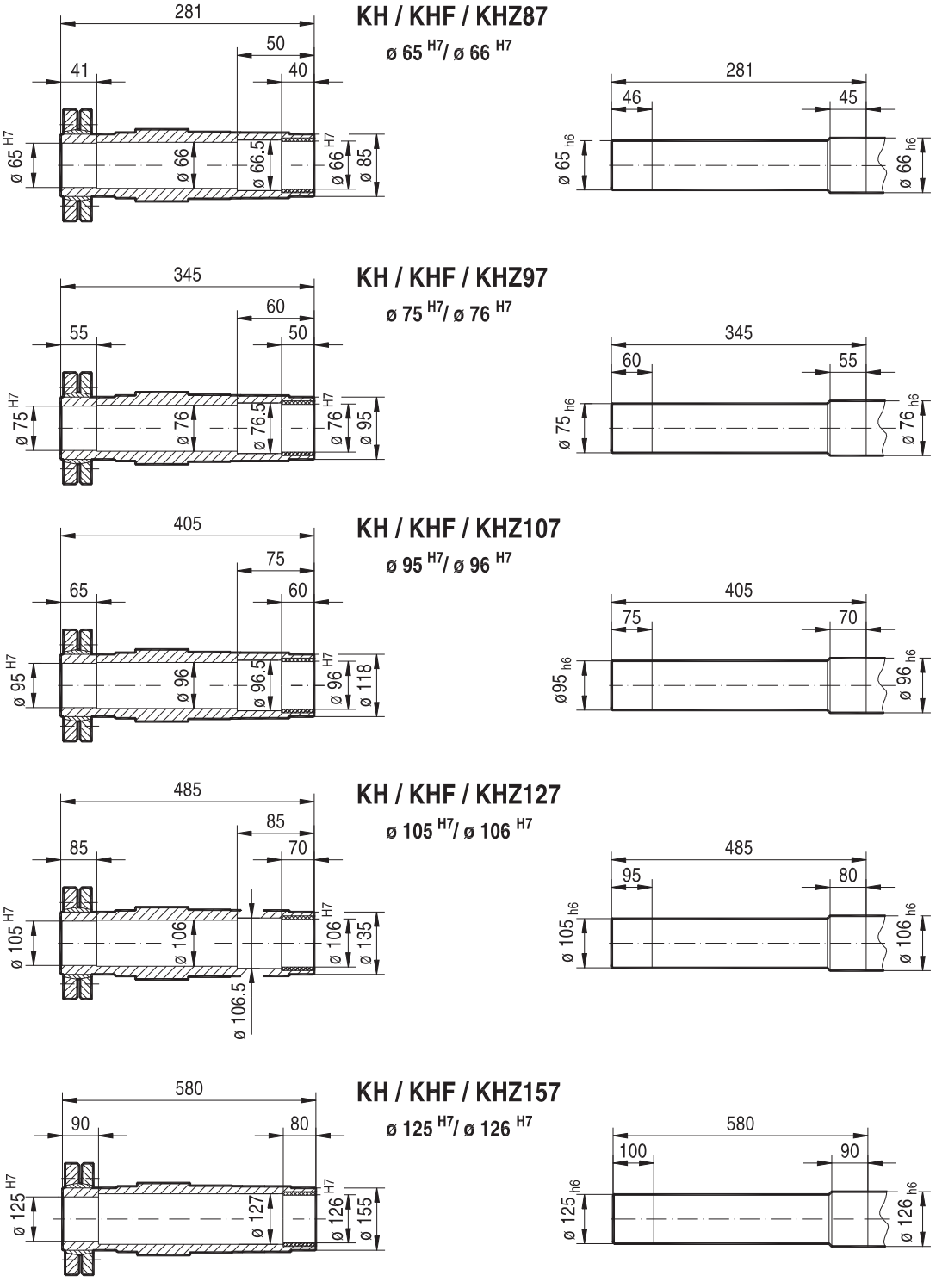
KH / KHF / KHZ77

ø 50 H7/ ø 52 H7



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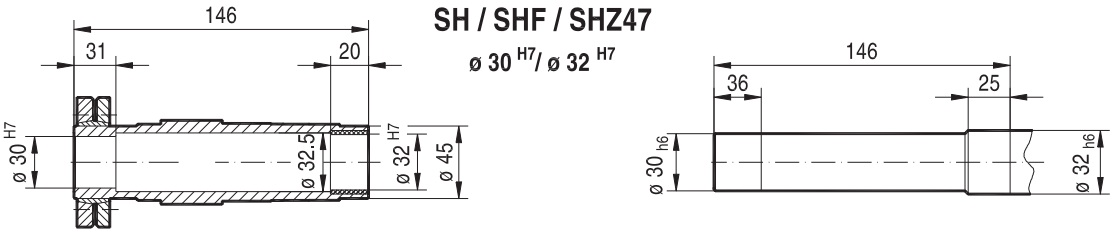
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6.7.4 Helical-worm gear units with shouldered hollow shaft (dimensions in mm):

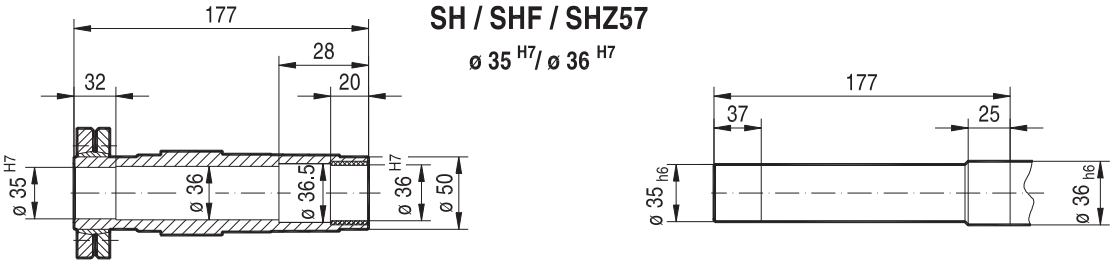
SH / SHF / SHZ47

ø 30 H7/ ø 32 H7



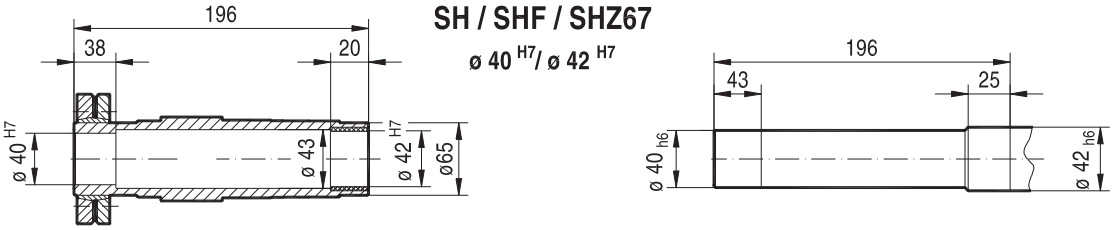
SH / SHF / SHZ57

ø 35 H7/ ø 36 H7



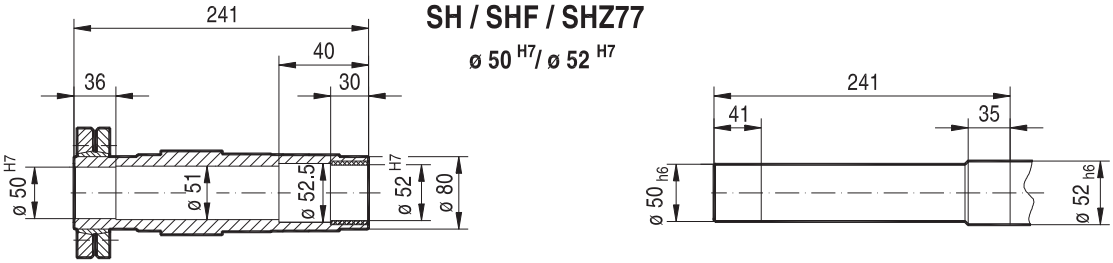
SH / SHF / SHZ67

ø 40 H7/ ø 42 H7



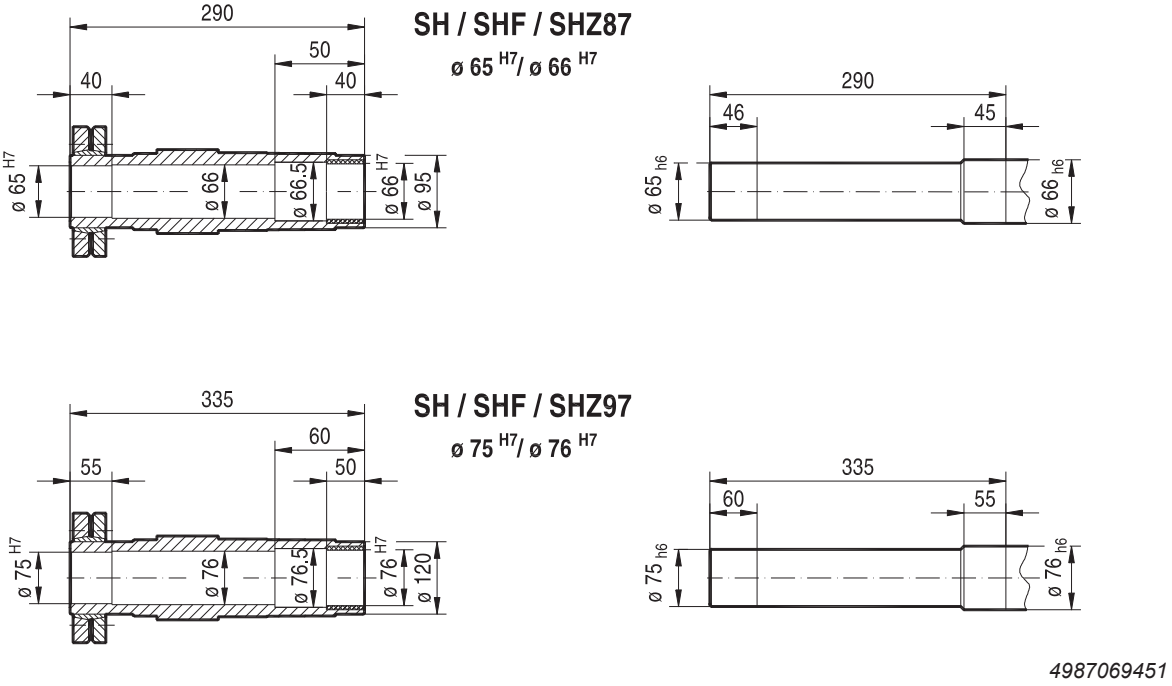
SH / SHF / SHZ77

ø 50 H7/ ø 52 H7



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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.

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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	Flange Ø 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 to RZ87	60ZR to 130ZR	

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6.10 Torque arms

There is a risk of static overdetermination if gear unit with foot housing (e.g. KA19/29B, KA127/157B or FA127/157B) can be mounted both via the torque arm and the foot rail. Therefore, observe the following points:

- Simultaneous use of the foot rails and the torque arm is not permitted, especially for the KA.9B/T design.
- 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 use feet **and** torque arm for mounting, please contact SEW-EURODRIVE.

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	10682279	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 Rubber buffer (2 pieces)	0133485	0133485	0133485	0133485	0133485	0133493

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 Rubber buffer (2 pieces)	0133493	0133507	0133507	0133515	0133477

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

Gear unit	Size			
	30	39	49	59
WA, WH, WT	1680110	10684107	29226015	29226430

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

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

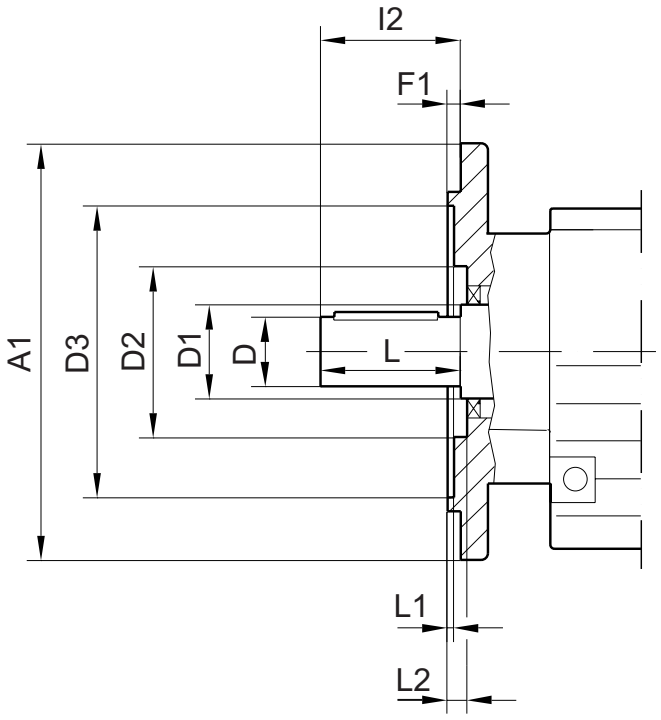
Gear unit	Size			
	30	39	49	59
WA, WH, WT	10638040	10638016	18762611	18762638

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.

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



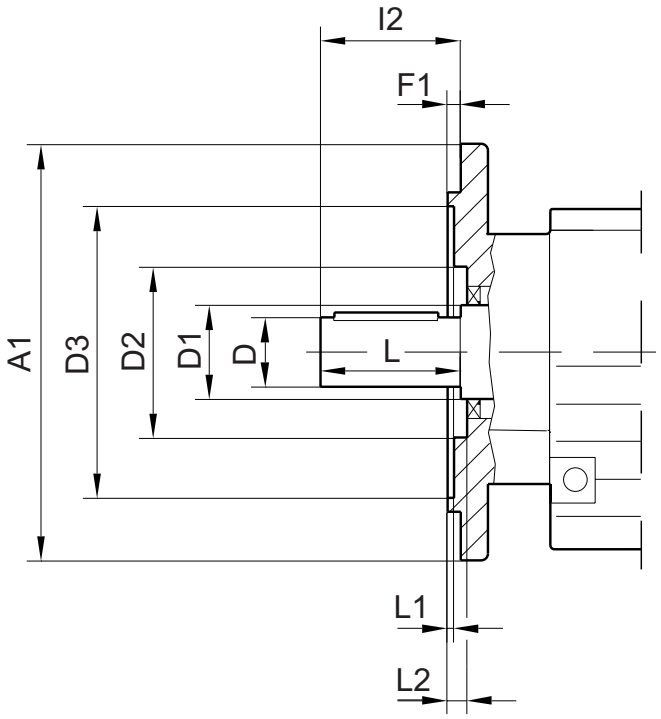
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Check dimensions L1 and L2 for selection and installation of output elements.

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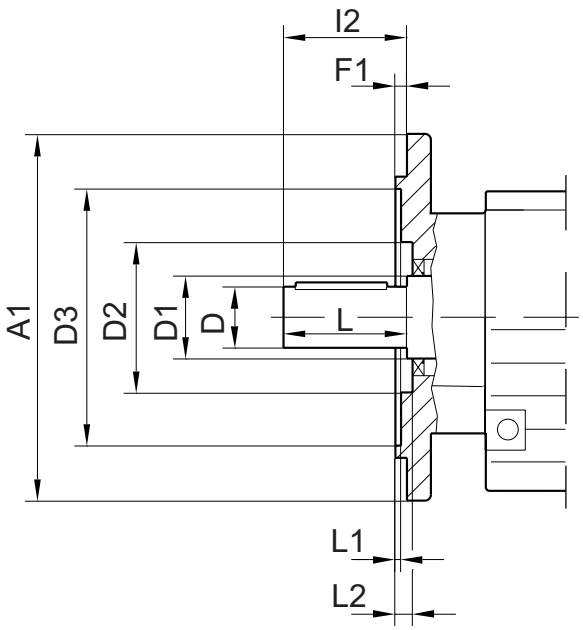
Check dimensions L1 and L2 for selection and installation of output elements.

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.

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

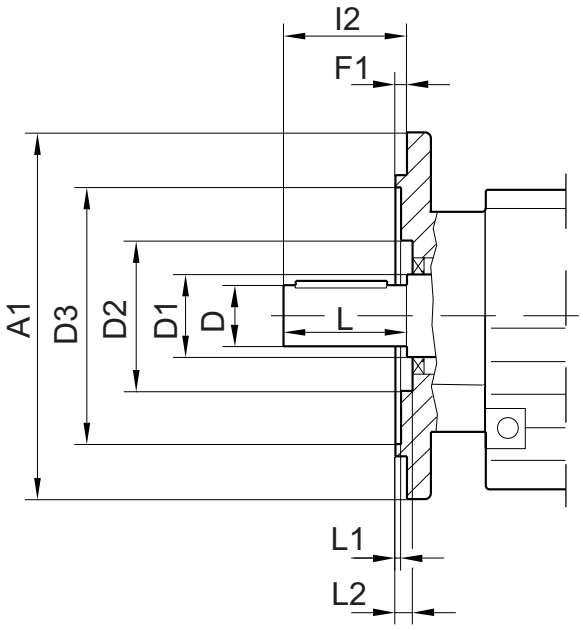


36028801329138443

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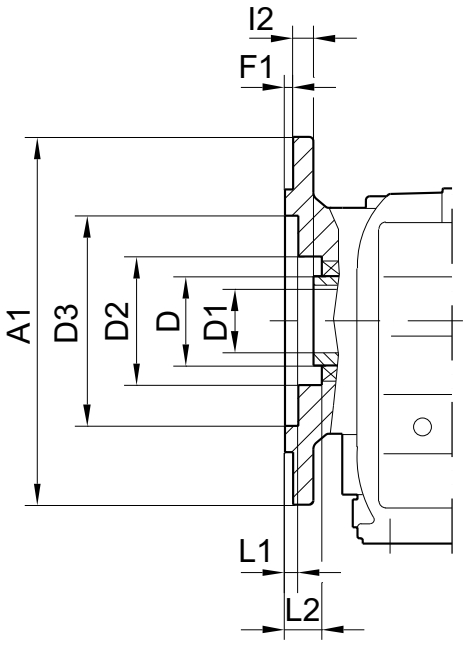
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Check dimensions L1 and L2 for selection and installation of output elements.

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
WF59	200	35	49	76	115	3.5	70	70	16	25

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

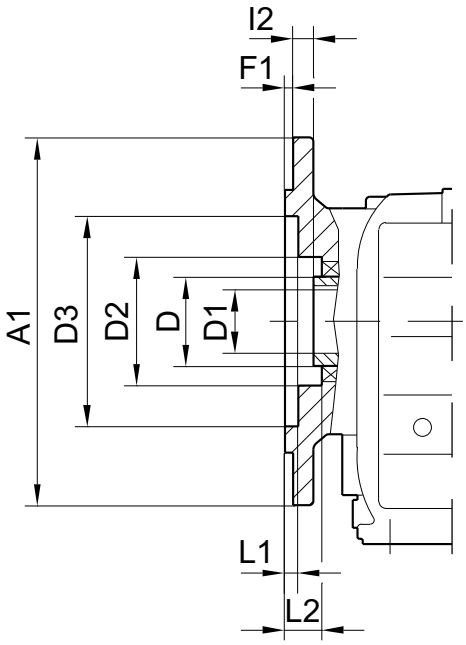


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Check dimensions L1 and L2 for selection and installation of output elements.

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	-	98	3.5	29.5	-	6.5
	200	40	25 / 30	-	118	3.5	29.5	-	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	24.5	15.3	23.5
WAF59	200	55	35 / 40	76	115	3.5	32.5	16	25

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6.14 Optional output shafts

The available output shafts for the gear units and gearmotors are shown below. For the standard shaft dimensions, refer to the dimension sheets. Optional shafts are available on request. The optional shaft diameters or the optional shaft material can influence the permitted maximum torque M_{amax} of the gear unit as shown in the catalog. Further shaft dimensions are available on request.

6.14.1 R, RF, RZ, R..F helical gear units

R, RF, RZ, R..F helical gear units									
Gear unit size	**07**	**17**	**27**	**37**	**47**	**57**	**67**	**77**	**87**
Solid shaft in mm	20×40[1)] 16×40	20×40[1)2)] 16×40	25×50[1)2)]	25×50[1)2)]	30×60[1)2)]	35×70[1)2)]	35×70[1)2)] 40×80	40×80[1)2)]	50×100[1)2)]
Solid shaft in inches	0.75×1.57[1)]	0.75×1.57[1)]	1×1.97[1)]	1×1.97[1)]	1.25×2.36[1)]	1.375×2.76[1)]	1.375×2.76[1)]	1.625×3.15[1)]	2.125×3.94[1)]

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

R, RF helical gear units						
Gear unit size	**97**	**107**	**127**	**137**	**147**	**167**
Solid shaft in mm	60×120[1)2)]	70×140[1)2)]	90×170[2)]	90×170[1)2)]	110×210[1)2)]	120×210
Solid shaft in inches	2.375×4.72[1)]	2.875×5.51	3.625×6.69	3.625×6.69	4.375×8.27	4.75×8.27

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

6.14.2 F series parallel-shaft helical gear units

F series parallel-shaft helical gear units						
Gear unit size	**27**	**37**	**47**	**57**	**67**	**77**
Solid shaft in mm	25×50[1)]	25×50[1)2)]	30×60[1)2)] 35×70[1)2)]	35×70[1)]	40×80[1)2)] 35 × 70	50×100[1)2)] 45×90[1)2)]
Solid shaft in mm 2nd shaft end	25 × 50	25 × 50	30×60[1)2)] 35×70[1)]	35×70[2)]	40×80[1)2)]	50×100[1)2)]
Solid shaft in inches	1×1.97[1)]	1×1.97[1)]	1.25×2.36[1)] 1.375 × 2.76	1.375×2.76[1)]	1.625×3.15[1)] 1.375 × 2.76	2×3.94[1)] 1.75 × 3.54
Solid shaft in inches 2nd shaft end	–	–	1.25 × 2.36	–	1.625 × 3.15	2 × 3.94

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

F series parallel-shaft helical gear units					
Gear unit size	**87**	**97**	**107**	**127**	**157**
Solid shaft in mm	60×120[1)2)]	70×140[1)]	90 × 170	110 × 210	120 × 210
Solid shaft in mm 2nd shaft end	60×120[1)2)]	70 × 140	90×170[1)2)]	110×210[2)]	–
Solid shaft in inches	2.375×4.72[1)]	2.875×5.51[1)]	3.625 × 6.69	4.375 × 8.27	4.75 × 8.27
Solid shaft in inches 2nd shaft end	–	–	3.625 × 6.69	4.375 × 8.27	–

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

6.14.3 FF series parallel-shaft helical gear units

FF series parallel-shaft helical gear units						
Gear unit size	**27**	**37**	**47**	**57**	**67**	**77**
Solid shaft in mm	25×50[1)]	25×50[1)2)]	30×60[1)2)] 35×70[1)]	35×70[1)2)]	40×80[1)2)] 35 × 70	50×100[1)2)] 45 × 90

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FF series parallel-shaft helical gear units						
Gear unit size	**27**	**37**	**47**	**57**	**67**	**77**
Solid shaft in inches	1×1.97[1)]	1×1.97[1)]	1.25×2.76[1)] 1.375 × 2.76	1.375×2.76[1)]	1.625×3.15[1)] 1.375 × 2.76	2×3.94[1)] 1.75 × 3.54

1) Optional stainless steel X17CrNi16-2+QT900.
2) Optional solid shaft without key (smooth).

FF series parallel-shaft helical gear units					
Gear unit size	**87**	**97**	**107**	**127**	**157**
Solid shaft in mm	60×120[1)]	70×140[1)]	90 × 170	110 × 210	120×210[2)]
Solid shaft in inches	2.375×4.72[1)]	2.875×5.51[1)]	3.625 × 6.69	4.375 × 8.27	4.75 × 8.27

1) Optional stainless steel X17CrNi16-2+QT900.
2) Optional solid shaft without key (smooth).

6.14.4 FZ series parallel-shaft helical gear units

FZ series parallel-shaft helical gear units						
Gear unit size	**27**	**37**	**47**	**57**	**67**	**77**
Solid shaft in mm	25×50[1)]	25 × 50	30 × 60 35 × 70	35 × 70	40 × 80	50 × 100

1) Optional stainless steel X17CrNi16-2+QT900.

FZ series parallel-shaft helical gear units					
Gear unit size	**87**	**97**	**107**	**127**	**157**
Solid shaft in mm	60 × 120	70 × 140	90×170[1)]	110 × 210	120 × 210

1) Optional stainless steel X17CrNi16-2+QT900.

6.14.5 FA, FAF, FAZ parallel-shaft helical gear units

FA, FAF, FAZ parallel-shaft helical gear units						
Gear unit size	**27**	**37**	**47**	**57**	**67**	**77**
Hollow shaft in mm	25[1)]	25[1)] 30[1)]	30[1)2)3)] 35[1)2)3)]	40[1)2)3)]	40[1)2)3)]	50[1)2)3)]
Hollow shaft in inches	1[1)]	1.25[1)]	1.188 1.25[1)] 1.375[1)]	1.438 1.5[1)]	1.438 1.5[1)]	1.938 2[1)]

1) Optional stainless steel X17CrNi16-2+QT900.
2) Optional with reinforced bearings.
3) Optional stainless steel X17CrNi16-2+QT900 with reinforced bearings.

FA, FAF, FAZ parallel-shaft helical gear units					
Gear unit size	**87**	**97**	**107**	**127**	**157**
Hollow shaft in mm	60[1)2)3)]	70[1)2)3)]	80[1)2)3)] 90[1)2)3)]	100[1)2)3)]	120[1)]
Hollow shaft in inches	2.375[1)] 2.438	2.75[1)] 2.938	3.25 3.438 3.625	4	4.5

1) Optional stainless steel X17CrNi16-2+QT900.
2) Optional with reinforced bearings.
3) Optional stainless steel X17CrNi16-2+QT900 with reinforced bearings.

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6.14.6 FH, FHF, FHZ parallel-shaft helical gear units

FH, FHF, FHZ parallel-shaft helical gear units						
Gear unit size	**27**	**37**	**47**	**57**	**67**	**77**
Hollow shaft in mm	25[1)]	30[1)] 30/32[1)]	35[1)2)3)] 35/36[1)2)3)]	40[1)2)3)] 40/42[1)2)3)]	40[1)2)3)] 40/42[1)2)3)]	50[1)2)3)] 50/52[1)2)3)]

1) Optional stainless steel X17CrNi16-2+QT900.
2) Optional with reinforced bearings.
3) Optional stainless steel X17CrNi16-2+QT900 with reinforced bearings.

FH, FHF, FHZ parallel-shaft helical gear units					
Gear unit size	**87**	**97**	**107**	**127**	**157**
Hollow shaft in mm	65[1)2)3)] 65/66[1)2)3)]	75[1)2)3)] 75/76[1)2)3)]	95[1)2)3)] 95/96[1)2)3)]	105[1)2)3)] 105/106[1)2)3)]	125[1)] 125/126

1) Optional stainless steel X17CrNi16-2+QT900.
2) Optional with reinforced bearings.
3) Optional stainless steel X17CrNi16-2+QT900 with reinforced bearings.

6.14.7 FV, FVF, FVZ parallel-shaft helical gear units

FV, FVF, FVZ parallel-shaft helical gear units								
Gear unit size	**37**	**47**	**57**	**67**	**77**	**87**	**97**	**107**
Hollow shaft Splined hollow shaft	N30	N35	N35	N45	N50	N65[1)]	N70	N85

1) Optional stainless steel X17CrNi16-2+QT900.

6.14.8 FT parallel-shaft helical gear units

FT parallel-shaft helical gear units					
Gear unit size	**37**	**47**	**57**	**67**	**77**
Hollow shaft in mm With TorqLOC® With TorqLOC® Plus	25[1)] 30[1)]	25 30[1)] 35[1)]	35[1)] 38[1)] 40[1)]	35[1)] 38[1)] 40[1)]	40 42 45 50[1)] 51
Hollow shaft in inches With TorqLOC® With TorqLOC® Plus	1[1)] 1.188[1)] 1.25[1)]	1.188[1)] 1.25[1)] 1.375[1)] 1.438[1)]	1,375[1)] 1,438[1)] 1.5[1)] 1,625[1)]	1,375[1)] 1,438[1)] 1.5[1)] 1,625[1)] 1.688	1,625[1)] 1.688 1.75[1)] 1,938[1)] 2[1)]

1) Optional stainless steel X17CrNi16-2+QT900.

FT parallel-shaft helical gear units					
Gear unit size	**87**	**97**	**107**	**127**	**157**
Hollow shaft in mm With TorqLOC® With TorqLOC® Plus	50 51[1)] 55 60[1)] 62[1)] 65[1)]	60 62[1)] 65 70[1)] 75[1)]	80[1)] 85[1)] 90[1)] 92[1)] 95[1)]	90 95[1)] 100[1)] 105[1)]	110[1)] 120 125[1)] 127[1)]
Hollow shaft in inches With TorqLOC® With TorqLOC® Plus	1.938[1)] 2[1)] 2.375[1)] 2.438[1)]	2.438[1)] 2.75[1)] 2.938[1)]	3.25[1)] 3.438[1)] 3,625[1)] 3.75[1)]	3,438[1)] 3.75[1)] 3,938[1)] 4[1)] 4,188[1)]	4,438[1)] 4.5[1)] 4,938[1)] 5[1)]

1) Optional stainless steel X17CrNi16-2+QT900.

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6.14.9 K series helical-bevel gear units

K series helical-bevel gear units								
Gear unit size	**19**	**29**	**39**	**49**	**37**	**47**	**57**	**67**
Solid shaft in mm	20×40[1)2)]	25×50[1)2)]	30×60[1)2)]	35×70[1)]	25×50[1)2)]	30×60[1)2)] 35×70[1)2)]	35×70[1)2)]	40×80[1)2)] 35×70
Solid shaft in mm 2nd shaft end	20×40[1)]	25×50[1)]	30×60[1)2)]	35×70[1)2)]	25×50[1)2)]	30×60[1)2)] 35×70[1)]	35×70[1)2)]	40×80[1)2)] 35×70
Solid shaft in inches	0.75×1.57[1)]	1×1.97[1)]	1×1.97[1)] 1.25×2.36[1)]	1.375×2.76[1)]	1×1.97[1)]	1.25×2.36[1)] 1.375×2.76	1.375×2.76[1)]	1.375×2.76 1.625×3.15[1)]
Solid shaft in inches 2nd shaft end	0.75×1.57[1)]	1×1.97[1)]	1.25×2.36[1)]	1.375×2.76[1)]	1×1.97	1.25×2.36 1.375×2.76	1.375×2.76	1.625×3.15 1.375×2.76

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

K series helical-bevel gear units								
Gear unit size	**77**	**87**	**97**	**107**	**127**	**157**	**167**	**187**
Solid shaft in mm	50×100[1)2)] 45×90[1)2)]	60×120[1)2)]	70×140[1)2)]	90×170[1)2)]	110×210[1)]	120×210[2)]	160×250[2)] 140×250	190×320[2)] 160×300
Solid shaft in mm 2nd shaft end	50×100[1)2)] 45×90	60×120[1)2)]	70×140[2)]	90×170[1)2)]	110×210[2)]	120×210[2)]	160×250	190×320[2)]
Solid shaft in inches	2×3.94[1)] 1.75×3.54	2.375×4.72[1)]	2.875×5.51[1)]	3.625×6.69	4.375×8.27	4.75×8.27	6.25×9.84	7.5×12.6
Solid shaft in inches 2nd shaft end	2×3.94 1.75×3.54	2.375×4.72	2.875×5.51	3.625×6.69	4.375×8.27	4.75×8.27	6.25×9.84	7.5×12.6

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

6.14.10 KF helical-bevel gear units

KF series helical-bevel gear units							
Gear unit size	**19**	**29**	**39**	**49**	**37**	**47**	**57**
Solid shaft in mm	20×40[1)]	25×50[1)]	30×60[1)]	35×70[1)]	25×50[1)2)]	30×60[1)2)] 35×70[1)]	35×70[1)2)]
Solid shaft in mm 2nd shaft end	–	–	–	–	25 × 50[1)]	30 × 60	35 × 70
Solid shaft in inches	0.75×157[1)]	1×1.97[1)]	1×1.97[1)] 1.25×2.36[1)]	1.375×2.76[1)]	1×1.97[1)]	1.25×2.76[1)]	1.375×2.76[1)]

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

KF series helical-bevel gear units							
Gear unit size	**67**	**77**	**87**	**97**	**107**	**127**	**157**
Solid shaft in mm	40×80[1)2)] 35 × 70	50×100[1)2)] 45 × 90	60×120[1)2)]	70×140[1)2)]	90×170[2)]	110 × 210	120×210[2)]
Solid shaft in mm 2nd shaft end	40 × 80 35 × 70	50×100[1)]	60 × 120	70×140[2)]	90 × 170	110 × 210	–
Solid shaft in inches	1.625×3.15[1)] 1.375 × 2.76	2×3.94[1)] 1.75×3.54	2.375×4.72[1)]	2.875×5.51[1)]	3.625×6.69	4.375×8.27	4.75×8.27

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

6.14.11 KZ helical-bevel gear units

KZ series helical-bevel gear units					
Gear unit size	**37**	**47**	**57**	**67**	**77**
Solid shaft in mm	25 × 50	30 × 60 35 × 70	35 × 70	40 × 80	50 × 100

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KZ series helical-bevel gear units					
Gear unit size	**87**	**97**	**107**	**127**	**157**
Solid shaft in mm	60 × 120	70 × 140	90×170[1)]	110 × 210	120 × 210

1) Optional stainless steel X17CrNi16-2+QT900.

6.14.12 KA, KAF, KAZ helical-bevel gear units

KA, KAF, KAZ helical-bevel gear units							
Gear unit size	**19**	**29**	**39**	**49**	**37**	**47**	**57**
Hollow shaft in mm	20[1)]	25[1)] 30[1)]	30[1)] 35[1)]	35[1)] 40[1)]	25[1)] 30[1)]	30[1)2)3)] 35[1)2)3)]	40[1)2)3)]
Hollow shaft in inches	0.75[1)]	1[1)]	1.25[1)] 1.375[1)]	1.375[1)] 1.5[1)]	1.25[1)]	1.188 1.25[1)] 1.375[1)]	1.438 1.5[1)]

1) Optional stainless steel X17CrNi16-2+QT900.
2) Optional with reinforced bearings.
3) Optional stainless steel X17CrNi16-2+QT900 with reinforced bearings.

KA, KAF, KAZ helical-bevel gear units							
Gear unit size	**67**	**77**	**87**	**97**	**107**	**127**	**157**
Hollow shaft in mm	40[1)2)3)]	50[1)2)3)]	60[1)2)3)]	70[1)2)3)]	80[1)2)3)] 90[1)2)3)]	100[1)2)3)]	120[1)]
Hollow shaft in inches	1.438 1.5[1)]	1.938 2[1)]	2.375[1)] 2.438	2.75[1)] 2.938	3.25 3.438 3.625	4[2)]	4.5

1) Optional stainless steel X17CrNi16-2+QT900.
2) Optional with reinforced bearings.
3) Optional stainless steel X17CrNi16-2+QT900 with reinforced bearings.

6.14.13 KH, KHF, KHZ helical-bevel gear units

KH, KHF, KHZ helical-bevel gear units								
Gear unit size	**19**	**29**	**39**	**49**	**37**	**47**	**57**	**67**
Hollow shaft in mm	20[1)]	25[1)]	35[1)]	40[1)]	30[1)] 30/32[1)]	35[1)2)3)] 35/36[1)2)3)]	40[1)2)3)] 40/42[1)2)3)]	40[1)2)3)] 40/42[1)2)3)]

1) Optional stainless steel X17CrNi16-2+QT900.
2) Optional with reinforced bearings.
3) Optional stainless steel X17CrNi16-2+QT900 with reinforced bearings.

KH, KHF, KHZ helical-bevel gear units								
Gear unit size	**77**	**87**	**97**	**107**	**127**	**157**	**167**	**187**
Hollow shaft in mm	50[1)2)3)] 50/52[1)2)3)]	65[1)2)3)] 65/66[1)2)3)]	75[1)2)3)] 75/76[1)2)3)]	95[1)2)3)] 95/96[1)2)3)]	105[1)2)3)] 105/106[1)2)3)]	125[1)] 125/126	135/140[1)]	155/160[1)] 135/140

1) Optional stainless steel X17CrNi16-2+QT900.
2) Optional with reinforced bearings.
3) Optional stainless steel X17CrNi16-2+QT900 with reinforced bearings.

6.14.14 KV, KVF, KVZ helical-bevel gear units

KV, KVF, KVZ helical-bevel gear units								
Gear unit size	**37**	**47**	**57**	**67**	**77**	**87**	**97**	**107**
Splined hollow shaft	N30	N35	N35	N45	N50	N65[1)]	N70	N85

1) Optional stainless steel X17CrNi16-2+QT900.

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6.14.15 KT helical-bevel gear units

KT helical-bevel gear units							
Gear unit size	**19**	**29**	**39**	**49**	**37**	**47**	**57**
Hollow shaft in mm with TorqLOC® with TorqLOC® Plus	20[1)]	25[1)]	30[1)] 35[1)]	35[1)] 40[1)]	25[1)] 30[1)]	25 30[1)] 35[1)]	35[1)] 38[1)] 40[1)]
Hollow shaft in inch with TorqLOC® with TorqLOC® Plus	0.625[1)] 0.688[1)] 0.75[1)]	0.984[1)] 1[1)]	1.188[1)] 1.25[1)] 1.375[1)] 1.438[1)]	1.25 1.375[1)] 1.438[1)] 1.5[1)] 1.625[1)] 1.688	1[1)] 1.188[1)] 1.25[1)]	1.188[1)] 1.25[1)] 1.375[1)] 1.438[1)]	1.375[1)] 1.438[1)] 1.5[1)] 1.625[1)]

1) Optional stainless steel X17CrNi16-2+QT900.

KT helical-bevel gear units							
Gear unit size	**67**	**77**	**87**	**97**	**107**	**127**	**157**
Hollow shaft in mm with TorqLOC® with TorqLOC® Plus	35[1)] 38[1)] 40[1)]	40 42 45 50[1)] 51	50 51[1)] 55 60[1)] 62[1)] 65[1)]	60 62[1)] 65 70[1)] 75[1)]	80[1)] 85[1)] 90[1)] 92[1)] 95[1)]	90 95[1)] 100[1)] 105[1)]	110[1)] 120 125[1)] 127[1)]
Hollow shaft in inch with TorqLOC® with TorqLOC® Plus	1.375[1)] 1.438[1)] 1.5[1)] 1.625[1)] 1.688	1.625[1)] 1.688 1.75[1)] 1.938[1)] 2[1)]	1.938[1)] 2[1)] 2.375[1)] 2.438[1)]	2.438[1)] 2.75[1)] 2.938[1)]	3.25[1)] 3.438[1)] 3.625[1)] 3.75[1)]	3.438[1)] 3.75[1)] 3.938[1)] 4[1)] 4.188[1)]	4.438[1)] 4.5[1)] 4.938[1)] 5[1)]

1) Optional stainless steel X17CrNi16-2+QT900.

6.14.16 S helical-worm gear units

S helical-worm gear units							
Gear unit size	**37**	**47**	**57**	**67**	**77**	**87**	**97**
Solid shaft in mm	20×40[1)2)]	25×50[1)2)]	30×60[1)2)]	35×70[1)2)] 40×80[1)]	45×90[1)2)] 50×100[1)]	60×120[1)]	70×140[1)]
Solid shaft in mm 2nd shaft end	20×40[1)2)]	25×50[1)2)]	30×60[1)2)]	35×70[1)2)] 40×80	45×90[1)] 50×100	60×120	70×140[1)]
Solid shaft in inches	0.75×1.57[1)]	1×1.97[1)]	1.25×2.36[1)]	1.375×2.76[1)] 1.625×3.15	1.75×3.54[1)] 2×3.94	2.375×4.72[1)]	2.875×5.51[1)]
Solid shaft in inches 2nd shaft end	0.75×1.57	1×1.97	1.25×2.36	1.375×2.76 1.625×3.15	1.75×3.54 2×3.94	2.375×4.72	2.875×5.51

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

6.14.17 SF. helical-worm gear units

SF. helical-worm gear units							
Gear unit size	**37**	**47**	**57**	**67**	**77**	**87**	**97**
Solid shaft in mm	20×40[1)2)]	25×50[1)2)]	30×60[1)2)]	35×70[1)2)] 40×80[1)]	45×90[1)2)] 50×100[1)]	60×120[1)]	70×140[1)]
Solid shaft in mm 2nd shaft end	20×40[1)]	25×50[1)]	30×60	35×70	45×90	60×120	70×140
Solid shaft in inches	0.75×1.57[1)]	1×1.97[1)]	1.25×2.36[1)]	1.375×2.76[1)] 1.625×3.15	1.75×3.54[1)] 2×3.94	2.375×4.72[1)]	2.875×5.51[1)]

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

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6.14.18 SA, SAF, SAZ helical-worm gear units

SA, SAF, SAZ helical-worm gear units							
Gear unit size	**37**	**47**	**57**	**67**	**77**	**87**	**97**
Hollow shaft in mm	20[1]	25[1] 30[1]	30[1] 35[1]	40[1] 45[1]	50[1] 60[1]	60[1] 70[1]	70[1] 90[1]
Hollow shaft in inches	0.75[1]	1.25[1]	1.188 1.25[1] 1.375[1]	1.5[1]	2[1]	2.375[1]	2.75[1]

1) Optional stainless steel X17CrNi16-2+QT900.

6.14.19 SH, SHF, SHZ helical-worm gear units

SH, SHF, SHZ helical-worm gear units							
Gear unit size	**37**	**47**	**57**	**67**	**77**	**87**	**97**
Hollow shaft in mm	20[1]	30[1] 30/32[1]	35[1] 35/36[1]	40[1] 40/42	50[1] 50/52	65[1] 65/66	75[1] 75/76

1) Optional stainless steel X17CrNi16-2+QT900.

6.14.20 ST. helical-worm gear units

ST. helical-worm gear units							
Gear unit size	**37**	**47**	**57**	**67**	**77**	**87**	**97**
Hollow shaft in mm With TorqLOC® With TorqLOC® Plus	16[1] 19[1] 20[1]	25[1] 30[1]	25 30[1] 35[1]	35[1] 38[1] 40[1]	40 45 50[1] 51[1]	50 51[1] 60[1] 62[1] 65[1]	60 62[1] 70[1] 75[1]
Hollow shaft in inches With TorqLOC® With TorqLOC® Plus	0.625[1] 0.688[1] 0.75[1]	1[1] 1.188[1] 1.25[1]	1.188[1] 1.25[1] 1.375[1] 1.438[1]	1.375[1] 1.438[1] 1.5[1] 1.625[1] 1.688	1.625[1] 1.688 1.75[1] 1.938[1] 2[1]	1.938[1] 2[1] 2.375[1] 2.438[1]	2.438[1] 2.75[1] 2.938[1]

1) Optional stainless steel X17CrNi16-2+QT900.

6.14.21 SPIROPLAN® gear units W10, W20, W30

SPIROPLAN® gear units W			
Gear unit size	**10**	**20**	**30**
Solid shaft in mm	14 × 30 16 × 40	20×40[1][2]	20×40[1][2]
Solid shaft in mm 2nd shaft end	16 × 40	20×40[1]	20×40[1][2]
Solid shaft in inches	0.625 × 1.57	0.75×1.57[1]	0.75×1.57[1]
Solid shaft in inches 2nd shaft end	0.625 × 1.57	0.75 × 1.57	0.75 × 1.57

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

6.14.22 SPIROPLAN® gear units WF

SPIROPLAN® gear units WF								
Gear unit size	**10**	**20**	**30**	**19**	**29**	**39**	**49**	**59**
Solid shaft in mm	16×40[1]	20×40[1]	20×40[1]	20×40[1]	20×40[1]	25×50[1]	30×60[1]	35×70[1]
Solid shaft in mm 2nd shaft end	20 × 40	20 × 40	20 × 40	20 × 40	–	–	–	–
Solid shaft in inches	0.625 × 1.57	0.75 × 1.57	0.75 × 1.57	0.75 × 1.57	0.75×1.57 [1]	1×1.97[1]	1×1.97[1]	1.375×2.76[1]

1) Optional stainless steel X17CrNi16-2+QT900.

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6.14.23 SPIROPLAN® gear units WA, WAF

SPIROPLAN® gear units WA, WAF								
Gear unit size	**10**	**20**	**30**	**19**	**29**	**39**	**49**	**59**
Hollow shaft in mm	14 16[1)]	18[1)] 20[1)]	20[1)]	18[1)] 20[1)]	20[1)] 25[1)] 30[1)]	25[1)] 30[1)]	30[1)] 35[1)]	35[1)] 40[1)]
Hollow shaft in inches	0.625	0.75[1)]	0.75[1)]	0.75[1)]	0.75[1)]	1[1)]	1.25[1)] 1.375[1)]	1.375[1)] 1.5[1)]

1) Optional stainless steel X17CrNi16-2+QT900.

6.14.24 SPIROPLAN® gear units WH, WHF

SPIROPLAN® gear units WH, WHF				
Gear unit size	**29**	**39**	**49**	**59**
Hollow shaft in mm	20[1)]	25[1)]	35[1)]	40[1)]

1) Optional stainless steel X17CrNi16-2+QT900.

6.14.25 SPIROPLAN® gear units WT

SPIROPLAN® gear units WT				
Gear unit size	**29**	**39**	**49**	**59**
Hollow shaft in mm With TorqLOC® With TorqLOC® Plus	16[1)] 19[1)] 20[1)]	25[1)]	30[1)] 35[1)]	35[1)] 40[1)]
Hollow shaft in inches With TorqLOC® With TorqLOC® Plus	0.625[1)] 0.688[1)] 0.75[1)]	0.984[1)] 1[1)]	1.188[1)] 1.25[1)] 1.375[1)] 1.438[1)]	1.25 1.375[1)] 1.438[1)] 1.5[1)] 1.625[1)] 1.688

1) Optional stainless steel X17CrNi16-2+QT900.

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6.15 Safety covers

6.15.1 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 – 59

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

6.15.2 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.

6.15.3 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.

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6.15.4 Flat fixed plastic safety cover

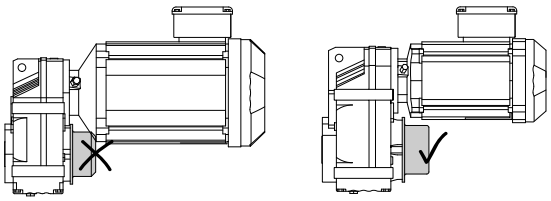
The following gear unit types with hollow shaft can optionally be equipped with a flat fixed plastic safety cover:

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 – 59

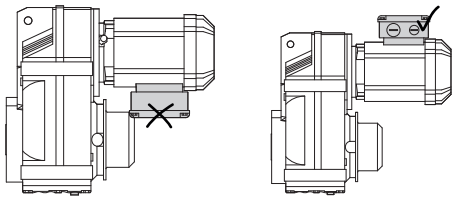
Should you require a flat fixed plastic safety cover for these gear unit types due to safety reasons, refer to the part numbers in the following chapters.

6.15.5 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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To simplify assembly and maintenance, SEW-EURODRIVE recommends a terminal box position ≠ 90° for parallel-shaft helical gear units with high safety cover. 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:

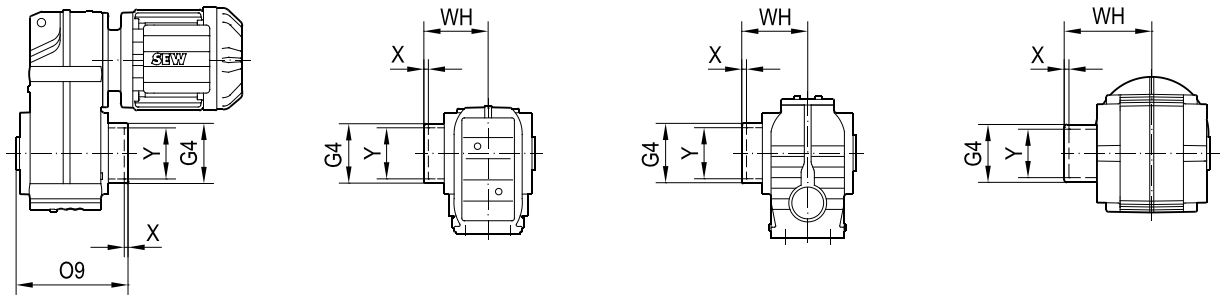
Gear unit size	F..37	F..47	F..57	F..67	F..77	F..87	F..97
Maximum possible motor mounting size	71M	80M	90L	112M	132L	160L	180L

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6.15.6 Part numbers and dimensions for high fixed plastic covers

00 002 00 18

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

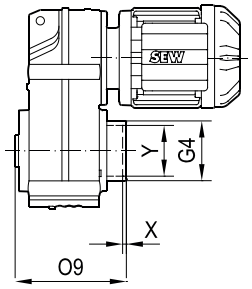
SPIROPLAN® gearmotors	WH/WA ..29	WH/WA ..39
Part number	10684158	10684166
G4 in mm	62	68
WH in mm	83	90
X in mm	2	4
Y in mm	50	60

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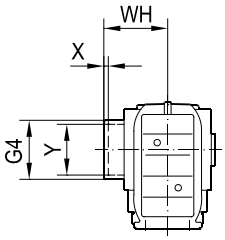
6.15.7 Part numbers and dimensions for fixed sheet metal covers

19 004 00 18

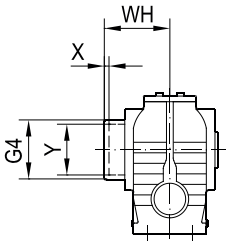
FT../FH../FA..



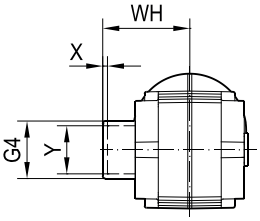
KT../KH../KA..



ST../SH../SA..



WT../WH../WA..



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 gearmotors	KH/KA ..19	KT..19	KH/KA ..29	KT..29	KT/KH/KA ..39	KT/KH/KA ..49
Part number	10686320	29225299	10686339	29225086	10682651	10682694
G4 in mm	60	61	68	70	86	97
WH in mm	84.5	87	91.5	98.5	117.5	138
X in mm	1.5	1.5	1.5	1.5	1	1
Y in mm	50	58	60	67	84	95

Helical-bevel gearmotors[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	06421849
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 gearmotors	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

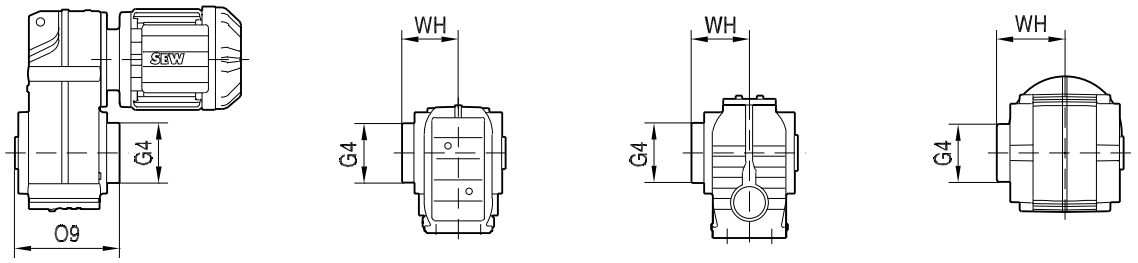
SPIROPLAN® gearmotors	WH/WA ..29	WT ..29	WH/WA ..39	WT ..39	WT/WH/WA ..49	WT/WH/WA ..59
Part number	10686320	29225299	10686339	29225086	29225612	29226147
G4 in mm	60	61	68	70	87	97
WH in mm	84.5	87	91.5	98	119	138
X in mm	1.5	1.5	1.5	1.5	1.5	1.0
Y in mm	50	58	60	67	84	95

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6.15.8 Part numbers and dimensions for flat fixed plastic covers

19 003 00 18

FA../FV.. KA../KV.. SA.. WA..



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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	102

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® gearmotors	WA..10	WA..19	WA..20	WA ..29	WA..30	WA ..39	WA ..49	WA ..59
Part number	10687998	10687998	10687998	10688684	10688099	10688293	10690794	10690794
G4 in mm	42.4	42.4	42.4	57.4	57.4	80.4	87.4	87.4
WH in mm	51	58.5	58.5	63.2	69	73.5	90	102

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6.16 Technical data of condition monitoring

6.16.1 Information on oil aging sensor /DUO10A

Technical data

	Technical data		
Preset oil grades	OIL1	CLP mineral oil	T_{max} = 100 °C
		Biodegradable oil	T_{max} = 100 °C
	OIL2	CLP HC synthetic oil	T_{max} = 130 °C
		CLP PAO oil	T_{max} = 130 °C
	OIL3	CLP PG polyglycol	T_{max} = 130 °C
	OIL4	Food grade oil	T_{max} = 100 °C
Switching 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 to +130 °C		
Permitted temperature sensor	Pt1000		
EMC	IEC1000-4-2/3/4/6		
Ambient temperature	-25 °C to +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		

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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.

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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

6.16.2 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
Mounting	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

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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 procedure	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 12 800 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)

Storage	
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
Cable	Voltage supply cable 8-pin for SmartCheck 5 m; M12(B) <-> open end	19179596
Cable	Ethernet cable for SmartCheck 5 m; M12 <-> RJ45	19179618
Cable	I/O cable 8-pin for SmartCheck 5 m; M12(St) <-> open end	19179626
Cable	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

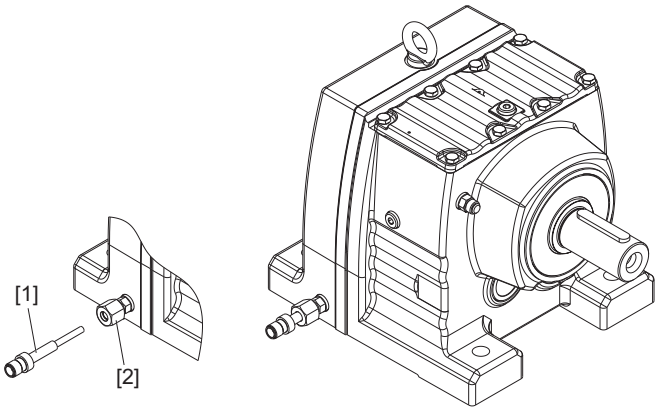
	Description	Part number
Base for mounting on industrial gear units	Mounting base with sealing ring G3/4"	20593384
	Mounting base with sealing ring G1"	20593392
	Mounting base with sealing ring G1 1/4"	20593406
	Mounting base with sealing ring G1 1/2"	20593414

	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

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6.17 Pt1000 temperature sensor

The optional Pt1000 temperature sensor (part number 13438816) is used for continuously measuring the oil temperature of the gear unit.



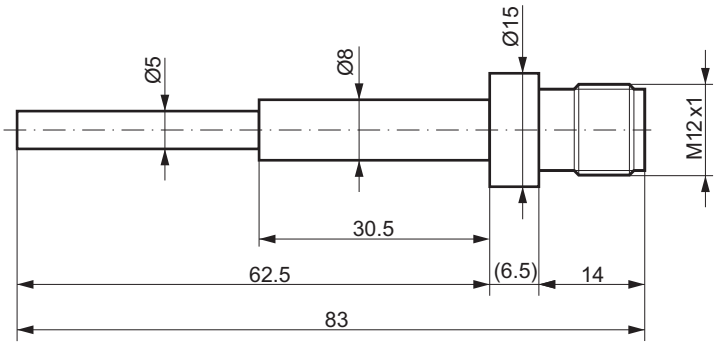
33338957451

[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).

6.17.1 Dimension drawing Pt1000



9007214369752075

6.17.2 Technical data Pt1000

Technical data	Value
Rod length	62.5 mm
Measuring range	-40 to 130 °C
Permitted oil temperature	-40 to 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

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

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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_e = 1400 min^{-1} , $M_{a\,max}$/Nm													820 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS								
	min^{-1}	Nm	N	'	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]				

27021619160726411

[1] Gear unit ratio: For gear ratios with a footnote [2], refer to chapter "Churning losses and thermal rating" (→ 🗎 56).
[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] Specification of a numerical value: Reduced backlash option (/R) is possible; the numerical value indicates the rotational clearance of the reduced backlash version in angular minutes '. No specification (-): The reduced backlash (/R) option is not possible for this i.
[6] Maximum permitted output torque of the gear unit/adapter combination
[7] Stages of the following gear ratios

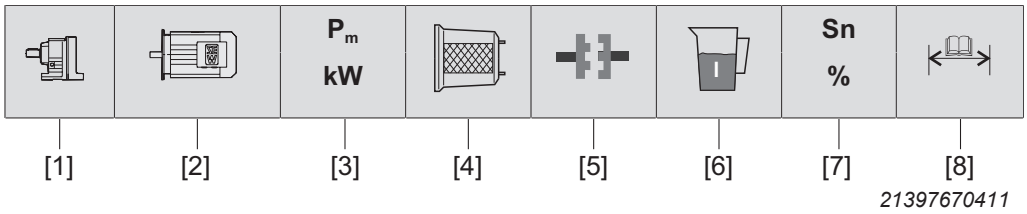
Combination is **not possible**.
Combination is **possible**.

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									

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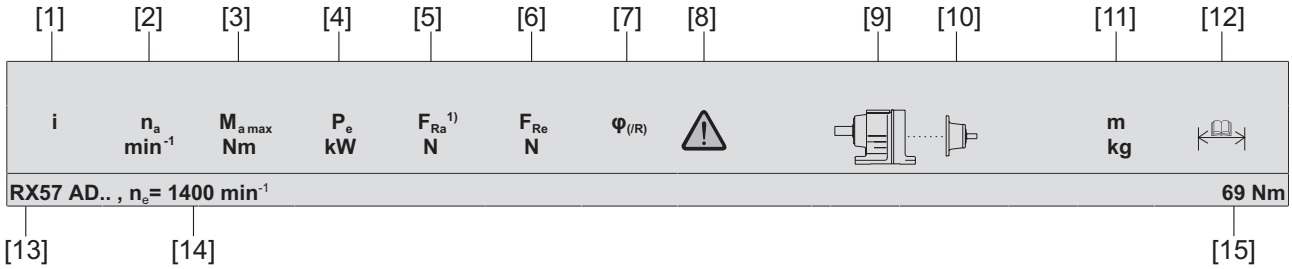
7.1.2 Information on selection tables for AT.. adapters



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



9007220652893963

[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 the input side
[7] Specification of a numerical value: Reduced backlash option (/R) is possible; the numerical value indicates the rotational clearance of the reduced backlash version in angular minutes '. No specification (-): The reduced backlash (/R) option is not possible for this i.
[8] Observe 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

The scope of delivery is indicated in the dimension sheets using the following shapes:



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 specified dimensions:

- h ≤ 250 mm → -0.5 mm
- h > 250 mm → -1 mm

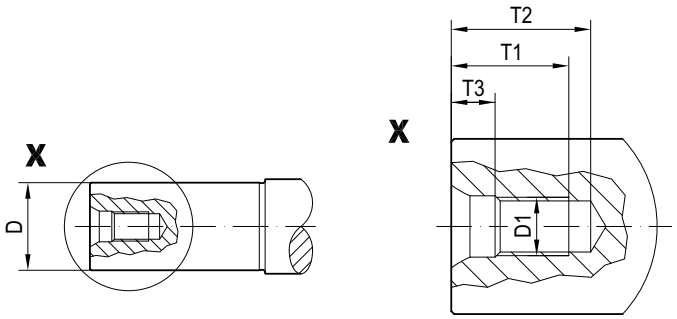
Foot-mounted gear unit: The mounted motor could protrude under the mounting surface, check.

Shaft ends

Diameter tolerance:

- Ø ≤ 50 mm → ISO k6
- Ø > 50 mm → ISO m6

Center holes according to DIN 332, shape DR:



18014429970571787

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
130 < D ≤ 225	M30	63	85	20

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Keys: according to DIN 6885 (domed type)

Keyway width to ISO N9

Hollow shafts

Diameter tolerance:

Ø → ISO H7 measured with plug gauge

Keys: according to DIN 6885 (domed type)

Exception: Key for WA.37 with shaft Ø 25 mm and for KA.29 with shaft Ø 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:

Ø ≤ 230 mm (flange sizes A120 – A300) → ISO j6

Ø > 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

R..07 – R..27 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 lifting eyebolts.

Gear unit/motor type	Removable		Cast-on
	Eyebolts	Lifting eyes	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	—

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Gear unit/motor type	Removable		Cast-on
	Eyebolts	Lifting eyes	Lifting eyes
K..37 – K..157	—	—	X
S..37/S47	—	X	—
S..47 – S..97	—	—	X
W..19 – W..59	—	X	—
≥ (E)DRN100L	X	—	—

— = 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.

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 $R_z \leq 16$ µm
- Elastic limit of the customer shaft material R_e and/or $Rp_{0.2} \geq 305$ N/mm²
- 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

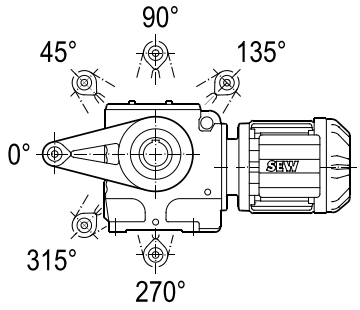
The following figure shows the possible positions of the torque arm with the corresponding angle specifications for the helical-worm gear units, K..9 helical-bevel gear units, and SPIROPLAN® gear units.

The gear units in the following table have exceptions for the position of the torque arm:

Gear unit	Impossible position
W..29, W..39	90°

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Gear unit	Impossible position
W..10 – W..30 W..19 – W..49 K..9	135°



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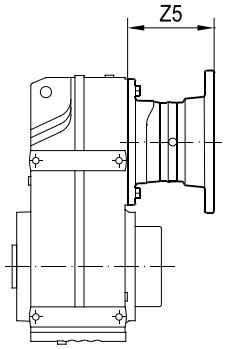
For more information about torque arms, refer to the respective dimension sheets of the gearmotors:

Gear unit	Dimension sheets on page
Helical-bevel gear unit	(→ 🗎 257)
Helical-worm gear unit	(→ 🗎 622)
SPIROPLAN® gear units	(→ 🗎 734)

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7.2.9 Dimensional deviations for certain AMS.. adapter combinations with parallel-shaft helical gear units

42 072 01 22



Gear unit	Adapter	Safety cover				Z5[1)]
		High fixed plastic safety cover	Fixed sheet metal safety cover	Rotating safety cover	Without safety cover	
FA./FV.37(B)	AMS71	x	x			78.5
FH.37(B)		x	x	x	x	78.5
FT37			x		x	78.5
FH.37(B)	AMS80	x	x	x		97.5
FT37			x		x	97.5
FA./FV.47(B)			x			97.5
FH.47(B)		x	x	x		97.5
FT47			x		x	97.5
FA./FH./FV.57(B)		x	x			91
FT57			x		x	91
FH.37(B)	AMS90	x	x			109
FT37			x			109
FH.47(B)		x	x			109
FT47			x		x	109
FA./FH./FV.57(B)			x			102.5
FT57			x		x	102.5
FH.57(B)	AMS100		x			153
FT57			x		x	153
FH.57(B)	AMS112		x			153
FT57			x		x	153
FT77	AMS132S/M		x		x	173.5
FT77	AMS132ML		x		x	173.5

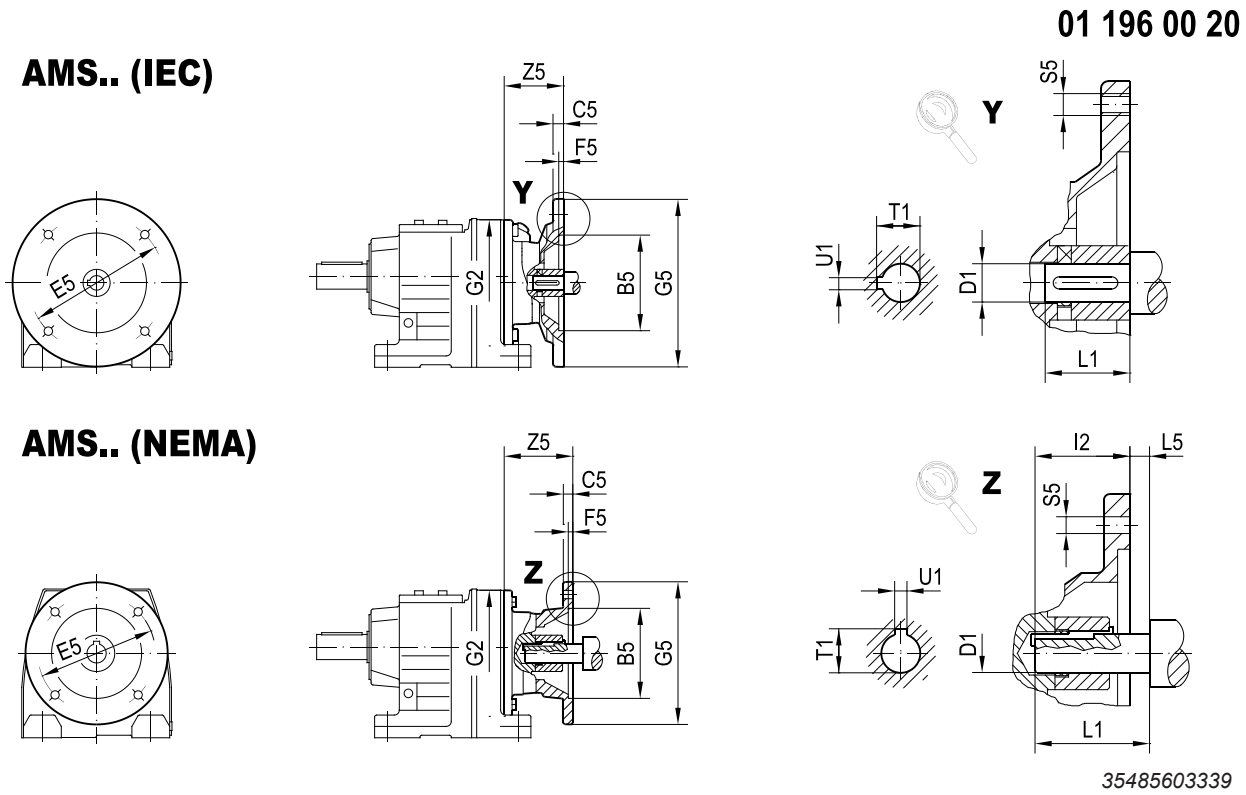
1) For the dimensions Z5 for the RS and DH options, refer to the "Gear units" catalog. The adapter does not have any additional length because of the reinforced bearing in the AMS.. adapter. An exception is the AMS80 adapter with reinforced bearing. It has the same length as the AMS90 adapter.

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7.2.10 Dimension designations of gear units and adapters

The dimensions of the gear units are described below:

AMS..(IEC) / AMS..(NEMA)



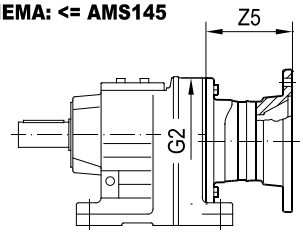
B5 Center bore diameter
C5 Flange thickness
D1 Coupling bore diameter
E5 Hole circle diameter
F5 Centering depth
G2 Gear unit input end flange diameter
G5 Adapter flange diameter
I2 Maximum insertion depth in adapter
L1 Shaft end length (motor)
L5 Shaft collar length to flange surface
S5 Tapped hole
T1 Keyway depth
U1 Keyway width
Z5 Adapter length

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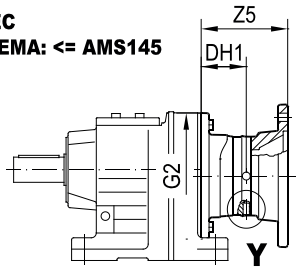
AMS../RS / AMS../DH

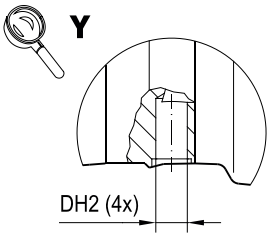
01 068 01 21

AMS.. /RS
IEC
NEMA: <= AMS145

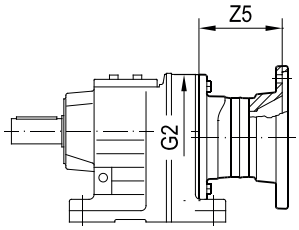


AMS.. /DH
IEC
NEMA: <= AMS145

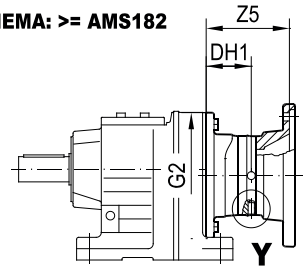




AMS.. /RS
NEMA: >= AMS182



AMS.. /DH
NEMA: >= AMS182

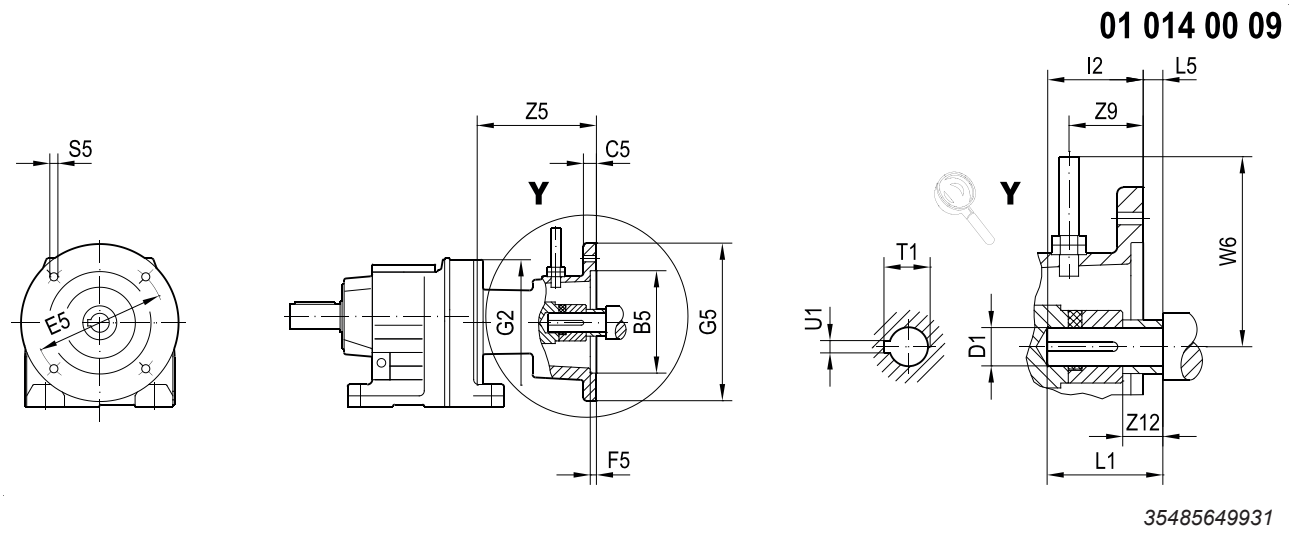


35485600907

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

For motors with other feedback systems than resolvers, possible additional lengths must be considered.

AR..

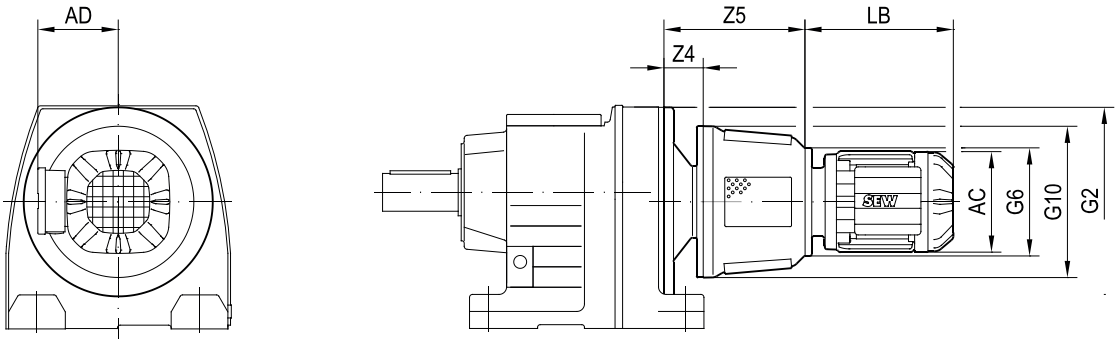


B5	Center bore diameter
C5	Flange thickness
D1	Coupling bore diameter
E5	Hole circle diameter
F5	Centering depth
G2	Gear unit input end flange diameter
G5	Adapter flange diameter
L1	Shaft end length (motor)
S5	Tapped hole
T1	Keyway depth
U1	Keyway width
W6	Incremental encoder height
Z5	Adapter length
Z9	Incremental encoder position
Z12	Shaft collar length to coupling

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AT..

01 075 01 21

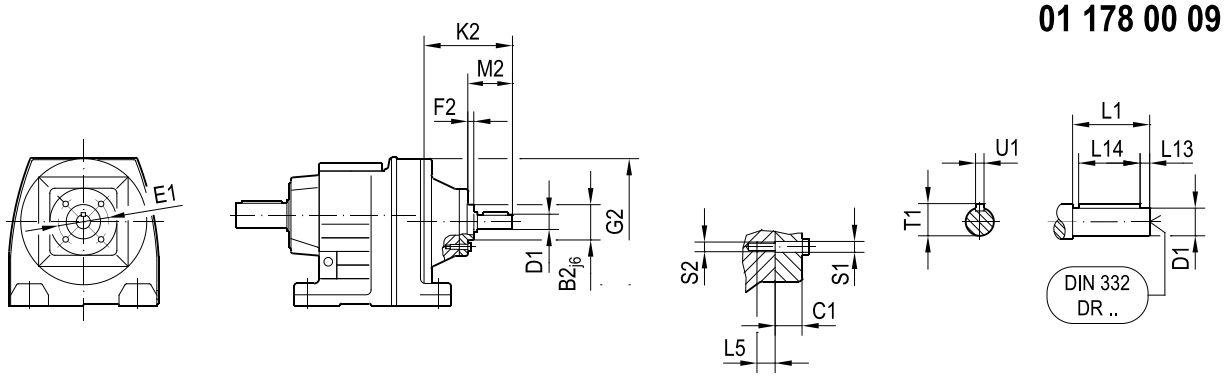


AC	Motor diameter
AD	Height of motor terminal box
G2	Flange diameter on input end of gear unit
G6	Motor flange diameter
G10	Housing diameter of start-up coupling
LB	Motor length
Z5	Adapter length
Z4	Distance of gear unit and hydraulic coupling

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AD.. / AD../ZR

01 178 00 09

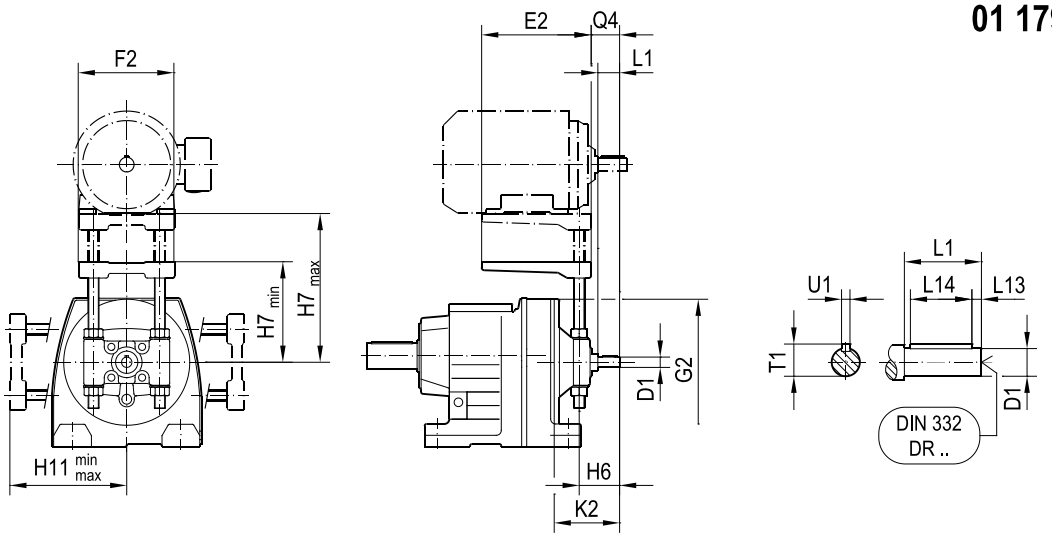


B2	Center bore diameter
C1	Flange thickness
D1	Shaft diameter
E1	Hole circle diameter
F2	Center bore height
G2	Flange diameter on input end of gear unit
K2	Input shaft assembly length
L1	Length of shaft end
L5	Thread depth
L13	Position of key
L14	Key length
M2	Contact surface position
S1	Through bore
S2	Thread diameter
T1	Key height in shaft
U1	Key width

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AD../P

01 179 00 09

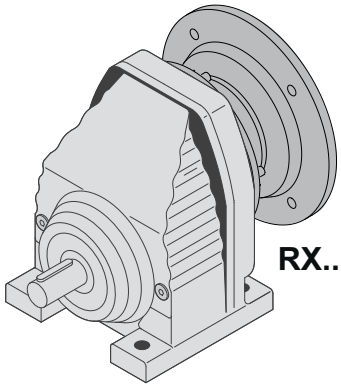


D1 Shaft diameter
E2 Length of motor platform
F2 Width of motor platform
G2 Flange diameter on input end of gear unit
H6 Distance from shaft end to middle of pillar
H7 Adjusting height
H11 Adjusting height (0°, 180°)
K2 Input shaft assembly length
L1 Length of shaft end
L13 Position of key
L14 Key length
Q4 Distance from shaft end to base plate
T1 Key height in shaft
U1 Key width

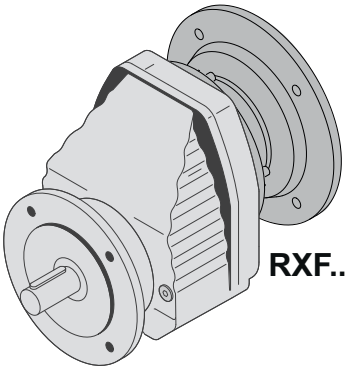
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8 R.. helical gear units

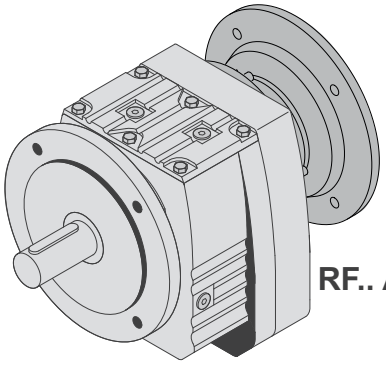
8.1 Selection tables for adapters for mounting IEC/NEMA motors (AMS..)



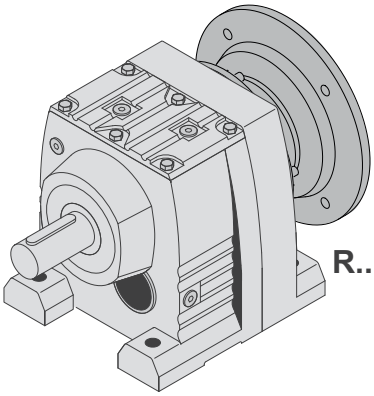
RX.. AMS..



RXF.. AMS..



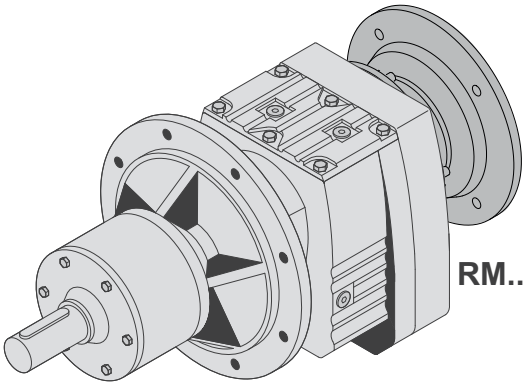
RF.. AMS..



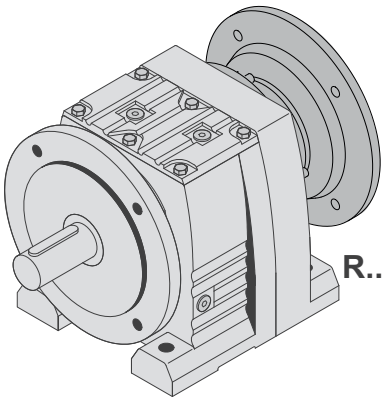
R.. AMS..

9007220696337291

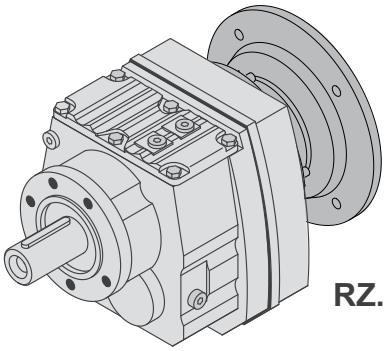
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RM.. AMS..



R..F AMS..



RZ.. AMS..

9007220696339723

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8.1.1 RX.. AMS.. /Nm

RX57, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm											69 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS						
	min^{-1}	Nm	N	'	63	71	80	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									

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RX67, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm											134 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS						
	min^{-1}	Nm	N	'	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	27
	NEMA	s	-	56	143	145	182	184	213/215
		1	-	16	17	17	21	21	24
RXF: + 4.0 kg									

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RX77, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm												215 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1)]	$\varphi_{(/R)}$	AMS							
	min^{-1}	Nm	N	'	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							
	IEC	s	63	71	80	90	100	112	132S/M	132ML
RX		1	25	25	27	27	32	32	37	37
	NEMA	s	-	56	143	145	182	184	213/215	-
		1	-	26	27	27	31	31	34	-
RXF: + 2.3 kg										

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RX87, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm												405 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1)]	$\varphi_{(/R)}$	AMS							
	min^{-1}	Nm	N	'	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										

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RX97, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm											595 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS						
	min^{-1}	Nm	N	'	100	112	132S/M	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									

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RX107, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm												830 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS							
	min^{-1}	Nm	N	'	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							
	IEC	s	100	112	132S/M	132ML	160	180	200	225
RX		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 min^{-1}, $M_{a\,max}$/Nm							50 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS		
	min^{-1}	Nm	N	'	63	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		
	IEC	s	63	71	80
R		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					

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R17, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm							85 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS		
	min^{-1}	Nm	N	'	63	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		
	IEC	s	63	71	80
R		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 min^{-1}, $M_{a\,max}$/Nm								130 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS			
	min^{-1}	Nm	N	'	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			
	IEC	s	63	71	80	90
R		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						

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R37, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm								200 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS			
	min^{-1}	Nm	N	'	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			
	IEC	s	63	71	80	90
R		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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R47, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm											300 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS						
	min^{-1}	Nm	N	'	63	71	80	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					

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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									

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R57, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm											450 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS						
	min^{-1}	Nm	N	'	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						
	IEC	s	63	71	80	90	100	112	132S/M
R		2	21	21	23	24	28	28	33
		3	22	22	24	25	29	29	34
	NEMA	s	-	56	143	145	182	184	213/215
		2	-	22	23	23	26	27	30
		3	-	23	24	24	27	27	31
RF: + 3.4 kg / RM: + 15 kg									

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R67, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm											600 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS						
	min^{-1}	Nm	N	'	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						
	IEC	s	63	71	80	90	100	112	132S/M
R		2	27	28	29	30	34	34	39
		3	28	28	30	31	35	35	40
	NEMA	s	-	56	143	145	182	184	213/215
		2	-	29	29	29	33	33	36
		3	-	30	30	30	34	34	37
RF: + 3.2 kg / RM: + 19 kg									

R77, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm												820 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS							
	min^{-1}	Nm	N	'	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							
	IEC	s	63	71	80	90	100	112	132S/M	132ML
R		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										

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R87, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm												1550 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS							
	min^{-1}	Nm	N	'	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							
	IEC	s	80	90	100	112	132S/M	132ML	160	180
R		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 min^{-1}, $M_{a\,max}$/Nm											3000 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS						
	min^{-1}	Nm	N	'	100	112	132S/M	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						
	IEC	s	100	112	132S/M	132ML	160	180	200
R		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									

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R107, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm												4300 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS							
	min^{-1}	Nm	N	'	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							
	IEC	s	100	112	132S/M	132ML	160	180	200	225
R		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_e = 1400 min^{-1}, $M_{a\,max}$/Nm												6000 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS							
	min^{-1}	Nm	N	'	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							
	IEC	s	100	112	132S/M	132ML	160	180	200	225
R		2	210	210	215	215	230	230	255	260
		3	225	225	230	230	245	245	270	275
	NEMA	s	182	184	213/215	-	254/256	284/286	324/326	364/365
		2	210	210	210	-	225	230	250	250
		3	225	225	230	-	240	245	265	265
RF: + 11 kg / RM: + 105 kg										

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R137, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm										8000 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS					
	min^{-1}	Nm	N	'	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					
	IEC	s	132S/M	132ML	160	180	200	225
R		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								

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R147, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm											13000 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS						
	min^{-1}	Nm	N	'	132ML	160	180	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						
	IEC	s	132ML	160	180	200	225	250	280
R		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									

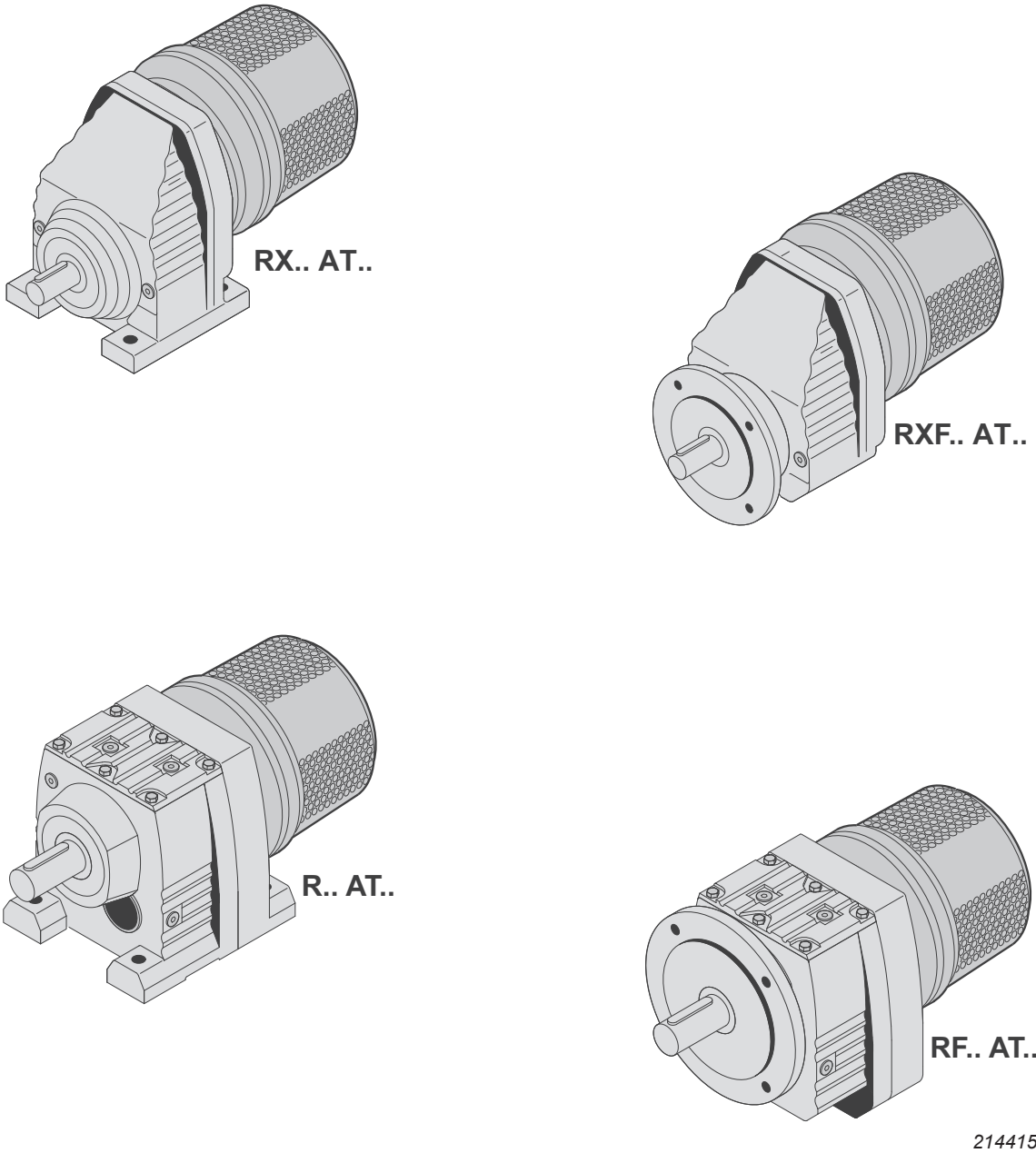
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R167, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm										20000 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS					
	min^{-1}	Nm	N	'	160	180	200	225	250	280
						2				
10.24	137	18500	77500	5			4190	4190	6560	6560
11.99	117	19000	83300	5		3660	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					
						3				
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					
	IEC	s	160	180	200	225	250	280
R		2	650	650	670	680	700	700
		3	660	660	680	680	700	710
	NEMA	s	254/256	284/286	324/326	364/365	-	-
		2	650	650	670	670	-	-
		3	660	660	670	670	-	-
RF: + 6.4 kg / RM: + 200 kg								

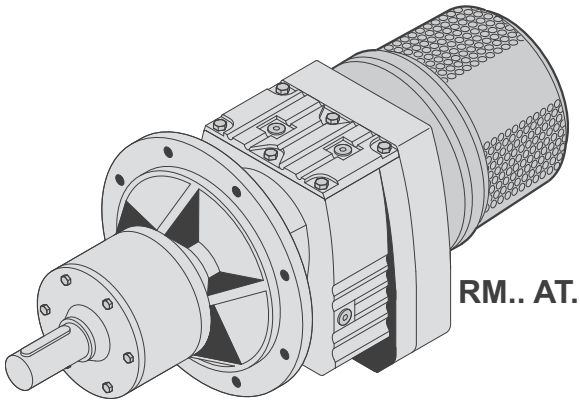
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8.2 Selection tables for adapters with hydraulic start-up coupling (AT..)

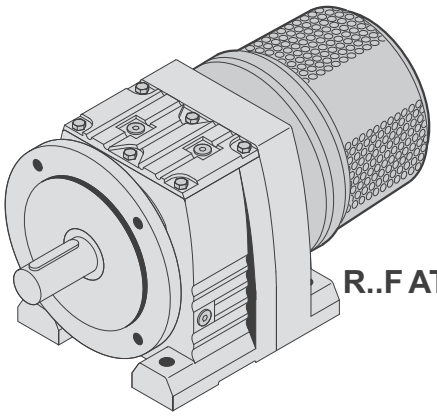


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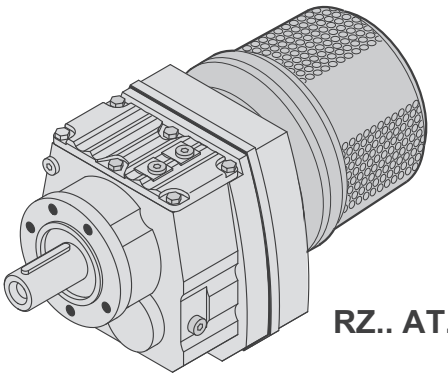
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RM.. AT..



R..F AT..



RZ.. AT..

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8.2.1 R..AT/DRN..4

		P_{Mot} kW				Sn %	
R67	DRN71M4	0.37	AT311	T11	0.42	12	(→ 🗎 318)
	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	

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		P_{Mot} kW				Sn %	
R97	DRN90S4	1.1	AT312	T11D	0.72	15	(→ 318)
	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	

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		P_{Mot} kW				Sn %	
R137	DRN100LS4	2.2	AT421	T21	0.9	13	(→ 318)
	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	

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8.2.2 R..AT/DRN..2

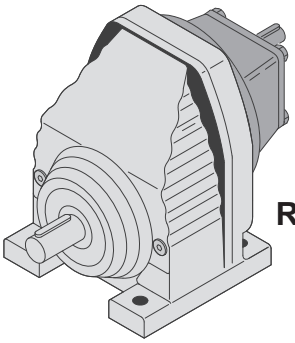
		P_{Mot} kW				Sn	
R67	DRN71M2	0.55	AT311	T11	0.19	3	(→ 318)
	DRN80MS2	0.75	AT311	T11	0.22	4.5	
	DRN80M2	1.1	AT311	T11	0.27	6	
	DRN90S2	1.5	AT311	T11	0.29	8.5	
	DRN90L2	2.2	AT311	T11	0.31	11.5	
	DRN100LM2	3	AT311	T11	0.4	12	
	DRN112M2	4	AT312	T11D	0.52	10	
R77	DRN71M2	0.55	AT311	T11	0.19	3	
	DRN80MS2	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	

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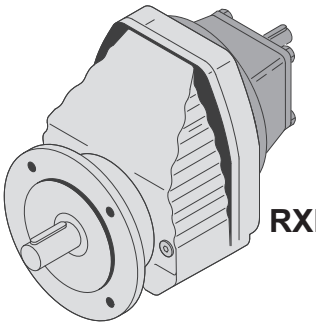
		P_{Mot} kW				Sn	
R127	DRN100LM2	3	AT311	T11	0.4	12	(→ 318)
	DRN112M2	4	AT312	T11D	0.52	10	
	DRN132S2	5.5	AT321	T11D	0.58	12	
	DRN132S2	5.5	AT421	T21	0.6	8	
R137	DRN132S2	5.5	AT421	T21	0.6	8	

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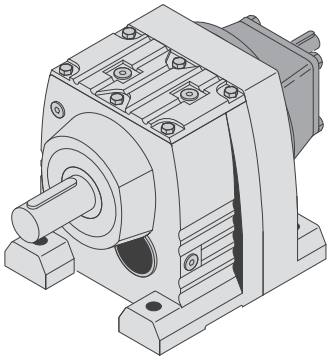
8.3 Selection tables for input shaft assembly (AD..)



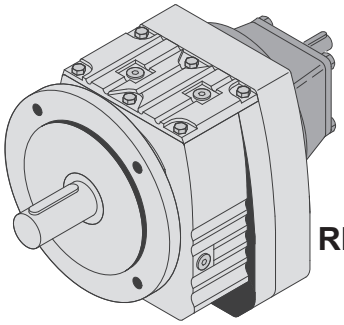
RX.. AD..



RXF.. AD..



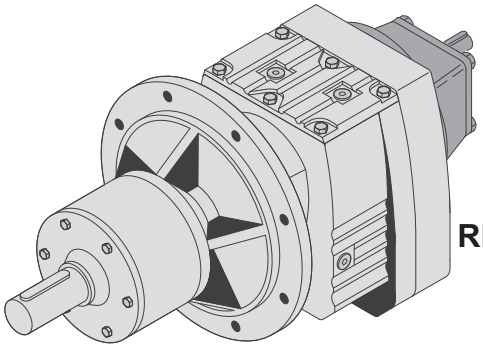
R.. AD..



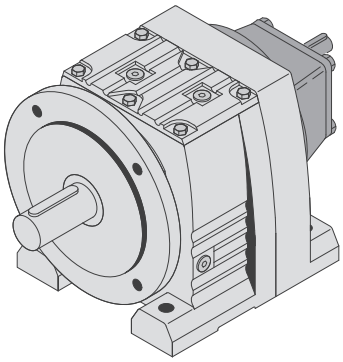
RF.. AD..

21460886923

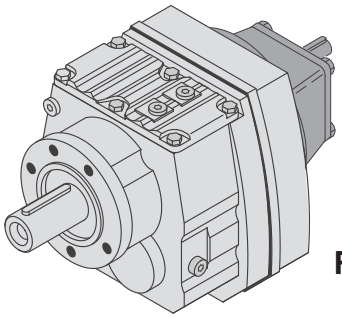
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RM.. AD..



R..F AD..



RZ.. AD..

21460889355

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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	$\varphi_{(/R)}$	⚠				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	323
3.55*	394	55	2.3	2520	1150	-	-	**RXF**	**57**	**AD2**	15	323
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	323
1.65	847	69	6.3	430	1720	-	-	**RXF**	**57**	**AD3**	18	323
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	$\varphi_{(/R)}$	⚠				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	323
4.30*	326	69	2.4	3370	1140	-	-	**RXF**	**67**	**AD2**	19	323
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	323
2.04	685	114	8.3	1260	1310	-	-	**RXF**	**67**	**AD3**	23	323
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	$\varphi_{(/R)}$	⚠				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	323
5.63	249	107	2.9	5320	970	-	-	**RXF**	**77**	**AD2**	27	323
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	323
3.70	378	143	5.8	4350	1560	-	-	**RXF**	**77**	**AD3**	31	323
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	323
2.13	657	200	14.0	435	2720	-	-	**RXF**	**77**	**AD4**	37	323
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	$\varphi_{(/R)}$	⚠				m kg	
8.65	162	139	2.4	7890	1070	-	-					
7.63	183	145	2.9	7510	1020	-	-	**RX**	**87**	**AD2**	41	323
7.20*	194	136	2.9	7390	1060	-	-	**RXF**	**87**	**AD2**	46	323
6.45	217	192	4.5	6850	1640	-	-					
5.56*	252	225	6.1	6320	1410	-	-	**RX**	**87**	**AD3**	45	323
5.07	276	215	6.4	6140	1440	-	-	**RXF**	**87**	**AD3**	50	323

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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	$\varphi_{(/R)}$	⚠				m kg	
4.50*	311	290	9.7	5500	3010	-	-	**RX**	**87**	**AD4**	52	323
3.78	370	305	12.1	5030	2850	-	-	**RXF**	**87**	**AD4**	56	323
3.48	403	405	17.4	2730	5330	-	-					
3.09	454	405	19.6	1950	5250	-	-					
2.76*	507	405	22	1200	5160	-	-					
2.48	564	405	24	470	5060	-	-	**RX**	**87**	**AD5**	66	323
2.15	650	385	27	42	5050	-	-	**RXF**	**87**	**AD5**	71	323
1.93	726	355	28	185	5150	-	-					
1.60*	875	315	29	74	5230	-	-					
1.39	1005	290	31	74	5310	-	-					

RX97 AD.. , n_e = 1400 min^{-1} — 595 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				m kg	
8.23	170	225	4.2	9560	1710	-	-					
7.16*	196	260	5.5	8950	1520	-	-	**RX**	**97**	**AD3**	70	323
6.56	214	300	6.9	8500	1260	-	-	**RXF**	**97**	**AD3**	78	323
5.79	242	420	10.9	7630	2770	-	-	**RX**	**97**	**AD4**	75	323
4.91	285	395	12.1	7220	2820	-	-	**RXF**	**97**	**AD4**	84	323
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	-	-	**RX**	**97**	**AD5**	92	323
2.64	530	595	34	1980	4510	-	-	**RXF**	**97**	**AD5**	100	323
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	-	-	**RX**	**97**	**AD6**	105	323
								RXF	**97**	**AD6**	115	323

RX107 AD.. , n_e = 1400 min^{-1} — 830 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				m kg	
6.63*	211	460	10.4	9700	2710	-	-	**RX**	**107**	**AD4**	110	323
5.61	250	455	12.2	9080	2660	-	-	**RXF**	**107**	**AD4**	125	323
5.19	270	695	20	7850	4730	-	-					
4.65	301	695	22	7450	4660	-	-					
4.20*	333	830	30	6420	3800	-	-	**RX**	**107**	**AD5**	125	323
3.81	367	830	32	5550	3610	-	-	**RXF**	**107**	**AD5**	140	323
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	-	-	**RX**	**107**	**AD6**	135	323
1.95	716	730	56	1260	6410	-	-	**RXF**	**107**	**AD6**	155	323
1.71	820	640	56	1840	6700	-	-					
1.44	969	540	56	2610	7070	-	-					

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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	$\varphi_{(/R)}$	⚠				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	323
40.34	35	49	0.19	1260	820	-	-	**RF**	**07**	**AD01**	3.5	323
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	323
7.48	187	31	0.63	770	245	-	-	**RF**	**07**	**AD01**	3.4	323
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	$\varphi_{(/R)}$	⚠				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	323
44.18	32	84	0.30	1830	820	-	-	**RF**	**17**	**AD01**	4.6	323
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	-	-	**R**	**17**	**AD01**	4.4	323
10.15	138	67	1.0	1210	400	-	-	**RF**	**17**	**AD01**	4.3	323
8.63	162	57	1.0	1200	470	-	-					
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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R27 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	$\varphi_{(/R)}$	⚠				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	323
55.87	25	130	0.38	3840	565	-	-	**RF**	**27**	**AD1**	5.9	323
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	323
9.41	149	122	2.0	900	1150	-	-	**RF**	**27**	**AD2**	6.8	323
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 min^{-1} — 200 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				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	323
73.96	19	200	0.44	4940	615	8	-	**RF**	**37**	**AD1**	13	323
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	-	**R**	**37**	**AD2**	13	323
32.40	43	200	0.97	4120	1390	9	-	**RF**	**37**	**AD2**	14	323
28.73	49	200	1.1	3740	1650	9	-					
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	$\varphi_{(/R)}$	⚠				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	323
9.47	148	167	2.7	1760	1320	8	-	**RF**	**37**	**AD2**	14	323
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	$\varphi_{(/R)}$	⚠				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	323
64.21	22	300	0.74	5420	1440	8	-	**RF**	**47**	**AD2**	17	323
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	323
11.79	119	245	3.2	3020	1240	7	-	**RF**	**47**	**AD2**	17	323
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	323
								RF	**47**	**AD3**	20	323

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R57 AD.. , n_e = 1400 min^{-1} — 450 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠					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	323
69.23	20	450	1.0	7100	1020	7	-	**RF**	**57**	**AD2**		26	323
64.85	22	450	1.1	6980	1570	8	-	**RM**	**57**	**AD2**		38	323
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	-						
21.93	64	450	3.1	4370	1000	7	-	**R**	**57**	**AD2**		21	323
18.60*	75	450	3.7	4050	960	7	-	**RF**	**57**	**AD2**		25	323
16.79	83	450	4.1	3860	920	7	-	**RM**	**57**	**AD2**		37	323
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	323
7.97	176	355	6.8	2020	1460	9	-	**RF**	**57**	**AD3**		28	323
7.53	186	350	7.0	1950	1460	9	-	**RM**	**57**	**AD3**		40	323
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 min^{-1} — 600 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠					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	323
74.17	19	600	1.3	7560	1620	7	-	**RF**	**67**	**AD2**		32	323
69.75	20	600	1.4	7560	1620	7	-	**RM**	**67**	**AD2**		48	323
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	323
26.72	52	400	2.3	9340	1160	6	-	**RF**	**67**	**AD2**		31	323
23.44	60	560	3.6	8010	810	6	-	**RM**	**67**	**AD2**		47	323

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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	$\varphi_{(/R)}$	⚠				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	323
8.70*	161	440	7.7	5960	1710	7	-	**RF**	**67**	**AD3**	34	323
7.79	180	380	7.4	5830	1280	8	-	**RM**	**67**	**AD3**	50	323
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	$\varphi_{(/R)}$	⚠				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	323
65.77	21	820	1.9	9920	1560	7	-	**RF**	**77**	**AD2**	41	323
57.68	24	820	2.2	9920	1380	7	-	**RM**	**77**	**AD2**	66	323
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	323
15.60	90	740	7.2	7390	1620	6	-	**RF**	**77**	**AD3**	43	323
14.05	100	720	7.8	7050	1590	6	-	**RM**	**77**	**AD3**	68	323
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	323
6.79	206	580	12.9	3850	2930	8	-	**RF**	**77**	**AD4**	49	323
5.99*	234	540	13.7	3990	2970	8	-	**RM**	**77**	**AD4**	74	323
5.31*	264	510	14.5	3990	2980	8	-					

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R87 AD.. , n_e = 1400 min^{-1} — 1550 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				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	323
103.65	14	1550	2.3	16900	1480	6	-	**RF**	**87**	**AD2**	68	323
93.38	15	1550	2.6	16900	1460	6	-	**RM**	**87**	**AD2**	98	323
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	-					
36.84*	38	1550	6.5	16800	1900	7	-	**R**	**87**	**AD3**	65	323
32.66*	43	1550	7.3	16000	1850	7	-	**RF**	**87**	**AD3**	72	323
27.88	50	1500	8.3	15100	1810	7	-	**RM**	**87**	**AD3**	100	323
34.40*	41	1360	6.0	11500	1400	5	-	**R**	**87**	**AD3**	64	323
31.40	45	1280	6.2	11700	1450	5	-	**RF**	**87**	**AD3**	71	323
								RM	**87**	**AD3**	100	323
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	323
17.08*	82	1390	12.4	12600	3130	6	-	**RF**	**87**	**AD4**	77	323
15.35	91	1340	13.2	12100	3130	6	-	**RM**	**87**	**AD4**	105	323
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	323
7.13	196	1070	23	9780	5440	7	-	**RF**	**87**	**AD5**	92	323
6.39	219	1020	24	9450	5450	7	-	**RM**	**87**	**AD5**	120	323
5.30*	264	910	26	8980	5510	7	-					

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	$\varphi_{(/R)}$	⚠				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	323
103.44	14	3000	4.5	19800	2100	6	-	**RF**	**97**	**AD3**	125	323
92.48	15	3000	5.0	19800	2070	6	-	**RM**	**97**	**AD3**	175	323
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	323
37.13	38	3000	12.4	18600	3320	6	-	**RF**	**97**	**AD4**	130	323
33.25	42	2890	13.4	17900	3310	6	-	**RM**	**97**	**AD4**	180	323
27.58	51	2670	14.9	16900	3290	6	-					
32.05	44	2560	12.1	10600	2370	5	-	**R**	**97**	**AD4**	110	323
27.19	52	2430	13.6	9910	2490	5	-	**RF**	**97**	**AD4**	125	323
								RM	**97**	**AD4**	175	323

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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	$\varphi_{(/R)}$	⚠				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	323
12.39	113	2190	27	12700	5380	6	-	**RF**	**97**	**AD5**	145	323
10.83	129	2090	29	12100	5380	6	-	**RM**	**97**	**AD5**	195	323
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	323
4.50*	311	1630	55	9500	6940	6	M2	**RF**	**97**	**AD6**	155	323
								RM	**97**	**AD6**	210	323

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	$\varphi_{(/R)}$	⚠				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	323
127.68	11	4300	5.2	29500	2040	7	-	**RF**	**107**	**AD3**	170	323
115.63	12	4300	5.8	29500	2020	7	-	**RM**	**107**	**AD3**	260	323
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	323
47.63	29	4300	13.9	25500	3260	7	-	**RF**	**107**	**AD4**	175	323
40.37*	35	4300	16.4	23800	3150	7	-	**RM**	**107**	**AD4**	265	323
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	323
22.62	62	4300	29	18300	4510	7	-	**RF**	**107**	**AD5**	185	323
20.07	70	4300	32	17300	4400	7	-	**RM**	**107**	**AD5**	270	323
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	323
7.86	178	2900	56	13900	6250	9	-	**RF**	**107**	**AD6**	200	323
6.66	210	2460	56	13500	6650	9	-	**RM**	**107**	**AD6**	285	323
5.82	240	2150	56	13200	6930	9	-					
4.92	284	2000	61	12500	6950	9	M2					

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R127 AD.. , n_e = 1400 min^{-1} — 6000 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠					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	323	
120.92	12	6000	7.7	43000	1760	6	-	**RF**	**127**	**AD3**	235	323	
107.23	13	6000	8.7	43000	1720	6	-	**RM**	**127**	**AD3**	330	323	
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	323	
42.22*	33	6000	22	43000	2650	7	-	**RF**	**127**	**AD4**	240	323	
36.88	38	5730	24	43000	2630	7	M2	**RM**	**127**	**AD4**	335	323	
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	323	
26.04*	54	5790	34	43000	2760	6	-	**RF**	**127**	**AD5**	245	323	
23.65	59	6000	38	43000	2190	6	-	**RM**	**127**	**AD5**	340	323	
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	323	
8.96	156	3300	56	43000	7180	7	M1-6	**RF**	**127**	**AD6**	260	323	
8.85	158	3270	56	43000	6110	8	M1-6	**RM**	**127**	**AD6**	355	323	
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 min^{-1} — 8000 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠					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	323	
113.72	12	8000	10.9	53400	3530	6	-	**RF**	**137**	**AD4**	280	323	
103.20*	14	8000	12.0	53400	3490	6	-	**RM**	**137**	**AD4**	390	323	
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	323	
37.65	37	8000	33	53400	5400	6	M1-6	**RF**	**137**	**AD5**	290	323	
32.91	43	8000	37	53400	5240	6	M1-6	**RM**	**137**	**AD5**	405	323	
27.83	50	7680	42	54100	5160	6	M1-6						
29.57*	47	7780	40	53800	5200	6	-	**R**	**137**	**AD6**	270	323	
24.12	58	8000	50	49400	4330	6	M2	**RF**	**137**	**AD6**	295	323	
								RM	**137**	**AD6**	405	323	

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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	$\varphi_{(/R)}$	⚠				m kg	
22.00*	64	8000	55	47100	11700	6	M1-6					
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	**R**	**137**	**AD7**	280	323
12.83	109	7390	87	37400	9850	6	M1-6	**RF**	**137**	**AD7**	305	323
10.79	130	7200	101	34700	8850	6	M1-6	**RM**	**137**	**AD7**	415	323
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	$\varphi_{(/R)}$	⚠				m kg	
163.31	8.6	13000	12.3	62700	2990	5	-					
146.91	9.5	13000	13.6	62700	2940	5	-					
119.86	12	13000	16.7	62700	2800	5	-	**R**	**147**	**AD4**	385	312
109.31	13	13000	18.3	62700	2750	5	-	**RF**	**147**	**AD4**	395	312
94.60*	15	13000	21	62700	2650	6	-	**RM**	**147**	**AD4**	560	312
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	-	**R**	**147**	**AD5**	400	312
61.09	23	13000	33	62700	4470	6	-	**RF**	**147**	**AD5**	410	312
52.87	26	13000	38	62700	4310	6	-	**RM**	**147**	**AD5**	570	312
46.65	30	13000	43	62700	4170	6	M2,4					
40.29	35	13000	49	62700	6970	6	M1-6	**R**	**147**	**AD6**	410	312
								RF	**147**	**AD6**	420	312
								RM	**147**	**AD6**	590	312
35.64	39	13000	56	62700	16800	6	M1-6	**R**	**147**	**AD7**	410	312
29.95	47	13000	66	62700	16600	6	M1-6	**RF**	**147**	**AD7**	420	312
24.19	58	11900	75	64700	16500	6	M1-6	**RM**	**147**	**AD7**	590	312
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	**R**	**147**	**AD8**	420	312
9.74	144	8650	134	67400	23900	6	M1-6	**RF**	**147**	**AD8**	425	312
8.26	169	7340	134	66900	24400	6	M1-6	**RM**	**147**	**AD8**	590	312
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	$\varphi_{(/R)}$	⚠				m kg	
229.71	6.1	20000	13.5	120000	5880	5	-					
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	-	**R**	**167**	**AD5**	650	312
121.81*	11	20000	25	120000	5520	5	-	**RF**	**167**	**AD5**	650	312
107.49	13	20000	29	120000	5430	5	-	**RM**	**167**	**AD5**	850	312
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	-	**R**	**167**	**AD6**	670	312
58.65	24	20000	52	120000	5870	6	-	**RF**	**167**	**AD6**	670	312
51.76	27	20000	59	120000	5530	6	M2	**RM**	**167**	**AD6**	870	312
44.87	31	20000	68	120000	13700	6	M1-6	**R**	**167**	**AD7**	660	312
39.92	35	20000	77	120000	12900	6	M1-6	**RF**	**167**	**AD7**	670	312
34.41	41	20000	89	120000	12000	6	M1-6	**RM**	**167**	**AD7**	860	312
27.96	50	19800	108	120000	25000	6	M1-6	**R**	**167**	**AD8**	680	312
23.71	59	18400	119	115400	25000	6	M1-6	**RF**	**167**	**AD8**	690	312
								RM	**167**	**AD8**	880	312

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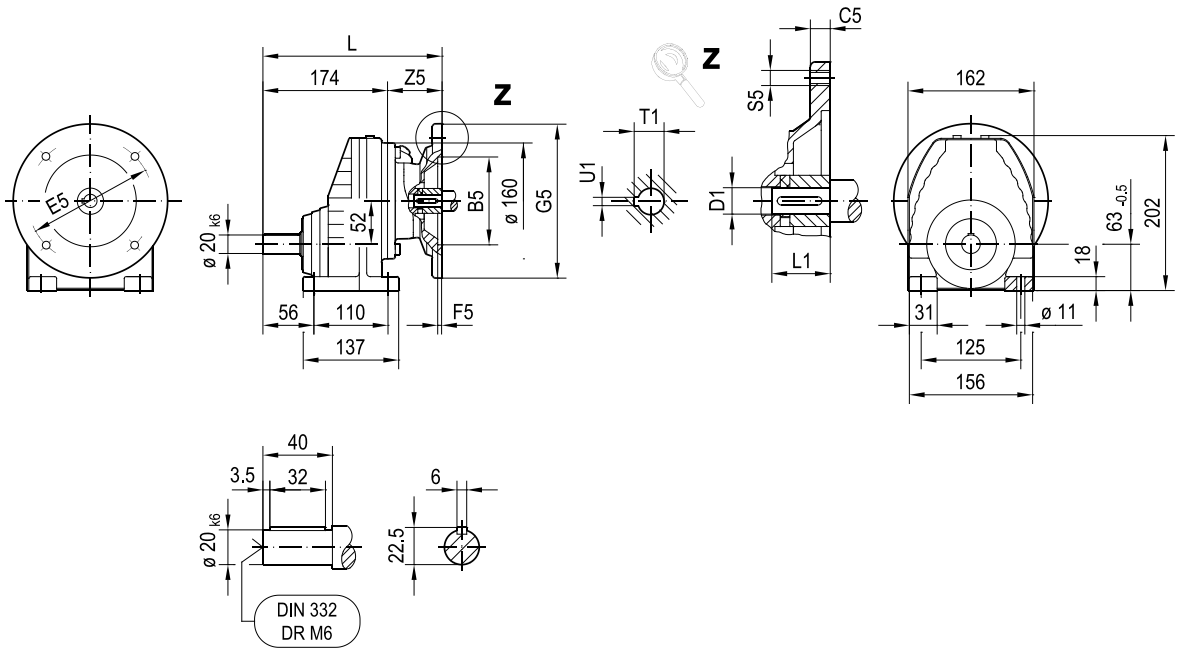
R167 AD.. , n_e = 1400 min^{-1}												20000 Nm
i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				m kg	
46.00	30	8460	28	120000	3140	5	-	**R**	**167**	**AD5**	640	312
								RF	**167**	**AD5**	650	312
								RM	**167**	**AD5**	840	312
37.74	37	9940	40	120000	5170	5	-	**R**	**167**	**AD6**	660	312
30.71	46	11400	56	120000	2870	5	-	**RF**	**167**	**AD6**	670	312
								RM	**167**	**AD6**	860	312
24.57	57	15800	97	120000	22800	5	M2					
21.85	64	14000	97	120000	23500	5	M2,4					
19.03	74	18100	143	105700	21200	5	M1-6	**R**	**167**	**AD8**	680	312
16.98	82	16100	143	105900	21900	5	M1-6	**RF**	**167**	**AD8**	680	312
14.48	97	19500	203	89800	19500	5	M1-6	**RM**	**167**	**AD8**	880	312
11.99	117	18800	236	83900	19100	5	M1-6					
10.24	137	18300	269	78700	18600	5	M1-6					

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8.4 Dimension sheets for adapters for mounting IEC motors (AMS..)

01 150 00 20

RX57..

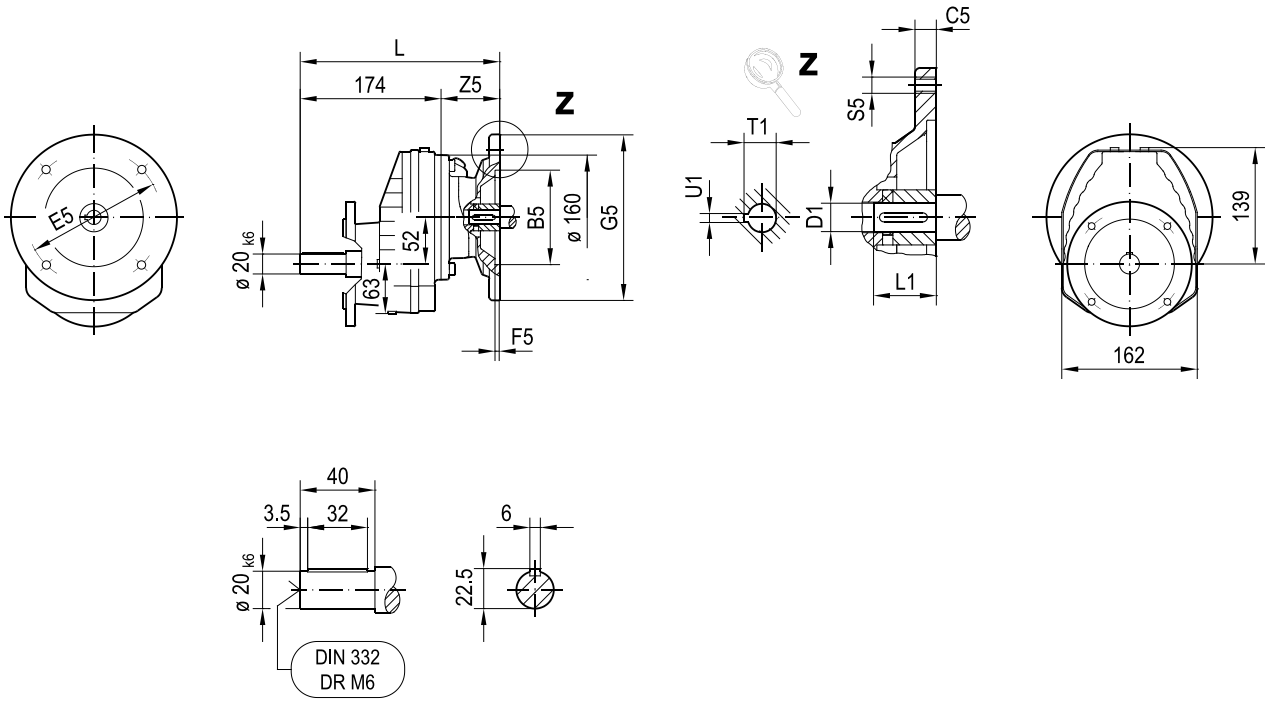


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	224	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	224	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	241	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	254	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	283	M12	108.5	28	60	31.3	8
AMS112	180	15	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

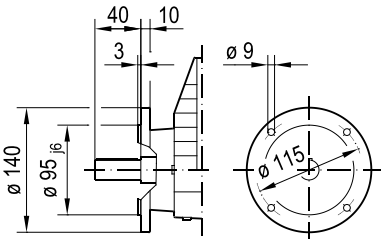
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01 151 00 20

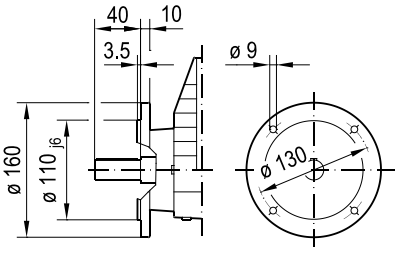
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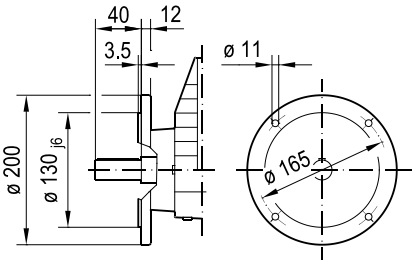
ø 140



ø 160



ø 200

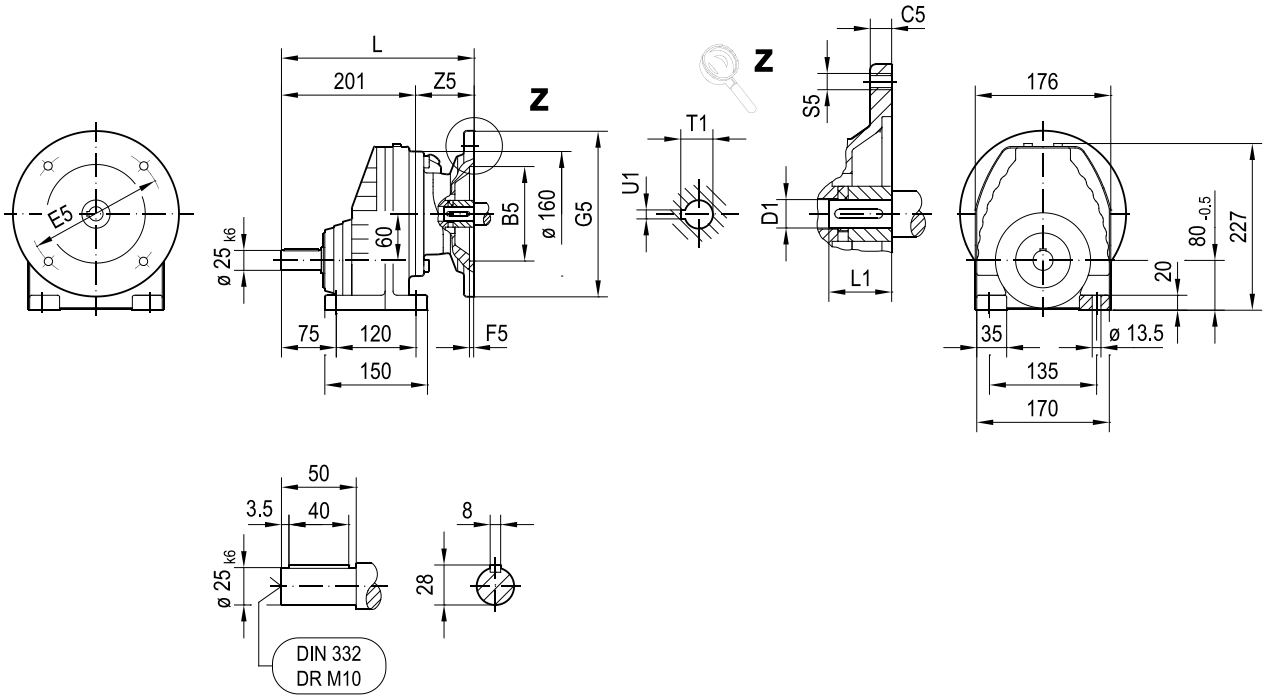


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	224	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	224	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	241	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	254	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	283	M12	108.5	28	60	31.3	8
AMS112	180	15	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

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01 152 00 20

RX67..

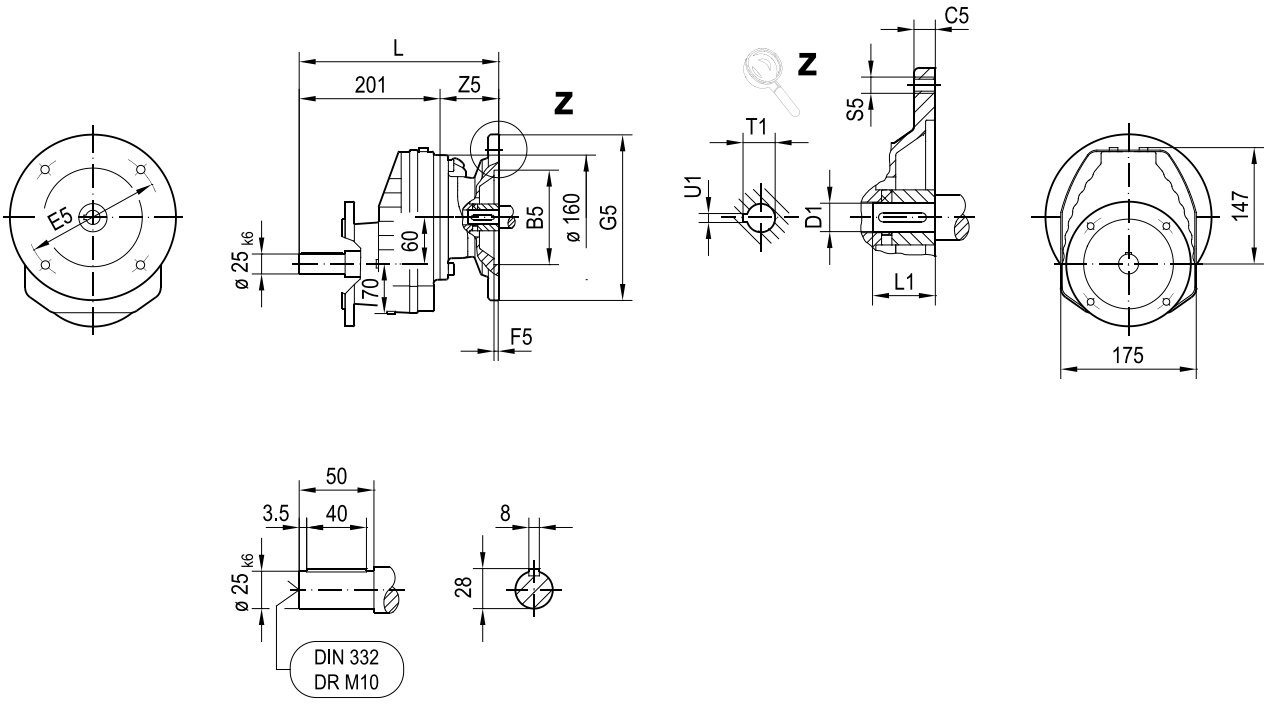


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	251	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	251	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	268	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	281	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	310	M12	108.5	28	60	31.3	8
AMS112	180	15	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

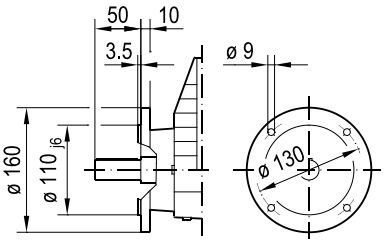
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01 153 00 20

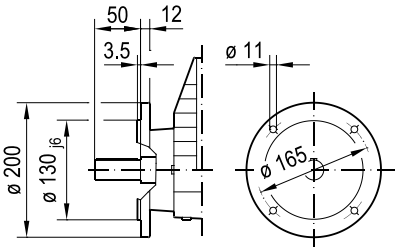
RXF67..



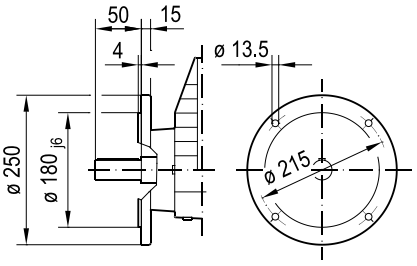
ø 160



ø 200



ø 250

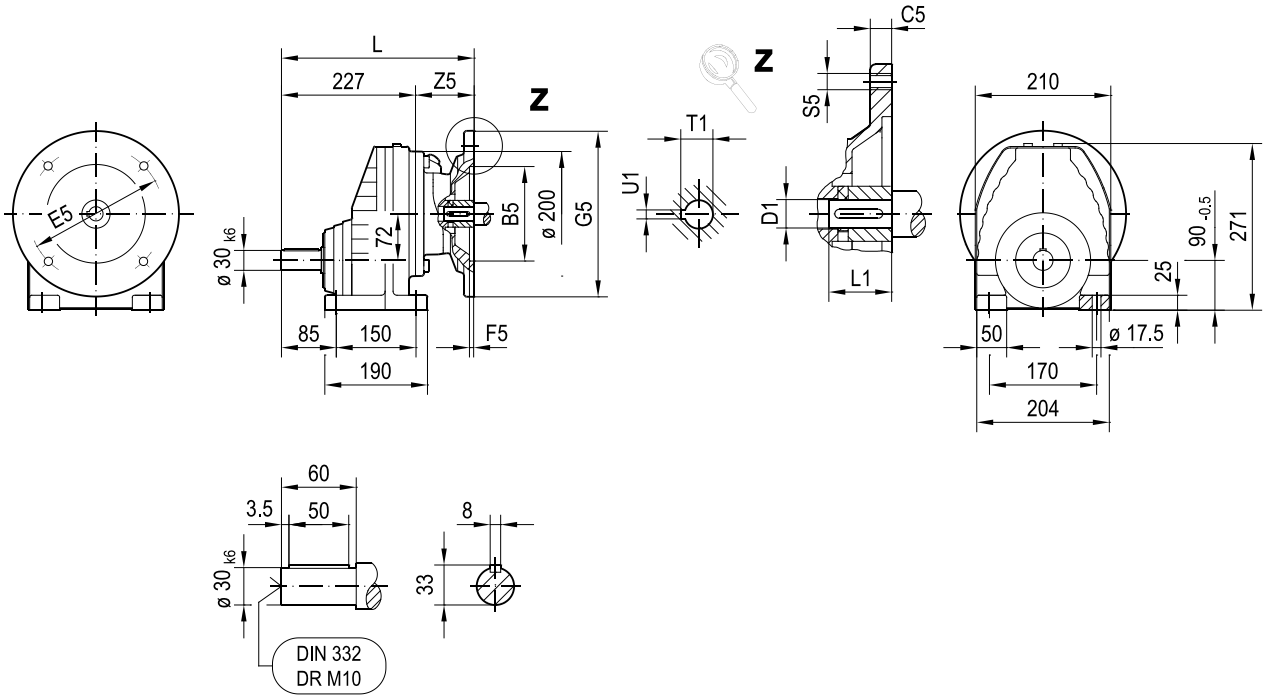


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	251	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	251	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	268	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	281	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	310	M12	108.5	28	60	31.3	8
AMS112	180	15	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

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01 154 00 20

RX77..

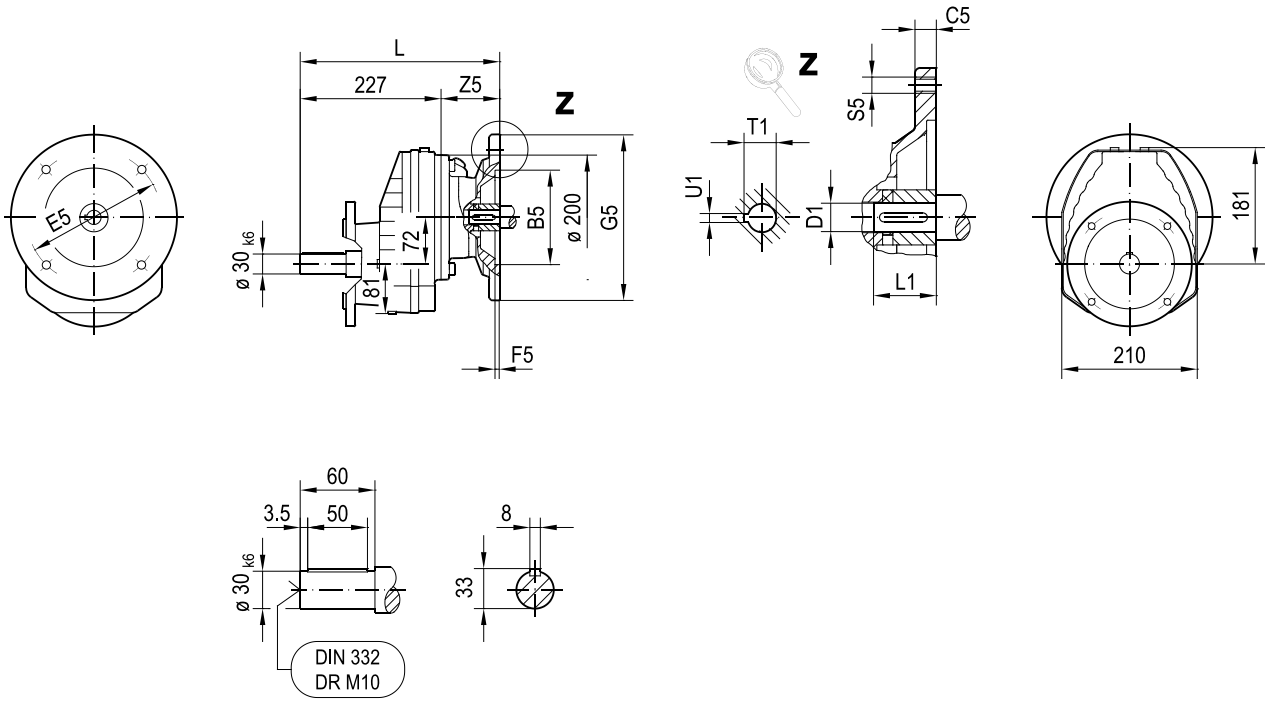


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	271	M8	44	11	23	12.8	4
AMS71	110	10	130	4	160	271	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	287	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	300	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	328	M12	100.5	28	60	31.3	8
AMS112	180	15	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

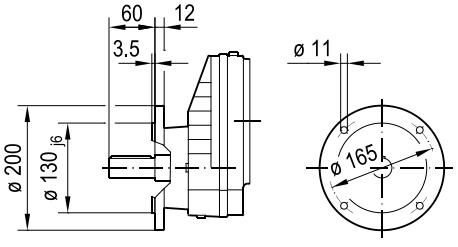
27797880/EN – 03/2023

01 155 00 20

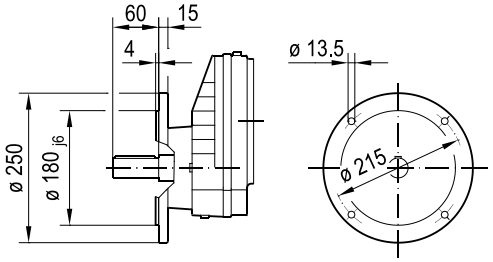
RXF77..



ø 200



ø 250

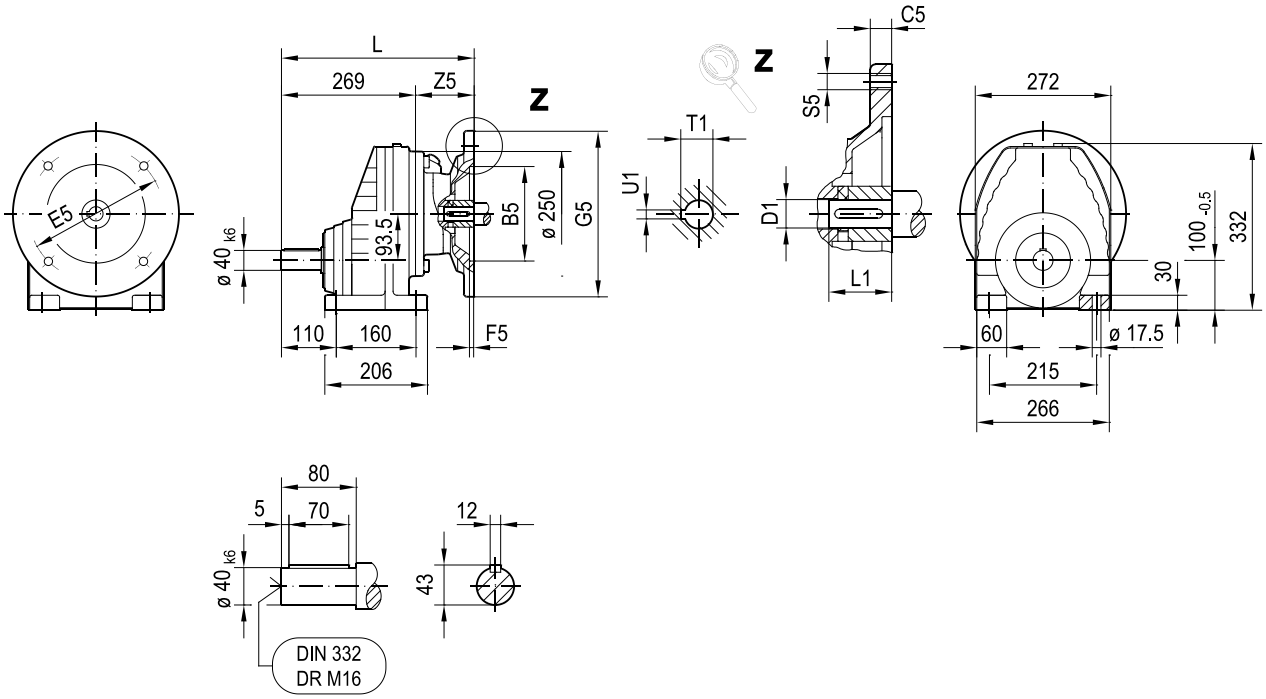


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	271	M8	44	11	23	12.8	4
AMS71	110	10	130	4	160	271	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	287	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	300	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	328	M12	100.5	28	60	31.3	8
AMS112	180	15	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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01 156 00 20

RX87..

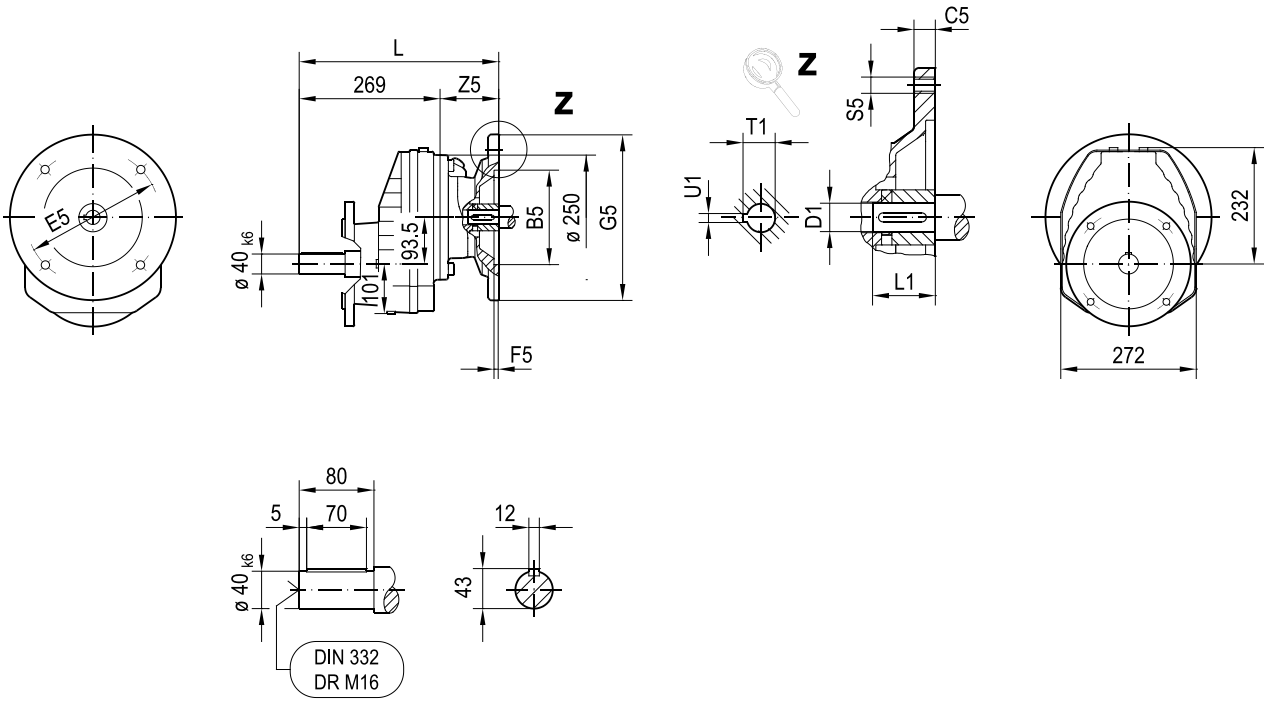


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS80	130	12	165	4.5	200	324	M10	55	19	40	21.8	6
AMS90	130	12	165	4.5	200	337	M10	68	24	50	27.3	8
AMS100	180	15	215	5	250	365	M12	95.5	28	60	31.3	8
AMS112	180	15	215	5	250	365	M12	95.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	390	M12	121	38	80	41.3	10
AMS132ML	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

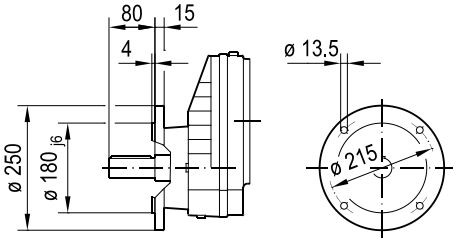
27797880/EN – 03/2023

01 157 00 20

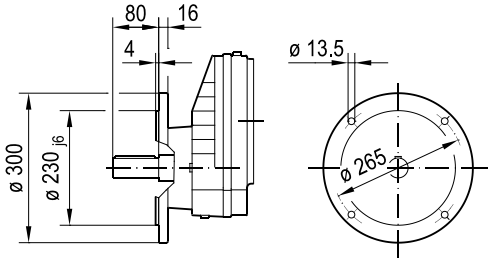
RXF87..



ø 250



ø 300

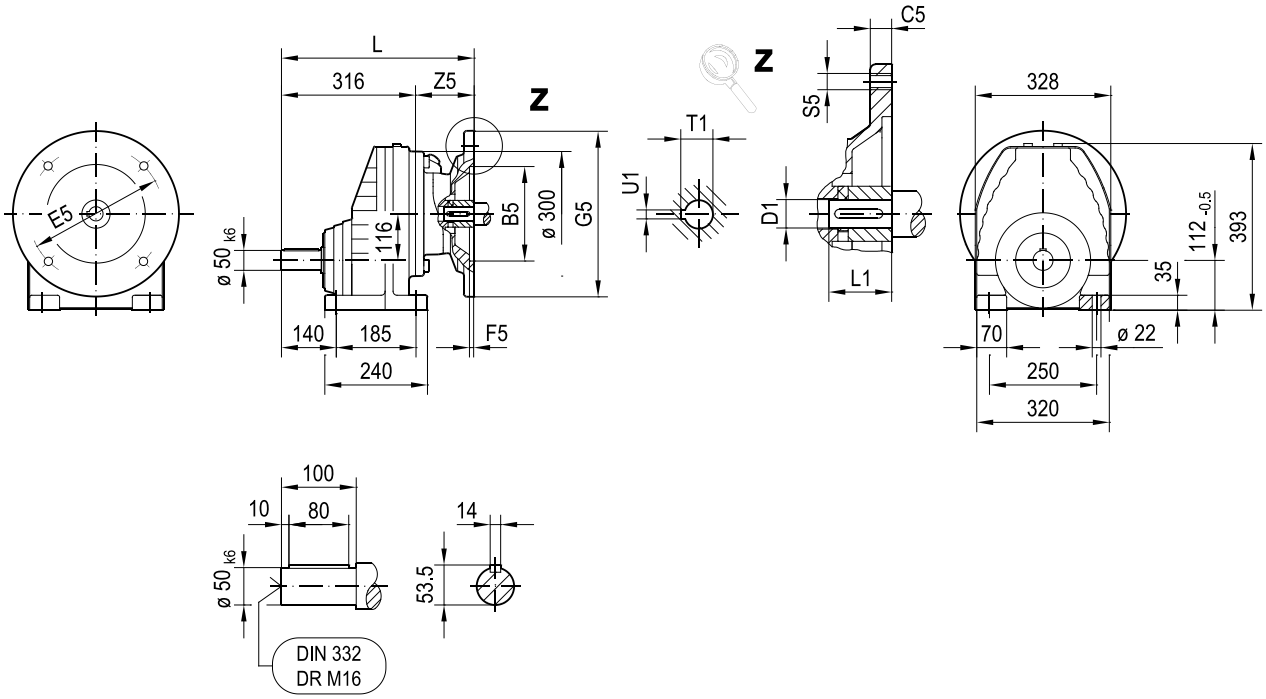


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS80	130	12	165	4.5	200	324	M10	55	19	40	21.8	6
AMS90	130	12	165	4.5	200	337	M10	68	24	50	27.3	8
AMS100	180	15	215	5	250	365	M12	95.5	28	60	31.3	8
AMS112	180	15	215	5	250	365	M12	95.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	390	M12	121	38	80	41.3	10
AMS132ML	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

RX97..

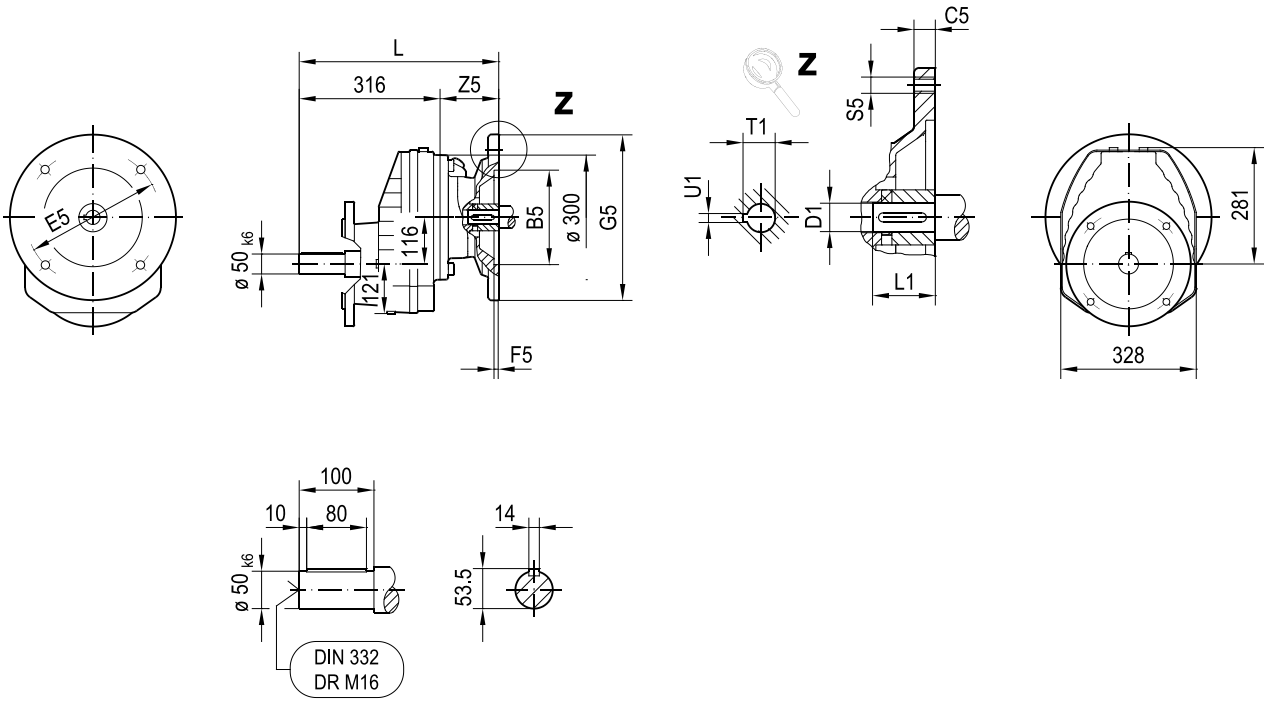


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	407	M12	90.5	28	60	31.3	8
AMS112	180	15	215	5	250	407	M12	90.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	432	M12	116	38	80	41.3	10
AMS132ML	230	16	265	5	300	432	M12	116	38	80	41.3	10
AMS160	250	18	300	6	350	495	M16	179	42	110	45.3	12
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

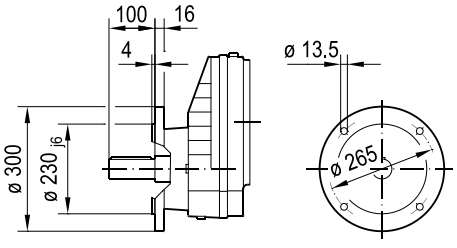
27797880/EN – 03/2023

01 159 00 20

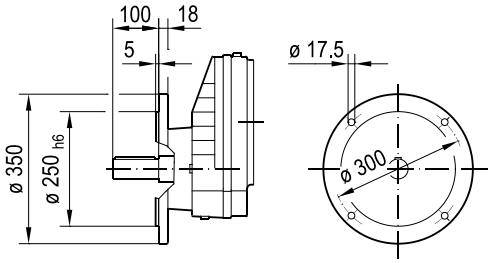
RXF97..



ø 300



ø 350

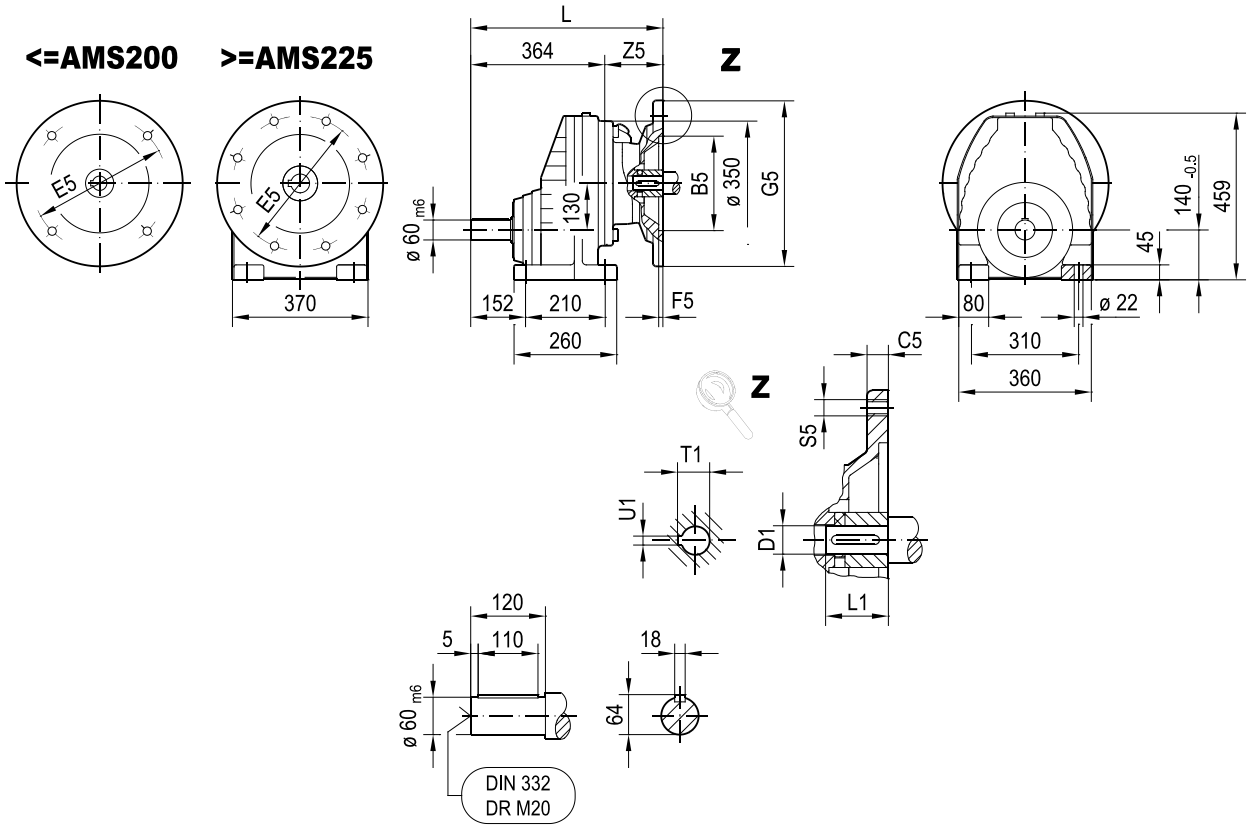


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	407	M12	90.5	28	60	31.3	8
AMS112	180	15	215	5	250	407	M12	90.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	432	M12	116	38	80	41.3	10
AMS132ML	230	16	265	5	300	432	M12	116	38	80	41.3	10
AMS160	250	18	300	6	350	495	M16	179	42	110	45.3	12
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

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01 160 00 20

RX107..

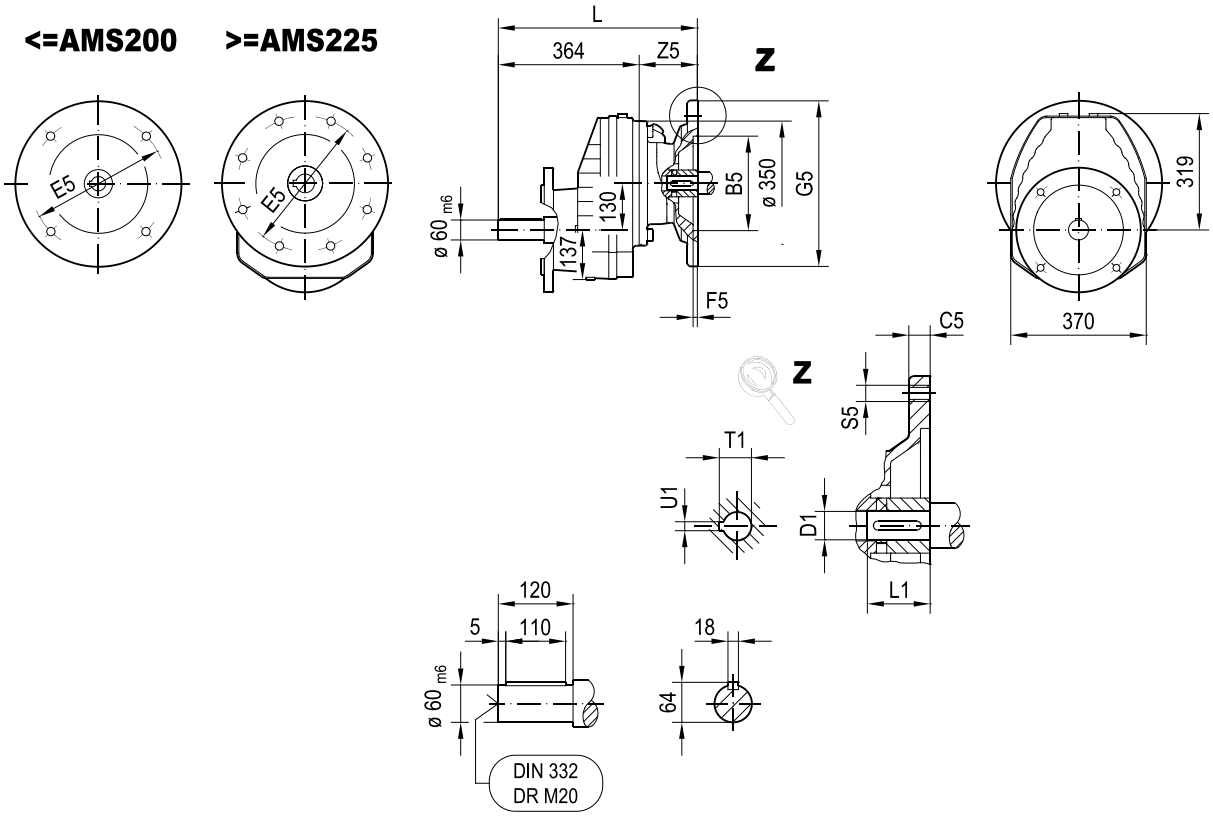


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	449	M12	84.5	28	60	31.3	8
AMS112	180	15	215	5	250	449	M12	84.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	474	M12	110	38	80	41.3	10
AMS132ML	230	16	265	5	300	474	M12	110	38	80	41.3	10
AMS160	250	18	300	6	350	537	M16	173	42	110	45.3	12
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

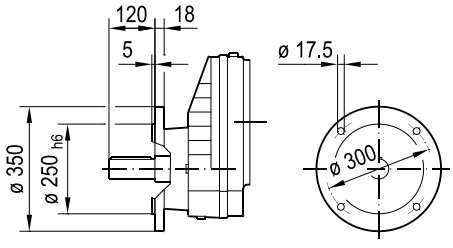
27797880/EN – 03/2023

01 161 00 20

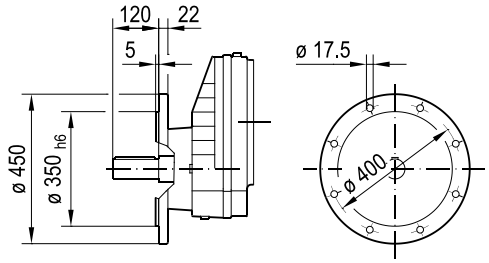
RXF107..



ø 350



ø 450

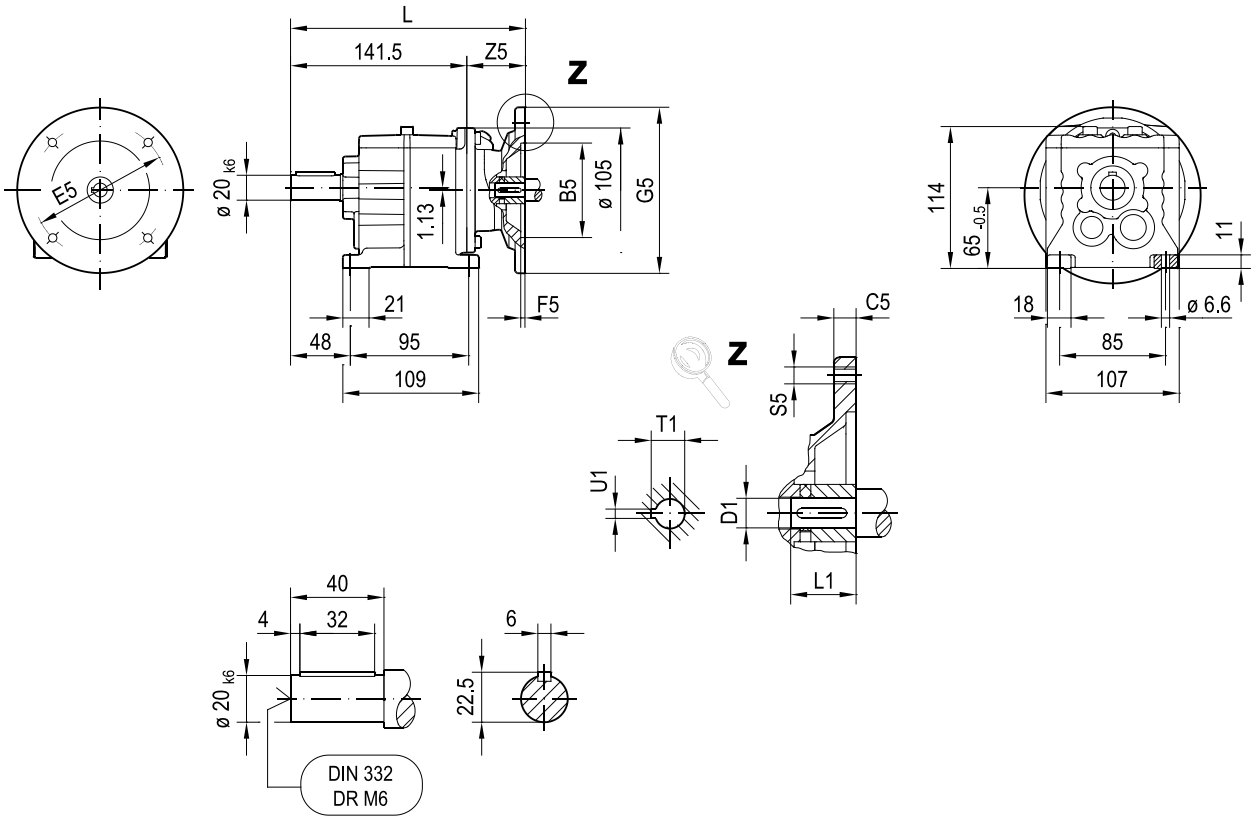


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	449	M12	84.5	28	60	31.3	8
AMS112	180	15	215	5	250	449	M12	84.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	474	M12	110	38	80	41.3	10
AMS132ML	230	16	265	5	300	474	M12	110	38	80	41.3	10
AMS160	250	18	300	6	350	537	M16	173	42	110	45.3	12
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
AMS225	350	22	400	7	450	613	M16	249	60	140	64.4	18

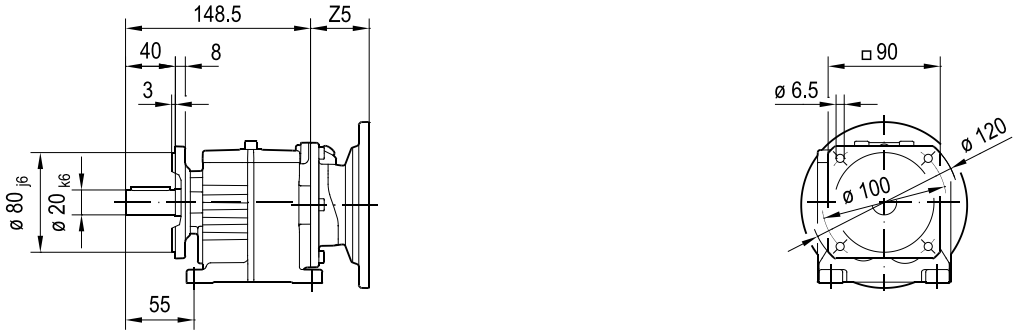
27797880/EN – 03/2023

01 001 00 21

R07..



R07F..

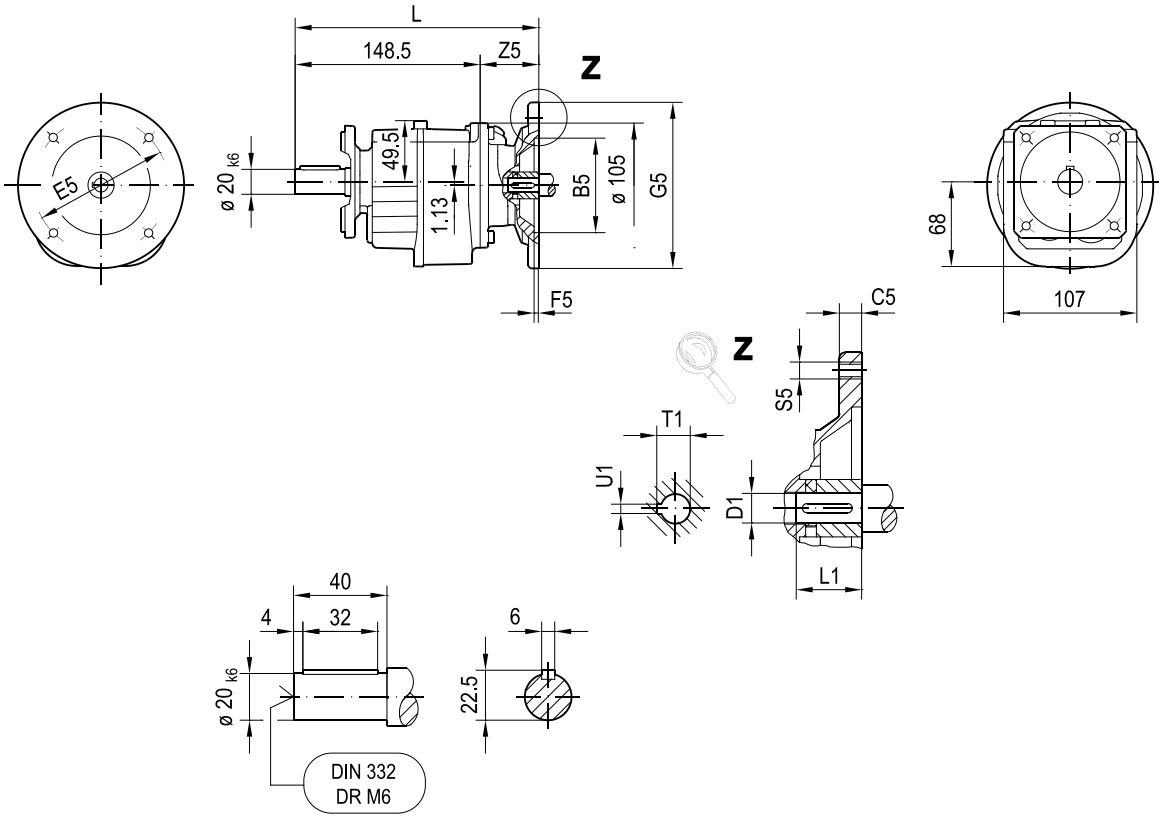


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	198	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	198	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	215	M10	73.5	19	40	21.8	6

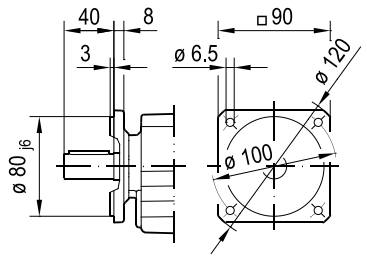
27797880/EN – 03/2023

01 002 00 21

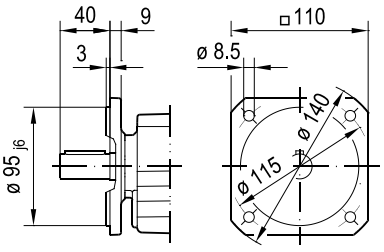
RF07..



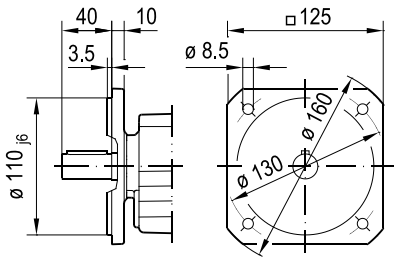
ø 120



ø 140



ø 160

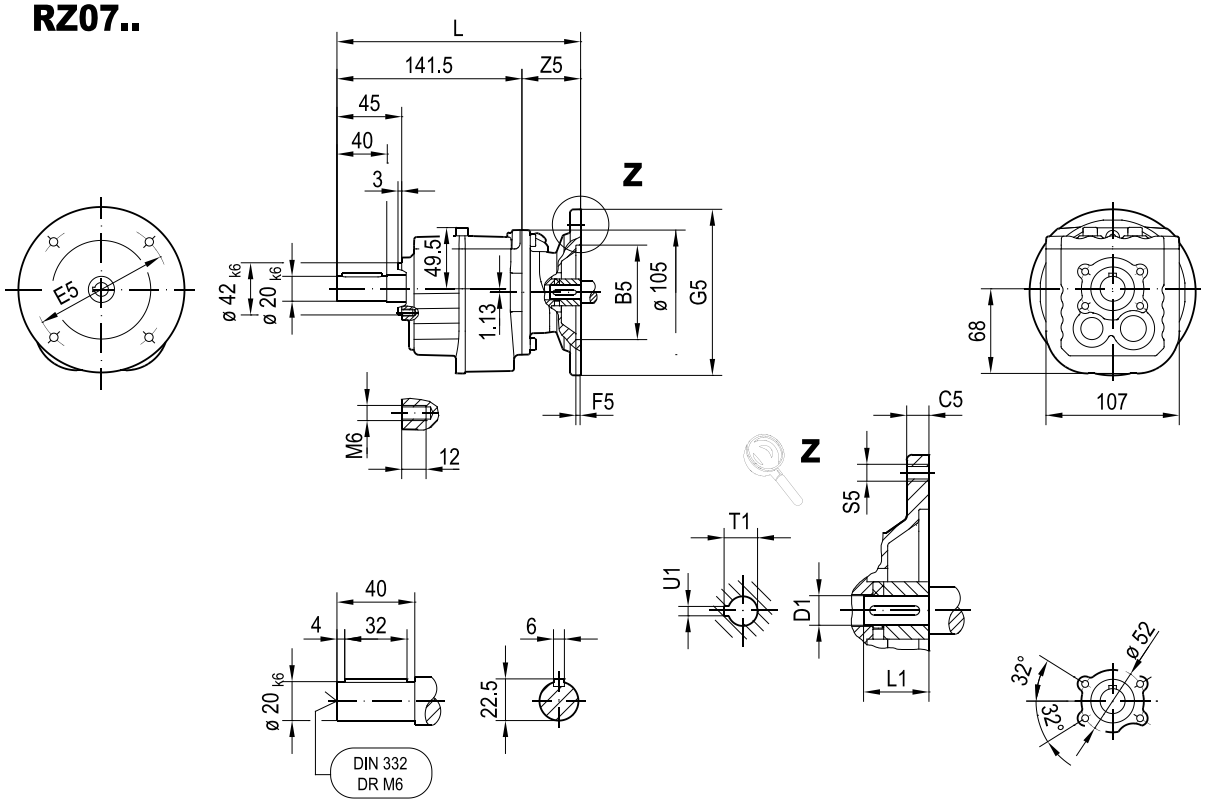


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	205	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	205	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	222	M10	73.5	19	40	21.8	6

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01 003 00 21

RZ07..

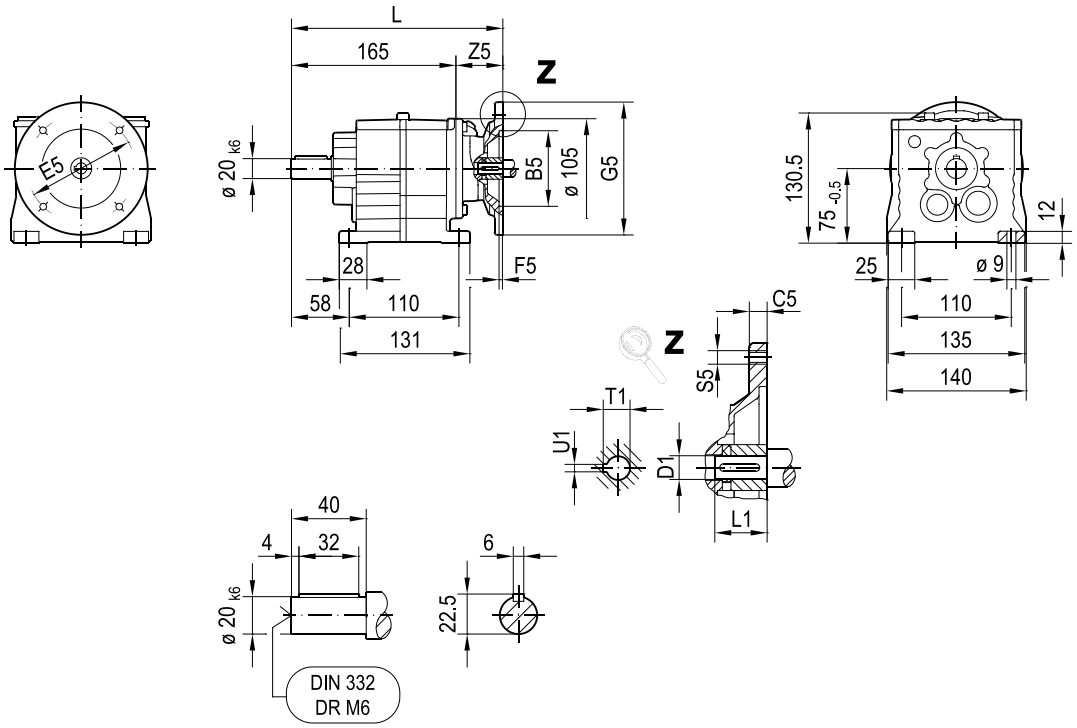


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	198	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	198	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	215	M10	73.5	19	40	21.8	6

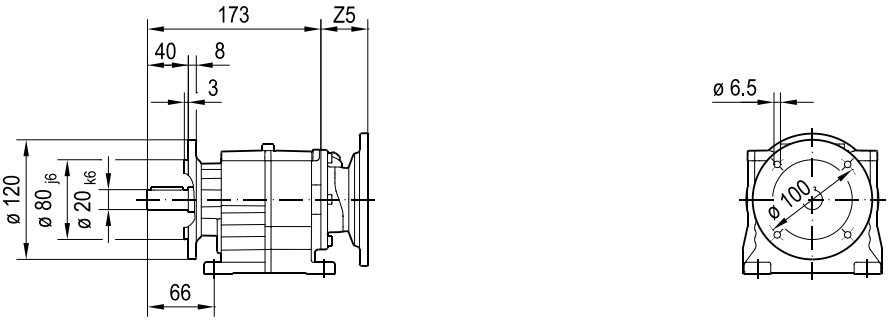
27797880/EN – 03/2023

01 004 00 21

R17..



R17F..

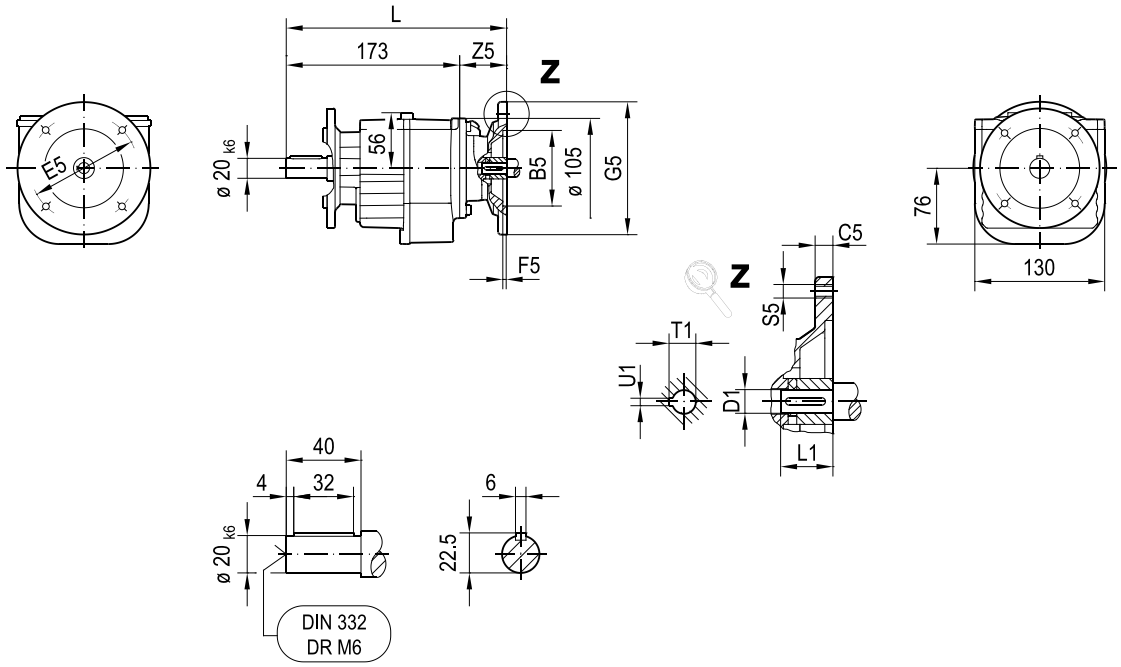


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	222	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	222	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	239	M10	73.5	19	40	21.8	6

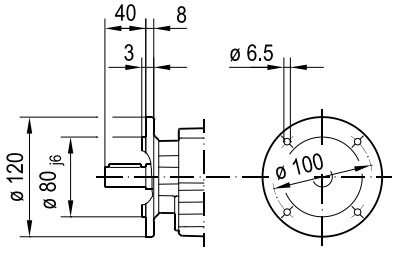
27797880/EN – 03/2023

01 005 00 21

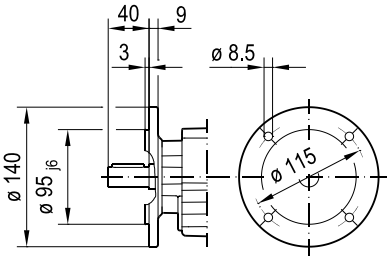
RF17..



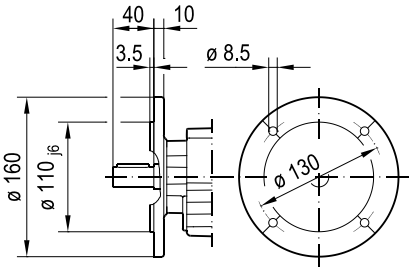
ø 120



ø 140



ø 160

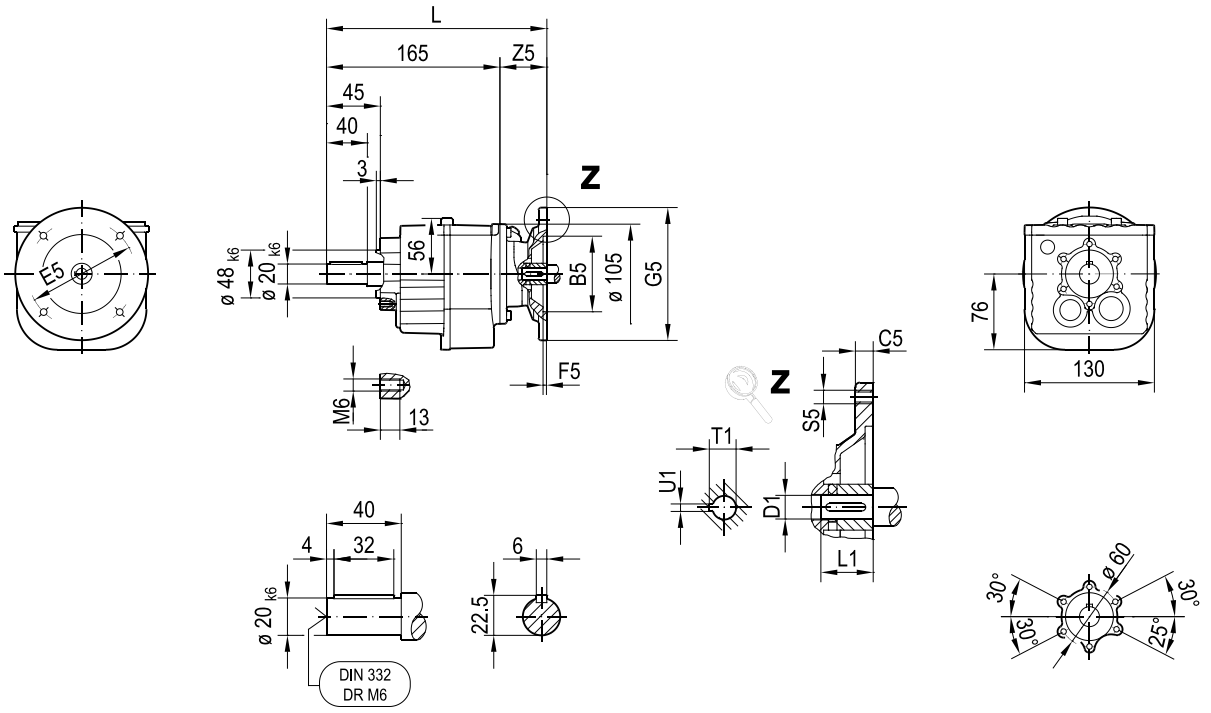


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	230	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	230	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	247	M10	73.5	19	40	21.8	6

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01 006 00 21

RZ17..

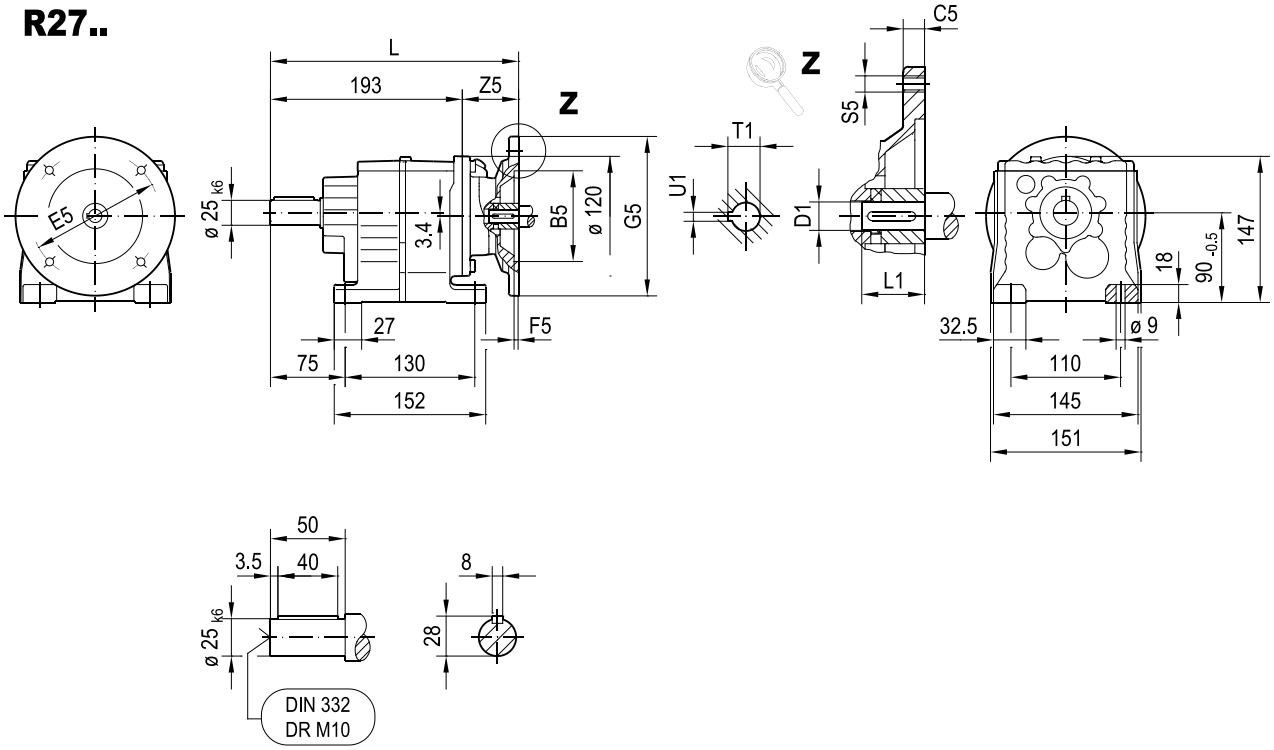


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	222	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	222	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	239	M10	73.5	19	40	21.8	6

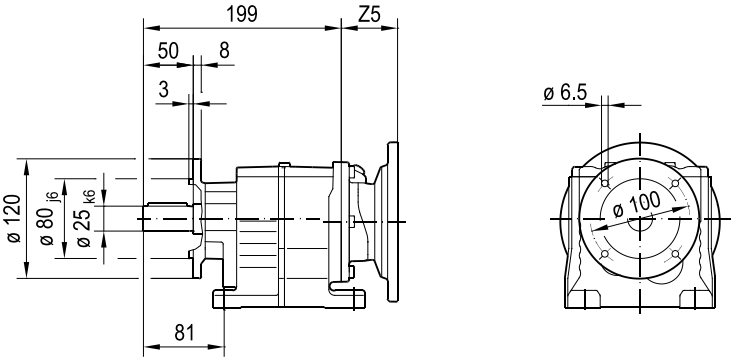
27797880/EN – 03/2023

01 069 01 21

R27..



R27F..

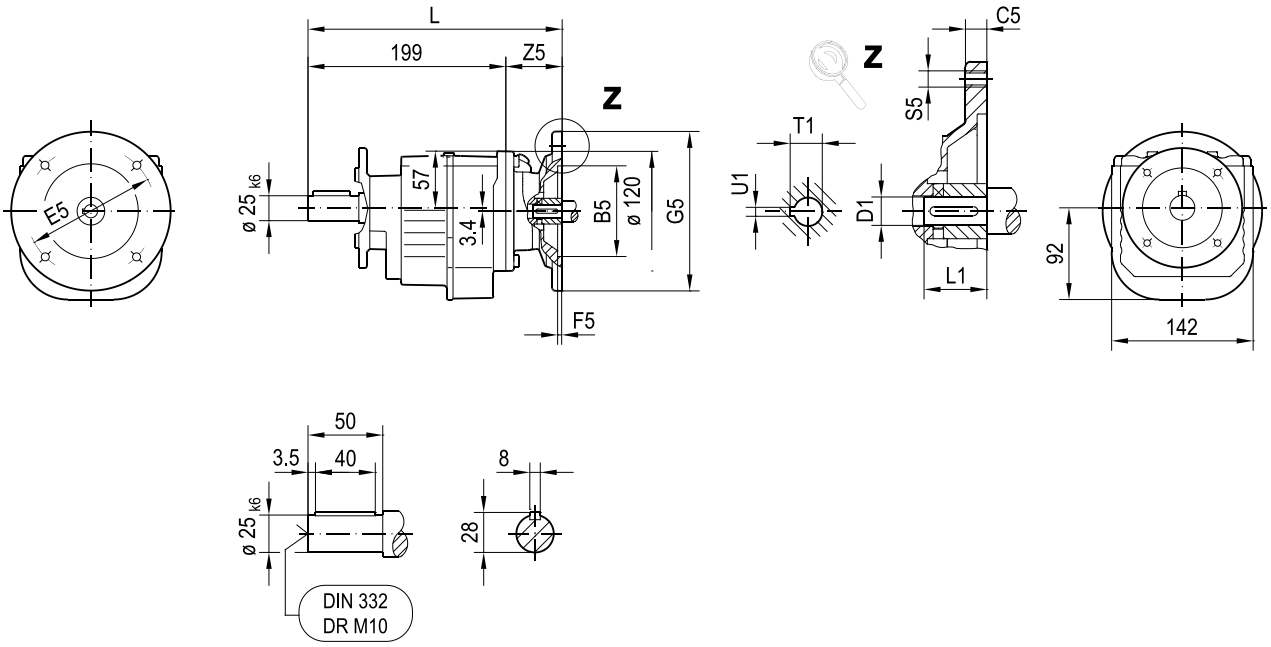


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	250	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	250	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	267	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	280	M10	86.5	24	50	27.3	8

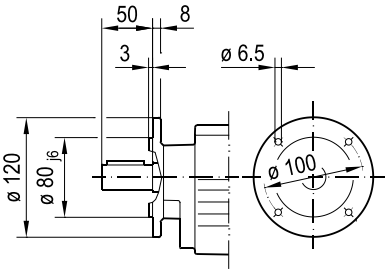
27797880/EN – 03/2023

01 070 01 21

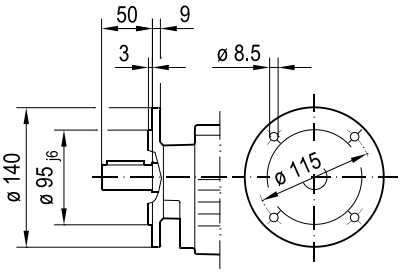
RF27..



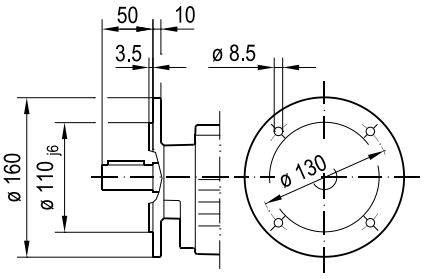
ø 120



ø 140



ø 160

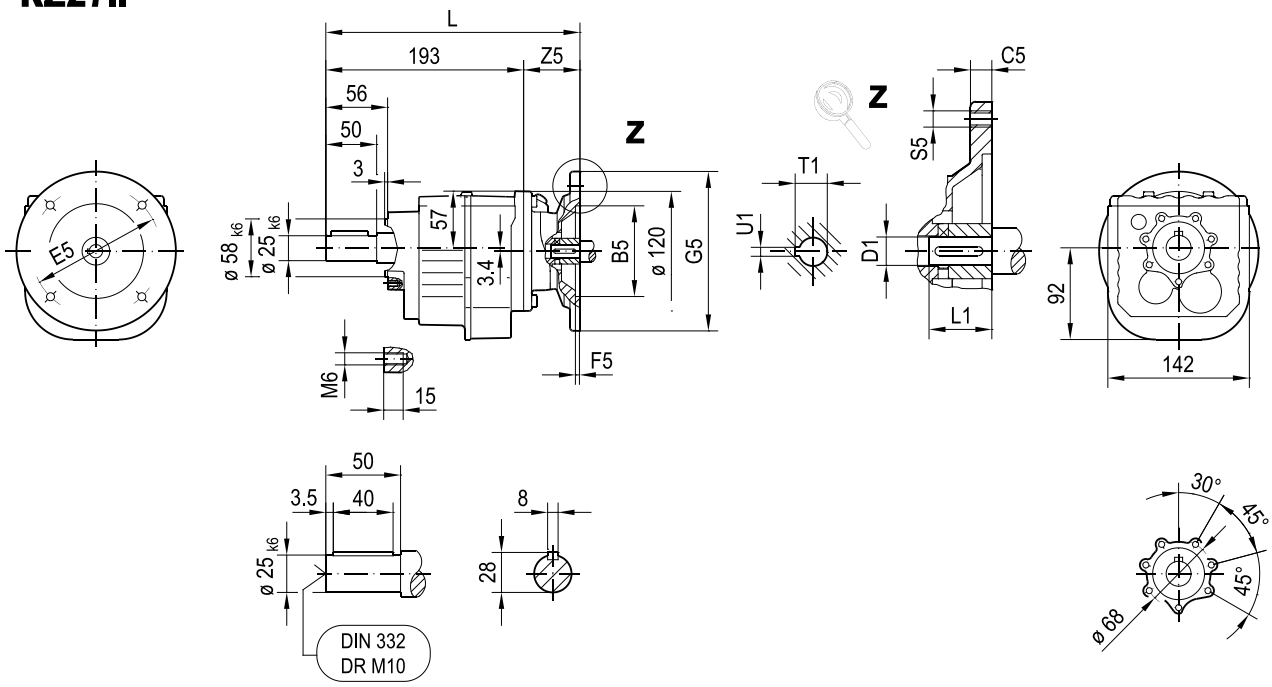


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	256	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	256	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	273	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	286	M10	86.5	24	50	27.3	8

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01 071 01 21

RZ27..

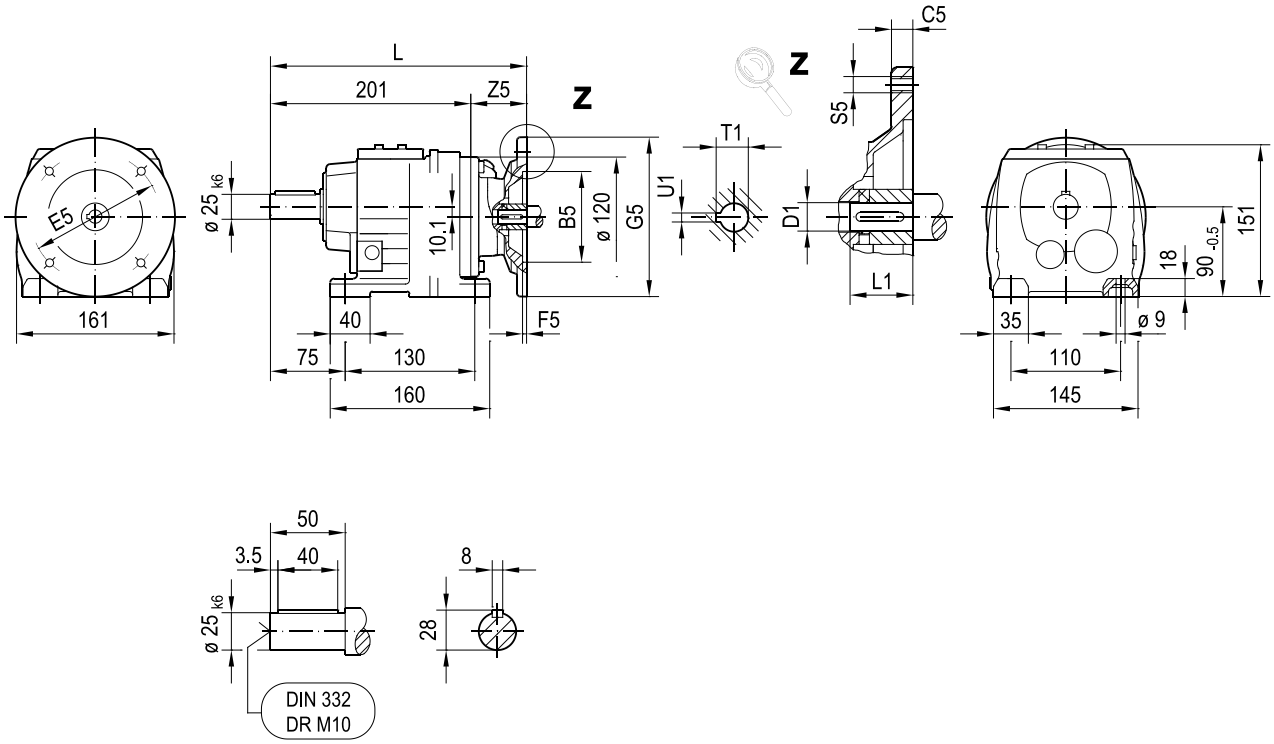


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	250	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	250	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	267	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	280	M10	86.5	24	50	27.3	8

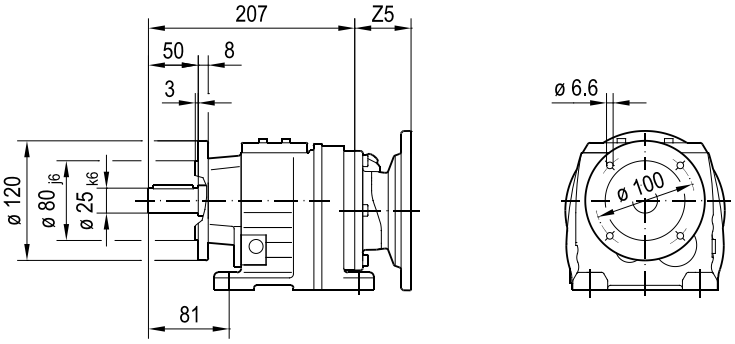
27797880/EN – 03/2023

R37..

01 165 00 20



R37F..

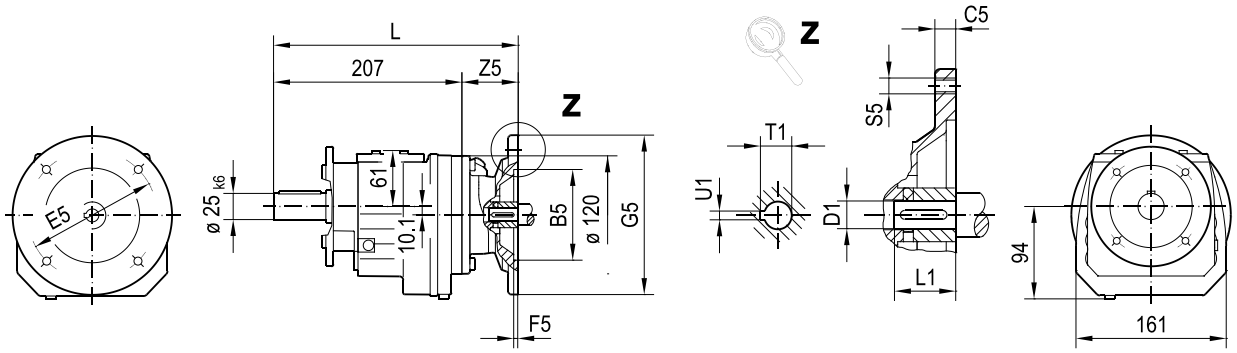


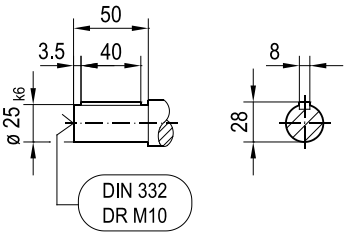
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	258	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	258	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	275	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	288	M10	86.5	24	50	27.3	8

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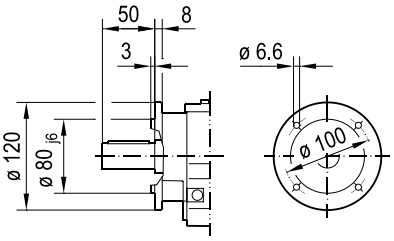
01 166 00 20

RF37..

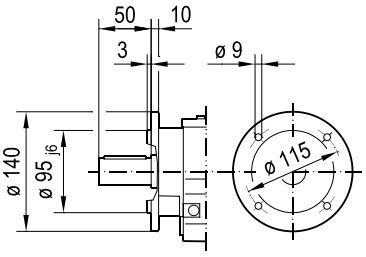




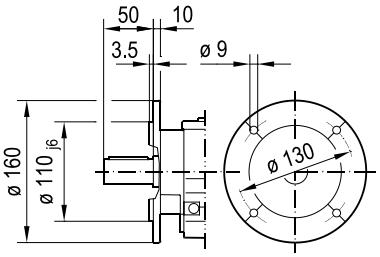
ø 120



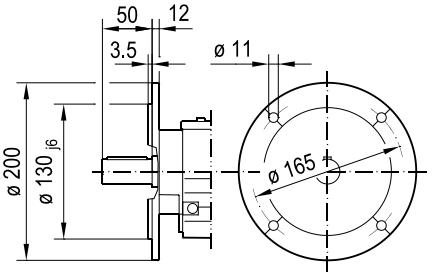
ø 140



ø 160



ø 200

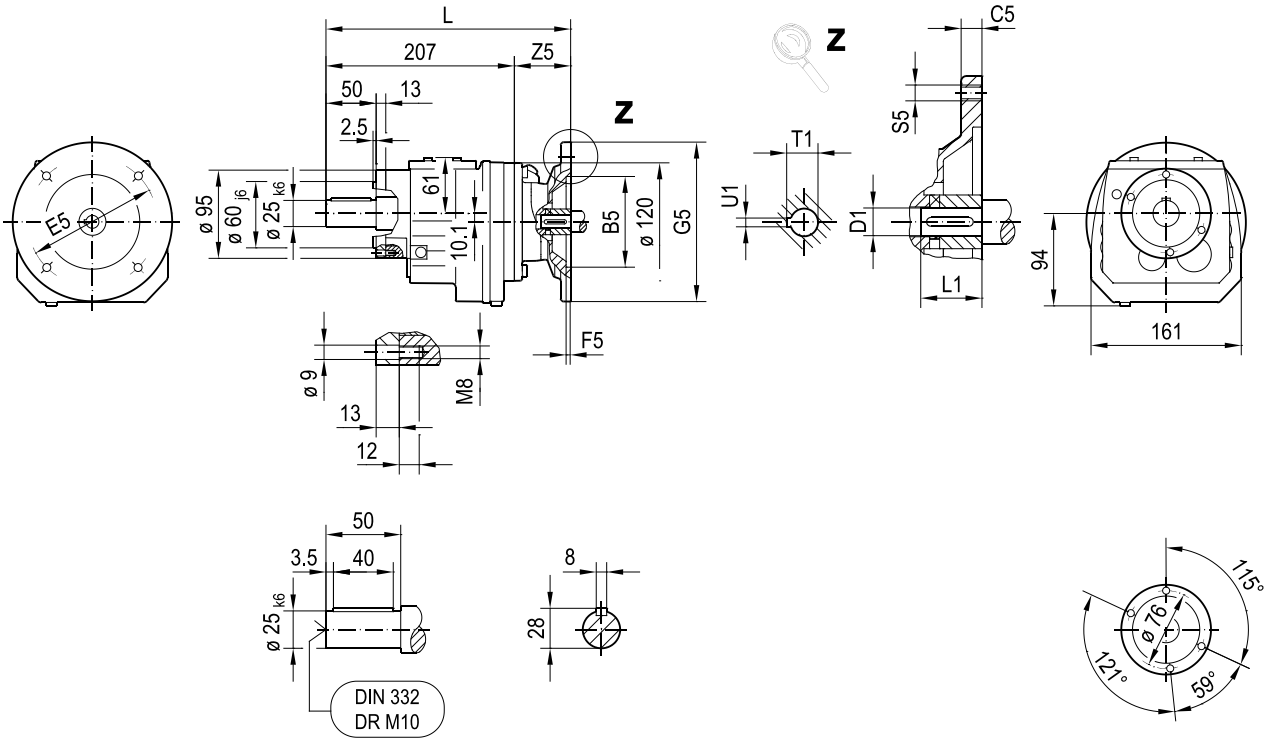


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	264	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	264	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	281	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	294	M10	86.5	24	50	27.3	8

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01 167 00 20

RZ37..

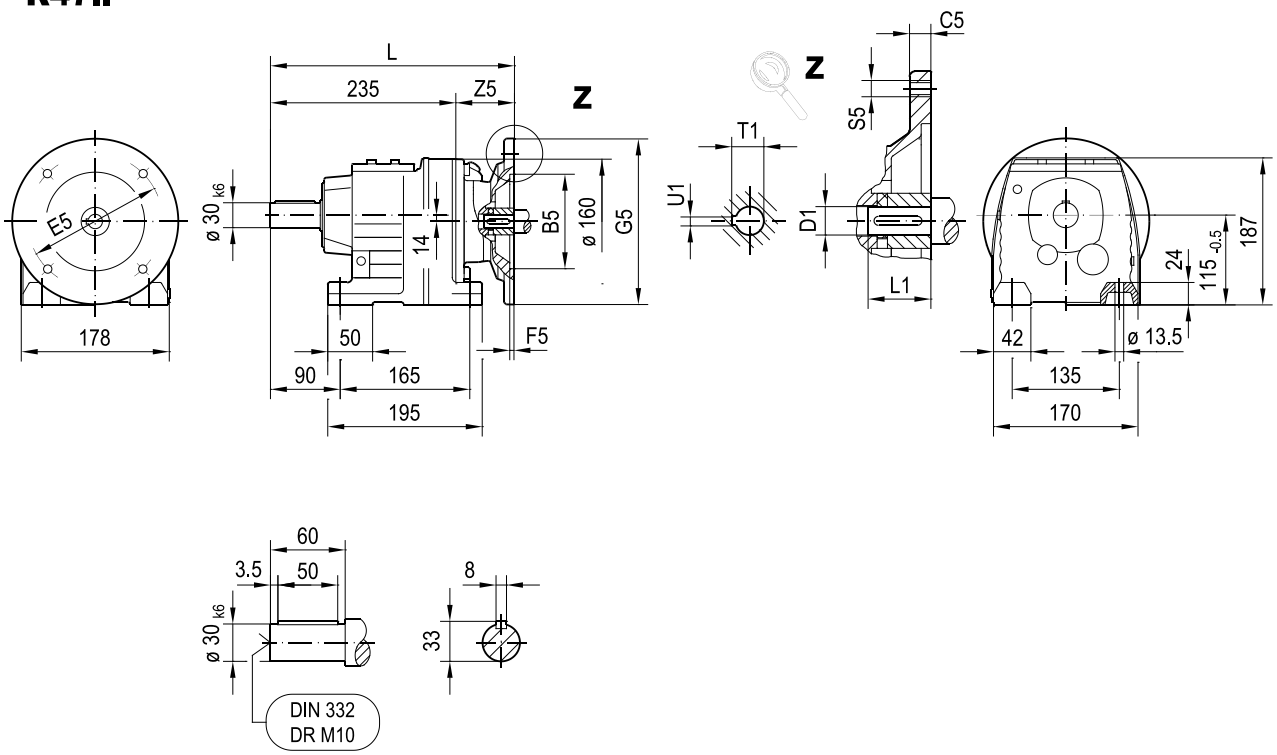


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	264	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	264	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	281	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	294	M10	86.5	24	50	27.3	8

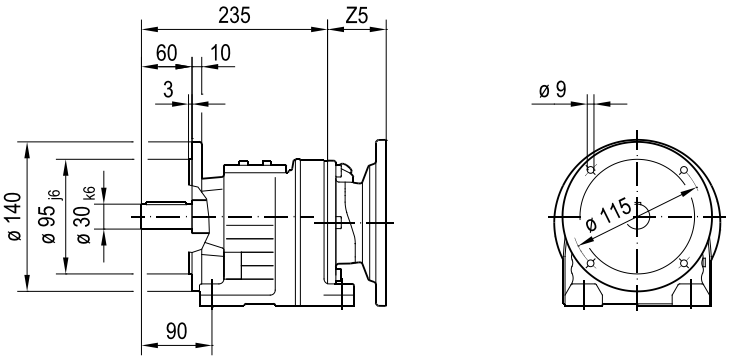
27797880/EN – 03/2023

01 168 00 20

R47..



R47F..

