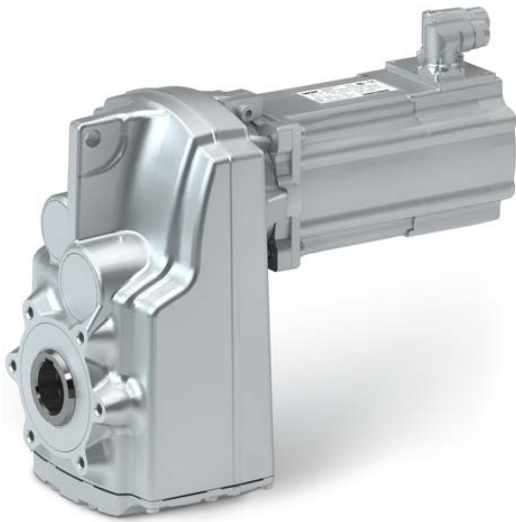


g500-S / MCS shaft-mounted helical geared servo motor



Contents

About this document	5
Document description	5
Further documents.....	6
Notations and conventions	7
Product information	8
Product description	8
Identification of the products.....	9
Features.....	10
The modular system	11
Designs.....	13
Mounting positions	17
Safety instructions	19
Basic safety instructions.....	19
Application as directed	20
Foreseeable misuse	21
Residual hazards	22
Information on project planning	24
General information.....	24
Drive dimensioning.....	25
Final configuration.....	31
Surface and corrosion protection.....	32
Lubricants.....	33
Ventilation.....	34
Mechanical installation	40
Important notes.....	40
Transport.....	41
Installation.....	43
Electrical installation	44
Important notes.....	44
Preparation.....	45

Contents

Technical data	46
Notes regarding the given data	46
Standards and operating conditions	47
Conformities and approvals	47
Protection of persons and device protection	47
EMC data	48
Environmental conditions	48
Gearbox data	49
Radial forces and axial forces	57
Selection tables	59
Inverter mains connection 400 V, Self-ventilated motors	60
Inverter mains connection 400 V, Forced ventilated motors	103
Dimensions	134
Basic dimensions	136
Gearbox with pre-stage	307
Additional lengths	308
Weights	311
Basic weights	311
Additional weights	311
Product extensions	312
Torque plates	312
Shaft covers	313
Motor connection	314
Connection via terminal box	314
Connection via connector	318
Brakes	325
Permanent magnet brakes	327
Feedback	330
Resolver	331
Absolute value encoder	332
Blower	335
Temperature monitoring	336
Thermal detectors PT1000	336
Accessories	338
Hollow shaft mounting kit	338
Product codes	339
Motor data	341
Rated data	341
Inverter mains connection 400 V, Self-ventilated motors	341
Inverter mains connection 400 V, Forced ventilated motors	347
Inverter mains connection 230 V, Self-ventilated motors	351
Torque characteristics	354
Environmental notes and recycling	383
Appendix	384
Good to know	384
Operating modes of the motor	384
Enclosures	385



About this document

Document description

This document addresses to all persons who want to carry out any configurations with the products described.

The data and information compiled in this document serve to support you in the dimensioning and selection processes and in carrying out the electrical and mechanical installation. You will receive information regarding product extensions and accessories.

- The document includes safety instructions which must be observed.
- All persons working on and with the drives must have the documentation at hand during work and observe the information and notes relevant for it.
- The documentation must always be complete and in a perfectly readable state.

About this document

Further documents



Further documents



Information and tools with regard to the Lenze products can be found on the Internet:

www.lenze.com → Downloads



Notations and conventions

Conventions are used in this document to distinguish between different types of information.

Numeric notation		
Decimal separator	Point	Generally shown as a decimal point. Example: 1 234.56
Warnings		
UL Warnings	UL	Are used in English and French.
UR warnings	UR	
Text		
Engineering Tools	" "	Software Example: "EASY Starter", "PLC Designer"
Icons		
Page reference		Reference to another page with additional information. Example:  16 = see page 16
Documentation reference		Reference to other documentation with additional information. Example:  EDKxxx = see documentation EDKxxx

Layout of the safety instructions

DANGER!

Indicates an extremely hazardous situation. Failure to comply with this instruction will result in severe irreparable injury and even death.

WARNING!

Indicates an extremely hazardous situation. Failure to comply with this instruction may result in severe irreparable injury and even death.

CAUTION!

Indicates a hazardous situation. Failure to comply with this instruction may result in slight to medium injury.

NOTICE

Indicates a material hazard. Failure to comply with this instruction may result in material damage.



Product information

Product description

When used in combination with servo motors, our shaft-mounted helical gearboxes form a compact, powerful and dynamic drive unit. Numerous options at the input and output end provide for the drive to be exactly adapted to your application.

The slimline shaft-mounted helical gearboxes are characterized by high permissible radial forces, closely stepped speed reduction ratios and a low backlash. They are available in a 2-, 3- and 4-stage design with a torque of up to 4500 Nm and a ratio of up to $i = 5849$.

Designs

- Slimline design saves installation space of the machine
- Solid shaft, hollow shaft and shrink disc for direct integration into the machine
- High accuracy with axial output provide for the highest efficiency

Synchronous servo motors as a basis for geared motors

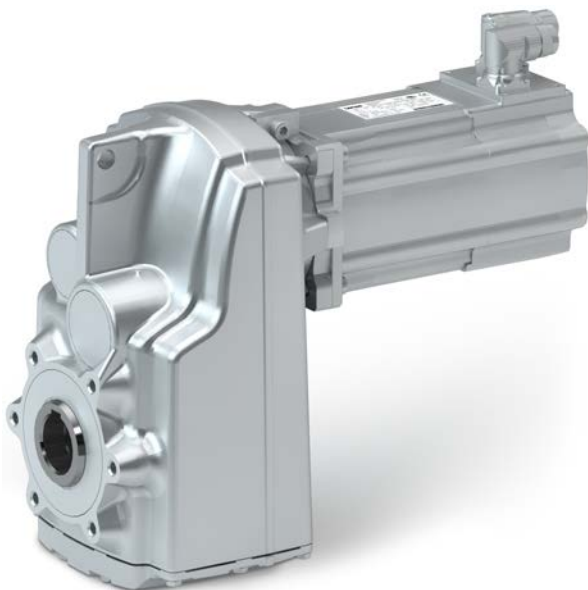
In a power range of 0.25 to 15.8 kW, Lenze offers servo motors with a scalable modular design.