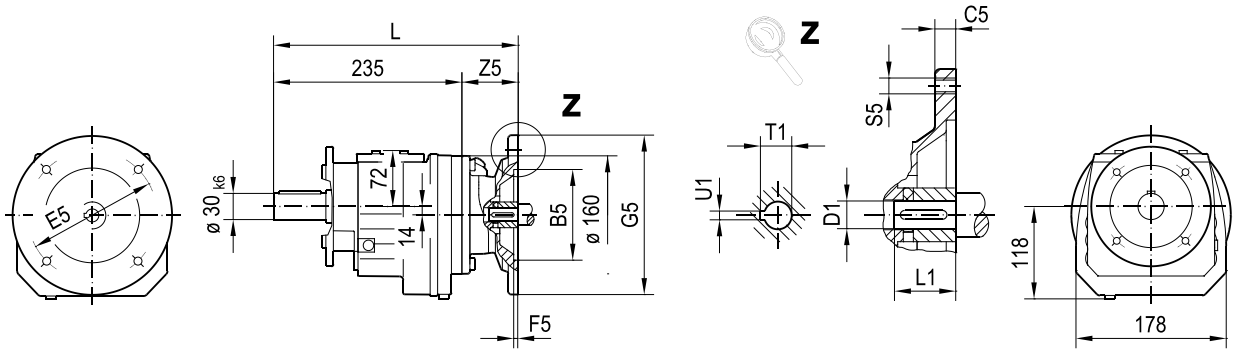


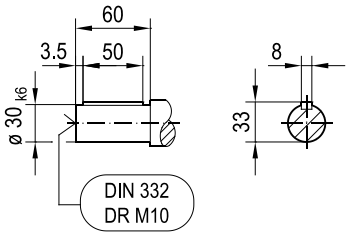
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	285	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	285	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	302	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	315	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	344	M12	108.5	28	60	31.3	8
AMS112	180	15	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

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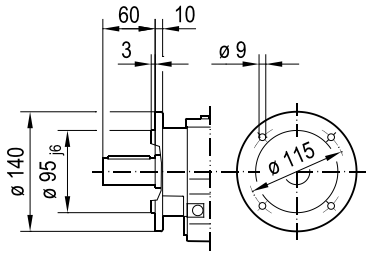
01 169 00 20

RF47..

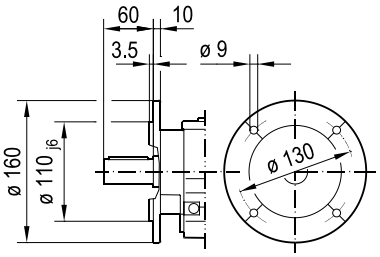




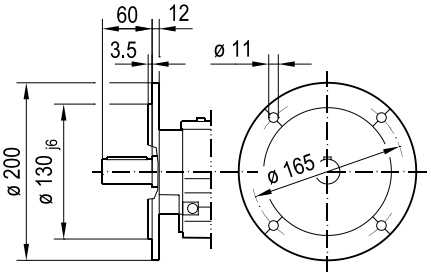
ø 140



ø 160



ø 200

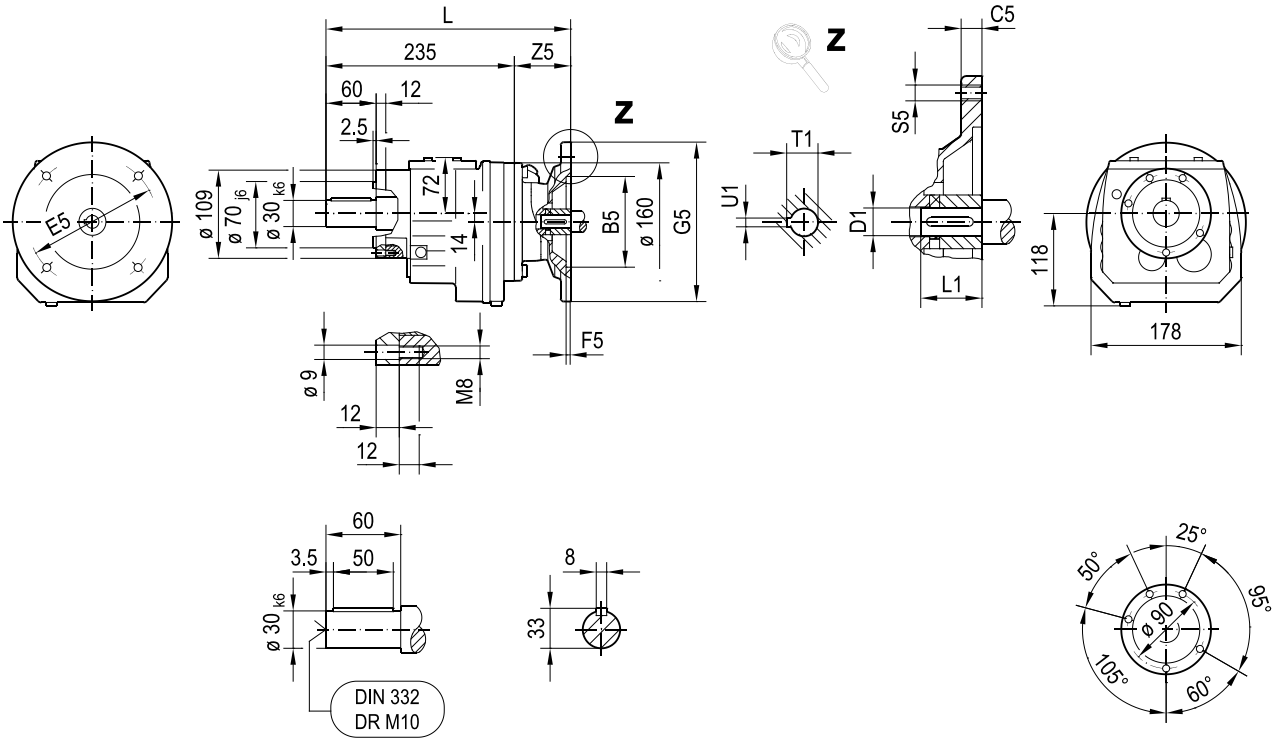


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	285	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	285	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	302	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	315	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	344	M12	108.5	28	60	31.3	8
AMS112	180	15	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..

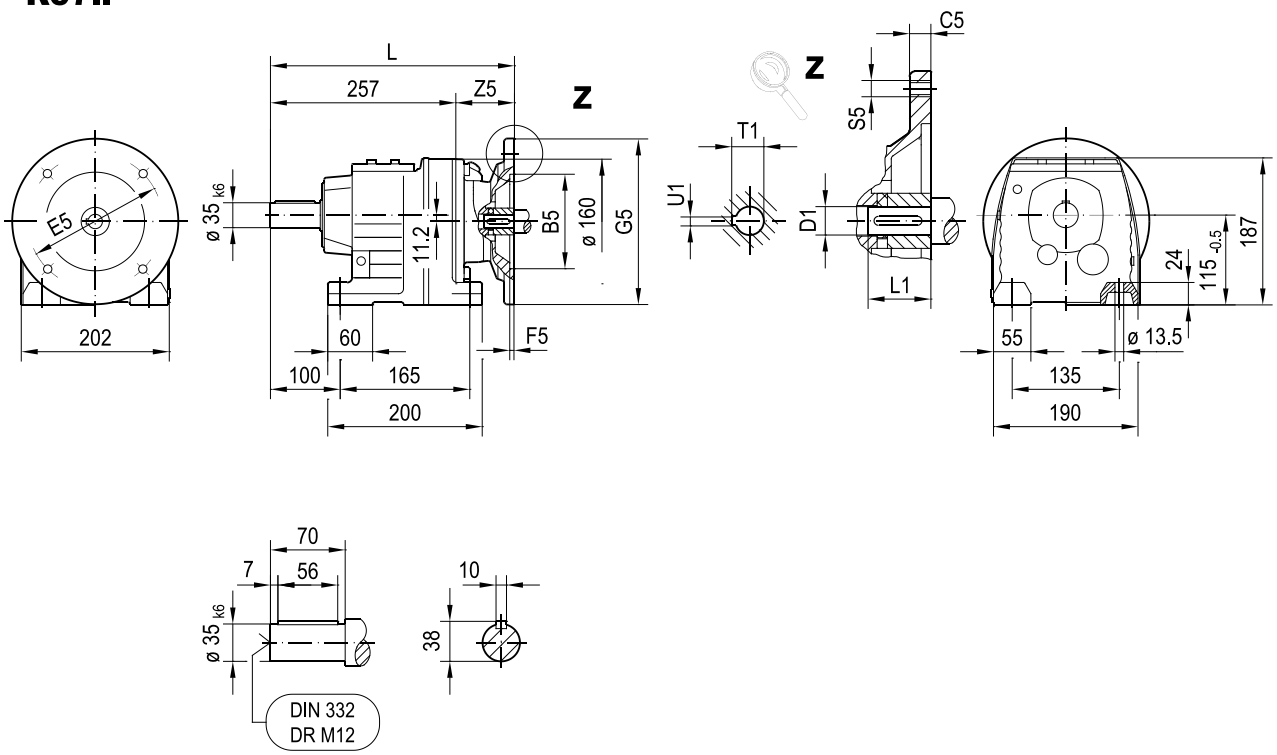


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	285	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	285	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	302	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	315	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	344	M12	108.5	28	60	31.3	8
AMS112	180	15	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

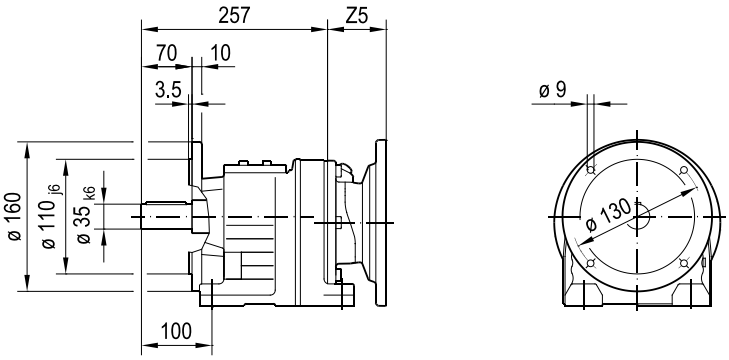
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01 171 00 20

R57..



R57F..

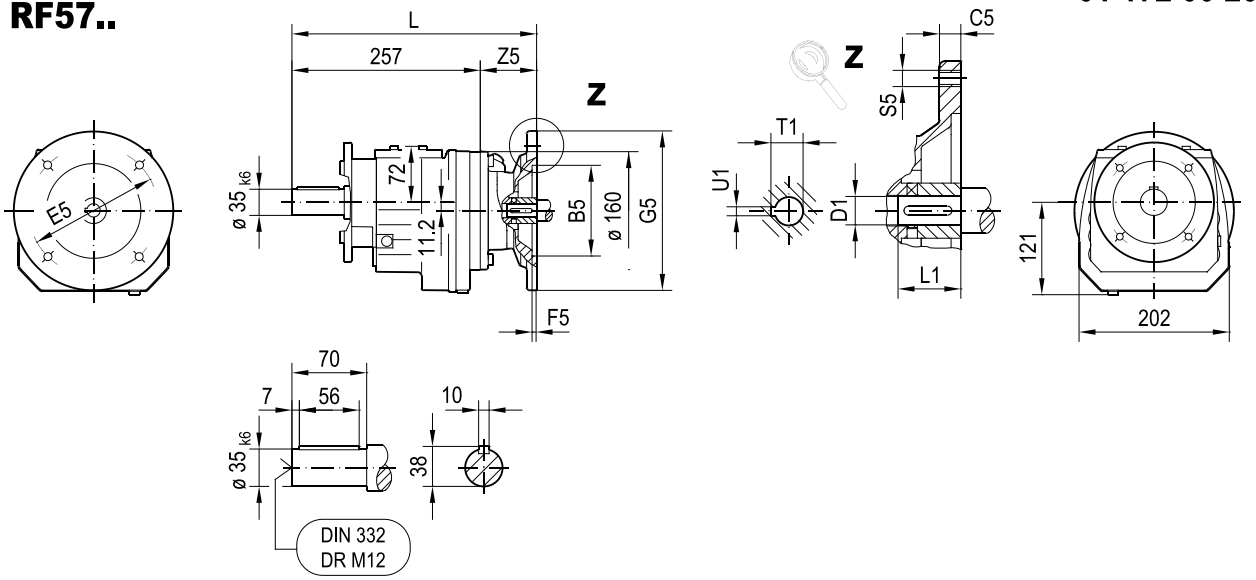


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	307	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	307	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	324	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	337	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	366	M12	108.5	28	60	31.3	8
AMS112	180	15	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

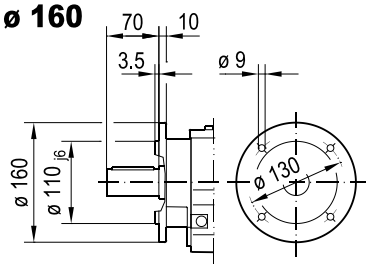
27797880/EN – 03/2023

01 172 00 20

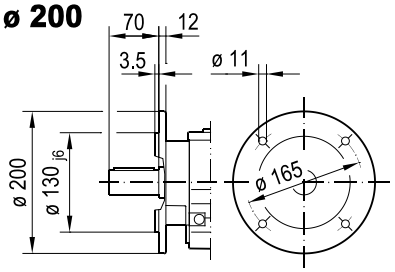
RF57..



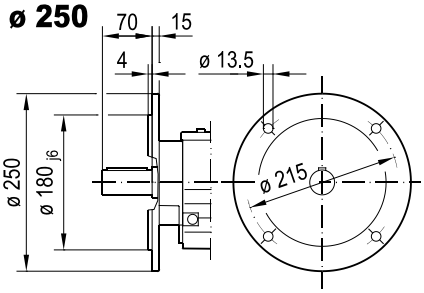
ø 160



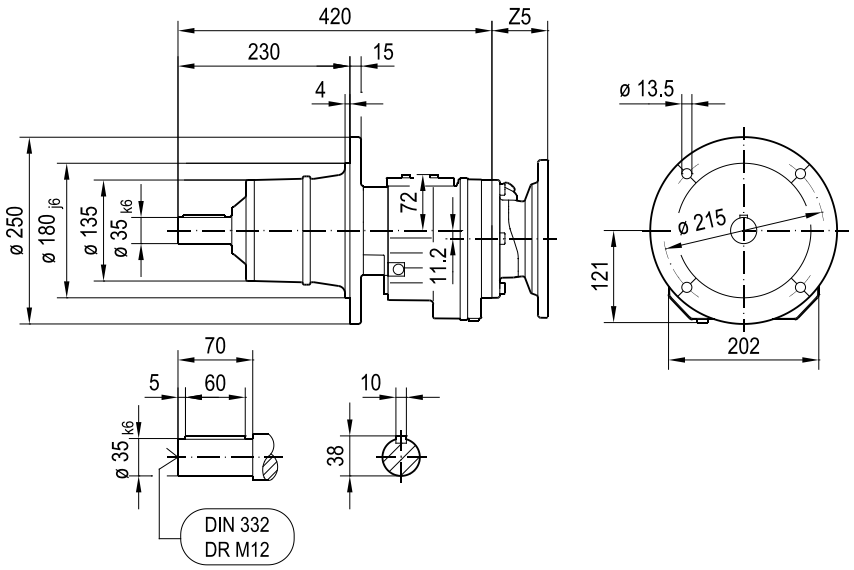
ø 200



ø 250



RM57..

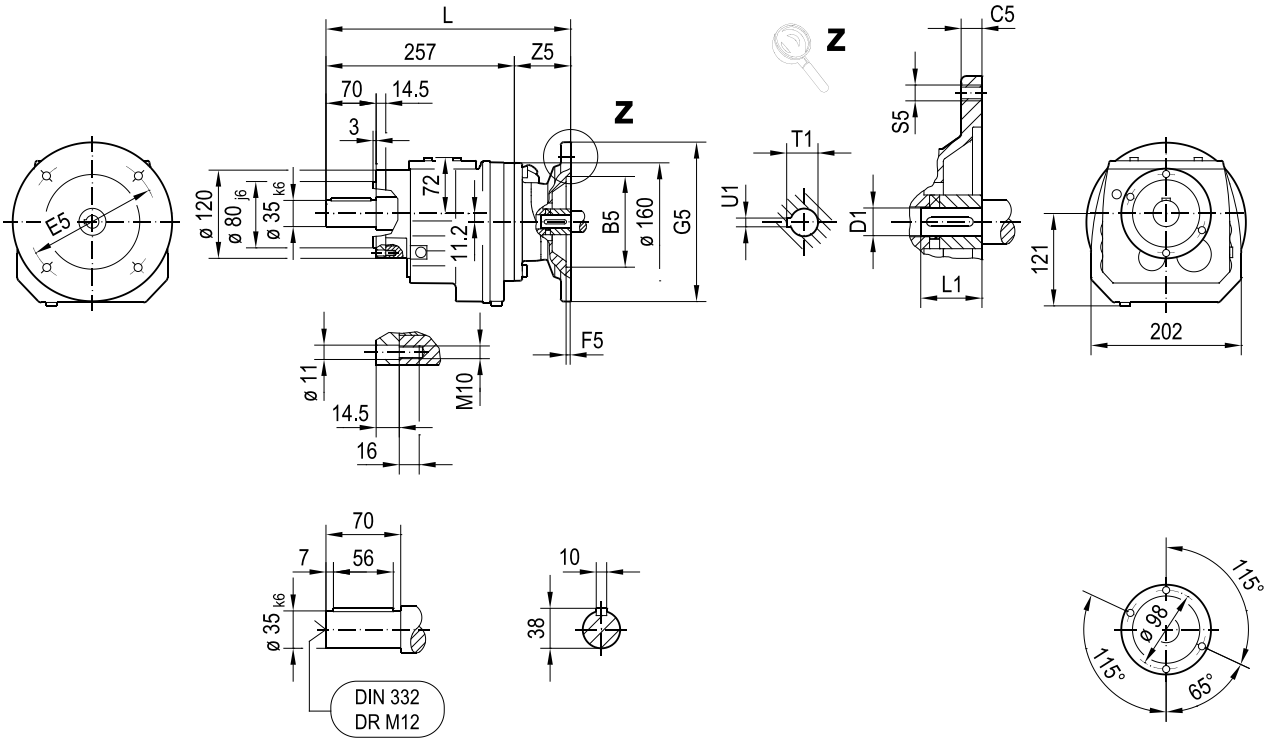


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	307	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	307	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	324	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	337	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	366	M12	108.5	28	60	31.3	8
AMS112	180	15	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..

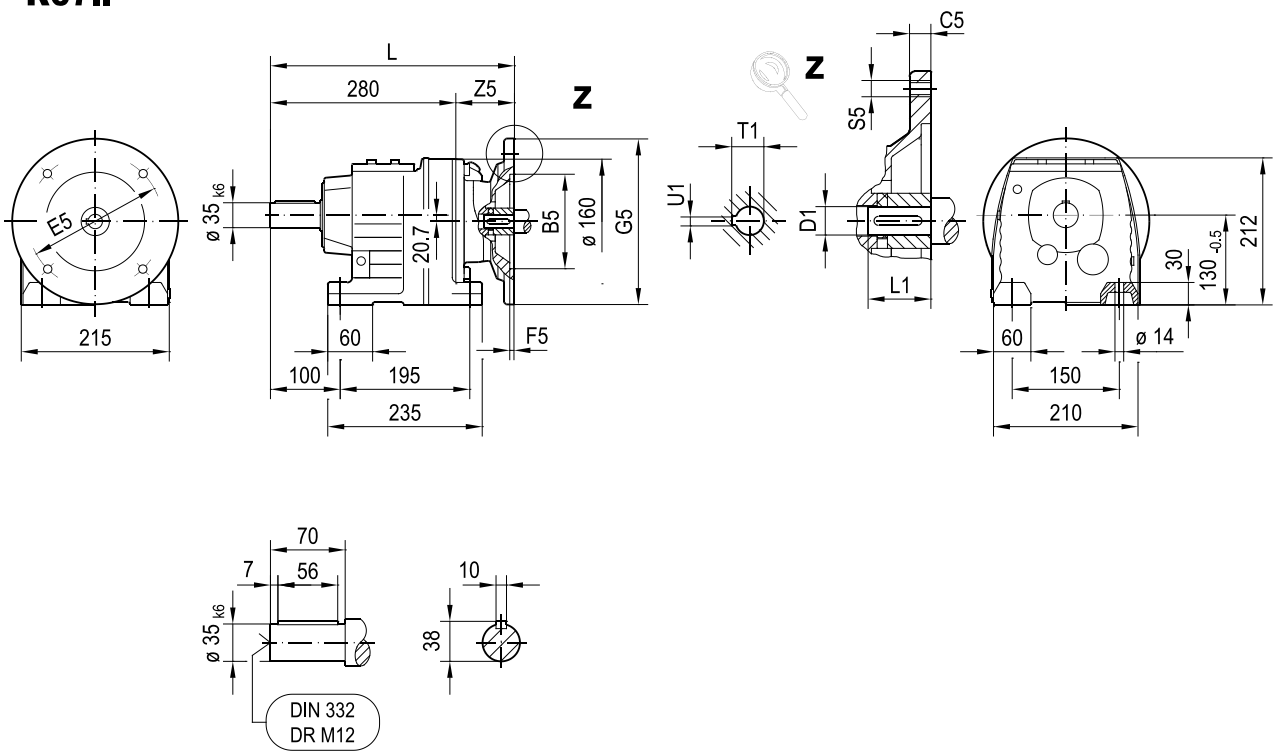


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	307	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	307	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	324	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	337	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	366	M12	108.5	28	60	31.3	8
AMS112	180	15	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

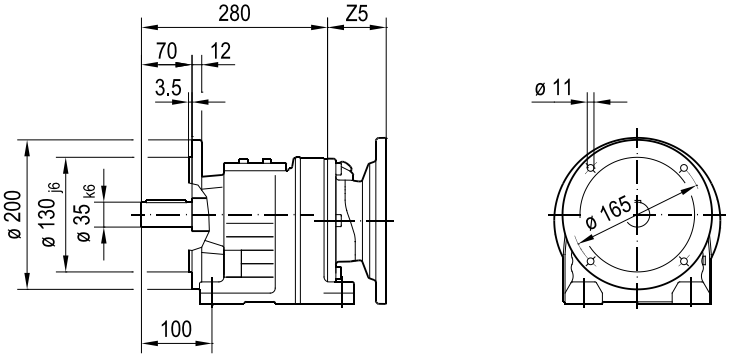
27797880/EN – 03/2023

01 174 00 20

R67..



R67F..

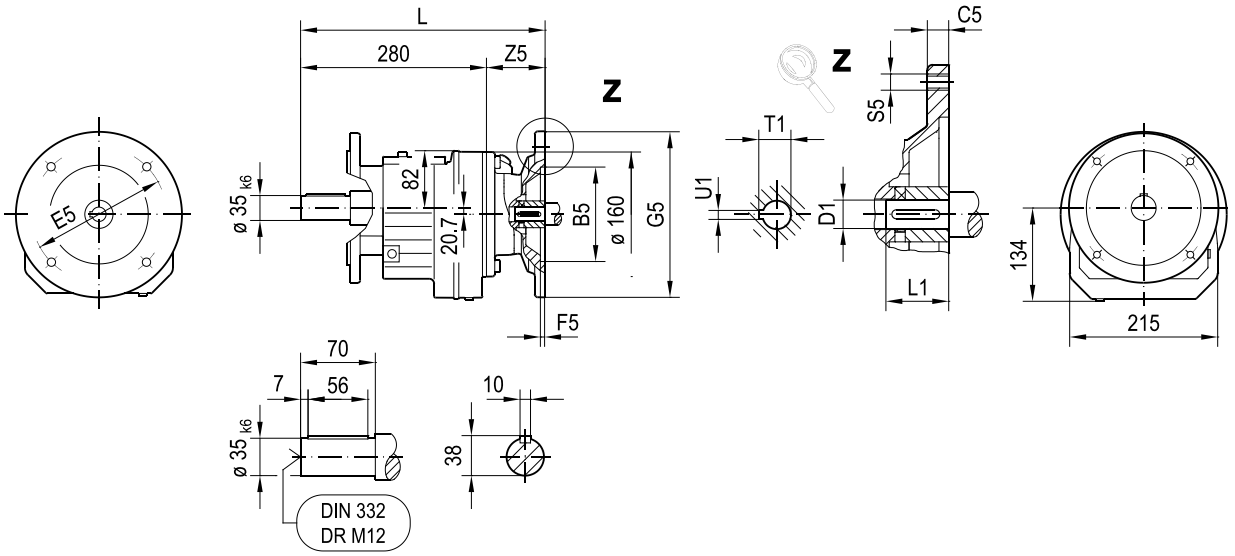


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	330	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	330	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	347	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	360	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	389	M12	108.5	28	60	31.3	8
AMS112	180	15	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

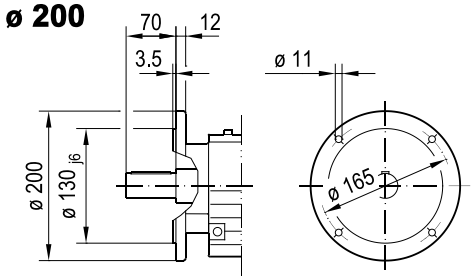
27797880/EN – 03/2023

01 175 00 20

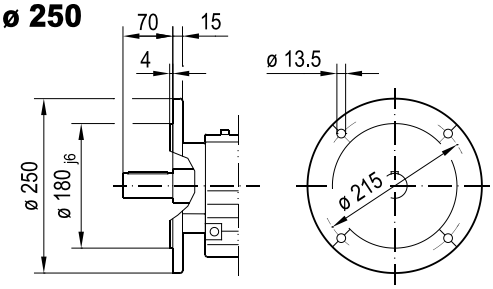
RF67..



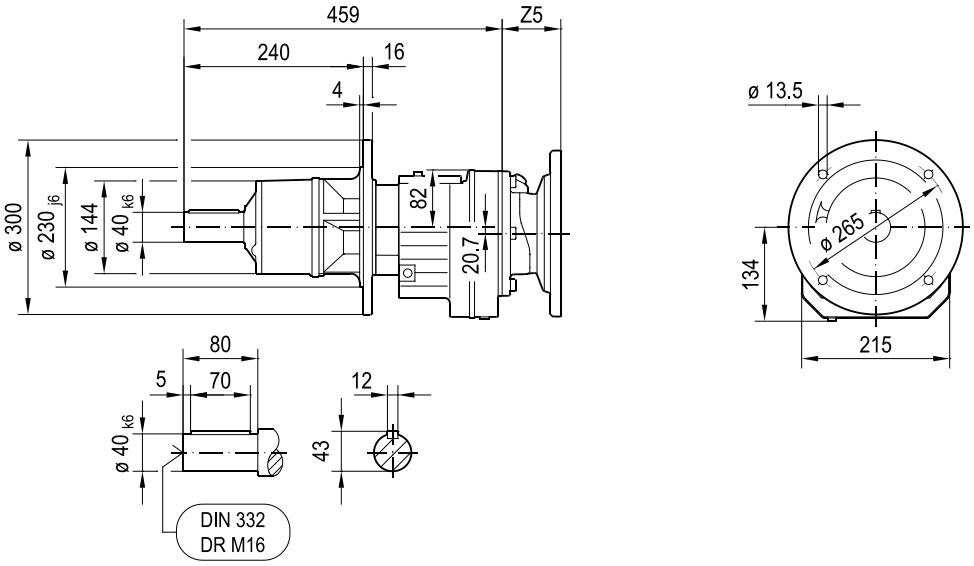
ø 200



ø 250



RM67..

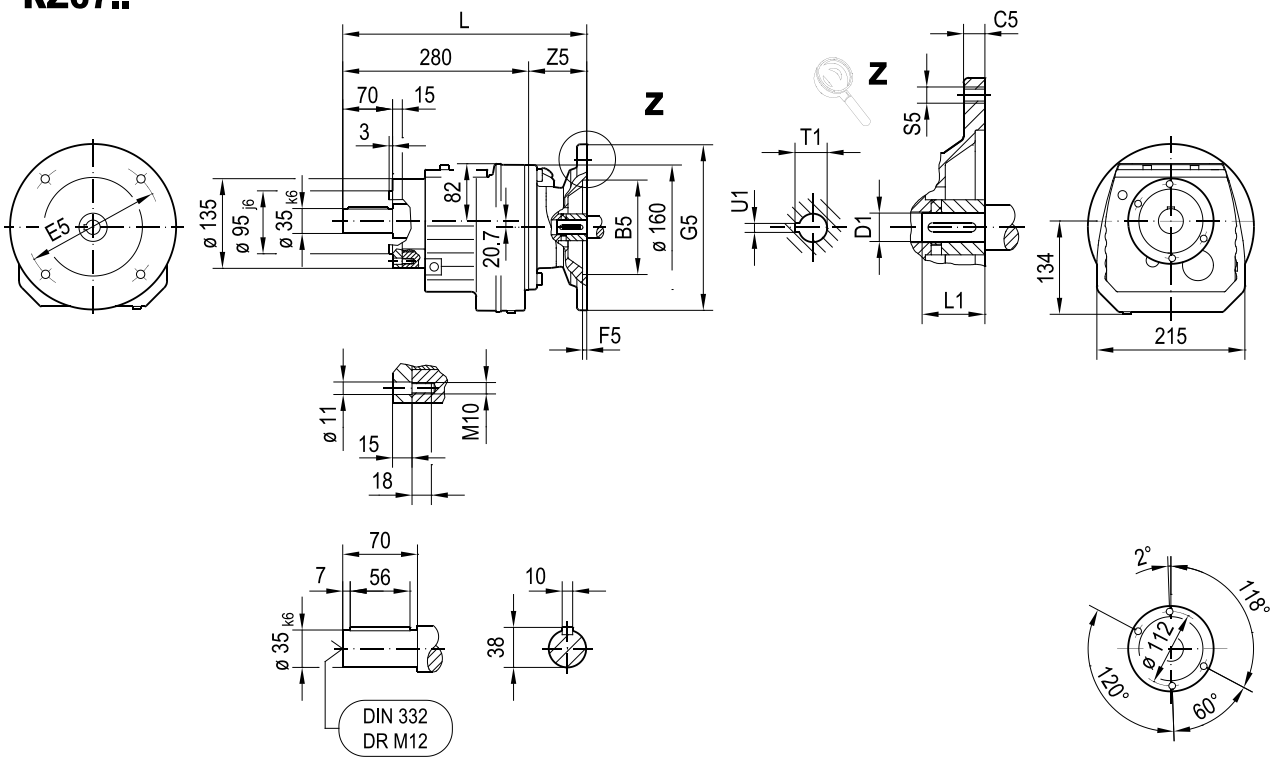


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	330	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	330	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	347	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	360	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	389	M12	108.5	28	60	31.3	8
AMS112	180	15	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

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01 176 00 20

RZ67..

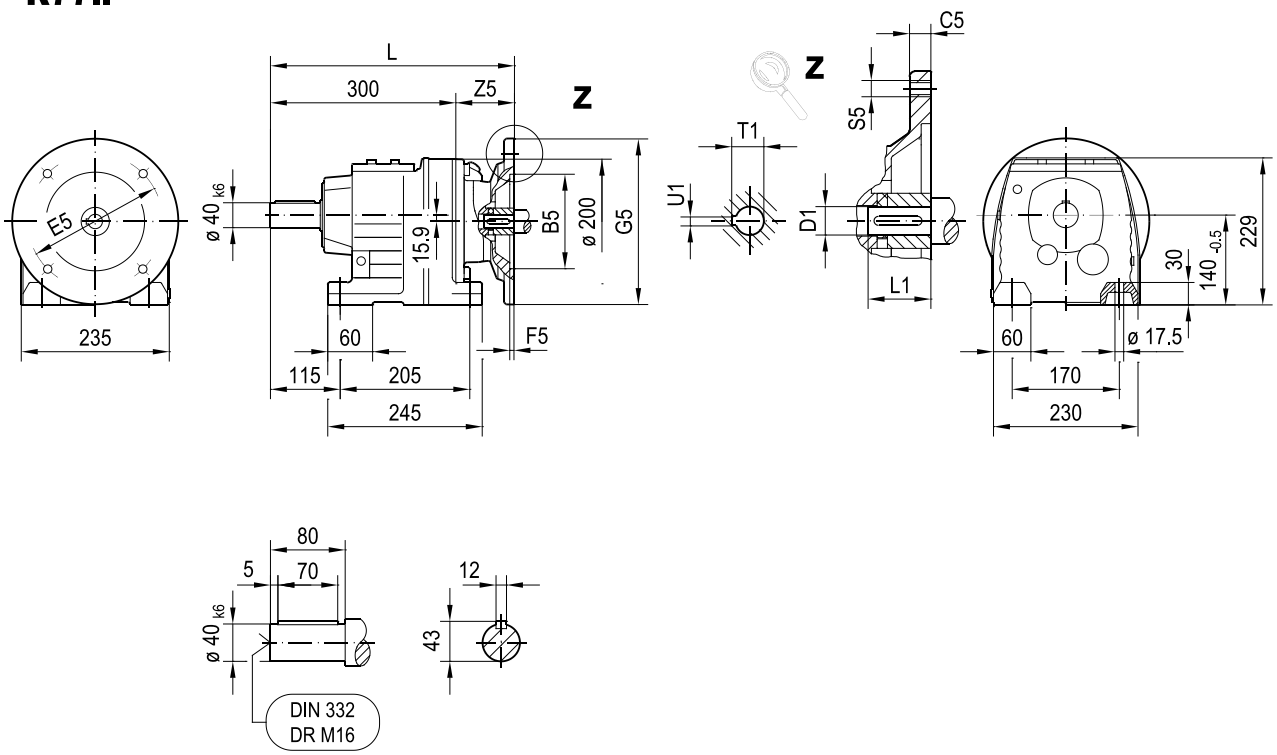


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	330	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	330	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	347	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	360	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	389	M12	108.5	28	60	31.3	8
AMS112	180	15	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

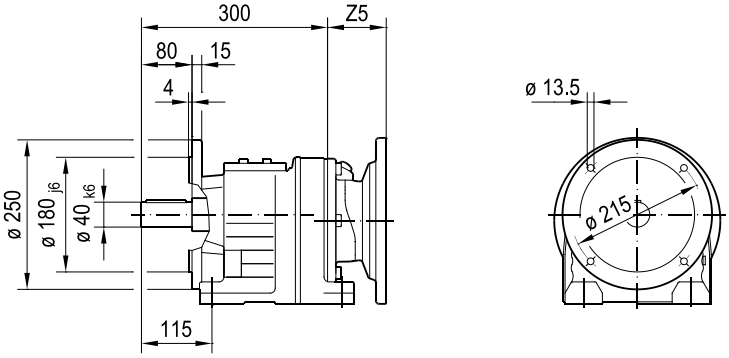
27797880/EN – 03/2023

01 177 00 20

R77..



R77F..

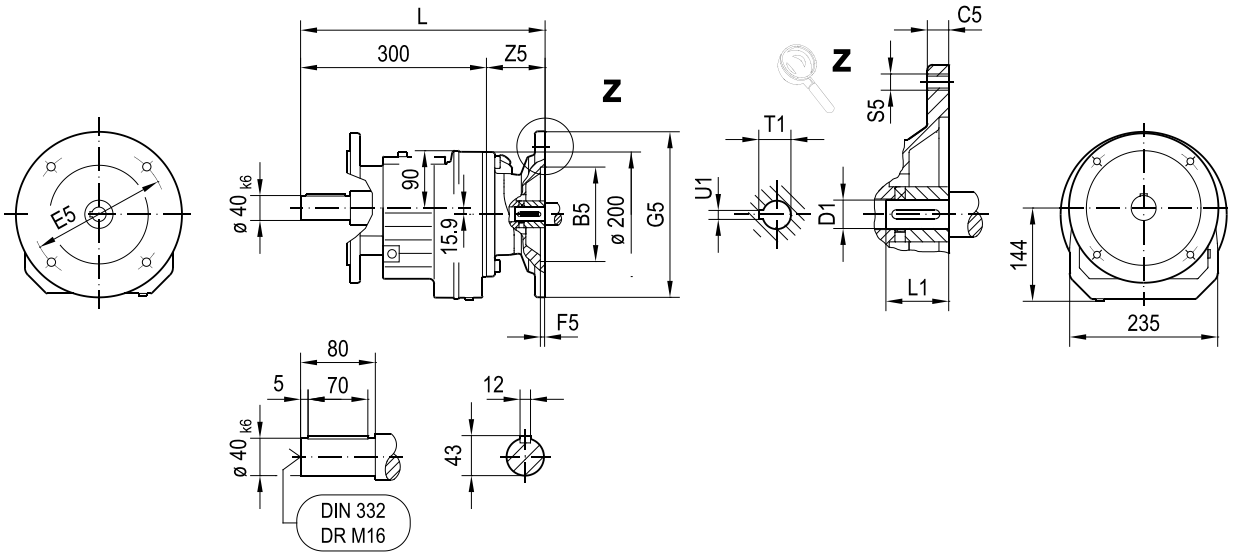


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	344	M8	44	11	23	12.8	4
AMS71	110	10	130	4	160	344	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	360	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	373	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	401	M12	100.5	28	60	31.3	8
AMS112	180	15	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

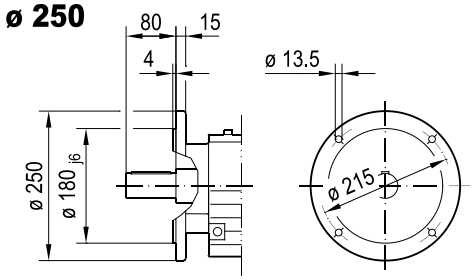
27797880/EN – 03/2023

01 178 00 20

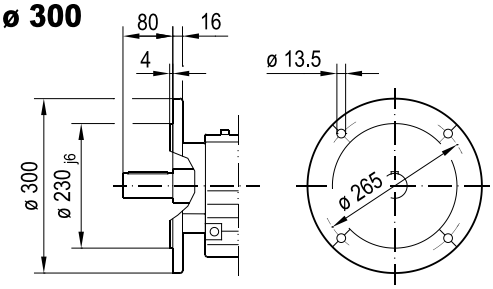
RF77..



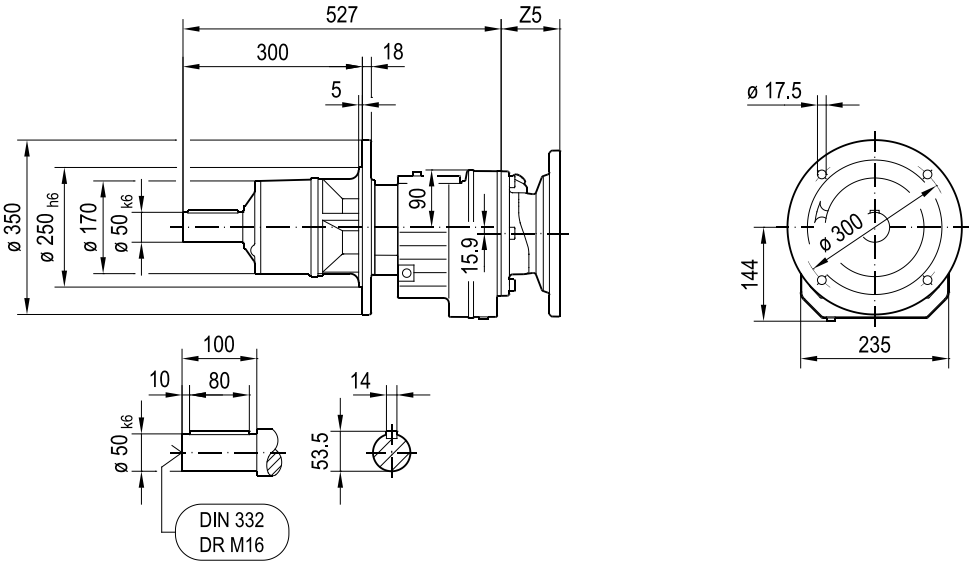
ø 250



ø 300



RM77..

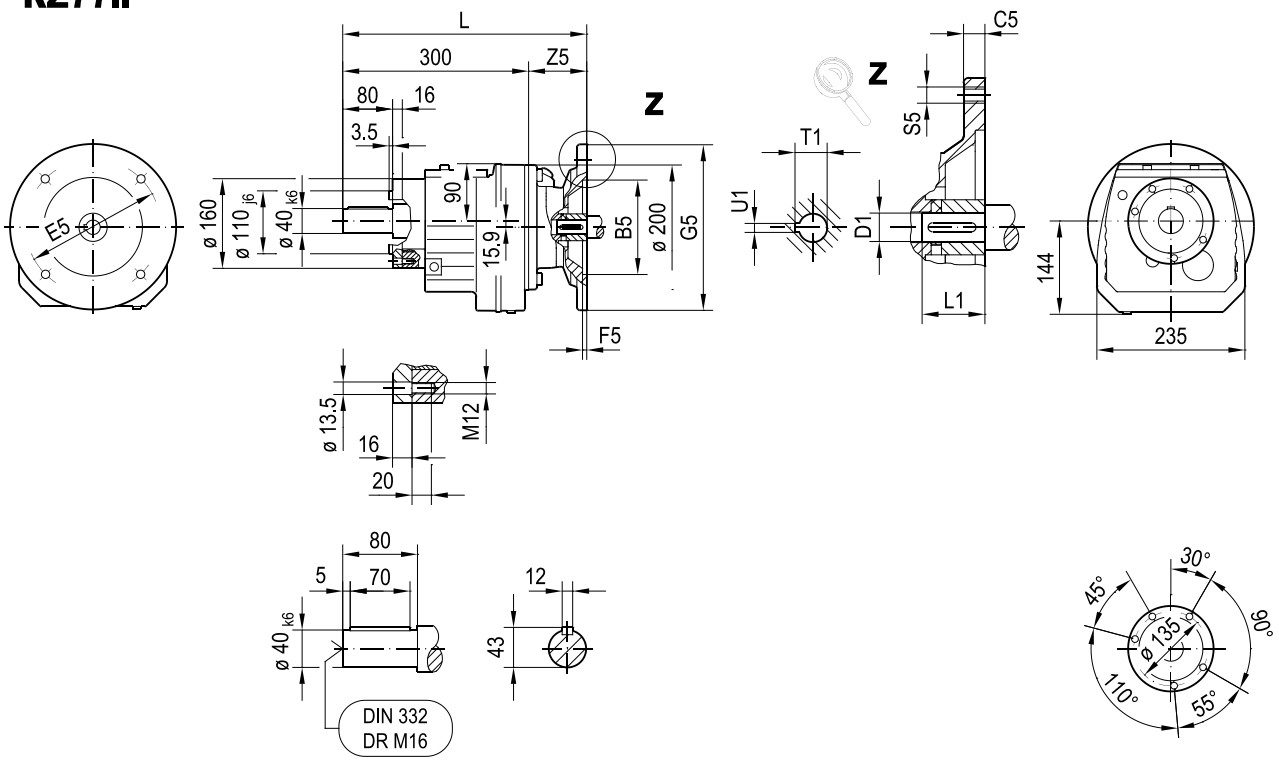


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	344	M8	44	11	23	12.8	4
AMS71	110	10	130	4	160	344	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	360	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	373	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	401	M12	100.5	28	60	31.3	8
AMS112	180	15	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..

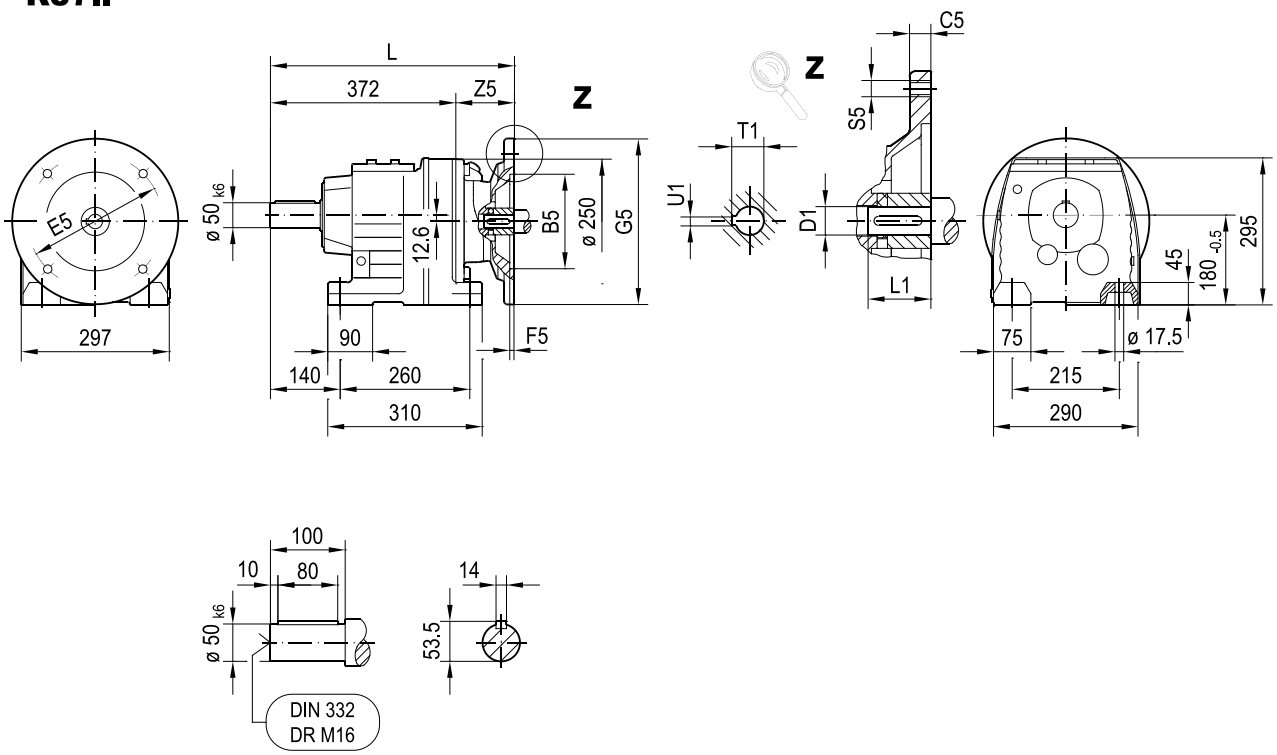


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	344	M8	44	11	23	12.8	4
AMS71	110	10	130	4	160	344	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	360	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	373	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	401	M12	100.5	28	60	31.3	8
AMS112	180	15	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

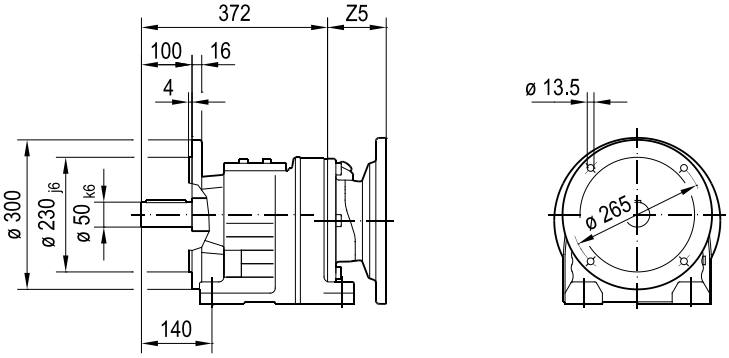
27797880/EN – 03/2023

01 180 00 20

R87..



R87F..

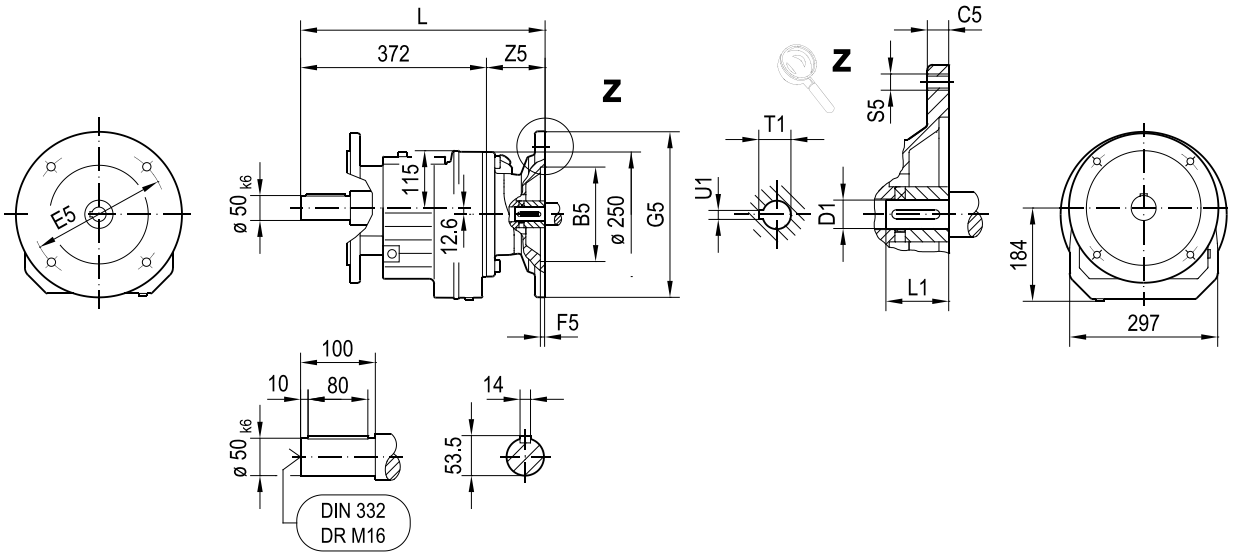


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS80	130	12	165	4.5	200	427	M10	55	19	40	21.8	6
AMS90	130	12	165	4.5	200	440	M10	68	24	50	27.3	8
AMS100	180	15	215	5	250	468	M12	95.5	28	60	31.3	8
AMS112	180	15	215	5	250	468	M12	95.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	493	M12	121	38	80	41.3	10
AMS132ML	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

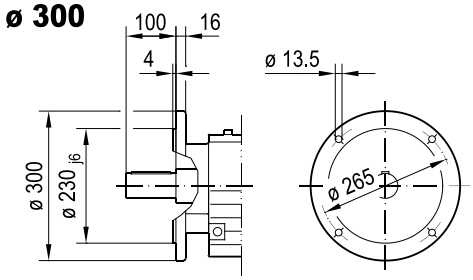
27797880/EN – 03/2023

01 181 00 20

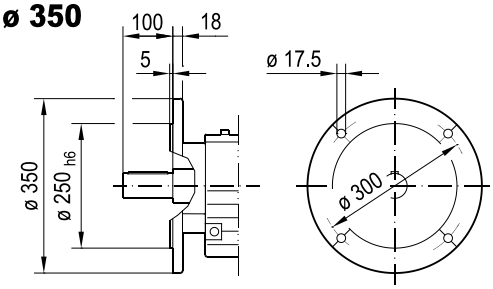
RF87..



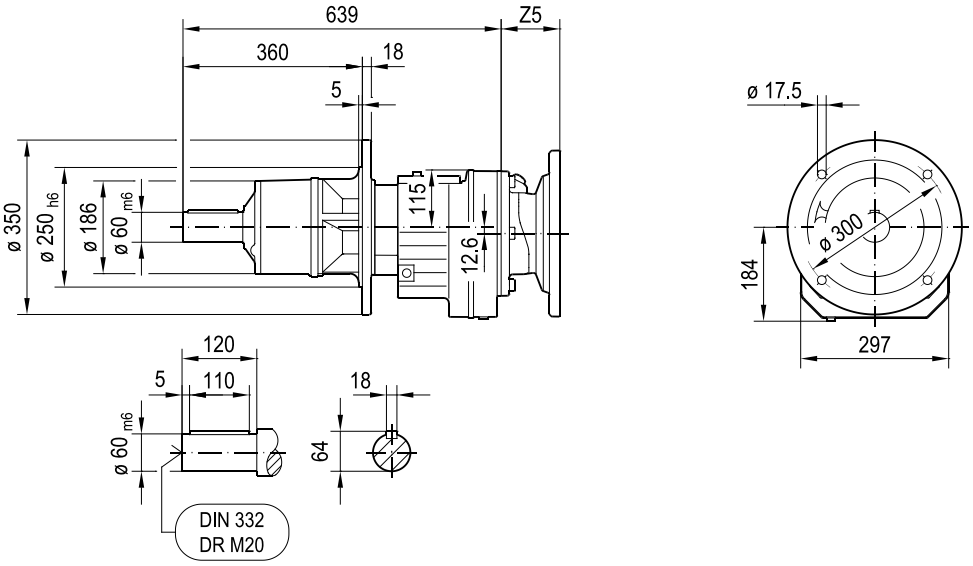
ø 300



ø 350



RM87..

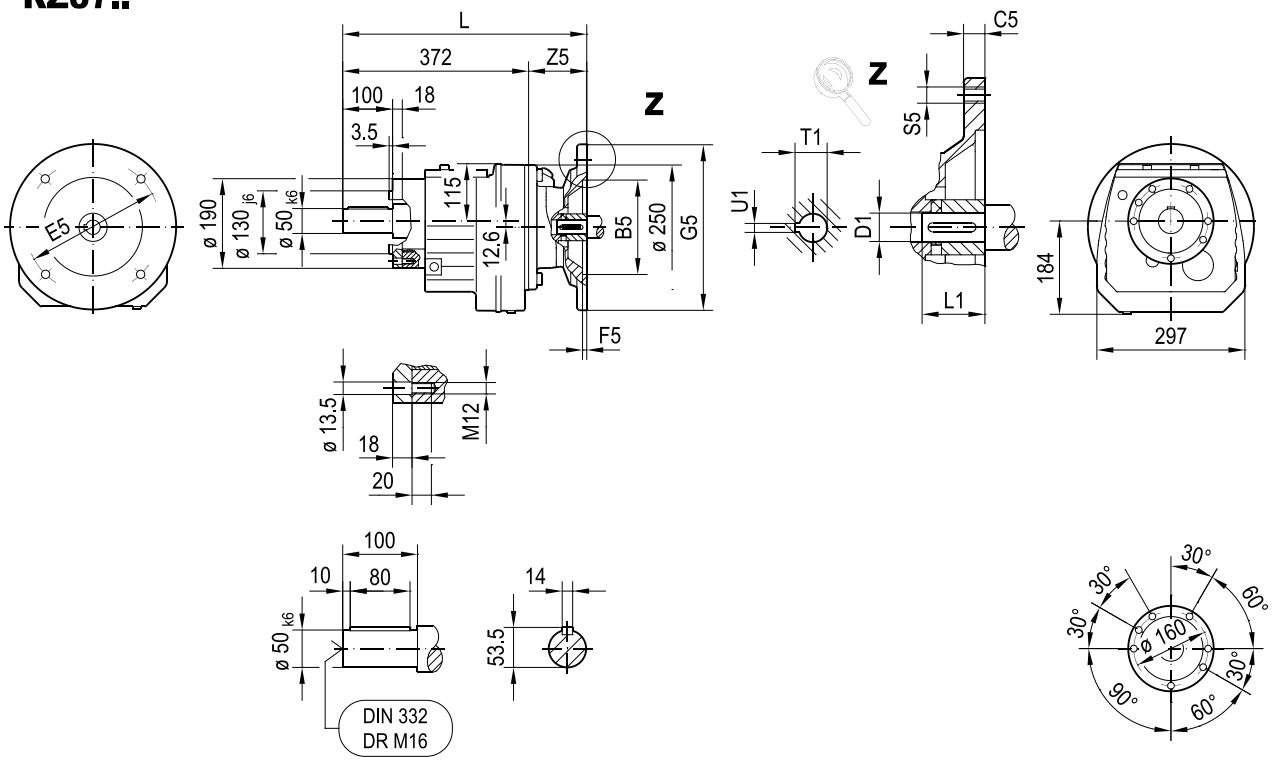


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS80	130	12	165	4.5	200	427	M10	55	19	40	21.8	6
AMS90	130	12	165	4.5	200	440	M10	68	24	50	27.3	8
AMS100	180	15	215	5	250	468	M12	95.5	28	60	31.3	8
AMS112	180	15	215	5	250	468	M12	95.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	493	M12	121	38	80	41.3	10
AMS132ML	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..

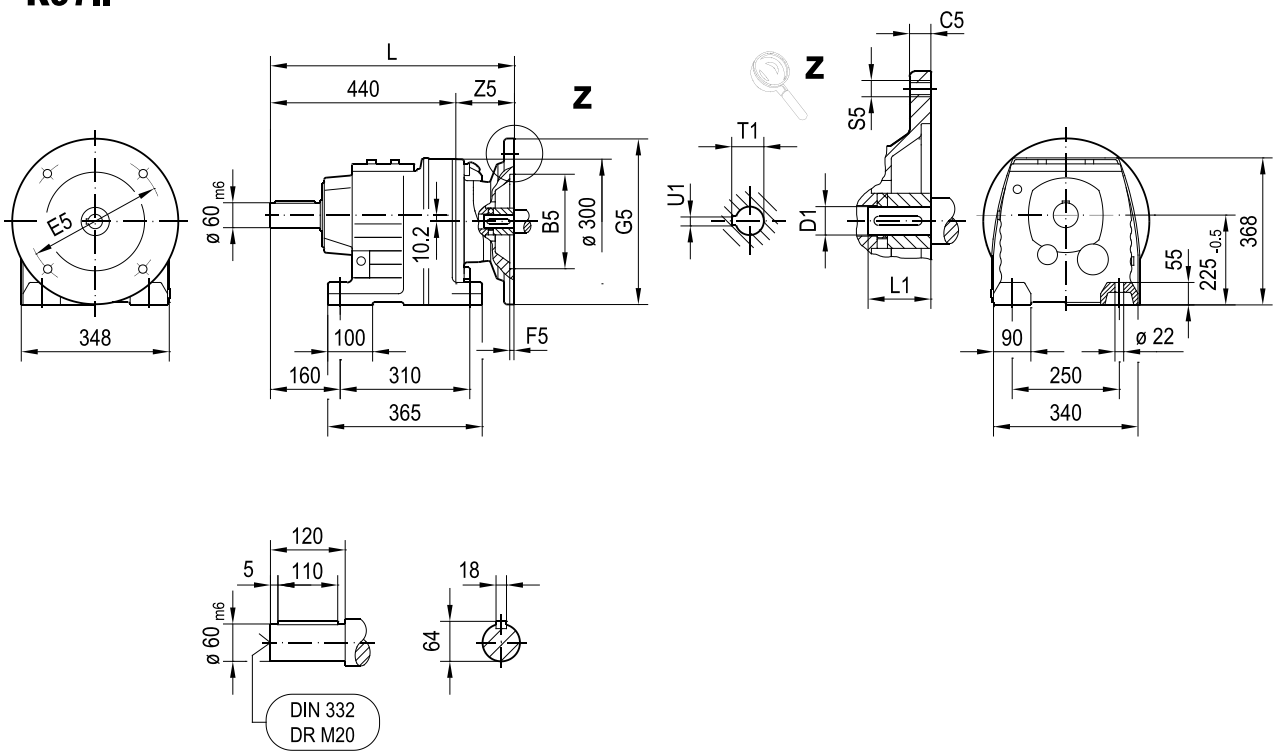


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS80	130	12	165	4.5	200	427	M10	55	19	40	21.8	6
AMS90	130	12	165	4.5	200	440	M10	68	24	50	27.3	8
AMS100	180	15	215	5	250	468	M12	95.5	28	60	31.3	8
AMS112	180	15	215	5	250	468	M12	95.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	493	M12	121	38	80	41.3	10
AMS132ML	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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01 183 00 20

R97..

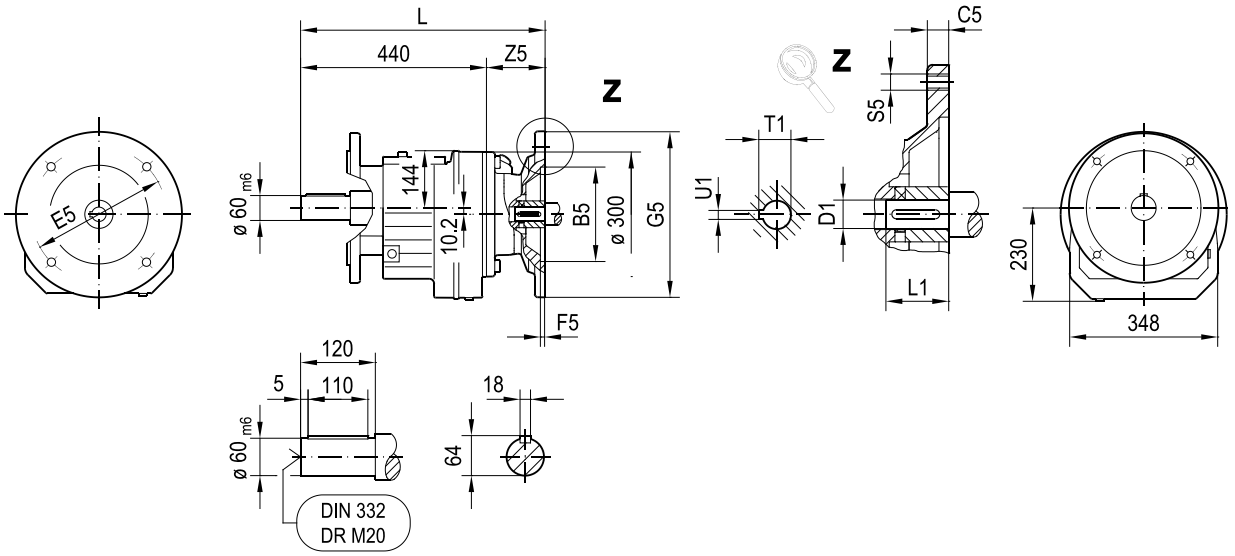


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	531	M12	90.5	28	60	31.3	8
AMS112	180	15	215	5	250	531	M12	90.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	556	M12	116	38	80	41.3	10
AMS132ML	230	16	265	5	300	556	M12	116	38	80	41.3	10
AMS160	250	18	300	6	350	619	M16	179	42	110	45.3	12
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

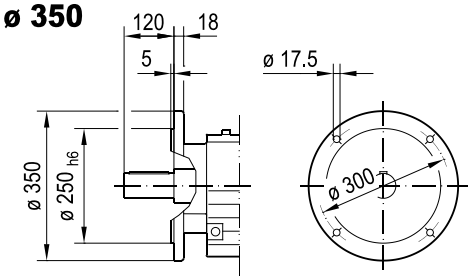
27797880/EN – 03/2023

01 184 00 20

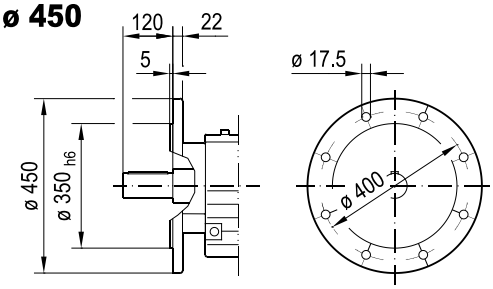
RF97..



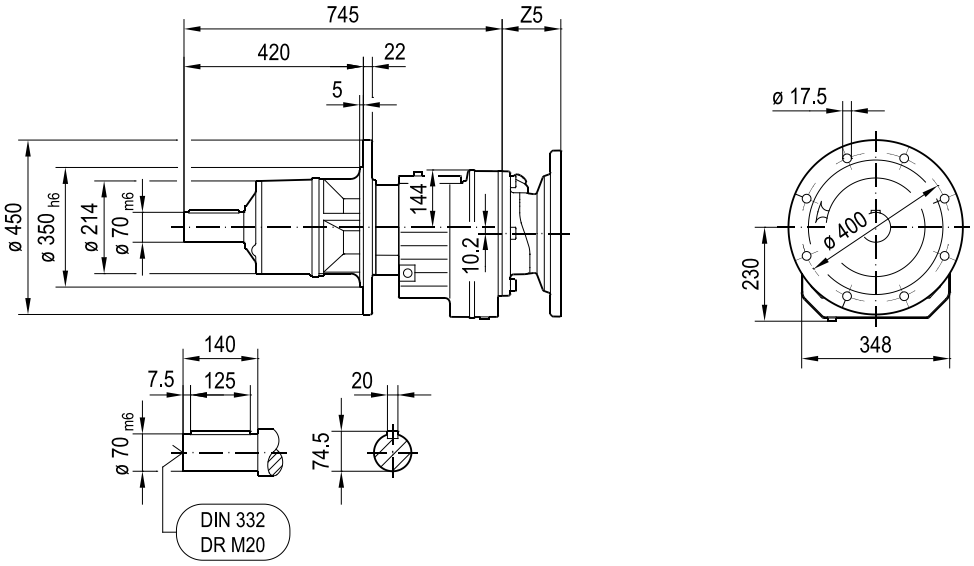
ø 350



ø 450



RM97..

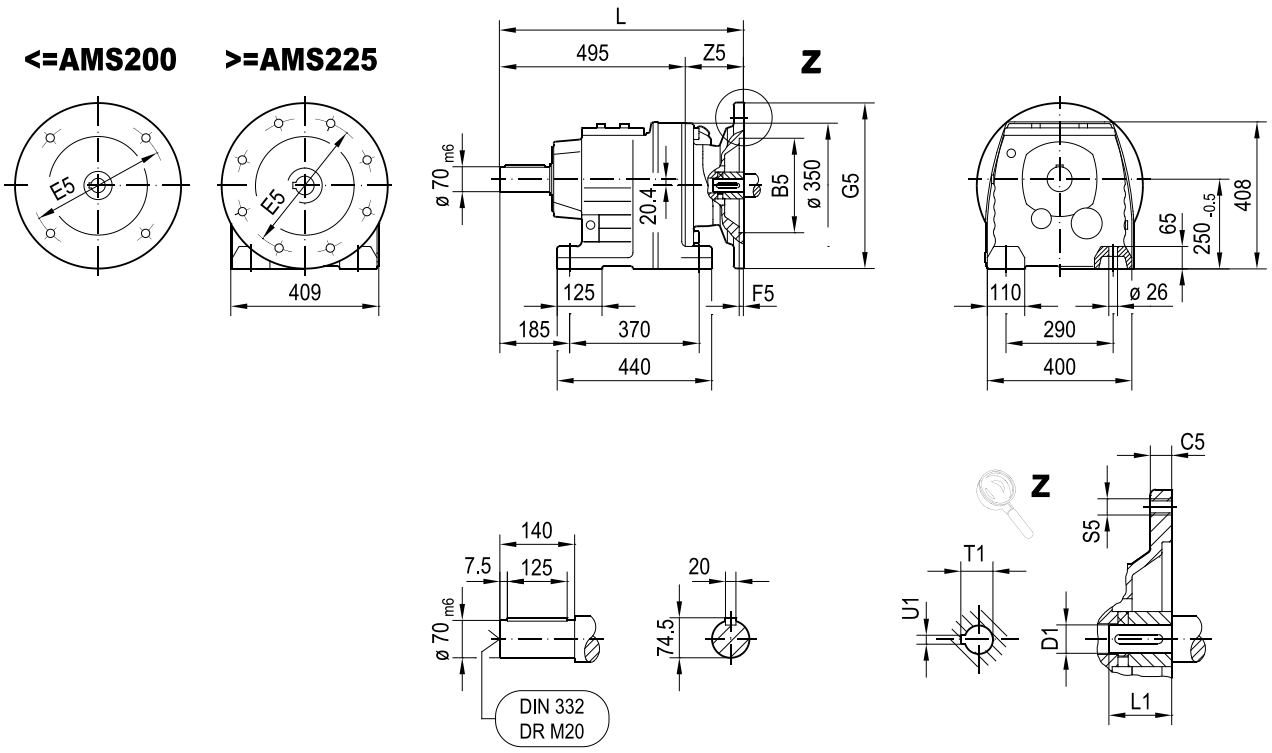


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	531	M12	90.5	28	60	31.3	8
AMS112	180	15	215	5	250	531	M12	90.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	556	M12	116	38	80	41.3	10
AMS132ML	230	16	265	5	300	556	M12	116	38	80	41.3	10
AMS160	250	18	300	6	350	619	M16	179	42	110	45.3	12
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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01 185 00 20

R107..

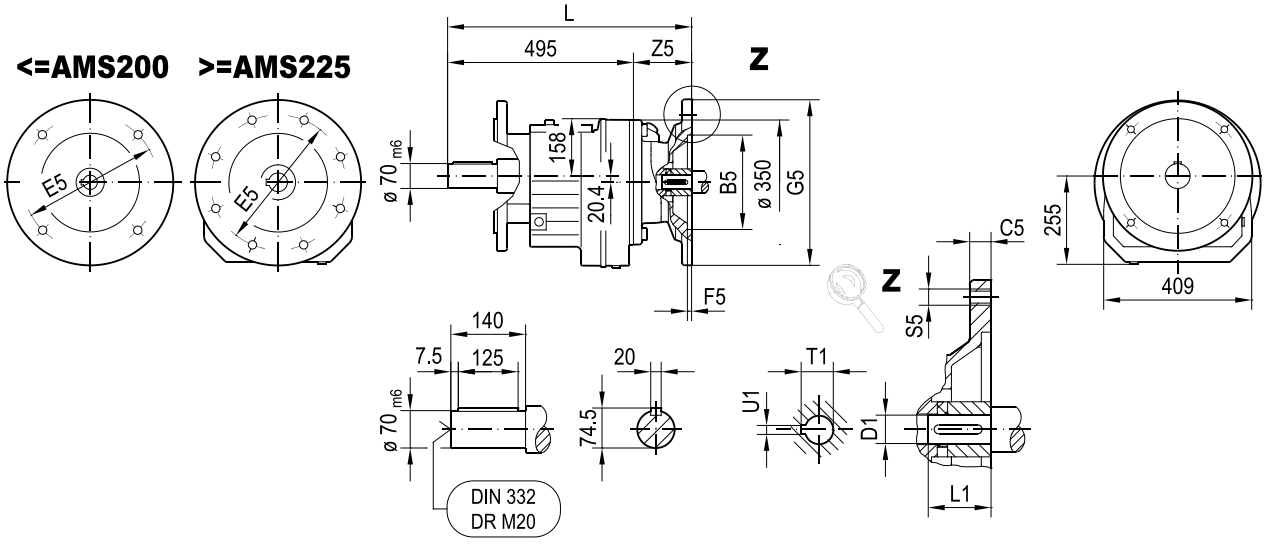


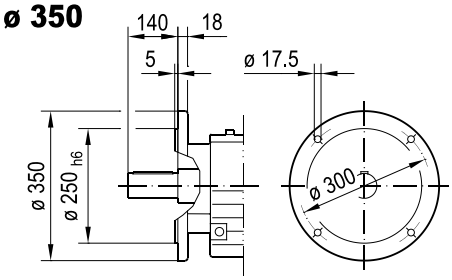
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	580	M12	84.5	28	60	31.3	8
AMS112	180	15	215	5	250	580	M12	84.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	605	M12	110	38	80	41.3	10
AMS132ML	230	16	265	5	300	605	M12	110	38	80	41.3	10
AMS160	250	18	300	6	350	668	M16	173	42	110	45.3	12
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

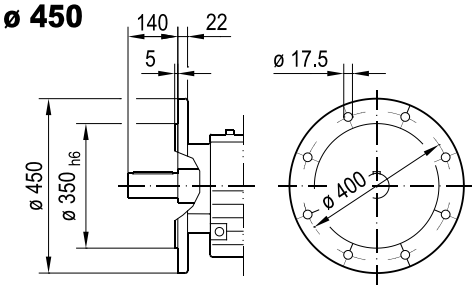
27797880/EN – 03/2023

01 186 00 20

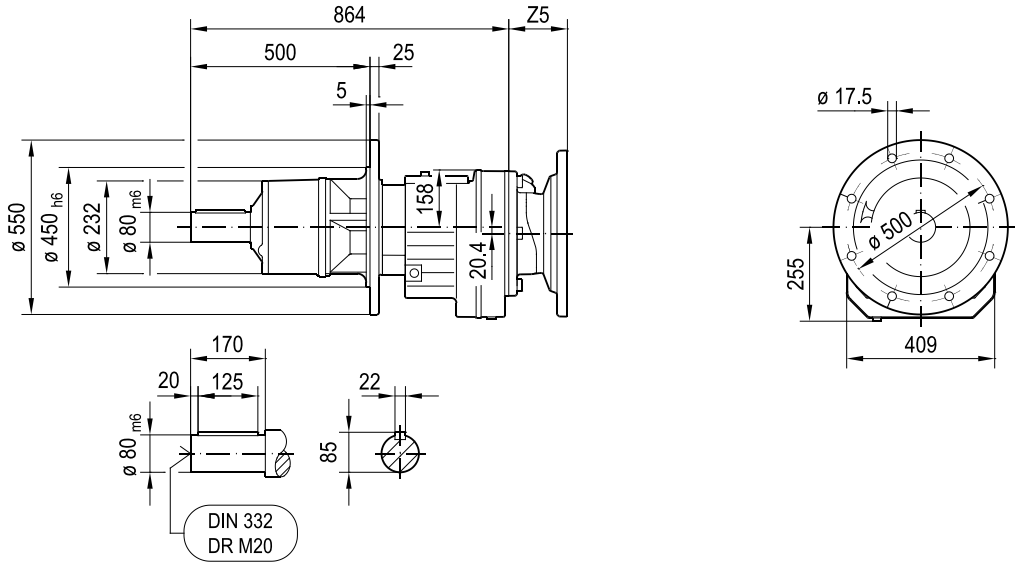
RF107..







RM107..

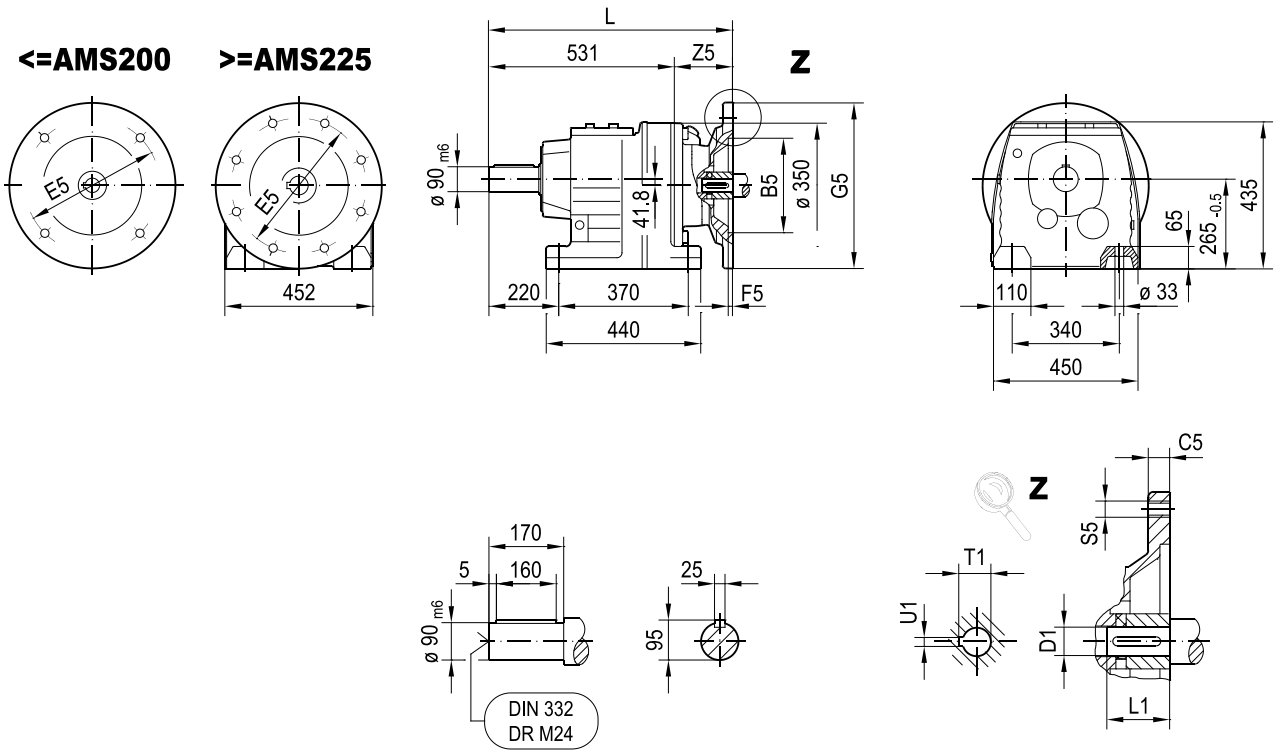


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	580	M12	84.5	28	60	31.3	8
AMS112	180	15	215	5	250	580	M12	84.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	605	M12	110	38	80	41.3	10
AMS132ML	230	16	265	5	300	605	M12	110	38	80	41.3	10
AMS160	250	18	300	6	350	668	M16	173	42	110	45.3	12
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

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01 187 00 20

R127..

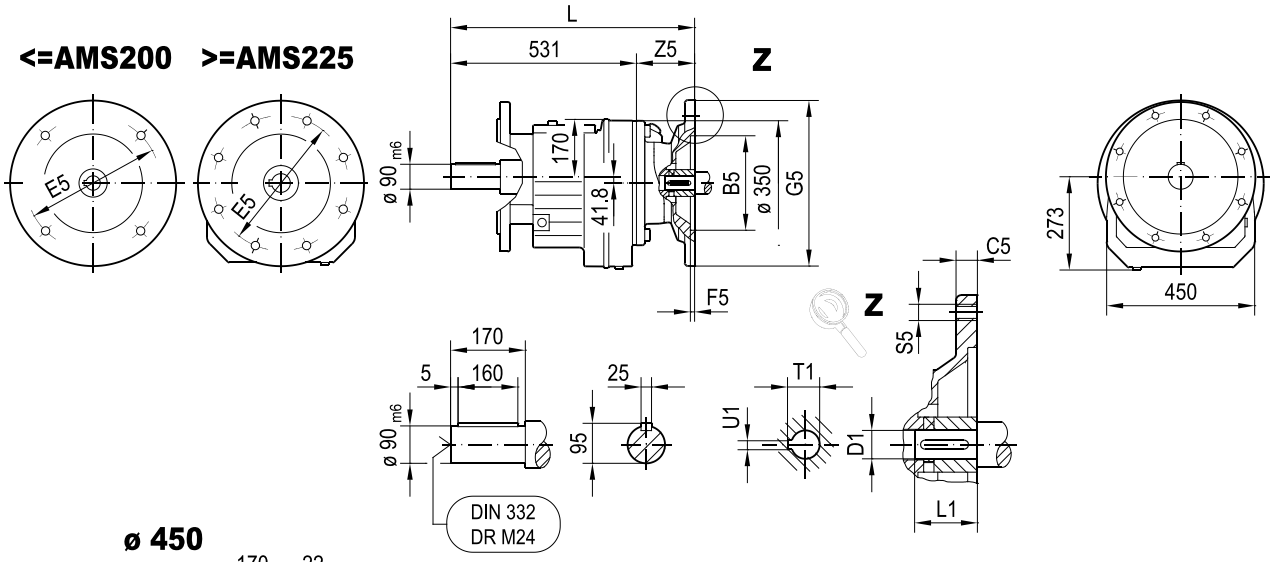


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	616	M12	84.5	28	60	31.3	8
AMS112	180	15	215	5	250	616	M12	84.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	641	M12	110	38	80	41.3	10
AMS132ML	230	16	265	5	300	641	M12	110	38	80	41.3	10
AMS160	250	18	300	6	350	704	M16	173	42	110	45.3	12
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

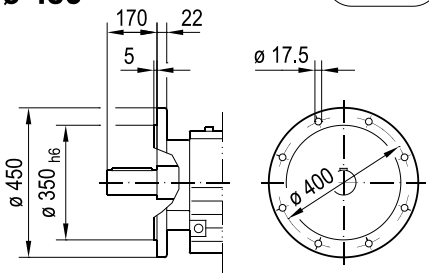
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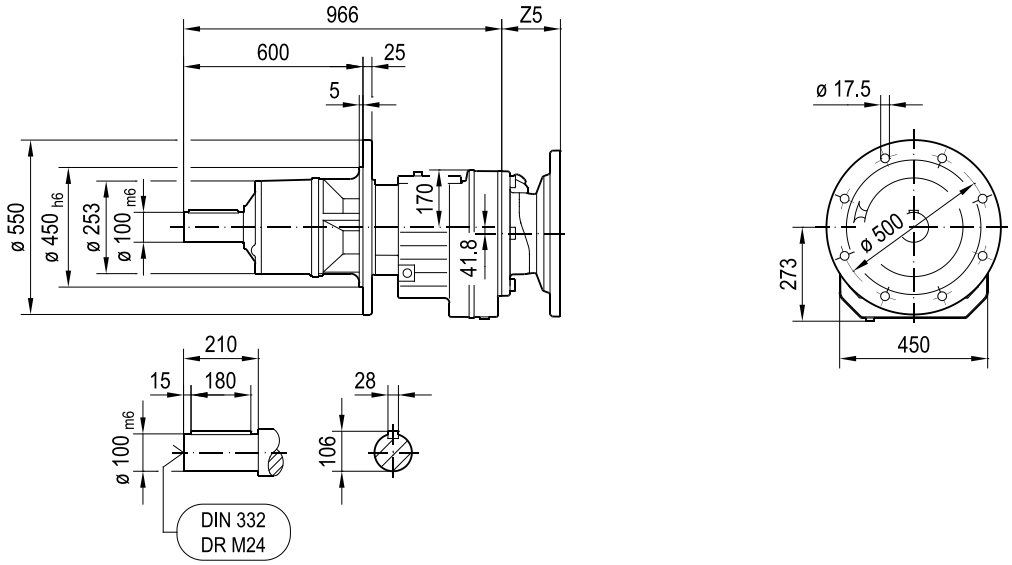
RF127..



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RM127..

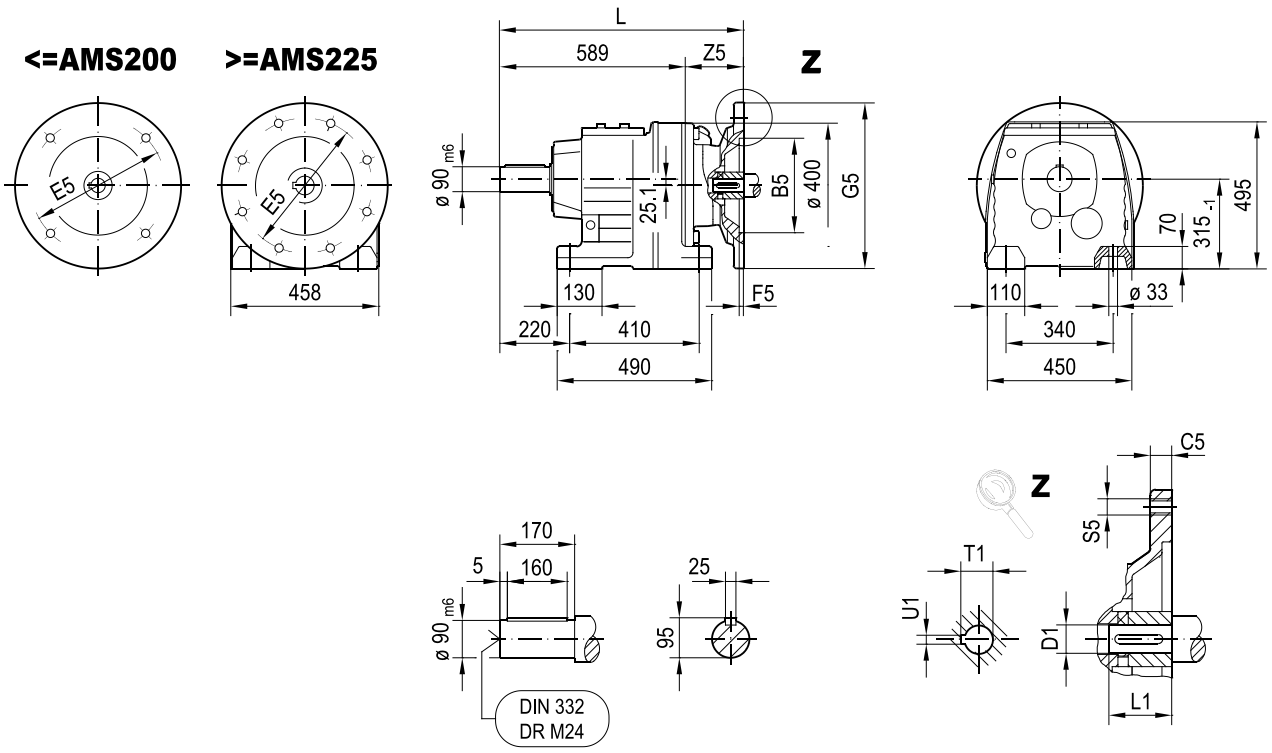


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	616	M12	84.5	28	60	31.3	8
AMS112	180	15	215	5	250	616	M12	84.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	641	M12	110	38	80	41.3	10
AMS132ML	230	16	265	5	300	641	M12	110	38	80	41.3	10
AMS160	250	18	300	6	350	704	M16	173	42	110	45.3	12
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

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R137..

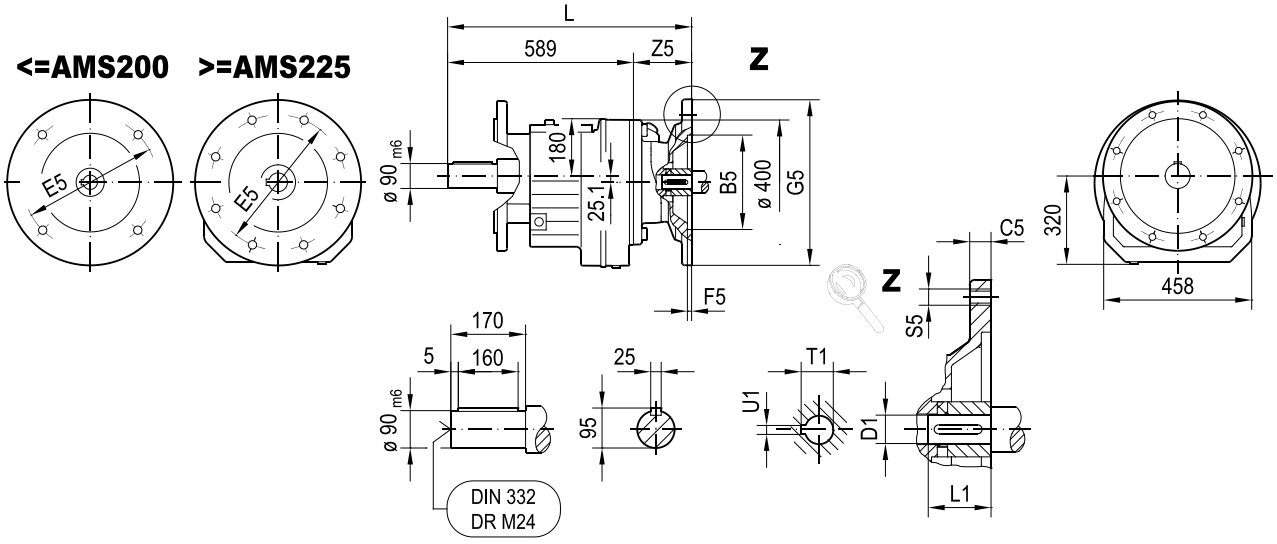


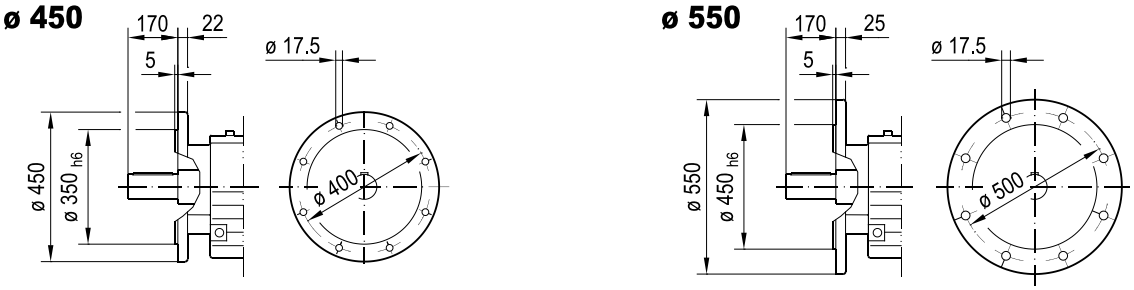
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS132S/M	230	16	265	5	300	692	M12	103	38	80	41.3	10
AMS132ML	230	16	265	5	300	692	M12	103	38	80	41.3	10
AMS160	250	18	300	6	350	755	M16	166	42	110	45.3	12
AMS180	250	18	300	6	350	755	M16	166	48	110	51.8	14
AMS200	300	20	350	7	400	816	M16	227	55	110	59.3	16
AMS225	350	22	400	7	450	831	M16	242	60	140	64.4	18

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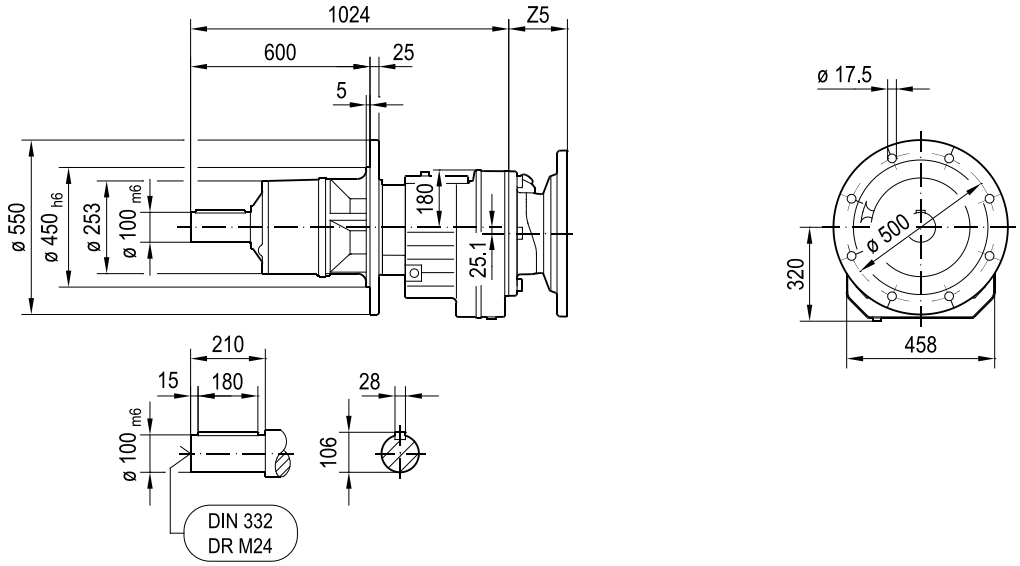
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RF137..





RM137..

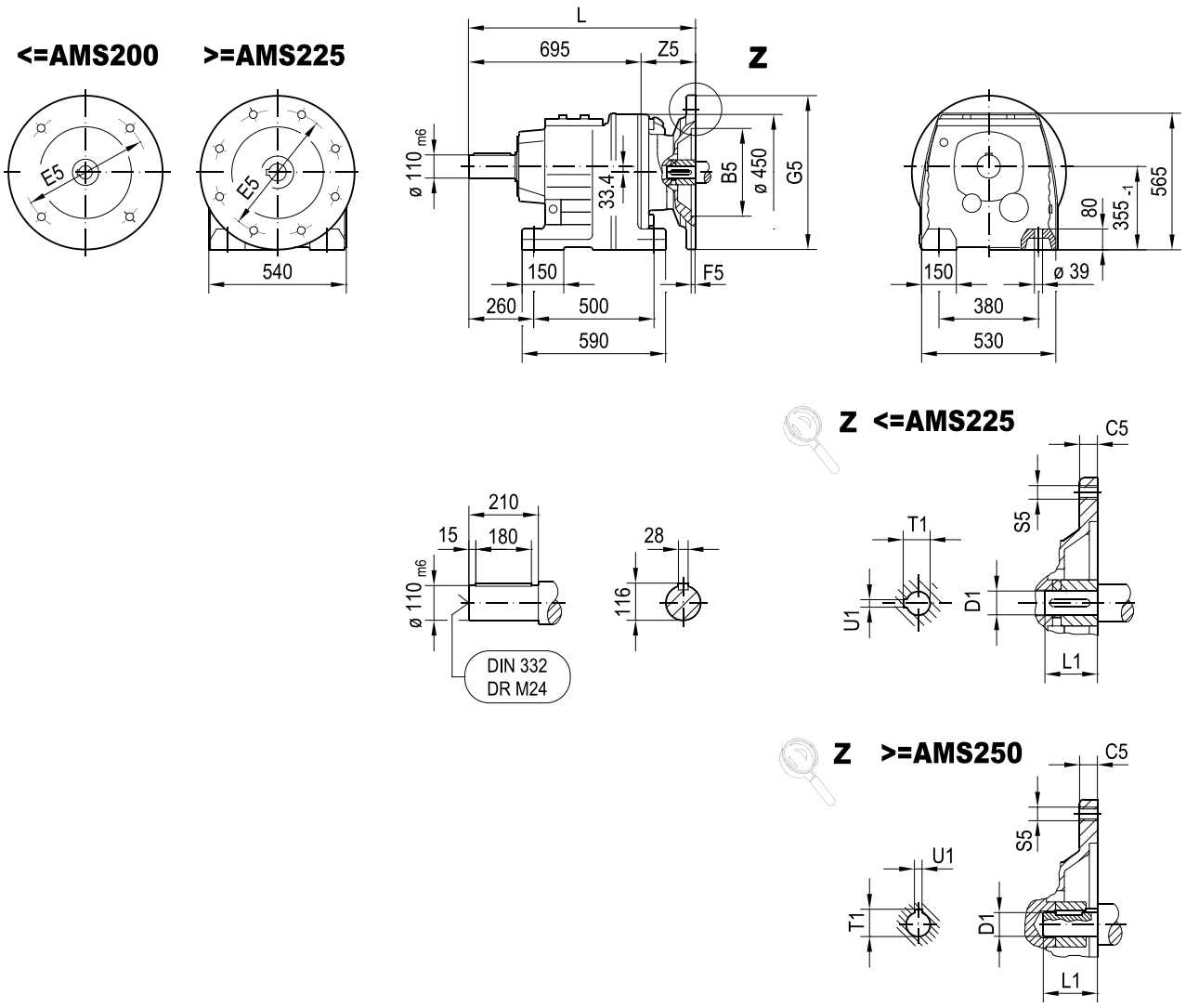


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS132S/M	230	16	265	5	300	692	M12	103	38	80	41.3	10
AMS132ML	230	16	265	5	300	692	M12	103	38	80	41.3	10
AMS160	250	18	300	6	350	755	M16	166	42	110	45.3	12
AMS180	250	18	300	6	350	755	M16	166	48	110	51.8	14
AMS200	300	20	350	7	400	816	M16	227	55	110	59.3	16
AMS225	350	22	400	7	450	831	M16	242	60	140	64.4	18

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R147..



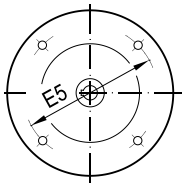
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS132ML	230	16	265	5	300	790	M12	95	38	80	41.3	10
AMS160	250	18	300	6	350	853	M16	158	42	110	45.3	12
AMS180	250	18	300	6	350	853	M16	158	48	110	51.8	14
AMS200	300	20	350	7	400	914	M16	219	55	110	59.3	16
AMS225	350	22	400	7	450	929	M16	234	60	140	64.4	18
AMS250	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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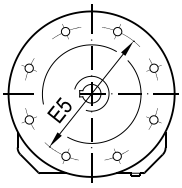
01 192 00 20

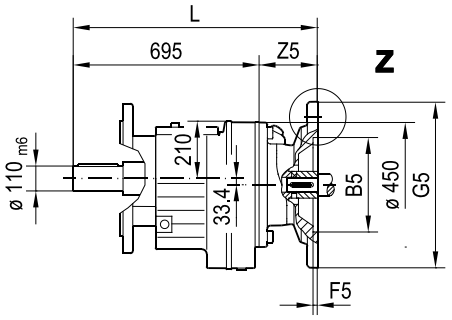
RF147..

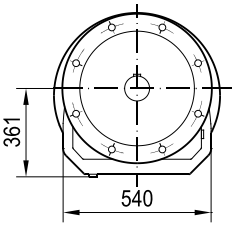
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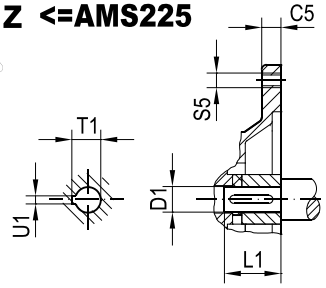
>=AMS225



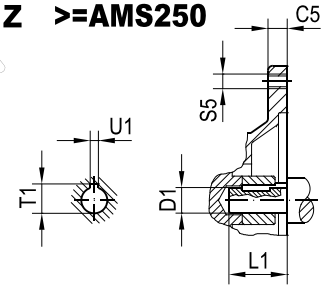


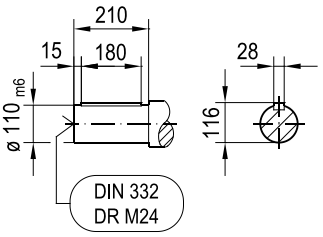


Z <=AMS225

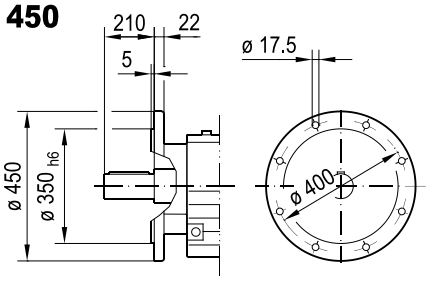


Z >=AMS250

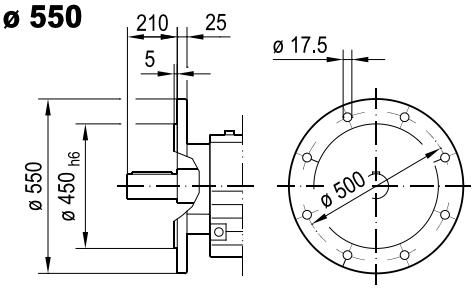




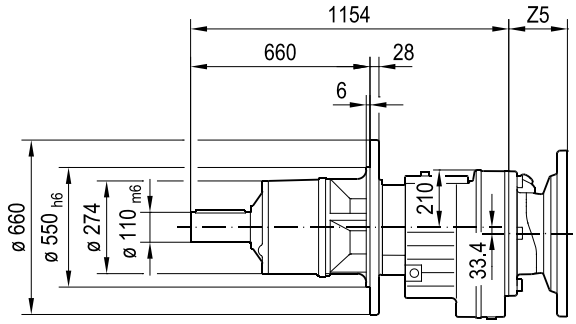
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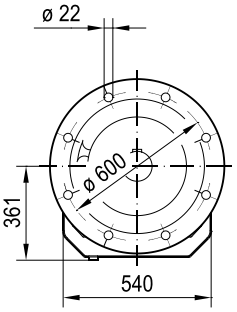


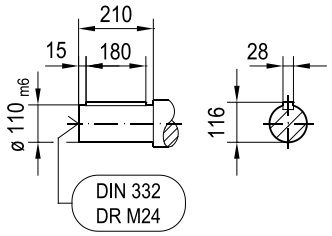
ø 550



RM147..





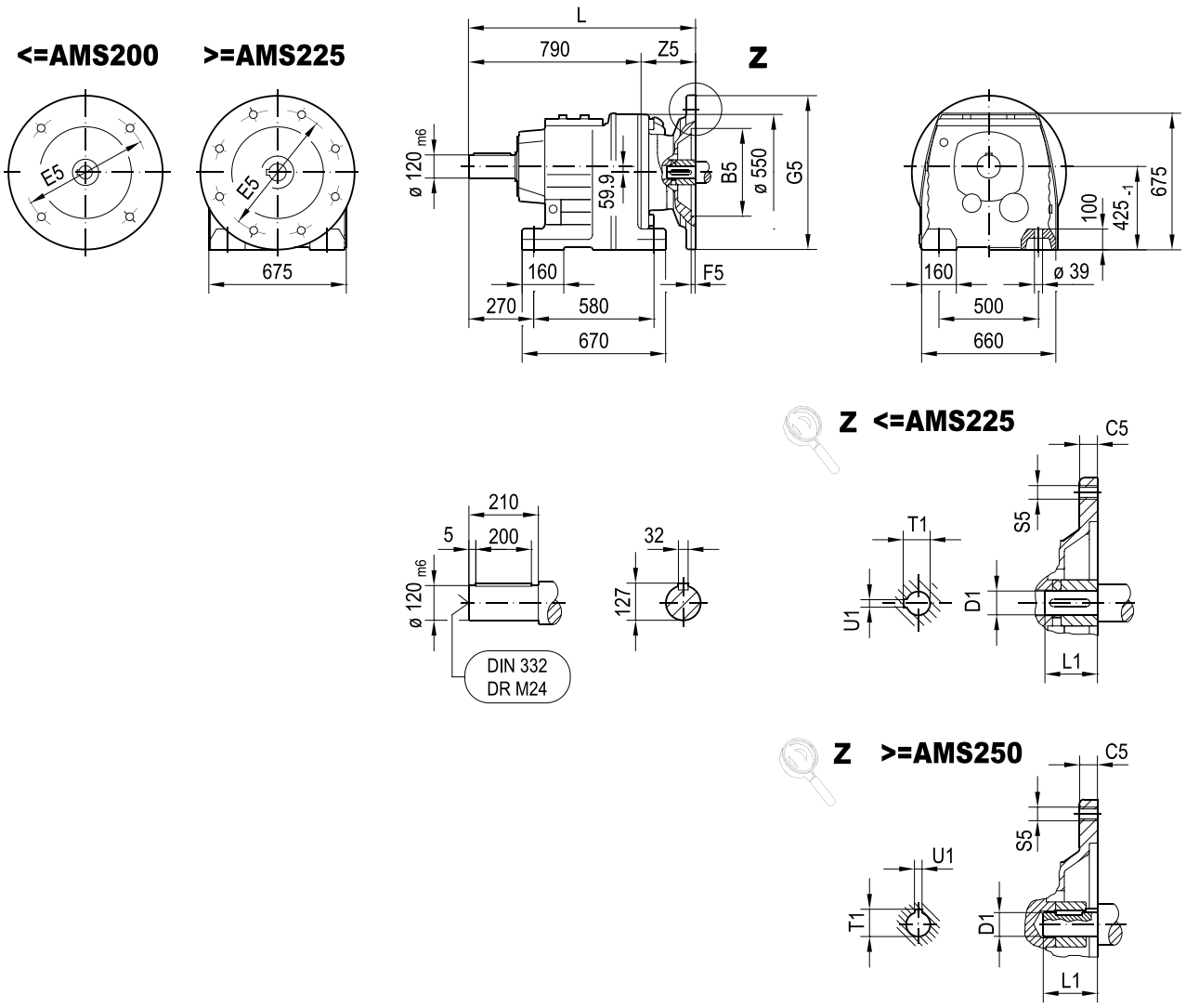


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS132ML	230	16	265	5	300	790	M12	95	38	80	41.3	10
AMS160	250	18	300	6	350	853	M16	158	42	110	45.3	12
AMS180	250	18	300	6	350	853	M16	158	48	110	51.8	14
AMS200	300	20	350	7	400	914	M16	219	55	110	59.3	16
AMS225	350	22	400	7	450	929	M16	234	60	140	64.4	18
AMS250	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..

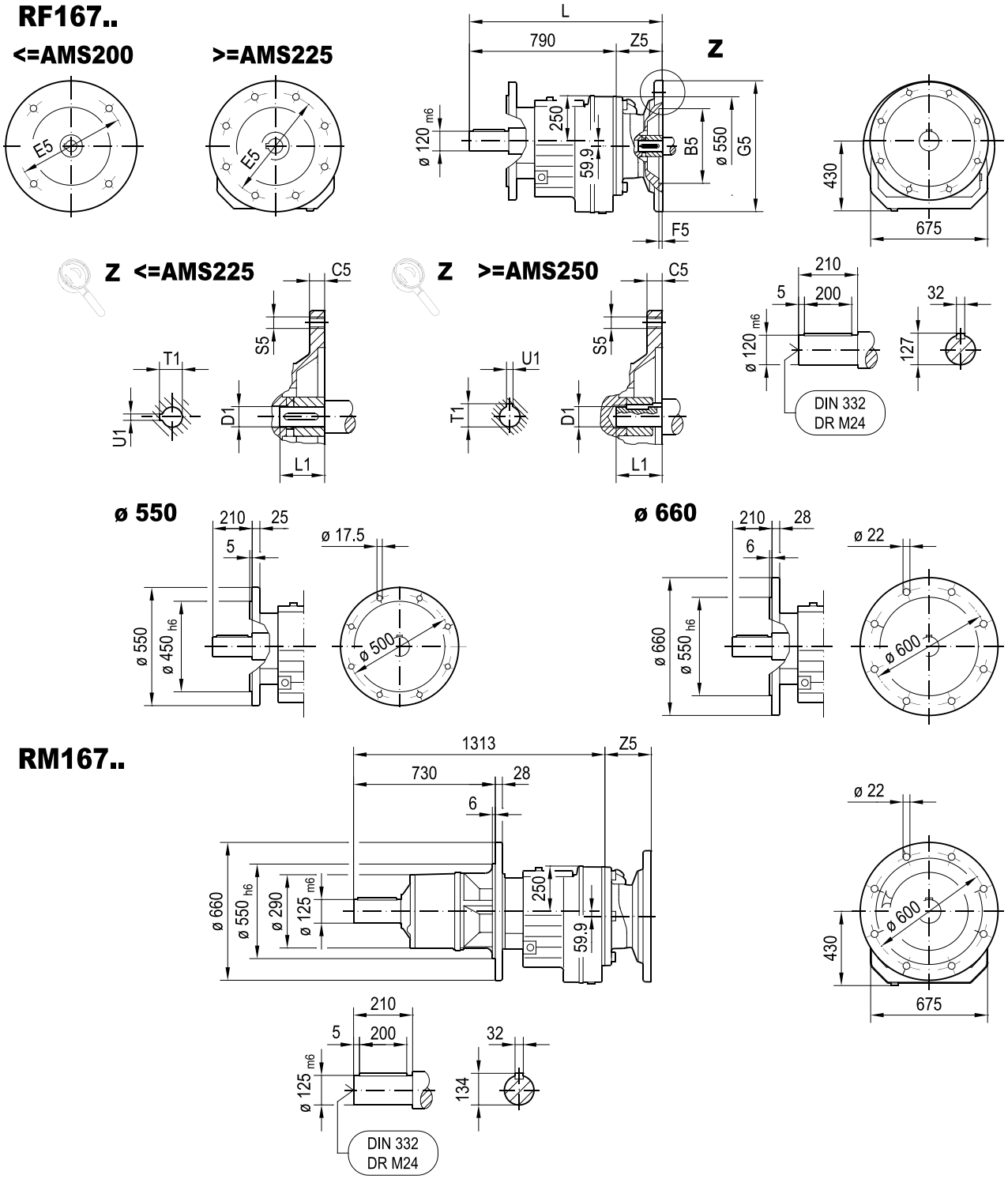


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS160	250	18	300	6	350	940	M16	150	42	110	45.3	12
AMS180	250	18	300	6	350	940	M16	150	48	110	51.8	14
AMS200	300	20	350	7	400	1001	M16	211	55	110	59.3	16
AMS225	350	22	400	7	450	1016	M16	226	60	140	64.4	18
AMS250	450	25	500	7	550	1080	M16	289.5	65	140	69.4	18
AMS280	450	25	500	7	550	1080	M16	289.5	75	140	79.9	20

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RF167..



RM167..

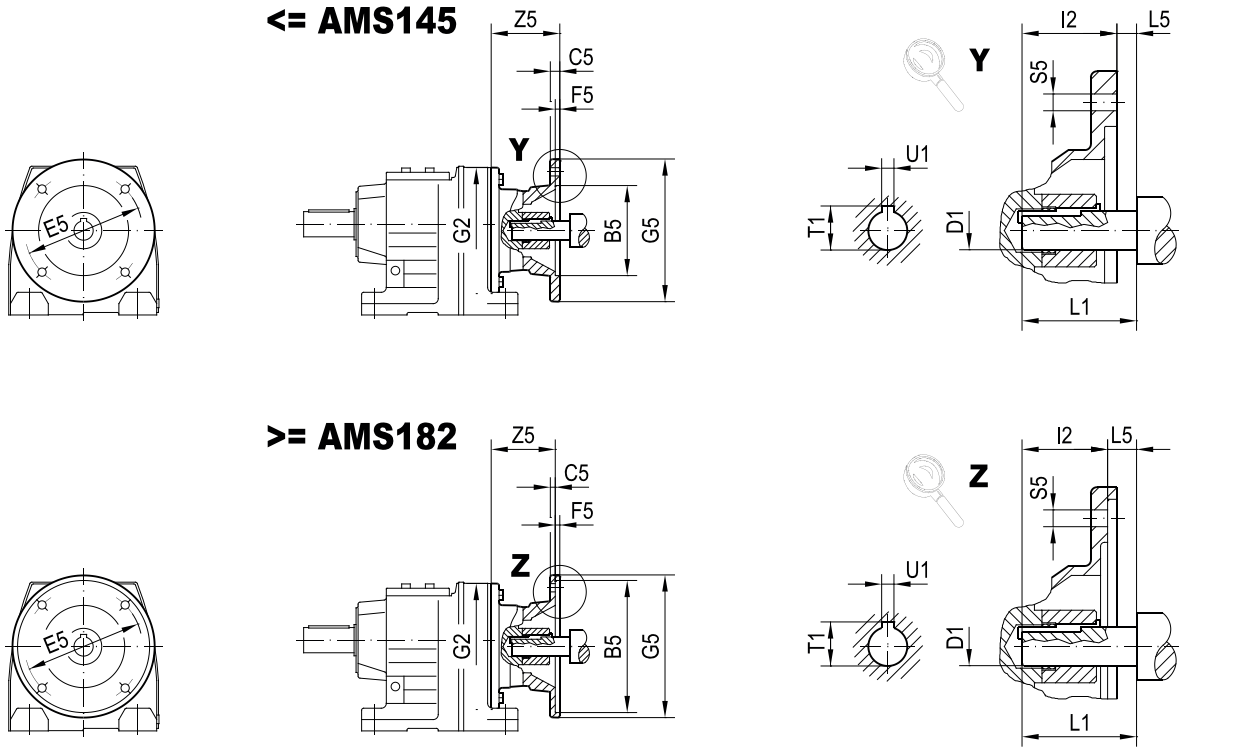
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS160	250	18	300	6	350	940	M16	150	42	110	45.3	12
AMS180	250	18	300	6	350	940	M16	150	48	110	51.8	14
AMS200	300	20	350	7	400	1001	M16	211	55	110	59.3	16
AMS225	350	22	400	7	450	1016	M16	226	60	140	64.4	18
AMS250	450	25	500	7	550	1080	M16	289.5	65	140	69.4	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

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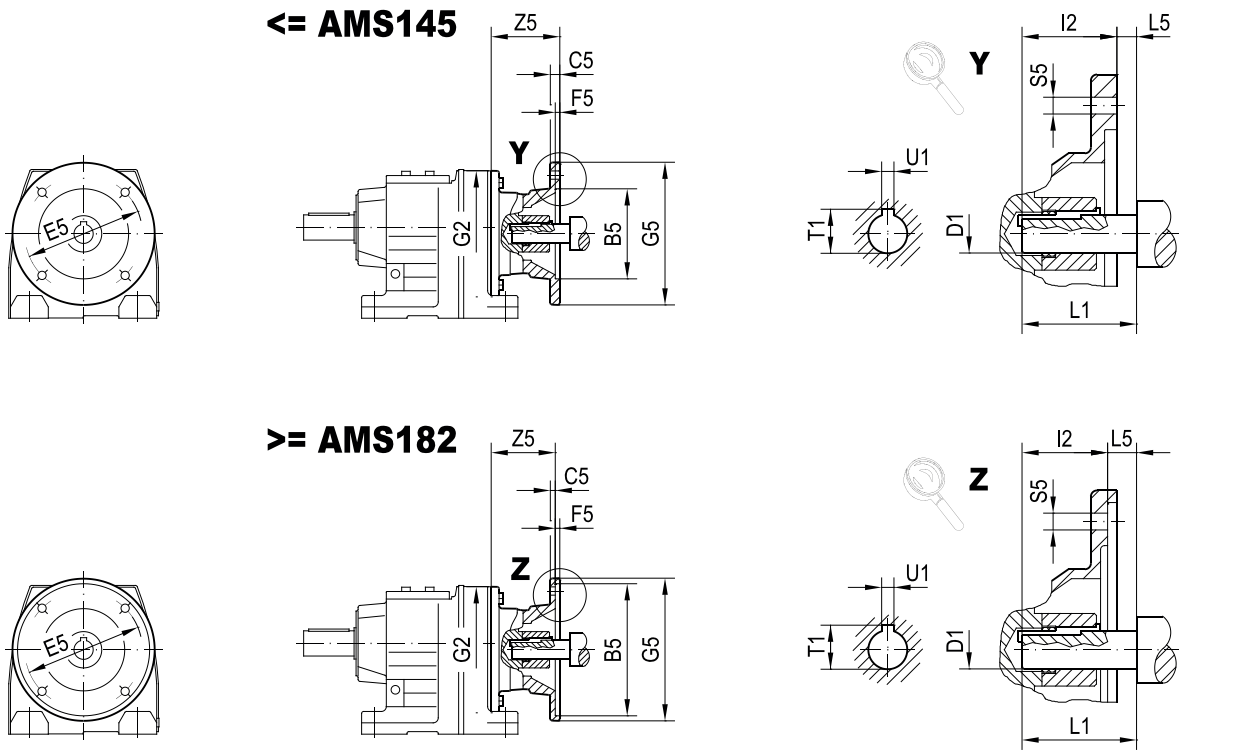


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		B5	C5	E5	F5	G2	G5	I2	L5	S5	Z5	D1	L1	T1	U1
RX..57 RX..67	**AMS56**	114.3	11	149.2	4.5	160	170	52.3	-4.6	10.5	75	15.875	47.8	18.1	4.76
	AMS143	114.3	12	149.2	4.5	160	170	53.8	3.3	10.5	87	22.225	57.2	24.7	4.76
	AMS145	114.3	14	149.2	4.5	160	170	53.8	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

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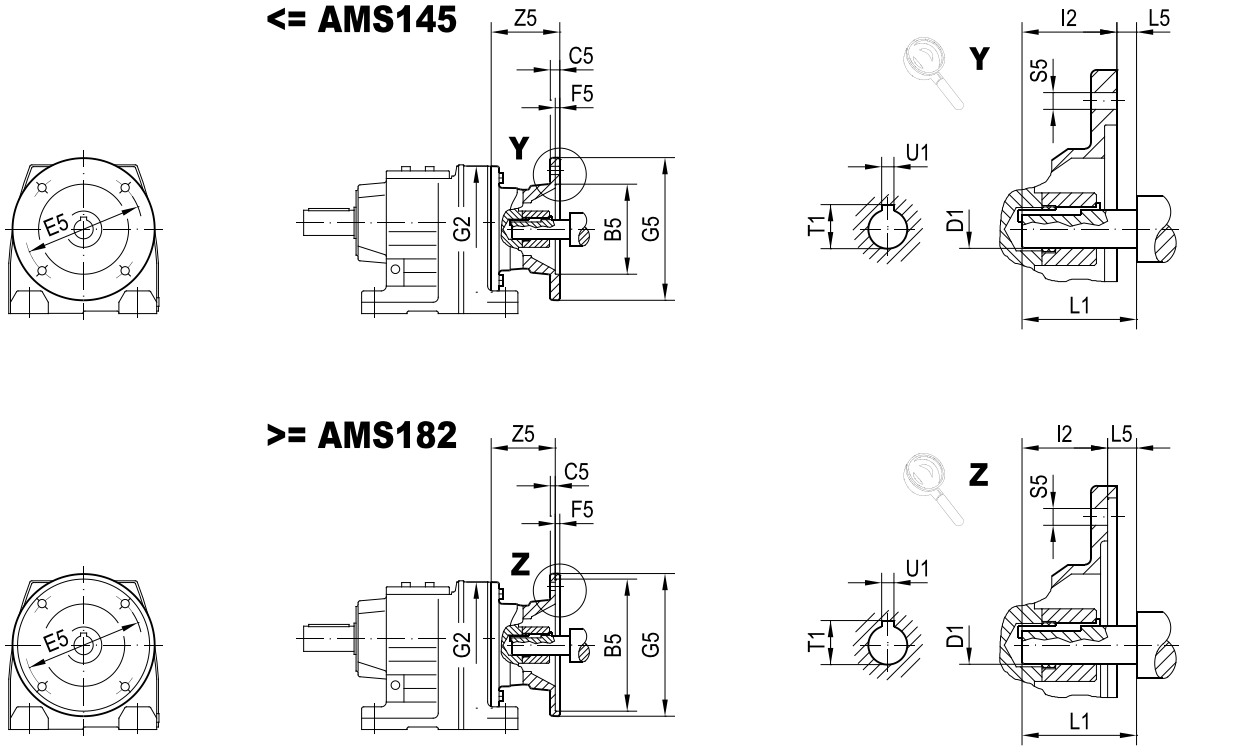
34212220811

		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	246.5	60.325	149.4	67.6	15.88

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8.5.2 R.. AMS.. (NEMA) /mm

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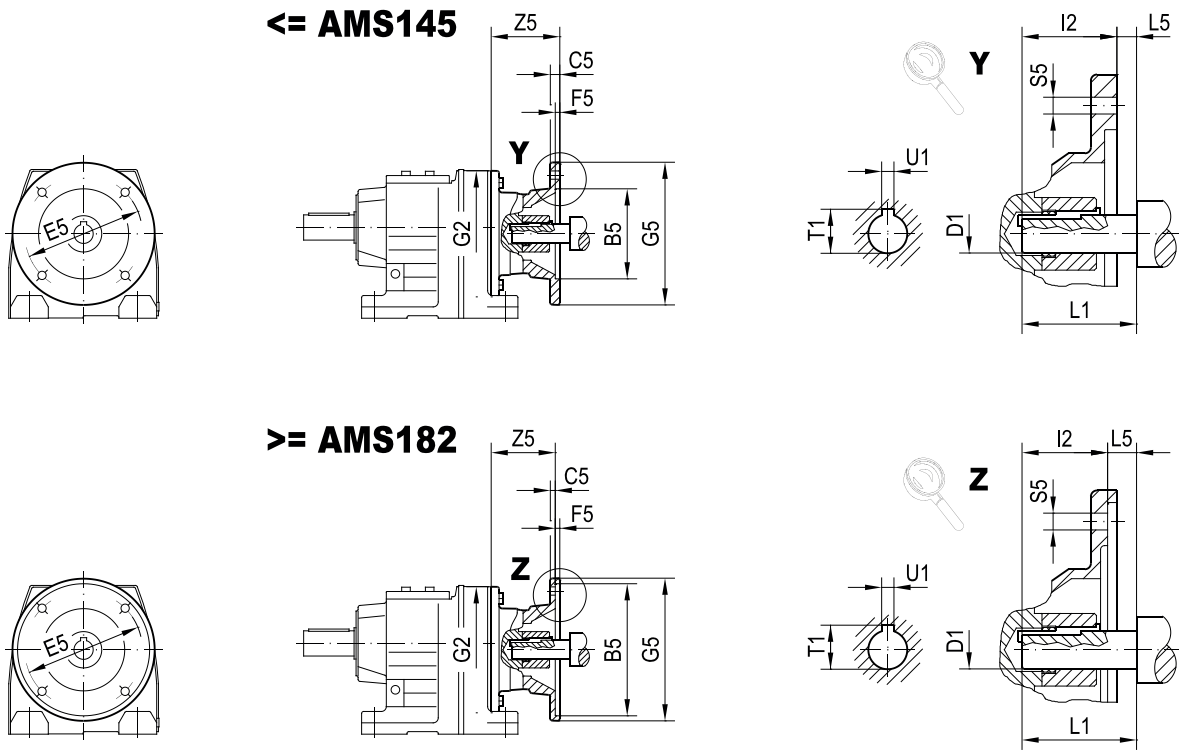


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		B5	C5	E5	F5	G2	G5	I2	L5	S5	Z5	D1	L1	T1	U1
R..07 R..17	**AMS56**	114.3	11	149.2	4.5	105	170	52.3	-4.6	10.5	81.5	15.875	47.8	18.1	4.76
R..27 R..37	**AMS56**	114.3	11	149.2	4.5	120	170	52.3	-4.6	10.5	81.5	15.875	47.8	18.1	4.76
	AMS143	114.3	12	149.2	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
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
	AMS213/215	215.9	11	184	5	160	228	79.2	6.6	15	138.5	34.925	85.9	38.7	7.94
R..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

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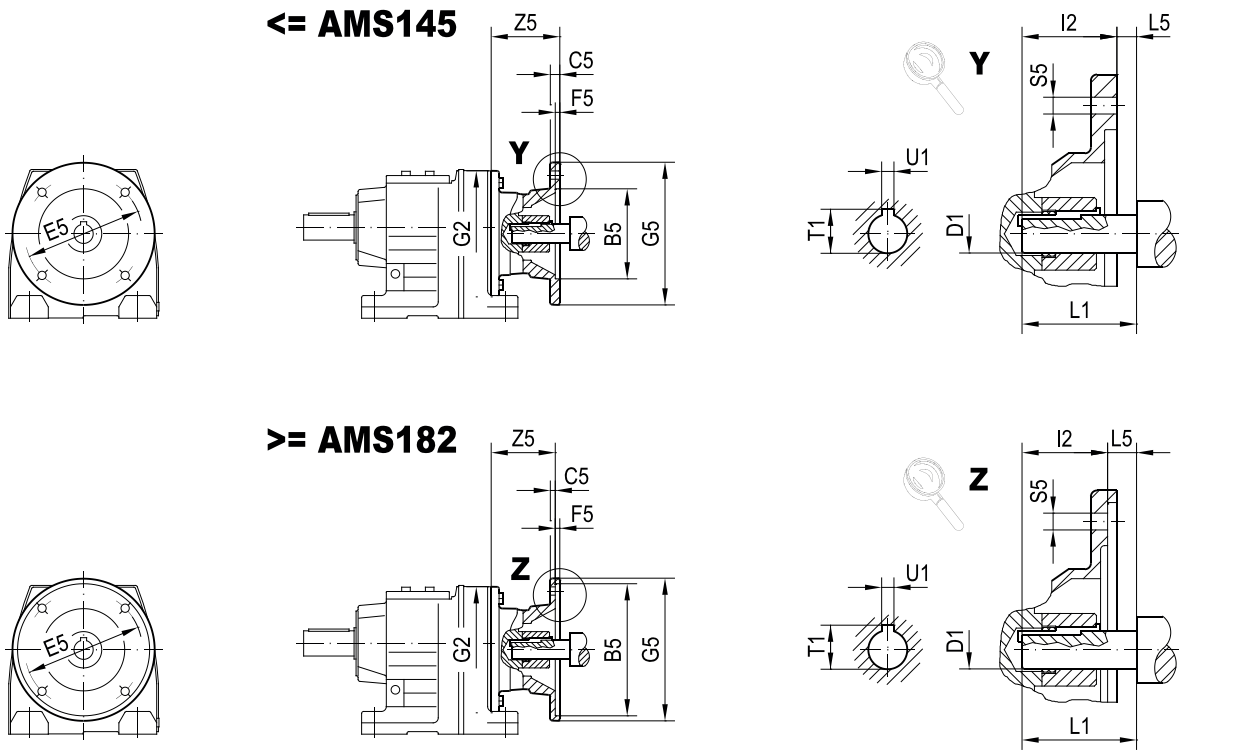


34212220811

		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
	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
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
	AMS364/365	317.5	17	279.4	5	350	356	142.7	6.6	17.5	246.5	60.325	149.4	67.6	15.88
R..137	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	239.5	60.325	149.4	67.6	15.88

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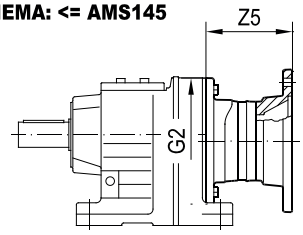
		B5	C5	E5	F5	G2	G5	I2	L5	S5	Z5	D1	L1	T1	U1
R..147	**AMS213/215**	215.9	11	184	5	450	228	79.2	6.6	15	99.5	34.925	85.9	38.7	7.94
	AMS254/256	215.9	12	184	5	450	228	95.3	6.4	15	159	41.275	101.6	45.8	9.53
	AMS284/286	266.7	15	228.6	5	450	286	111.3	6.1	15	165.5	47.625	117.3	53.4	12.7
	AMS324/326	317.5	17	279.4	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	231.5	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	223.5	60.325	149.4	67.6	15.88

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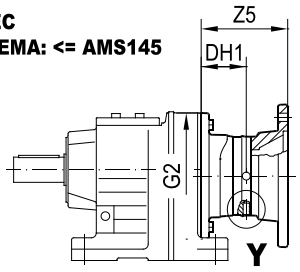
8.6 Dimension sheets for adapters with backstop (RS..) and drain hole (DH..)

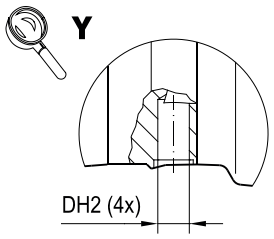
01 097 01 20

AMS.. /RS
IEC
NEMA: <= AMS145

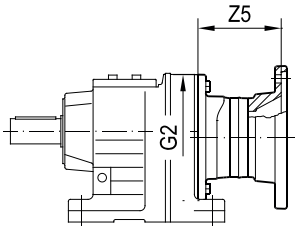


AMS.. /DH
IEC
NEMA: <= AMS145

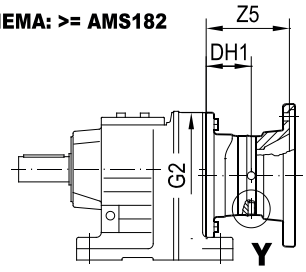




AMS.. /RS
NEMA: >= AMS182



AMS.. /DH
NEMA: >= AMS182



		/RS		/DH			
		G2	Z5	G2	Z5	DH1	DH2
R..07 R..17	AMS56	–	–	105	105	60	9
	AMS63	–	–	105	78.5	46	9
	AMS71	–	–	105	78.5	46	9
	AMS80	–	–	105	97.5	60	9
R..27 R..37	AMS56	–	–	120	105	60	9
	AMS63	–	–	120	78.5	46	9
	AMS71	–	–	120	78.5	46	9
	AMS80	120	121	120	97.5	60	9
	AMS90	120	121	120	109	64	9
	AMS143	120	128.5	120	116.5	64	9
	AMS145	120	128.5	120	116.5	64	9
R..47 R..57, RX..57 R..67, RX..67	AMS56	–	–	160	98.5	54	9
	AMS63	–	–	160	72	40	9
	AMS71	–	–	160	72	40	9
	AMS80	160	114.5	160	91	54	9
	AMS90	160	114.5	160	102.5	57	9
	AMS100	160	153	160	153	97	9
	AMS112	160	153	160	153	97	9
	AMS132S/M	160	181.5	160	181.5	116	9
	AMS143	160	122	160	110	57	9
	AMS145	160	122	160	110	57	9
	AMS182	160	158.5	160	158.5	97	9
	AMS184	160	158.5	160	158.5	97	9
	AMS213/215	160	186	160	186	116	9

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		/RS		/DH			
		G2	Z5	G2	Z5	DH1	DH2
R..77, RX..77	AMS56	–	–	200	91.5	47	9
	AMS63	–	–	200	66	34	9
	AMS71	–	–	200	66	34	9
	AMS80	200	107.5	200	84	47	9
	AMS90	200	107.5	200	95.5	50	9
	AMS100	200	145	200	145	89	9
	AMS112	200	145	200	145	89	9
	AMS132ML	200	173.5	200	173.5	108	9
	AMS132S/M	200	173.5	200	173.5	108	9
	AMS143	200	115	200	103	50	9
	AMS145	200	115	200	103	50	9
	AMS182	200	150.5	200	150.5	89	9
	AMS184	200	150.5	200	150.5	89	9
	AMS213/215	200	178	200	178	108	9
R..87, RX..87	AMS80	250	102.5	250	79	42	9
	AMS90	250	102.5	250	90.5	45	9
	AMS100	250	140	250	140	84	9
	AMS112	250	140	250	140	84	9
	AMS132ML	250	168.5	250	168.5	103	9
	AMS132S/M	250	168.5	250	168.5	103	9
	AMS143	250	110	250	98	45	9
	AMS145	250	110	250	98	45	9
	AMS160	250	184	250	222	124	8
	AMS180	250	184	250	222	124	8
	AMS182	250	145.5	250	145.5	84	9
	AMS184	250	145.5	250	145.5	84	9
	AMS213/215	250	173	250	173	103	9
	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	9
	AMS112	300	135	300	135	79	9
	AMS132ML	300	163.5	300	163.5	98	9
	AMS132S/M	300	163.5	300	163.5	98	9
	AMS160	300	179	300	217	119	8
	AMS180	300	179	300	217	119	8
	AMS182	300	140.5	300	140.5	79	9
	AMS184	300	140.5	300	140.5	79	9
	AMS200	300	240	300	240	141	8
	AMS213/215	300	168	300	168	98	9
	AMS254/256	300	180	300	218.5	119	8
	AMS284/286	300	186.5	300	225	119	8

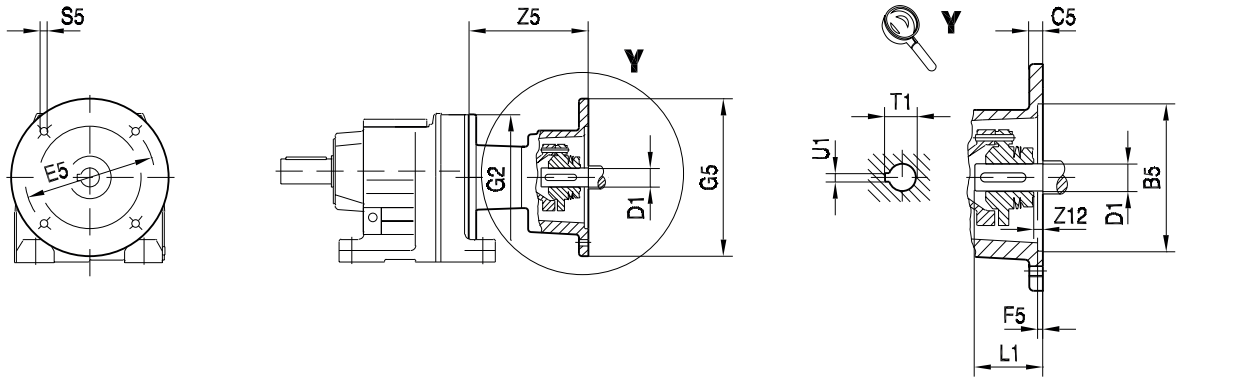
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		/RS		/DH			
		G2	Z5	G2	Z5	DH1	DH2
R..107, RX..107 R..127	AMS100	350	129	350	129	73	9
	AMS112	350	129	350	129	73	9
	AMS132ML	350	157.5	350	157.5	92	9
	AMS132S/M	350	157.5	350	157.5	92	9
	AMS160	350	173	350	211	113	8
	AMS180	350	173	350	211	113	8
	AMS182	350	134.5	350	134.5	73	9
	AMS184	350	134.5	350	134.5	73	9
	AMS200	350	234	350	234	135	8
	AMS213/215	350	162	350	162	92	9
	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	9
	AMS132S/M	400	150.5	400	150.5	85	9
	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	9
	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	9
	AMS132S/M	450	142.5	450	142.5	77	9
	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	9
	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

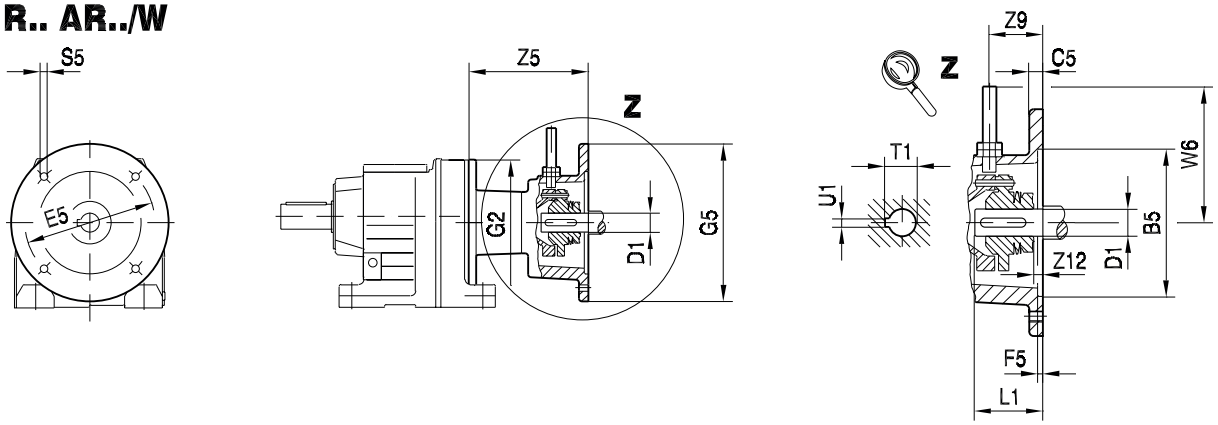
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8.7 Dimension sheets for adapters with slip clutch (AR..)

R.. AR.. **01 052 02 01**



R.. AR../W

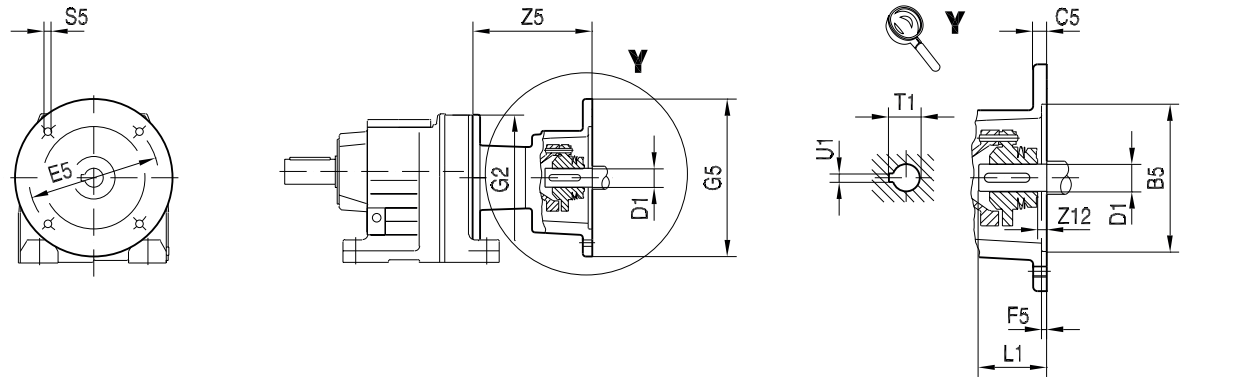


		B5	C5	E5	F5	G2	G5	S5	W6	Z5	Z9	Z12	D1	L1	T1	U1
R..27 R..37	AR71	110	10	130	3.5	120	160	M8	120	104	37	0	14	30	16.3	5
	AR80	130	12	165	4.5		200	M10		140.5			19	40	21.8	6
	AR90												24	50	27.3	8
R..47 R..57 R..67	AR71	110	10	130	3.5	160	160	M8	120	97.5	37	0	14	30	16.3	5
	AR80	130	12	165	4.5		200	M10		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															
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
	AR112															
	AR132S/M	230	16	265	5		300	M12	145	234	72	5	38	80	41.3	10
	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
	AR112															
	AR132S/M	230	16	265	5		300	M12	145	229	72	5	38	80	41.3	10
	AR132ML															
	AR160	250	18	300	6		350	M16	165	306.5	105	35	42	110	45.3	12
	AR180												48	110	51.8	14

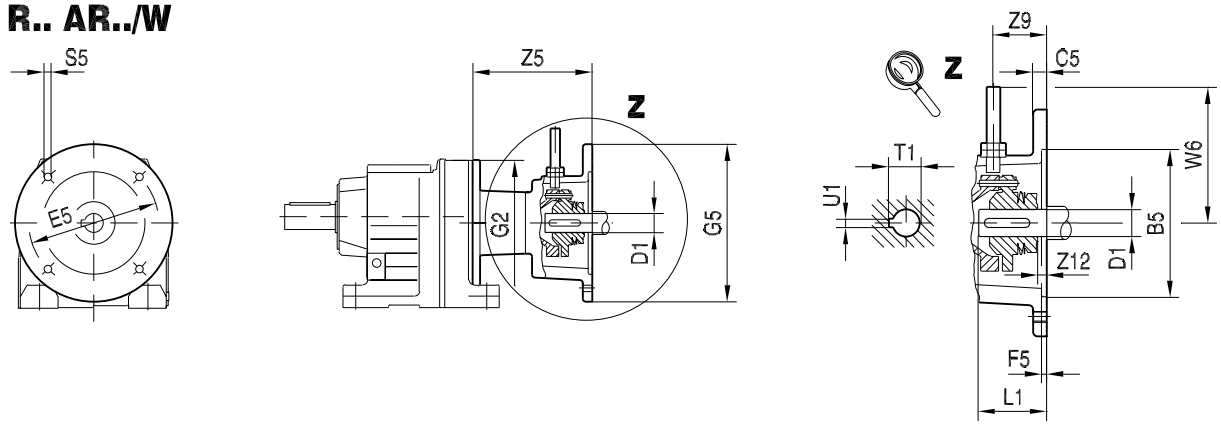
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R.. AR..

01 053 03 01



R.. AR../W

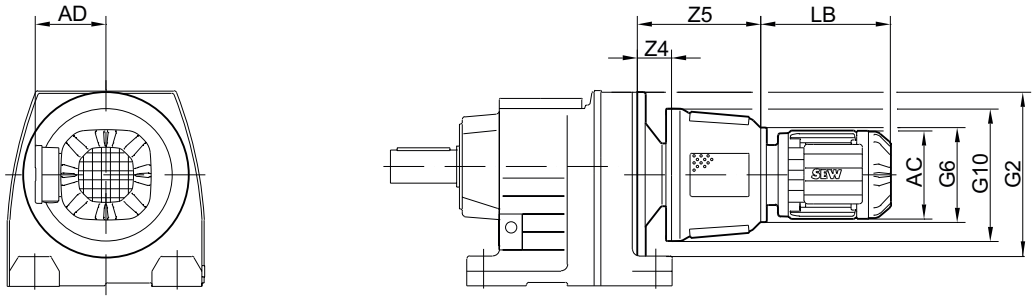


		B5	C5	E5	F5	G2	G5	S5	W6	Z5	Z9	Z12	D1	L1	T1	U1
R..97	AR100	180	15	215	5	300	250	M12	130	156.5	52	5.5	28	60	31.3	8
	AR112															
	AR132S/M	230	16	265	5		300	M12	145	224	72	5	38	80	41.3	10
	AR132ML															
	AR160	250	18	300	6		350	M16	165	301.5	105	35	42	110	45.3	12
	AR180												48	110	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	42	110	45.3	12
	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..)

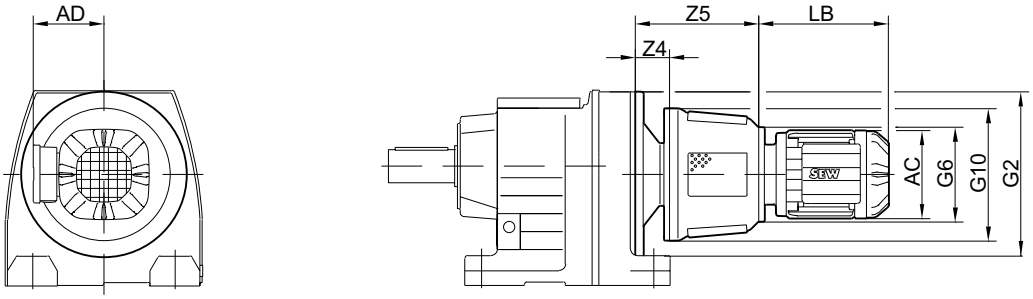
25 001 04 01



			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	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					437			
	AT541 AT542	DRN132S	221	170	350	470	437	159	478	
		DRN132M	261	228			439			
		DRN132L					464			
		DRN160M	316	253			532			
		DRN160L					532			

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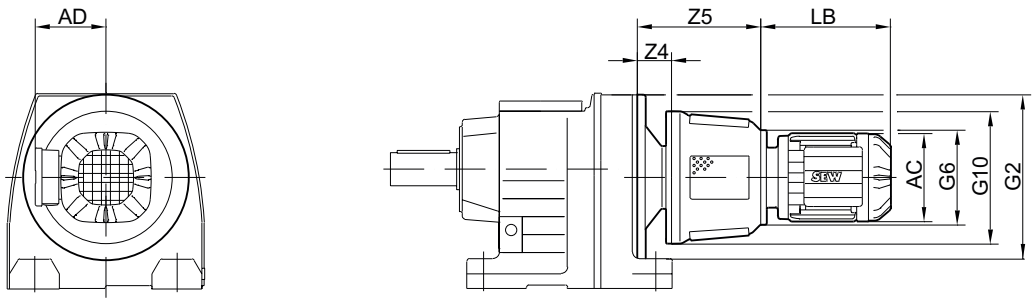
25 002 04 01



			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	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	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	400
		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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25 003 04 01



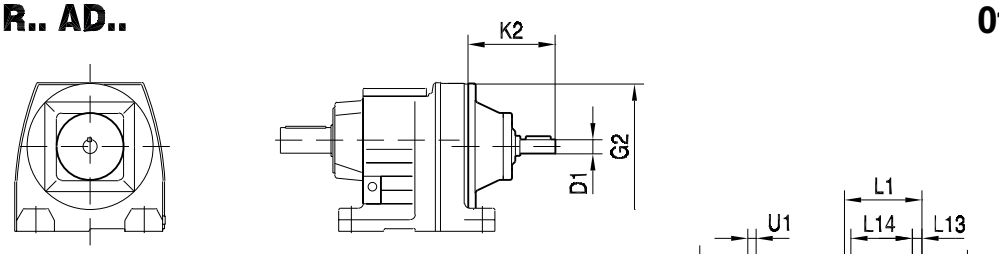
			AC	AD	G6	G10	LB	Z4	Z5	G2
R..147	**AT541 AT542**	DRN132M	261	228	350	470	439	133	452	450
		DRN132L					464			
		DRN160M	316	253			532			
		DRN160L					532			
		DRN180M	357	268			557			
		DRN180L					557			
R..167	**AT541 AT542**	DRN160M	316	253	350	470	532	125	444	550
		DRN160L					532			
		DRN180M	357	268			557			
		DRN180L					557			

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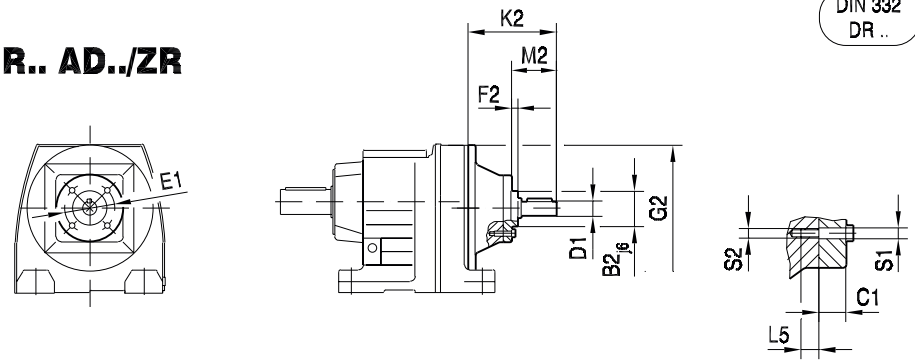
8.9 Dimension sheets for input shaft assembly (AD..)

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
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

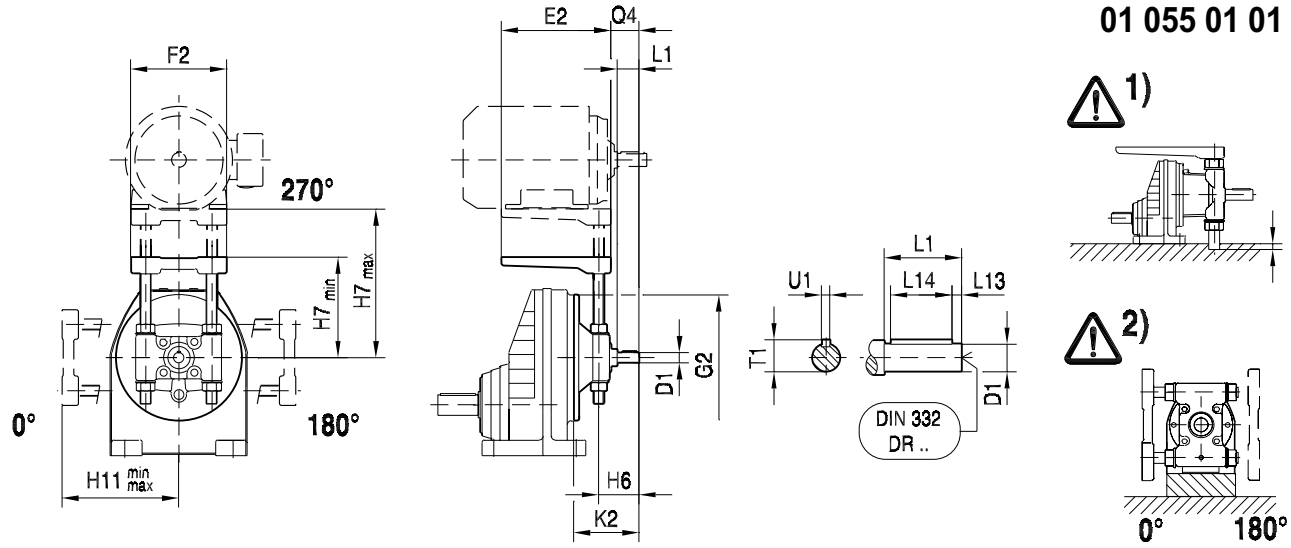
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		B2	C1	E1	F2	G2	K2	L5	M2	S1	S2	D1	L1	L13	L14	T1	U1
R..167	**AD5, AD5/ZR**	120	24	180	11	550	258	20	126	13.5	M12	42	110	10	70	45	12
	AD6, AD6/ZR	130	22.5	200	11		298	26	130.5	17.5	M16	48	110	10	80	51.5	14
	AD7, AD7/ZR	125	19	190	13		292	30	133	22	M20	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

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8.10 Dimension sheets for input shaft assembly with motor platform (AD../P)

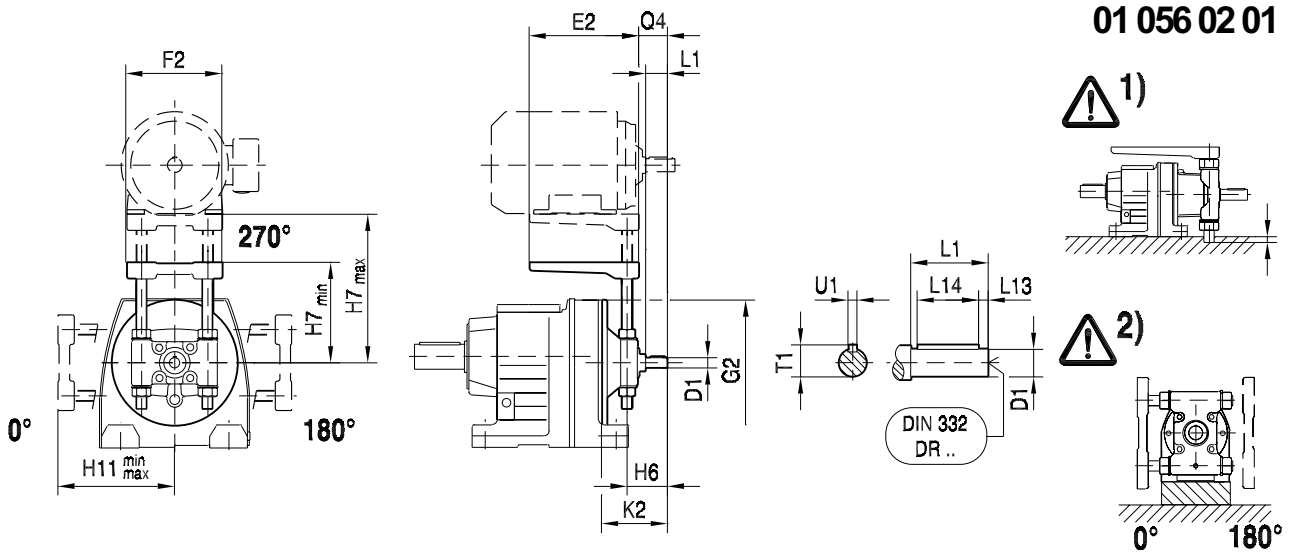
01 055 01 01



		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).

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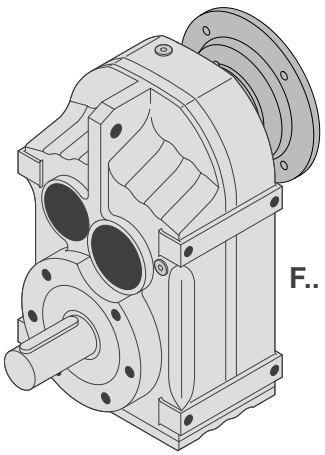
		E2	F2	G2	H6	H7 min	H7 max	H11 min	H11 max	K2	Q4	D1	L1	L13	L14	T1	U1	⚠ (→ 🖹 82)
R..27	**AD2/P**	195	180	120	65	100	165	120	165	130	43	19	40	4	32	21.5	6	1), 2)
R..37	**AD2/P**	195	180	120	65	110	165	120	165	130	43	19	40	4	32	21.5	6	1), 2)
R..47	**AD2/P**	195	180	160	65	125	165	135	165	123	43	19	40	4	32	21.5	6	
	AD3/P	230	240		80	130	175	140	175	159	54	24	50	5	40	27	8	1), 2)
R..57	**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	1), 2)
R..67	**AD2/P**	195	180	160	65	125	165	155	200	123	43	19	40	4	32	21.5	6	
	AD3/P	230	240		80	130	175	160	230	159	54	24	50	5	40	27	8	1), 2)
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	
	AD4/P	345	291		118	150	210	175	210	224	83	38	80	5	70	41	10	1), 2)
R..87	**AD2/P**	195	180	250	65	155	200	195	260	111	43	19	40	4	32	21.5	6	
	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	1), 2)
R..97	**AD3/P**	230	240	300	90	180	230	235	320	151	64	28	60	5	50	31	8	
	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	
	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	1)
	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	
	AD5/P	430	355		153	245	325	285	325	274	113	42	110	10	70	45	12	1)
	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	
	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	3)
R..167	**AD5/P**	430	355	550	153	345	405	385	495	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	
	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).

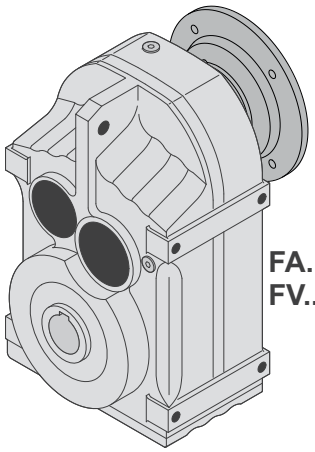
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9 F.. parallel-shaft helical gear units

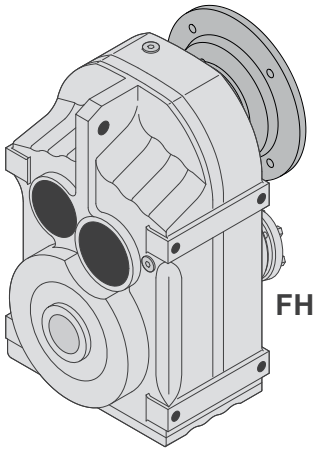
9.1 Selection tables for adapters for mounting IEC/NEMA motors (AMS..)



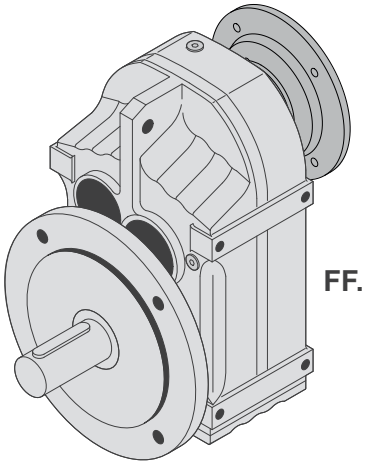
F.. AMS..



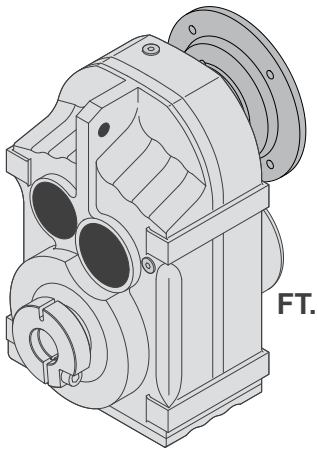
FA..B AMS..
FV..B AMS..



FH..B AMS..



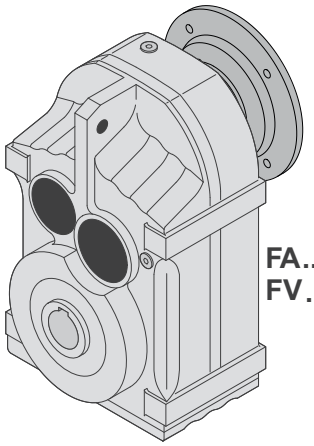
FF.. AMS..



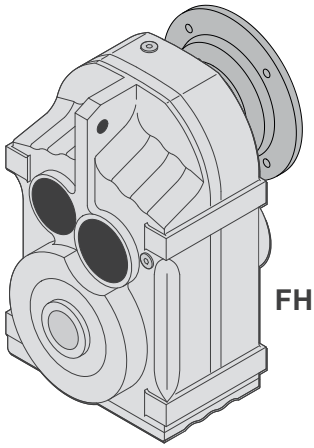
FT.. AMS..

18014419951038091

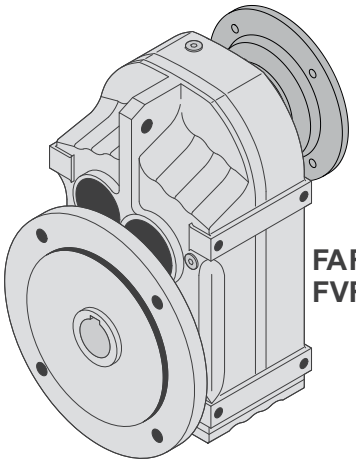
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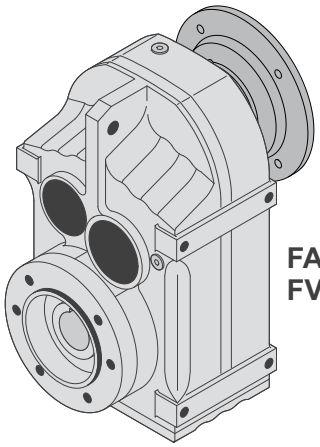
FA.. AMS..
FV.. AMS..



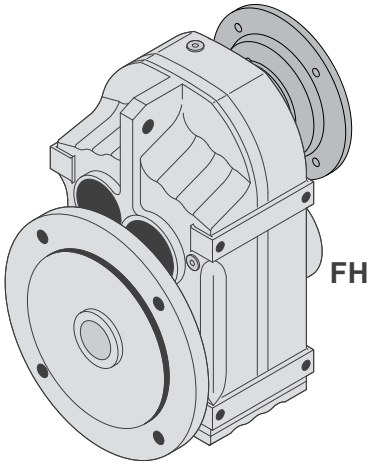
FH.. AMS..



FAF.. AMS..
FVF.. AMS..



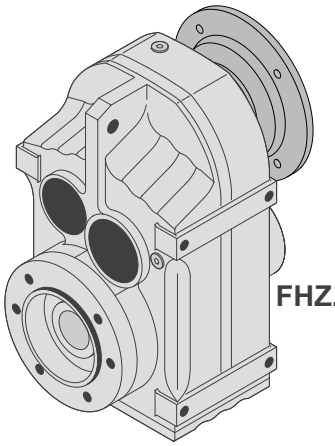
FAZ.. AMS..
FVZ.. AMS..



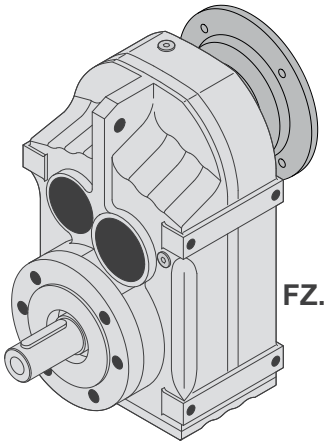
FHF.. AMS..

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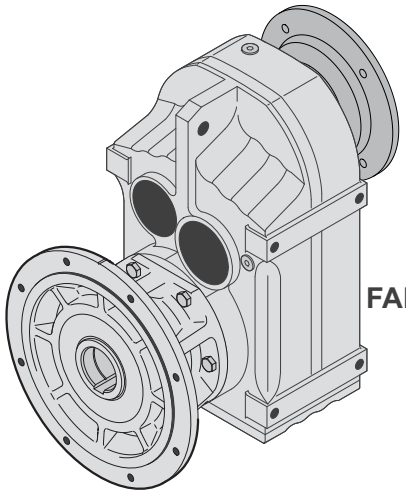
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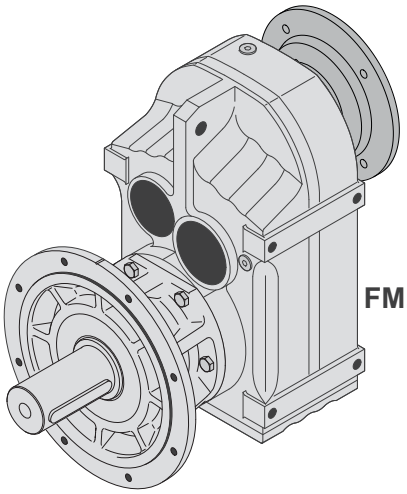
FHZ.. AMS..



FZ.. AMS..



FAM..AMS..



FM..AMS..

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F27, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm								130 Nm
i	n_a min^{-1}	$M_{a\,max\,G}$ Nm	F_{Ra} [1] N	$\varphi_{(/R)}$ '	AMS 63	AMS 71	AMS 80	AMS 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 63	AMS 71	AMS 80	AMS 90
FA	IEC	s				
		 2	7.7	8.0	9.8	10
		 3	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						

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F37, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm								200 Nm
i	n_a min^{-1}	$M_{a\,max\,G}$ Nm	F_{Ra} [1] N	$\varphi_{(/R)}$ '	AMS 63	AMS 71	AMS 80	AMS 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 63	AMS 71	AMS 80	AMS 90
FA	IEC	s				
		 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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F47, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm								400 Nm
i	n_a min^{-1}	$M_{a\,max\,G}$ Nm	F_{Ra} [1] N	$\varphi_{(/R)}$ '	AMS 63	AMS 71	AMS 80	AMS 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 63	AMS 71	AMS 80	AMS 90
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						

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F57, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm											600 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS						
	min^{-1}	Nm	N	'	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						
	IEC	s	63	71	80	90	100	112	132S/M
FA		2	26	26	28	29	33	33	38
		3	27	27	29	30	34	34	39
	NEMA	s	-	56	143	145	182	184	213/215
		2	-	27	28	28	32	32	35
		3	-	28	29	29	32	32	36
FAF: + 5.5 kg / F: + 0.20 kg / FF: + 6.6 kg									

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F67, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm											820 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS						
	min^{-1}	Nm	N	'	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						
	IEC	s	63	71	80	90	100	112	132S/M
FA		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_e = 1400 min^{-1}, $M_{a\,max}$/Nm												1500 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS							
	min^{-1}	Nm	N	'	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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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										

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F87, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm												3000 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS							
	min^{-1}	Nm	N	'	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							
	IEC	s	80	90	100	112	132S/M	132ML	160	180
FA		2	92	93	98	98	105	105	115	115
		3	95	96	100	100	105	105	120	120
	NEMA	s	143	145	182	184	213/215	-	254/256	284/286
		2	92	92	96	96	100	-	110	115
		3	95	95	99	99	105	-	115	115
FAF: + 13 kg / F: + 5.7 kg / FF: + 21 kg										

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F97, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm												4300 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS							
	min^{-1}	Nm	N	'	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
8.22	170	2360	13100	8	410	485	900	1090	1510	2050	2360	2360
9.06	155	2360	13900	9	445	535	990	1120	1670	2110	2360	2360
11.16	125	4100	9710	6			1220	1850	2040	3430	4100	4100
12.77	110	4300	10100	6			1400	2120	2340	3930	4300	4300
15.06	93	4300	11700	6			1650	2410	2760	4300	4300	4300
17.25	81	4300	13100	6	880	1010	1900	2530	3170	4300	4300	4300
20.07	70	4300	14700	6	1010	1180	2210	2660	3690	4300	4300	4300
22.11	63	4300	15700	6	1090	1310	2410	2740	4070	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
38.86	36	4300	22700	6			4220	4300	4300	4300	4300	4300
44.49	31	4300	24500	6	2230	2590	4300	4300	4300	4300	4300	4300
52.49	27	4300	26900	6	2580	3070	4300	4300	4300	4300	4300	4300
58.06	24	4300	28500	6	2800	3400	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
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
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
112.99	12	4300	40000	6	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						

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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										

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F107, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm												7840 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS							
	min^{-1}	Nm	N	'	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
7.40	189	4600	8400	7			800	1220	1350	2270	3050	3050
8.37	167	4800	8720	7			910	1390	1530	2570	3450	3450
9.69	144	4910	9670	7			1060	1550	1770	2940	3840	3840
9.96 [2]	141	6500	6200	5						3040	4080	4080
12.33	114	7000	6580	5				2030	2240	3770	5070	5070
14.67	95	7680	6050	5			1590	2430	2670	4500	6040	6040
16.58	84	7840	6870	5			1810	2750	3030	5090	6830	6830
19.20	73	7840	8600	5			2100	3070	3520	5830	7600	7600
21.76	64	7840	10100	5	1120	1270	2390	3180	3990	6020	7840	7840
25.14	56	7840	12000	5	1270	1480	2760	3320	4620	6280	7840	7840
27.57	51	7840	13200	5	1370	1620	3030	3400	5070	6410	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
37.61	37	7680	18300	6			4040	6160	6780	7680	7680	7680
43.03	33	7680	20300	6			4640	7060	7680	7680	7680	7680
50.73	28	7680	23000	6			5490	7680	7680	7680	7680	7680
58.12	24	7680	25300	6	2980	3360	6300	7680	7680	7680	7680	7680
67.62	21	7680	28000	6	3420	3930	7350	7680	7680	7680	7680	7680
74.52	19	7680	29900	6	3720	4340	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
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
117.94	12	7680	39300	5	5960	6860	7680	7680	7680	7680	7680	7680
129.97	11	7680	41400	5	6480	7570	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							
	IEC	s	100	112	132S/M	132ML	160	180	200	225
FA		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										

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F127, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm												12000 Nm
i	n_a min^{-1}	$M_{a\,max\,G}$ 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 132S/M	132ML	160	180	200	225	250	280
FA	IEC	s								
		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										

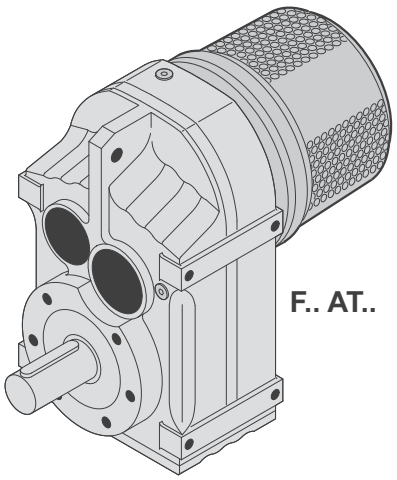
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F157, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm										20000 Nm
i	n_a min^{-1}	$M_{a\,max\,G}$ Nm	F_{Ra} [1] N	$\varphi_{(/R)}$ '	AMS 160	AMS 180	AMS 200	AMS 225	AMS 250	AMS 280
					2					
11.92	117	17300	48200	5			4860	4860	7610	7610
13.96	100	17900	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					

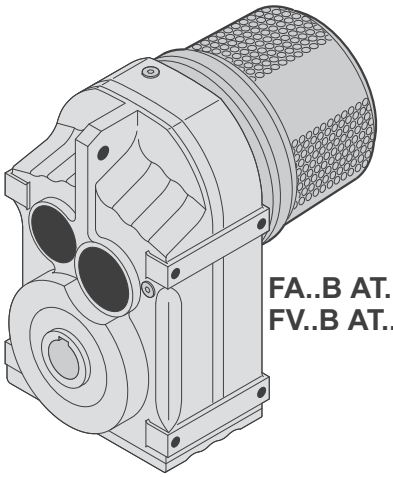
F157, m /kg			AMS 160	AMS 180	AMS 200	AMS 225	AMS 250	AMS 280
FA	IEC	s	160	180	200	225	250	280
		2	670	670	680	690	710	720
		3	670	670	690	700	720	720
	NEMA	s	254/256	284/286	324/326	364/365	-	-
		2	660	660	680	680	-	-
		3	670	670	690	690	-	-
FAF: + 59 kg / F: + 21 kg / FF: + 125 kg								

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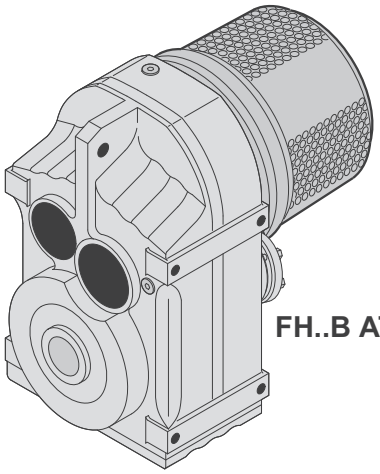
9.2 Selection tables for adapters with hydraulic start-up coupling (AT..)



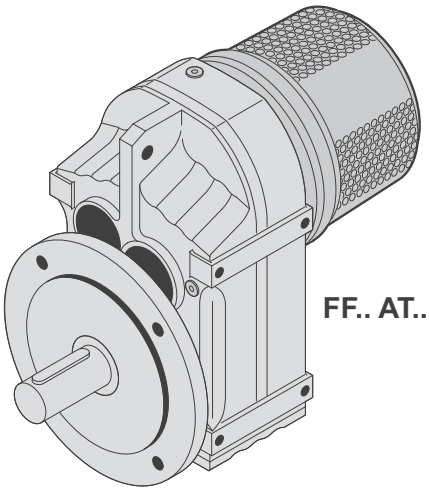
F.. AT..



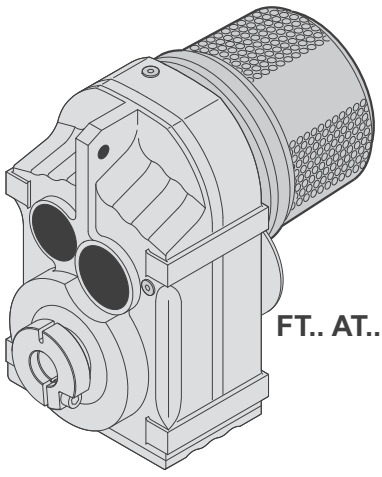
FA..B AT..
FV..B AT..



FH..B AT..

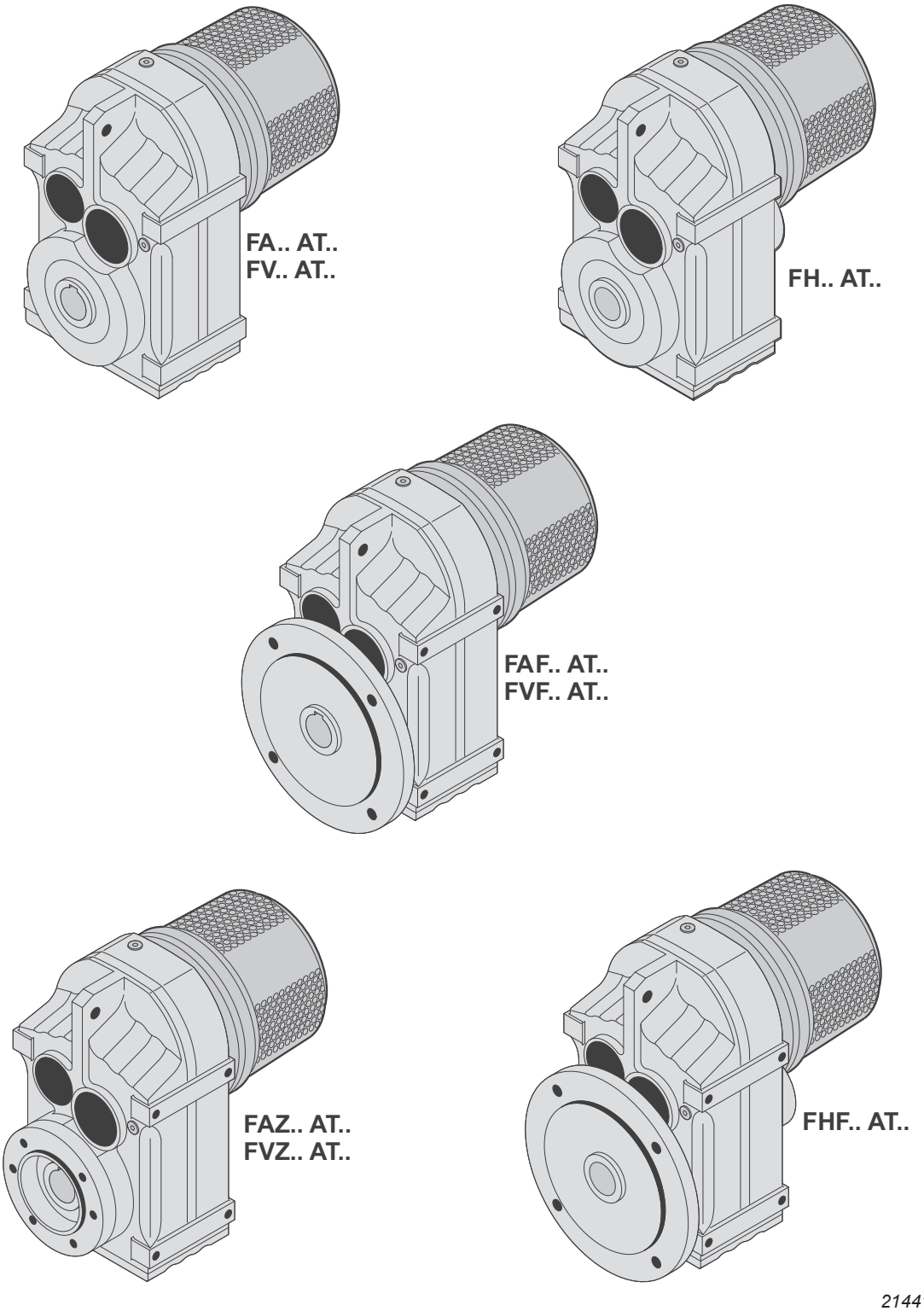


FF.. AT..



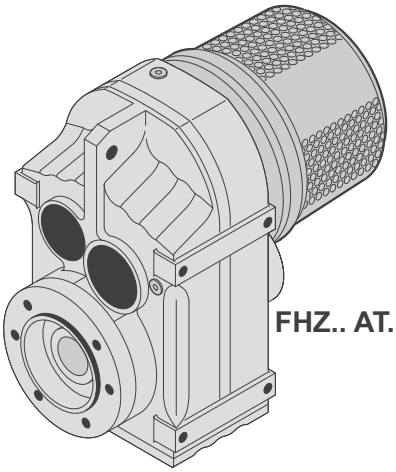
FT.. AT..

21441523595

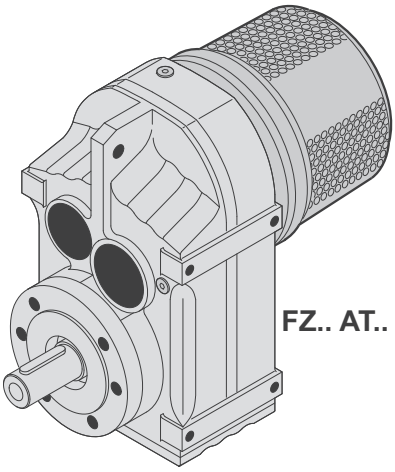


21441526027

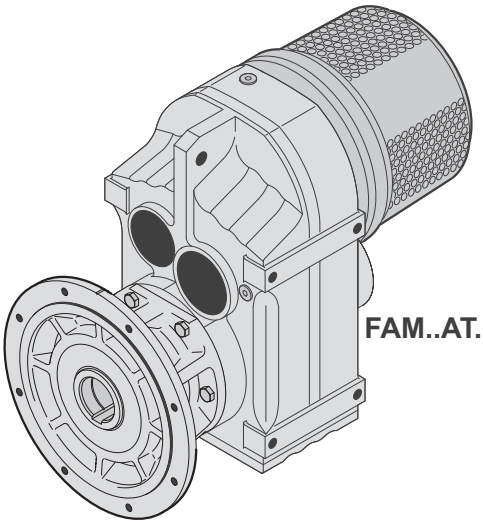
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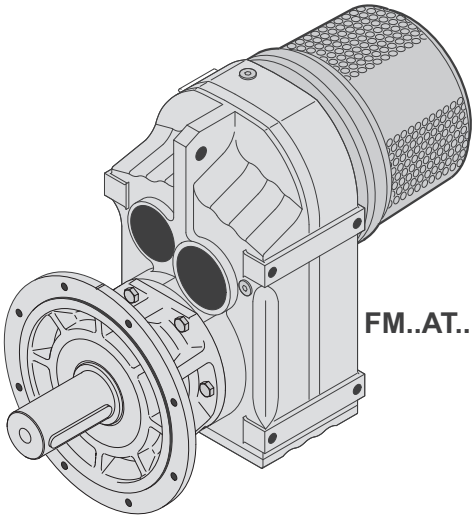
FHZ.. AT..



FZ.. AT..



FAM..AT..



FM..AT..

21441528459

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9.2.1 F..AT/DRN..4

		P_{Mot} kW				Sn %	
F67	DRN71M4	0.37	AT311	T11	0.42	12	(→ 🗎 437)
	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	
	DRN112M4	4	AT422	T21D	1.6	12	
F87	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	

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		P_{Mot} kW				Sn %	
F97	DRN90S4	1.1	AT312	T11D	0.72	15	(→ 🗎 437)
	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	

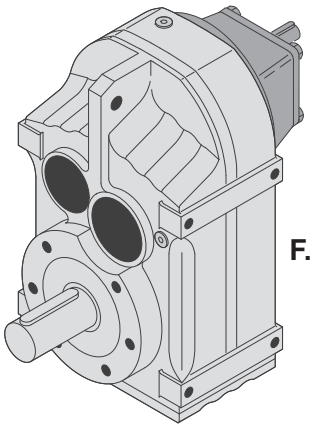
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9.2.2 F..AT/DRN..2

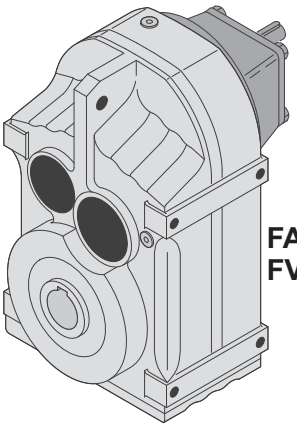
		P_{Mot} kW				Sn	
F67	DRN71M2	0.55	AT311	T11	0.19	3	
	DRN80MS2	0.75	AT311	T11	0.22	4.5	
	DRN80M2	1.1	AT311	T11	0.27	6	
	DRN90S2	1.5	AT311	T11	0.29	8.5	
	DRN90L2	2.2	AT311	T11	0.31	11.5	
	DRN100LM2	3	AT311	T11	0.4	12	
	DRN112M2	4	AT312	T11D	0.52	10	
F77	DRN71M2	0.55	AT311	T11	0.19	3	
	DRN80MS2	0.75	AT311	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	(→ 🖹 437)
	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	

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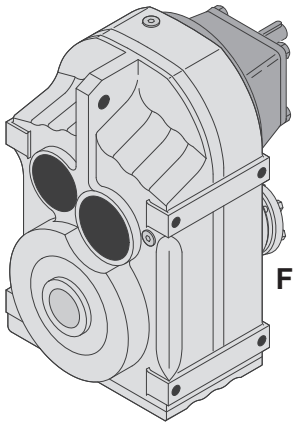
9.3 Selection tables for input shaft assembly (AD..)



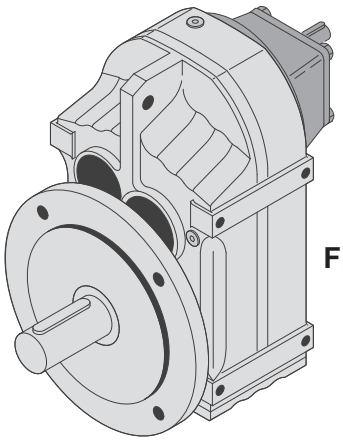
F.. AD..



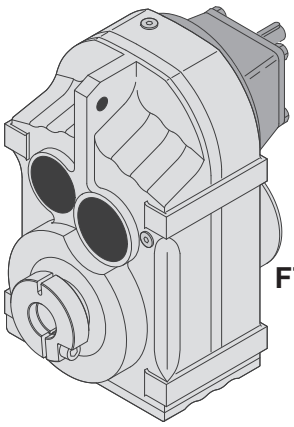
FA..B AD..
FV..B AD..



FH..B AD..



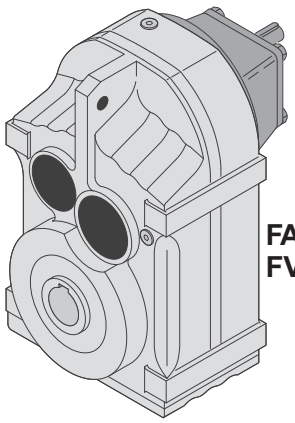
FF.. AD..



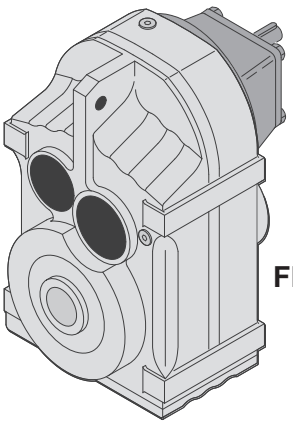
FT.. AD..

9007220715395723

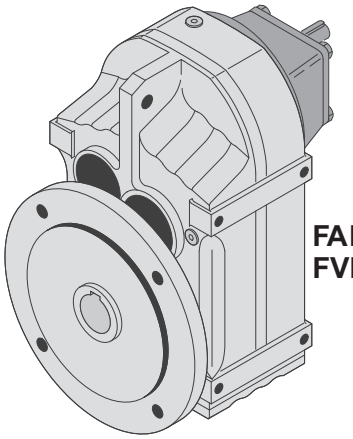
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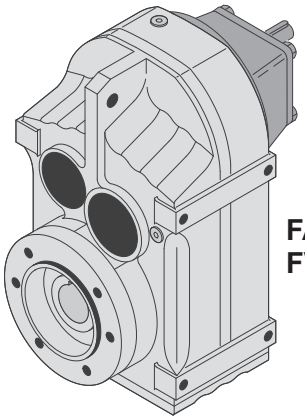
FA.. AD..
FV.. AD..



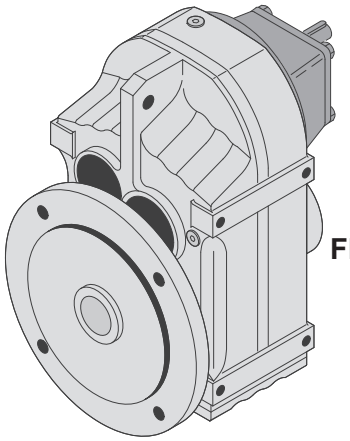
FH.. AD..



FAF.. AD..
FVF.. AD..



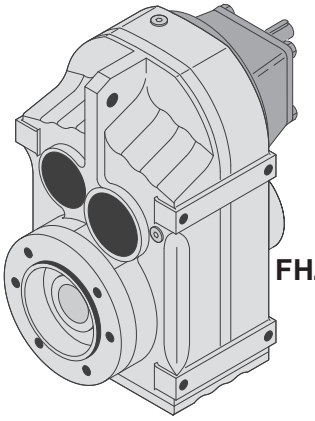
FAZ.. AD..
FVZ.. AD..



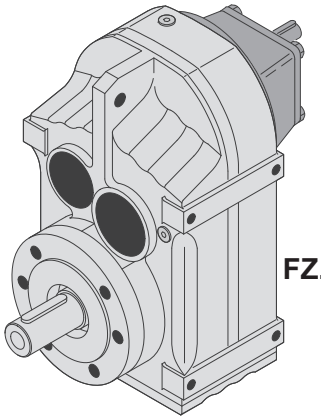
FHF.. AD..

9007220715398155

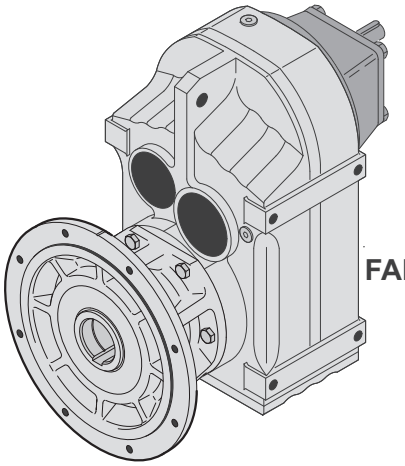
27797880/EN – 03/2023



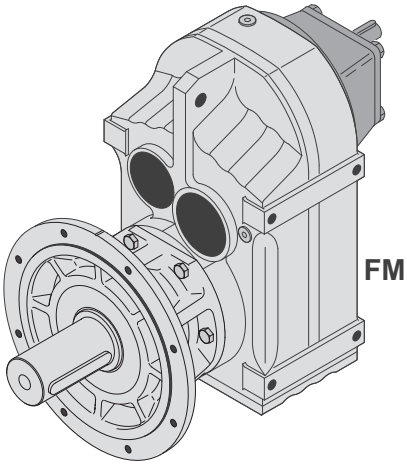
FHZ.. AD..



FZ.. AD..



FAM..AD..



FM..AD..

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FA27 AD.. , n_e = 1400 min^{-1} — 130 Nm

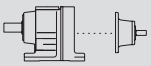
i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				m kg	
140.74	9.9	130	0.16	4500	755	-	-					
129.09	11	130	0.18	4500	755	-	-					
109.90	13	130	0.20	4500	755	-	-					
94.76	15	130	0.23	4500	750	-	-					
88.32	16	130	0.25	4500	750	-	-					
77.21	18	130	0.28	4500	745	-	-	**FA**	**27**	**AD1**	7.6	442
72.37	19	130	0.30	4500	745	-	-	**FAF**	**27**	**AD1**	8.3	442
63.86	22	130	0.33	4400	740	-	-	**F**	**27**	**AD1**	8.1	442
56.62	25	130	0.37	4180	735	-	-	**FF**	**27**	**AD1**	8.9	442
50.19	28	130	0.42	3980	580	-	-					
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	442
10.55	133	130	1.9	1900	1490	-	-	**FAF**	**27**	**AD2**	9.2	442
9.88	142	130	2.0	1830	1480	-	-	**F**	**27**	**AD2**	9.0	442
9.40	149	130	2.1	1660	1230	-	-	**FF**	**27**	**AD2**	9.8	442
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 min^{-1} — 200 Nm

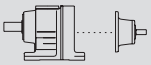
i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				m kg	
128.51	11	200	0.26	4290	655	7	-					
117.88	12	200	0.28	4290	650	7	-					
100.36	14	200	0.33	4290	640	7	-					
86.53	16	200	0.37	4290	625	7	-	**FA**	**37**	**AD1**	14	442
80.65	17	200	0.40	4290	615	7	-	**FAF**	**37**	**AD1**	15	442
70.50	20	200	0.45	4290	600	7	-	**F**	**37**	**AD1**	14	442
66.09	21	200	0.48	4290	595	7	-	**FF**	**37**	**AD1**	16	442
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	442
35.91	39	200	0.88	4290	1420	8	-	**FAF**	**37**	**AD2**	16	442
31.69	44	200	0.99	4290	1380	8	-	**F**	**37**	**AD2**	15	442
28.09	50	200	1.1	4060	1640	8	-	**FF**	**37**	**AD2**	17	442
23.88	59	200	1.3	3760	1620	8	-					

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FA37 AD.. , n_e = 1400 min^{-1} — 200 Nm

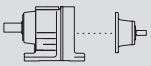
i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				m kg	
23.63	59	200	1.3	3740	1420	6	-					
20.57	68	200	1.5	3500	1400	6	-					
19.27	73	200	1.6	3390	1390	6	-					
17.03	82	200	1.8	3180	1370	6	-					
15.81	89	200	1.9	3070	1360	6	-					
14.33	98	200	2.1	2910	1340	6	-					
12.87	109	200	2.4	2750	1320	7	-					
11.08	126	190	2.6	2620	1320	7	-	**FA**	**37**	**AD2**	15	442
10.42	134	185	2.7	2580	1320	7	-	**FAF**	**37**	**AD2**	16	442
8.97	156	175	3.0	2460	1320	7	-	**F**	**37**	**AD2**	15	442
8.01	175	170	3.2	2360	1300	7	-	**FF**	**37**	**AD2**	17	442
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

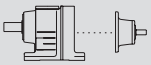
i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				m kg	
190.76	7.3	400	0.35	5920	545	6	-					
175.38	8.0	400	0.37	5920	535	6	-					
150.06	9.3	400	0.43	5920	525	6	-					
130.07	11	400	0.49	5920	510	6	-	**FA**	**47**	**AD1**	19	442
121.57	12	400	0.53	5920	500	6	-	**FAF**	**47**	**AD1**	21	442
105.09	13	400	0.61	5920	475	6	-	**F**	**47**	**AD1**	19	442
89.29	16	400	0.71	5920	455	6	-	**FF**	**47**	**AD1**	22	442
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	442
42.86	33	400	1.4	5920	1570	7	-	**FAF**	**47**	**AD2**	22	442
36.61	38	400	1.7	5920	1550	7	-	**F**	**47**	**AD2**	20	442
34.29	41	400	1.8	5920	1540	7	-	**FF**	**47**	**AD2**	24	442
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	442
13.93	100	400	4.3	3950	1040	6	-	**FAF**	**47**	**AD2**	22	442
12.66	111	400	4.8	3740	1010	6	-	**F**	**47**	**AD2**	20	442
10.97	128	380	5.2	3580	1000	6	-	**FF**	**47**	**AD2**	23	442
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	-					

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FA57 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	$\varphi_{(/R)}$	⚠				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	442
83.46	17	600	1.1	9200	1640	6	-	**FAF**	**57**	**AD2**	33	442
72.98	19	600	1.3	9200	1480	6	-	**F**	**57**	**AD2**	27	442
68.22	21	600	1.4	9200	1470	6	-	**FF**	**57**	**AD2**	34	442
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	-					
34.24	41	440	2.0	9020	1140	6	-	**FA**	**57**	**AD2**	27	442
29.94	47	415	2.1	8660	1170	6	-	**FAF**	**57**	**AD2**	32	442
28.45	49	410	2.2	8500	1170	6	-	**F**	**57**	**AD2**	27	442
24.96	56	575	3.5	7060	830	6	-	**FF**	**57**	**AD2**	33	442
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	-					
12.29	114	600	7.4	4710	1530	6	-	**FA**	**57**	**AD3**	30	442
10.64	132	600	8.5	4320	1440	6	-	**FAF**	**57**	**AD3**	35	442
9.31	150	310	5.1	5490	1660	8	-	**F**	**57**	**AD3**	30	442
8.19	171	400	7.4	4580	1250	8	-	**FF**	**57**	**AD3**	36	442
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 min^{-1} — 820 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				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	442
90.59	15	820	1.4	10300	1610	6	-	**FAF**	**67**	**AD2**	37	442
79.76	18	820	1.6	10300	1440	6	-	**F**	**67**	**AD2**	34	442
67.65	21	820	1.9	10300	1420	6	-	**FF**	**67**	**AD2**	40	442
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	442
								FAF	**67**	**AD2**	36	442
								F	**67**	**AD2**	33	442
								FF	**67**	**AD2**	39	442

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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	$\varphi_{(/R)}$	⚠				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	442
11.31	124	745	10.0	10900	1450	6	-	**FAF**	**67**	**AD3**	39	442
9.66	145	670	10.5	11500	1490	6	-	**F**	**67**	**AD3**	36	442
9.08	154	450	7.5	11800	1230	8	-	**FF**	**67**	**AD3**	42	442
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	$\varphi_{(/R)}$	⚠				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	442
114.45	12	1500	2.0	15700	1480	5	-	**FAF**	**77**	**AD2**	60	442
108.46*	13	1500	2.2	15700	1470	5	-	**F**	**77**	**AD2**	58	442
94.93	15	1500	2.5	15700	1450	5	-	**FF**	**77**	**AD2**	68	442
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	-					
38.23	37	1500	6.0	15700	1970	6	-	**FA**	**77**	**AD3**	57	442
33.74	42	1500	6.8	15700	1920	6	-	**FAF**	**77**	**AD3**	64	442
29.91	47	1500	7.7	15700	1860	6	-	**F**	**77**	**AD3**	61	442
25.54	55	1450	8.7	16100	1820	6	-	**FF**	**77**	**AD3**	72	442
36.58	38	1110	4.6	17900	1580	5	-					
31.51	44	1110	5.4	17900	1540	5	-	**FA**	**77**	**AD3**	56	442
28.75	49	1200	6.3	17400	1400	5	-	**FAF**	**77**	**AD3**	63	442
								F	**77**	**AD3**	60	442
								FF	**77**	**AD3**	70	442
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	442
10.93	128	1500	21	14200	2470	6	-	**FAF**	**77**	**AD4**	69	442
9.30	151	1080	17.6	13800	1300	7	-	**F**	**77**	**AD4**	66	442
8.26	170	1080	19.8	13100	1110	7	-	**FF**	**77**	**AD4**	76	442
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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FA87 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	$\varphi_{(/R)}$	⚠				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	442
159.61	8.8	3000	2.9	19800	1290	7	-	**FAF**	**87**	**AD2**	105	442
134.16	10	3000	3.5	19800	1260	7	-	**F**	**87**	**AD2**	99	442
123.29	11	3000	3.8	19800	1240	7	-	**FF**	**87**	**AD2**	115	442
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	442
56.75	25	3000	8.2	17700	1940	7	-	**FAF**	**87**	**AD3**	110	442
50.36	28	2940	9.0	16800	1540	7	-	**F**	**87**	**AD3**	105	442
45.28	31	2820	9.6	16200	1540	8	-	**FF**	**87**	**AD3**	120	442
39.30	36	2720	10.6	15400	1510	8	-					
35.19	40	2610	11.4	14900	3530	8	-	**FA**	**87**	**AD4**	105	442
29.20	48	2510	13.2	13800	3470	8	-	**FAF**	**87**	**AD4**	115	442
								F	**87**	**AD4**	110	442
								FF	**87**	**AD4**	125	442
33.92	41	2560	11.5	14800	2540	7	-	**FA**	**87**	**AD4**	100	442
28.78	49	2390	12.6	14100	2610	7	-	**FAF**	**87**	**AD4**	115	442
								F	**87**	**AD4**	105	442
								FF	**87**	**AD4**	120	442
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	442
11.46	122	3000	40	5580	4420	7	-	**FAF**	**87**	**AD5**	130	442
9.58	146	2880	45	5050	4280	7	-	**F**	**87**	**AD5**	120	442
8.29	169	1530	28	8890	4450	7	-	**FF**	**87**	**AD5**	135	442
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 min^{-1} — 4300 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				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	442
127.42	11	4300	5.3	29900	2050	6	-	**FAF**	**97**	**AD3**	185	442
112.99	12	4300	5.9	29900	2020	6	-	**F**	**97**	**AD3**	170	442
102.16	14	4300	6.5	29900	1990	6	-	**FF**	**97**	**AD3**	200	442
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	-					
58.06	24	4300	11.4	27200	3370	6	-	**FA**	**97**	**AD4**	165	442
52.49	27	4300	12.6	25800	3320	6	-	**FAF**	**97**	**AD4**	190	442
44.49	31	4300	14.9	23600	3220	6	-	**F**	**97**	**AD4**	175	442
38.86	36	4300	17.1	21900	3140	6	-	**FF**	**97**	**AD4**	205	442
32.50	43	4300	20	19800	3000	6	-					

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FA97 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	$\varphi_{(/R)}$	⚠				m kg	
43.28	32	3070	10.8	27600	2700	6	-	**FA**	**97**	**AD4**	160	442
36.64	38	3070	12.7	25500	2620	6	-	**FAF**	**97**	**AD4**	185	442
								F	**97**	**AD4**	170	442
								FF	**97**	**AD4**	200	442
33.91	41	4300	19.2	20300	4940	6	-					
30.39	46	4300	21	19000	4870	6	-					
27.44*	51	4300	24	17900	4750	6	-	**FA**	**97**	**AD5**	180	442
24.92	56	4300	26	16800	4670	6	-	**FAF**	**97**	**AD5**	200	442
22.11	63	4300	29	15600	4570	6	-	**F**	**97**	**AD5**	185	442
20.07	70	4300	32	14600	4470	6	-	**FF**	**97**	**AD5**	220	442
17.25*	81	4300	38	13200	4290	6	-					
15.06	93	4300	43	11900	4110	6	-					
12.77	110	4300	51	10500	6840	6	-					
11.16	125	4100	56	10000	6800	6	-					
9.06	154	2360	39	13400	6470	9	-					
8.22	170	2360	43	12600	6350	8	-	**FA**	**97**	**AD6**	190	442
7.07	198	2360	50	11500	6130	9	-	**FAF**	**97**	**AD6**	215	442
6.17	227	2250	55	11100	6130	9	-	**F**	**97**	**AD6**	200	442
5.23	268	1930	56	11300	6490	9	-	**FF**	**97**	**AD6**	230	442
4.57	306	1690	56	11400	6780	9	-					
3.87	362	1430	56	11400	7140	9	-					

FA107 AD.. , n_e = 1400 min^{-1} — 7840 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				m kg	
254.40*	5.5	7680	4.8	49800	1850	5	-					
215.37	6.5	7680	5.6	49800	1820	5	-					
199.31	7.0	7680	6.0	49800	1800	5	-	**FA**	**107**	**AD3**	235	442
178.64	7.8	7680	6.7	49800	1780	5	-	**FAF**	**107**	**AD3**	260	442
161.28*	8.7	7680	7.4	49800	1720	5	-	**F**	**107**	**AD3**	255	442
146.49	9.6	7680	8.1	49800	1690	5	-	**FF**	**107**	**AD3**	280	442
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	-					
92.47*	15	7680	12.8	49800	3030	6	-					
88.49	16	7680	13.5	49800	3510	5	-	**FA**	**107**	**AD4**	245	442
83.99	17	7680	14.1	49800	2980	6	-	**FAF**	**107**	**AD4**	265	442
74.52	19	7680	15.9	49800	2920	6	-	**F**	**107**	**AD4**	260	442
67.62	21	7680	17.5	49800	2860	6	-	**FF**	**107**	**AD4**	290	442
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	442
37.61	37	7680	31	39500	5600	6	-	**FAF**	**107**	**AD5**	280	442
31.80	44	7680	37	36500	5440	6	-	**F**	**107**	**AD5**	275	442
								FF	**107**	**AD5**	300	442
33.79*	41	7400	33	38300	6580	5	-					
27.57	51	7840	43	33300	5940	5	-					
25.14	56	7840	47	31500	5710	5	-					
21.76*	64	7840	54	28800	5270	5	-					
19.20*	73	7090	56	29600	6050	5	-					
16.58	84	6120	56	30600	6480	5	-	**FA**	**107**	**AD6**	260	442
14.67	95	5410	56	30800	6780	5	-	**FAF**	**107**	**AD6**	280	442
12.33	114	4540	56	30800	7140	5	M4	**F**	**107**	**AD6**	275	442
9.96	141	4000	61	29600	7220	5	M2,4-6	**FF**	**107**	**AD6**	305	442
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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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	$\varphi_{(/R)}$	⚠				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	442
114.34	12	12000	16.2	88000	2970	5	-	**FAF**	**127**	**AD4**	430	442
98.95	14	12000	18.8	83000	2880	5	-	**F**	**127**	**AD4**	430	442
87.31*	16	12000	21	78900	2800	5	-	**FF**	**127**	**AD4**	475	442
75.41*	19	12000	25	74300	2690	5	-					
70.07	20	12000	26	72100	4930	5	-					
63.91	22	12000	29	69400	4850	5	-	**FA**	**127**	**AD5**	405	442
55.31	25	12000	33	65200	4710	5	-	**FAF**	**127**	**AD5**	440	442
48.80	29	12000	38	61300	4590	5	M2	**F**	**127**	**AD5**	440	442
42.15	33	12000	44	56800	4420	5	M1-6	**FF**	**127**	**AD5**	485	442
37.28	38	12000	50	53200	7220	5	M1-6	**FA**	**127**	**AD6**	415	442
								FAF	**127**	**AD6**	455	442
								F	**127**	**AD6**	455	442
								FF	**127**	**AD6**	495	442
31.33	45	12000	59	48300	17000	5	M1-6	**FA**	**127**	**AD7**	415	442
25.30	55	12000	73	42400	16600	5	M1-6	**FAF**	**127**	**AD7**	455	442
								F	**127**	**AD7**	450	442
								FF	**127**	**AD7**	495	442
26.86	52	8500	48	55300	4990	5	-	**FA**	**127**	**AD6**	405	442
24.57	57	8500	52	53300	4770	5	-	**FAF**	**127**	**AD6**	440	442
								F	**127**	**AD6**	440	442
								FF	**127**	**AD6**	485	442
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	442
10.19	137	9040	134	32700	23900	5	M1-6	**FAF**	**127**	**AD8**	465	442
8.86	158	7000	119	36400	22800	6	M1-6	**F**	**127**	**AD8**	460	442
7.88	178	6000	115	37000	23500	6	M1-6	**FF**	**127**	**AD8**	510	442
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	$\varphi_{(/R)}$	⚠				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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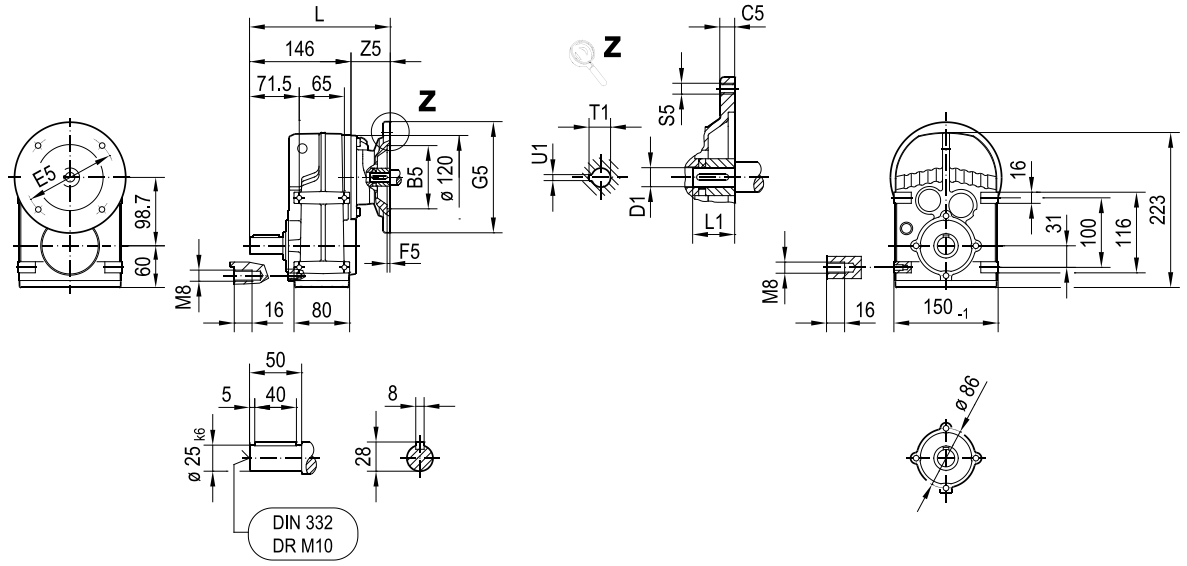
FA157 AD.. , n_e = 1400 min^{-1}												20000 Nm
i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				m kg	
53.55	26	9820	28	94700	3140	4	-	**FA**	**157**	**AD5**	650	431
								FAF	**157**	**AD5**	710	431
								F	**157**	**AD5**	680	431
								FF	**157**	**AD5**	780	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	-					
25.43	55	16300	97	58900	23500	4	M2,5-6					
22.16	63	19700	134	48400	21700	4	M1-6	**FA**	**157**	**AD8**	690	431
19.77	71	18800	143	47300	21800	4	M1-6	**FAF**	**157**	**AD8**	750	431
16.85	83	18400	165	44100	21500	5	M1-6	**F**	**157**	**AD8**	710	431
13.96	100	17700	191	41100	21200	5	M1-6	**FF**	**157**	**AD8**	820	431
11.92	117	17100	217	38700	20800	5	M1-6					

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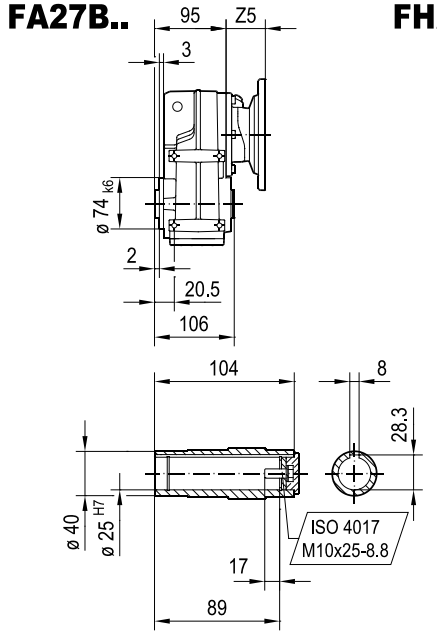
9.4 Dimension sheets for adapters for mounting IEC motors (AMS..)

42 207 00 20

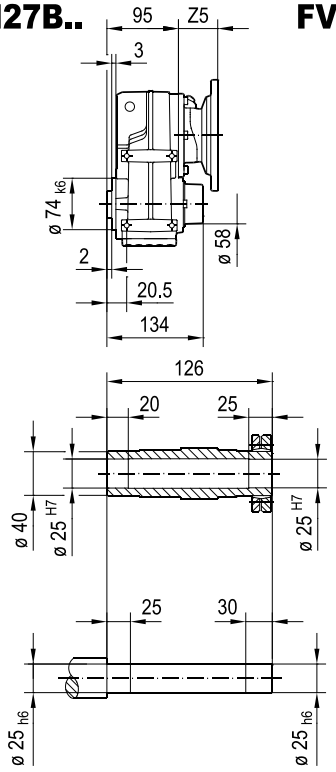
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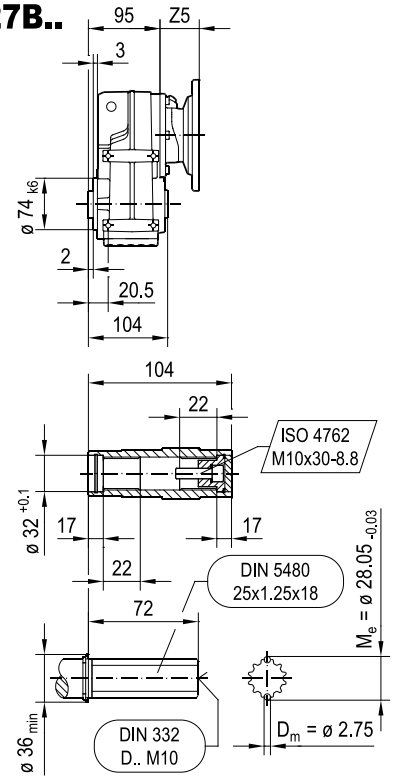
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FH27B..



FV27B..