The drives are designed for the open-loop or closed-loop controlled servo inverter operation.

These motors feature a high dynamic performance and overload capacity.

Customer benefit

- High dynamic performance thanks to a rotor with a low mass inertia
- High overload capacity of the motors
- Easy assembly and easy servicing thanks to connectors with bayonet catch and rotatable connector boxes
- Reduced cabling thanks to one cable technology in connection with digital absolute value encoders
- High efficiency
- Space-saving thanks to compact direct attachment to Lenze gearboxes
- Can be used universally for a wide range of machine tasks due to the market-oriented modular system



MCS12H synchronous servo motor - g500-S660 shaft-mounted helical gearbox



MCS09C synchronous servo motor- shaft-mounted helical gearbox g500-S660 with One Cable Technology (OCT) in connection with a digital absolute value encoder



Identification of the products

Gearbox product name

Gearbox type	Product series		Type	Rated torque Nm	Product
Shaft-mounted helical gearbox	g500	-	S	130	g500-S130
				220	g500-S220
				400	g500-S400
				660	g500-S660
				950	g500-S950
				2100	g500-S2100
				3100	g500-S3100
				4500	g500-S4500

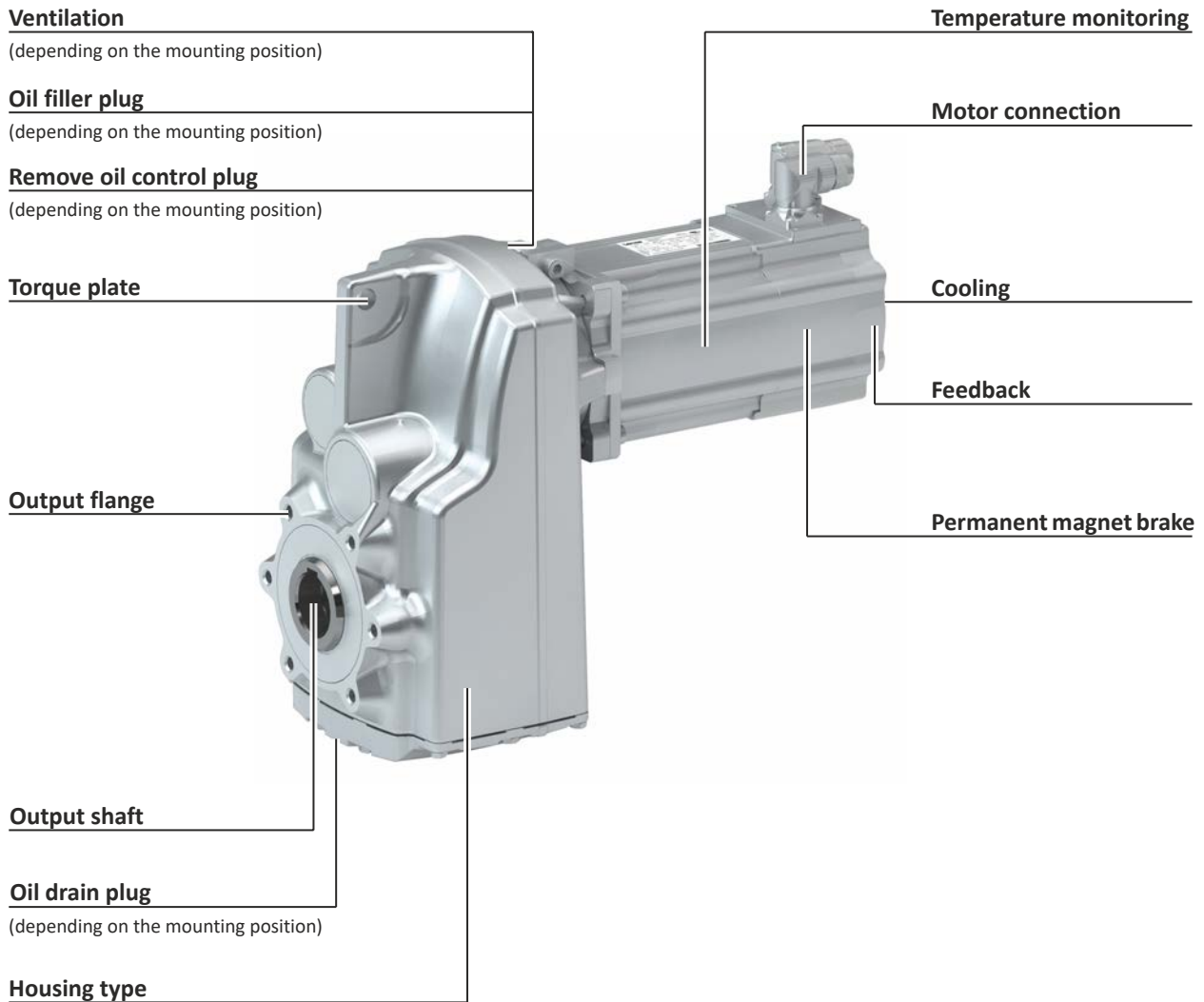
Product name: MCS synchronous servo motor

Meaning	Variant					
Product family		MCS				
Size			06 09 12 14 19			
Overall length				C ... P		
Rated speed	rpm x 100				11 ... 60	
Inverter mains connection	3 x 400 V					-
	3 x 230 V					L



Features

The following figure provides an overview of the elements and connections on the product. Their position, size and appearance may vary.





The modular system



Values printed in bold are standard designs. Values that are not printed in bold are potential extensions, some of them including a surcharge.

Geared motors up to 660 Nm

Gearbox		g500-S130	g500-S220	g500-S400	g500-S660
Min. motor assignment		MCS06	MCS06	MCS06	MCS06
Max. motor assignment		MCS12	MCS12	MCS14	MCS14
Technical data					
Max. output torque	Nm	130	220	400	660
Min. drive torque	Nm	0.6	0.6	0.6	0.6
Max. drive torque	Nm	17	17	42	42
Mounting position					
Standard		M1, M2, M3, M4, M5, M6 (ABCDEF)			
Combined		M1/5/6 (AEF)			
Color		Primed Painted in RAL colors			
Surface and corrosion protection		OKS-G Different types of OKS			
Output shaft					
Solid shaft with featherkey (V)	mm	25 x 50	25 x 50	30 x 60	35 x 70 40 x 80
Hollow shaft with keyway (H)	mm	25	25/30	30/35	40/45
Hollow shaft with shrink disc (S)	mm	25	25/30	35	40
Shaft material		Steel Stainless steel			
Shaft sealing ring material		NBR FKM (Viton)			
Output shaft bearing		Normal			
Gearbox design		Without foot and centering (HCR)/(VCR/SCR) With foot (HBR/VBR) With centering (HCR/VCR/SCR) With output flange (HCK/VCK/SCK)			
Output flange (K)	mm	160	160	200	200/250
Lubricant		Synthetic oil Food-grade oil			
Ventilation		Without		Vent valve	
Torque plate		Rubber buffers			
Shaft cover		Shrink disc cover			
Cooling		Self-ventilated Forced ventilated			
Motor connection		Connector Terminal box			
Permanent magnet holding brake		Without With			
Feedback					
Without functional safety		Digital absolute value encoder for One Cable Technology (OCT) Resolver Absolute value encoder			
With functional safety		Digital absolute value encoder for One Cable Technology (OCT) Resolver Absolute value encoder			
Temperature monitoring		MCS06: PT1000 temperature sensor MCS09 ... MCS19: PT1000 temperature sensor and 2x PTC thermistor			



Geared motors from 950 Nm to 4500 Nm

Gearbox		g500-S950		g500-S2100	g500-S3100	g500-S4500
Min. motor assignment		MCS06		MCS06	MCS06	MCS09
Max. motor assignment		MCS14		MCS19	MCS19	MCS19
Technical data						
Max. output torque	Nm	950	2100	3100	4500	
Min. drive torque	Nm	0.6	0.6	0.6	4.5	
Max. drive torque	Nm	42	72	72	72	
Mounting position						
Standard		M1, M2, M3, M4, M5, M6 (ABCDEF)				
Combined						
Color		Primed Painted in RAL colors				
Surface and corrosion protection		OKS-G Different types of OKS				
Output shaft						
Solid shaft with featherkey (V)	mm	40 x 80	50 x 100	60 x 120	70 x 140 80 x 160	
Hollow shaft with keyway (H)	mm	40	50/55	60/70	70/80	
Hollow shaft with shrink disc (S)	mm	40	50	65	75/80	
Shaft material		Steel Stainless steel				
Shaft sealing ring material		NBR FKM (Viton)				
Output shaft bearing		Normal				
Gearbox design		With foot (HBR)/(VBR/SBR) With foot and centering (HAR/VAR(SAR) With foot and output flange (HAK/VAK/SAK)				
Output flange (K)	mm	250	250/300	350	400/450	
Lubricant		Synthetic oil Food-grade oil				
Ventilation		Vent valve	Vent valve Oil compensation reservoir			
Torque plate		Rubber buffers				
Shaft cover		Shrink disc cover				
Cooling		Self-ventilated Forced ventilated				
Motor connection		Connector Terminal box				
Permanent magnet holding brake		Without With				
Feedback						
Without functional safety		Digital absolute value encoder for One Cable Technology (OCT) Resolver Absolute value encoder				
With functional safety		Digital absolute value encoder for One Cable Technology (OCT) Resolver Absolute value encoder				
Temperature monitoring		MCS06: PT1000 temperature sensor MCS09 ... MCS19: PT1000 temperature sensor and 2x PTC thermistor				



Designs

Gearbox designs

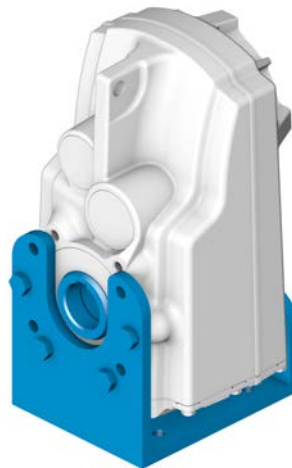


Observe the available gearbox designs!

► [The modular system](#) 11

g500-S130 ... S660

Hollow shaft, with foot



Without centring (HBR)

Hollow shaft, without foot



Without centring (HDR)



With centering (HCR)



Flange with through holes (HCK)

Product information

The modular system
Designs



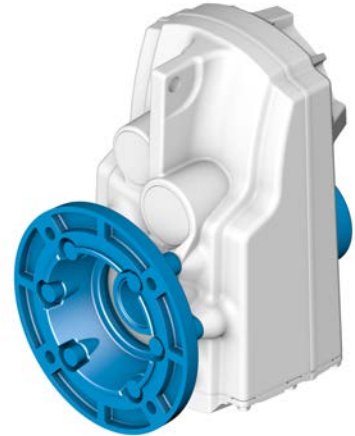
Shrink disc, without foot



Without centring (SDR)

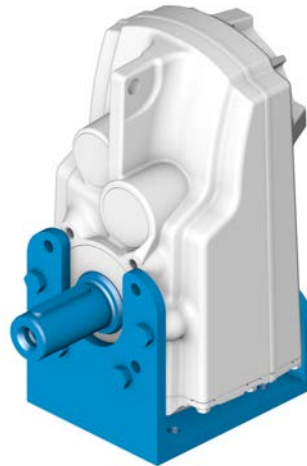


With centring (SCR)



Flange with through holes (SCK)

Solid shaft, with foot

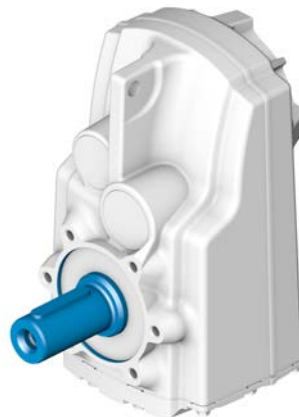


Without centring (VBR)