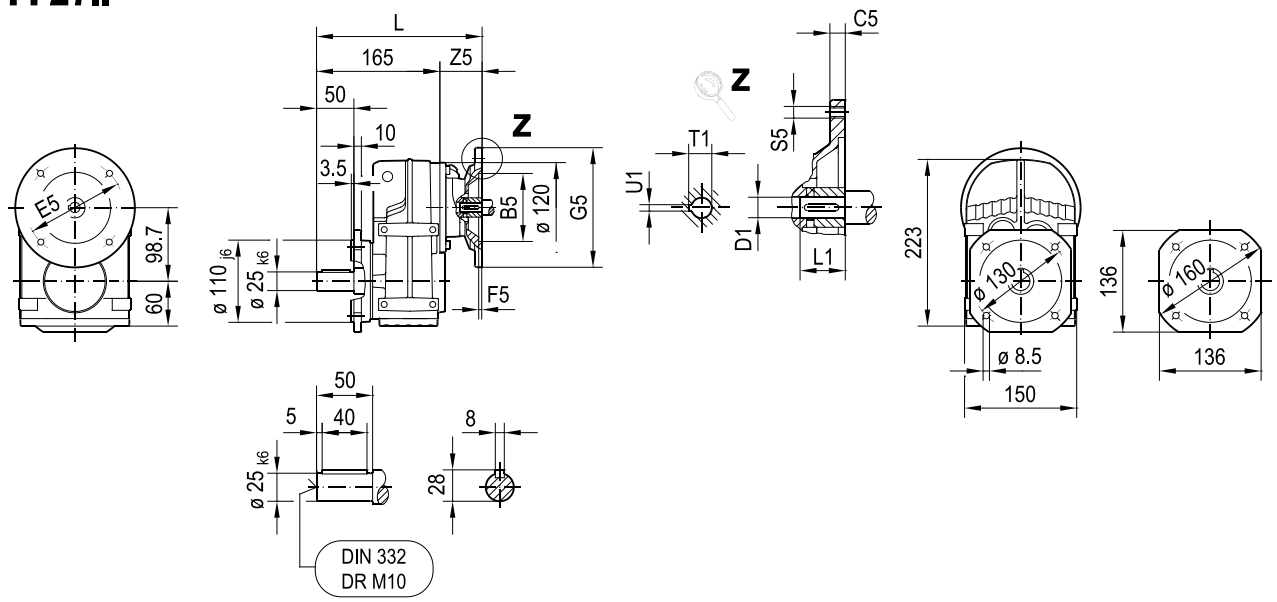


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	203	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	203	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	220	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	233	M10	86.5	24	50	27.3	8

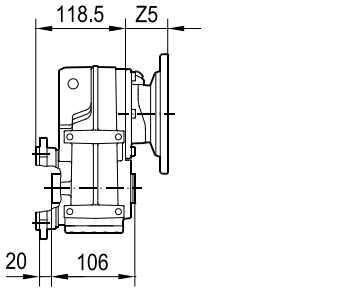
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42 208 00 20

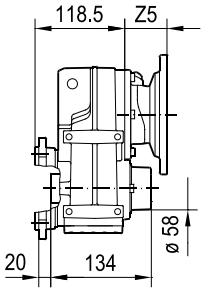
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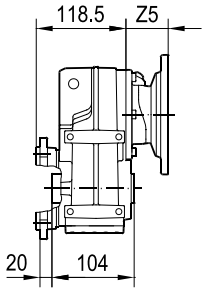
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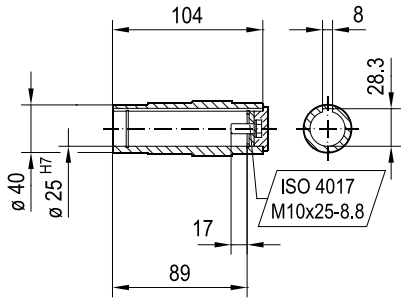


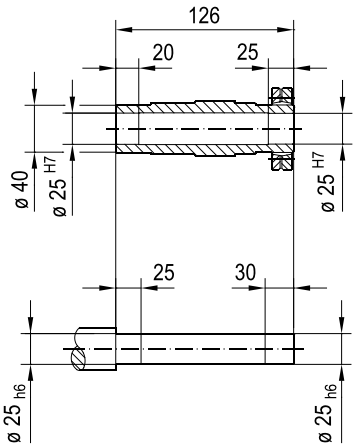
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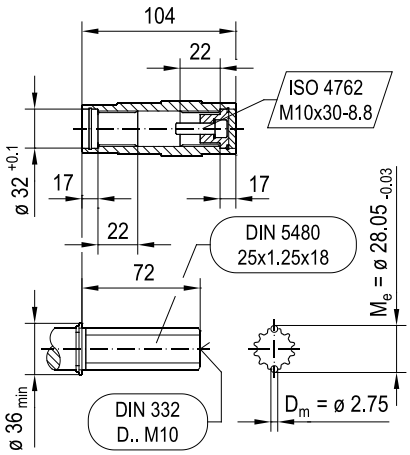


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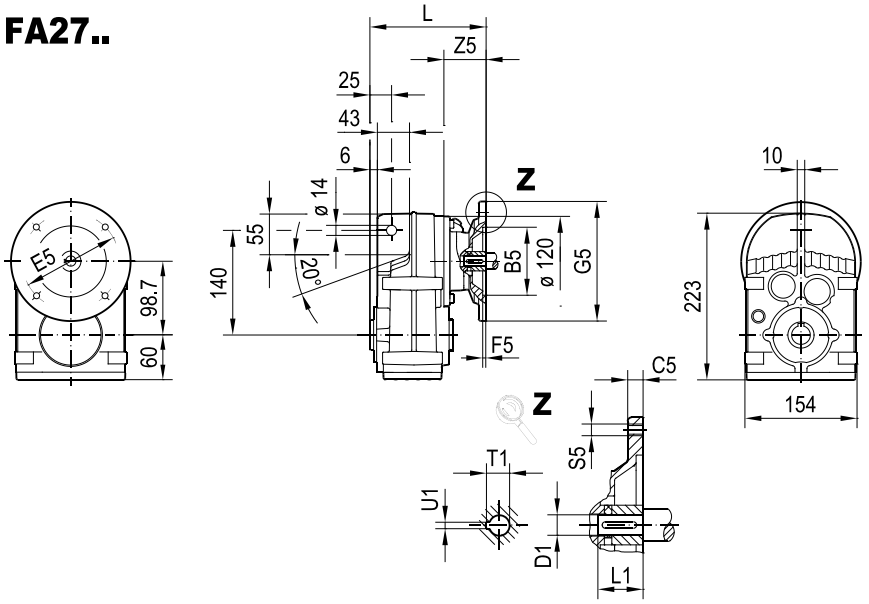


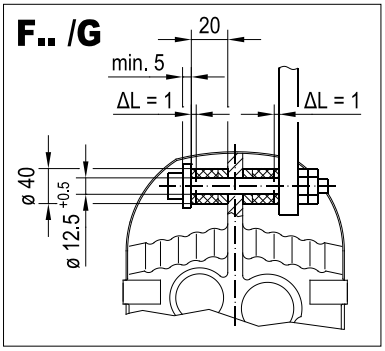
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	222	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	222	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	239	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	252	M10	86.5	24	50	27.3	8

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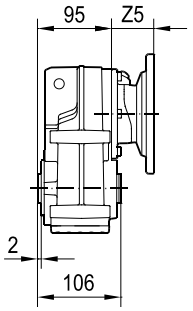
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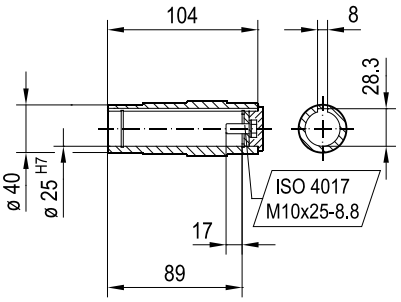
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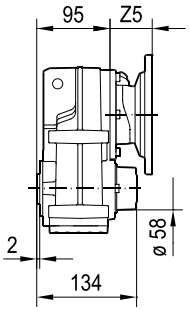


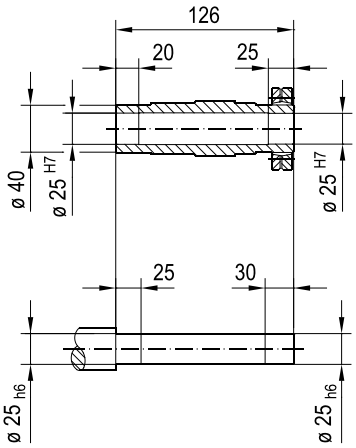
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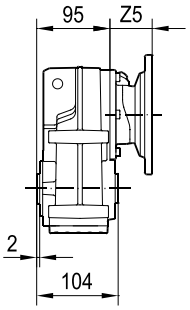


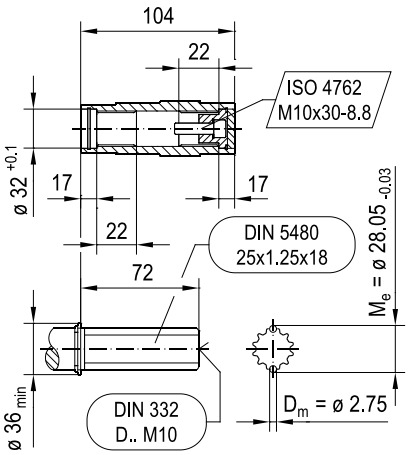
FH27..





FV27..



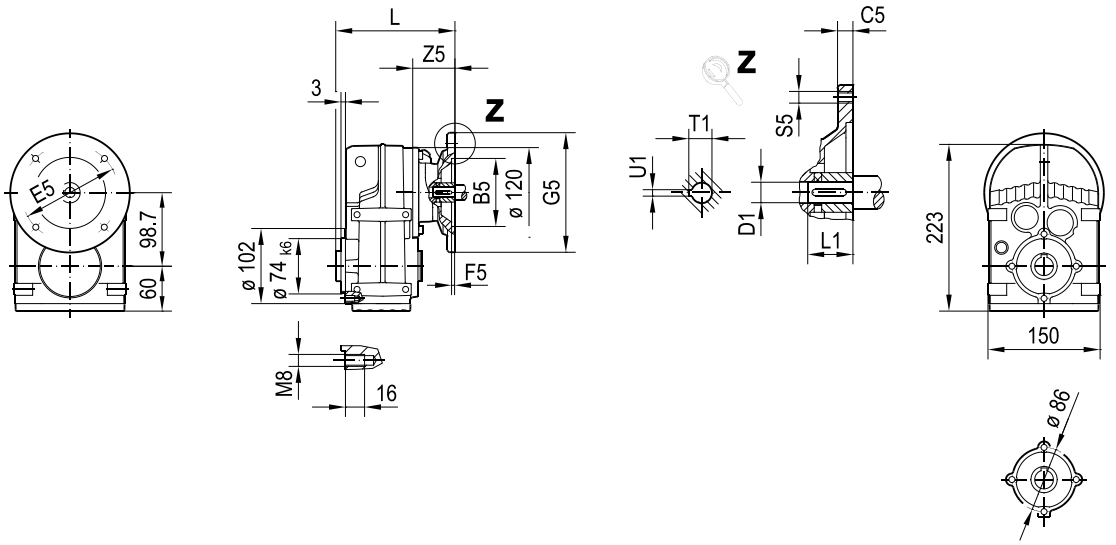


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	152	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	152	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	169	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	182	M10	86.5	24	50	27.3	8

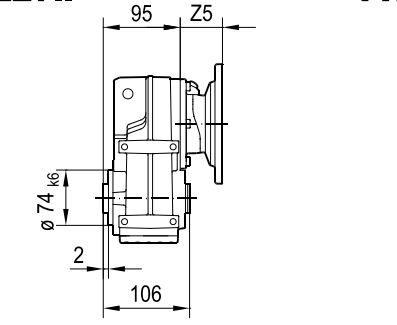
27797880/EN – 03/2023

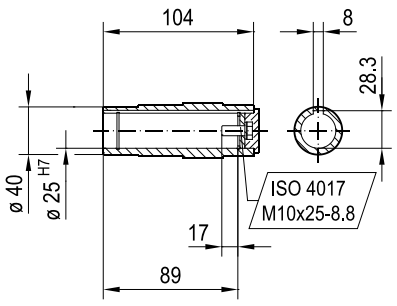
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FAZ27..

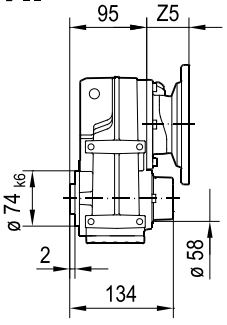


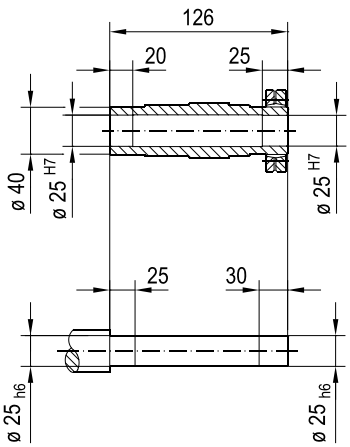
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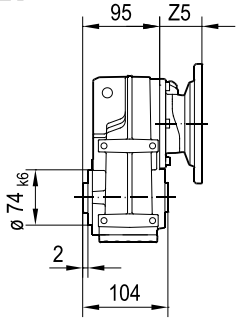


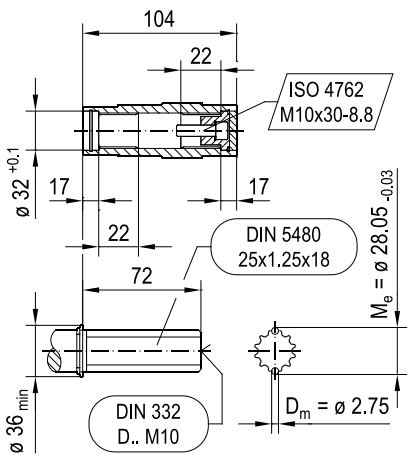
FHZ27..





FVZ27..



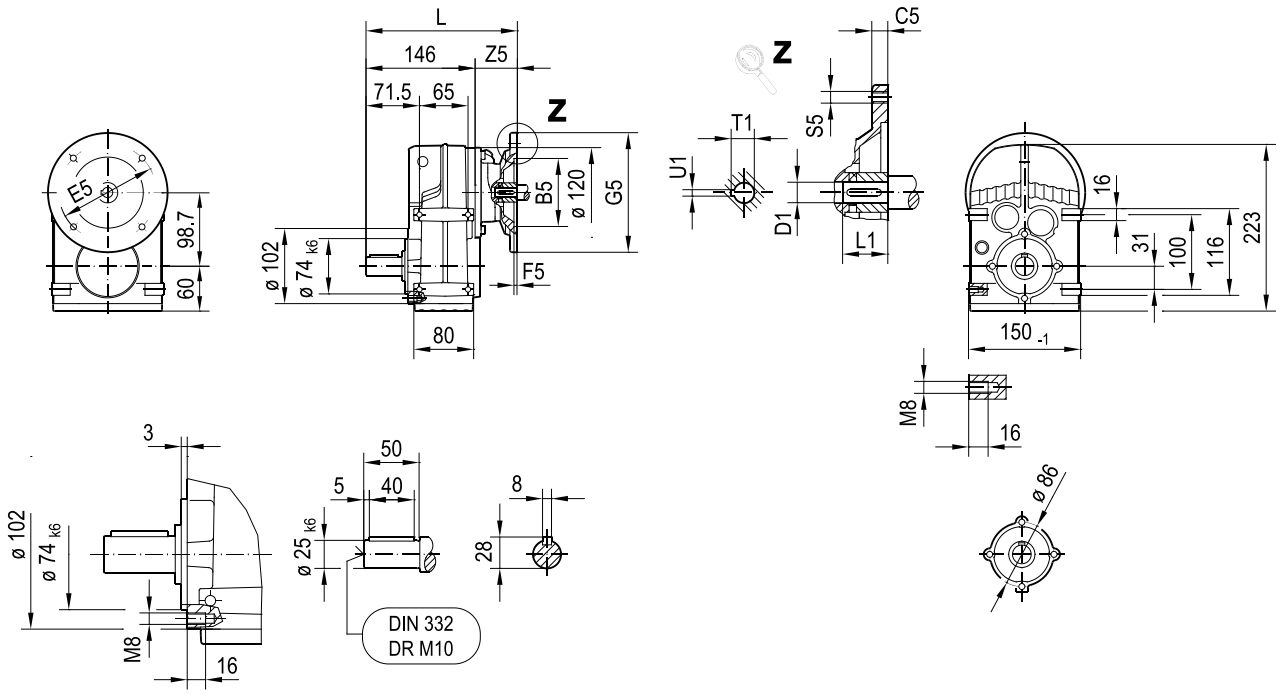


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	152	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	152	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	169	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	182	M10	86.5	24	50	27.3	8

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42 211 00 20

FZ27..

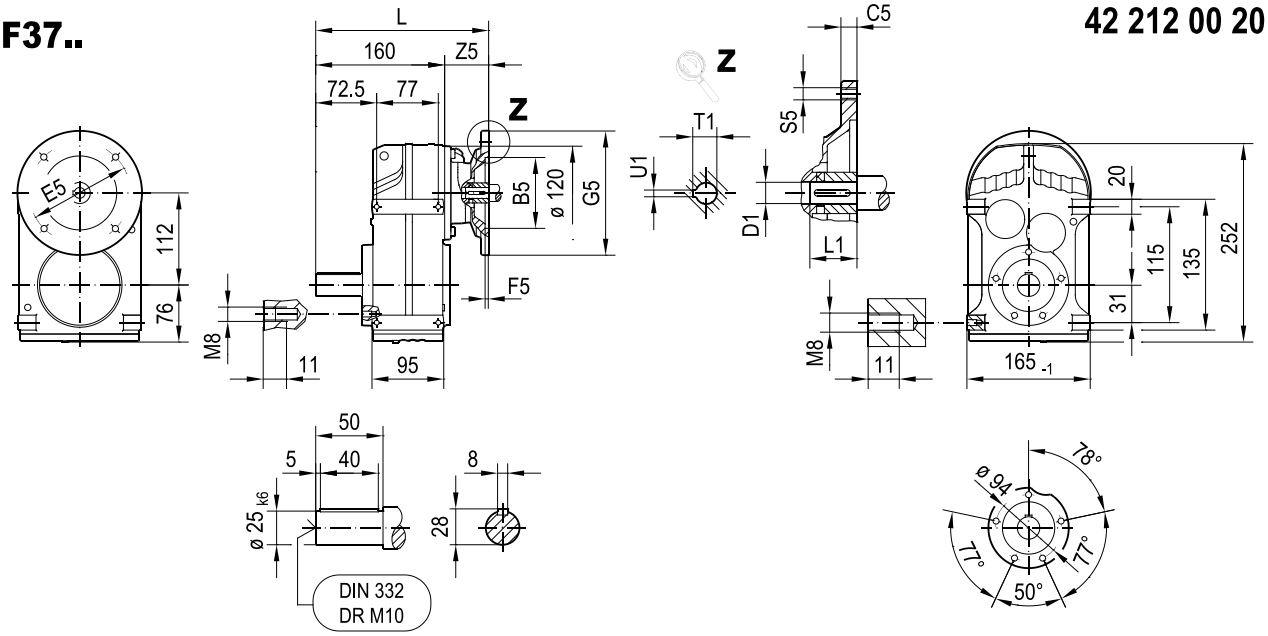


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	203	M8	56.5	11	23	12.8	4
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AMS80	130	12	165	4.5	200	220	M10	73.5	19	40	21.8	6
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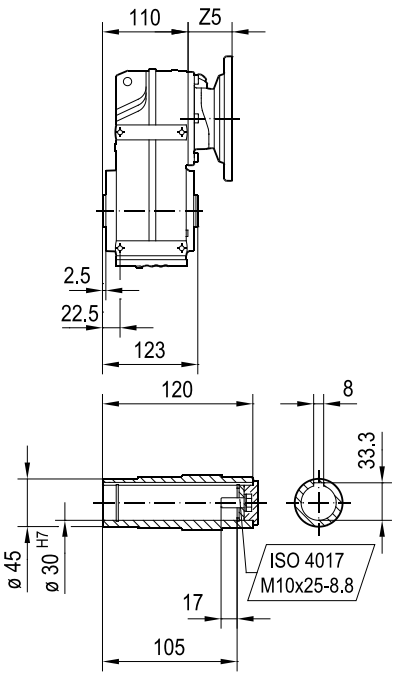
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F37..

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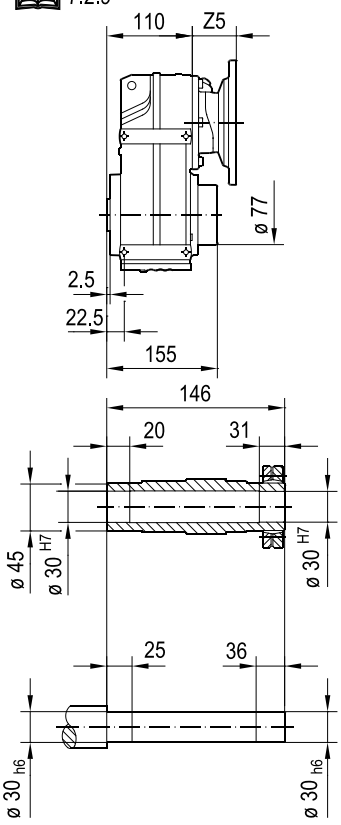


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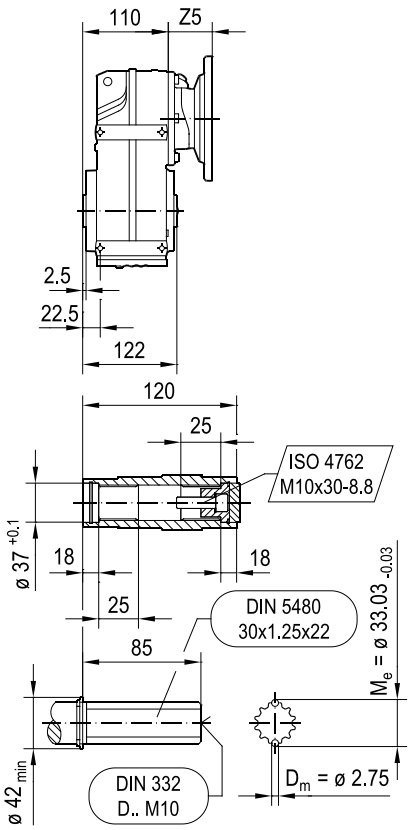


FH37B..

→ 📖 7.2.9



FV37B..

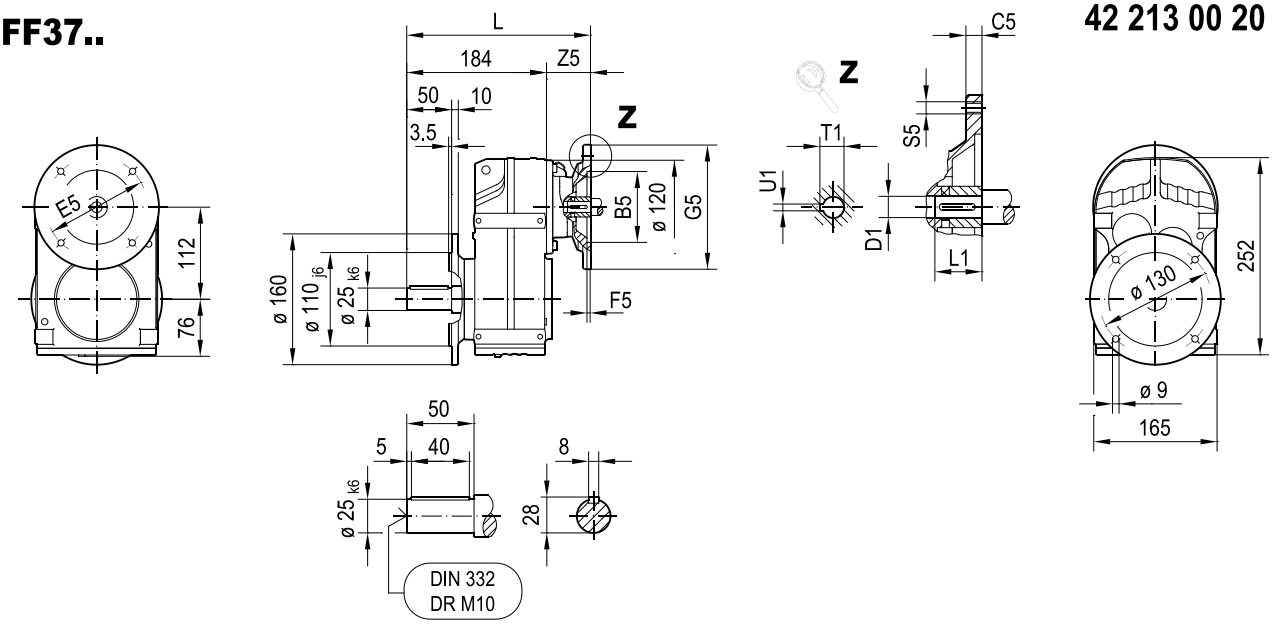


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	217	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	217	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	234	M10	73.5	19	40	21.8	6
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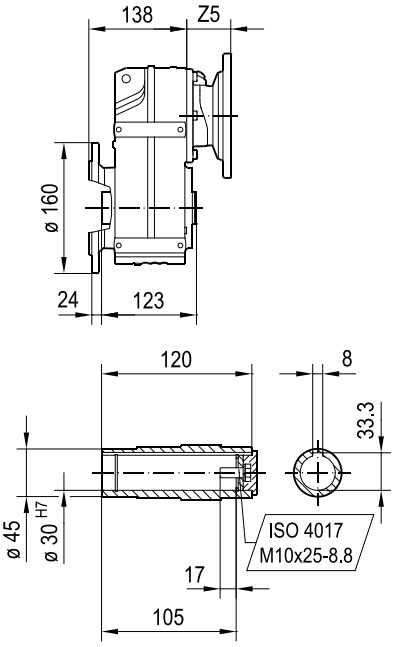
27797880/EN – 03/2023

FF37..

42 213 00 20

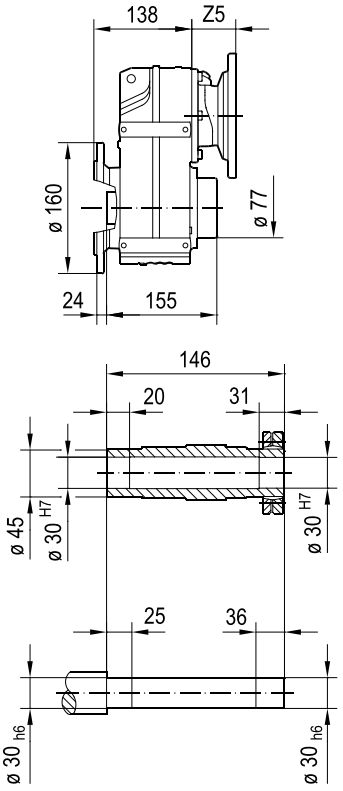


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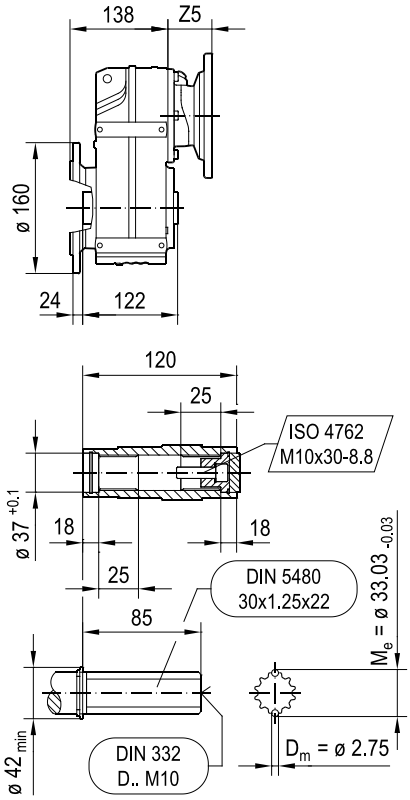


FHF37..

→ 7.2.9



FVF37..

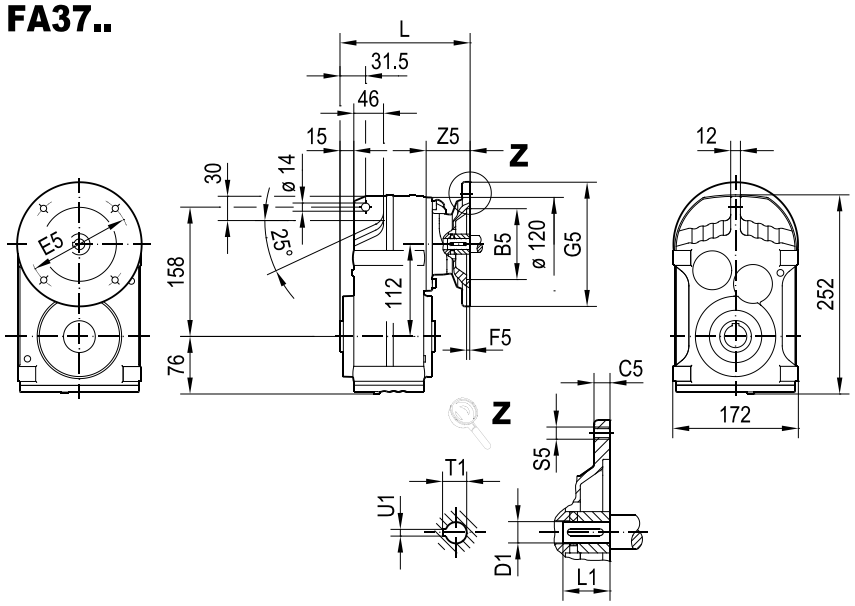


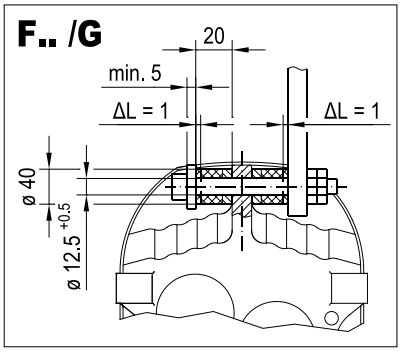
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	241	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	241	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	258	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	271	M10	86.5	24	50	27.3	8

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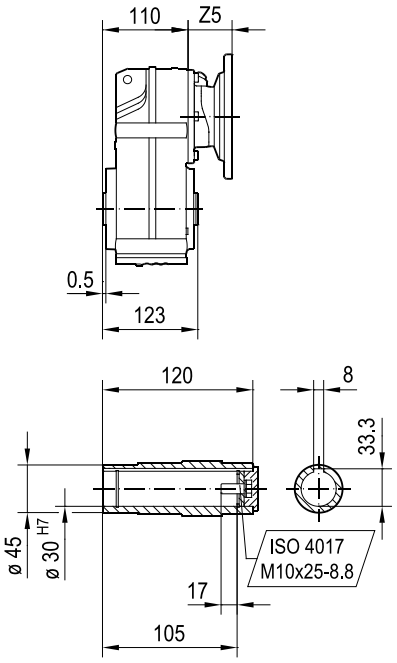
FA37..

42 214 00 20



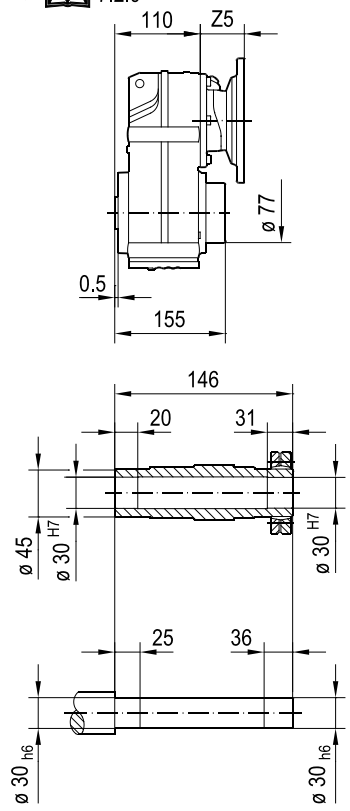


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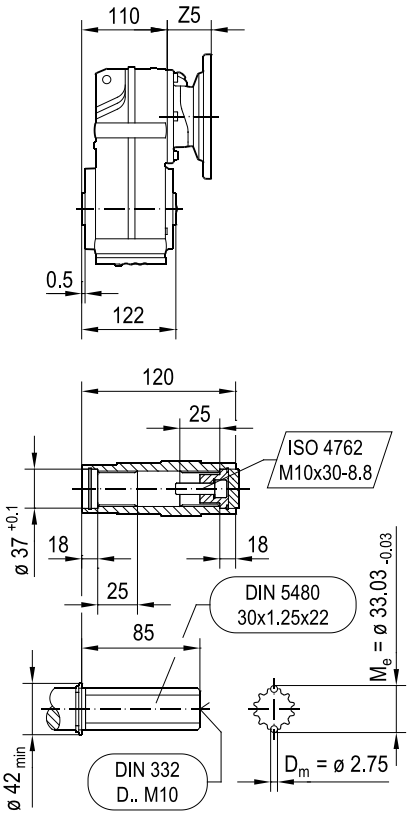


FH37..

→ 7.2.9



FV37..

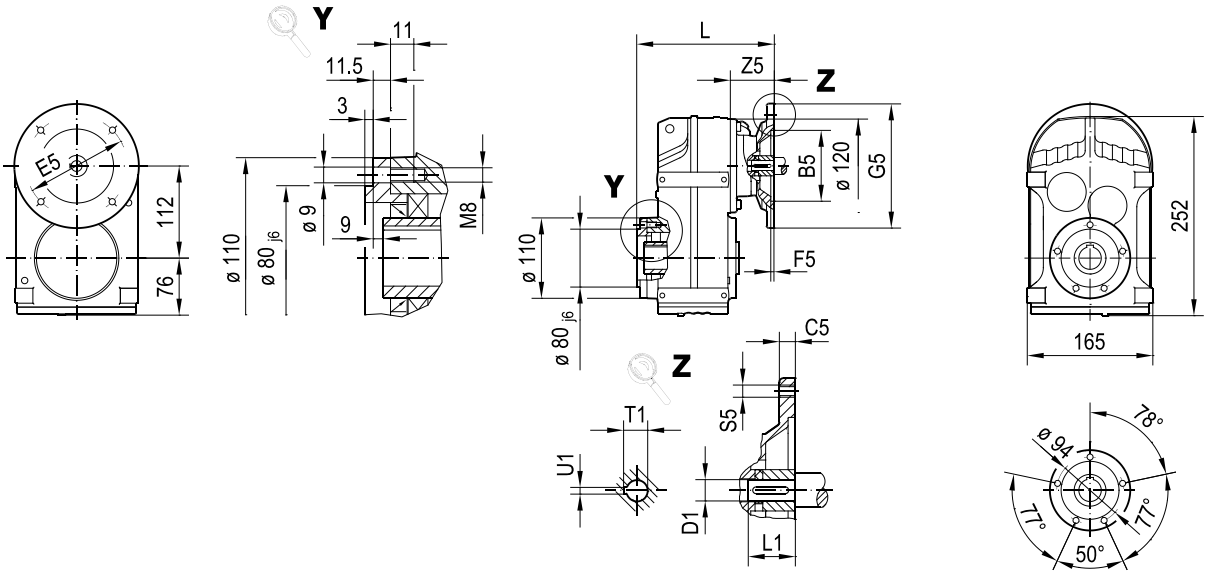


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	167	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	167	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	184	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	197	M10	86.5	24	50	27.3	8

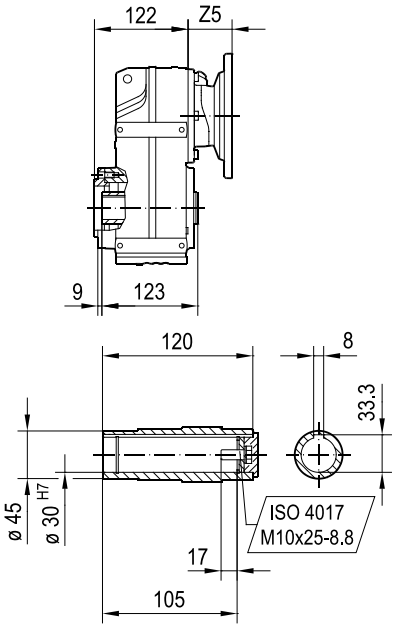
27797880/EN – 03/2023

FAZ37..

42 215 00 20

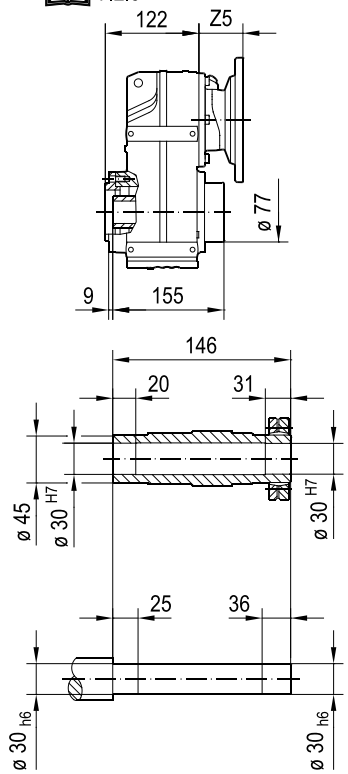


FAZ37..

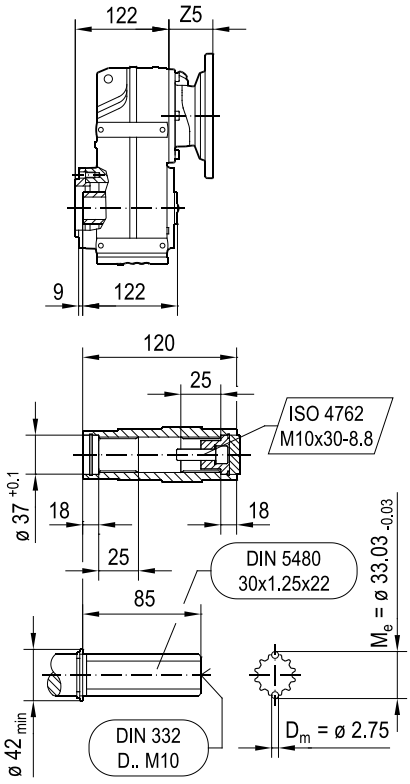


FHZ37..

→ 7.2.9



FVZ37..

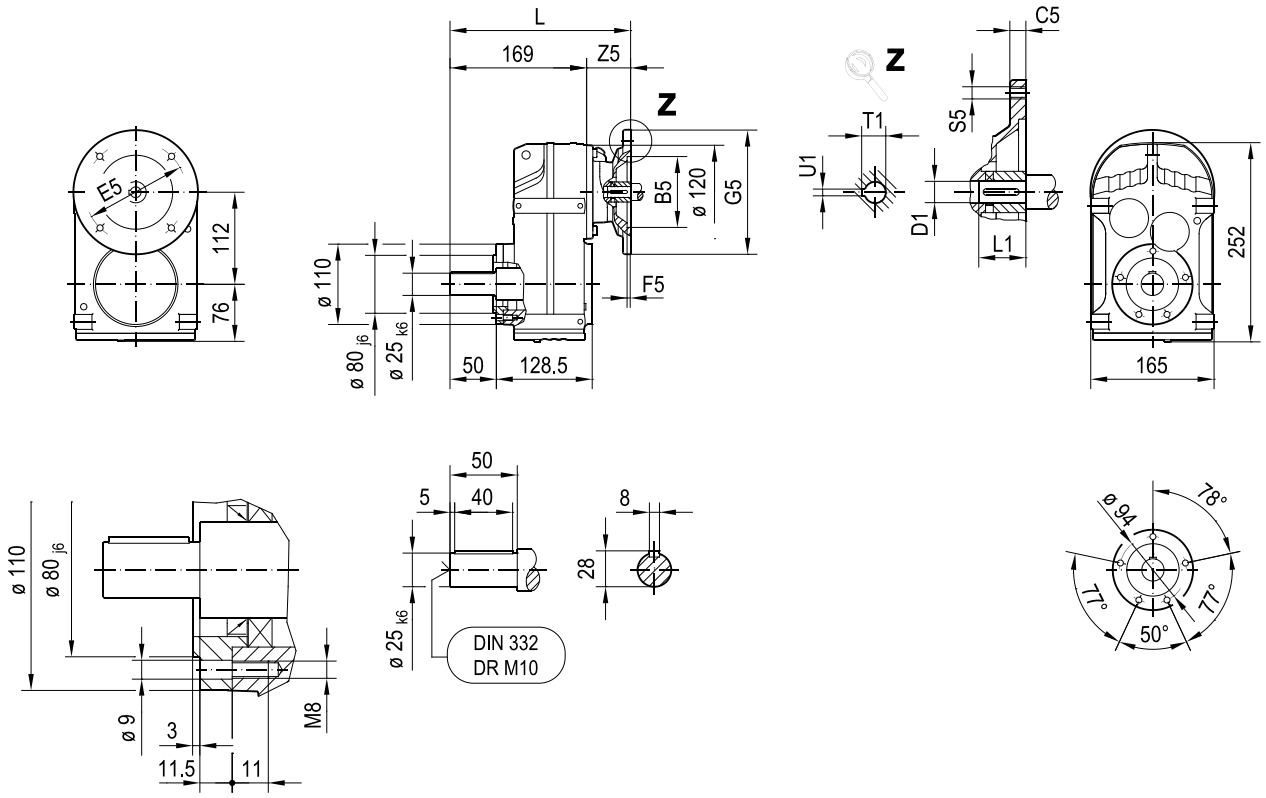


(→ 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	179	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	179	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	196	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	209	M10	86.5	24	50	27.3	8

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FZ37..

42 216 00 20



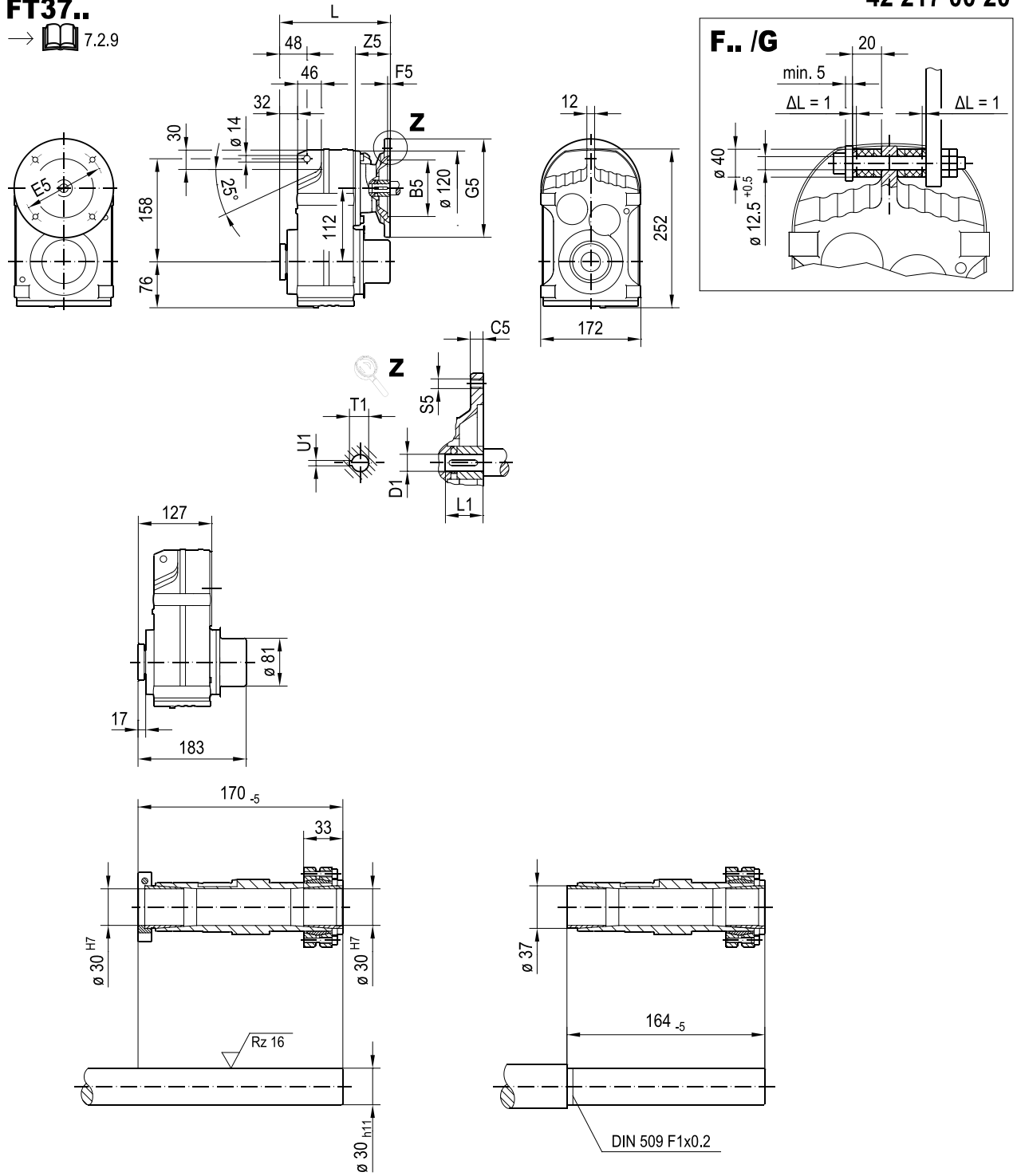
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	226	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	226	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	243	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	256	M10	86.5	24	50	27.3	8

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FT37..

→ 📖 7.2.9

42 217 00 20

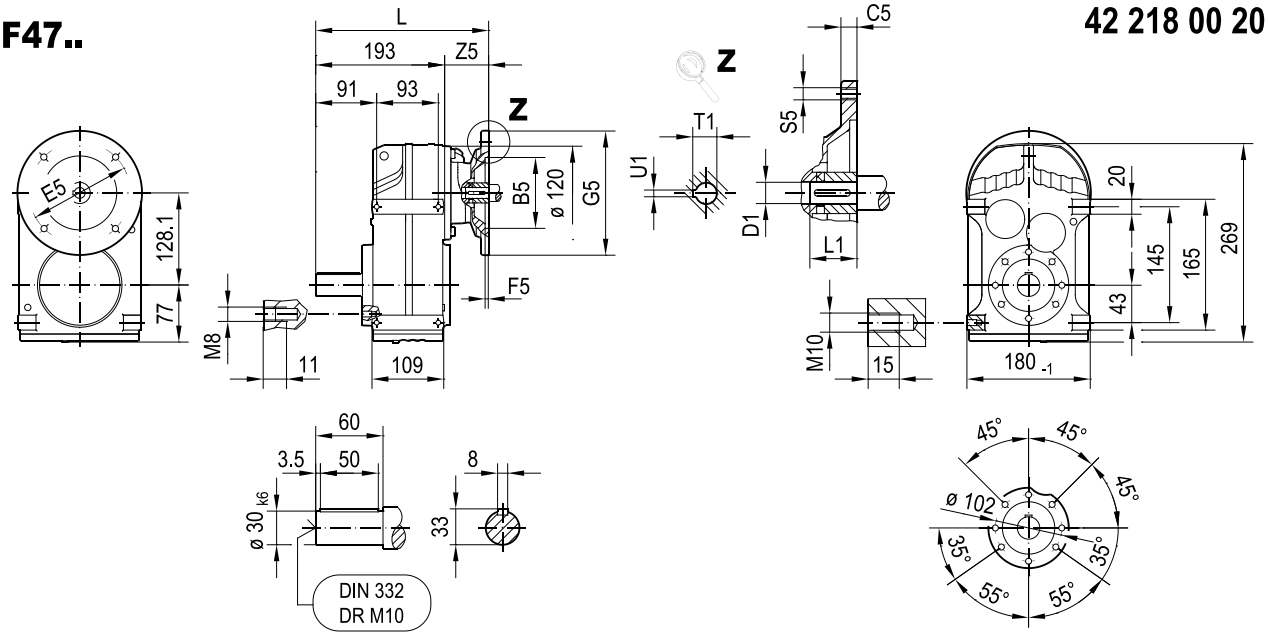


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	184	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	184	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	201	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	214	M10	86.5	24	50	27.3	8

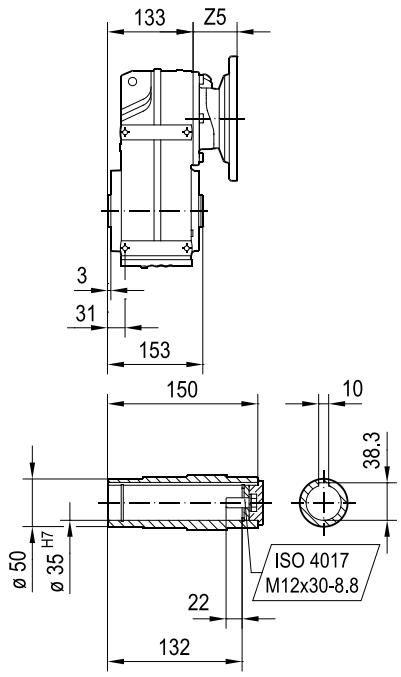
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F47..

42 218 00 20

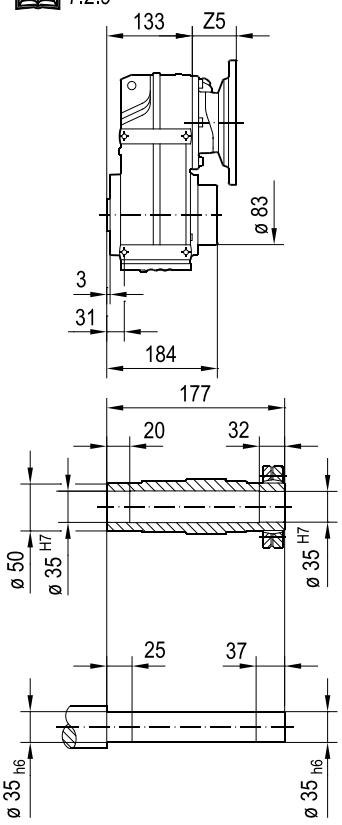


FA47B..

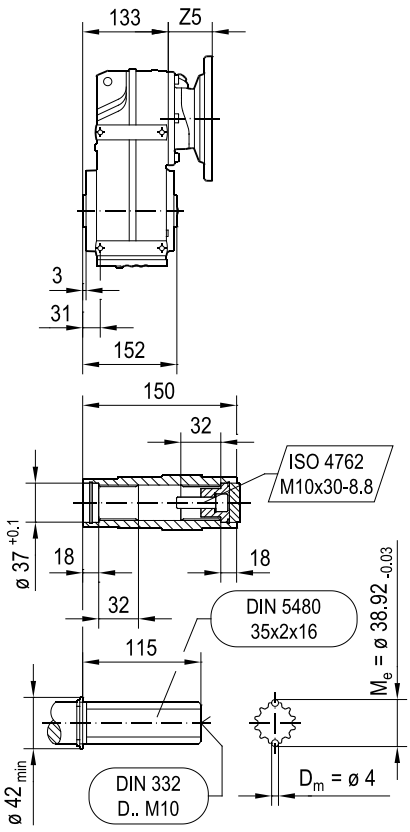


FH47B..

→ 7.2.9



FV47B..

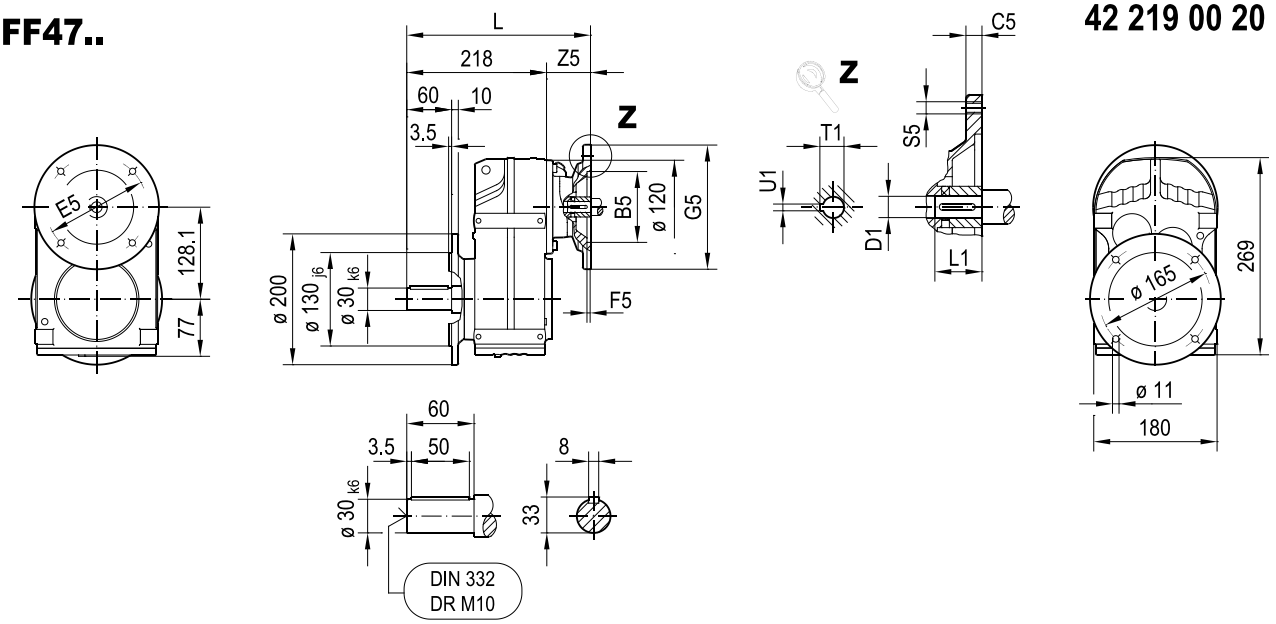


(→ 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	250	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	250	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	267	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	280	M10	86.5	24	50	27.3	8

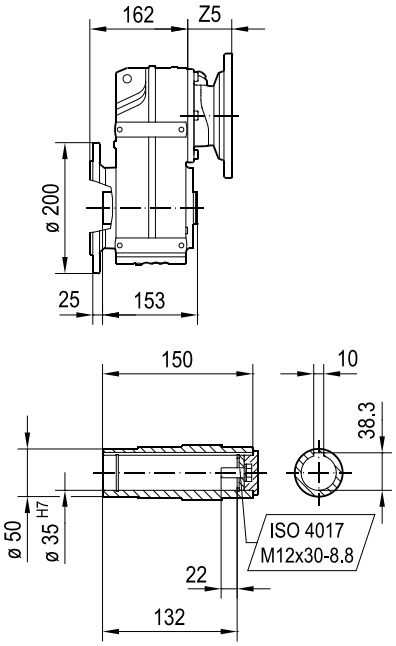
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FF47..

42 219 00 20

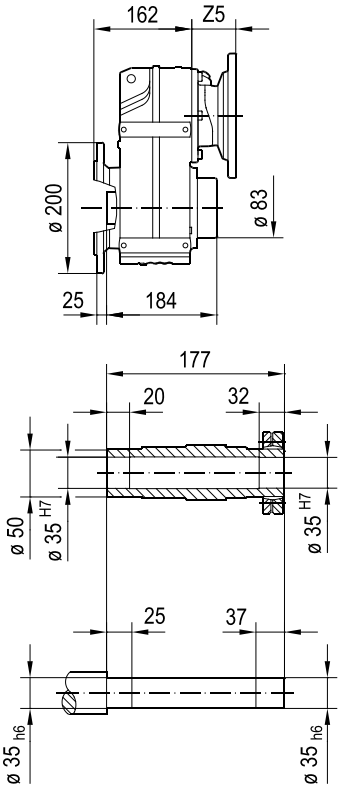


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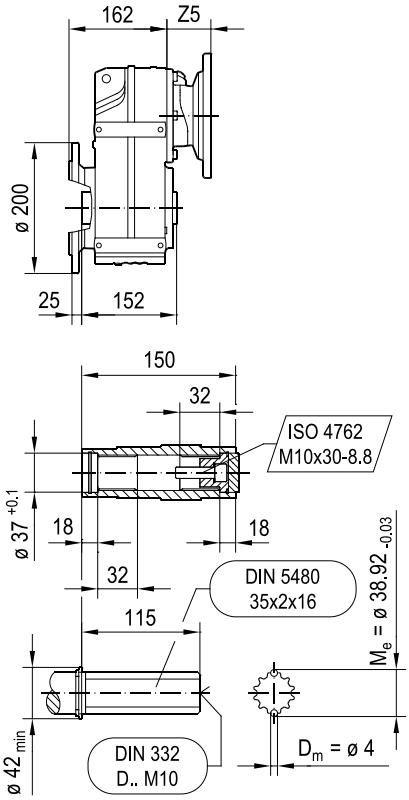


FHF47..

→ 7.2.9



FVF47..

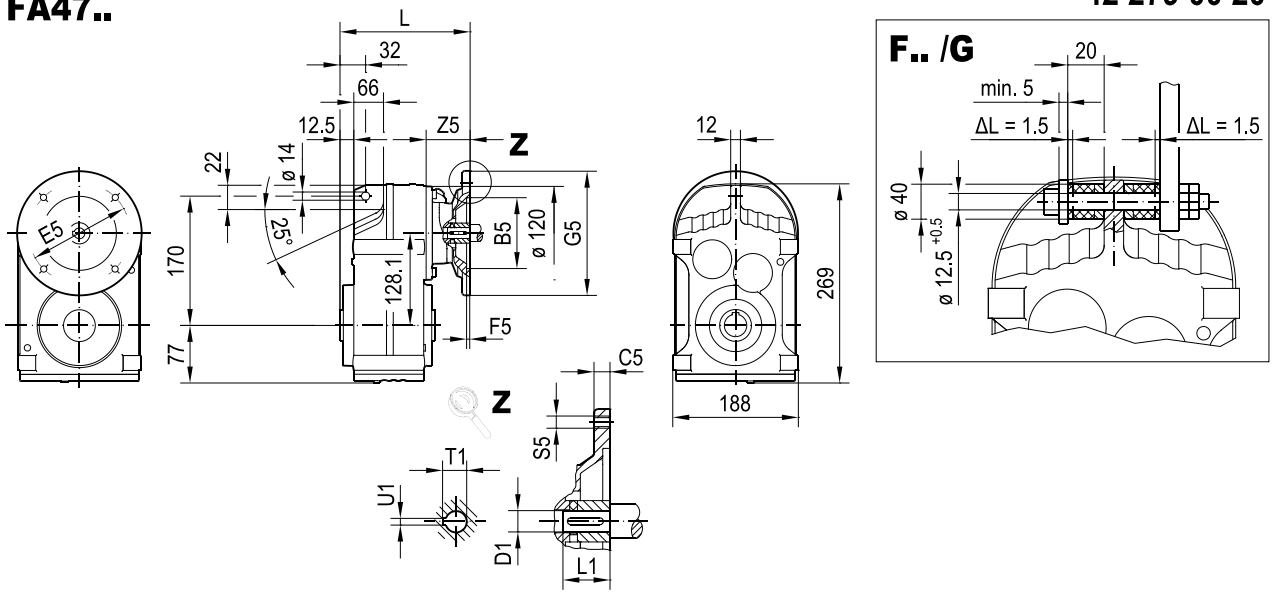


(→ 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	275	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	275	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	292	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	305	M10	86.5	24	50	27.3	8

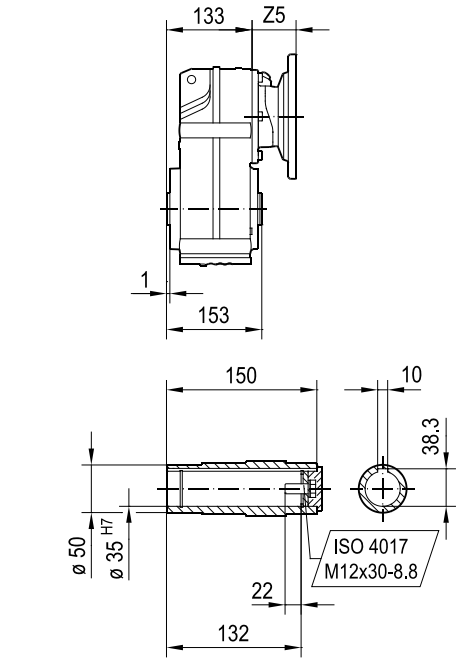
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FA47..

42 279 00 20

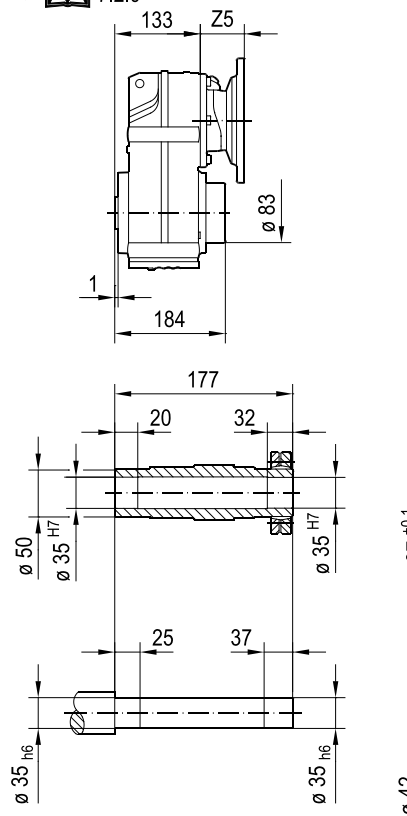


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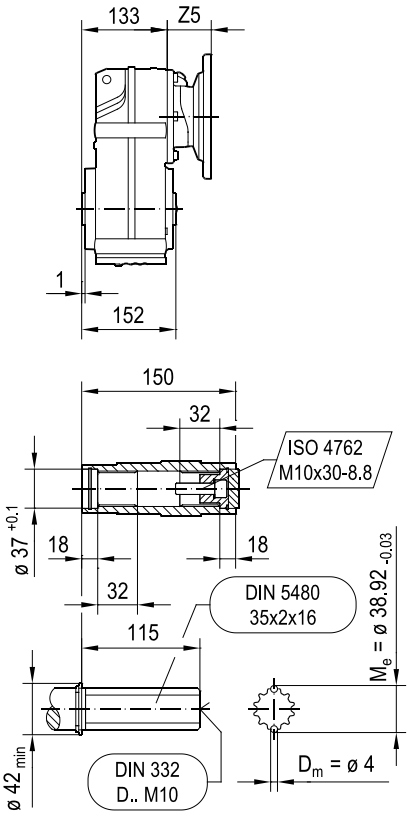


FH47..

→ 7.2.9



FV47..

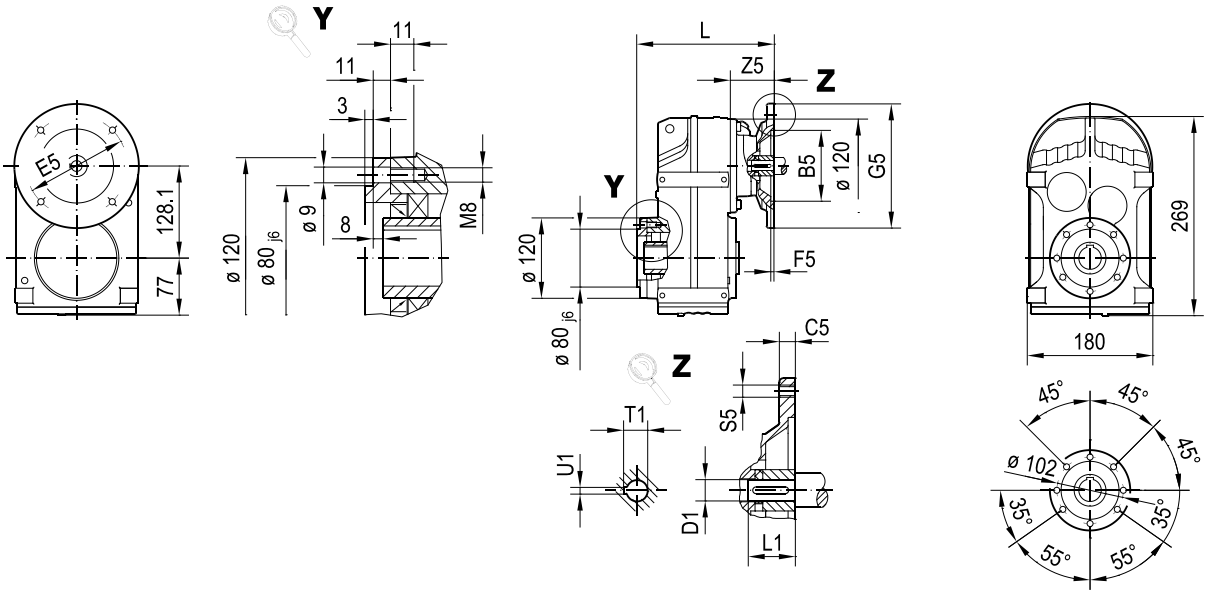


(→ 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS71	110	10	130	4	160	190	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	207	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	220	M10	86.5	24	50	27.3	8

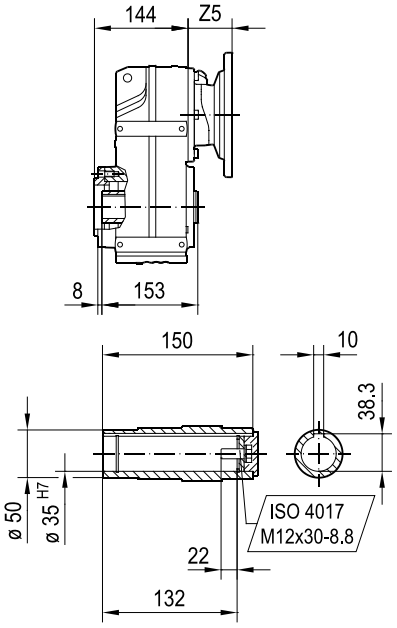
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FAZ47..

42 220 00 20

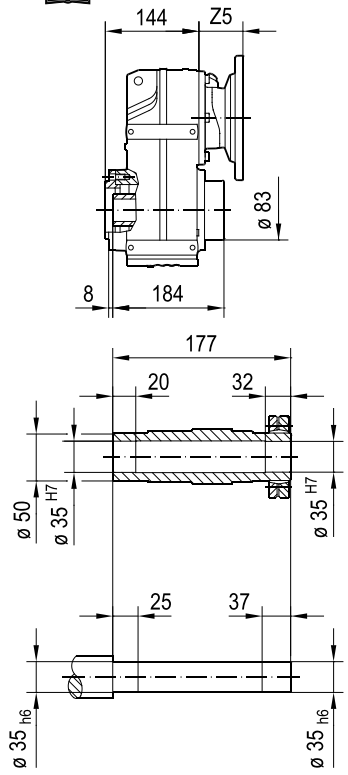


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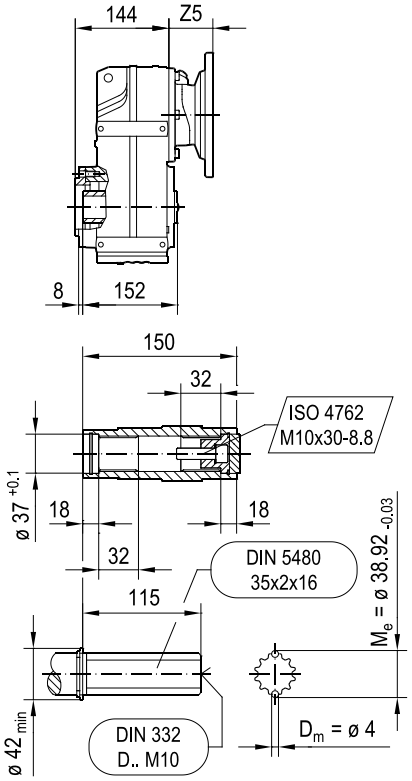


FHZ47..

→ 7.2.9



FVZ47..

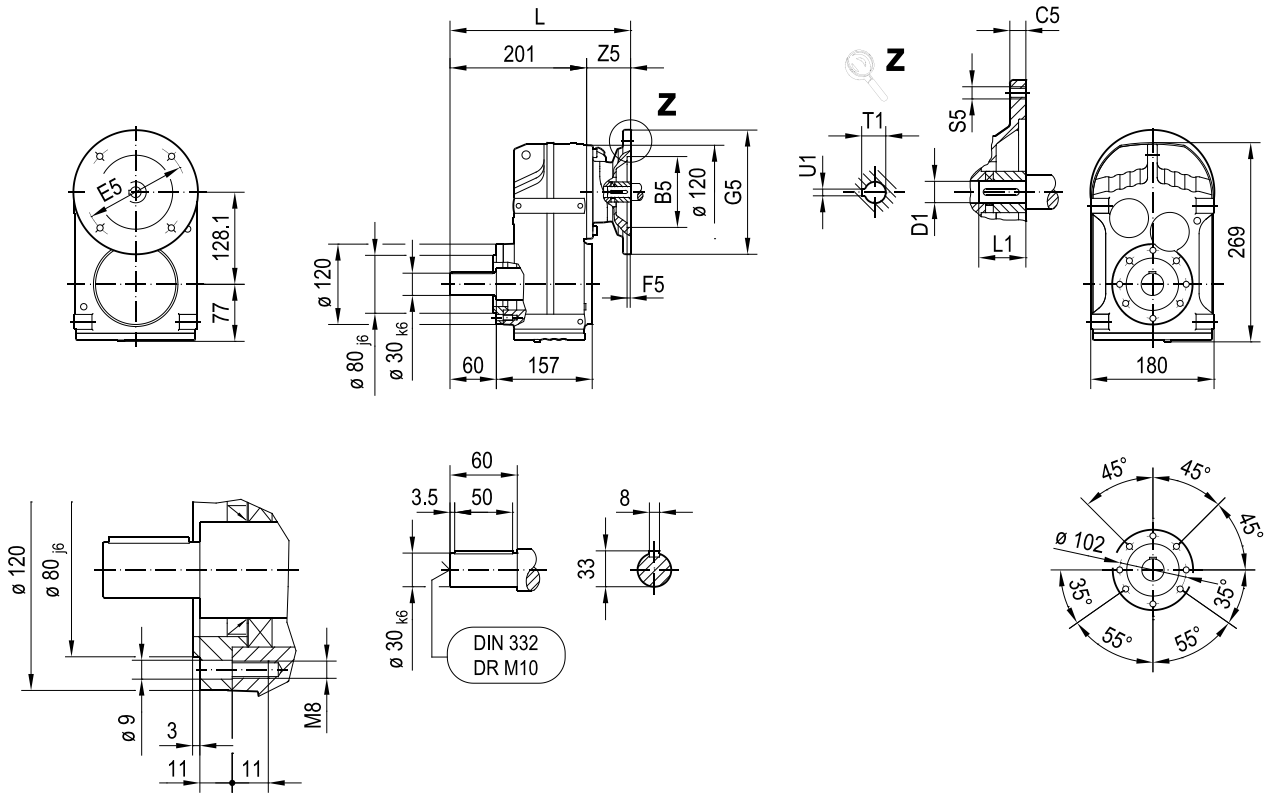


(→ 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	201	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	201	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	218	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	231	M10	86.5	24	50	27.3	8

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FZ47..

42 221 00 20



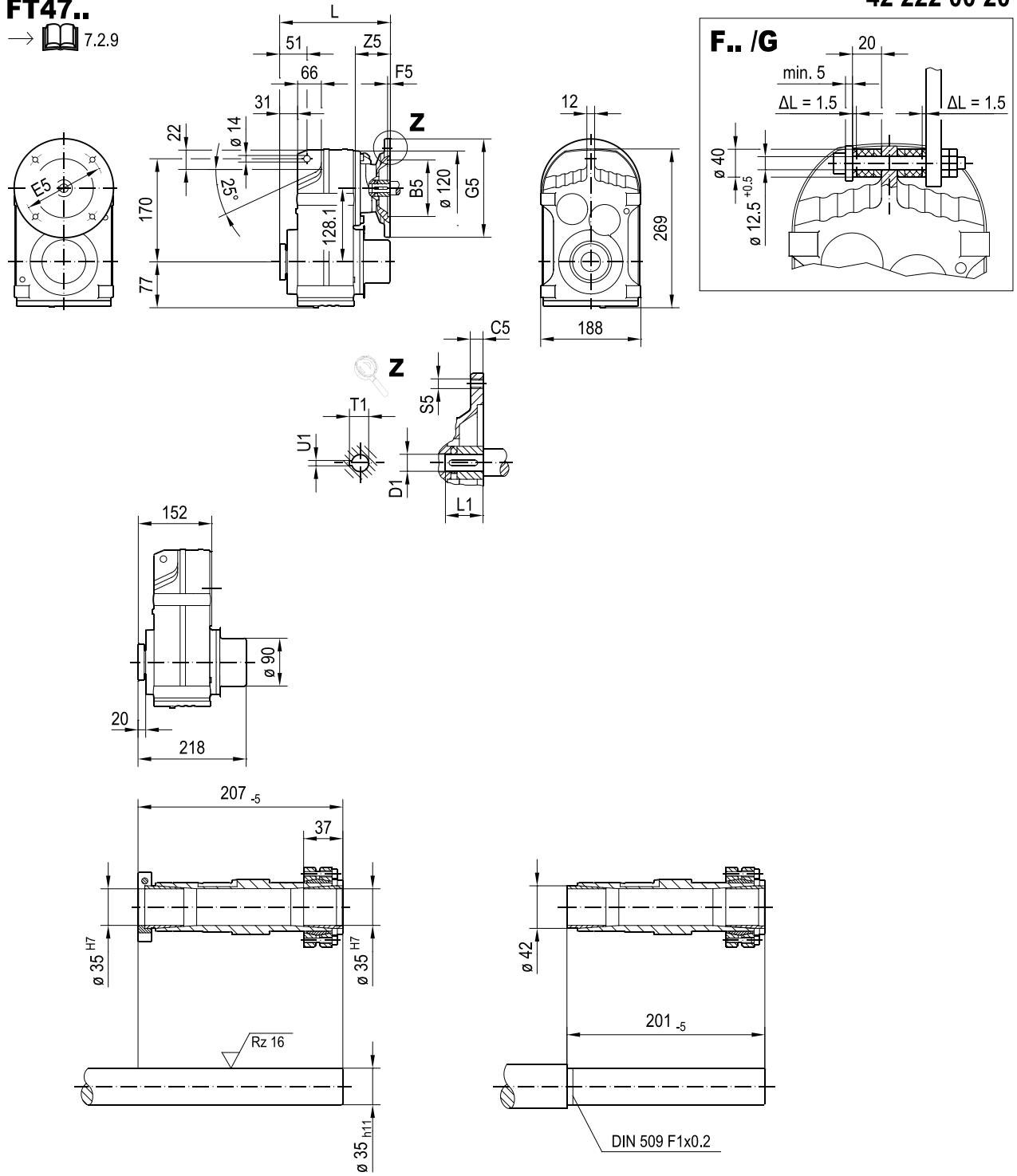
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	258	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	258	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	275	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	288	M10	86.5	24	50	27.3	8

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FT47..

→ 📖 7.2.9

42 222 00 20

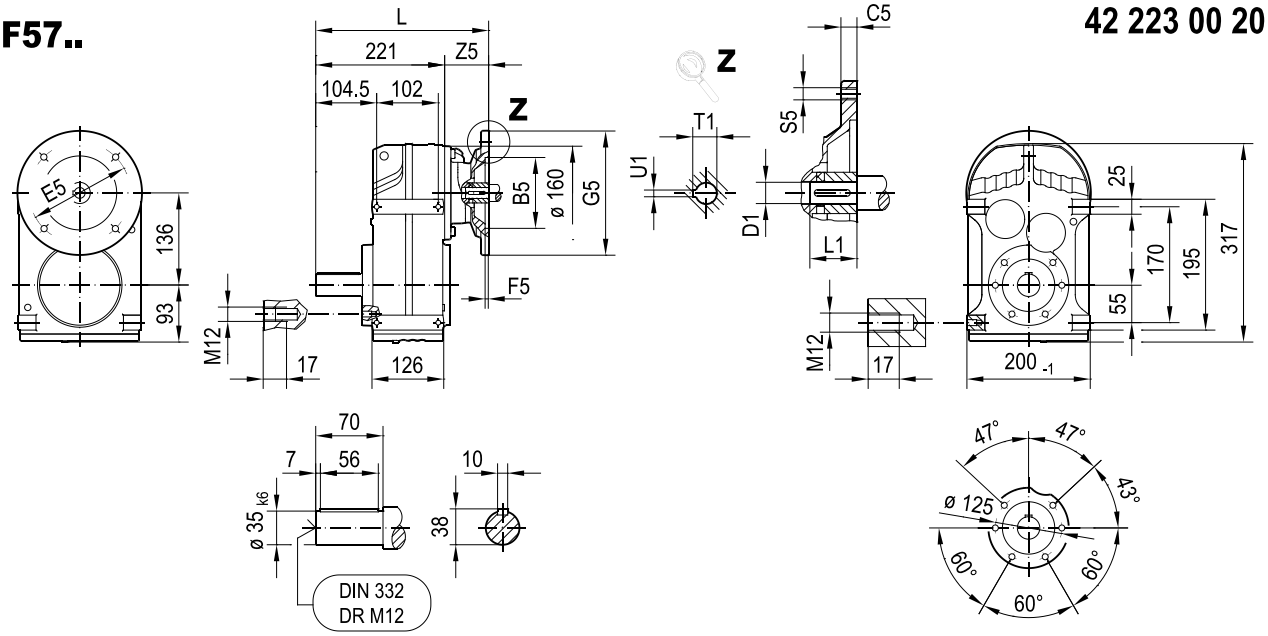


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	209	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	209	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	226	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	239	M10	86.5	24	50	27.3	8

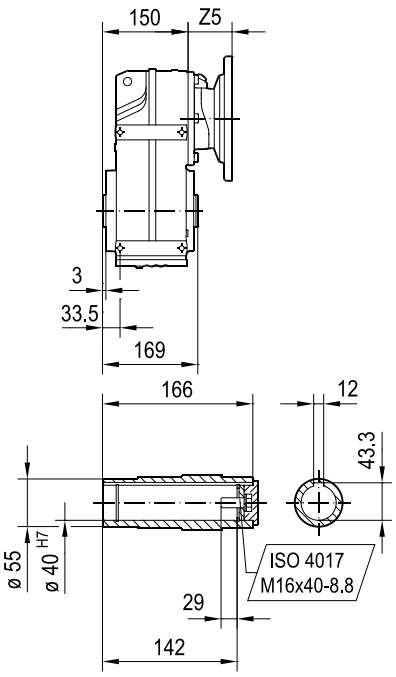
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F57..

42 223 00 20

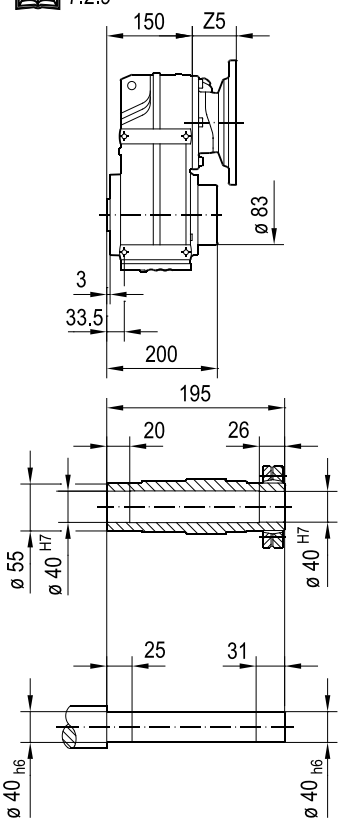


FA57B..

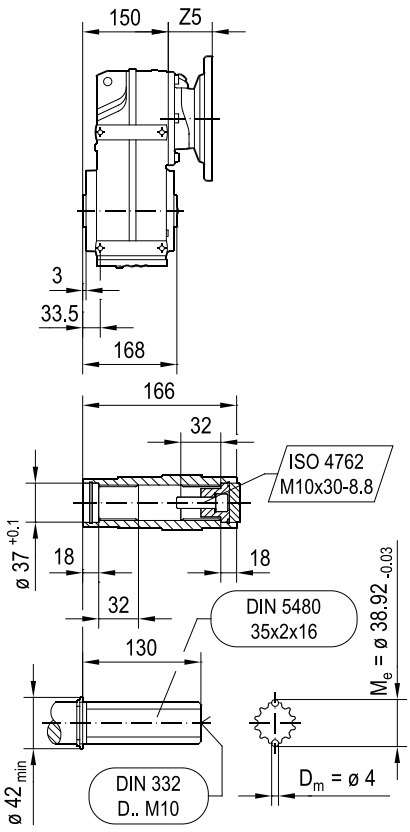


FH57B..

→ 7.2.9



FV57B..

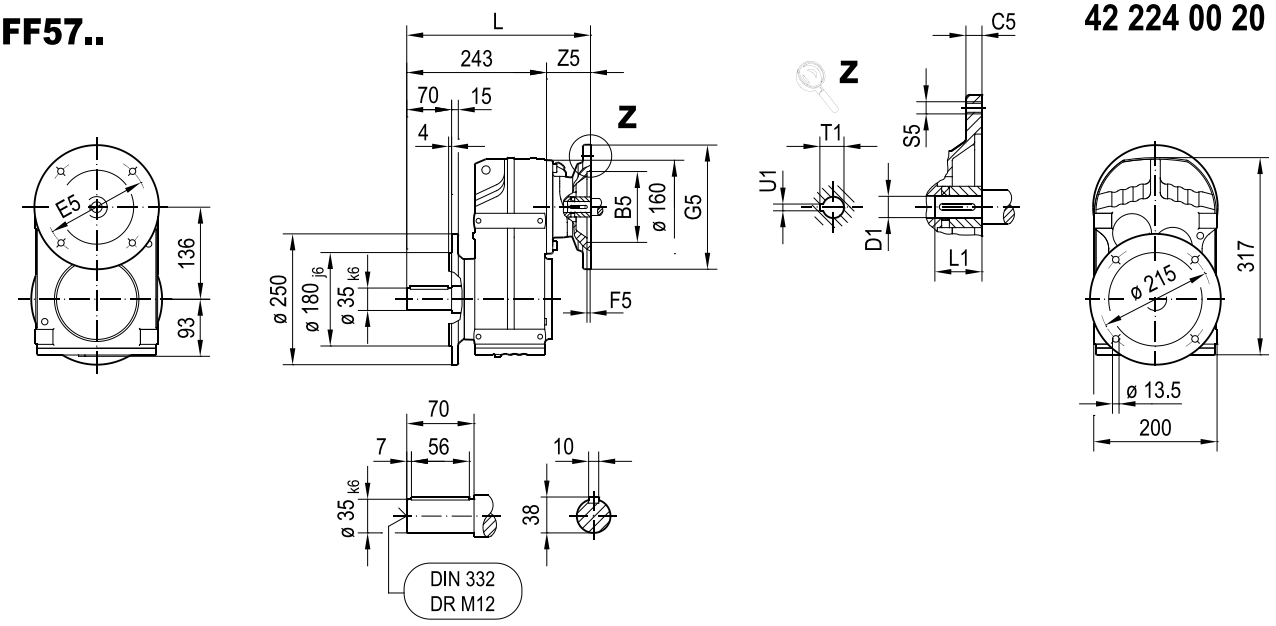


(→ 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	271	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	271	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	288	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	301	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	330	M12	108.5	28	60	31.3	8
AMS112	180	15	215	5	250	330	M12	108.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	355	M12	134	38	80	41.3	10

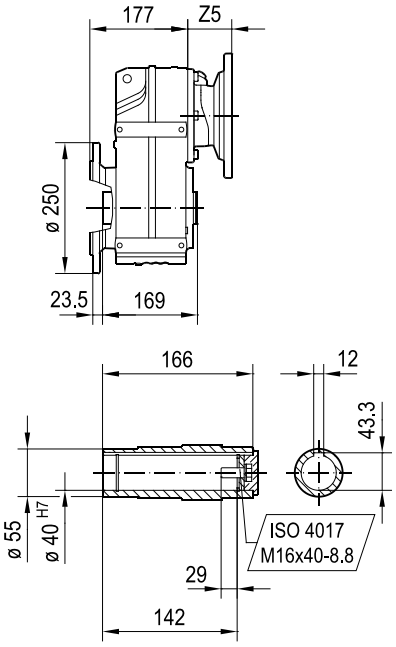
27797880/EN – 03/2023

FF57..

42 224 00 20

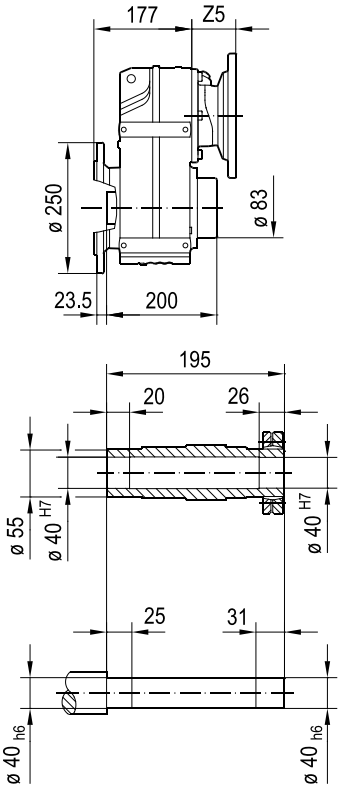


FAF57..

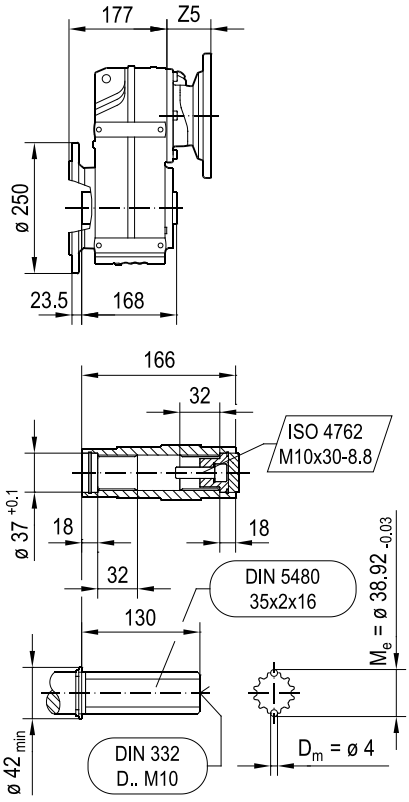


FHF57..

→ 7.2.9



FVF57..

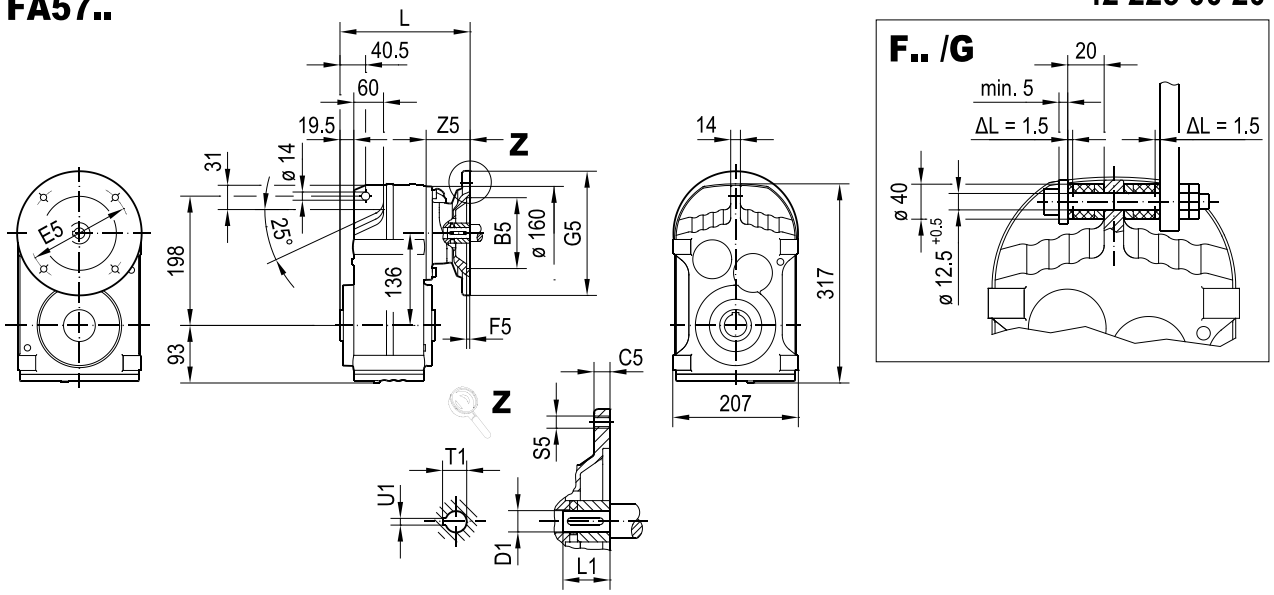


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	293	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	293	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	310	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	323	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	352	M12	108.5	28	60	31.3	8
AMS112	180	15	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

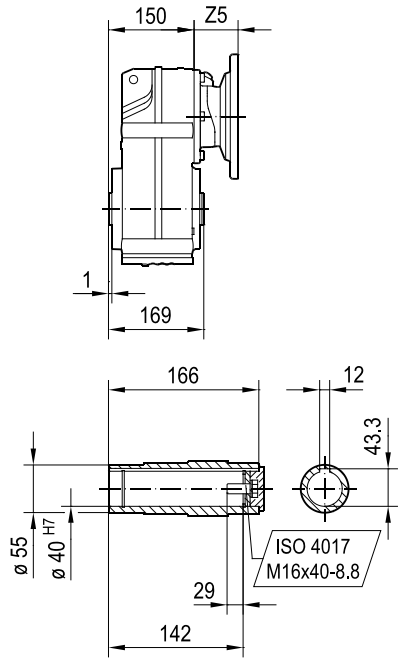
27797880/EN – 03/2023

FA57..

42 225 00 20

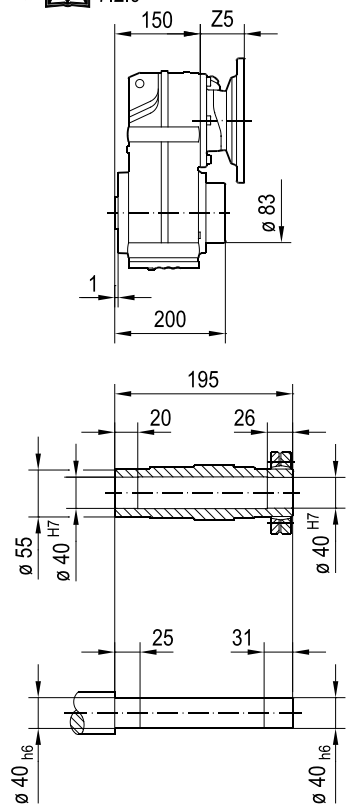


FA57..

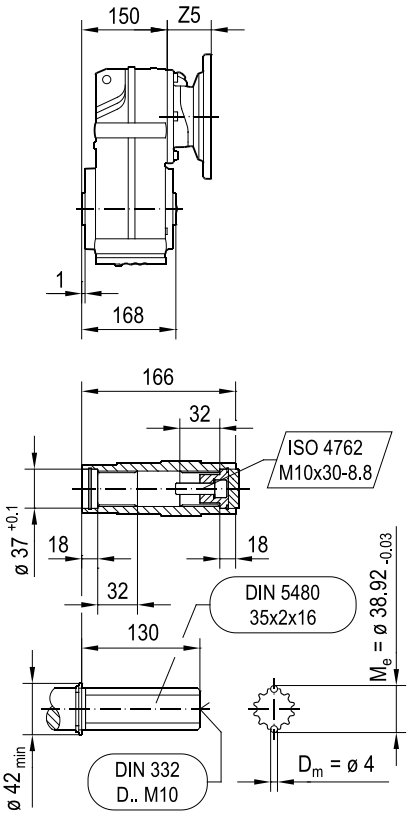


FH57..

→ 7.2.9



FV57..

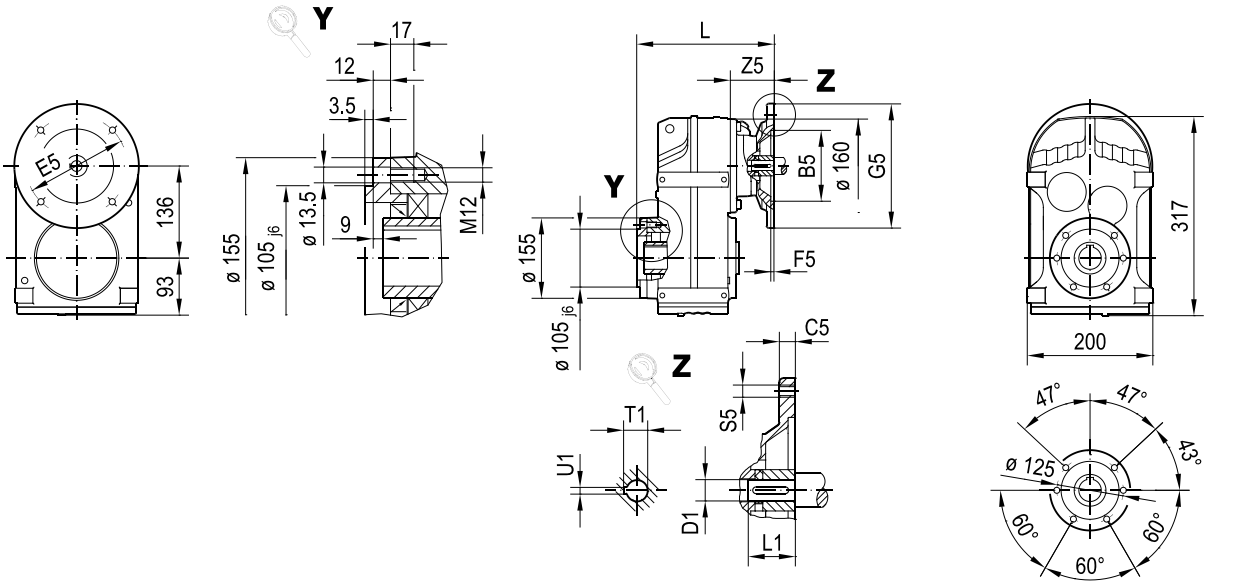


(→ 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	200	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	200	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	217	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	230	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	259	M12	108.5	28	60	31.3	8
AMS112	180	15	215	5	250	259	M12	108.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	284	M12	134	38	80	41.3	10

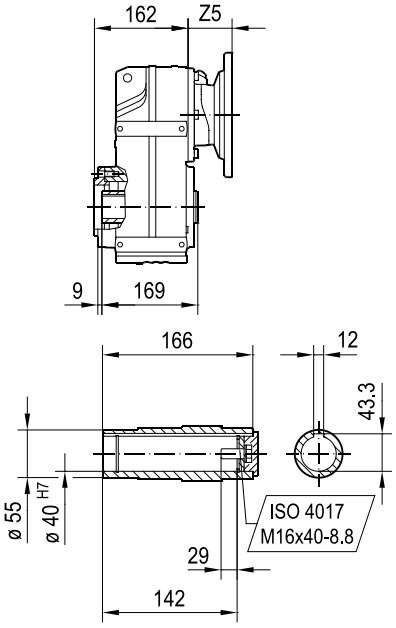
27797880/EN – 03/2023

FAZ57..

42 226 00 20

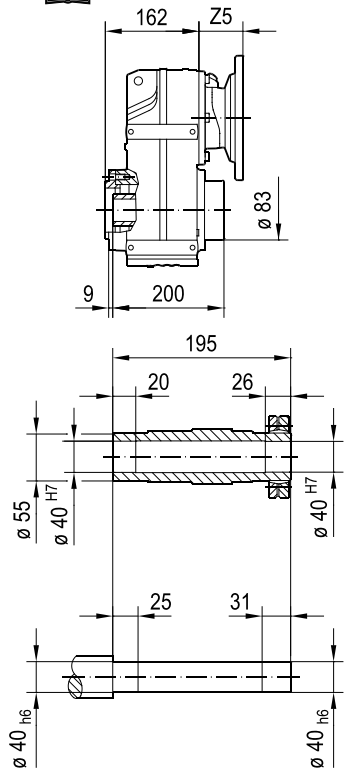


FAZ57..

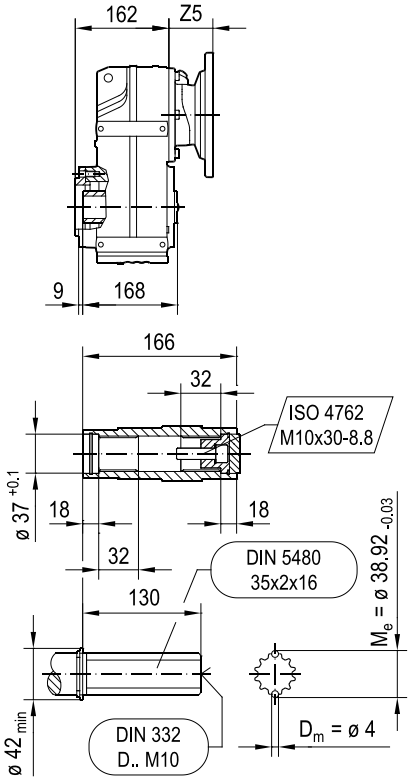


FHZ57..

→ 7.2.9



FVZ57..

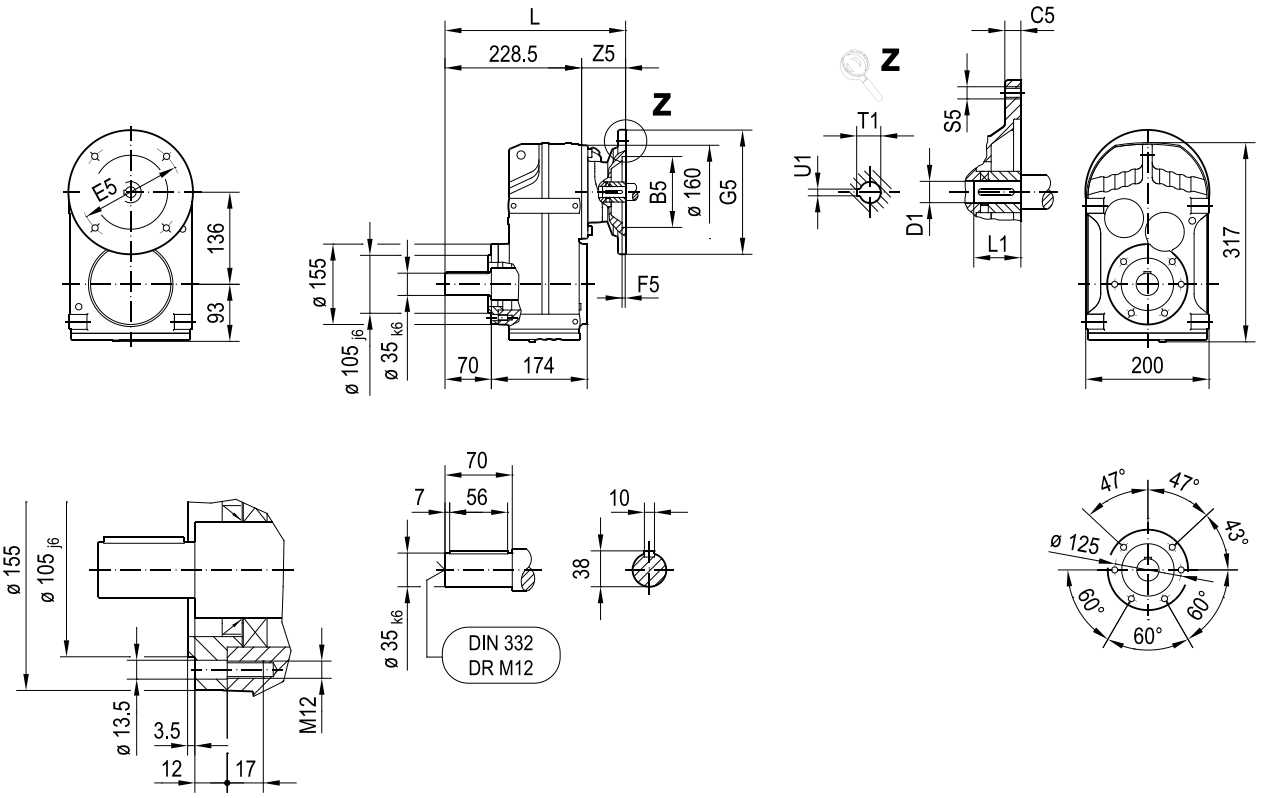


(→ 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	212	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	212	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	229	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	242	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	271	M12	108.5	28	60	31.3	8
AMS112	180	15	215	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

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FZ57..

42 227 00 20



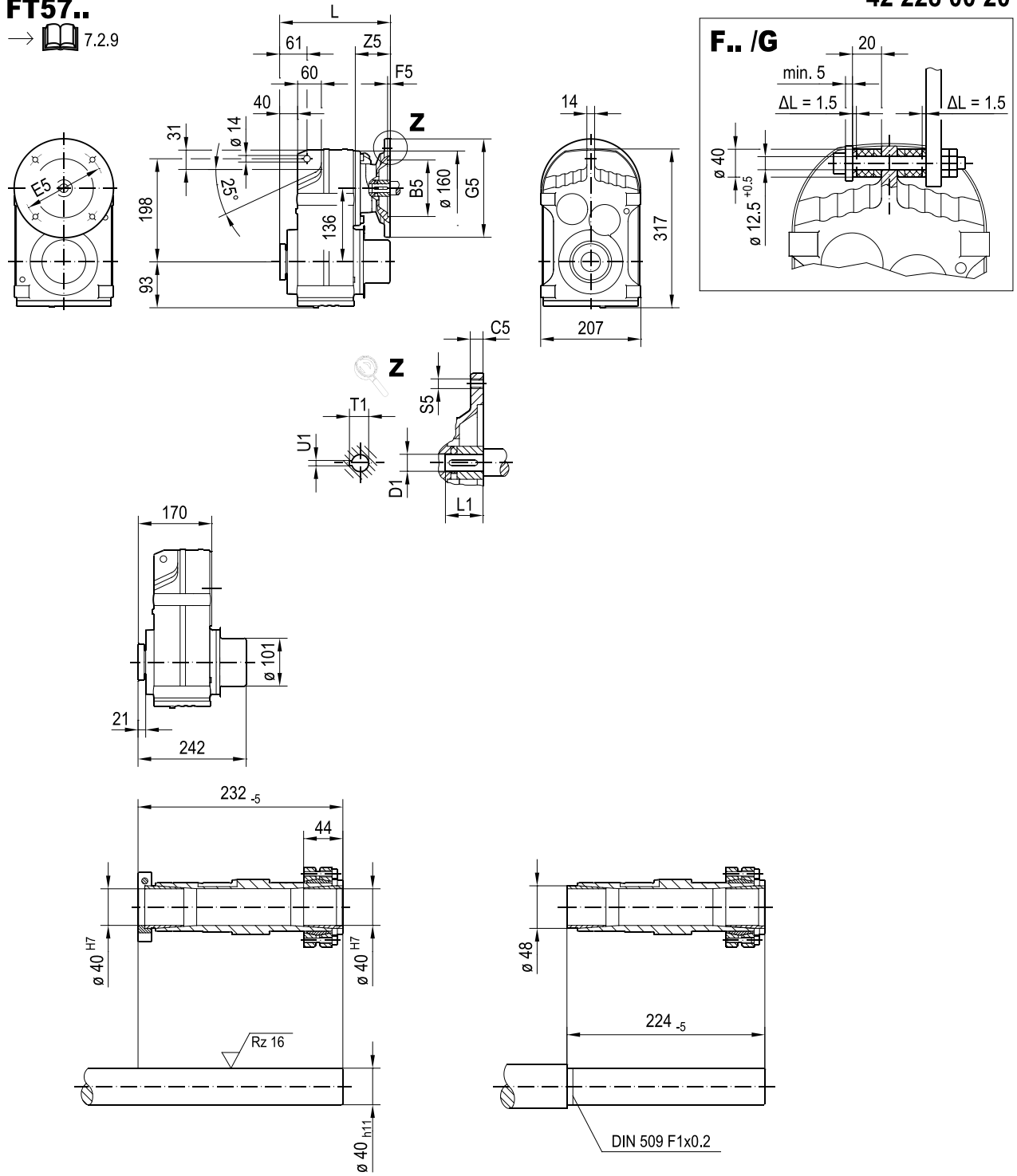
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	279	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	279	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	296	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	309	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	337	M12	108.5	28	60	31.3	8
AMS112	180	15	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..

→ 📖 7.2.9

42 228 00 20

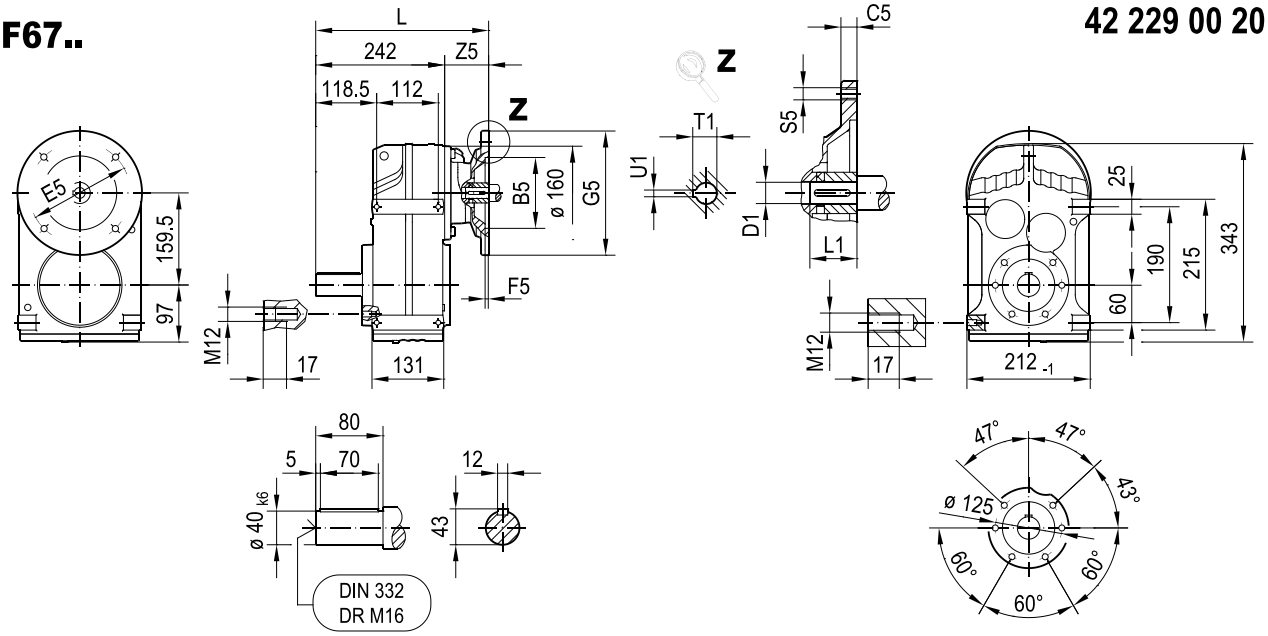


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AMS63	95	10	115	3.5	140	220	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	220	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	237	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	250	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	279	M12	108.5	28	60	31.3	8
AMS112	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

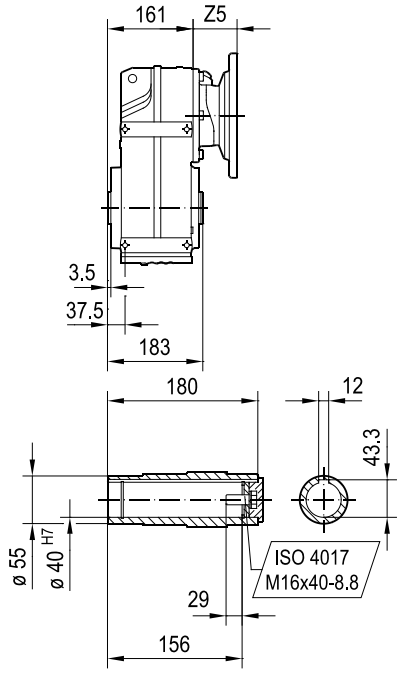
27797880/EN – 03/2023

F67..

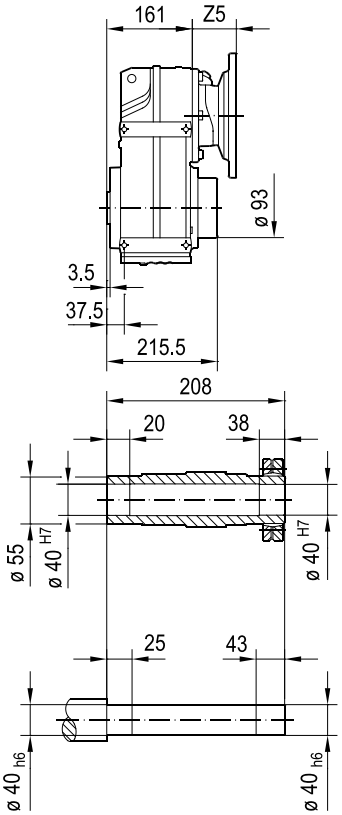
42 229 00 20



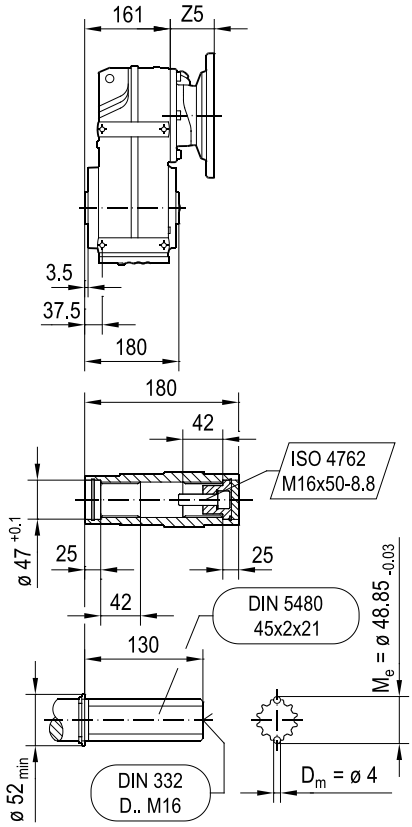
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FV67B..

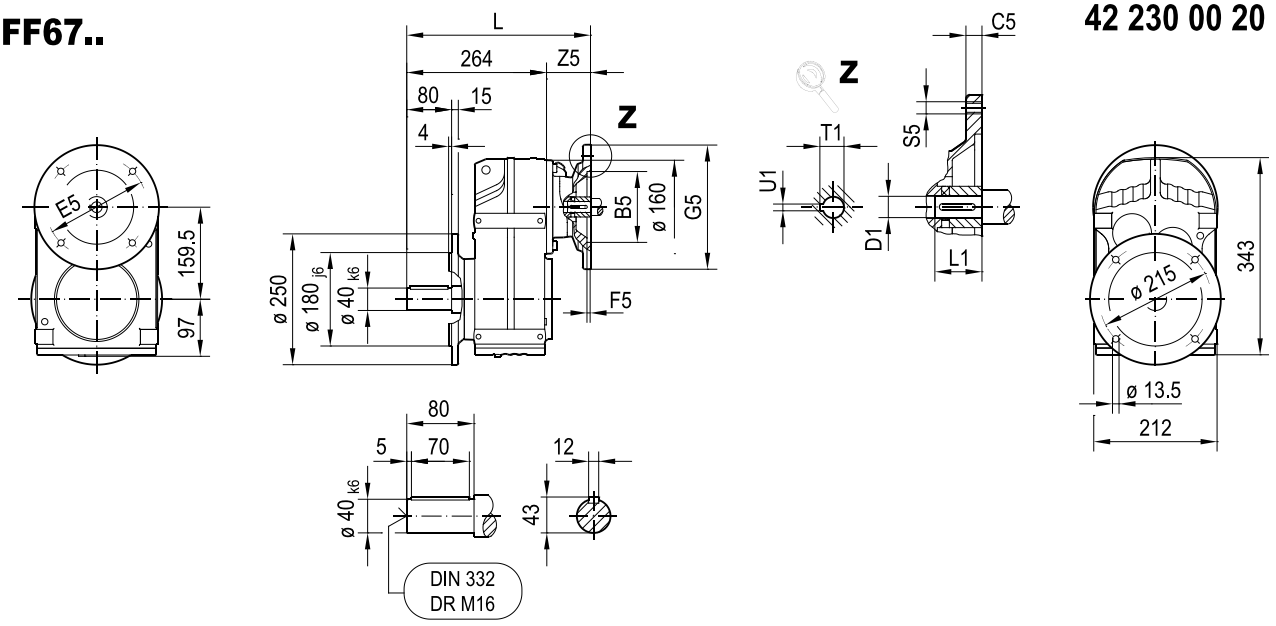


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS71	110	10	130	4	160	292	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	309	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	322	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	351	M12	108.5	28	60	31.3	8
AMS112	180	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

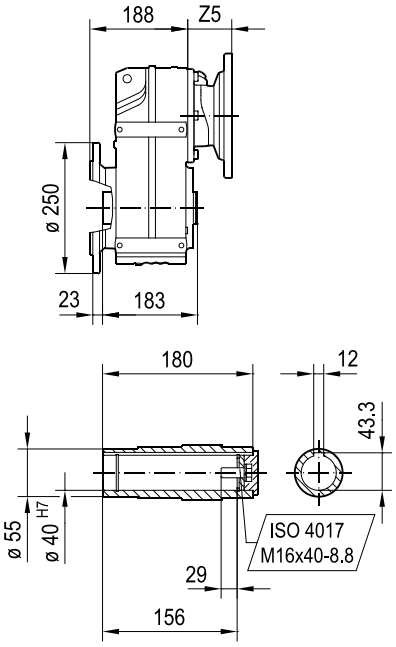
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FF67..

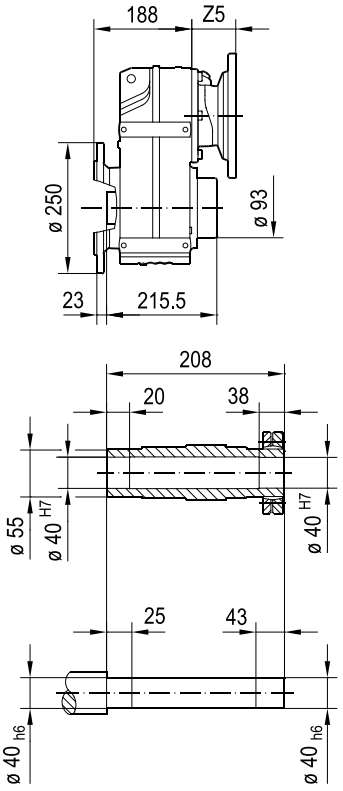
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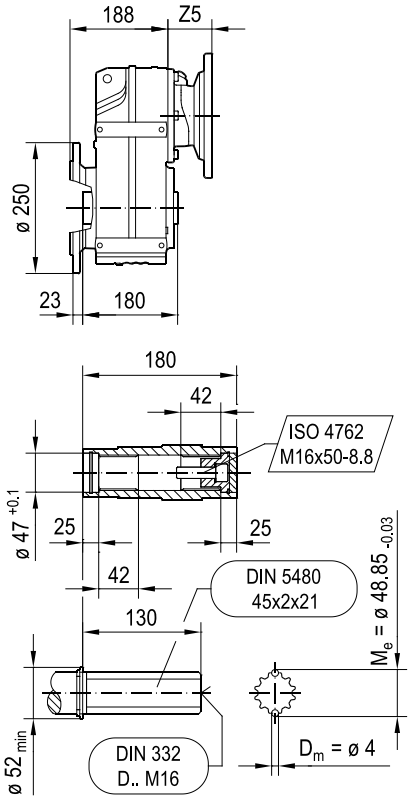
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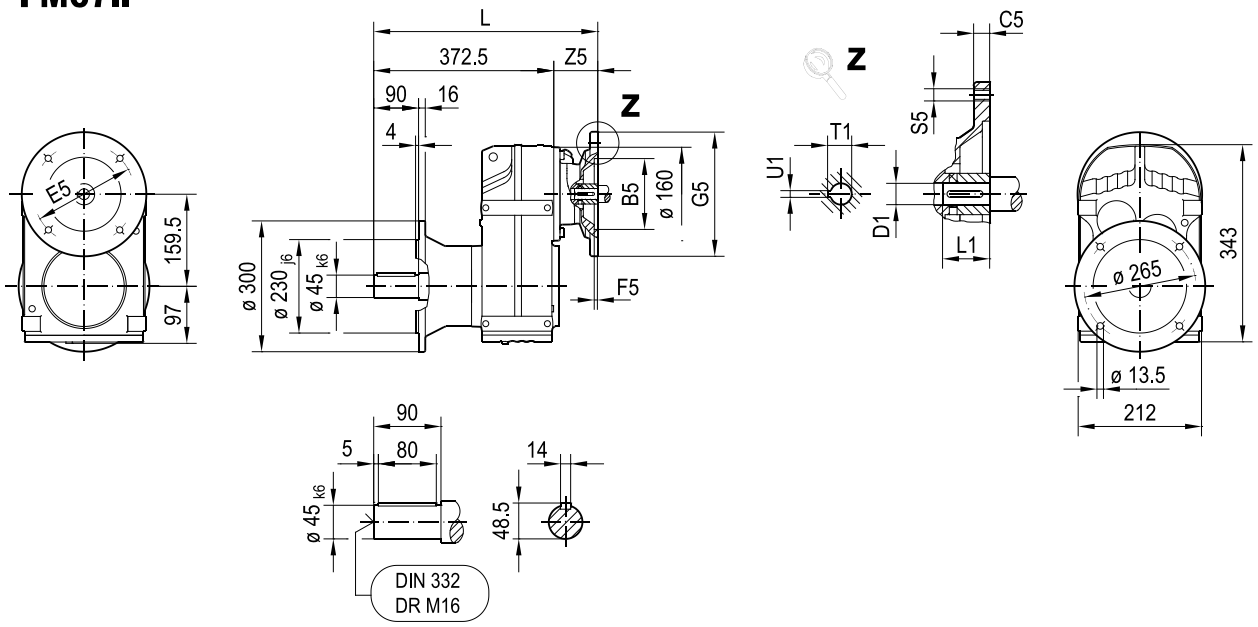


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	314	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	314	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	331	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	344	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	373	M12	108.5	28	60	31.3	8
AMS112	180	15	215	5	250	373	M12	108.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	398	M12	134	38	80	41.3	10

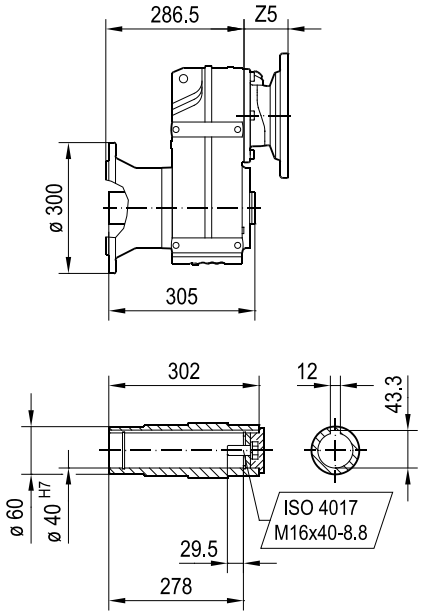
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42 231 00 20

FM67..



FAM67..

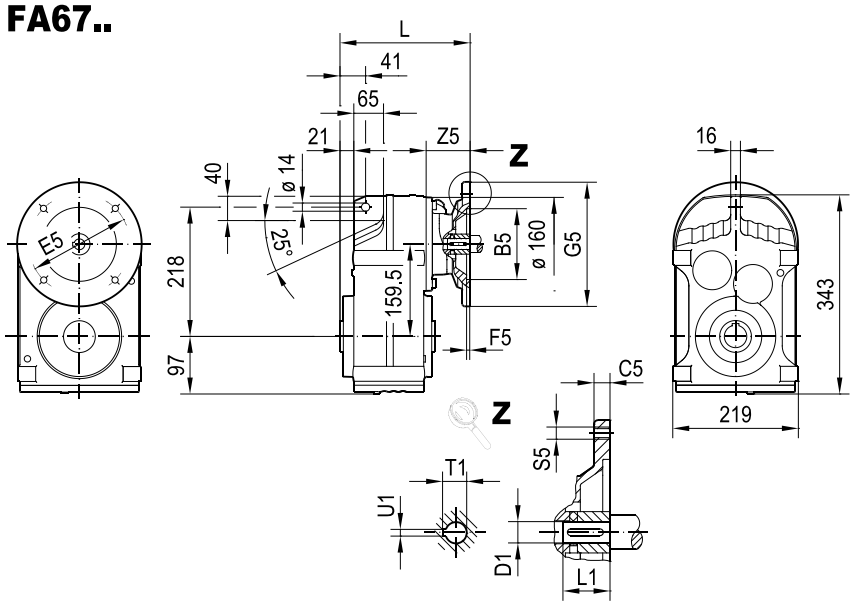


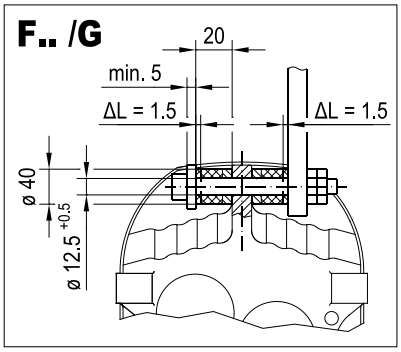
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	423	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	423	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	440	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	453	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	481	M12	108.5	28	60	31.3	8
AMS112	180	15	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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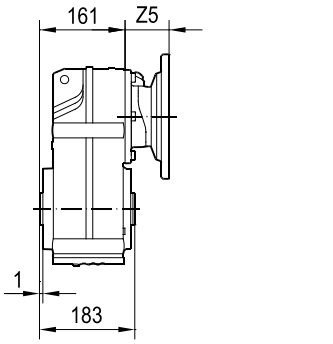
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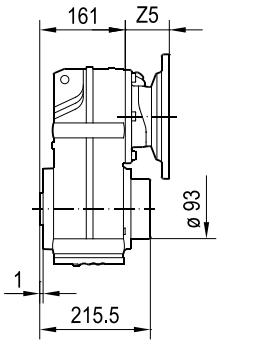




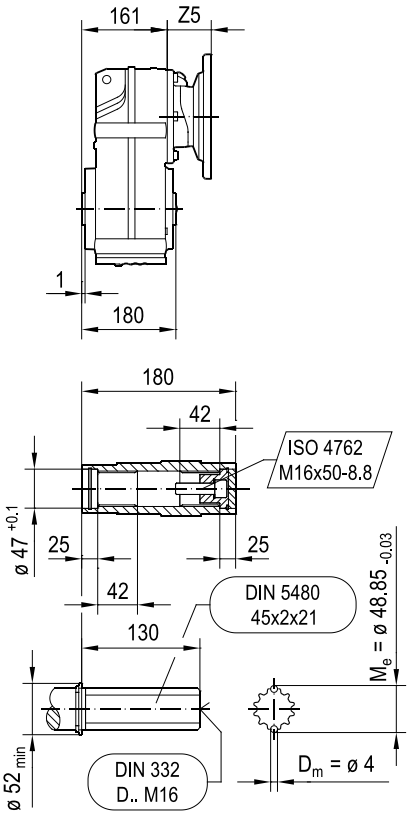
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FH67..



FV67..

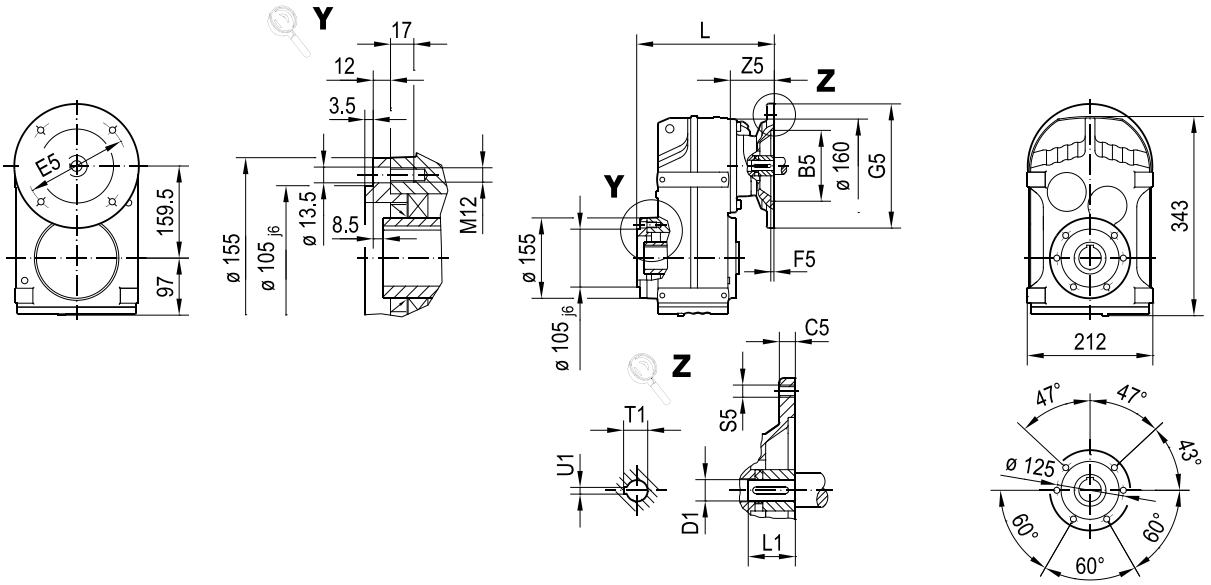


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	211	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	211	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	228	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	241	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	270	M12	108.5	28	60	31.3	8
AMS112	180	15	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

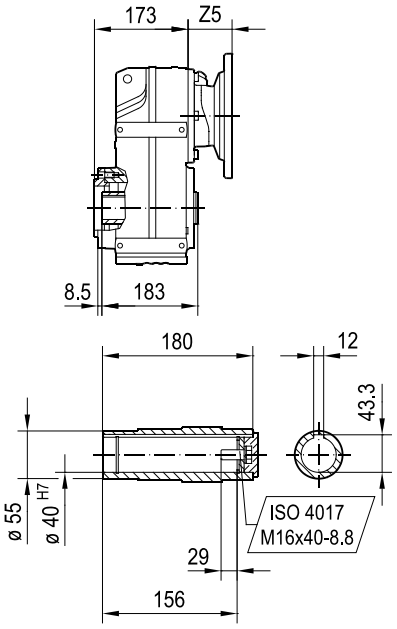
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FAZ67..

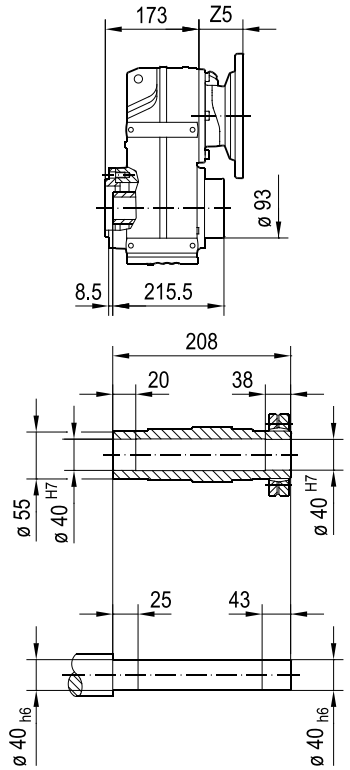
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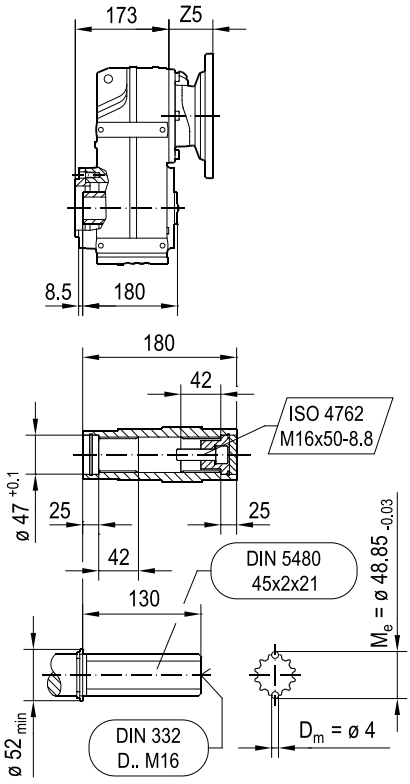
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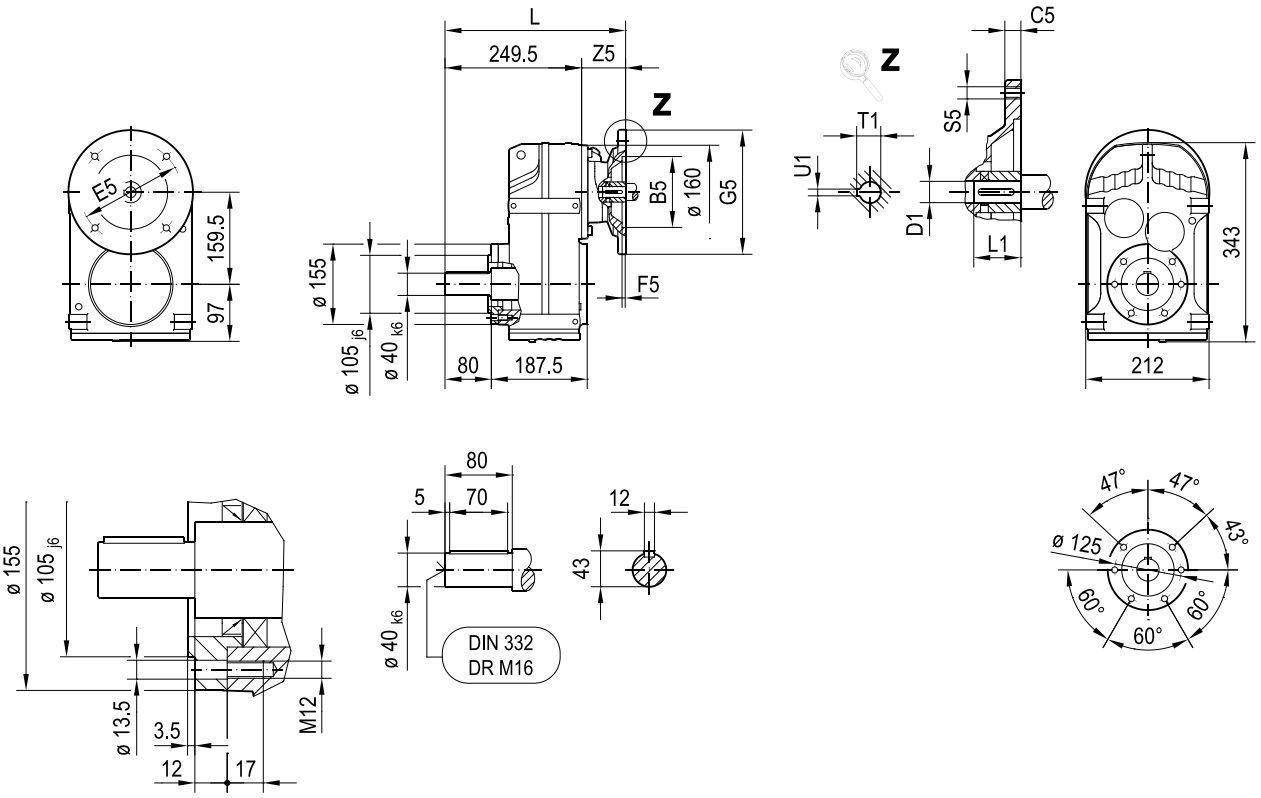


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AMS71	110	10	130	4	160	223	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	240	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	253	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	282	M12	108.5	28	60	31.3	8
AMS112	180	15	215	5	250	282	M12	108.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	307	M12	134	38	80	41.3	10

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FZ67..

42 234 00 20

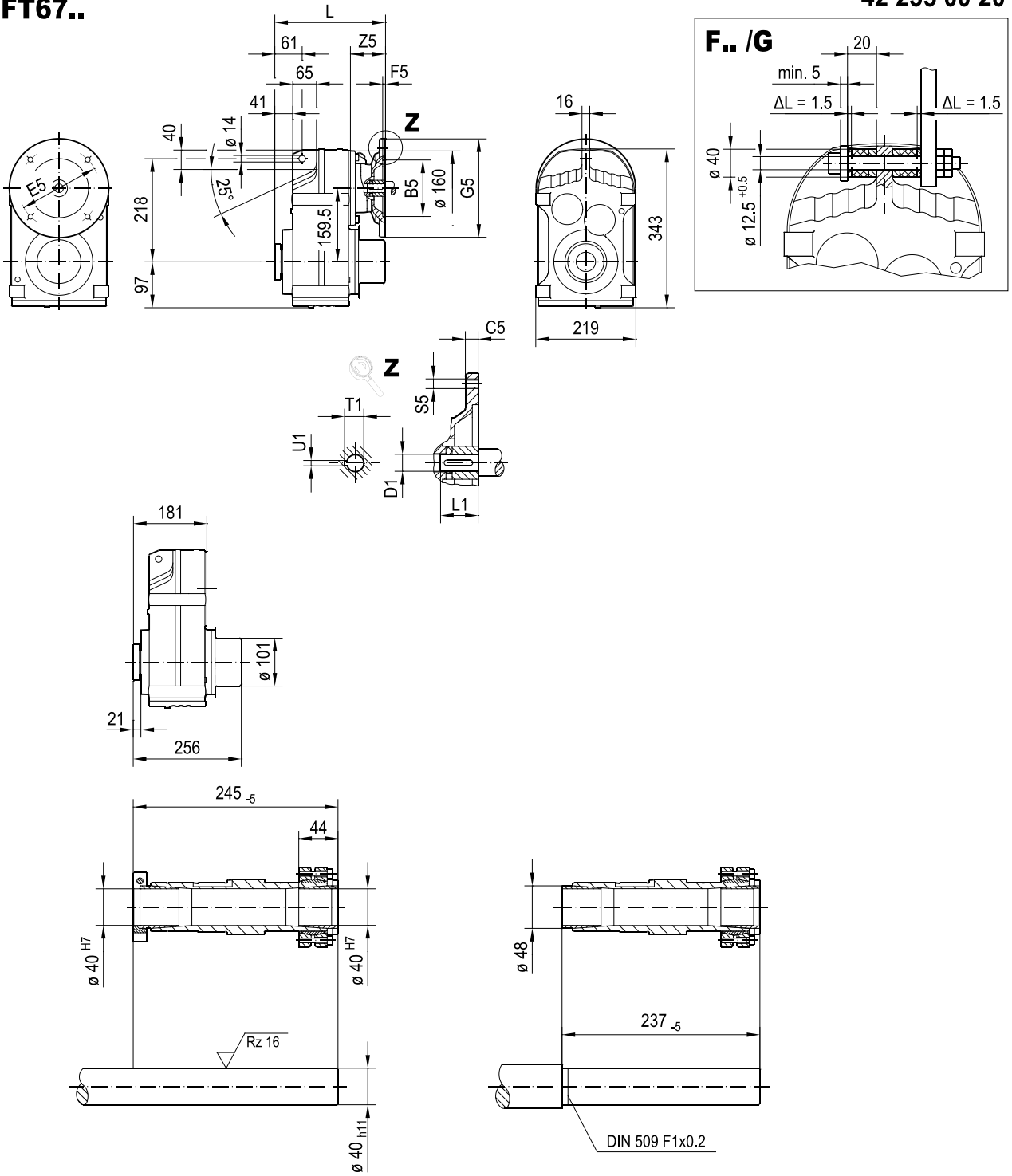


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	300	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	300	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	317	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	330	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	358	M12	108.5	28	60	31.3	8
AMS112	180	15	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

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FT67..

42 235 00 20

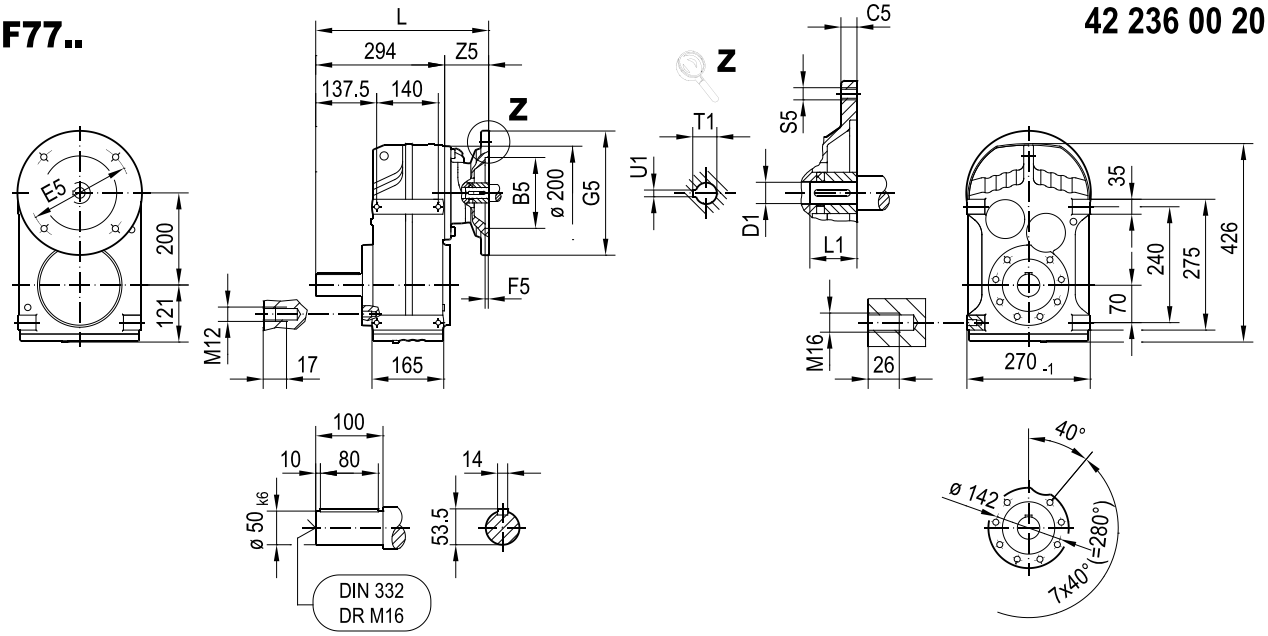


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	231	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	231	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	248	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	261	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	290	M12	108.5	28	60	31.3	8
AMS112	180	15	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

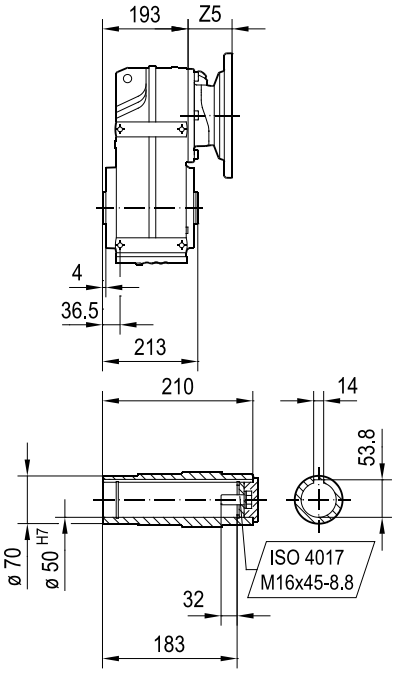
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F77..

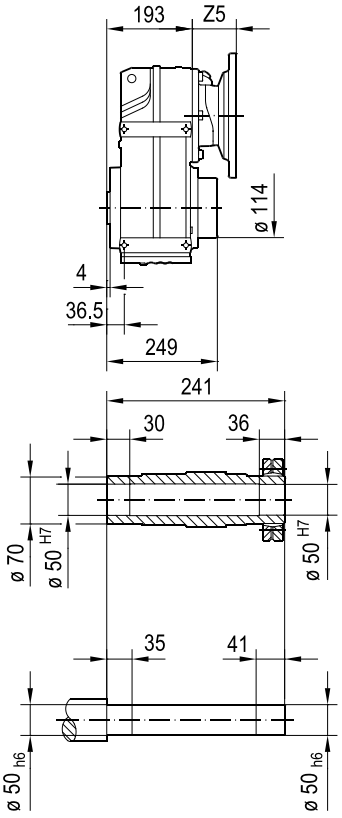
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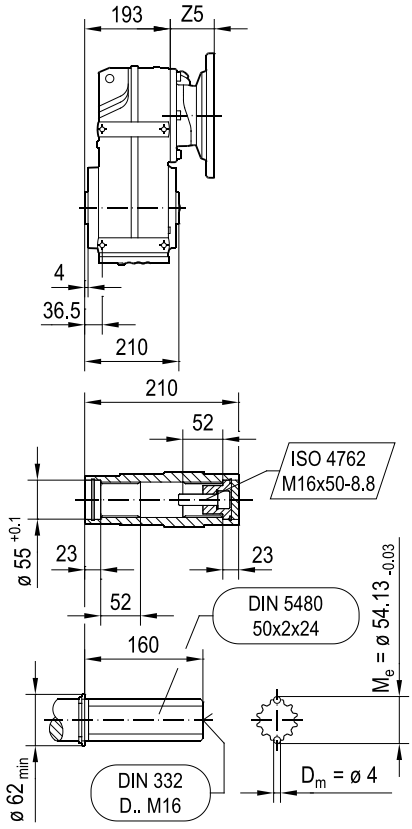
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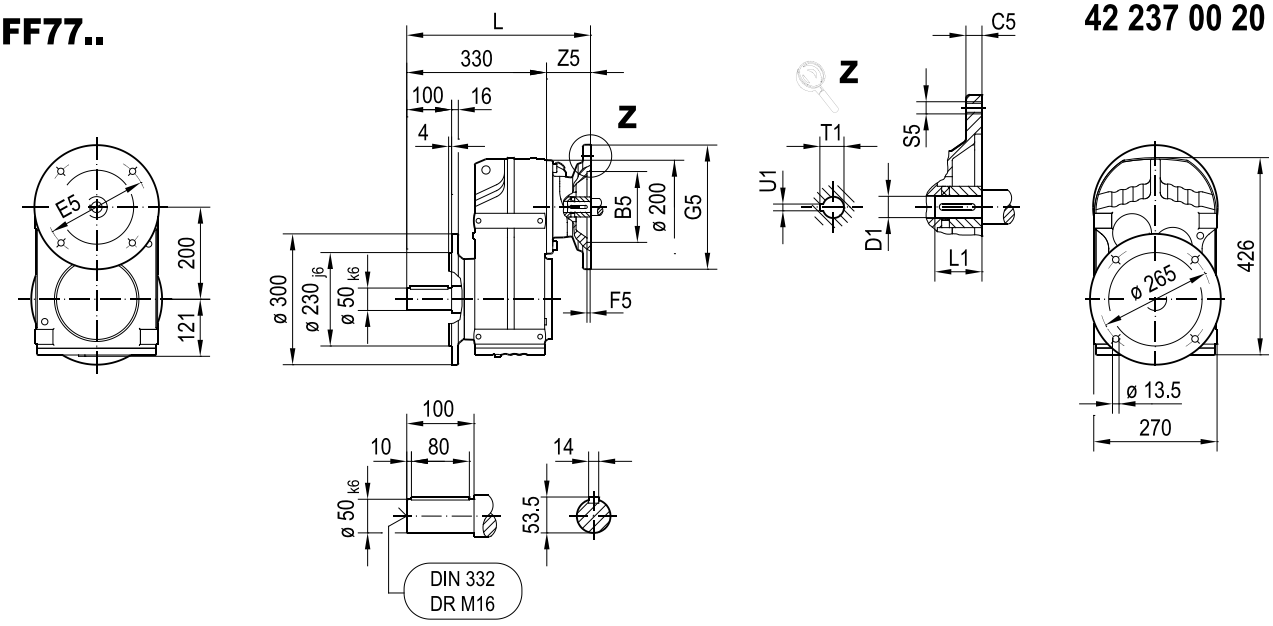


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS71	110	10	130	4	160	338	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	354	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	367	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	395	M12	100.5	28	60	31.3	8
AMS112	180	15	215	5	250	395	M12	100.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	420	M12	126	38	80	41.3	10
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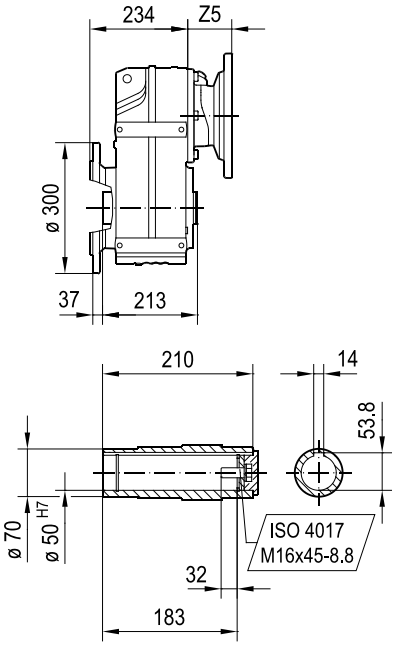
27797880/EN – 03/2023

FF77..

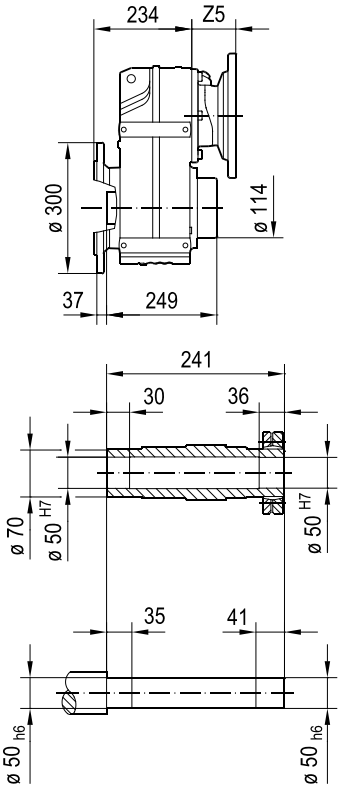
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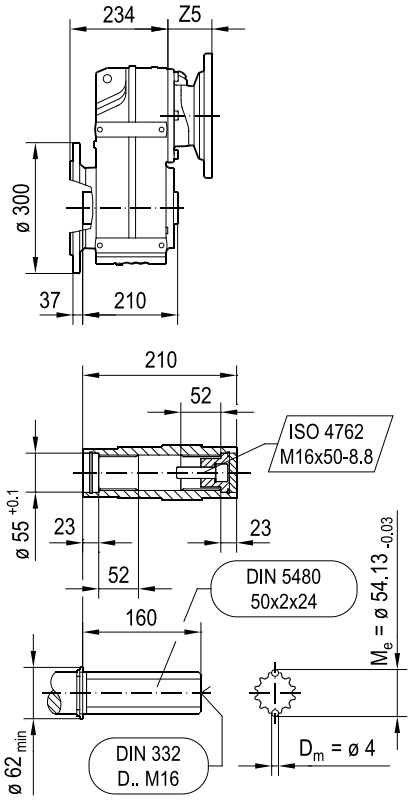
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FHF77..



FVF77..

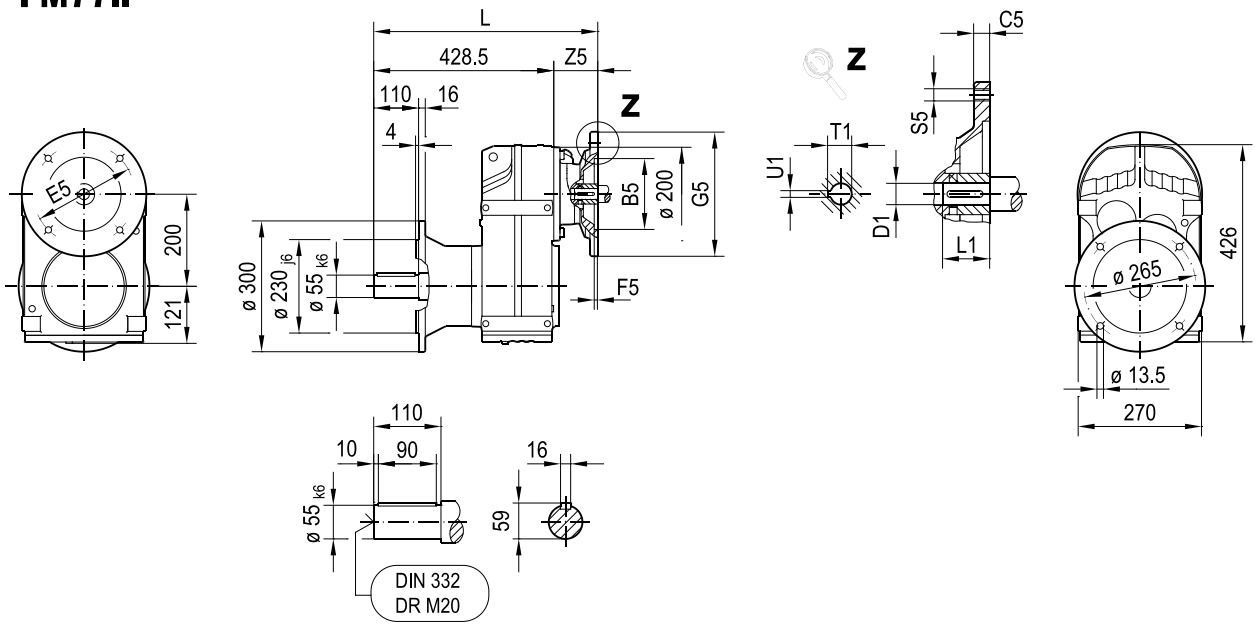


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	374	M8	44	11	23	12.8	4
AMS71	110	10	130	4	160	374	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	390	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	403	M10	73	24	50	27.3	8
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AMS112	180	15	215	5	250	431	M12	100.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	456	M12	126	38	80	41.3	10
AMS132ML	230	16	265	5	300	456	M12	126	38	80	41.3	10

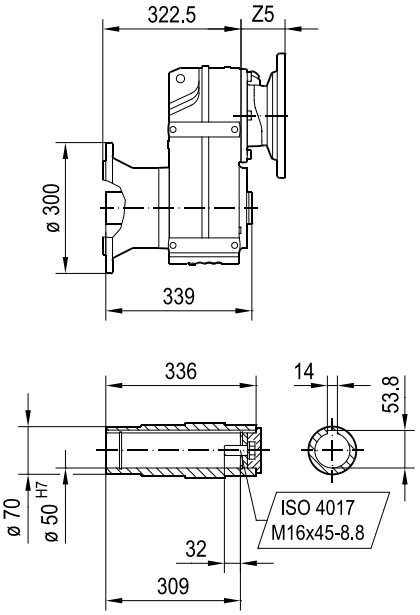
27797880/EN – 03/2023

42 238 00 20

FM77..



FAM77..

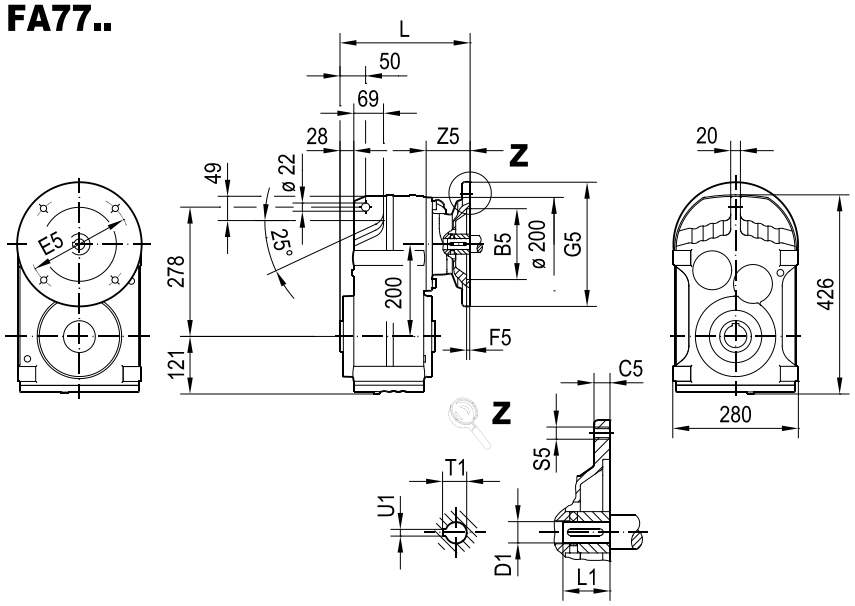


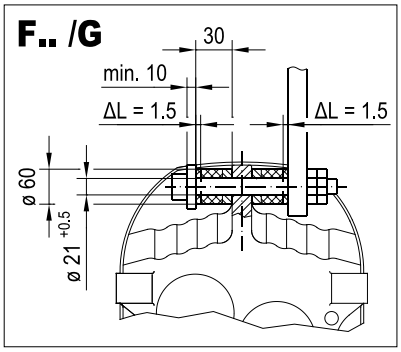
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS71	110	10	130	4	160	473	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	489	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	502	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	529	M12	100.5	28	60	31.3	8
AMS112	180	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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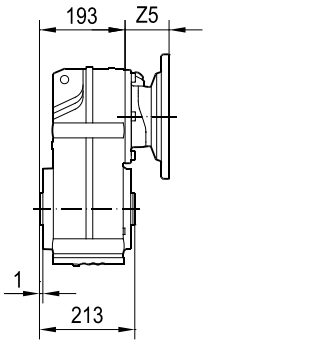
FA77..

42 239 00 20

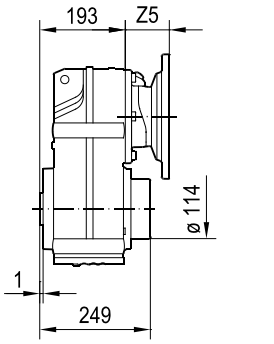




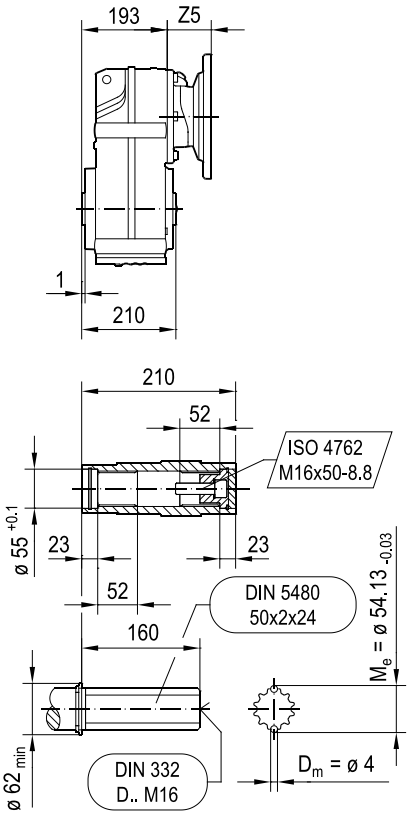
FA77..



FH77..



FV77..

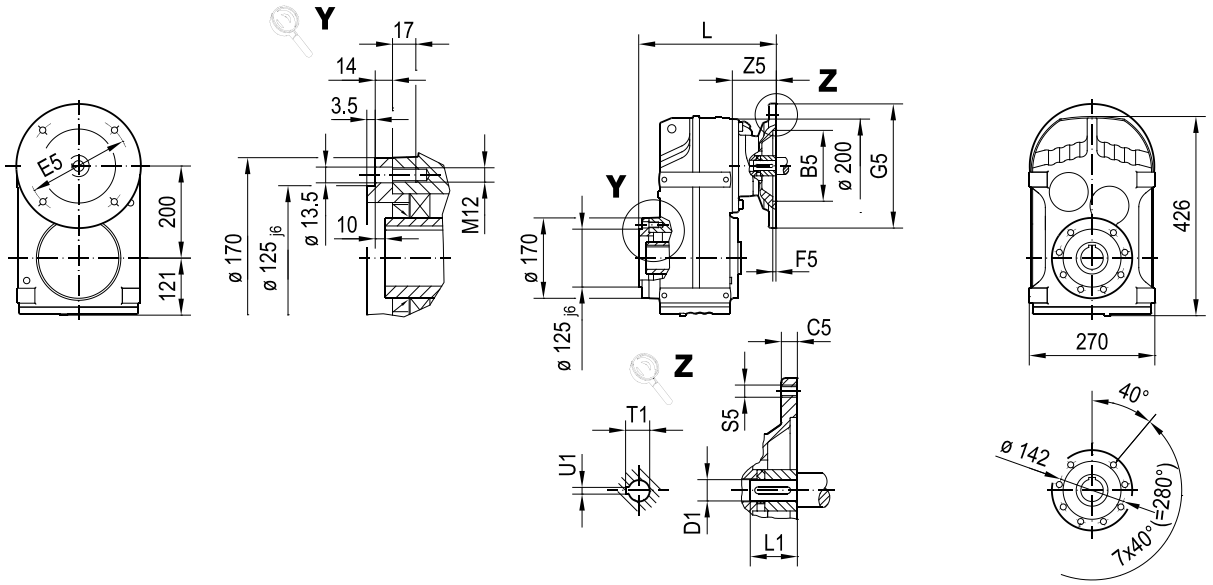


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	237	M8	44	11	23	12.8	4
AMS71	110	10	130	4	160	237	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	253	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	266	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	294	M12	100.5	28	60	31.3	8
AMS112	180	15	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

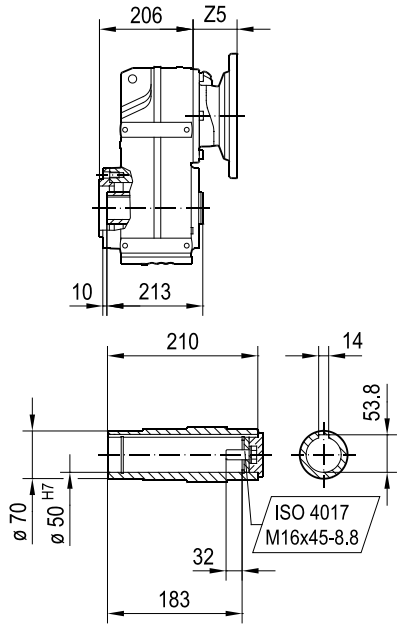
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FAZ77..

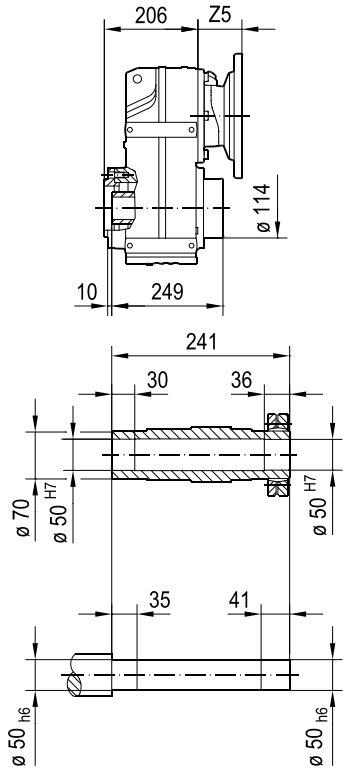
42 240 00 20



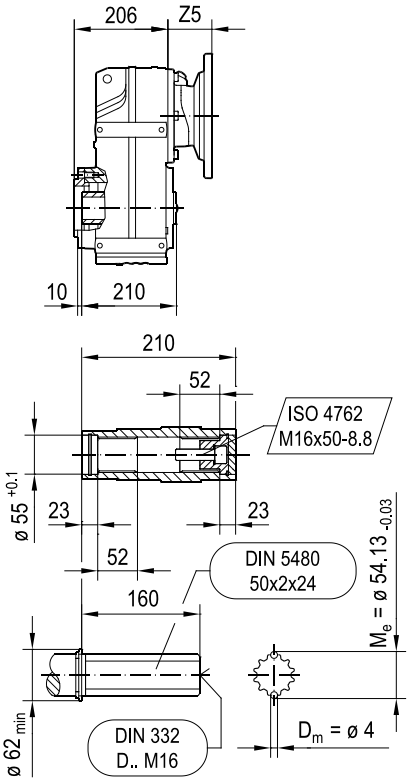
FAZ77..



FHZ77..



FVZ77..

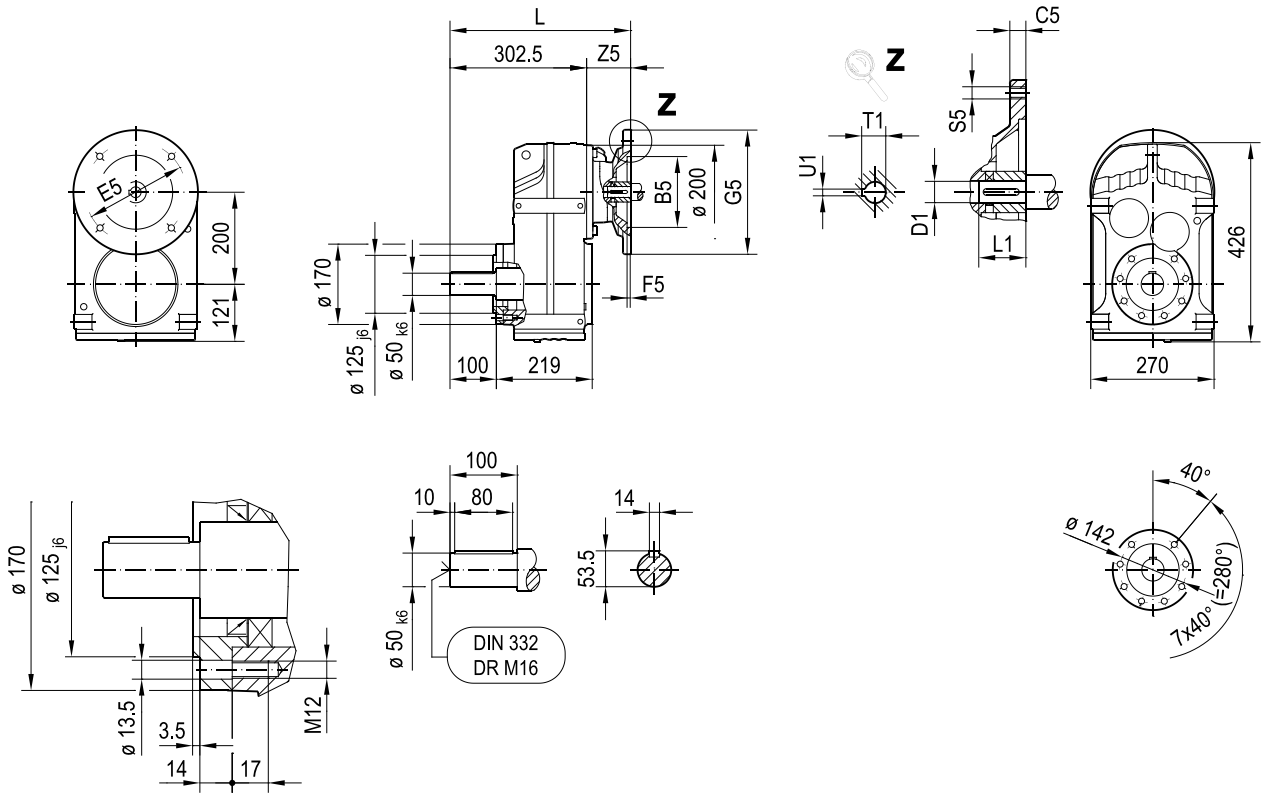


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	250	M8	44	11	23	12.8	4
AMS71	110	10	130	4	160	250	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	266	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	279	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	307	M12	100.5	28	60	31.3	8
AMS112	180	15	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
AMS132ML	230	16	265	5	300	332	M12	126	38	80	41.3	10

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FZ77..

42 241 00 20

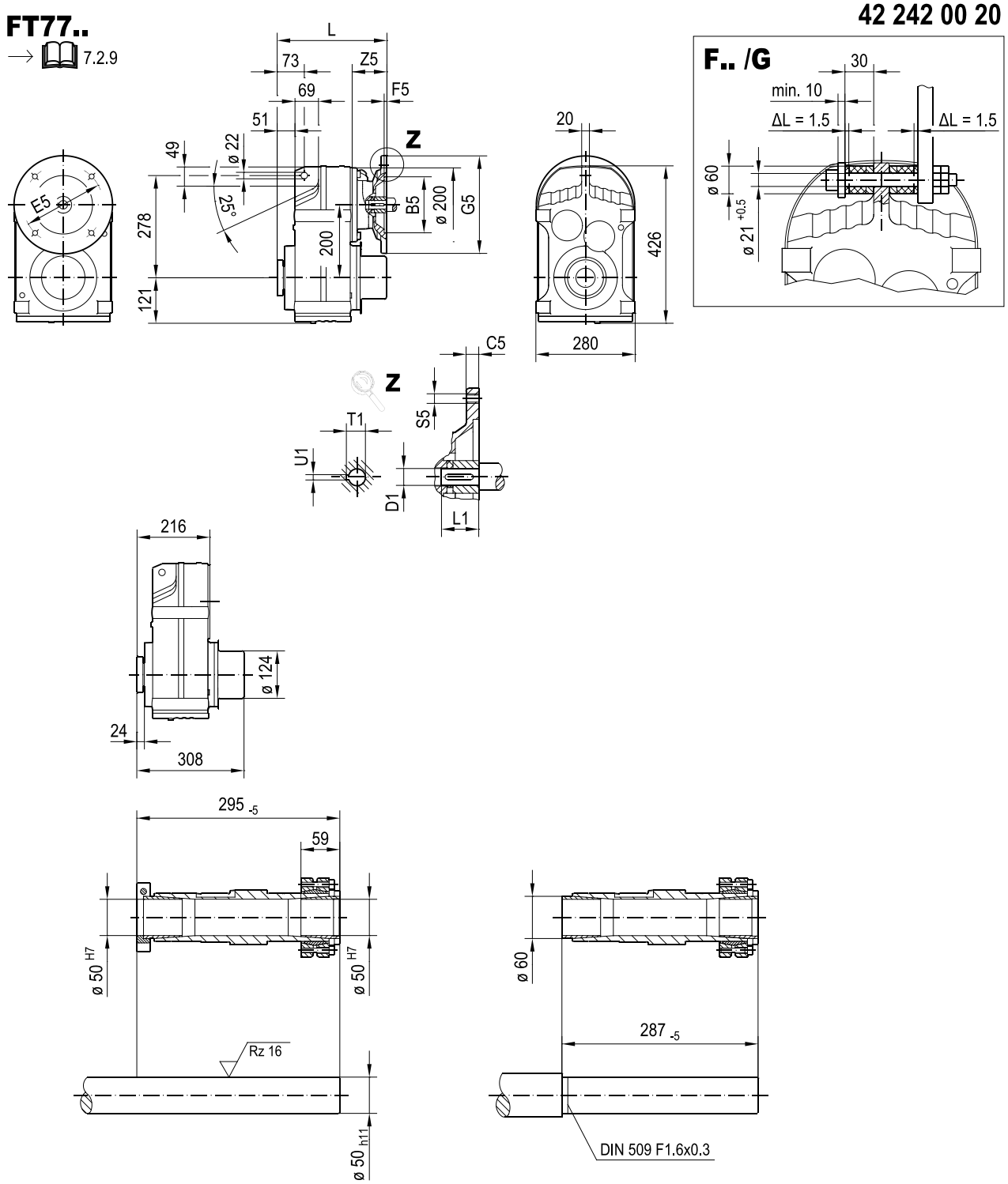


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	347	M8	44	11	23	12.8	4
AMS71	110	10	130	4	160	347	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	363	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	376	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	403	M12	100.5	28	60	31.3	8
AMS112	180	15	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
AMS132ML	230	16	265	5	300	429	M12	126	38	80	41.3	10

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FT77..
→ 📖 7.2.9

42 242 00 20

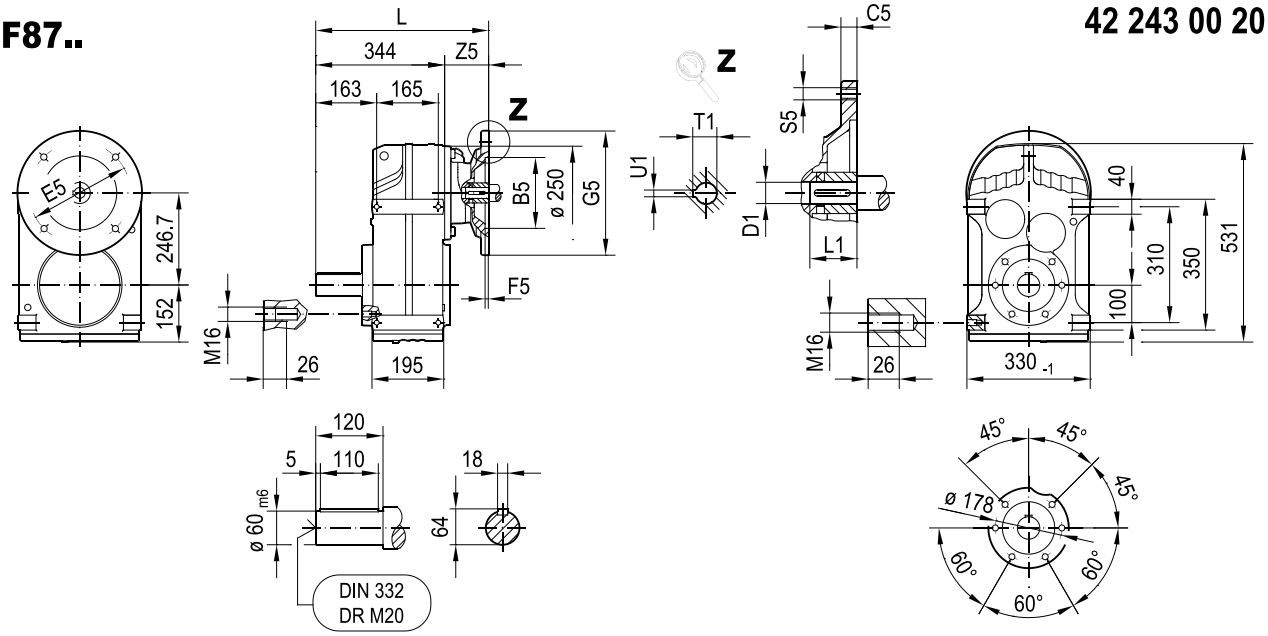


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	260	M8	44	11	23	12.8	4
AMS71	110	10	130	4	160	260	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	276	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	289	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	317	M12	100.5	28	60	31.3	8
AMS112	180	15	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

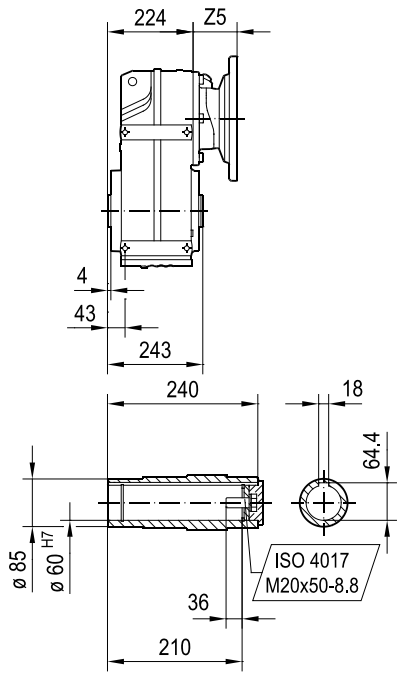
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F87..

42 243 00 20

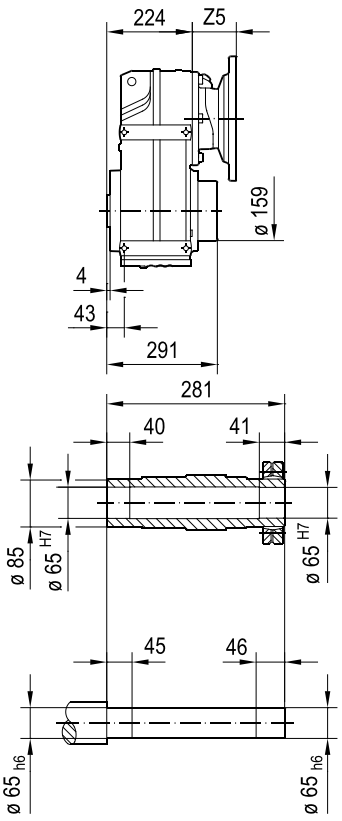


FA87B..

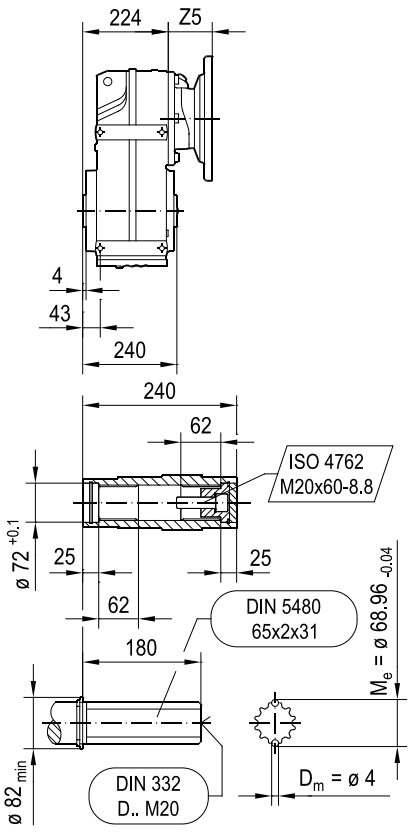


FH87B..

FH87B/R.. → 6.3



FV87B..

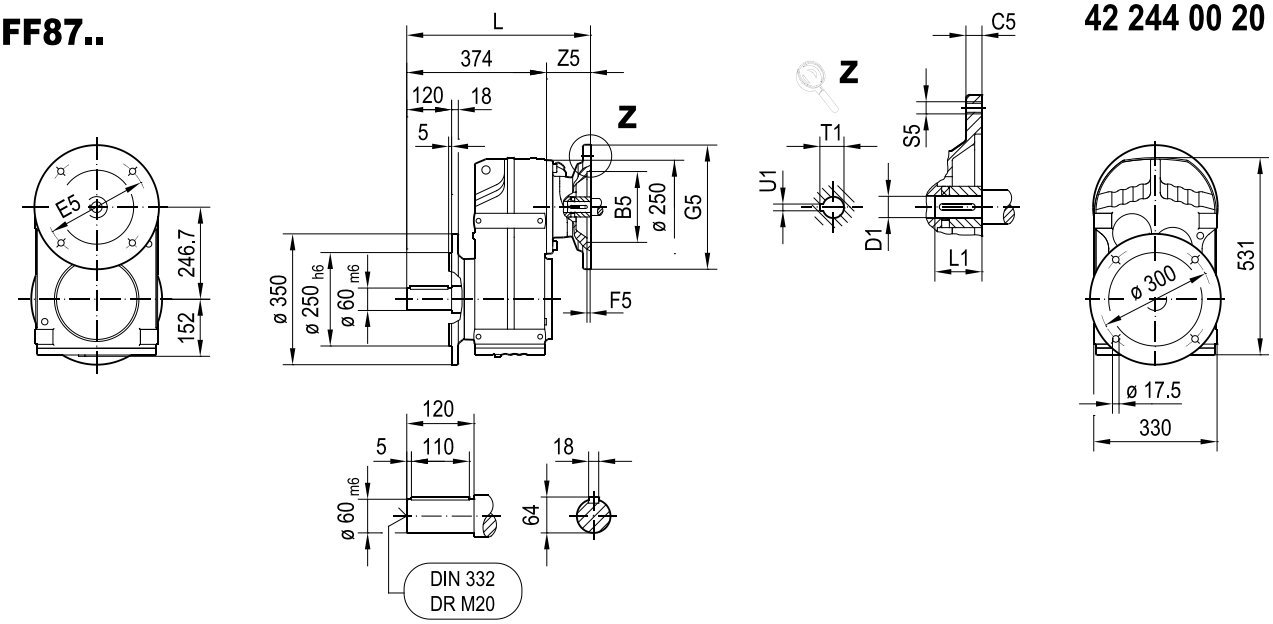


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS80	130	12	165	4.5	200	399	M10	55	19	40	21.8	6
AMS90	130	12	165	4.5	200	412	M10	68	24	50	27.3	8
AMS100	180	15	215	5	250	440	M12	95.5	28	60	31.3	8
AMS112	180	15	215	5	250	440	M12	95.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	465	M12	121	38	80	41.3	10
AMS132ML	230	16	265	5	300	465	M12	121	38	80	41.3	10
AMS160	250	18	300	6	350	528	M16	184	42	110	45.3	12
AMS180	250	18	300	6	350	528	M16	184	48	110	51.8	14

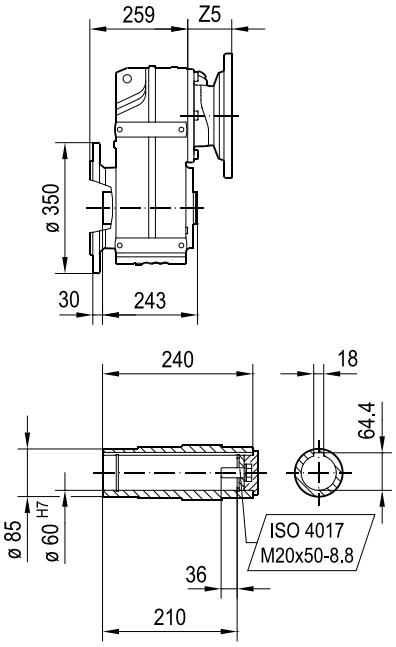
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FF87..

42 244 00 20

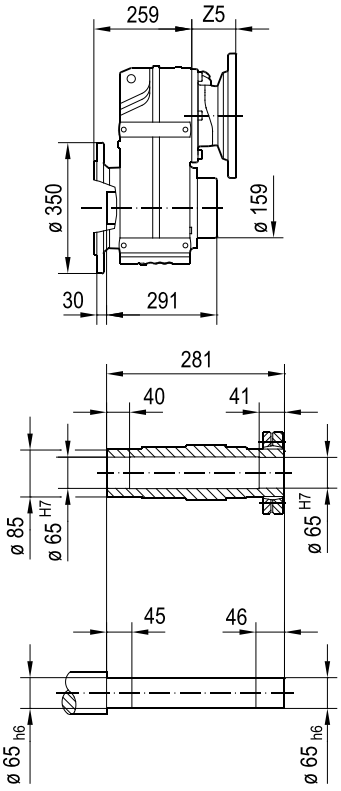


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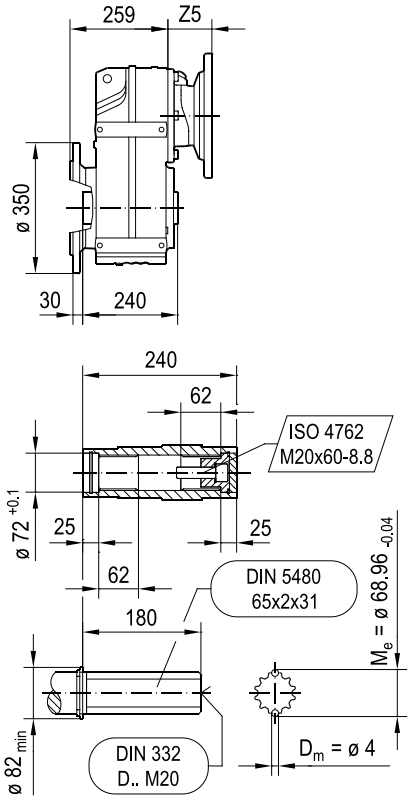


FHF87..

FHF87/R.. → 6.3



FVF87..

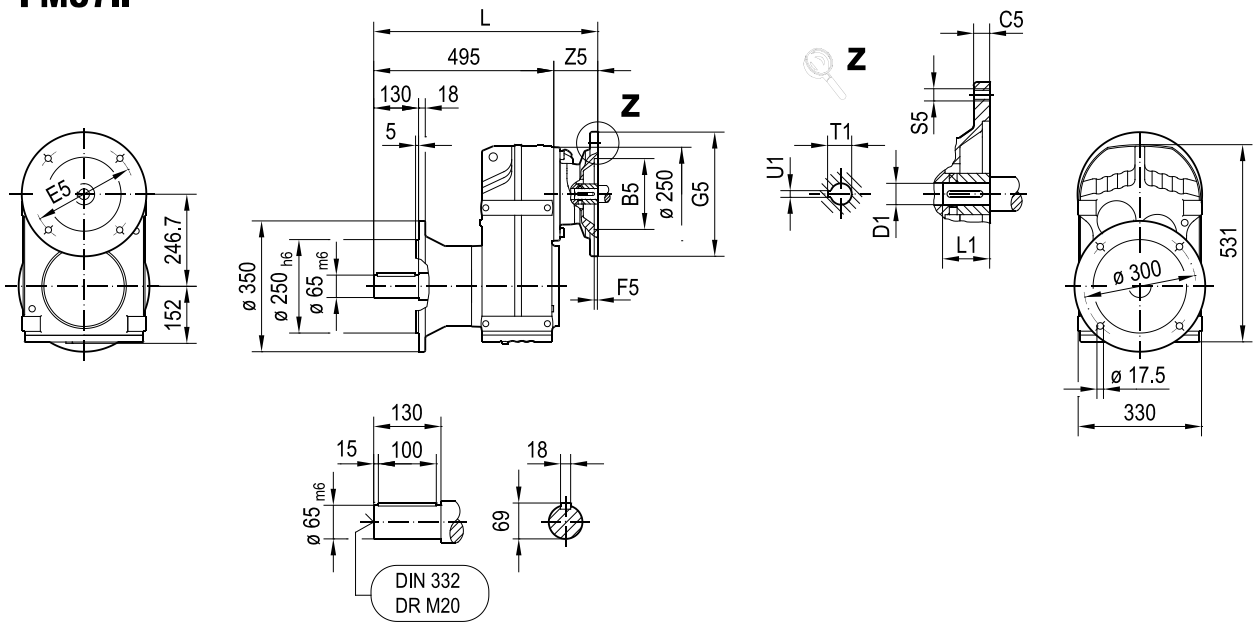


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS80	130	12	165	4.5	200	429	M10	55	19	40	21.8	6
AMS90	130	12	165	4.5	200	442	M10	68	24	50	27.3	8
AMS100	180	15	215	5	250	470	M12	95.5	28	60	31.3	8
AMS112	180	15	215	5	250	470	M12	95.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	495	M12	121	38	80	41.3	10
AMS132ML	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

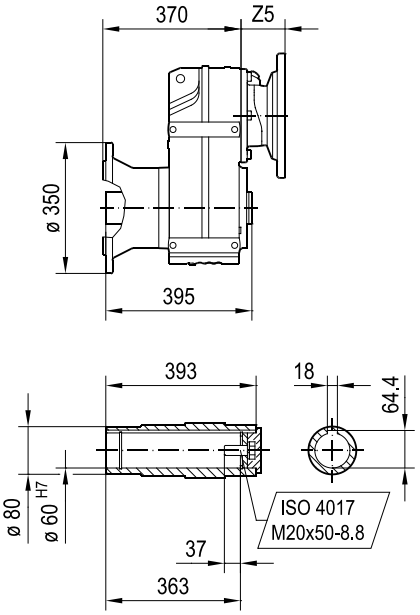
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42 245 00 20

FM87..



FAM87..

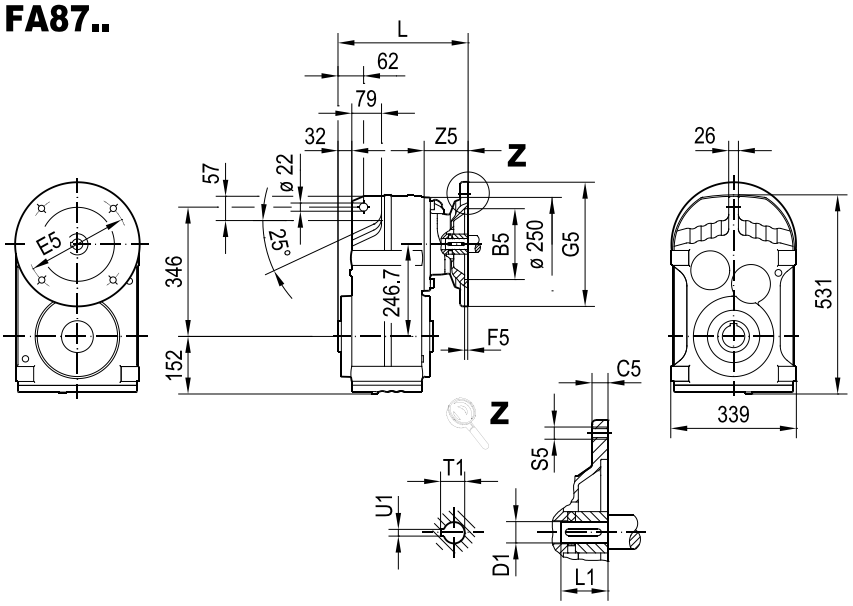


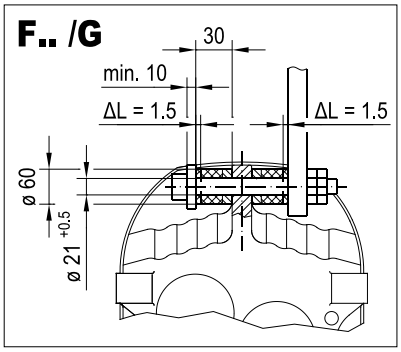
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS80	130	12	165	4.5	200	550	M10	55	19	40	21.8	6
AMS90	130	12	165	4.5	200	563	M10	68	24	50	27.3	8
AMS100	180	15	215	5	250	591	M12	95.5	28	60	31.3	8
AMS112	180	15	215	5	250	591	M12	95.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	616	M12	121	38	80	41.3	10
AMS132ML	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
AMS180	250	18	300	6	350	679	M16	184	48	110	51.8	14

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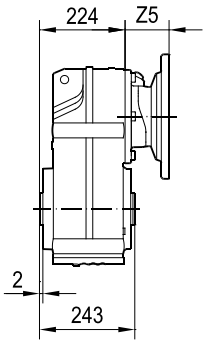
FA87..

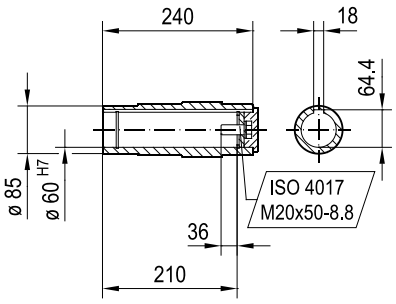
42 246 00 20





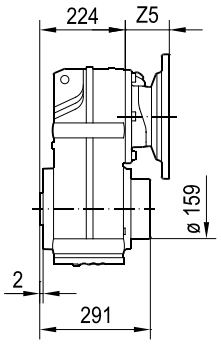
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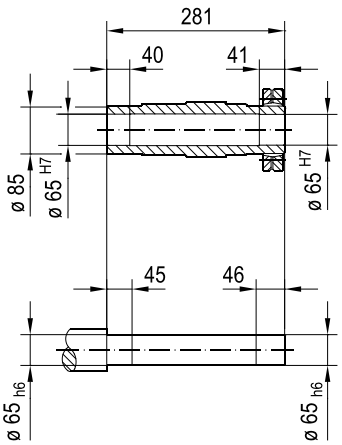




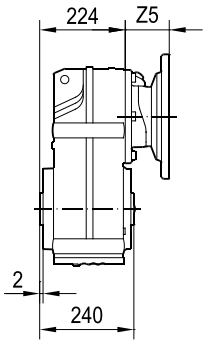
FH87..

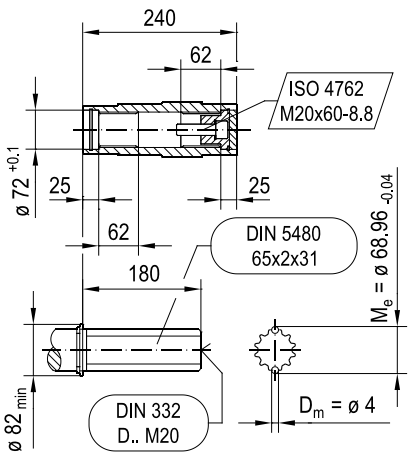
FH87/R.. → 6.3





FV87..



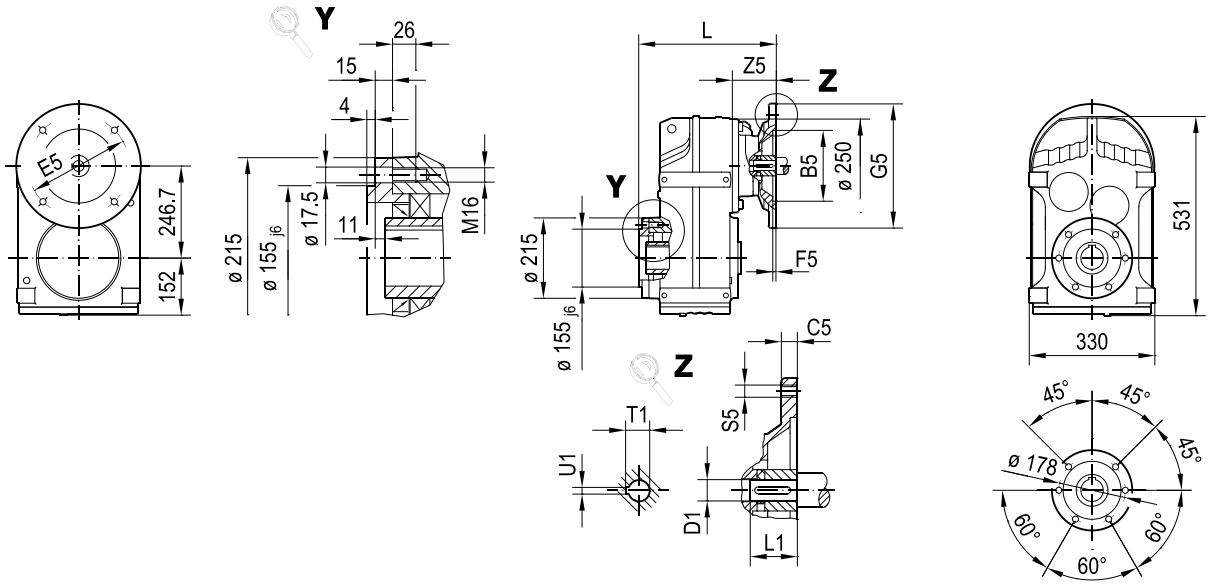


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS80	130	12	165	4.5	200	279	M10	55	19	40	21.8	6
AMS90	130	12	165	4.5	200	292	M10	68	24	50	27.3	8
AMS100	180	15	215	5	250	320	M12	95.5	28	60	31.3	8
AMS112	180	15	215	5	250	320	M12	95.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	345	M12	121	38	80	41.3	10
AMS132ML	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

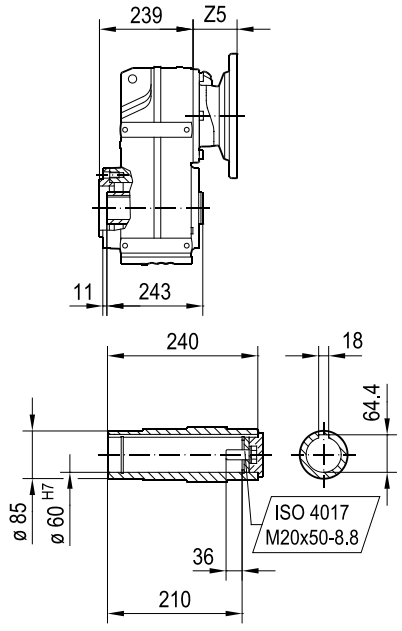
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FAZ87..

42 247 00 20

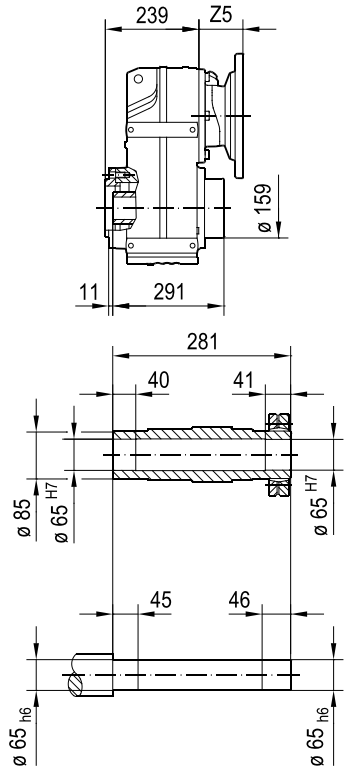


FAZ87..

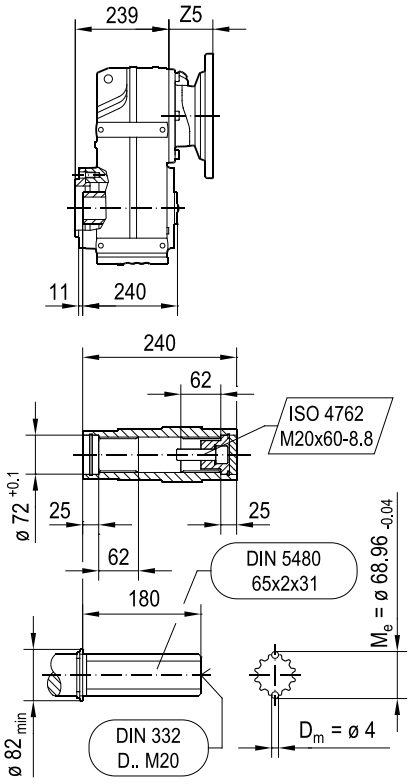


FHZ87..

FHZ87/R.. → 6.3



FVZ87..

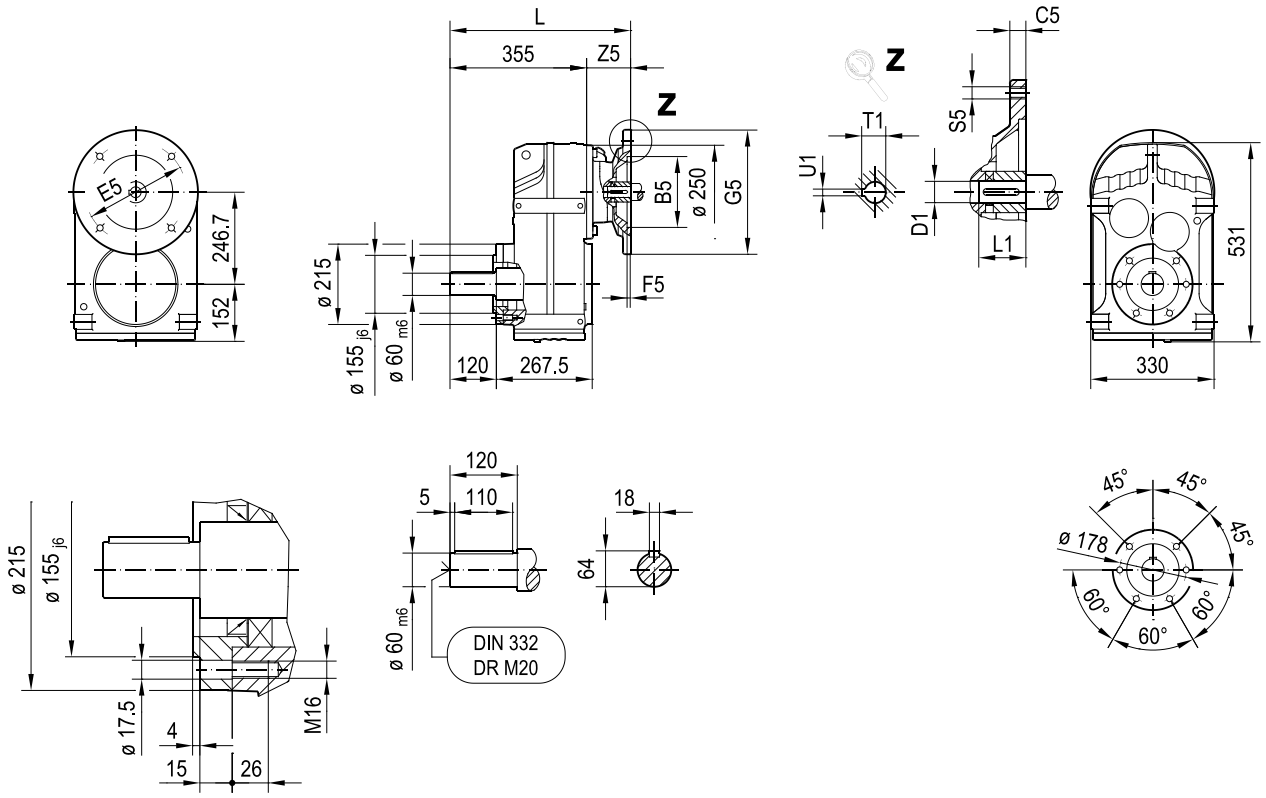


(→ 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS80	130	12	165	4.5	200	294	M10	55	19	40	21.8	6
AMS90	130	12	165	4.5	200	307	M10	68	24	50	27.3	8
AMS100	180	15	215	5	250	335	M12	95.5	28	60	31.3	8
AMS112	180	15	215	5	250	335	M12	95.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	360	M12	121	38	80	41.3	10
AMS132ML	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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FZ87..

42 248 00 20

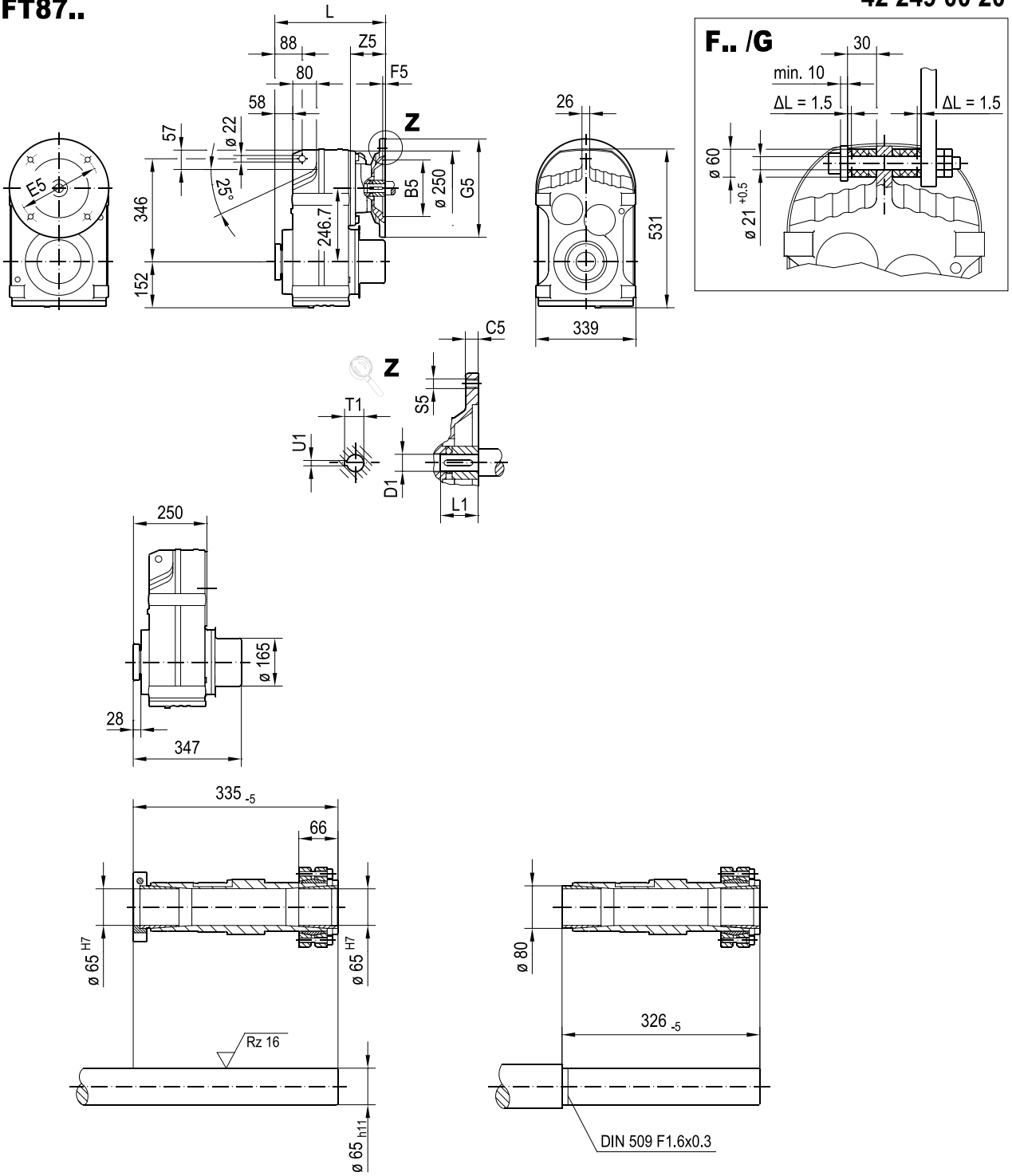


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS80	130	12	165	4.5	200	410	M10	55	19	40	21.8	6
AMS90	130	12	165	4.5	200	423	M10	68	24	50	27.3	8
AMS100	180	15	215	5	250	451	M12	95.5	28	60	31.3	8
AMS112	180	15	215	5	250	451	M12	95.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	476	M12	121	38	80	41.3	10
AMS132ML	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

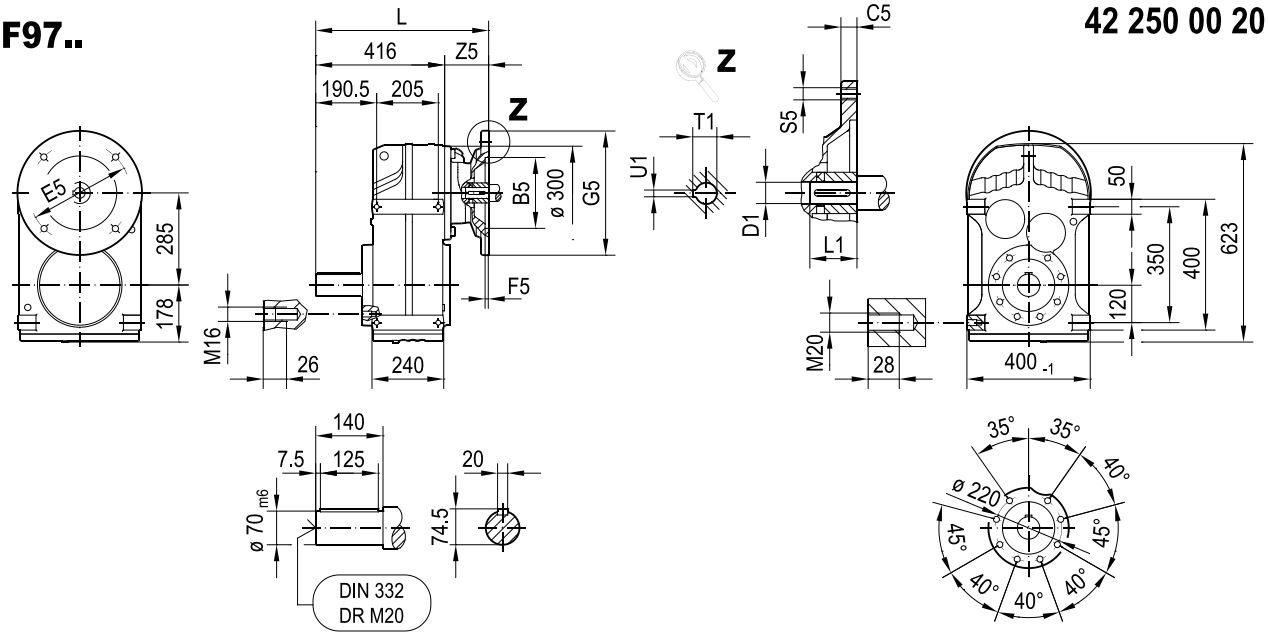


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS80	130	12	165	4.5	200	305	M10	55	19	40	21.8	6
AMS90	130	12	165	4.5	200	318	M10	68	24	50	27.3	8
AMS100	180	15	215	5	250	346	M12	95.5	28	60	31.3	8
AMS112	180	15	215	5	250	346	M12	95.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	371	M12	121	38	80	41.3	10
AMS132ML	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

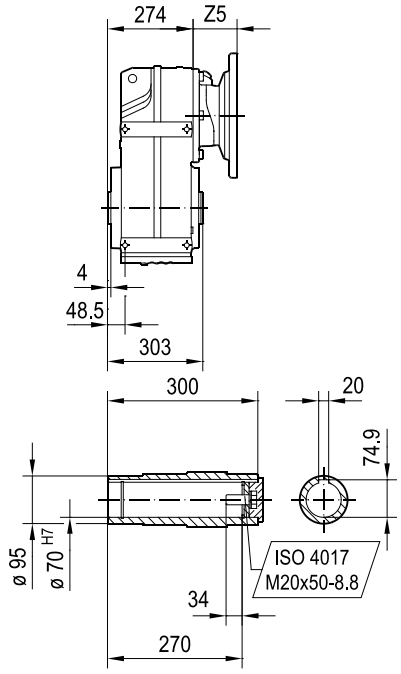
27797880/EN – 03/2023

F97..