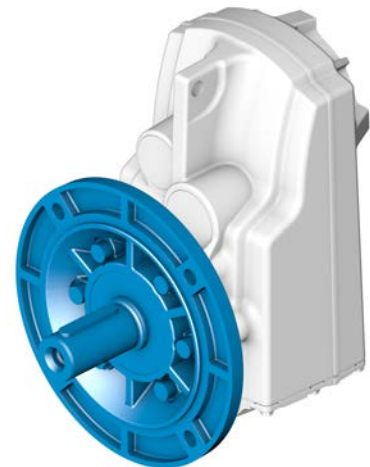
Solid shaft, without foot



Without centring (VDR)



With centering (VCR)

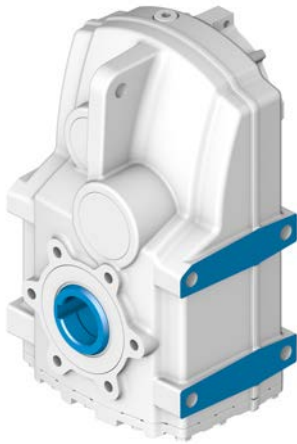


Flange with through holes (VCK)

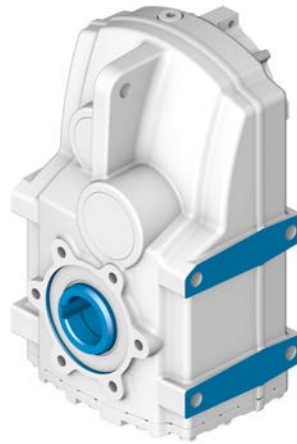


g500-S950 ... S4500

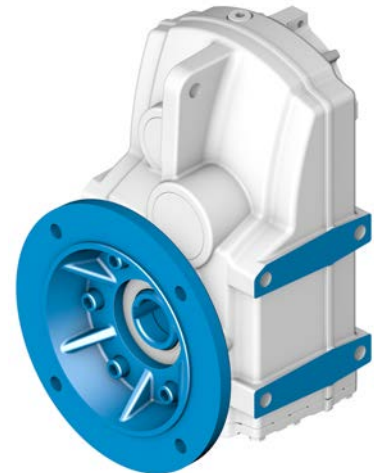
Hollow shaft, with foot



Without centring (HBR)

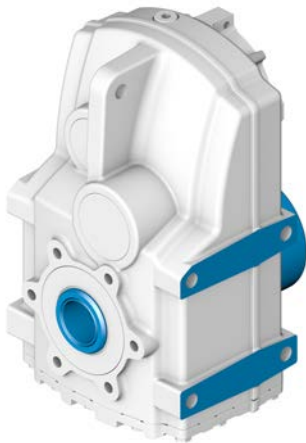


With centring (HAR)

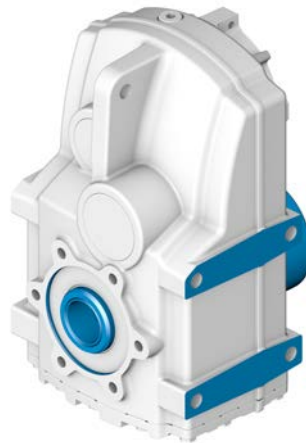


Flange with through holes (HAK)

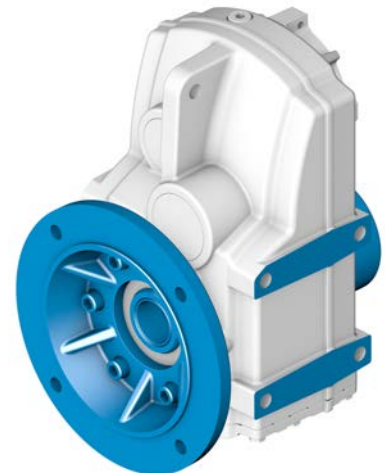
Shrink disc, with foot



Without centring (SBR)

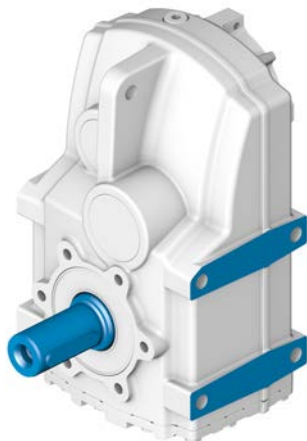


With centring (SAR)

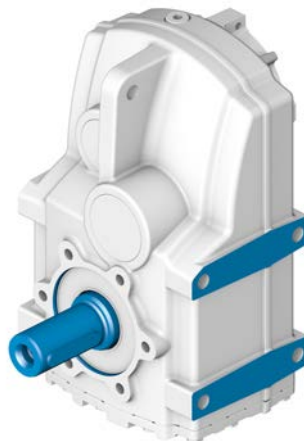


Flange with through holes (SAK)

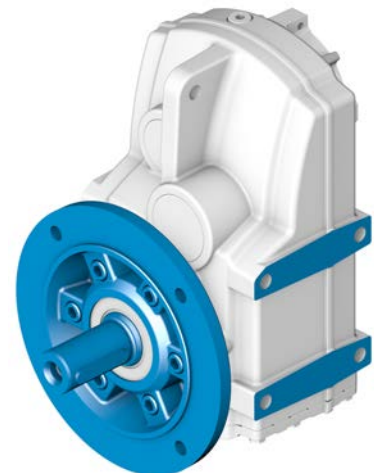
Solid shaft, with foot



Without centring (VBR)



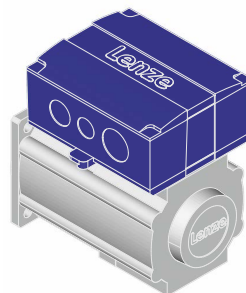
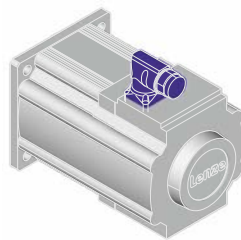
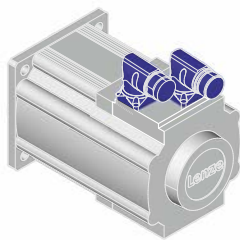
With centring (VAR)



Flange with through holes (VAK)



Models at the output
Motor connection

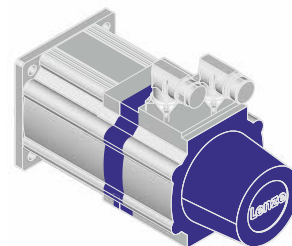
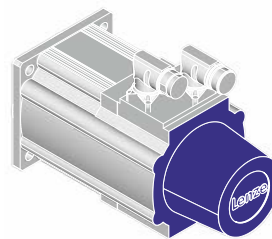
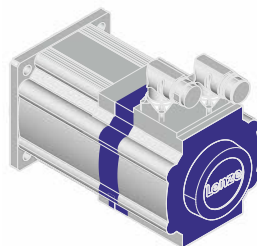
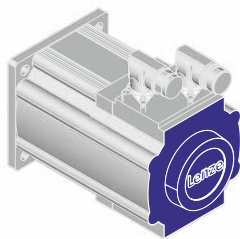


Connector

ICN hybrid connector for One Cable Technology (OCT)

Terminal box

Cooling: Self-ventilated



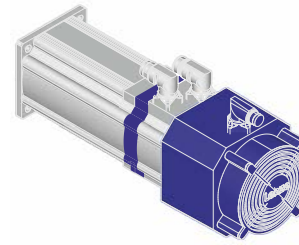
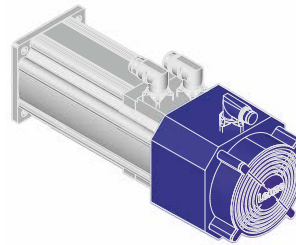
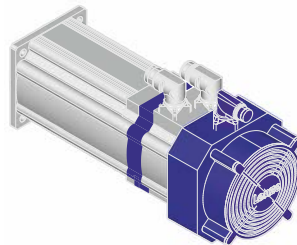
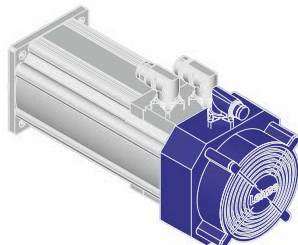
Resolver

Resolver and brake

Absolute value/incremental
encoder

Absolute value/incremental
encoder and brake

Cooling: Forced-ventilated



Resolver

Resolver and brake

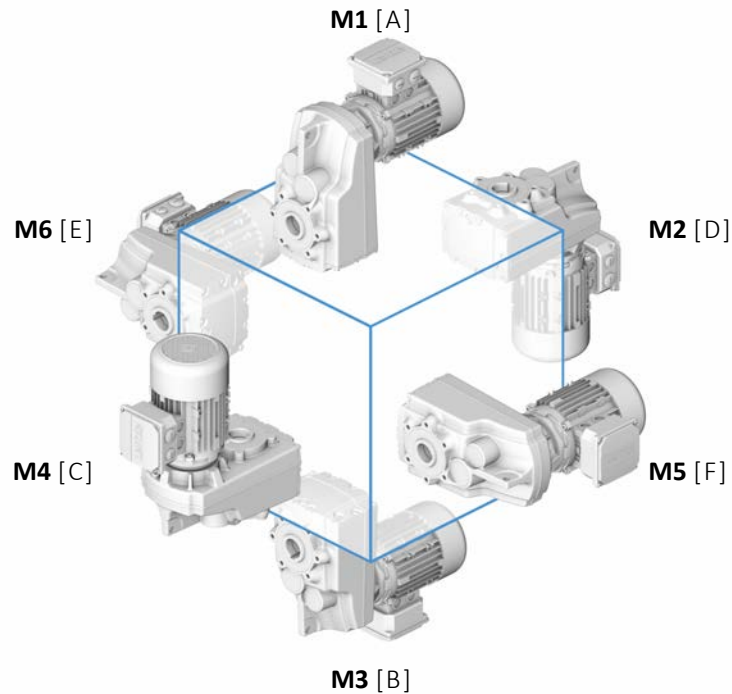
Absolute value/incremental
encoder

Absolute value/incremental
encoder and brake



Mounting positions

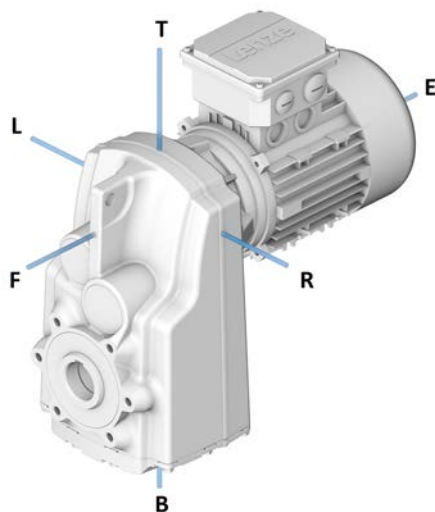
Details of the mounting position are needed to ensure the corresponding lubricant amount, position of the ventilation, oil checks and oil drain plug on the gearbox.



Defined positions on the geared motor

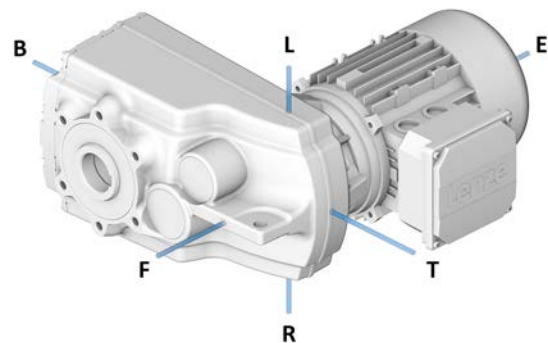
All of the defined positions refer to the areas on the geared motor in mounting position **M1 (A)**.

Position of the built-on accessories with T, L, R, B, F, E (Top, Left, Right, Bottom, Front and End)



If the geared motor is rotated into a different mounting position M2 ... M6 (B...F), the defined positions on the geared motor are retained.