42 250 00 20

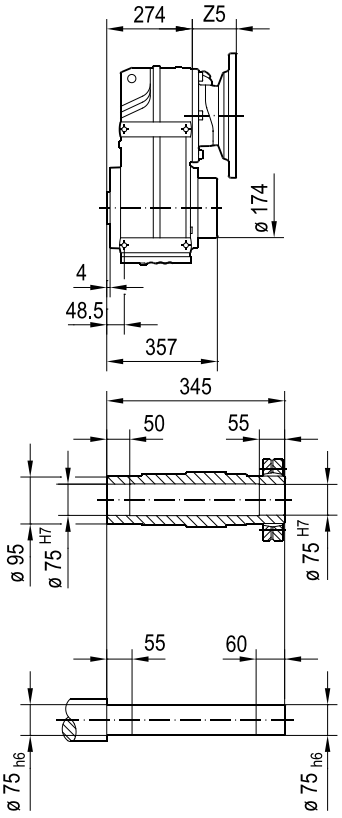


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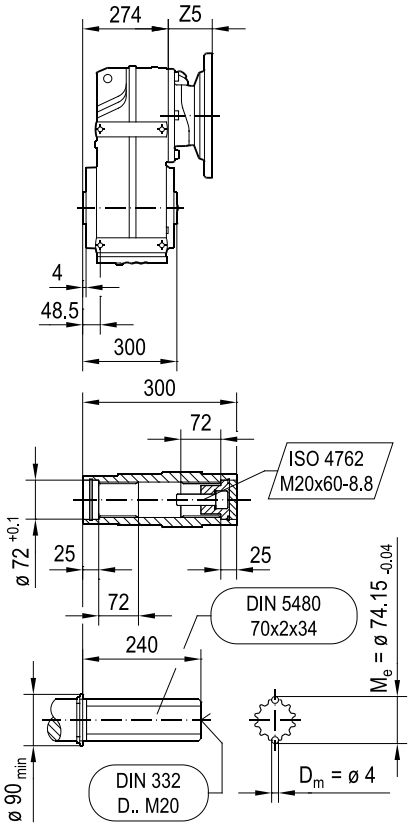


FH97B..

FH97B/R.. → 6.3



FV97B..

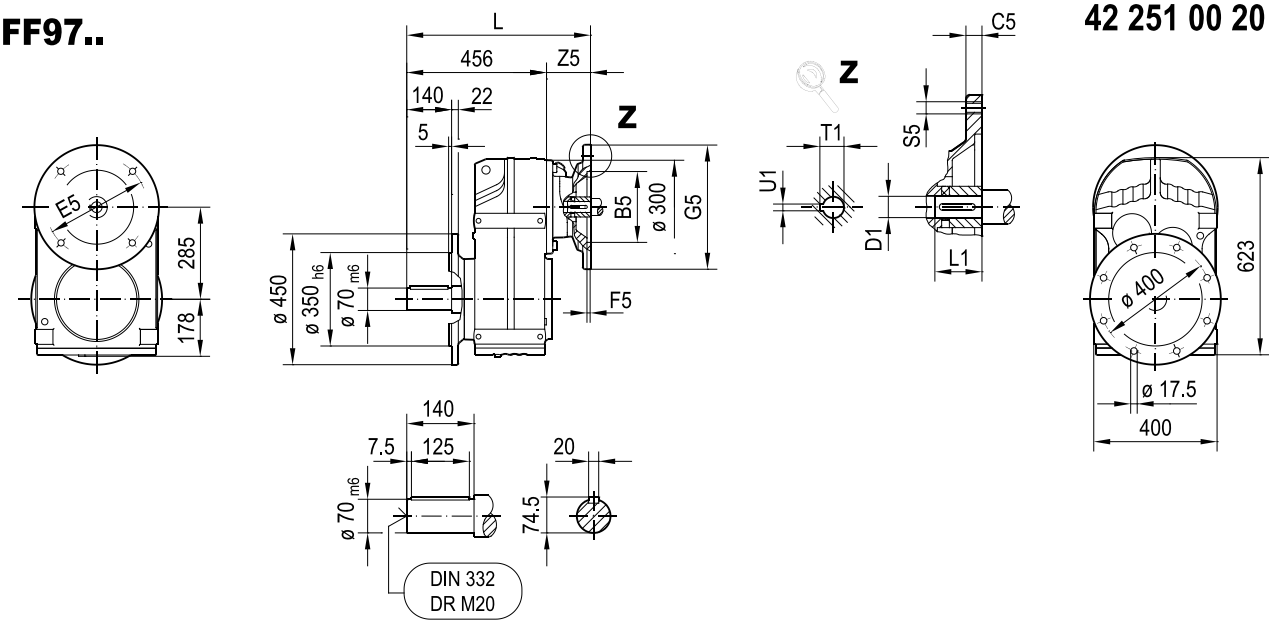


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	507	M12	90.5	28	60	31.3	8
AMS112	180	15	215	5	250	507	M12	90.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	532	M12	116	38	80	41.3	10
AMS132ML	230	16	265	5	300	532	M12	116	38	80	41.3	10
AMS160	250	18	300	6	350	595	M16	179	42	110	45.3	12
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

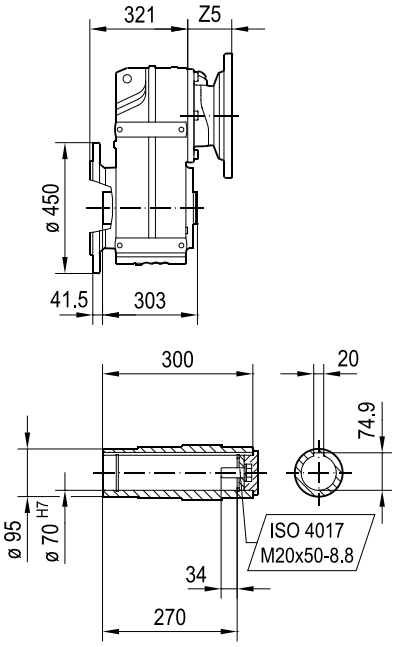
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FF97..

42 251 00 20

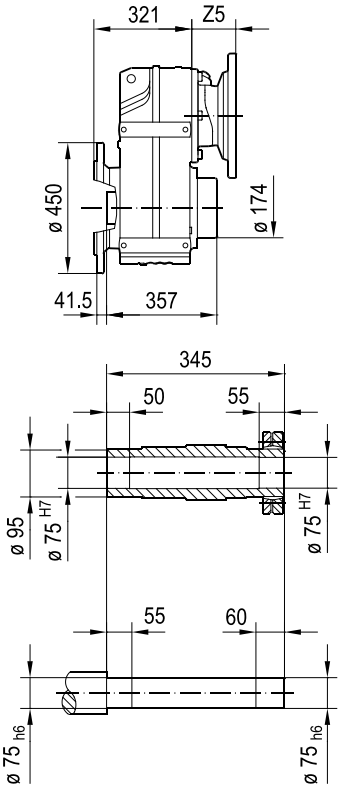


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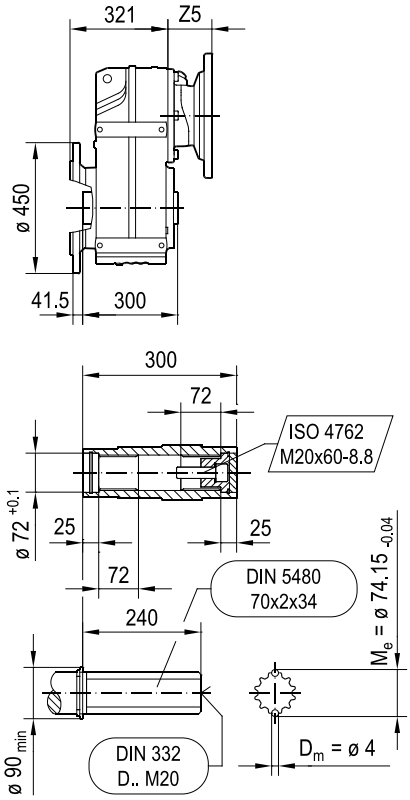


FHF97..

FHF97/R.. → 6.3



FVF97..

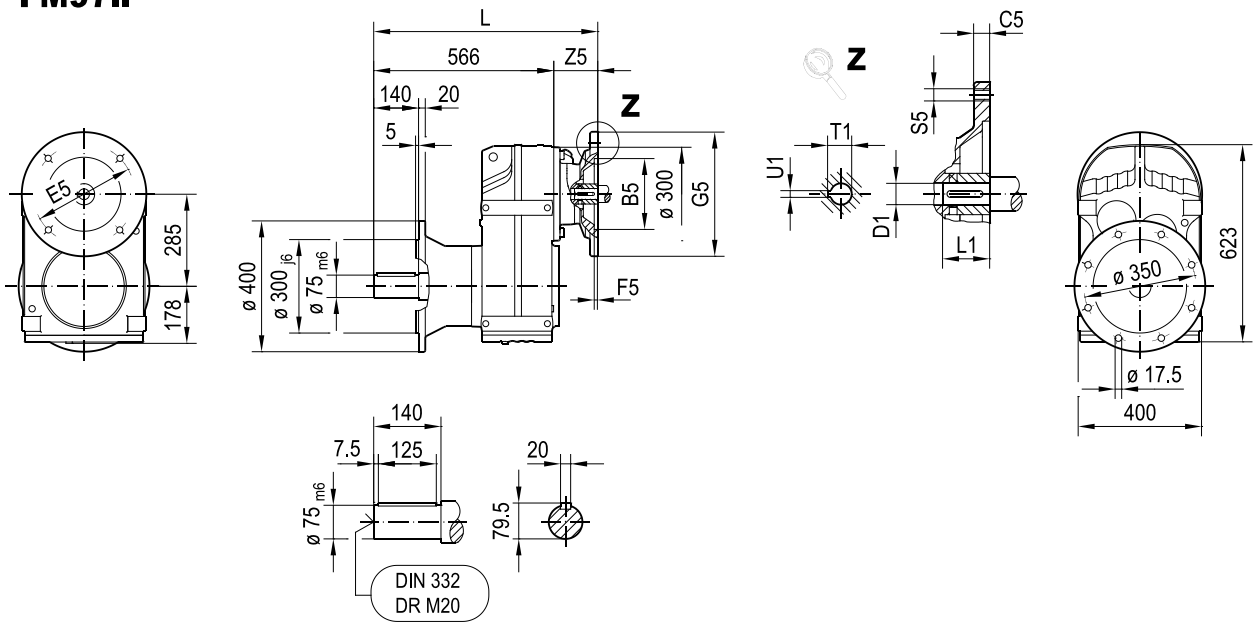


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	547	M12	90.5	28	60	31.3	8
AMS112	180	15	215	5	250	547	M12	90.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	572	M12	116	38	80	41.3	10
AMS132ML	230	16	265	5	300	572	M12	116	38	80	41.3	10
AMS160	250	18	300	6	350	635	M16	179	42	110	45.3	12
AMS180	250	18	300	6	350	635	M16	179	48	110	51.8	14
AMS200	300	20	350	7	400	696	M16	240	55	110	59.3	16
AMS225	350	22	400	7	450	711	M16	255	60	140	64.4	18

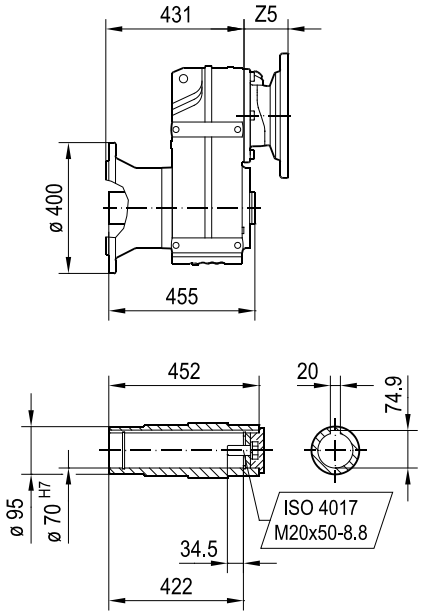
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42 252 00 20

FM97..



FAM97..

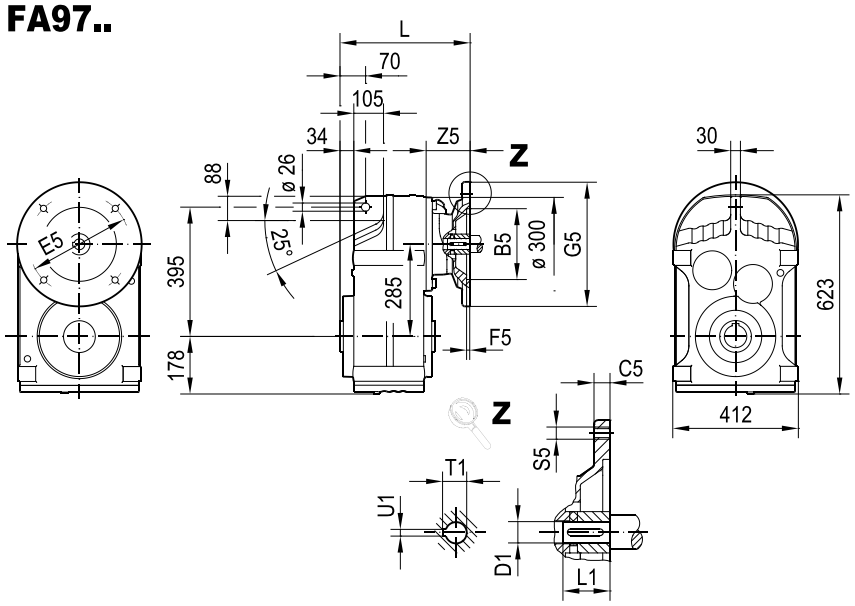


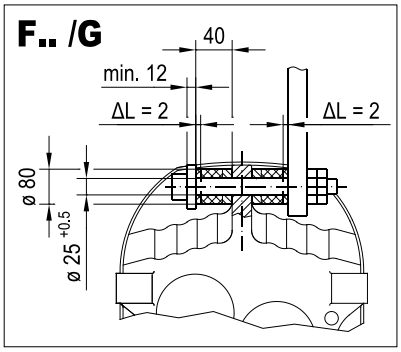
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	657	M12	90.5	28	60	31.3	8
AMS112	180	15	215	5	250	657	M12	90.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	682	M12	116	38	80	41.3	10
AMS132ML	230	16	265	5	300	682	M12	116	38	80	41.3	10
AMS160	250	18	300	6	350	745	M16	179	42	110	45.3	12
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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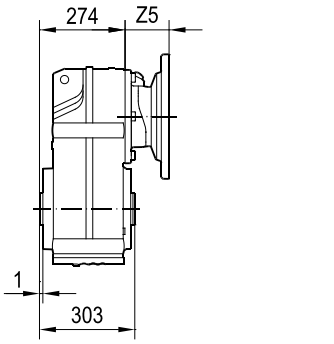
FA97..

42 253 00 20



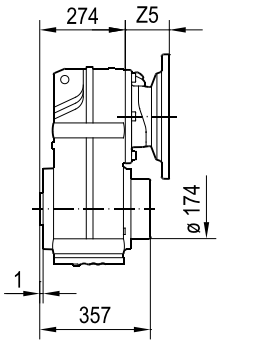


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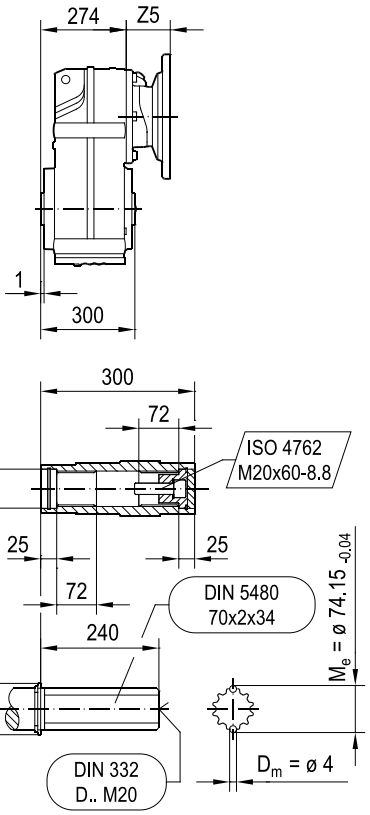


FH97..

FH97/R.. → 6.3



FV97..

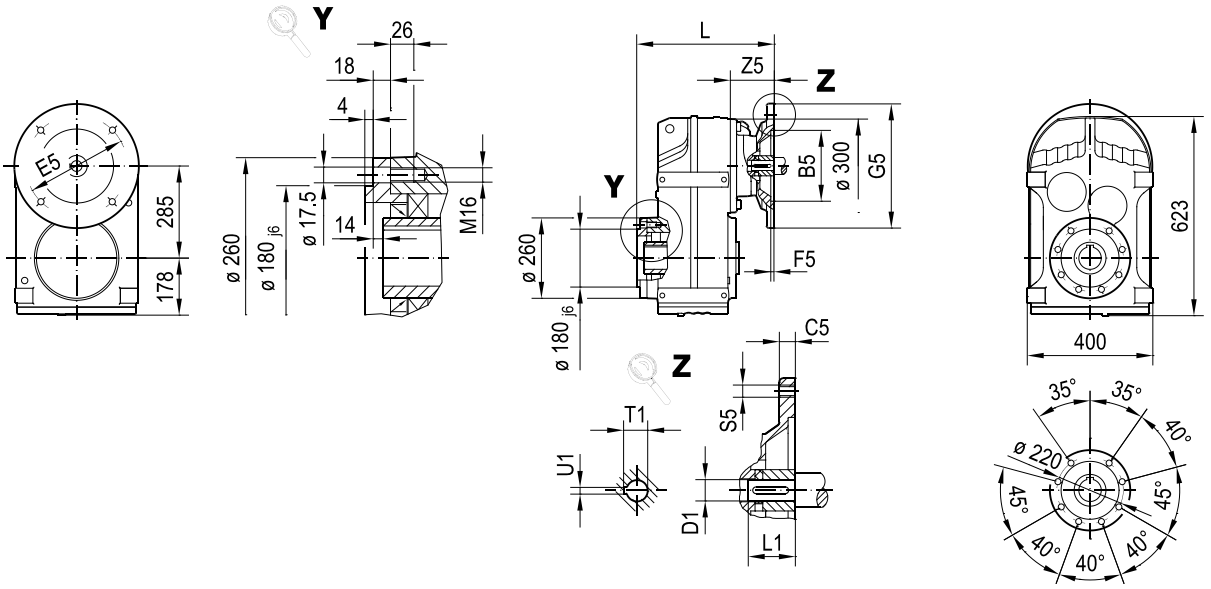


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	365	M12	90.5	28	60	31.3	8
AMS112	180	15	215	5	250	365	M12	90.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	390	M12	116	38	80	41.3	10
AMS132ML	230	16	265	5	300	390	M12	116	38	80	41.3	10
AMS160	250	18	300	6	350	453	M16	179	42	110	45.3	12
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

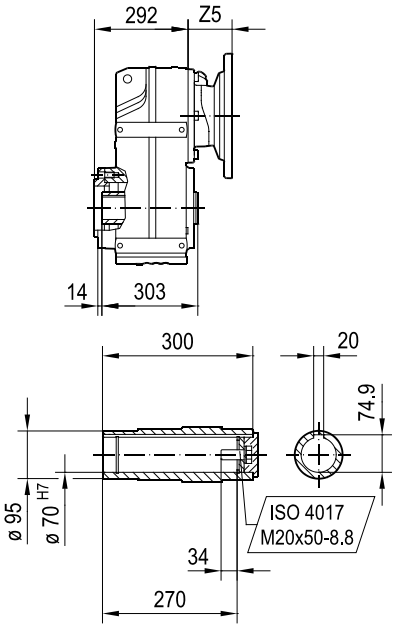
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FAZ97..

42 254 00 20

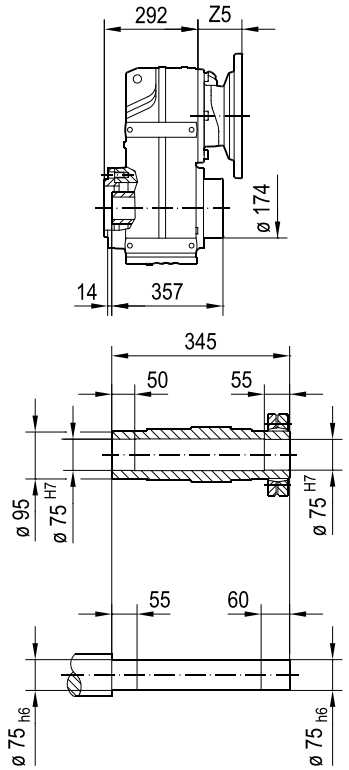


FAZ97..

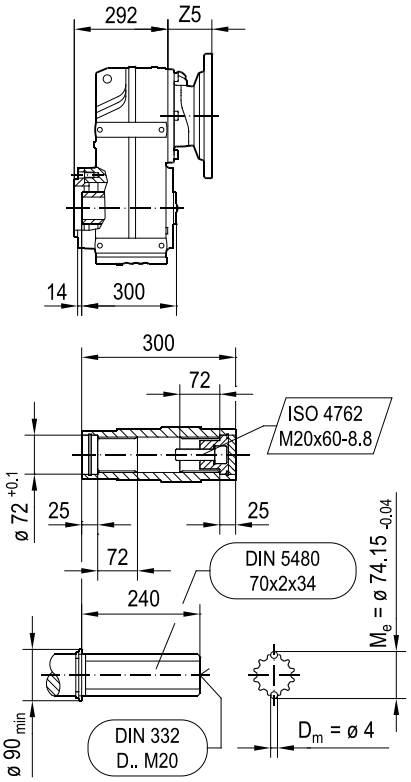


FHZ97..

FHZ97/R.. → 6.3



FVZ97..

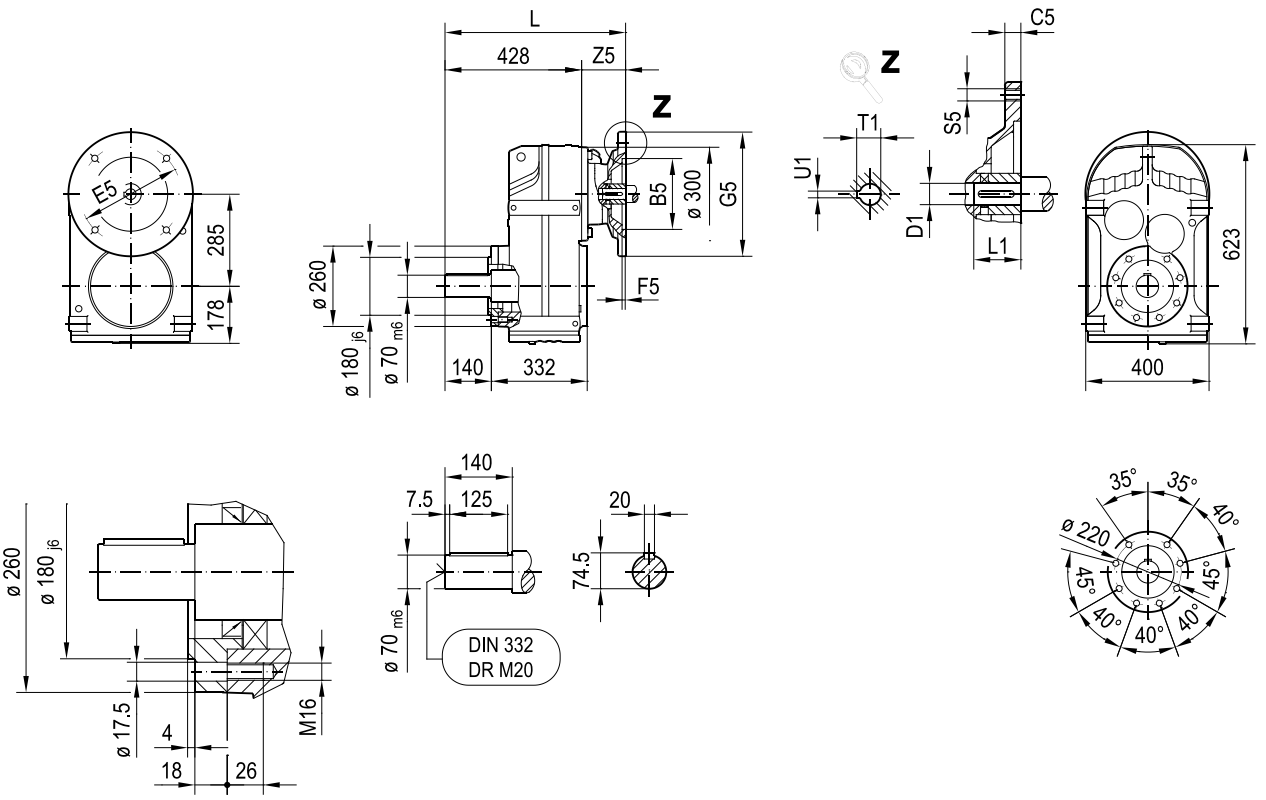


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	383	M12	90.5	28	60	31.3	8
AMS112	180	15	215	5	250	383	M12	90.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	408	M12	116	38	80	41.3	10
AMS132ML	230	16	265	5	300	408	M12	116	38	80	41.3	10
AMS160	250	18	300	6	350	471	M16	179	42	110	45.3	12
AMS180	250	18	300	6	350	471	M16	179	48	110	51.8	14
AMS200	300	20	350	7	400	532	M16	240	55	110	59.3	16
AMS225	350	22	400	7	450	547	M16	255	60	140	64.4	18

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FZ97..

42 255 00 20

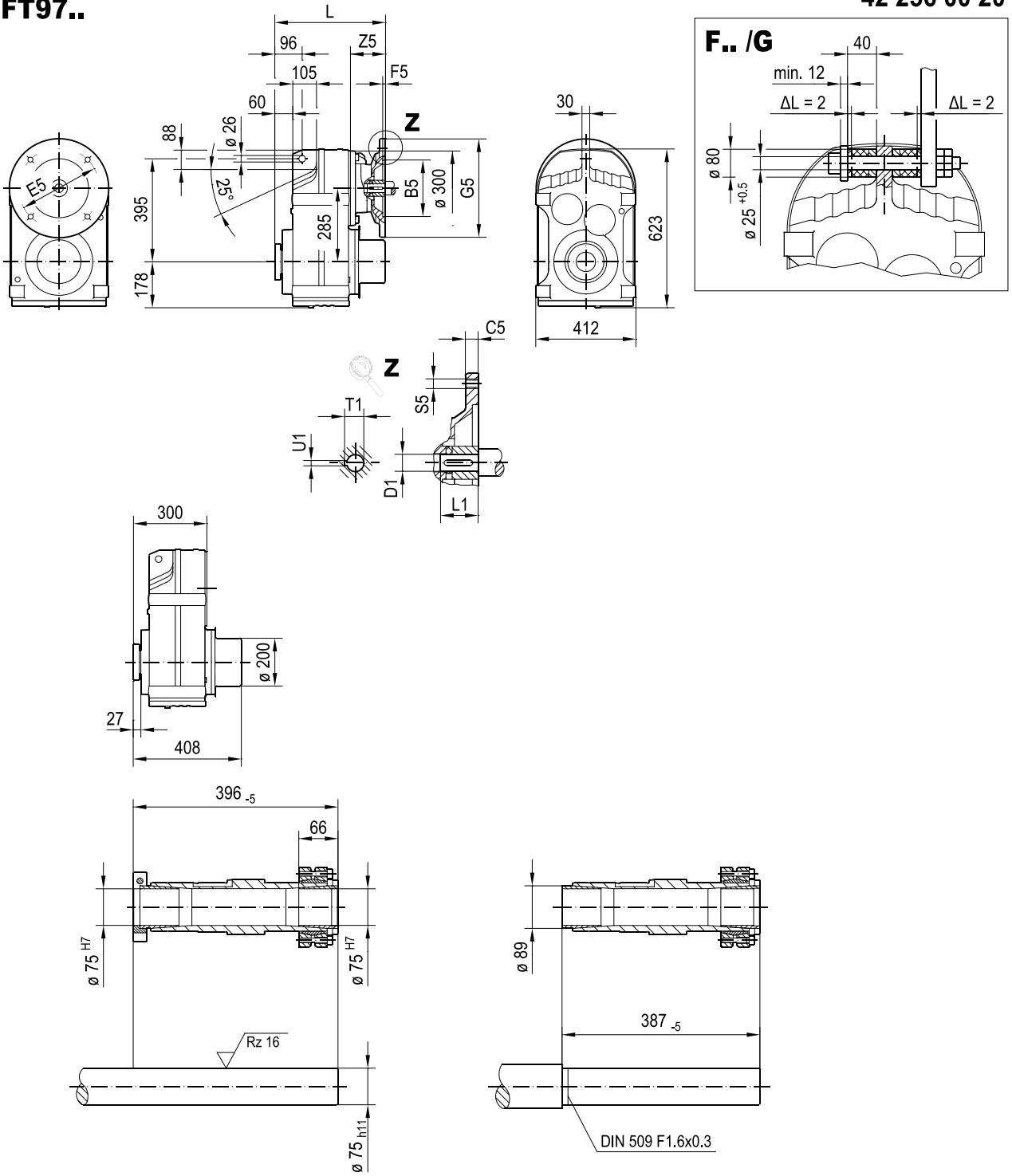


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS112	180	15	215	5	250	519	M12	90.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	544	M12	116	38	80	41.3	10
AMS132ML	230	16	265	5	300	544	M12	116	38	80	41.3	10
AMS160	250	18	300	6	350	607	M16	179	42	110	45.3	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
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FT97..

42 256 00 20



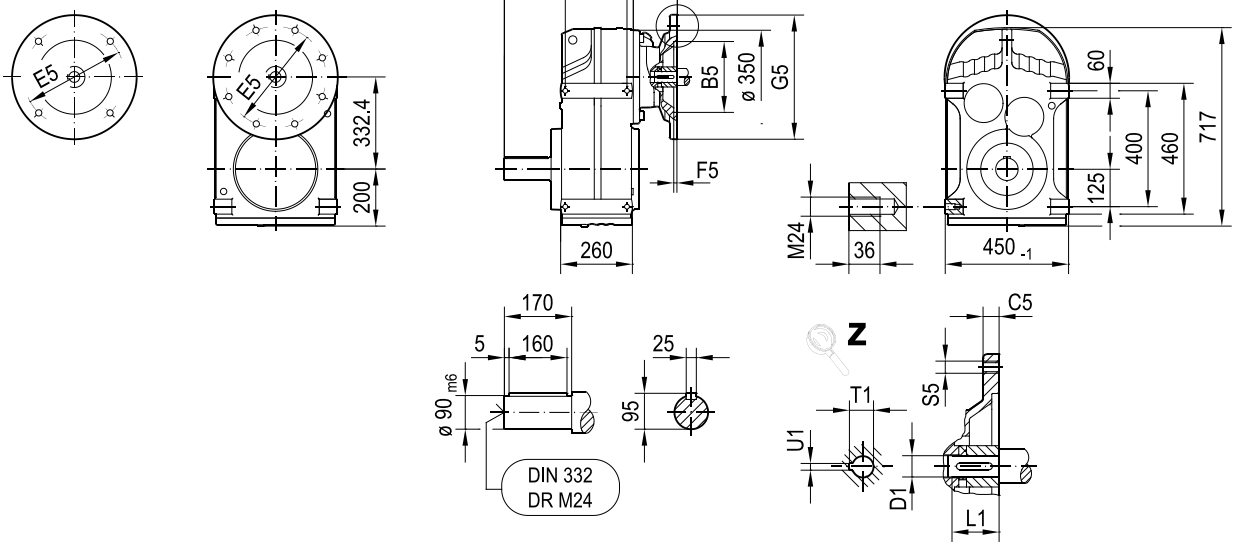
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS112	180	15	215	5	250	391	M12	90.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	416	M12	116	38	80	41.3	10
AMS132ML	230	16	265	5	300	416	M12	116	38	80	41.3	10
AMS160	250	18	300	6	350	479	M16	179	42	110	45.3	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

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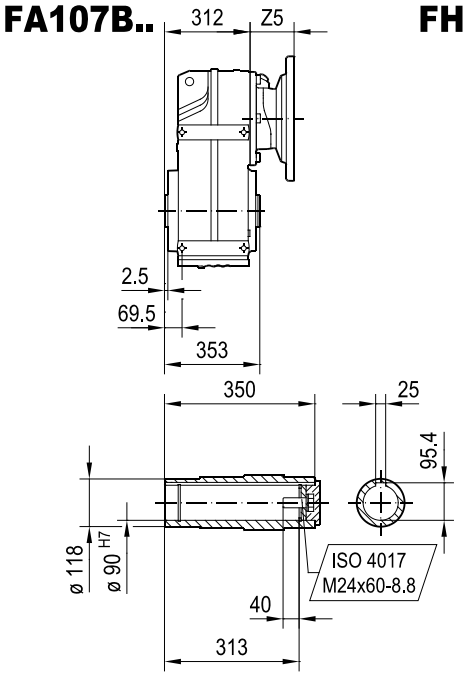
F107..

42 257 00 20

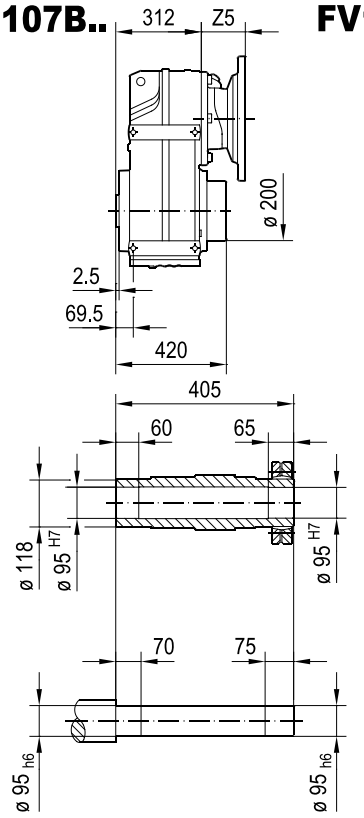
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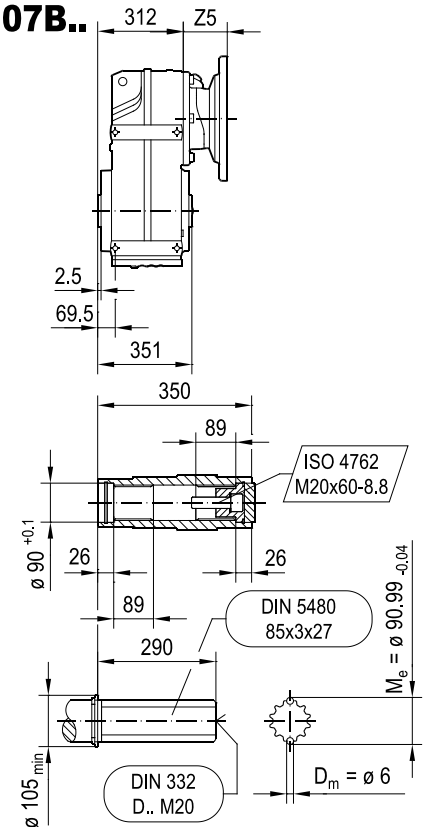
FA107B..



FH107B..



FV107B..



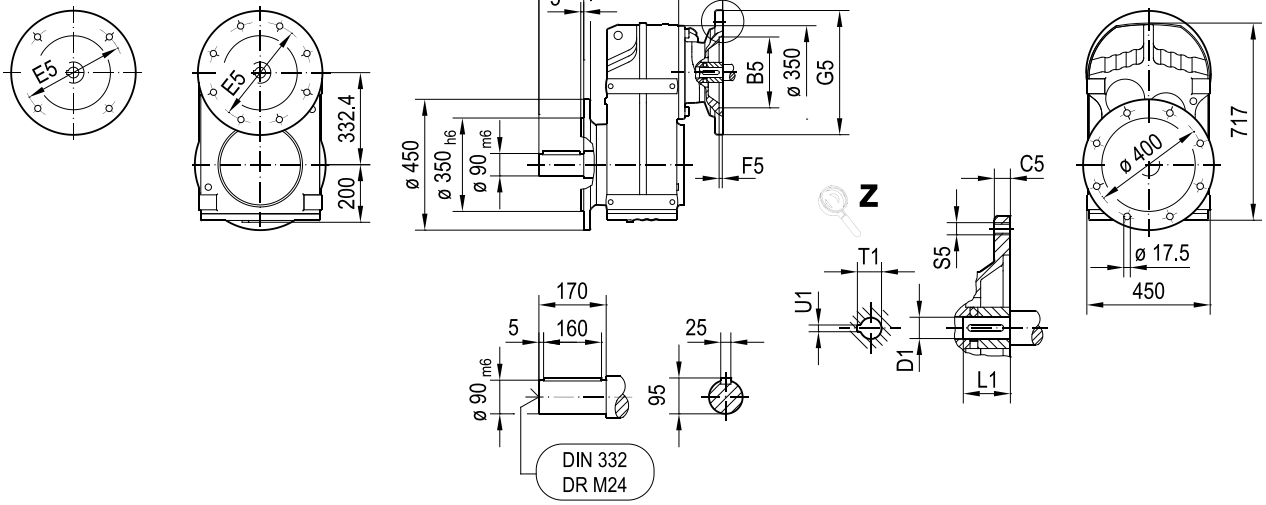
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	569	M12	84.5	28	60	31.3	8
AMS112	180	15	215	5	250	569	M12	84.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	594	M12	110	38	80	41.3	10
AMS132ML	230	16	265	5	300	594	M12	110	38	80	41.3	10
AMS160	250	18	300	6	350	657	M16	173	42	110	45.3	12
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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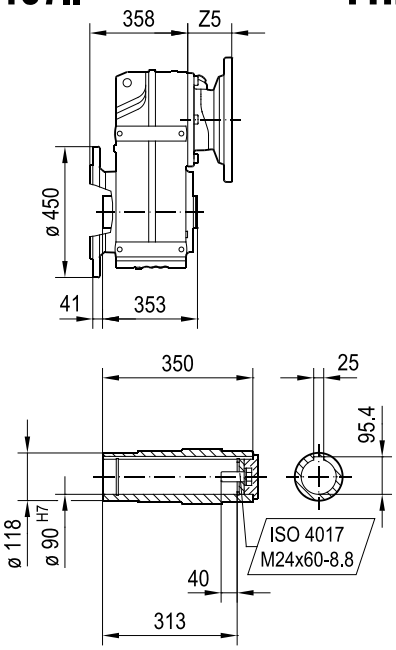
FF107..

42 258 00 20

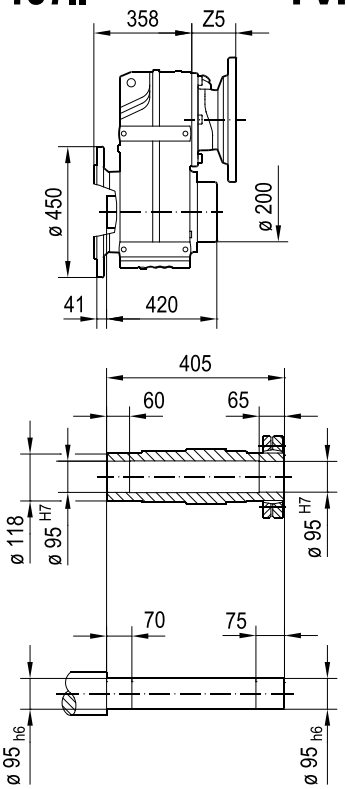
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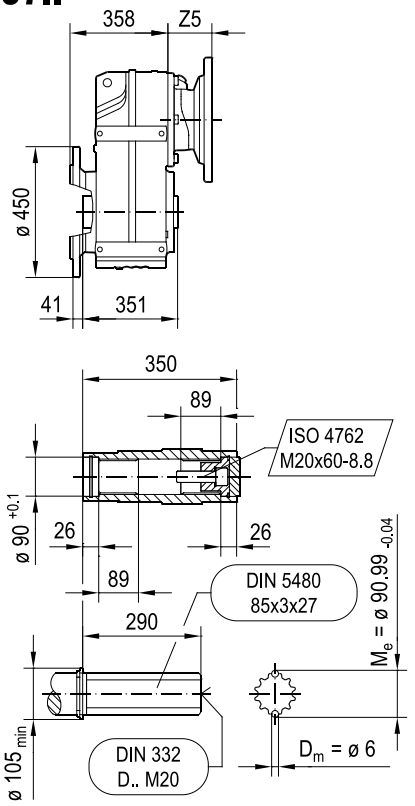
FAF107..



FHF107..



FVF107..



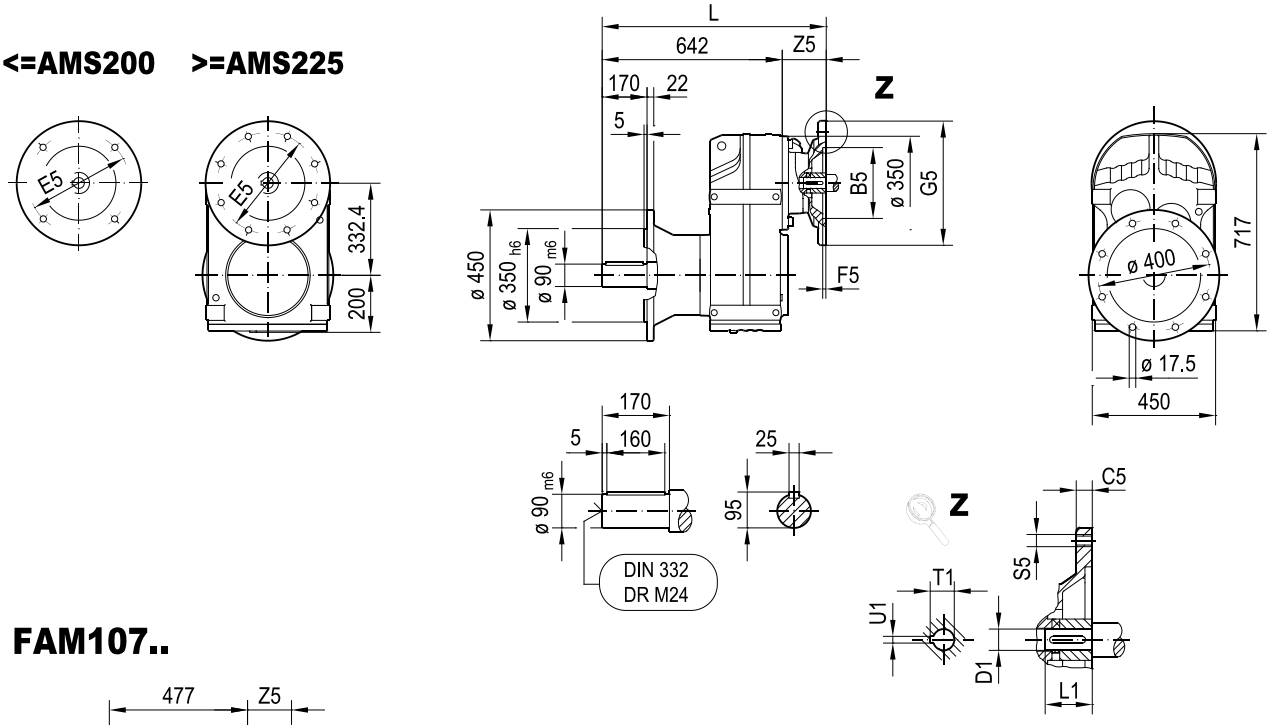
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	608	M12	84.5	28	60	31.3	8
AMS112	180	15	215	5	250	608	M12	84.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	633	M12	110	38	80	41.3	10
AMS132ML	230	16	265	5	300	633	M12	110	38	80	41.3	10
AMS160	250	18	300	6	350	696	M16	173	42	110	45.3	12
AMS180	250	18	300	6	350	696	M16	173	48	110	51.8	14
AMS200	300	20	350	7	400	757	M16	234	55	110	59.3	16
AMS225	350	22	400	7	450	772	M16	249	60	140	64.4	18

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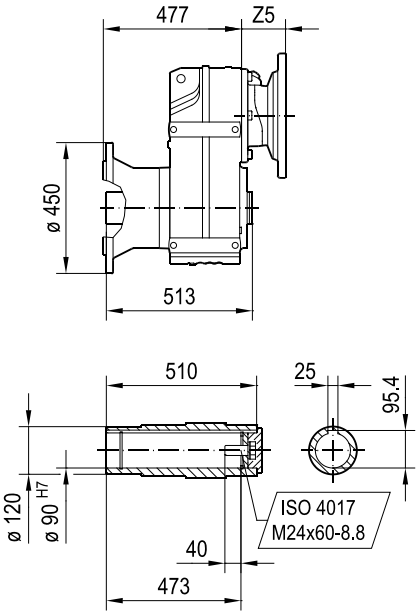
42 259 00 20

FM107..

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FAM107..



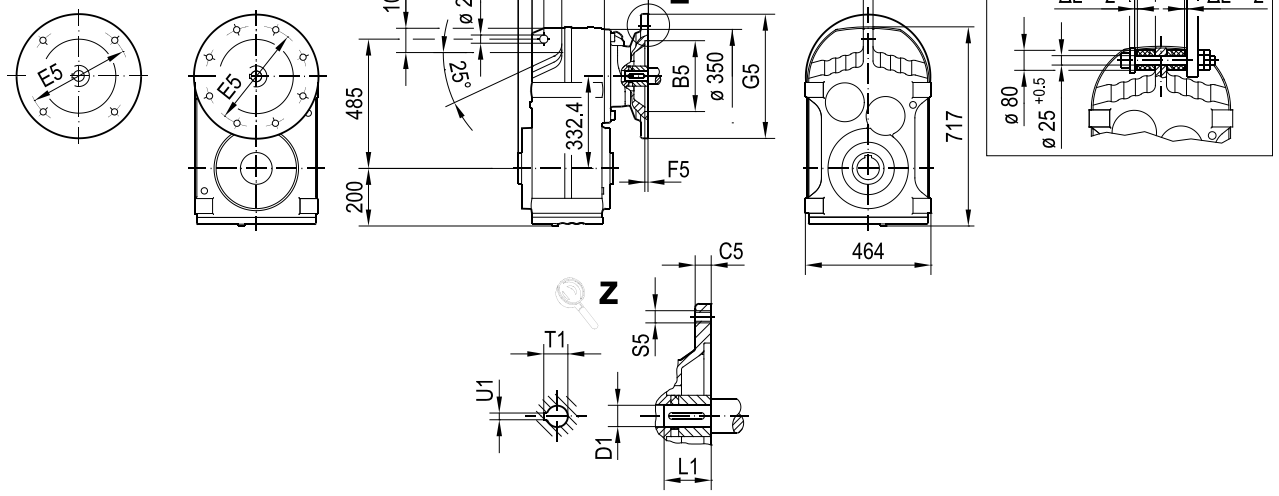
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS112	180	15	215	5	250	727	M12	84.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	752	M12	110	38	80	41.3	10
AMS132ML	230	16	265	5	300	752	M12	110	38	80	41.3	10
AMS160	250	18	300	6	350	815	M16	173	42	110	45.3	12
AMS180	250	18	300	6	350	815	M16	173	48	110	51.8	14
AMS200	300	20	350	7	400	876	M16	234	55	110	59.3	16
AMS225	350	22	400	7	450	891	M16	249	60	140	64.4	18

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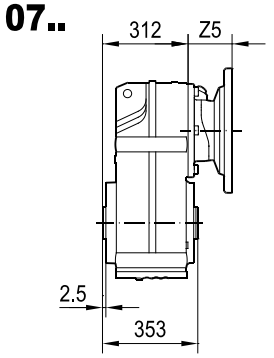
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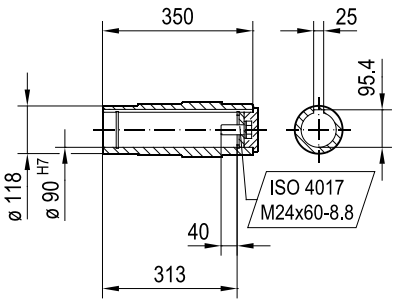
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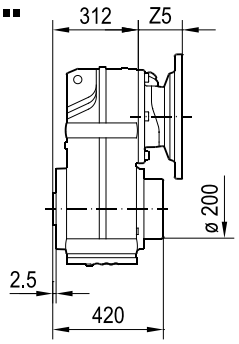


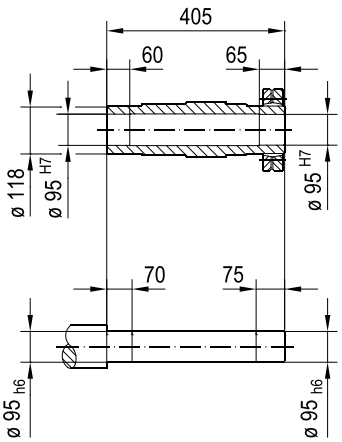
FA107..



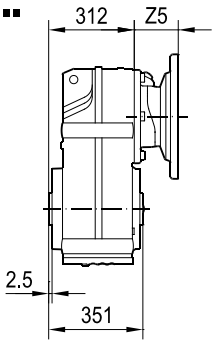


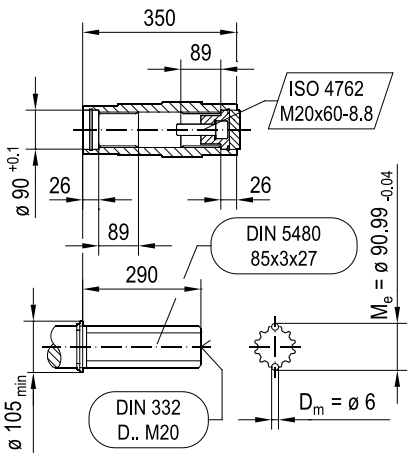
FH107..





FV107..





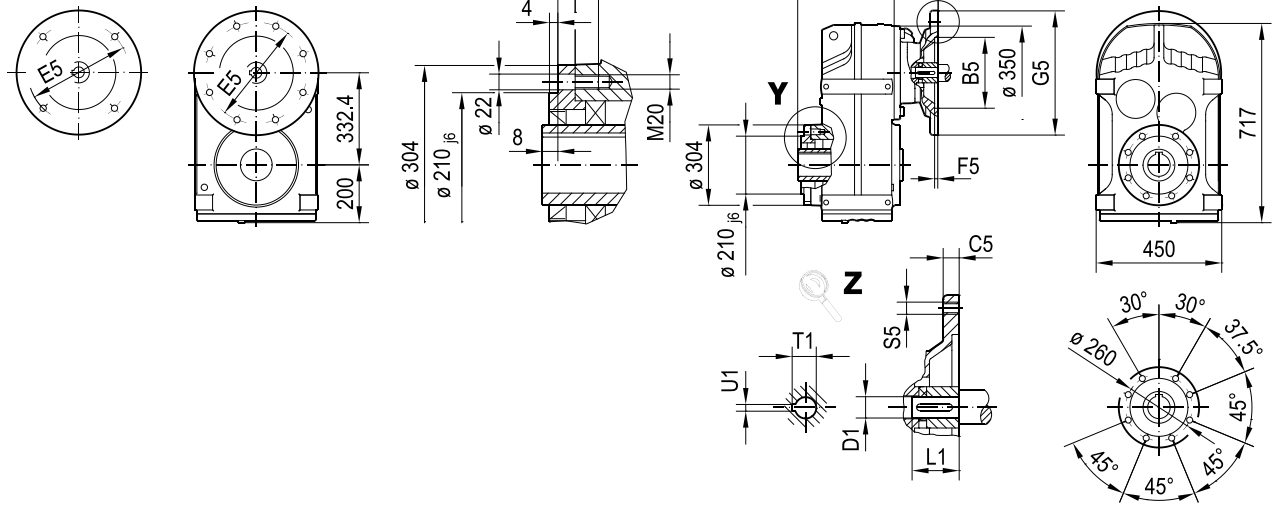
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	397	M12	84.5	28	60	31.3	8
AMS112	180	15	215	5	250	397	M12	84.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	422	M12	110	38	80	41.3	10
AMS132ML	230	16	265	5	300	422	M12	110	38	80	41.3	10
AMS160	250	18	300	6	350	485	M16	173	42	110	45.3	12
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

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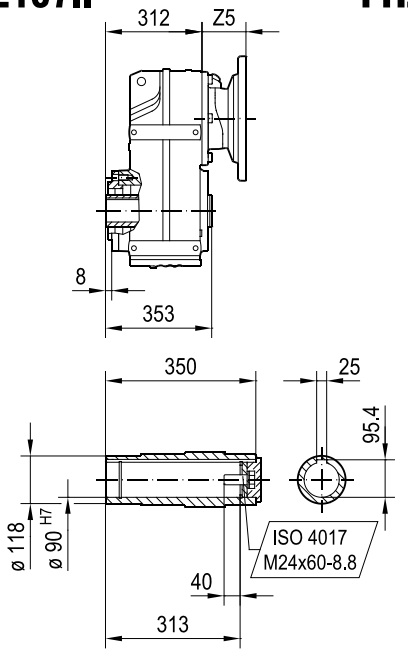
FAZ107..

42 261 00 20

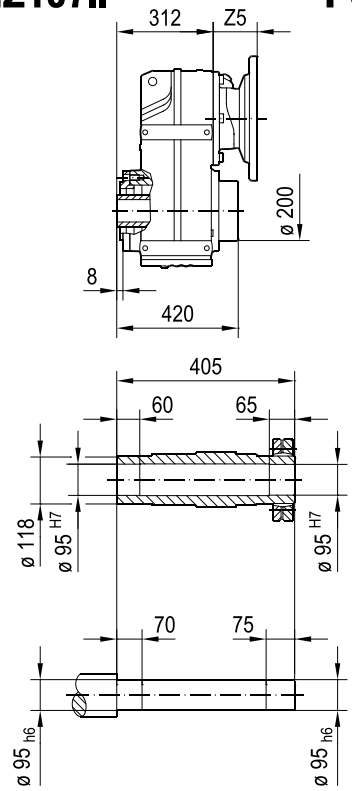
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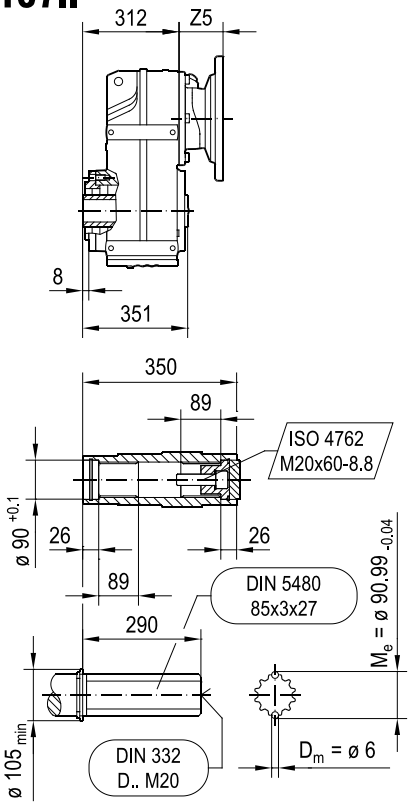
FAZ107..



FHZ107..



FVZ107..



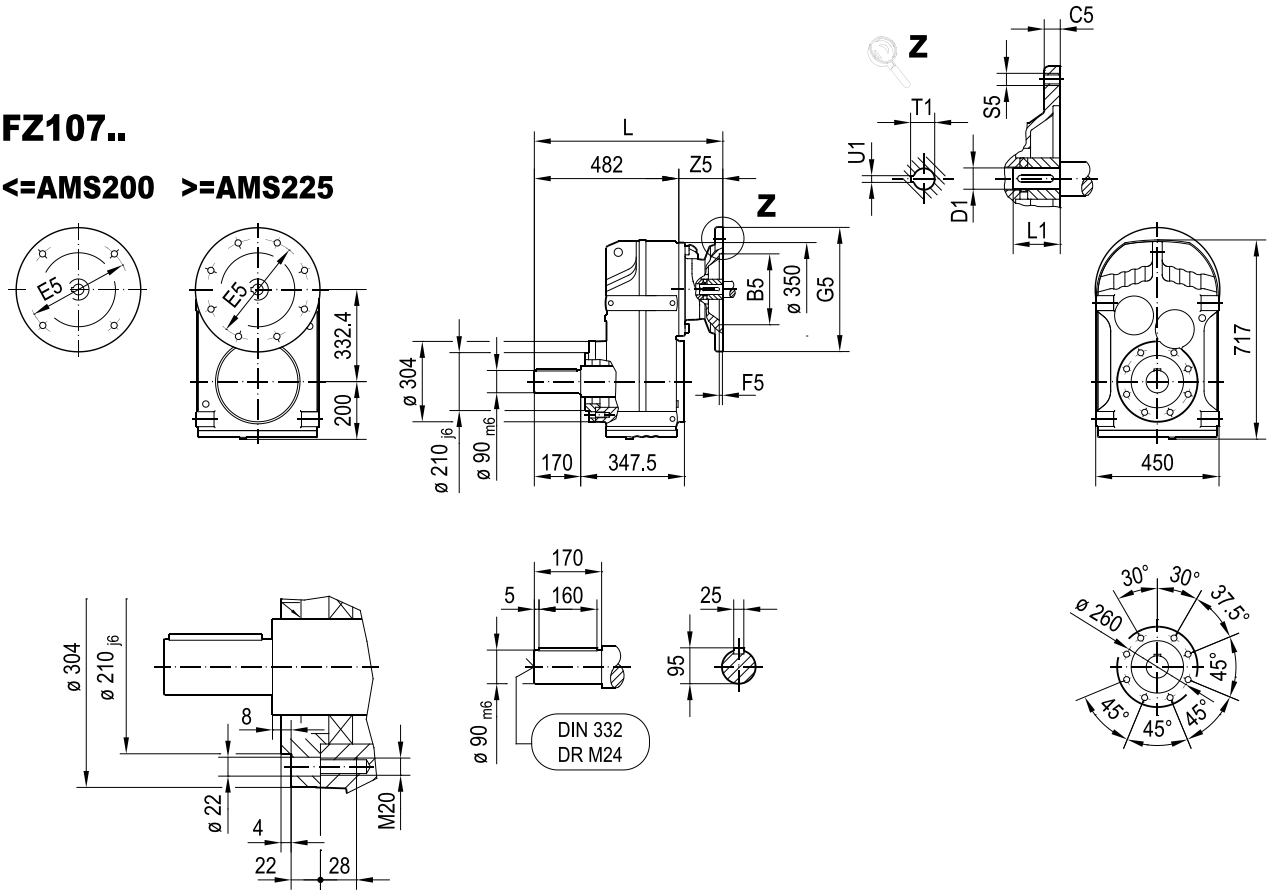
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	397	M12	84.5	28	60	31.3	8
AMS112	180	15	215	5	250	397	M12	84.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	422	M12	110	38	80	41.3	10
AMS132ML	230	16	265	5	300	422	M12	110	38	80	41.3	10
AMS160	250	18	300	6	350	485	M16	173	42	110	45.3	12
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

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42 262 00 20

FZ107..

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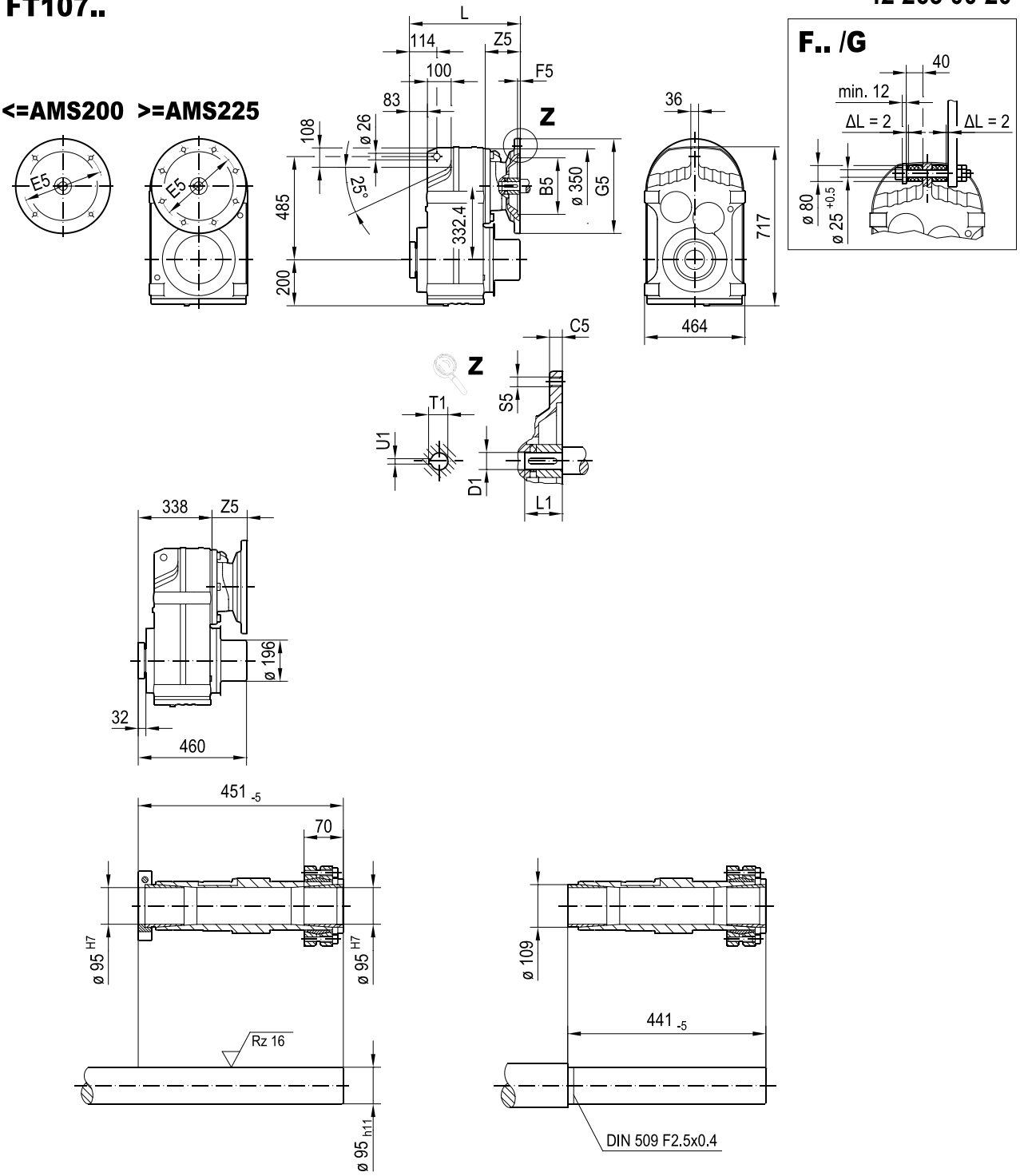
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	567	M12	84.5	28	60	31.3	8
AMS112	180	15	215	5	250	567	M12	84.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	592	M12	110	38	80	41.3	10
AMS132ML	230	16	265	5	300	592	M12	110	38	80	41.3	10
AMS160	250	18	300	6	350	655	M16	173	42	110	45.3	12
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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FT107..

42 263 00 20

<=AMS200 >=AMS225



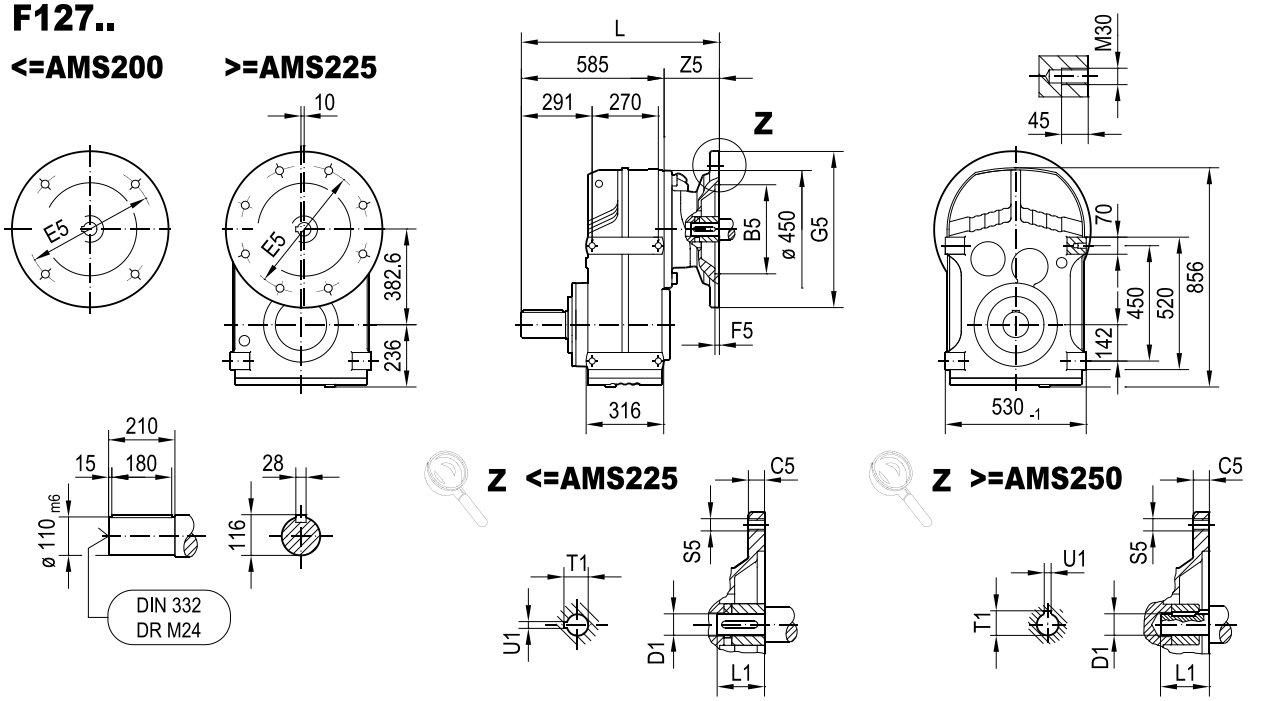
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	423	M12	84.5	28	60	31.3	8
AMS112	180	15	215	5	250	423	M12	84.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	448	M12	110	38	80	41.3	10
AMS132ML	230	16	265	5	300	448	M12	110	38	80	41.3	10
AMS160	250	18	300	6	350	511	M16	173	42	110	45.3	12
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

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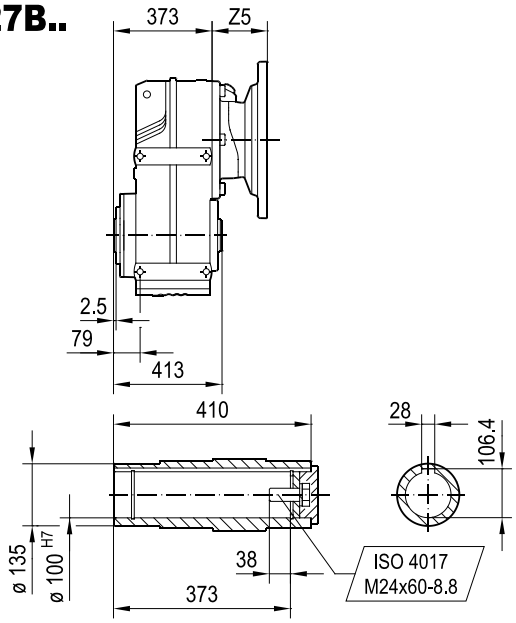
42 264 00 20

F127..

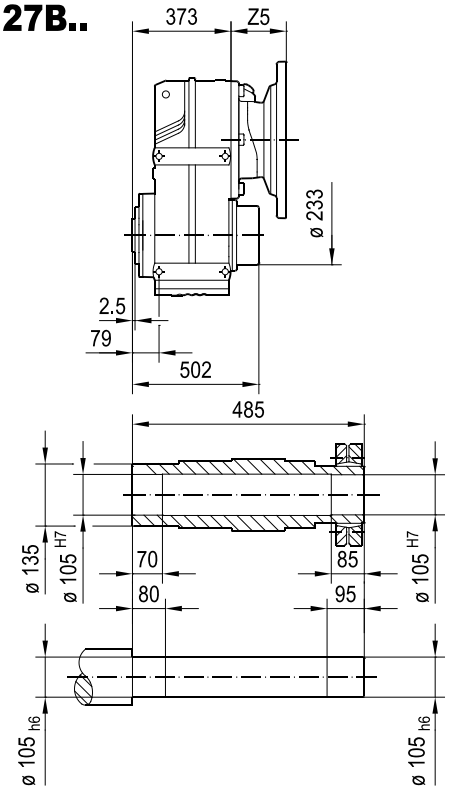
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FA127B..



FH127B..



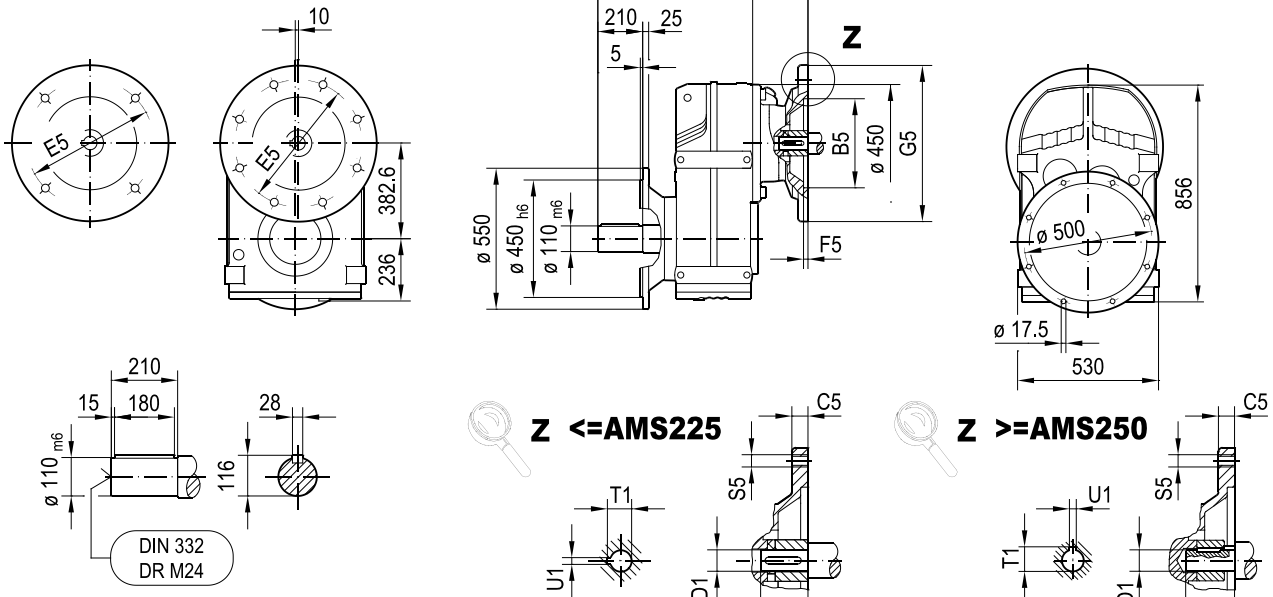
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS132S/M	230	16	265	5	300	680	M12	95	38	80	41.3	10
AMS132ML	230	16	265	5	300	680	M12	95	38	80	41.3	10
AMS160	250	18	300	6	350	743	M16	158	42	110	45.3	12
AMS180	250	18	300	6	350	743	M16	158	48	110	51.8	14
AMS200	300	20	350	7	400	804	M16	219	55	110	59.3	16
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
AMS280	450	25	500	7	550	883	M16	297.5	75	140	79.9	20

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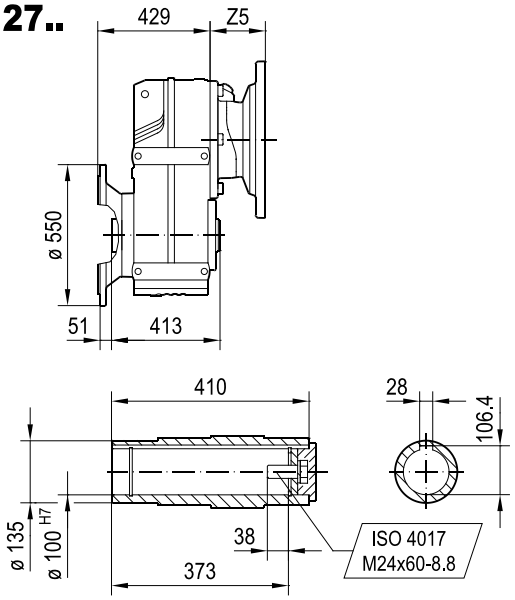
42 265 00 20

FF127..

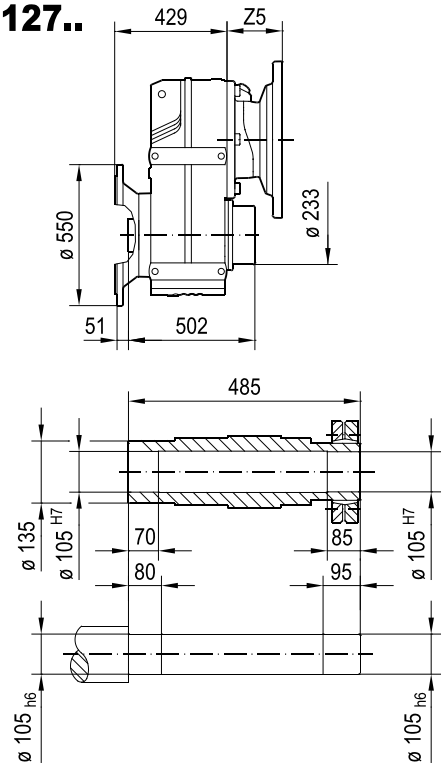
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FAF127..



FHF127..



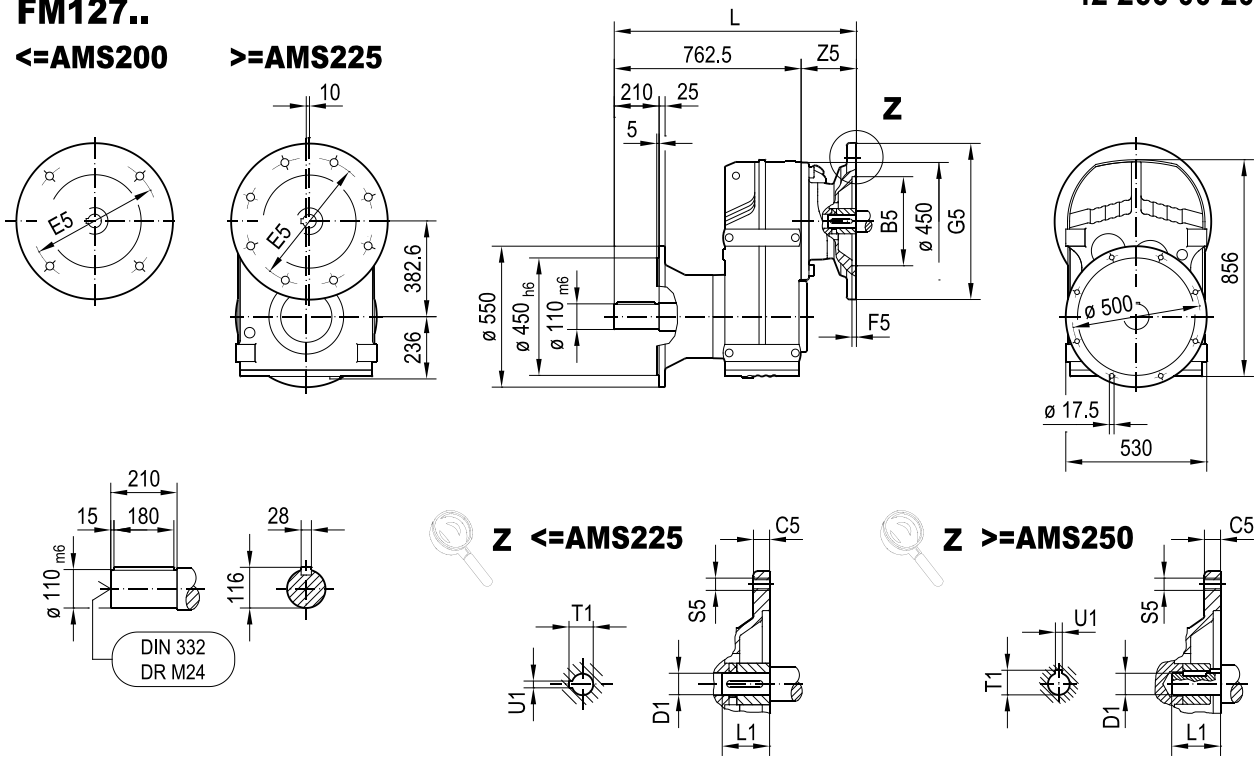
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS132S/M	230	16	265	5	300	729	M12	95	38	80	41.3	10
AMS132ML	230	16	265	5	300	729	M12	95	38	80	41.3	10
AMS160	250	18	300	6	350	792	M16	158	42	110	45.3	12
AMS180	250	18	300	6	350	792	M16	158	48	110	51.8	14
AMS200	300	20	350	7	400	853	M16	219	55	110	59.3	16
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

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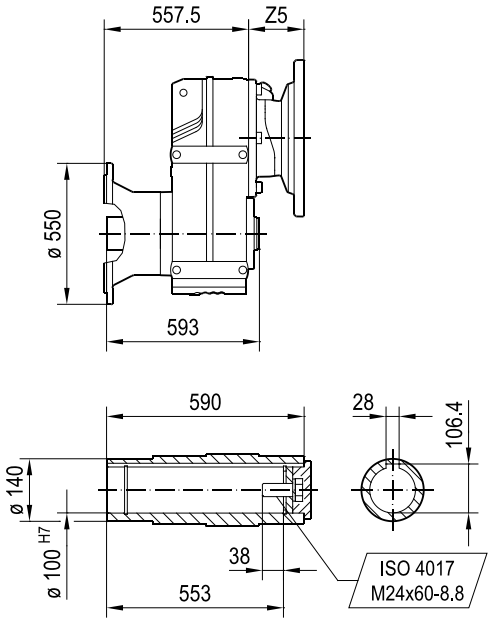
42 266 00 20

FM127..

<=AMS200 **>=AMS225**



FAM127..



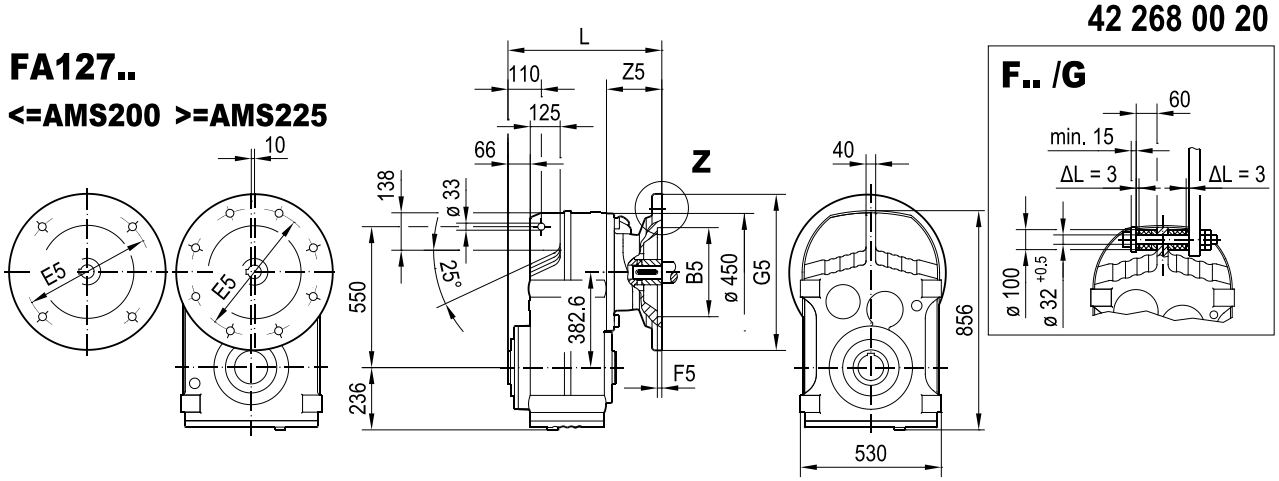
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS132S/M	230	16	265	5	300	858	M12	95	38	80	41.3	10
AMS132ML	230	16	265	5	300	858	M12	95	38	80	41.3	10
AMS160	250	18	300	6	350	921	M16	158	42	110	45.3	12
AMS180	250	18	300	6	350	921	M16	158	48	110	51.8	14
AMS200	300	20	350	7	400	982	M16	219	55	110	59.3	16
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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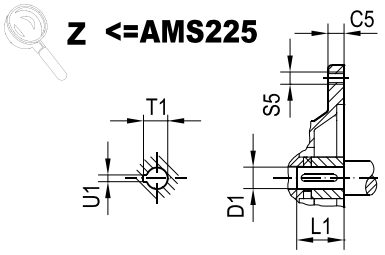
42 268 00 20

FA127..

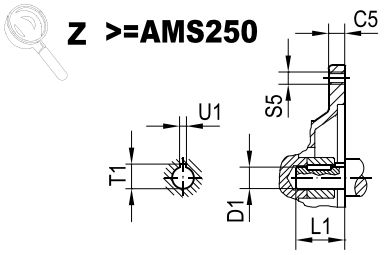
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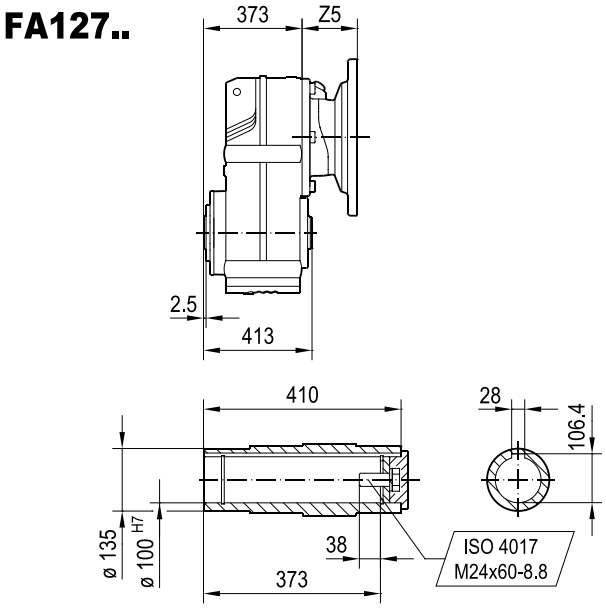
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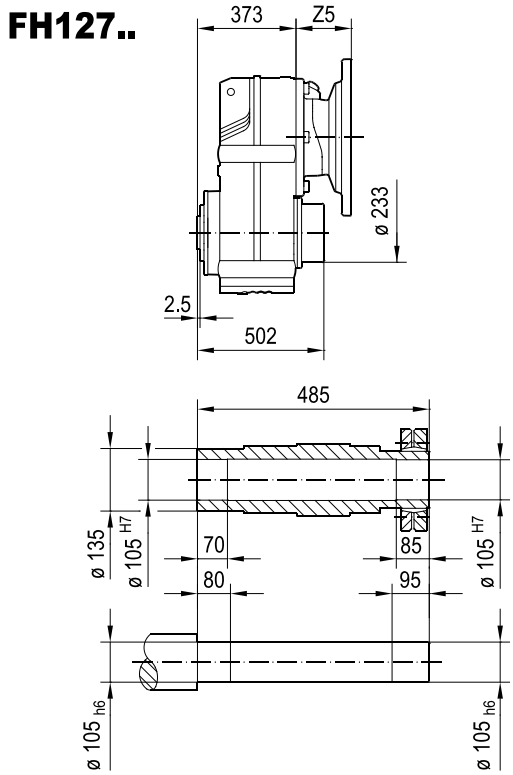
Z >=AMS250



FA127..



FH127..



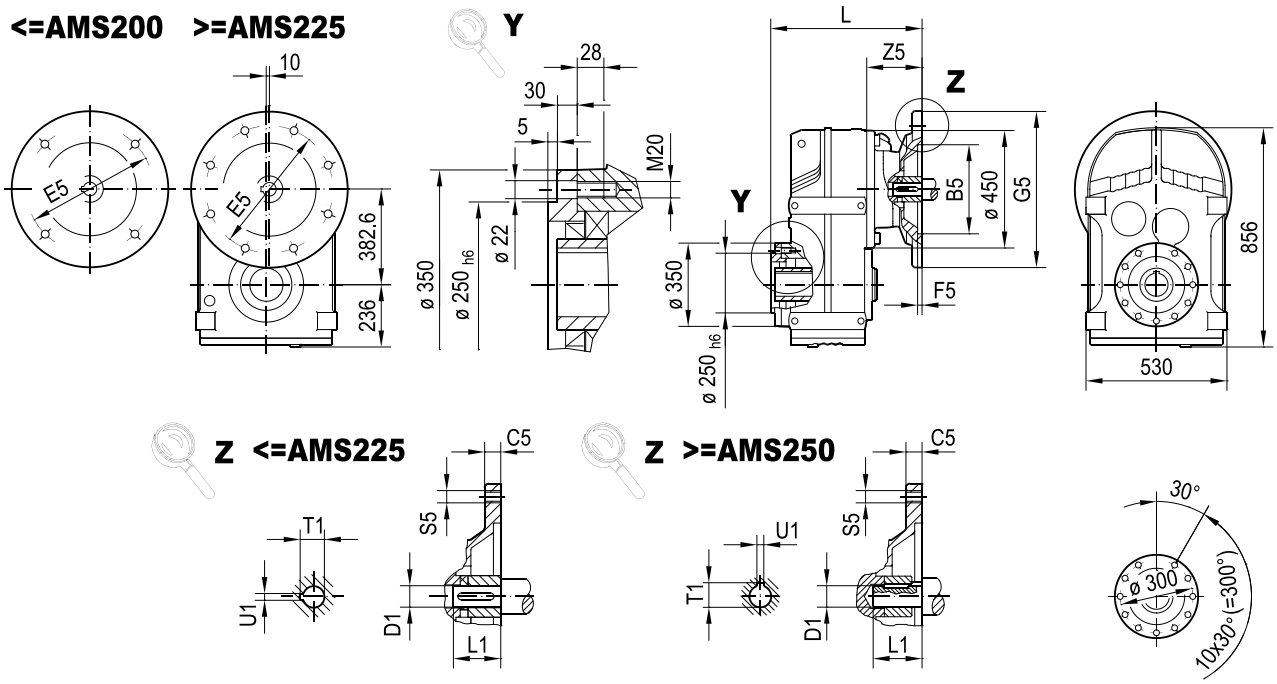
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS132S/M	230	16	265	5	300	468	M12	95	38	80	41.3	10
AMS132ML	230	16	265	5	300	468	M12	95	38	80	41.3	10
AMS160	250	18	300	6	350	531	M16	158	42	110	45.3	12
AMS180	250	18	300	6	350	531	M16	158	48	110	51.8	14
AMS200	300	20	350	7	400	592	M16	219	55	110	59.3	16
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
AMS280	450	25	500	7	550	671	M16	297.5	75	140	79.9	20

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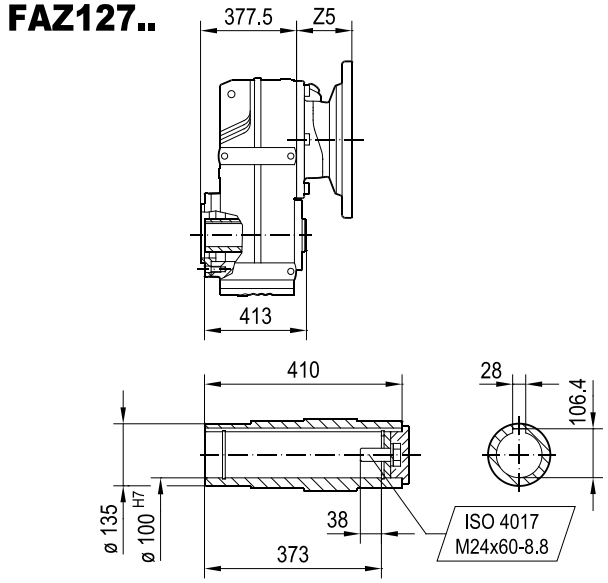
42 269 00 20

FAZ127..

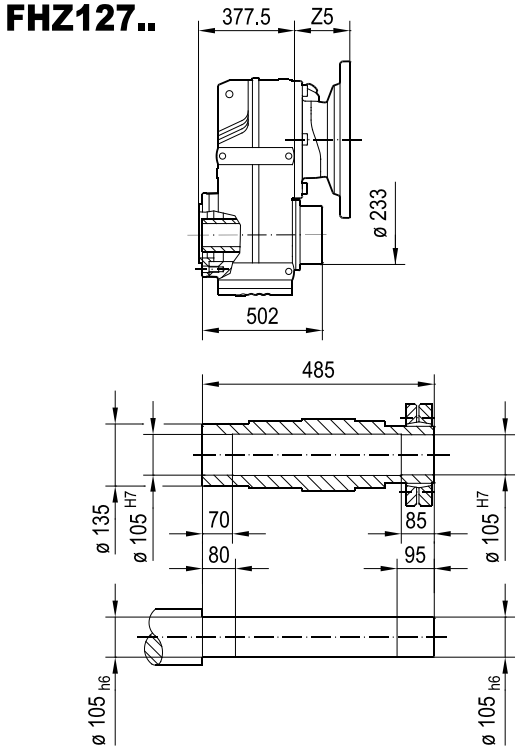
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FAZ127..



FHZ127..



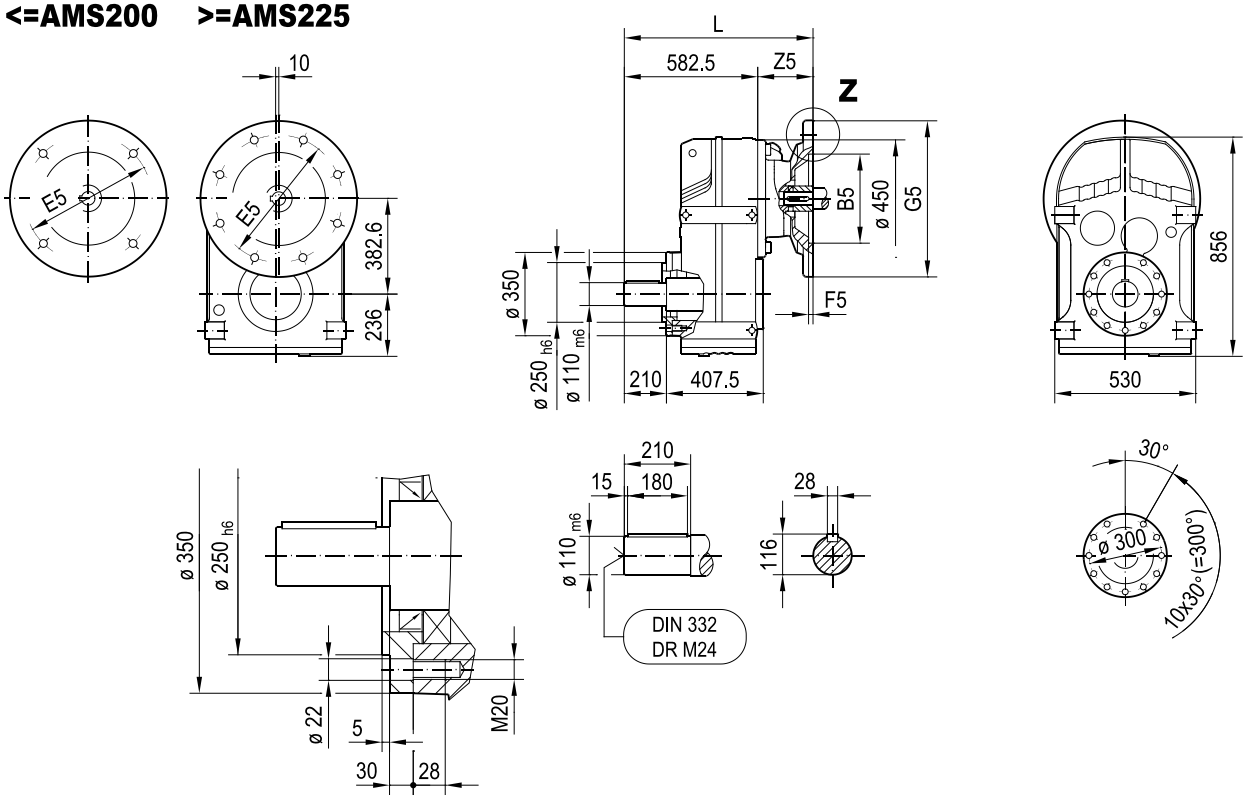
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS132S/M	230	16	265	5	300	473	M12	95	38	80	41.3	10
AMS132ML	230	16	265	5	300	473	M12	95	38	80	41.3	10
AMS160	250	18	300	6	350	536	M16	158	42	110	45.3	12
AMS180	250	18	300	6	350	536	M16	158	48	110	51.8	14
AMS200	300	20	350	7	400	597	M16	219	55	110	59.3	16
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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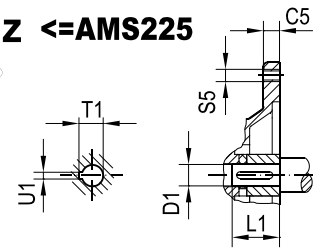
42 270 00 20

FZ127..

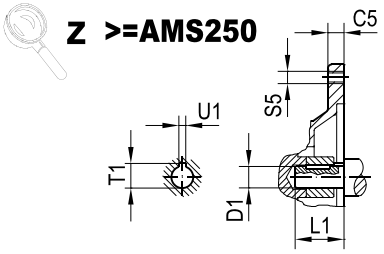
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Z <=AMS225



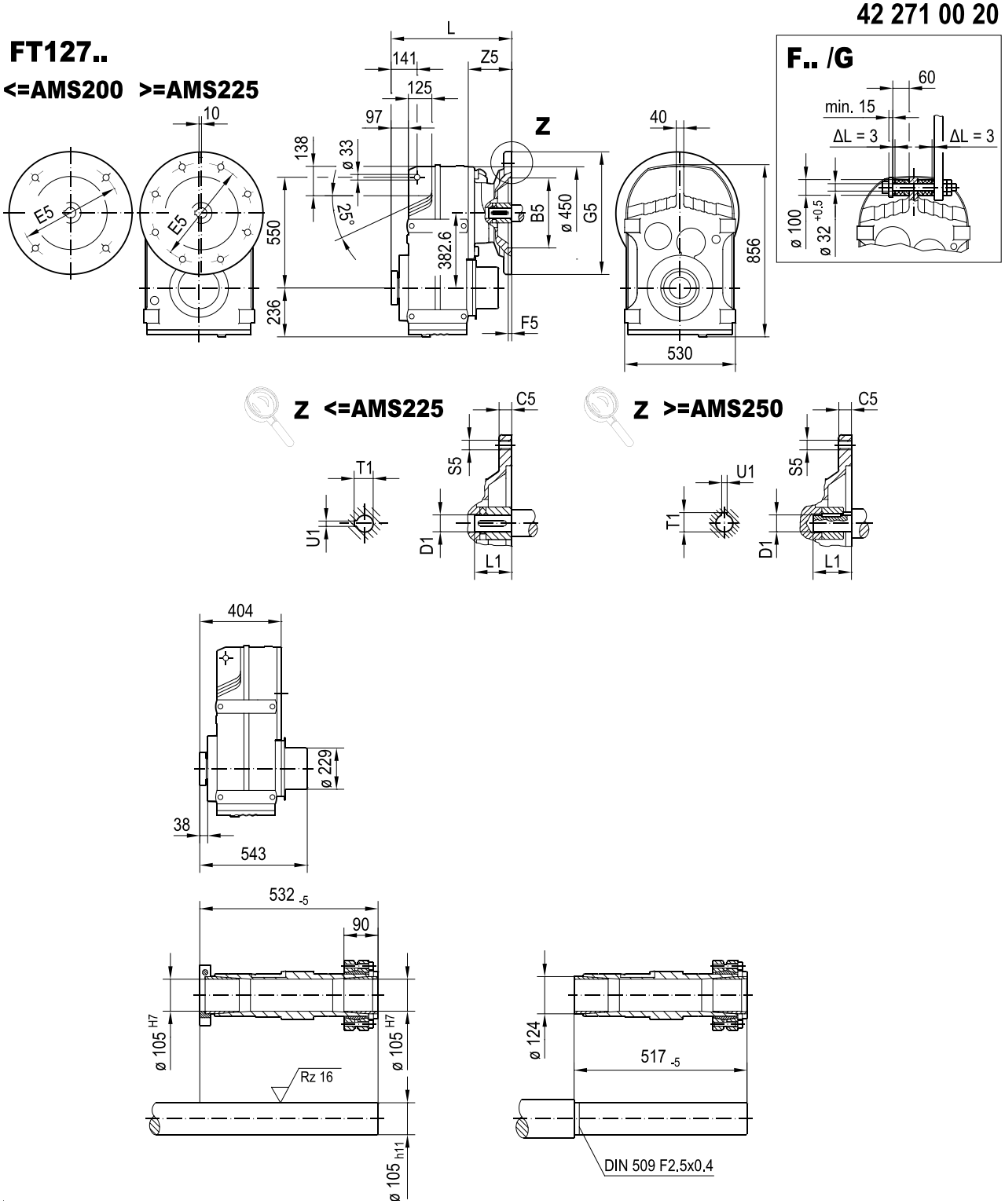
Z >=AMS250



(→ 📖 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
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42 271 00 20



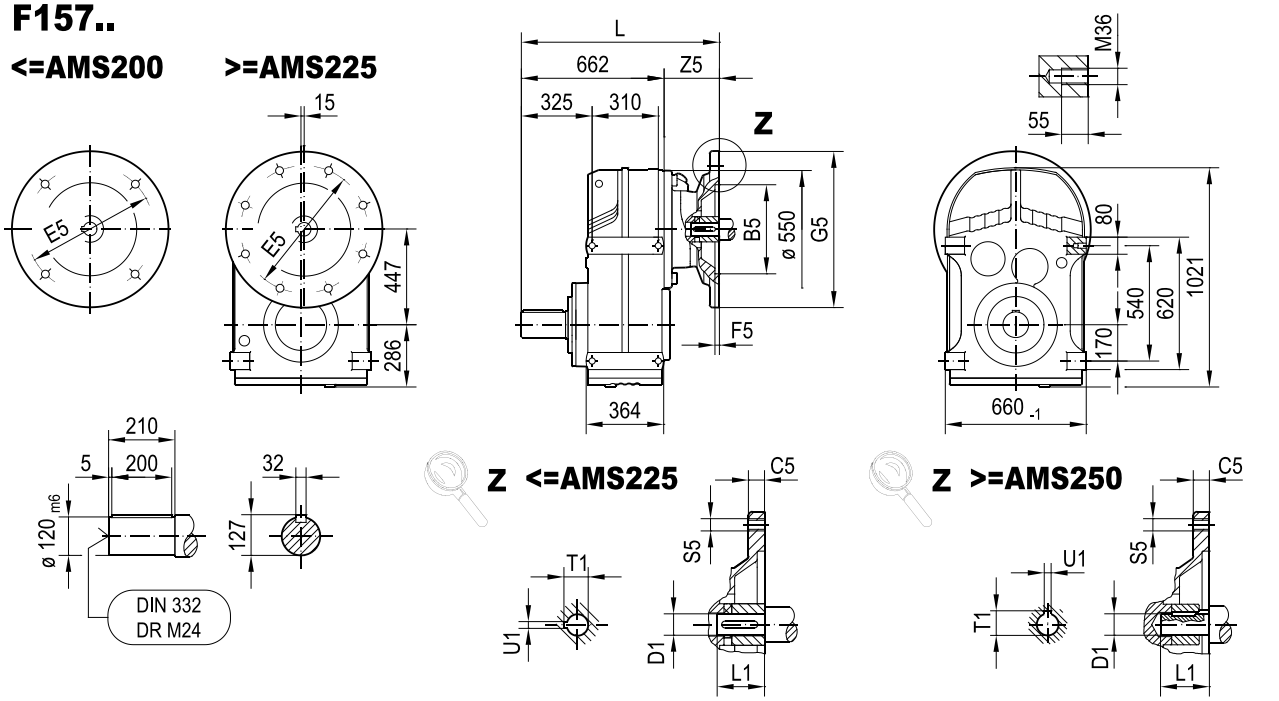
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS132S/M	230	16	265	5	300	499	M12	95	38	80	41.3	10
AMS132ML	230	16	265	5	300	499	M12	95	38	80	41.3	10
AMS160	250	18	300	6	350	562	M16	158	42	110	45.3	12
AMS180	250	18	300	6	350	562	M16	158	48	110	51.8	14
AMS200	300	20	350	7	400	623	M16	219	55	110	59.3	16
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
AMS280	450	25	500	7	550	702	M16	297.5	75	140	79.9	20

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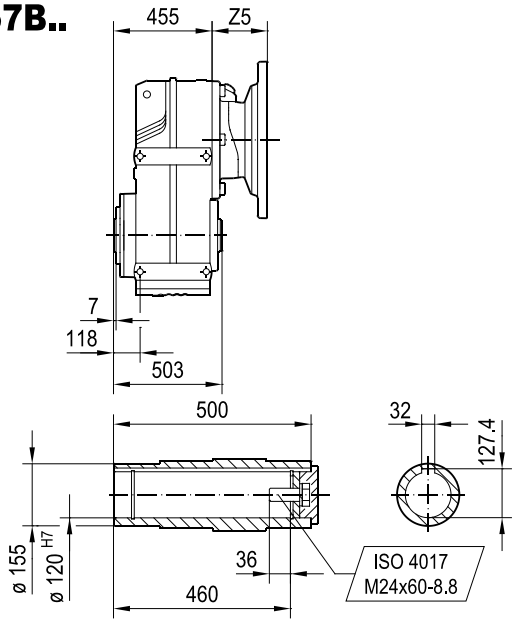
42 272 00 20

F157..

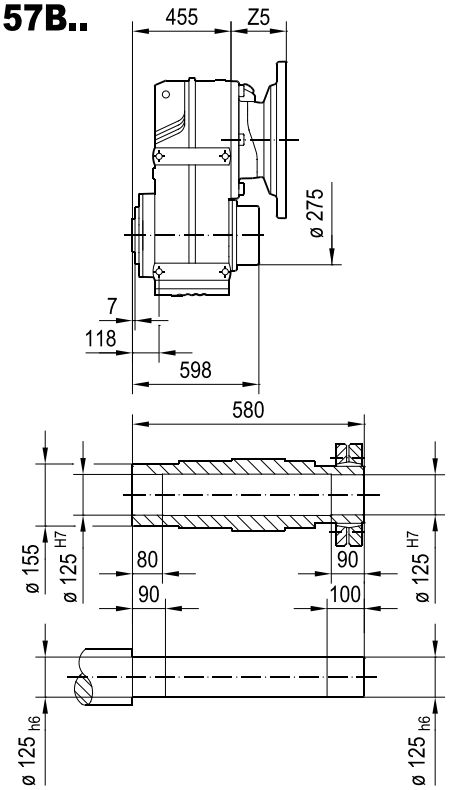
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FA157B..



FH157B..



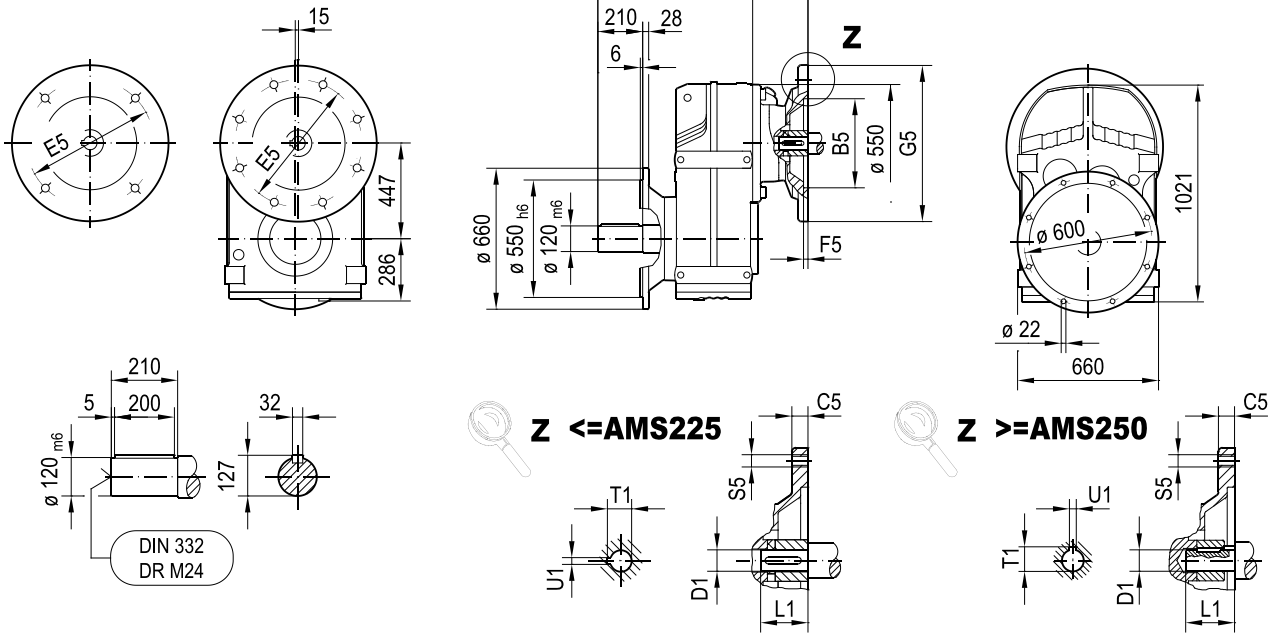
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS160	250	18	300	6	350	812	M16	150	42	110	45.3	12
AMS180	250	18	300	6	350	812	M16	150	48	110	51.8	14
AMS200	300	20	350	7	400	873	M16	211	55	110	59.3	16
AMS225	350	22	400	7	450	888	M16	226	60	140	64.4	18
AMS250	450	25	500	7	550	952	M16	289.5	65	140	69.4	18
AMS280	450	25	500	7	550	952	M16	289.5	75	140	79.9	20

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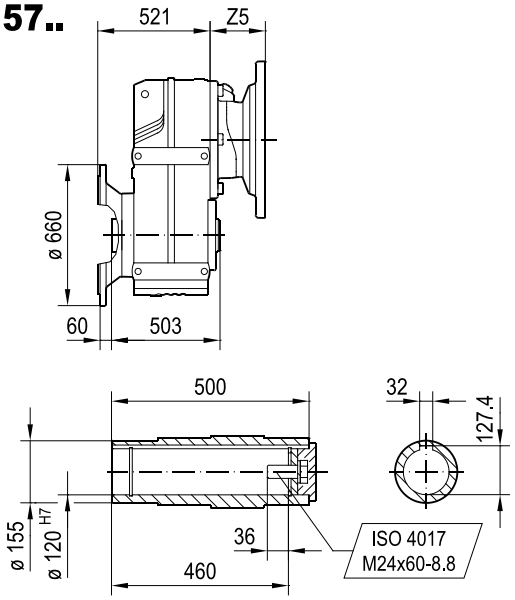
42 273 00 20

FF157..

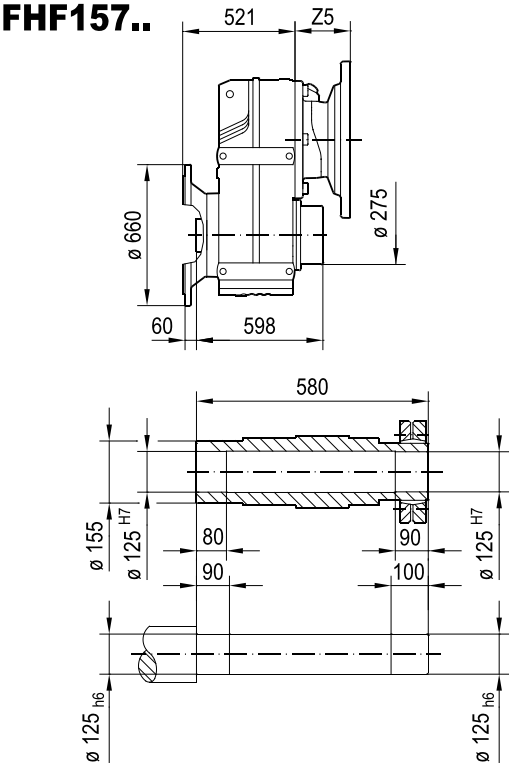
<=AMS200 **>=AMS225**



FAF157..



FHF157..



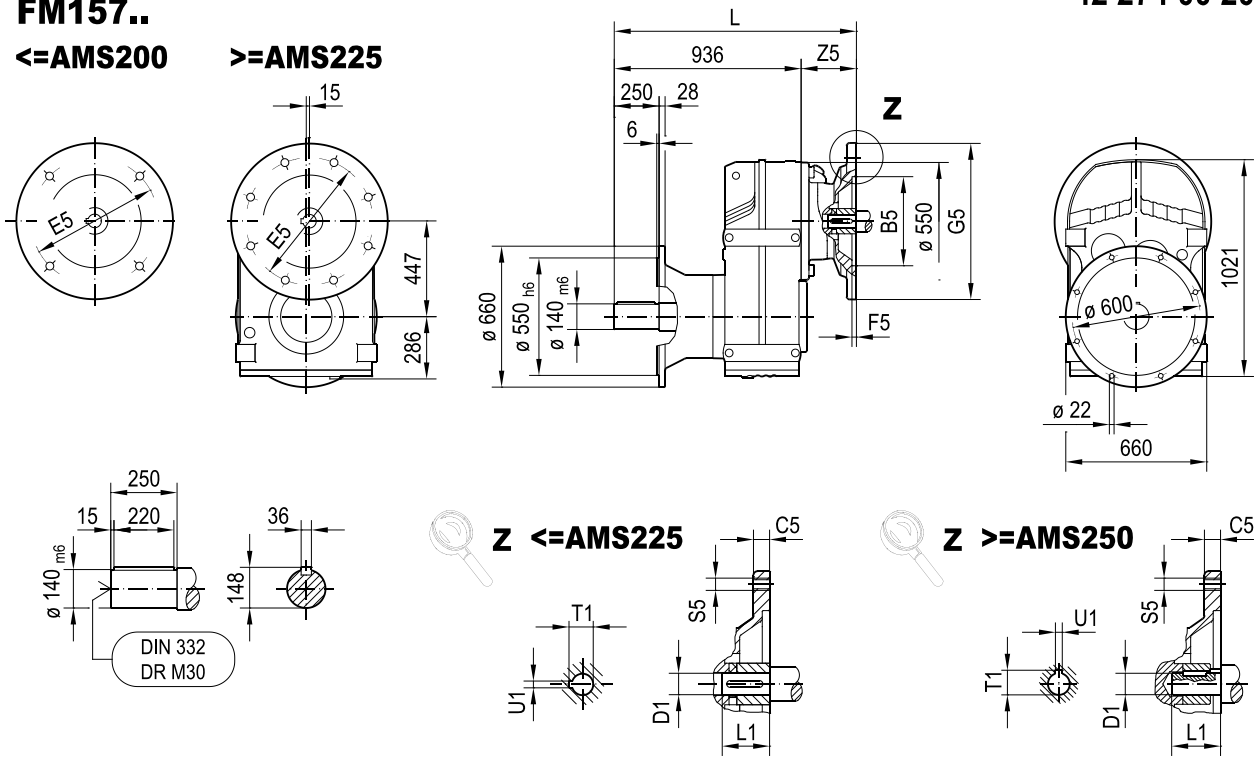
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS160	250	18	300	6	350	875	M16	150	42	110	45.3	12
AMS180	250	18	300	6	350	875	M16	150	48	110	51.8	14
AMS200	300	20	350	7	400	936	M16	211	55	110	59.3	16
AMS225	350	22	400	7	450	951	M16	226	60	140	64.4	18
AMS250	450	25	500	7	550	1015	M16	289.5	65	140	69.4	18
AMS280	450	25	500	7	550	1015	M16	289.5	75	140	79.9	20

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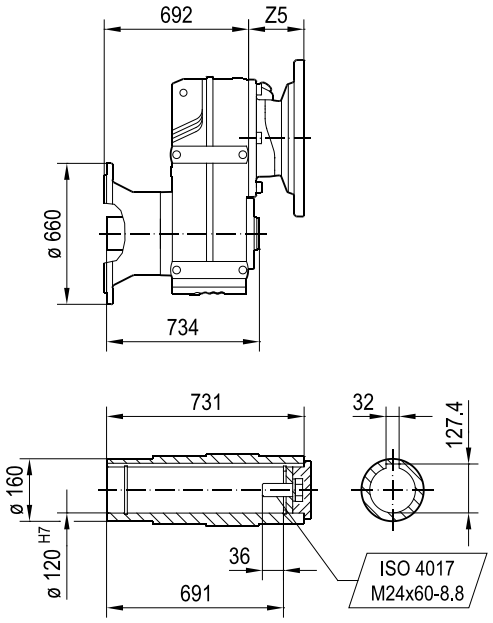
42 274 00 20

FM157..

<=AMS200 **>=AMS225**



FAM157..



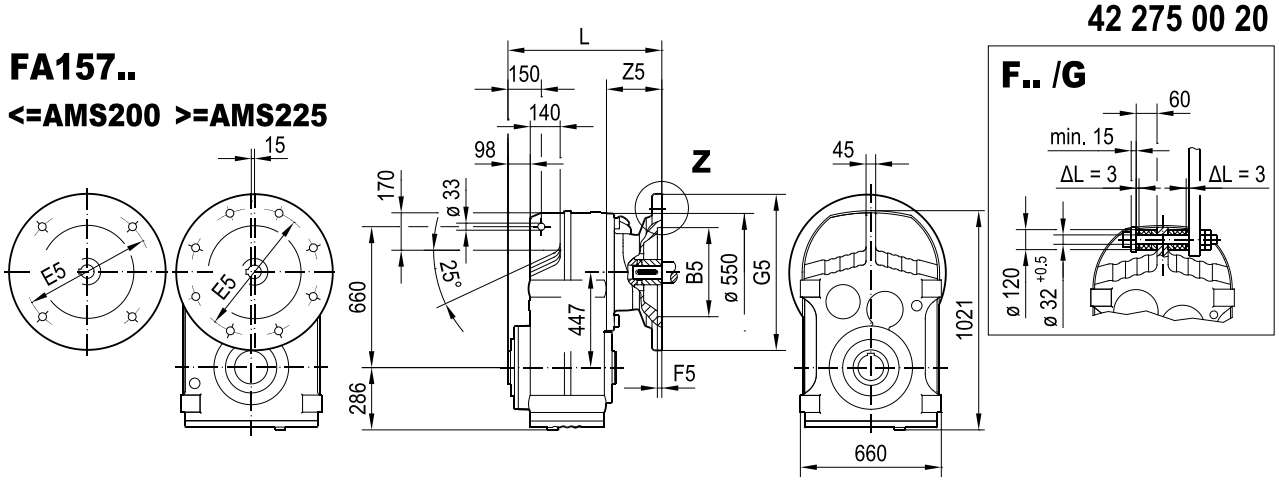
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS160	250	18	300	6	350	1086	M16	150	42	110	45.3	12
AMS180	250	18	300	6	350	1086	M16	150	48	110	51.8	14
AMS200	300	20	350	7	400	1147	M16	211	55	110	59.3	16
AMS225	350	22	400	7	450	1162	M16	226	60	140	64.4	18
AMS250	450	25	500	7	550	1226	M16	289.5	65	140	69.4	18
AMS280	450	25	500	7	550	1226	M16	289.5	75	140	79.9	20

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42 275 00 20

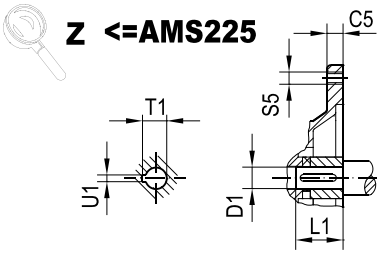
FA157..

<=AMS200 >=AMS225

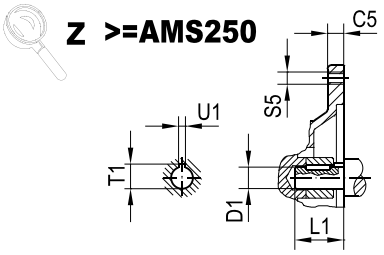


F.. /G

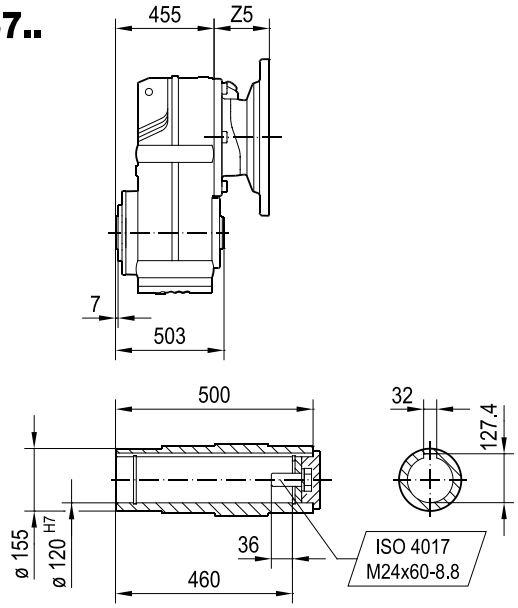
Z <=AMS225



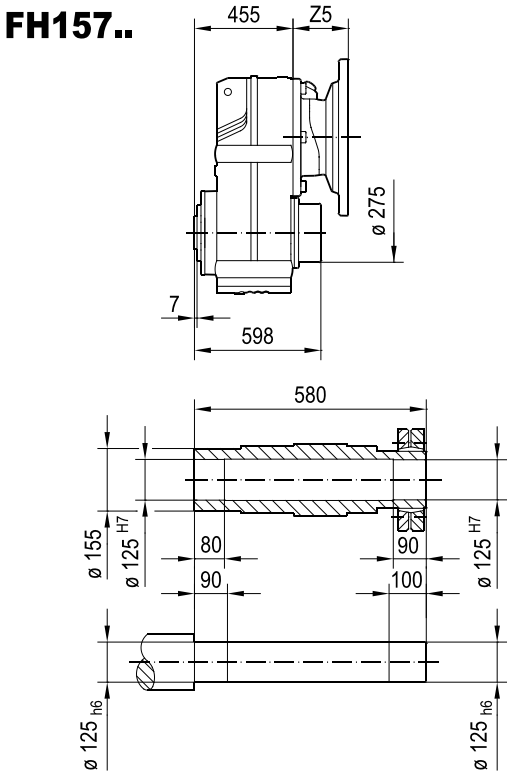
Z >=AMS250



FA157..



FH157..



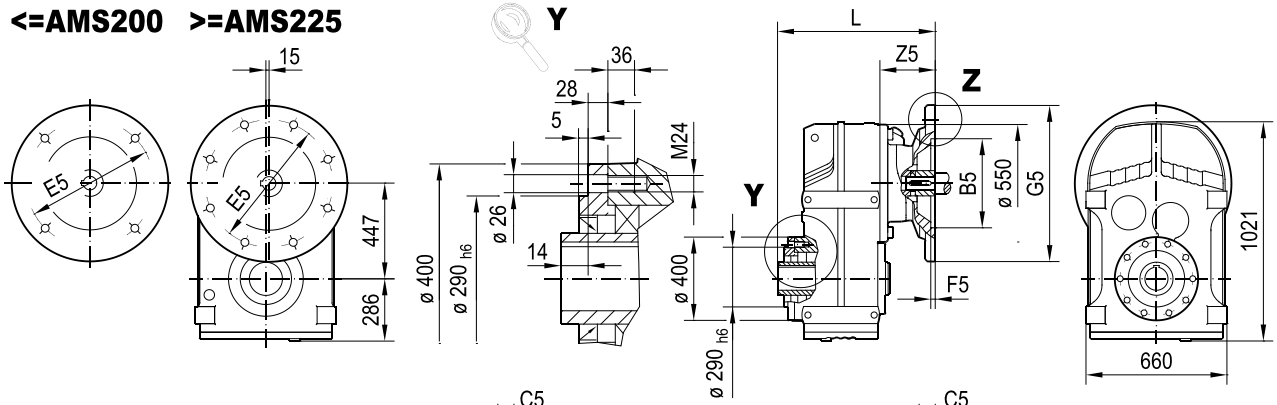
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS160	250	18	300	6	350	605	M16	150	42	110	45.3	12
AMS180	250	18	300	6	350	605	M16	150	48	110	51.8	14
AMS200	300	20	350	7	400	666	M16	211	55	110	59.3	16
AMS225	350	22	400	7	450	681	M16	226	60	140	64.4	18
AMS250	450	25	500	7	550	745	M16	289.5	65	140	69.4	18
AMS280	450	25	500	7	550	745	M16	289.5	75	140	79.9	20

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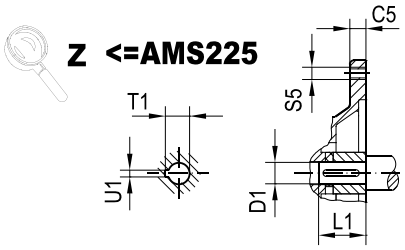
42 276 00 20

FAZ157..

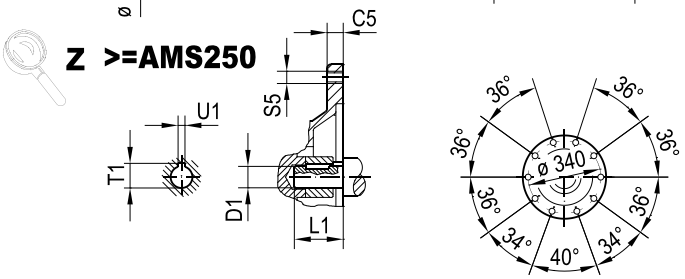
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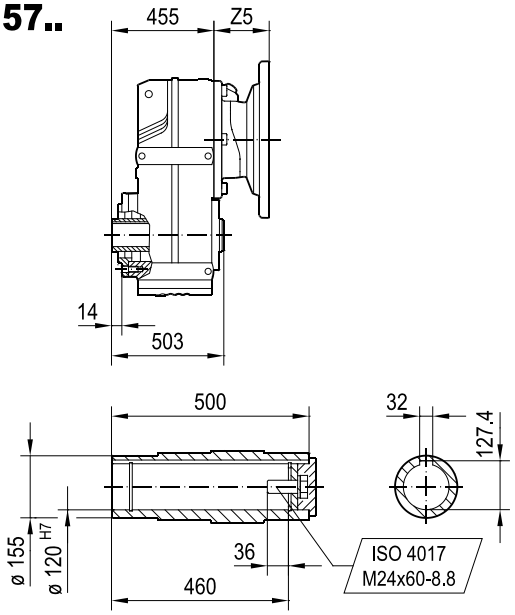
Z <=AMS225



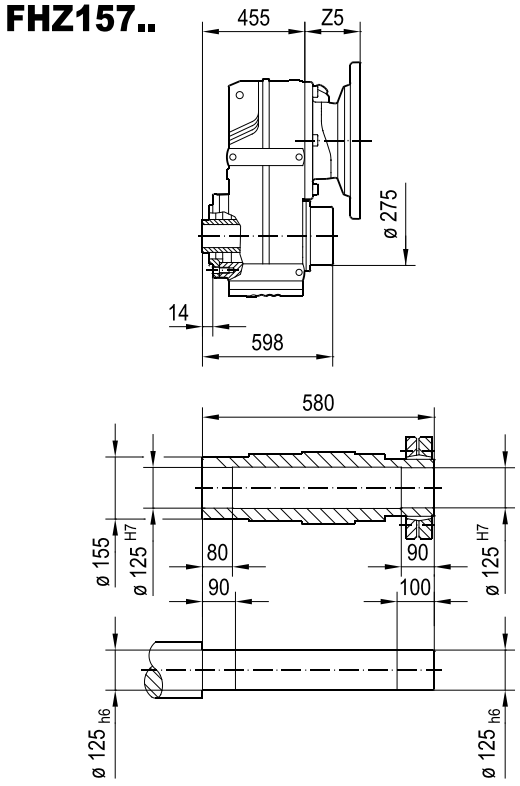
Z >=AMS250



FAZ157..



FHZ157..



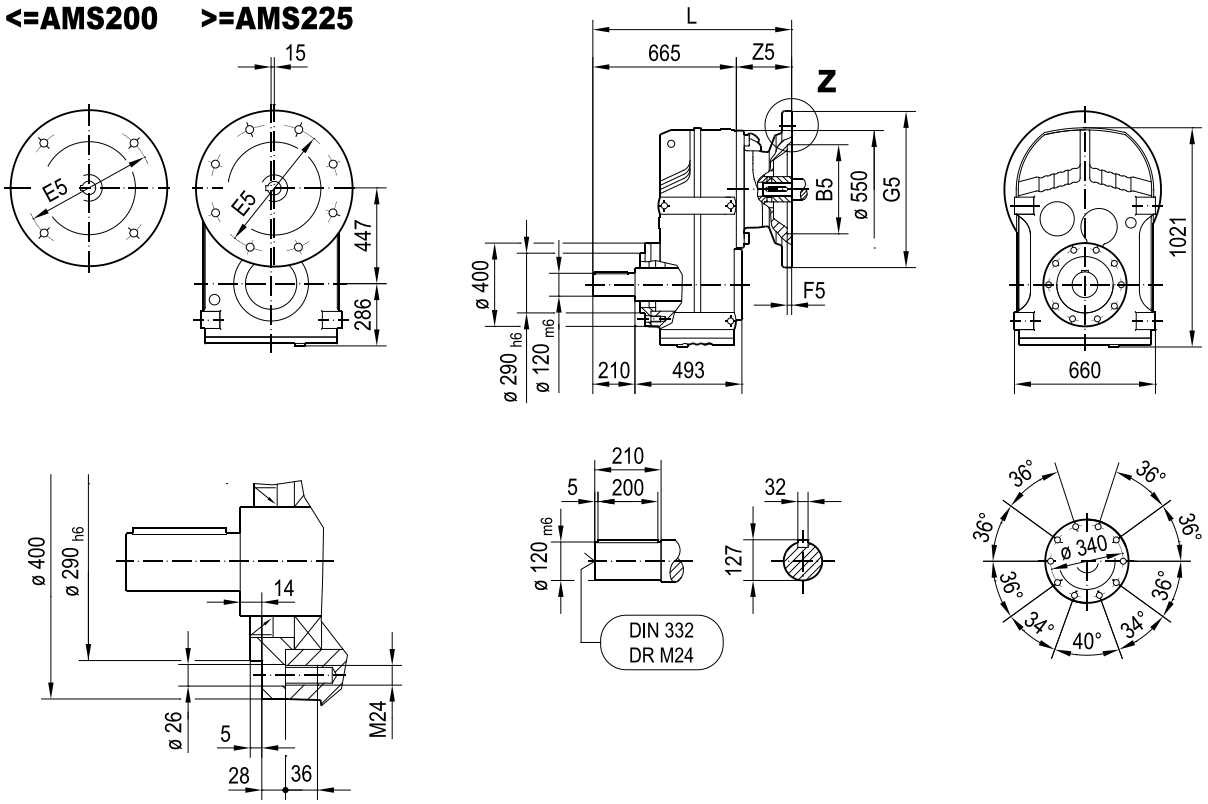
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS160	250	18	300	6	350	605	M16	150	42	110	45.3	12
AMS180	250	18	300	6	350	605	M16	150	48	110	51.8	14
AMS200	300	20	350	7	400	666	M16	211	55	110	59.3	16
AMS225	350	22	400	7	450	681	M16	226	60	140	64.4	18
AMS250	450	25	500	7	550	745	M16	289.5	65	140	69.4	18
AMS280	450	25	500	7	550	745	M16	289.5	75	140	79.9	20

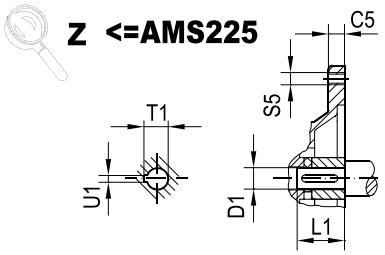
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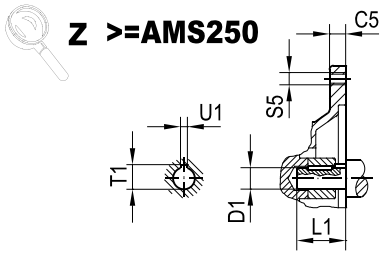
42 277 00 20

FZ157..

<=AMS200 >=AMS225



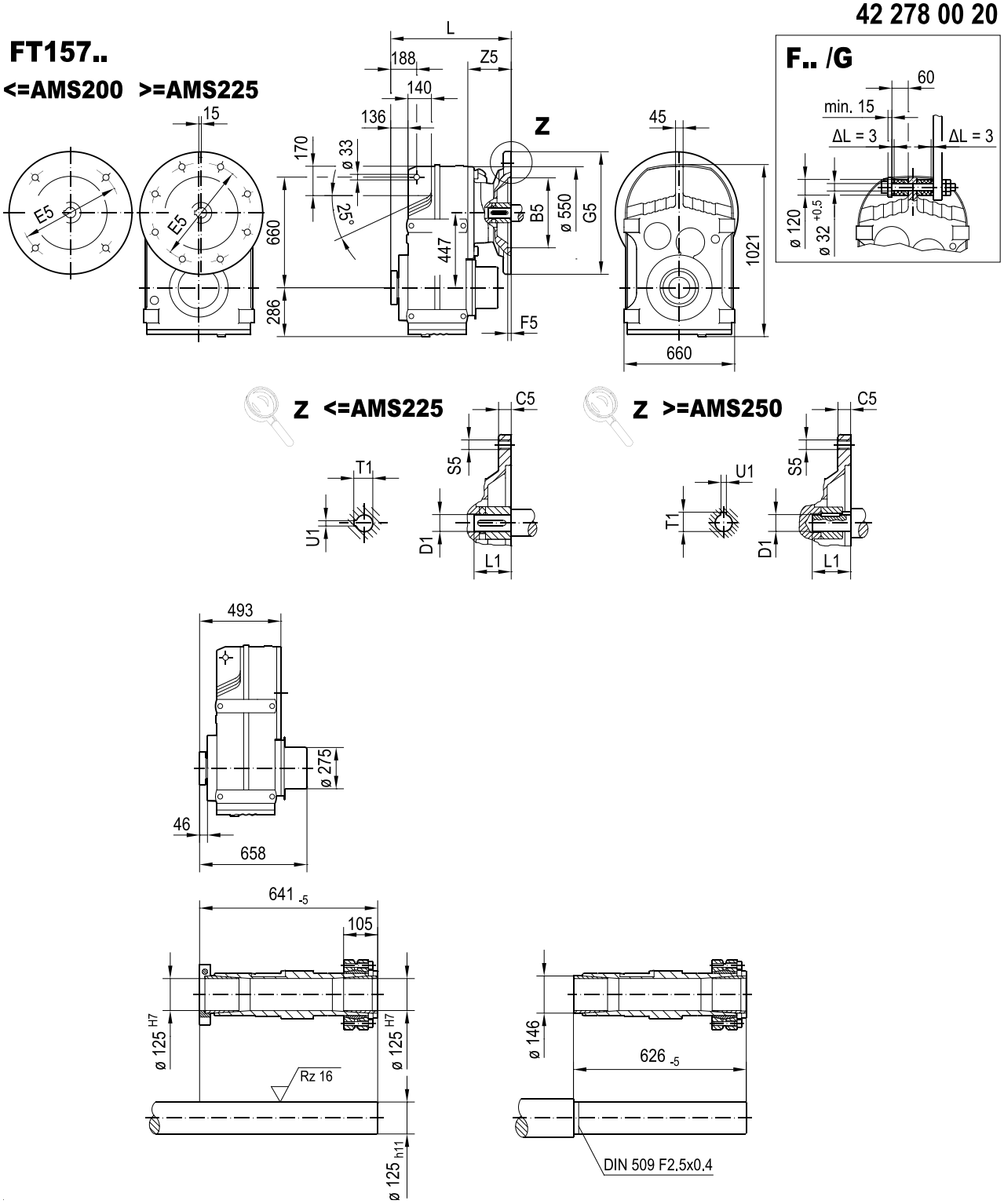




(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS160	250	18	300	6	350	815	M16	150	42	110	45.3	12
AMS180	250	18	300	6	350	815	M16	150	48	110	51.8	14
AMS200	300	20	350	7	400	876	M16	211	55	110	59.3	16
AMS225	350	22	400	7	450	891	M16	226	60	140	64.4	18
AMS250	450	25	500	7	550	955	M16	289.5	65	140	69.4	18
AMS280	450	25	500	7	550	955	M16	289.5	75	140	79.9	20

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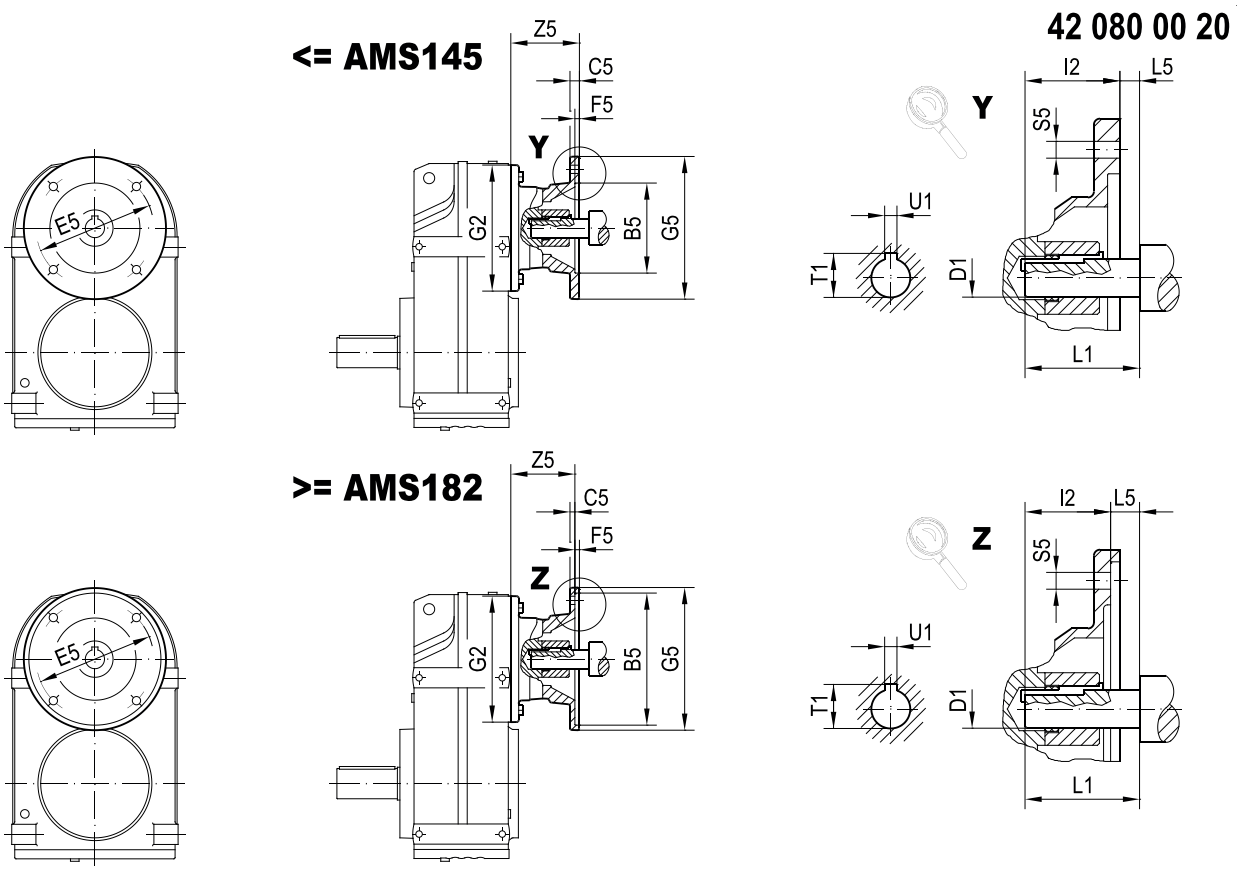
42 278 00 20



(→ 📖 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

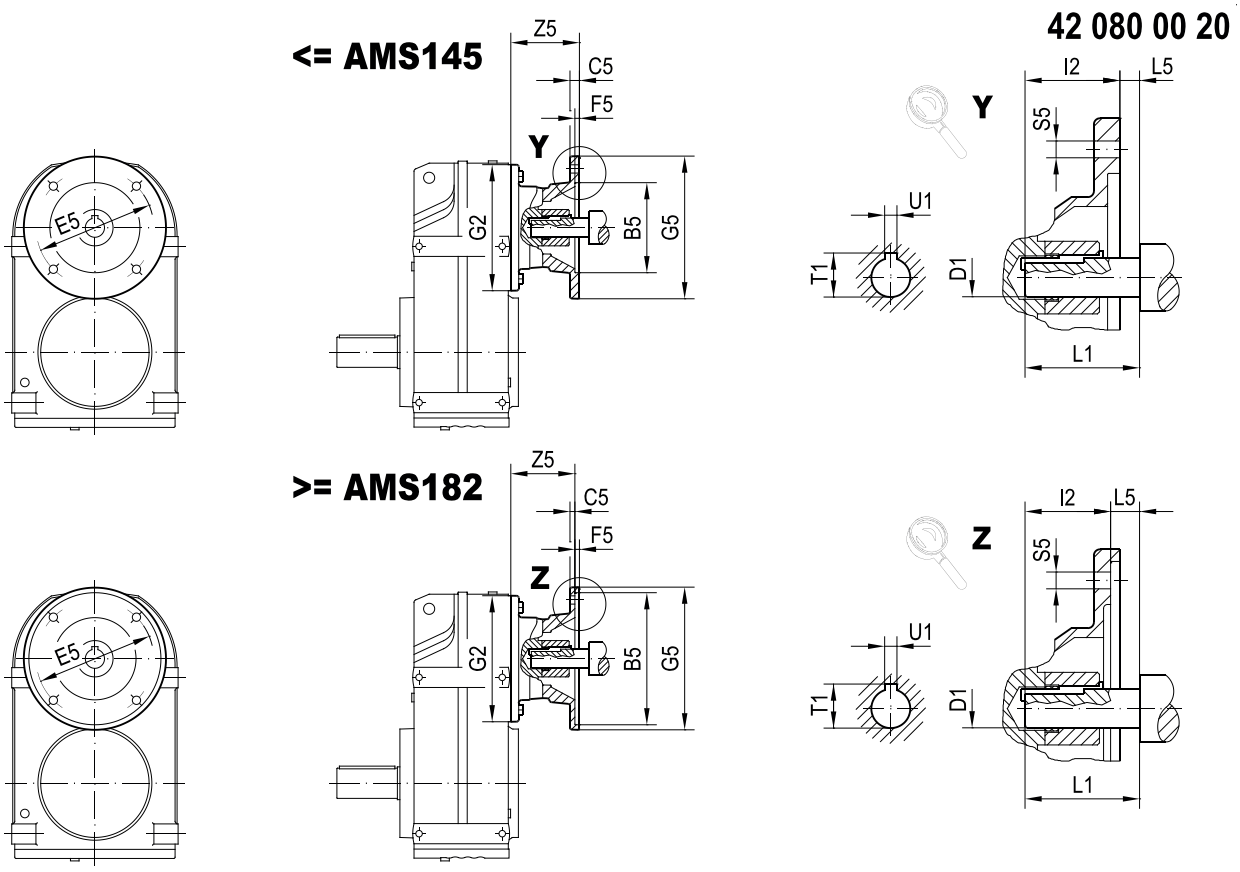
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9.5 Dimension sheets for adapters for mounting NEMA motors (AMS..)



		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

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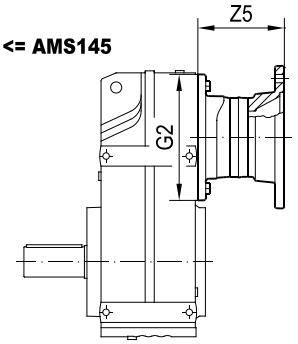
		B5	C5	E5	F5	G2	G5	I2	L5	S5	Z5	D1	L1	T1	U1
F..97	AMS182	215.9	10	184	5	300	228	66.6	3.3	15	96	28.6	69.9	31.7	6.35
	AMS184	215.9	10	184	5	300	228	66.6	3.3	15	96	28.6	69.9	31.7	6.35
	AMS213/215	215.9	11	184	5	300	228	79.2	6.6	15	120.5	34.9	85.9	38.7	7.94
	AMS254/256	215.9	12	184	5	300	228	95.3	6.4	15	180	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	246.5	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	231.5	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	223.5	60.3	149.4	67.6	15.88

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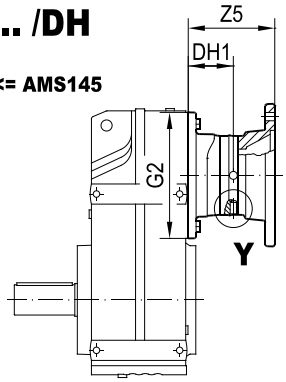
9.6 Dimension sheets for adapters with backstop (RS..) and drain hole (DH..)

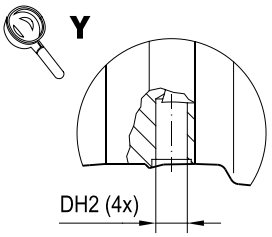
42 285 01 20

AMS.. /RS
IEC
NEMA: <= AMS145

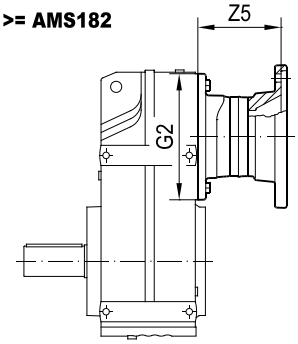


AMS.. /DH
IEC
NEMA: <= AMS145

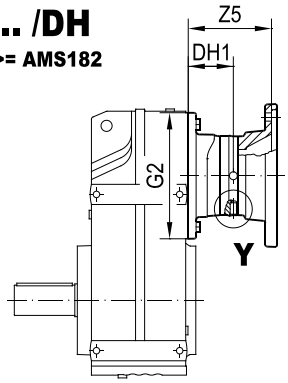




AMS.. /RS
NEMA: >= AMS182



AMS.. /DH
NEMA: >= AMS182



		/RS		/DH			
		G2	Z5	G2	Z5	DH1	DH2
F..27 F..37 F..47	AMS56	–	–	120	105	60	9
	AMS63	–	–	120	78.5	46	9
	AMS71	–	–	120	78.5	46	9
	AMS80	120	121	120	97.5	60	9
	AMS90	120	121	120	109	64	9
	AMS143	120	128.5	120	116.5	64	9
	AMS145	120	128.5	120	116.5	64	9
F..57 F..67	AMS56	–	–	160	98.5	54	9
	AMS63	–	–	160	72	40	9
	AMS71	–	–	160	72	40	9
	AMS80	160	114.5	160	91	54	9
	AMS90	160	114.5	160	102.5	57	9
	AMS100	160	153	160	153	97	9
	AMS112	160	153	160	153	97	9
	AMS132S/M	160	181.5	160	181.5	116	9
	AMS143	160	122	160	110	57	9
	AMS145	160	122	160	110	57	9
	AMS182	160	158.5	160	158.5	97	9
	AMS184	160	158.5	160	158.5	97	9
	AMS213/215	160	186	160	186	116	9

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		/RS		/DH			
		G2	Z5	G2	Z5	DH1	DH2
F..77	AMS56	–	–	200	91.5	47	9
	AMS63	–	–	200	66	34	9
	AMS71	–	–	200	66	34	9
	AMS80	200	107.5	200	84	47	9
	AMS90	200	107.5	200	95.5	50	9
	AMS100	200	145	200	145	89	9
	AMS112	200	145	200	145	89	9
	AMS132ML	200	173.5	200	173.5	108	9
	AMS132S/M	200	173.5	200	173.5	108	9
	AMS143	200	115	200	103	50	9
	AMS145	200	115	200	103	50	9
	AMS182	200	150.5	200	150.5	89	9
	AMS184	200	150.5	200	150.5	89	9
	AMS213/215	200	178	200	178	108	9
F..87	AMS80	250	102.5	250	79	42	9
	AMS90	250	102.5	250	90.5	45	9
	AMS100	250	140	250	140	84	9
	AMS112	250	140	250	140	84	9
	AMS132ML	250	168.5	250	168.5	103	9
	AMS132S/M	250	168.5	250	168.5	103	9
	AMS143	250	110	250	98	45	9
	AMS145	250	110	250	98	45	9
	AMS160	250	184	250	222	124	8
	AMS180	250	184	250	222	124	8
	AMS182	250	145.5	250	145.5	84	9
	AMS184	250	145.5	250	145.5	84	9
	AMS213/215	250	173	250	173	103	9
	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	9
	AMS112	300	135	300	135	79	9
	AMS132ML	300	163.5	300	163.5	98	9
	AMS132S/M	300	163.5	300	163.5	98	9
	AMS160	300	179	300	217	119	8
	AMS180	300	179	300	217	119	8
	AMS182	300	140.5	300	140.5	79	9
	AMS184	300	140.5	300	140.5	79	9
	AMS200	300	240	300	240	141	8
	AMS213/215	300	168	300	168	98	9
	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

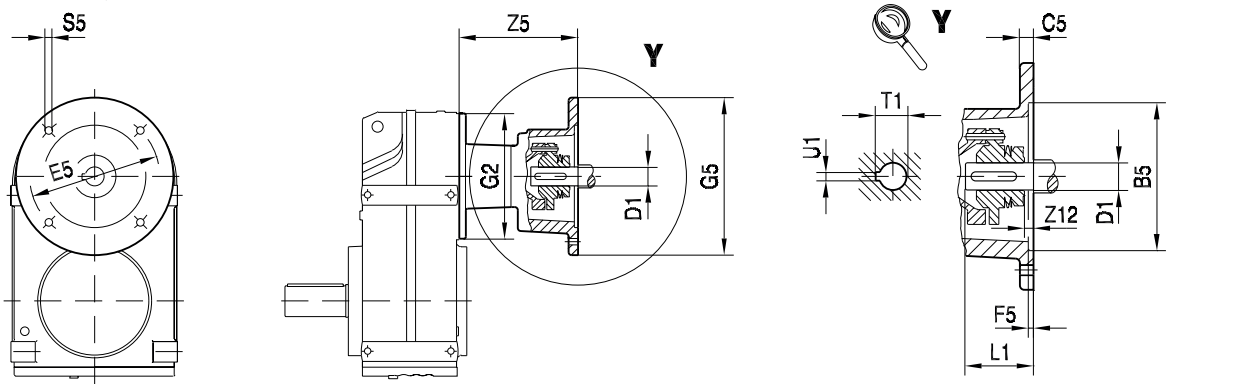
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		/RS		/DH			
		G2	Z5	G2	Z5	DH1	DH2
F..107	AMS100	350	129	350	129	73	9
	AMS112	350	129	350	129	73	9
	AMS132ML	350	157.5	350	157.5	92	9
	AMS132S/M	350	157.5	350	157.5	92	9
	AMS160	350	173	350	211	113	8
	AMS180	350	173	350	211	113	8
	AMS182	350	134.5	350	134.5	73	9
	AMS184	350	134.5	350	134.5	73	9
	AMS200	350	234	350	234	135	8
	AMS213/215	350	162	350	162	92	9
	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	9
	AMS132S/M	450	142.5	450	142.5	77	9
	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	9
	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

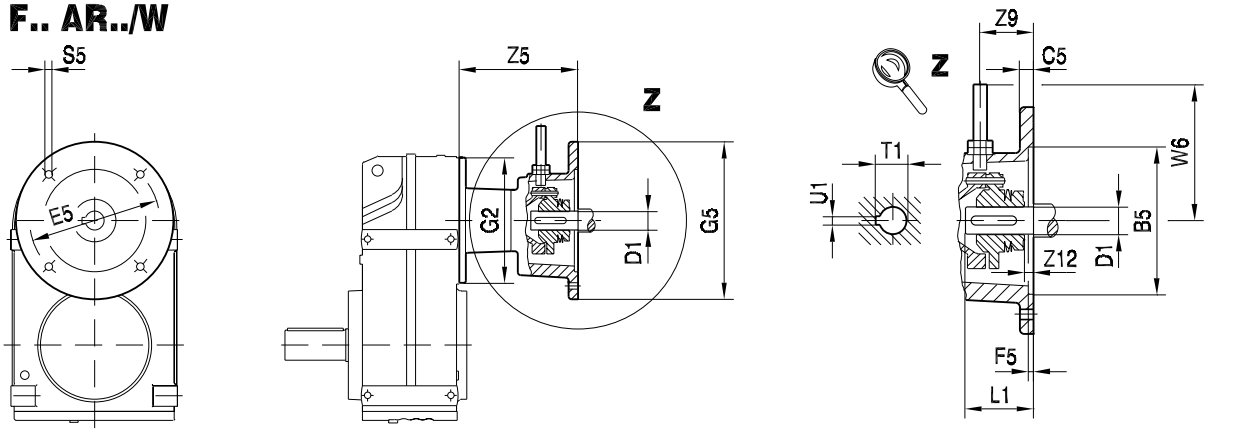
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9.7 Dimension sheets for adapters with slip clutch (AR..)

F.. AR.. **42 090 02 01**



F.. AR../W

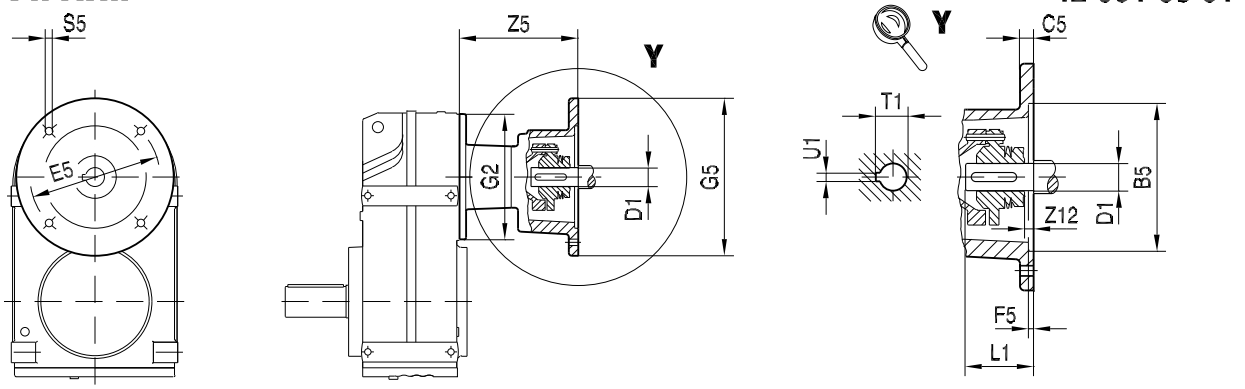


		B5	C5	E5	F5	G2	G5	S5	W6	Z5	Z9	Z12	D1	L1	T1	U1
F..27 F..37 F..47	AR71	110	10	130	3.5	120	160	M8	120	104	37	0	14	30	16.3	5
	AR80	130	12	165	4.5		200	M10		140.5			19	40	21.8	6
	AR90												24	50	27.3	8
F..57 F..67	AR71	110	10	130	3.5	160	160	M8	120	97.5	37	0	14	30	16.3	5
	AR80	130	12	165	4.5		200	M10		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															
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
	AR112															
	AR132S/M	230	16	265	5		300	M12	145	234	72	5	38	80	41.3	10
	AR132ML															
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
	AR112															
	AR132S/M	230	16	265	5		300	M12	145	229	72	5	38	80	41.3	10
	AR132ML															
	AR160	250	18	300	6		350	M16	165	306.5	105	35	42	110	45.3	12
	AR180												48	110	51.8	14

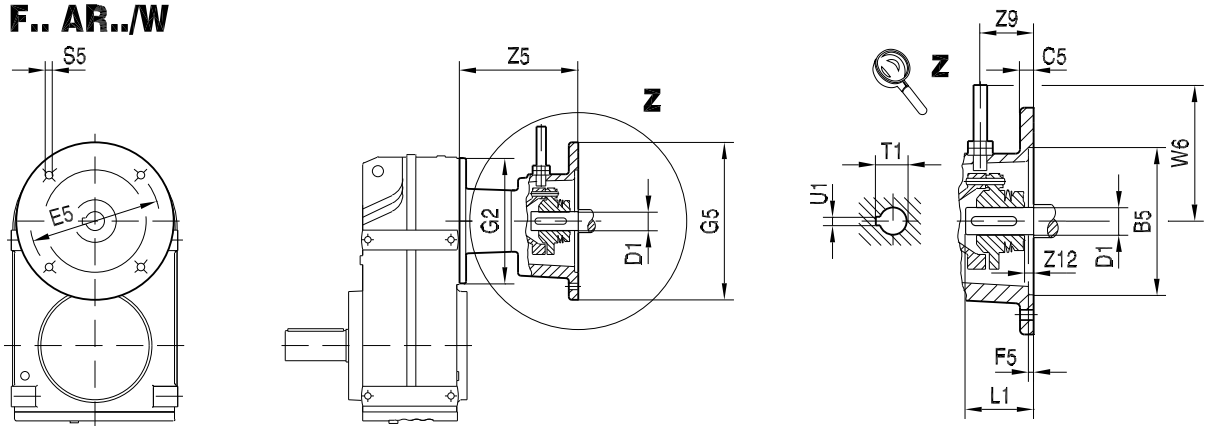
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F.. AR..

42 091 03 01



F.. AR../W

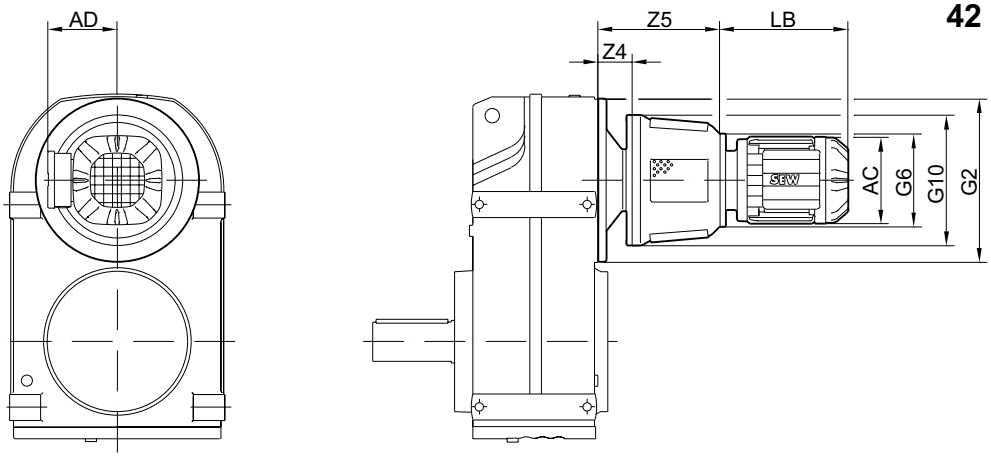


		B5	C5	E5	F5	G2	G5	S5	W6	Z5	Z9	Z12	D1	L1	T1	U1
F..97	AR100	180	15	215	5	300	250	M12	130	156.5	52	5.5	28	60	31.3	8
	AR112															
	AR132S/M	230	16	265	5		300	M12	145	224	72	5	38	80	41.3	10
	AR132ML															
	AR160	250	18	300	6		350	M16	165	301.5	105	35	42	110	45.3	12
	AR180												48	110	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	110	45.3	12
	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..)

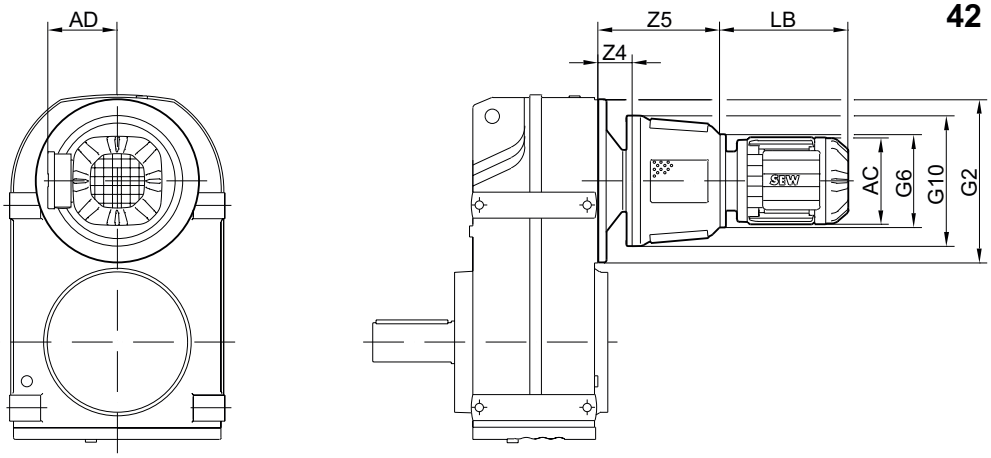
42 092 04 01



			AC	AD	G6	G10	LB	Z4	Z5	G2
F67	**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			
F77	**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			

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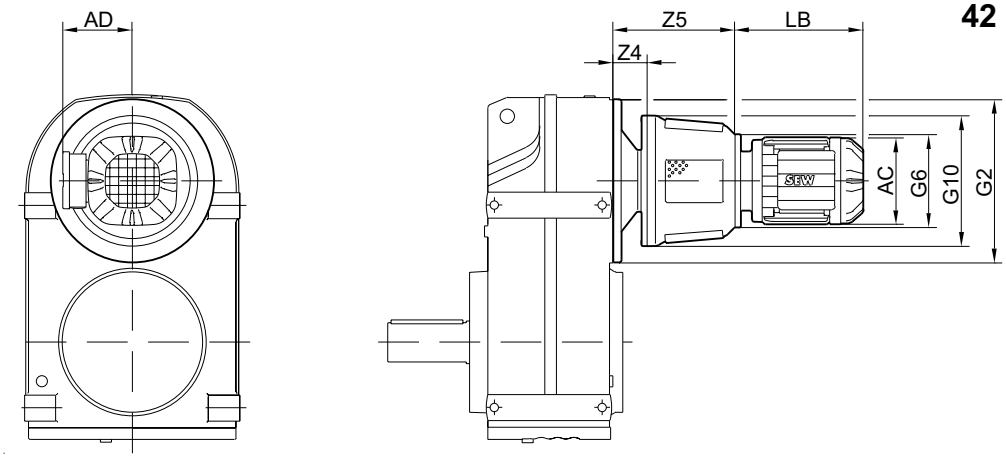
42 093 04 01



			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					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	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			

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42 094 04 01



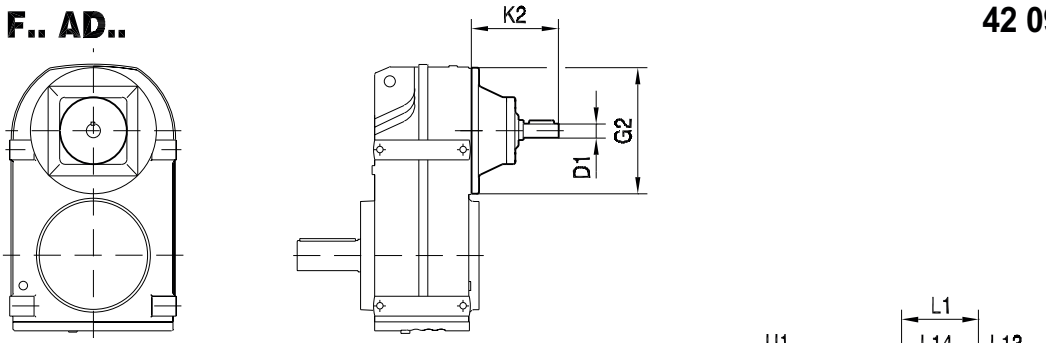
			AC	AD	G6	G10	LB	Z4	Z5	G2
F107	AT311 AT312	DRN100LM	197	157	200	280	359	73	262	350
		DRN112M	221	170			387			
	AT321	DRN132S	221	170	250	350	437	73	309	
	AT421 AT422	DRN100LS	197	157	250	350	309	117	352	
		DRN100L					359			
		DRN112M	221	170			387			
		DRN132S					437			
	AT541 AT542	DRN132M	261	228	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	450
	AT541 AT542	DRN132S	221	170	350	470	437	133	452	
		DRN132M	261	228			439			
		DRN132L					464			
		DRN160M	316	253			532			
		DRN160L					532			
		DRN180M	357	268			557			
		DRN180L					557			
F157	AT541 AT542	DRN160M	316	253	350	470	532	125	444	550
		DRN160L					532			
		DRN180M	357	268			557			
		DRN180L					557			

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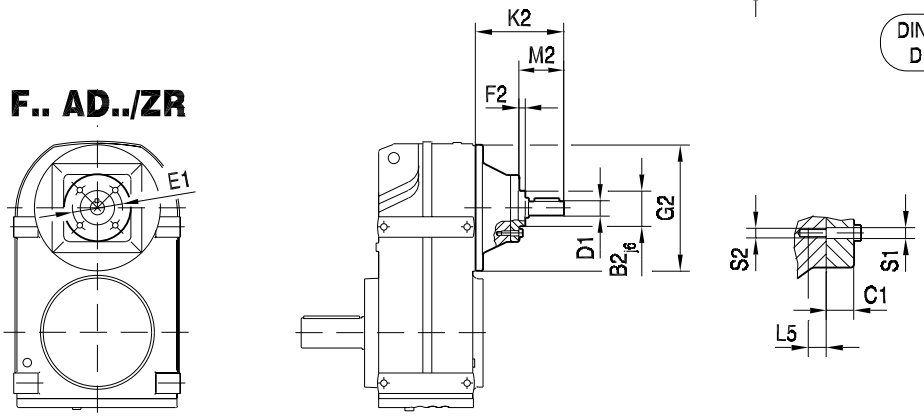
9.9 Dimension sheets for input shaft assembly (AD..)

F.. AD..

42 098 01 01



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

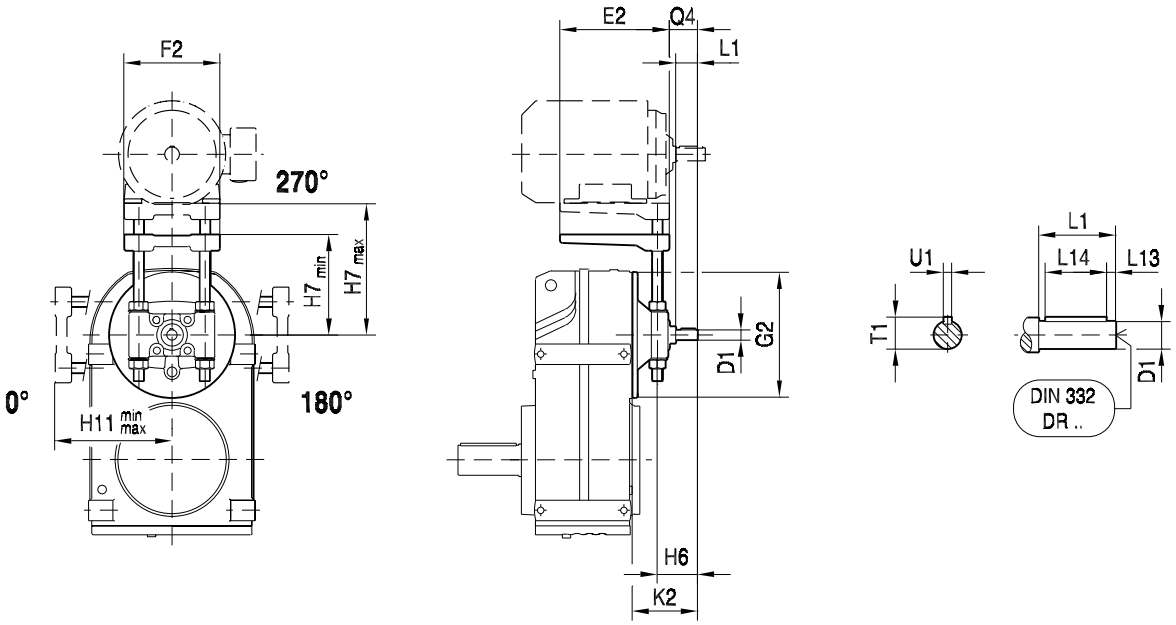
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		B2	C1	E1	F2	G2	K2	L5	M2	S1	S2	D1	L1	L13	L14	T1	U1
F..157	**AD5, AD5/ZR**	120	24	180	11	550	258	20	126	13.5	M12	42	110	10	70	45	12
	AD6, AD6/ZR	130	22.5	200	11		298	26	130.5	17.5	M16	48	110	10	80	51.5	14
	AD7, AD7/ZR	125	19	190	13		292	30	133	22	M20	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

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9.10 Dimension sheets for input shaft assembly with motor platform (AD../P)

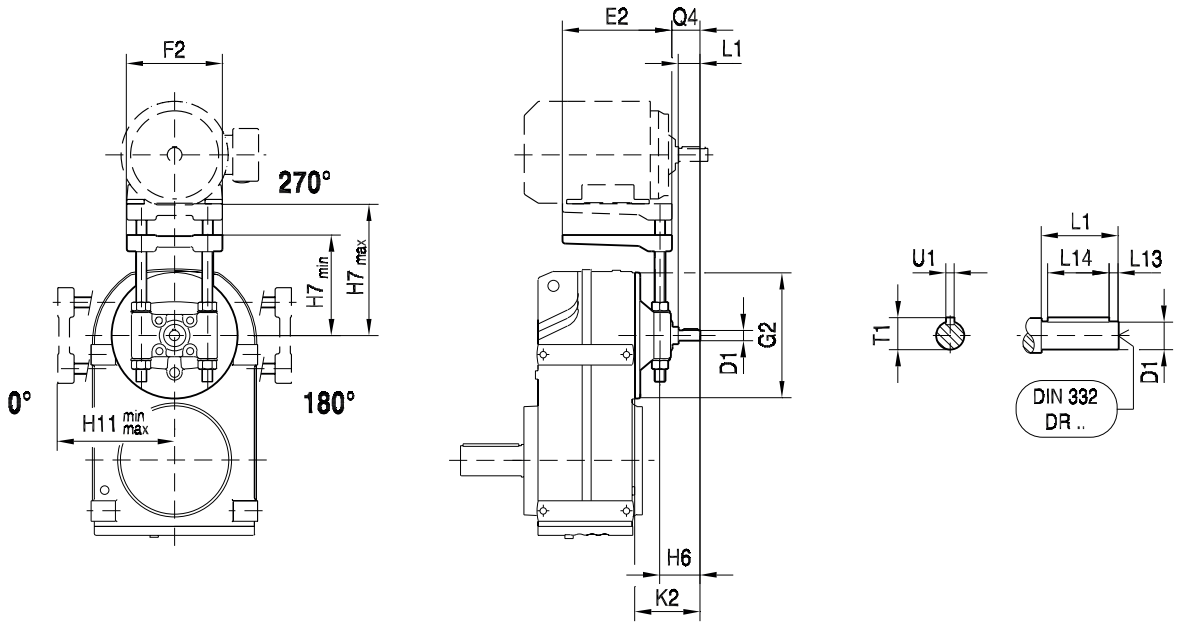
42 099 01 01



		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

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42 101 01 01



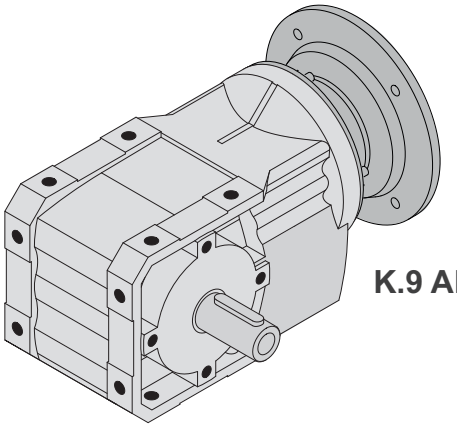
		E2	F2	G2	H6	H7 min	H7 max	H11 min	H11 max	K2	Q4	D1	L1	L13	L14	T1	U1
F..127	AD4/P	345	291	450	118	240	280	310	360	193	83	38	80	5	70	41	10
	AD5/P	430	355		153	295	405	320	405	266	113	42	110	10	70	45	12
	AD6/P	495	457		163	295	360	310	360	306	114	48	110	10	80	51.5	14
	AD7/P	650	570		170	300	365	310	365	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).

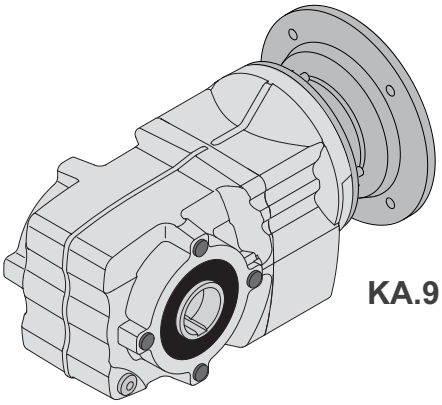
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10 K.. helical-bevel gear units

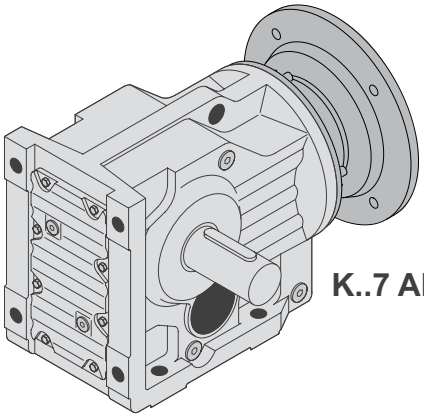
10.1 Selection tables for adapters for mounting IEC/NEMA motors (AMS..)



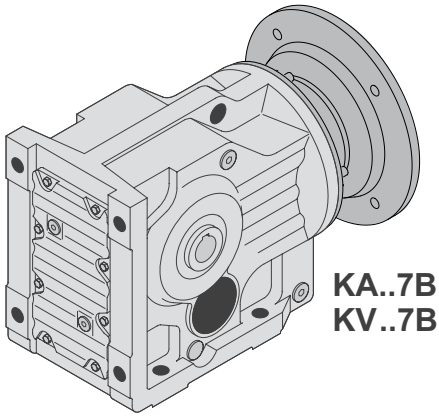
K.9 AMS..



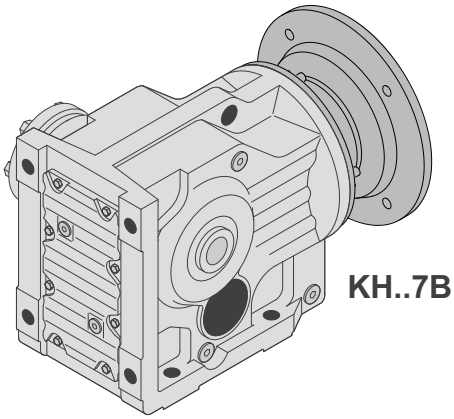
KA.9 AMS..



K..7 AMS..



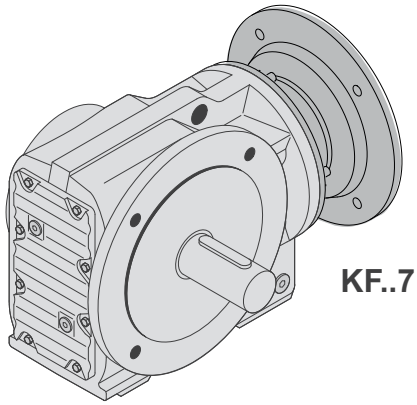
KA..7B AMS..
KV..7B AMS..



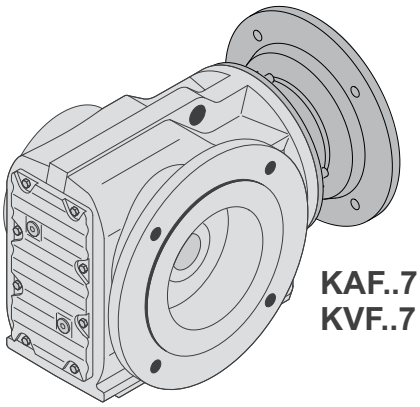
KH..7B AMS..

9007220696304395

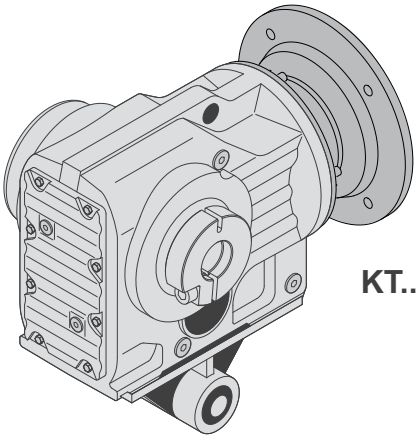
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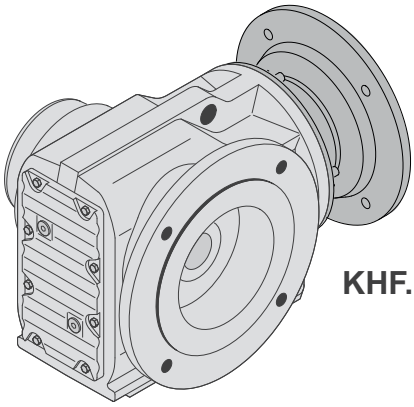
KF..7 AMS..



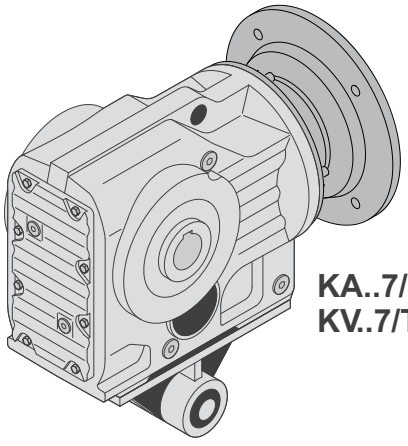
KAF..7 AMS..
KVF..7 AMS..



KT..7/T AMS..



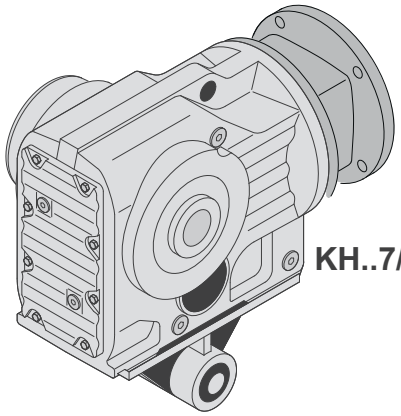
KHF..7 AMS..



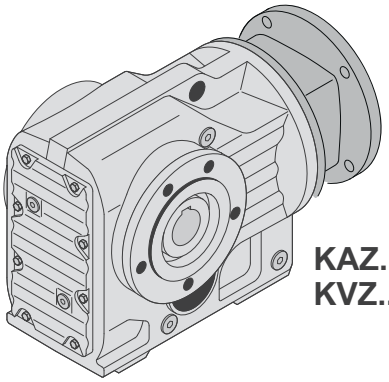
KA..7/T AMS..
KV..7/T AMS..

9007220696306827

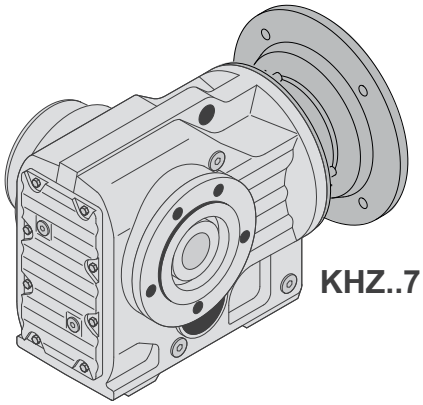
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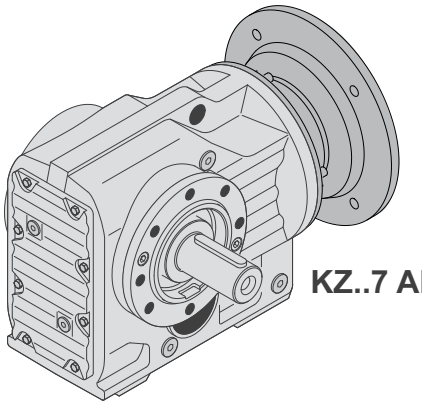
KH..7/T AMS..



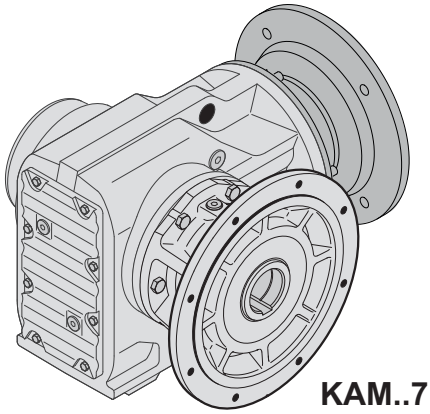
KAZ..7 AMS..
KVZ..7 AMS..



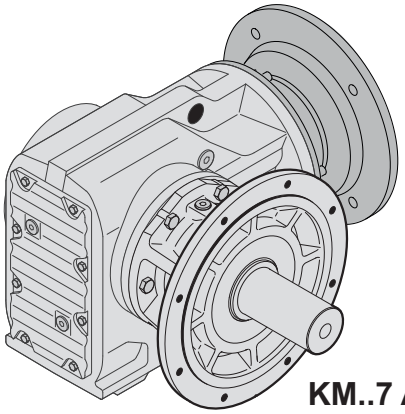
KHZ..7 AMS..



KZ..7 AMS..



KAM..7 AMS..



KM..7 AMS..

9007220696334859

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K19, n_e = 1400 min^{-1}, $M_{a\ max}$/Nm								80 Nm
i	n_a min^{-1}	$M_{a\ max\ G}$ Nm	F_{Ra} [1] N	$\varphi_{(/R)}$ '	AMS 63	AMS 71	AMS 80	AMS 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 63	AMS 71	AMS 80	AMS 90
K	IEC	s				
		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						

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K29, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm								130 Nm
i	n_a min^{-1}	$M_{a\,max\,G}$ Nm	F_{Ra} [1] N	$\varphi_{(/R)}$ '	AMS 63	AMS 71	AMS 80	AMS 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 63	AMS 71	AMS 80	AMS 90
K	IEC	s				
		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						

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K37, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm								200 Nm
i	n_a min^{-1}	$M_{a\,max\,G}$ Nm	F_{Ra} [1] N	$\varphi_{(/R)}$ '	AMS 63	AMS 71	AMS 80	AMS 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 63	AMS 71	AMS 80	AMS 90
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						

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K39, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm										300 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS					
	min^{-1}	Nm	N	'	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					
	IEC	s	63	71	80	90	100	112
K		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								

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K47, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm										400 Nm
i	n_a min^{-1}	$M_{a\,max\,G}$ Nm	F_{Ra} [1] N	$\varphi_{(/R)}$ '	AMS 63	AMS 71	AMS 80	AMS 90	AMS 100	AMS 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 63	AMS 71	AMS 80	AMS 90	AMS 100	AMS 112
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								

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K49, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm											500 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS						
	min^{-1}	Nm	N	'	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						
	IEC	s	63	71	80	90	100	112	132S/M
K		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									

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K57, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm											600 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS						
	min^{-1}	Nm	N	'	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						
	IEC	s	63	71	80	90	100	112	132S/M
K		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									

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K67, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm												820 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS							
	min^{-1}	Nm	N	'	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						
	IEC	s	63	71	80	90	100	112	132S/M
K		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									

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K77, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm												1550 Nm
i	n_a min^{-1}	$M_{a\,max\,G}$ Nm	F_{Ra} [1] N	$\varphi_{(/R)}$ '	AMS 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 63	71	80	90	100	112	132S/M	132ML
K	IEC	s								
		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										

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K87, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm												2700 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS							
	min^{-1}	Nm	N	'	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
10.00	140	1500	14200	7			520	585	1090	1370	1500	1500
11.17	125	1500	14900	7	199	260	575	655	1220	1430	1500	1500
12.56	111	2000	14800	6					1370	2000	2000	2000
14.45	97	2100	15300	6			765	840	1570	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
19.45	72	2300	16800	6	345	455	1000	1140	2120	2300	2300	2300
22.41	62	2300	17900	6	400	530	1140	1310	2300	2300	2300	2300
24.92	56	2500	18000	6	450	590	1240	1460	2500	2500	2500	2500
27.88	50	2600	18500	6	505	660	1370	1640	2600	2600	2600	
31.39	45	2700	19200	6	570	745	1500	1780	2700	2700	2700	
36.52	38	2500	21400	6			1920	2110	2500	2500	2500	2500
44.02	32	2600	22800	6			2280	2550	2600	2600	2600	2600
49.16	28	2700	23500	5	870	1140	2520	2700	2700	2700	2700	2700
56.64	25	2700	25000	5	1000	1320	2700	2700	2700	2700	2700	2700
63.00	22	2700	26200	5	1120	1480	2700	2700	2700	2700	2700	2700
70.46	20	2700	27300	5	1260	1660	2700	2700	2700	2700	2700	
79.34	18	2700	27300	5	1420	1870	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							
	IEC	s	80	90	100	112	132S/M	132ML	160	180
K		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										

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K97, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm												4300 Nm
i	n_a min^{-1}	$M_{a\,max\,G}$ Nm	F_{Ra} [1] N	$\varphi_{(/R)}$ '	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 100	112	132S/M	132ML	160	180	200	225
K	IEC	s								
		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										

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K107, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm												8000 Nm
i	n_a min^{-1}	$M_{a\,max\,G}$ 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 100	112	132S/M	132ML	160	180	200	225
K	IEC	s								
		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										

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K127, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm												13000 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS							
	min^{-1}	Nm	N	'	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							
	IEC	s	132S/M	132ML	160	180	200	225	250	280
K		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										

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K157, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm										20000 Nm
i	n_a min^{-1}	$M_{a\,max\,G}$ Nm	F_{Ra} [1] N	$\varphi_{(/R)}$ '	AMS 160	AMS 180	AMS 200	AMS 225	AMS 250	AMS 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 160	AMS 180	AMS 200	AMS 225	AMS 250	AMS 280
K	IEC	s						
		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								

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K167, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm										35000 Nm
i	n_a min^{-1}	$M_{a\,max\,G}$ Nm	F_{Ra} [1] N	$\varphi_{(/R)}$ '	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 160	180	200	225	250	280
K	IEC	s						
		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								

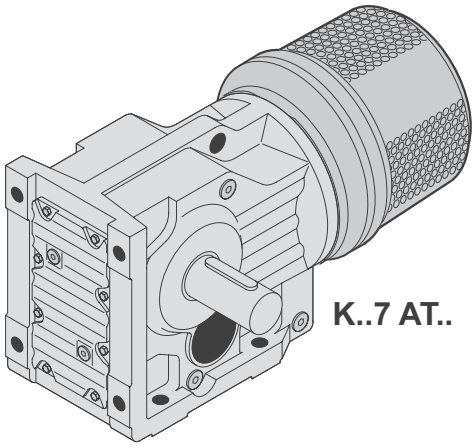
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K187, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm										53000 Nm
i	n_a min^{-1}	$M_{a\,max\,G}$ Nm	F_{Ra} [1] N	$\varphi_{(/R)}$ '	AMS 160	AMS 180	AMS 200	AMS 225	AMS 250	AMS 280
						3				
17.18	81	46400	67300	4			6690	6690	10600	10600
20.15	69	49700	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		

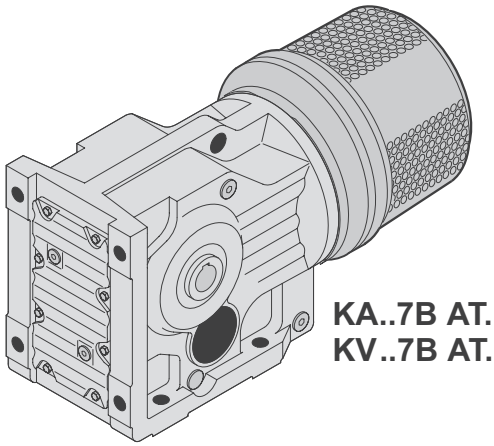
K187, m /kg			AMS 160	AMS 180	AMS 200	AMS 225	AMS 250	AMS 280
K	IEC	s	160	180	200	225	250	280
		3	1670	1670	1690	1690	1710	1720
	NEMA	s	254/256	284/286	324/326	364/365	-	-
		3	1670	1670	1690	1690	-	-
KH: + -67 kg								

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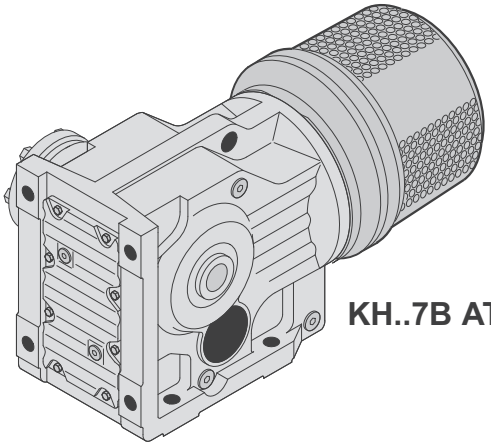
10.2 Selection tables for adapters with hydraulic start-up coupling (AT..)



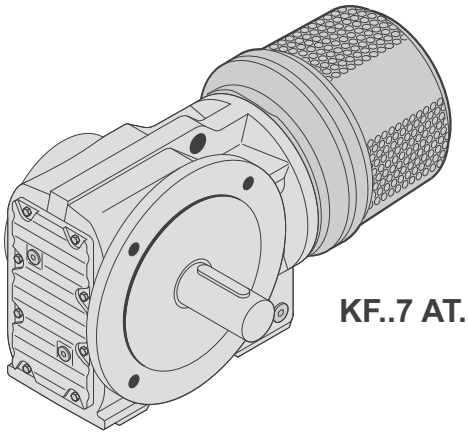
K..7 AT..



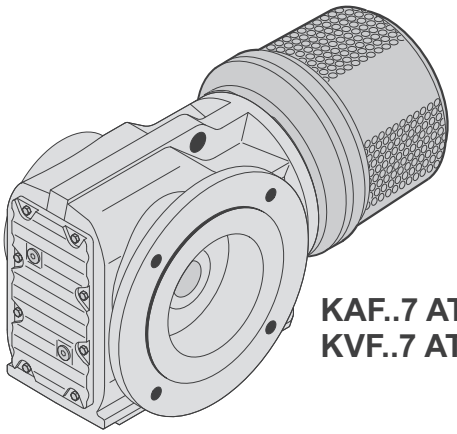
KA..7B AT..
KV..7B AT..



KH..7B AT..



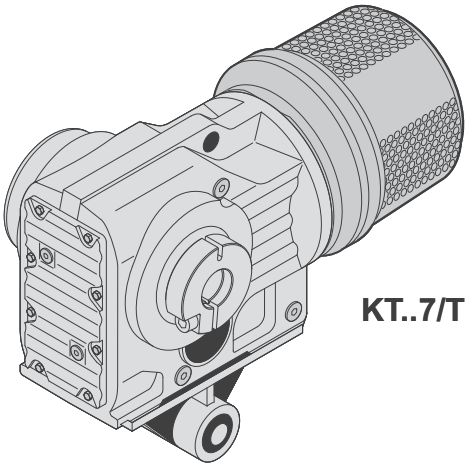
KF..7 AT..



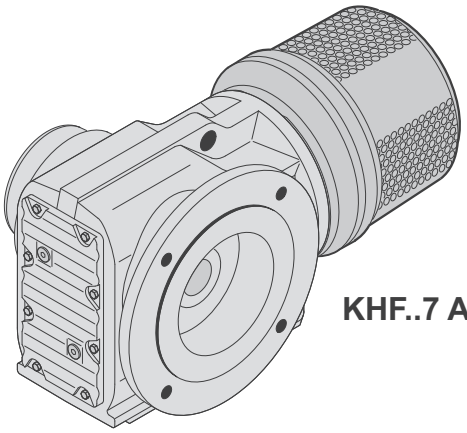
KAF..7 AT..
KVF..7 AT..

9007220696271883

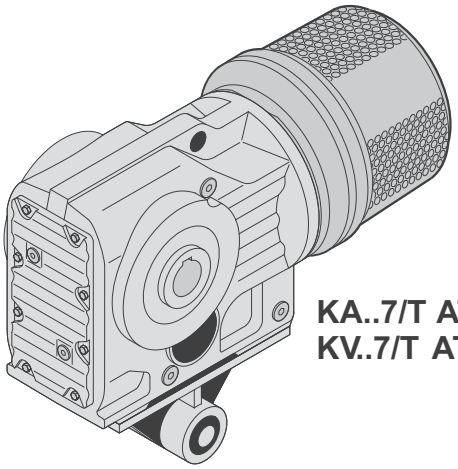
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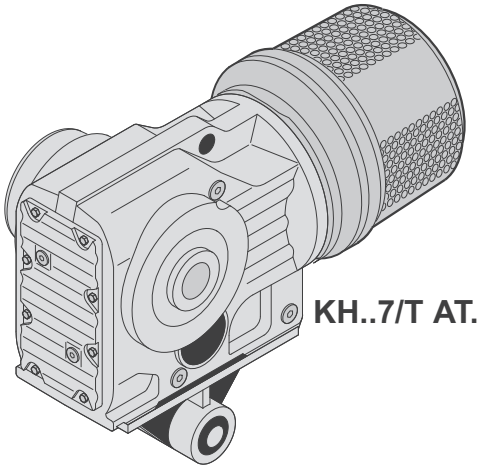
KT..7/T AT..



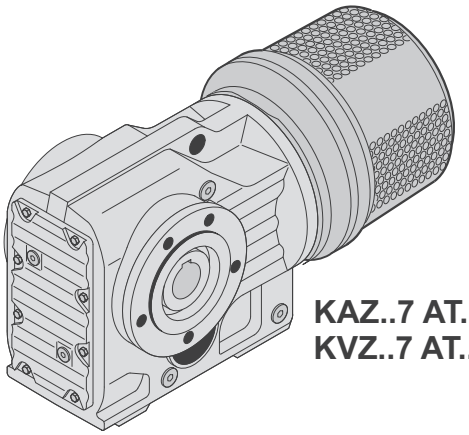
KHF..7 AT..



KA..7/T AT..
KV..7/T AT..



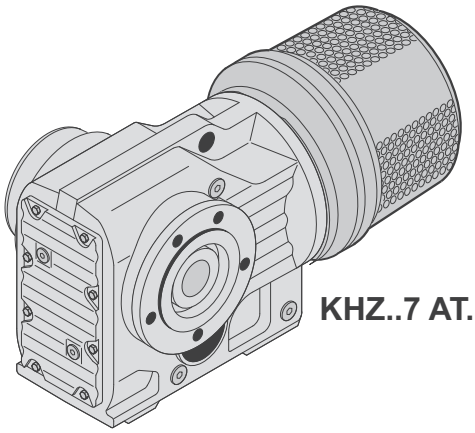
KH..7/T AT..



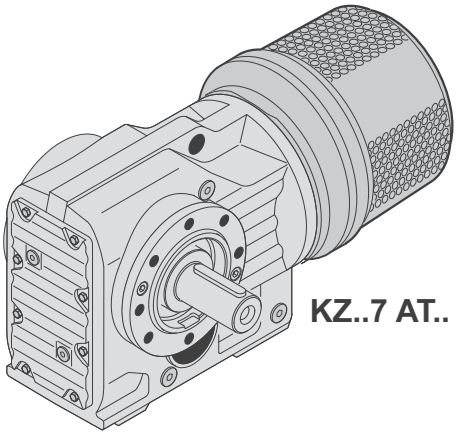
KAZ..7 AT..
KVZ..7 AT..

9007220696274315

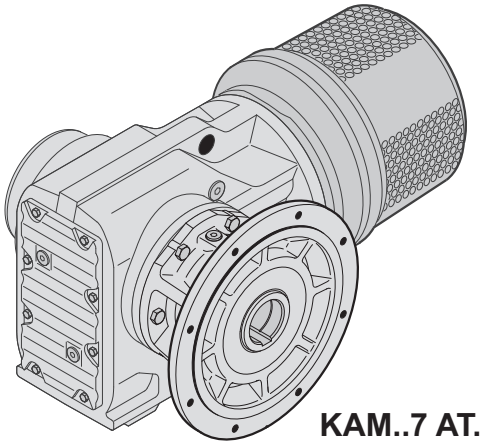
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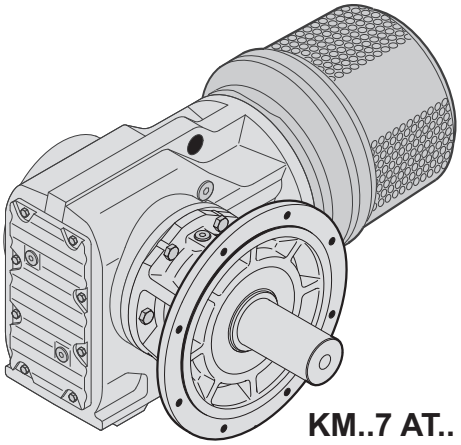
KHZ..7 AT..



KZ..7 AT..



KAM..7 AT..



KM..7 AT..

9007227464930827

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10.2.1 K..AT/DRN..4

		P_{Mot} kW				Sn %	
K67	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	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	(→ 🖹 579)
	DRN100L4	3	AT422	T21D	1.53	11	
	DRN112M4	4	AT422	T21D	1.6	12	
K87	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	

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		P_{Mot} kW				Sn %	
K97	DRN90S4	1.1	AT312	T11D	0.72	15	(→ 🗎 579)
	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	
	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	

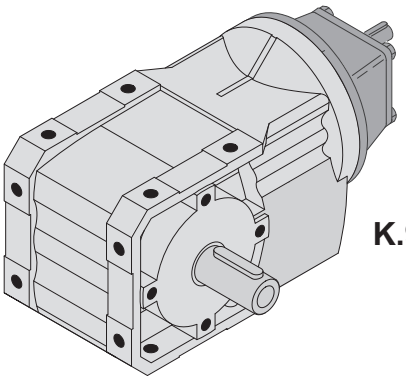
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10.2.2 K..AT/DRN..2

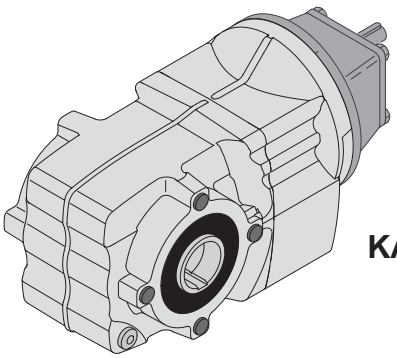
		P_{Mot} kW				Sn	
K67	DRN71M2	0.55	AT311	T11	0.19	3	
	DRN80MS2	0.75	AT311	T11	0.22	4.5	
	DRN80M2	1.1	AT311	T11	0.27	6	
	DRN90S2	1.5	AT311	T11	0.29	8.5	
	DRN90L2	2.2	AT311	T11	0.31	11.5	
	DRN100LM2	3	AT311	T11	0.4	12	
	DRN112M2	4	AT312	T11D	0.52	10	
K77	DRN71M2	0.55	AT311	T11	0.19	3	
	DRN80MS2	0.75	AT311	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	(→ 🖹 579)
	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	

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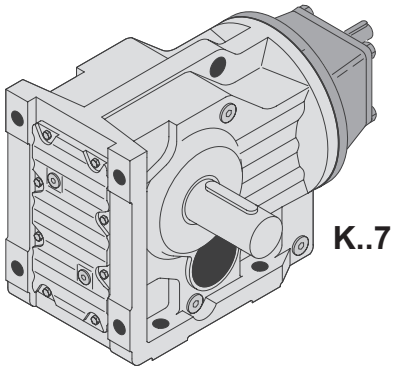
10.3 Selection tables for input shaft assembly (AD..)



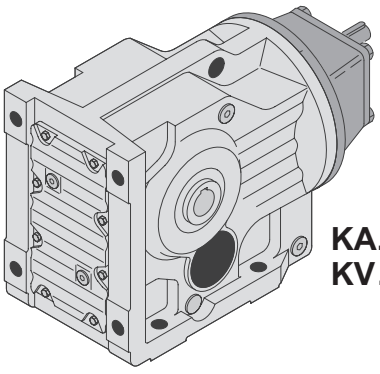
K.9 AD..



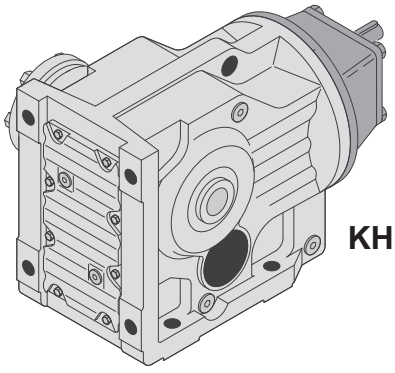
KA.9 AD..



K..7 AD..



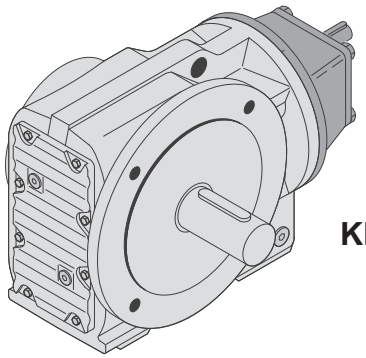
KA..7B AD..
KV..7B AD..



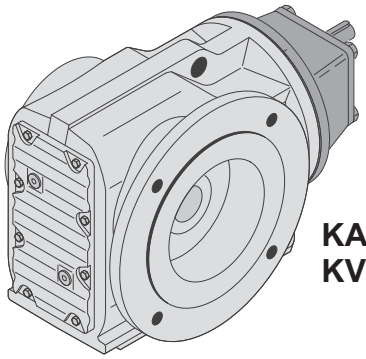
KH..7B AD..

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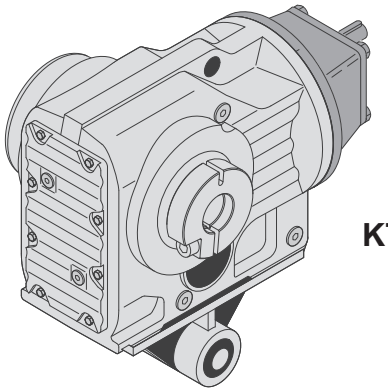
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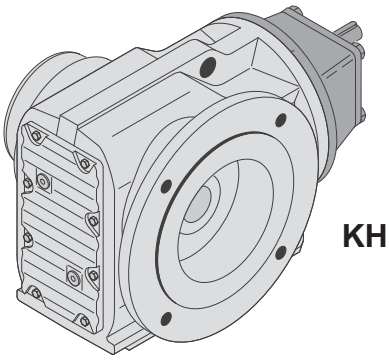
KF..7 AD..



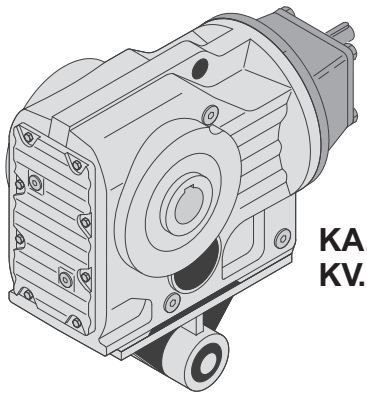
KAF..7 AD..
KVF..7 AD..



KT..7/T AD..



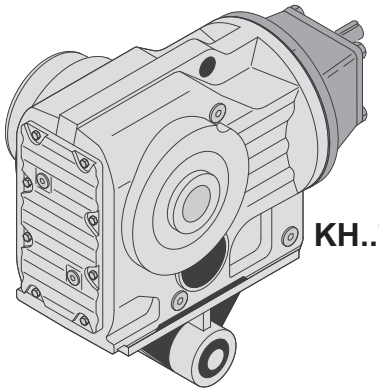
KHF..7 AD..



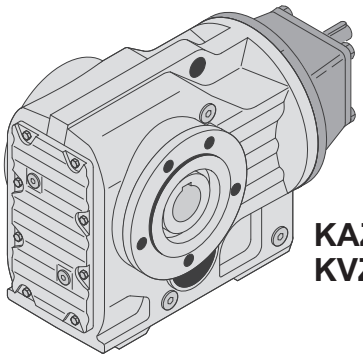
KA..7/T AD..
KV..7/T AD..

21460664459

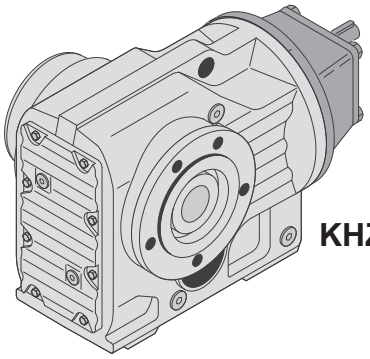
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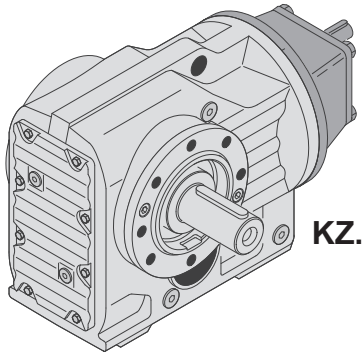
KH..7/T AD..



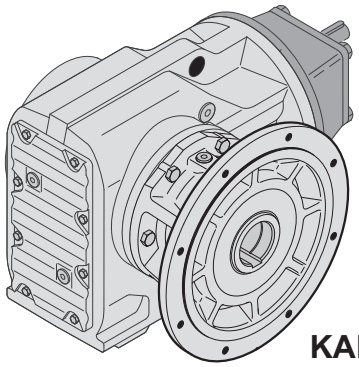
KAZ..7 AD..
KVZ..7 AD..



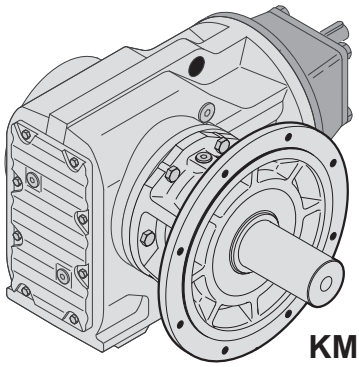
KHZ..7 AD..



KZ..7 AD..



KAM..7 AD..



KM..7 AD..

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K19 AD.. , n_e = 1400 min^{-1} — 80 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				m kg	
44.48	31	69	0.28	4340	615	-	-					
40.63	34	67	0.30	4350	615	-	-					
34.29	41	64	0.34	4370	610	-	-					
29.29	48	61	0.38	4200	610	-	-					
27.16*	52	60	0.40	4090	605	-	-	**K**	**19**	**AD1**	6.2	583
24.06	58	80	0.54	3820	230	-	-	**KF**	**19**	**AD1**	6.5	583
21.98	64	80	0.59	3680	215	-	-	**KA**	**19**	**AD1**	5.8	583
18.55	75	80	0.70	3430	174	-	-	**KAF**	**19**	**AD1**	6.2	583
15.84	88	80	0.82	3210	131	-	-					
14.69	95	80	0.88	3110	108	-	-					
12.70	110	80	1.0	2930	58	-	-					
11.84	118	79	1.1	2850	1600	-	-					
10.32*	136	76	1.2	2720	1590	-	-					
9.58	146	63	1.0	2910	600	-	-					
8.09	173	80	1.5	2590	1310	-	-	**K**	**19**	**AD2**	7.3	583
6.91	203	80	1.8	2420	1280	-	-	**KF**	**19**	**AD2**	7.7	583
6.41*	219	80	2.0	2340	1260	-	-	**KA**	**19**	**AD2**	6.9	583
5.54	253	80	2.3	2200	1230	-	-	**KAF**	**19**	**AD2**	7.3	583
5.16	271	80	2.4	2140	1210	-	-					
4.50*	311	73	2.5	2070	1230	-	-					

K29 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	$\varphi_{(/R)}$	⚠				m kg	
54.89	26	130	0.41	4980	425	-	-					
50.35*	28	130	0.44	4980	415	-	-					
42.87	33	128	0.51	4790	400	-	-					
36.96	38	122	0.56	4560	400	-	-	**K**	**29**	**AD1**	8.0	583
30.11	46	115	0.65	4250	395	-	-	**KF**	**29**	**AD1**	9.0	583
29.69	47	128	0.69	4230	-	-	-	**KA**	**29**	**AD1**	7.5	583
27.23	51	125	0.74	4100	6	-	-	**KAF**	**29**	**AD1**	8.4	583
24.91*	56	109	0.75	3980	385	-	-					
23.19	60	120	0.83	3880	6	-	-					
22.08	63	105	0.81	3820	380	-	-					
19.99	70	130	1.0	3550	1540	-	-					
16.29	86	130	1.3	3240	1520	-	-					
13.47	104	130	1.5	2970	1490	-	-					
11.94	117	130	1.7	2810	1470	-	-					
9.90	141	110	1.7	3000	1240	-	-					
9.17	153	130	2.3	2470	1400	-	-	**K**	**29**	**AD2**	9.1	583
8.53	164	113	2.0	2800	1190	-	-	**KF**	**29**	**AD2**	10	583
7.48	187	123	2.6	2300	1370	-	-	**KA**	**29**	**AD2**	8.7	583
6.95	201	110	2.4	2590	1160	-	-	**KAF**	**29**	**AD2**	9.5	583
5.75	243	112	3.0	2370	1090	-	-					
5.10	275	110	3.3	2260	1060	-	-					
3.92	358	126	4.9	1910	800	-	-					
3.19	439	110	5.3	1830	820	-	-					

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	$\varphi_{(/R)}$	⚠				m kg	
106.38	13	200	0.31	5640	590	7	-					
97.81	14	200	0.34	5640	585	7	-					
83.69	17	200	0.39	5640	575	7	-					
72.54	19	200	0.45	5520	560	7	-	**K**	**37**	**AD1**	14	583
67.80	21	200	0.47	5360	550	7	-	**KF**	**37**	**AD1**	16	583
58.60	24	200	0.55	5020	530	7	-	**KA**	**37**	**AD1**	13	583
49.79	28	200	0.64	4660	505	7	-	**KAF**	**37**	**AD1**	15	583
44.46	31	200	0.72	4420	485	7	-					
37.97	37	200	0.84	4100	455	7	-					
35.57	39	200	0.89	3970	440	7	-					

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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	$\varphi_{(/R)}$	⚠				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	583
13.08	107	165	1.9	2650	1490	9	-	**KF**	**37**	**AD2**	17	583
12.14	115	160	2.0	2600	1280	12	-	**KA**	**37**	**AD2**	15	583
10.49	133	160	2.3	2410	1240	12	-	**KAF**	**37**	**AD2**	16	583
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	$\varphi_{(/R)}$	⚠				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	583
14.56	96	190	2.0	5570	1160	-	-	**KF**	**39**	**AD2**	22	583
13.44*	104	270	3.2	4160	1380	-	-	**KA**	**39**	**AD2**	19	583
12.73	110	192	2.3	5260	1130	-	-	**KAF**	**39**	**AD2**	21	583
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	-	-					

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K47 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	$\varphi_{(/R)}$	⚠				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	583
35.39	40	400	1.8	5920	1600	7	-	**KF**	**47**	**AD2**	25	583
31.30	45	400	2.0	5700	1290	7	-	**KA**	**47**	**AD2**	21	583
29.32	48	400	2.1	5520	1280	8	-	**KAF**	**47**	**AD2**	23	583
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	583
7.36	190	250	5.2	3380	1980	11	-	**KF**	**47**	**AD3**	28	583
6.58	213	240	5.6	3270	1960	12	-	**KA**	**47**	**AD3**	24	583
5.81	241	230	6.1	3140	1960	12	-	**KAF**	**47**	**AD3**	27	583
4.64	302	205	6.8	2980	1920	12	-					

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	$\varphi_{(/R)}$	⚠				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	583
22.83	61	500	3.5	5610	1260	-	-	**KF**	**49**	**AD2**	34	583
22.50*	62	150	1.0	8470	555	-	-	**KA**	**49**	**AD2**	30	583
21.00*	67	140	1.0	8310	675	-	-	**KAF**	**49**	**AD2**	35	583
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	-	-					

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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	$\varphi_{(/R)}$	⚠				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	583
6.83	205	500	11.1	3840	560	-	-	**KF**	**49**	**AD3**	38	583
5.99	234	500	12.7	3570	380	-	-	**KA**	**49**	**AD3**	33	583
5.29*	265	485	13.9	3400	310	-	-	**KAF**	**49**	**AD3**	38	583
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	$\varphi_{(/R)}$	⚠				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	-	**K**	**57**	**AD2**	27	583
48.89	29	600	1.9	7630	1540	6	-	**KF**	**57**	**AD2**	32	583
44.43	32	600	2.1	7630	1520	6	-	**KA**	**57**	**AD2**	25	583
38.49	36	600	2.5	7630	1500	6	-	**KAF**	**57**	**AD2**	31	583
35.70	39	600	2.6	7630	1160	7	-					
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	583
9.59	146	405	6.5	4650	1690	10	-	**KF**	**57**	**AD3**	35	583
8.71	161	390	6.9	4520	1690	10	-	**KA**	**57**	**AD3**	28	583
7.55	186	365	7.4	4360	1700	10	-	**KAF**	**57**	**AD3**	34	583
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	$\varphi_{(/R)}$	⚠				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	-	**K**	**67**	**AD2**	33	583
68.95	20	820	1.9	10300	1460	6	-	**KF**	**67**	**AD2**	39	583
60.66	23	820	2.1	10300	1450	6	-	**KA**	**67**	**AD2**	30	583
57.28	24	820	2.2	10300	1440	6	-	**KAF**	**67**	**AD2**	36	583
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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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	$\varphi_{(/R)}$	⚠					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	-	**K**	**67**	**AD3**	36	583	
15.19	92	700	7.1	11300	1750	8	-	**KF**	**67**	**AD3**	42	583	
13.22	106	670	7.8	11500	1730	8	-	**KA**	**67**	**AD3**	34	583	
12.48	112	530	6.5	12300	1570	9	-	**KAF**	**67**	**AD3**	39	583	
10.63	132	500	7.2	11800	1560	9	-						
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 min^{-1} — 1550 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠					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	-	**K**	**77**	**AD2**	58	583	
97.05	14	1550	2.5	15400	1290	5	-	**KF**	**77**	**AD2**	66	583	
88.97	16	1550	2.7	15400	1280	5	-	**KA**	**77**	**AD2**	50	583	
78.07	18	1550	3.1	15400	1250	5	-	**KAF**	**77**	**AD2**	58	583	
73.99	19	1550	3.3	15400	1240	5	-						
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	583	
38.39	36	1490	6.0	15800	1470	6	-	**KF**	**77**	**AD3**	70	583	
35.20	40	1410	6.2	16300	1530	6	-	**KA**	**77**	**AD3**	54	583	
30.89	45	1550	7.7	15400	1280	6	-	**KAF**	**77**	**AD3**	62	583	
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	583	
15.84	88	1400	13.6	15500	3090	6	-	**KF**	**77**	**AD4**	76	583	
13.52	104	1340	15.2	14800	3050	7	-	**KA**	**77**	**AD4**	60	583	
12.36	113	1000	12.4	15100	2860	8	-	**KAF**	**77**	**AD4**	68	583	
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 min^{-1} — 2700 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠					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	583	
147.32*	9.5	2700	2.9	27300	1120	5	-	**KF**	**87**	**AD2**	105	583	
126.91*	11	2700	3.3	27300	1100	5	-	**KA**	**87**	**AD2**	81	583	
115.82	12	2700	3.6	27300	1080	5	-	**KAF**	**87**	**AD2**	94	583	
102.71*	14	2700	4.1	27300	1060	5	-						
86.34	16	2700	4.9	27300	1020	5	-						

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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	$\varphi_{(/R)}$	⚠					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	583
56.64	25	2700	7.4	25000	1840	5	-	**KF**	**87**	**AD3**		105	583
49.16	28	2700	8.6	23500	1780	5	-	**KA**	**87**	**AD3**		85	583
44.02	32	2600	9.2	22800	1760	6	-	**KAF**	**87**	**AD3**		99	583
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	583
19.45	72	2300	18.1	16800	2760	6	-	**KF**	**87**	**AD4**		115	583
17.42	80	2200	19.4	16300	2750	6	-	**KA**	**87**	**AD4**		92	583
16.00	88	1800	17.2	16000	2090	6	-	**KAF**	**87**	**AD4**		105	583
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	583
8.29	169	1400	26	13500	5550	7	-	**KF**	**87**	**AD5**		130	583
7.21	194	1300	28	13200	5590	7	-	**KA**	**87**	**AD5**		105	583
								KAF	**87**	**AD5**		120	583

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	$\varphi_{(/R)}$	⚠					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	583
105.13	13	4300	6.4	40000	1670	7	-	**KF**	**97**	**AD3**		180	583
96.80	14	4300	7.0	40000	1640	7	-	**KA**	**97**	**AD3**		140	583
86.52	16	4300	7.8	38800	1600	7	-	**KAF**	**97**	**AD3**		165	583
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	583
56.55	25	4300	12.0	32300	3460	7	-	**KF**	**97**	**AD4**		185	583
47.93*	29	4300	14.1	30000	3380	7	-	**KA**	**97**	**AD4**		145	583
41.87	33	4300	16.2	28300	3300	7	-	**KAF**	**97**	**AD4**		170	583
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	583
27.91	50	4300	24	23300	5070	8	-	**KF**	**97**	**AD5**		200	583
24.75	57	4300	27	22000	4980	8	-	**KA**	**97**	**AD5**		160	583
22.37	63	4300	30	20900	4880	8	-	**KAF**	**97**	**AD5**		185	583
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	583
11.99	117	3890	50	16200	7300	8	M2,4-6	**KF**	**97**	**AD6**		215	583
								KA	**97**	**AD6**		175	583
								KAF	**97**	**AD6**		200	583
10.41	134	2870	42	16400	4320	10	-	**K**	**97**	**AD5**		180	583
								KF	**97**	**AD5**		200	583
								KA	**97**	**AD5**		160	583
								KAF	**97**	**AD5**		185	583
8.71	161	2660	47	15800	7250	10	-	**K**	**97**	**AD6**		195	583
7.54	186	2400	49	15700	7360	10	-	**KF**	**97**	**AD6**		215	583
								KA	**97**	**AD6**		175	583
								KAF	**97**	**AD6**		200	583

K107 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	$\varphi_{(/R)}$	⚠				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	583
90.96*	15	8000	13.8	53500	2850	6	-	**KF**	**107**	**AD4**	290	583
82.61	17	8000	15.2	50900	2800	6	-	**KA**	**107**	**AD4**	250	583
73.30	19	8000	17.1	47900	2730	6	-	**KAF**	**107**	**AD4**	275	583
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	583
37.00*	38	7200	31	35800	5620	6	-	**KF**	**107**	**AD5**	305	583
32.69	43	7200	34	33200	3360	6	-	**KA**	**107**	**AD5**	265	583
31.28*	45	6800	34	34200	5590	6	-	**KAF**	**107**	**AD5**	290	583
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	583
14.64	96	5310	56	27800	6790	7	-	**KF**	**107**	**AD6**	320	583
13.43	104	4300	49	29200	6260	9	-	**KA**	**107**	**AD6**	280	583
11.73	119	4260	56	27600	6090	9	-	**KAF**	**107**	**AD6**	300	583
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 min^{-1} — 13000 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				m kg	
146.07	9.6	13000	13.9	79200	2390	5	-	**K**	**127**	**AD4**	435	583
136.14	10	13000	14.9	79200	2340	5	-	**KF**	**127**	**AD4**	480	583
122.48	11	13000	16.6	79200	2240	5	-	**KA**	**127**	**AD4**	410	583
110.18	13	13000	18.4	79200	2100	5	-	**KAF**	**127**	**AD4**	445	583
89.89	16	13000	23	75100	5360	5	-					
81.98	17	13000	25	72100	5300	5	-	**K**	**127**	**AD5**	450	583
70.95*	20	13000	29	67700	5180	5	M2-6	**KF**	**127**	**AD5**	490	583
62.60	22	13000	32	64000	5080	5	M1-6	**KA**	**127**	**AD5**	420	583
54.07	26	13000	38	59800	4930	5	M1-6	**KAF**	**127**	**AD5**	460	583
47.82	29	13000	43	56500	4790	5	M1-6					
40.19	35	13000	51	52000	7500	5	M1-6	**K**	**127**	**AD6**	460	583
								KF	**127**	**AD6**	500	583
								KA	**127**	**AD6**	430	583
								KAF	**127**	**AD6**	470	583
36.25	39	13000	55	49400	11400	6	M1-6	**K**	**127**	**AD7**	460	583
31.37	45	13000	63	45900	10500	6	M1-6	**KF**	**127**	**AD7**	500	583
27.68	51	13000	72	43000	9650	6	M1-6	**KA**	**127**	**AD7**	430	583
23.91	59	13000	83	39800	8490	6	M1-6	**KAF**	**127**	**AD7**	470	583
21.15	66	13000	94	37200	24500	6	M1-6					
17.77	79	13000	112	32600	24100	6	M1-6	**K**	**127**	**AD8**	480	583
14.35	98	12100	129	31000	23900	6	M1-6	**KF**	**127**	**AD8**	520	583
12.79	110	8530	102	35400	24100	8	M1-6	**KA**	**127**	**AD8**	455	583
10.74	130	8000	114	33900	24000	8	M1-6	**KAF**	**127**	**AD8**	490	583
8.68	161	7230	128	32500	24000	8	M1-6					

K157 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	$\varphi_{(/R)}$	⚠				m kg	
150.41	9.3	20000	21	111100	4900	5	-					
122.39	11	20000	25	102100	4760	5	-	**K**	**157**	**AD5**	680	584
100.22	14	20000	31	93700	4560	5	-	**KF**	**157**	**AD5**	760	584
91.65	15	20000	34	90000	4480	5	-	**KA**	**157**	**AD5**	650	584
79.75	18	20000	39	84500	4340	5	-	**KAF**	**157**	**AD5**	710	584
70.38	20	20000	44	79800	4200	5	M2-6					
61.02	23	18100	46	78800	4380	5	M1-6					

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K157 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	$\varphi_{(/R)}$	⚠				m kg	
54.29	26	20000	57	70600	6840	5	M1-6	**K**	**157**	**AD6**	700	584
								KF	**157**	**AD6**	780	584
								KA	**157**	**AD6**	660	584
								KAF	**157**	**AD6**	720	584
46.79	30	20000	67	65600	16700	5	M1-6	**K**	**157**	**AD7**	700	584
38.02	37	20000	82	59000	16400	5	M1-6	**KF**	**157**	**AD7**	770	584
								KA	**157**	**AD7**	660	584
								KAF	**157**	**AD7**	720	584
31.30	45	18300	89	56900	23500	6	M1-6					
27.62	51	17500	97	55100	23500	6	M1-6					
23.95	58	20000	128	45700	22200	6	M1-6	**K**	**157**	**AD8**	720	584
21.31	66	20000	143	42600	21900	6	M1-6	**KF**	**157**	**AD8**	800	584
18.37	76	20000	166	38800	21500	6	M1-6	**KA**	**157**	**AD8**	680	584
14.92	94	19700	202	34500	20800	6	M1-6	**KAF**	**157**	**AD8**	740	584
12.65	111	18300	221	33800	20700	6	M1-6					

K167 AD.. , n_e = 1400 min^{-1} — 35000 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				m kg	
164.50	8.5	29500	28	150000	2960	4	-	**K**	**167**	**AD5**	1080	584
								KH	**167**	**AD5**	1040	584
134.99	10	34600	40	150000	5000	4	-	**K**	**167**	**AD6**	1100	584
109.83	13	35000	49	150000	4360	5	-	**KH**	**167**	**AD6**	1060	584
87.86	16	35000	62	141700	11000	5	M2-6					
78.14	18	35000	69	134600	10500	5	M1-6	**K**	**167**	**AD7**	1090	584
68.07	21	35000	80	126500	9560	5	M1-6	**KH**	**167**	**AD7**	1050	584
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					
36.61	38	35000	149	94200	23600	5	M1-6					
32.25	43	30300	144	96900	20800	5	M1-6	**K**	**167**	**AD8**	1110	584
28.77	49	27000	144	97800	21500	5	M1-6	**KH**	**167**	**AD8**	1070	584
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 min^{-1} — 53000 Nm

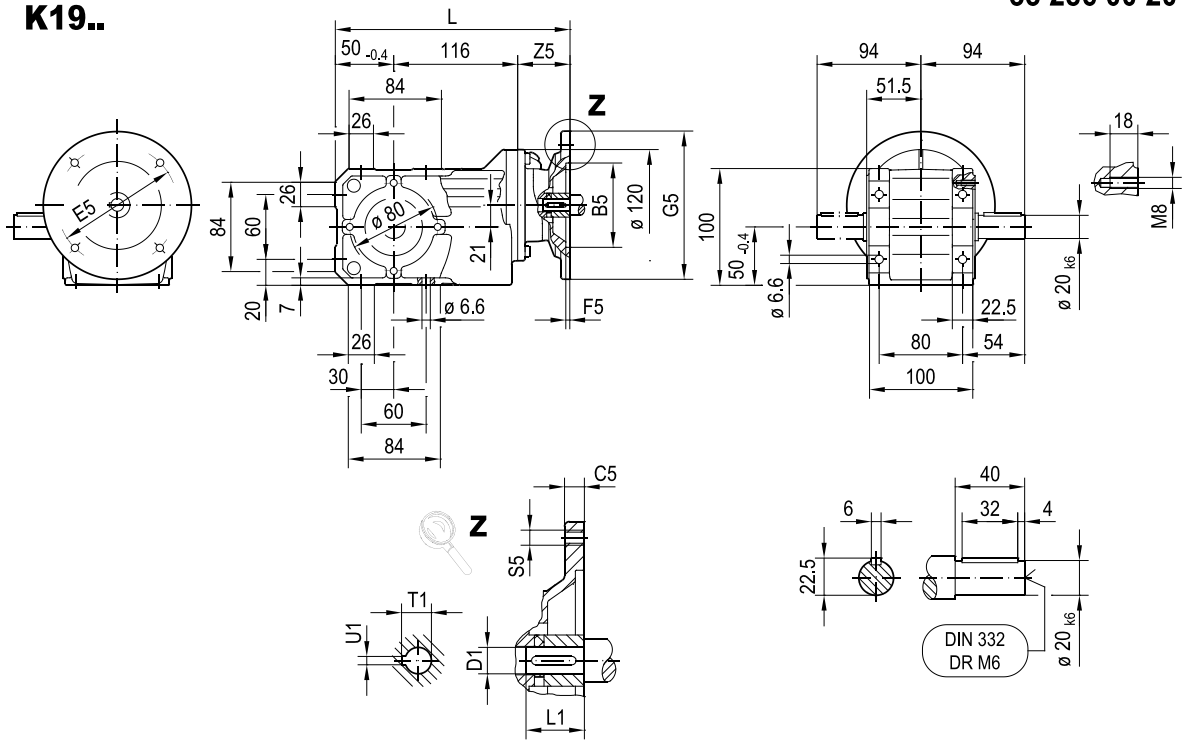
i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				m kg	
179.86	7.8	53000	46	190000	5390	4	-	**K**	**187**	**AD6**	1680	584
165.21	8.5	53000	50	190000	5230	4	-	**KH**	**187**	**AD6**	1610	584
144.59	9.7	53000	57	181500	4900	4	-					
129.69	11	53000	64	173100	12900	4	-	**K**	**187**	**AD7**	1670	584
112.60	12	53000	73	162500	12100	4	M2-6	**KH**	**187**	**AD7**	1600	584
102.16	14	53000	81	155400	11700	4	M1-6					
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	**K**	**187**	**AD8**	1690	584
38.57	36	36100	143	121400	21700	4	M1-6	**KH**	**187**	**AD8**	1630	584
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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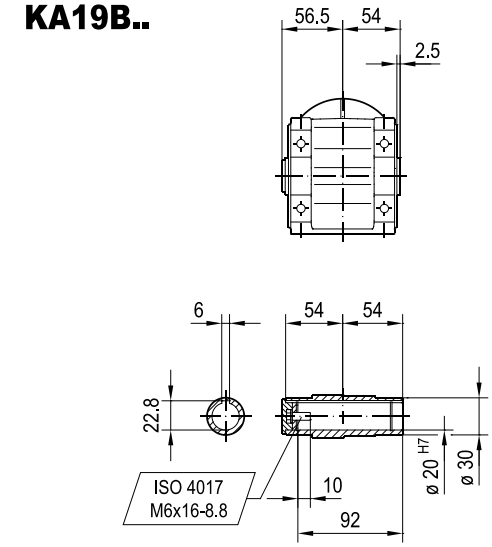
10.4 Dimension sheets for adapters for mounting IEC motors (AMS..)

33 286 00 20

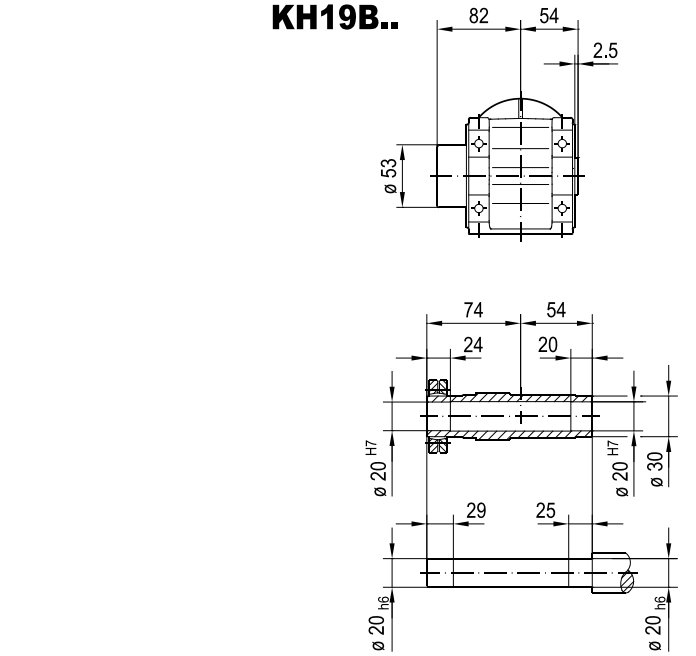
K19..



KA19B..



KH19B..

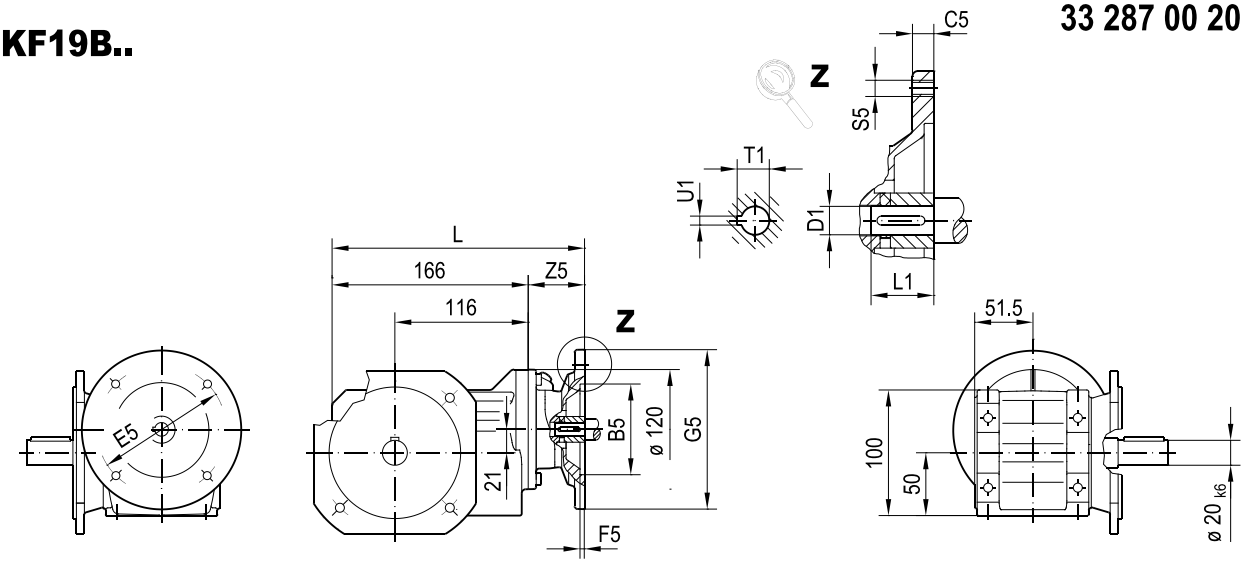


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	223	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	223	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	240	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	253	M10	86.5	24	50	27.3	8

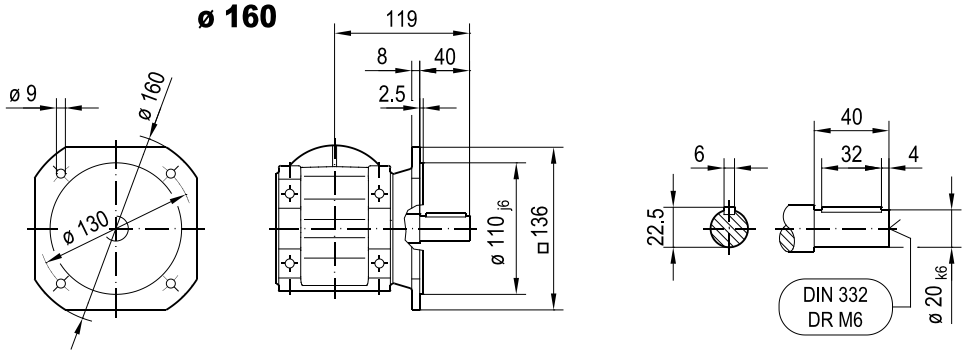
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33 287 00 20

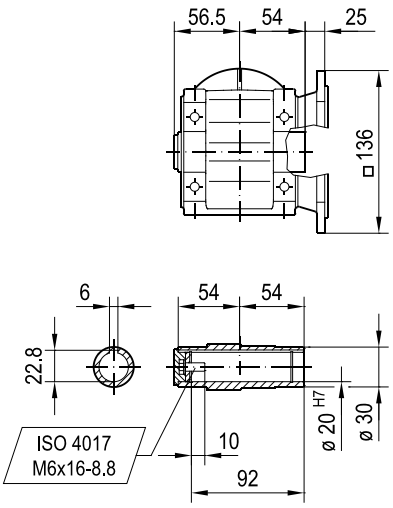


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KAF19B..

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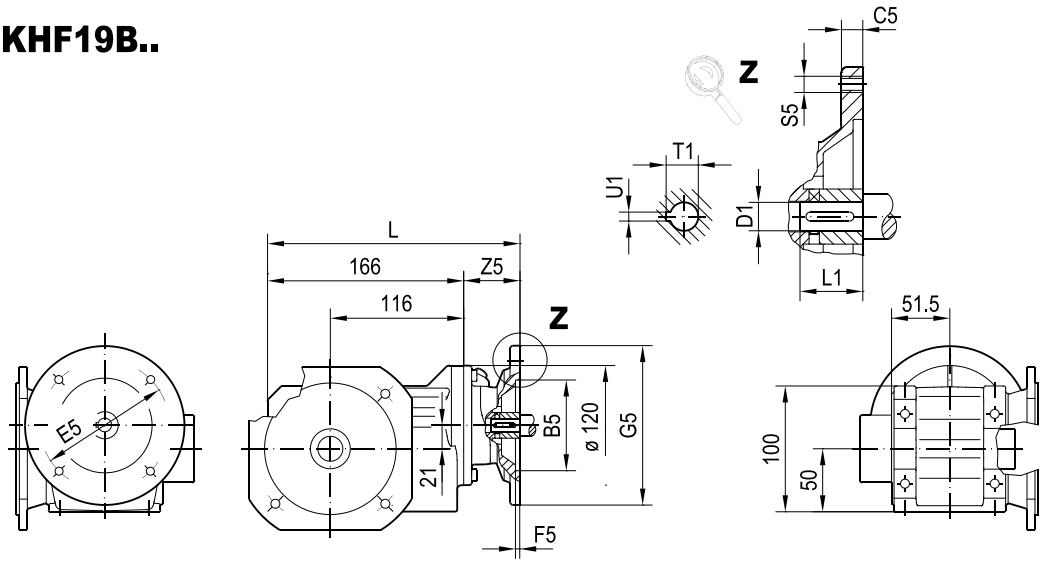


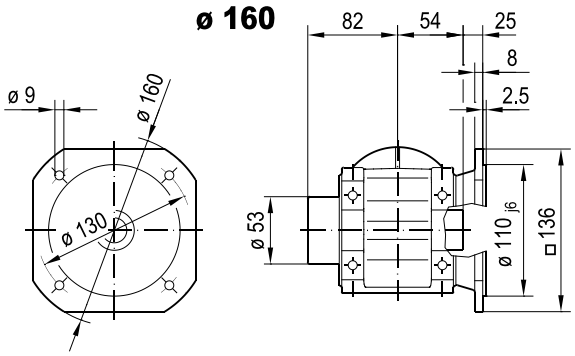
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	223	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	223	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	240	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	253	M10	86.5	24	50	27.3	8

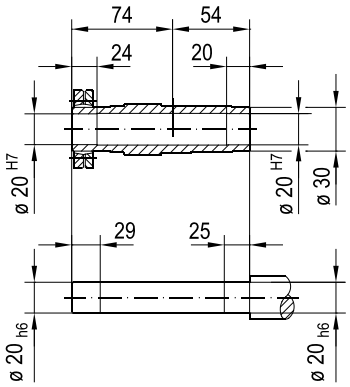
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33 288 00 20





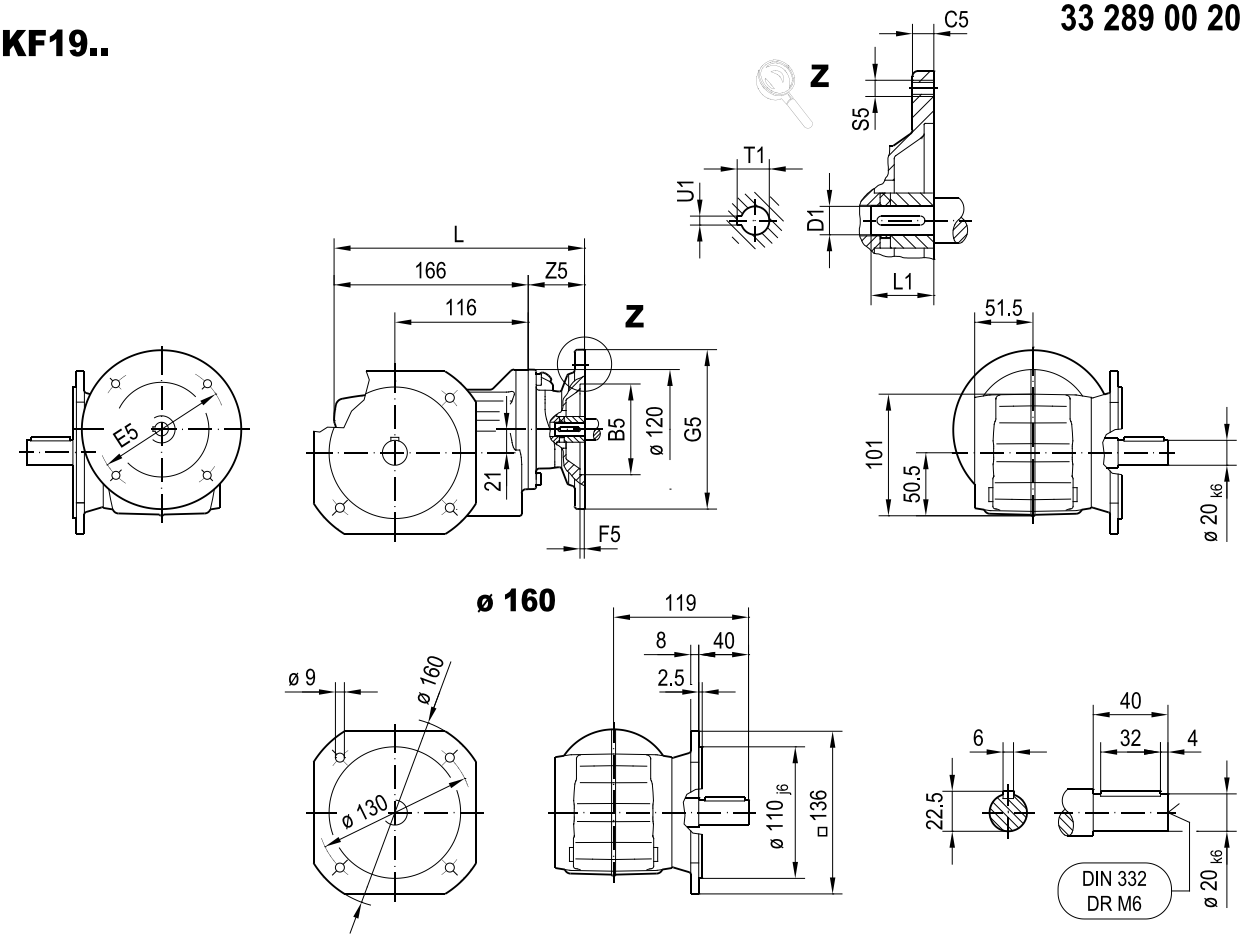


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS80	130	12	165	4.5	200	240	M10	73.5	19	40	21.8	6
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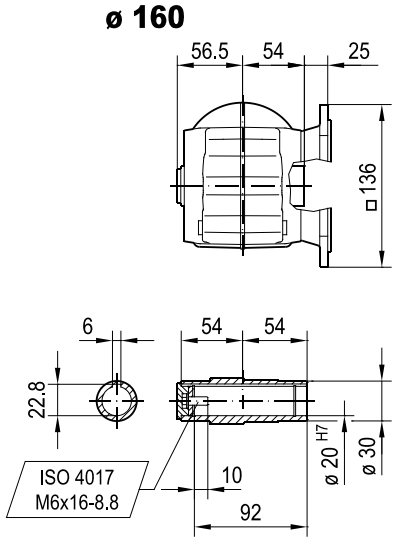
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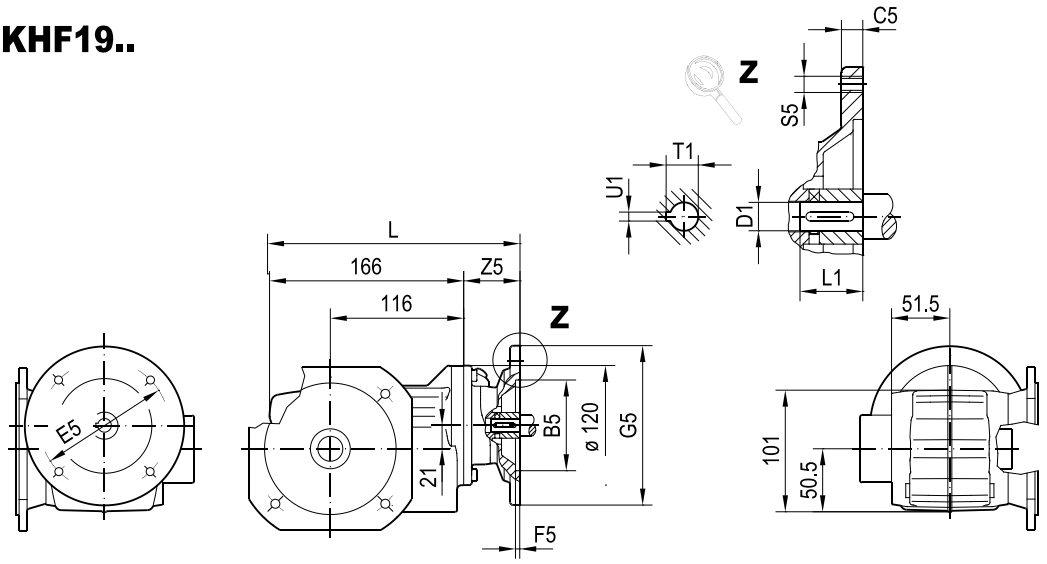


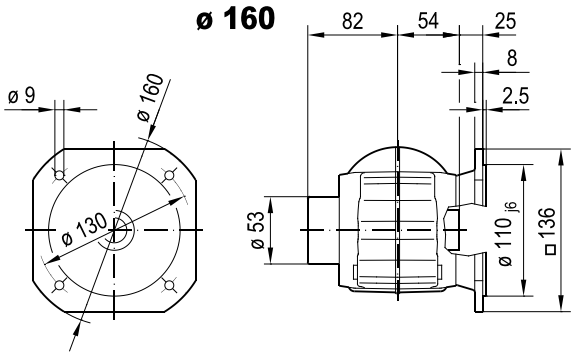
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS80	130	12	165	4.5	200	240	M10	73.5	19	40	21.8	6
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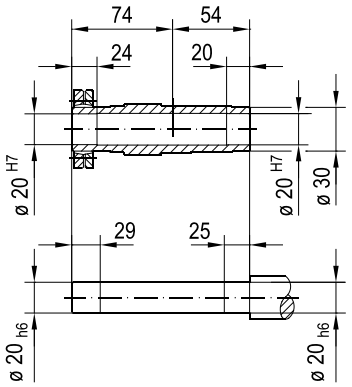
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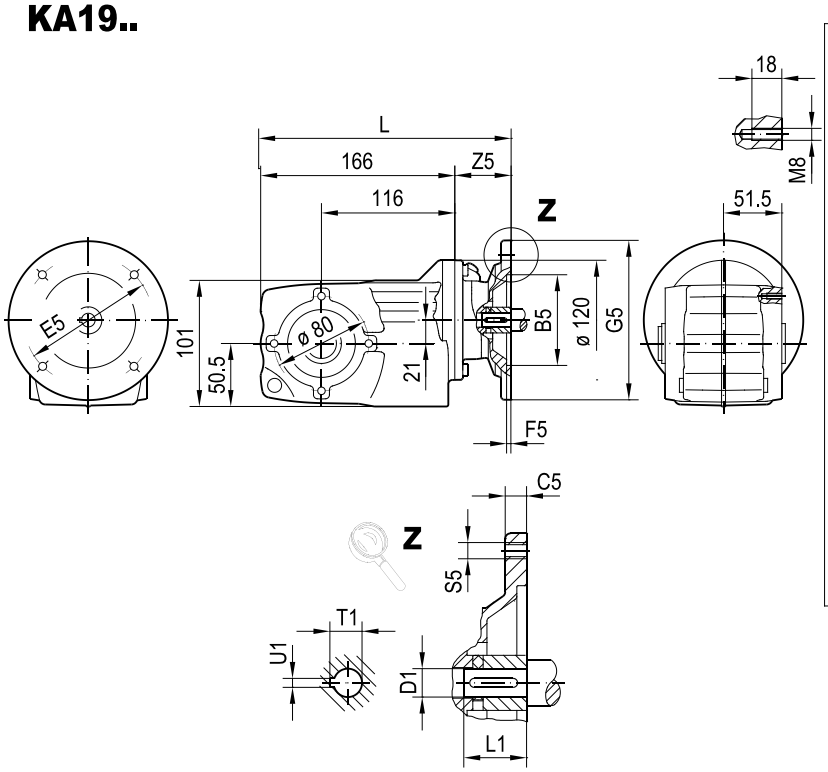


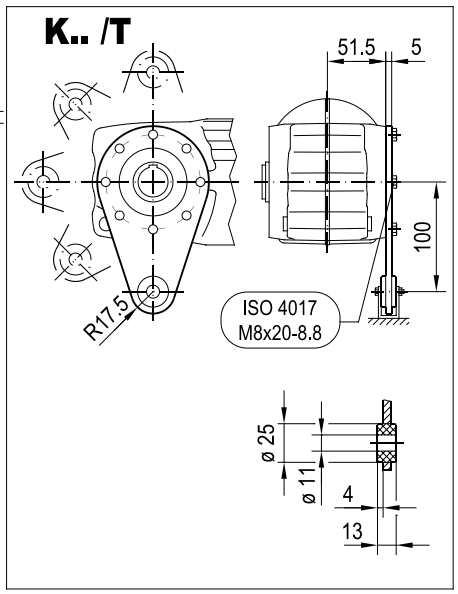
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS80	130	12	165	4.5	200	240	M10	73.5	19	40	21.8	6
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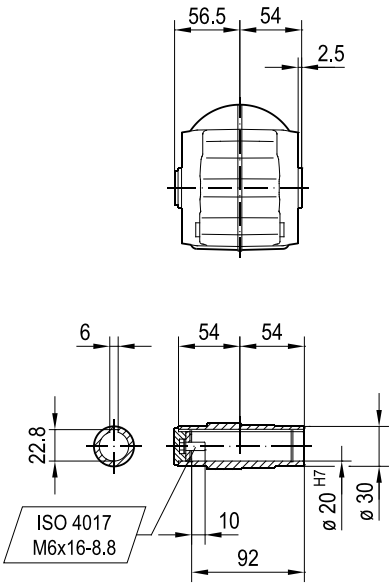
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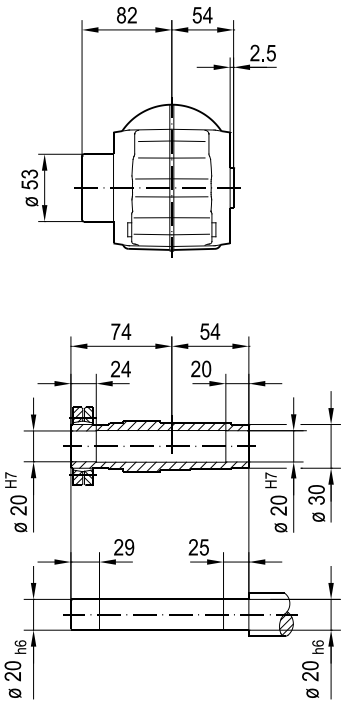




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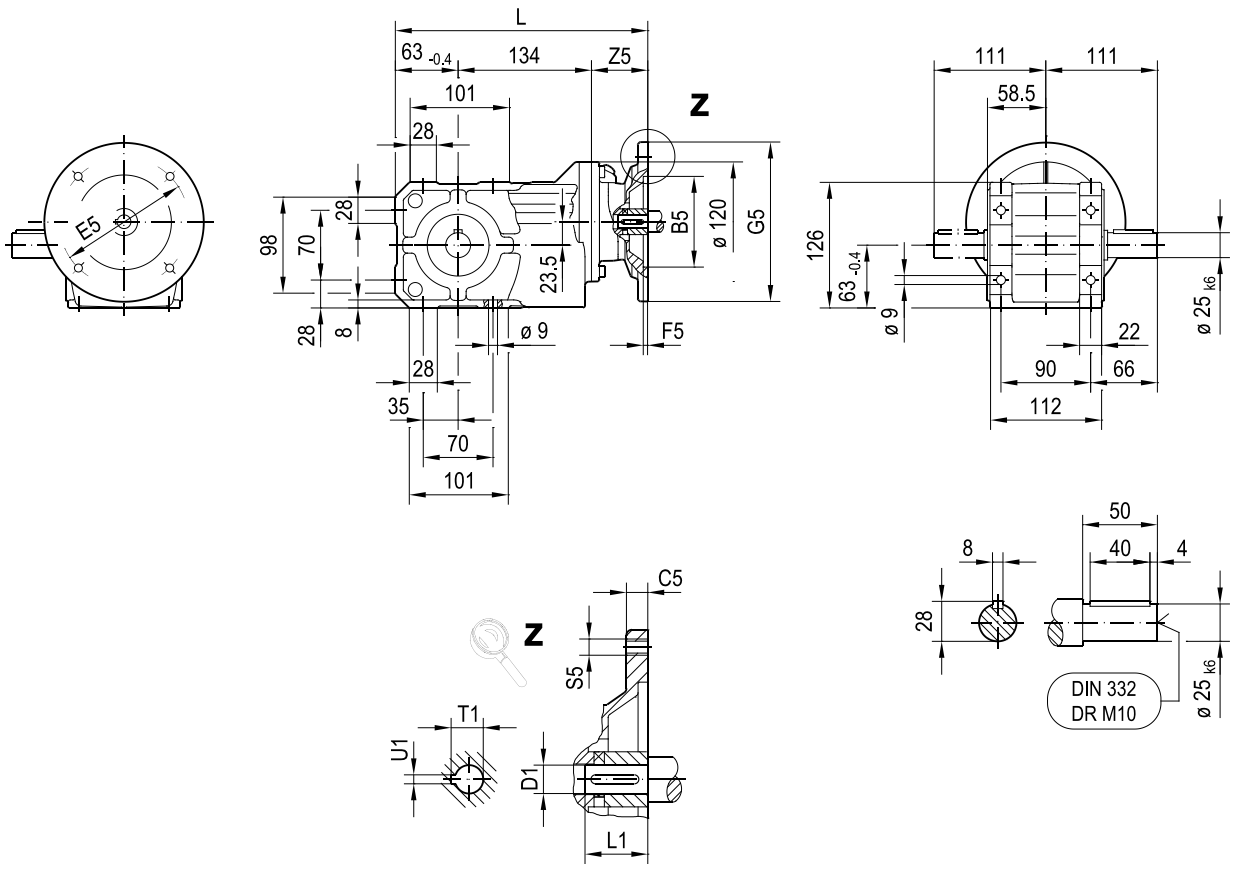


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	223	M8	56.5	11	23	12.8	4
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AMS80	130	12	165	4.5	200	240	M10	73.5	19	40	21.8	6
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33 292 00 20

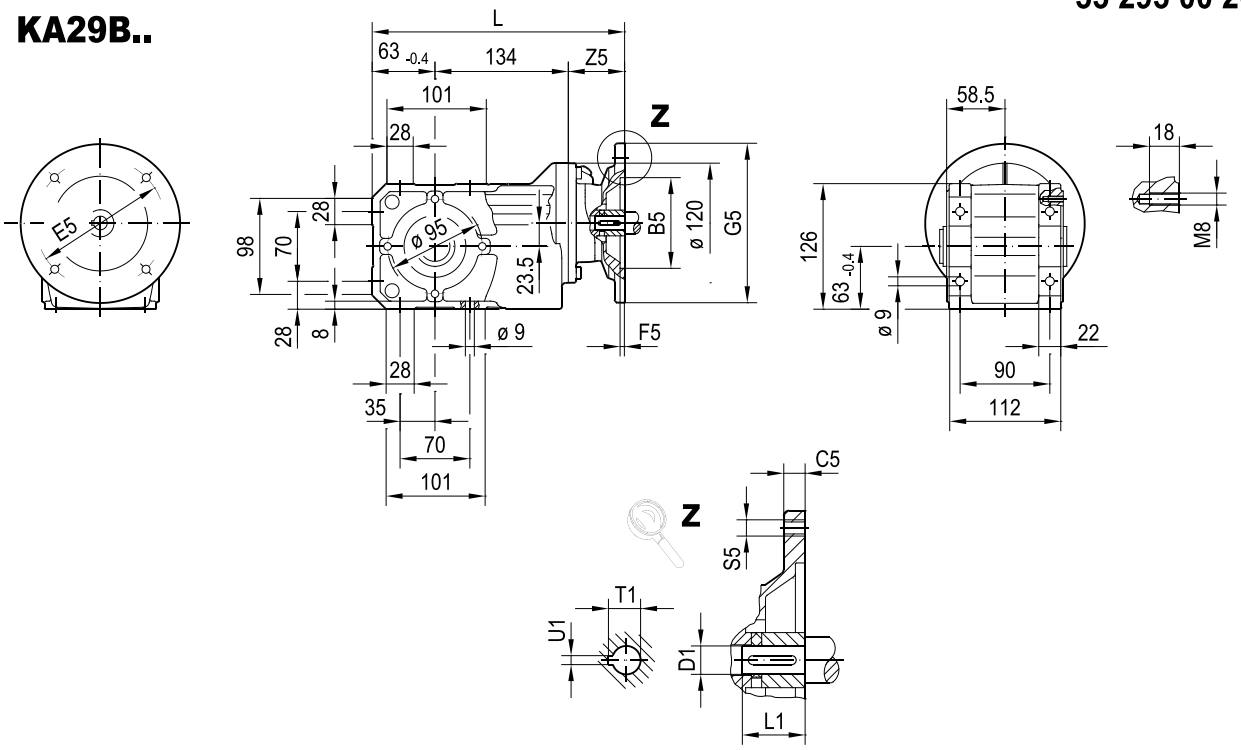


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AMS80	130	12	165	4.5	200	271	M10	73.5	19	40	21.8	6
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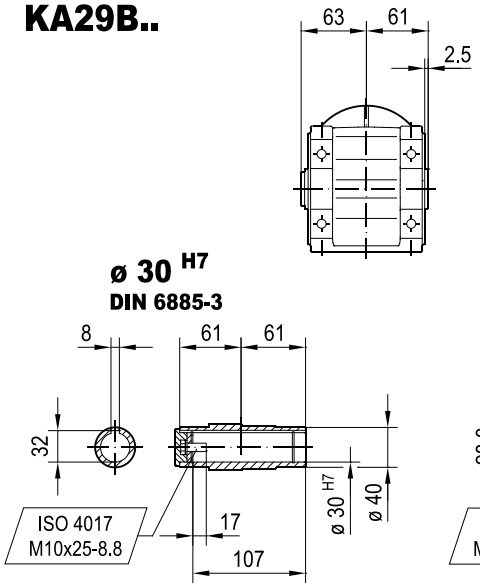
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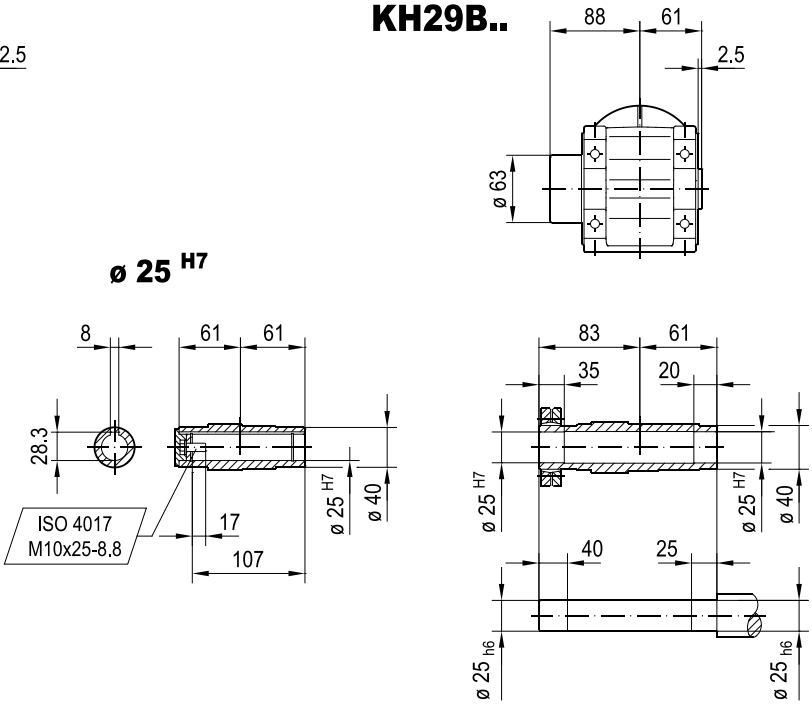
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KA29B..



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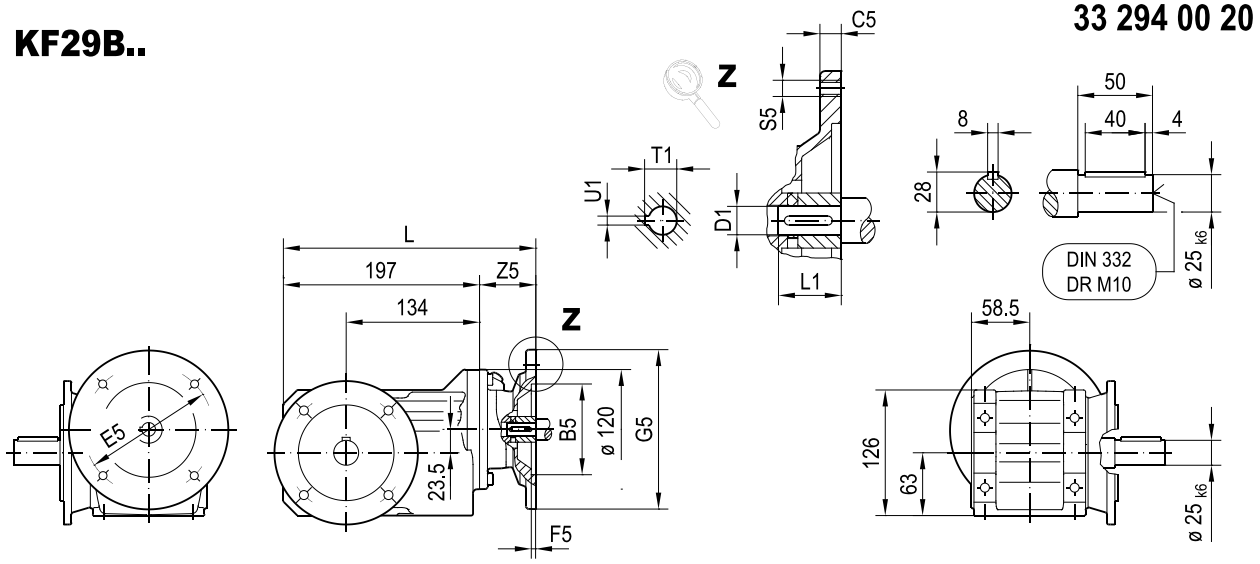


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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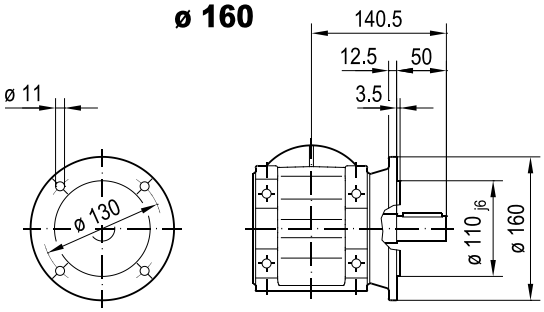
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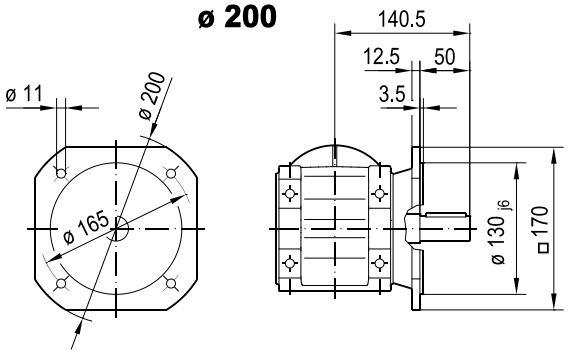
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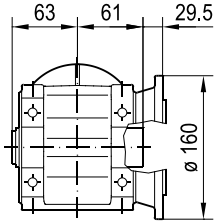


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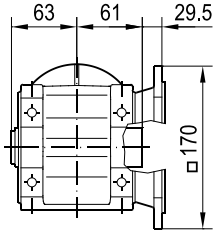


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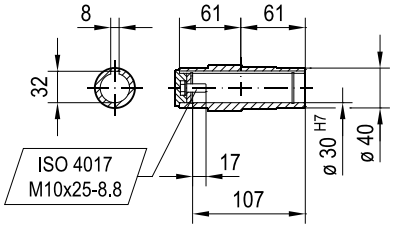


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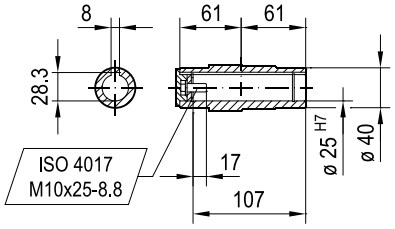


ø 30 H7

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ø 25 H7

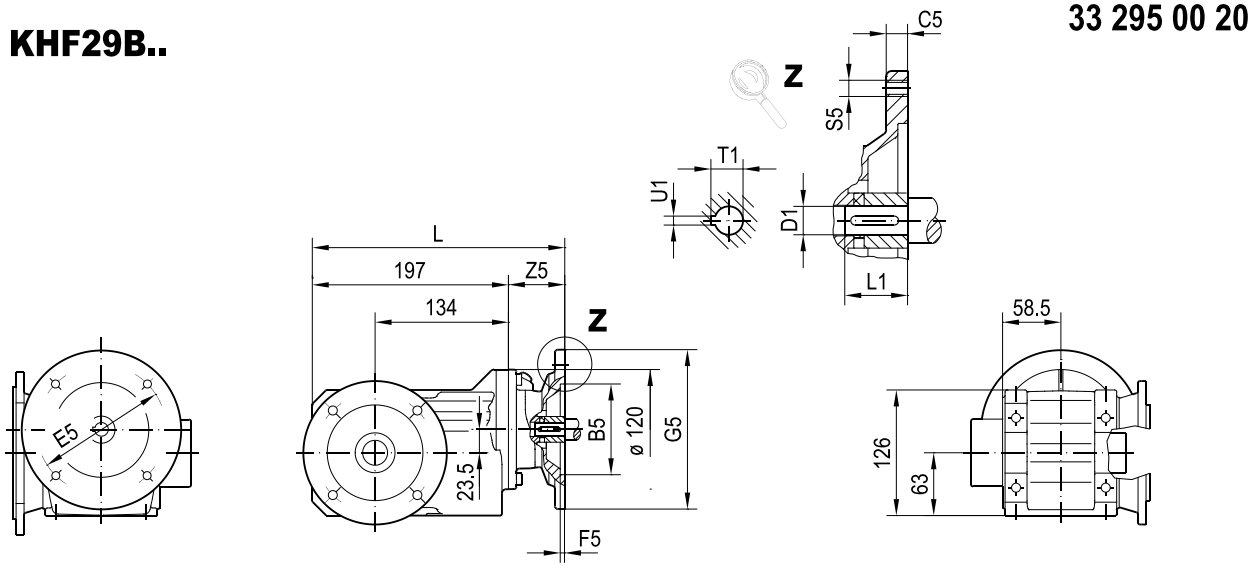


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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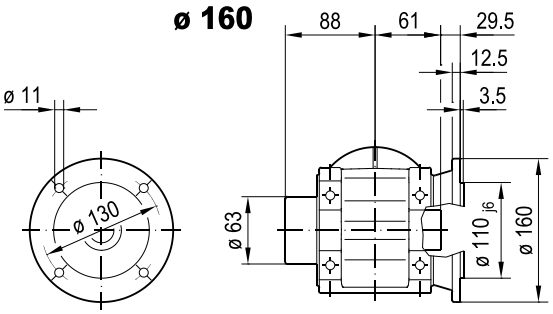
27797880/EN – 03/2023

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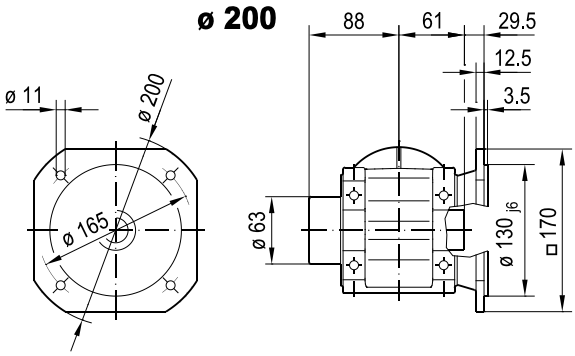
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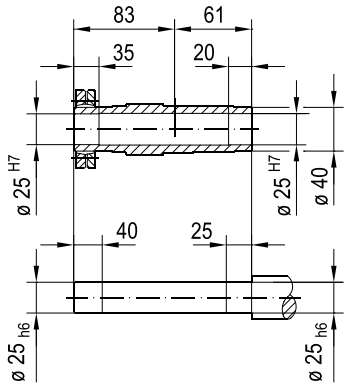


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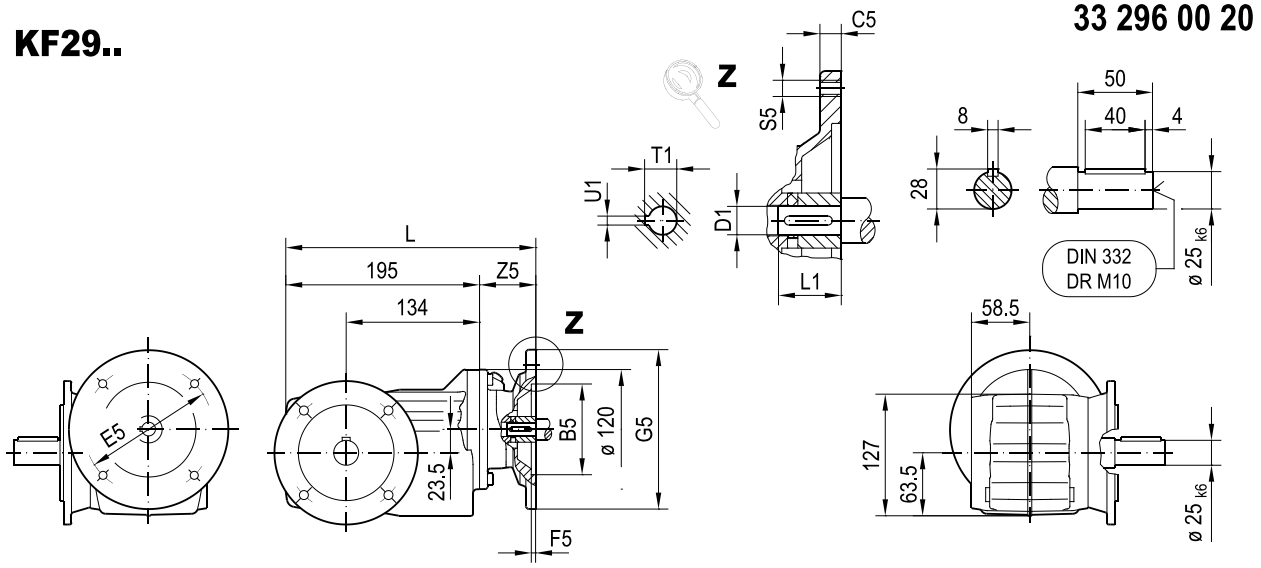


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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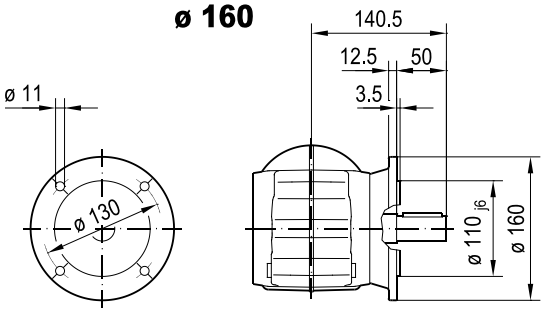
27797880/EN – 03/2023

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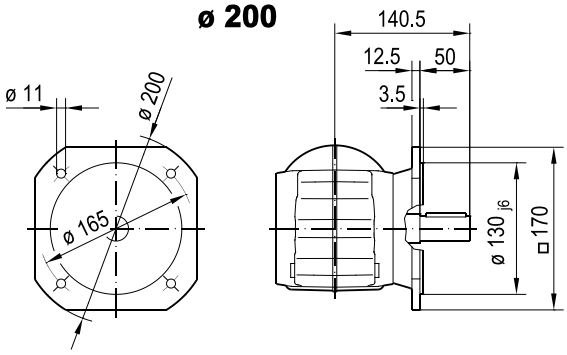
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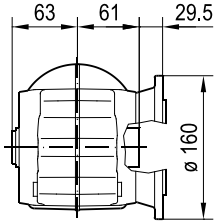


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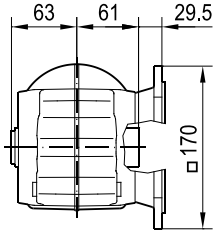


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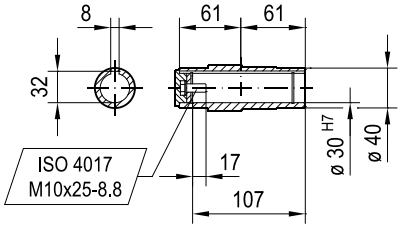


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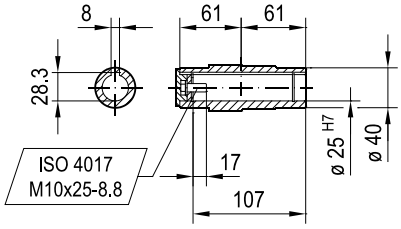


ø 30 H7

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ø 25 H7

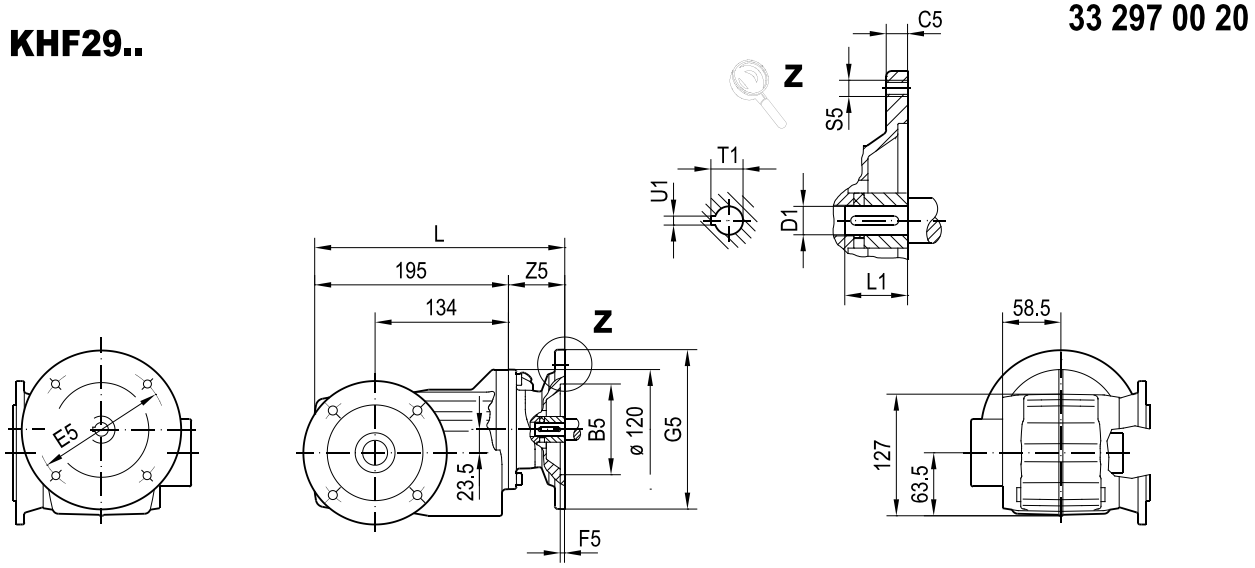


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	252	M8	56.5	11	23	12.8	4
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AMS80	130	12	165	4.5	200	269	M10	73.5	19	40	21.8	6
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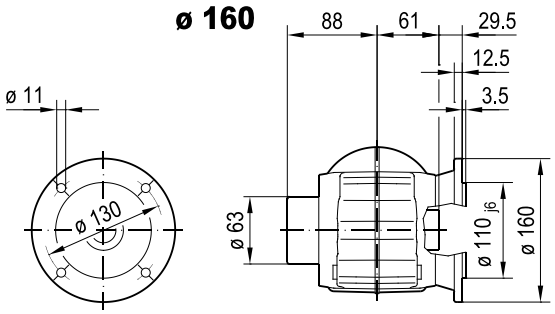
27797880/EN – 03/2023

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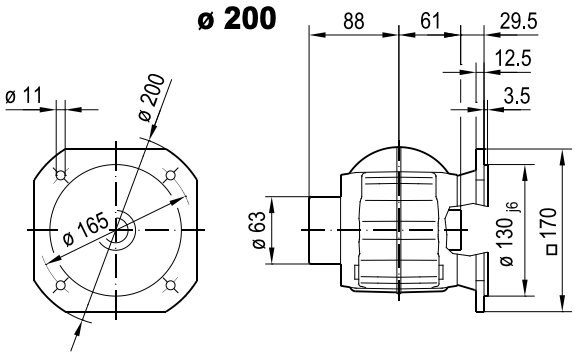
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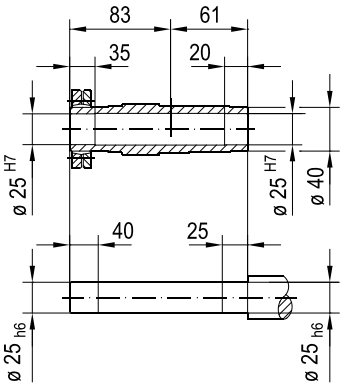


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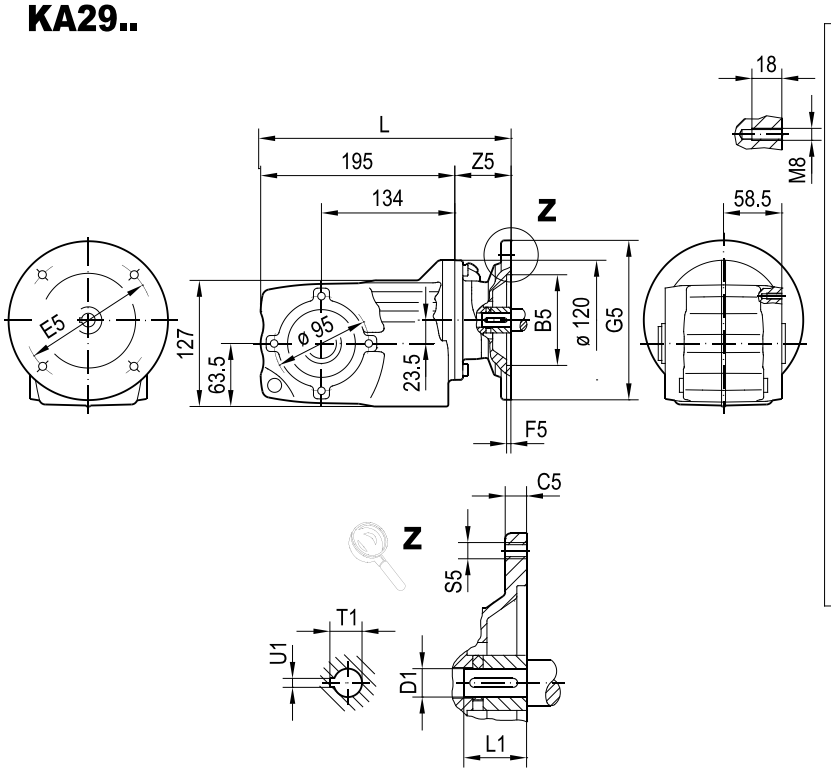


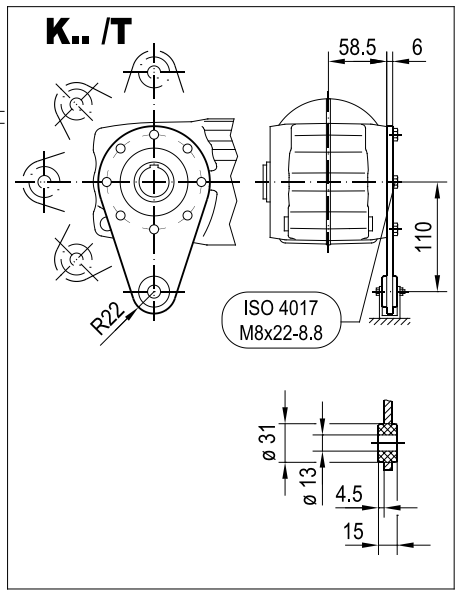
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	252	M8	56.5	11	23	12.8	4
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AMS80	130	12	165	4.5	200	269	M10	73.5	19	40	21.8	6
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27797880/EN – 03/2023

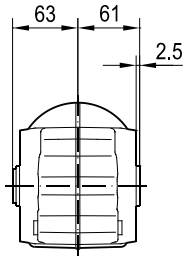
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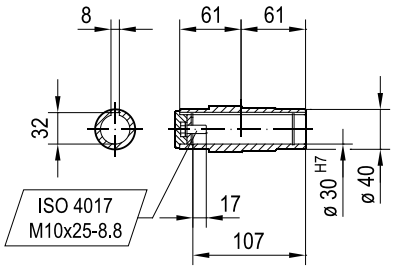




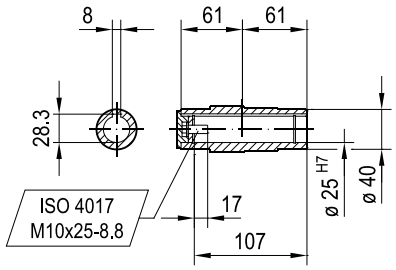
KA29..



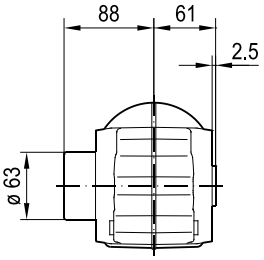
ø 30 H7
DIN 6885-3

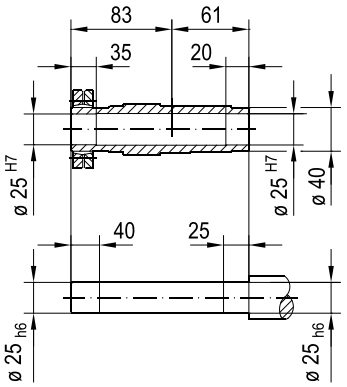


ø 25 H7



KH29..



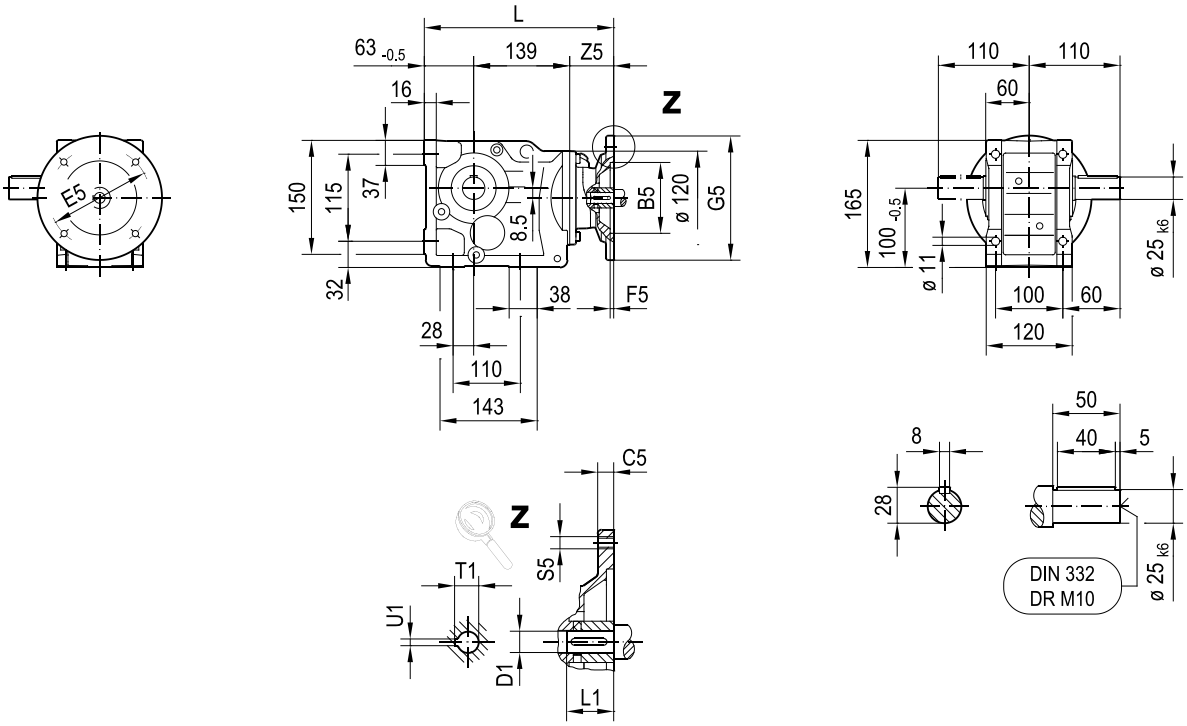


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	252	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	252	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	269	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	282	M10	86.5	24	50	27.3	8

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33 299 00 20

K37..

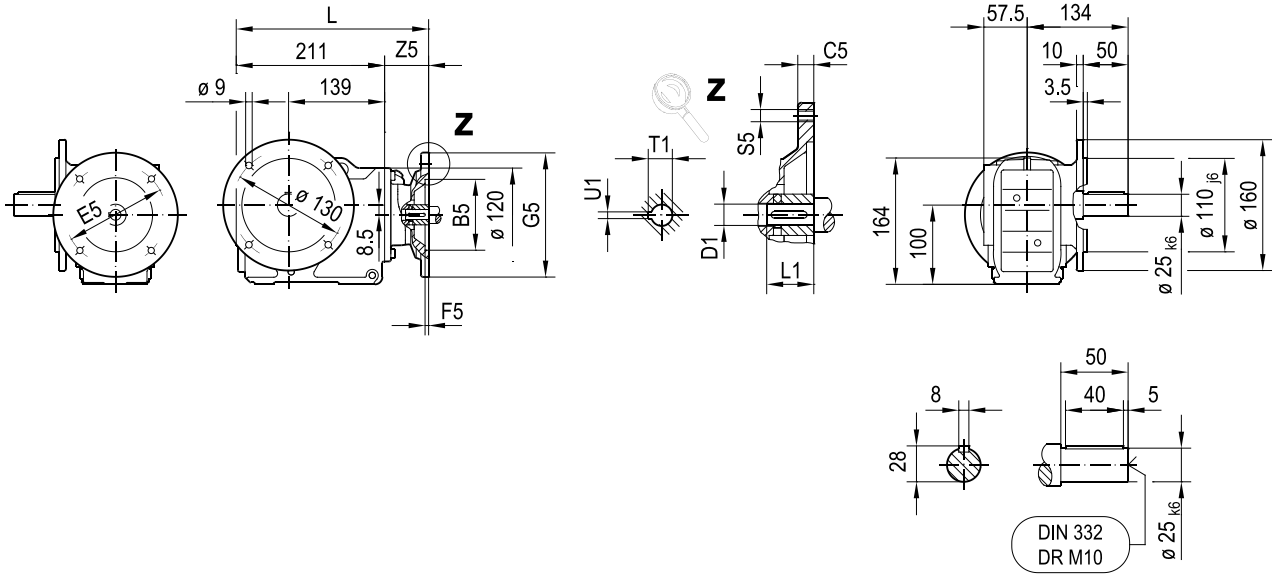


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	259	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	259	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	276	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	289	M10	86.5	24	50	27.3	8

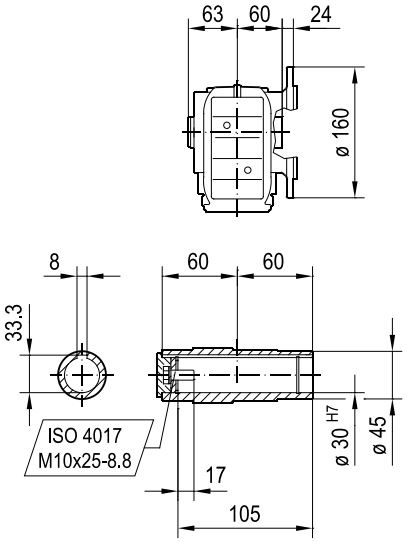
27797880/EN – 03/2023

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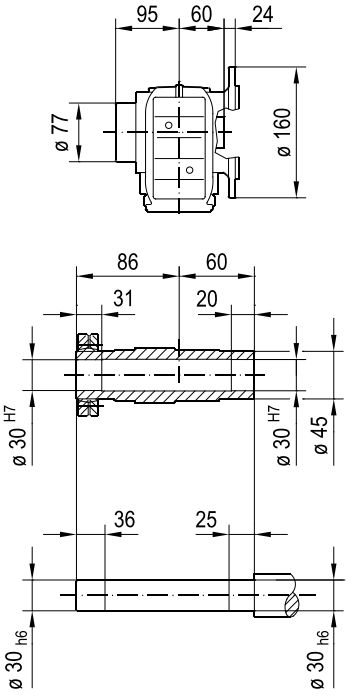
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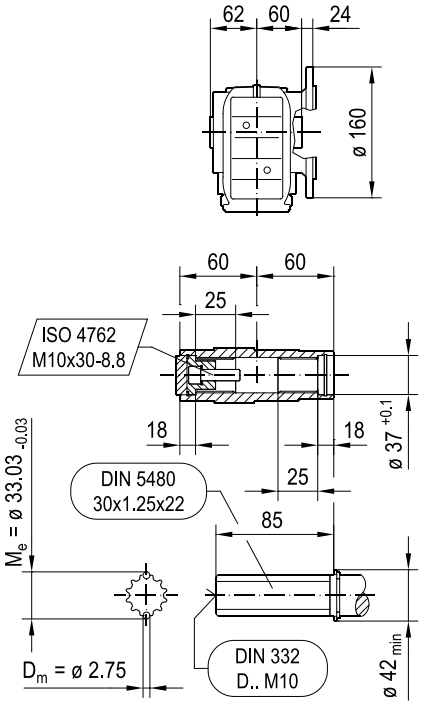
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KHF37..



KVF37..

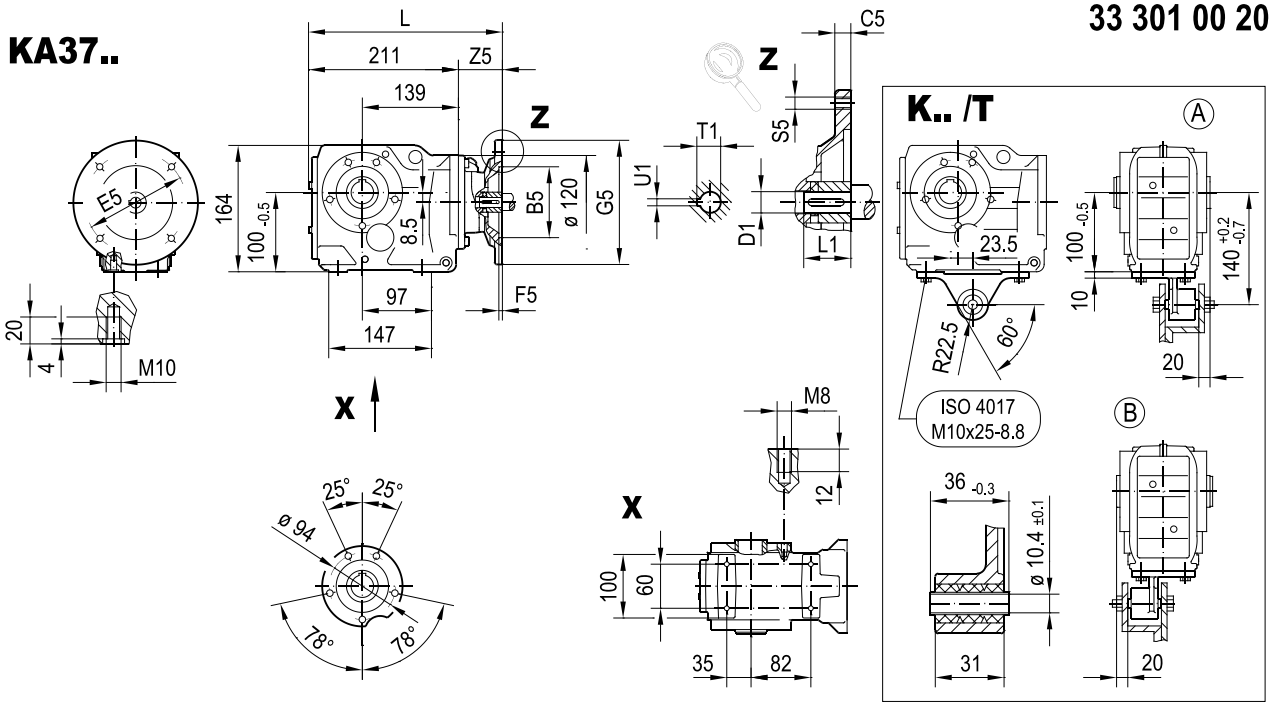


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	268	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	268	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	285	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	298	M10	86.5	24	50	27.3	8

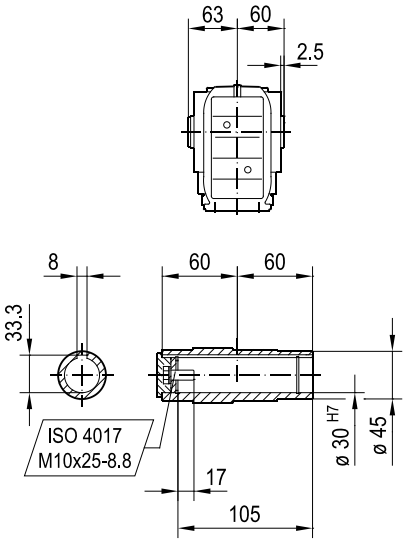
27797880/EN – 03/2023

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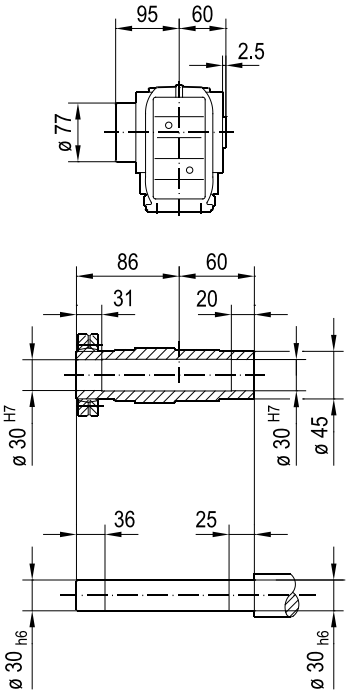
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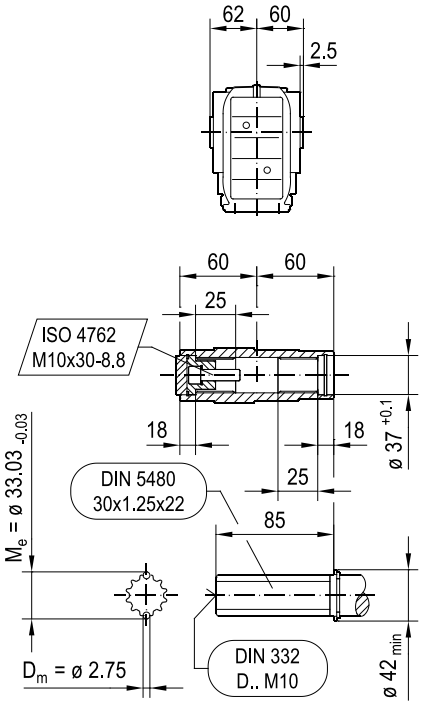
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KH37..



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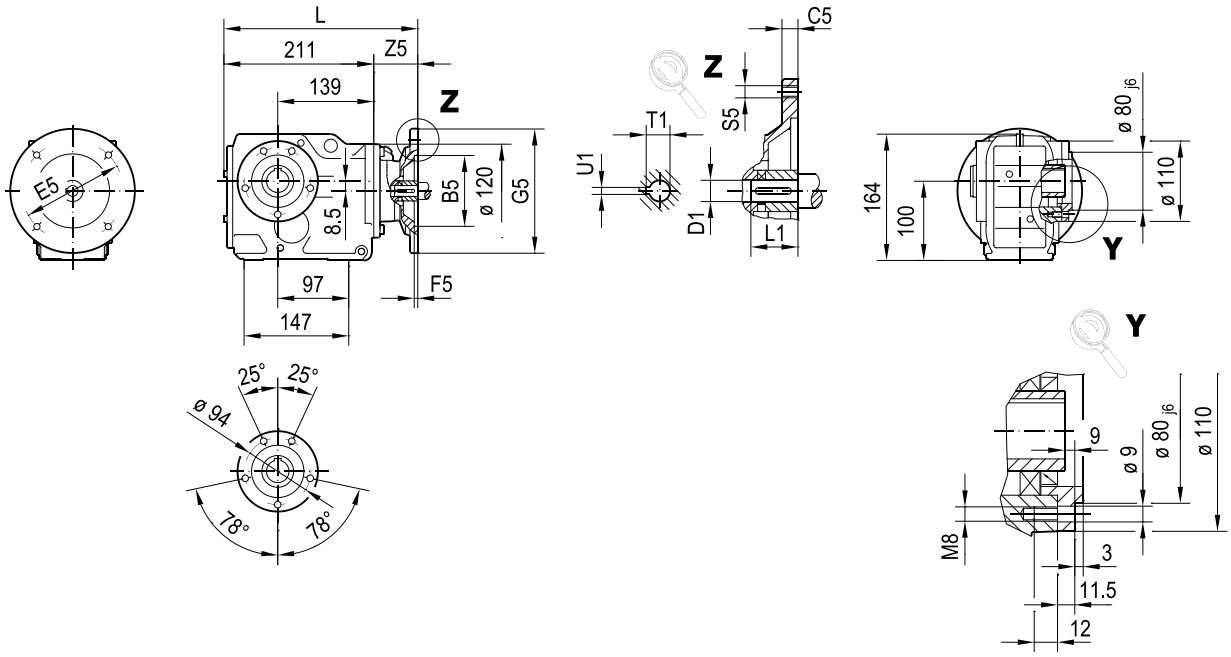


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	268	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	268	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	285	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	298	M10	86.5	24	50	27.3	8

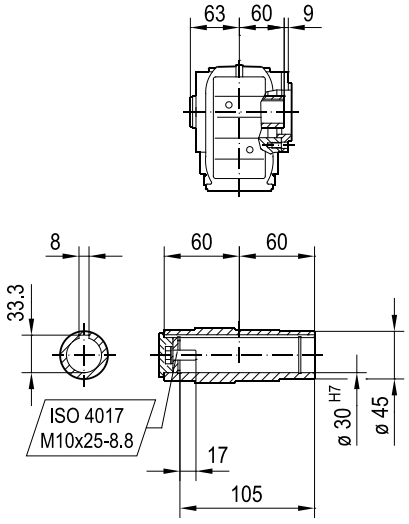
27797880/EN – 03/2023

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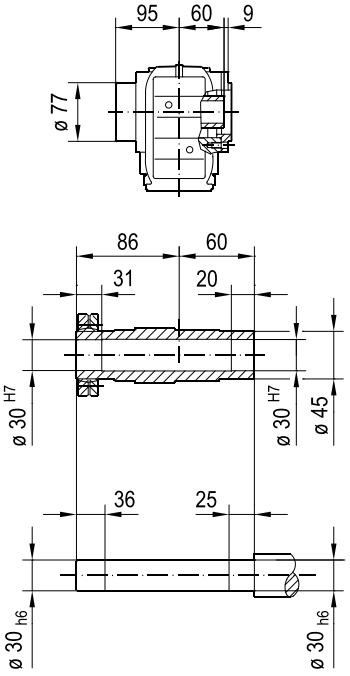
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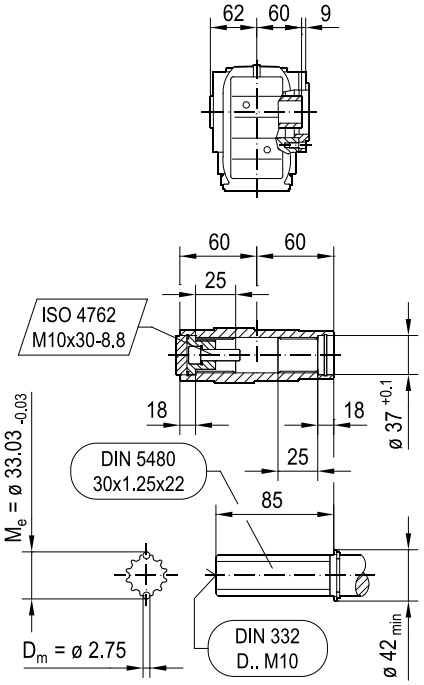
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KHZ37..



KVZ37..

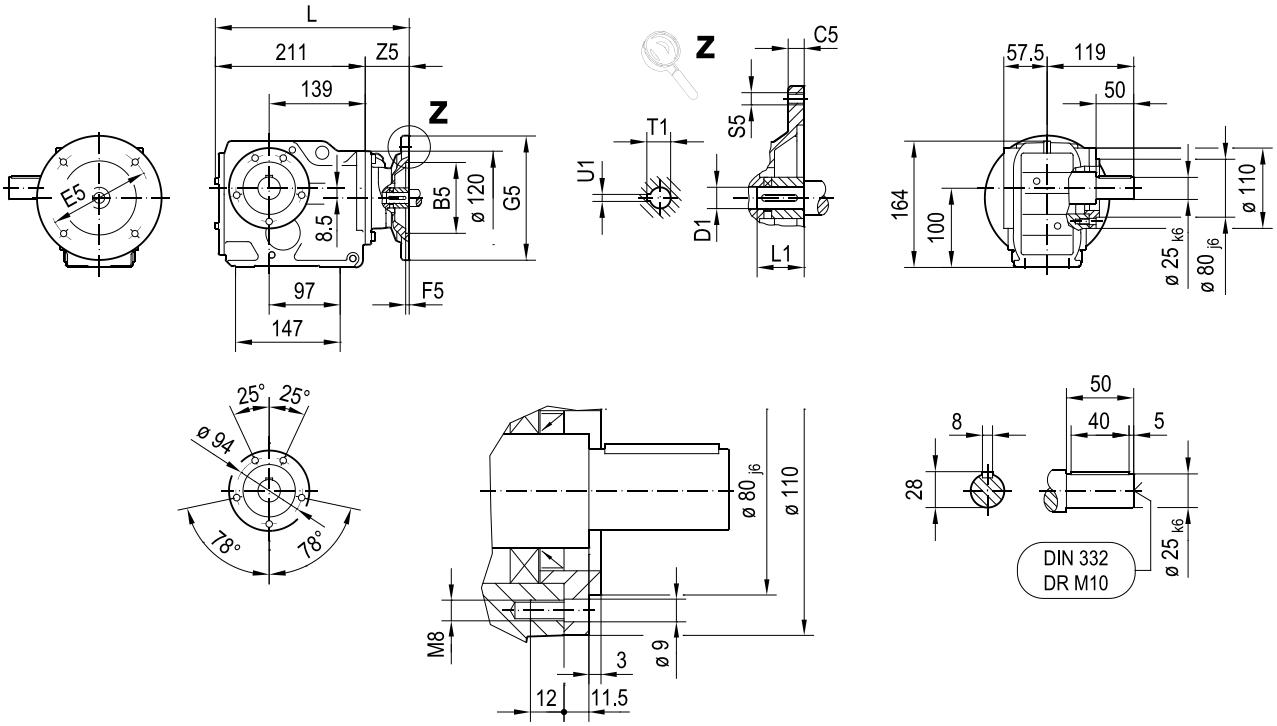


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	268	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	268	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	285	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	298	M10	86.5	24	50	27.3	8

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33 303 00 20

KZ37..

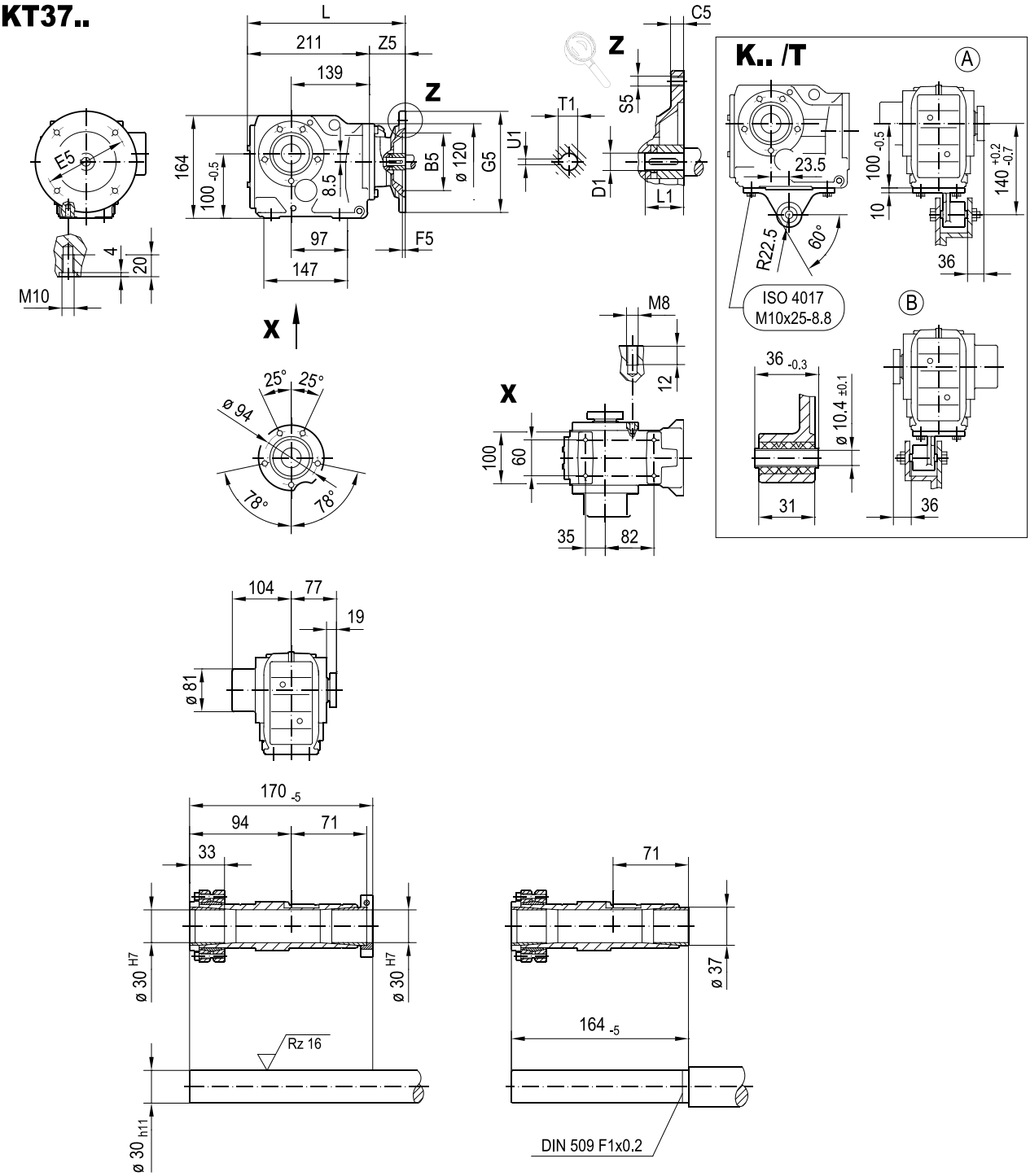


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	268	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	268	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	285	M10	73.5	19	40	21.8	6
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33 304 00 20

KT37..

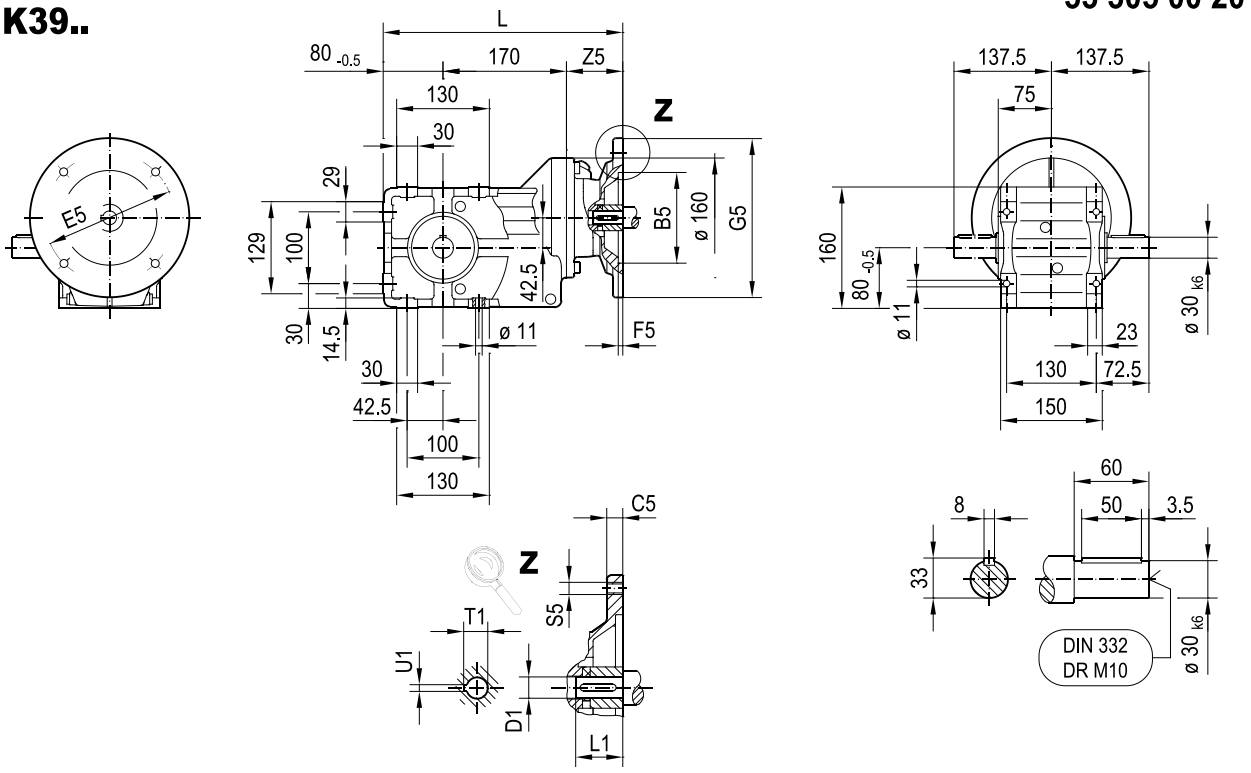


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	268	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	268	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	285	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	298	M10	86.5	24	50	27.3	8

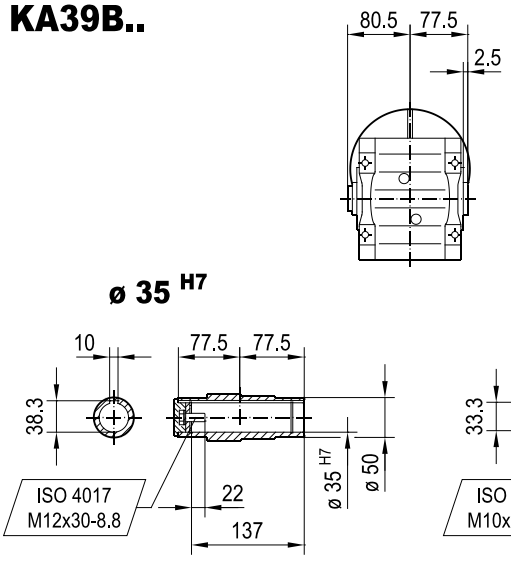
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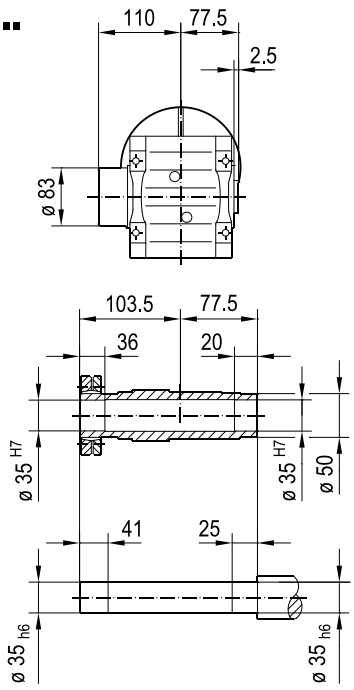
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KA39B..



KH39B..

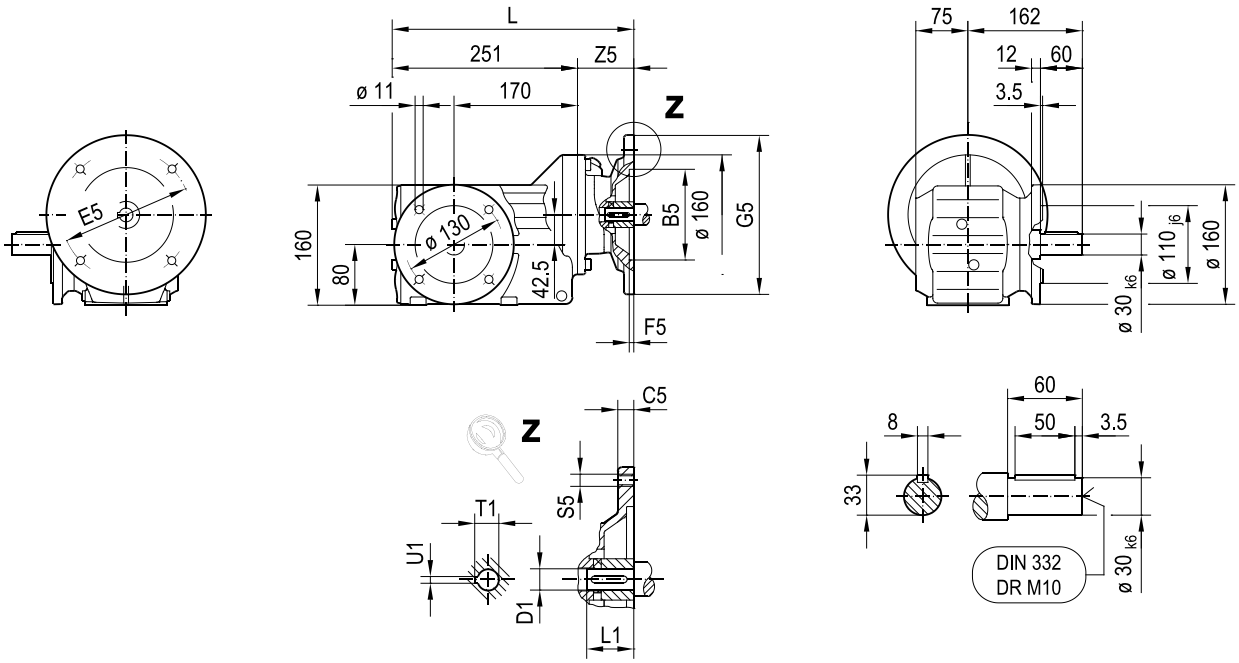


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS71	110	10	130	4	160	300	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	317	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	330	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	359	M12	108.5	28	60	31.3	8
AMS112	180	15	215	5	250	359	M12	108.5	28	60	31.3	8

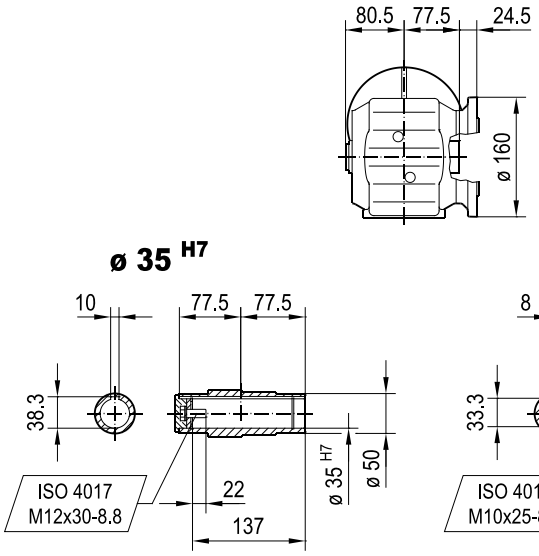
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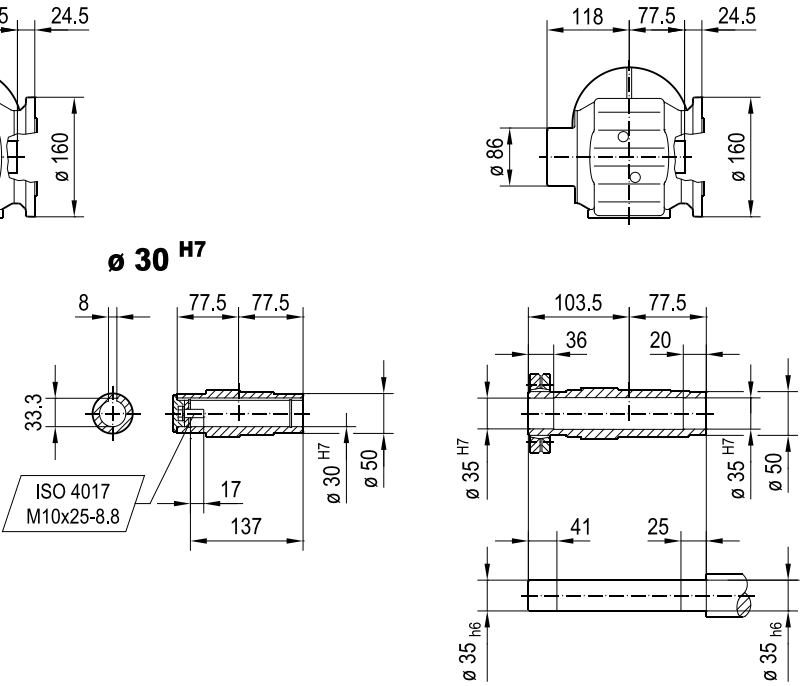
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KAF39..



KHF39..

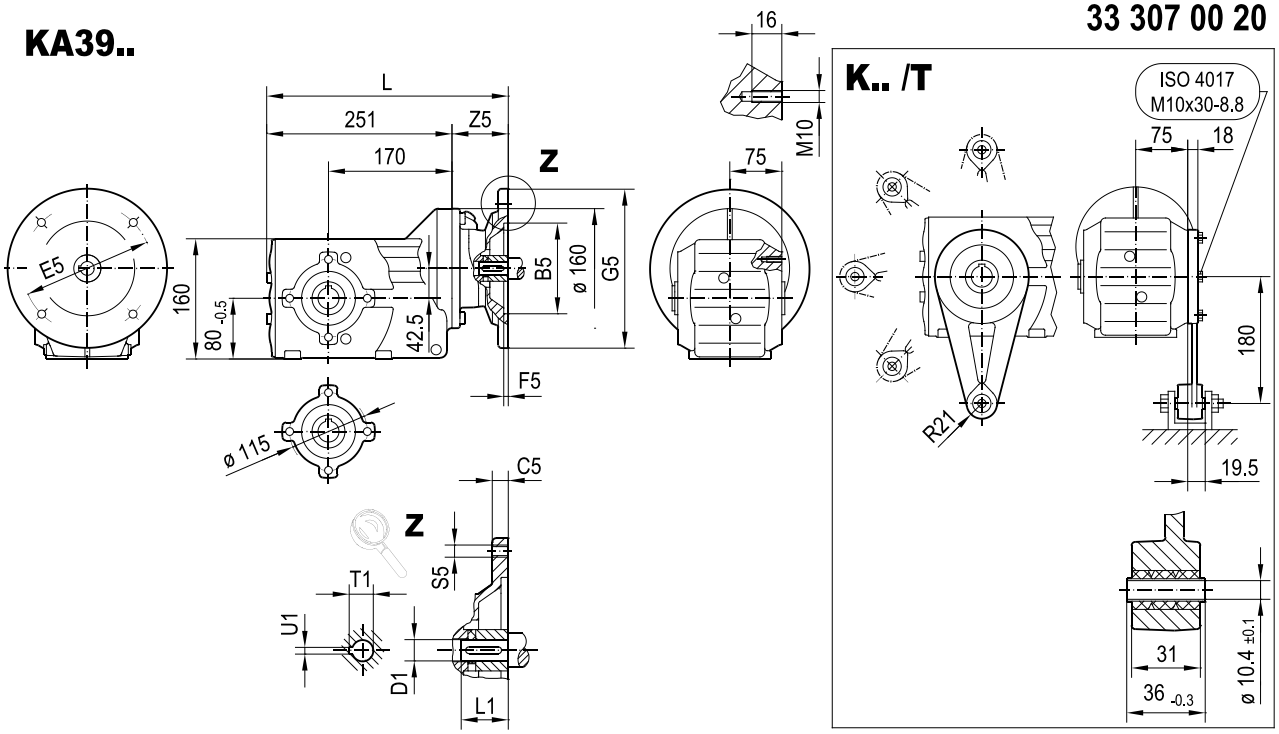


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	301	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	301	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	318	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	331	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	360	M12	108.5	28	60	31.3	8
AMS112	180	15	215	5	250	360	M12	108.5	28	60	31.3	8

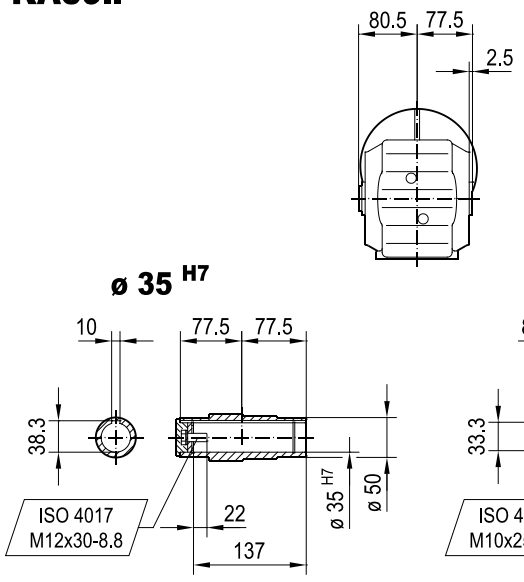
27797880/EN – 03/2023

KA39..

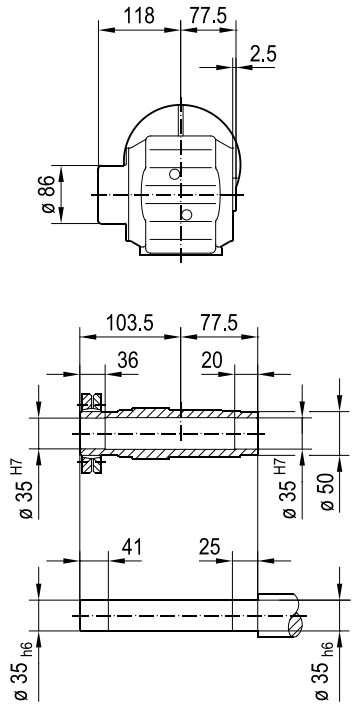
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KH39..

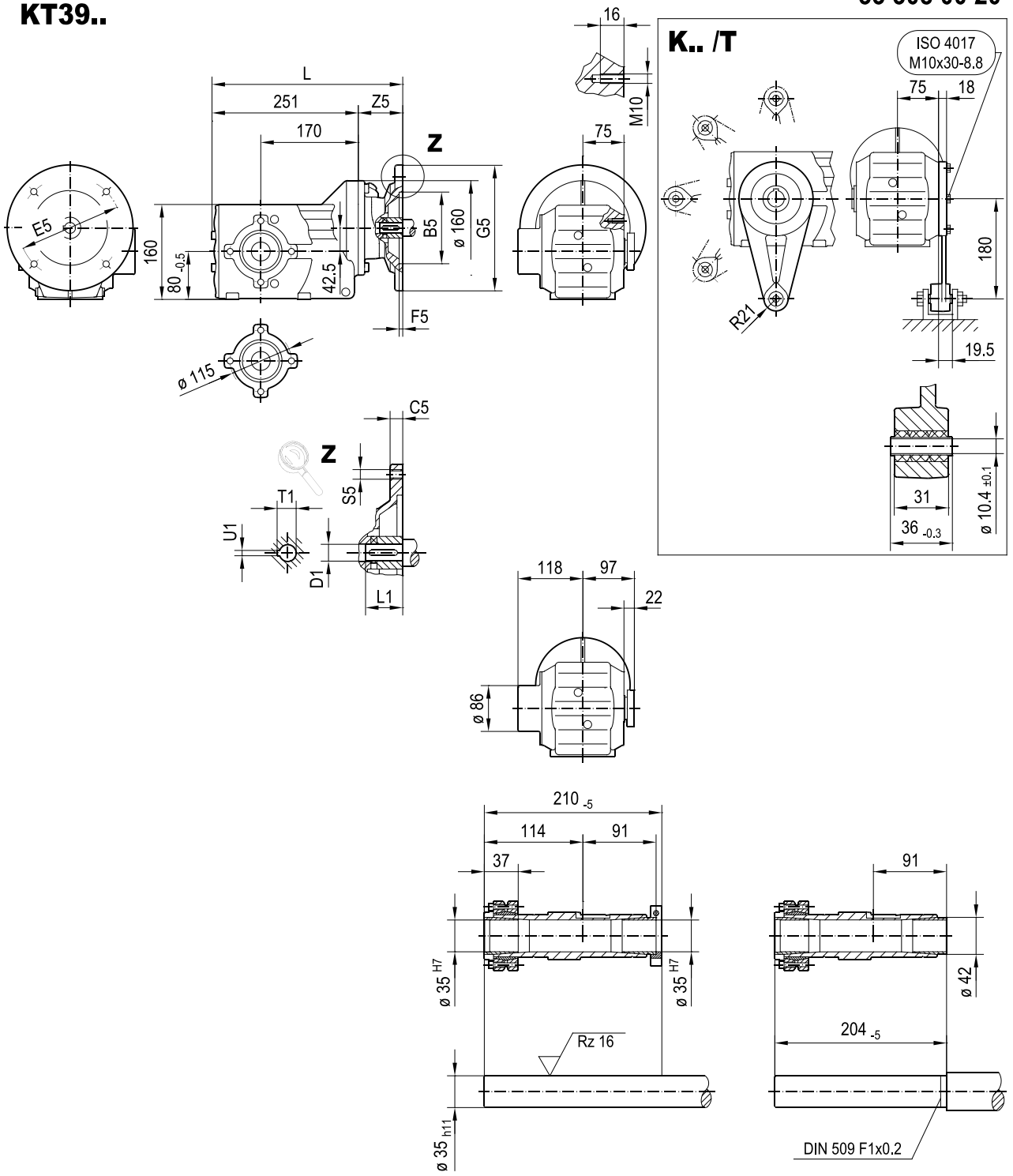


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS71	110	10	130	4	160	301	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	318	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	331	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	360	M12	108.5	28	60	31.3	8
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KT39..

33 308 00 20

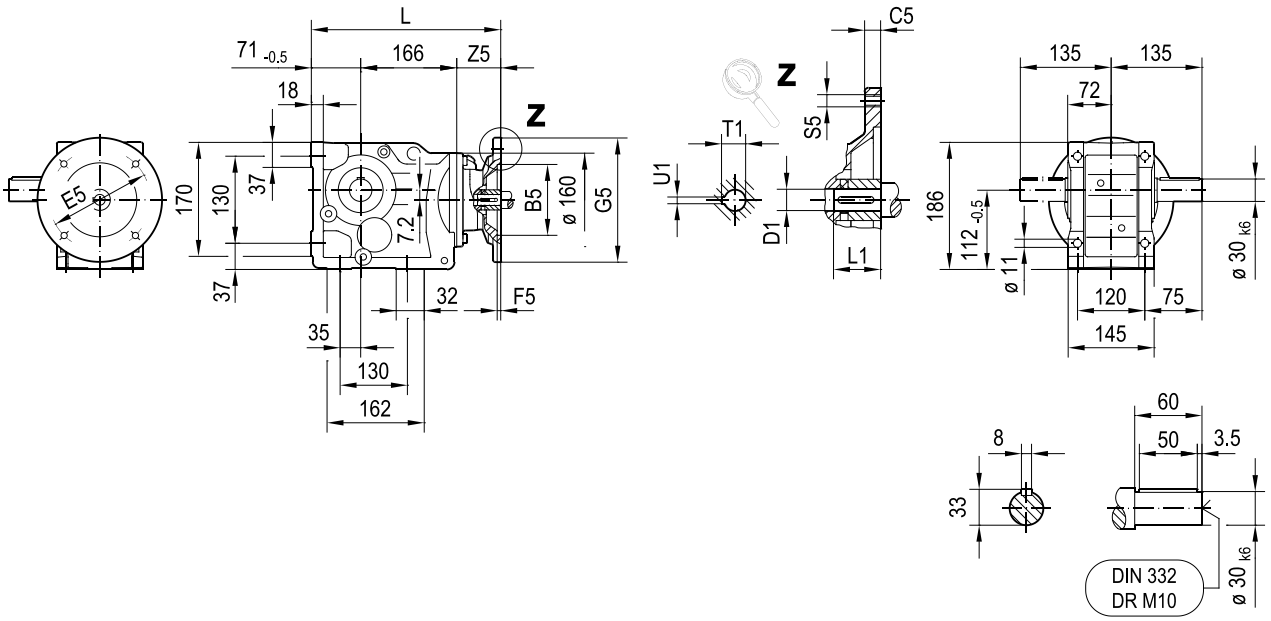


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	301	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	301	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	318	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	331	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	360	M12	108.5	28	60	31.3	8
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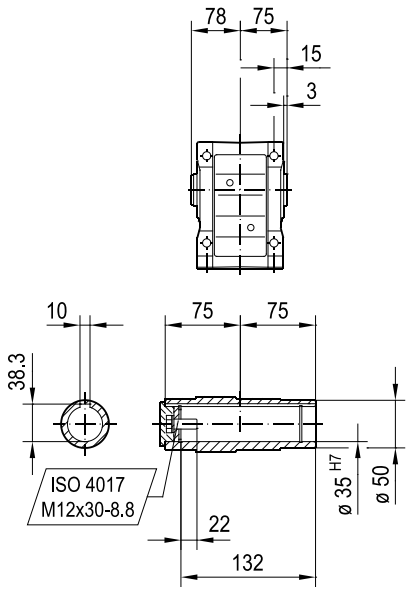
27797880/EN – 03/2023

33 309 00 20

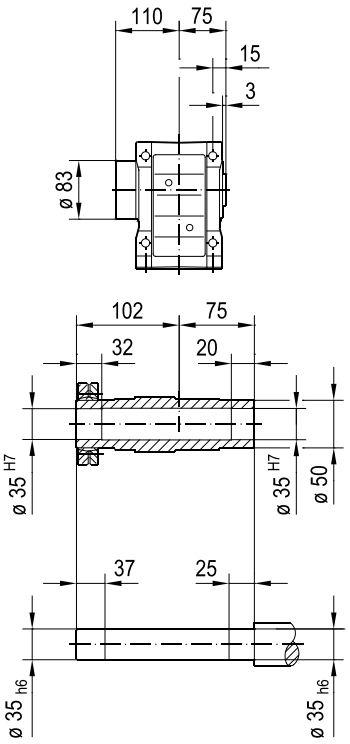
K47..



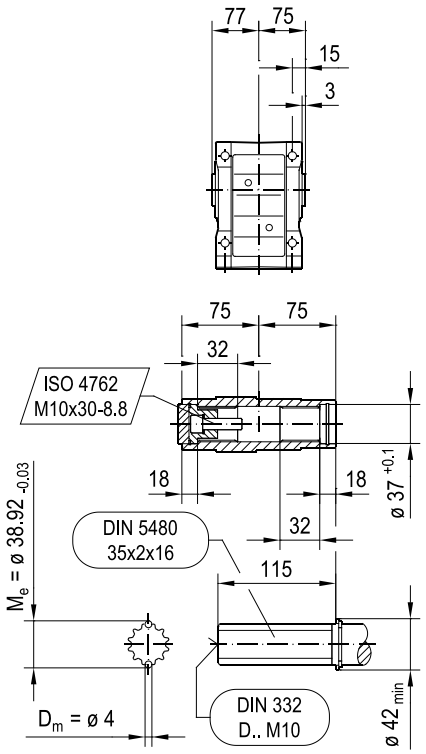
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KH47B..



KV47B..

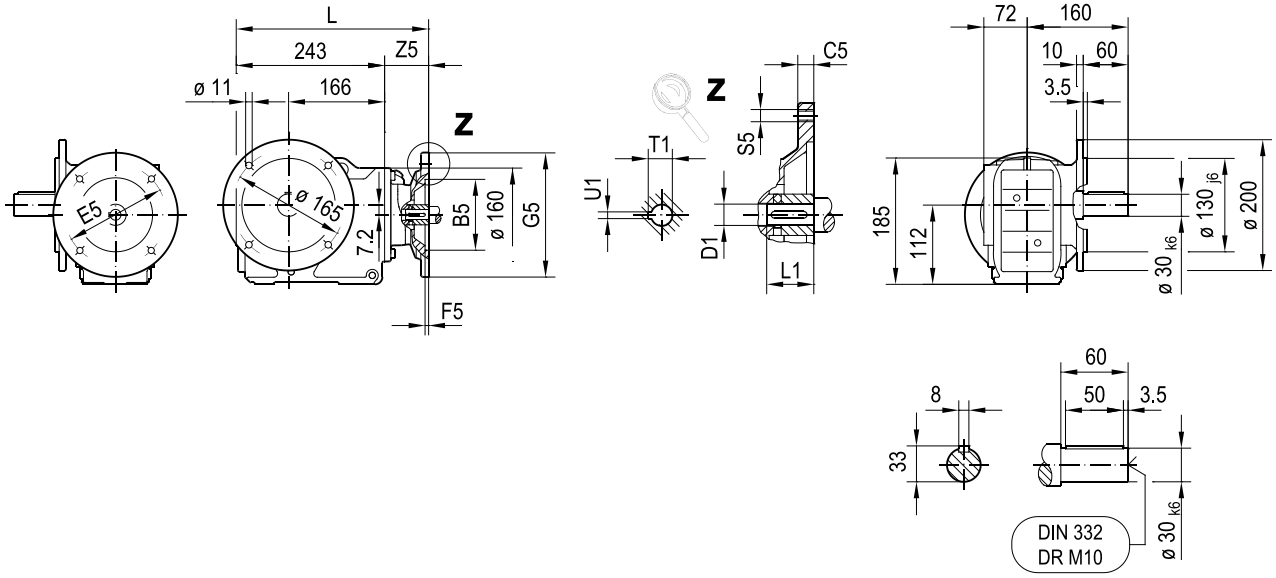


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS71	110	10	130	4	160	287	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	304	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	317	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	346	M12	108.5	28	60	31.3	8
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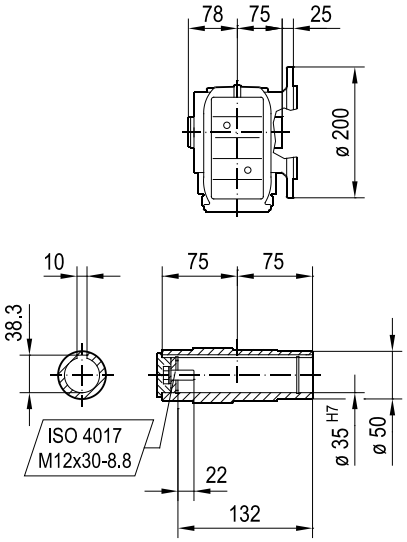
27797880/EN – 03/2023

33 310 00 20

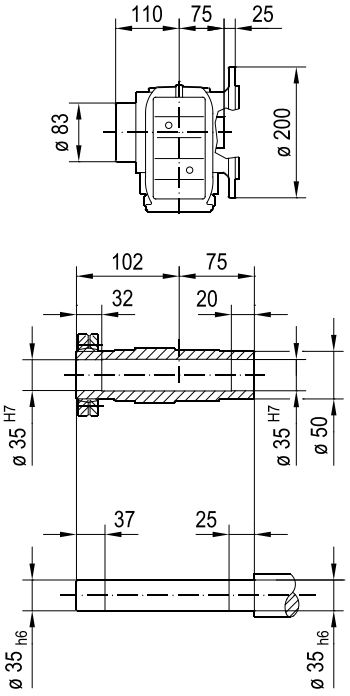
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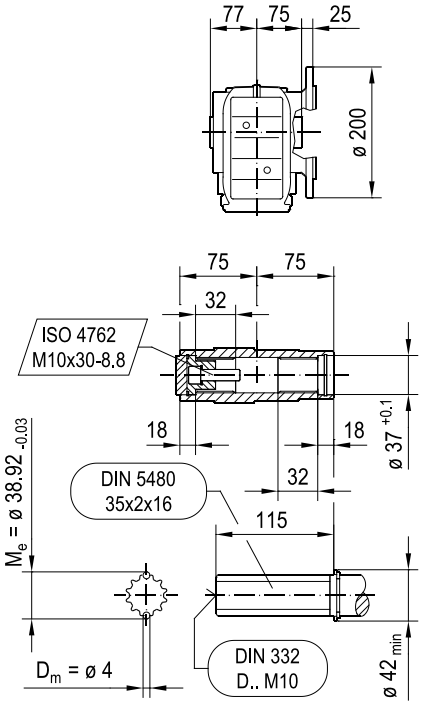
KAF47..



KHF47..



KVF47..

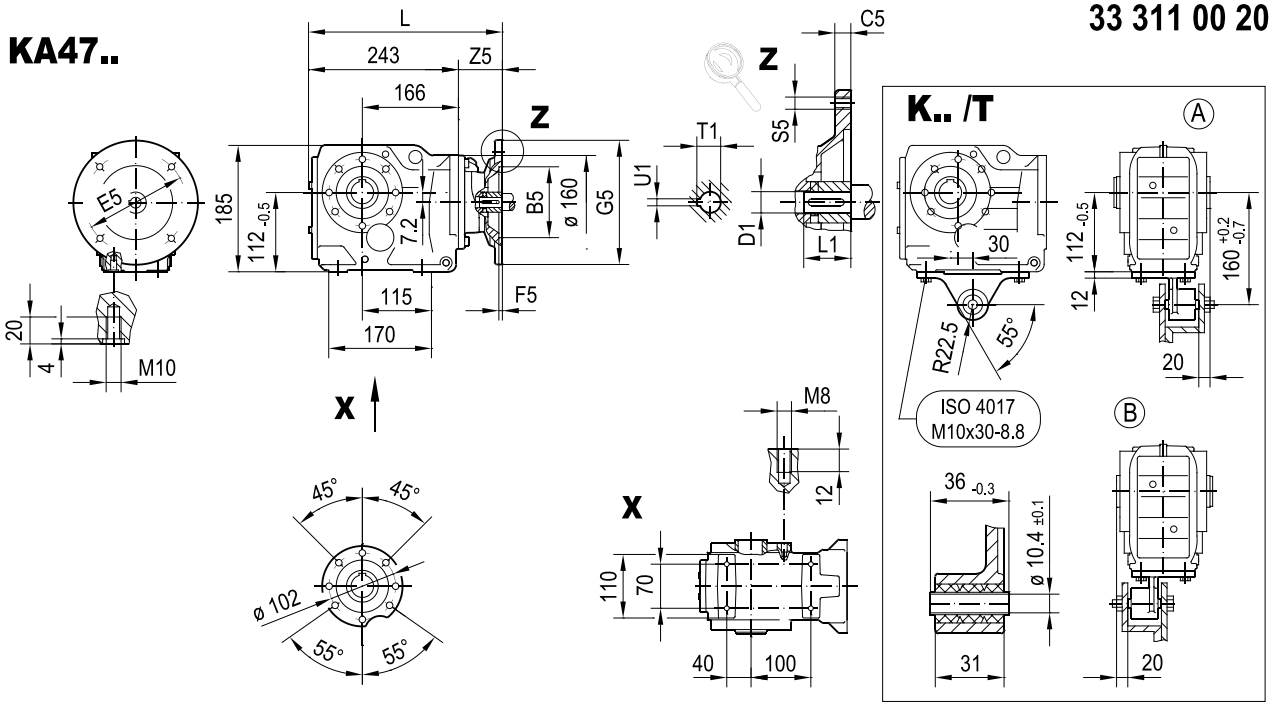


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	293	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	293	M8	50	14	30	16.3	5
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AMS90	130	12	165	4.5	200	323	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	352	M12	108.5	28	60	31.3	8
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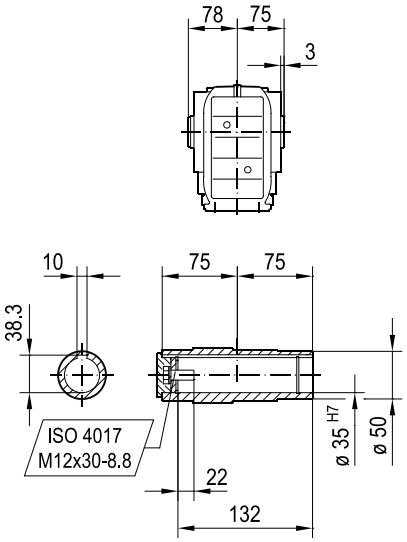
27797880/EN – 03/2023

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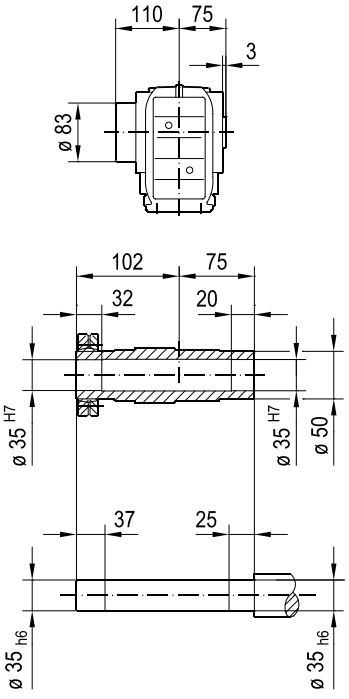
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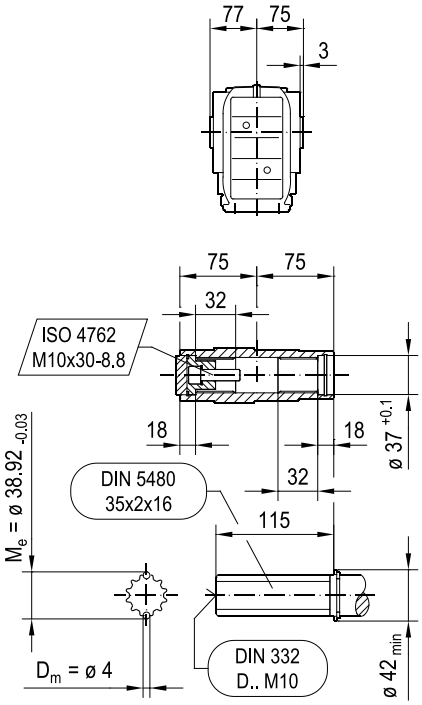
KA47..



KH47..



KV47..

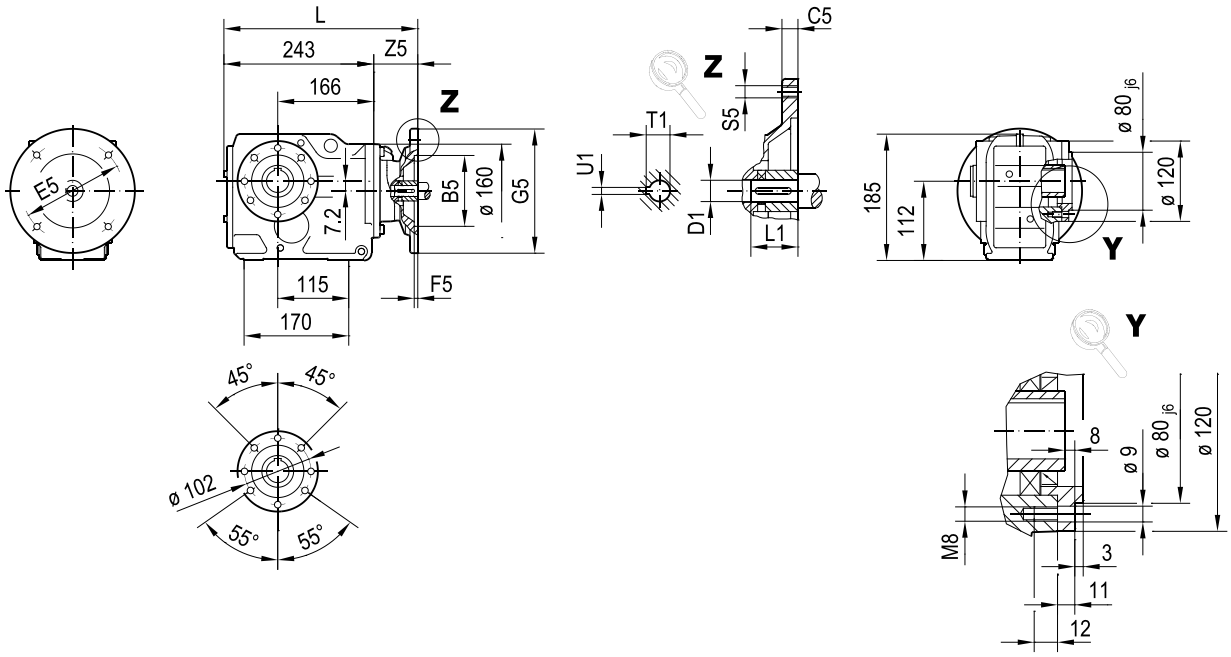


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	293	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	293	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	310	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	323	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	352	M12	108.5	28	60	31.3	8
AMS112	180	15	215	5	250	352	M12	108.5	28	60	31.3	8

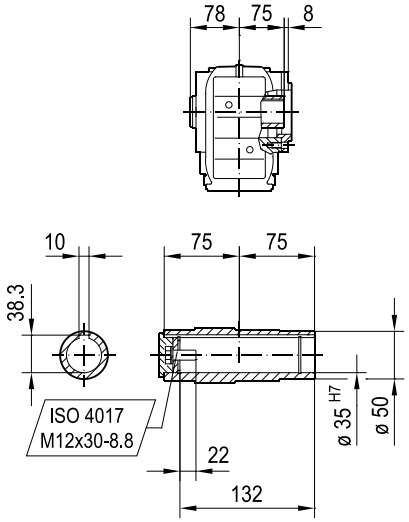
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33 312 00 20

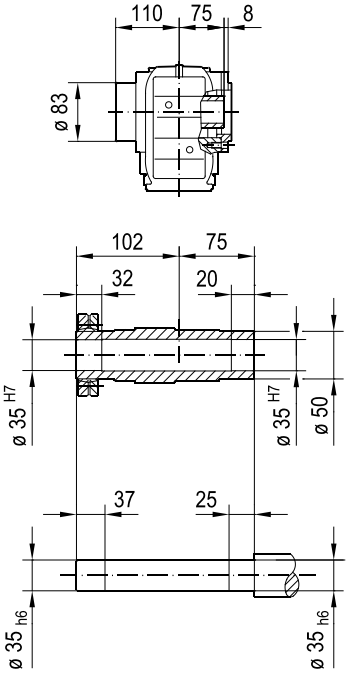
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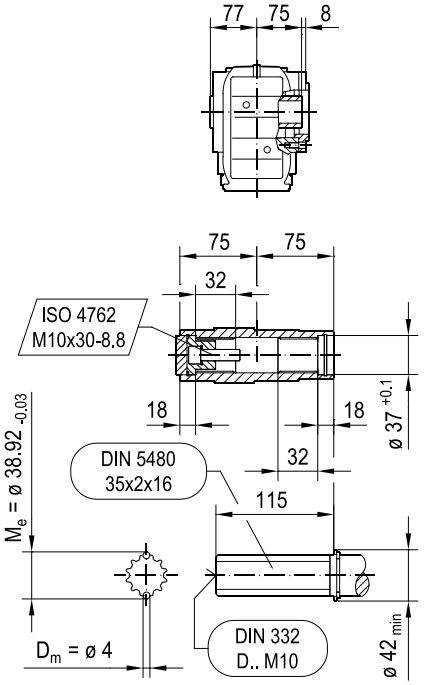
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KHZ47..



KVZ47..

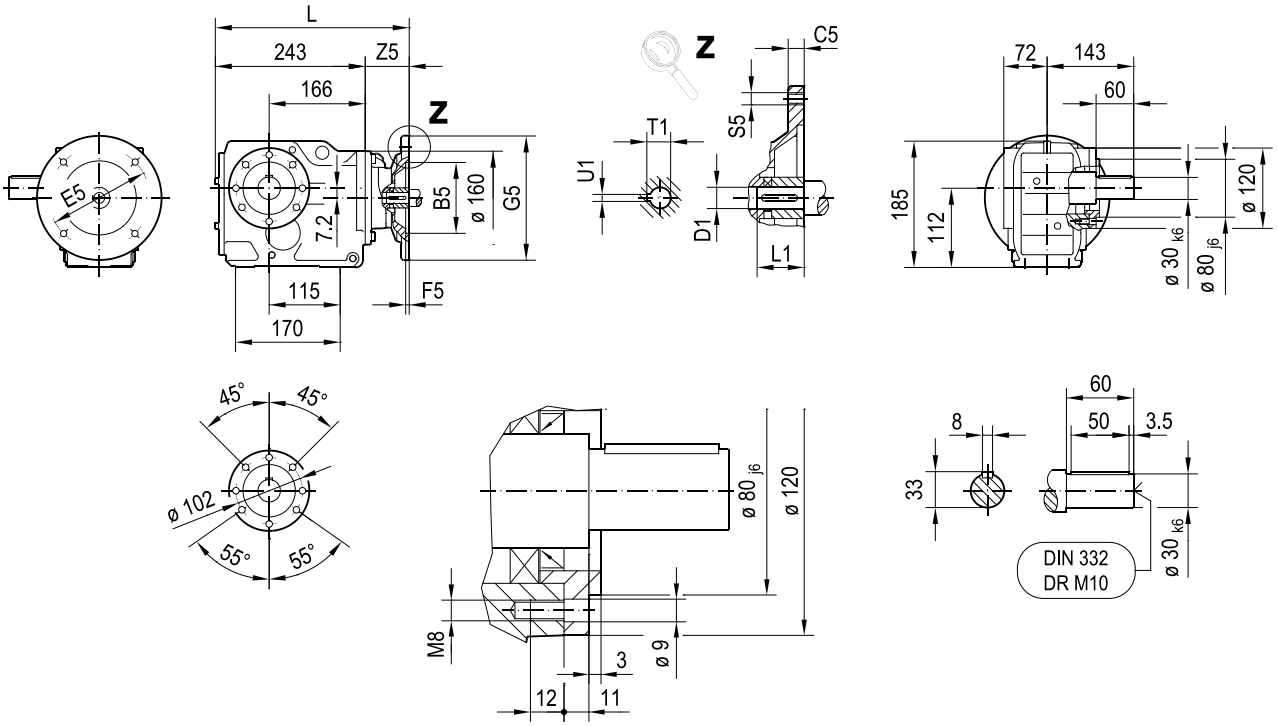


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	293	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	293	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	310	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	323	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	352	M12	108.5	28	60	31.3	8
AMS112	180	15	215	5	250	352	M12	108.5	28	60	31.3	8

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33 313 00 20

KZ47..

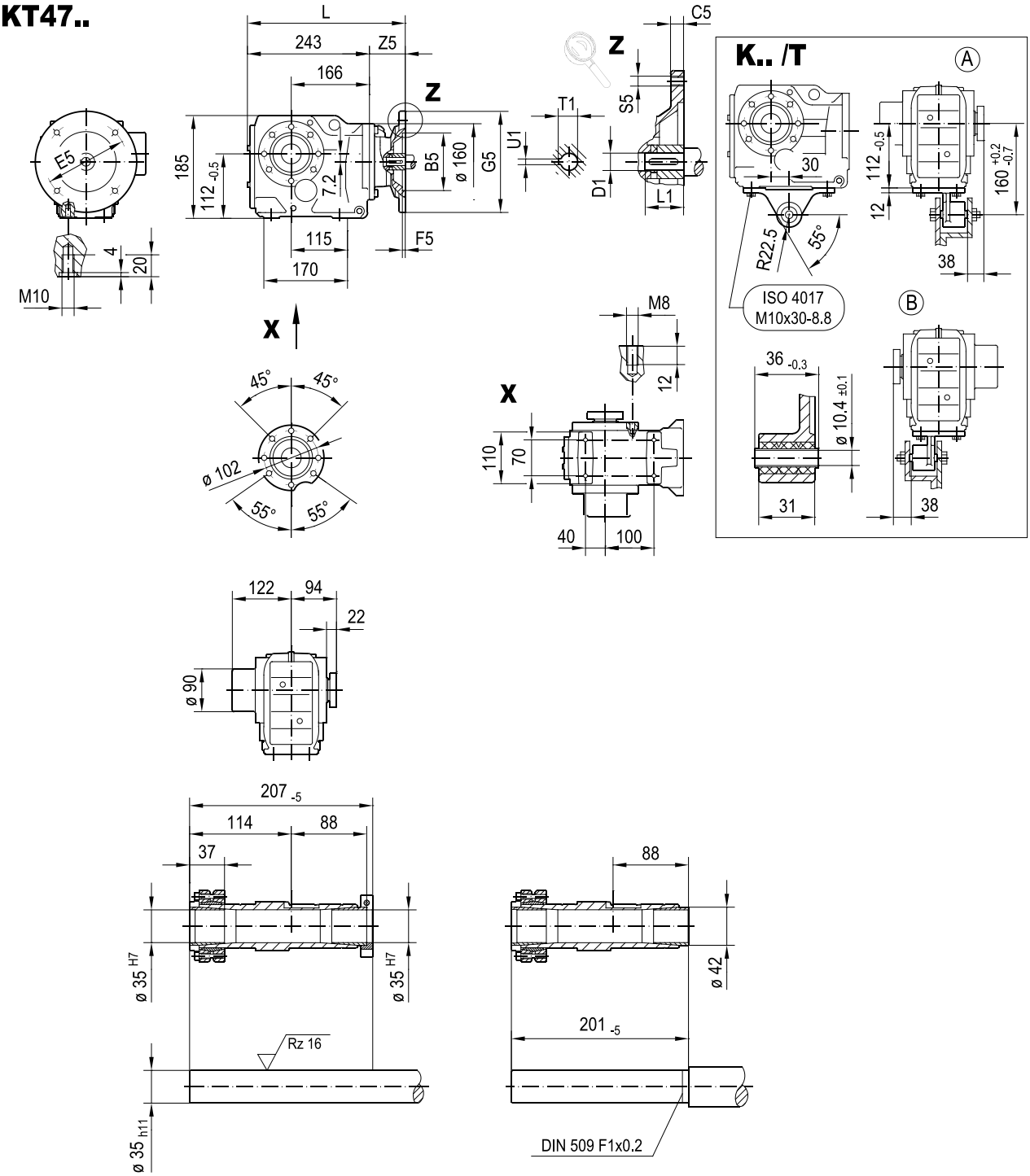


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	293	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	293	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	310	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	323	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	352	M12	108.5	28	60	31.3	8
AMS112	180	15	215	5	250	352	M12	108.5	28	60	31.3	8

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33 314 00 20

KT47..

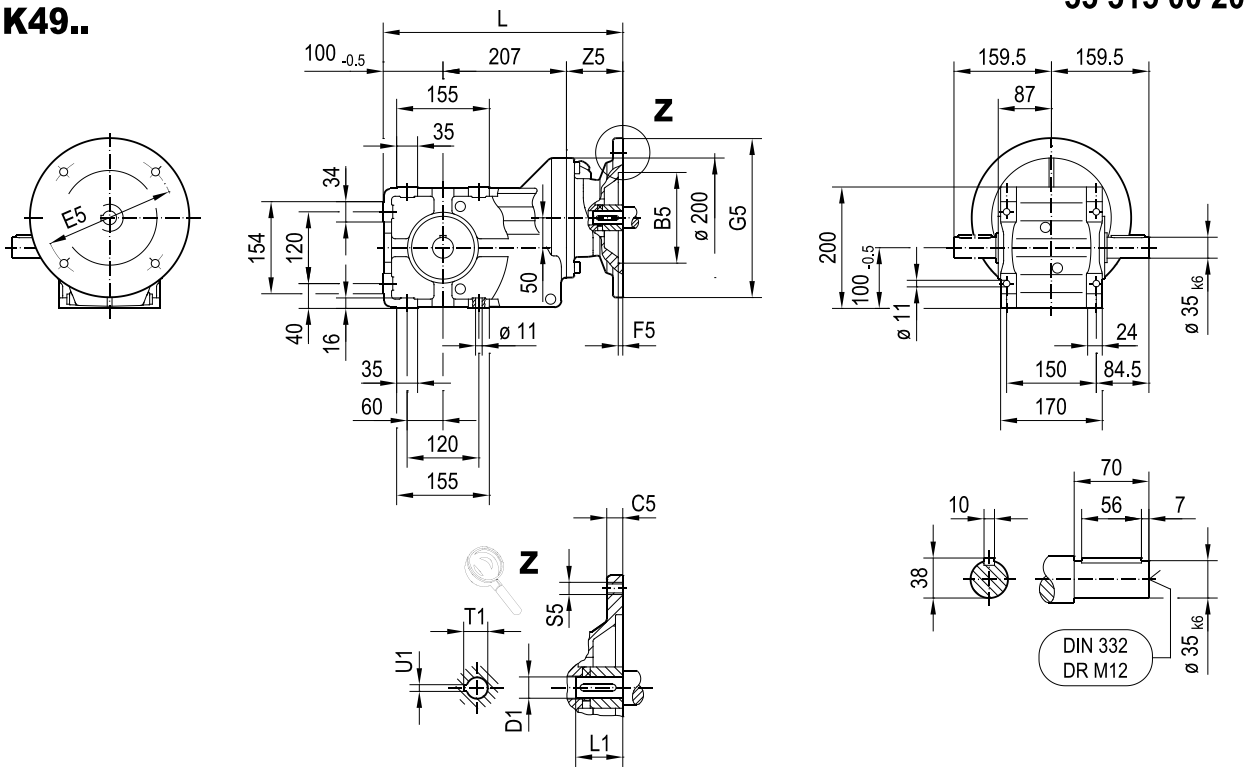


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	293	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	293	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	310	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	323	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	352	M12	108.5	28	60	31.3	8
AMS112	180	15	215	5	250	352	M12	108.5	28	60	31.3	8

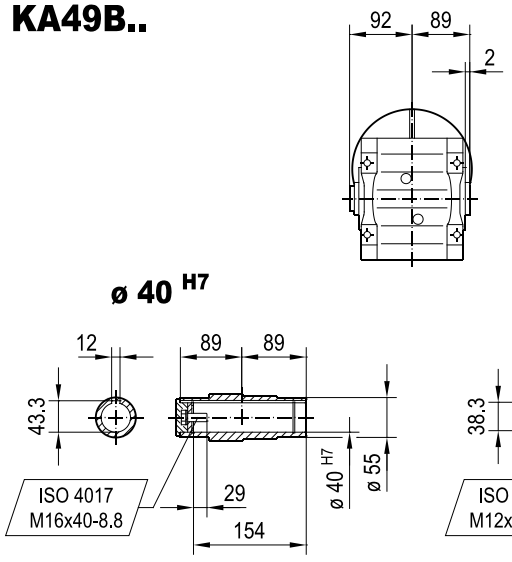
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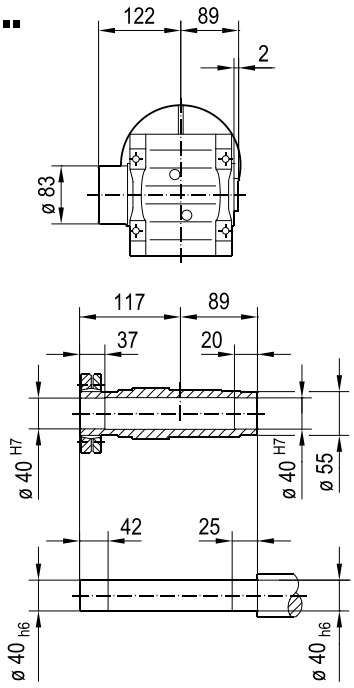
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KH49B..

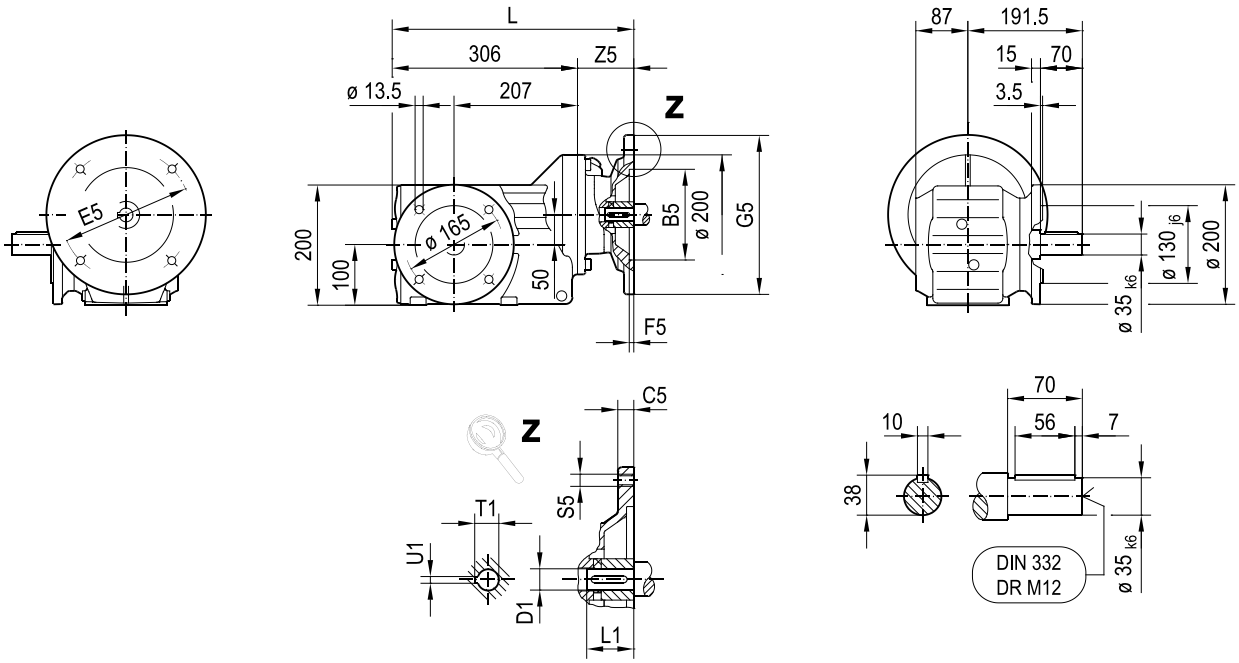


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	351	M8	44	11	23	12.8	4
AMS71	110	10	130	4	160	351	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	367	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	380	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	408	M12	100.5	28	60	31.3	8
AMS112	180	15	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

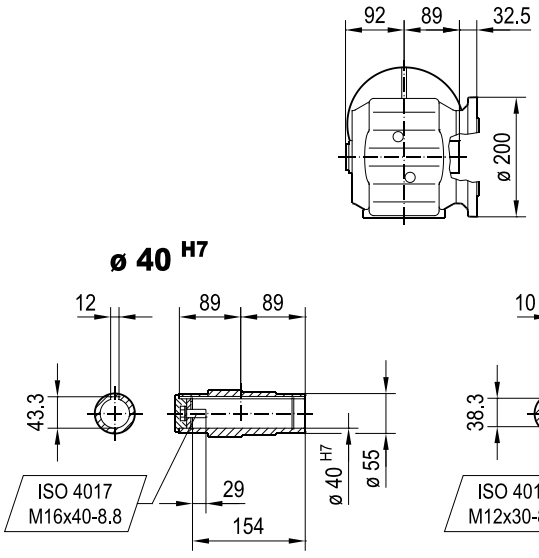
27797880/EN – 03/2023

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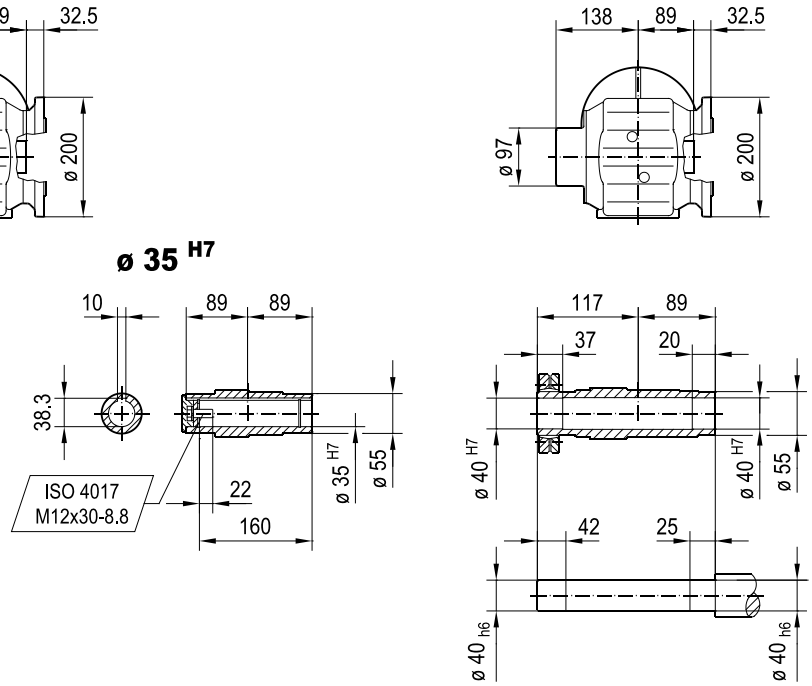
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KAF49..



KHF49..

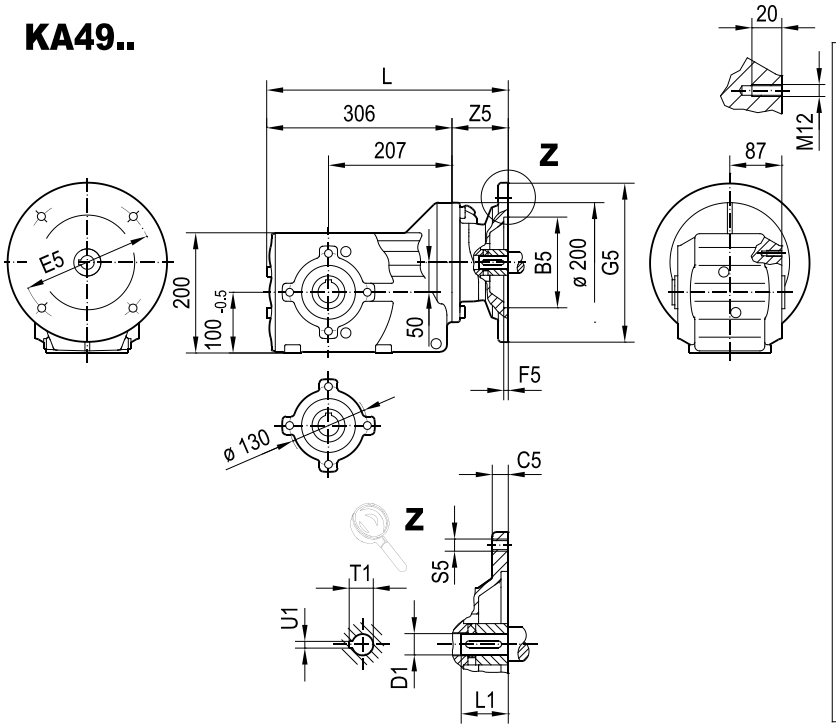


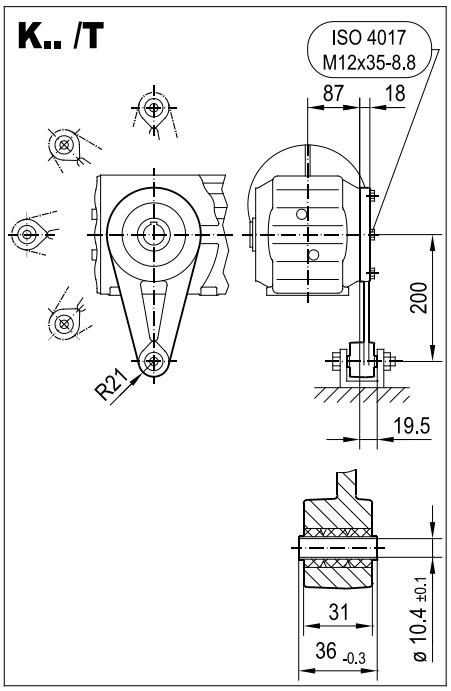
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS71	110	10	130	4	160	350	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	366	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	379	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	407	M12	100.5	28	60	31.3	8
AMS112	180	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

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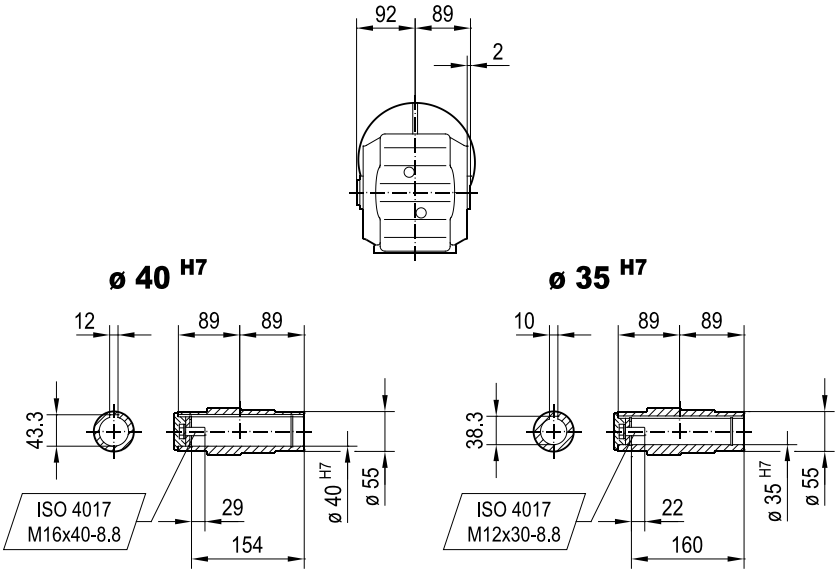
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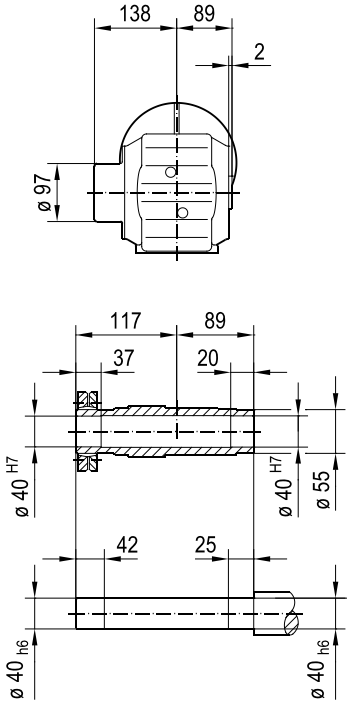




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KH49..

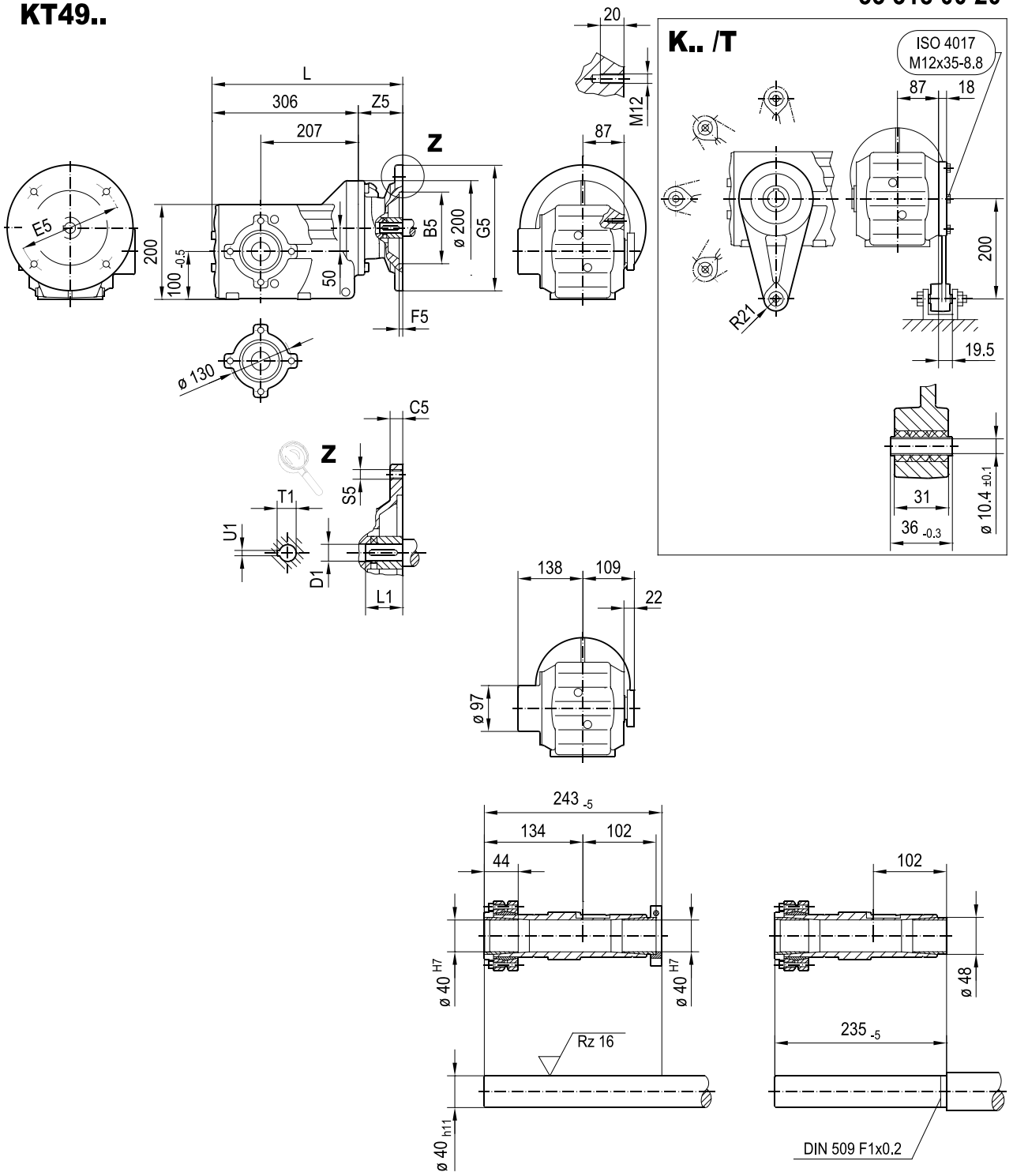


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	350	M8	44	11	23	12.8	4
AMS71	110	10	130	4	160	350	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	366	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	379	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	407	M12	100.5	28	60	31.3	8
AMS112	180	15	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

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KT49..

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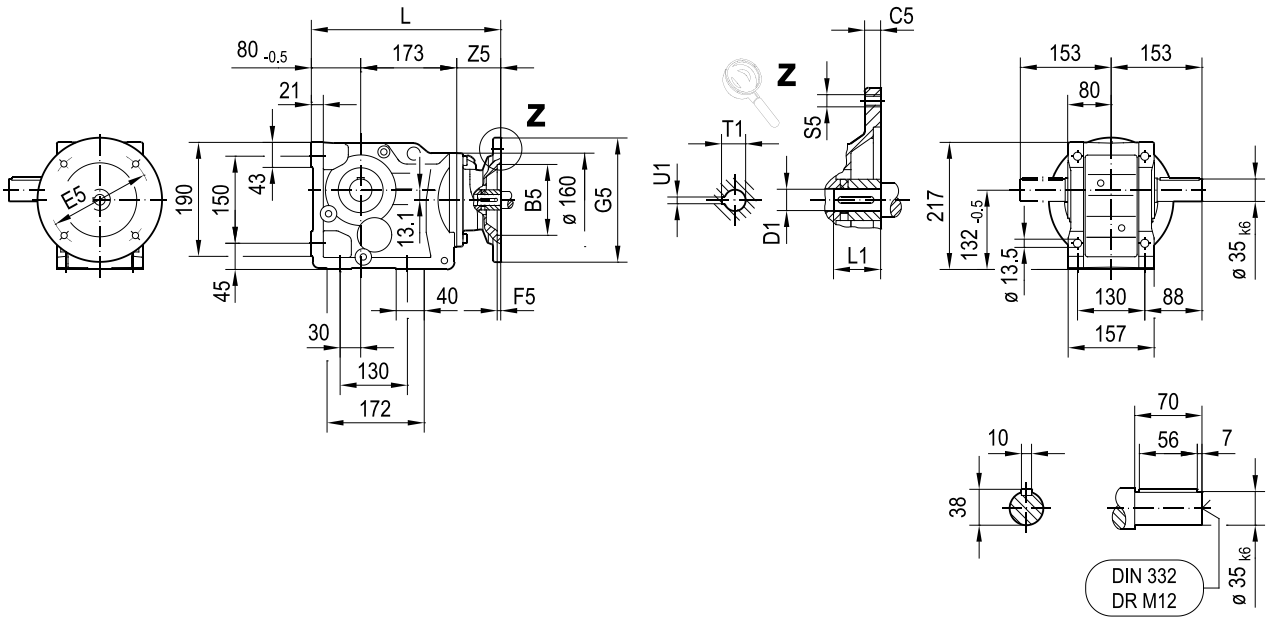


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	350	M8	44	11	23	12.8	4
AMS71	110	10	130	4	160	350	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	366	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	379	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	407	M12	100.5	28	60	31.3	8
AMS112	180	15	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

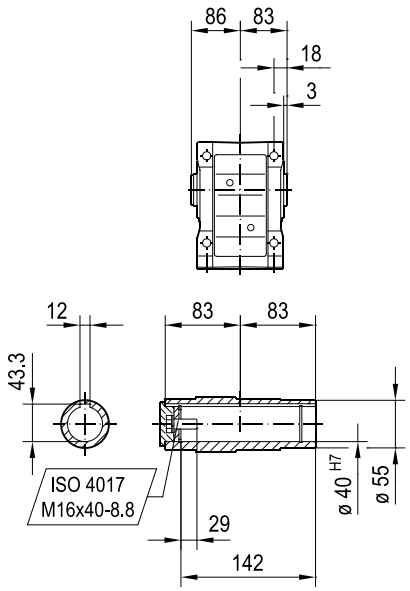
27797880/EN – 03/2023

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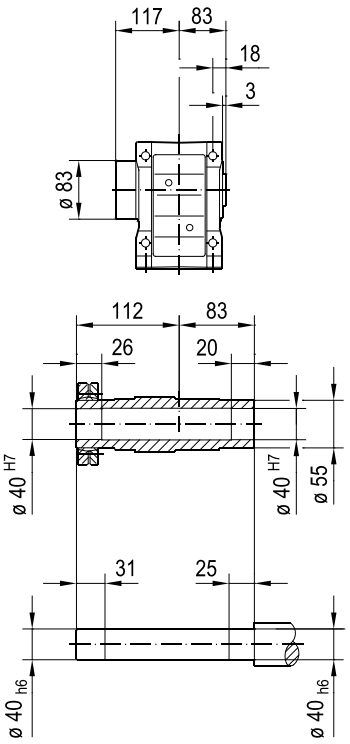
K57..



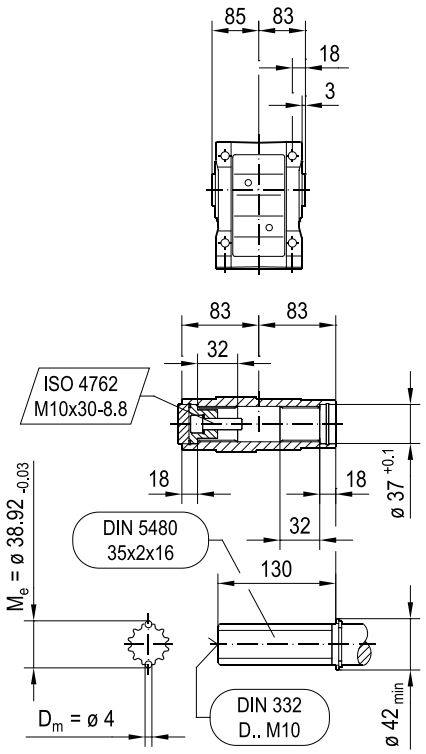
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KH57B..



KV57B..

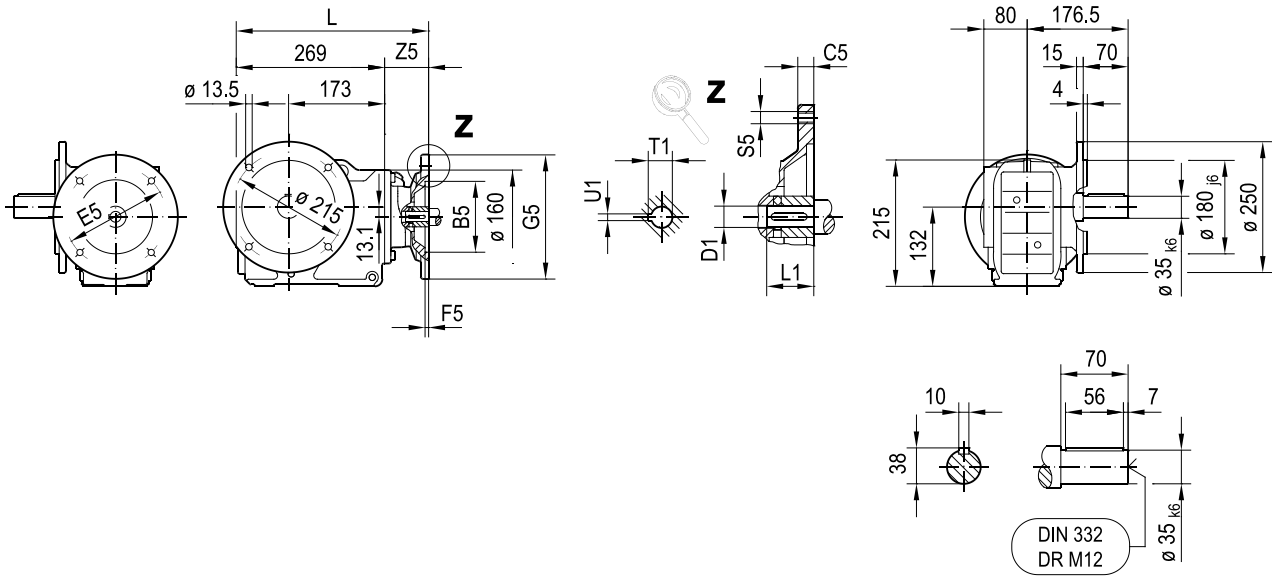


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	303	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	303	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	320	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	333	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	362	M12	108.5	28	60	31.3	8
AMS112	180	15	215	5	250	362	M12	108.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	387	M12	134	38	80	41.3	10

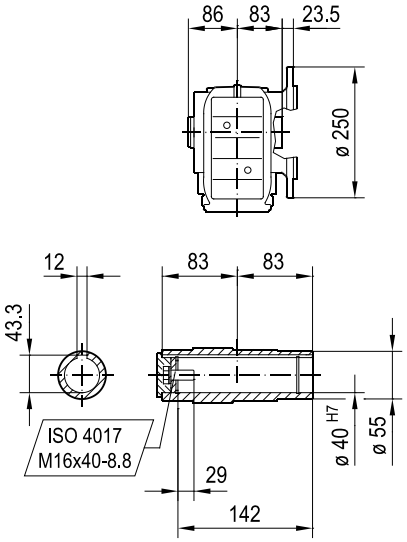
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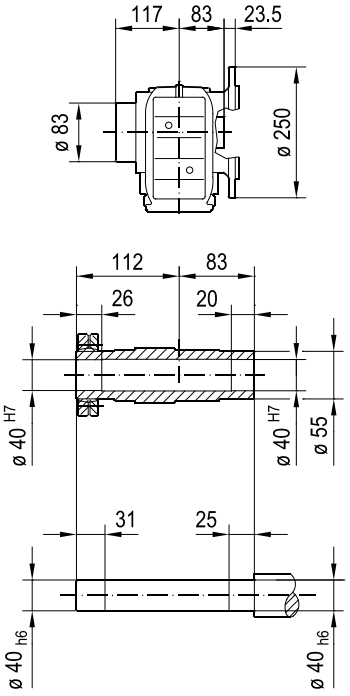
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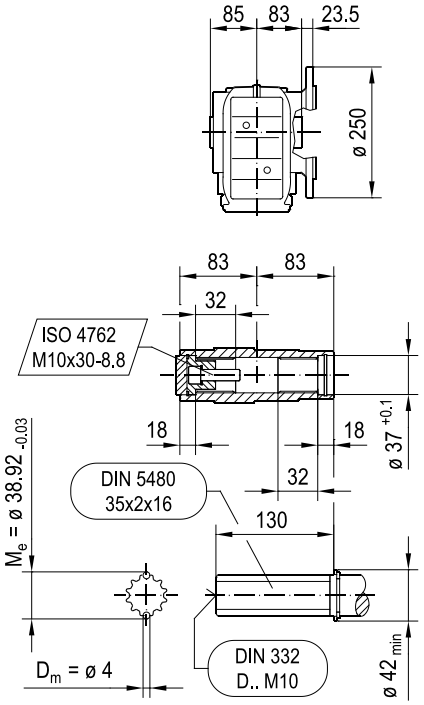
KAF57..



KHF57..



KVF57..

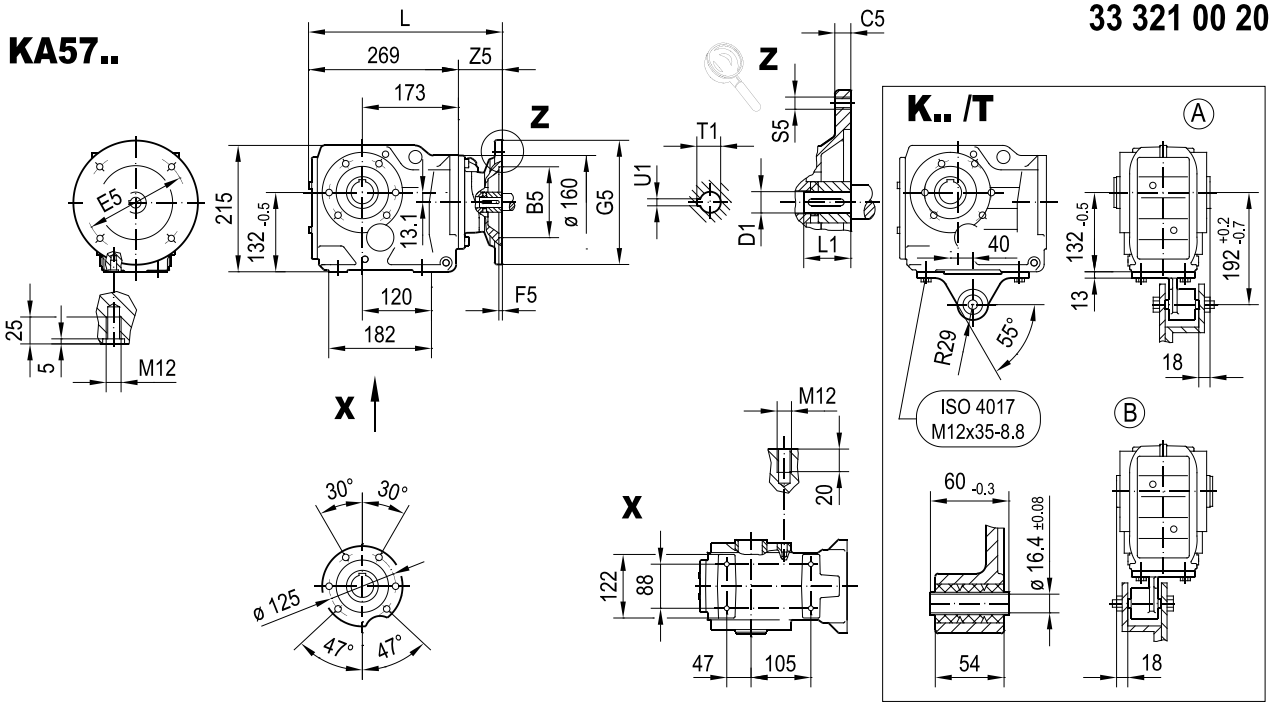


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	319	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	319	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	336	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	349	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	378	M12	108.5	28	60	31.3	8
AMS112	180	15	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

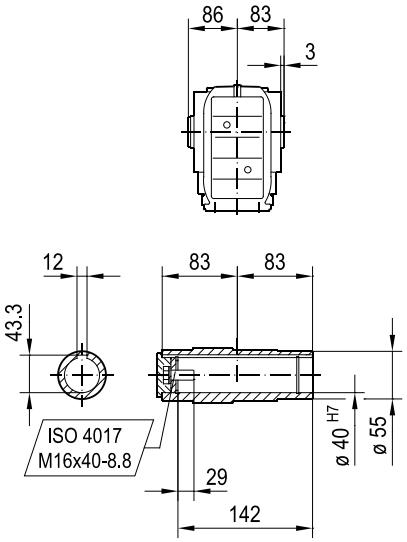
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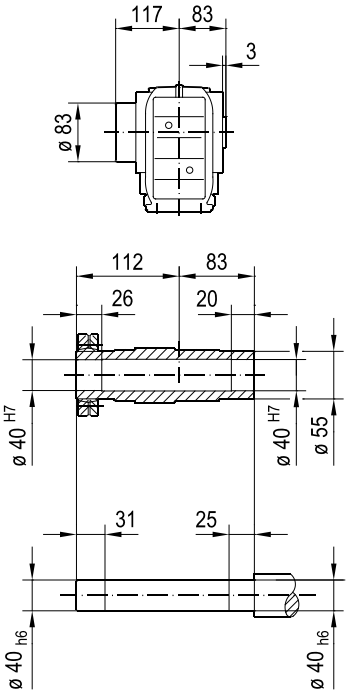
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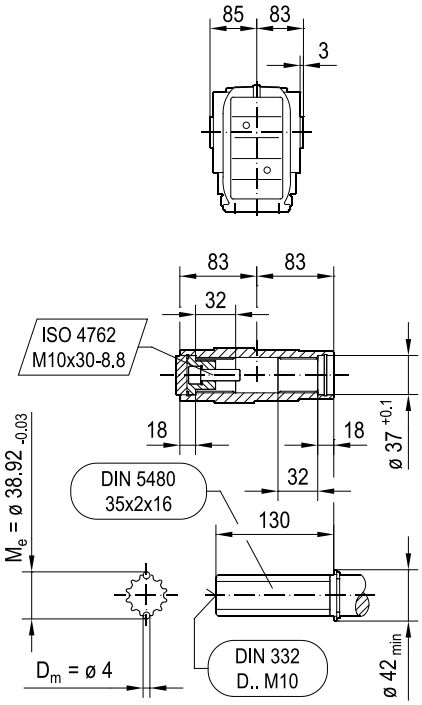
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KH57..



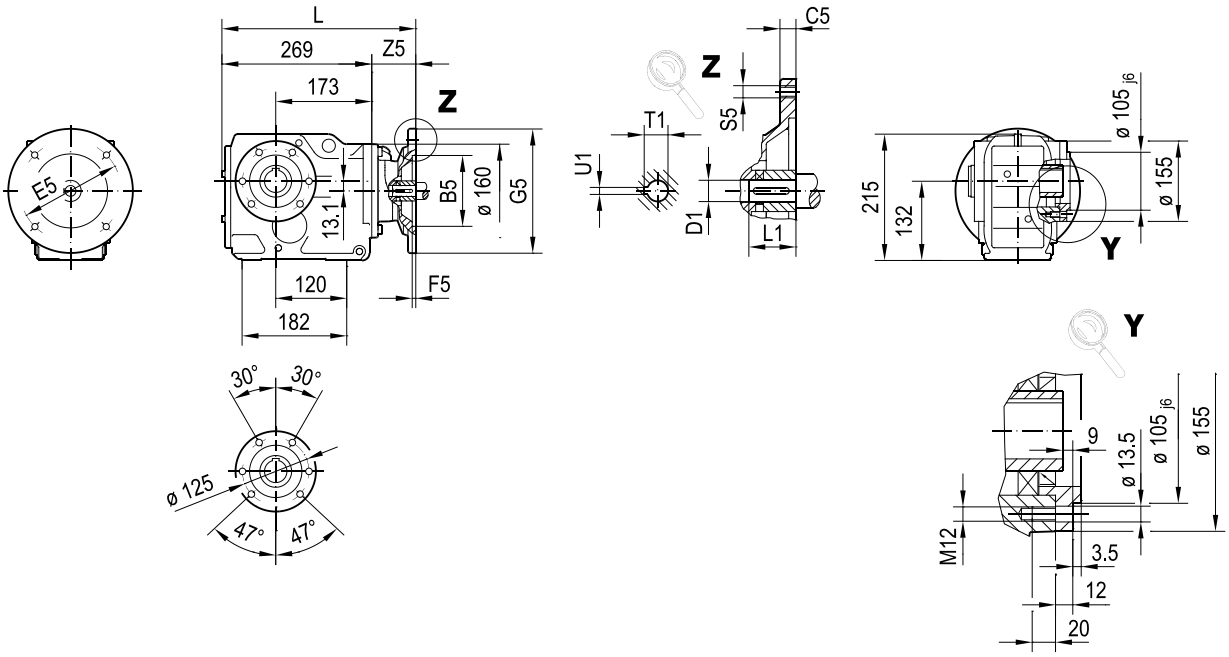
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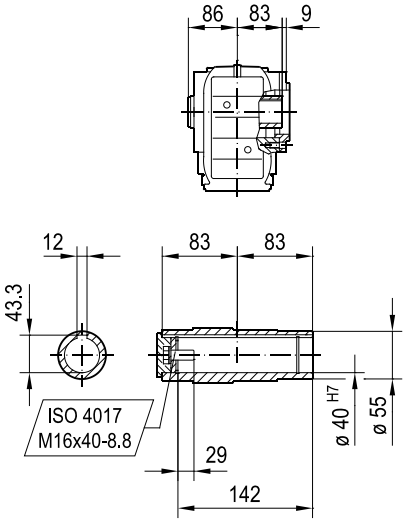
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	319	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	319	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	336	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	349	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	378	M12	108.5	28	60	31.3	8
AMS112	180	15	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

33 322 00 20

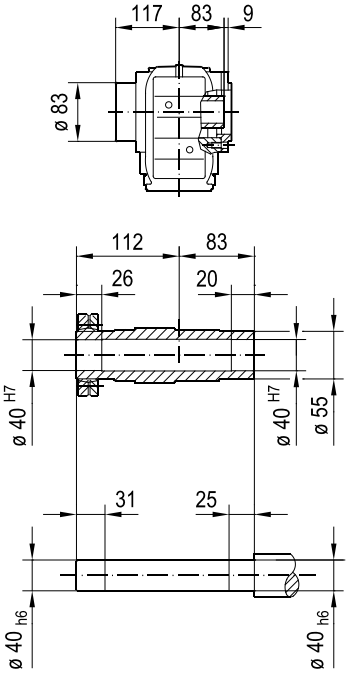
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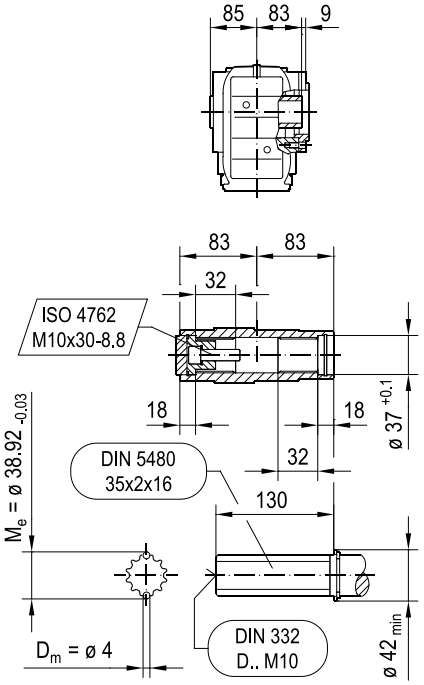
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KHZ57..



KVZ57..

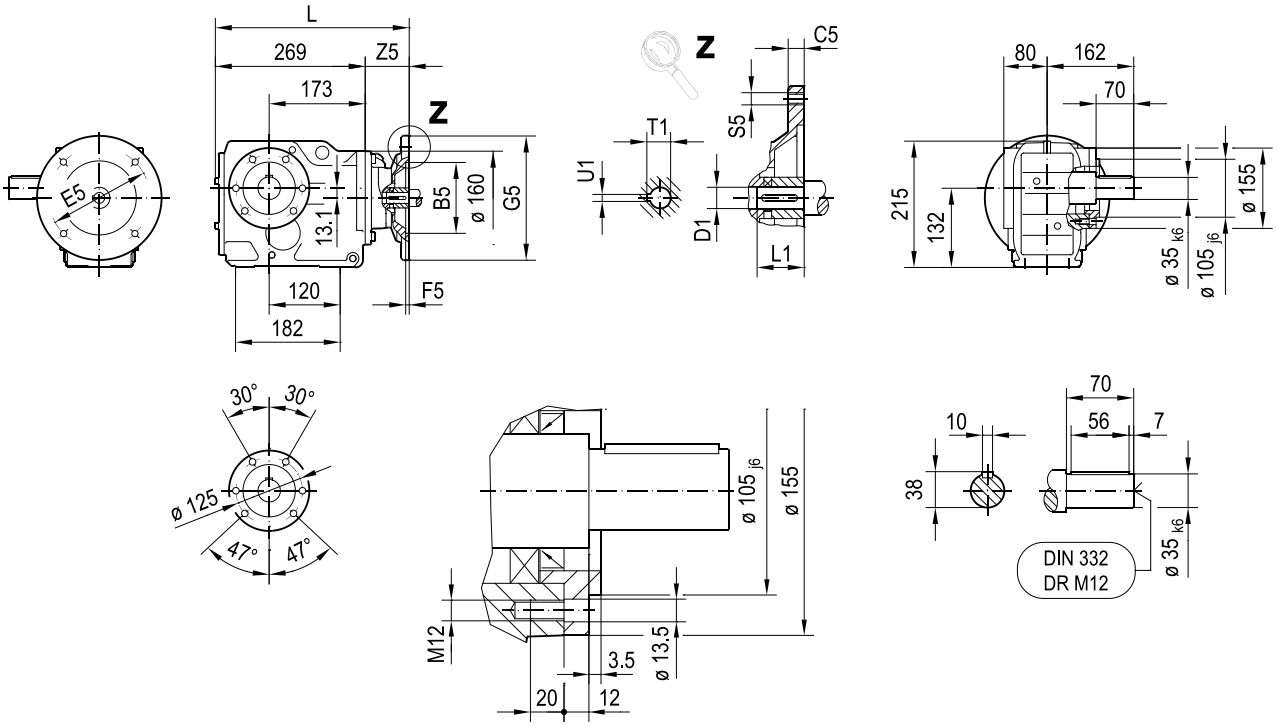


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	319	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	319	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	336	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	349	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	378	M12	108.5	28	60	31.3	8
AMS112	180	15	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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33 323 00 20

KZ57..

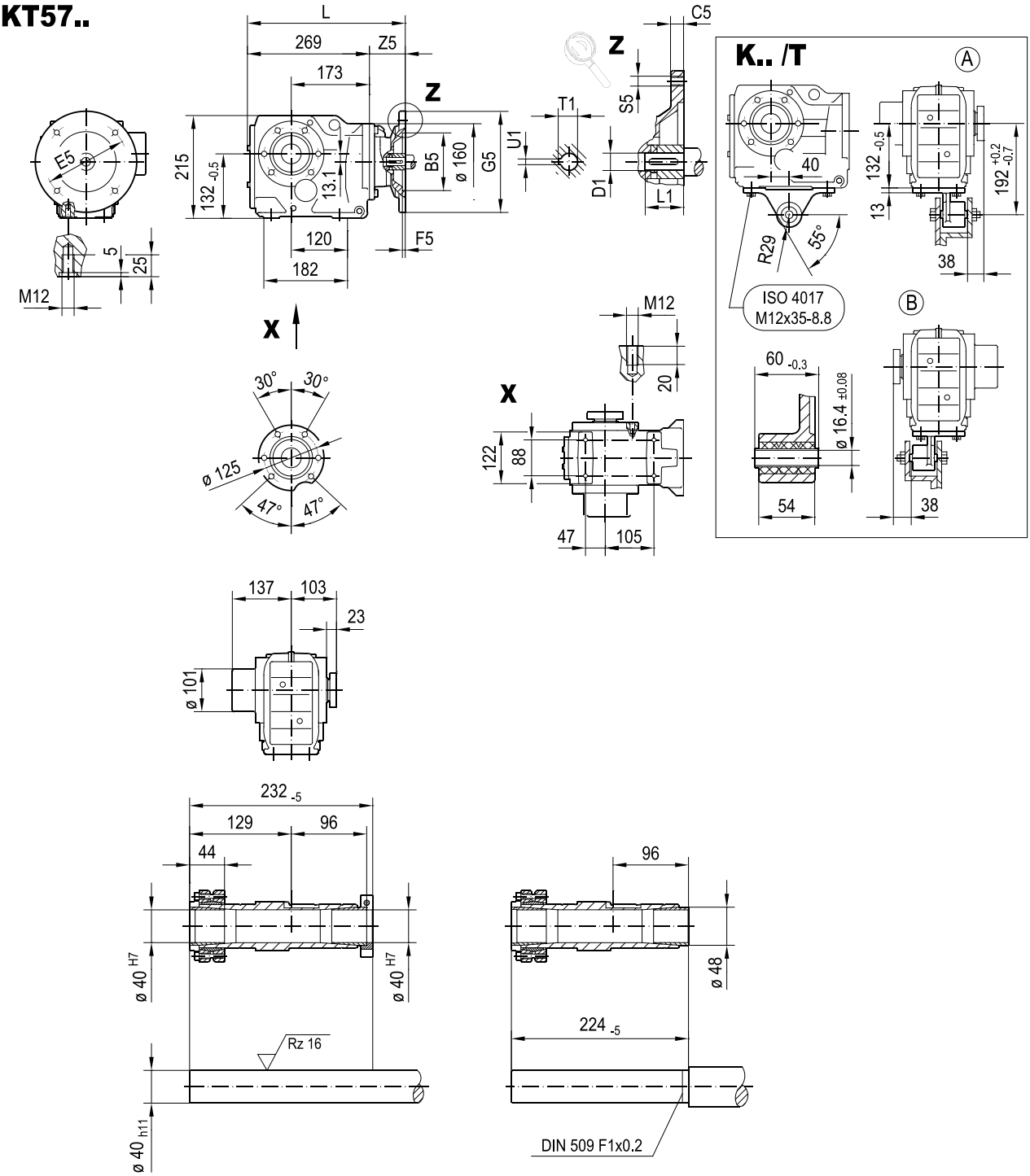


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS71	110	10	130	4	160	319	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	336	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	349	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	378	M12	108.5	28	60	31.3	8
AMS112	180	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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KT57..