Example: Mounting position M5 (F)

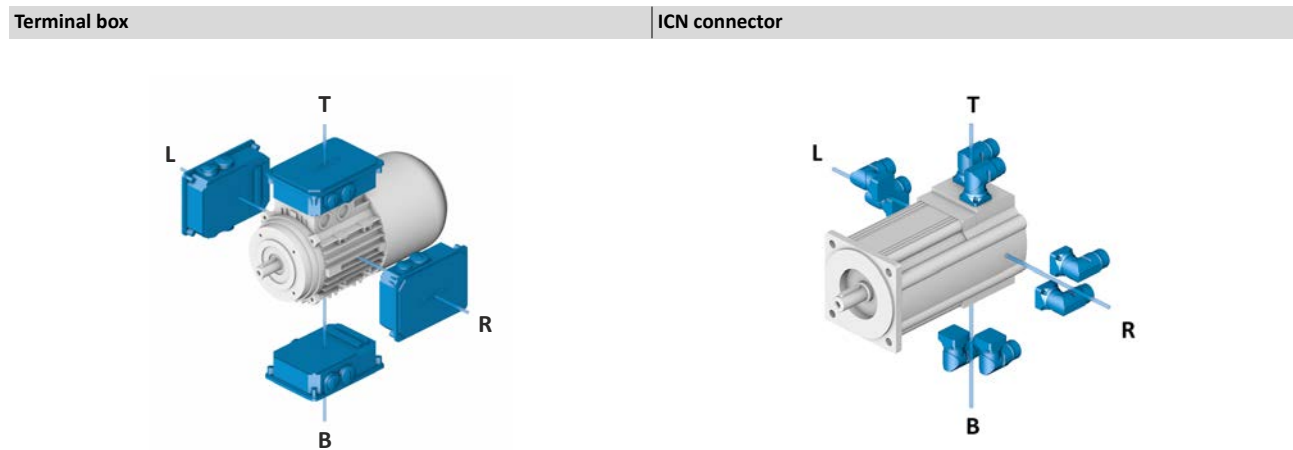


Product information

The modular system
Mounting positions



Positions of the terminal boxes/connectors

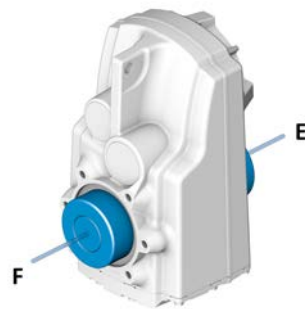


Position of the hollow shaft with shrink disc



The output flange is only available in position "F".

Output flange and shrink disc are not possible in the same position.





Safety instructions

Basic safety instructions

Disregarding the following basic safety instructions and safety information may lead to severe personal injury and damage to property!

- Only use the product as directed.
- Never commission the product in the event of visible damage.
- Never modify the product technically.
- Never commission the product before assembly has been completed.
- Never operate the product without the required covers.
- Connect/disconnect all pluggable connections only in deenergized condition!
- Only remove the product from the installation in the deenergized state.
- The product can – depending on their degree of protection – have live, movable or rotating parts during or after operation. Surfaces can be hot.
- Observe the specifications of the corresponding documentation. This is the condition for safe and trouble-free operation and the achievement of the specified product features.
- The procedural notes and circuit details given in the associated documentation are suggestions and their transferability to the respective application has to be checked. The manufacturer of the product does not take responsibility for the suitability of the process and circuit proposals.
- All work with and on the product may only be carried out by qualified personnel. IEC 60364 and CENELEC HD 384 define the qualifications of these persons:
 - They are familiar with installing, mounting, commissioning, and operating the product.
 - They have the corresponding qualifications for their work.
 - They know and can apply all regulations for the prevention of accidents, directives, and laws applicable at the place of use.

Please observe the specific safety information in the other sections!



Application as directed

- The product is a professional equipment intended for use by trades, specific professions or industry and not for sale to the general public. IEC 60050 [IEV 161-05-05]
- To prevent personal injury and damage to property, higher-level safety and protection systems must be used!
- All transport locks must be removed.
- Mounted eye bolts on the motor are not suitable for transporting geared motors.
- The product may only be operated under the specified operating conditions and in the specified mounting positions.
- The product may only be operated on the inverter.
- Built-in brakes must not be used as safety brakes.
- The product must not be operated in private areas, in potentially explosive atmospheres and in areas with harmful gases, oils, acids and radiation.



Foreseeable misuse

- Operate directly on the mains voltage
- Use in potentially explosive atmospheres
- Operate in aggressive environments (acids, gases, vapors, dusts, oils)
- Operate under water
- Operate under radiation
- Operate in generator mode



Residual hazards

Even if notes given are taken into consideration and protective measures are implemented, the occurrence of residual risks cannot be fully prevented.

The user must take the residual hazards mentioned into consideration in the risk assessment for his/her machine/system.

If the above is disregarded, this can lead to severe injuries to persons and damage to property!

Product

Observe the warning labels on the product!



Dangerous electrical voltage:

Before working on the product, make sure there is no voltage applied to the power terminals! After mains disconnection, the power terminals will still carry the hazardous electrical voltage for the time given next to the symbol!



Electrostatic sensitive devices:

Before working on the product, the staff must ensure to be free of electrostatic charge!



High leakage current:

Carry out fixed installation and PE connection in compliance with:
EN 61800-5-1 / EN 60204-1



Hot surface:

Use personal protective equipment or wait until the device has cooled down!

Protection of persons

- The power terminals may carry voltage in the switched-off state or when the motor is stopped.
 - Before working, check whether all power terminals are deenergized.
- Voltages may occur on the drive components (e.g. capacitive, caused by inverter supply).
 - Careful earthing in the marked positions of the components must be carried out.
- There is a risk of burns from hot surfaces.
 - Provide protection against accidental contact.
 - Use personal protective equipment or wait until the device has cooled down.
 - Prevent contact with flammable substances.
- There is a risk of injury due to rotating parts.
 - Before working on the drive system, ensure that the motor is at a standstill.
- There is a risk of accidental start-up or electric shock.

Motor protection

- Installed temperature sensors are no full protection for the machine.
 - If necessary, limit the maximum current. Parameterize the inverter so that it will be switched off after some seconds of operation with $I > I_{rated}$, especially if there is a risk of blocking.
 - Integrated overload protection does not prevent overloading under all conditions.
- The fuses are no motor protection.
 - Use a current-dependent motor protection switch.
 - Use the built-in temperature sensors.