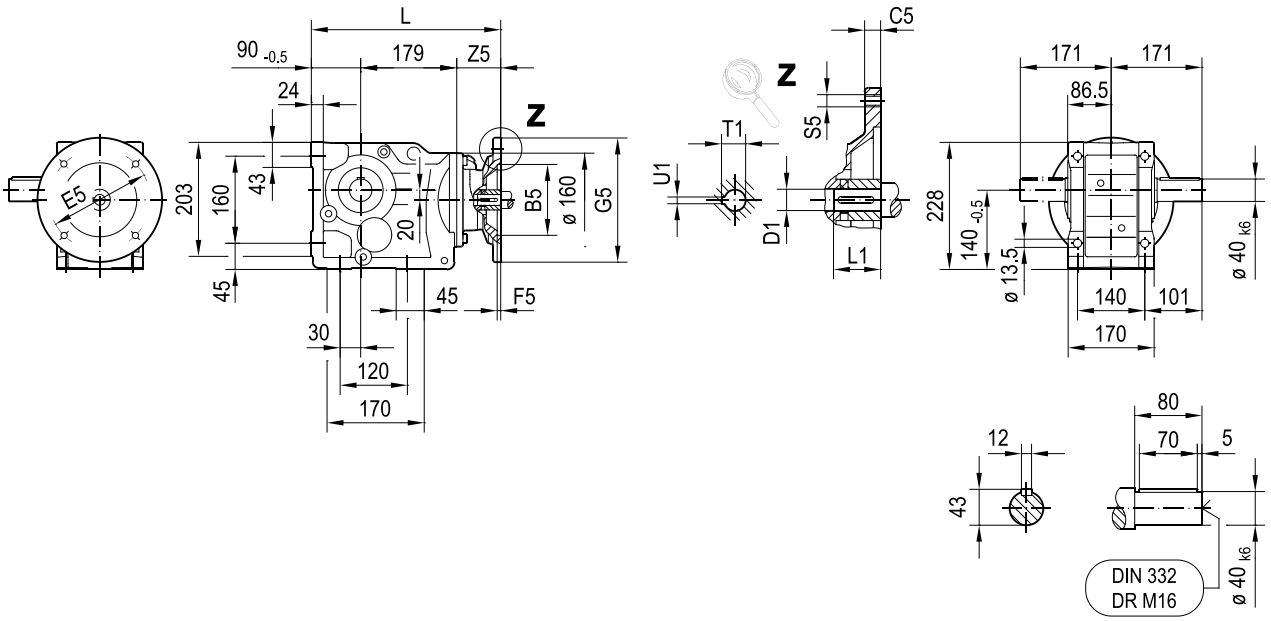


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS71	110	10	130	4	160	319	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	336	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	349	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	378	M12	108.5	28	60	31.3	8
AMS112	180	15	215	5	250	378	M12	108.5	28	60	31.3	8
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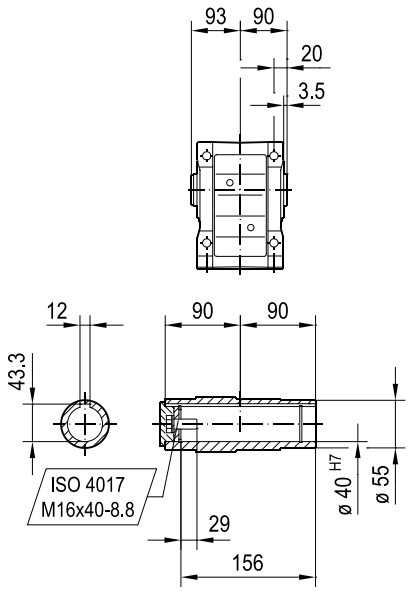
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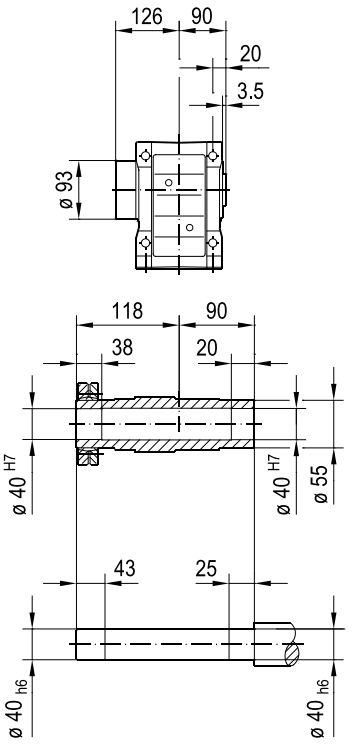
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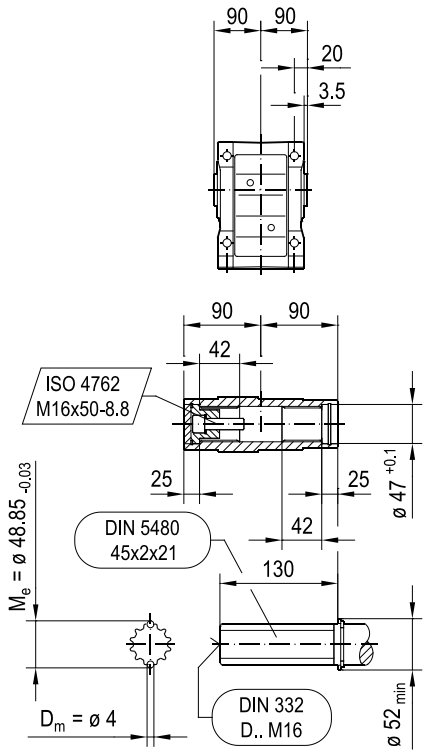
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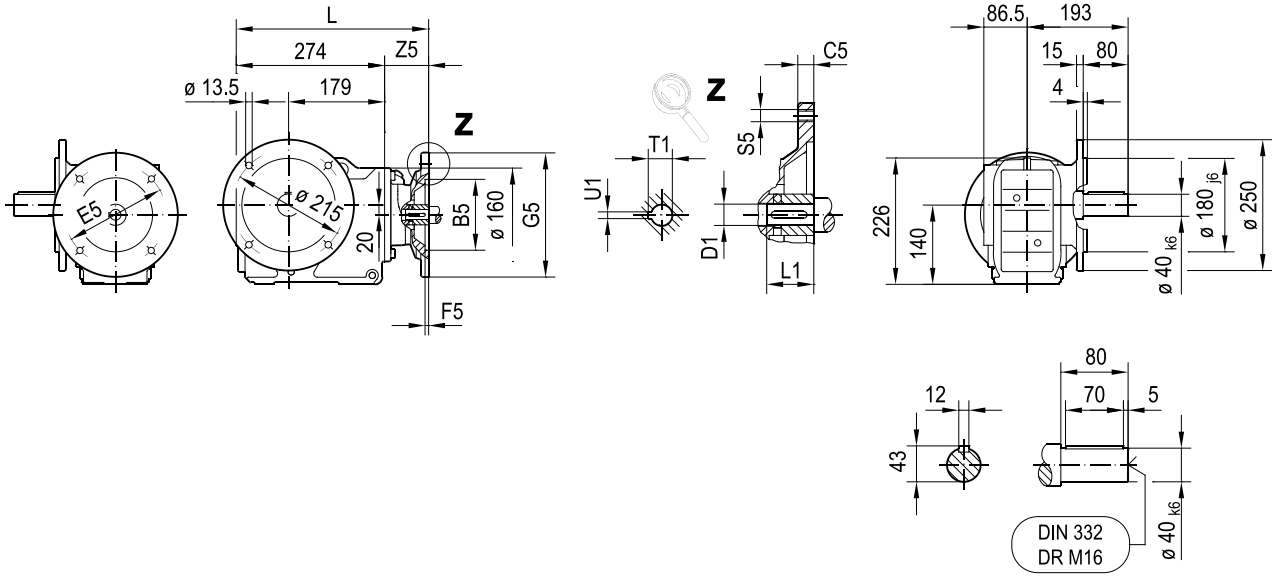


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS71	110	10	130	4	160	319	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	336	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	349	M10	80	24	50	27.3	8
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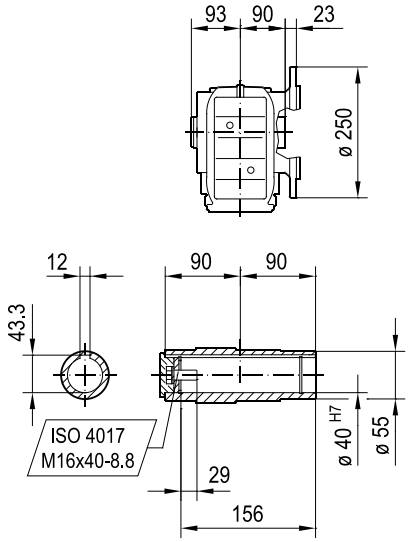
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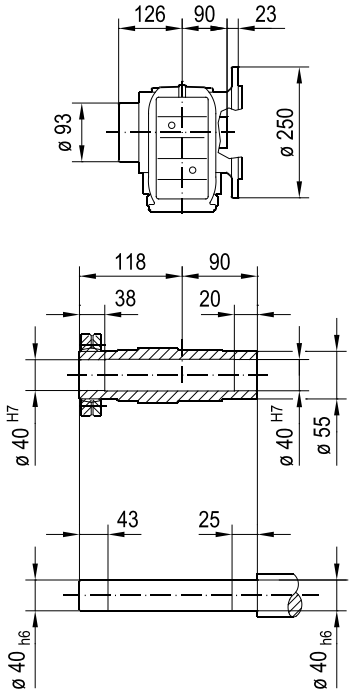
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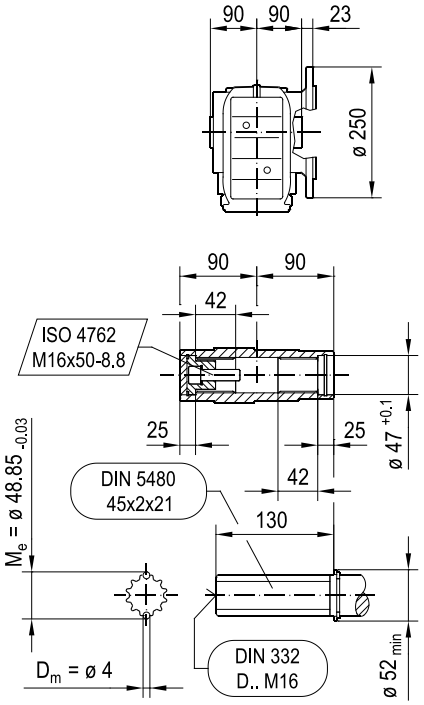
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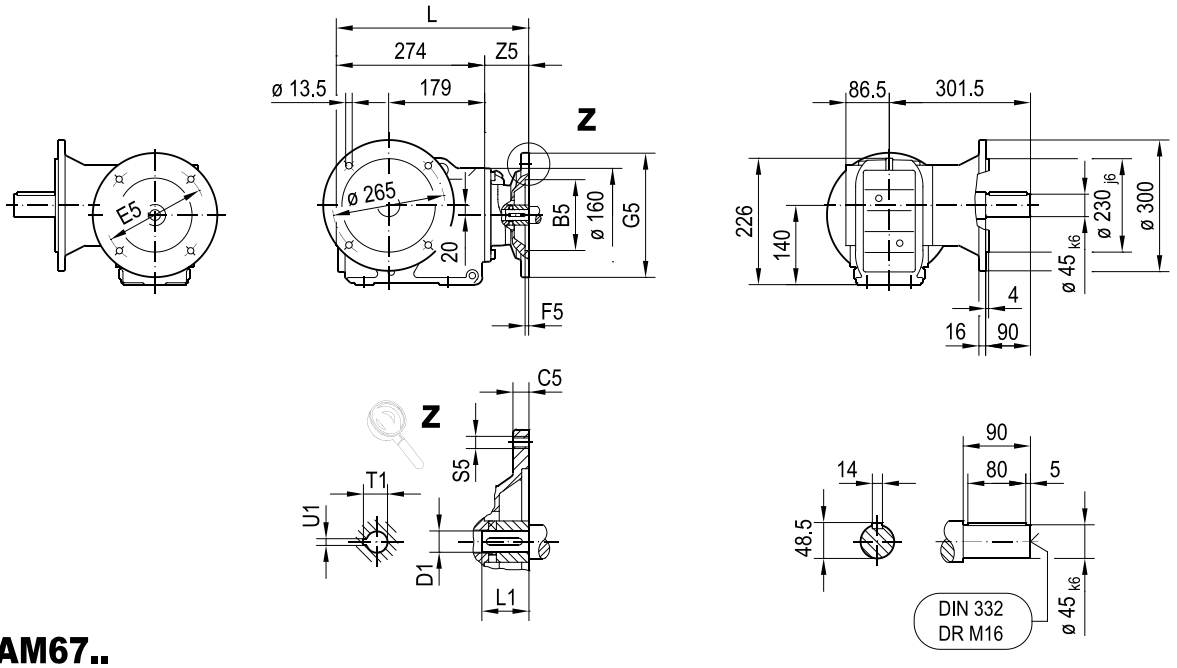


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS90	130	12	165	4.5	200	354	M10	80	24	50	27.3	8
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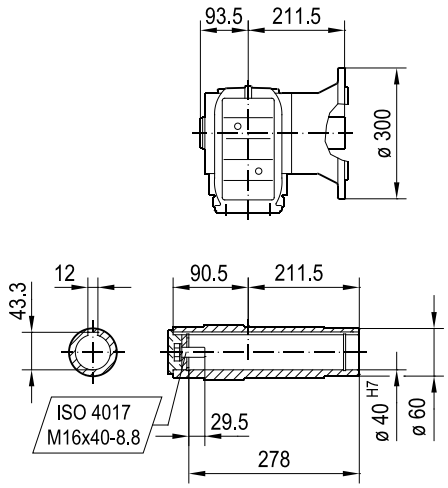
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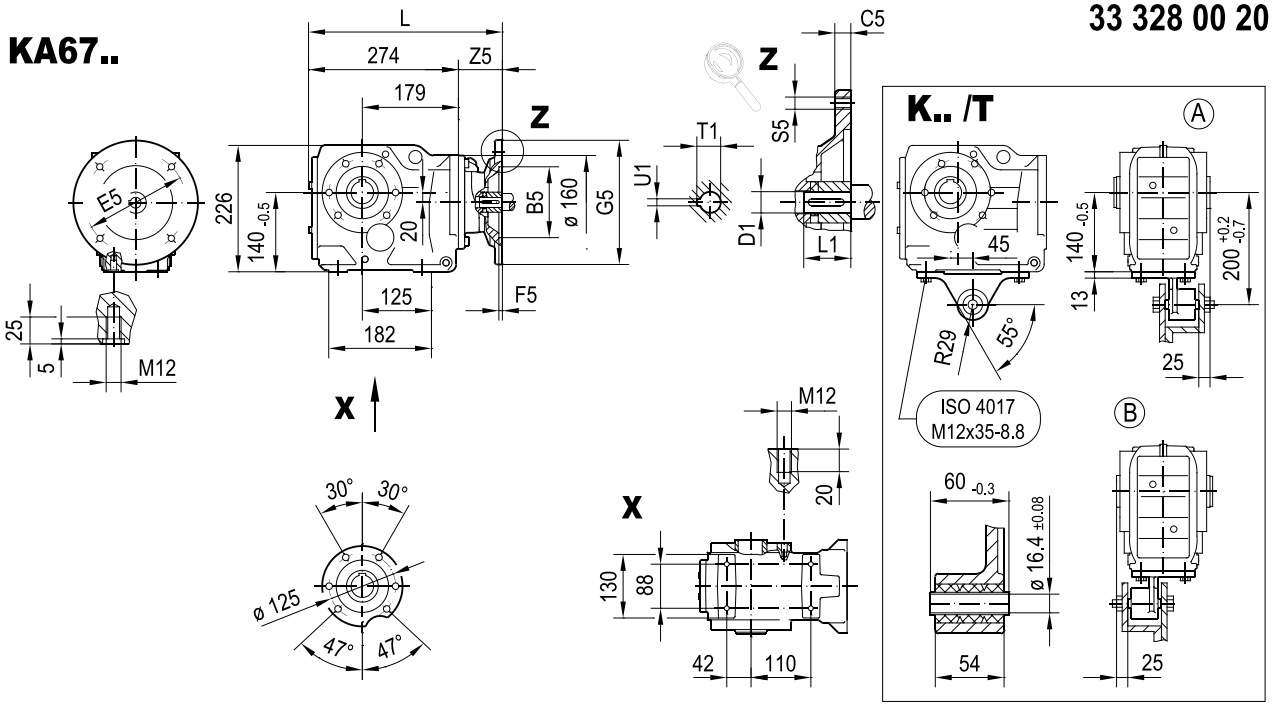


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS112	180	15	215	5	250	383	M12	108.5	28	60	31.3	8
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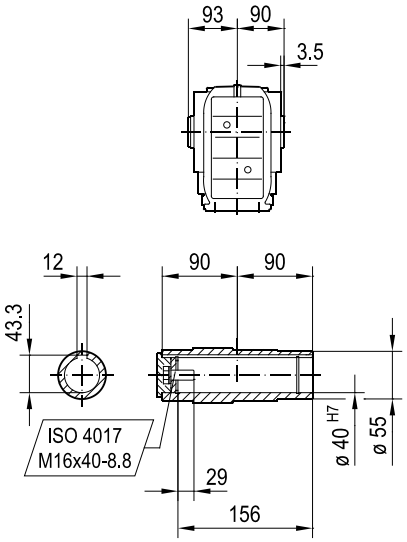
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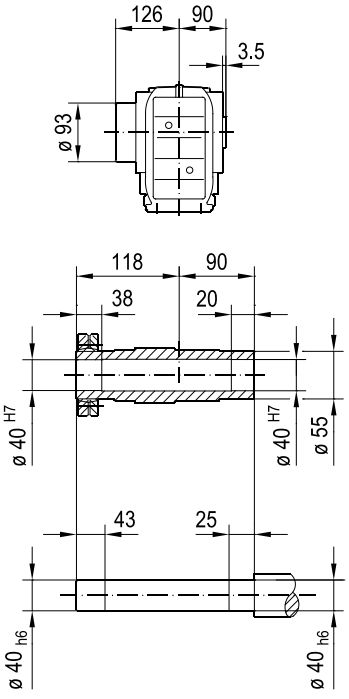
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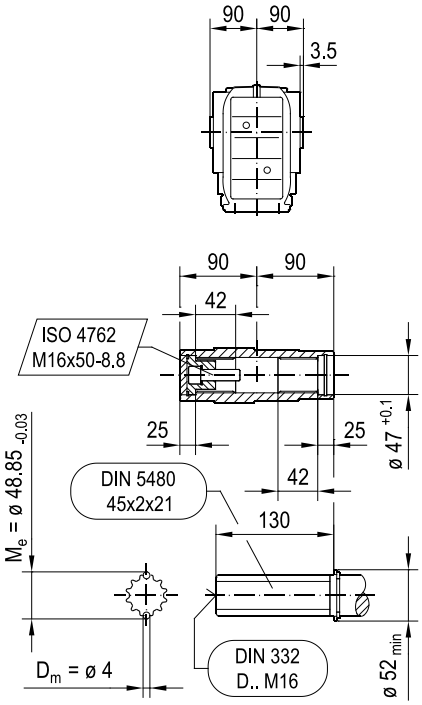
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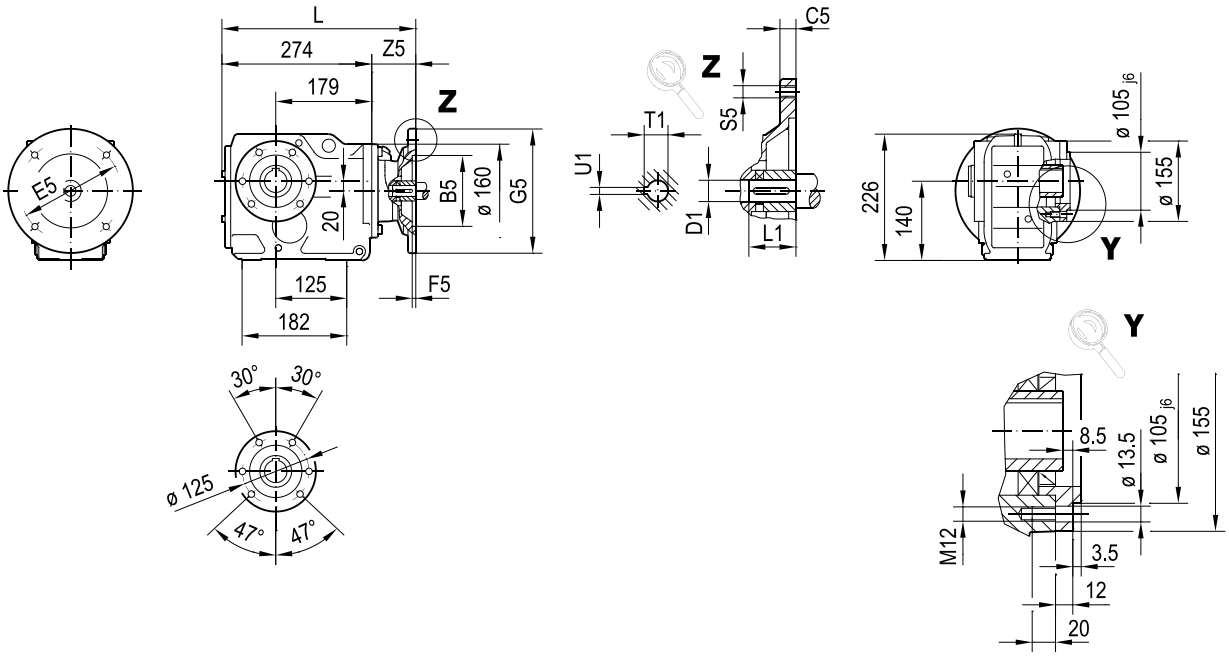


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS112	180	15	215	5	250	383	M12	108.5	28	60	31.3	8
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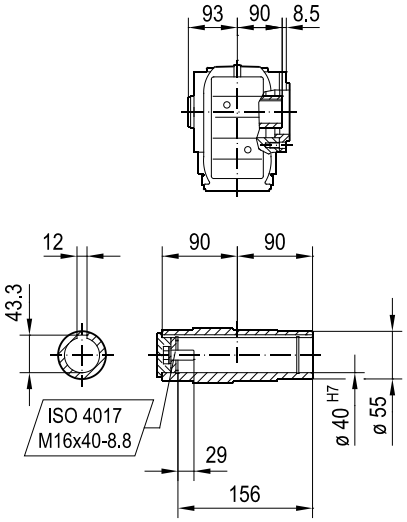
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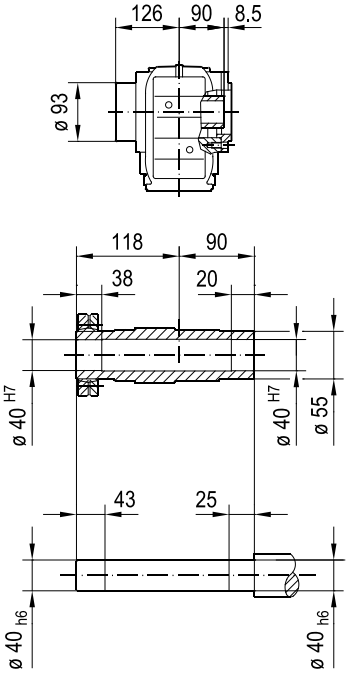
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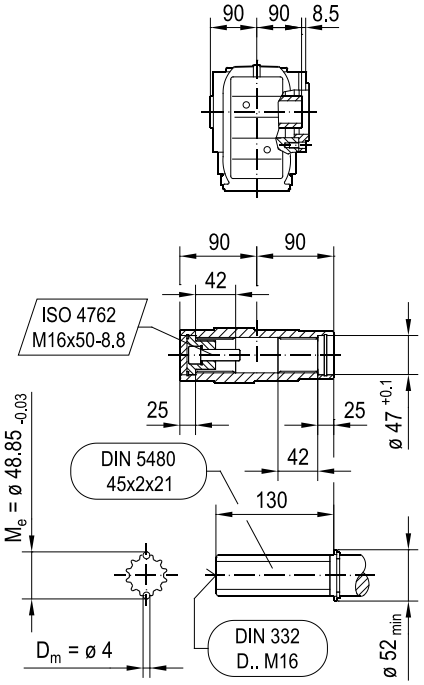
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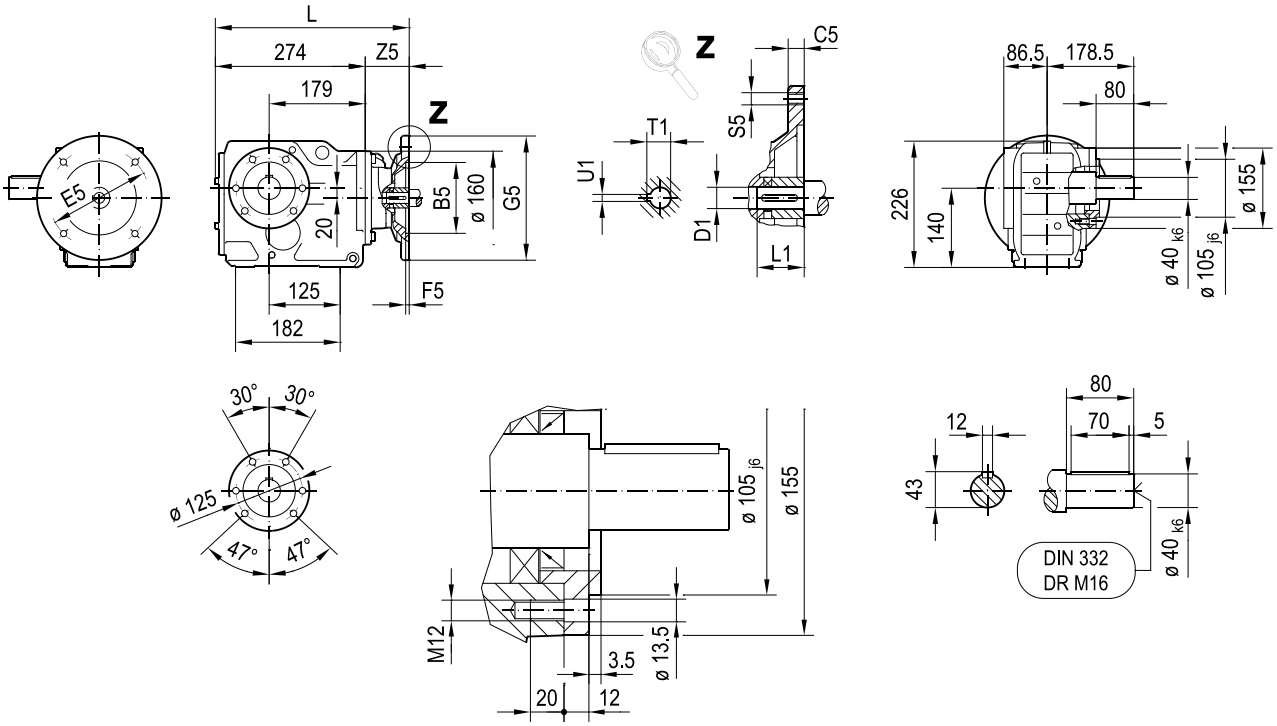


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS100	180	15	215	5	250	383	M12	108.5	28	60	31.3	8
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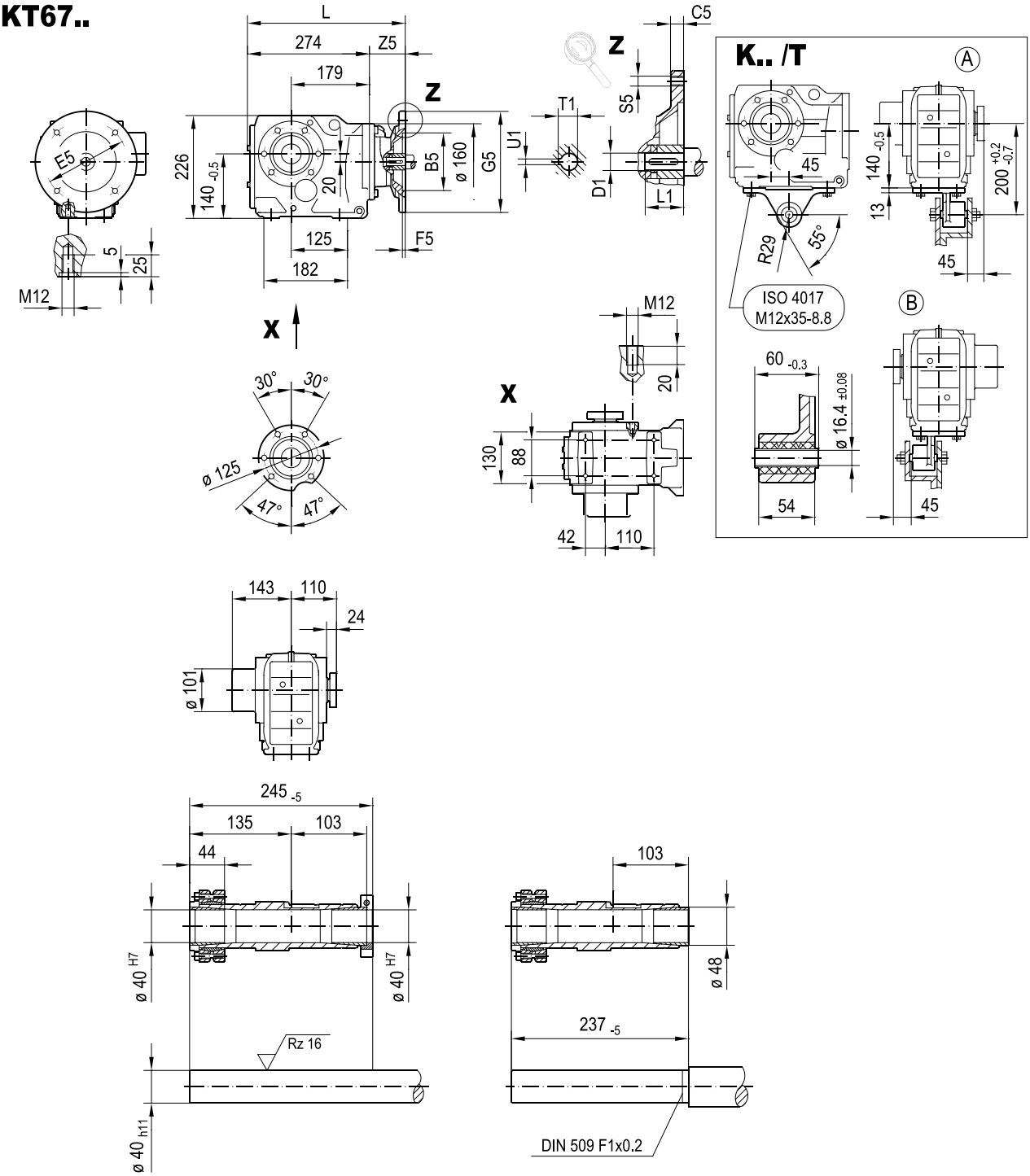


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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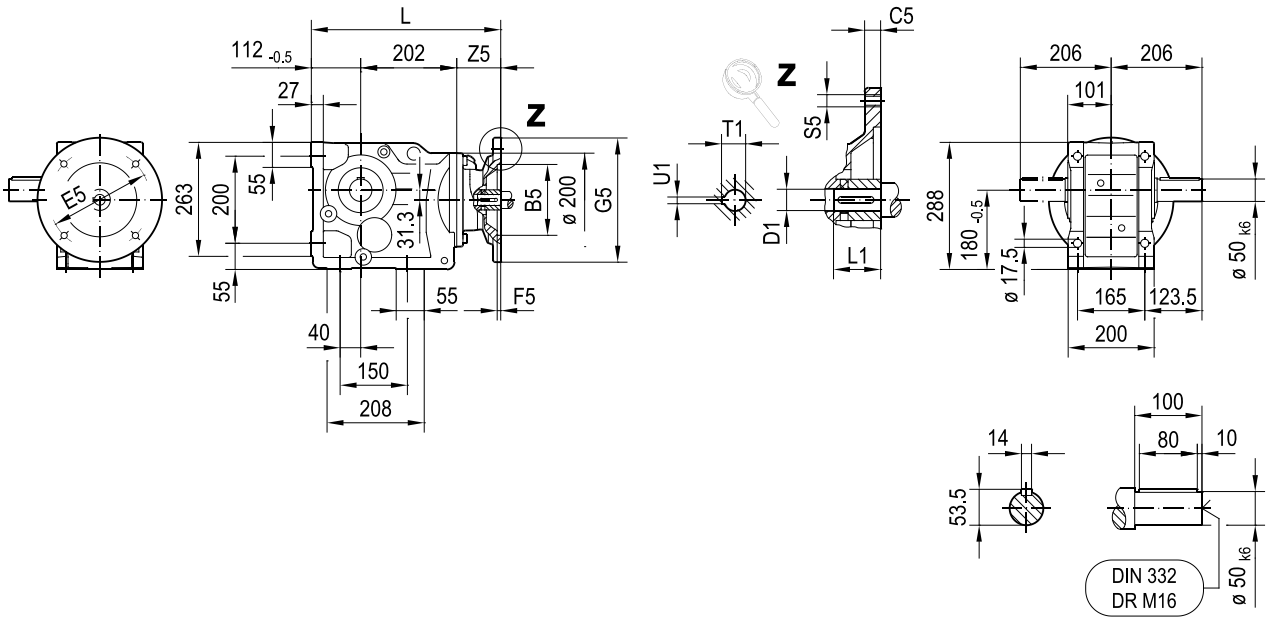


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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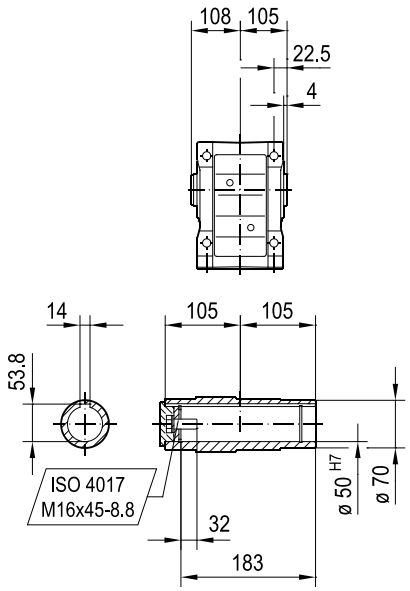
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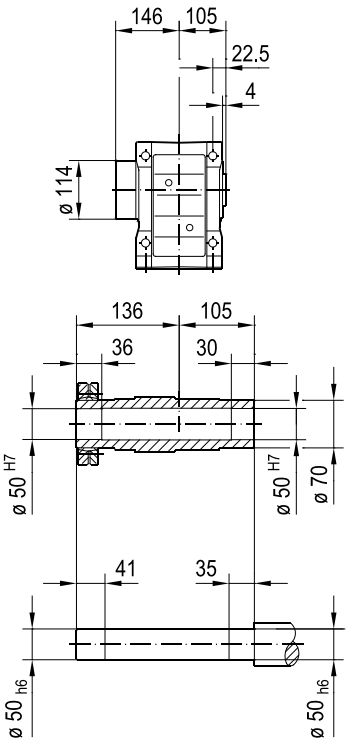
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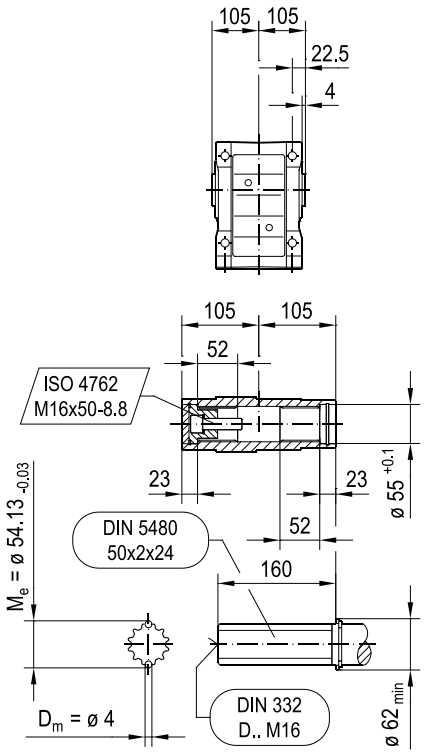
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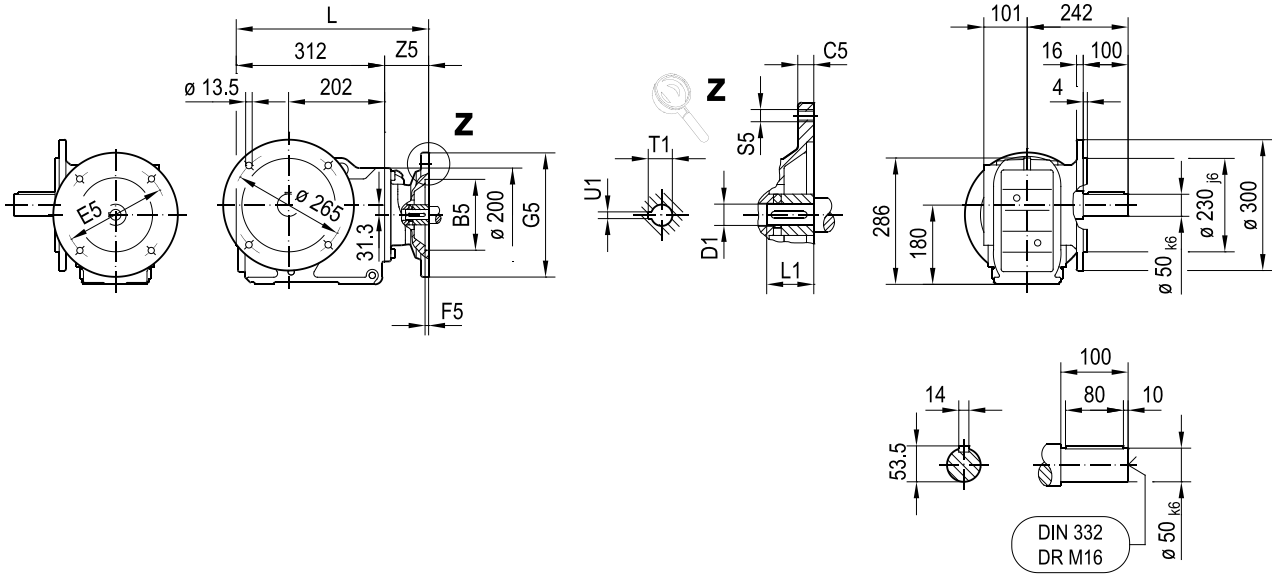


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS71	110	10	130	4	160	358	M8	44	14	30	16.3	5
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AMS132S/M	230	16	265	5	300	440	M12	126	38	80	41.3	10
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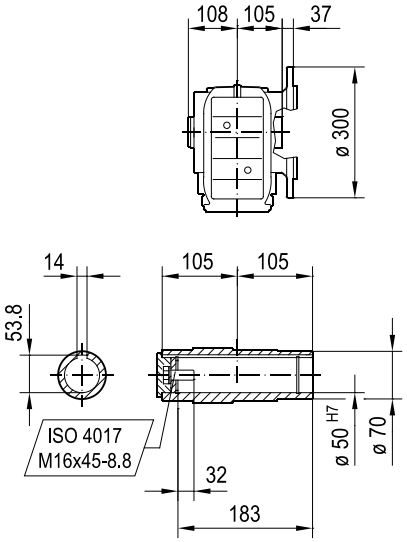
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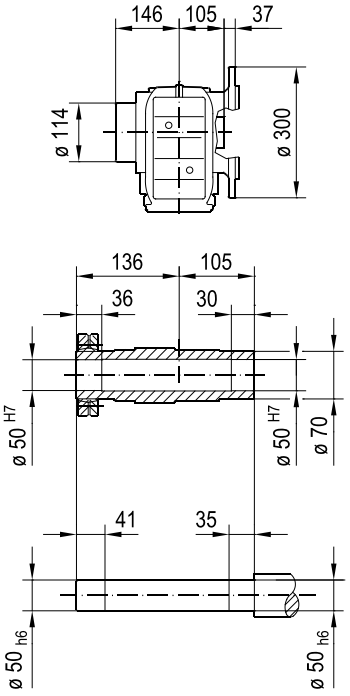
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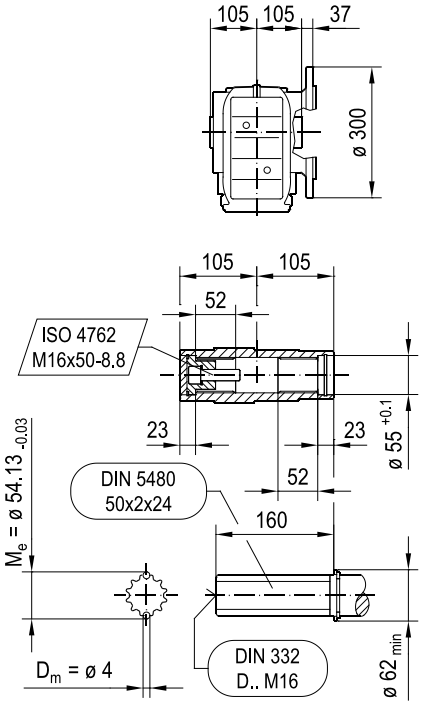
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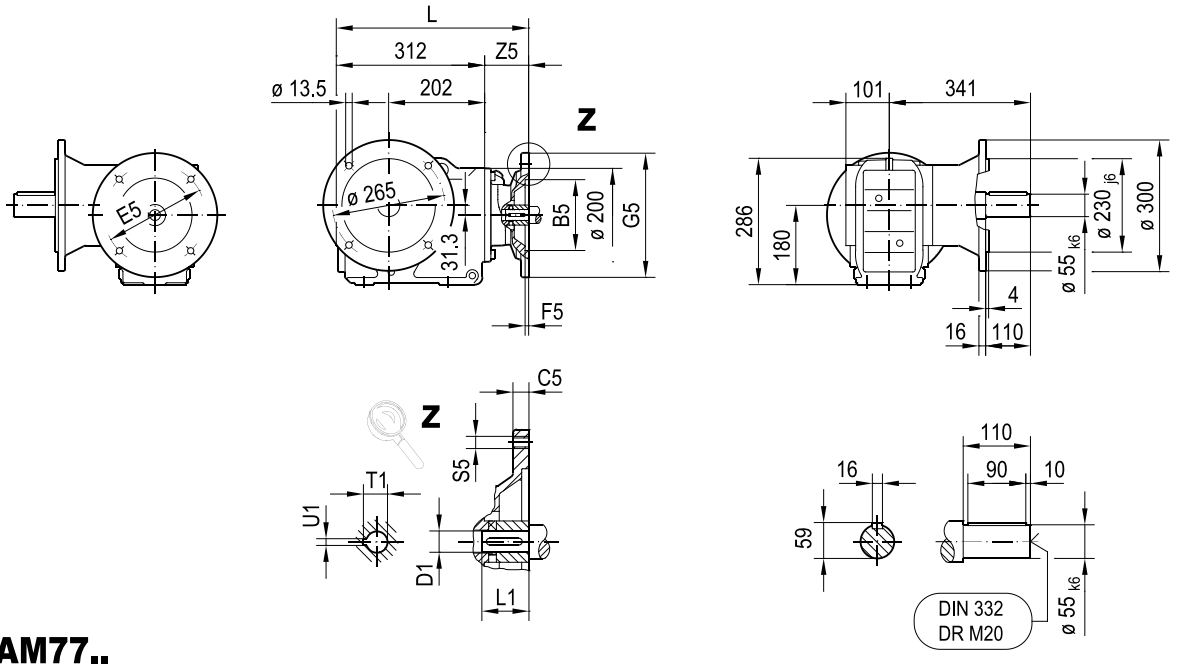


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS132S/M	230	16	265	5	300	438	M12	126	38	80	41.3	10
AMS132ML	230	16	265	5	300	438	M12	126	38	80	41.3	10

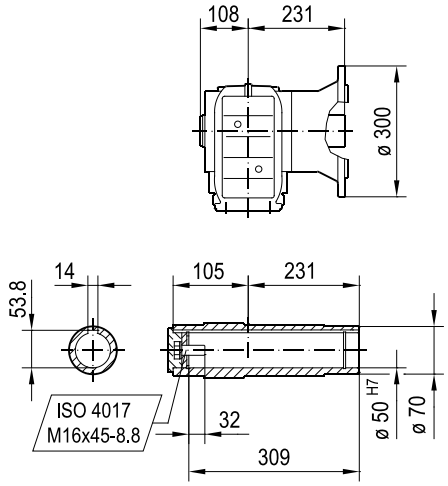
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KAM77..

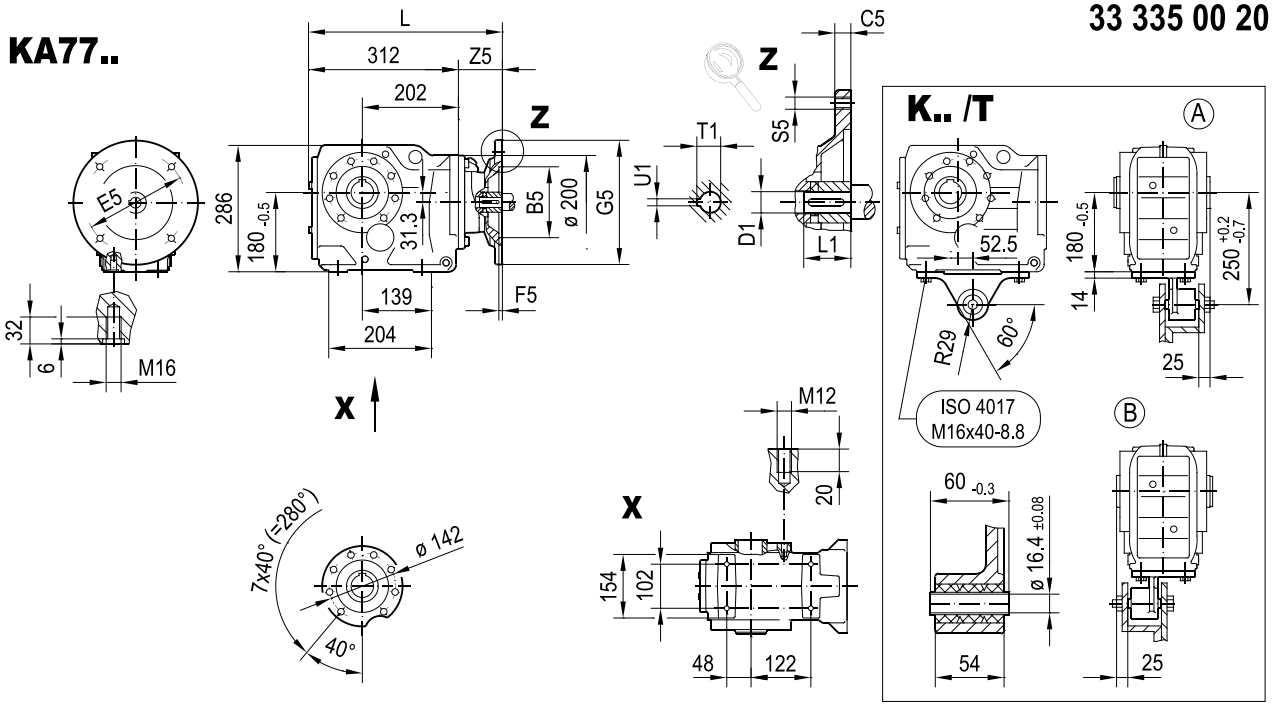


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS132S/M	230	16	265	5	300	438	M12	126	38	80	41.3	10
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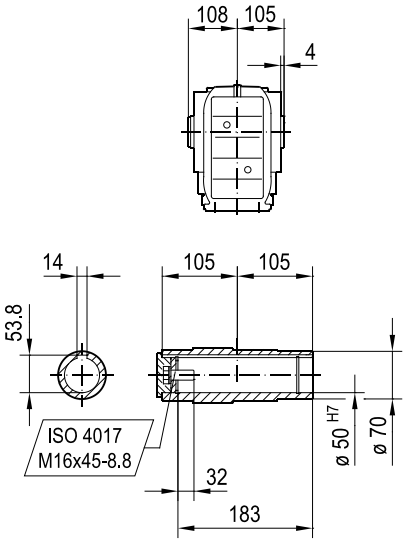
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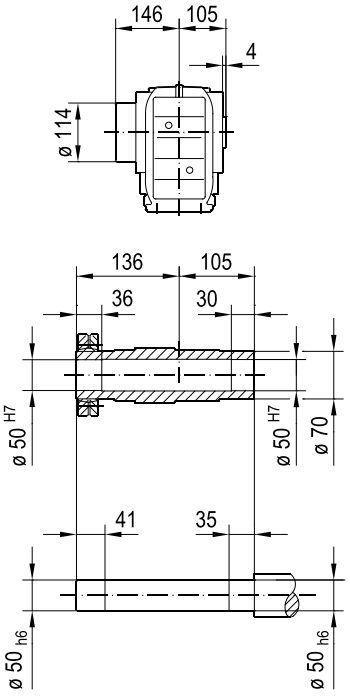
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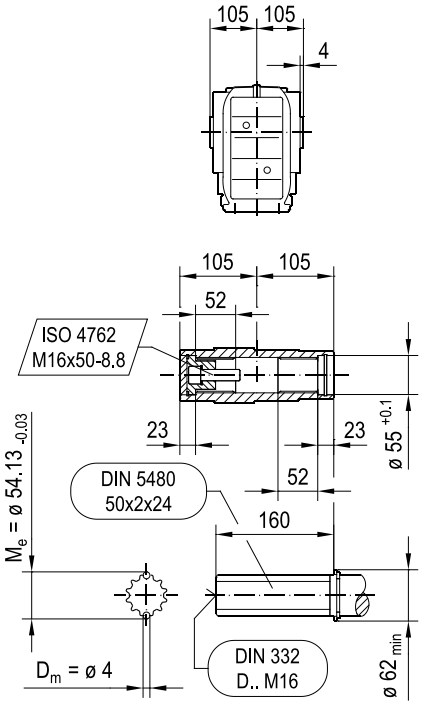
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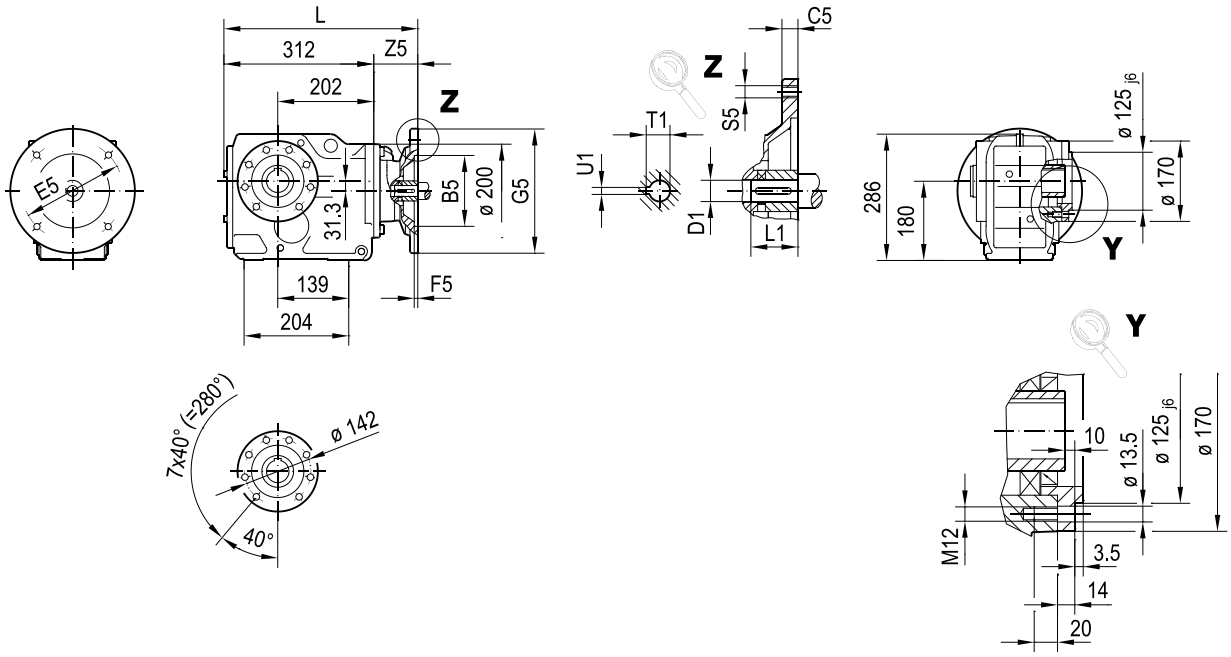


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	356	M8	44	11	23	12.8	4
AMS71	110	10	130	4	160	356	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	372	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	385	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	413	M12	100.5	28	60	31.3	8
AMS112	180	15	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
AMS132ML	230	16	265	5	300	438	M12	126	38	80	41.3	10

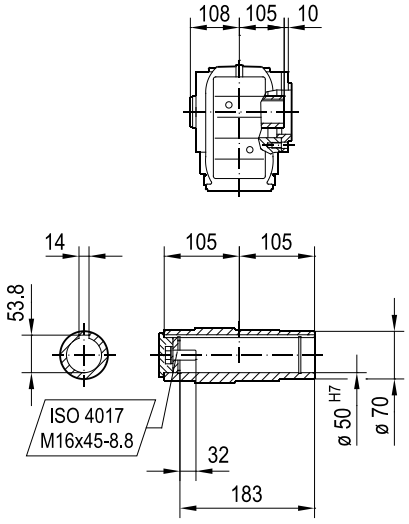
27797880/EN – 03/2023

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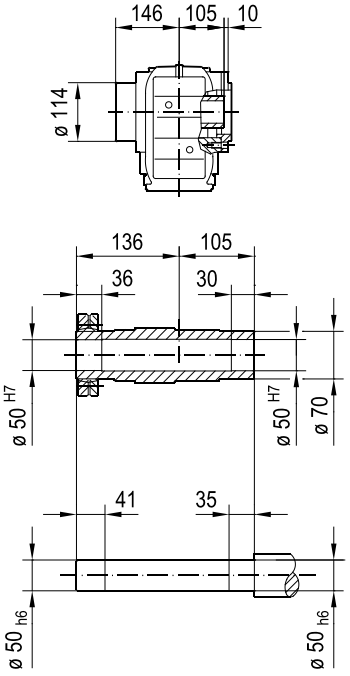
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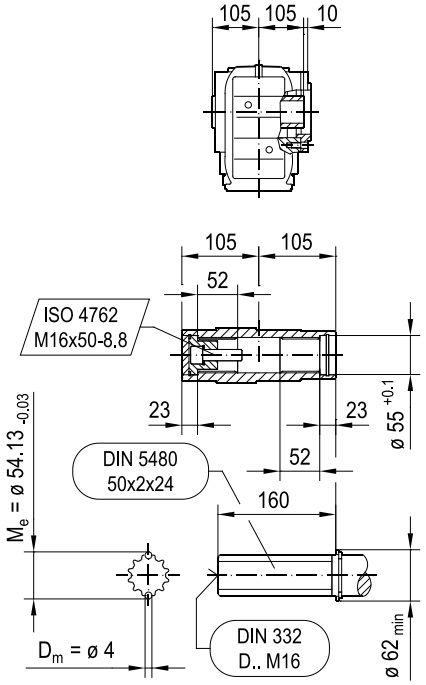
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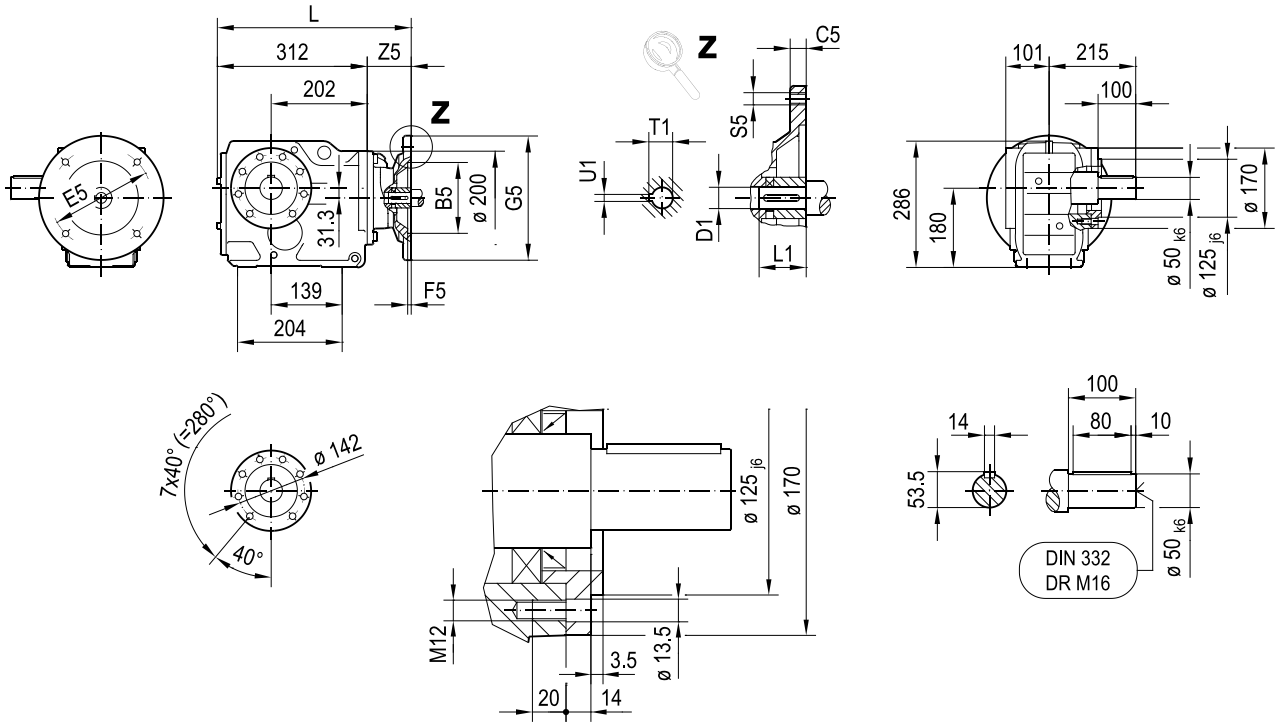


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	356	M8	44	11	23	12.8	4
AMS71	110	10	130	4	160	356	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	372	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	385	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	413	M12	100.5	28	60	31.3	8
AMS112	180	15	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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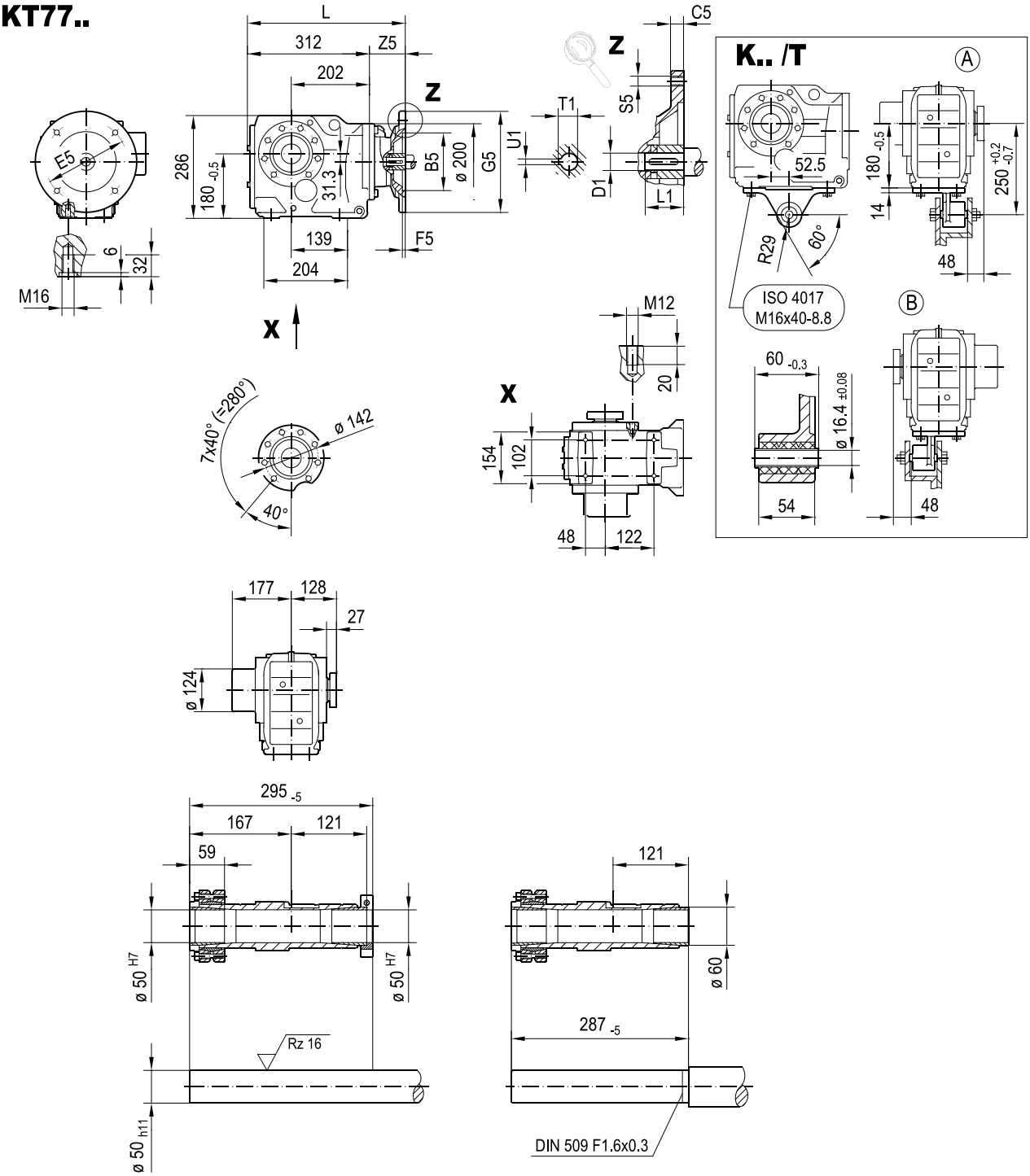


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	356	M8	44	11	23	12.8	4
AMS71	110	10	130	4	160	356	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	372	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	385	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	413	M12	100.5	28	60	31.3	8
AMS112	180	15	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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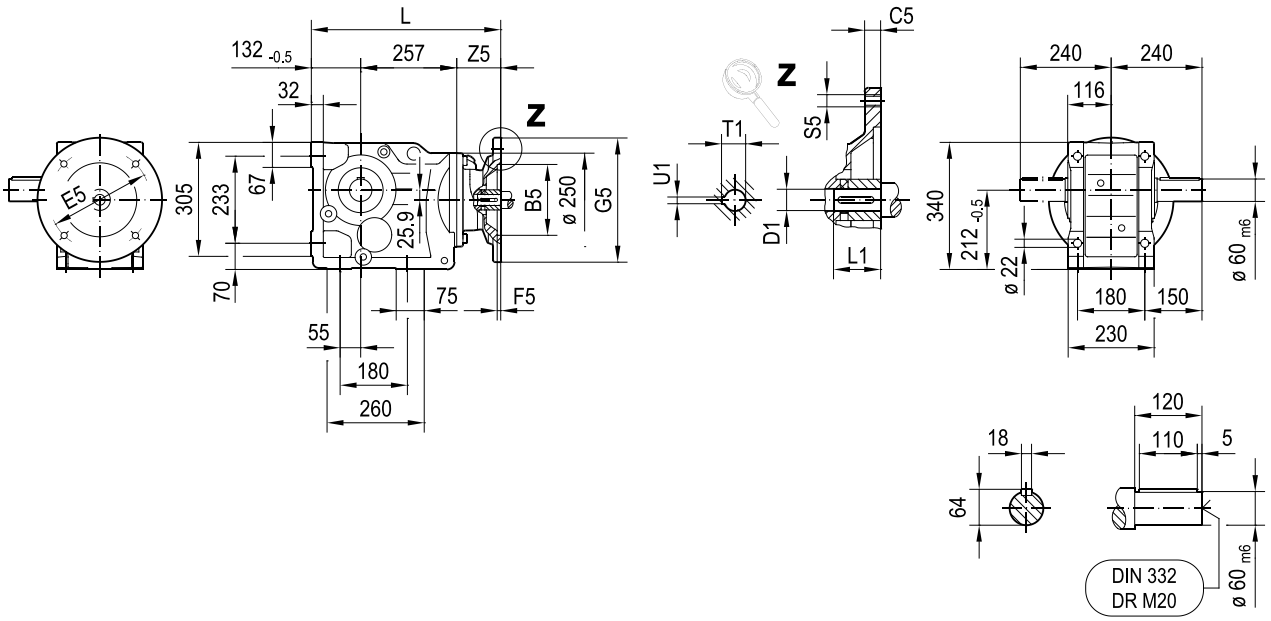


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	356	M8	44	11	23	12.8	4
AMS71	110	10	130	4	160	356	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	372	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	385	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	413	M12	100.5	28	60	31.3	8
AMS112	180	15	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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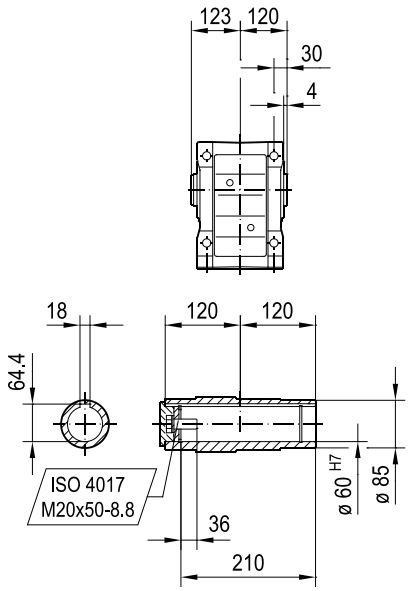
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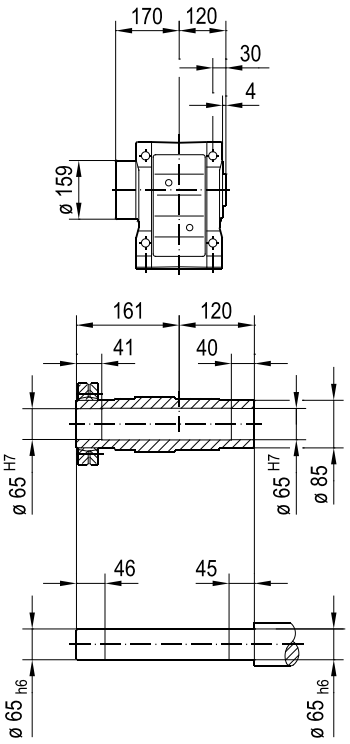
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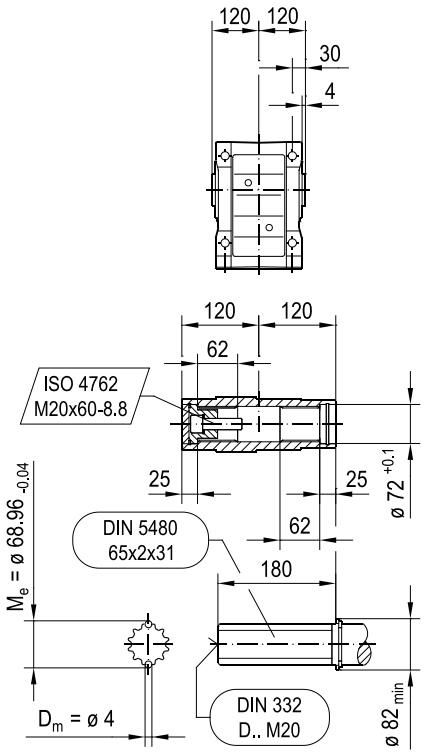
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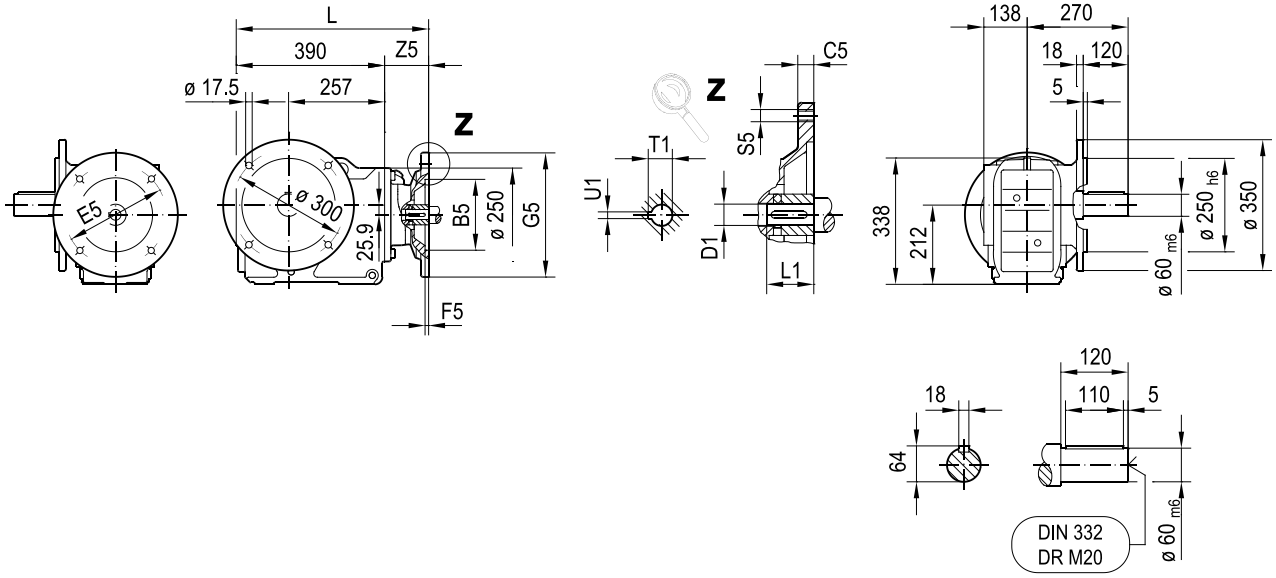


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS90	130	12	165	4.5	200	457	M10	68	24	50	27.3	8
AMS100	180	15	215	5	250	485	M12	95.5	28	60	31.3	8
AMS112	180	15	215	5	250	485	M12	95.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	510	M12	121	38	80	41.3	10
AMS132ML	230	16	265	5	300	510	M12	121	38	80	41.3	10
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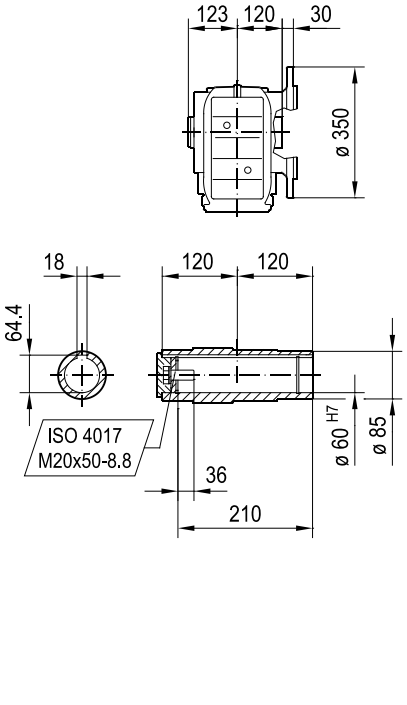
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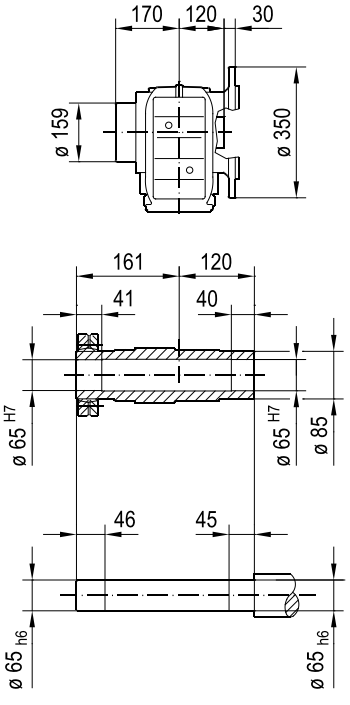
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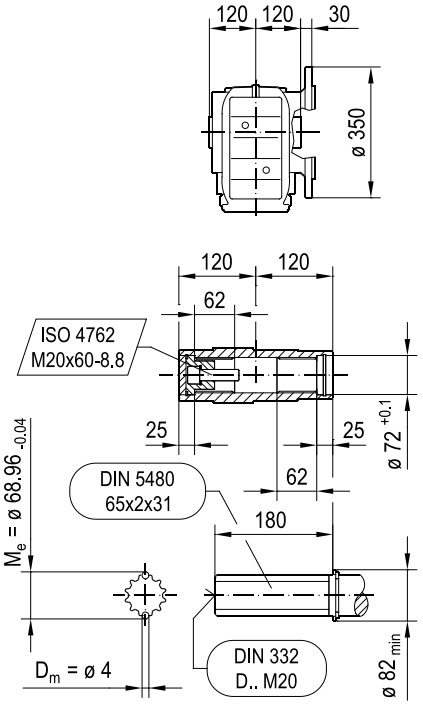
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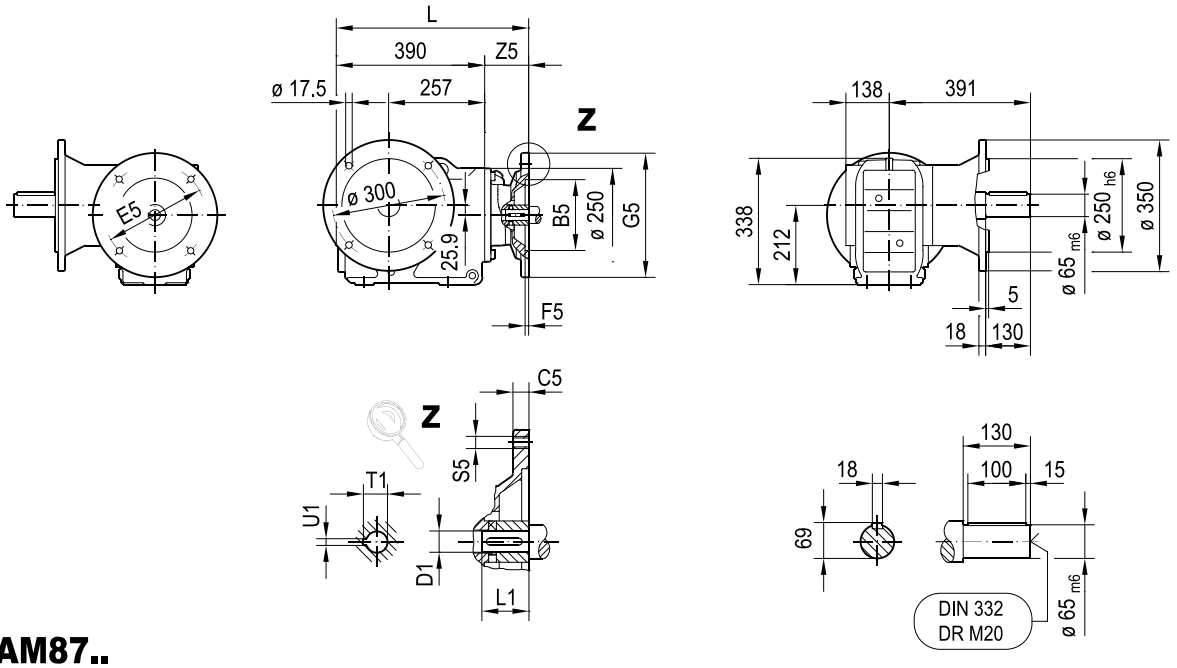


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS90	130	12	165	4.5	200	458	M10	68	24	50	27.3	8
AMS100	180	15	215	5	250	486	M12	95.5	28	60	31.3	8
AMS112	180	15	215	5	250	486	M12	95.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	511	M12	121	38	80	41.3	10
AMS132ML	230	16	265	5	300	511	M12	121	38	80	41.3	10
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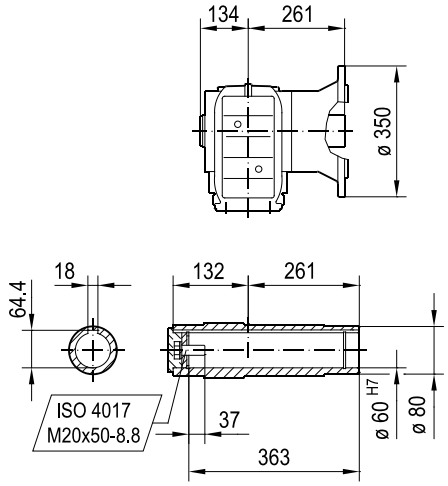
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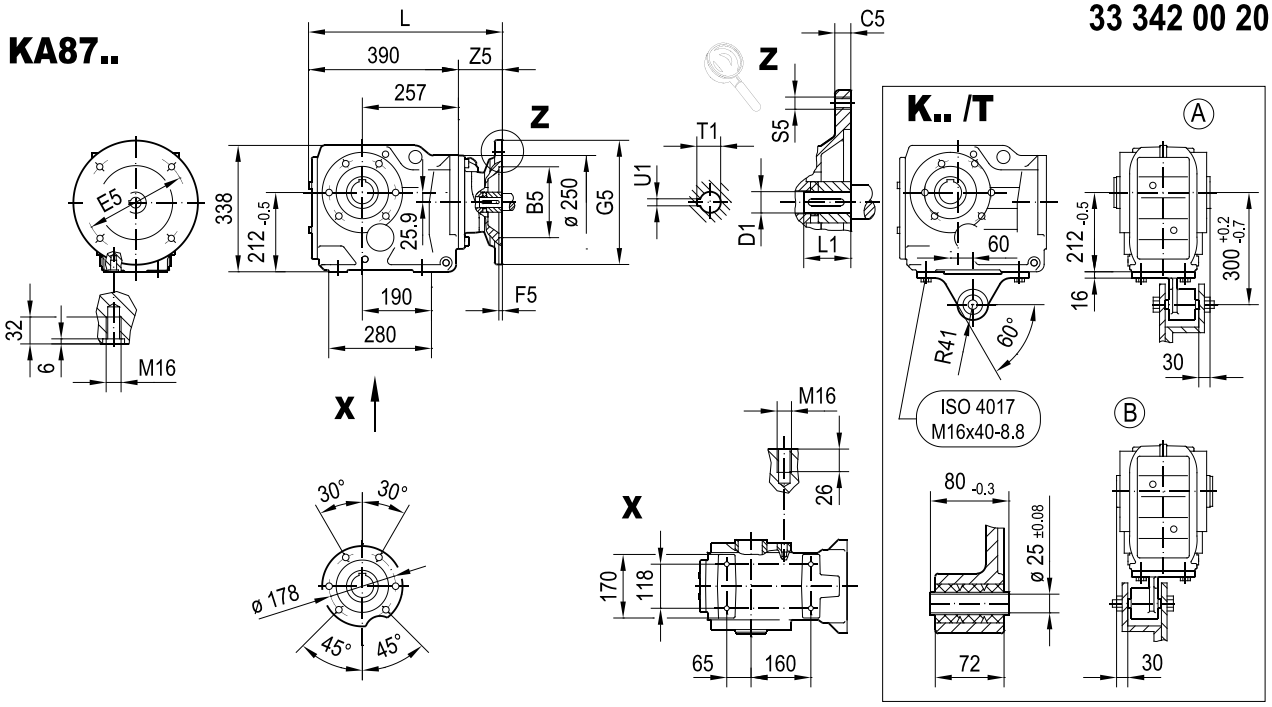


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS90	130	12	165	4.5	200	458	M10	68	24	50	27.3	8
AMS100	180	15	215	5	250	486	M12	95.5	28	60	31.3	8
AMS112	180	15	215	5	250	486	M12	95.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	511	M12	121	38	80	41.3	10
AMS132ML	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
AMS180	250	18	300	6	350	574	M16	184	48	110	51.8	14

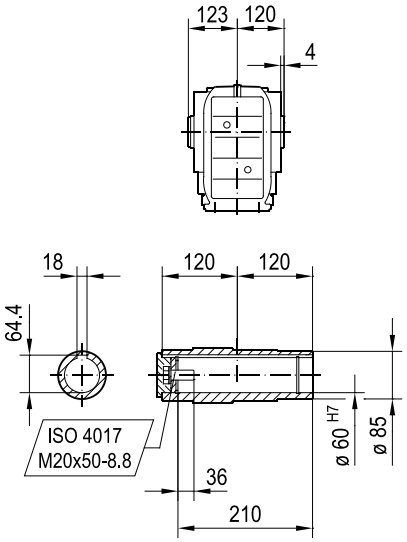
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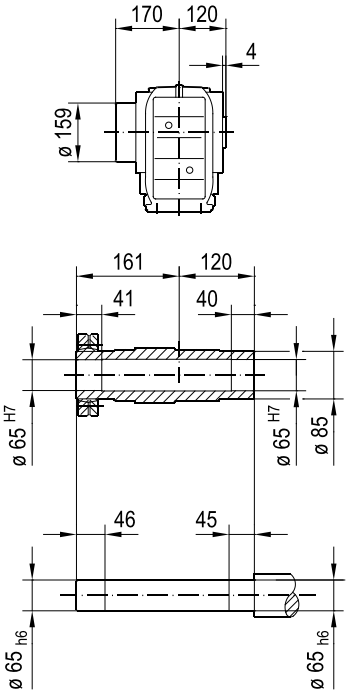
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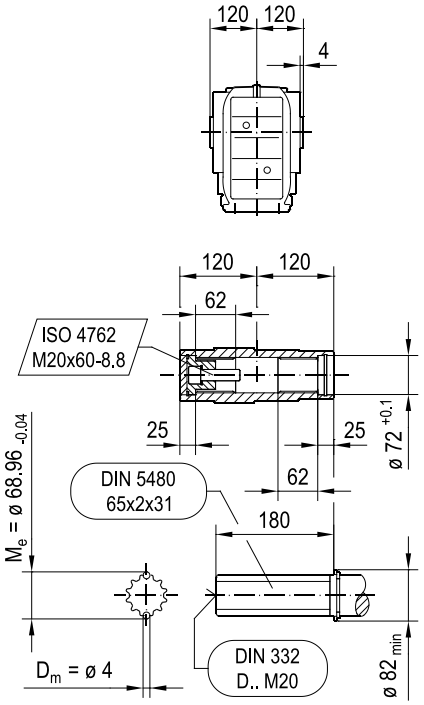
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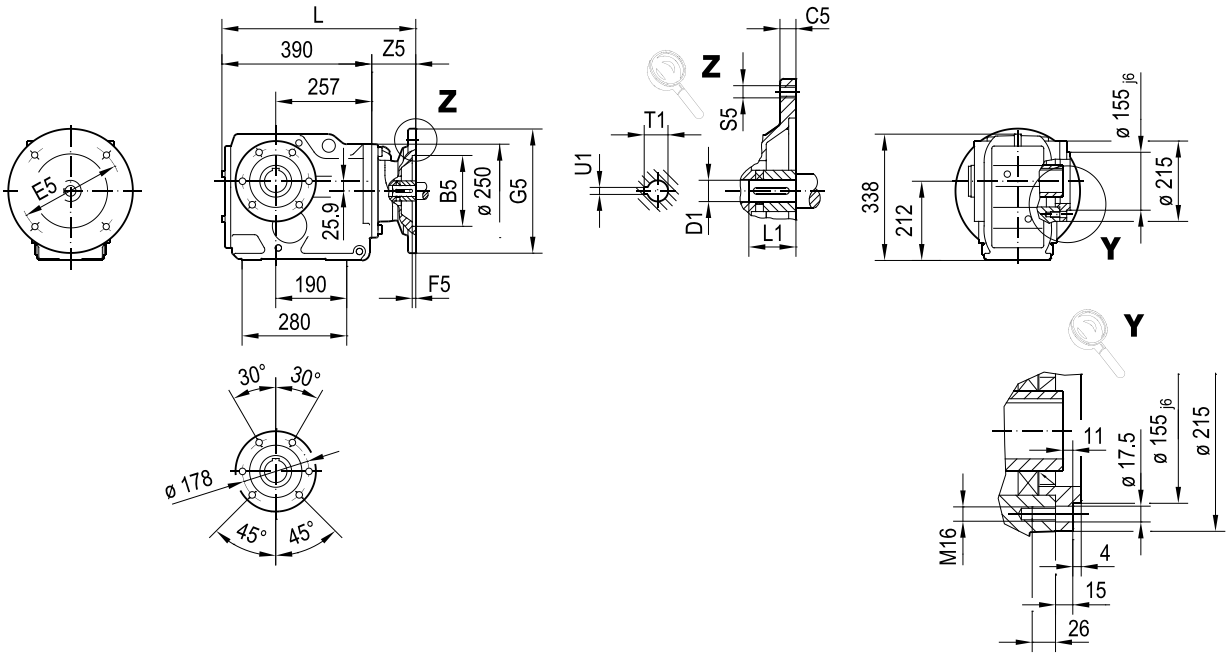


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS90	130	12	165	4.5	200	458	M10	68	24	50	27.3	8
AMS100	180	15	215	5	250	486	M12	95.5	28	60	31.3	8
AMS112	180	15	215	5	250	486	M12	95.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	511	M12	121	38	80	41.3	10
AMS132ML	230	16	265	5	300	511	M12	121	38	80	41.3	10
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AMS180	250	18	300	6	350	574	M16	184	48	110	51.8	14

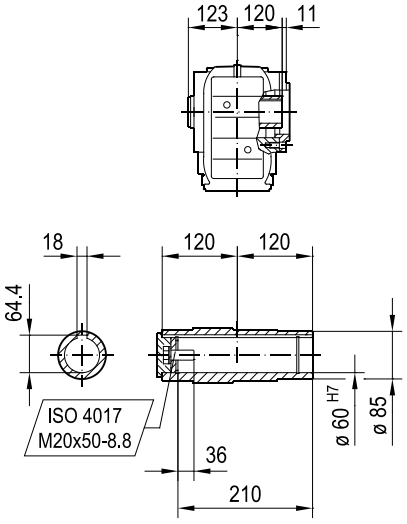
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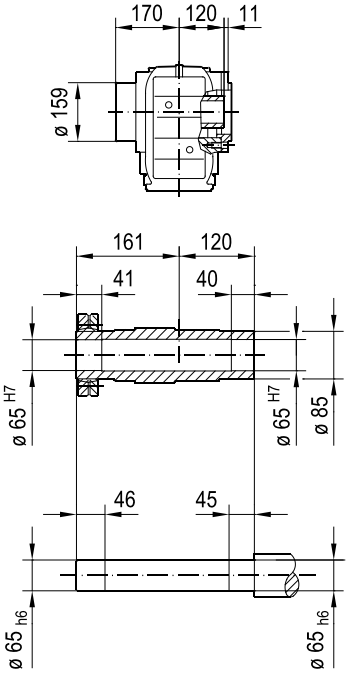
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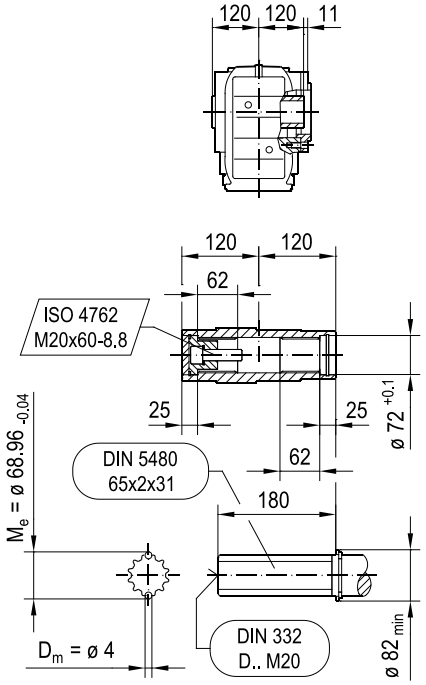
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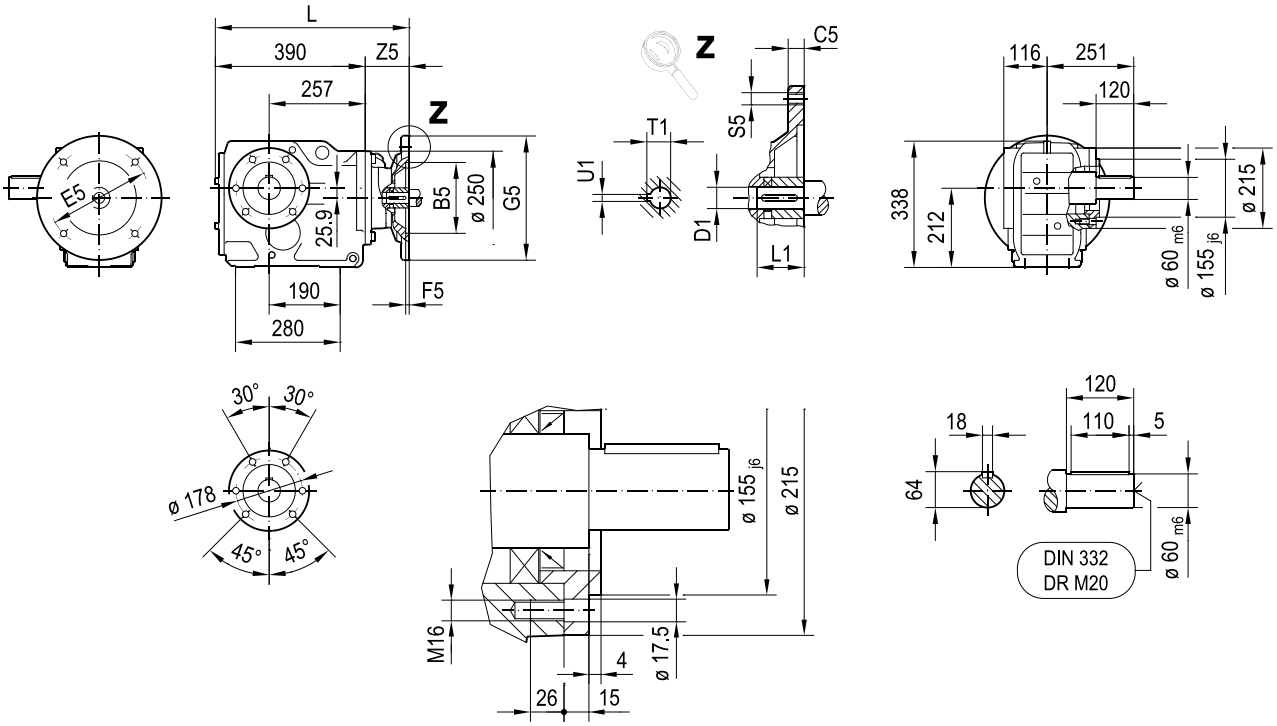


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS80	130	12	165	4.5	200	445	M10	55	19	40	21.8	6
AMS90	130	12	165	4.5	200	458	M10	68	24	50	27.3	8
AMS100	180	15	215	5	250	486	M12	95.5	28	60	31.3	8
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AMS132S/M	230	16	265	5	300	511	M12	121	38	80	41.3	10
AMS132ML	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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KZ87..

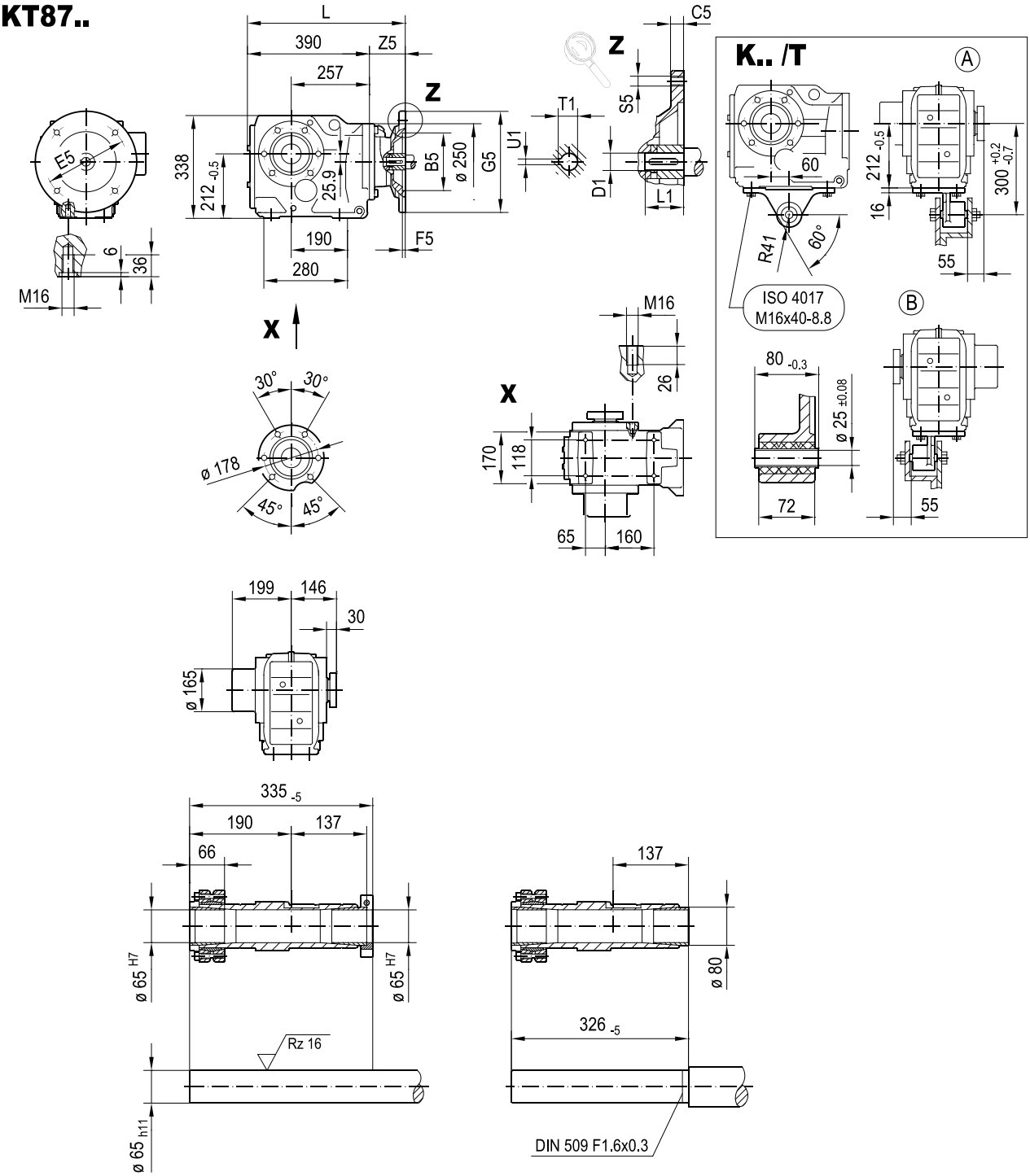


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS80	130	12	165	4.5	200	445	M10	55	19	40	21.8	6
AMS90	130	12	165	4.5	200	458	M10	68	24	50	27.3	8
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AMS112	180	15	215	5	250	486	M12	95.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	511	M12	121	38	80	41.3	10
AMS132ML	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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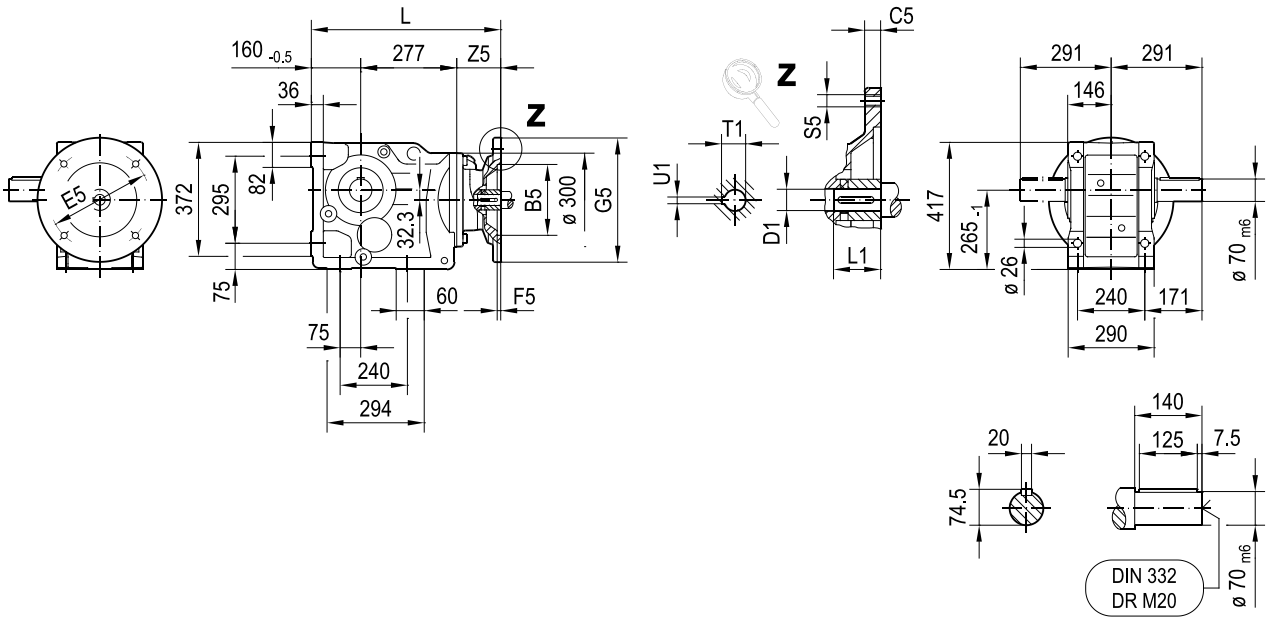


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS90	130	12	165	4.5	200	458	M10	68	24	50	27.3	8
AMS100	180	15	215	5	250	486	M12	95.5	28	60	31.3	8
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AMS132S/M	230	16	265	5	300	511	M12	121	38	80	41.3	10
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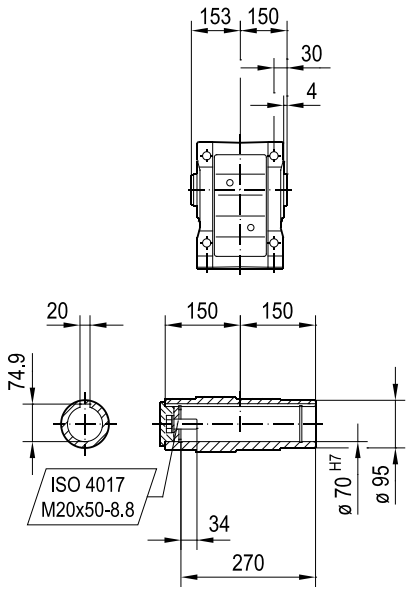
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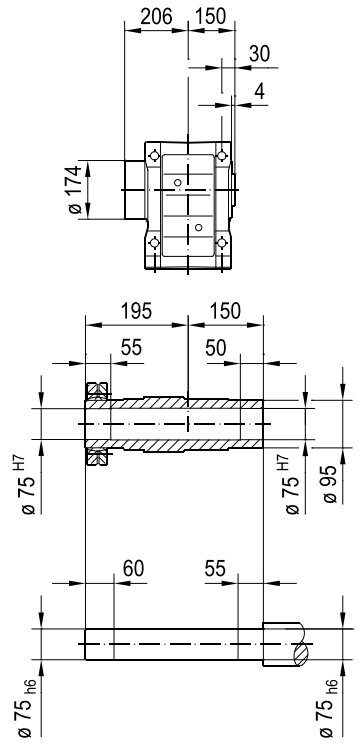
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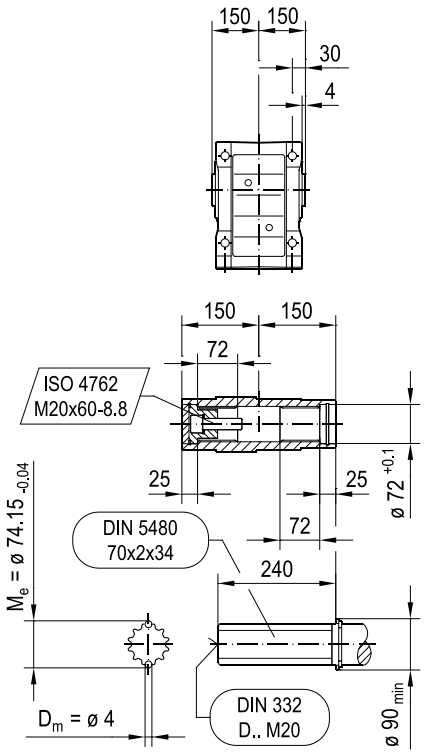
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KH97B..



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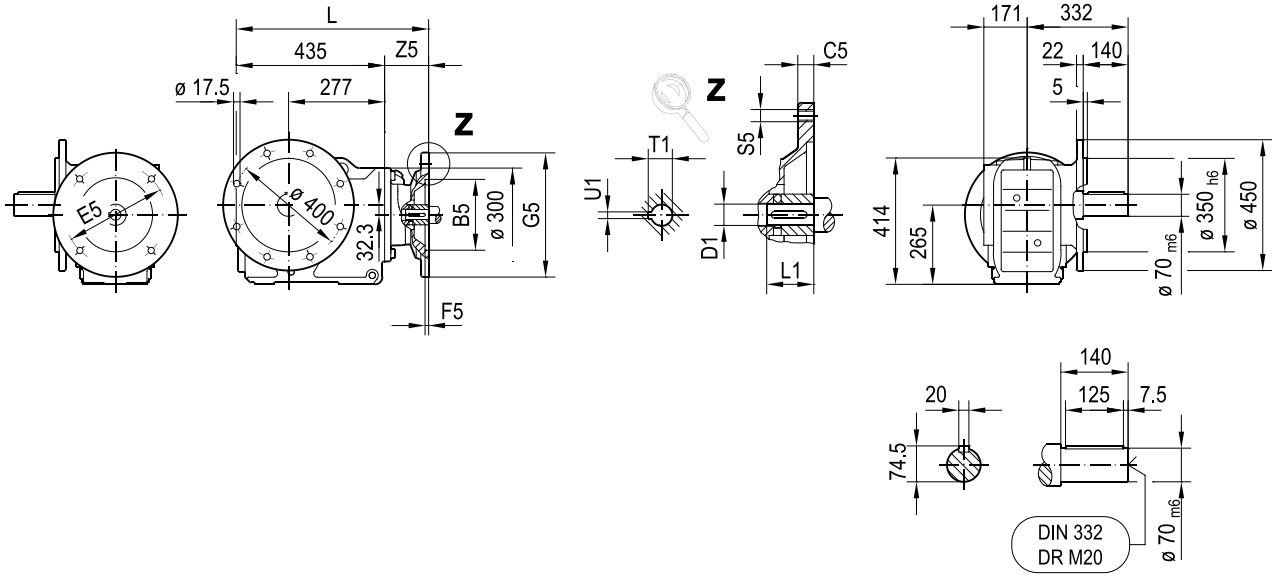


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	528	M12	90.5	28	60	31.3	8
AMS112	180	15	215	5	250	528	M12	90.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	553	M12	116	38	80	41.3	10
AMS132ML	230	16	265	5	300	553	M12	116	38	80	41.3	10
AMS160	250	18	300	6	350	616	M16	179	42	110	45.3	12
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
AMS225	350	22	400	7	450	692	M16	255	60	140	64.4	18

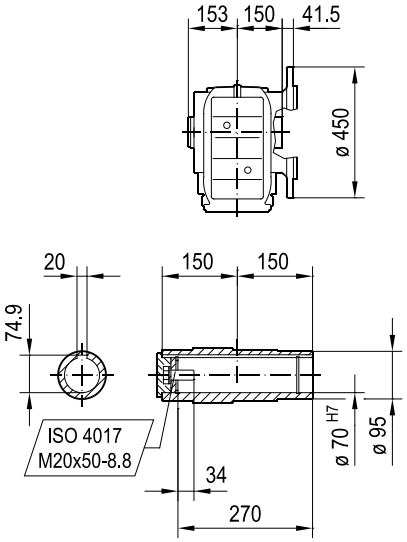
27797880/EN – 03/2023

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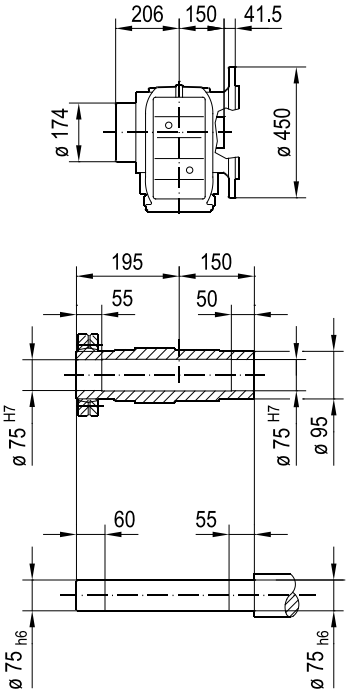
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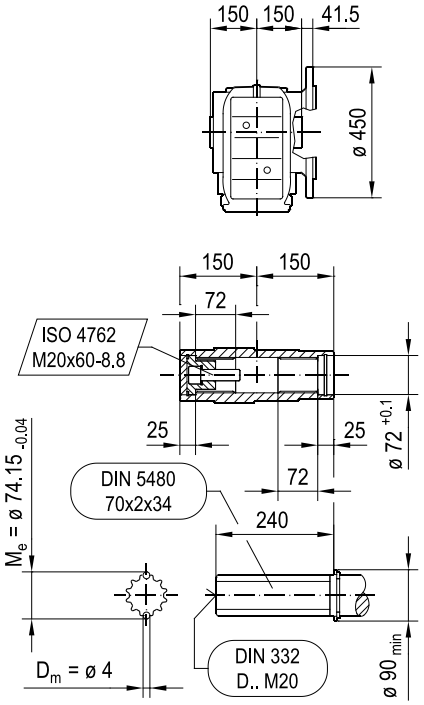
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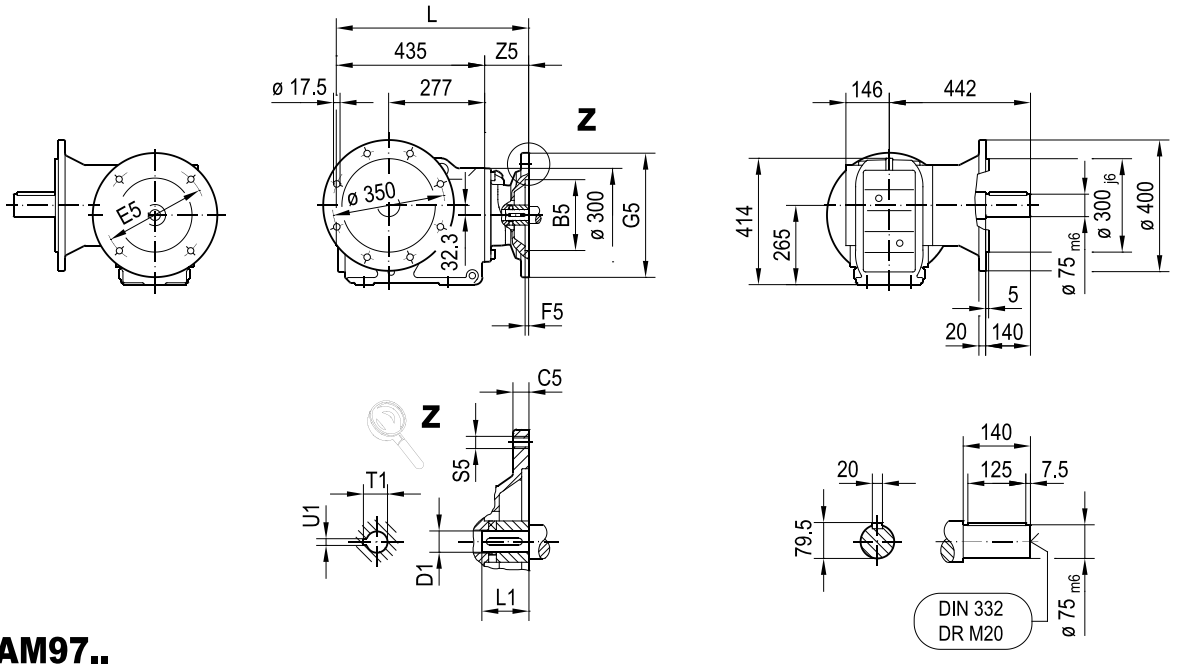


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS132S/M	230	16	265	5	300	551	M12	116	38	80	41.3	10
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AMS160	250	18	300	6	350	614	M16	179	42	110	45.3	12
AMS180	250	18	300	6	350	614	M16	179	48	110	51.8	14
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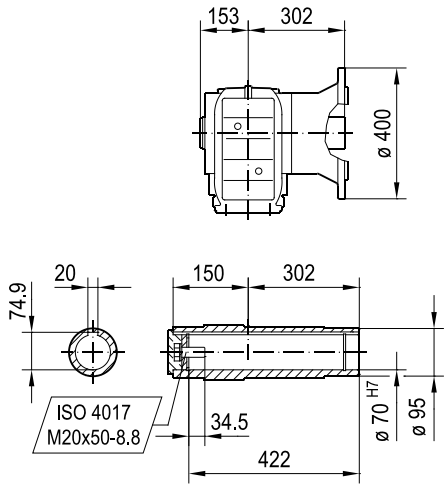
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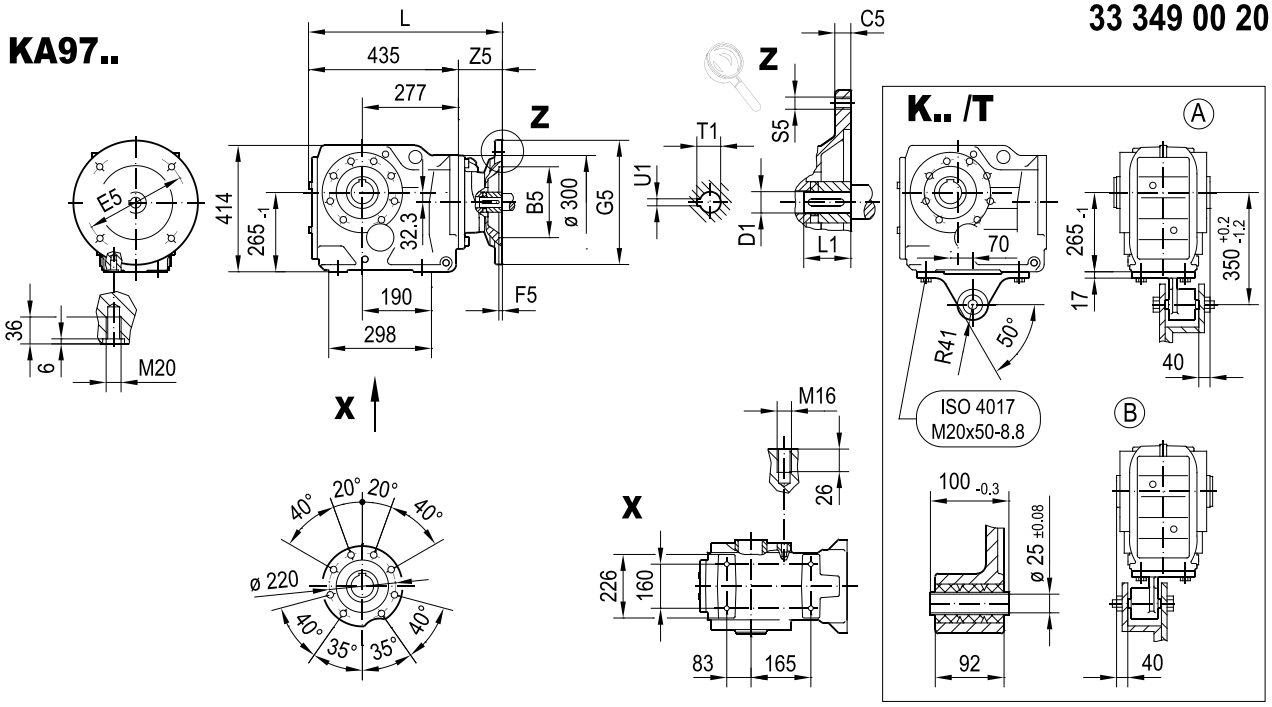


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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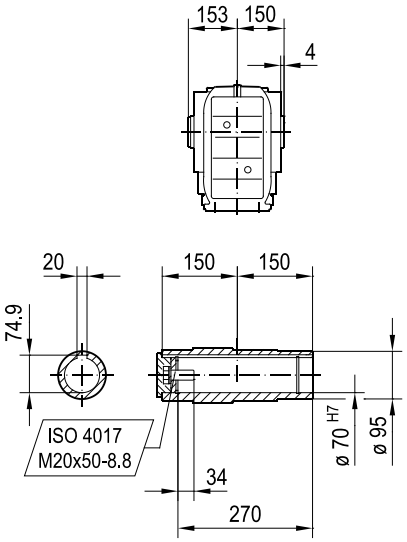
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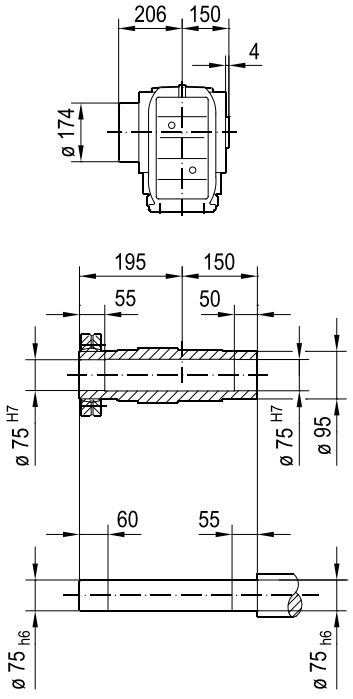
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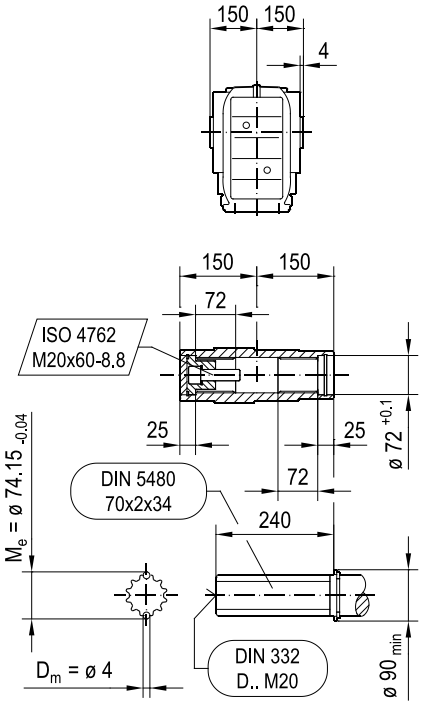
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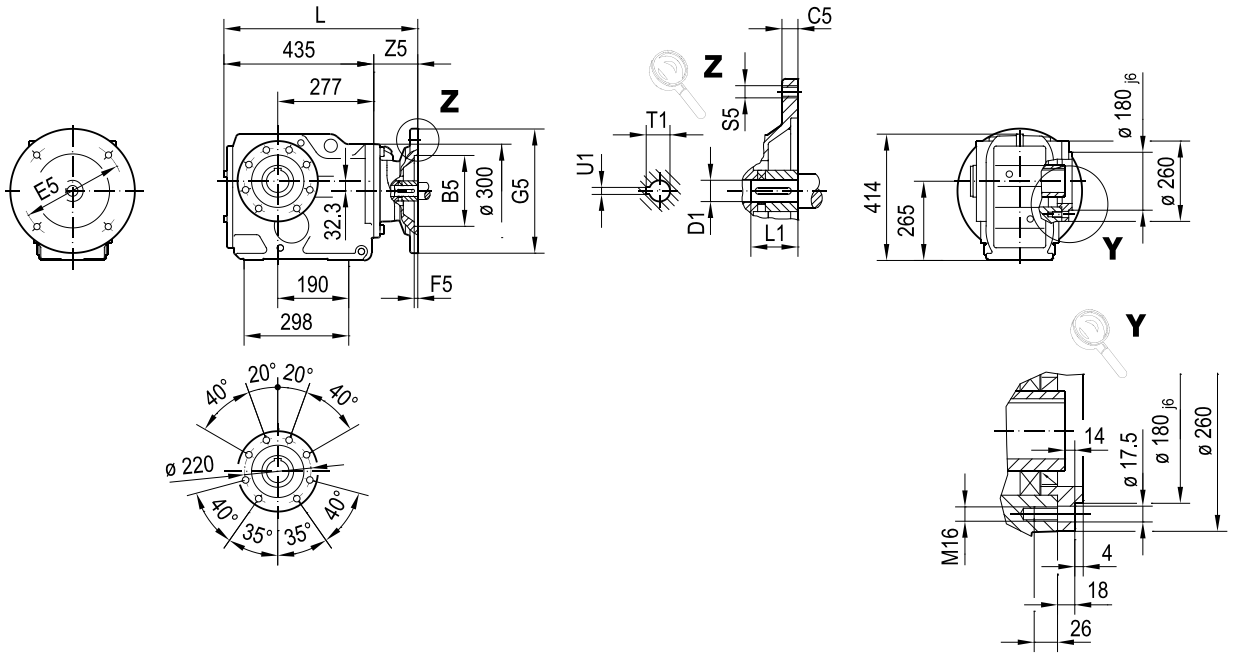


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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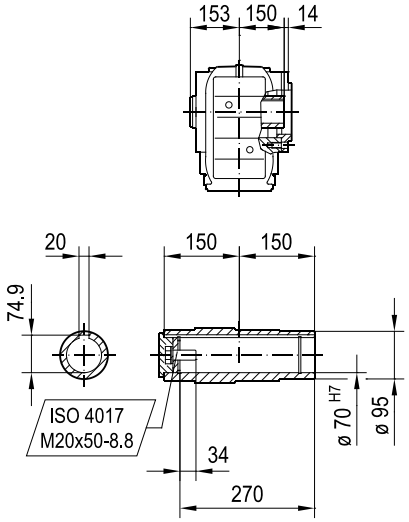
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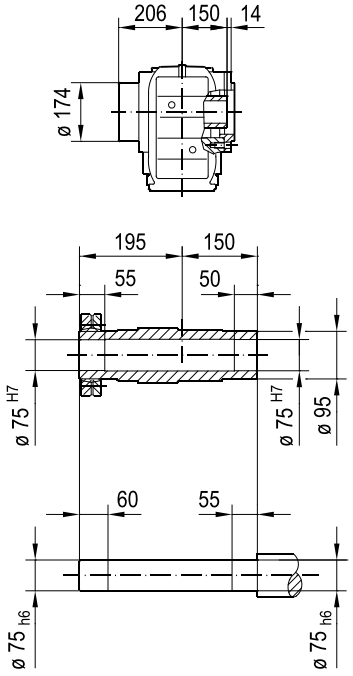
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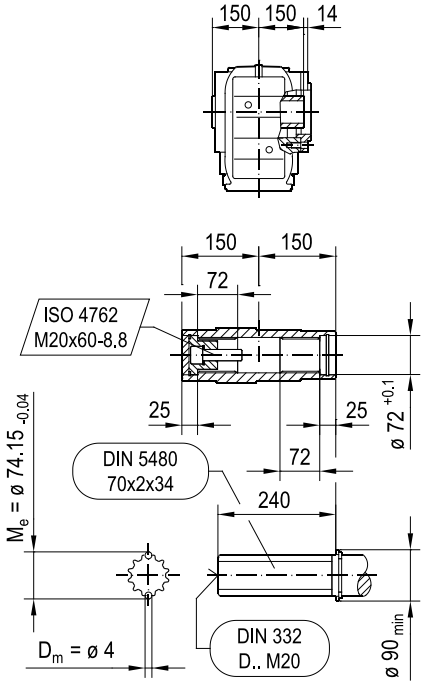
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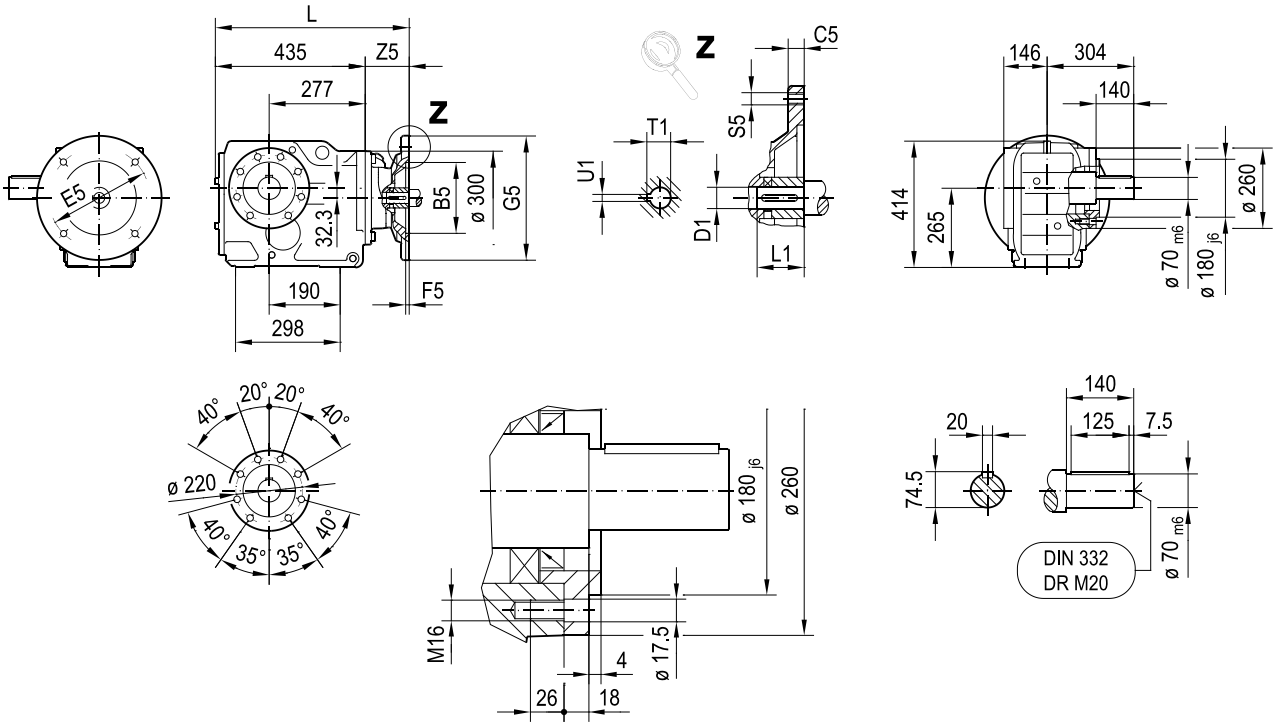


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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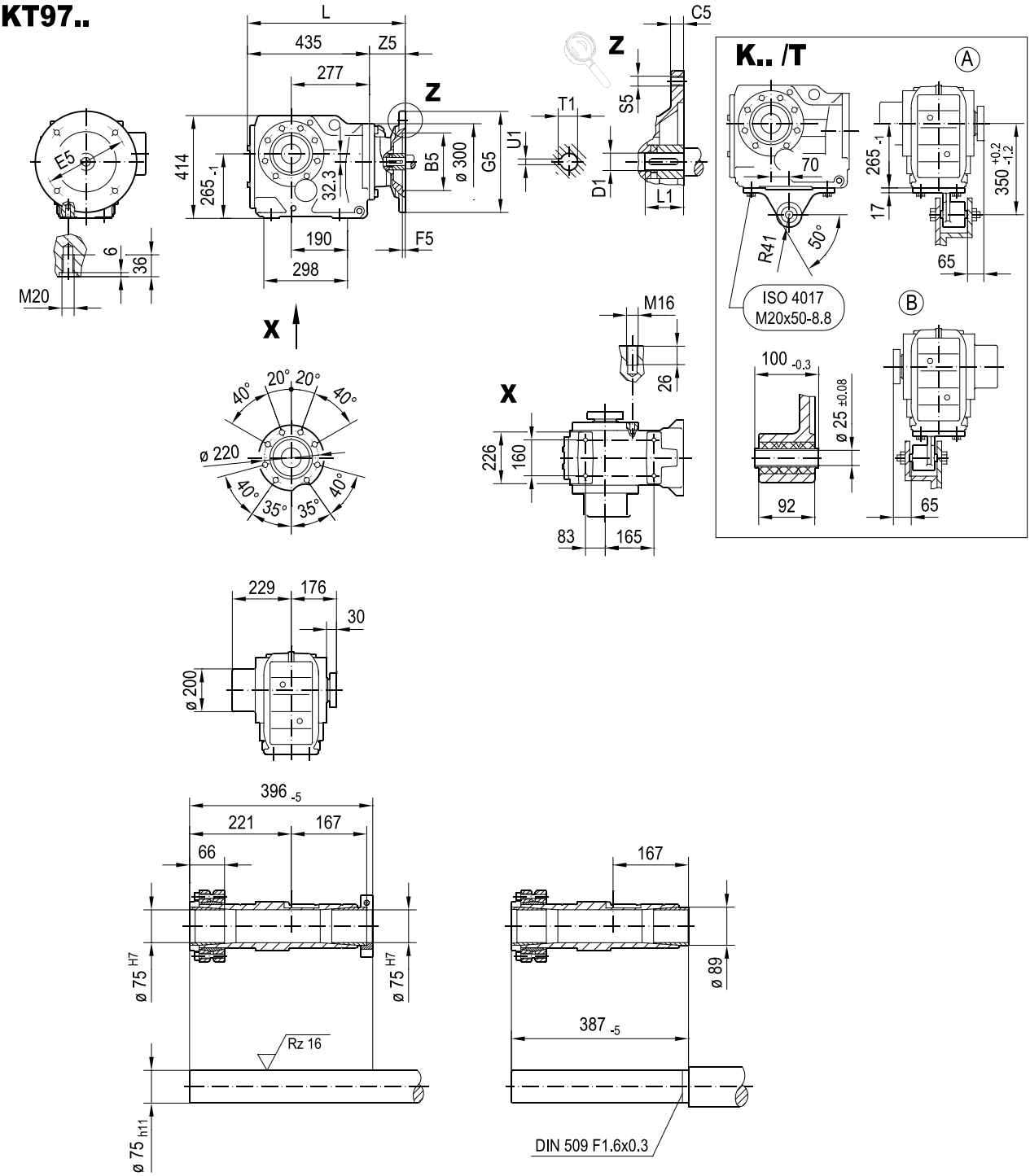


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS160	250	18	300	6	350	614	M16	179	42	110	45.3	12
AMS180	250	18	300	6	350	614	M16	179	48	110	51.8	14
AMS200	300	20	350	7	400	675	M16	240	55	110	59.3	16
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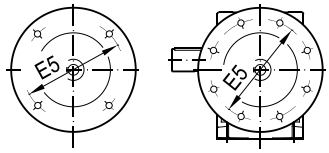
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS132S/M	230	16	265	5	300	551	M12	116	38	80	41.3	10
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AMS160	250	18	300	6	350	614	M16	179	42	110	45.3	12
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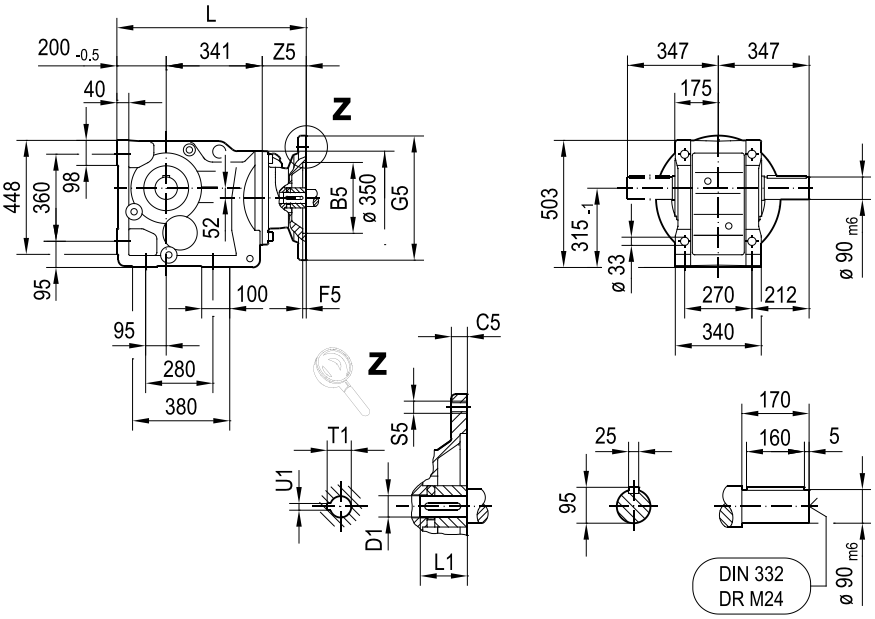
27797880/EN – 03/2023

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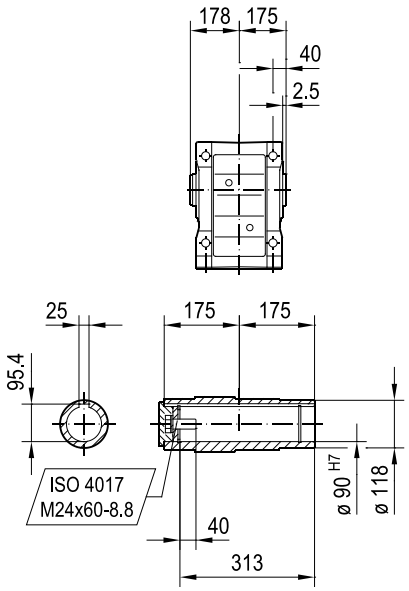
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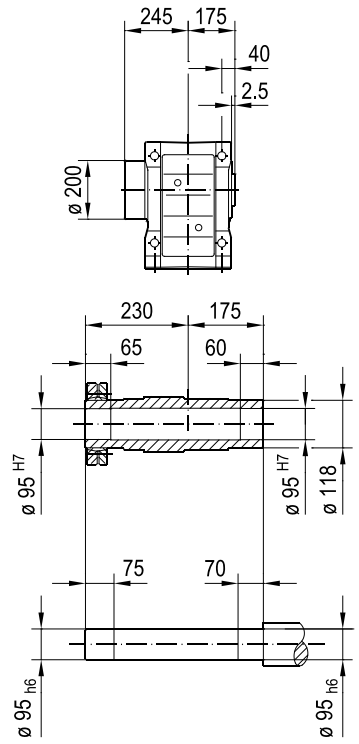




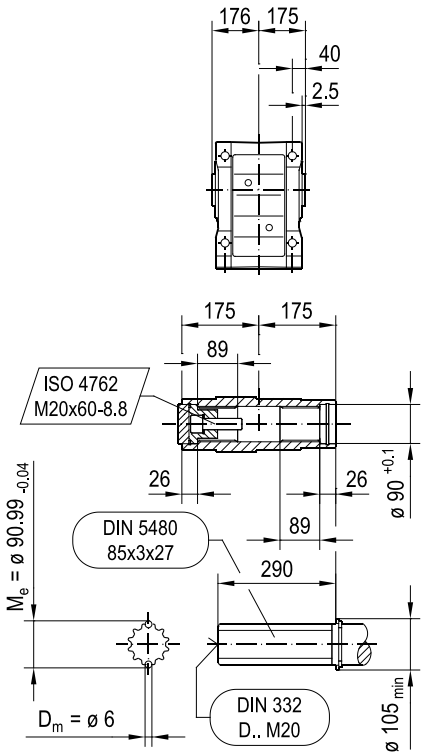
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KH107B..



KV107B..



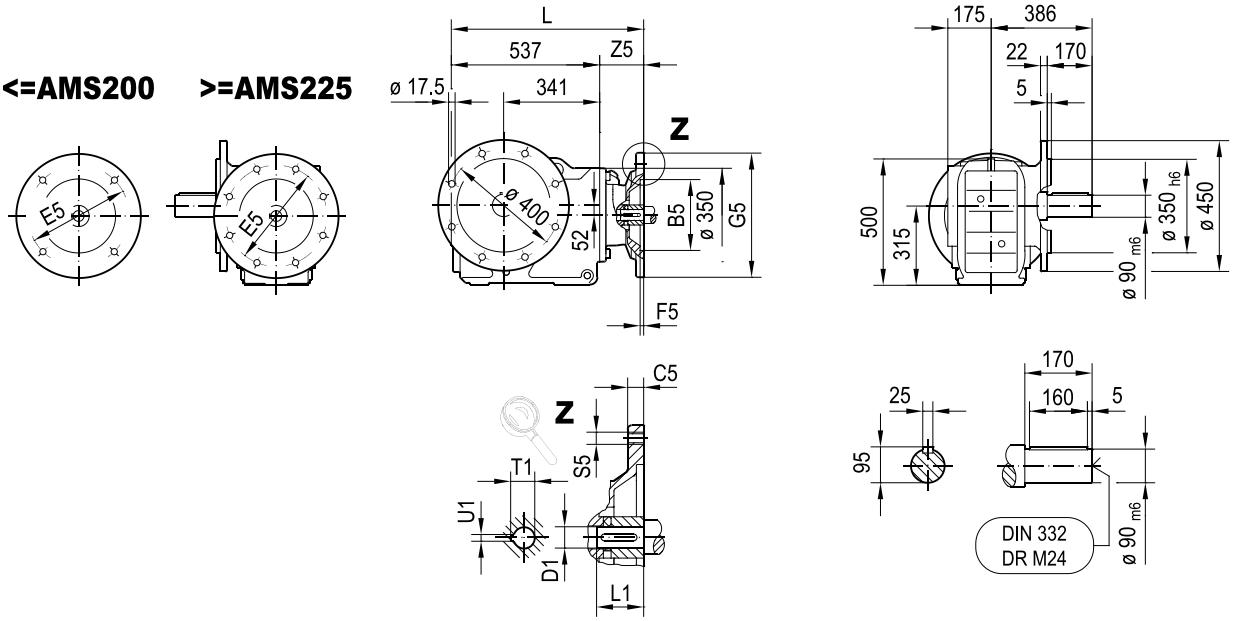
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS132S/M	230	16	265	5	300	651	M12	110	38	80	41.3	10
AMS132ML	230	16	265	5	300	651	M12	110	38	80	41.3	10
AMS160	250	18	300	6	350	714	M16	173	42	110	45.3	12
AMS180	250	18	300	6	350	714	M16	173	48	110	51.8	14
AMS200	300	20	350	7	400	775	M16	234	55	110	59.3	16
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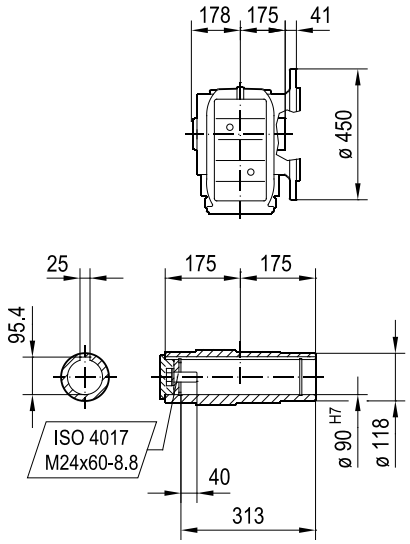
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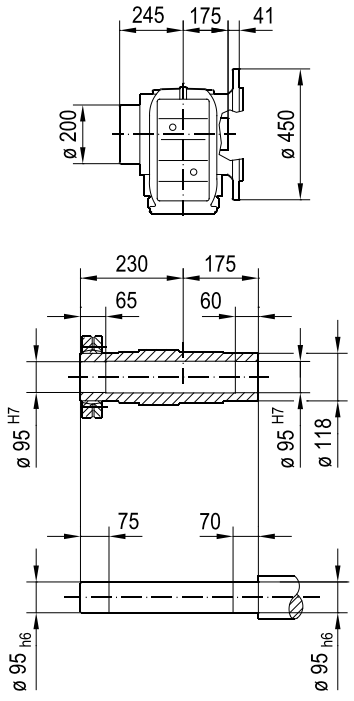
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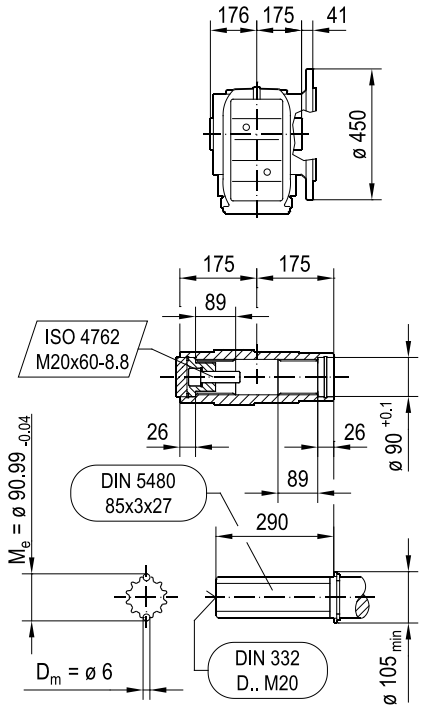
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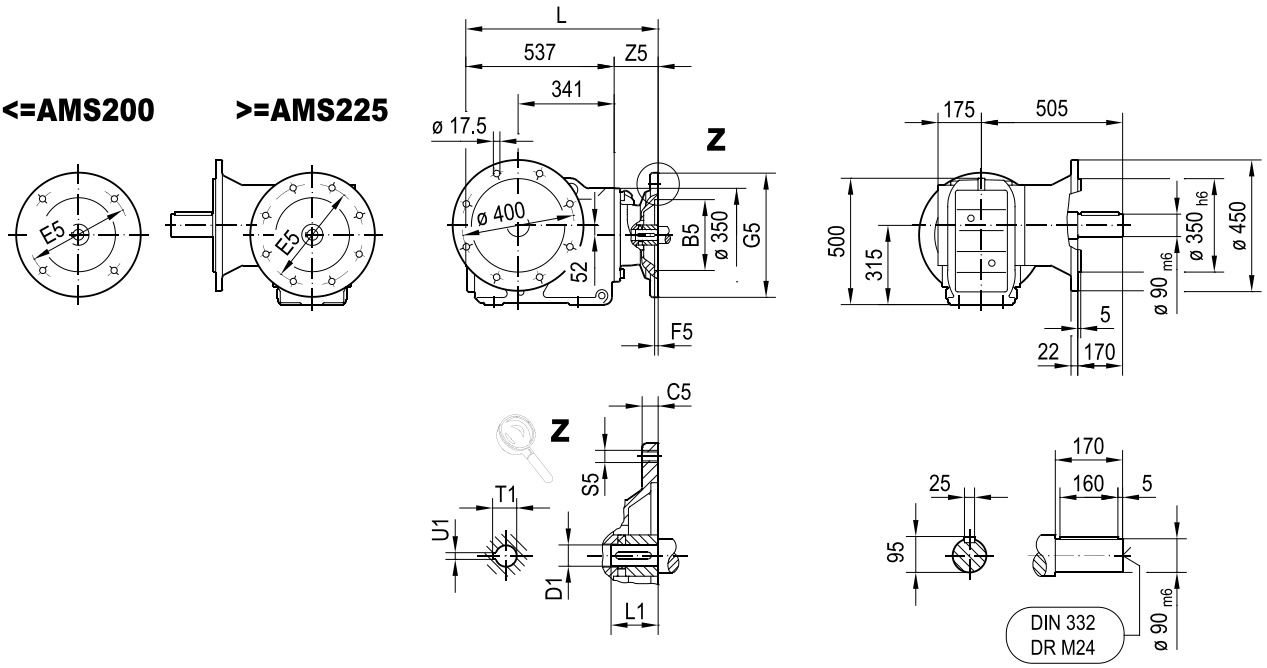
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS180	250	18	300	6	350	710	M16	173	48	110	51.8	14
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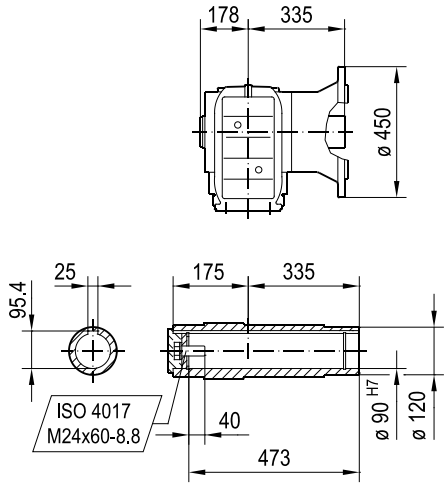
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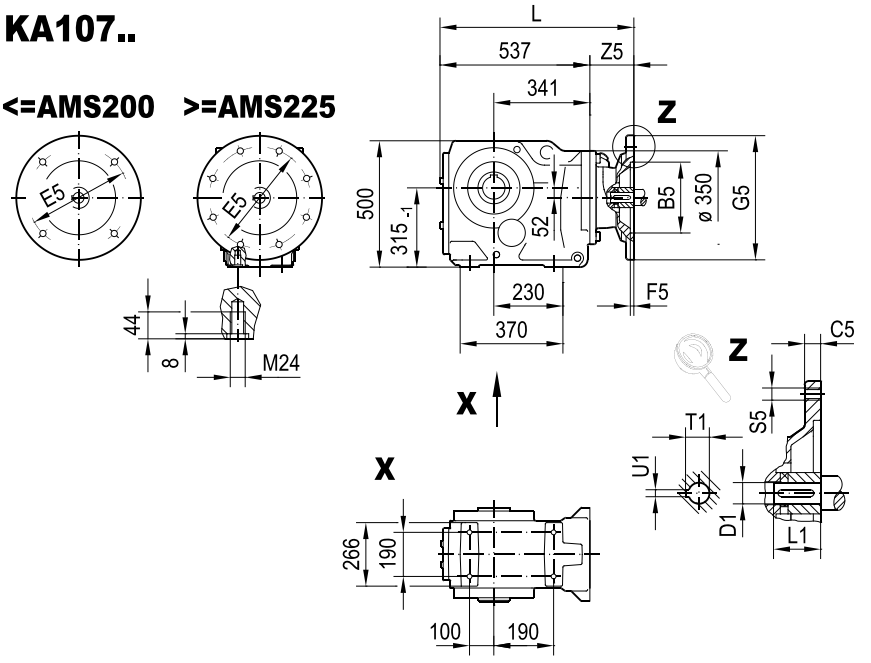
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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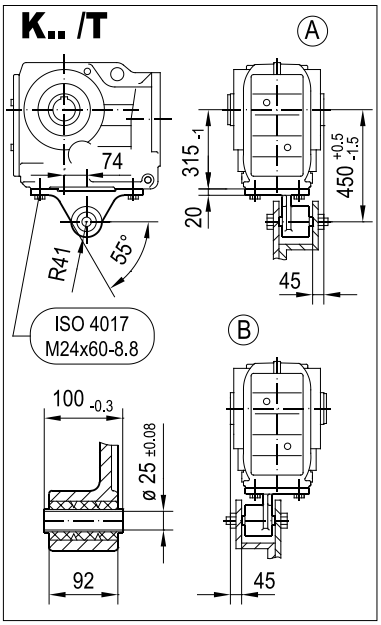
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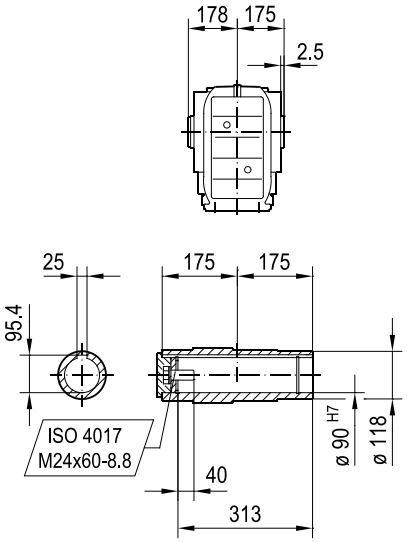
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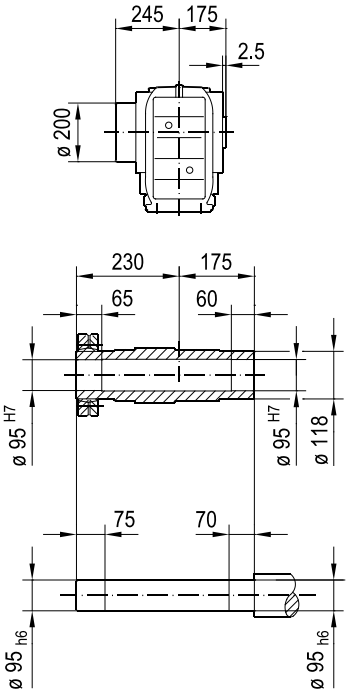




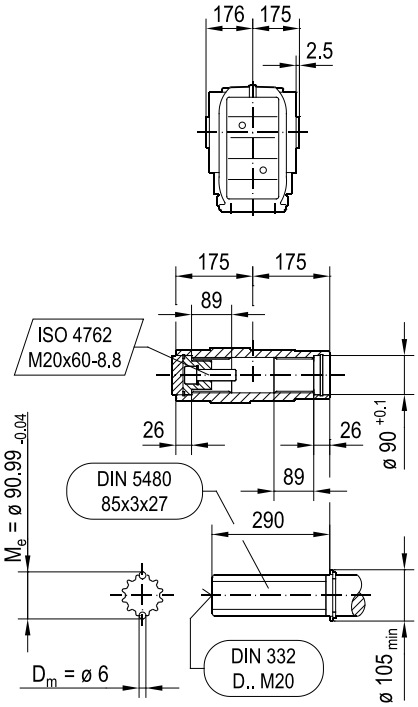
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KH107..



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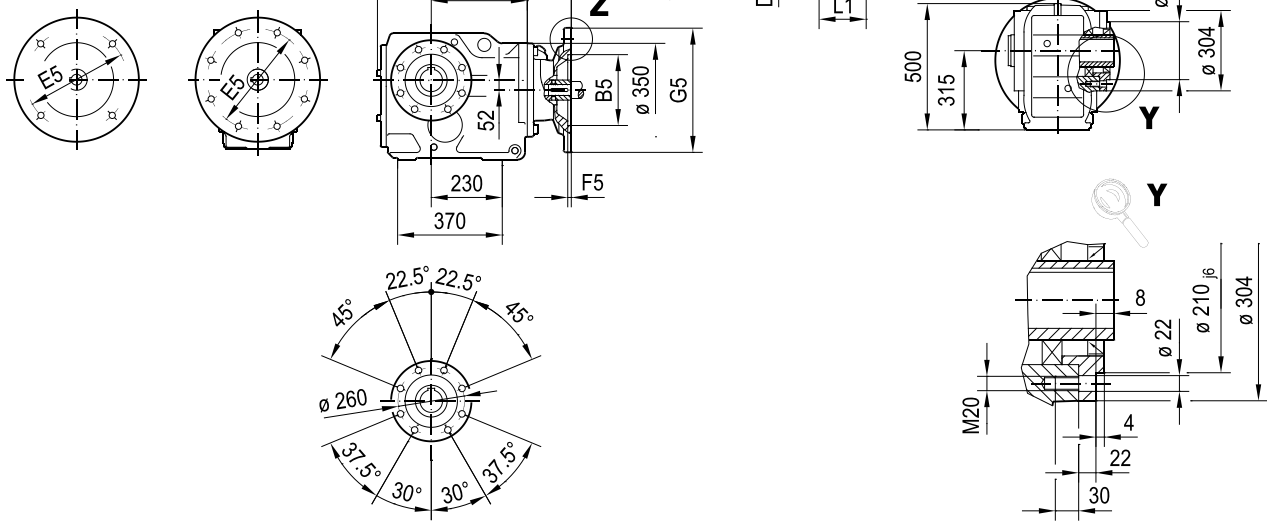
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS132ML	230	16	265	5	300	647	M12	110	38	80	41.3	10
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AMS200	300	20	350	7	400	771	M16	234	55	110	59.3	16
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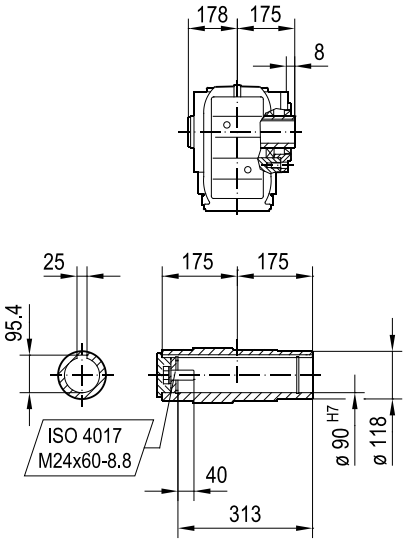
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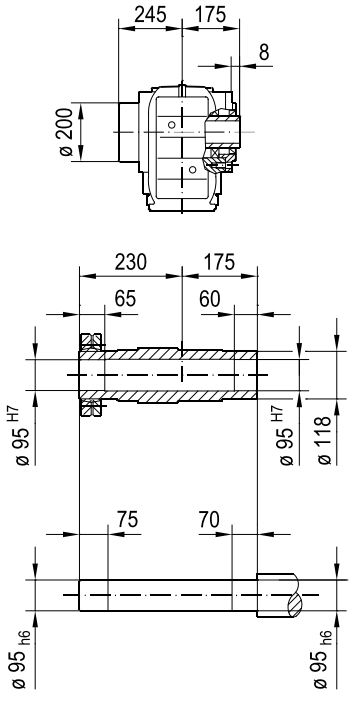
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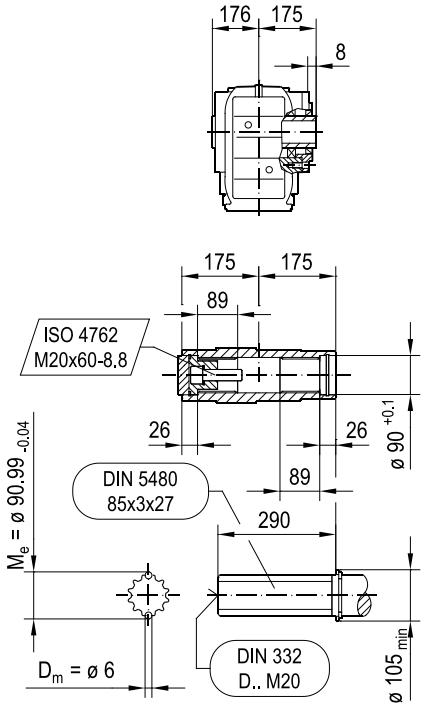
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KHZ107..



KVZ107..



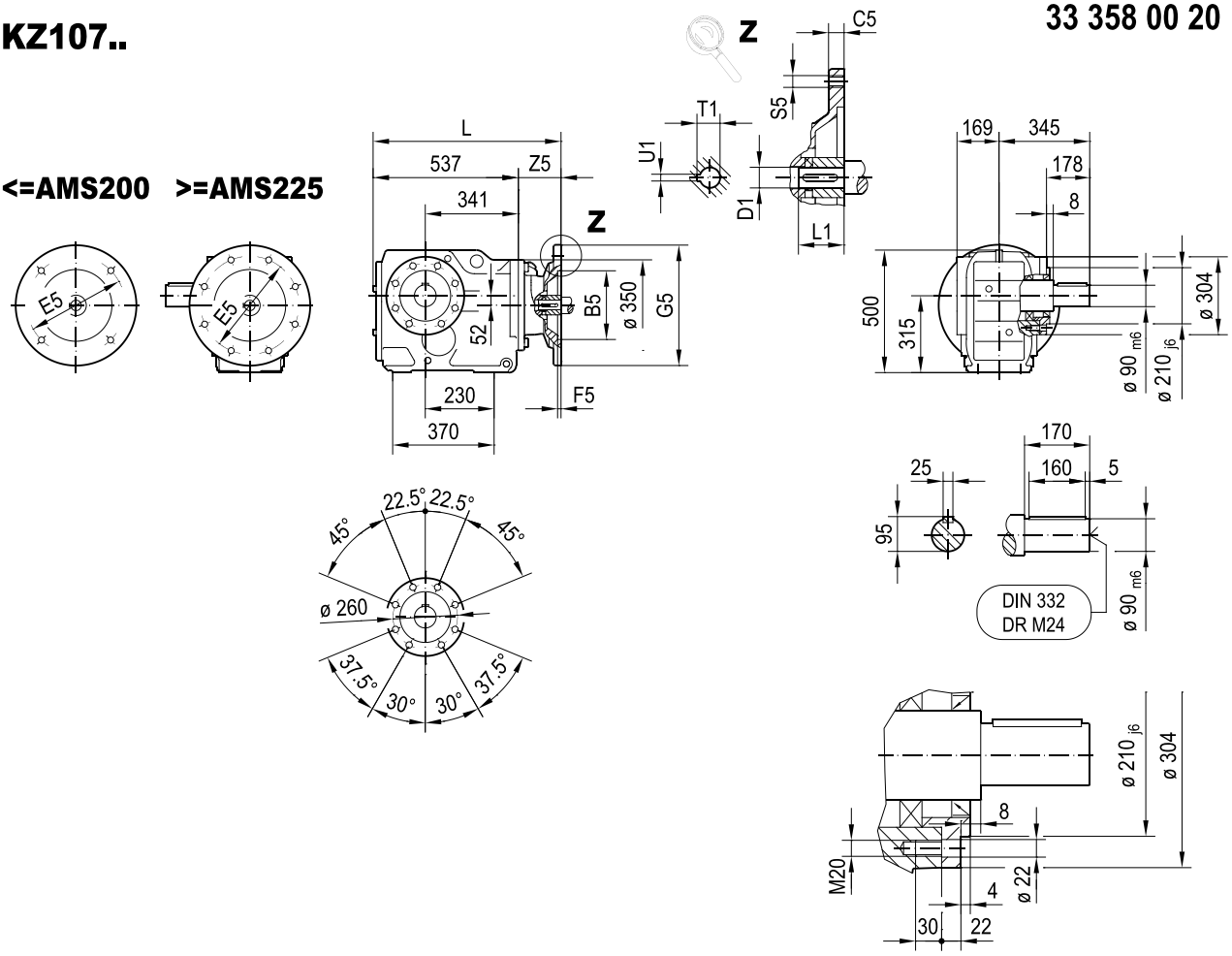
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	622	M12	84.5	28	60	31.3	8
AMS112	180	15	215	5	250	622	M12	84.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	647	M12	110	38	80	41.3	10
AMS132ML	230	16	265	5	300	647	M12	110	38	80	41.3	10
AMS160	250	18	300	6	350	710	M16	173	42	110	45.3	12
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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KZ107..

33 358 00 20

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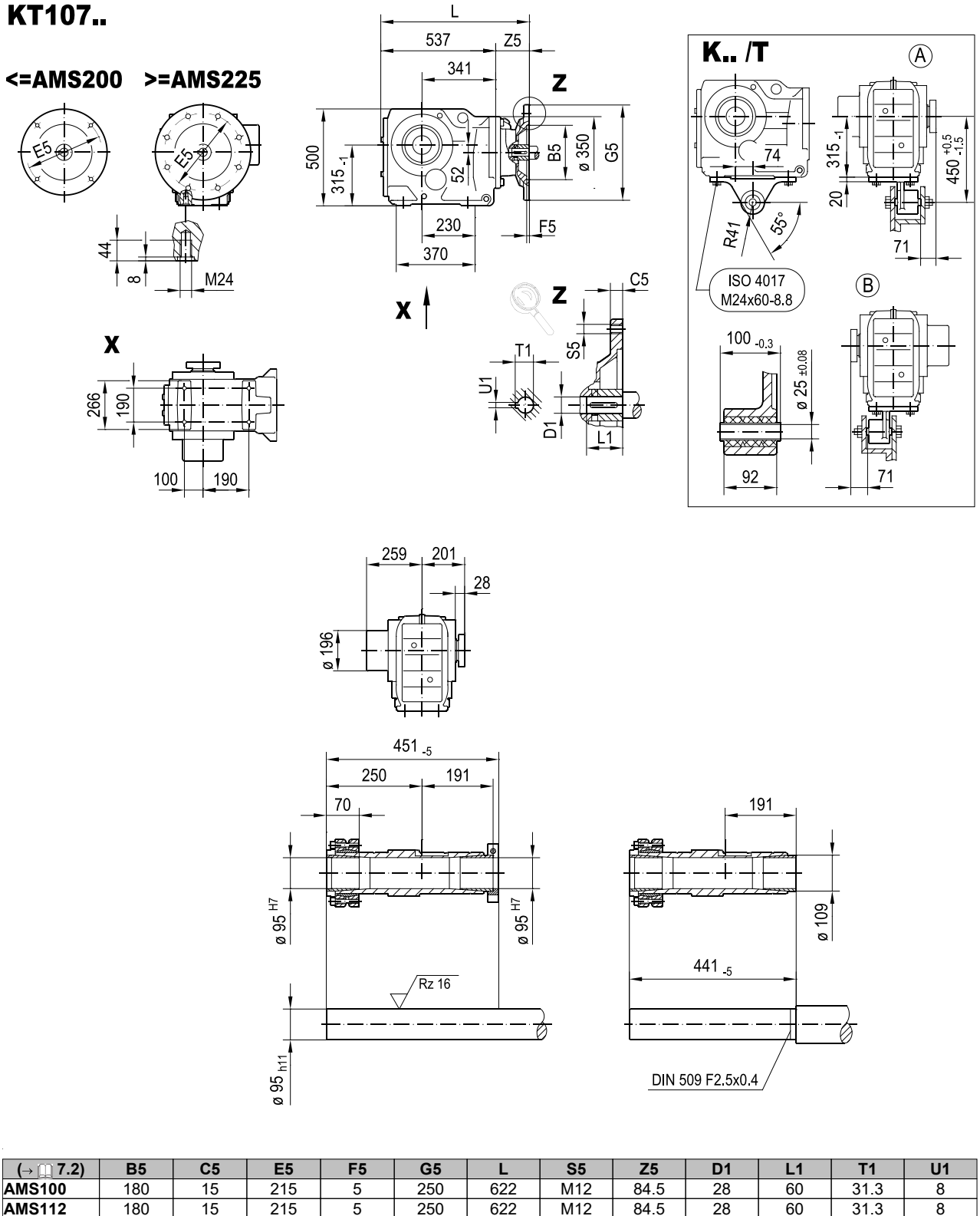
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AMS132S/M	230	16	265	5	300	647	M12	110	38	80	41.3	10
AMS132ML	230	16	265	5	300	647	M12	110	38	80	41.3	10
AMS160	250	18	300	6	350	710	M16	173	42	110	45.3	12
AMS180	250	18	300	6	350	710	M16	173	48	110	51.8	14
AMS200	300	20	350	7	400	771	M16	234	55	110	59.3	16
AMS225	350	22	400	7	450	786	M16	249	60	140	64.4	18

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33 359 00 20

KT107..

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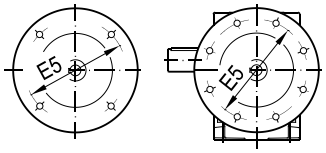
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS180	250	18	300	6	350	710	M16	173	48	110	51.8	14
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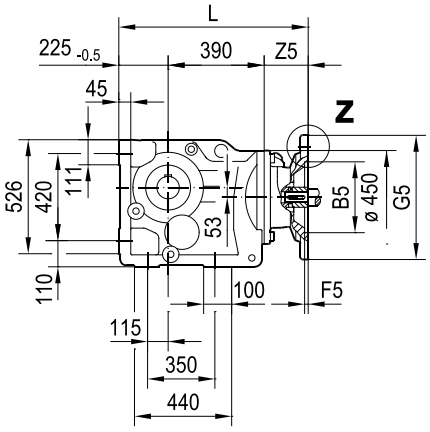
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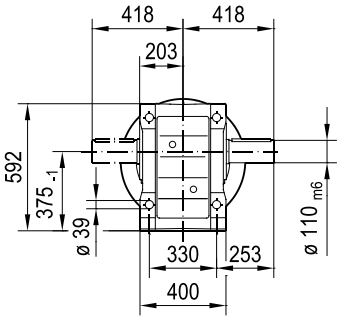
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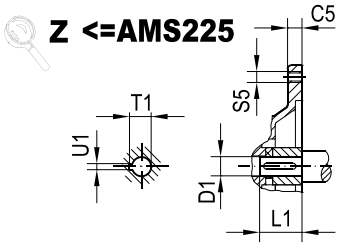
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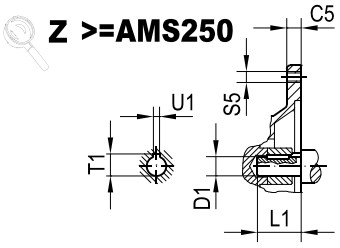
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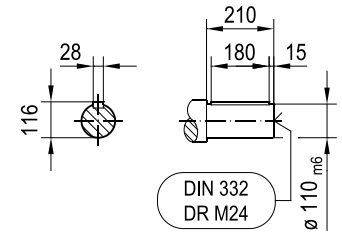




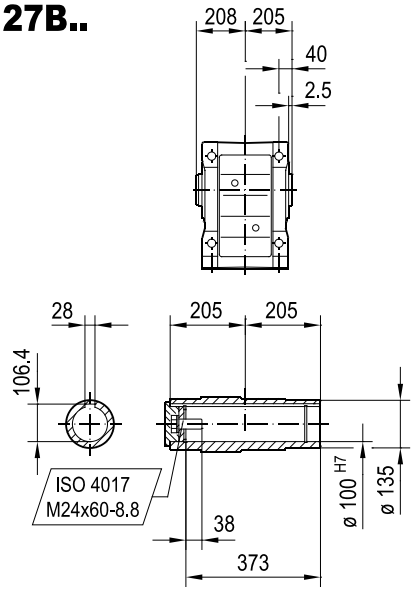




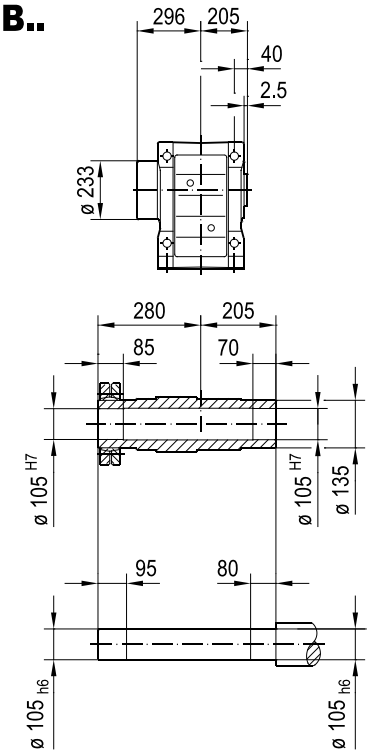




KA127B..



KH127B..

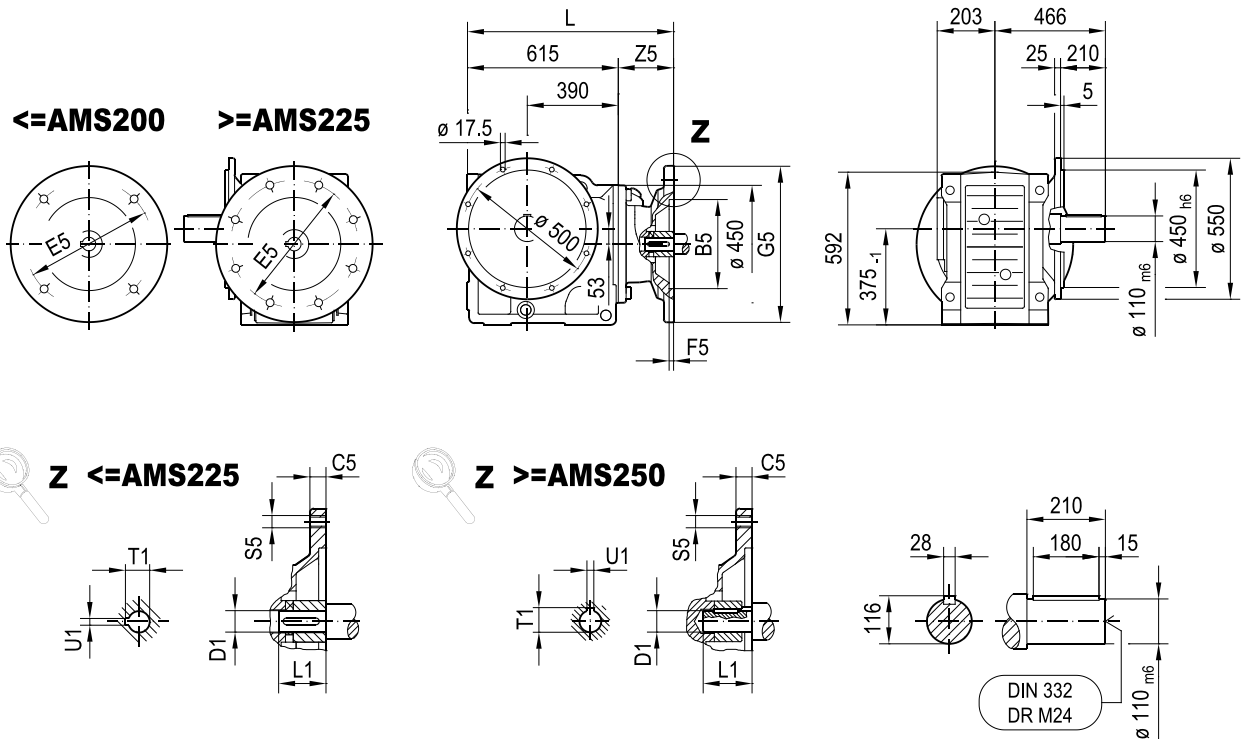


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS200	300	20	350	7	400	834	M16	219	55	110	59.3	16
AMS225	350	22	400	7	450	849	M16	234	60	140	64.4	18
AMS250	450	25	500	7	550	913	M16	297.5	65	140	69.4	18
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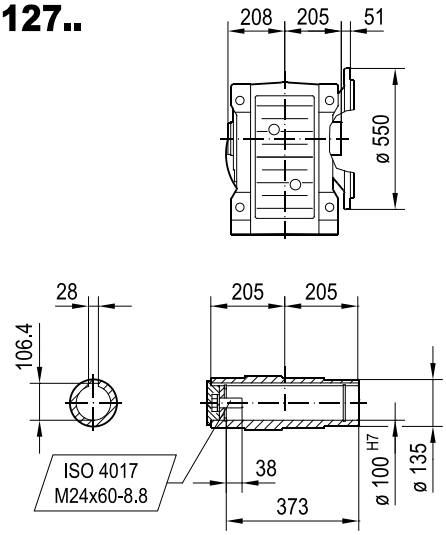
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33 361 00 20

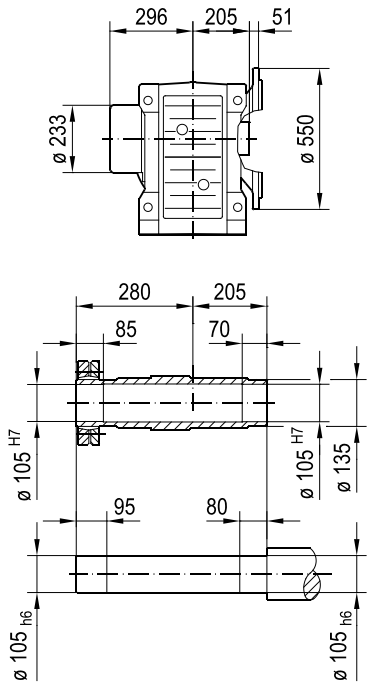
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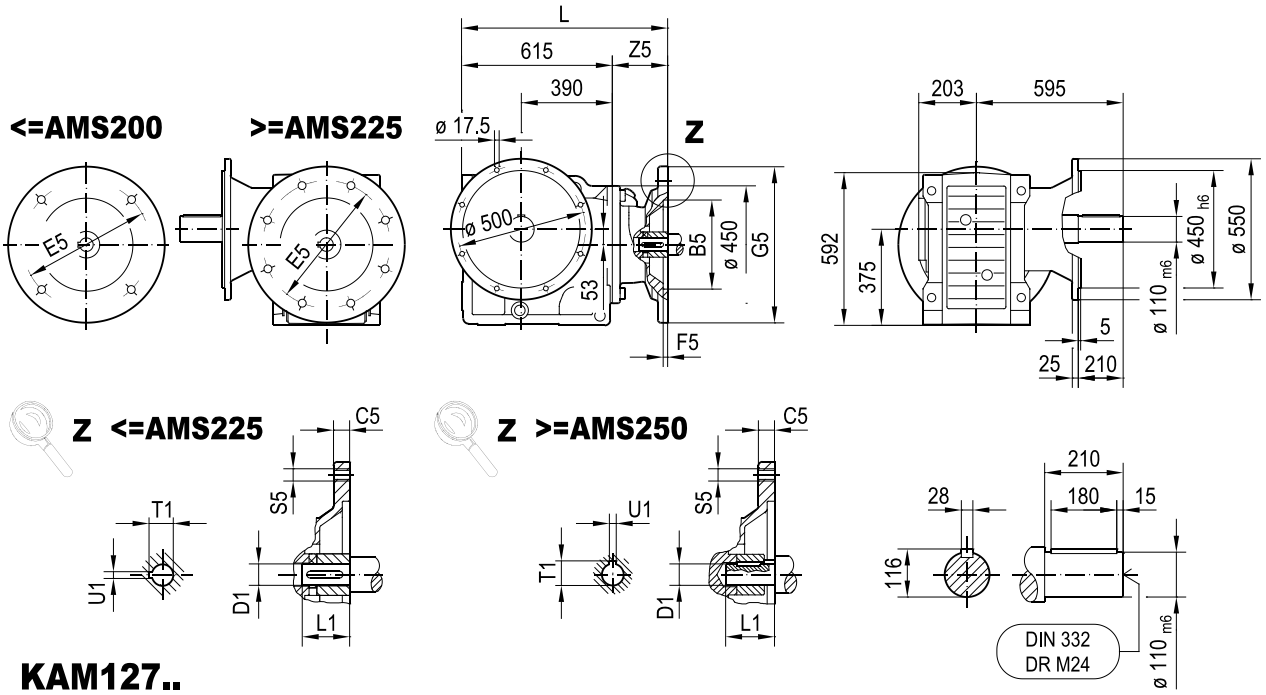
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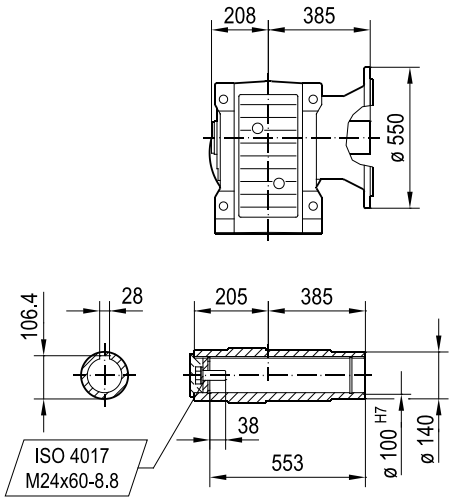
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS180	250	18	300	6	350	773	M16	158	48	110	51.8	14
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AMS250	450	25	500	7	550	913	M16	297.5	65	140	69.4	18
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33 362 00 20

KM127..



KAM127..



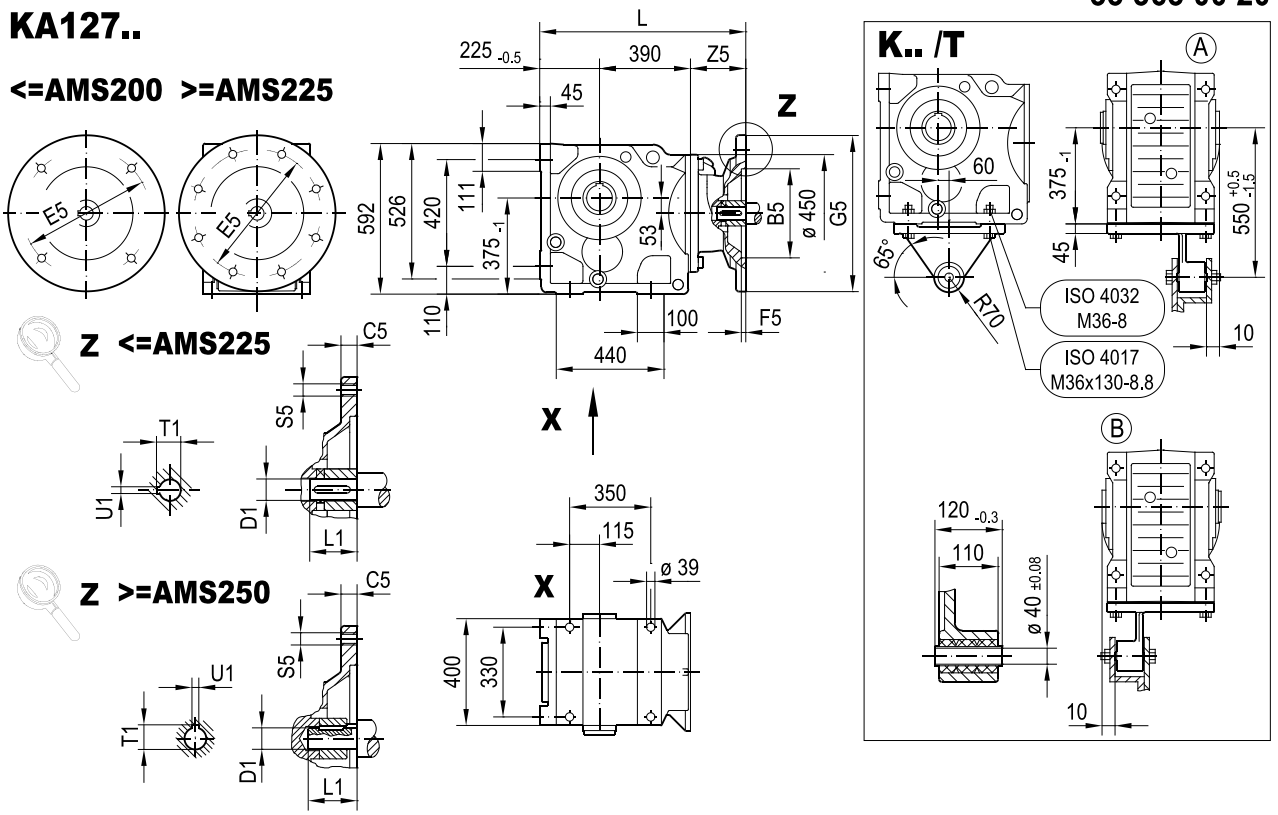
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS250	450	25	500	7	550	913	M16	297.5	65	140	69.4	18
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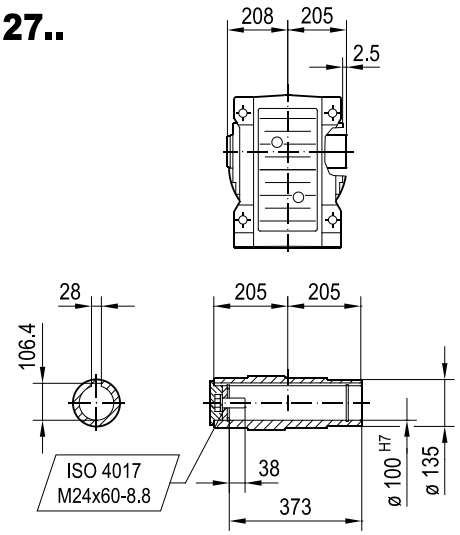
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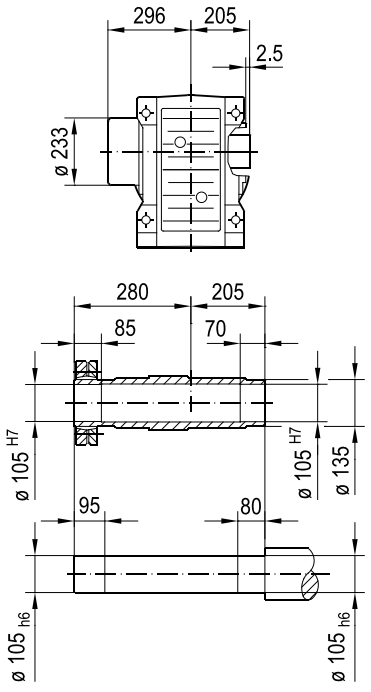
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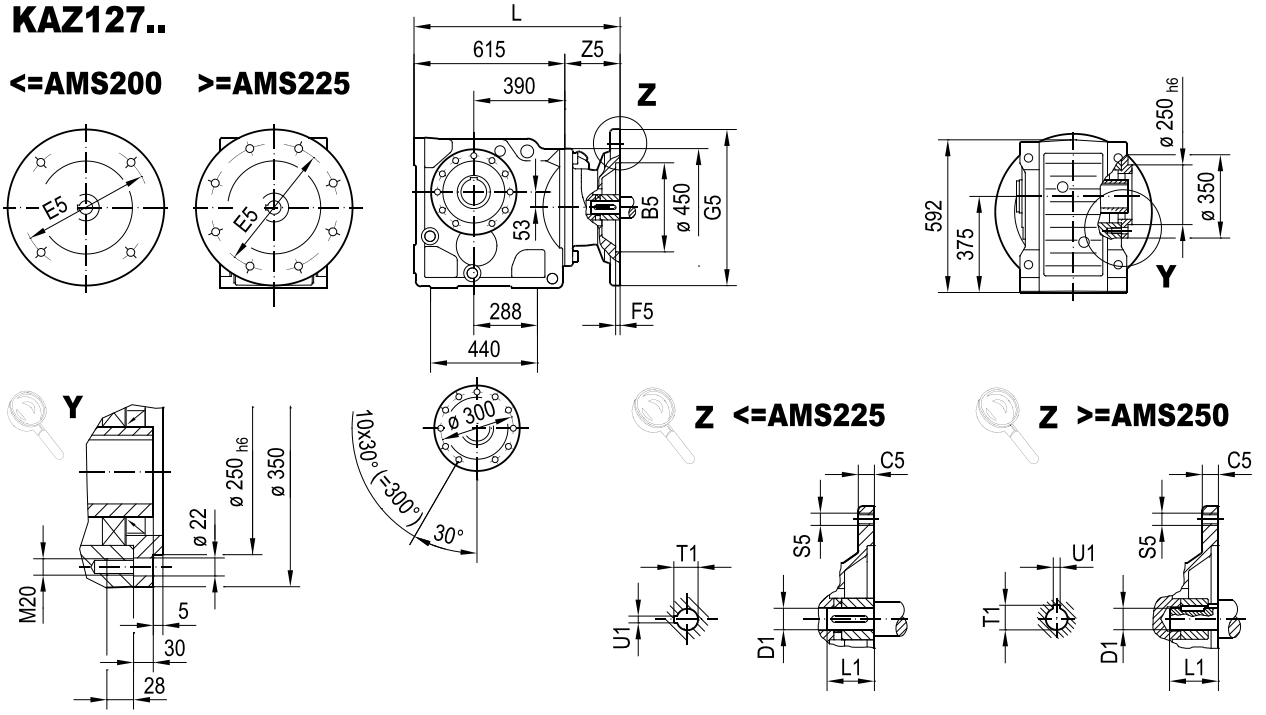


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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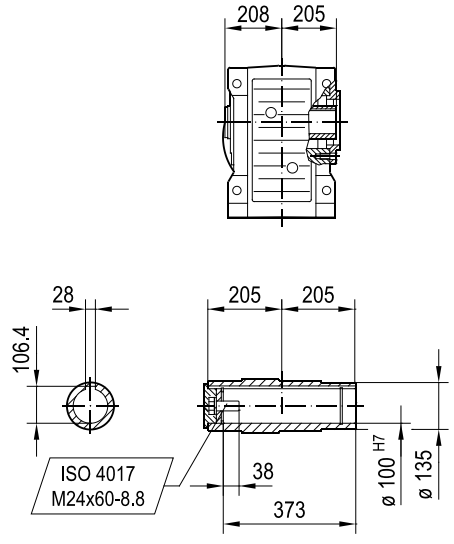
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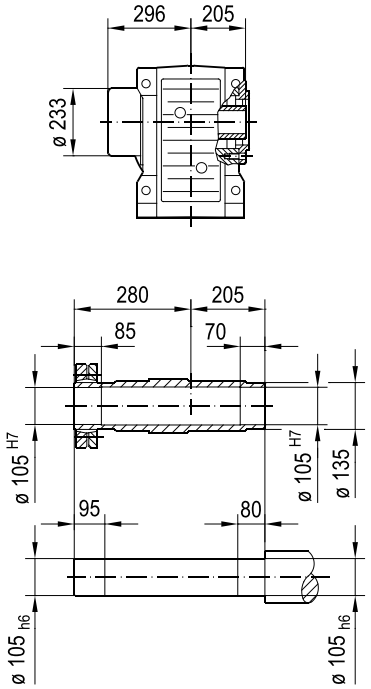
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KHZ127..



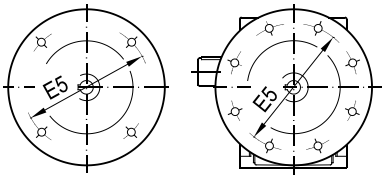
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS250	450	25	500	7	550	913	M16	297.5	65	140	69.4	18
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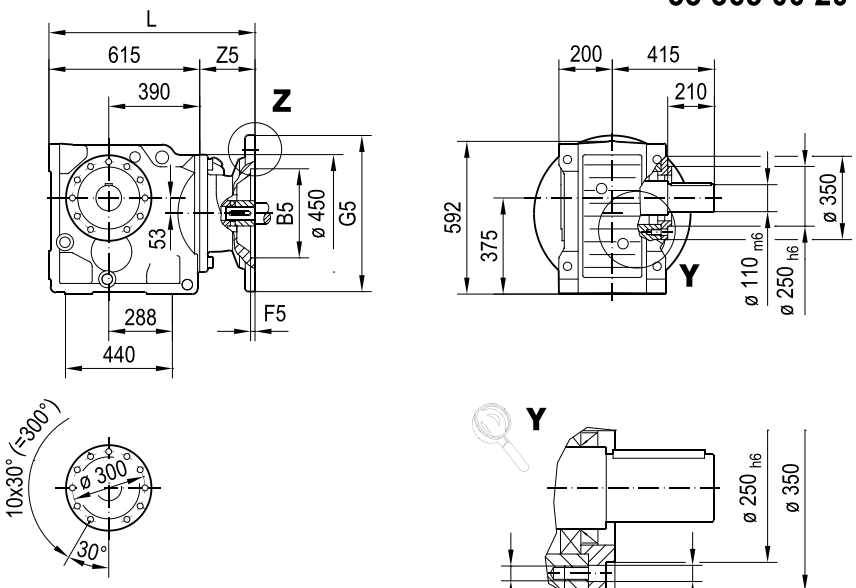
27797880/EN – 03/2023

33 365 00 20

KZ127..

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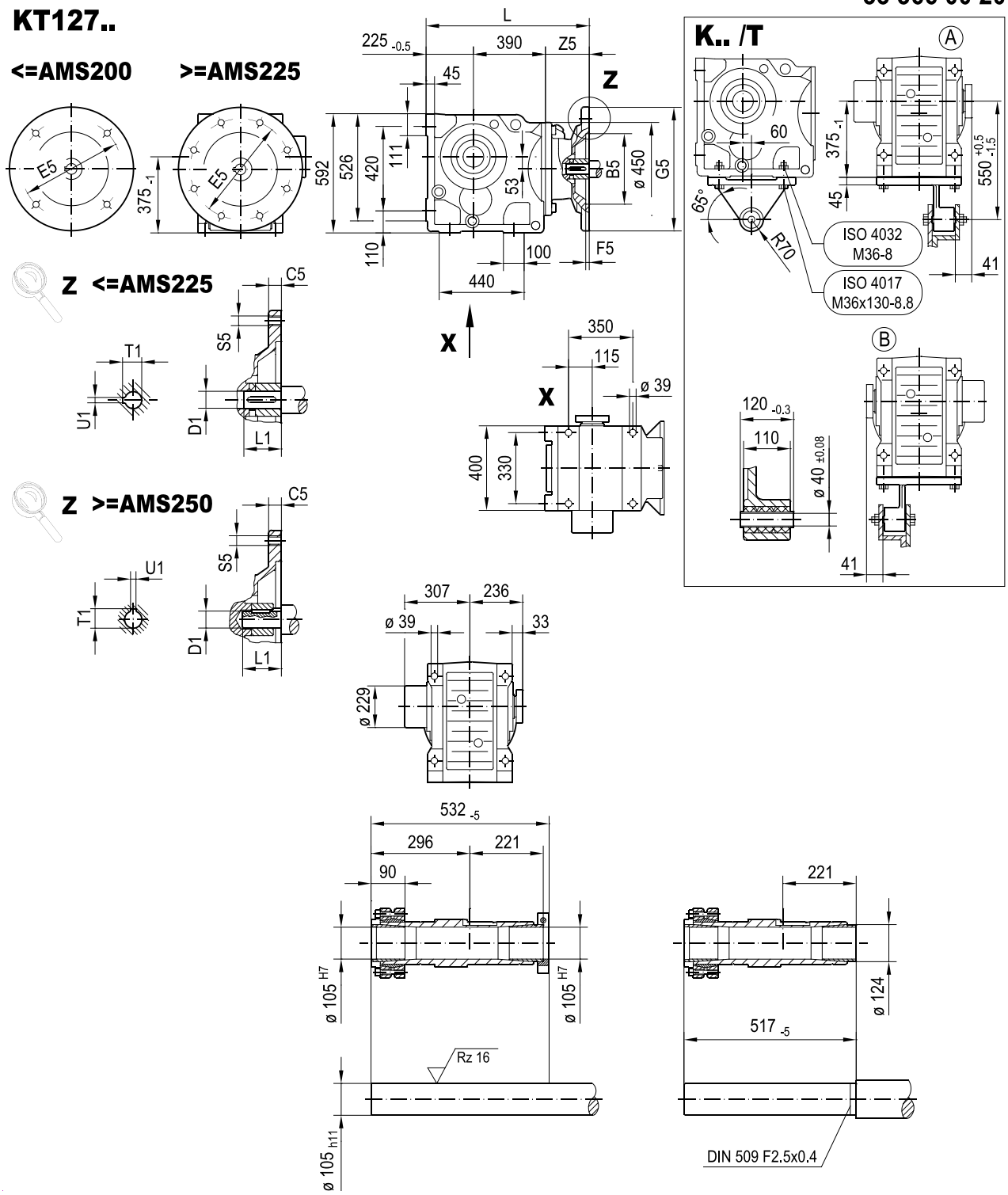




(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS132S/M	230	16	265	5	300	710	M12	95	38	80	41.3	10
AMS132ML	230	16	265	5	300	710	M12	95	38	80	41.3	10
AMS160	250	18	300	6	350	773	M16	158	42	110	45.3	12
AMS180	250	18	300	6	350	773	M16	158	48	110	51.8	14
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AMS250	450	25	500	7	550	913	M16	297.5	65	140	69.4	18
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33 366 00 20



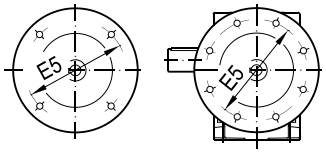
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS225	350	22	400	7	450	849	M16	234	60	140	64.4	18
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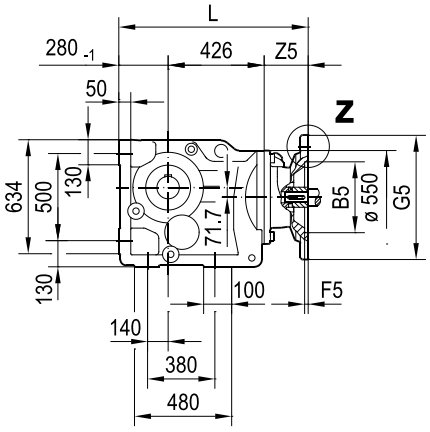
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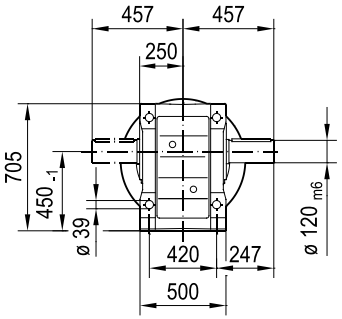
33 367 00 20

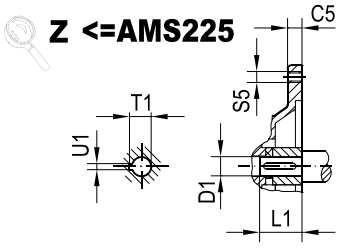
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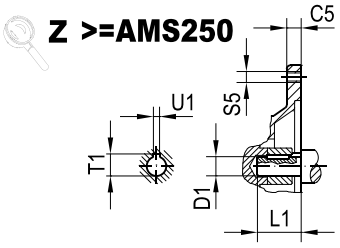
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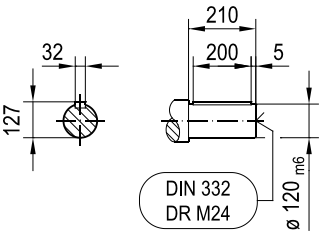




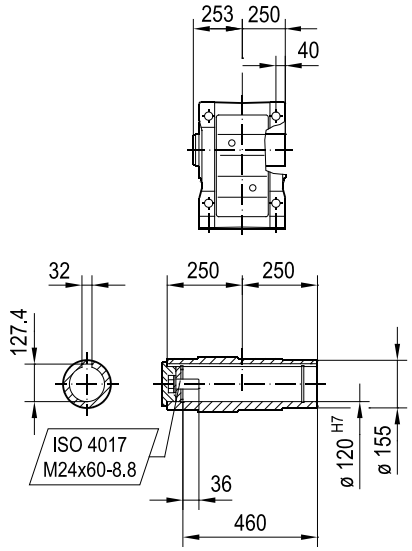




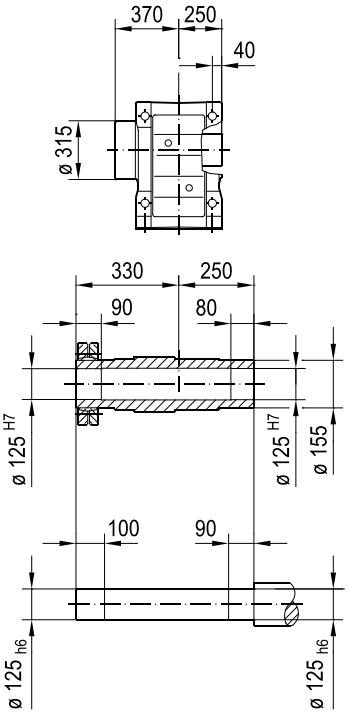




KA157B..



KH157B..

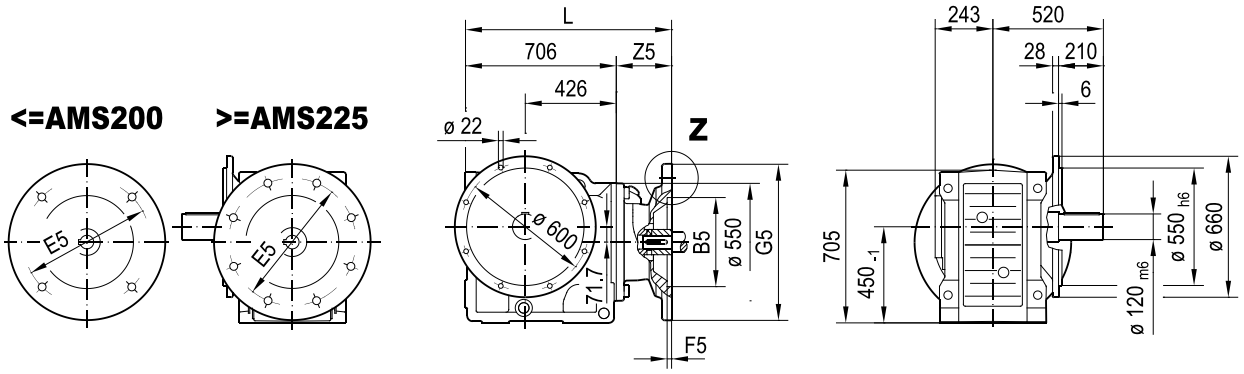


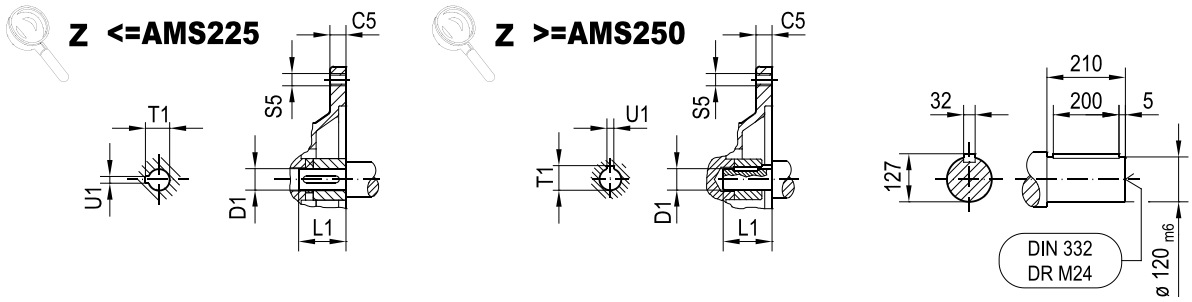
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS160	250	18	300	6	350	856	M16	150	42	110	45.3	12
AMS180	250	18	300	6	350	856	M16	150	48	110	51.8	14
AMS200	300	20	350	7	400	917	M16	211	55	110	59.3	16
AMS225	350	22	400	7	450	932	M16	226	60	140	64.4	18
AMS250	450	25	500	7	550	996	M16	289.5	65	140	69.4	18
AMS280	450	25	500	7	550	996	M16	289.5	75	140	79.9	20

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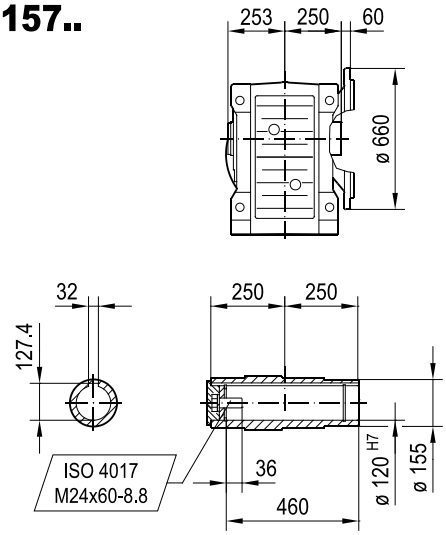
33 368 00 20

KF157..

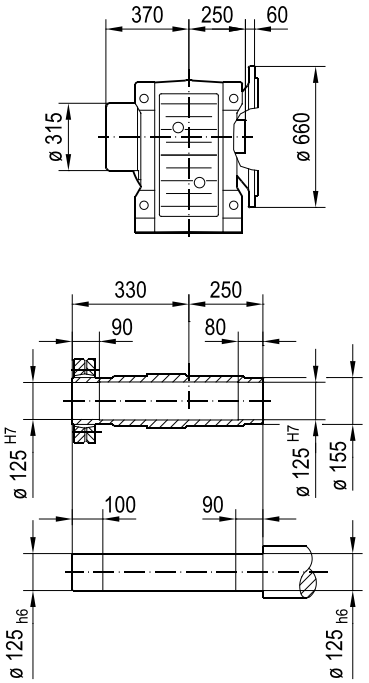




KAF157..



KHF157..

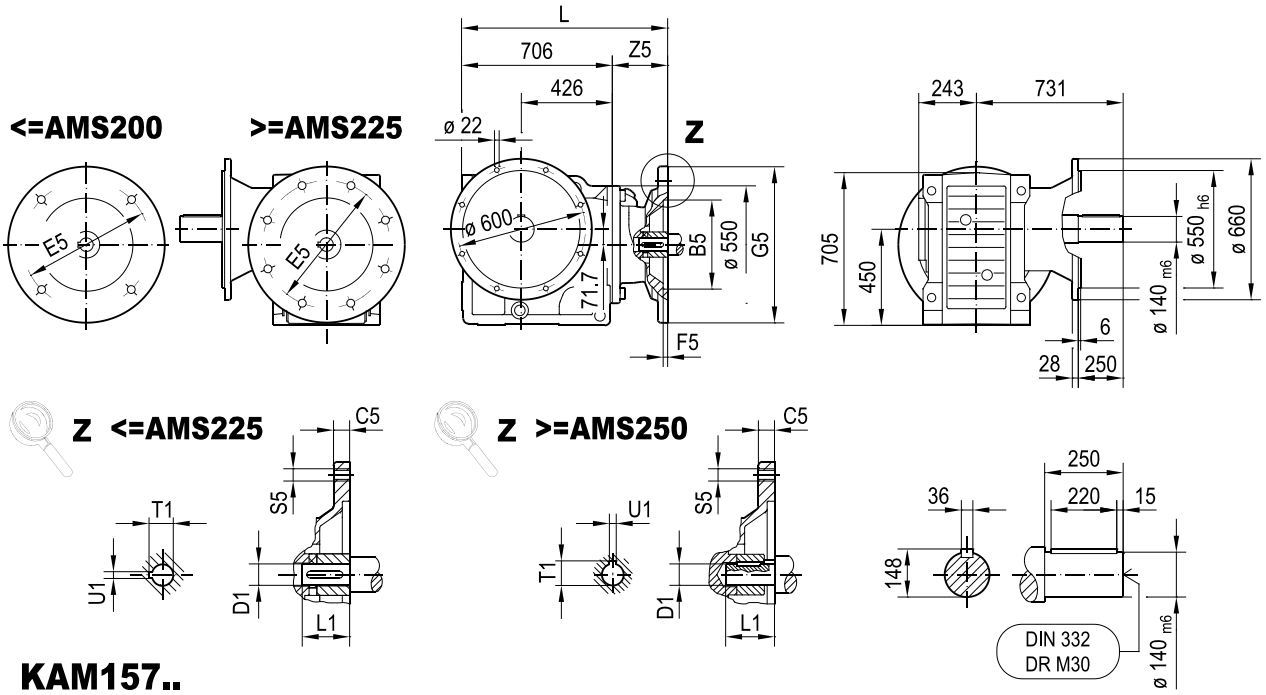


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS160	250	18	300	6	350	856	M16	150	42	110	45.3	12
AMS180	250	18	300	6	350	856	M16	150	48	110	51.8	14
AMS200	300	20	350	7	400	917	M16	211	55	110	59.3	16
AMS225	350	22	400	7	450	932	M16	226	60	140	64.4	18
AMS250	450	25	500	7	550	996	M16	289.5	65	140	69.4	18
AMS280	450	25	500	7	550	996	M16	289.5	75	140	79.9	20

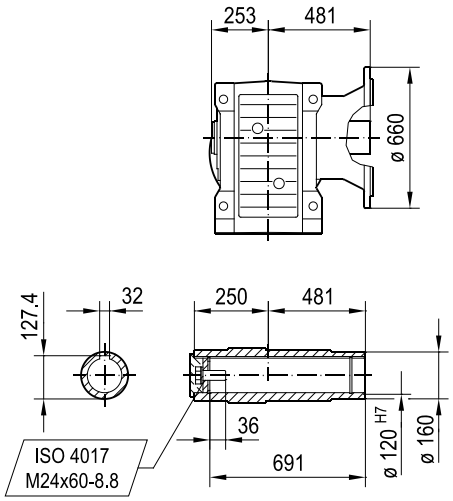
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33 369 00 20

KM157..



KAM157..

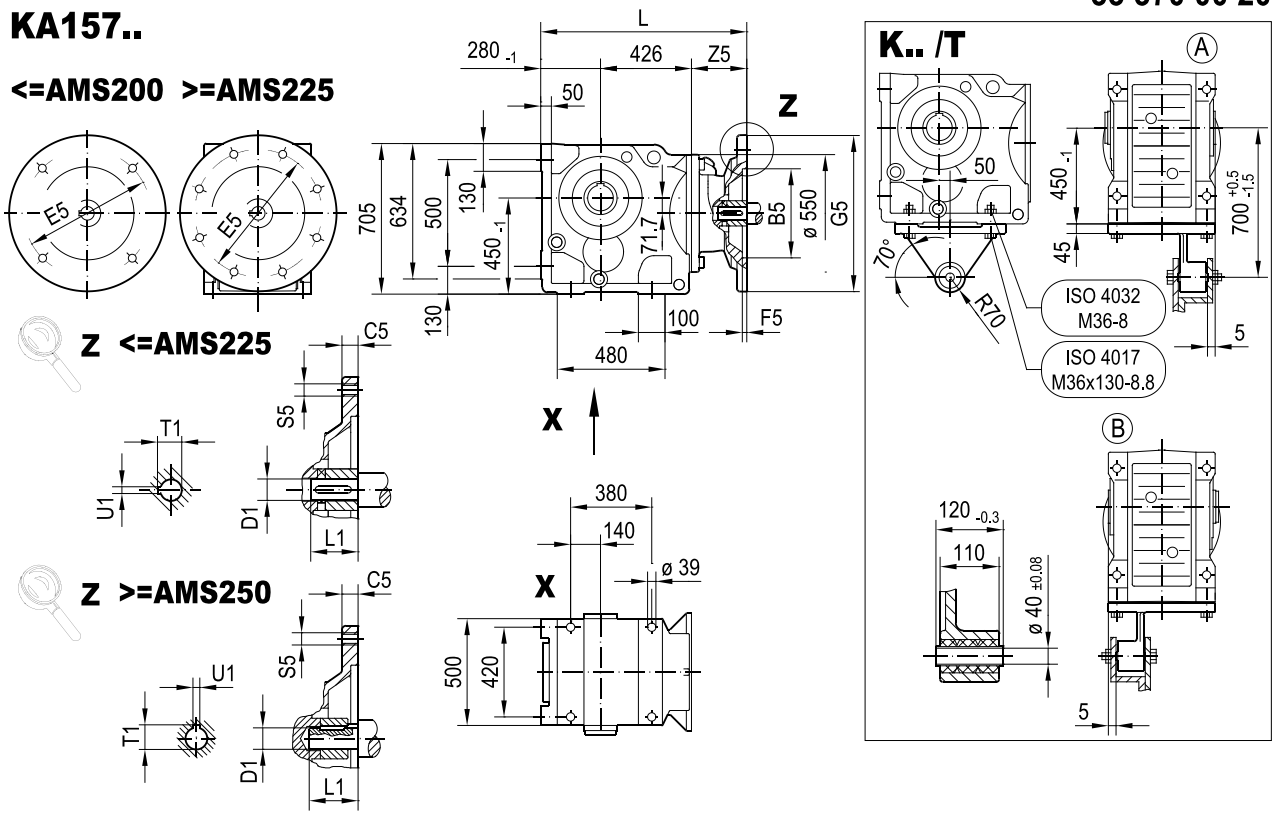


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS160	250	18	300	6	350	856	M16	150	42	110	45.3	12
AMS180	250	18	300	6	350	856	M16	150	48	110	51.8	14
AMS200	300	20	350	7	400	917	M16	211	55	110	59.3	16
AMS225	350	22	400	7	450	932	M16	226	60	140	64.4	18
AMS250	450	25	500	7	550	996	M16	289.5	65	140	69.4	18
AMS280	450	25	500	7	550	996	M16	289.5	75	140	79.9	20

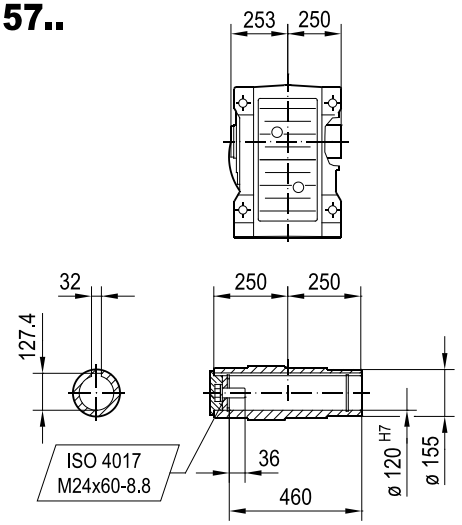
33 370 00 20

KA157..

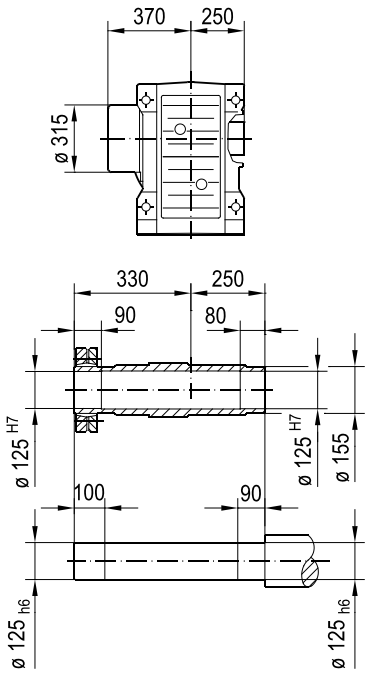
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KA157..



KH157..



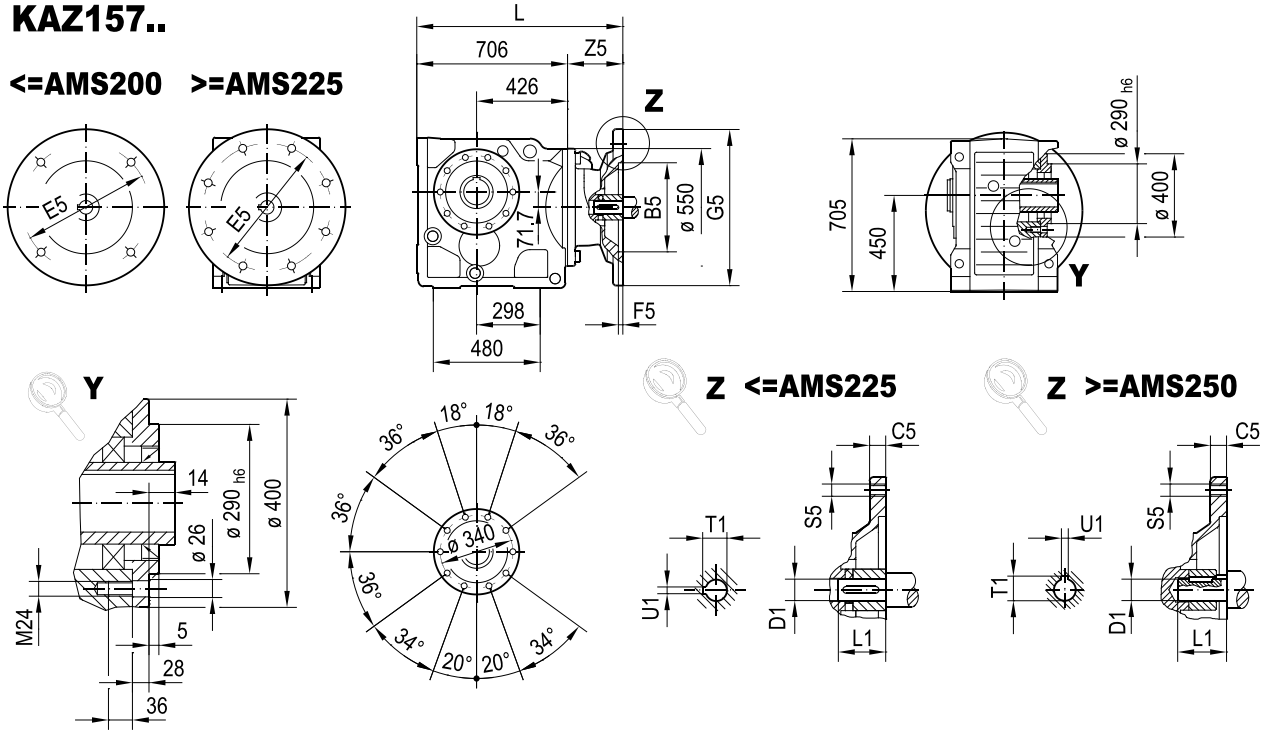
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS160	250	18	300	6	350	856	M16	150	42	110	45.3	12
AMS180	250	18	300	6	350	856	M16	150	48	110	51.8	14
AMS200	300	20	350	7	400	917	M16	211	55	110	59.3	16
AMS225	350	22	400	7	450	932	M16	226	60	140	64.4	18
AMS250	450	25	500	7	550	996	M16	289.5	65	140	69.4	18
AMS280	450	25	500	7	550	996	M16	289.5	75	140	79.9	20

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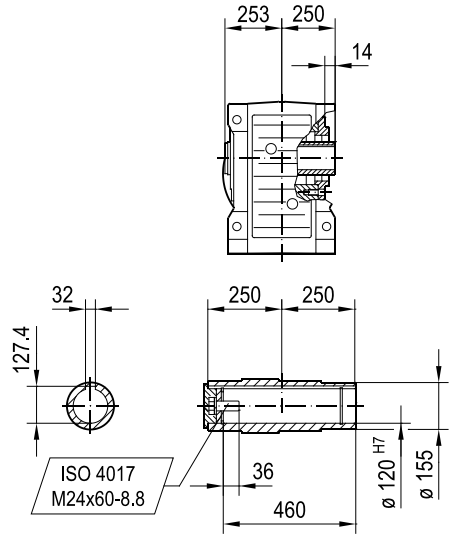
33 371 00 20

KAZ157..

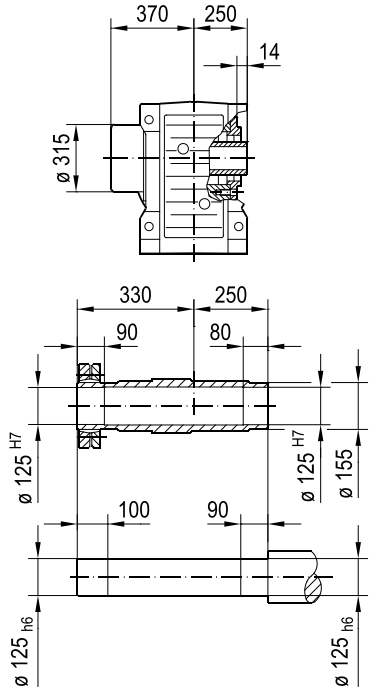
<=AMS200 >=AMS225



KAZ157..



KHZ157..



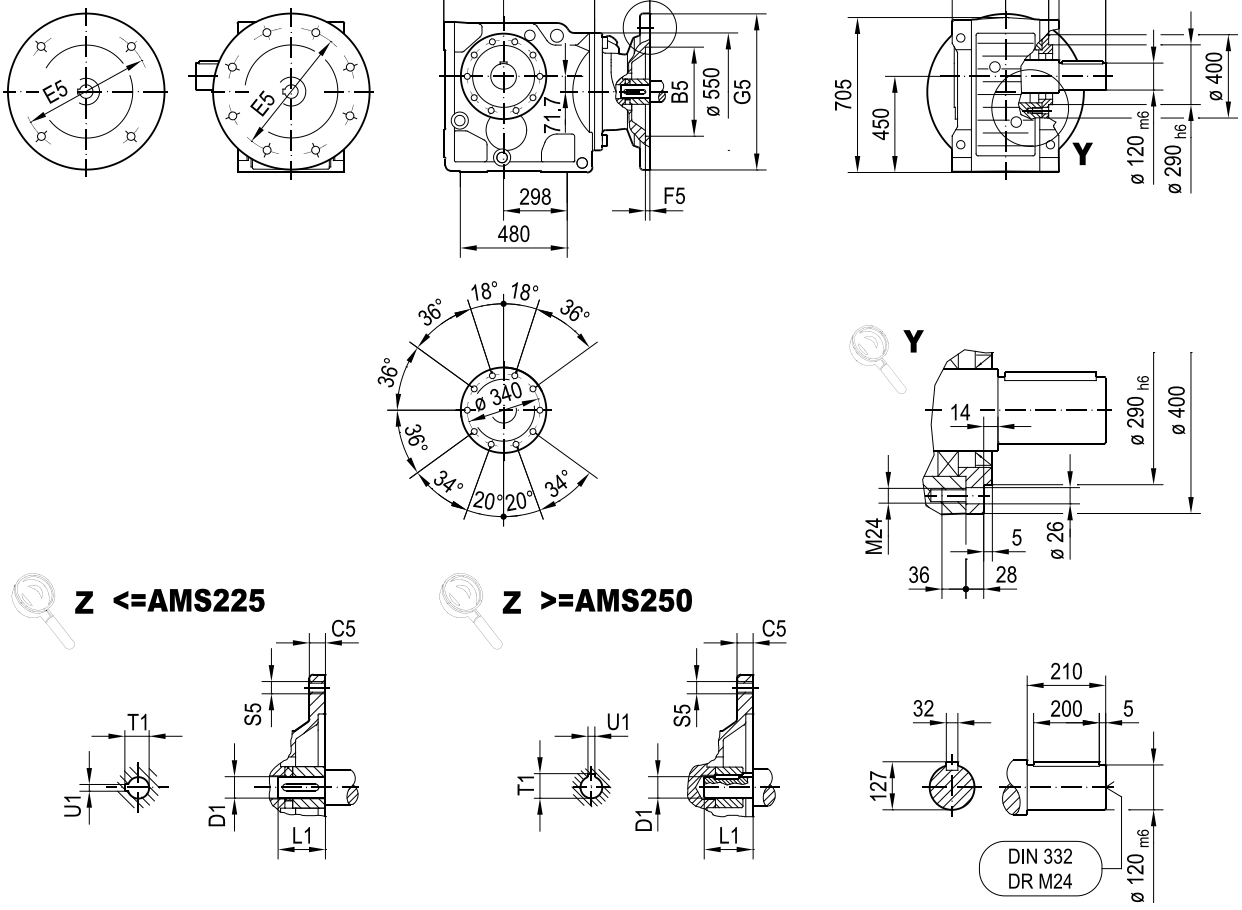
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS160	250	18	300	6	350	856	M16	150	42	110	45.3	12
AMS180	250	18	300	6	350	856	M16	150	48	110	51.8	14
AMS200	300	20	350	7	400	917	M16	211	55	110	59.3	16
AMS225	350	22	400	7	450	932	M16	226	60	140	64.4	18
AMS250	450	25	500	7	550	996	M16	289.5	65	140	69.4	18
AMS280	450	25	500	7	550	996	M16	289.5	75	140	79.9	20

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33 372 00 20

KZ157..

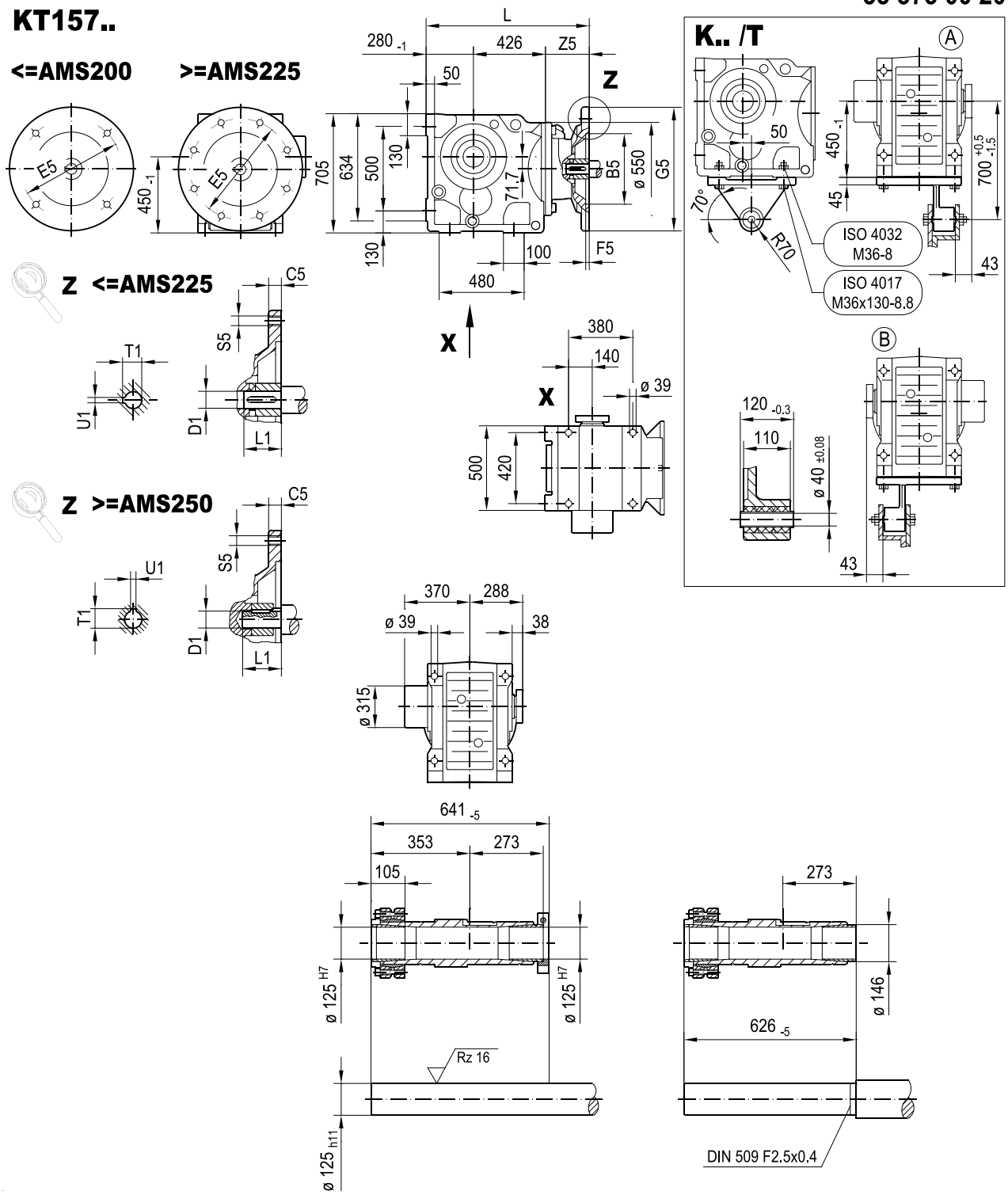
<=AMS200 >=AMS225



(→ 📖 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

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33 373 00 20

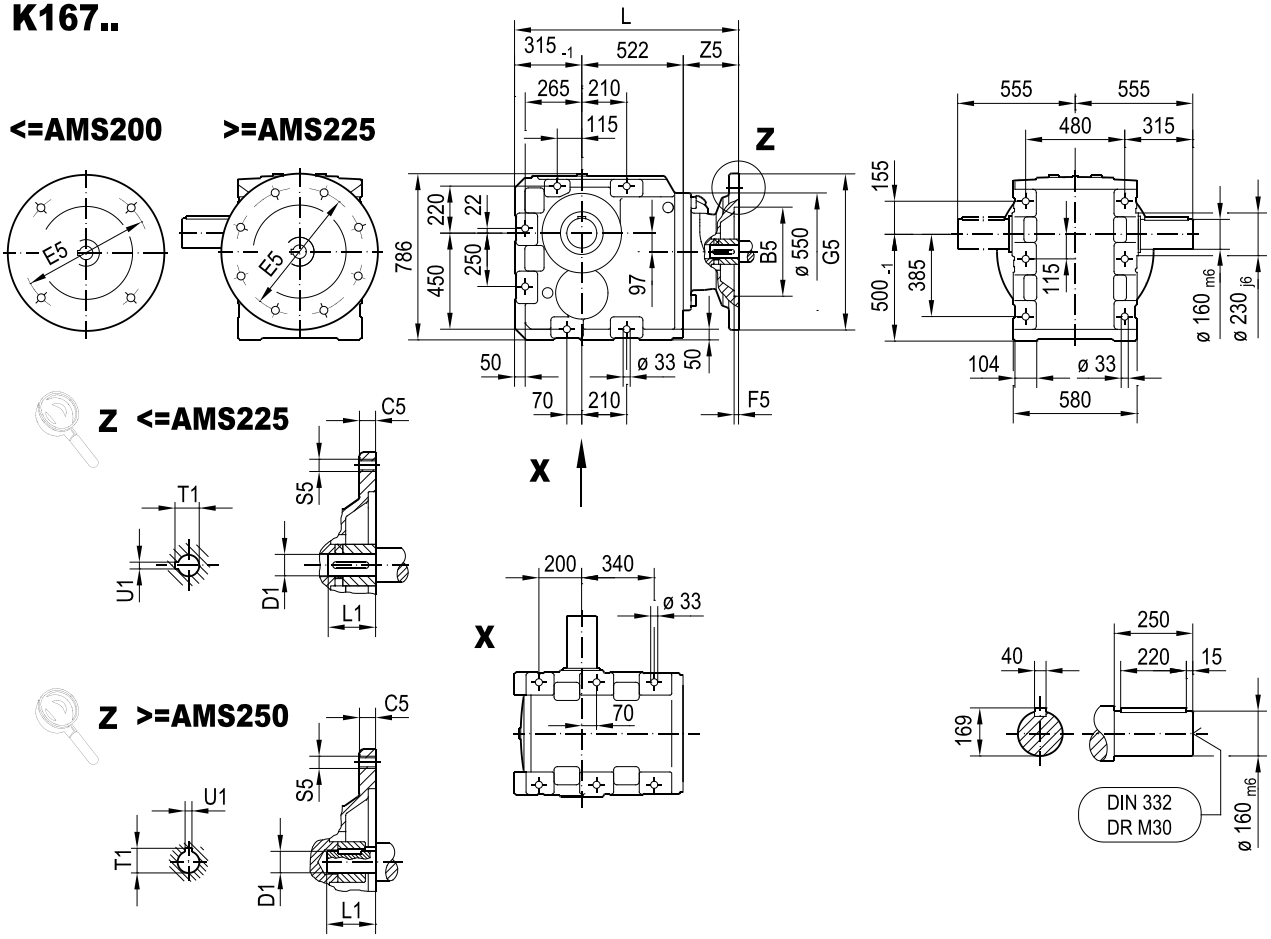


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS160	250	18	300	6	350	856	M16	150	42	110	45.3	12
AMS180	250	18	300	6	350	856	M16	150	48	110	51.8	14
AMS200	300	20	350	7	400	917	M16	211	55	110	59.3	16
AMS225	350	22	400	7	450	932	M16	226	60	140	64.4	18
AMS250	450	25	500	7	550	996	M16	289.5	65	140	69.4	18
AMS280	450	25	500	7	550	996	M16	289.5	75	140	79.9	20

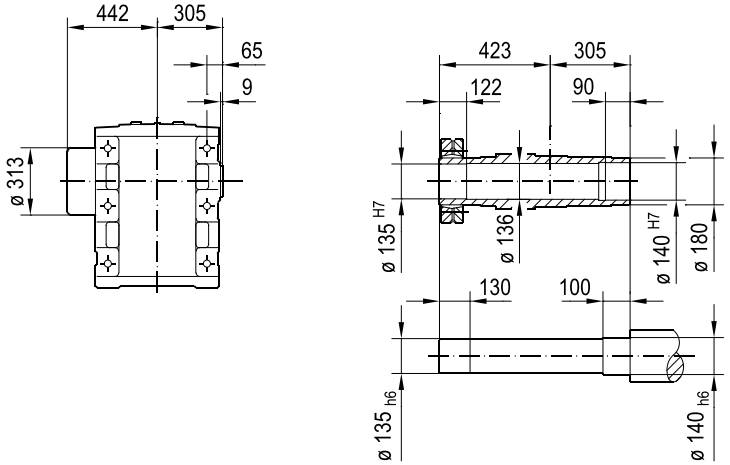
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33 374 00 20

K167..



KH167B..

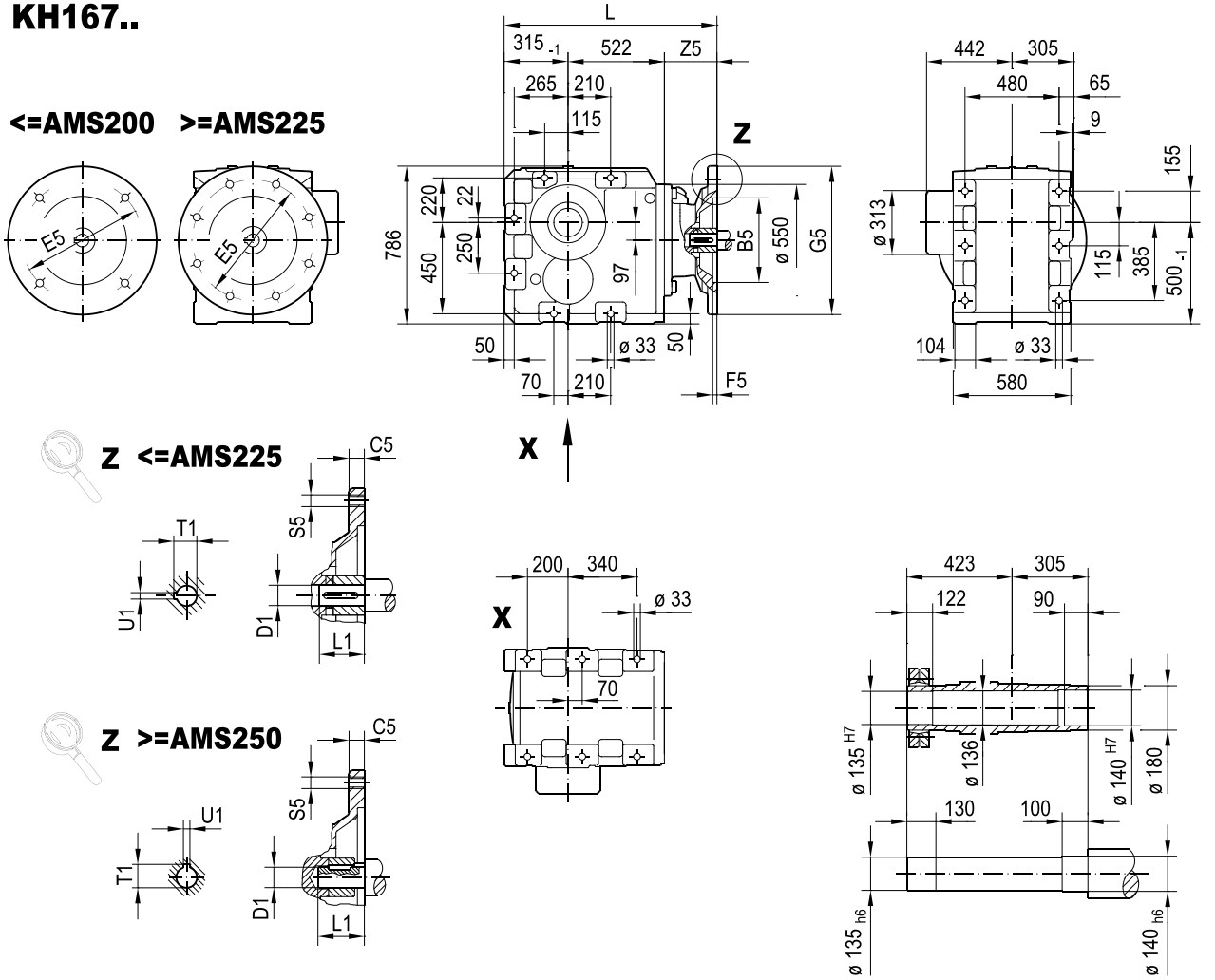


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS160	250	18	300	6	350	987	M16	150	42	110	45.3	12
AMS180	250	18	300	6	350	987	M16	150	48	110	51.8	14
AMS200	300	20	350	7	400	1048	M16	211	55	110	59.3	16
AMS225	350	22	400	7	450	1063	M16	226	60	140	64.4	18
AMS250	450	25	500	7	550	1127	M16	289.5	65	140	69.4	18
AMS280	450	25	500	7	550	1127	M16	289.5	75	140	79.9	20

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33 375 00 20

KH167..

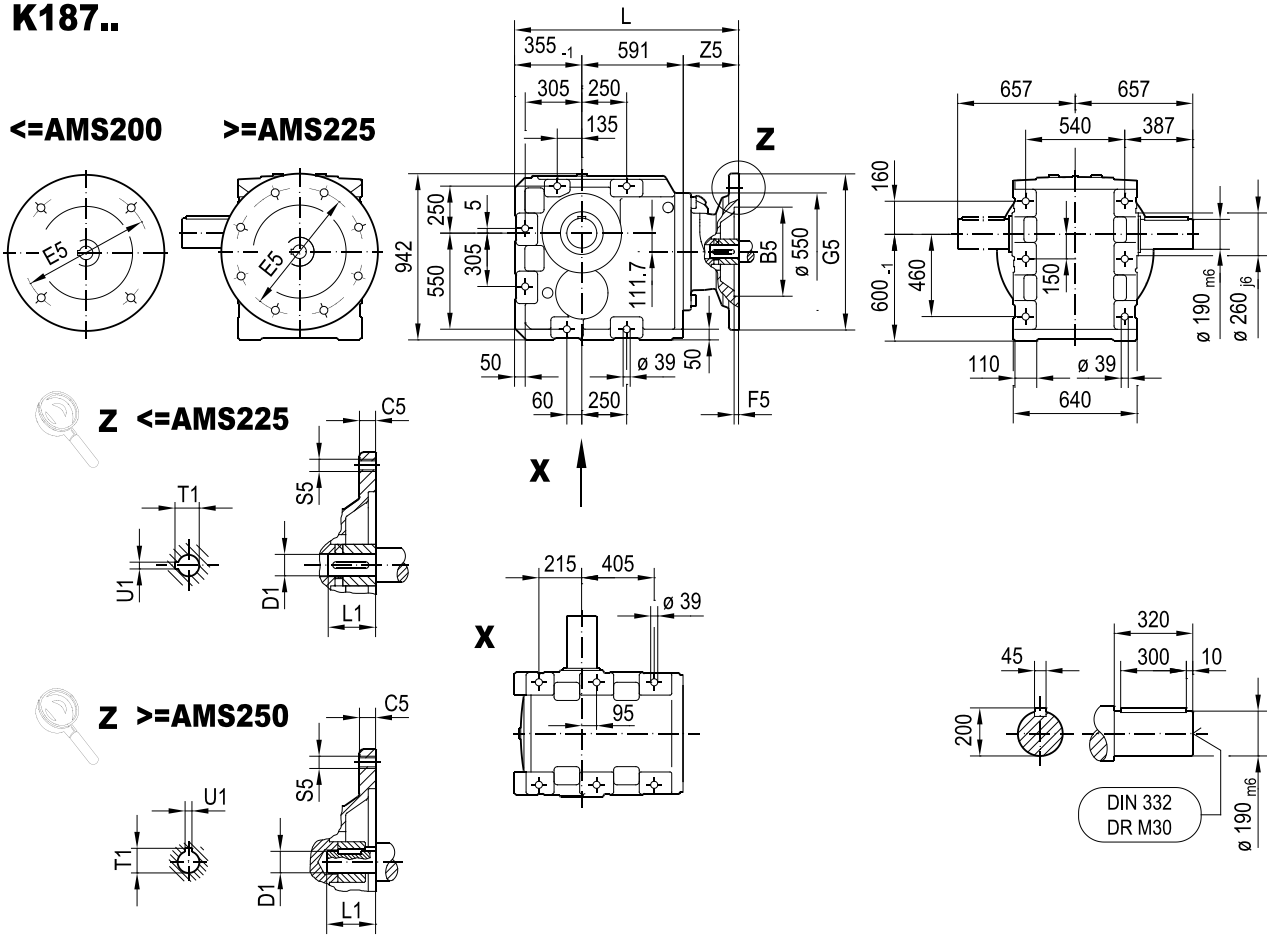


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS160	250	18	300	6	350	987	M16	150	42	110	45.3	12
AMS180	250	18	300	6	350	987	M16	150	48	110	51.8	14
AMS200	300	20	350	7	400	1048	M16	211	55	110	59.3	16
AMS225	350	22	400	7	450	1063	M16	226	60	140	64.4	18
AMS250	450	25	500	7	550	1127	M16	289.5	65	140	69.4	18
AMS280	450	25	500	7	550	1127	M16	289.5	75	140	79.9	20

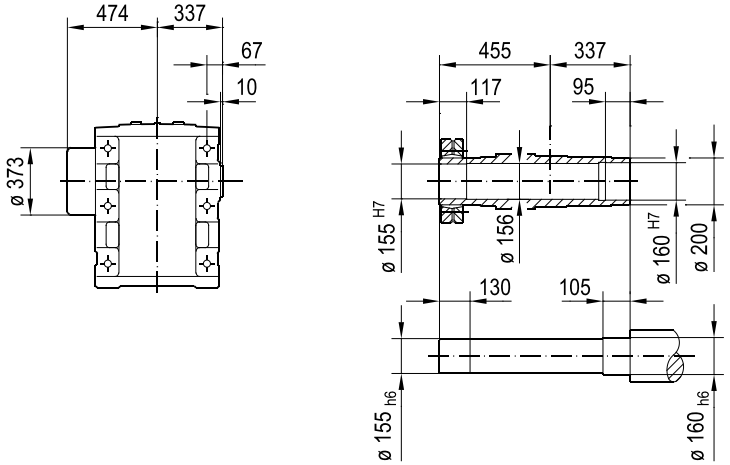
27797880/EN – 03/2023

33 376 00 20

K187..



KH187B..

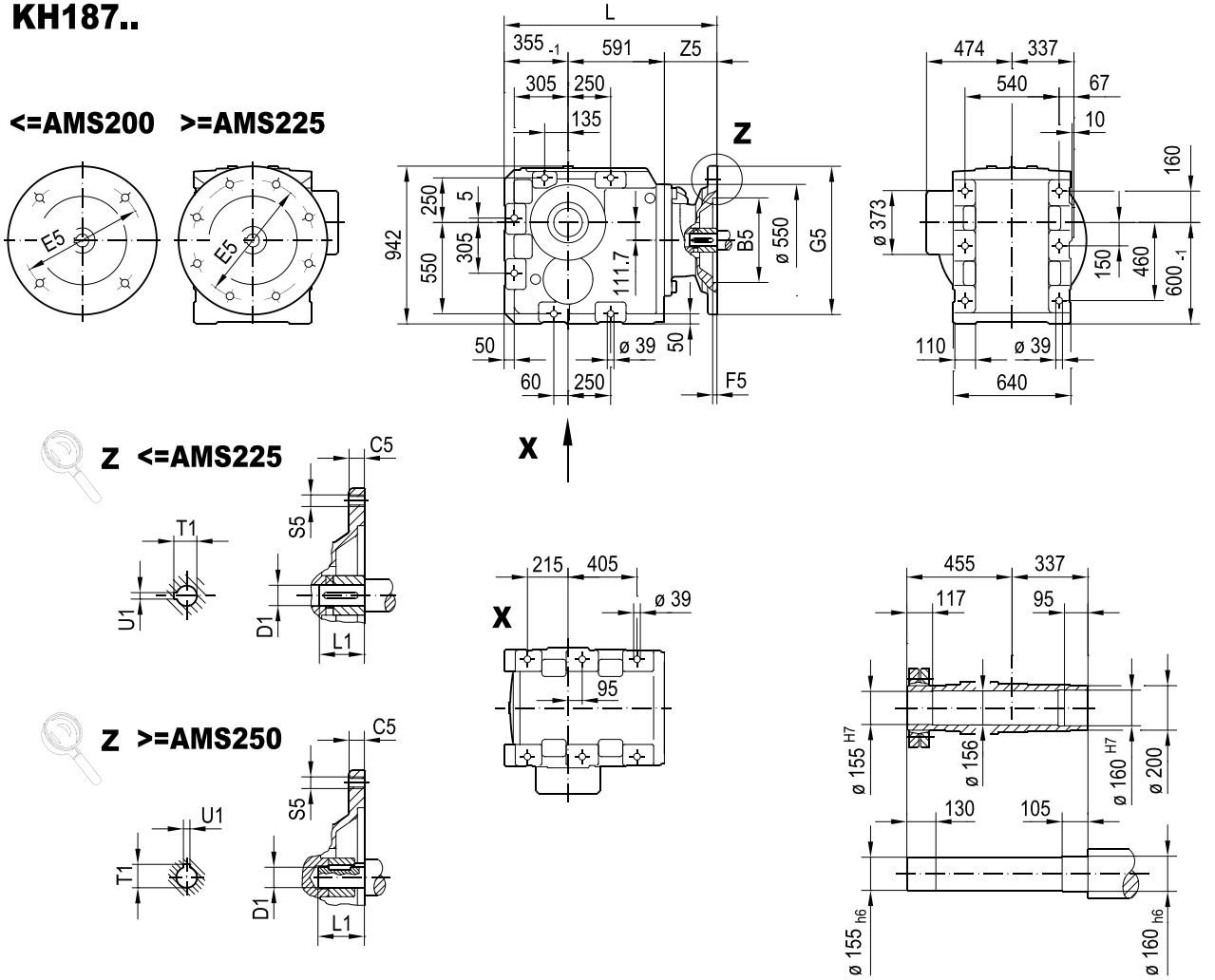


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS160	250	18	300	6	350	1096	M16	150	42	110	45.3	12
AMS180	250	18	300	6	350	1096	M16	150	48	110	51.8	14
AMS200	300	20	350	7	400	1157	M16	211	55	110	59.3	16
AMS225	350	22	400	7	450	1172	M16	226	60	140	64.4	18
AMS250	450	25	500	7	550	1236	M16	289.5	65	140	69.4	18
AMS280	450	25	500	7	550	1236	M16	289.5	75	140	79.9	20

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33 377 00 20

KH187..

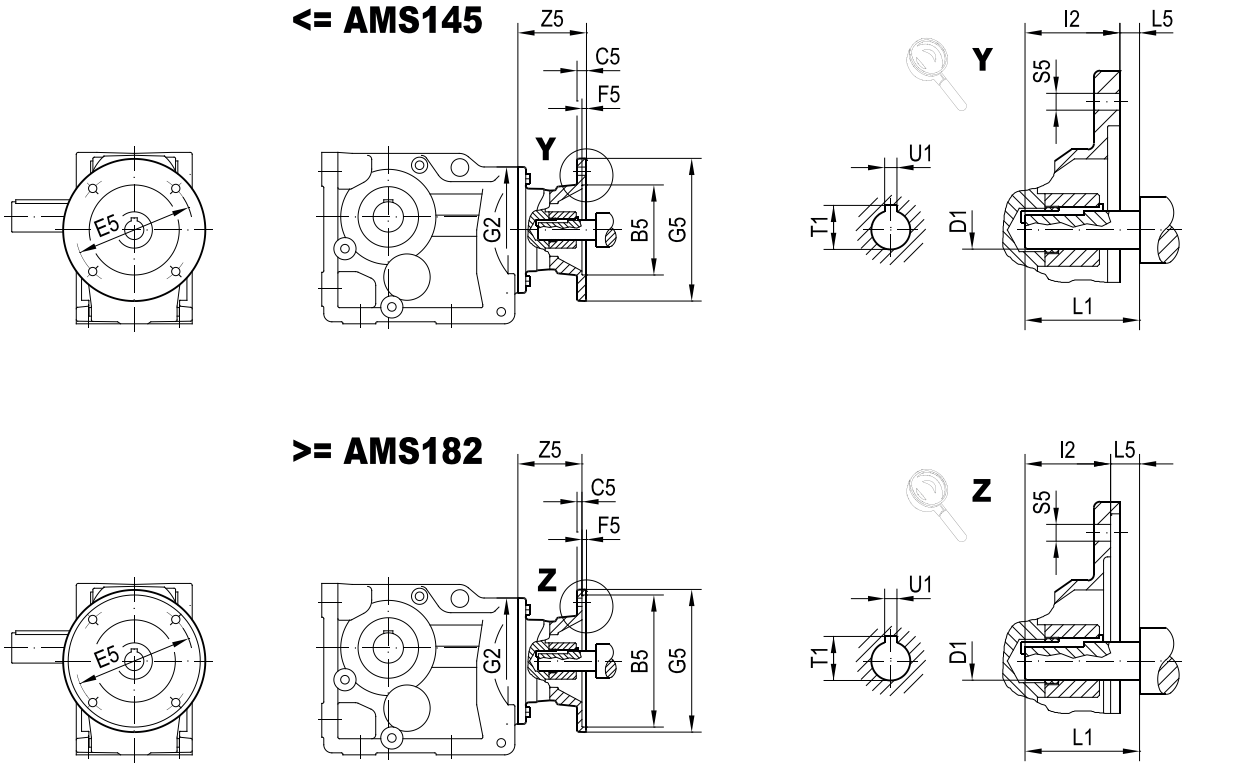


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS160	250	18	300	6	350	1096	M16	150	42	110	45.3	12
AMS180	250	18	300	6	350	1096	M16	150	48	110	51.8	14
AMS200	300	20	350	7	400	1157	M16	211	55	110	59.3	16
AMS225	350	22	400	7	450	1172	M16	226	60	140	64.4	18
AMS250	450	25	500	7	550	1236	M16	289.5	65	140	69.4	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

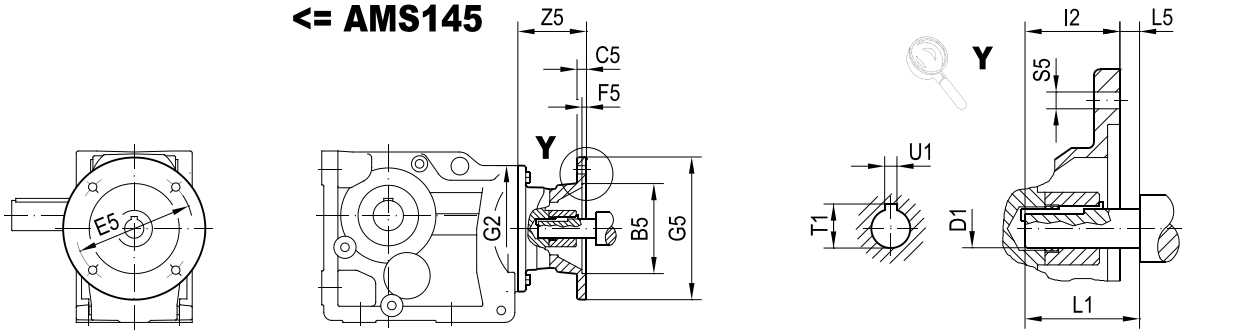


		B5	C5	E5	F5	G2	G5	I2	L5	S5	Z5	D1	L1	T1	U1
K..19 K..29 K..37	AMS56	114.3	11	149.2	4.5	120	170	52.3	-4.6	10.5	81.5	15.875	47.8	18.1	4.76
	AMS143	114.3	12	149.2	4.5	120	170	53.8	3.3	10.5	93.5	22.225	57.2	24.7	4.76
	AMS145	114.3	14	149.2	4.5	120	170	53.8	3.3	10.5	93.5	22.225	57.2	24.7	4.76
K..39 K..47 K..57 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

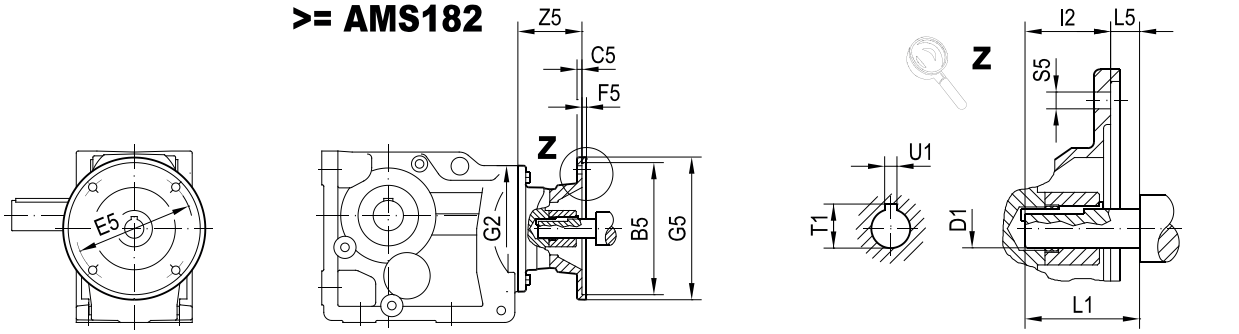
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33 378 00 20

<= AMS145



>= AMS182



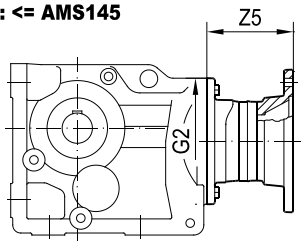
		B5	C5	E5	F5	G2	G5	I2	L5	S5	Z5	D1	L1	T1	U1
K..97	AMS182	215.9	10	184	5	300	228	66.6	3.3	15	96	28.575	69.9	31.7	6.35
	AMS184	215.9	10	184	5	300	228	66.6	3.3	15	96	28.575	69.9	31.7	6.35
	AMS213/215	215.9	11	184	5	300	228	79.2	6.6	15	120.5	34.925	85.9	38.7	7.94
	AMS254/256	215.9	12	184	5	300	228	95.3	6.4	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	246.5	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	231.5	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	223.5	60.325	149.4	67.6	15.88

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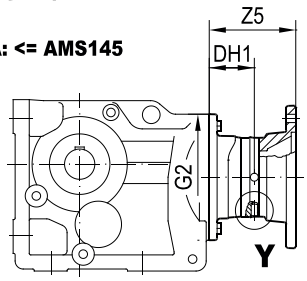
10.6 Dimension sheets for adapters with backstop (RS..) and drain hole (DH..)

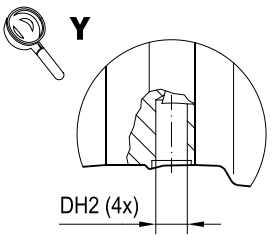
33 393 01 20

AMS.. /RS
IEC
NEMA: <= AMS145

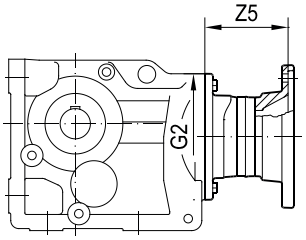


AMS.. /DH
IEC
NEMA: <= AMS145

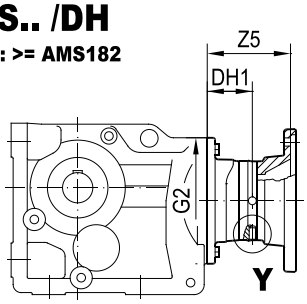




AMS.. /RS
NEMA: >= AMS182



AMS.. /DH
NEMA: >= AMS182



		/RS		/DH			
		G2	Z5	G2	Z5	DH1	DH2
K..19 K..29 K..37	AMS56	–	–	120	105	60	9
	AMS63	–	–	120	78.5	46	9
	AMS71	–	–	120	78.5	46	9
	AMS80	120	121	120	97.5	60	9
	AMS90	120	121	120	109	64	9
	AMS143	120	128.5	120	116.5	64	9
	AMS145	120	128.5	120	116.5	64	9
K..39 K..47 K..57 K..67	AMS56	–	–	160	98.5	54	9
	AMS63	–	–	160	72	40	9
	AMS71	–	–	160	72	40	9
	AMS80	160	114.5	160	91	54	9
	AMS90	160	114.5	160	102.5	57	9
	AMS100	160	153	160	153	97	9
	AMS112	160	153	160	153	97	9
	AMS132S/M	160	181.5	160	181.5	116	9
	AMS143	160	122	160	110	57	9
	AMS145	160	122	160	110	57	9
	AMS182	160	158.5	160	158.5	97	9
	AMS184	160	158.5	160	158.5	97	9
	AMS213/215	160	186	160	186	116	9

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		/RS		/DH			
		G2	Z5	G2	Z5	DH1	DH2
K..49 K..77	AMS56	–	–	200	91.5	47	9
	AMS63	–	–	200	66	34	9
	AMS71	–	–	200	66	34	9
	AMS80	200	107.5	200	84	47	9
	AMS90	200	107.5	200	95.5	50	9
	AMS100	200	145	200	145	89	9
	AMS112	200	145	200	145	89	9
	AMS132ML	200	173.5	200	173.5	108	9
	AMS132S/M	200	173.5	200	173.5	108	9
	AMS143	200	115	200	103	50	9
	AMS145	200	115	200	103	50	9
	AMS182	200	150.5	200	150.5	89	9
	AMS184	200	150.5	200	150.5	89	9
	AMS213/215	200	178	200	178	108	9
K..87	AMS80	250	102.5	250	79	42	9
	AMS90	250	102.5	250	90.5	45	9
	AMS100	250	140	250	140	84	9
	AMS112	250	140	250	140	84	9
	AMS132ML	250	168.5	250	168.5	103	9
	AMS132S/M	250	168.5	250	168.5	103	9
	AMS143	250	110	250	98	45	9
	AMS145	250	110	250	98	45	9
	AMS160	250	184	250	222	124	8
	AMS180	250	184	250	222	124	8
	AMS182	250	145.5	250	145.5	84	9
	AMS184	250	145.5	250	145.5	84	9
	AMS213/215	250	173	250	173	103	9
	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	9
	AMS112	300	135	300	135	79	9
	AMS132ML	300	163.5	300	163.5	98	9
	AMS132S/M	300	163.5	300	163.5	98	9
	AMS160	300	179	300	217	119	8
	AMS180	300	179	300	217	119	8
	AMS182	300	140.5	300	140.5	79	9
	AMS184	300	140.5	300	140.5	79	9
	AMS200	300	240	300	240	141	8
	AMS213/215	300	168	300	168	98	9
	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

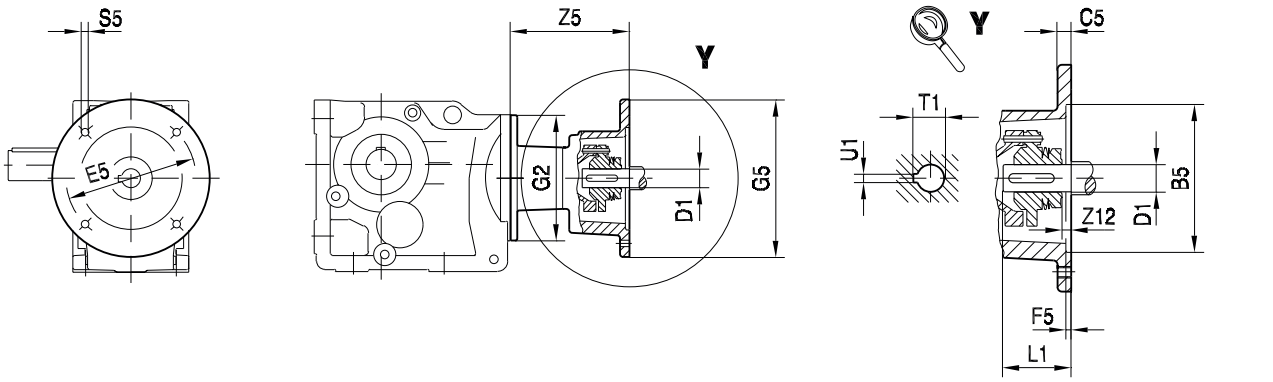
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		/RS		/DH			
		G2	Z5	G2	Z5	DH1	DH2
K..107	AMS100	350	129	350	129	73	9
	AMS112	350	129	350	129	73	9
	AMS132ML	350	157.5	350	157.5	92	9
	AMS132S/M	350	157.5	350	157.5	92	9
	AMS160	350	173	350	211	113	8
	AMS180	350	173	350	211	113	8
	AMS182	350	134.5	350	134.5	73	9
	AMS184	350	134.5	350	134.5	73	9
	AMS200	350	234	350	234	135	8
	AMS213/215	350	162	350	162	92	9
	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	9
	AMS132S/M	450	142.5	450	142.5	77	9
	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	9
	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

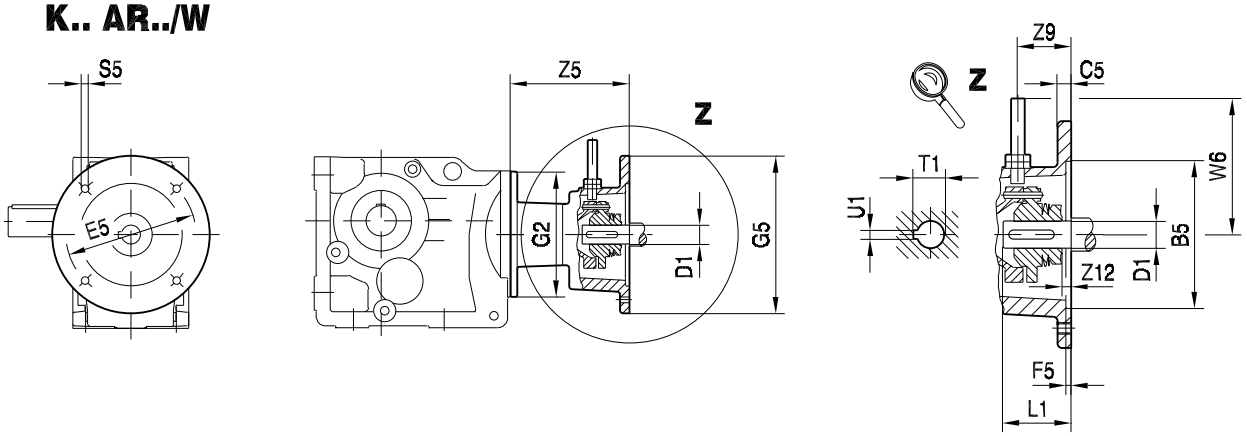
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10.7 Dimension sheets for adapters with slip clutch (AR..)

K.. AR.. **33 037 03 01**



K.. AR../W

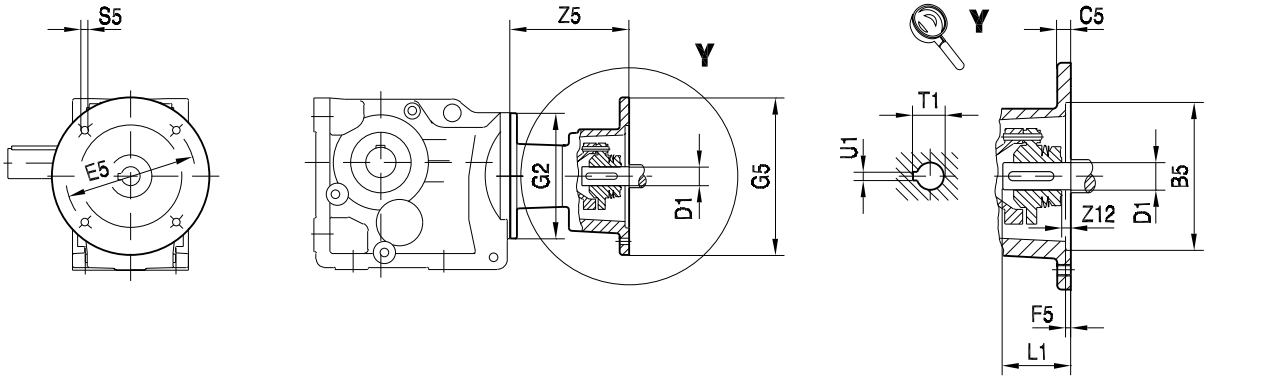


		B5	C5	E5	F5	G2	G5	S5	W6	Z5	Z9	Z12	D1	L1	T1	U1
K..19 K..29 K..37	AR71	110	10	130	3.5	120	160	M8	120	104	37	0	14	30	16.3	5
	AR80	130	12	165	4.5		200	M10		140.5			19	40	21.8	6
	AR90												24	50	27.3	8
K..39 K..47 K..57 K..67	AR71	110	10	130	3.5	160	160	M8	120	97.5	37	0	14	30	16.3	5
	AR80	130	12	165	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															
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															
	AR132S/M	230	16	265	5		300	M12	145	234	72	5	38	80	41.3	10
	AR132ML															
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															
	AR132S/M	230	16	265	5		300	M12	145	229	72	5	38	80	41.3	10
	AR132ML															
	AR160	250	18	300	6		350	M16	165	306.5	105	35	42	110	45.3	12
	AR180												48	110	51.8	14

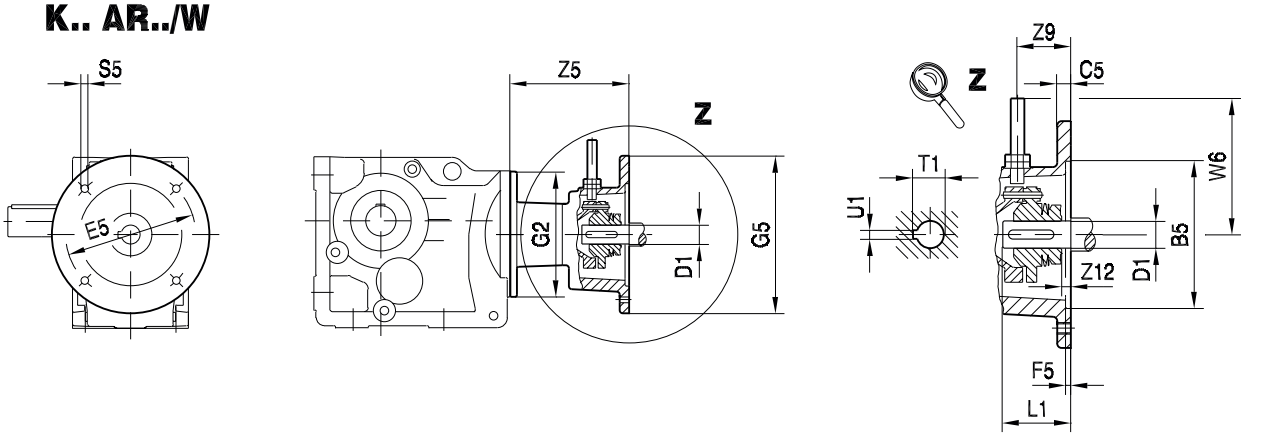
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K.. AR..

33 038 02 01



K.. AR../W

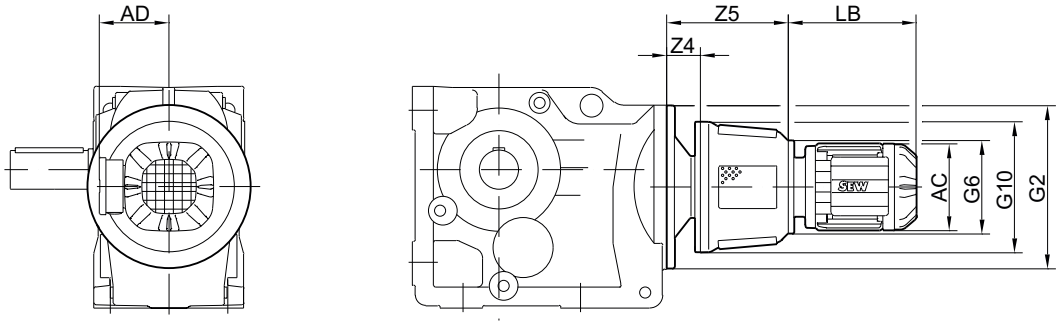


		B5	C5	E5	F5	G2	G5	S5	W6	Z5	Z9	Z12	D1	L1	T1	U1
K..97	AR100	180	15	215	5	300	250	M12	130	156.5	52	5.5	28	60	31.3	8
	AR112															
	AR132S/M	230	16	265	5		300	M12	145	224	72	5	38	80	41.3	10
	AR132ML															
	AR160	250	18	300	6		350	M16	165	301.5	105	35	42	110	45.3	12
	AR180												48	110	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															
	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	110	45.3	12
	AR180												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															
	AR160	250	18	300	6		350	M16	165	280.5	105	35	42	110	45.3	12
	AR180												48	110	51.8	14
K..157 K..167 K..187	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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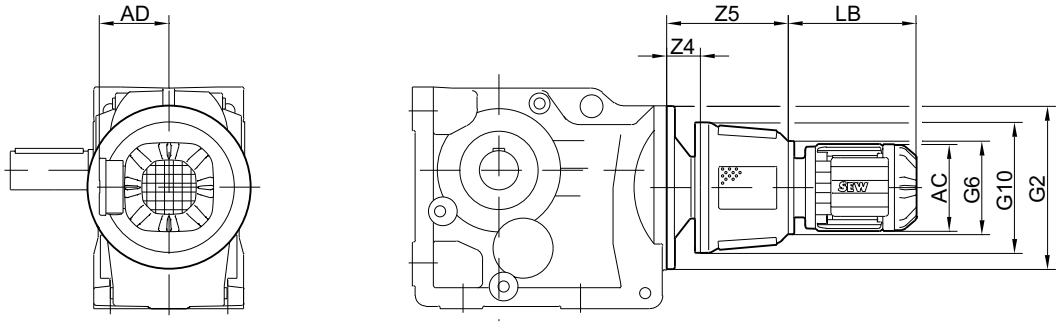
10.8 Dimension sheets for adapters with hydraulic start-up coupling (K..AT..)

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	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			
K77	**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	221	170			437			
K87	**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					437			
	AT541 AT542	DRN132S	221	170	350	470	437	159	478	
		DRN132M	261	228			439			
		DRN132L					464			
		DRN160M	316	253			532			
		DRN160L					532			

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36 002 04 01

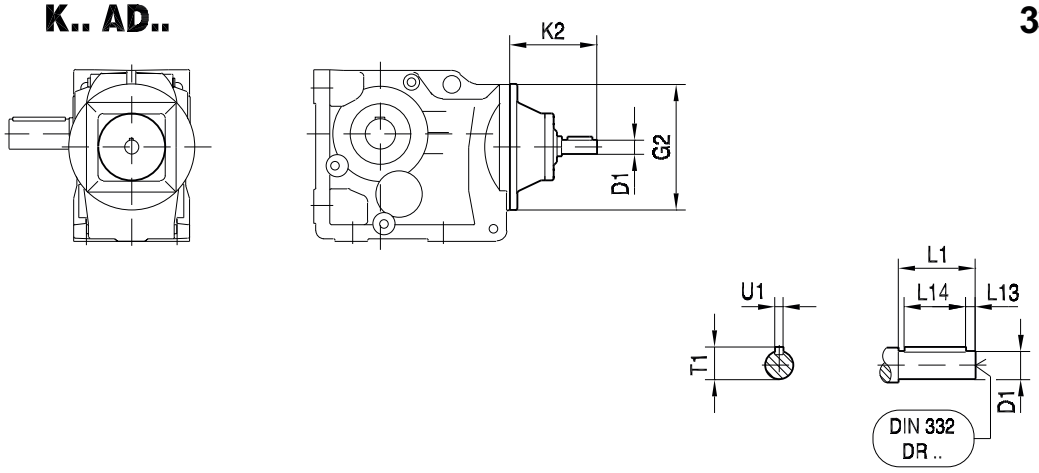
			AC	AD	G6	G10	LB	Z4	Z5	G2
K97	**AT311 AT312**	DRN90S	179	140	200	280	281	79	268	300
		DRM90L					313			
		DRN100LM	197	157			359			
		DRN112M	221	170			387			
	AT321	DRN132S	221	170	250	350	437	79	315	
	AT421 AT422	DRN90L	179	140	250	350	313	123	358	
		DRN100LS	197	157			309			
		DRN100L					359			
		DRN112M	221	170			387			
		DRN132S					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	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	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	450
	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			

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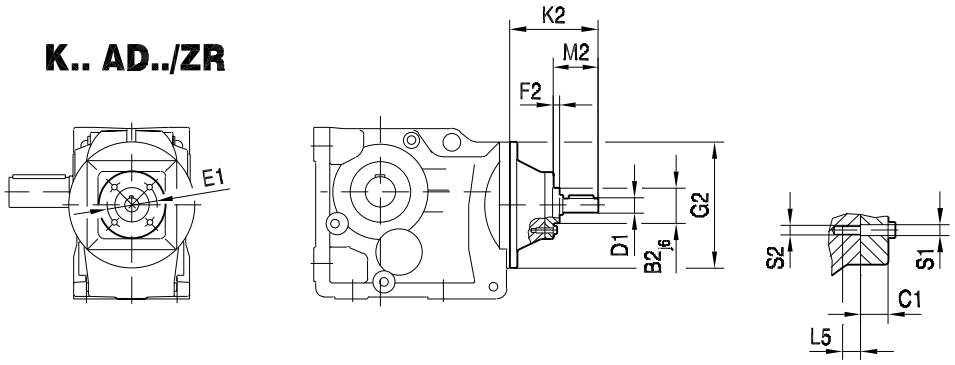
10.9 Dimension sheets for input shaft assembly (AD..)

K.. AD..

33 039 03 01



K.. AD../ZR



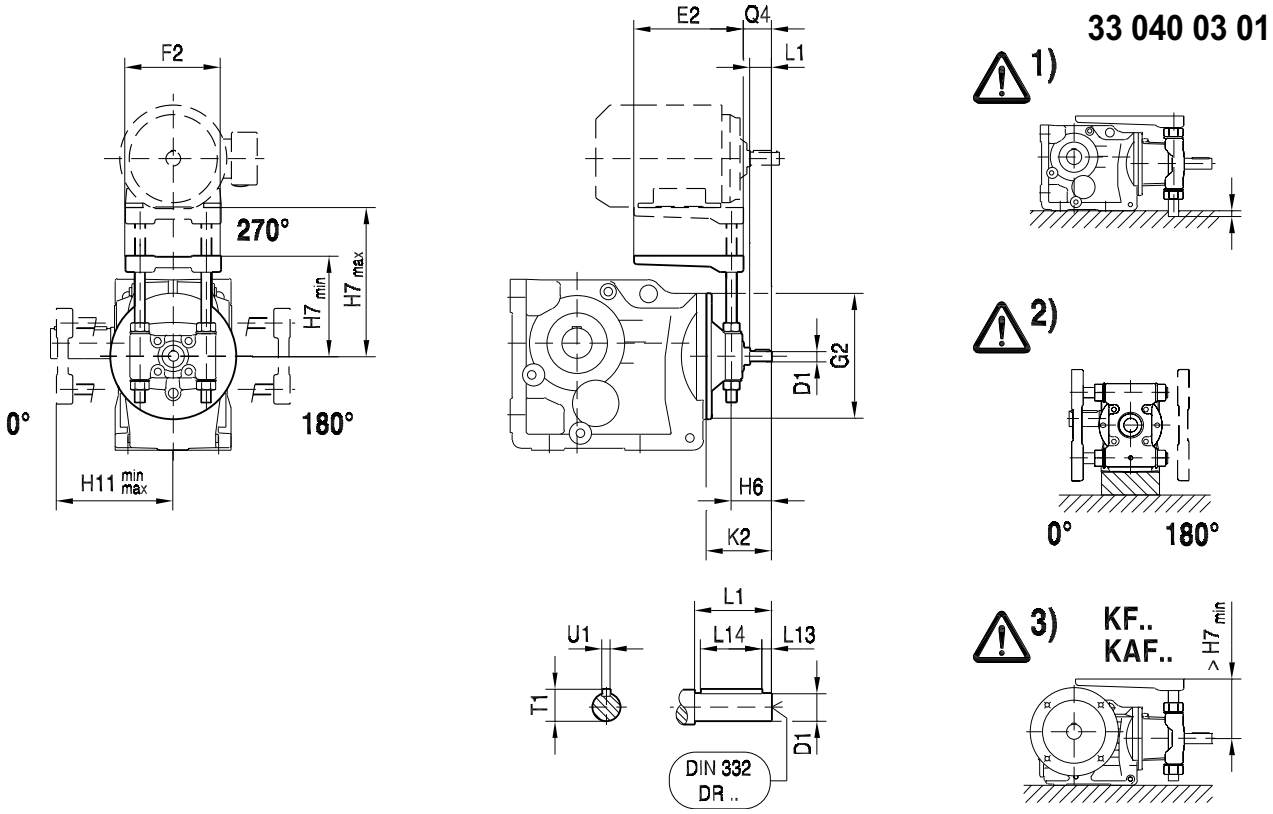
		B2	C1	E1	F2	G2	K2	L5	M2	S1	S2	D1	L1	L13	L14	T1	U1
K..19	**AD1**	-	-	-	-	120	102	-	-	-	-	16	40	4	32	18	5
K..29 K..37	**AD2, AD2/ZR**	55	13.5	80	8		130	12	50	9	M8	19	40	4	32	21.5	6
K..39	**AD2, AD2/ZR**	55	13.5	80	8	160	123	12	50	9	M8	19	40	4	32	21.5	6
K..47 K..57 K..67	**AD3, AD3/ZR**	70	15.5	105	8		159	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

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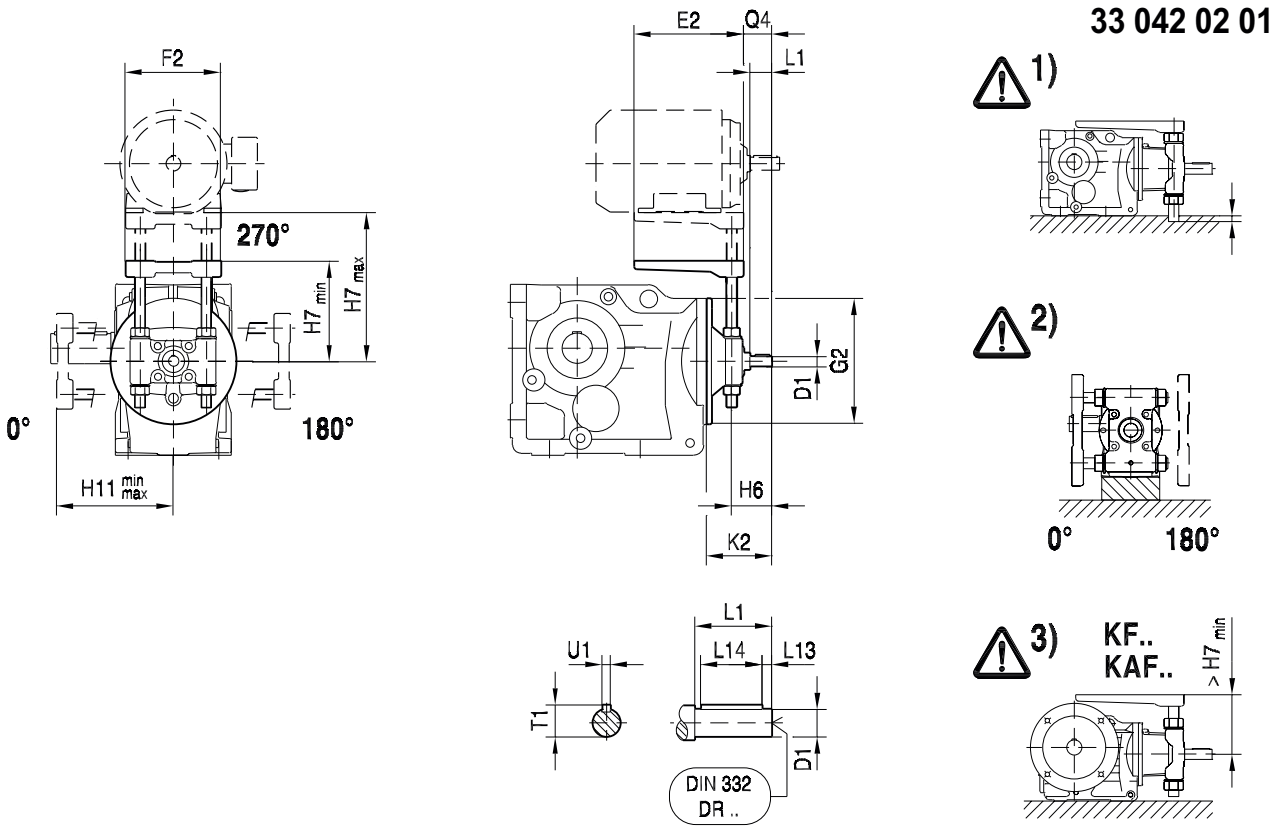
10.10 Dimension sheets for input shaft assembly with motor platform (AD../P)



		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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For bore dimensions and weight of the motor platform, refer to the chapter "Bore dimensions and weight" (→ 🗎 81).



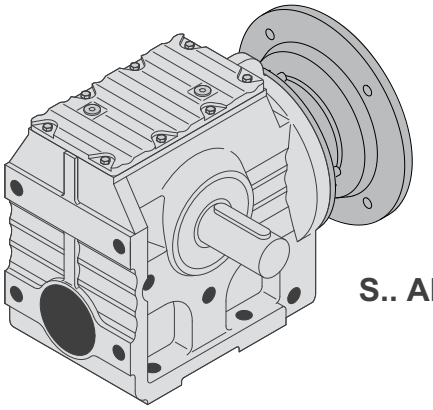
		E2	F2	G2	H6	H7 min	H7 max	H11 min	H11 max	K2	Q4	D1	L1	L13	L14	T1	U1	⚠ (→ 🗎 82)
K..127	AD4/P	345	291	450	118	305	360	245	280	193	83	38	80	5	70	41	10	
	AD5/P	430	355		153	310	405	255	325	266	113	42	110	10	70	45	12	
	AD6/P	495	457		163	305	360	300	360	306	114	48	110	10	80	51.5	14	3)
	AD7/P	650	570		170	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).

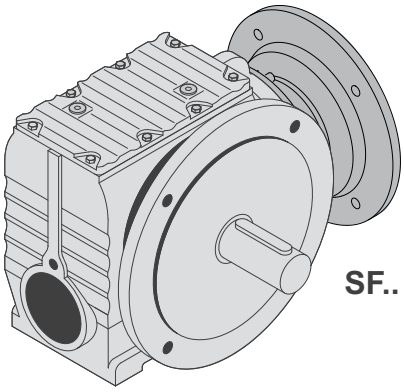
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11 S.. helical-worm gear units

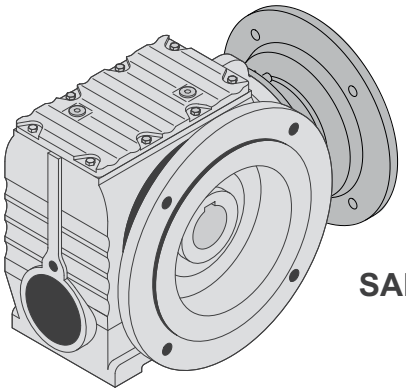
11.1 Selection tables for adapters for mounting IEC/NEMA motors (AMS..)



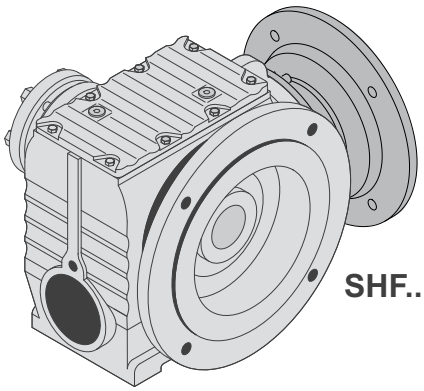
S.. AMS..



SF.. AMS..



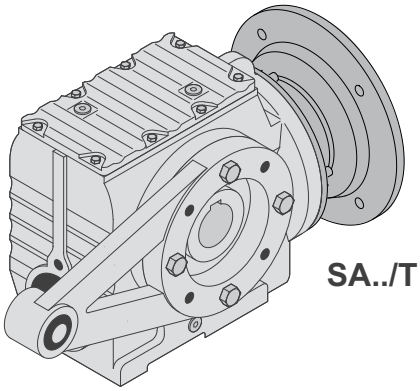
SAF.. AMS..



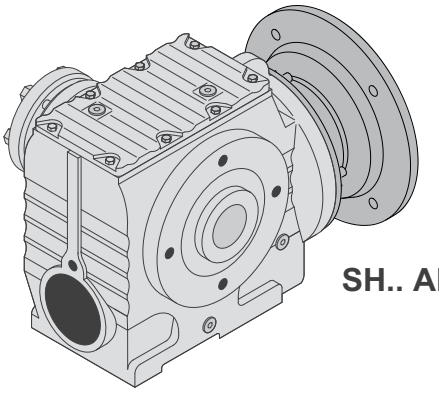
SHF.. AMS..

9007220696342155

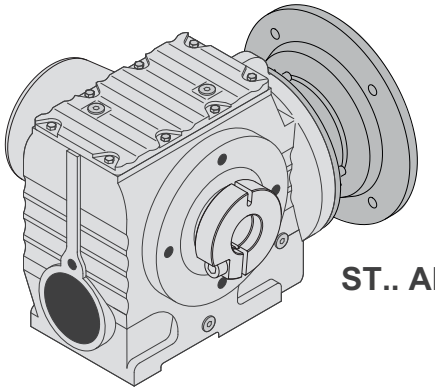
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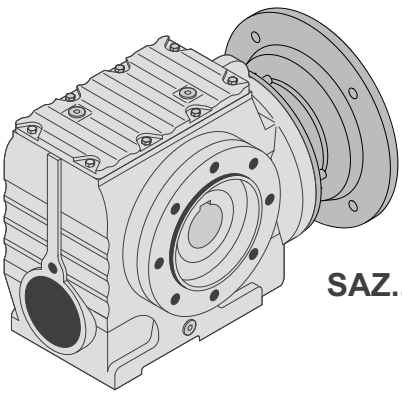
SA../T AMS..



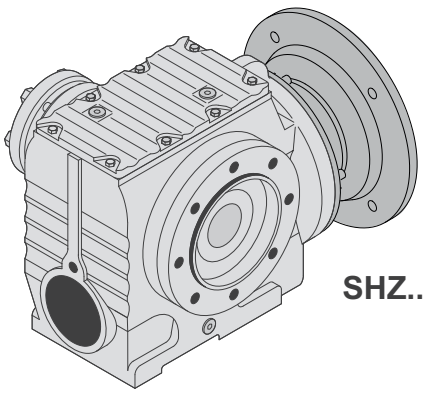
SH.. AMS..



ST.. AMS..



SAZ.. AMS..



SHZ.. AMS..

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S37, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm								92 Nm
i	n_a min^{-1}	$M_{a\,max\,G}$ Nm	F_{Ra} [1] N	$\varphi_{(/R)}$ '	AMS 63	AMS 71	AMS 80	AMS 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	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 63	AMS 71	AMS 80	AMS 90
S	IEC	s				
		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						

S37p, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm								105 Nm
i	n_a min^{-1}	$M_{a\,max\,G}$ Nm	F_{Ra} [1] N	$\varphi_{(/R)}$ '	AMS 63	AMS 71	AMS 80	AMS 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 63	AMS 71	AMS 80	AMS 90
S	IEC	s				
		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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S47, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm								170 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS			
	min^{-1}	Nm	N	'	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			
	IEC	s	63	71	80	90
S		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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S47p, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm								200 Nm
i	n_a min^{-1}	$M_{a\,max\,G}$ Nm	F_{Ra} [1] N	$\varphi_{(/R)}$ '	AMS 63	AMS 71	AMS 80	AMS 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 63	AMS 71	AMS 80	AMS 90
s	IEC	s				
		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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S57, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm								295 Nm
i	n_a min^{-1}	$M_{a\,max\,G}$ Nm	F_{Ra} [1] N	$\varphi_{(/R)}$ '	AMS 63	AMS 71	AMS 80	AMS 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 63	AMS 71	AMS 80	AMS 90
s	IEC	s				
		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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S57p, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm								370 Nm
i	n_a min^{-1}	$M_{a\,max\,G}$ Nm	F_{Ra} [1] N	$\varphi_{(/R)}$ '	AMS 63	AMS 71	AMS 80	AMS 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 63	AMS 71	AMS 80	AMS 90
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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S67, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm											520 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS						
	min^{-1}	Nm	N	'	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						
	IEC	s	63	71	80	90	100	112	132S/M
S		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									

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S67p, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm											720 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS						
	min^{-1}	Nm	N	'	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						
	IEC	s	63	71	80	90	100	112	132S/M
S		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									

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S77, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm												1270 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS							
	min^{-1}	Nm	N	'	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							
	IEC	s	63	71	80	90	100	112	132S/M	132ML
S		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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S77p, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm												1500 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS							
	min^{-1}	Nm	N	'	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							
	IEC	s	63	71	80	90	100	112	132S/M	132ML
S		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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S87, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm											2280 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS						
	min^{-1}	Nm	N	'	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
10.93[2]	128	1240	16400	-			540	605	1130	1240	1240
12.21[2]	115	1240	17400	-	199	265	595	675	1240	1240	1240
14.06[2]	100	1240	18500	-	230	305	675	780	1240	1240	1240
15.64[2]	90	1240	19300	-	255	340	740	860	1240	1240	1240
17.49	80	1240	20200	-	290	385	810	970	1240	1240	1240
19.70	71	1240	21100	-	325	430	890	1050	1240	1240	1240
20.27[2]	69	1600	22100	-						1600	1600
21.43	65	1240	21800	-	355	470	950	1070	1240		
24.43[2]	57	1600	23700	-						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
31.43[2]	45	1600	26000	-	495	660	1450	1600	1600	1600	1600
34.96[2]	40	1600	27100	-	550	735	1580	1600	1600	1600	1600
39.10[2]	36	1600	28200	-	620	820	1600	1600	1600	1600	1600
44.03[2]	32	1600	29000	-	700	930	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
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
81.76	17	1600	29000	-	1140	1190	1600				
86.15[2]	16	1880	28600	-	1150	1540	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
110.40[2]	13	2000	28400	-	1480	1970	2000	2000	2000	2000	2000
123.48[2]	11	2060	28300	-	1650	2060	2060	2060	2060	2060	2060
139.05[2]	10	2100	28300	-	1860	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						
	IEC	s	80	90	100	112	132S/M	132ML	160
S		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									

S87p, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm											3000 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS						
	min^{-1}	Nm	N	'	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
10.93	128	1240	16800	-			555	620	1160	1240	1240
12.21	115	1240	17800	-	200	270	610	695	1240	1240	1240
14.06	100	1240	18900	-	235	315	695	800	1240	1240	1240
15.64	90	1260	19600	-	265	350	760	890	1260	1260	1260
17.49	80	1310	20200	-	295	395	830	1000	1310	1310	1310
19.70	71	1370	20900	-	335	445	920	1080	1370	1370	1370
20.27	69	1760	21600	-						1760	1760
21.43	65	1420	21400	-	370	490	980	1110	1420		
24.43	57	1890	22700	-						1890	1890
25.50	55	1440	22800	-	440	545	1120	1160	1440		
27.28	51	1970	23400	-	445	595	1340	1520	1970	1970	1970
31.43	45	2040	24500	-	520	690	1520	1750	2040	2040	2040
34.96	40	2090	25400	-	580	770	1660	1950	2090	2090	2090
39.10	36	2160	26200	-	655	860	1830	2160	2160	2160	2160
44.03	32	2210	27300	-	740	980	2010	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
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
81.76	17	2460	27500	-	1220	1270	2460				
86.15	16	2360	27800	-	1280	1710	2360	2360	2360	2360	2360
91.20	15	2490	27500	-	1270	1300					
99.26	14	2440	27600	-	1490	1980	2440	2440	2440	2440	2440
110.40	13	2510	27500	-	1660	2210	2510	2510	2510	2510	2510
123.48	11	2580	27300	-	1870	2480	2580	2580	2580	2580	2580
139.05	10	2670	27100	-	2110	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						
	IEC	s	80	90	100	112	132S/M	132ML	160
s		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									

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S97, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm												4000 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS							
	min^{-1}	Nm	N	'	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							
	IEC	s	100	112	132S/M	132ML	160	180	200	225
S		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										

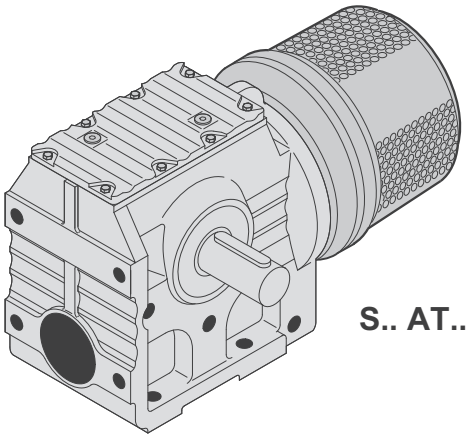
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S97p, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm												4300 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS							
	min^{-1}	Nm	N	'	100	112	132S/M	132ML	160	180	200	225
							2					
8.26	169	1770	19200	-			870	1330	1470	1770	1770	1770
9.55	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						

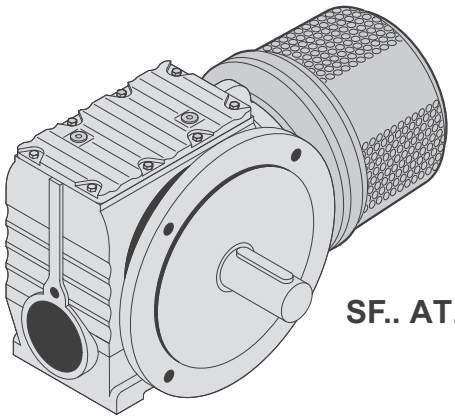
S97p, m /kg			AMS							
	IEC	s	100	112	132S/M	132ML	160	180	200	225
S		2	150	150	155	155	170	170	190	195
	NEMA	s	182	184	213/215	-	254/256	284/286	324/326	364/365
		2	150	150	150	-	165	170	190	190
SF: + 33 kg / SA: + -5.4 kg / SAF: + 21 kg										

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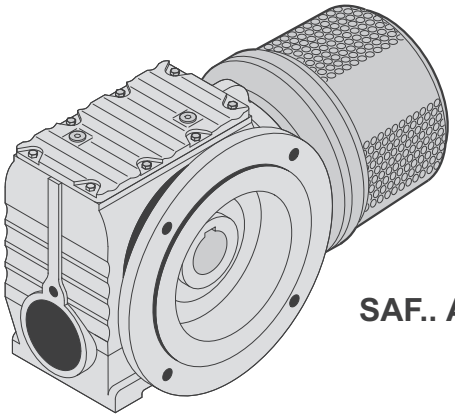
11.2 Selection tables for adapters with hydraulic start-up coupling (AT..)



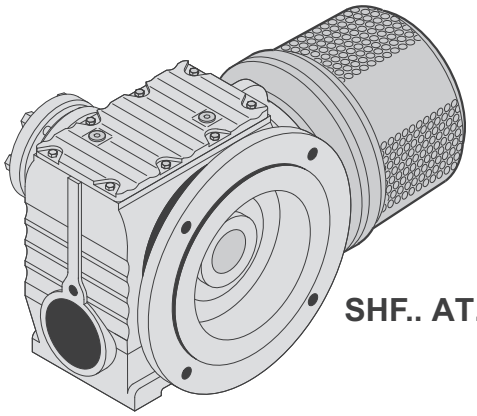
S.. AT..



SF.. AT..



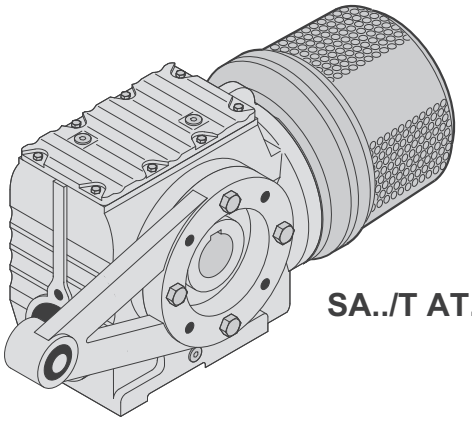
SAF.. AT..



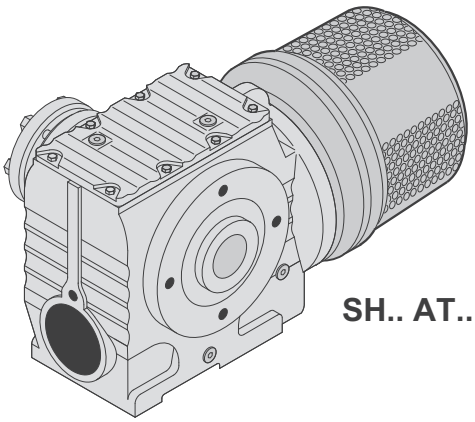
SHF.. AT..

21441543051

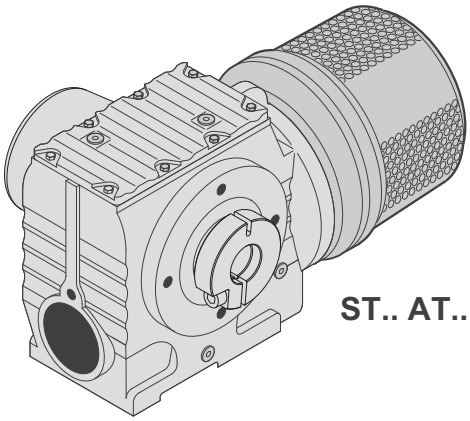
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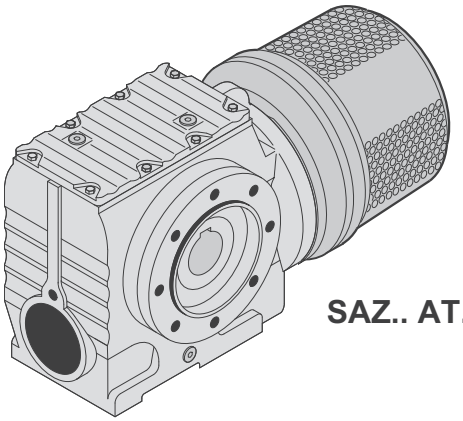
SA../T AT..



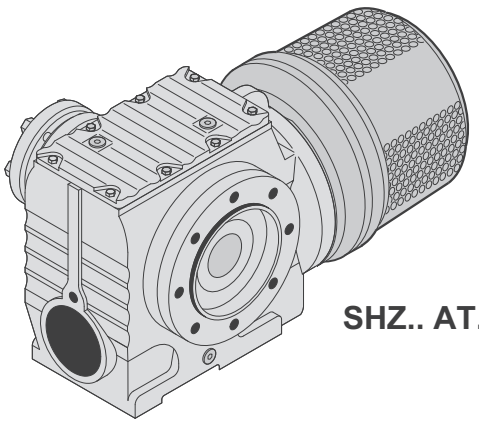
SH.. AT..



ST.. AT..



SAZ.. AT..



SHZ.. AT..

21441545483

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11.2.1 S..AT/DRN..4

		P_{Mot} kW				Sn %	
S67	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	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	(→ 🗎 662)
	DRN100L4	3	AT422	T21D	1.53	11	
	DRN112M4	4	AT422	T21D	1.6	12	
S87	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	

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		P_{Mot} kW				Sn %	
S97	DRN90S4	1.1	AT312	T11D	0.72	15	(→ 662)
	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	

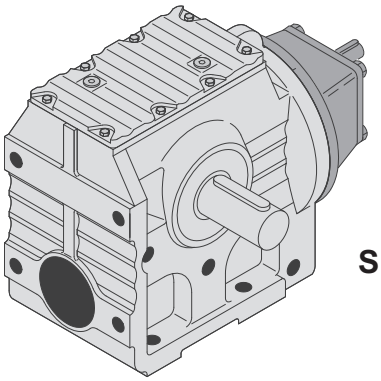
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11.2.2 S..AT/DRN..2

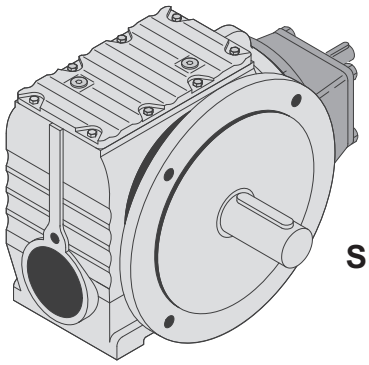
		P_{Mot} kW				Sn	
S67	DRN71M2	0.55	AT311	T11	0.19	3	(→ 662)
	DRN80MS2	0.75	AT311	T11	0.22	4.5	
	DRN80M2	1.1	AT311	T11	0.27	6	
	DRN90S2	1.5	AT311	T11	0.29	8.5	
	DRN90L2	2.2	AT311	T11	0.31	11.5	
	DRN100LM2	3	AT311	T11	0.4	12	
	DRN112M2	4	AT312	T11D	0.52	10	
S77	DRN71M2	0.55	AT311	T11	0.19	3	
	DRN80MS2	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	
	DRN132S2	5.5	AT321	T21	0.6	8	
	DRN132S2	5.5	AT421	T21	0.6	8	
S87	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	
S97	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	

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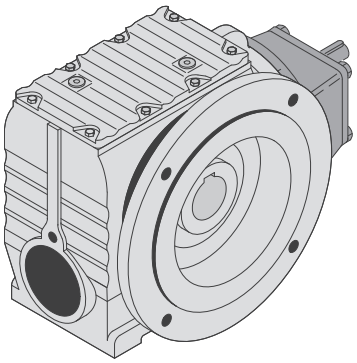
11.3 Selection tables for input shaft assembly (AD..)



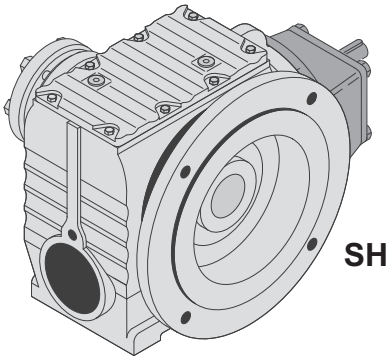
S.. AD..



SF.. AD..



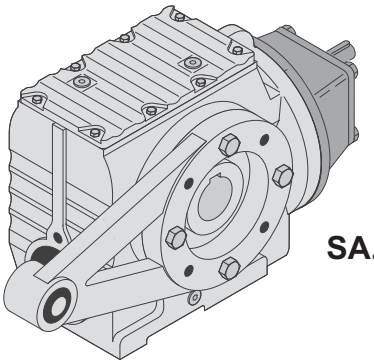
SAF.. AD..



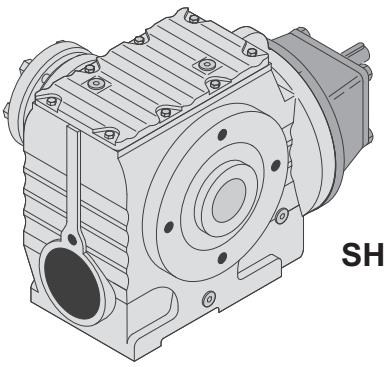
SHF.. AD..

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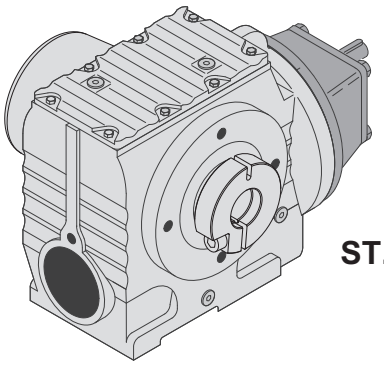
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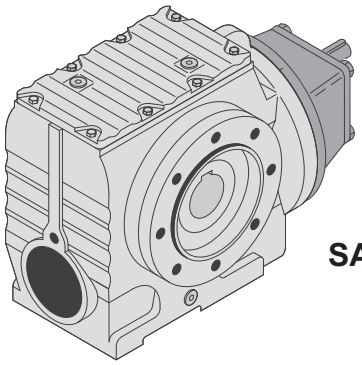
SA../T AD..



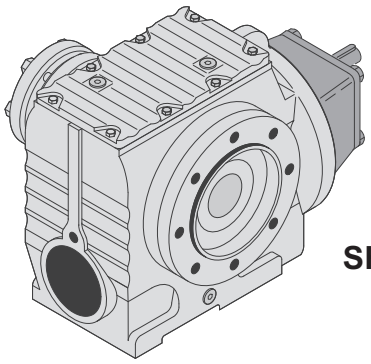
SH.. AD..



ST.. AD..



SAZ.. AD..



SHZ.. AD..

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S37 AD.. , n_e = 1400 min^{-1} — 92 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} 1) N	F_{Re} N	$\varphi_{(/R)}$	⚠					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	666
98.80*	14	87	0.25	3000	745	-	-	**SF**	**37**	**AD1**		9.6	666
86.36	16	86	0.27	3000	740	-	-	**SA**	**37**	**AD1**		8.0	666
80.96	17	85	0.29	3000	740	-	-	**SAF**	**37**	**AD1**		9.5	666
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	666
								SF	**37**	**AD2**		11	666
								SA	**37**	**AD2**		9.1	666
								SAF	**37**	**AD2**		11	666
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	666
30.68	46	76	0.49	2860	550	-	-	**SF**	**37**	**AD1**		9.6	666
28.76	49	75	0.52	2800	545	-	-	**SA**	**37**	**AD1**		8.0	666
25.38*	55	74	0.57	2660	535	-	-	**SAF**	**37**	**AD1**		9.5	666
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	666
								SF	**37**	**AD2**		11	666
								SA	**37**	**AD2**		9.1	666
								SAF	**37**	**AD2**		11	666
18.24*	77	52	0.51	2380	320	-	-	**S**	**37**	**AD1**		8.3	666
15.53	90	50	0.57	2240	320	-	-	**SF**	**37**	**AD1**		9.6	666
								SA	**37**	**AD1**		8.0	666
								SAF	**37**	**AD1**		9.5	666
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	666
8.00*	175	45	0.98	1730	1440	-	-	**SF**	**37**	**AD2**		11	666
6.80*	206	43	1.1	1630	1660	-	-	**SA**	**37**	**AD2**		9.1	666
6.33	221	35	0.95	1670	1670	-	-	**SAF**	**37**	**AD2**		11	666
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 min^{-1} — 105 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} 1) N	F_{Re} N	$\varphi_{(/R)}$	⚠					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	666
98.80*	14	97	0.21	3000	760	-	-	**SF**	**37p**	**AD1**		9.6	666
86.36	16	98	0.24	3000	760	-	-	**SA**	**37p**	**AD1**		8.0	666
80.96	17	99	0.26	3000	755	-	-	**SAF**	**37p**	**AD1**		9.5	666
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	666
								SF	**37p**	**AD2**		11	666
								SA	**37p**	**AD2**		9.1	666
								SAF	**37p**	**AD2**		11	666

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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	$\varphi_{(/R)}$	⚠					m kg	
51.30*	27	104	0.36	3000	545	-	-						
43.68	32	105	0.42	3000	530	-	-						
37.66	37	105	0.49	2800	510	-	-						
35.10*	40	105	0.52	2700	500	-	-	**S**	**37p**	**AD1**		8.3	666
30.68	46	105	0.59	2530	480	-	-	**SF**	**37p**	**AD1**		9.6	666
28.76	49	105	0.63	2450	470	-	-	**SA**	**37p**	**AD1**		8.0	666
25.38*	55	100	0.68	2360	475	-	-	**SAF**	**37p**	**AD1**		9.5	666
22.50*	62	95	0.73	2280	475	-	-						
19.89	70	78	0.64	2130	133	-	-						
19.13*	73	89	0.80	2170	1740	-	-	**S**	**37p**	**AD2**		9.4	666
								SF	**37p**	**AD2**		11	666
								SA	**37p**	**AD2**		9.1	666
								SAF	**37p**	**AD2**		11	666
18.24*	77	78	0.69	2040	118	-	-	**S**	**37p**	**AD1**		8.3	666
15.53	90	76	0.79	1860	109	-	-	**SF**	**37p**	**AD1**		9.6	666
								SA	**37p**	**AD1**		8.0	666
								SAF	**37p**	**AD1**		9.5	666
13.39	105	75	0.90	1640	1190	-	-						
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	-	-	**S**	**37p**	**AD2**		9.4	666
8.00*	175	50	1.0	1690	1440	-	-	**SF**	**37p**	**AD2**		11	666
6.80*	206	60	1.4	1210	1610	-	-	**SA**	**37p**	**AD2**		9.1	666
6.33	221	56	1.4	1120	1580	-	-	**SAF**	**37p**	**AD2**		11	666
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	$\varphi_{(/R)}$	⚠					m kg	
201.00*	7.0	170	0.25	5340	680	-	-						
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	-	-	**S**	**47**	**AD1**		11	666
110.73	13	168	0.40	5350	655	-	-	**SF**	**47**	**AD1**		15	666
94.08*	15	168	0.46	5350	645	-	-	**SA**	**47**	**AD1**		12	666
84.00*	17	167	0.51	5360	640	-	-	**SAF**	**47**	**AD1**		14	666
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**	**AD2**		12	666
								SF	**47**	**AD2**		16	666
								SA	**47**	**AD2**		14	666
								SAF	**47**	**AD2**		15	666
54.59	26	155	0.57	5150	360	-	-	**S**	**47**	**AD1**		11	666
47.32	30	155	0.65	4850	345	-	-	**SF**	**47**	**AD1**		15	666
44.22*	32	155	0.69	4710	335	-	-	**SA**	**47**	**AD1**		12	666
								SAF	**47**	**AD1**		14	666

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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	$\varphi_{(/R)}$	⚠				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	666
14.24	98	110	1.3	2850	1530	-	-	**SF**	**47**	**AD2**	16	666
12.10*	116	109	1.6	2650	1520	-	M1-6	**SA**	**47**	**AD2**	14	666
10.80*	130	109	1.7	2500	1510	-	M1-6	**SAF**	**47**	**AD2**	15	666
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 min^{-1} — 200 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				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	666
110.73	13	197	0.37	5200	670	-	-	**SF**	**47p**	**AD1**	15	666
94.08*	15	198	0.43	5200	660	-	-	**SA**	**47p**	**AD1**	12	666
84.00*	17	199	0.48	5190	645	-	-	**SAF**	**47p**	**AD1**	14	666
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	666
								SF	**47p**	**AD2**	16	666
								SA	**47p**	**AD2**	14	666
								SAF	**47p**	**AD2**	15	666
54.59	26	200	0.64	4790	270	-	-	**S**	**47p**	**AD1**	11	666
47.32	30	200	0.73	4480	250	-	-	**SF**	**47p**	**AD1**	15	666
44.22*	32	200	0.78	4350	235	-	-	**SA**	**47p**	**AD1**	12	666
								SAF	**47p**	**AD1**	14	666
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	666
14.24	98	152	1.7	2350	1420	-	-	**SF**	**47p**	**AD2**	16	666
12.10*	116	146	1.9	2130	1420	-	-	**SA**	**47p**	**AD2**	14	666
10.80*	130	142	2.1	1990	1410	-	-	**SAF**	**47p**	**AD2**	15	666
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	-	-					

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S57 AD.. , n_e = 1400 min^{-1} — 295 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				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	666
137.05	10	295	0.55	7130	440	-	-	**SF**	**57**	**AD1**	19	666
128.10*	11	295	0.58	7130	435	-	-	**SA**	**57**	**AD1**	15	666
110.73	13	295	0.66	7130	410	-	-	**SAF**	**57**	**AD1**	18	666
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	666
20.33	69	168	1.4	5690	1380	-	-	**SF**	**57**	**AD2**	20	666
19.54	72	215	2.0	5720	1520	-	-	**SA**	**57**	**AD2**	16	666
17.62	79	168	1.6	5350	1360	-	-	**SAF**	**57**	**AD2**	19	666
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 min^{-1} — 370 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				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	666
137.05	10	360	0.53	6470	445	-	-	**SF**	**57p**	**AD1**	19	666
128.10*	11	365	0.57	6410	430	-	-	**SA**	**57p**	**AD1**	15	666
110.73	13	365	0.66	6410	405	-	-	**SAF**	**57p**	**AD1**	18	666
94.08*	15	350	0.73	6580	410	-	-					
84.00*	17	335	0.78	6740	415	-	-					

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S57p AD.. , n_e = 1400 min^{-1} — 370 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠					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	666
20.33	69	225	1.8	5260	1240	-	-	**SF**	**57p**	**AD2**		20	666
19.54	72	250	2.1	5500	1490	-	-	**SA**	**57p**	**AD2**		16	666
17.62	79	225	2.0	4920	1220	-	-	**SAF**	**57p**	**AD2**		19	666
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 min^{-1} — 520 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠					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	666
106.75*	13	520	1.2	8680	1660	-	-	**SF**	**67**	**AD2**		34	666
100.80*	14	520	1.2	8680	1650	-	-	**SA**	**67**	**AD2**		28	666
85.83	16	520	1.4	8680	1640	-	-	**SAF**	**67**	**AD2**		33	666
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	666
								SF	**67**	**AD3**		37	666
								SA	**67**	**AD3**		32	666
								SAF	**67**	**AD3**		36	666
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	666
29.63	47	480	3.0	6540	1330	-	-	**SF**	**67**	**AD2**		34	666
26.93	52	480	3.2	6240	1310	-	-	**SA**	**67**	**AD2**		28	666
24.44	57	340	2.4	6040	1120	-	-	**SAF**	**67**	**AD2**		33	666
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	666
								SF	**67**	**AD3**		37	666
								SA	**67**	**AD3**		32	666
								SAF	**67**	**AD3**		36	666

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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	$\varphi_{(/R)}$	⚠				m kg	
17.28*	81	340	3.3	5080	1050	-	-	**S**	**67**	**AD2**	27	666
15.60*	90	340	3.6	4820	1020	-	-	**SF**	**67**	**AD2**	34	666
13.73*	102	340	4.1	4510	1000	-	-	**SA**	**67**	**AD2**	28	666
12.96*	108	340	4.4	4310	980	-	-	**SAF**	**67**	**AD2**	33	666
11.03	127	340	5.1	3660	1940	-	-	**S**	**67**	**AD3**	30	666
10.03	140	340	5.6	3290	1910	-	M1-6	**SF**	**67**	**AD3**	37	666
8.69	161	335	6.4	2860	1860	-	M1-6	**SA**	**67**	**AD3**	32	666
7.56*	185	295	6.4	3220	1930	-	M1-6	**SAF**	**67**	**AD3**	36	666

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	$\varphi_{(/R)}$	⚠				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	666
106.75*	13	645	1.2	10100	1650	-	-	**SF**	**67p**	**AD2**	34	666
100.80*	14	645	1.3	10100	1640	-	-	**SA**	**67p**	**AD2**	28	666
85.83	16	660	1.5	9700	1620	-	-	**SAF**	**67p**	**AD2**	33	666
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	666
								SF	**67p**	**AD3**	37	666
								SA	**67p**	**AD3**	32	666
								SAF	**67p**	**AD3**	36	666
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	-	-					
34.80*	40	640	3.1	5970	1250	-	-	**S**	**67p**	**AD2**	27	666
29.63	47	620	3.5	5580	1220	-	-	**SF**	**67p**	**AD2**	34	666
26.93	52	600	3.7	5410	1220	-	-	**SA**	**67p**	**AD2**	28	666
24.44	57	365	2.4	5860	1110	-	-	**SAF**	**67p**	**AD2**	33	666
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	666
								SF	**67p**	**AD3**	37	666
								SA	**67p**	**AD3**	32	666
								SAF	**67p**	**AD3**	36	666
17.28*	81	415	3.8	4320	910	-	-	**S**	**67p**	**AD2**	27	666
15.60*	90	410	4.2	3960	890	-	-	**SF**	**67p**	**AD2**	34	666
13.73*	102	395	4.6	3690	900	-	-	**SA**	**67p**	**AD2**	28	666
12.96*	108	390	4.8	3550	890	-	-	**SAF**	**67p**	**AD2**	33	666
11.03	127	375	5.4	3190	1890	-	-	**S**	**67p**	**AD3**	30	666
10.03	140	365	5.8	3020	1870	-	-	**SF**	**67p**	**AD3**	37	666
8.69	161	350	6.4	2780	1850	-	-	**SA**	**67p**	**AD3**	32	666
7.56*	185	330	6.9	2680	1850	-	-	**SAF**	**67p**	**AD3**	36	666

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S67pR37 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	$\varphi_{(/R)}$	⚠				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	666
4965	0.28	720	0.06	9100	820	-	-	**SF**	**67pR37**	**AD1**	44	666
4410	0.32	720	0.06	9100	820	-	-	**SA**	**67pR37**	**AD1**	38	666
3880	0.36	720	0.06	9100	810	-	-	**SAF**	**67pR37**	**AD1**	43	666
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	666
365	3.8	720	0.41	9150	630	-	-	**SF**	**67pR37**	**AD1**	43	666
319	4.4	660	0.43	9530	685	-	-	**SA**	**67pR37**	**AD1**	38	666
281	5.0	680	0.49	9420	685	-	-	**SAF**	**67pR37**	**AD1**	42	666
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	666
								SF	**67pR37**	**AD2**	45	666
								SA	**67pR37**	**AD2**	39	666
								SAF	**67pR37**	**AD2**	43	666

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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	$\varphi_{(/R)}$	⚠				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	-	-					
97.14	14	1140	2.5	12800	1460	-	-	**S**	**77**	**AD2**	47	666
85.22	16	1100	2.8	13100	1460	-	-	**SF**	**77**	**AD2**	57	666
75.20*	19	1070	3.0	12800	1450	-	-	**SA**	**77**	**AD2**	47	666
75.09	19	1100	2.6	11900	1090	-	-	**SAF**	**77**	**AD2**	53	666
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	-	-					
22.22	63	980	7.5	6740	1880	-	-	**S**	**77**	**AD3**	50	666
20.99	67	705	5.6	5380	1660	-	-	**SF**	**77**	**AD3**	60	666
18.97	74	930	8.3	6390	1860	-	-	**SA**	**77**	**AD3**	50	666
18.42	76	705	6.3	4550	1620	-	-	**SAF**	**77**	**AD3**	57	666
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	666
9.44	148	725	12.4	415	3220	-	M1-6	**SF**	**77**	**AD4**	66	666
8.06	174	680	13.6	440	3210	-	M1-6	**SA**	**77**	**AD4**	56	666
								SAF	**77**	**AD4**	63	666

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	$\varphi_{(/R)}$	⚠				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	666
85.22	16	1390	3.0	12000	1410	-	-	**SF**	**77p**	**AD2**	57	666
75.20*	19	1340	3.3	11500	1400	-	-	**SA**	**77p**	**AD2**	47	666
75.09	19	1260	2.8	11000	1040	-	-	**SAF**	**77p**	**AD2**	53	666
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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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	$\varphi_{(/R)}$	⚠				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	666
20.99	67	820	6.2	4010	1520	-	-	**SF**	**77p**	**AD3**	60	666
18.97	74	1010	8.6	5960	1820	-	-	**SA**	**77p**	**AD3**	50	666
18.42	76	800	6.8	3490	1510	-	-	**SAF**	**77p**	**AD3**	57	666
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	666
9.44	148	725	12.0	940	3280	-	-	**SF**	**77p**	**AD4**	66	666
8.06	174	680	13.2	920	3270	-	-	**SA**	**77p**	**AD4**	56	666
								SAF	**77p**	**AD4**	63	666

S77pR37 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	$\varphi_{(/R)}$	⚠				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	666
5214	0.27	1500	0.10	12200	800	-	-	**SF**	**77pR37**	**AD1**	66	666
4618	0.30	1500	0.12	12200	810	-	-	**SA**	**77pR37**	**AD1**	56	666
3992	0.35	1500	0.13	12200	800	-	-	**SAF**	**77pR37**	**AD1**	62	666
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	666
637	2.2	1450	0.47	11500	655	-	-	**SF**	**77pR37**	**AD1**	66	666
574	2.4	1440	0.51	11500	595	-	-	**SA**	**77pR37**	**AD1**	56	666
499	2.8	1440	0.58	11600	610	-	-	**SAF**	**77pR37**	**AD1**	62	666
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	666
250	5.6	1440	1.1	11700	1650	-	-	**SF**	**77pR37**	**AD2**	67	666
219	6.4	1440	1.2	11700	1620	-	-	**SA**	**77pR37**	**AD2**	57	666
								SAF	**77pR37**	**AD2**	63	666

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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	$\varphi_{(/R)}$	⚠					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	666	
123.48	11	2060	3.5	28300	1360	-	-	**SF**	**87**	**AD2**	105	666	
110.40*	13	2000	3.8	28400	1350	-	-	**SA**	**87**	**AD2**	80	666	
99.26	14	1960	4.1	28500	1340	-	-	**SAF**	**87**	**AD2**	97	666	
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	666	
								SF	**87**	**AD3**	110	666	
								SA	**87**	**AD3**	85	666	
								SAF	**87**	**AD3**	100	666	
57.00*	25	1600	4.9	29000	910	-	-	**S**	**87**	**AD2**	83	666	
								SF	**87**	**AD2**	105	666	
								SA	**87**	**AD2**	80	666	
								SAF	**87**	**AD2**	97	666	
47.91	29	1600	5.8	29000	1820	-	-						
44.03	32	1600	6.2	29000	1800	-	-	**S**	**87**	**AD3**	87	666	
39.10	36	1600	7.0	28200	1760	-	-	**SF**	**87**	**AD3**	110	666	
34.96*	40	1600	7.8	27100	1720	-	-	**SA**	**87**	**AD3**	85	666	
31.43	45	1600	8.6	26000	1680	-	-	**SAF**	**87**	**AD3**	100	666	
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	666	
17.49	80	1240	11.5	20200	3150	-	-	**SF**	**87**	**AD4**	115	666	
15.64*	90	1240	12.8	19300	3100	-	-	**SA**	**87**	**AD4**	91	666	
14.06	100	1240	14.3	18500	3040	-	-	**SAF**	**87**	**AD4**	105	666	
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	$\varphi_{(/R)}$	⚠					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	666	
123.48	11	2580	3.8	27300	1300	-	-	**SF**	**87p**	**AD2**	105	666	
110.40*	13	2510	4.1	27500	1290	-	-	**SA**	**87p**	**AD2**	80	666	
99.26	14	2440	4.5	27600	1280	-	-	**SAF**	**87p**	**AD2**	97	666	
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	666	
								SF	**87p**	**AD3**	110	666	
								SA	**87p**	**AD3**	85	666	
								SAF	**87p**	**AD3**	100	666	

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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	$\varphi_{(/R)}$	⚠				m kg	
57.00*	25	2290	6.5	27900	280	-	-	**S**	**87p**	**AD2**	83	666
								SF	**87p**	**AD2**	105	666
								SA	**87p**	**AD2**	80	666
								SAF	**87p**	**AD2**	97	666
47.91	29	2260	7.6	28000	1500	-	-					
44.03	32	2210	8.1	27300	1500	-	-	**S**	**87p**	**AD3**	87	666
39.10	36	2160	8.9	26200	1480	-	-	**SF**	**87p**	**AD3**	110	666
34.96*	40	2090	9.6	25400	1470	-	-	**SA**	**87p**	**AD3**	85	666
31.43	45	2040	10.4	24500	1450	-	-	**SAF**	**87p**	**AD3**	100	666
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	666
17.49	80	1310	11.7	20200	3130	-	-	**SF**	**87p**	**AD4**	115	666
15.64*	90	1260	12.6	19600	3140	-	-	**SA**	**87p**	**AD4**	91	666
14.06	100	1240	13.8	18900	3100	-	-	**SAF**	**87p**	**AD4**	105	666
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	$\varphi_{(/R)}$	⚠				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	666
11200	0.13	3000	0.11	19800	1890	-	-	**SF**	**87pR57**	**AD2**	130	666
9904	0.14	2900	0.11	23200	1880	-	-	**SA**	**87pR57**	**AD2**	105	666
8549	0.16	3000	0.12	19800	1880	-	-	**SAF**	**87pR57**	**AD2**	120	666
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	666
831	1.7	2950	0.78	21600	1750	-	-	**SF**	**87pR57**	**AD2**	130	666
719	1.9	3000	0.90	19800	1750	-	-	**SA**	**87pR57**	**AD2**	105	666
624	2.2	3000	1.0	19800	1740	-	-	**SAF**	**87pR57**	**AD2**	120	666
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	-	-					

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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	$\varphi_{(/R)}$	⚠				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	-	-					
161.74	8.7	3840	4.8	33500	2060	-	-	**S**	**97**	**AD3**	145	666
145.60*	9.6	3730	5.2	33700	2060	-	-	**SF**	**97**	**AD3**	180	666
131.85	11	3650	5.6	33900	2060	-	-	**SA**	**97**	**AD3**	140	666
116.92	12	3510	6.0	34100	2060	-	-	**SAF**	**97**	**AD3**	165	666
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	666
								SF	**97**	**AD4**	185	666
								SA	**97**	**AD4**	145	666
								SAF	**97**	**AD4**	170	666
65.45	21	2900	8.7	35100	2030	-	-	**S**	**97**	**AD3**	145	666
								SF	**97**	**AD3**	180	666
								SA	**97**	**AD3**	140	666
								SAF	**97**	**AD3**	165	666
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	666
44.89	31	3300	12.3	34100	3130	-	-	**SF**	**97**	**AD4**	185	666
40.65	34	3300	13.6	32800	3090	-	-	**SA**	**97**	**AD4**	145	666
36.05	39	3300	15.3	31300	3040	-	-	**SAF**	**97**	**AD4**	170	666
32.60	43	3200	16.3	30400	3030	-	-					
27.63	51	3010	18.1	29000	6220	-	-	**S**	**97**	**AD5**	170	666
								SF	**97**	**AD5**	200	666
								SA	**97**	**AD5**	165	666
								SAF	**97**	**AD5**	190	666
26.39	53	2600	15.8	26100	2040	-	-	**S**	**97**	**AD4**	150	666
								SF	**97**	**AD4**	185	666
								SA	**97**	**AD4**	145	666
								SAF	**97**	**AD4**	170	666
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	666
17.05	82	2570	24	19700	5300	-	M1-6	**SF**	**97**	**AD5**	200	666
15.42	91	2470	26	19400	5320	-	M1-6	**SA**	**97**	**AD5**	165	666
13.07	107	2330	28	18800	5300	-	M1-6	**SAF**	**97**	**AD5**	190	666
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	$\varphi_{(/R)}$	⚠				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	666
145.60*	9.6	4300	5.3	32500	2040	-	-	**SF**	**97p**	**AD3**	180	666
131.85	11	4300	5.9	32500	2020	-	-	**SA**	**97p**	**AD3**	140	666
116.92	12	4300	6.6	32500	1990	-	-	**SAF**	**97p**	**AD3**	165	666
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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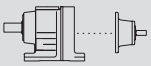
S97p AD.. , n_e = 1400 min^{-1} — 4300 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} 1) N	F_{Re} N	$\varphi_{(/R)}$	⚠				m kg	
71.43	20	4100	9.2	33000	3060	-	-	**S**	**97p**	**AD4**	150	666
								SF	**97p**	**AD4**	185	666
								SA	**97p**	**AD4**	145	666
								SAF	**97p**	**AD4**	170	666
65.45	21	3520	9.6	34100	1940	-	-	**S**	**97p**	**AD3**	145	666
								SF	**97p**	**AD3**	180	666
								SA	**97p**	**AD3**	140	666
								SAF	**97p**	**AD3**	165	666
60.59	23	3980	10.5	33200	3060	-	-					
55.79	25	3910	11.2	33400	3040	-	-					
49.87	28	3810	12.2	33600	3040	-	-	**S**	**97p**	**AD4**	150	666
44.89	31	3710	13.2	33100	3040	-	-	**SF**	**97p**	**AD4**	185	666
40.65	34	3600	14.1	32200	3040	-	-	**SA**	**97p**	**AD4**	145	666
36.05	39	3500	15.5	30900	3020	-	-	**SAF**	**97p**	**AD4**	170	666
32.60	43	3390	16.6	30000	3020	-	-					
27.63	51	3230	18.6	28600	6180	-	-	**S**	**97p**	**AD5**	170	666
								SF	**97p**	**AD5**	200	666
								SA	**97p**	**AD5**	165	666
								SAF	**97p**	**AD5**	190	666
26.39	53	2600	15.3	26800	2210	-	-	**S**	**97p**	**AD4**	150	666
								SF	**97p**	**AD4**	185	666
								SA	**97p**	**AD4**	145	666
								SAF	**97p**	**AD4**	170	666
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	666
17.05	82	2570	23	20300	5380	-	-	**SF**	**97p**	**AD5**	200	666
15.42	91	2470	25	20000	5390	-	-	**SA**	**97p**	**AD5**	165	666
13.07	107	2330	28	19300	5370	-	-	**SAF**	**97p**	**AD5**	190	666
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 min^{-1} — 4300 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} 1) N	F_{Re} N	$\varphi_{(/R)}$	⚠				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	666
7554	0.19	4300	0.18	32500	1860	-	-	**SF**	**97pR57**	**AD2**	200	666
6640	0.21	4300	0.15	30200	1860	-	-	**SA**	**97pR57**	**AD2**	160	666
5780	0.24	4300	0.17	30200	1860	-	-	**SAF**	**97pR57**	**AD2**	190	666
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	-	-					

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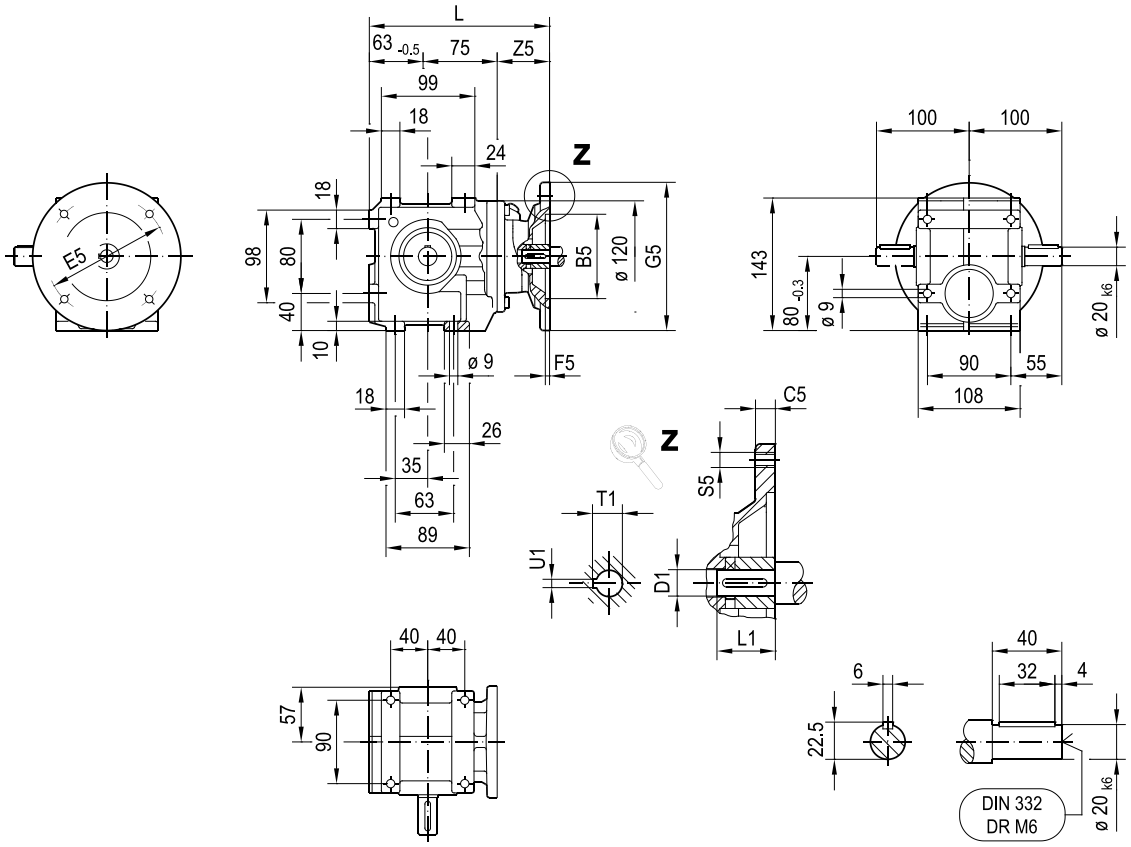
S97pR57 AD.. , n_e = 1400 min^{-1}												4300 Nm
i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				m kg	
1394	1.0	4300	0.60	30200	1650	-	-					
1223	1.1	4300	0.68	30200	1620	-	-					
1070	1.3	4300	0.77	30200	1380	-	-					
928	1.5	4300	0.89	30200	1490	-	-					
824	1.7	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	666
538	2.6	4300	1.5	30400	1650	-	-	**SF**	**97pR57**	**AD2**	200	666
484	2.9	4300	1.6	30500	1620	-	-	**SA**	**97pR57**	**AD2**	160	666
420	3.3	4300	1.8	30500	1610	-	-	**SAF**	**97pR57**	**AD2**	185	666
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	-	-					

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11.4 Dimension sheets for adapters for mounting IEC motors (AMS..)

02 120 00 20

S37/S37p..

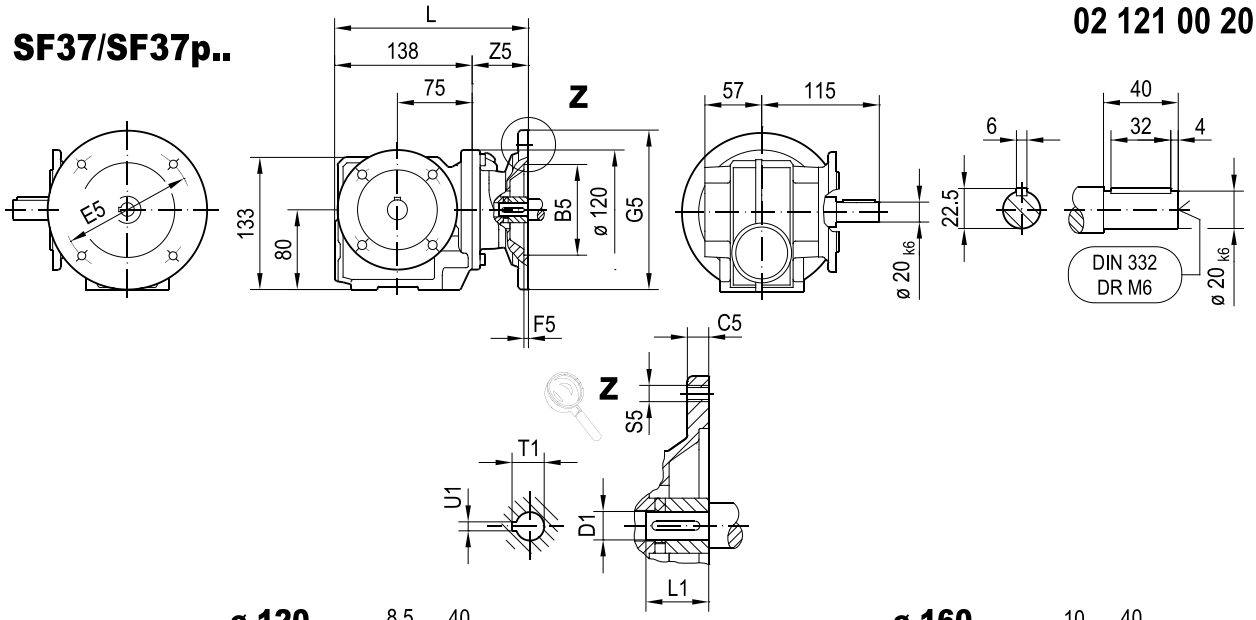


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	195	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	195	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	212	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	225	M10	86.5	24	50	27.3	8

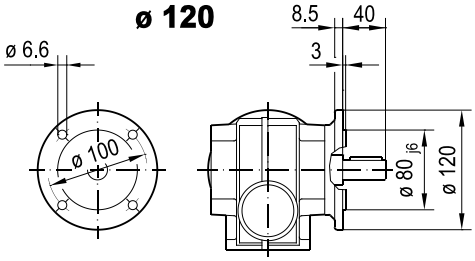
27797880/EN – 03/2023

SF37/SF37p..

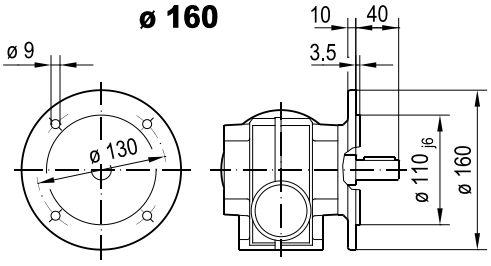
02 121 00 20



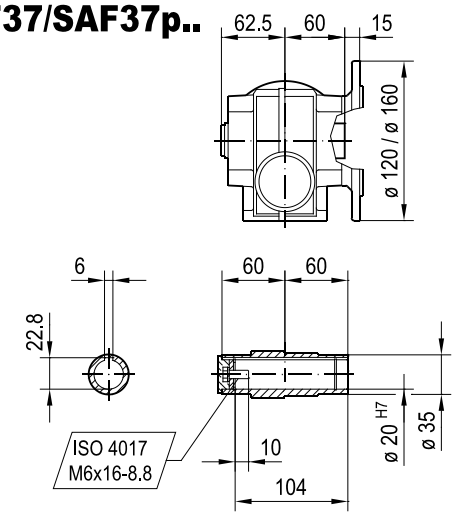
ø 120



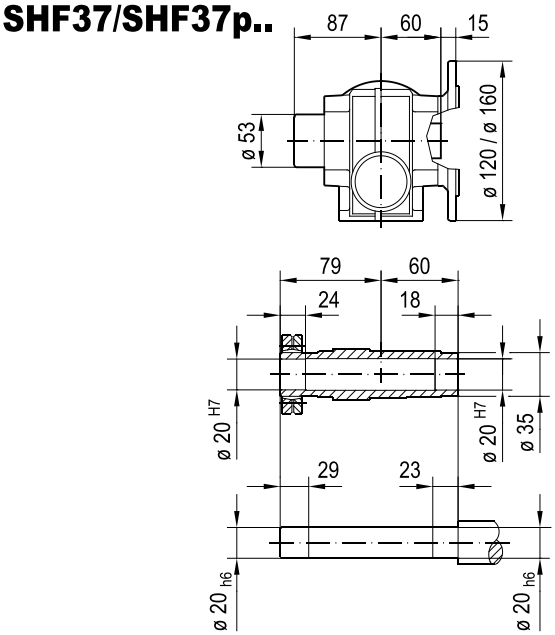
ø 160



SAF37/SAF37p..



SHF37/SHF37p..

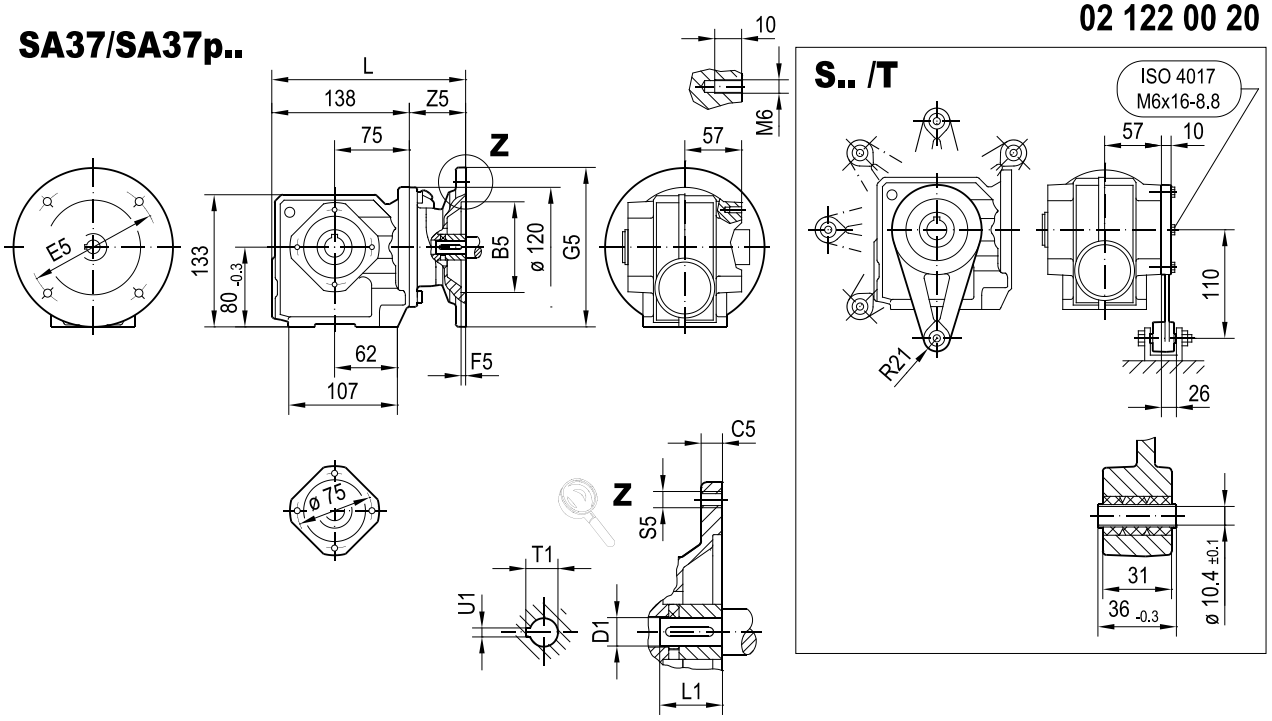


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	195	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	195	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	212	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	225	M10	86.5	24	50	27.3	8

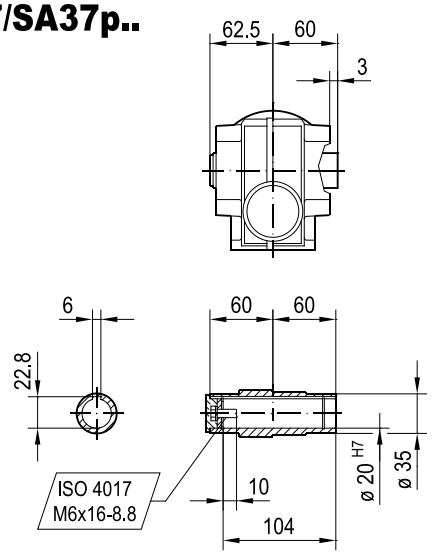
27797880/EN – 03/2023

SA37/SA37p..

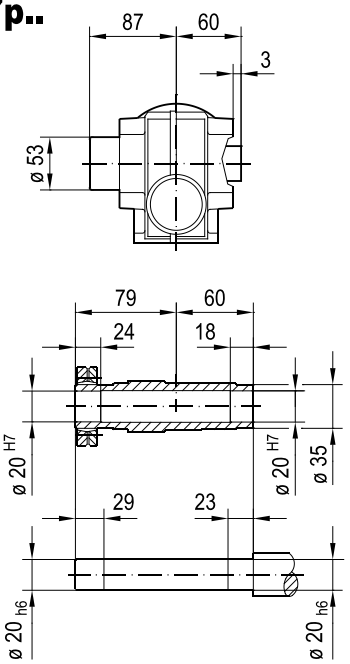
02 122 00 20



SA37/SA37p..



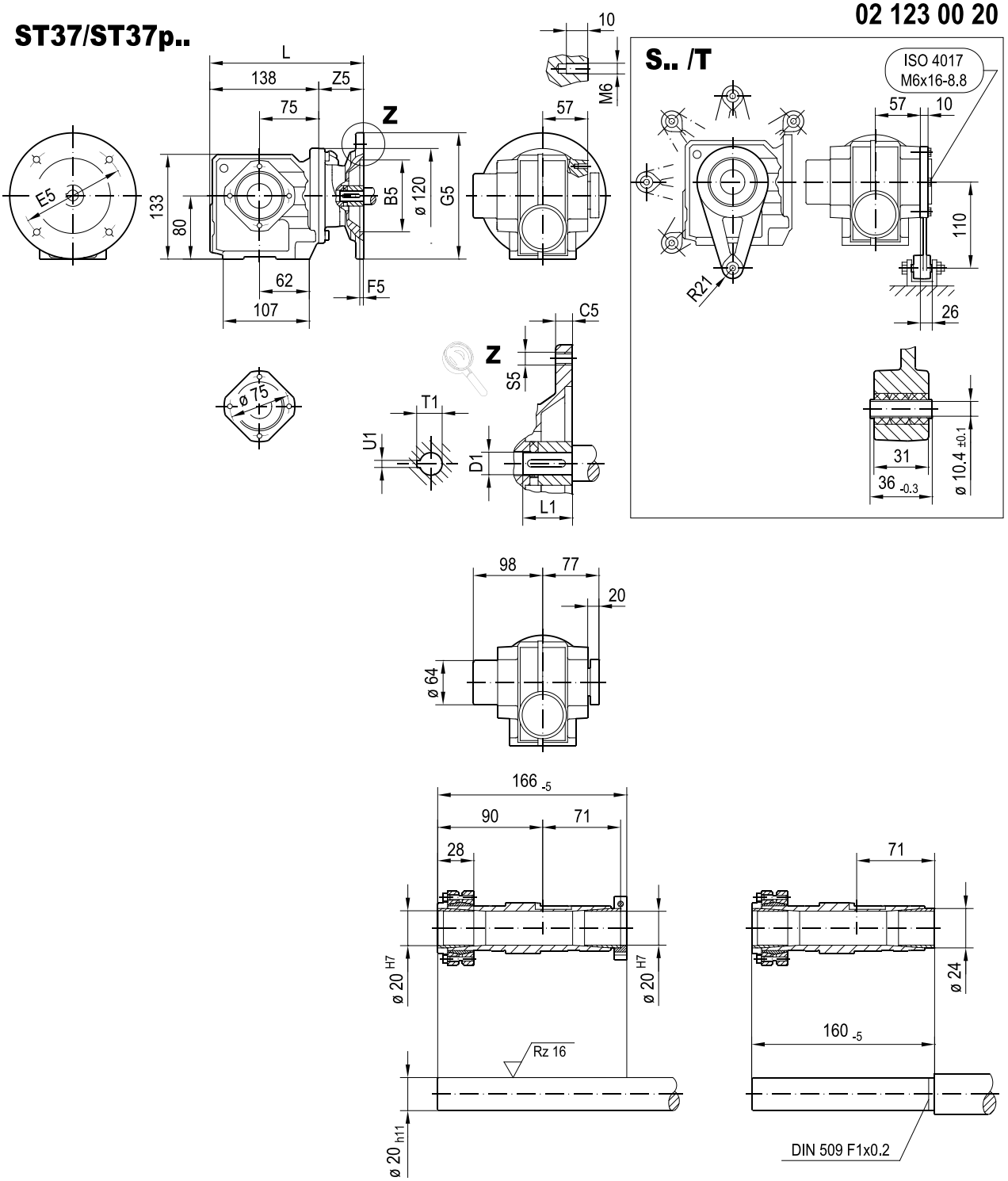
SH37/SH37p..



(→ 📖 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

27797880/EN – 03/2023

02 123 00 20

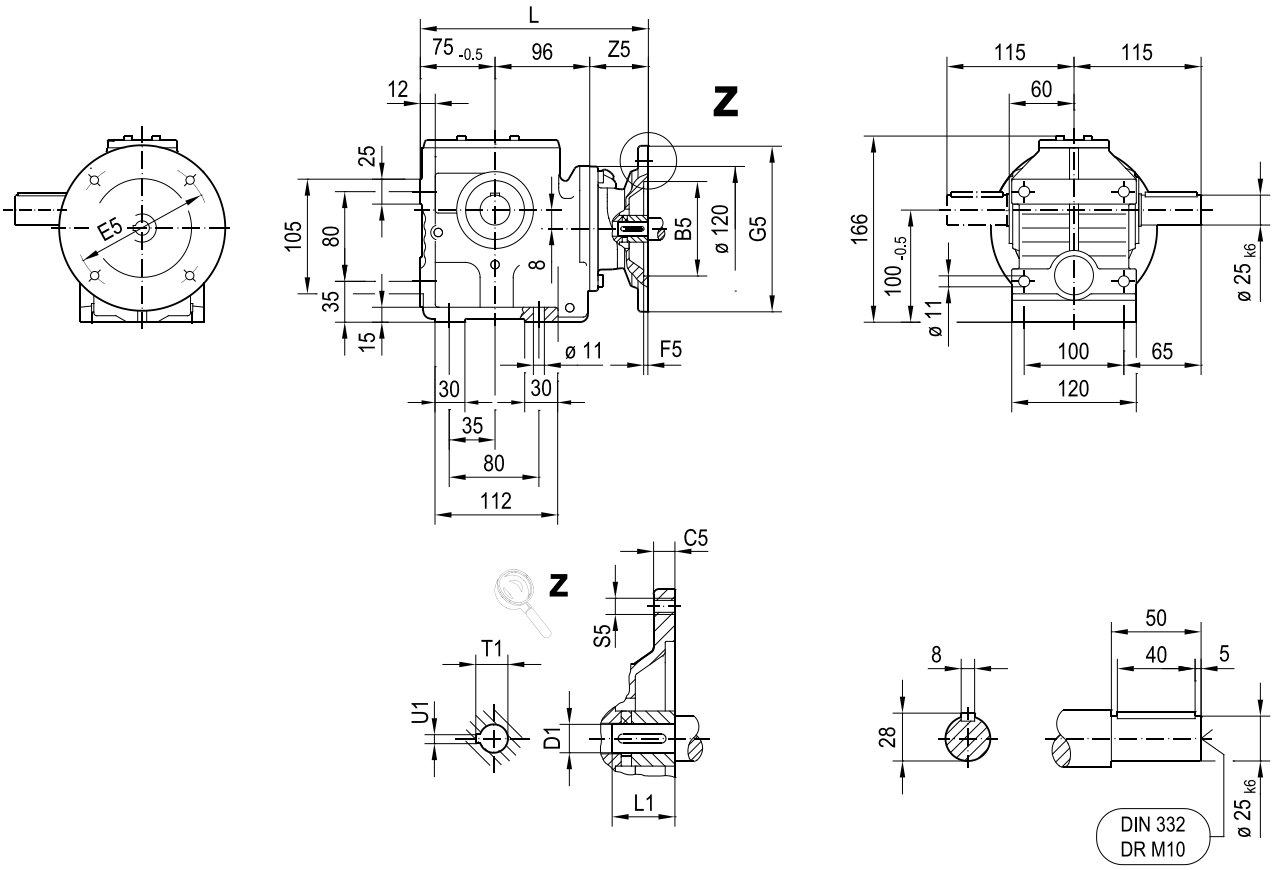


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	195	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	195	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	212	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	225	M10	86.5	24	50	27.3	8

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02 124 00 20

S47/S47p..

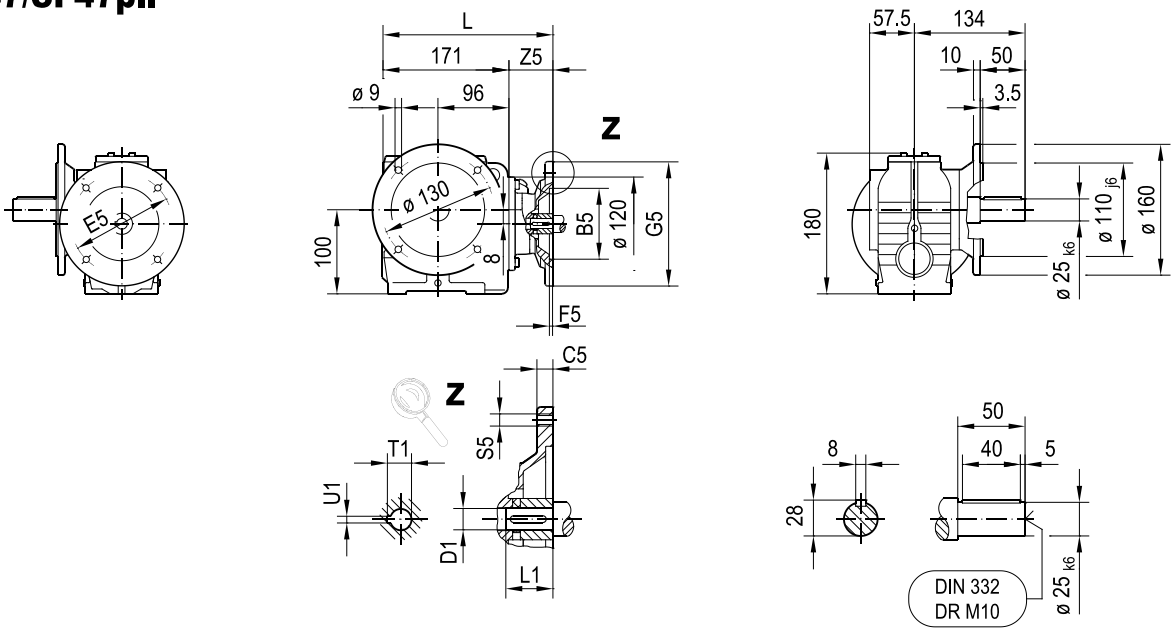


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	228	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	228	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	245	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	258	M10	86.5	24	50	27.3	8

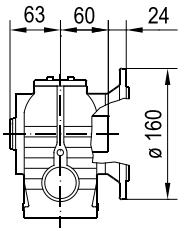
27797880/EN – 03/2023

02 125 00 20

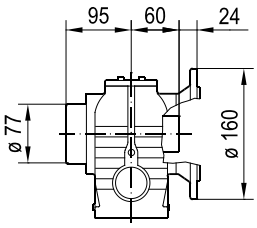
SF47/SF47p..

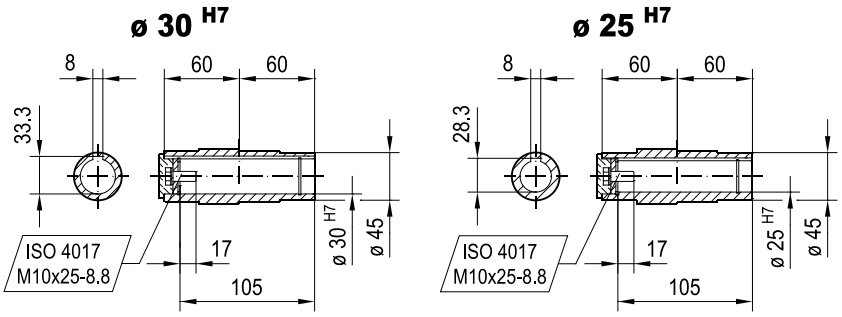


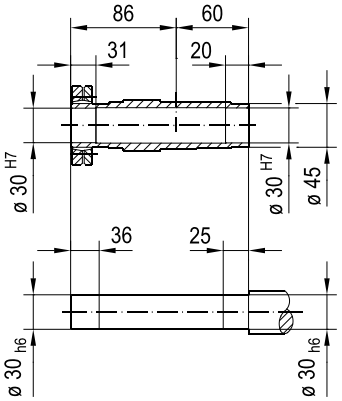
SAF47/SAF47p..



SHF47/SHF47p..





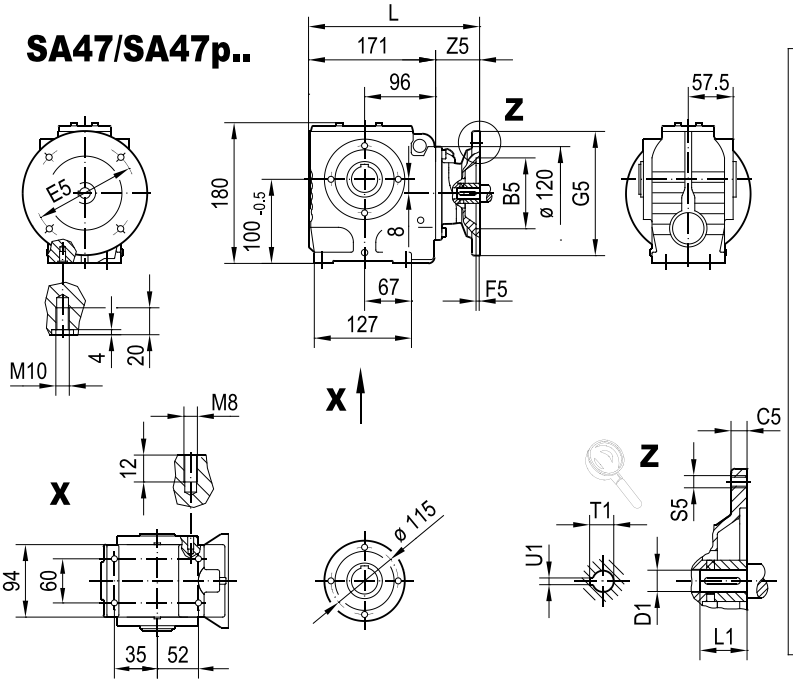


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	228	M8	56.5	11	23	12.8	4
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AMS80	130	12	165	4.5	200	245	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	258	M10	86.5	24	50	27.3	8

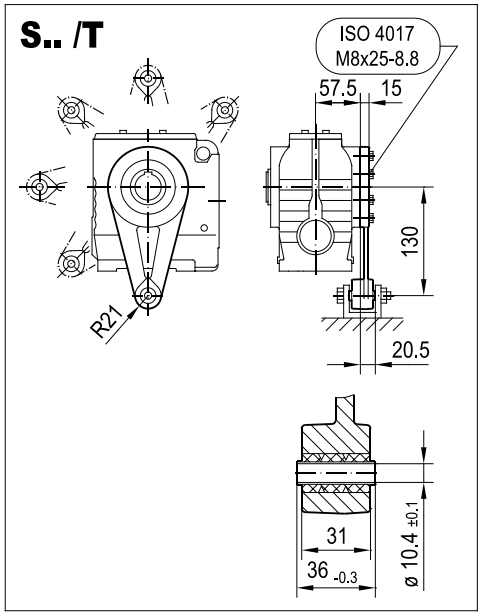
27797880/EN – 03/2023

02 126 00 20

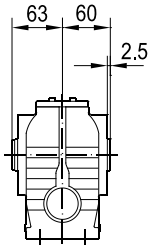
SA47/SA47p..



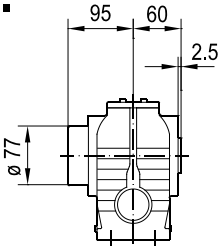
S.. /T



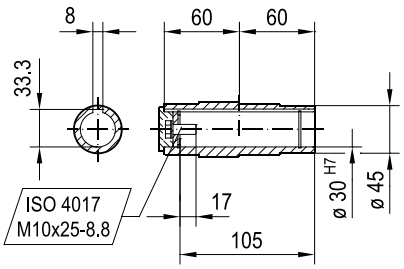
SA47/SA47p..



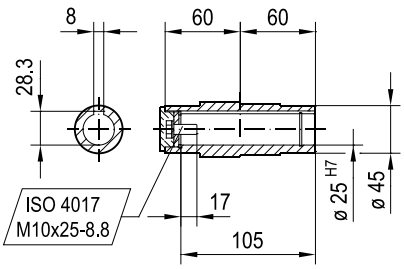
SH47/SH47p..

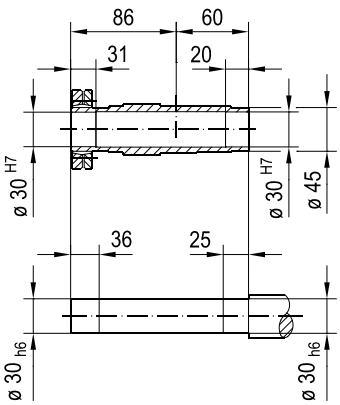


ø 30 H7



ø 25 H7



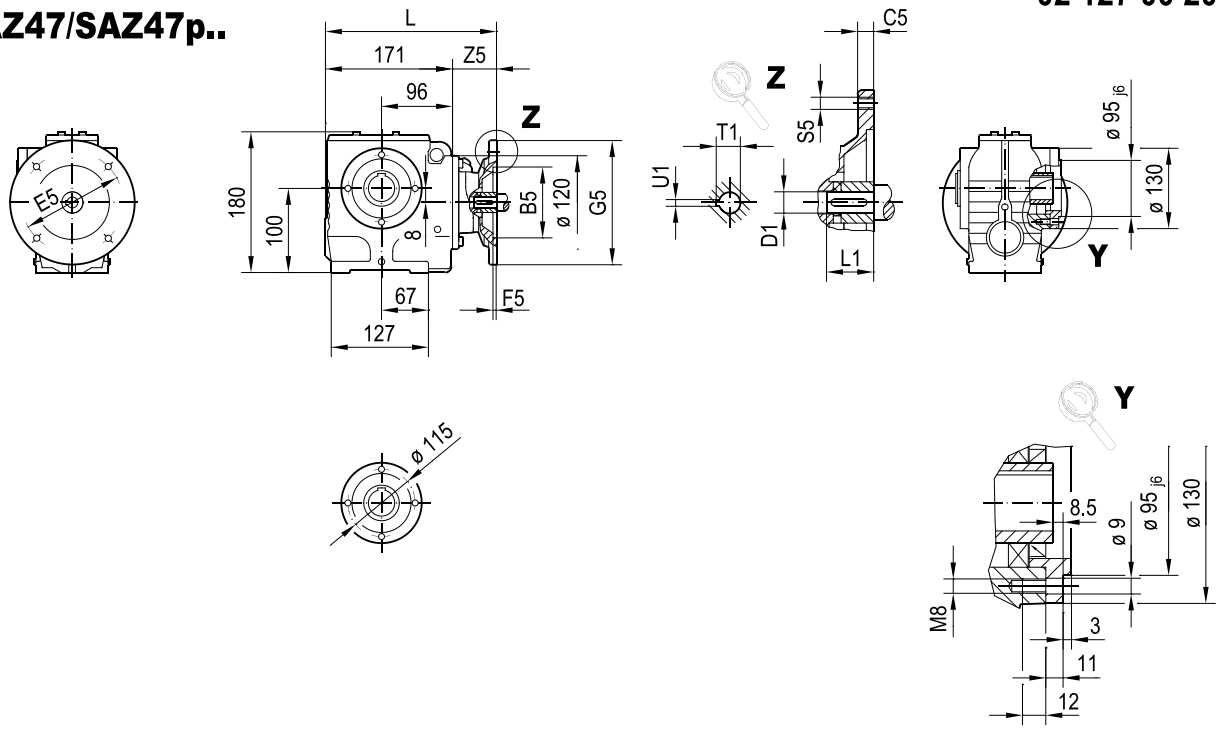


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	228	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	228	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	245	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	258	M10	86.5	24	50	27.3	8

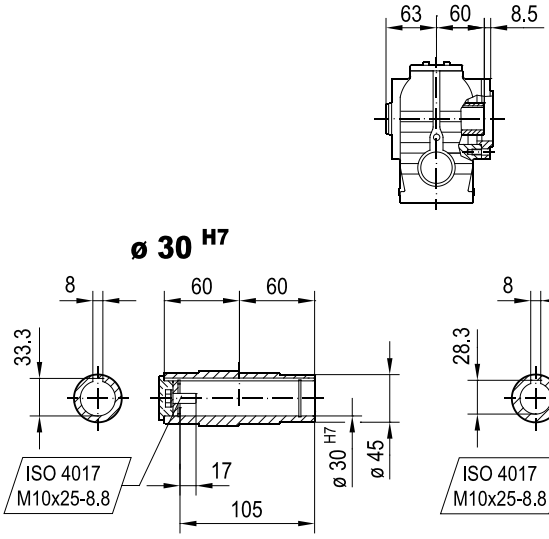
27797880/EN – 03/2023

02 127 00 20

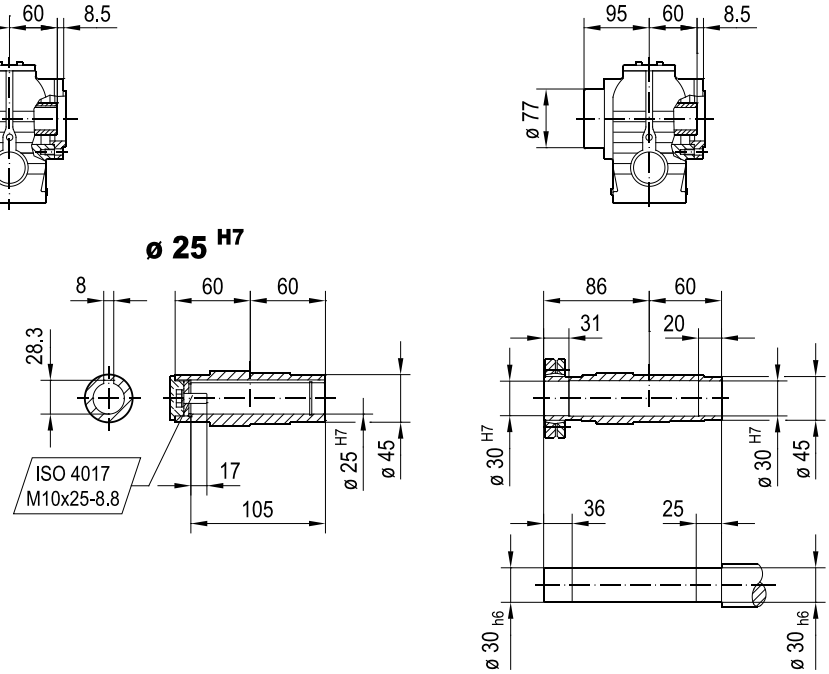
SAZ47/SAZ47p..



SAZ47/SAZ47p..



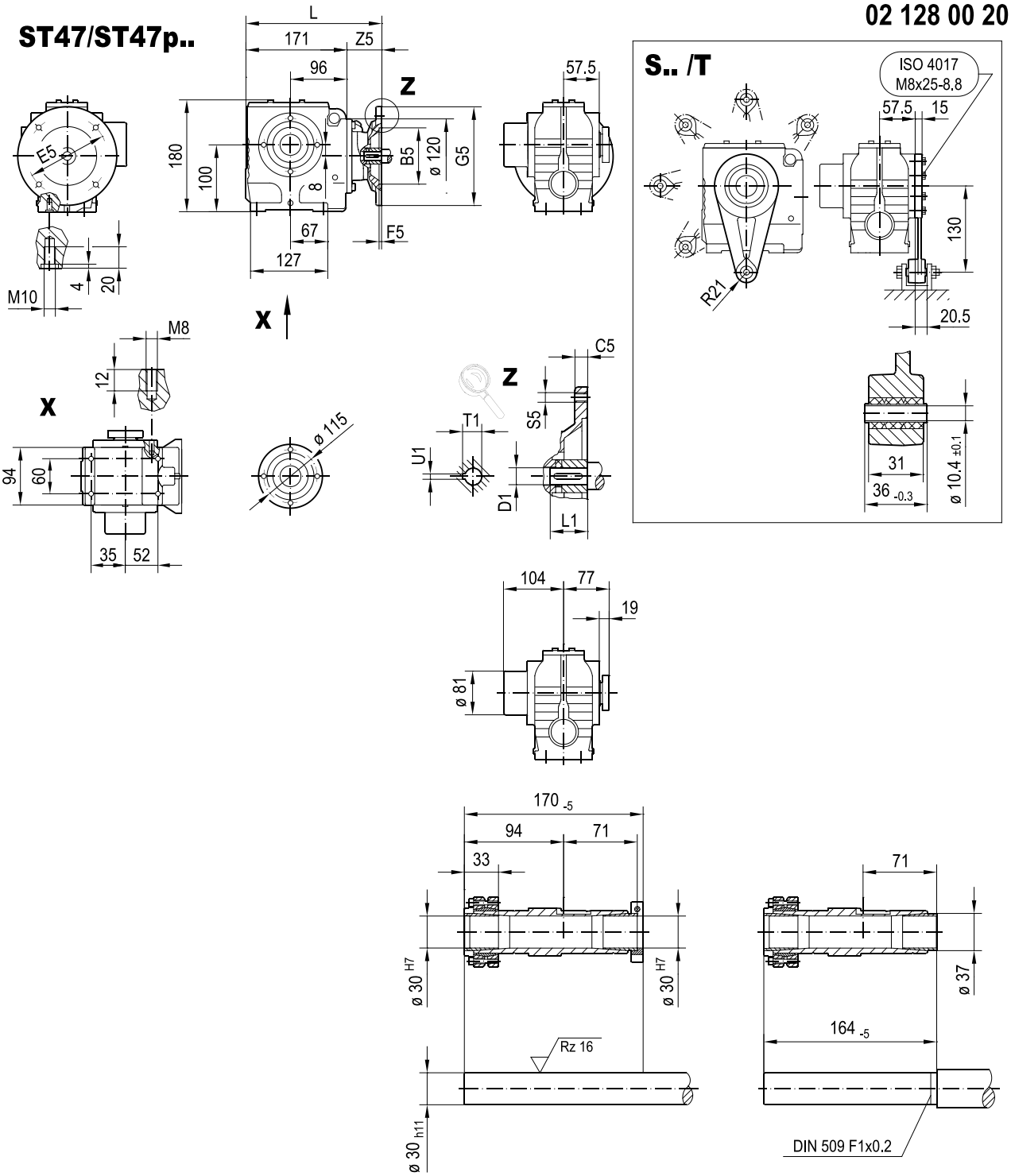
SHZ47/SHZ47p..



(→ 📖 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

27797880/EN – 03/2023

02 128 00 20

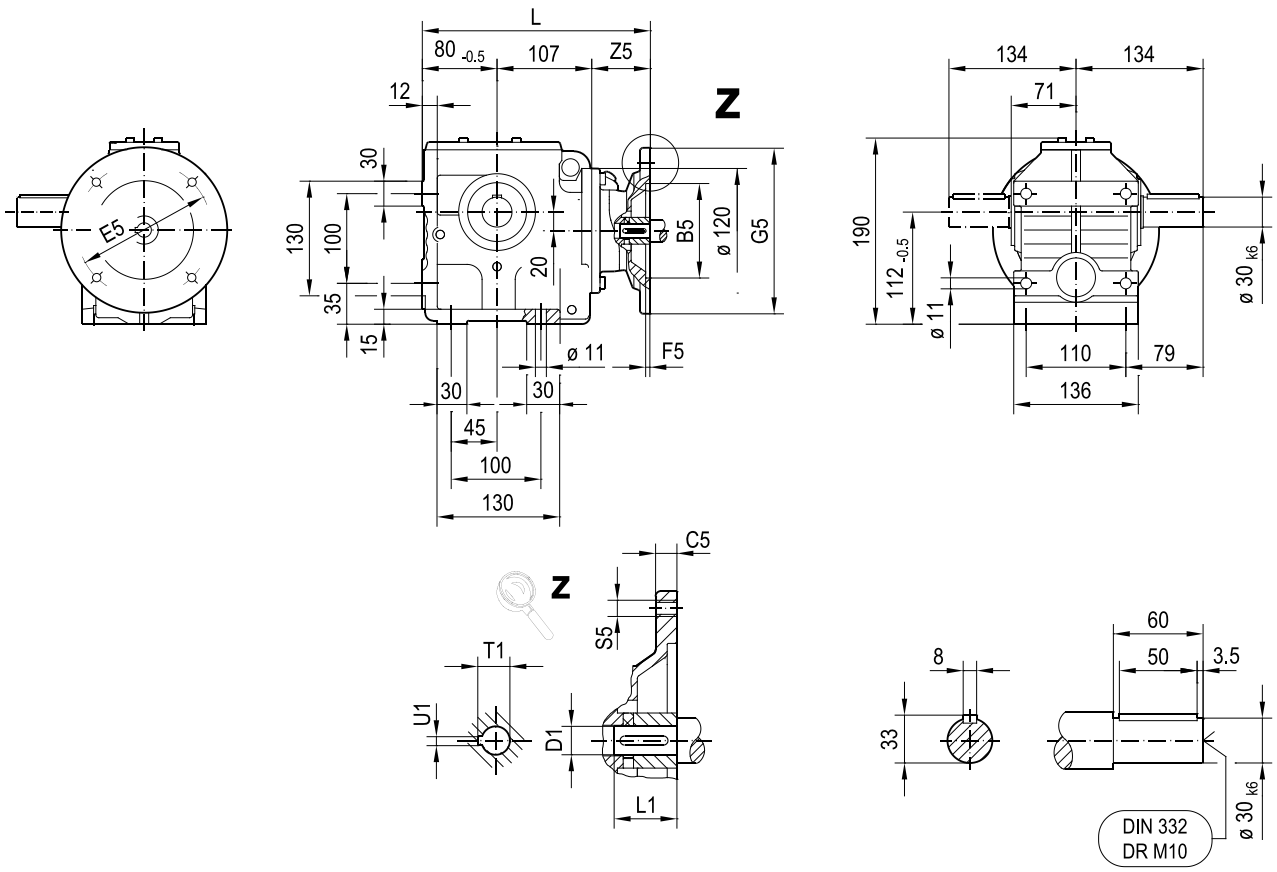


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	228	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	228	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	245	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	258	M10	86.5	24	50	27.3	8

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S57/S57p..

02 129 00 20

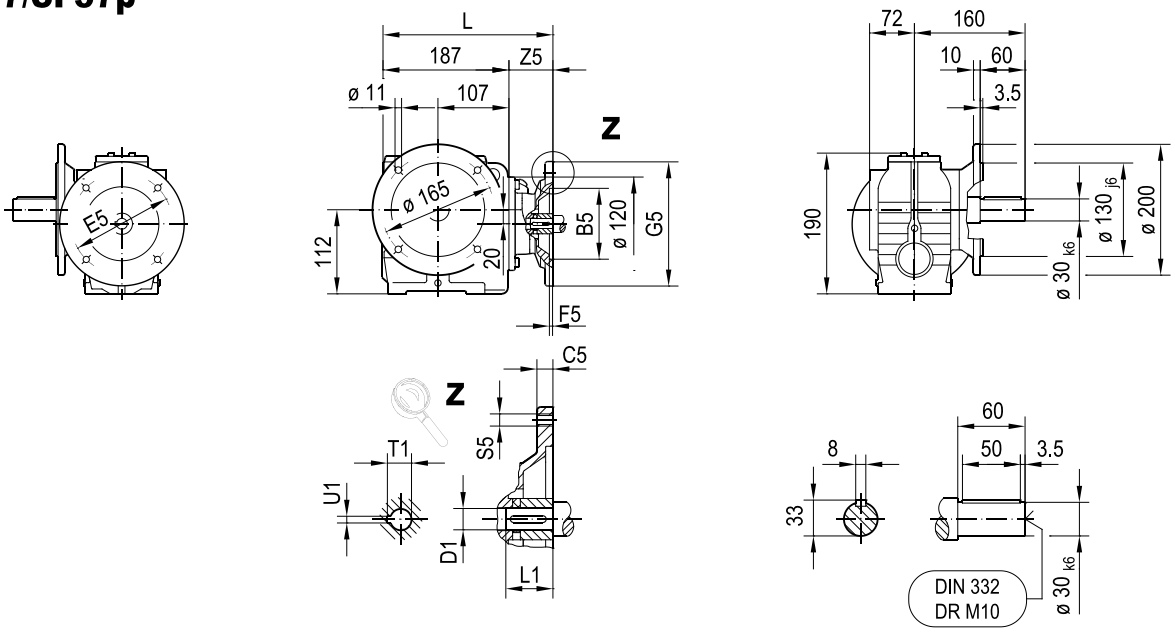


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	244	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	244	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	261	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	274	M10	86.5	24	50	27.3	8

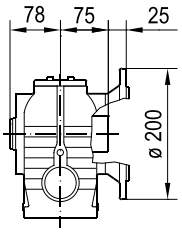
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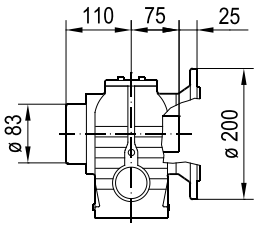
SF57/SF57p

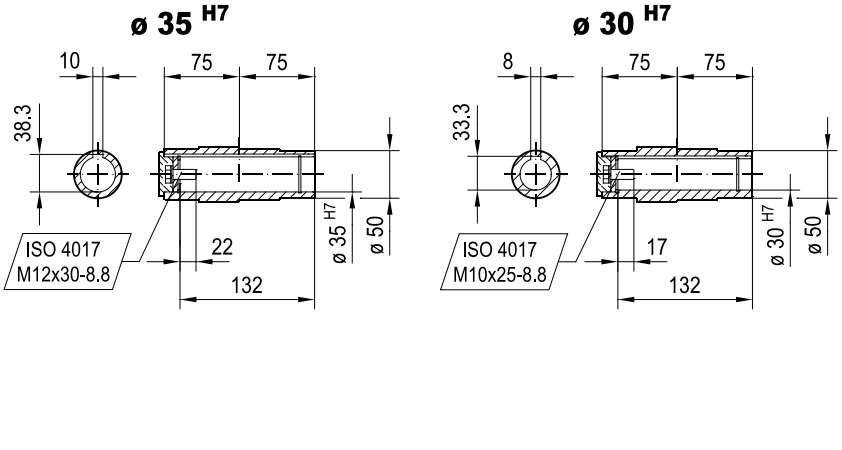


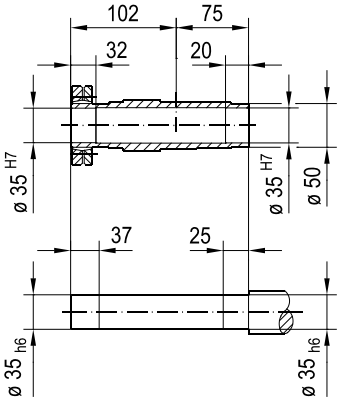
SAF57/SAF57p..



SHF57/SHF57p..





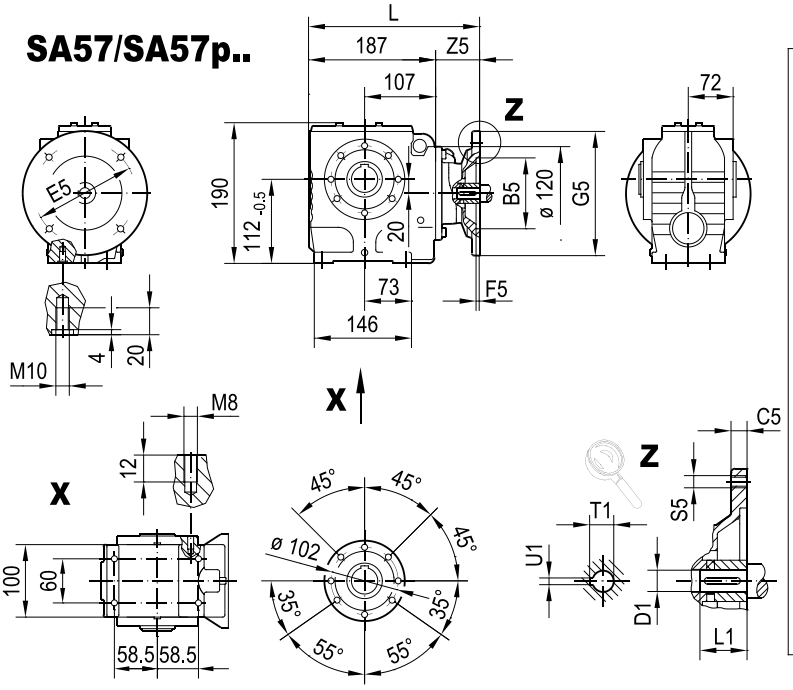


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	244	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	244	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	261	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	274	M10	86.5	24	50	27.3	8

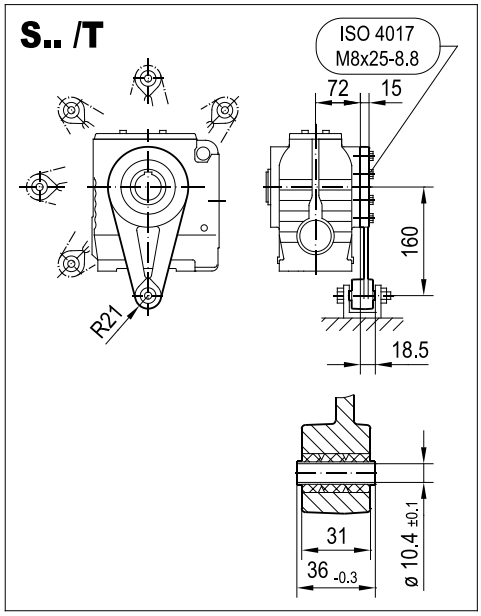
27797880/EN – 03/2023

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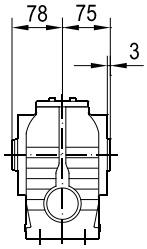
SA57/SA57p..



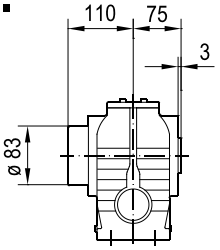
S.. /T



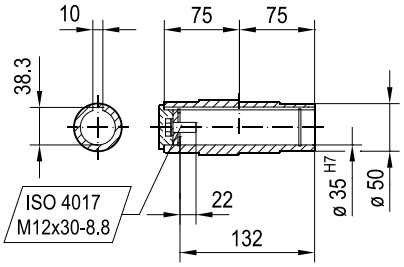
SA57/SA57p..



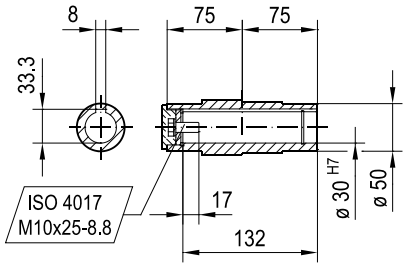
SH57/SH57p..

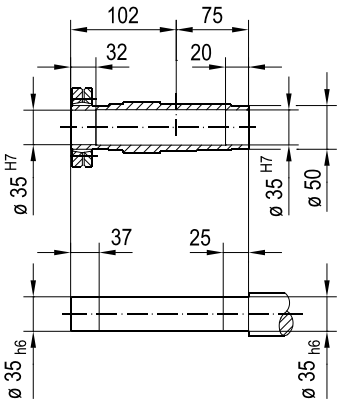


ø 35 H7



ø 30 H7



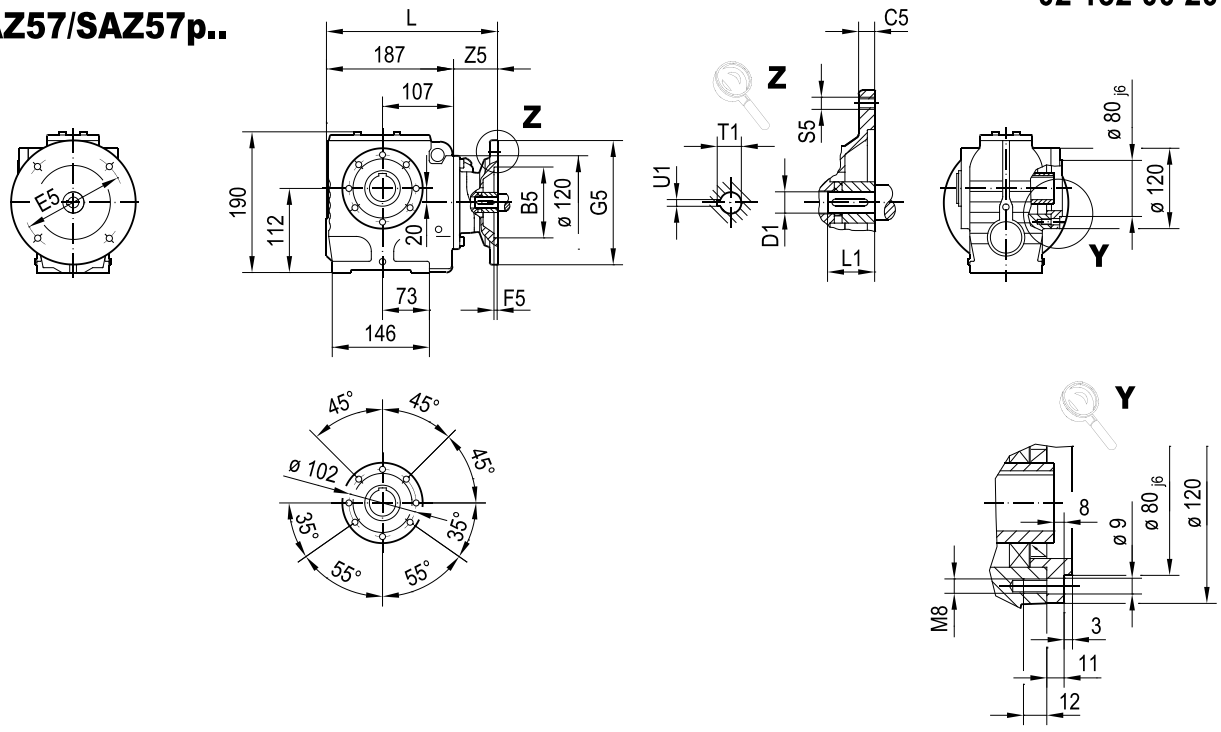


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	244	M8	56.5	11	23	12.8	4
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AMS80	130	12	165	4.5	200	261	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	274	M10	86.5	24	50	27.3	8

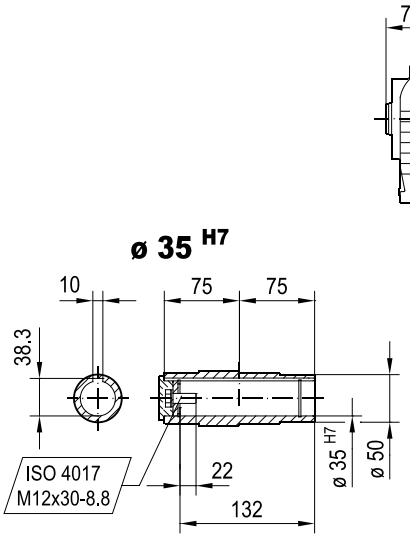
27797880/EN – 03/2023

02 132 00 20

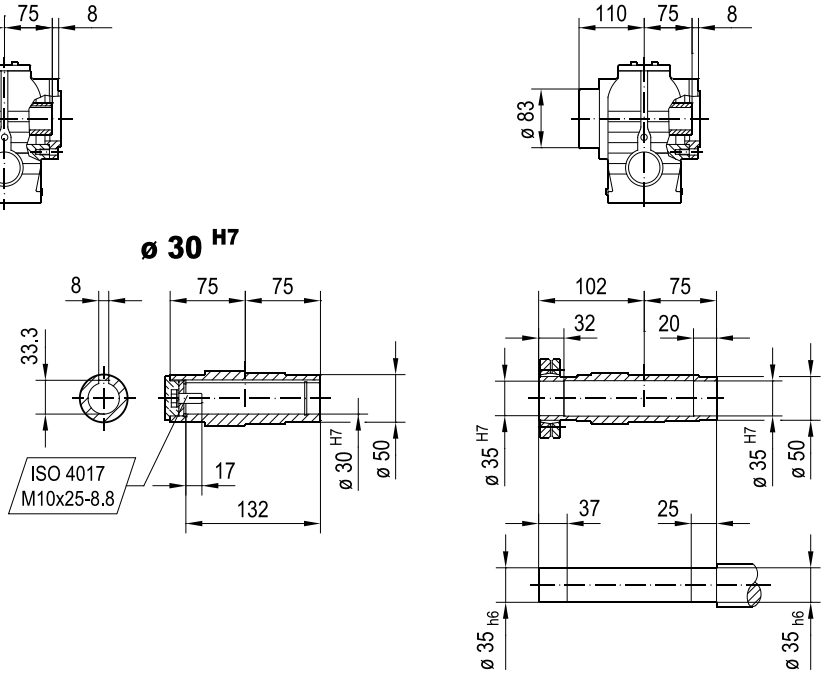
SAZ57/SAZ57p..



SAZ57/SAZ57p..



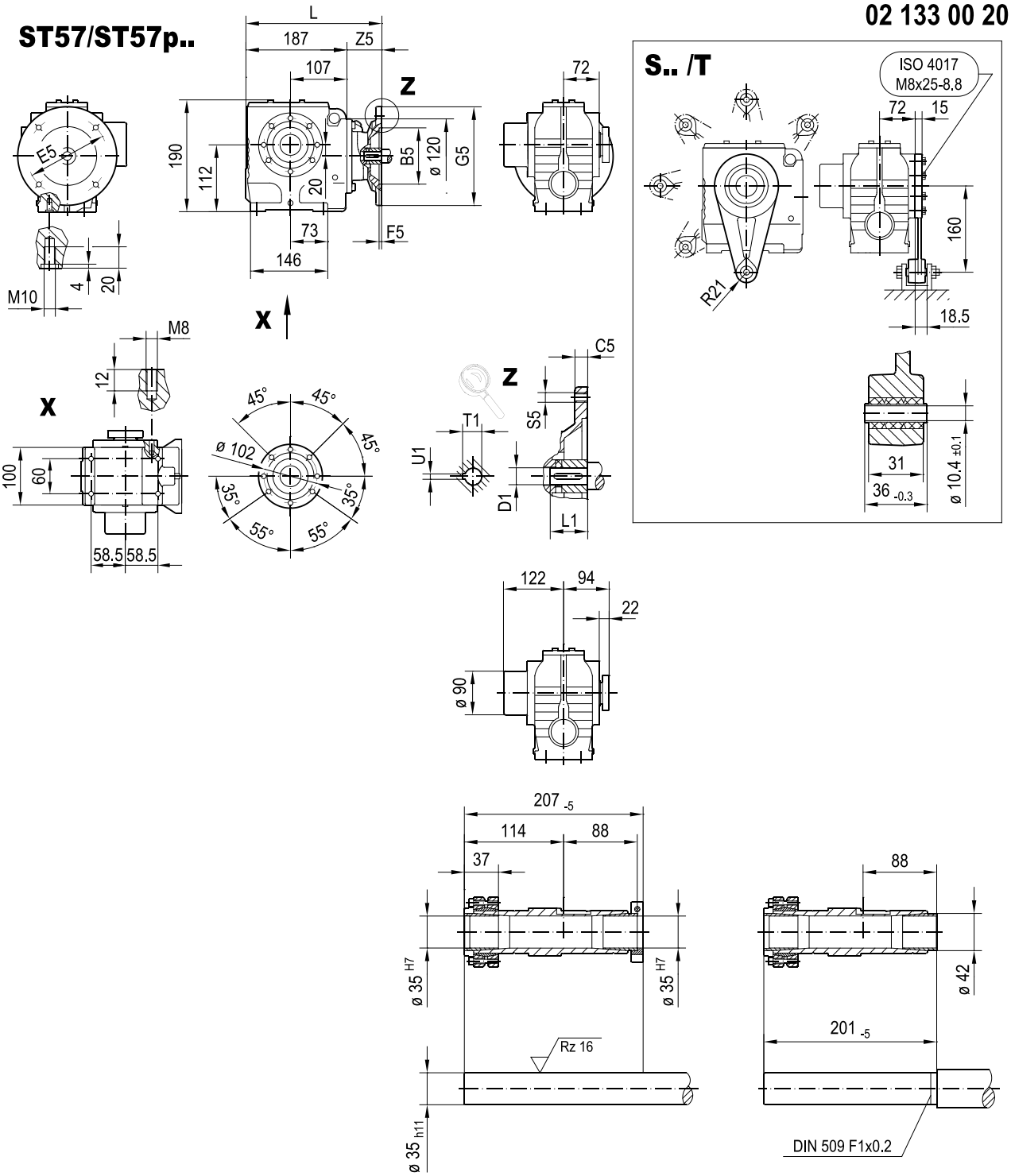
SHZ57/SHZ57p..



(→ 📖 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

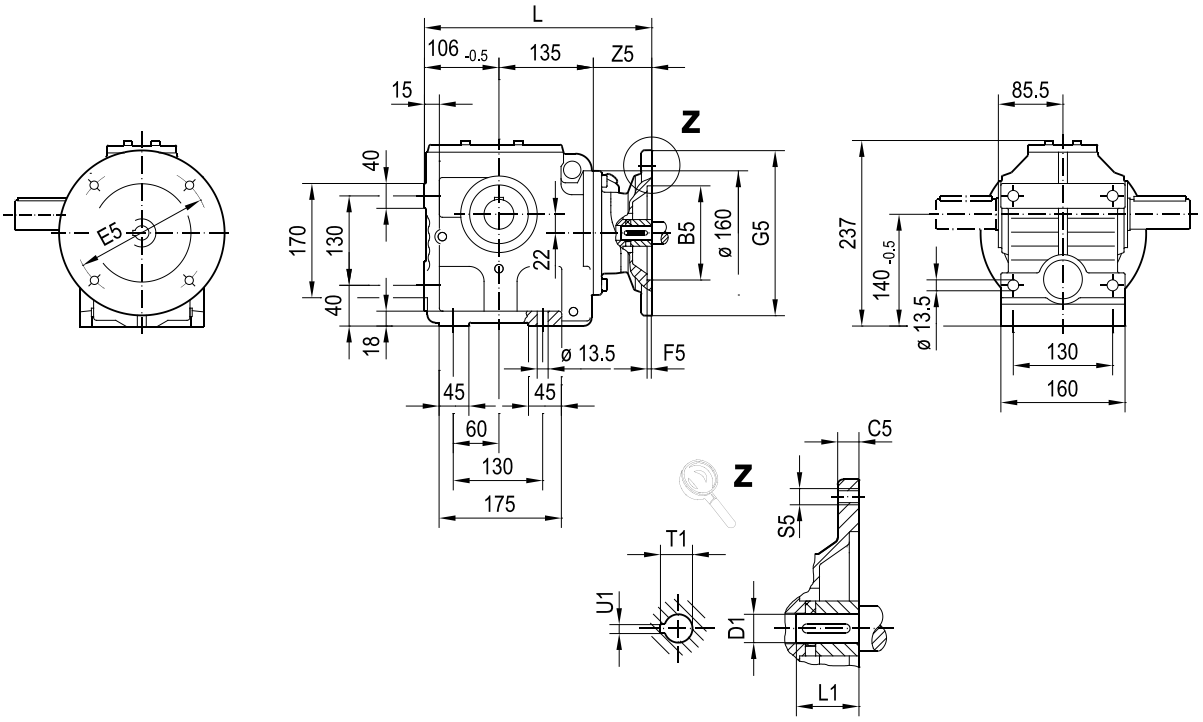


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	244	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	244	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	261	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	274	M10	86.5	24	50	27.3	8

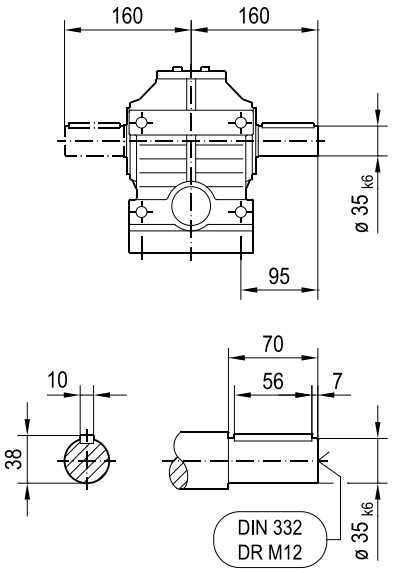
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S67/S67p..

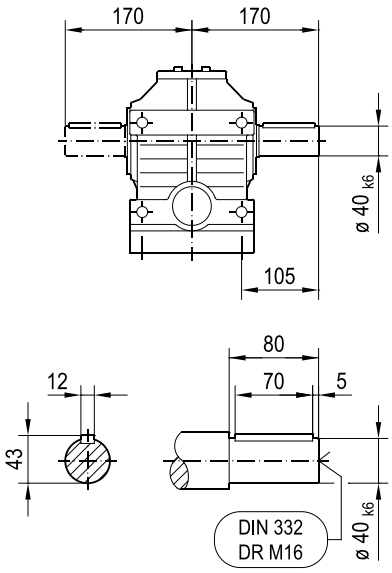
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S67..



S67/S67p..

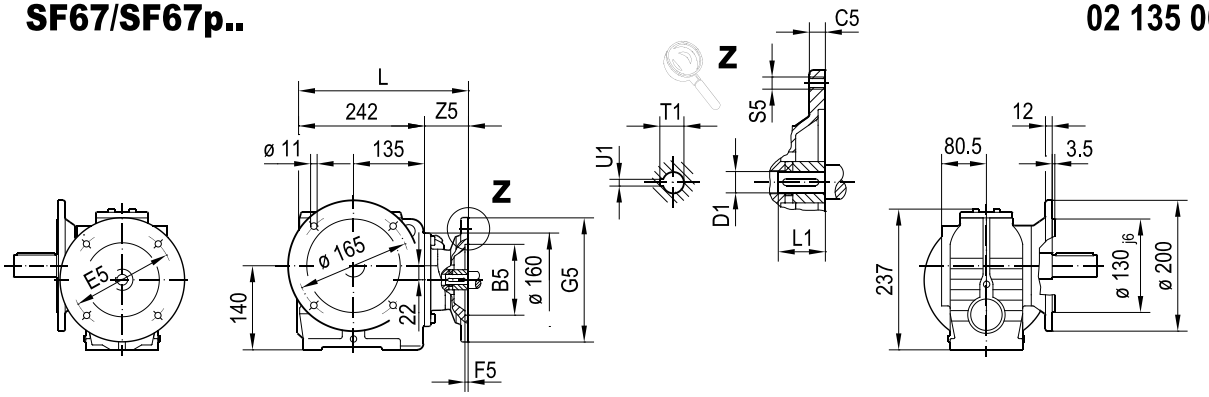


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	291	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	291	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	308	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	321	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	350	M12	108.5	28	60	31.3	8
AMS112	180	15	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

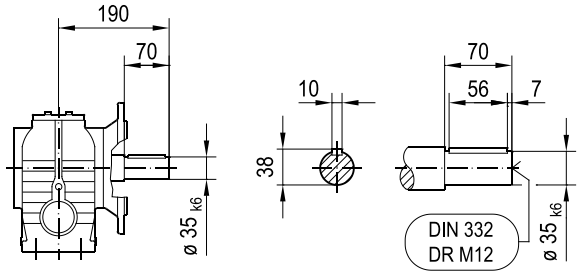
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SF67/SF67p..

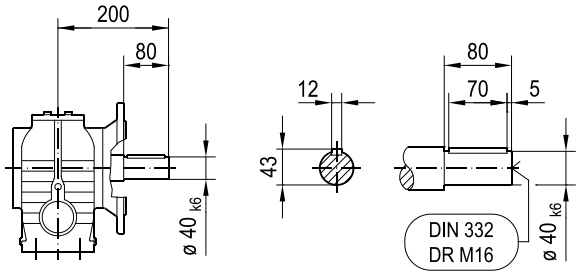
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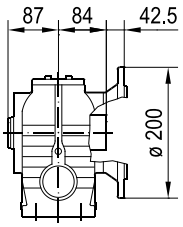
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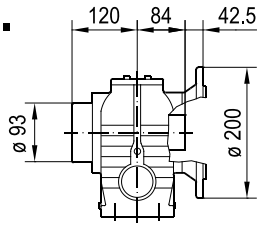
SF67/SF67p..



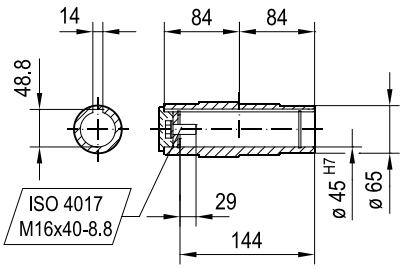
SAF67/SAF67p..



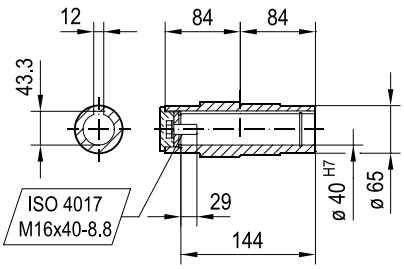
SHF67/SHF67p..

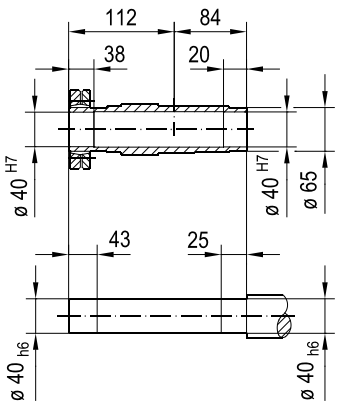


ø 45 H7



ø 40 H7



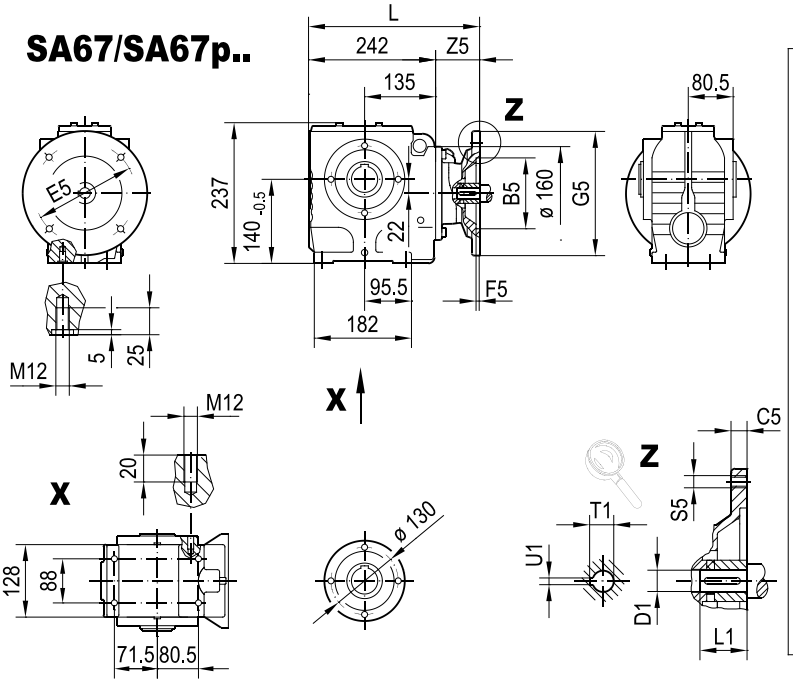


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	292	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	292	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	309	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	322	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	351	M12	108.5	28	60	31.3	8
AMS112	180	15	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

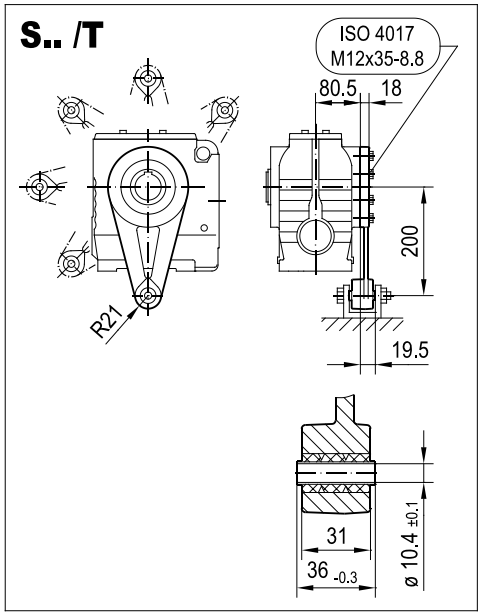
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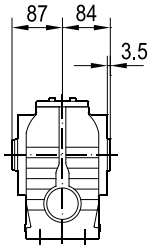
SA67/SA67p..



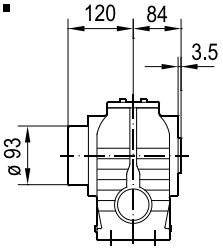
S.. /T



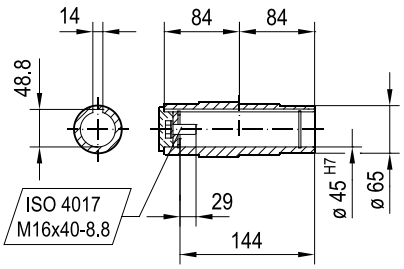
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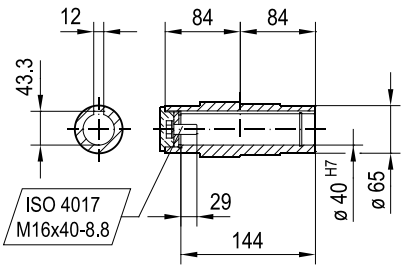
SH67/SH67p..

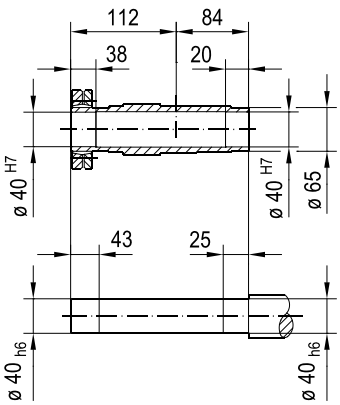


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ø 40 H7



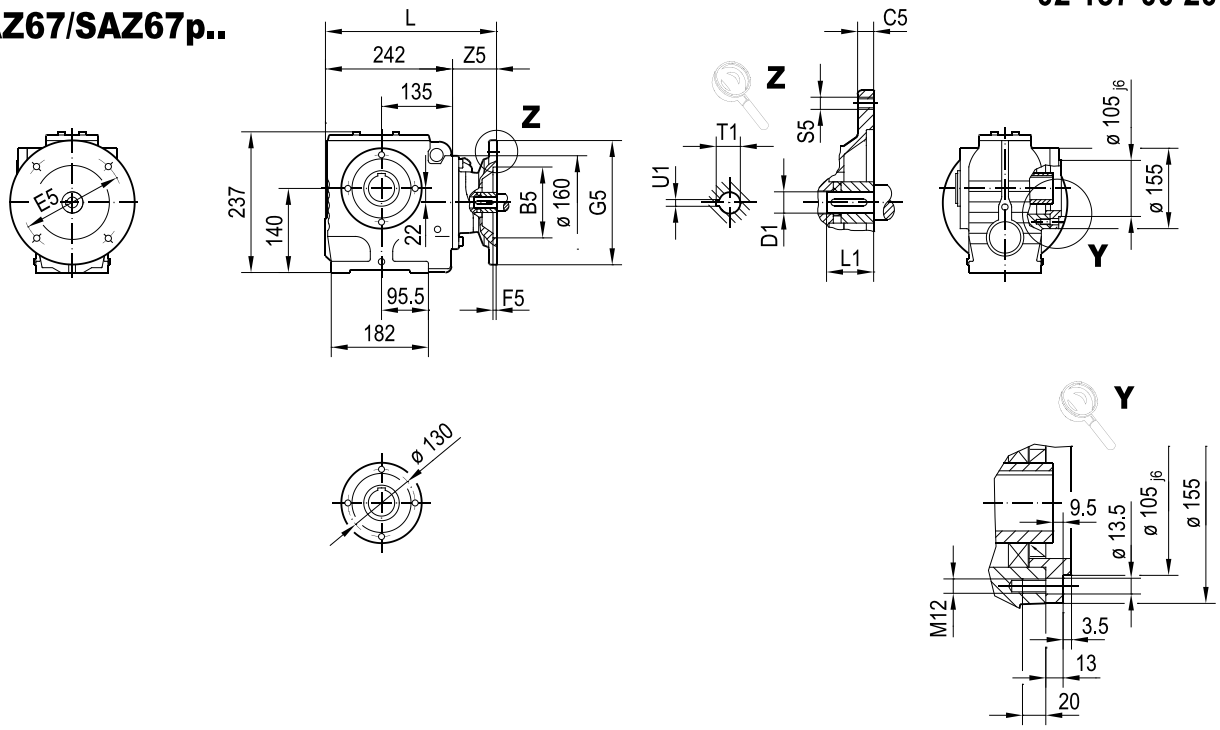


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	292	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	292	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	309	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	322	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	351	M12	108.5	28	60	31.3	8
AMS112	180	15	215	5	250	351	M12	108.5	28	60	31.3	8
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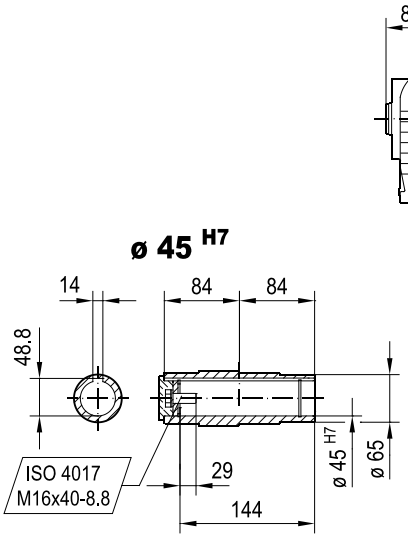
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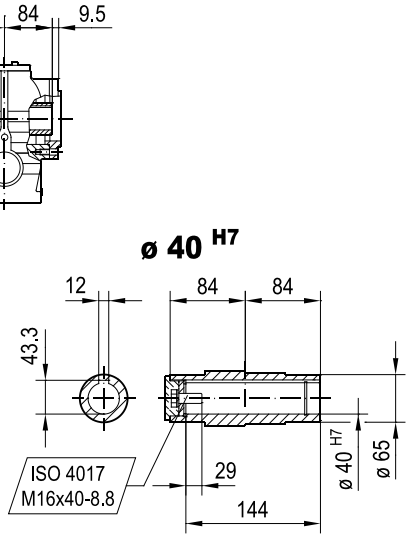
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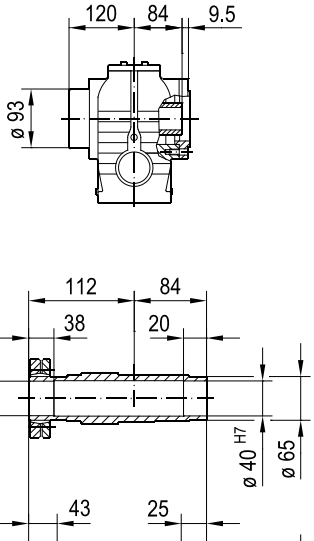


SAZ67/SAZ67p..



SHZ67/SHZ67p..



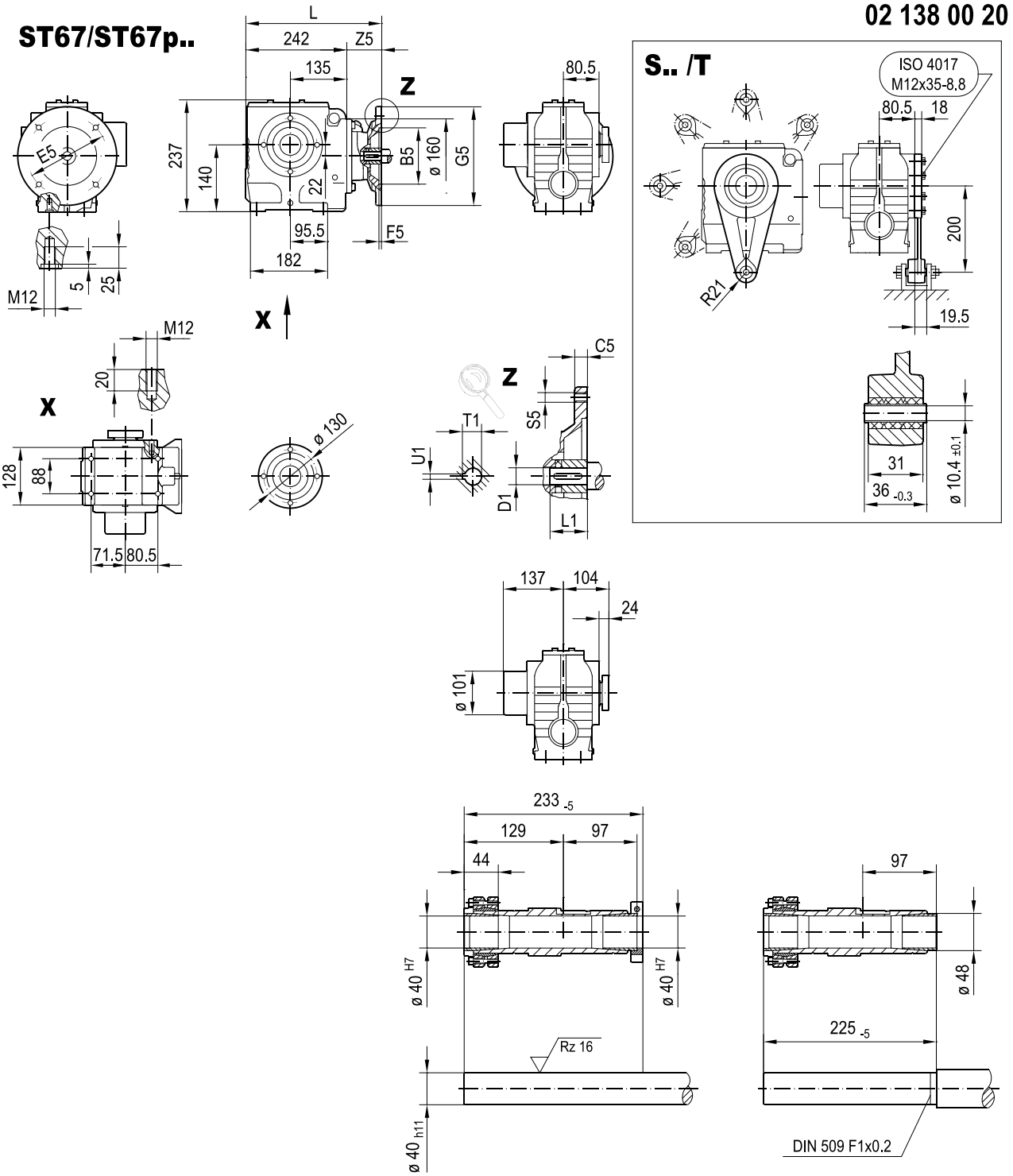


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS71	110	10	130	4	160	292	M8	50	14	30	16.3	5
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AMS90	130	12	165	4.5	200	322	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	351	M12	108.5	28	60	31.3	8
AMS112	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

ST67/ST67p..

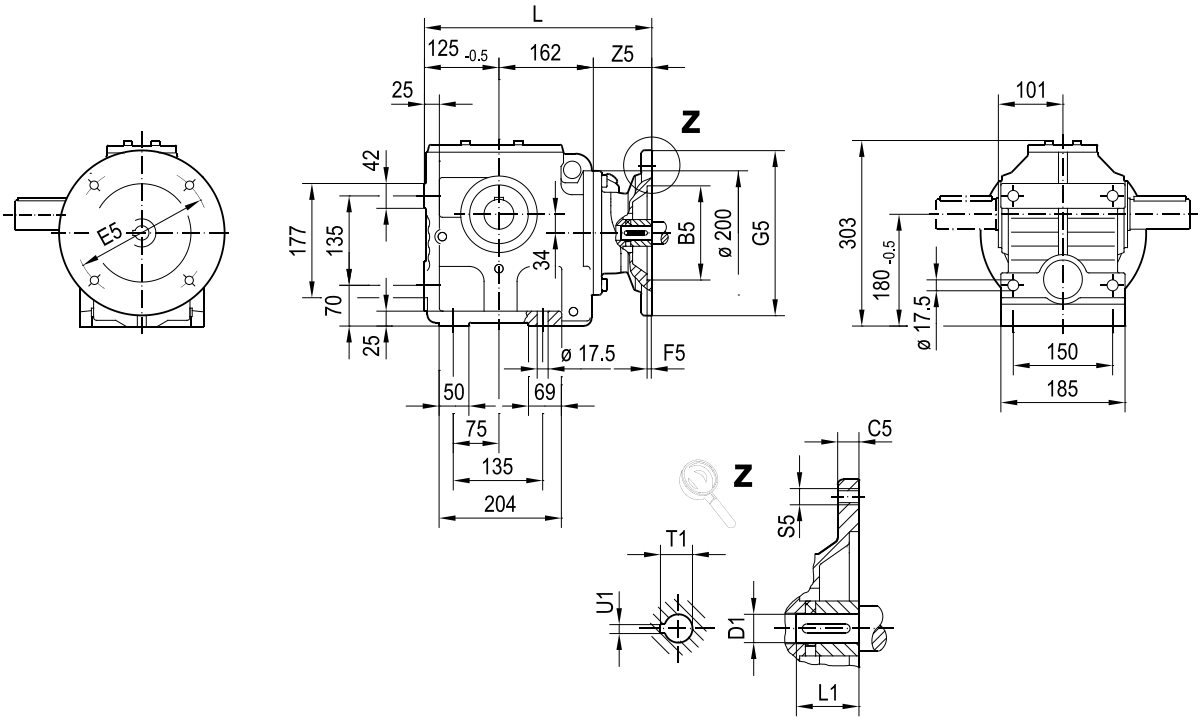


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS90	130	12	165	4.5	200	322	M10	80	24	50	27.3	8
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AMS112	180	15	215	5	250	351	M12	108.5	28	60	31.3	8
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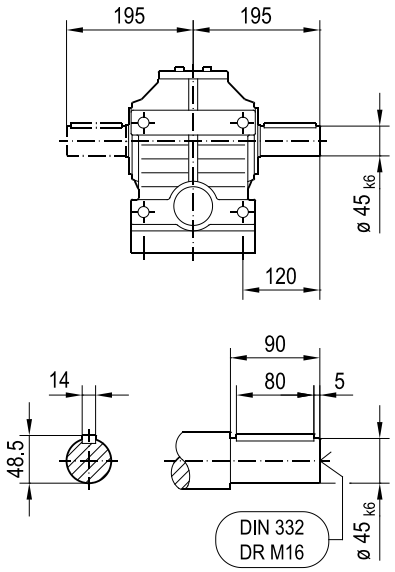
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S77/S77p..

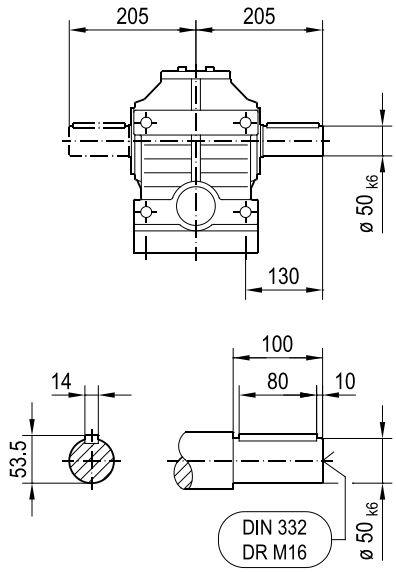
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S77..



S77/S77p..

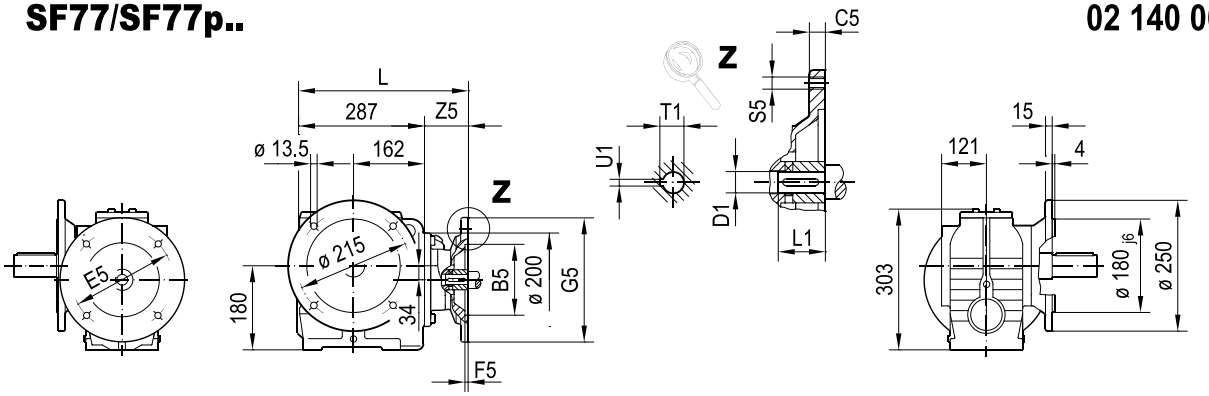


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS71	110	10	130	4	160	331	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	347	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	360	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	388	M12	100.5	28	60	31.3	8
AMS112	180	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

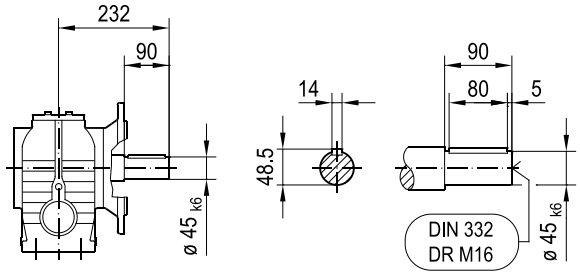
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SF77/SF77p..

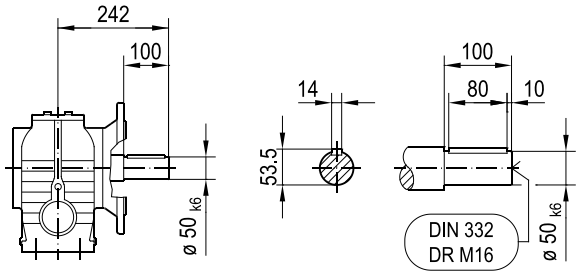
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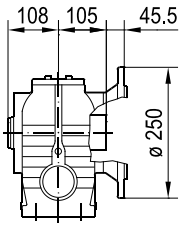
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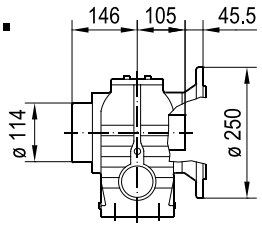
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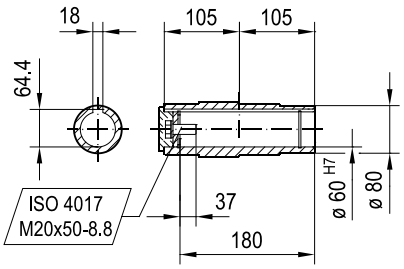
SAF77/SAF77p..



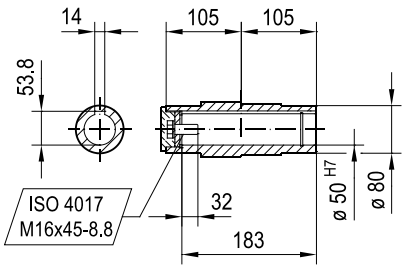
SHF77/SHF77p..

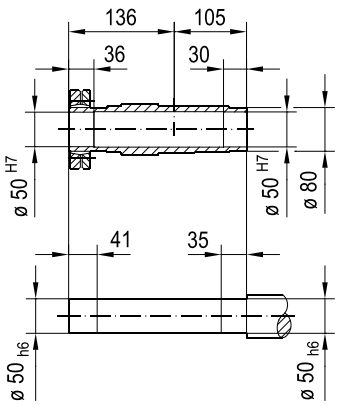


ø 60 H7



ø 50 H7



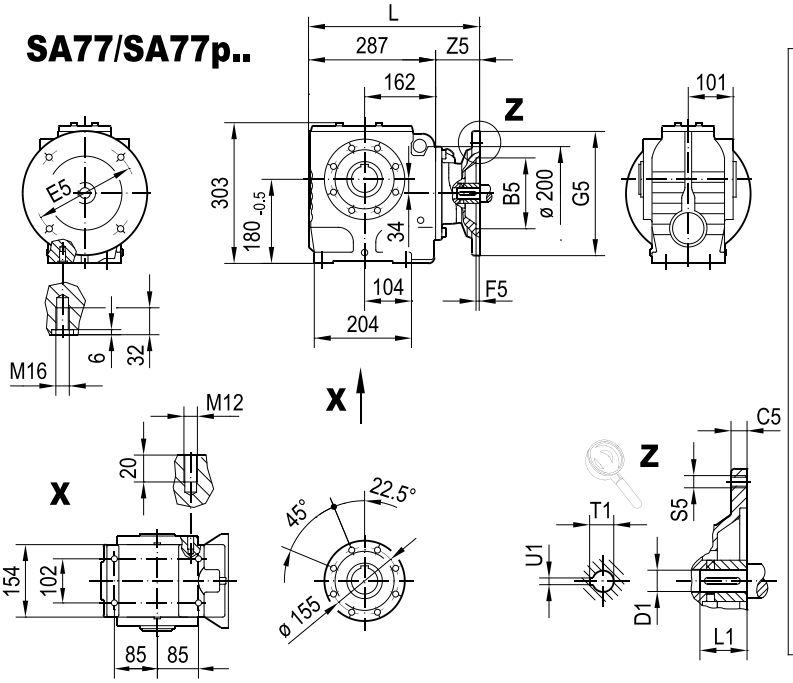


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	331	M8	44	11	23	12.8	4
AMS71	110	10	130	4	160	331	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	347	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	360	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	388	M12	100.5	28	60	31.3	8
AMS112	180	15	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

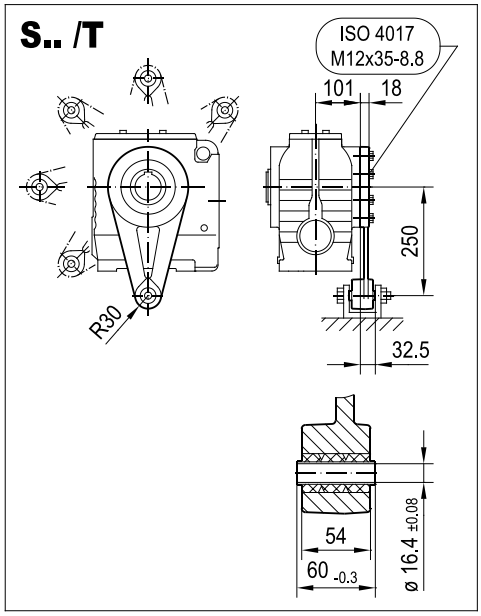
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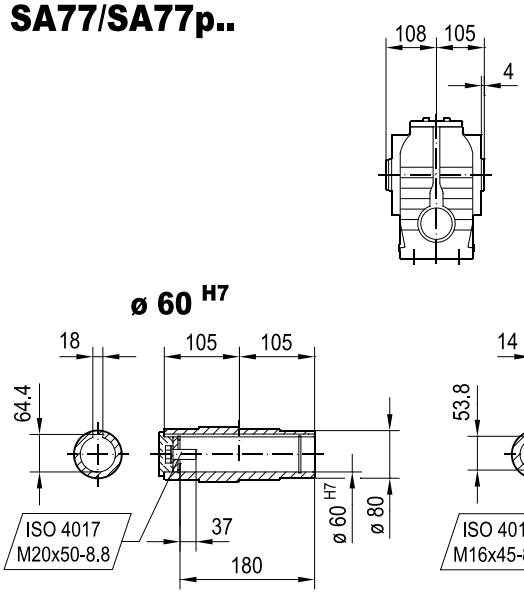
SA77/SA77p..



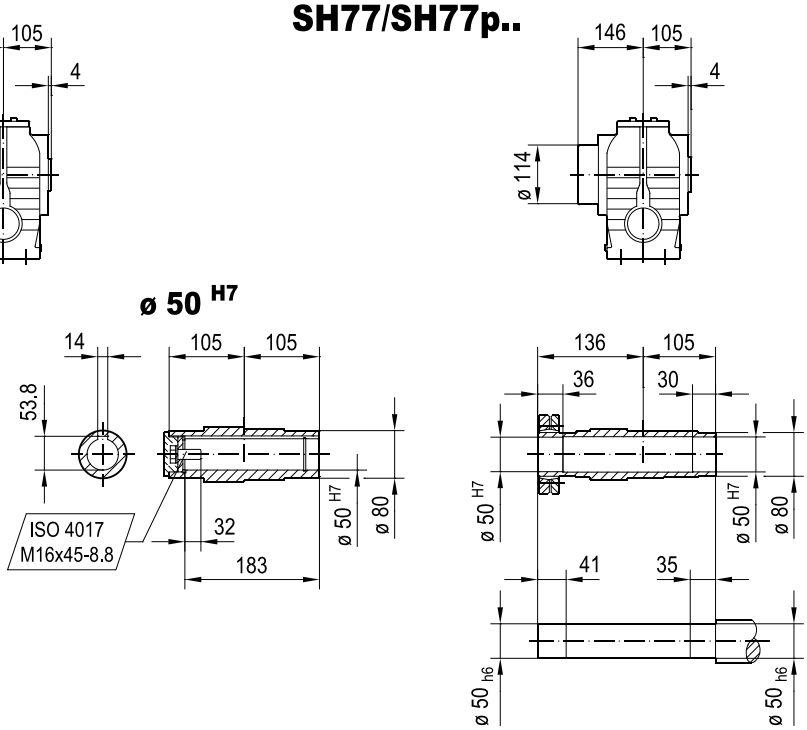
S.. /T



SA77/SA77p..