Gearbox protection

- Excessive vibration accelerations and resonances will damage the gearbox.
 - Do not operate the gearbox at vibration accelerations $> 2 \text{ g}$ (20 m/s^2) of the machine.
 - Do not operate the gearbox in the resonance range of the machine.
- Excessive torques will damage the gearboxes.
 - Do not exceed the output torques specified on the nameplate.
- Excessive input speeds lead to increased temperatures.
 - Do not exceed the input speeds specified on the nameplate.
- Avoid excessive lateral forces on the gearbox shaft.
 - Align the shafts of the gearbox and driven machine exactly with each other.
- Machine elements can be damaged by a lack of lubricant.
 - Mount the gearbox only in the mounting position indicated on the nameplate.
 - When changing the lubricant, use the lubricant type and quantity specified on the nameplate.



Information on project planning

General information

NOTICE

For gearboxes with hollow shaft and shrink disk
observe the following requirements for the machine shaft:

- ▶ Fit tolerance h6
- ▶ Material yield strength $R_e \geq 360 \text{ MPa}$
- ▶ Modulus of elasticity approx. 210000 MPa
- ▶ Surface roughness $R_z \leq 15 \text{ }\mu\text{m}$
- ▶ No radial, axial forces and forces due to stress/rotation permissible

Thermal power limit

The thermal power limit, defined by the heat balance, limits the permissible continuous gearbox power. It is affected by

- the churning losses in the lubricant. These are determined by the mounting position and the circumferential speed of the gears
- the load and the speed spectrum.
- the ambient conditions: temperature, air circulation, input or dissipation of heat via shafts and the foundations.

NOTICE

A thermal check with the Drive Solution Designer (DSD) or contacting your Lenze representative is required if

- ▶ the input speed $n_1 > 1500 \text{ rpm}$ is fallen below in case of the gearbox ratios given in the following.
- ▶ the drive speeds mentioned in the following will be exceeded as a function of the mounting position. For a short period of time up to 5 min, 30 % higher speeds are permissible.
- ▶ the ambient temperature is predominantly above $+30 \text{ }^\circ\text{C}$.

Gearboxes	Ratio i
g500-S2100 ... S4500	≤ 50

Motor	Mounting position M5, M6	Mounting position M1, M3	Mounting position M2, M4
MCS06 to 12	4000 r/min	3500 rpm	3000 r/min
MCS14 to 19	3000 r/min	2600 rpm	1500 r/min

Possible ways of extending the application area

- Shaft sealing ring made of FKM material/Viton (option)
- Reducing the lubricant amount (after consultation with Lenze)
- Cooling the geared motor by air convection on the machine/system



Drive dimensioning

In order to carry out an accurate drive dimensioning process, you can use our configuring software, the »EASY System Designer«.

With the »EASY System Designer«, you can design the drive both quickly and to a high quality. The software contains profound and proven expertise with regard to drive applications and mechatronic drive components.

Please get in touch with your Lenze representative.

NOTICE

The dimensioning is suitable for the operating modes S1, S2, S3 and S6

The following 3 elements are taken into consideration in the dimensioning process :

Drive function

On the basis of the values required for the process that are specified, a drive is selected, for which all operating points are within the speed-torque characteristic curve of the motor.

As a result, a motor with a suitable speed with an inverter with a sufficient maximum current is selected. Further limits (maximum speed, installation height...) are specified in tables.

Mechanical strength

On the basis of the forces and torques which build, a drive is selected that has a sufficient mechanic strength (endurance strength for the periodically occurring torques and fatigue strength for the sporadically occurring torques).

Thermal dimensioning

For the inverter, the thermal dimensioning process is carried out on the basis of the continuous inverter current or on the basis of the continuous torque from the motor-inverter combination, which can be reached.

The motor is thermally dimensioned on the basis of the mean speed and the effective torque.

The thermal dimensioning of the gearbox is based on the medium speed and the permanent torque of the motor/gearbox combination. The thermal limit speed is to be understood as a recommendation.

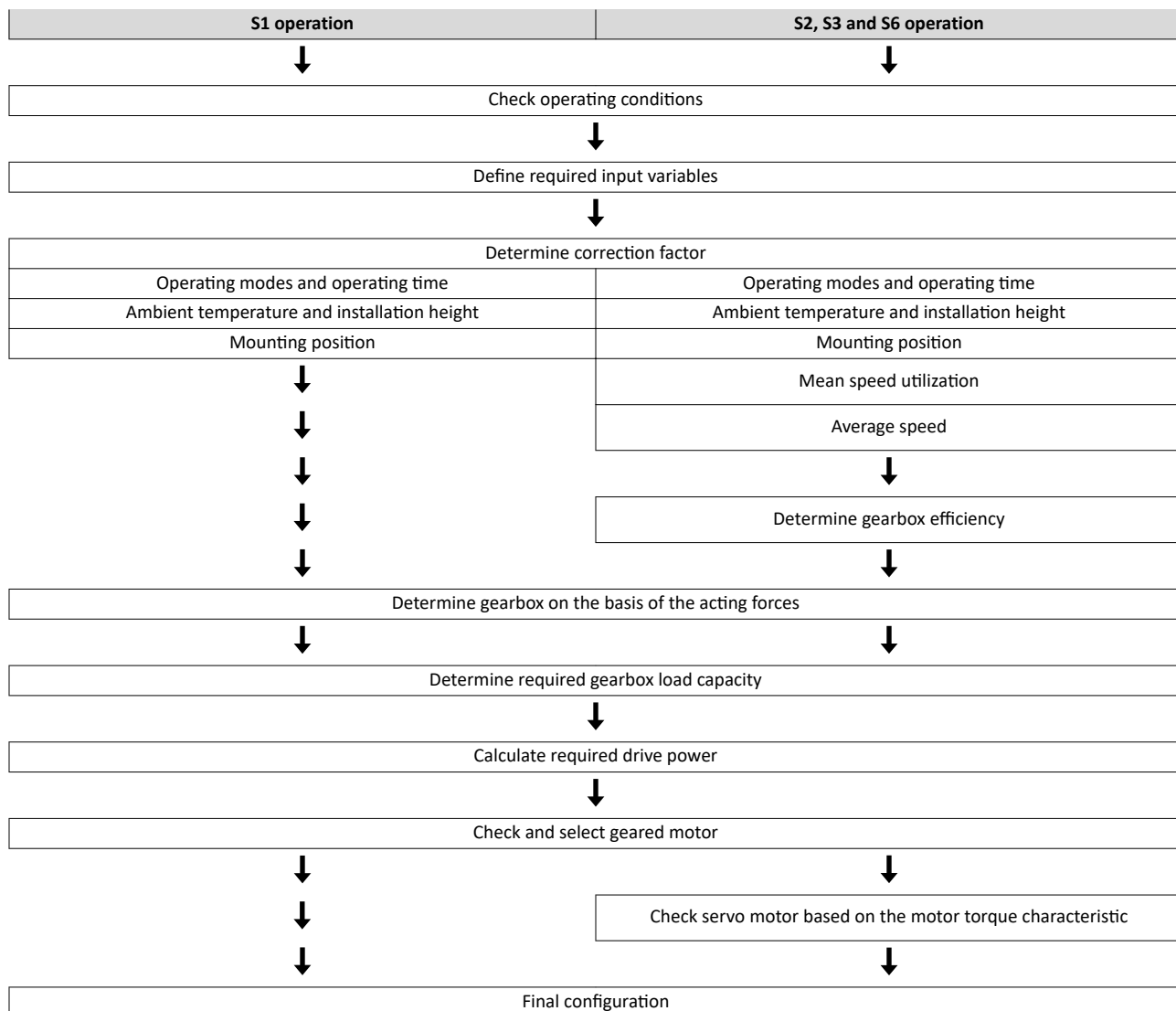
The mean speed of the drive should not exceed the values specified.