SH77/SH77p..

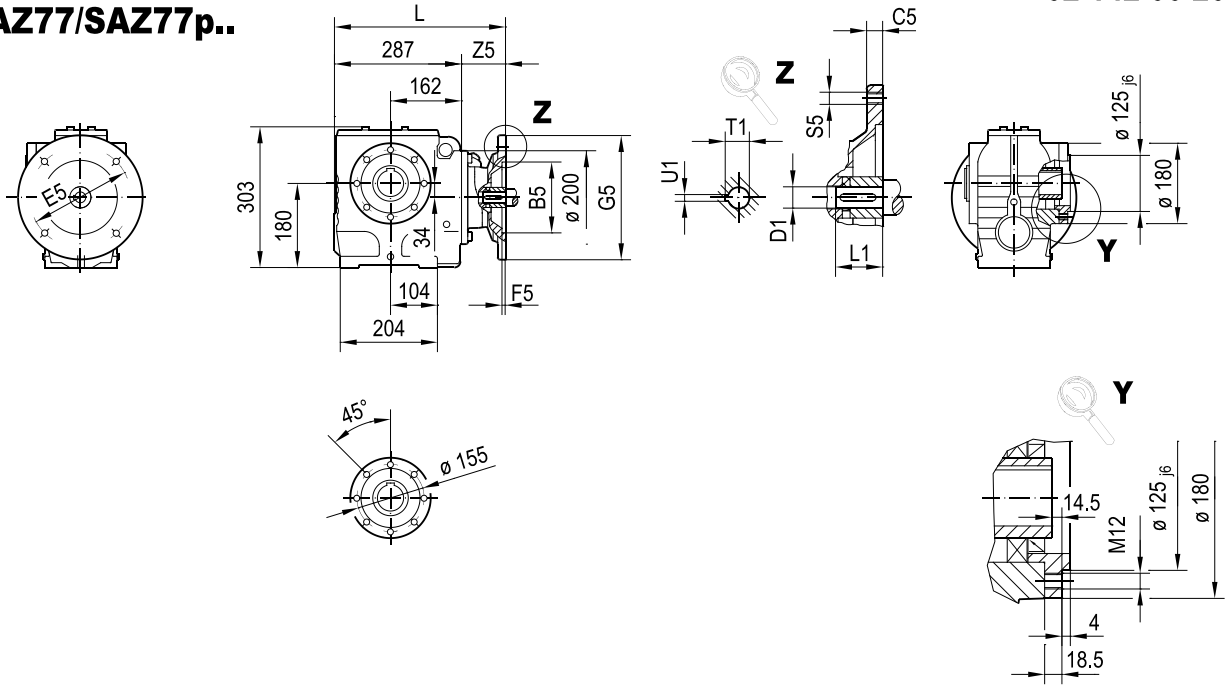


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	331	M8	44	11	23	12.8	4
AMS71	110	10	130	4	160	331	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	347	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	360	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	388	M12	100.5	28	60	31.3	8
AMS112	180	15	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

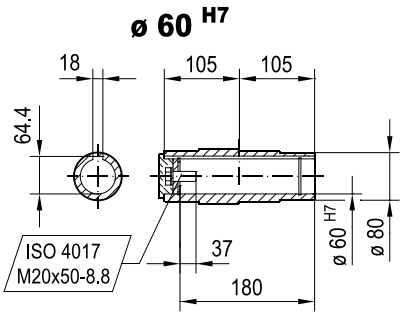
27797880/EN – 03/2023

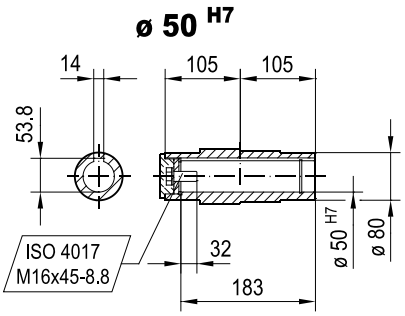
02 142 00 20

SAZ77/SAZ77p..

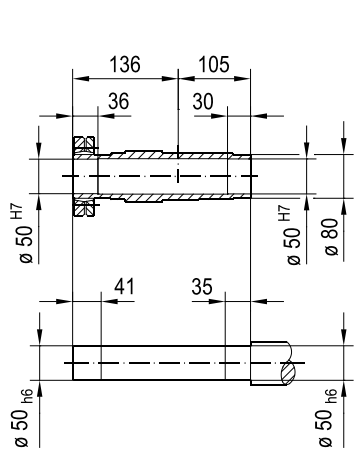


SAZ77/SAZ77p..





SHZ77/SHZ77p..

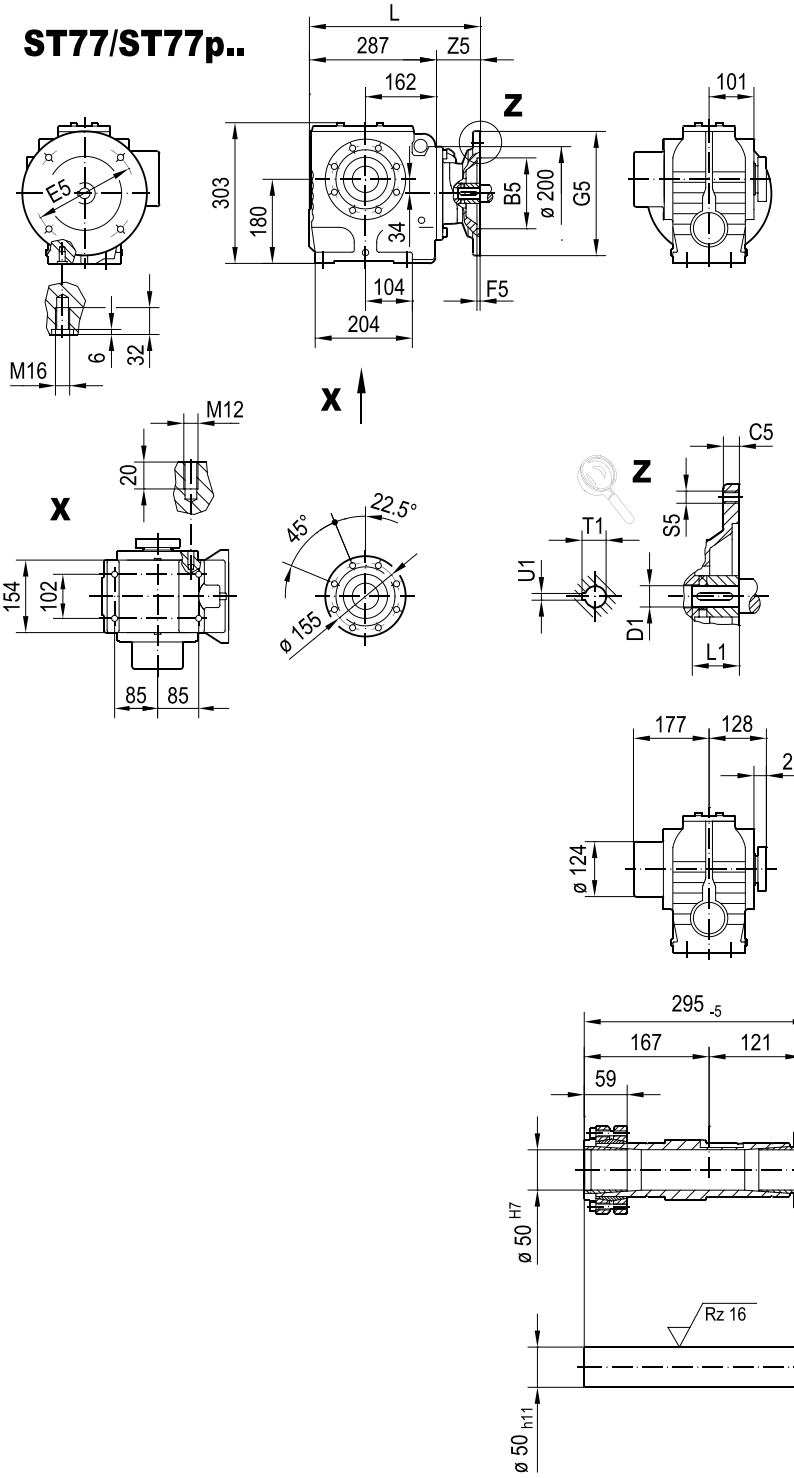


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	331	M8	44	11	23	12.8	4
AMS71	110	10	130	4	160	331	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	347	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	360	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	388	M12	100.5	28	60	31.3	8
AMS112	180	15	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

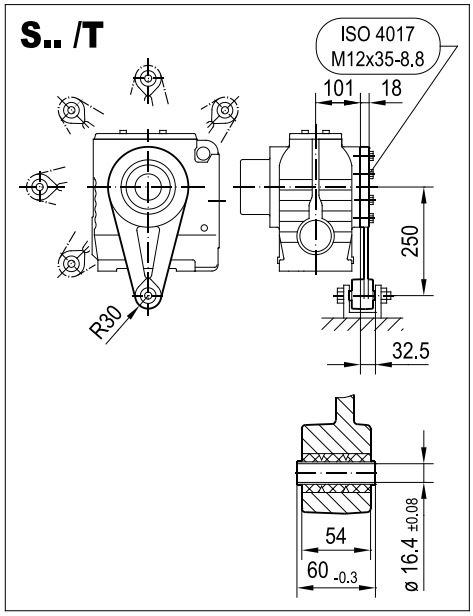
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02 143 00 20

ST77/ST77p..



S.. /T

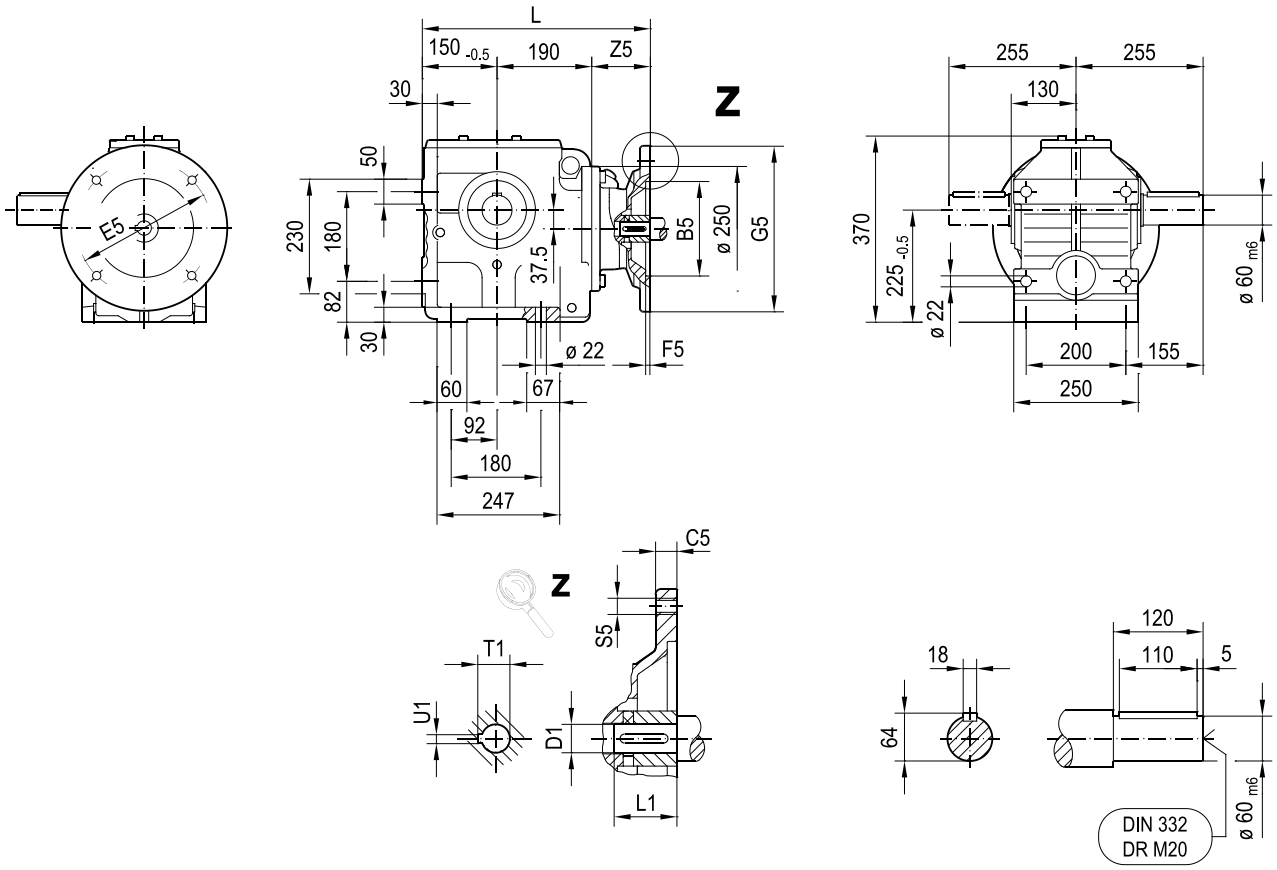


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	331	M8	44	11	23	12.8	4
AMS71	110	10	130	4	160	331	M8	44	14	30	16.3	5
AMS80	130	12	165	4.5	200	347	M10	60	19	40	21.8	6
AMS90	130	12	165	4.5	200	360	M10	73	24	50	27.3	8
AMS100	180	15	215	5	250	388	M12	100.5	28	60	31.3	8
AMS112	180	15	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..

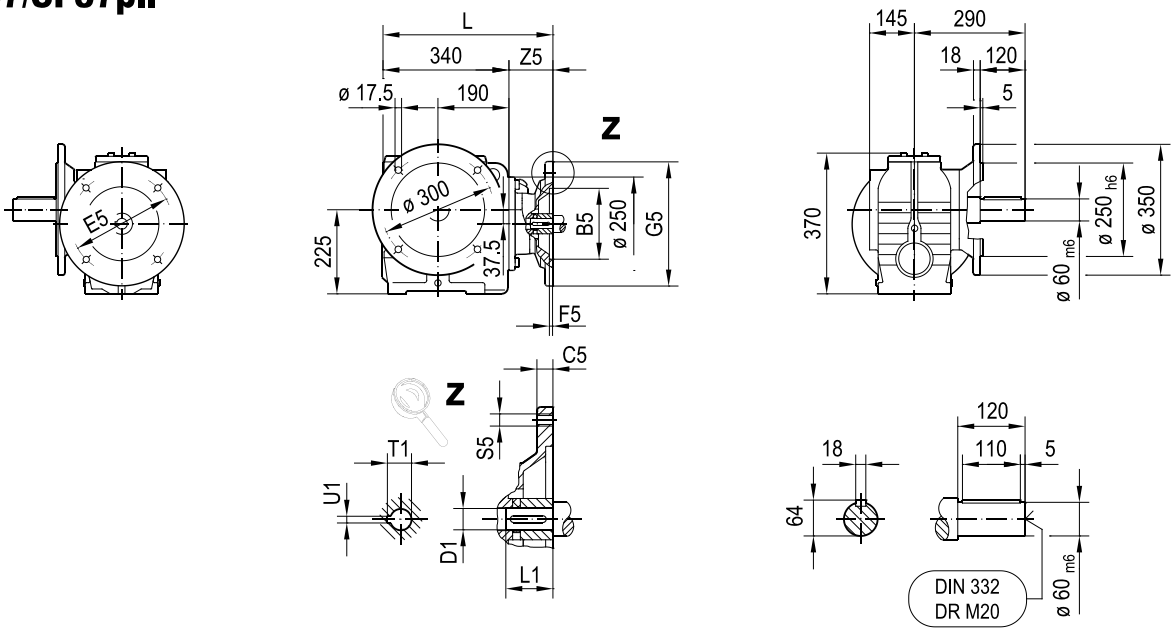


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS80	130	12	165	4.5	200	395	M10	55	19	40	21.8	6
AMS90	130	12	165	4.5	200	408	M10	68	24	50	27.3	8
AMS100	180	15	215	5	250	436	M12	95.5	28	60	31.3	8
AMS112	180	15	215	5	250	436	M12	95.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	461	M12	121	38	80	41.3	10
AMS132ML	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

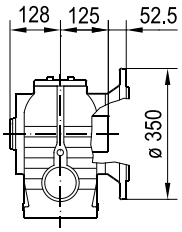
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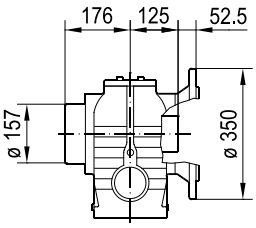
SF87/SF87p..

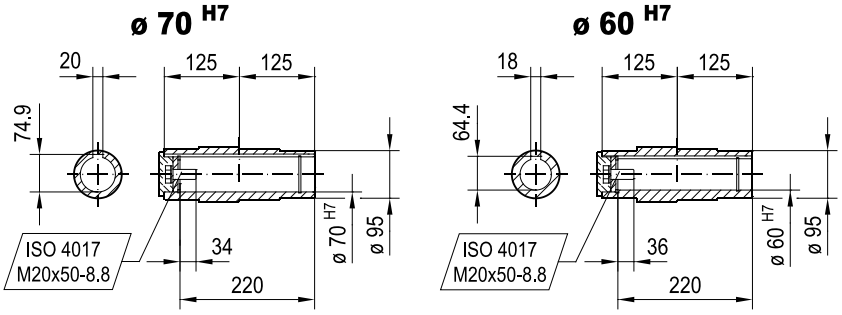


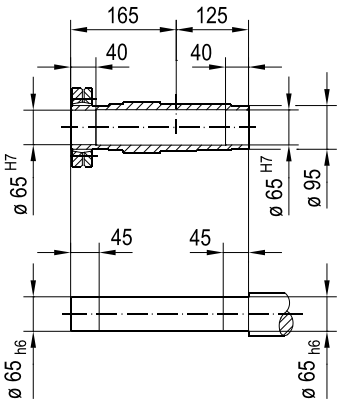
SAF87/SAF87p..



SHF87/SHF87p..





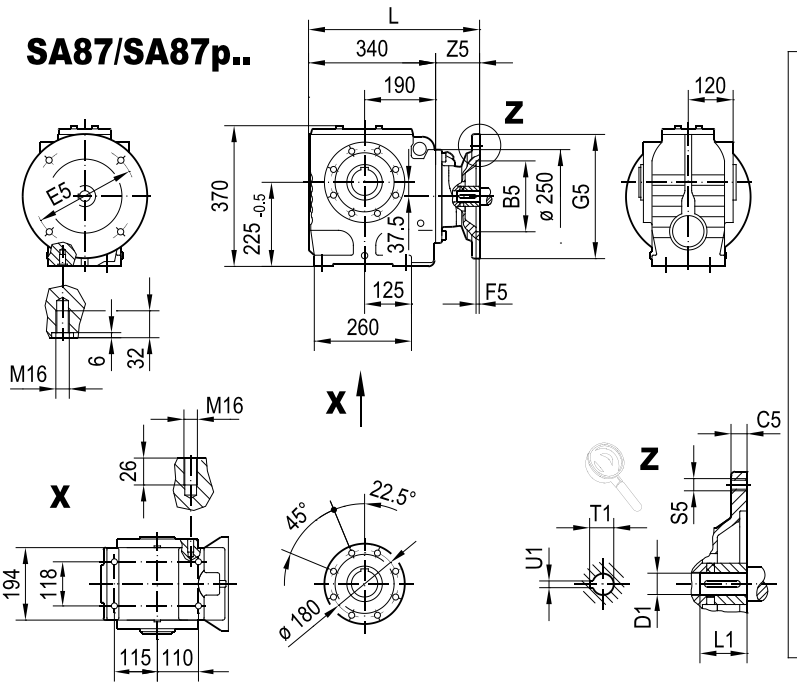


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS80	130	12	165	4.5	200	395	M10	55	19	40	21.8	6
AMS90	130	12	165	4.5	200	408	M10	68	24	50	27.3	8
AMS100	180	15	215	5	250	436	M12	95.5	28	60	31.3	8
AMS112	180	15	215	5	250	436	M12	95.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	461	M12	121	38	80	41.3	10
AMS132ML	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

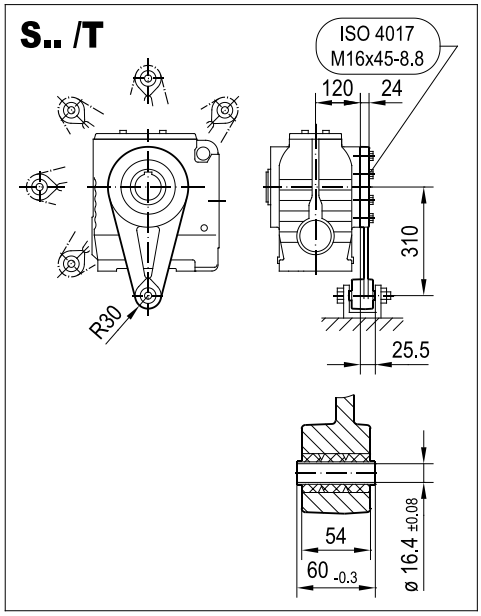
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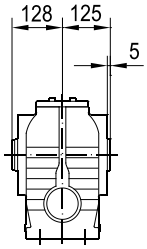
SA87/SA87p..



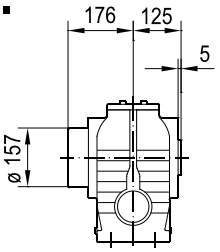
S.. /T



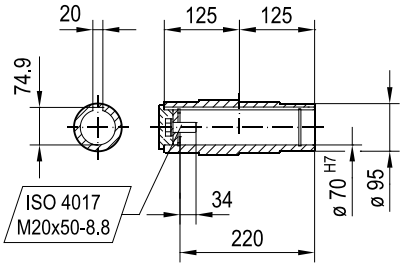
SA87/SA87p..



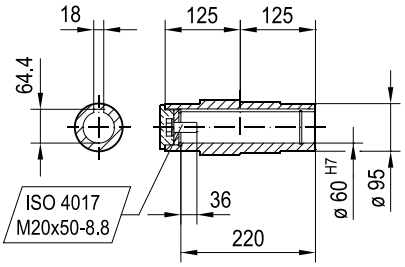
SH87/SH87p..

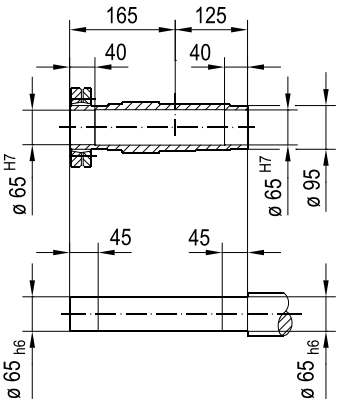


ø 70 H7



ø 60 H7



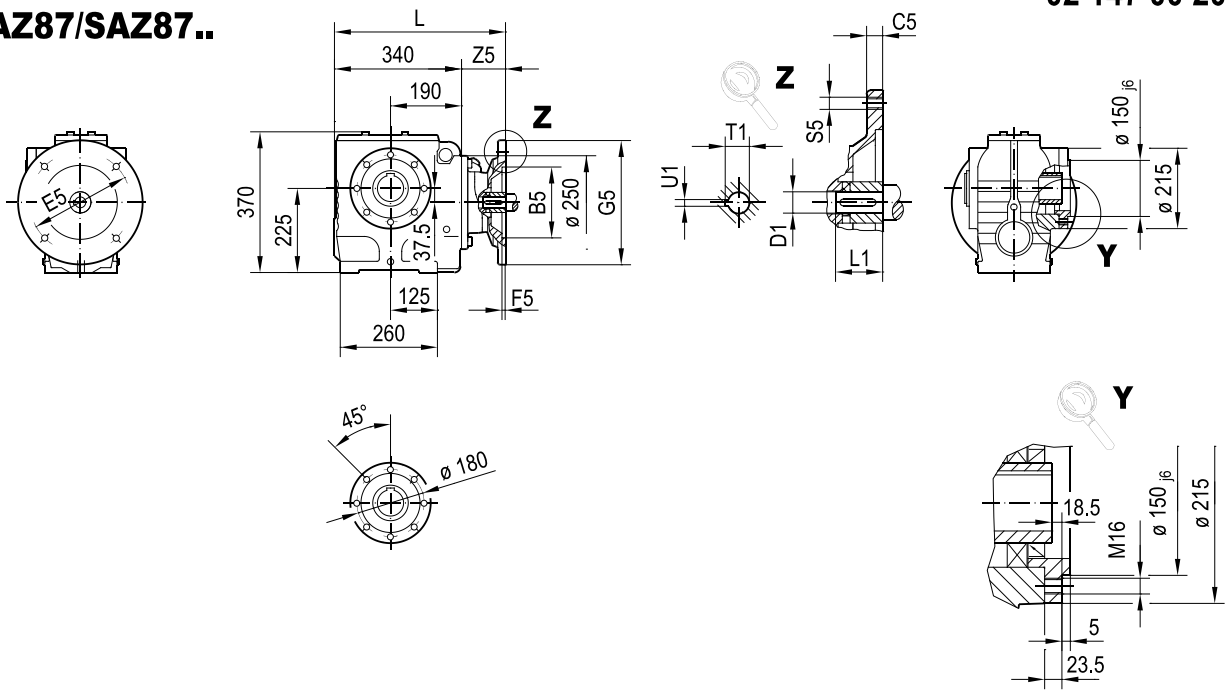


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS80	130	12	165	4.5	200	395	M10	55	19	40	21.8	6
AMS90	130	12	165	4.5	200	408	M10	68	24	50	27.3	8
AMS100	180	15	215	5	250	436	M12	95.5	28	60	31.3	8
AMS112	180	15	215	5	250	436	M12	95.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	461	M12	121	38	80	41.3	10
AMS132ML	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

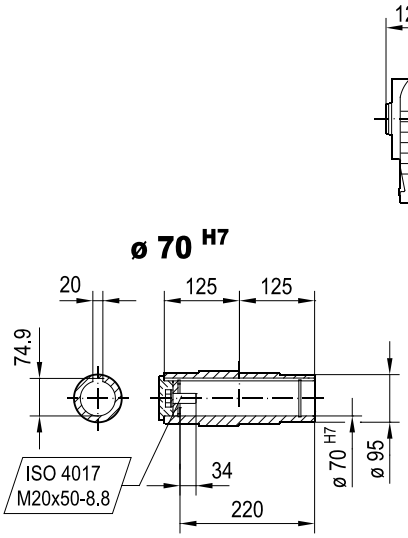
27797880/EN – 03/2023

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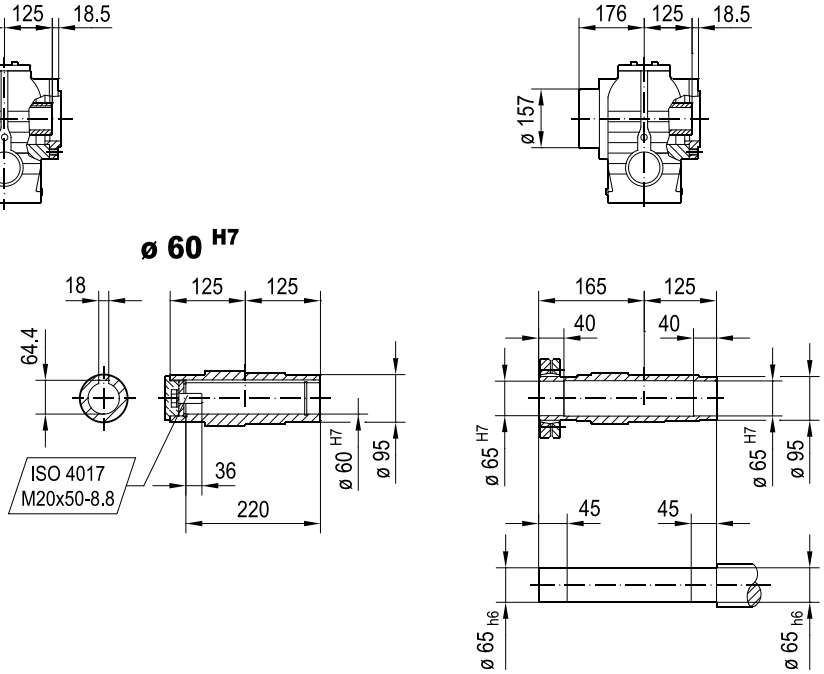
SAZ87/SAZ87..



SAZ87/SAZ87..



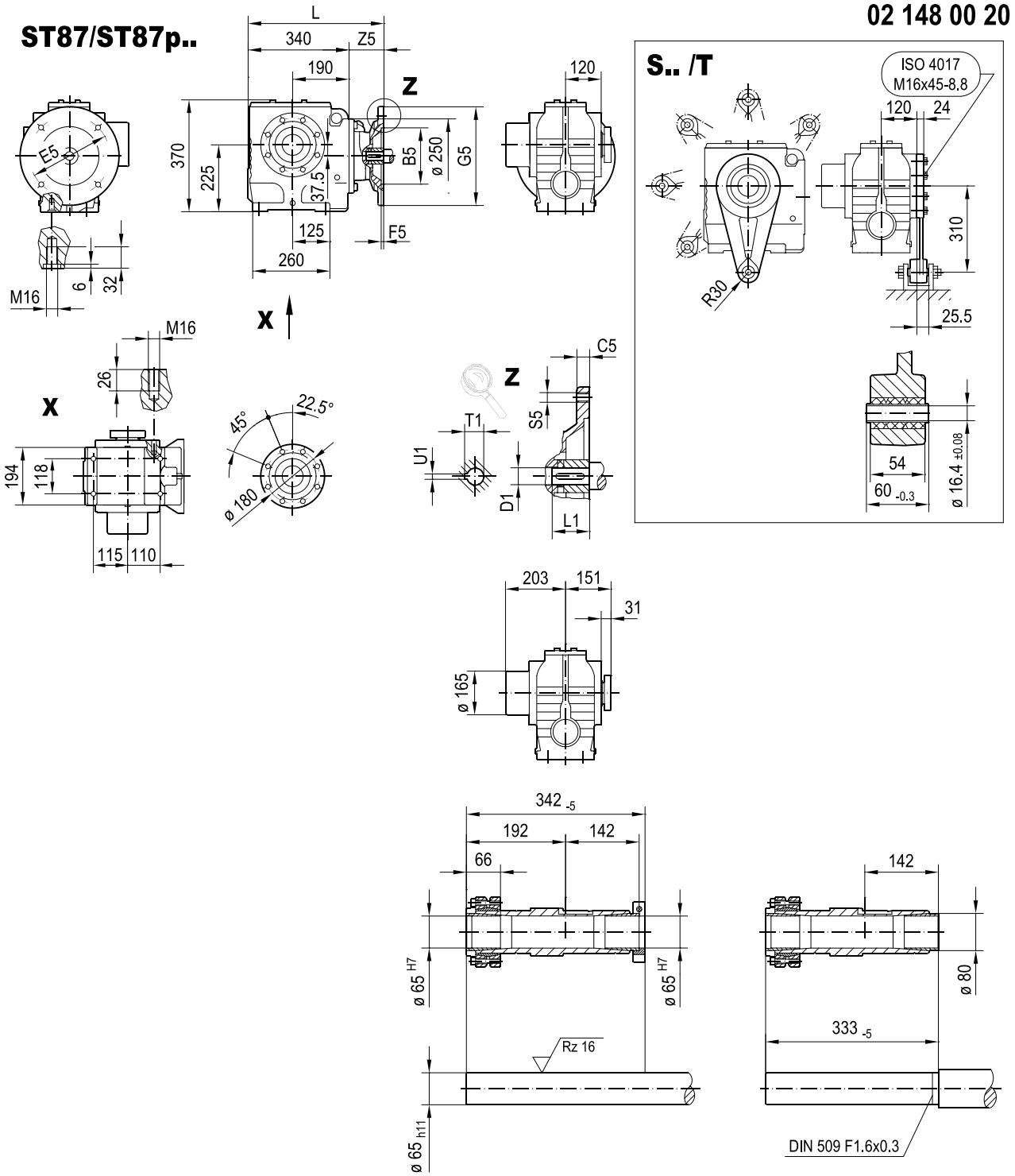
SHZ87/SHZ87..



(→ 📖 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

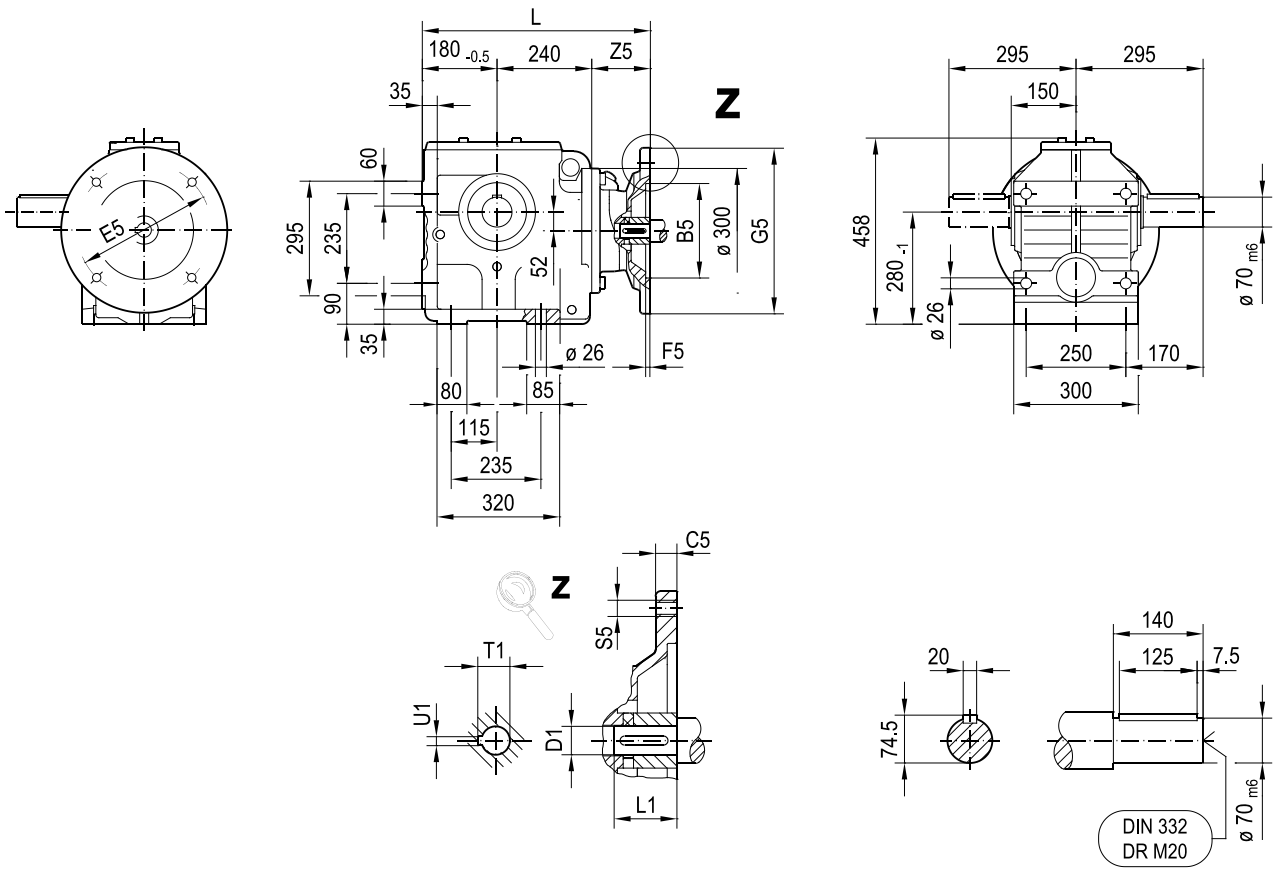


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS80	130	12	165	4.5	200	395	M10	55	19	40	21.8	6
AMS90	130	12	165	4.5	200	408	M10	68	24	50	27.3	8
AMS100	180	15	215	5	250	436	M12	95.5	28	60	31.3	8
AMS112	180	15	215	5	250	436	M12	95.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	461	M12	121	38	80	41.3	10
AMS132ML	230	16	265	5	300	461	M12	121	38	80	41.3	10
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S97/S97p..

02 149 00 20

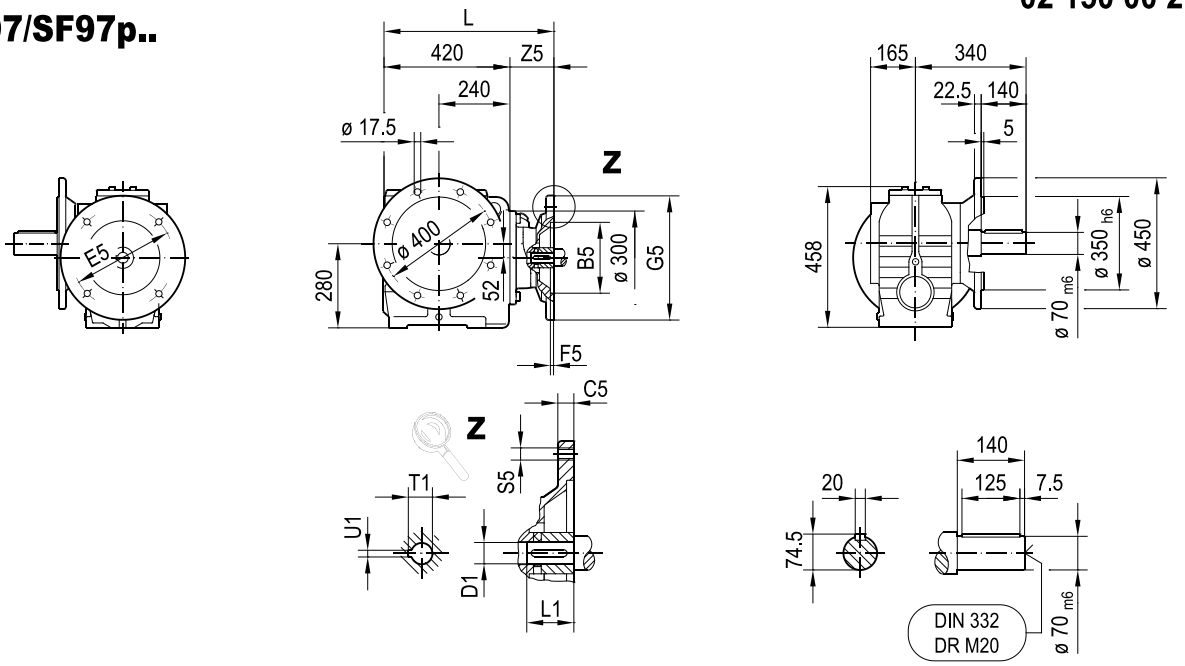


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	511	M12	90.5	28	60	31.3	8
AMS112	180	15	215	5	250	511	M12	90.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	536	M12	116	38	80	41.3	10
AMS132ML	230	16	265	5	300	536	M12	116	38	80	41.3	10
AMS160	250	18	300	6	350	599	M16	179	42	110	45.3	12
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

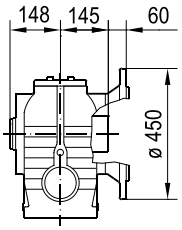
27797880/EN – 03/2023

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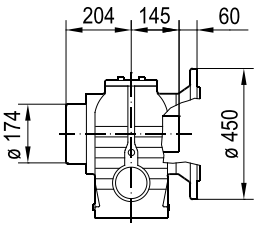
SF97/SF97p..

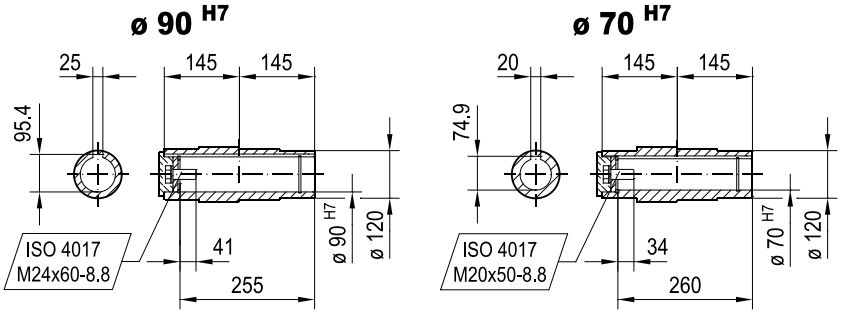


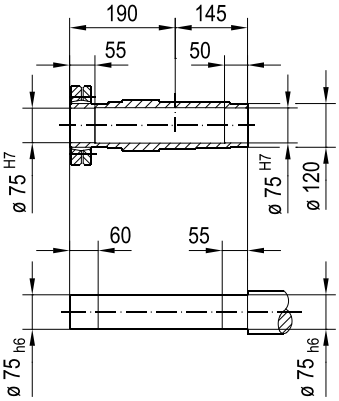
SAF97/SAF97p..



SHF97/SHF97p..





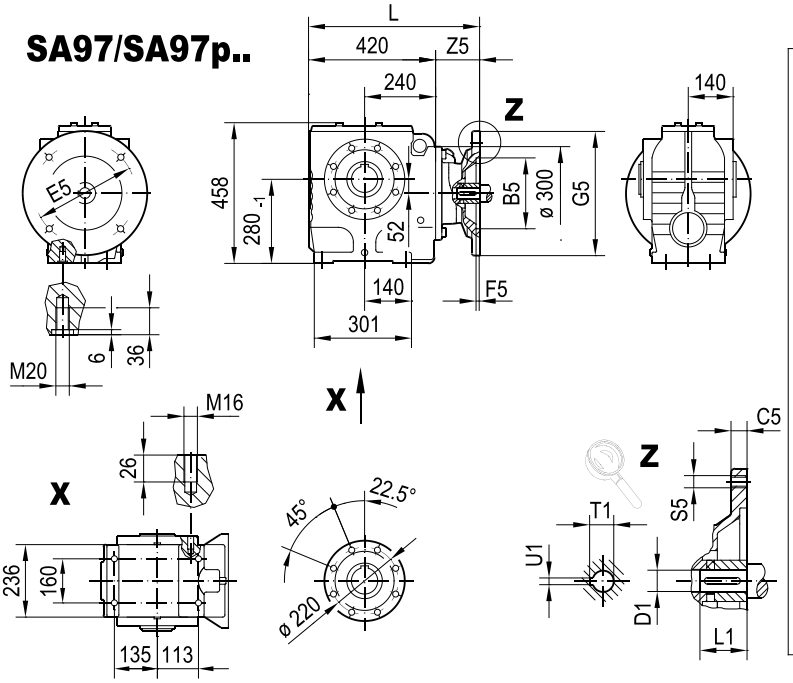


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	511	M12	90.5	28	60	31.3	8
AMS112	180	15	215	5	250	511	M12	90.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	536	M12	116	38	80	41.3	10
AMS132ML	230	16	265	5	300	536	M12	116	38	80	41.3	10
AMS160	250	18	300	6	350	599	M16	179	42	110	45.3	12
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

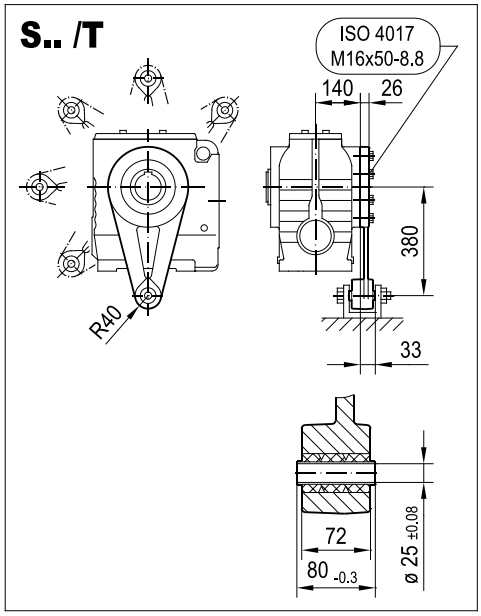
27797880/EN – 03/2023

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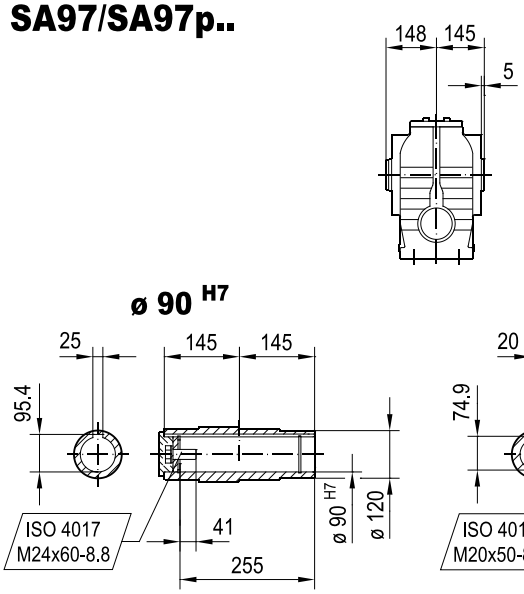
SA97/SA97p..



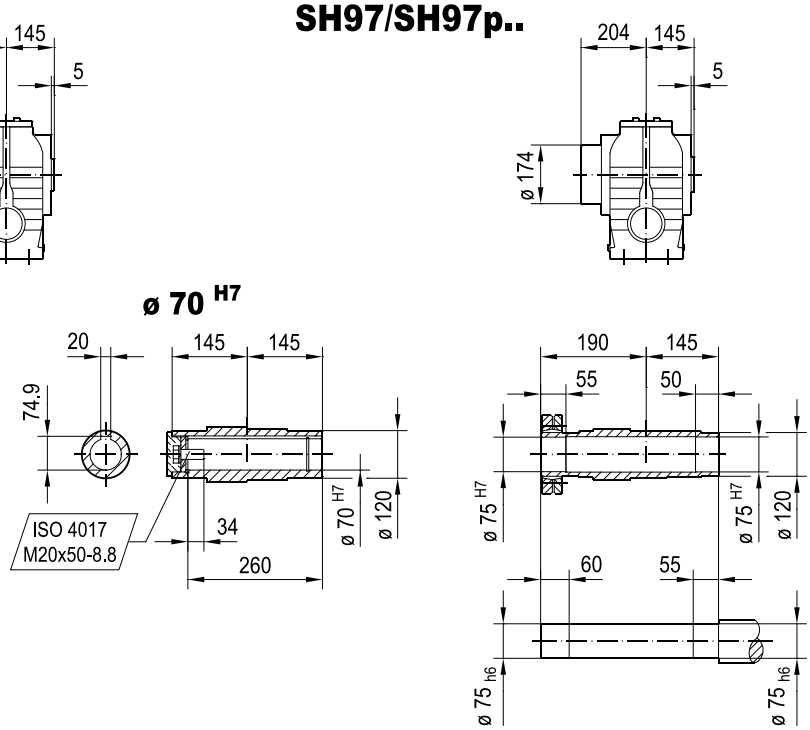
S.. /T



SA97/SA97p..



SH97/SH97p..

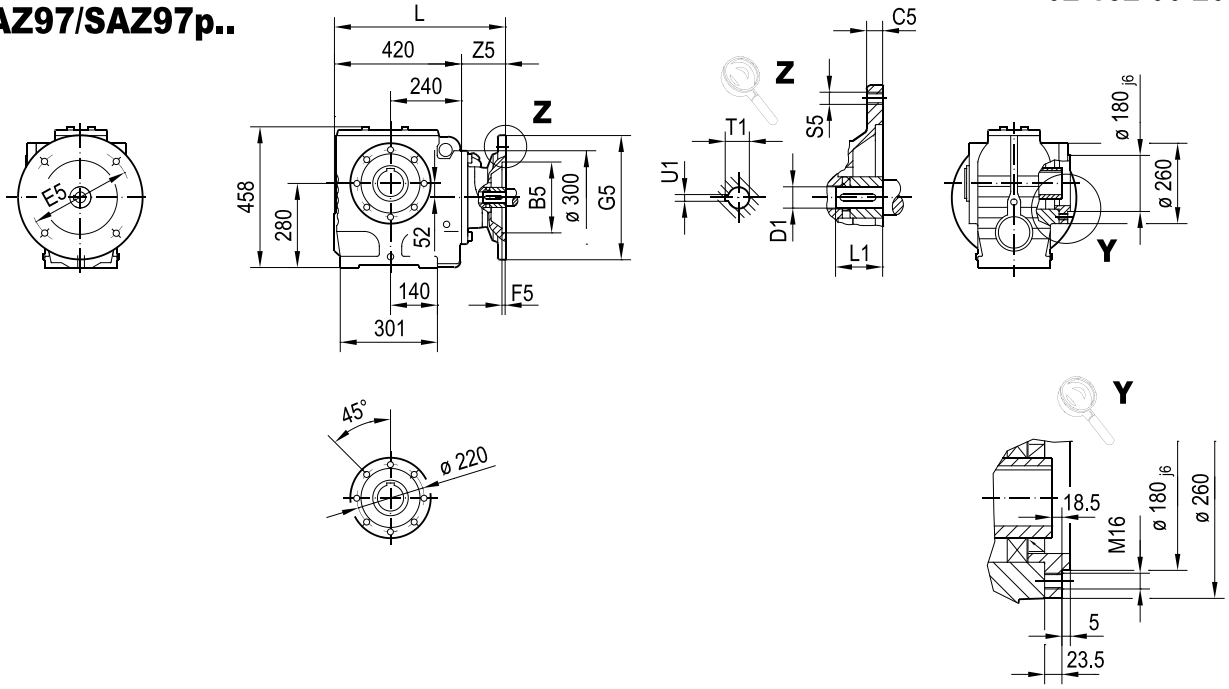


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	511	M12	90.5	28	60	31.3	8
AMS112	180	15	215	5	250	511	M12	90.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	536	M12	116	38	80	41.3	10
AMS132ML	230	16	265	5	300	536	M12	116	38	80	41.3	10
AMS160	250	18	300	6	350	599	M16	179	42	110	45.3	12
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

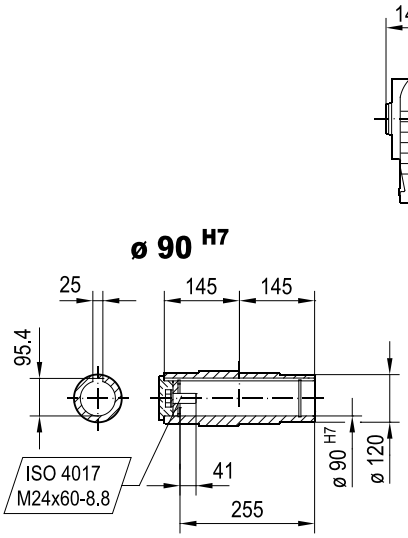
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02 152 00 20

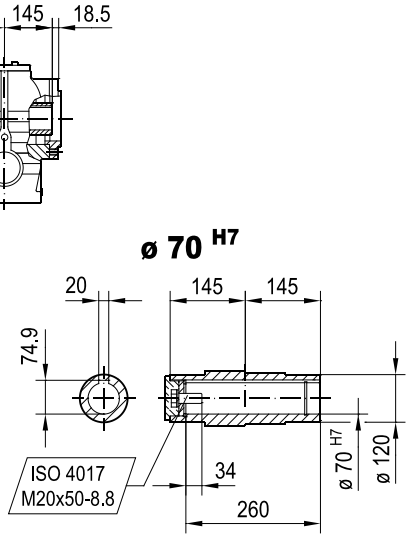
SAZ97/SAZ97p..

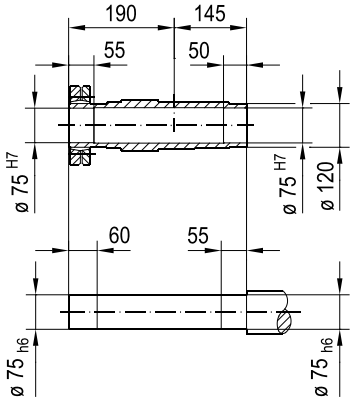


SAZ97/SAZ97p..



SHZ97/SHZ97p..

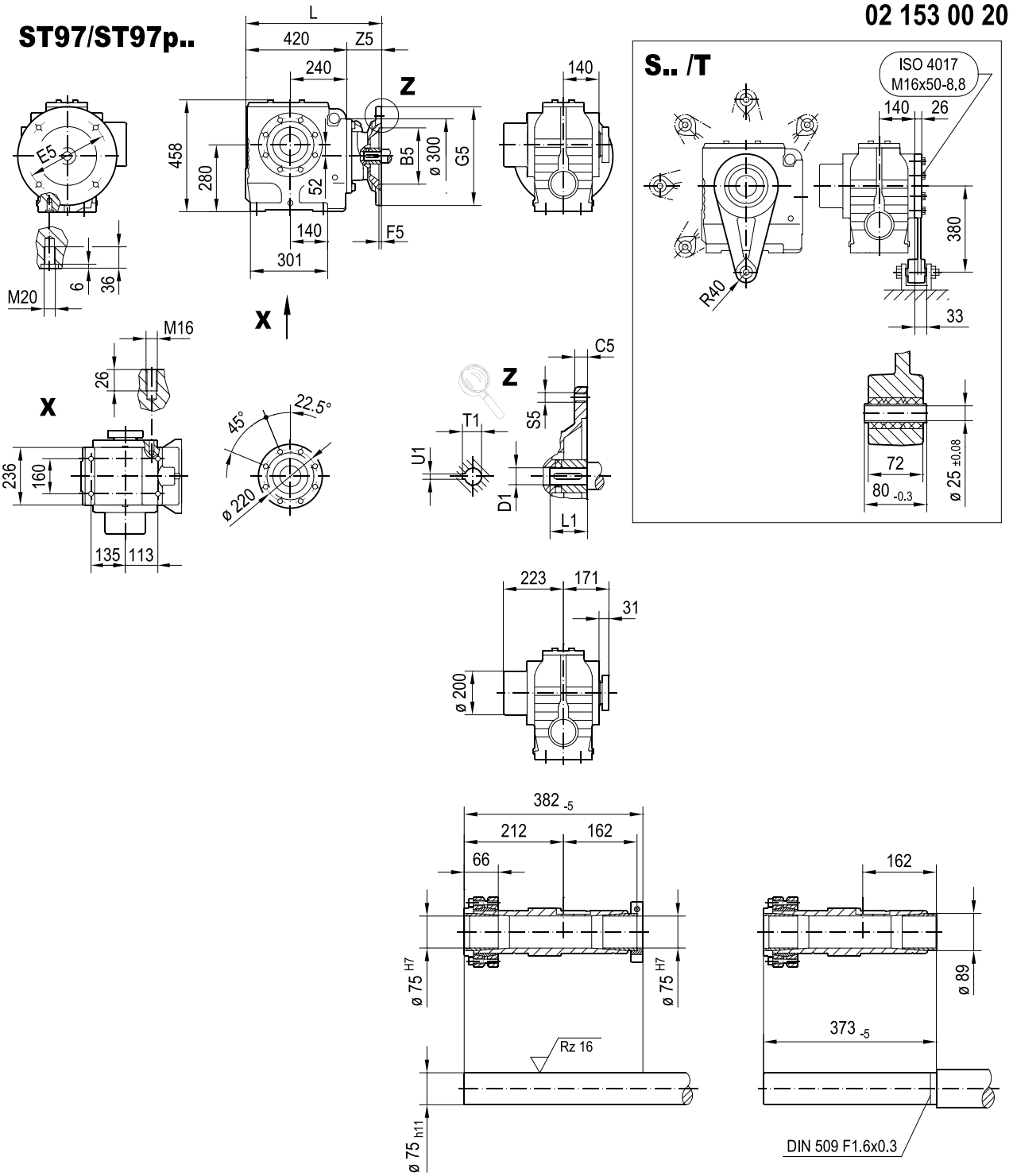




(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	511	M12	90.5	28	60	31.3	8
AMS112	180	15	215	5	250	511	M12	90.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	536	M12	116	38	80	41.3	10
AMS132ML	230	16	265	5	300	536	M12	116	38	80	41.3	10
AMS160	250	18	300	6	350	599	M16	179	42	110	45.3	12
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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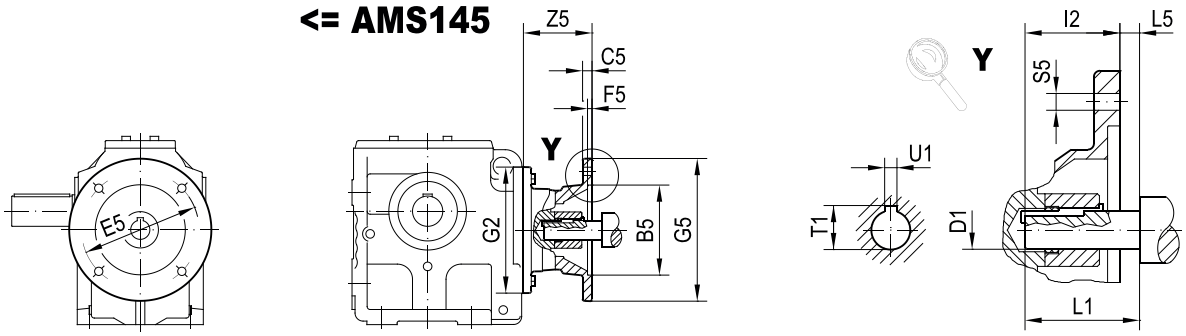
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS100	180	15	215	5	250	511	M12	90.5	28	60	31.3	8
AMS112	180	15	215	5	250	511	M12	90.5	28	60	31.3	8
AMS132S/M	230	16	265	5	300	536	M12	116	38	80	41.3	10
AMS132ML	230	16	265	5	300	536	M12	116	38	80	41.3	10
AMS160	250	18	300	6	350	599	M16	179	42	110	45.3	12
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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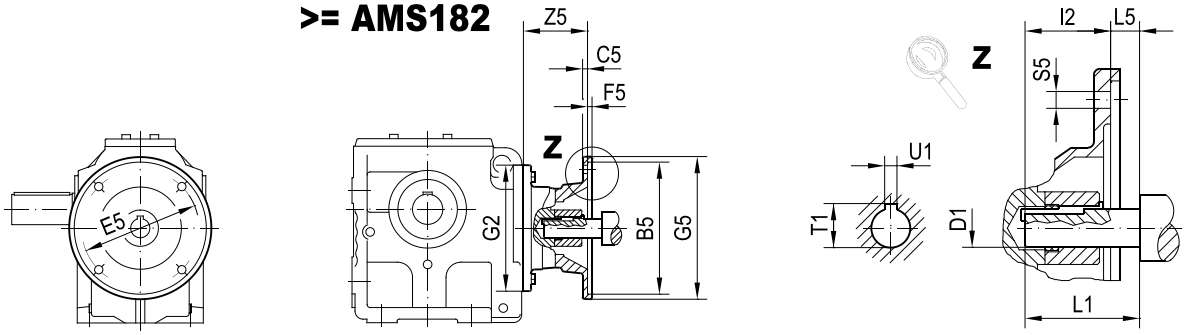
11.5 Dimension sheets for adapters for mounting NEMA motors (AMS..)

02 154 00 20

<= AMS145



>= AMS182

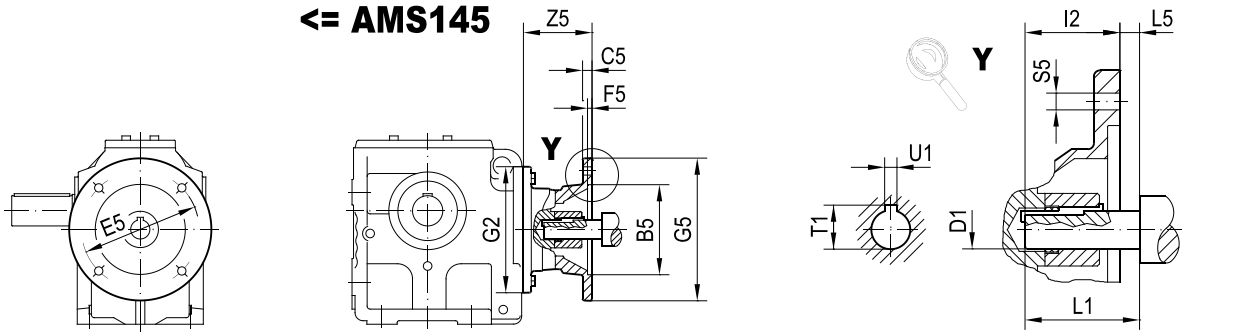


		B5	C5	E5	F5	G2	G5	I2	L5	S5	Z5	D1	L1	T1	U1
S..37 S..37p	**AMS56**	114.3	11	149.2	4.5	120	170	52.3	4.6	10.5	81.5	15.875	47.75	18.0	4.76
S..47 S..47p	**AMS143**	114.3	12	149.2	4.5	120	170	53.8	3.3	10.5	93.5	22.225	57.2	24.7	4.76
S..57 S..57p	**AMS145**	114.3	14	149.2	4.5	120	170	53.8	3.3	10.5	93.5	22.225	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

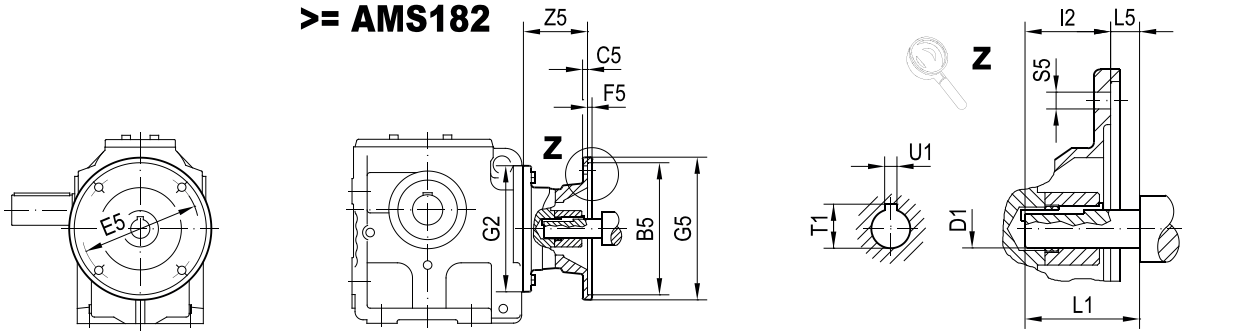
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02 154 00 20

<= AMS145



>= AMS182



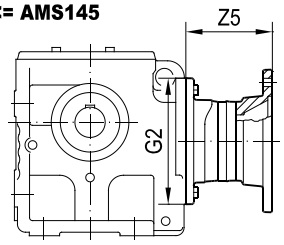
		B5	C5	E5	F5	G2	G5	I2	L5	S5	Z5	D1	L1	T1	U1
S..97 S..97p	**AMS182**	215.9	10	184	5	300	228	66.6	3.3	15	95.0	28.575	69.9	31.7	6.35
	AMS184	215.9	10	184	5	300	228	66.6	3.3	15	95.0	28.575	69.9	31.7	6.35
	AMS213/215	215.9	11	184	5	300	228	79.2	6.6	15	120.0	34.925	85.9	38.7	7.94
	AMS254/256	215.9	12	184	5	300	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	252.5	53.975	133.4	60.0	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

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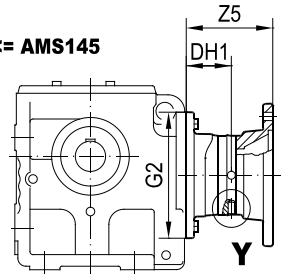
11.6 Dimension sheets for adapters with backstop (RS..) and drain hole (DH..)

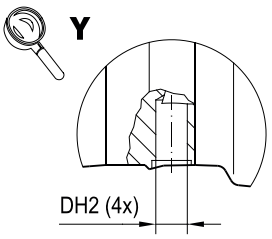
02 162 01 20

AMS.. /RS
IEC
NEMA: <= AMS145

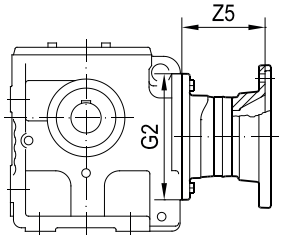


AMS.. /DH
IEC
NEMA: <= AMS145

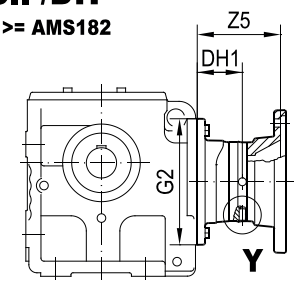




AMS.. /RS
NEMA: >= AMS182



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	9
	AMS63	–	–	120	78.5	46	9
	AMS71	–	–	120	78.5	46	9
	AMS80	120	121	120	97.5	60	9
	AMS90	120	121	120	109	64	9
	AMS143	120	128.5	120	116.5	64	9
	AMS145	120	128.5	120	116.5	64	9
S..67, S..67p	AMS56	–	–	160	98.5	54	9
	AMS63	–	–	160	72	40	9
	AMS71	–	–	160	72	40	9
	AMS80	160	114.5	160	91	54	9
	AMS90	160	114.5	160	102.5	57	9
	AMS100	160	153	160	153	97	9
	AMS112	160	153	160	153	97	9
	AMS132S/M	160	181.5	160	181.5	116	9
	AMS143	160	122	160	110	57	9
	AMS145	160	122	160	110	57	9
	AMS182	160	158.5	160	158.5	97	9
	AMS184	160	158.5	160	158.5	97	9
	AMS213/215	160	186	160	186	116	9

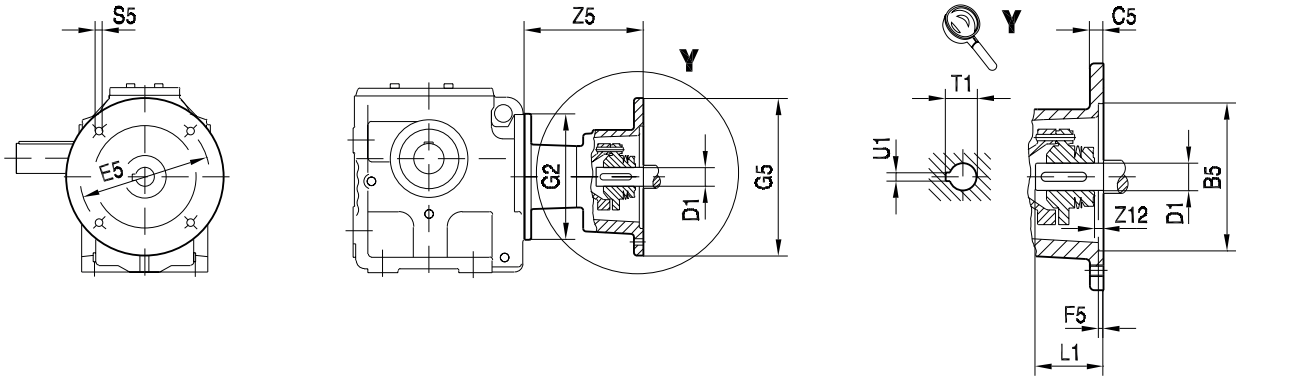
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		/RS		/DH			
		G2	Z5	G2	Z5	DH1	DH2
S..77, S..77p	AMS56	–	–	200	91.5	47	9
	AMS63	–	–	200	66	34	9
	AMS71	–	–	200	66	34	9
	AMS80	200	107.5	200	84	47	9
	AMS90	200	107.5	200	95.5	50	9
	AMS100	200	145	200	145	89	9
	AMS112	200	145	200	145	89	9
	AMS132ML	200	173.5	200	173.5	108	9
	AMS132S/M	200	173.5	200	173.5	108	9
	AMS143	200	115	200	103	50	9
	AMS145	200	115	200	103	50	9
	AMS182	200	150.5	200	150.5	89	9
	AMS184	200	150.5	200	150.5	89	9
	AMS213/215	200	178	200	178	108	9
S..87, S..87p	AMS80	250	102.5	250	79	42	9
	AMS90	250	102.5	250	90.5	45	9
	AMS100	250	140	250	140	84	9
	AMS112	250	140	250	140	84	9
	AMS132ML	250	168.5	250	168.5	103	9
	AMS132S/M	250	168.5	250	168.5	103	9
	AMS143	250	110	250	98	45	9
	AMS145	250	110	250	98	45	9
	AMS160	250	184	250	222	124	8
	AMS182	250	145.5	250	145.5	84	9
	AMS184	250	145.5	250	145.5	84	9
	AMS213/215	250	173	250	173	103	9
	AMS254/256	250	185	250	223.5	124	8
S..97, S..97p	AMS100	300	135	300	135	79	9
	AMS112	300	135	300	135	79	9
	AMS132ML	300	163.5	300	163.5	98	9
	AMS132S/M	300	163.5	300	163.5	98	9
	AMS160	300	179	300	217	119	8
	AMS180	300	179	300	217	119	8
	AMS182	300	140.5	300	140.5	79	9
	AMS184	300	140.5	300	140.5	79	9
	AMS200	300	240	300	240	141	8
	AMS213/215	300	168	300	168	98	9
	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

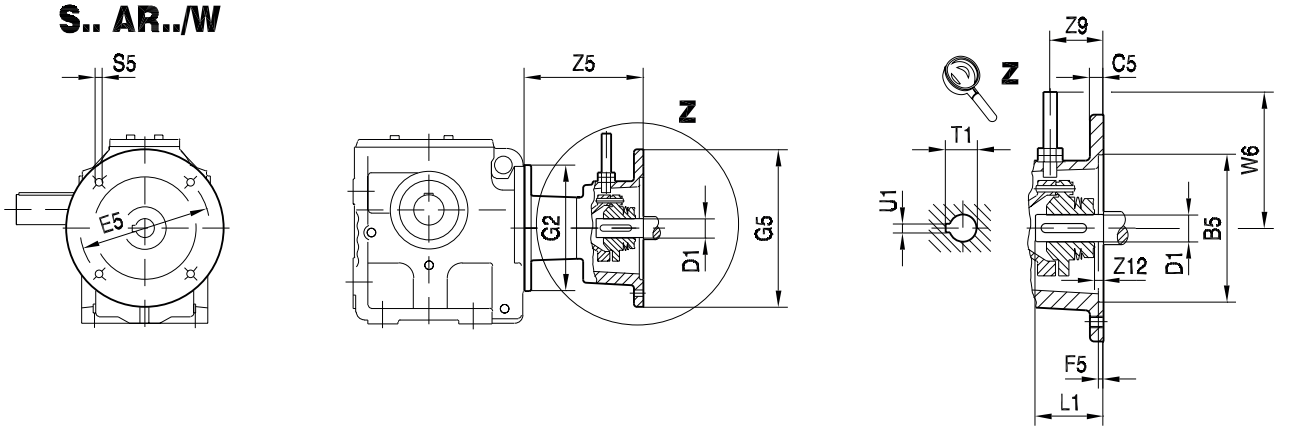
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11.7 Dimension sheets for adapters with slip clutch (AR..)

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															
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
	AR112															
	AR132S/M	230	16	265	5		300	M12	145	234	72	5	38	80	41.3	10
	AR132ML															
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
	AR112															
	AR132S/M	230	16	265	5		300	M12	145	229	72	5	38	80	41.3	10
	AR132ML															
	AR160	250	18	300	6		350	M16	165	306.5	105	35	42	110	45.3	12
	AR180												48	110	51.8	14

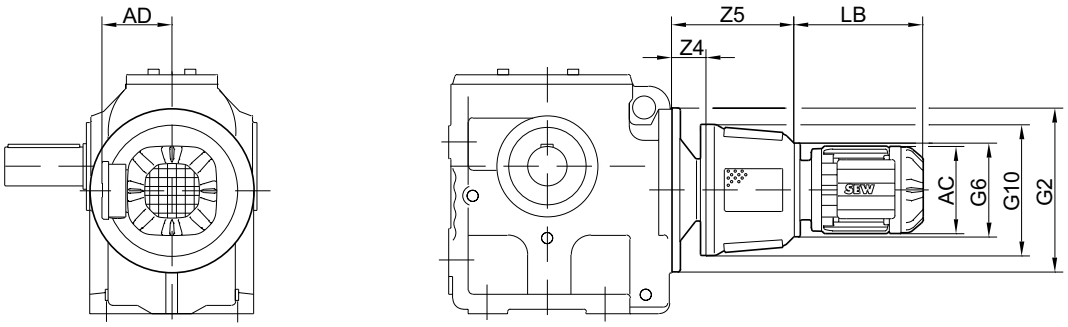
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		B5	C5	E5	F5	G2	G5	S5	W6	Z5	Z9	Z12	D1	L1	T1	U1
S..97, S..97p	AR100	180	15	215	5	300	250	M12	130	156.5	52	5.5	28	60	31.3	8
	AR112															
	AR132S/M	230	16	265	5		300	M12	145	224	72	5	38	80	41.3	10
	AR132ML															
	AR160	250	18	300	6		350	M16	165	301.5	105	35	42	110	45.3	12
	AR180												48	110	51.8	14

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11.8 Dimension sheets for adapters with hydraulic start-up coupling (S..AT..)

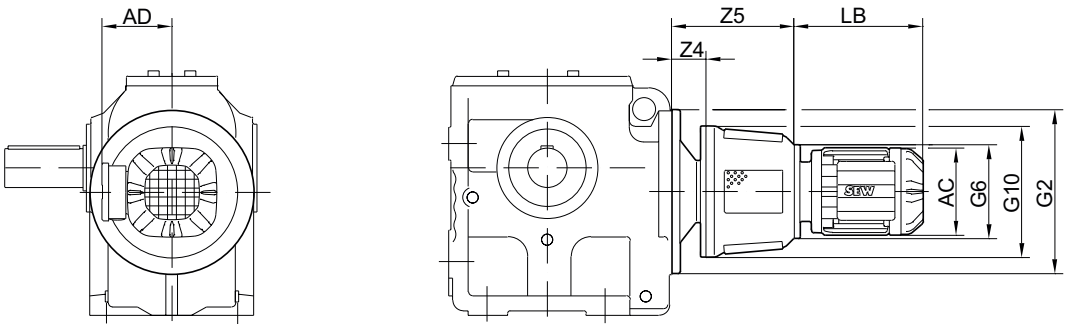
26 001 04 01



			AC	AD	G6	G10	LB	Z4	Z5	G2
S..67, S..67p	**AT311 AT312**	DRN71M	139	118	200	280	222	97	286	160
		DRN80MK	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			
S..77, S..77p	**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			
S..87, S..87p	**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					437			
	AT541 AT542	DRN132S	221	170	350	470	437	159	478	
		DRN132M	261	228			439			
		DRN132L					464			
		DRN160M	316	253			532			
		DRN160L					532			

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26 002 04 01



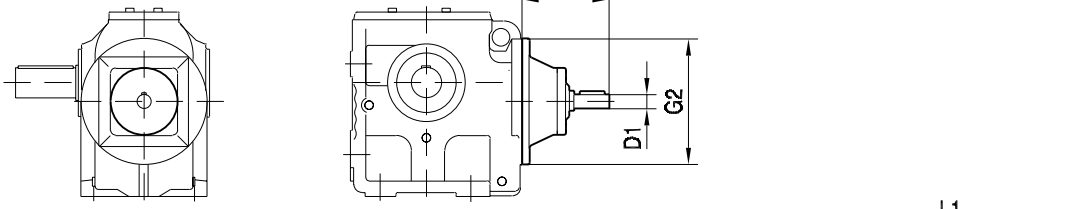
			AC	AD	G6	G10	LB	Z4	Z5	G2
S..97, S..97p	**AT311 AT312**	DRN90S	179	140	200	280	281	79	268	300
		DRM90L					313			
		DRN100LM	197	157			359			
		DRN112M	221	170			387			
	AT321	DRN132S	221	170	250	350	437	79	315	
	AT421 AT422	DRN90L	179	140	250	350	313	123	358	
		DRN100LS	197	157			309			
		DRN100L					359			
		DRN112M	221	170			387			
		DRN132S					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			

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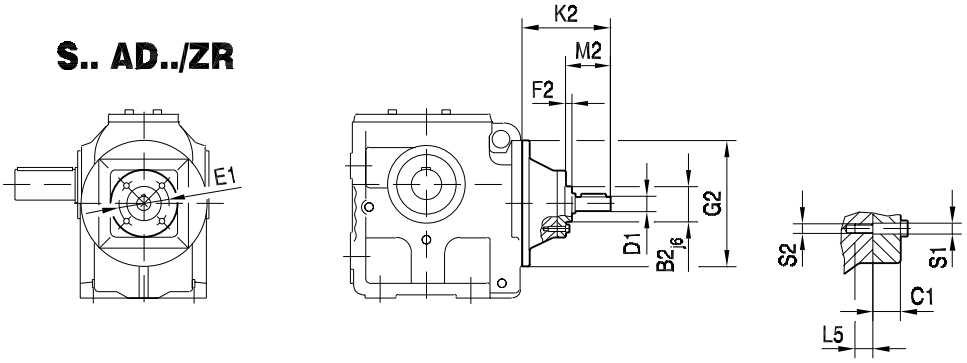
11.9 Dimension sheets for input shaft assembly (AD..)

S.. AD..

02 029 02 01



S.. AD../ZR

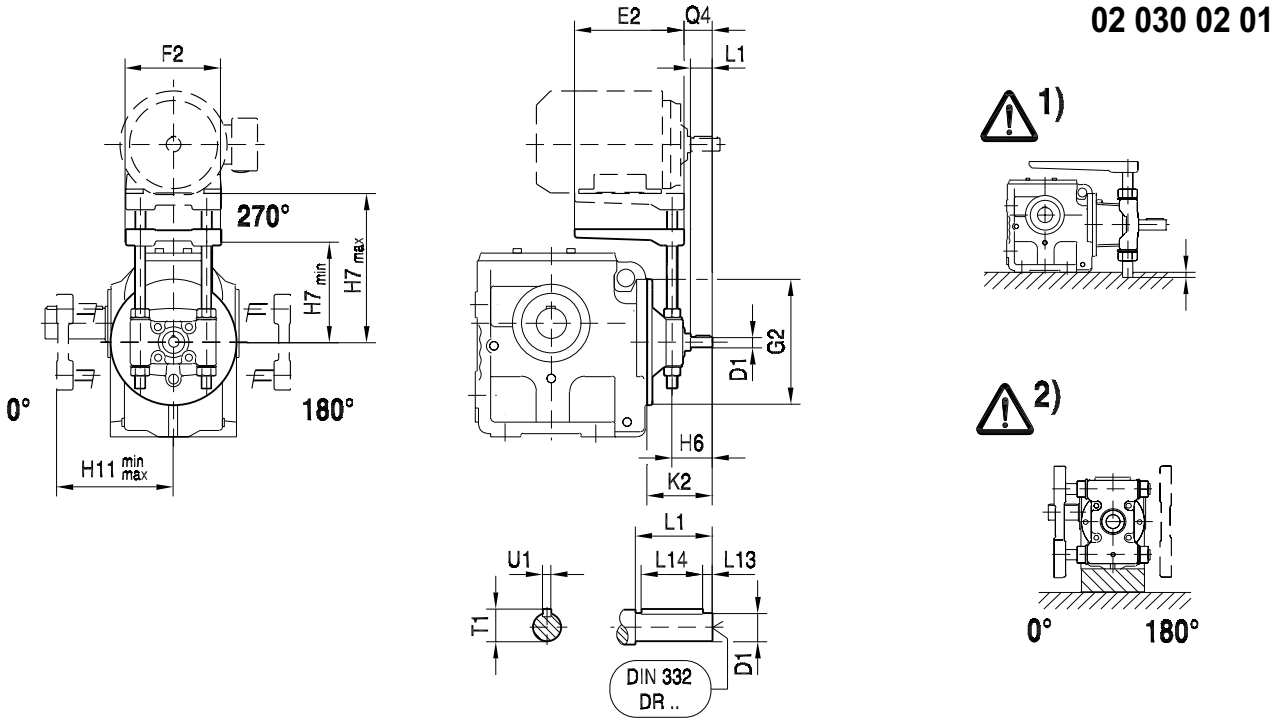


		B2	C1	E1	F2	G2	K2	L5	M2	S1	S2	D1	L1	L13	L14	T1	U1
S..37, S..37p	**AD1**	-	-	-	-	120	102	-	-	-	-	16	40	4	32	18	5
S..47, S..47p S..57, S..57p	**AD2, AD2/ZR**	55	13.5	80	8		130	12	50	9	M8	19	40	4	32	21.5	6
S..67, S..67p	**AD2, AD2/ZR**	55	13.5	80	8	160	123	12	50	9	M8	19	40	4	32	21.5	6
	AD3, AD3/ZR	70	15.5	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

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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).

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11.11 Technical data S..37

3400 – 2800 min^{-1}

		n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
i_{tot}	i_s	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

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2200 – 1400 min^{-1}

		n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
i_{tot}	i_s	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

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1100 – 700 min^{-1}

		n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
i_{tot}	i_s	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

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500 – 10 min^{-1}

		n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
i_{tot}	i_s	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

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11.12 Technical data S..47

3400 – 2800 min^{-1}

		n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
i_{tot}	i_s	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

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2200 – 1400 min^{-1}

		n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
i_{tot}	i_s	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

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1100 – 700 min^{-1}

		n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
i_{tot}	i_s	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

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500 – 10 min^{-1}

		n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
i_{tot}	i_s	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

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11.13 Technical data S..57

3400 – 2800 min^{-1}

		n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
i_{tot}	i_s	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

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2200 – 1400 min^{-1}

		n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
i_{tot}	i_s	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

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1100 – 700 min^{-1}

		n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
i_{tot}	i_s	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

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500 – 10 min^{-1}

		n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
i_{tot}	i_s	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

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11.14 Technical data S..67

3400 – 2800 min^{-1}

		n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
i_{tot}	i_s	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

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2200 – 1400 min^{-1}

		n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
i_{tot}	i_s	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

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1100 – 700 min^{-1}

		n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
i_{tot}	i_s	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

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500 – 10 min^{-1}

		n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
i_{tot}	i_s	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

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11.15 Technical data S..77

3400 – 2800 min^{-1}

		n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
i_{tot}	i_s	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

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2200 – 1400 min^{-1}

		n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
i_{tot}	i_s	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

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1100 – 700 min^{-1}

		n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
i_{tot}	i_s	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	87
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

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500 – 10 min^{-1}

		n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
i_{tot}	i_s	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

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3400 – 2800 min^{-1}

		n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
i_{tot}	i_s	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	85
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	91
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

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2200 – 1400 min^{-1}

		n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
i_{tot}	i_s	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	83
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	90
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

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1100 – 700 min^{-1}

		n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
i_{tot}	i_s	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

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500 – 10 min^{-1}

		n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
i_{tot}	i_s	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	78
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	85
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

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11.17 Technical data S..97

3400 – 2800 min^{-1}

		n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
i_{tot}	i_s	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

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2200 – 1400 min^{-1}

		n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
i_{tot}	i_s	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

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1100 – 700 min^{-1}

		n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
i_{tot}	i_s	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

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500 – 10 min^{-1}

		n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
i_{tot}	i_s	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

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11.18 Technical data S..37p

3400 – 2800 min^{-1}

		n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800min^{-1}			
i_{tot}	i_s	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

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2200 – 1400 min^{-1}

		n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
i_{tot}	i_s	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

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1100 – 700 min^{-1}

		n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
i_{tot}	i_s	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

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500 – 10 min^{-1}

		n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
i_{tot}	i_s	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

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11.19 Technical data S..47p

3400 – 2800 min^{-1}

		n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
i_{tot}	i_s	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

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2200 – 1400 min^{-1}

		n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
i_{tot}	i_s	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

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1100 – 700 min^{-1}

		n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
i_{tot}	i_s	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

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500 – 10 min^{-1}

		n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
i_{tot}	i_s	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	83
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

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3400 – 2800 min^{-1}

		n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
i_{tot}	i_s	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

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2200 – 1400 min^{-1}

		n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
i_{tot}	i_s	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

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1100 – 700 min^{-1}

		n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
i_{tot}	i_s	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

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500 – 10 min^{-1}

		n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
i_{tot}	i_s	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	82
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

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11.21 Technical data S..67p

3400 – 2800 min^{-1}

		n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
i_{tot}	i_s	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

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2200 – 1400 min^{-1}

		n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
i_{tot}	i_s	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

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1100 – 700 min^{-1}

		n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
i_{tot}	i_s	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	83
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	91
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

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500 – 10 min^{-1}

		n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
i_{tot}	i_s	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

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11.22 Technical data S..77p

3400 – 2800 min^{-1}

		n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
i_{tot}	i_s	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

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2200 – 1400 min^{-1}

		n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
i_{tot}	i_s	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

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1100 – 700 min^{-1}

		n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
i_{tot}	i_s	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

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500 – 10 min^{-1}

		n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
i_{tot}	i_s	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	84
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

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11.23 Technical data S..87p

3400 – 2800 min^{-1}

		n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
i_{tot}	i_s	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

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2200 – 1400 min^{-1}

		n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
i_{tot}	i_s	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

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1100 – 700 min^{-1}

		n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
i_{tot}	i_s	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	88
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	93
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

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500 – 10 min^{-1}

		n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
i_{tot}	i_s	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	80
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	85
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

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11.24 Technical data S..97p

3400 – 2800 min^{-1}

		n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
i_{tot}	i_s	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	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	37/3	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		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	35/6	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

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2200 – 1400 min^{-1}

		n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
i_{tot}	i_s	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

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1100 – 700 min^{-1}

		n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
i_{tot}	i_s	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

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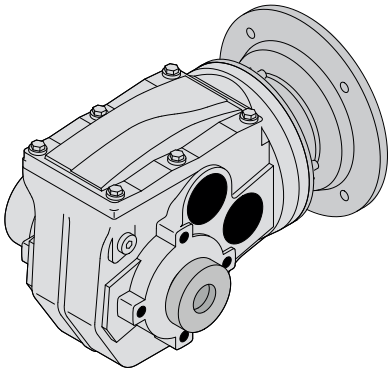
500 – 10 min^{-1}

		n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
i_{tot}	i_s	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

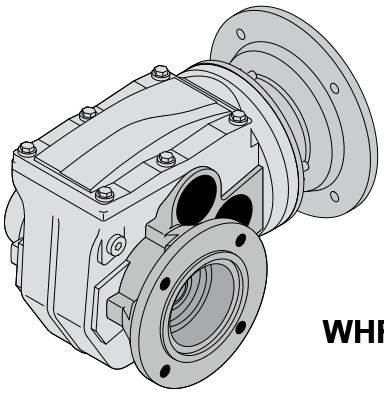
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12 SPIROPLAN® W.. gear units

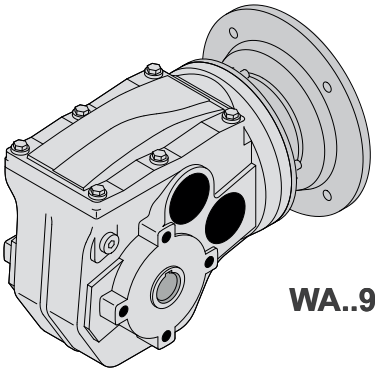
12.1 Selection tables for adapters for mounting IEC/NEMA motors (AMS..)



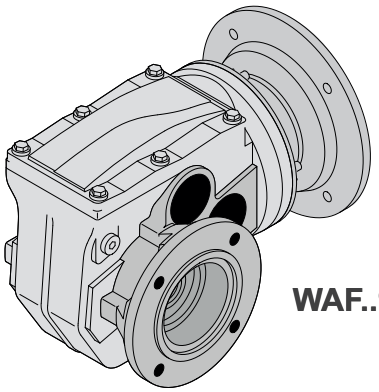
WT..9 AMS..



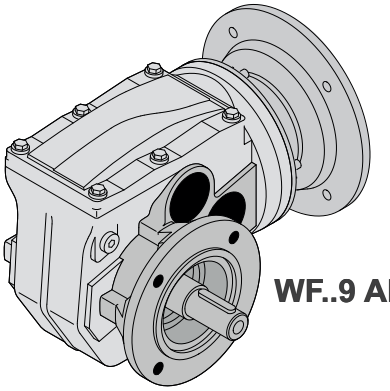
WHF..9 AMS..



WA..9 AMS..



WAF..9 AMS..



WF..9 AMS..

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WA19, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm							80 Nm
i	n_a min^{-1}	$M_{a\,max\,G}$ 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 63	71	80
WA	IEC	s			
		2	4.7	4.9	6.7
		3	5.1	5.4	7.2
	NEMA	s	-	56	-
		2	-	5.9	-
		3	-	6.3	-
WAF: + 0.15 kg / WF: + 0.75 kg					

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WA29, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm							130 Nm
i	n_a min^{-1}	$M_{a\,max\,G}$ Nm	F_{Ra} [1] N	$\varphi_{(/R)}$ '	AMS 63	AMS 71	AMS 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	
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	
149.43	9.4	130	5000	-	130	130	130
188.47	7.4	130	5000	-	130	130	

WA29, m /kg			AMS 63	AMS 71	AMS 80
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					

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WA39, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm								200 Nm
i	n_a min^{-1}	$M_{a\,max\,G}$ Nm	F_{Ra} [1] N	$\varphi_{(/R)}$ '	AMS 63	AMS 71	AMS 80	AMS 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 63	AMS 71	AMS 80	AMS 90
WA	IEC	s				
		2	8.1	8.3	10	11
		3	8.8	9.1	11	11
	NEMA	s	-	56	143	145
		2	-	9.3	10.0	10
		3	-	10	11	11

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WA39, m /kg	AMS	
WAF: + 0.80 kg / WF: + 1.7 kg		

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WA49, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm									400 Nm
i	n_a min^{-1}	$M_{a\,max\,G}$ Nm	F_{Ra} [1] N	$\varphi_{(/R)}$ '	AMS 63	AMS 71	AMS 80	AMS 90	AMS 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 63	AMS 71	AMS 80	AMS 90	AMS 100
WA	IEC	s	63	71	80	90	100
		2	12	12	14	15	19
		3	14	14	16	17	21
	NEMA	s	-	56	143	145	182
		2	-	14	14	14	18
		3	-	15	16	16	20
WAF: + 0.75 kg / WF: + 1.5 kg							

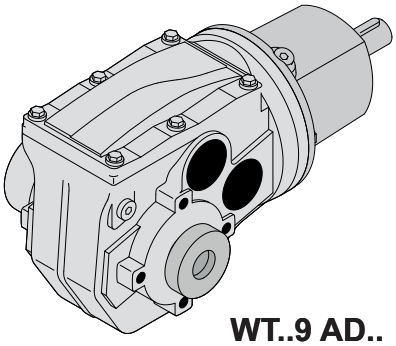
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WA59, n_e = 1400 min^{-1}, $M_{a\,max}$/Nm										600 Nm
i	n_a	$M_{a\,max\,G}$	F_{Ra} [1]	$\varphi_{(/R)}$	AMS					
	min^{-1}	Nm	N	'	63	71	80	90	100	112
					2					
6.76	207	172	4160	-	44	44	82	107	171	172
7.49	187	189	4180	-	48	48	93	111	189	189
8.18	171	157	4730	-	53	53	100	113	157	
9.39	149	240	4350	-	61	61	114	149	235	240
10.41	134	260	4350	-	67	67	129	154	262	262
11.35	123	215	5040	-	74	74	139	157	217	
13.31	105	355	4200	-	87	87	162	210	335	357
14.75	95	370	4330	-	96	96	184	215	371	371
16.09	87	310	5170	-	105	105	198	220	310	
18.72	75	480	4080	-	123	123	225	295	470	481
20.74	68	515	4060	-	135	135	255	305	515	515
22.63	62	440	5000	-	148	148	275	310	444	
24.89	56	385	5840	-	160	160	255	310	387	
					3					
27.81	50	505	4560	-	181	181	335	435	505	505
30.82	45	520	4740	-	198	198	380	450	520	520
33.62	42	520	5040	-	215	215	405	460	520	
36.98	38	520	5380	-	235	235	380	460	520	
39.41	36	550	5670	-	255	255	475	550	550	550
43.67	32	570	5860	-	280	280	535	570	570	570
47.64	29	590	6000	-	305	305	575	590	590	
52.40	27	600	6280	-	330	330	540	600	600	
55.44	25	600	6730	-	360	360	600	600	600	600
61.43	23	600	7160	-	395	395	600	600	600	600
67.02	21	600	7540	-	430	430	600	600	600	
73.72	19	600	7960	-	470	470	600	600	600	
76.29	18	600	7900	-	495	495	600	600	600	600
84.54	17	600	8000	-	540	540	600	600	600	600
92.23	15	600	8000	-	595	595	600	600	600	
101.45	14	600	8000	-	600	600	600	600	600	
107.33	13	600	8000	-	600	600	600	600	600	600
118.93	12	600	8000	-	600	600	600	600	600	600
129.74	11	600	8000	-	600	600	600	600	600	
142.72	9.8	600	8000	-	600	600	600	600	600	
151.56	9.2	600	8000	-	600	600	600			
213.21	6.6	600	8000	-	600	600	600			

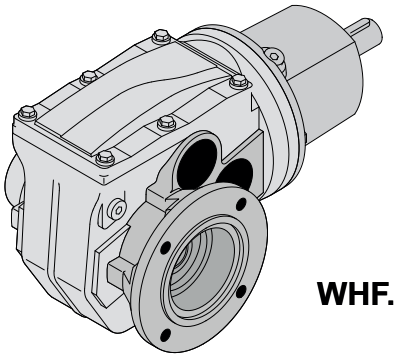
WA59, m /kg			AMS					
	IEC	s	63	71	80	90	100	112
WA		2	15	16	18	18	22	22
		3	18	18	20	21	25	25
	NEMA	s	-	56	143	145	182	184
		2	-	17	17	18	21	21
		3	-	19	20	20	24	24
WAF: + 1.3 kg / WF: + 2.8 kg								

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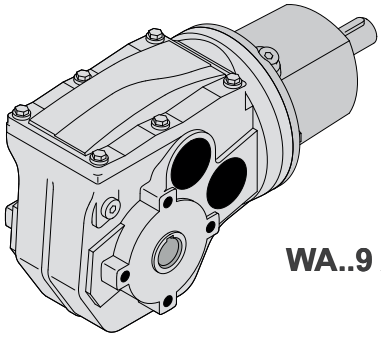
12.2 Selection tables for input shaft assembly (AD..)



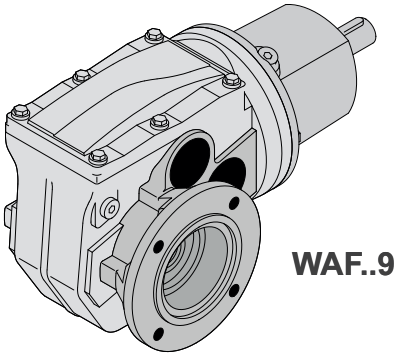
WT..9 AD..



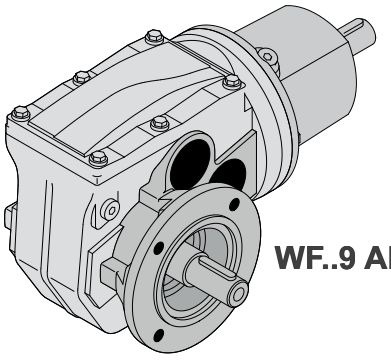
WHF..9 AD..



WA..9 AD..



WAF..9 AD..



WF..9 AD..

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WA19 AD.. , n_e = 1400 min^{-1} — 80 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				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	754
61.75	23	80	0.20	2200	810	-	-	**WAF**	**19**	**AD01**	4.2	754
56.14	25	80	0.22	2200	810	-	-	**WF**	**19**	**AD01**	4.8	754
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	754
10.24	137	50	0.76	1370	104	-	-	**WAF**	**19**	**AD01**	3.7	754
9.31	150	50	0.83	1310	76	-	-	**WF**	**19**	**AD01**	4.3	754
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 min^{-1} — 130 Nm

i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				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	-	-	**WA**	**29**	**AD1**	6.5	754
69.68	20	130	0.31	3490	610	-	-	**WAF**	**29**	**AD1**	6.8	754
62.41	22	130	0.34	3490	525	-	-	**WF**	**29**	**AD1**	7.2	754
56.74	25	130	0.37	3490	515	-	-					
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	754
								WAF	**29**	**AD2**	7.9	754
								WF	**29**	**AD2**	8.3	754

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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	$\varphi_{(/R)}$	⚠					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	
10.51	133	79	1.2	2240	1400	-	-	**WAF**	**29**	**AD2**		7.7	754
9.66	145	72	1.2	2220	1400	-	-	**WF**	**29**	**AD2**		8.0	
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

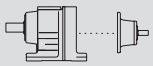
i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠					m kg	
210.49	6.7	200	0.17	4410	635	-	-						
157.87	8.9	200	0.21	4410	665	-	-						
141.23	9.9	200	0.25	4260	455	-	-						
126.29	11	200	0.26	4410	680	-	-						
114.81	12	200	0.29	4410	660	-	-						
105.50	13	200	0.31	4320	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	754
77.03	18	200	0.42	3600	495	-	-	**WAF**	**39**	**AD1**		9.3	754
73.53	19	200	0.45	3670	445	-	-	**WF**	**39**	**AD1**		10	754
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	754
30.88	45	196	1.0	2190	1500	-	-	**WAF**	**39**	**AD2**		10	754
28.38	49	196	1.1	2080	1480	-	-	**WF**	**39**	**AD2**		11	754
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	754
9.94	141	100	1.6	1780	1240	-	-	**WAF**	**39**	**AD2**		9.7	754
9.14	153	92	1.6	1780	1300	-	-	**WF**	**39**	**AD2**		10	754
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

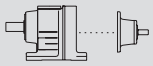
i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠					m kg	
200.76	7.0	390	0.33	6000	1730	-	-	**WA**	**49**	**AD2**		15	754
151.87	9.2	390	0.42	6000	1730	-	-	**WAF**	**49**	**AD2**		15	754
149.88	9.3	400	0.45	6000	1660	-	-	**WF**	**49**	**AD2**		16	754

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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	$\varphi_{(/R)}$	⚠		m kg	
126.43	11	390	0.53	6000	2730	-	-	**WA 49 AD3**	18	754
114.94	12	390	0.57	6000	2730	-	-	**WAF 49 AD3**	18	754
105.36	13	390	0.62	6000	2720	-	-	**WF 49 AD3**	19	754
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	754
78.66	18	400	0.82	6000	1640	-	-	**WAF 49 AD2**	15	754
70.25	20	390	0.89	6000	1530	-	-	**WF 49 AD2**	16	754
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	754
53.16	26	390	1.2	6000	2520	-	-	**WAF 49 AD3**	18	754
48.73	29	390	1.3	6000	2500	-	-	**WF 49 AD3**	19	754
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	754
31.33	45	375	1.9	4640	960	-	-	**WAF 49 AD2**	15	754
28.48	49	375	2.1	4400	1080	-	-	**WF 49 AD2**	16	754
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	754
12.16	115	184	2.4	4090	475	-	-	**WAF 49 AD2**	14	754
11.05	127	205	3.0	3720	295	-	-	**WF 49 AD2**	14	754
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	-	-			

WA59 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	$\varphi_{(/R)}$	⚠		m kg	
213.21	6.6	600	0.47	8000	1650	-	-			
151.56	9.2	600	0.65	8000	1540	-	-			
142.72	9.8	600	0.68	8000	1660	-	-			
129.74	11	600	0.75	8000	1660	-	-			
118.93	12	600	0.82	8000	1660	-	-			
107.33	13	600	0.89	8000	1640	-	-			
101.45	14	600	0.95	8000	1560	-	-			
92.23	15	600	1.0	8000	1560	-	-			
84.54	17	600	1.1	8000	1550	-	-			
76.29	18	600	1.2	7680	1530	-	-			
73.72	19	600	1.3	7700	1420	-	-	**WA 59 AD2**	19	754
67.02	21	600	1.4	7340	1430	-	-	**WAF 59 AD2**	20	754
61.43	23	600	1.6	7020	1420	-	-	**WF 59 AD2**	21	754
55.44	25	600	1.7	6650	1390	-	-			
52.40	27	600	1.8	6300	1070	-	-			
47.64	29	585	1.9	6080	1250	-	-			
43.67	32	570	2.1	5900	1250	-	-			
39.41	36	550	2.2	5700	1240	-	-			
36.98	38	515	2.2	5510	650	-	-			
33.62	42	515	2.4	5220	800	-	-			
30.82	45	515	2.7	4960	820	-	-			
27.81	50	505	2.9	4740	705	-	-			

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WA59 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	$\varphi_{(/R)}$	⚠				m kg	
24.89	56	385	2.4	5560	415	-	-					
22.63	62	440	3.1	4940	230	-	-					
20.74	67	480	3.6	4480	29	-	-					
18.72	75	450	3.7	4420	15	-	-					
16.09	87	310	3.0	4890	280	-	-					
14.75	95	340	3.6	4490	40	-	-	**WA**	**59**	**AD2**	16	754
13.31	105	320	3.7	4400	13	-	-	**WAF**	**59**	**AD2**	17	754
11.35	123	215	3.0	4650	300	-	-	**WF**	**59**	**AD2**	19	754
10.41	135	240	3.6	4310	39	-	-					
9.39	149	225	3.7	4210	24	-	-					
8.18	171	157	3.0	4320	290	-	-					
7.49	187	175	3.7	4020	-	-	-					
6.76	207	163	3.7	3930	7	-	-					

WA59R37 AD.. , n_e = 1400 min^{-1} — 600 Nm

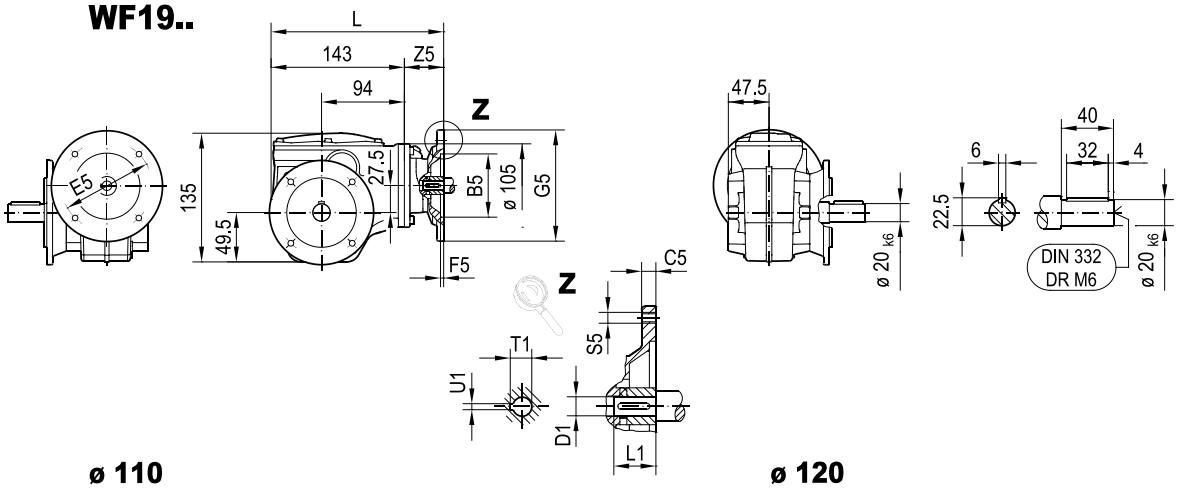
i	n_a min^{-1}	M_{amax} Nm	P_e kW	F_{Ra} [1] N	F_{Re} N	$\varphi_{(/R)}$	⚠				m kg	
19242	0.07	600	<0.05	8000	1900	-	-					
17649	0.08	600	<0.05	8000	1900	-	-					
16044	0.09	600	<0.05	8000	1900	-	-					
14707	0.10	600	<0.05	8000	1900	-	-					
12955	0.11	600	<0.05	8000	1900	-	-					
11405	0.12	600	<0.05	8000	1900	-	-					
10063	0.14	600	<0.05	8000	1900	-	-	**WA**	**59R37**	**AD2**	29	754
8796	0.16	600	<0.05	8000	1900	-	-	**WAF**	**59R37**	**AD2**	31	754
7674	0.18	600	<0.05	8000	1900	-	-	**WF**	**59R37**	**AD2**	32	754
6692	0.21	600	<0.05	8000	1900	-	-					
5814	0.24	600	0.05	8000	1900	-	-					
5032	0.28	600	0.05	8000	1900	-	-					
4367	0.32	600	0.06	8000	1900	-	-					
3788	0.37	600	0.06	8000	1900	-	-					
3311	0.42	600	0.07	8000	1900	-	-					

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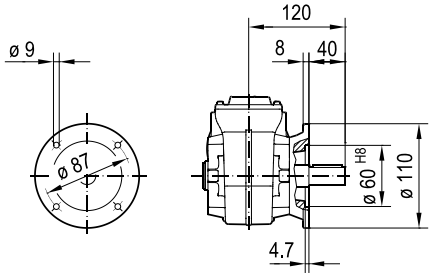
12.3 Dimension sheets for adapters for mounting IEC motors (AMS..)

20 076 01 21

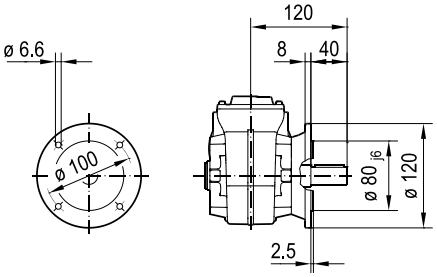
WF19..



ø 110

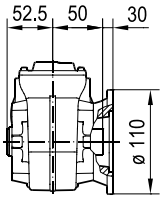


ø 120

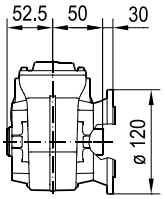


WAF19..

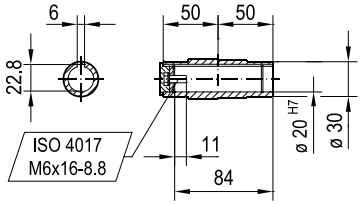
ø 110



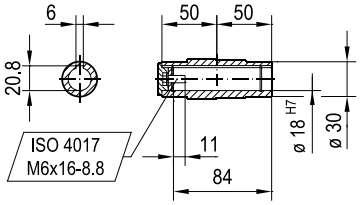
ø 120



ø 20 H7



ø 18 H7

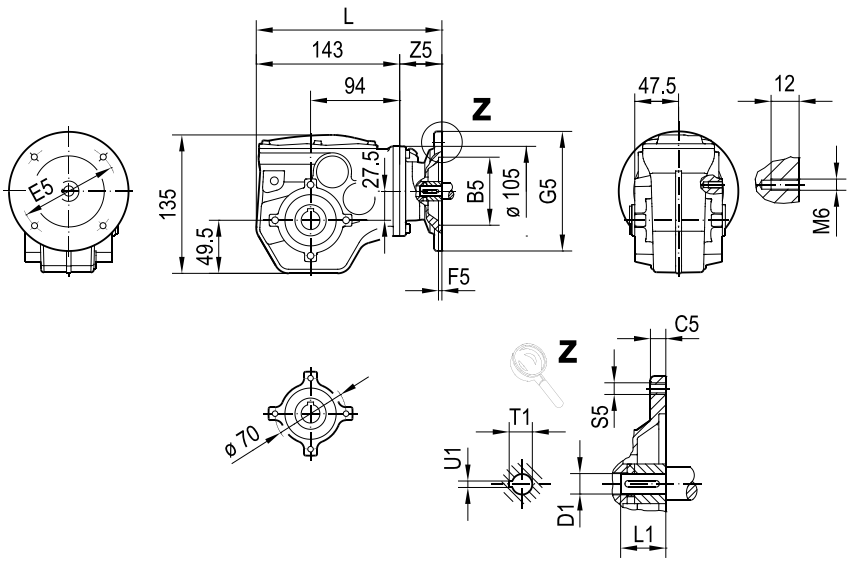


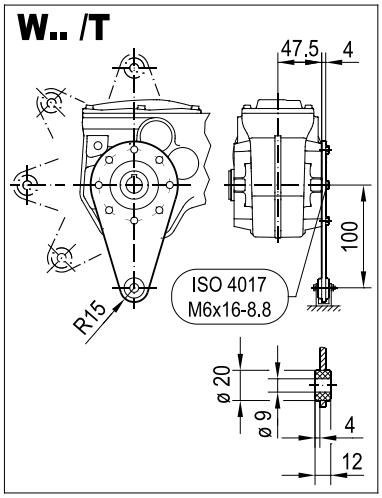
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	200	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	200	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	217	M10	73.5	19	40	21.8	6

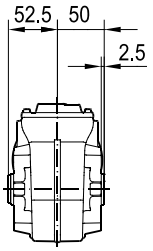
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20 077 02 21

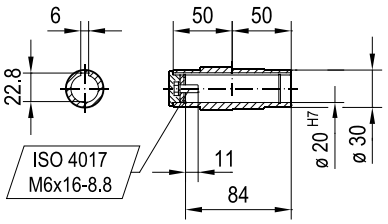
WA19..



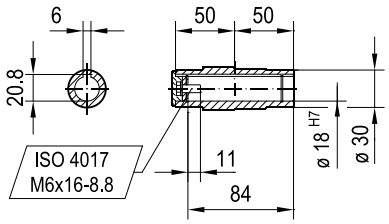




ø 20 H7



ø 18 H7

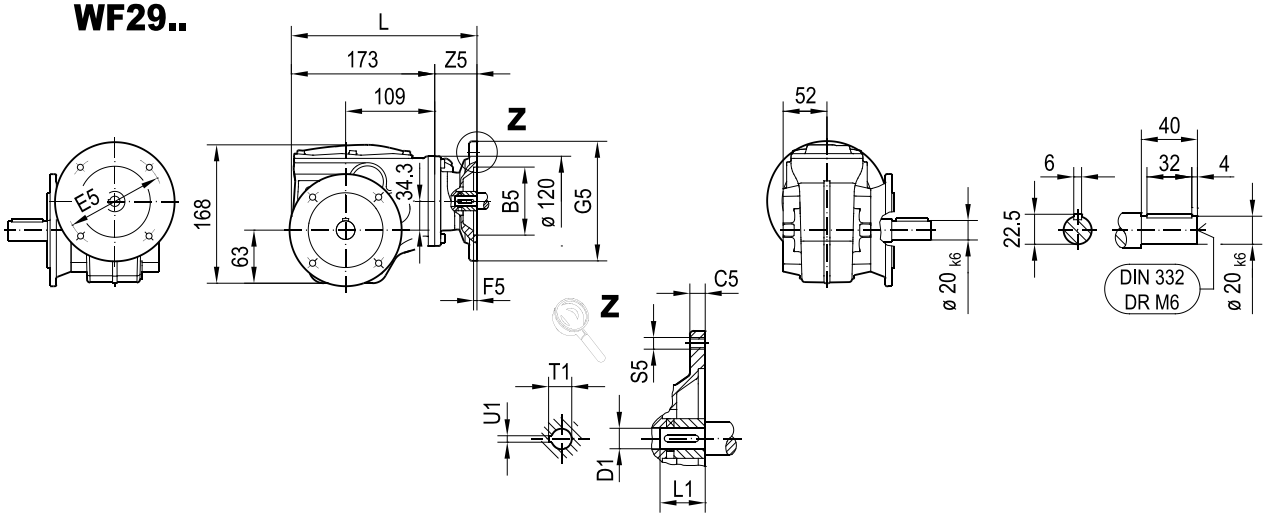


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	200	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	200	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	217	M10	73.5	19	40	21.8	6

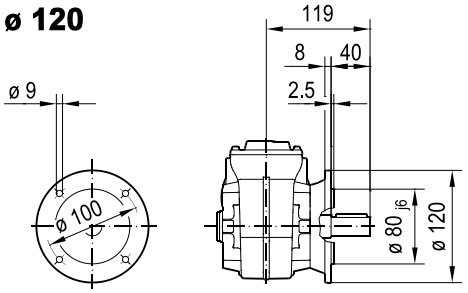
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20 160 00 20

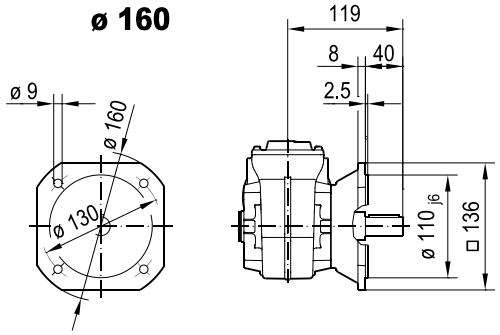
WF29..



ø 120

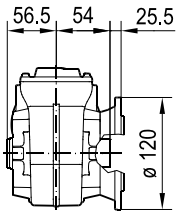


ø 160

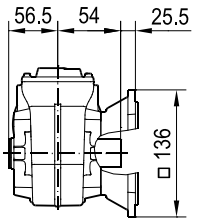


WAF29..

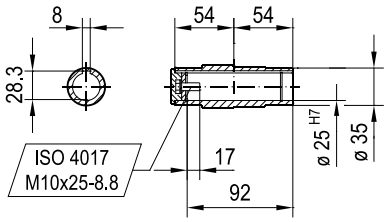
ø 120



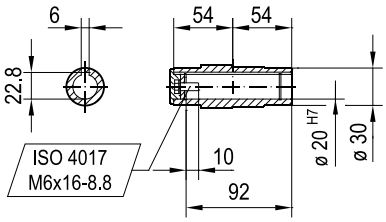
ø 160



ø 25 H7



ø 20 H7

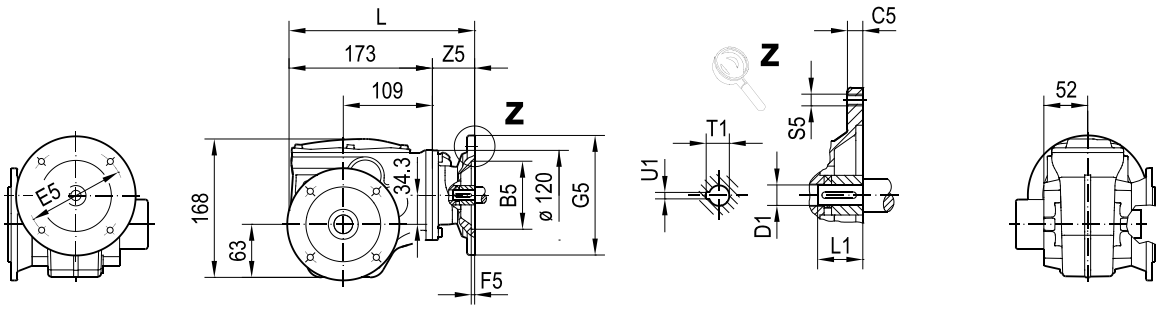


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	230	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	230	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	247	M10	73.5	19	40	21.8	6

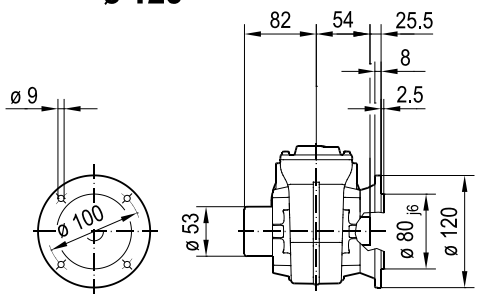
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20 161 01 20

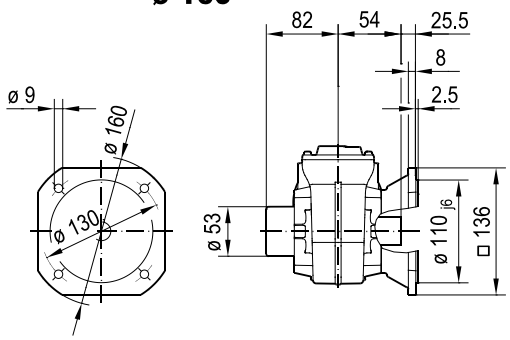
WHF29..

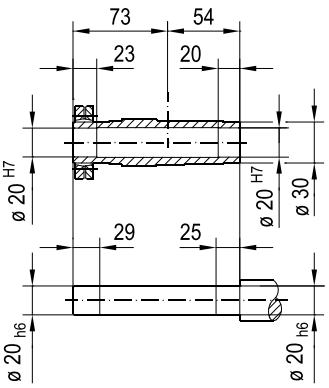


ø 120



ø 160



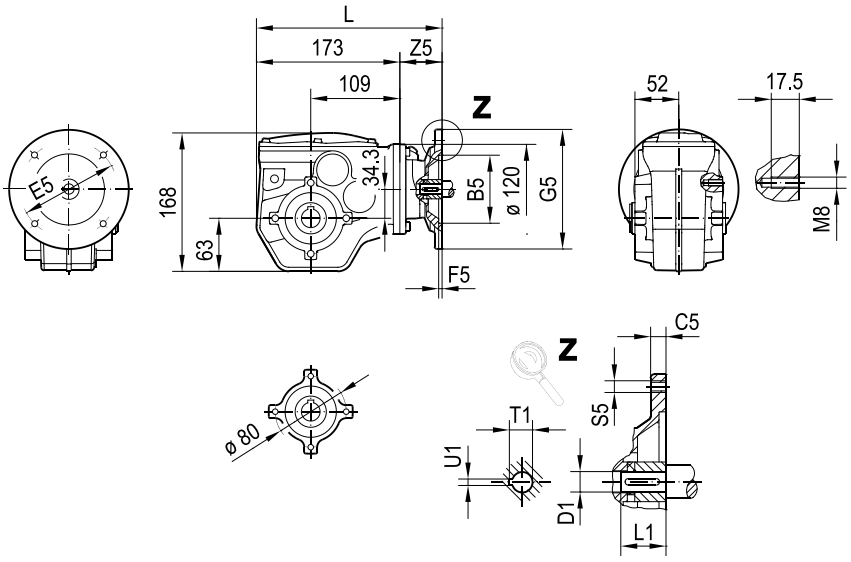


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	230	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	230	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	247	M10	73.5	19	40	21.8	6

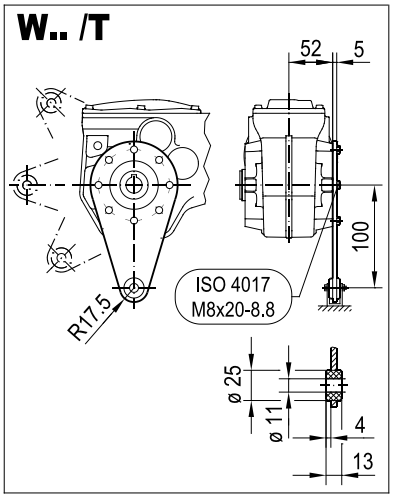
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20 162 03 20

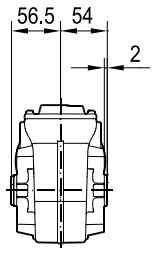
WA29..



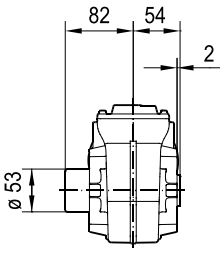
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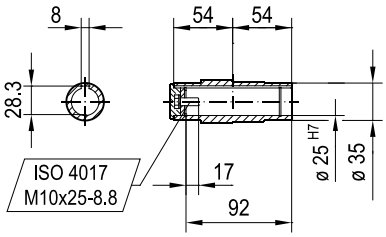
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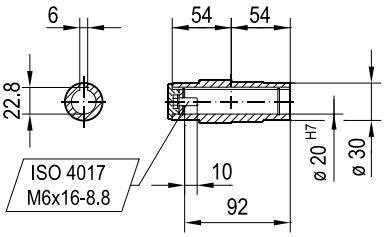
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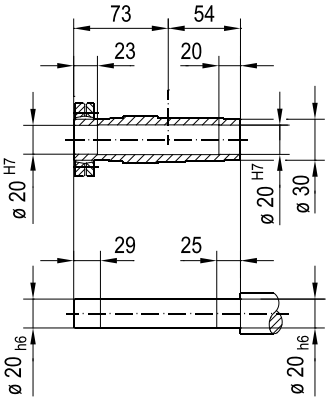


ø 25 H7



ø 20 H7



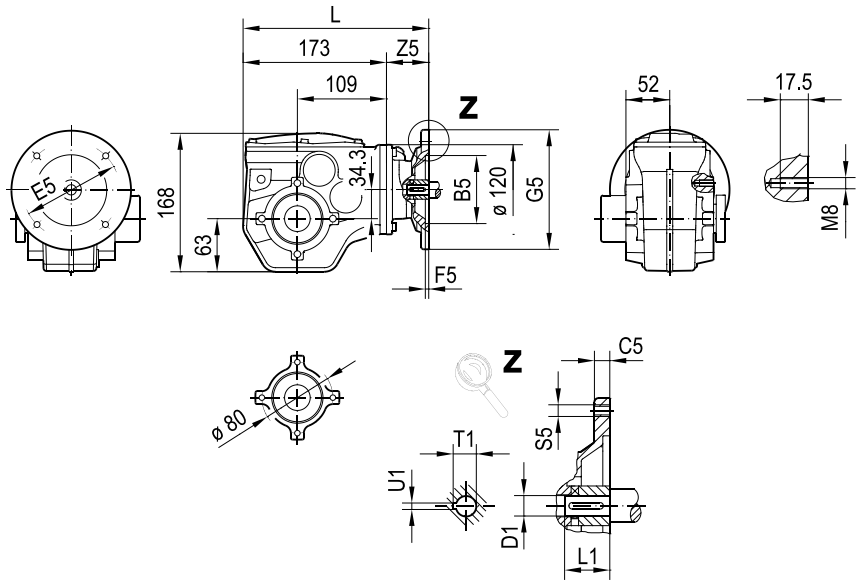


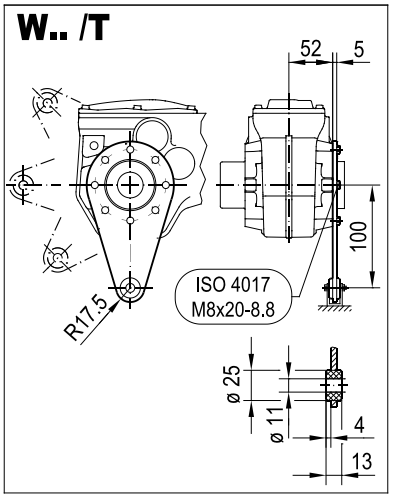
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	230	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	230	M8	56.5	14	30	16.3	5
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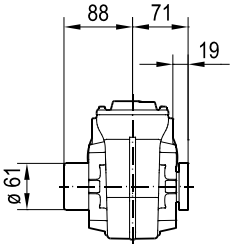
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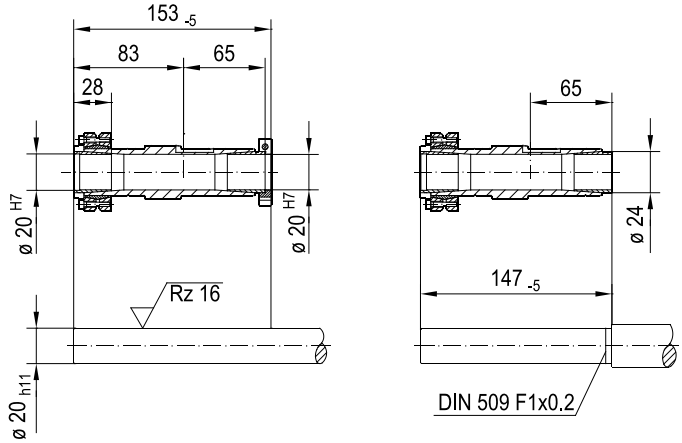
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WT29..







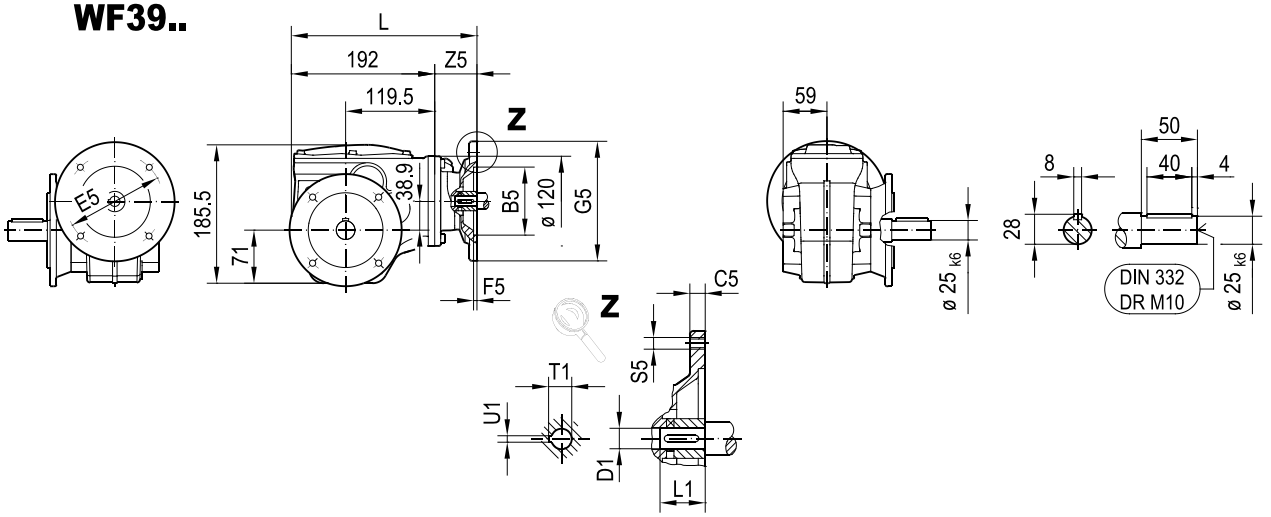


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	230	M8	56.5	11	23	12.8	4
AMS71	110	10	130	4	160	230	M8	56.5	14	30	16.3	5
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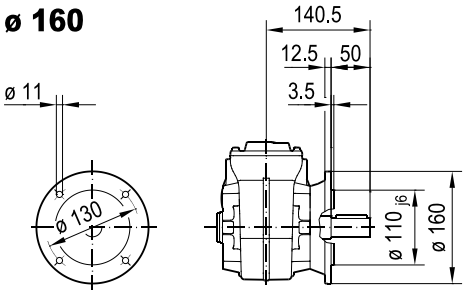
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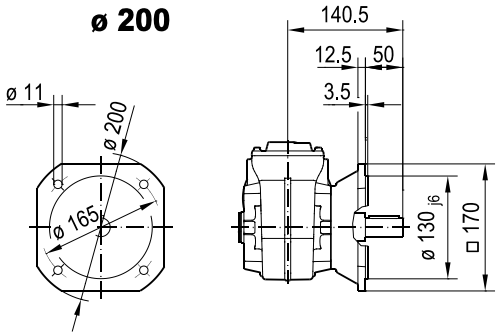
WF39..



ø 160

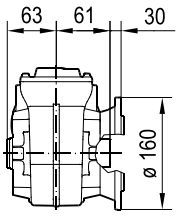


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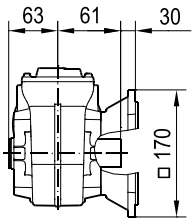


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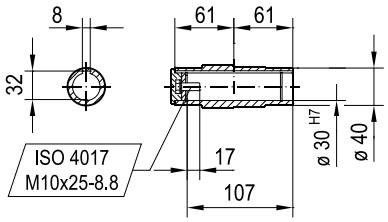
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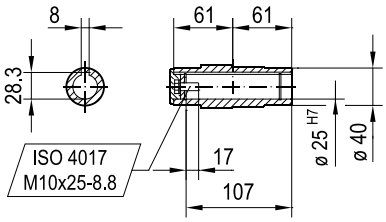
ø 200



ø 30 H7
DIN 6885-3



ø 25 H7

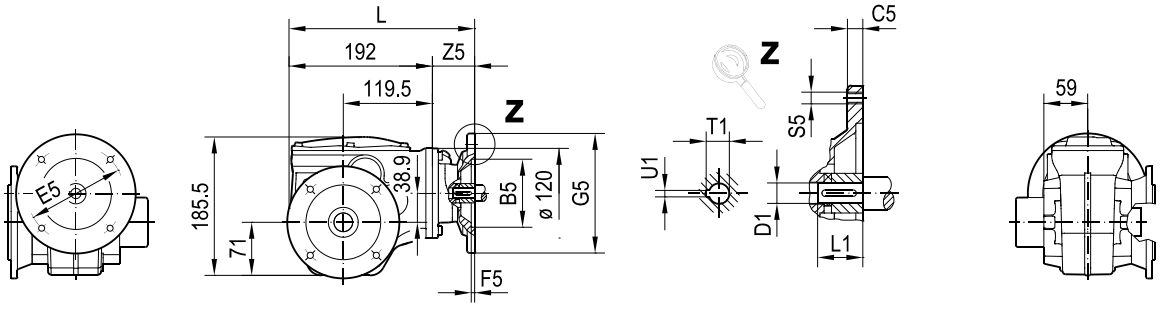


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS80	130	12	165	4.5	200	266	M10	73.5	19	40	21.8	6
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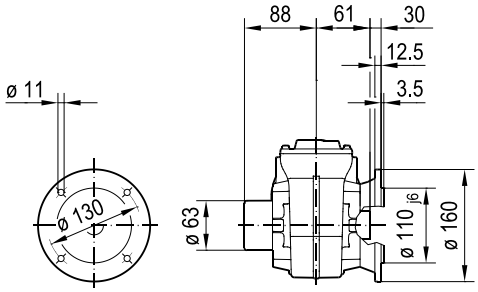
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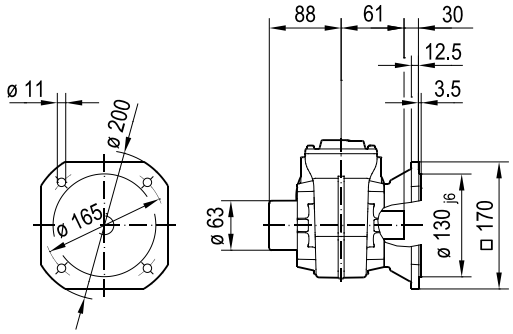
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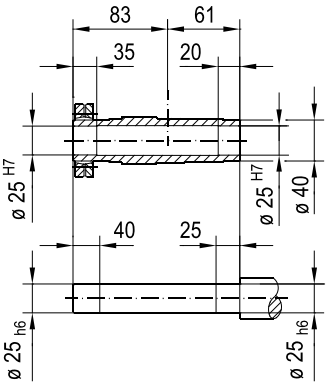


ø 160



ø 200



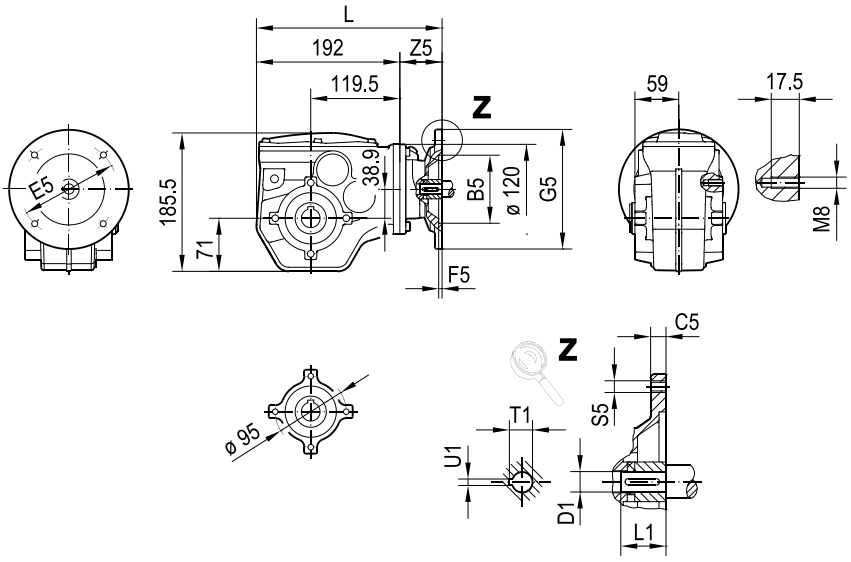


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS80	130	12	165	4.5	200	266	M10	73.5	19	40	21.8	6
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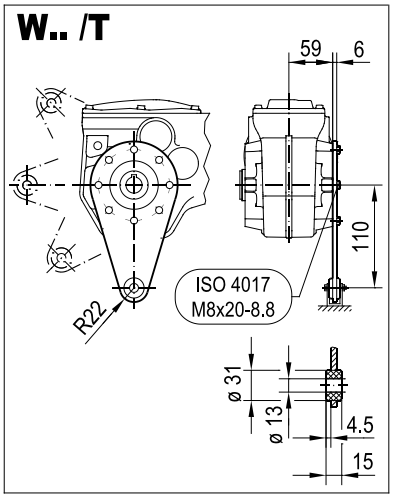
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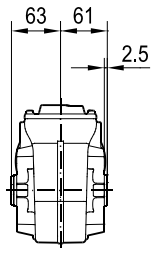
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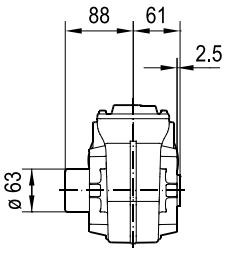
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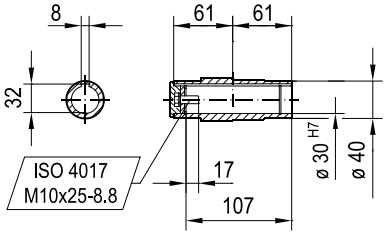
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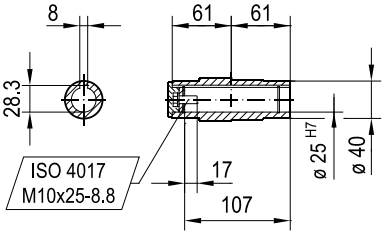
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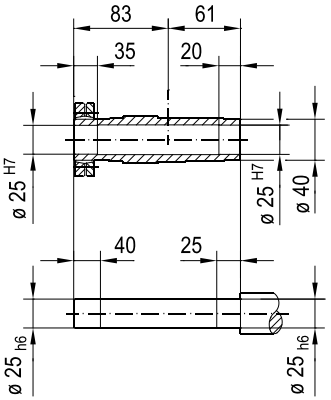


ø 30 H7
DIN 6885-3



ø 25 H7



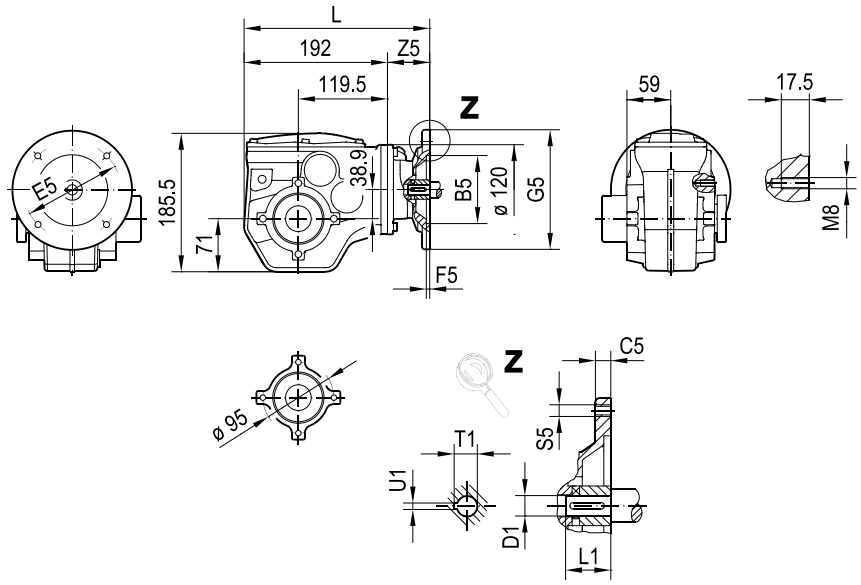


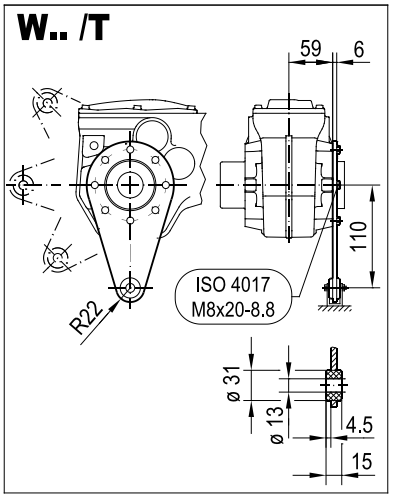
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS80	130	12	165	4.5	200	266	M10	73.5	19	40	21.8	6
AMS90	130	12	165	4.5	200	279	M10	86.5	24	50	27.3	8

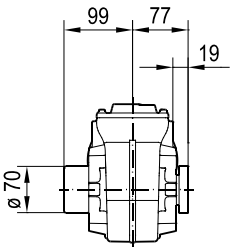
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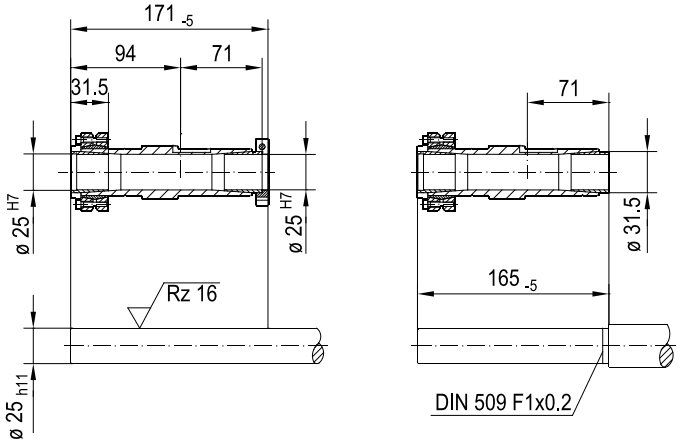
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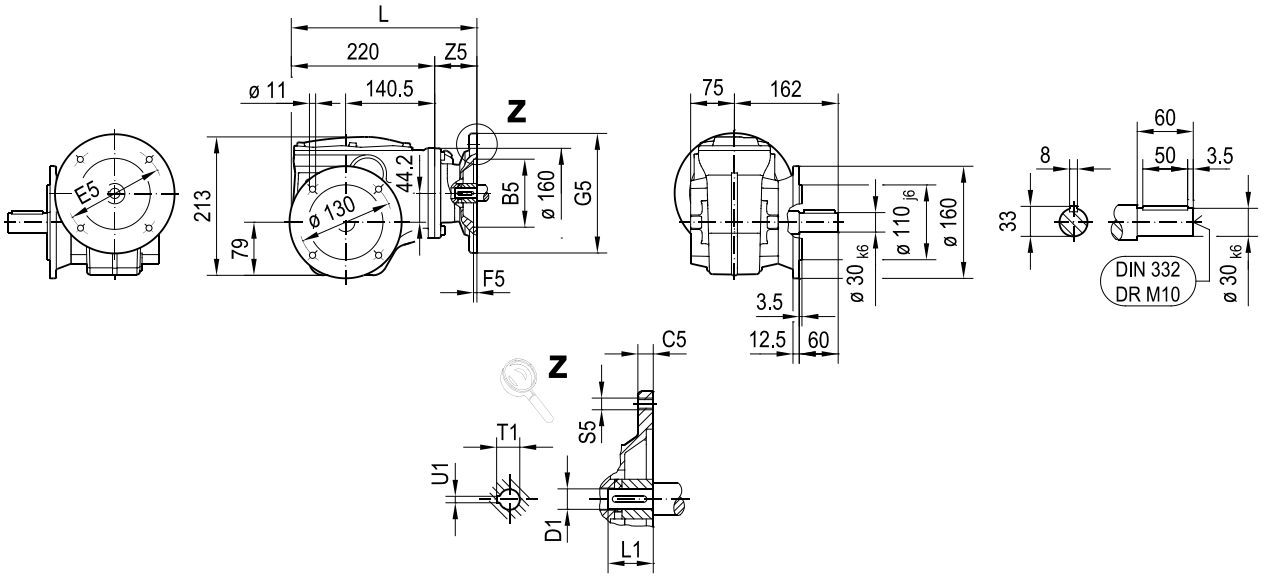


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS71	110	10	130	4	160	249	M8	56.5	14	30	16.3	5
AMS80	130	12	165	4.5	200	266	M10	73.5	19	40	21.8	6
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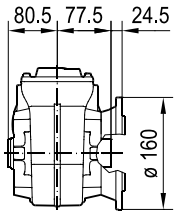
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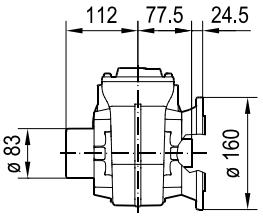
WF49..



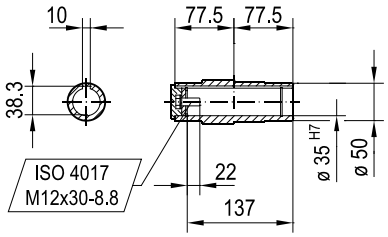
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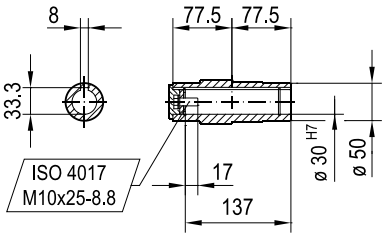
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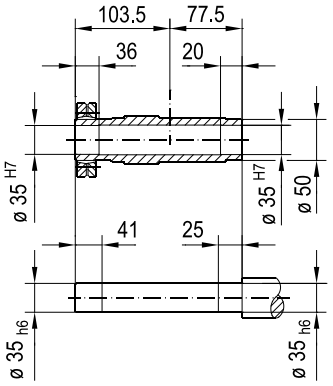


ø 35 H7



ø 30 H7



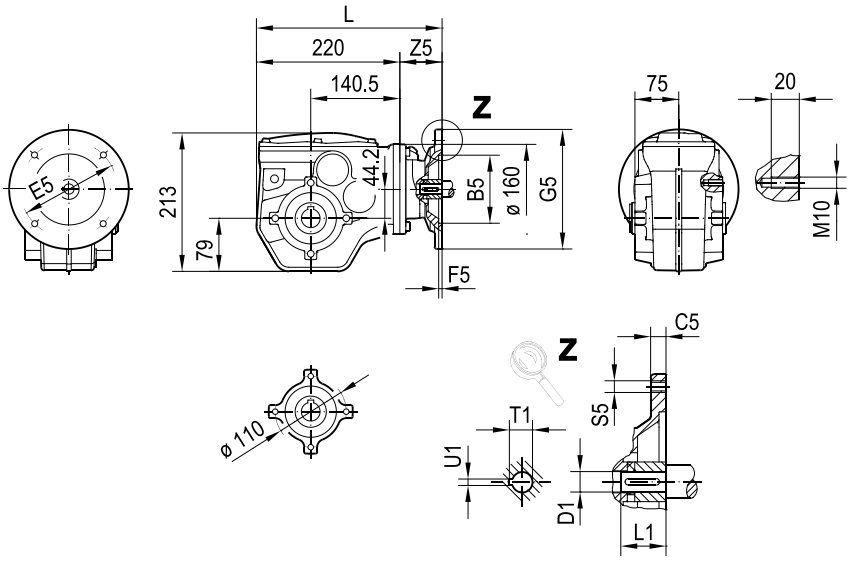


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
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AMS71	110	10	130	4	160	270	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	287	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	300	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	329	M12	108.5	28	60	31.3	8

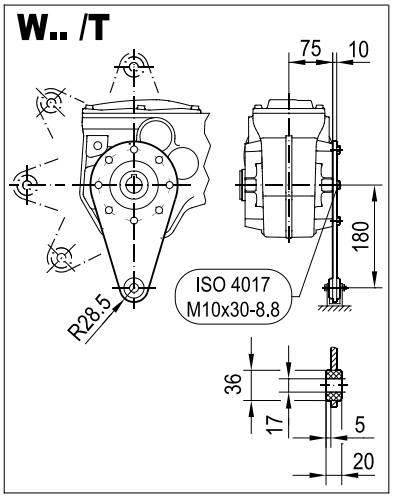
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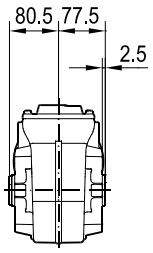
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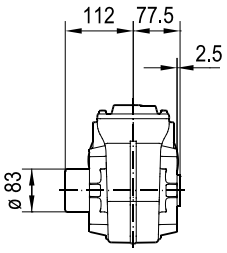
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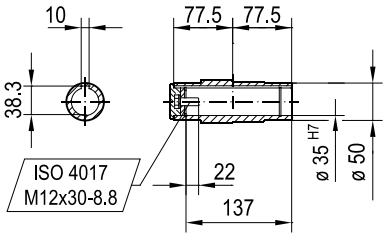
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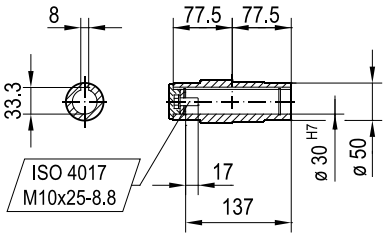
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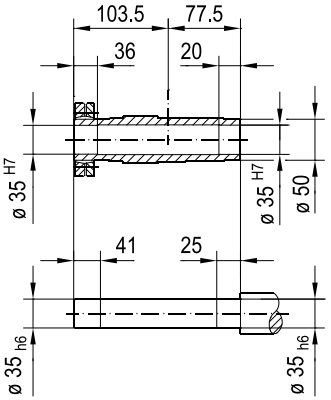


ø 35 H7



ø 30 H7



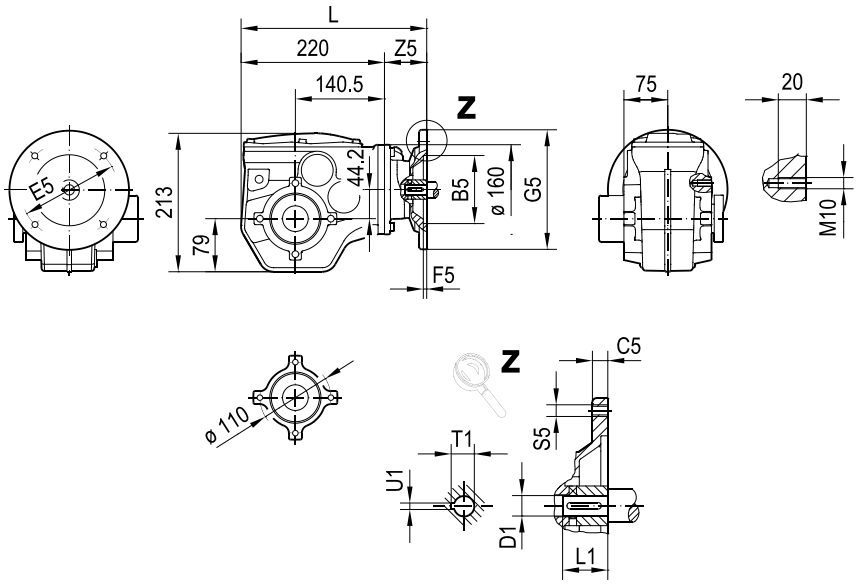


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	270	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	270	M8	50	14	30	16.3	5
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AMS90	130	12	165	4.5	200	300	M10	80	24	50	27.3	8
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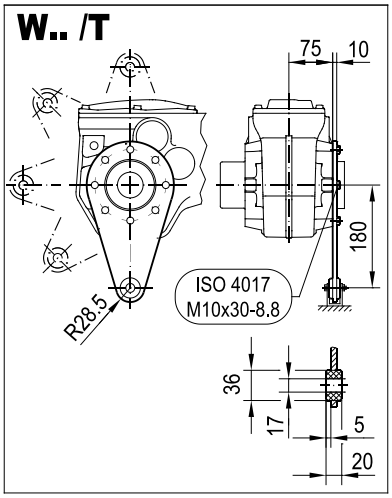
27797880/EN – 03/2023

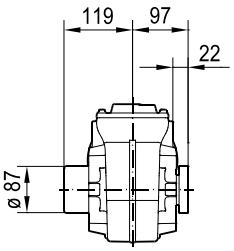
20 080 03 21

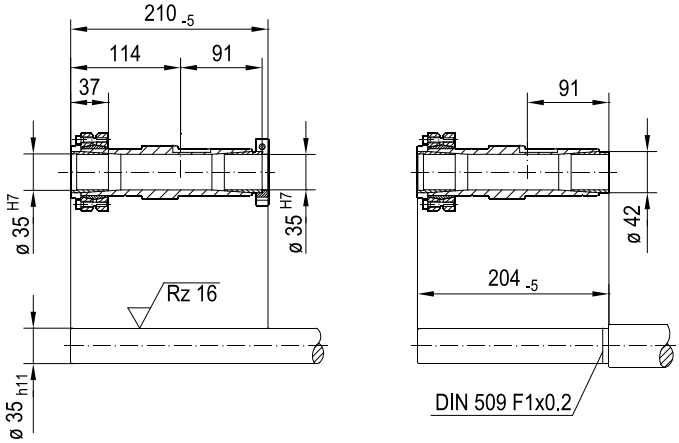
WT49..



W.. /T





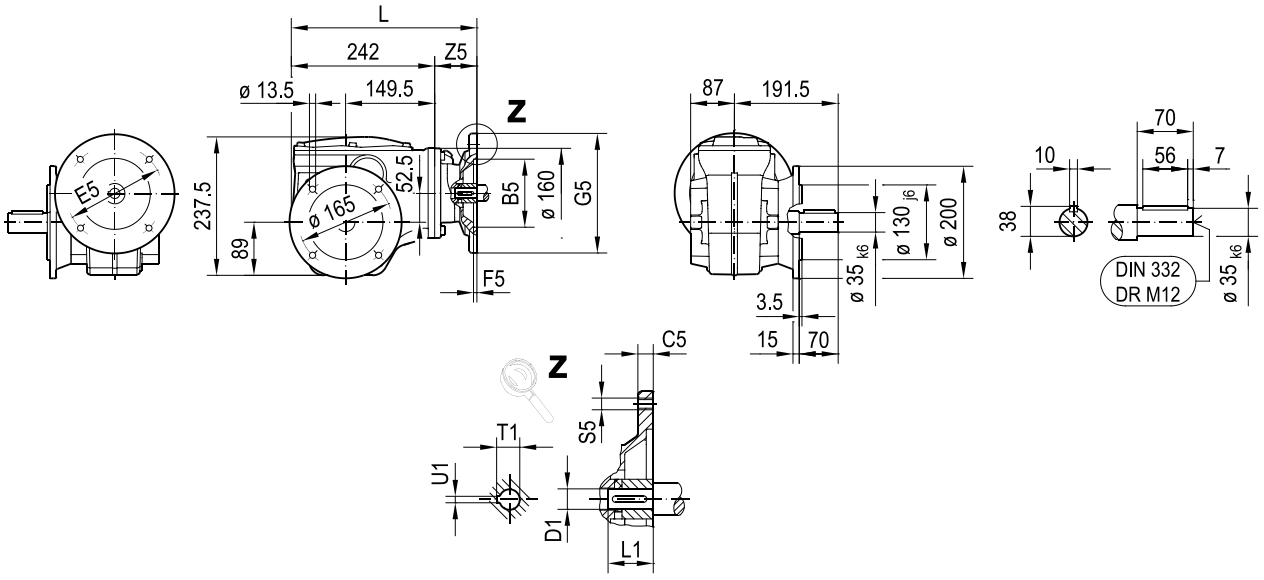


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	270	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	270	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	287	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	300	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	329	M12	108.5	28	60	31.3	8

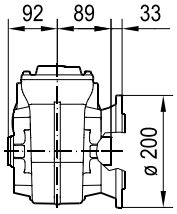
27797880/EN – 03/2023

20 019 02 22

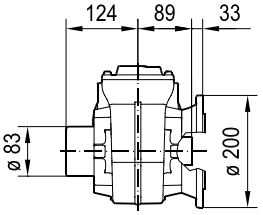
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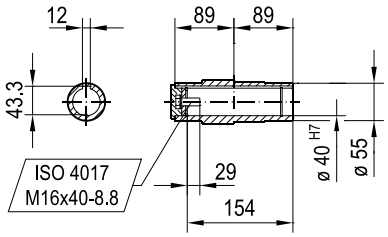
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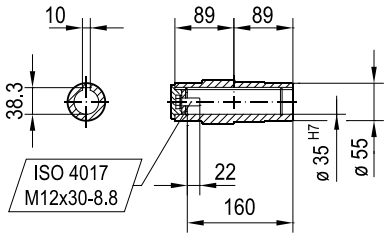
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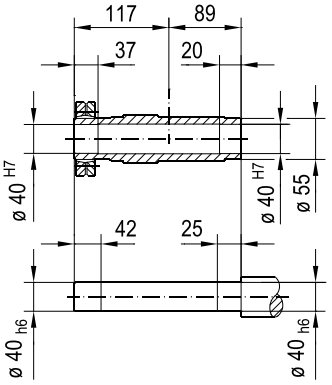


ø 40 H7



ø 35 H7



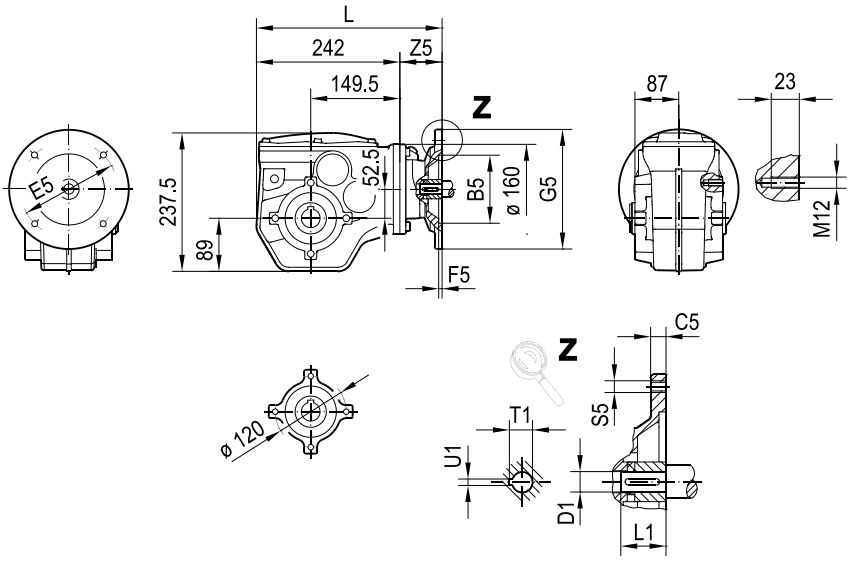


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	292	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	292	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	309	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	322	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	351	M12	108.5	28	60	31.3	8
AMS112	180	15	215	5	250	351	M12	108.5	28	60	31.3	8

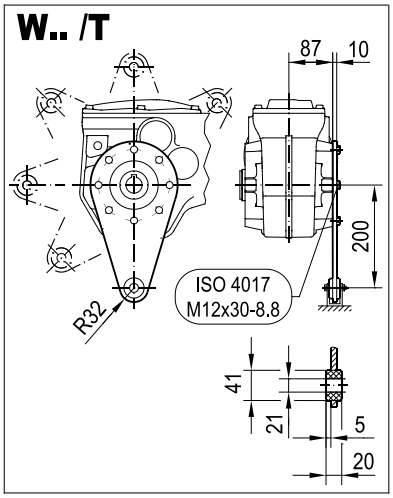
27797880/EN – 03/2023

20 020 03 22

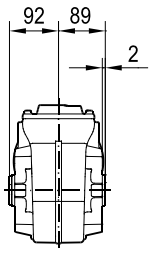
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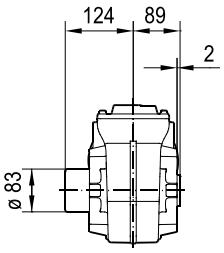
W.. /T



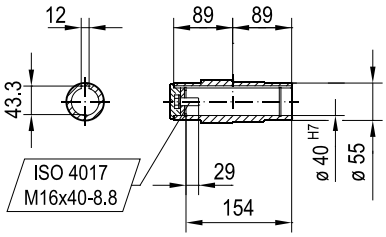
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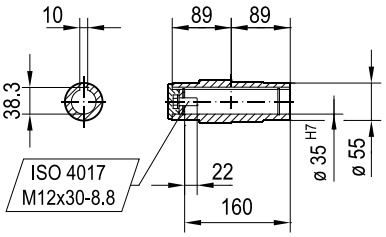
WH59..

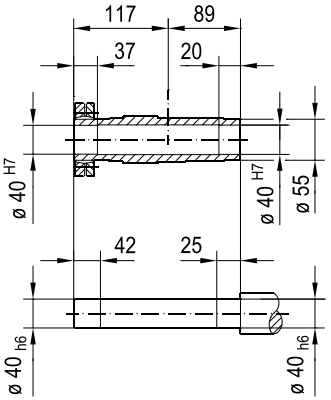


ø 40 H7



ø 35 H7



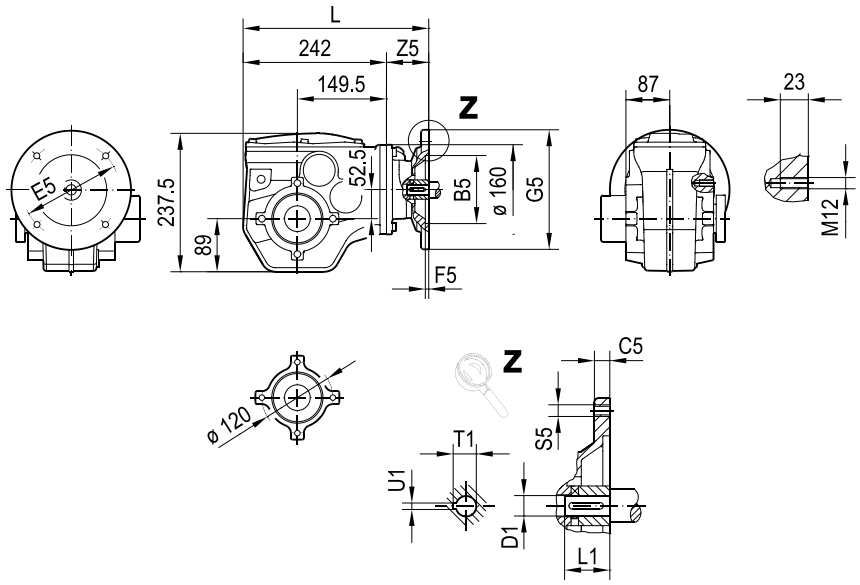


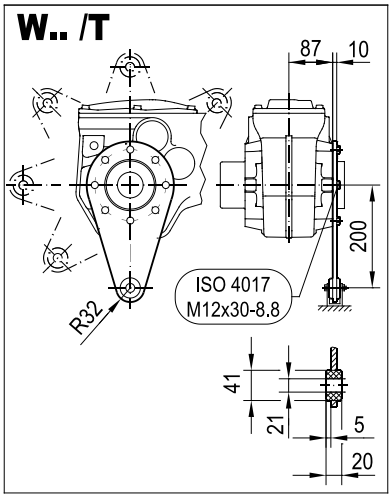
(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	292	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	292	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	309	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	322	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	351	M12	108.5	28	60	31.3	8
AMS112	180	15	215	5	250	351	M12	108.5	28	60	31.3	8

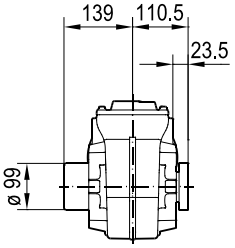
27797880/EN – 03/2023

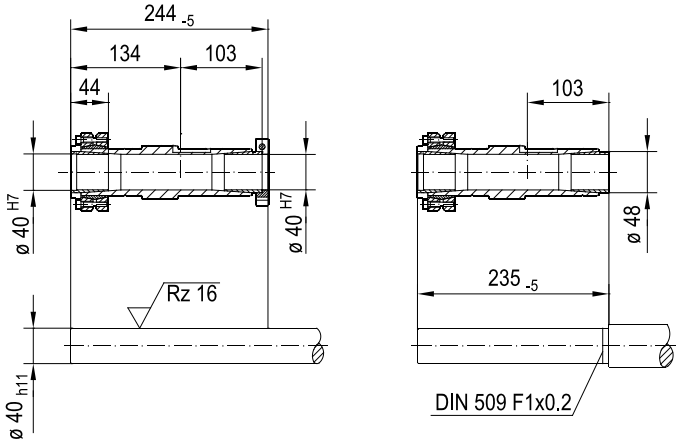
20 021 04 22

WT59..







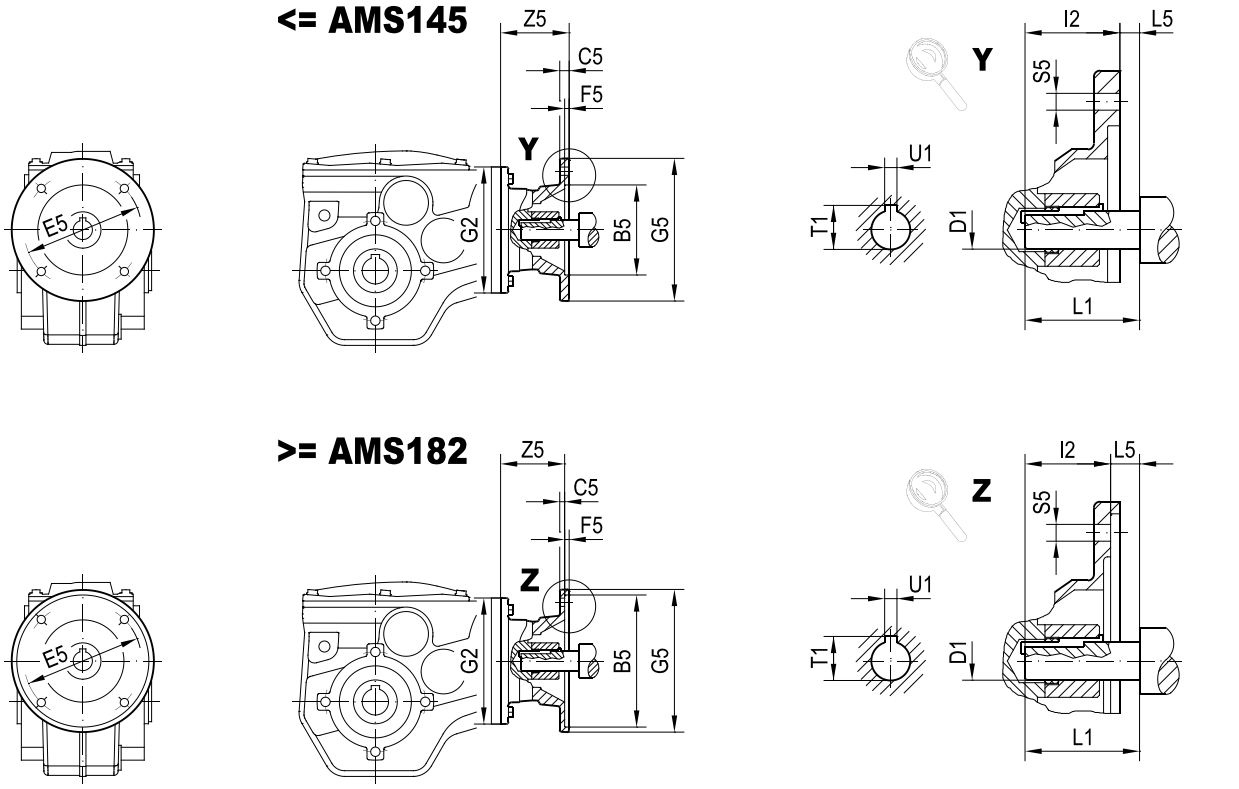


(→ 📖 7.2)	B5	C5	E5	F5	G5	L	S5	Z5	D1	L1	T1	U1
AMS63	95	10	115	3.5	140	292	M8	50	11	23	12.8	4
AMS71	110	10	130	4	160	292	M8	50	14	30	16.3	5
AMS80	130	12	165	4.5	200	309	M10	67	19	40	21.8	6
AMS90	130	12	165	4.5	200	322	M10	80	24	50	27.3	8
AMS100	180	15	215	5	250	351	M12	108.5	28	60	31.3	8
AMS112	180	15	215	5	250	351	M12	108.5	28	60	31.3	8

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12.4 Dimension sheets for adapters for mounting NEMA motors (AMS..)

20 054 00 20



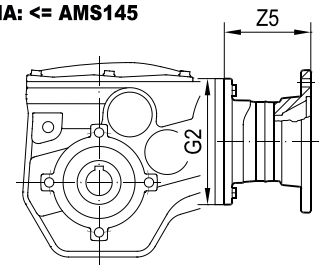
		B5	C5	E5	F5	G2	G5	I2	L5	S5	Z5	D1	L1	T1	U1
W..19	**AMS56**	114.3	11	149.2	4.5	105	170	52.3	-4.6	10.5	81.5	15.875	47.8	18.1	4.76
W..29 W..39	**AMS56**	114.3	11	149.2	4.5	120	170	52.3	-4.6	10.5	81.5	15.875	47.8	18.1	4.76
	AMS143	114.3	12	149.2	4.5	120	170	53.8	3.3	10.5	93.5	22.225	57.2	24.7	4.76
	AMS145	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
W..49	**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	115	28.575	69.9	31.7	6.35
W..59	**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	115	28.575	69.9	31.7	6.35
	AMS184	215.9	10	184	5	160	228	66.6	3.3	15	115	28.575	69.9	31.7	6.35

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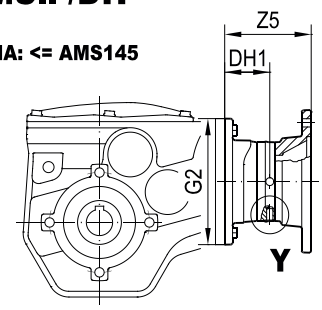
12.5 Dimension sheets for adapters with backstop (RS..) and drain hole (DH..)

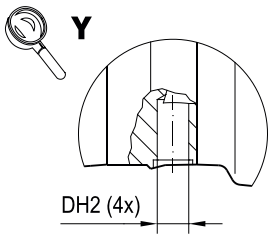
20 058 01 20

AMS.. /RS
IEC
NEMA: <= AMS145

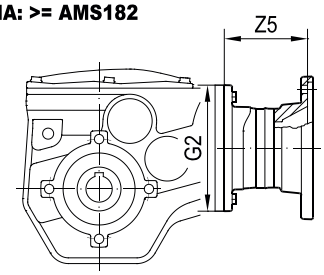


AMS.. /DH
IEC
NEMA: <= AMS145

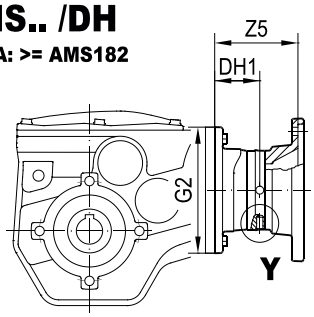




AMS.. /RS
NEMA: >= AMS182



AMS.. /DH
NEMA: >= AMS182



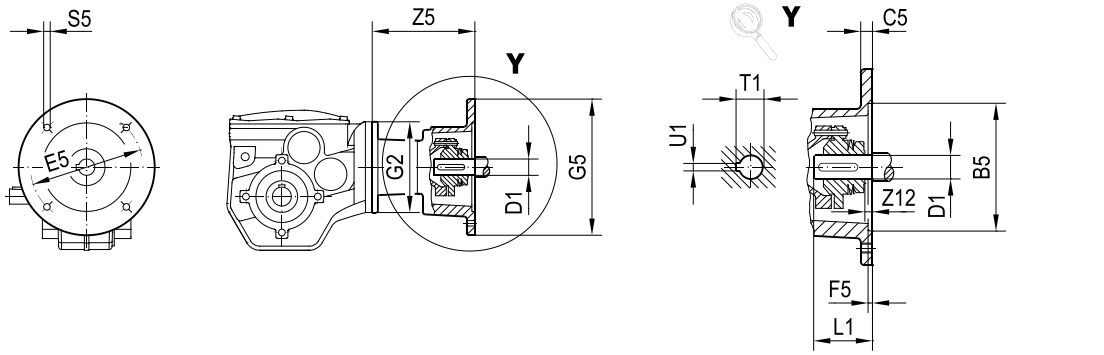
		/RS		/DH			
		G2	Z5	G2	Z5	DH1	DH2
W..19	AMS56	–	–	105	105	60	9
	AMS63	–	–	105	78.5	46	9
	AMS71	–	–	105	78.5	46	9
	AMS80	–	–	105	97.5	60	9
W..29 W..39	AMS56	–	–	120	105	60	9
	AMS63	–	–	120	78.5	46	9
	AMS71	–	–	120	78.5	46	9
	AMS80	120	121	120	97.5	60	9
	AMS90	120	121	120	109	64	9
	AMS143	120	128.5	120	116.5	64	9
	AMS145	120	128.5	120	116.5	64	9
W..49	AMS56	–	–	160	98.5	54	9
	AMS63	–	–	160	72	40	9
	AMS71	–	–	160	72	40	9
	AMS80	160	114.5	160	91	54	9
	AMS90	160	114.5	160	102.5	57	9
	AMS100	160	153	160	153	97	9
	AMS143	160	122	160	110	57	9
	AMS145	160	122	160	110	57	9
	AMS182	160	158.5	160	158.5	97	9
W..59	AMS56	–	–	160	98.5	54	9
	AMS63	–	–	160	72	40	9
	AMS71	–	–	160	72	40	9
	AMS80	160	114.5	160	91	54	9
	AMS90	160	114.5	160	102.5	57	9
	AMS100	160	153	160	153	97	9
	AMS112	160	153	160	153	97	9
	AMS143	160	122	160	110	57	9
	AMS145	160	122	160	110	57	9
	AMS182	160	158.5	160	158.5	97	9
	AMS184	160	158.5	160	158.5	97	9

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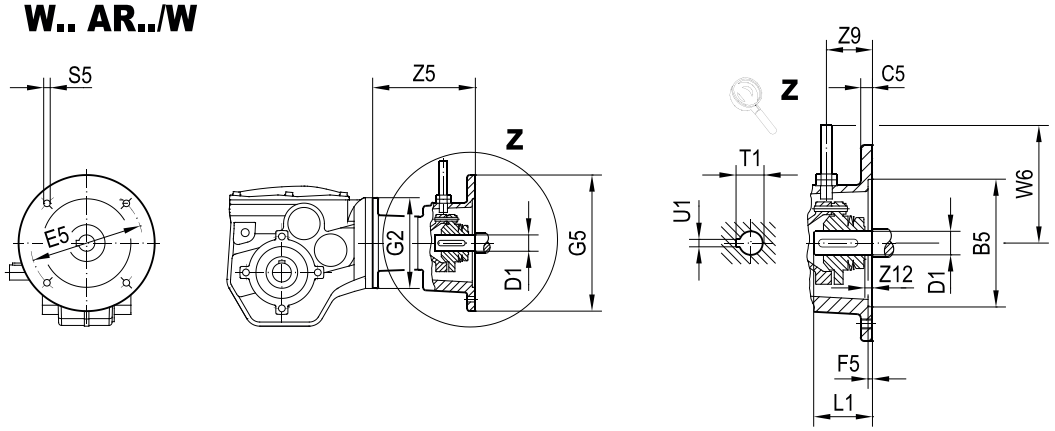
12.6 Dimension sheets for adapters with slip clutch (AR..)

20 130 00 20

W.. AR..



W.. AR../W



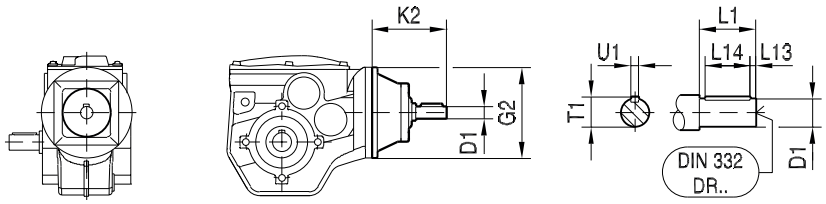
		B5	C5	E5	F5	G2	G5	S5	W6	Z5	Z9	Z12	D1	L1	T1	U1
W..29	**AR71**	110	10	130	3.5	120	160	M8	120	104	37	0	14	30	16.3	5
	AR80	130	12	165	4.5		200	M10		140.5			19	40	21.8	6
W..39	**AR71**	110	10	130	3.5	120	160	M8	120	104	37	0	14	30	16.3	5
	AR80	130	12	165	4.5		200	M10		140.5			19	40	21.8	6
	AR90												24	50	27.3	8
W..49	**AR71**	110	10	130	3.5	160	160	M8	120	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
W..59	**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															

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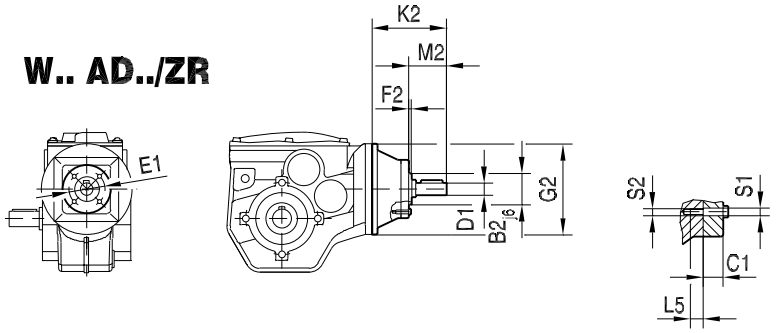
12.7 Dimension sheets for input shaft assembly (AD..)

20 131 01 20

W.. AD..



W.. AD../ZR



		B2	C1	E1	F2	G2	K2	L5	M2	S1	S2	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, AD2/ZR	55	13.5	80	8		130	12	50	9	M8	19	40	4	32	21.5	6
W..39	**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
W..49	**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
W..59	**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

For bore dimensions and weight of the motor platform, refer to the chapter "Bore dimensions and weight" (→ 🗎 81).

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13 Address directory SEW-EURODRIVE

Argentina			
Assembly Sales	Buenos Aires	SEW EURODRIVE ARGENTINA S.A. Ruta Panamericana Km 37.5, Lote 35 (B1619IEA) Centro Industrial Garín Prov. de Buenos Aires	Tel. +54 3327 4572-84 Fax +54 3327 4572-21 http://www.sew-eurodrive.com.ar sewar@sew-eurodrive.com.ar
	Córdoba	SEW EURODRIVE ARGENTINA S.A. Ruta Nacional 19, Manzana 97, Lote 5 (X5125) Malvinas Argentinas Prov. de Córdoba	Tel. +54 351-490-0010 http://www.sew-eurodrive.com.ar sewcor@sew-eurodrive.com.ar
	Santa Fe	SEW EURODRIVE ARGENTINA S.A. Ruta Prov. 21 Km 7, Lote 41 Parque Industrial Alvear (2126) Gral. Alvear Prov. de Santa Fe	Tel. +54 341-317-7277 http://www.sew-eurodrive.com.ar sewsfe@sew-eurodrive.com.ar
Service	Mendoza	SEW EURODRIVE ARGENTINA S.A. Francisco Gabrielli (ex Urquiza) 2060-Zona Industrial- Guaymallen- CP 5521	Tel. +54 261-4214150 http://www.sew-eurodrive.com.ar sewmen@sew-eurodrive.com.ar
Technical Offices	Tucumán	SEW EURODRIVE ARGENTINA S.A. Balcarce 609 (T4000IAM) S.M. de Tucumán Prov. de Tucumán	Tel. +54 381-400-4569 http://www.sew-eurodrive.com.ar sewtuc@sew-eurodrive.com.ar
	Bahía Blanca	SEW EURODRIVE ARGENTINA S.A. O'Higgins 95, 1er Piso A (B8000IVA) Bahía Blanca Prov. de Buenos Aires	Tel. +54 291-451-7345 http://www.sew-eurodrive.com.ar sewbb@sew-eurodrive.com.ar
	Neuquén	SEW EURODRIVE ARGENTINA S.A.	Tel. +549 299 588 7950 http://www.sew-eurodrive.com.ar sewnqn@sew-eurodrive.com.ar
Australia			
Assembly Sales Service	Melbourne	SEW-EURODRIVE PTY. LTD. 27 Beverage Drive Tullamarine, Victoria 3043	Tel. +61 3 9933-1000 Fax +61 3 9933-1003 http://www.sew-eurodrive.com.au enquires@sew-eurodrive.com.au
	Sydney	SEW-EURODRIVE PTY. LTD. 9, Sleigh Place, Wetherill Park New South Wales, 2164	Tel. +61 2 9725-9900 Fax +61 2 9725-9905 enquires@sew-eurodrive.com.au
Sales Service	Adelaide	SEW-EURODRIVE PTY. LTD. 9C Park Way Mawson Lakes, SA 5095	Tel. +61 8 8161 4000 Fax +61 8 8161 4002 enquires@sew-eurodrive.com.au
	Brisbane	SEW-EURODRIVE PTY. LTD. 1 /34 Collinsvale St Rocklea, Queensland, 4106	Tel. +61 7 3276 5100 Fax +61 7 3276 5102 enquires@sew-eurodrive.com.au
	Perth	SEW-EURODRIVE PTY. LTD. 10 Colin Jamieson Drive Welshpool, WA 6106	Tel. +61 8 9251-4900 Fax +61 8 9251-4903 enquires@sew-eurodrive.com.au
Sales	Townsville	SEW-EURODRIVE PTY. LTD. 12 Leyland Street Garbutt, QLD 4814	Tel. +61 7 4779 4333 Fax +61 7 4779 5333 enquires@sew-eurodrive.com.au
Austria			
Assembly Sales Service	Vienna	SEW-EURODRIVE Ges.m.b.H. Richard-Strauss-Straße 24 1230 Wien	Tel. +43 1 617 55 00-0 Fax +43 1 617 55 00-30 http://www.sew-eurodrive.at sew@sew-eurodrive.at
Technical Offices	Linz	SEW-EURODRIVE Ges.m.b.H. Jaxstraße 2-4 4020 Linz	Tel. +43 732 655 109-0 Fax +43 732 655 109-20 tb-linz@sew-eurodrive.at
	Graz	SEW-EURODRIVE Ges.m.b.H. Hagenbuchstraße 1 8054 Seiersberg-Pirka	Tel. +43 316 685 756-0 Fax +43 316 685 756-20 tb-graz@sew-eurodrive.at
	Dornbirn	SEW-EURODRIVE Ges.m.b.H. Milleniumpark 15/B2 6890 Lustenau	Tel. +43 5577 86026-0 Fax +43 5577 86026-20 tb-dornbirn@sew-eurodrive.at

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Belarus			
Sales	Minsk	Foreign unitary production enterprise SEW-EURODRIVE Novodvorskij village council 145 223016, Minsk region	Tel. +375 17 319 47 56 / +375 17 378 47 58 Fax +375 17 378 47 54 http://www.sew-eurodrive.by sew@sew-eurodrive.by
Belgium			
Assembly Sales Service	Brussels	SEW-EURODRIVE n.v./s.a. Researchpark Haasrode 1060 Evenementenlaan 7 3001 Leuven	Tel. +32 16 386-311 Fax +32 16 386-336 http://www.sew-eurodrive.be info@sew-eurodrive.be
Service Competence Center	Industrial Gears	SEW-EURODRIVE n.v./s.a. Rue du Parc Industriel, 31 6900 Marche-en-Famenne	Tel. +32 84 219-878 Fax +32 84 219-879 http://www.sew-eurodrive.be info@sew.be
Brazil			
Production Sales Service	São Paulo	SEW-EURODRIVE Brasil Ltda. Estrada Municipal José Rubim, 205 – Rodovia Santos Dumont Km 49 Indaiatuba – 13347-510 – SP	Tel. +55 19 3835-8000 sew@sew.com.br
Assembly Sales Service	Rio Claro	SEW-EURODRIVE Brasil Ltda. Rodovia Washington Luiz, Km 172 Condomínio Industrial Conpark Caixa Postal: 327 13501-600 – Rio Claro / SP	Tel. +55 19 3522-3100 Fax +55 19 3524-6653 montadora.rc@sew.com.br
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Bulgaria			
Sales	Sofia	BEVER-DRIVE GmbH Bogdanovetz Str.1 1606 Sofia	Tel. +359 2 9151160 Fax +359 2 9151166 bever@bever.bg
Cameroon			
Sales	Douala	SEW-EURODRIVE SARLU Ancienne Route Bonabéri P.O. Box B.P 8674 Douala-Cameroun	Tel. +237 233 39 12 35 Fax +237 233 39 02 10 www.sew-eurodrive.ci/ info@sew-eurodrive.cm
Canada			
Assembly Sales Service	Toronto	SEW-EURODRIVE CO. OF CANADA LTD. 210 Walker Drive Bramalea, ON L6T 3W1	Tel. +1 905 791-1553 Fax +1 905 791-2999 http://www.sew-eurodrive.ca l.watson@sew-eurodrive.ca
	Vancouver	SEW-EURODRIVE CO. OF CANADA LTD. Tilbury Industrial Park 7188 Honeyman Street Delta, BC V4G 1G1	Tel. +1 604 946-5535 Fax +1 604 946-2513 b.wake@sew-eurodrive.ca
	Montreal	SEW-EURODRIVE CO. OF CANADA LTD. 2001 Ch. de l'Aviation Dorval Quebec H9P 2X6	Tel. +1 514 367-1124 Fax +1 514 367-3677 n.paradis@sew-eurodrive.ca
Chile			
Assembly Sales Service	Santiago de Chile	SEW-EURODRIVE CHILE LTDA Las Encinas 1295 Parque Industrial Valle Grande LAMPA Santiago de Chile P.O. Box Casilla 23 Correo Quilicura - Santiago - Chile	Tel. +56 2 2757 7000 Fax +56 2 2757 7001 http://www.sew-eurodrive.cl ventas@sew-eurodrive.cl

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Assembly Sales Service	Suzhou	SEW-EURODRIVE (Suzhou) Co., Ltd. 333, Suhong Middle Road Suzhou Industrial Park Jiangsu Province, 215021	Tel. +86 512 62581781 Fax +86 512 62581783 suzhou@sew-eurodrive.cn
	Guangzhou	SEW-EURODRIVE (Guangzhou) Co., Ltd. No. 9, JunDa Road East Section of GETDD Guangzhou 510530	Tel. +86 20 82267890 Fax +86 20 82267922 guangzhou@sew-eurodrive.cn
	Shenyang	SEW-EURODRIVE (Shenyang) Co., Ltd. 10A-2, 6th Road Shenyang Economic Technological Development Area Shenyang, 110141	Tel. +86 24 25382538 Fax +86 24 25382580 shenyang@sew-eurodrive.cn
	Taiyuan	SEW-EURODRIVE (Taiyuan) Co,. Ltd. No.3, HuaZhang Street, TaiYuan Economic & Technical Development Zone ShanXi, 030032	Tel. +86-351-7117520 Fax +86-351-7117522 taiyuan@sew-eurodrive.cn
	Wuhan	SEW-EURODRIVE (Wuhan) Co., Ltd. 10A-2, 6th Road No. 59, the 4th Quanli Road, WEDA 430056 Wuhan	Tel. +86 27 84478388 Fax +86 27 84478389 wuhan@sew-eurodrive.cn
	Xi'An	SEW-EURODRIVE (Xi'An) Co., Ltd. No. 12 Jinye 2nd Road Xi'An High-Technology Industrial Development Zone Xi'An 710065	Tel. +86 29 68686262 Fax +86 29 68686311 xian@sew-eurodrive.cn
Sales Service	Hong Kong	SEW-EURODRIVE LTD. Unit No. 801-806, 8th Floor Hong Leong Industrial Complex No. 4, Wang Kwong Road Kowloon, Hong Kong	Tel. +852 36902200 Fax +852 36902211 contact@sew-eurodrive.hk
Colombia			
Assembly Sales Service	Bogota	SEW-EURODRIVE COLOMBIA LTDA. Calle 17 No. 132-18 Interior 2 Bodega 6, Manzana B Santafé de Bogotá	Tel. +57 1 54750-50 Fax +57 1 54750-44 http://www.sew-eurodrive.com.co sew@sew-eurodrive.com.co
Croatia			
Sales Service	Zagreb	KOMPEKS d. o. o. Zeleni dol 10 10 000 Zagreb	Tel. +385 1 4613-158 Fax +385 1 4613-158 kompeks@inet.hr
Czech Republic			
Assembly Sales Service	Hostivice	SEW-EURODRIVE CZ s.r.o. Floriánova 2459 253 01 Hostivice	Tel. +420 255 709 601 Fax +420 235 350 613 http://www.sew-eurodrive.cz sew@sew-eurodrive.cz
Assembly Service	Plzeň	SEW-EURODRIVE CZ s.r.o. Areal KRPA a.s. Zahradni 173/2 326 00 Plzeň	Tel. +420 378 775 320 Fax +420 377 970 710 sew@sew-eurodrive.cz
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	Hradec Králové	SEW-EURODRIVE CZ s.r.o. Čechova 498 50202 Hradec Králové	Tel. +420 495 510 141 Fax +420 495 521 313 miroslav.moravec@sew-eurodrive.cz
	Ostrava	SEW-EURODRIVE CZ s.r.o. Studentská 6202/17 708 00 Ostrava-Poruba	Tel. +420 597 329 044 david.kenkus@sew-eurodrive.cz

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Service	Přerov	SEW-EURODRIVE CZ s.r.o. Areál STS Přerov a.s. ul. 9. května 2452 750 02 Přerov I – Město	Tel. +420 581 224 374 Fax +420 581 224 374 servis@sew-eurodrive.cz
Denmark			
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Service	Vejle	SEW-EURODRIVE A/S Bødkervej 2 7100 Vejle	Tel. +45 43 9585 00 http://www.sew-eurodrive.dk sew@sew-eurodrive.dk
Egypt			
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Estonia			
Sales	Tallin	ALAS-KUUL AS Loomäe tee 1, Lehmja küla 75306 Rae vald Harjumaa	Tel. +372 6593230 Fax +372 6593231 http://www.alas-kuul.ee info@alas-kuul.ee
Finland			
Assembly Sales Service	Hollola	SEW-EURODRIVE OY Vesimäentie 4 15860 Hollola	Tel. +358 201 589-300 Fax +358 3 780-6211 http://www.sew-eurodrive.fi sew@sew.fi
Service	Hollola	SEW-EURODRIVE OY Keskikankaantie 21 15860 Hollola	Tel. +358 201 589-300 Fax +358 3 780-6211 http://www.sew-eurodrive.fi sew@sew.fi
	Tornio	SEW-EURODRIVE Oy Lossirannankatu 5 95420 Tornio	Tel. +358 201 589 300 Fax +358 3 780 6211 http://www.sew-eurodrive.fi sew@sew.fi
Production Assembly	Karkkila	SEW Industrial Gears Oy Santasalonkatu 6, PL 8 03620 Karkkila, 03601 Karkkila	Tel. +358 201 589-300 Fax +358 201 589-310 http://www.sew-eurodrive.fi sew@sew.fi
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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
	Kuopio	SEW Industrial Gears Oy Leväsentie 23 70780 Kuopio	Tel. +358 201 589-300 sew@sew.fi
	Tampere	SEW Industrial Gears Oy Kampusareena Korkeakoulunkatu 7, 7.krs 33720 Tampere	Tel. +358 201 589-300 sew@sew.fi
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Production	Forbach	SEW USOCOME Zone industrielle Technopôle Forbach Sud B. P. 30269 57604 Forbach Cedex	Tel. +33 3 87 29 38 00
	Brumath	SEW USOCOME 1 Rue de Bruxelles 67670 Mommenheim Cedex	Tel. +33 3 88 37 48 00
Assembly Sales Service	Bordeaux	SEW USOCOME Parc d'activités de Magellan 62 avenue de Magellan – B. P. 182 33607 Pessac Cedex	Tel. +33 5 57 26 39 00 dtcbordeaux@usocome.com
	Haguenau	SEW USOCOME 48-54 route de Soufflenheim B. P. 20185 67506 Haguenau Cedex	Tel. +33 3 88 73 67 00 dtchaguenau@usocome.com
	Lyon	SEW USOCOME 75 rue Antoine Condorcet 38090 Vaulx-Milieu	Tel. +33 4 74 99 60 00 dtclyon@usocome.com
	Nantes	SEW USOCOME Parc d'activités de la forêt 4 rue des Fontenelles 44140 Le Bignon	Tel. +33 2 40 78 42 00 dtcnantes@usocome.com
	Paris	SEW USOCOME Zone industrielle 2 rue Denis Papin 77390 Verneuil l'Étang	Tel. +33 1 64 42 40 80 dtcparis@usocome.com
Gabon			
Representation: Cameroon			
Germany			
Headquarters Production Sales	Bruchsal	SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 42 76646 Bruchsal	Tel. +49 7251 75-0 Fax +49 7251 75-1970 http://www.sew-eurodrive.de sew@sew-eurodrive.de
Production / Industrial Gears	Bruchsal	SEW-EURODRIVE GmbH & Co KG Christian-Pähr-Str. 10 76646 Bruchsal	Tel. +49 7251 75-0 Fax +49 7251 75-2970
Production / Precision Gear Units	Bruchsal	SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 42 76646 Bruchsal	Tel. +49 7251 75-0 Fax +49 7251 75-1970 sew@sew-eurodrive.de
Production	Graben	SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 1 76676 Graben-Neudorf	Tel. +49 7251 75-0 Fax +49 7251-2970
Service Competence Center	Mechanics / Mechatronics	SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 1 76676 Graben-Neudorf	Tel. +49 7251 75-1710 Fax +49 7251 75-1711 scc-mechanik@sew-eurodrive.de
	Electronics	SEW-EURODRIVE GmbH & Co KG Christian-Pähr-Straße 12 76646 Bruchsal	Tel. +49 7251 75-1780 Fax +49 7251 75-1769 scc-elektronik@sew-eurodrive.de
	MAXOLUTION® Factory Automation	SEW-EURODRIVE GmbH & Co KG Eisenbahnstraße 11 76646 Bruchsal	Tel. +49 7251 75-0 Fax +49 7251 75-1970 sew@sew-eurodrive.de
Drive Technology Center	North	SEW-EURODRIVE GmbH & Co KG Alte Ricklinger Straße 43 30823 Garbsen (Hannover)	Tel. +49 5137 8798-30 Fax +49 5137 8798-55 dtc-nord@sew-eurodrive.de
	East	SEW-EURODRIVE GmbH & Co KG Dänkritzer Weg 1 08393 Meerane (Zwickau)	Tel. +49 3764 7606-0 Fax +49 3764 7606-20 dtc-ost@sew-eurodrive.de

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	West	SEW-EURODRIVE GmbH & Co KG Siemensstraße 1 40764 Langenfeld (Düsseldorf)	Tel. +49 2173 8507-10 Fax +49 2173 8507-50 dtc-west@sew-eurodrive.de
Drive Center	Berlin	SEW-EURODRIVE GmbH & Co KG Melitta-Schiller-Straße 8 12526 Berlin	Tel. +49 306331131-30 Fax +49 306331131-36 dc-berlin@sew-eurodrive.de
	Bremen	SEW-EURODRIVE GmbH & Co KG Allerkai 4 28309 Bremen	Tel. +49 421 33918-10 Fax +49 421 33918-22 tb-bremen@sew-eurodrive.de
	Hamburg	SEW-EURODRIVE GmbH & Co KG Hasselbinnen 11 22869 Schenefeld	Tel. +49 40298109-60 Fax +49 40298109-70 dc-hamburg@sew-eurodrive.de
	Saarland	SEW-EURODRIVE GmbH & Co KG Gottlieb-Daimler-Straße 4 66773 Schwalbach Saar – Hülzweiler	Tel. +49 6831 48946 10 Fax +49 6831 48946 13 dc-saarland@sew-eurodrive.de
	Ulm	SEW-EURODRIVE GmbH & Co KG Dieselstraße 18 89160 Dornstadt	Tel. +49 7348 9885-0 Fax +49 7348 9885-90 dc-ulm@sew-eurodrive.de
	Würzburg	SEW-EURODRIVE GmbH & Co KG Nürnbergerstraße 118 97076 Würzburg-Lengfeld	Tel. +49 931 27886-60 Fax +49 931 27886-66 dc-wuerzburg@sew-eurodrive.de
Drive Service Hotline / 24 Hour Service			0 800 SEWHELP 0 800 7394357
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	Lake Constance	SEW-EURODRIVE GmbH & Co KG Dornierstraße 4 88677 Markdorf	Tel. +49 7544 96590-90 Fax +49 7544 96590-99 tb-bodensee@sew-eurodrive.de
	Dortmund	SEW-EURODRIVE GmbH & Co KG Hildastraße 8 44145 Dortmund	Tel. +49 231 229028-10 Fax +49 231 229028-20 tb-dortmund@sew-eurodrive.de
	Dresden	SEW-EURODRIVE GmbH & Co KG Hauptstraße 32 01445 Radebeul	Tel. +49 351 26338-0 Fax +49 351 26338-38 tb-dresden@sew-eurodrive.de
	Erfurt	SEW-EURODRIVE GmbH & Co KG Dubliner Straße 12 99091 Erfurt	Tel. +49 361 21709-70 Fax +49 361 21709-79 tb-erfurt@sew-eurodrive.de
	Güstrow	SEW-EURODRIVE GmbH & Co KG Glasewitzer Chaussee 33 B 18273 Güstrow P.O. Box Postfach 1216 – D-18262 Güstrow	Tel. +49 3843 8557-80 Fax +49 3843 8557-88 tb-guestrow@sew-eurodrive.de
	Hamburg	SEW-EURODRIVE GmbH & Co KG Hasselbinnen 11 22869 Schenefeld	Tel. +49 40298109-60 Fax +49 40298109-70 dc-hamburg@sew-eurodrive.de
	Hannover / Garbsen	SEW-EURODRIVE GmbH & Co KG Alte Ricklinger Str.40-42 30823 Garbsen	Tel. +49 5137 8798-10 Fax +49 5137 8798-50 tb-hannover@sew-eurodrive.de
	Heilbronn	SEW-EURODRIVE GmbH & Co KG Franz-Lutz-Straße 18 74391 Erligheim	Tel. +49 7143 8738-0 Fax +49 7143 8738-25 tb-heilbronn@sew-eurodrive.de
	Herford	SEW-EURODRIVE GmbH & Co KG Goebenstraße 3 – 7 32052 Herford	Tel. +49 5221 9141-0 Fax +49 5221 9141-20 tb-herford@sew-eurodrive.de
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	Lahr	SEW-EURODRIVE GmbH & Co KG Europastraße 3/1 77933 Lahr / Schwarzwald	Tel. +49 7821 90999-60 Fax +49 7821 90999-79 tb-lahr@sew-eurodrive.de
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	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 Dänkritzer Weg1 08393 Meerane	Tel. +49 3764 7606-0 Fax +49 3764 7606-20 tb-zwickau@sew-eurodrive.de
Great Britain			
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Service Competence Center	Southern England	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

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Drive Center	Scotland	SEW-EURODRIVE Ltd. 133-135 Deerdykes 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
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Sales Service	Budapest	SEW-EURODRIVE Kft. Csillaghegyí 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 Reykjavík	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 https://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
	Tapukara	SEW-EURODRIVE India Private Limited Plot No SP-6-46, Tapukara, Karoli Industrial Area, No. 1, district : Alwar , Rajasthan - 301707	Tel. +91 265 3045200 Fax +91 265 3045300 tapukara.plant@seweurodriveindia.com
Sales	Gurgaon	SEW-EURODRIVE India Private Limited Global Business Park, Sector -26, M.G. Road, Sikanderpur Unit No. 205, 2nd Floor, Tower – D Gurugram 122002, Haryana	Tel. +91 9958376669 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

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Bangalore	SEW-EURODRIVE India Private Limited Sy.no:41-P3, Peenya1, Phase 1A, Peenya Village, 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
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, offc 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 Sekhar Galaxy Flat No-302, 3rd Floor GGP Colony,Bhubaneswar Dist-Khordha State-Odisha-751025	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 D-603, Vrundavan Trade Centre (VTC) Opp. Kanam Green Party Plot Kudasan Gandhinagar – 382421, Gujarat	Tel. +91 787 8601656 salesgandhinagar@seweurodriveindia.com
Secunderabad	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. I/3 B.S. Tower, N.ROAD, Bistupur Jamshedpur – 831001 Jharkhand	Tel. +91 99341 23671 salesjamshedpur@seweurodriveindia.com
Kochi	SEW-EURODRIVE India Private Limited Door No: 28/2655,8B Aster Avenue,South Ponneth Road Elamkulam Cochin – 682020, Kerala	Tel. +91 98951 30375 salescochin@seweurodriveindia.com
Kolhapur	SEW-EURODRIVE India Private Limited C/O. Mr.S.V.Pawar.461/37, Abhideep Residency, Opp-Shriram Petrol Pump, Kasaba Bawada, Kolhapur - 416 122, Maharashtra	Tel. +91 86000 20846 saleskolhapur@seweurodriveindia.com

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Kolkata	SEW-EURODRIVE India Private Limited 1st Floor,Room No : 09, Chowringhee Court 55, Chowringhee Road Kolkata - 700 071, West Bengal	Tel. +91 22- 62399968 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
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 F Road , Mahatma Nagar Flat No 1, Plot No: 144, SHAMBHAVI Appt, 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 6357422406 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 salesnavimumbai@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 Tulajabhavani 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

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Indonesia			
Registered Office Sales Service	Jakarta	PT SEW EURODRIVE INDONESIA Palma Tower, 16th Floor, Unit H & I, Jl R.A. Kartini II-S Kav 06 Pondok Pinang, Kebayoran Lama Jakarta Selatan 12310	Tel. +62 21 7593 0272 Fax +62 21 7593 0273 sales.indonesia@sew-eurodrive.com https://www.sew-eurodrive.com.sg
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
	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 Industri 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			
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
Israel			
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
Italy			
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 Technology Center	Caserta	SEW-EURODRIVE S.a.s. di SEW S.r.l. & Co. Strada Consortile, Zona Industriale ASI 81032 Carinaro (Caserta)	Tel. +39 0823 219011 Fax +39 02 96 980 599 caserta@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
	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

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Ivory Coast			
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
Japan			
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
	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 flor 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			
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
	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
	Ulaanbaatar	IM Trading LLC Olympic street 28B/3 Sukhbaatar district, Ulaanbaatar 14230, MN	Tel. +976-77109997 Fax +976-77109997 imt@imt.mn
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
	Oskemen	SEW-EURODRIVE LLP Gorkiy str. 21, office 200 B 070000, Ust-Kamenogorsk	Tel. +7 (723) 291 37 48 (ext 760) Fax +7 (727) 350 5156 (ext 709) ust-Kamenogorsk@sew-eurodrive.com
	Aktobe	SEW-EURODRIVE LLP 52/1 Marat Ospanov str., office 11 030000, Aktobe	Tel. +7 (771) 993 0915 aktobe@sew-eurodrive.com
	Pavlodar	SEW-EURODRIVE LLP 6/2, Lunacharsky str., office 46 140000, Pavlodar	Tel. +7 (771) 993 09 16 pavlodar@sew-eurodrive.com
Latvia			
Sales	Riga	SIA Alas-Kuul Katlakalna 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
Sales (Jordan, Kuwait , Saudi Arabia, Syria)	Beirut	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
Lithuania			
Sales	Alytus	UAB Irseva Statybininku 106C 63431 Alytus	Tel. +370 315 79204 Fax +370 315 56175 http://www.irseva.lt irmantas@irseva.lt
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

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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.greenpegltd.com sales@greenpegltd.com
Norway			
Assembly Sales Service	Moss	SEW-EURODRIVE A/S Hornebergvegen 11 B 7038 Trondheim	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
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 mech_drive_sys@ptcerna.com http://www.ptcerna.com

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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
	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
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. Ustanicka 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. 9, Tuas Drive 2 Singapore 638644	Tel. +65 68621701 Fax +65 68612827 http://www.sew-eurodrive.com.sg sewsingapore@sew-eurodrive.com

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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. UI. XIV. divizije 14 3000 Celje	Tel. +386 3 490 83-20 Fax +386 3 490 83-21 pakman@siol.net
South Africa			
Assembly Sales Service	Johannesburg	SEW-EURODRIVE (PROPRIETARY) LIMITED 32 O'Connor Place Eurodrive House Aeroton Johannesburg 2190 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
	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
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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
Swaziland			
Sales	Manzini	C G Trading Co. (Pty) Ltd Simunye street Matsapha, Manzini	Tel. +268 7602 0790 Fax +268 2 518 5033 charles@cgtrading.co.sz www.cgtradingswaziland.com
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
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	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 malmo@sew.se
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	Bern / Solothurn	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 Constance and East Switzerland	Markus Künzle Eichweg 4 9403 Goldach	Tel. +41 71 845 2808 Fax +41 71 845 2809

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	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
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	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, Mitraphab Road. Muang District Khonkaen 40000	Tel. +66 43 225745 Fax +66 43 324871 sewthailand@sew-eurodrive.com
	Surat Thani	SEW-EURODRIVE (Thailand) Ltd. 66/58 Moo.4, Wat Pradu Muang district Surat Thani 84000	Tel. +66 80 928 9463 sewthailand@sew-eurodrive.com
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Turkey			
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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/ISTANBUL	Tel. +90 212 438 41 62-63

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	Izmir	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			
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	Ivano-Frankivsk	SEW-EURODRIVE, LLC Symona Petlyury Str. 27 76018 Ivano-Frankivsk	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
USA			
Production Sales Service	Southeast Region	SEW-EURODRIVE INC. 1295 Old Spartanburg Highway P.O. Box 518 Lyman, S.C. 29365	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. 202 W. Danieldale Rd. DeSoto, TX 75115	Tel. +1 214 330-4824 Fax +1 214 330-4724 csdallas@seweurodrive.com
	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
		SEW-EURODRIVE INC. 220 Finch Rd. Wellford, S.C. 29385-9630	
	Additional addresses for service provided on request!		
Vietnam			
Sales	Ho Chi Minh City	SEW-EURODRIVE PTE. LTD. RO at Hochiminh 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

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Vietnam			
	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)

Cable entry: ☐X ☐1 | ☐2 | ☐3

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:

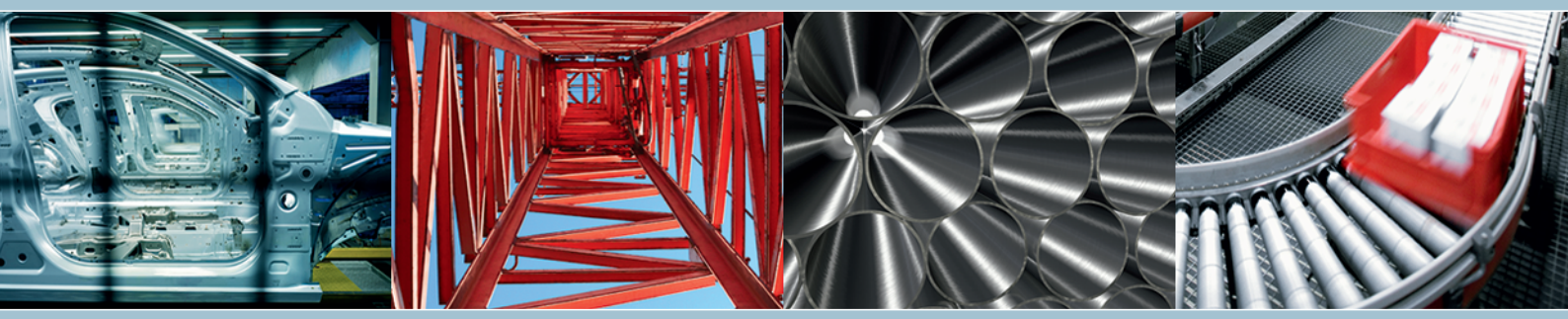
Special ambient conditions:

Temperature: from _____ °C to _____ °C | ☐ Operation outdoors | ☐ Installation altitude >1000m above NN
Further environmental conditions: _____

Miscellaneous: _____

1) see back

Place, date _____ **Signature:** _____





SEW-EURODRIVE
Driving the world

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