If dimensioning processes are complex or reach limit loads, please refer to your Lenze branch office



Workflow



Check operating conditions

Check
Approvals Conformities Supply voltage Degree of protection Ambient temperature Surface protection

▶ Standards and operating conditions [47](#)

▶ Surface and corrosion protection [32](#)



Define required input variables

Necessary input variables	Note	Symbol	Unit
Operating time/day		BD	h
Mean speed utilization of the geared motor	Relating to the load speed n_L		%
Ambient temperature		T_V	°C
Site altitude Amsl		H	m
Radial force		F_{rad}	rated
Axial force		F_{ax}	rated
Transmission element at the output	Gear wheels, sprockets ...		
Effective diameter of the transmission element		d_W	mm
Load torque	Only with S1, S2, S3, and S6 operating modes	M_L	Nm
Load speed	Only with S1, S2, S3, and S6 operating modes	n_L	rpm
Short-time maximum torque	Emergency off, quick stop, occasional high starting duty	$M_{L,max}$	Nm
Runtime with maximum torque		t_L	%

Determine correction factor

Operating modes S1, S2, S3, S6, and operating time							
Operating mode S1		Operating mode S2		Operating mode S3		Operating mode S6	
ED	k_L	ED	k_L	ED	k_L	ED	k_L
%		min		%		%	
100	1.0	10	1.4 - 1.5	15	1.4 - 1.5	15	1.5 - 1.6
		30	1.15 - 1.2	25	1.3 - 1.4	25	1.4 - 1.5
		60	1.07 - 1.1	40	1.15 - 1.2	40	1.3 - 1.4
		90	1.0 - 1.05	60	1.05 - 1.1	60	1.15 - 1.2

► Operating modes of the motor [384](#)

Ambient temperature and installation height				
Ambient temperature	Installation height amsl			
	≤ 1000 m	≤ 2000 m	≤ 3000 m	≤ 4000 m
	Correction factor			
T_U	k_H	k_H	k_H	k_H
≤ 20 °C	1.10	1.01	0.92	0.84
30 °C	1.05	0.97	0.88	0.80
40 °C	1.00	0.92	0.83	0.77
50 °C	0.92	0.85	0.76	0.70
60 °C	0.84	0.78	0.69	0.64

Mounting position						
Gearboxes	Mounting position					
	M1	M2	M3	M4	M5	M6
	Correction factor					
	k_E	k_E	k_E	k_E	k_E	k_E
g500-H	1.00	0.70	0.80	0.80	1.00	1.00
g500-S	1.00	0.70	0.80	0.85	0.80	0.90
g500-B	1.00	0.70	0.80	0.80	0.80	0.80

► Selection tables [59](#)



Mean speed utilisation					
Daily operating time	Mean speed utilisation relating to the load speed n_L				
	100 %	80 %	60 %	50 %	25 %
	Correction factor				
	k_N	k_N	k_N	k_N	k_N
1.0 h	1.29	1.33	1.38	1.42	1.55
2.0 h	1.15	1.20	1.25	1.29	1.42
3.0 h	1.08	1.12	1.17	1.21	1.34
4.0 h	1.02	1.06	1.12	1.15	1.29
5.5 h	0.96	1.00	1.06	1.09	1.22
8.0 h	0.89	0.93	0.99	1.02	1.15
12.0 h	0.81	0.85	0.91	0.94	1.08
16.0 h	0.76	0.80	0.85	0.89	1.02
22.0 h	0.71	0.76	0.81	0.85	0.98
24.0 h	0.68	0.72	0.78	0.81	0.94

Mean speed					
Operating mode S2		Operating mode S3		Operating mode S6	
ED	k_M	ED	k_M	ED	k_M
min		%		%]	
10	0.16	15	0.15	15	1.00
30	0.50	25	0.25	25	
60	1.00	40	0.40	40	
90		60	0.60	60	

Gearbox efficiency

Gearboxes	Gearbox efficiency	
	η_{c1}	
g500-S		
2-stage	0.96	
3-stage	0.95	
4-stage	0.94	

Determine product on the basis of the forces

Transmission element			Gear wheels	Sprockets	Toothed belt pulleys (depending on the pretension)	Narrow V-belt (depending on the pretension)
Additional radial force factor	f_z		≥ 17 teeth: 1.0 < 17 teeth: 1.15	≥ 20 teeth: 1.0 < 20 teeth: 1.25 < 13 teeth: 1.4	With belt tightener: 2.0 – 2.5 Without belt tightener: 2.5 – 3.0	1.5 – 2.0
			Calculation		Check	
Radial force	F_{rad}	N	$F_{rad} = 2000 \times \frac{M_{L,max} \times f_z}{dw}$		$F_{rad} \leq f_w \times F_{rad,max}$	
Axial force	F_{ax}	N			$F_{ax} \leq F_{rad,max} \times 0.5$	

dw Effective diameter of transmission element in mm

f_w Additional load factor

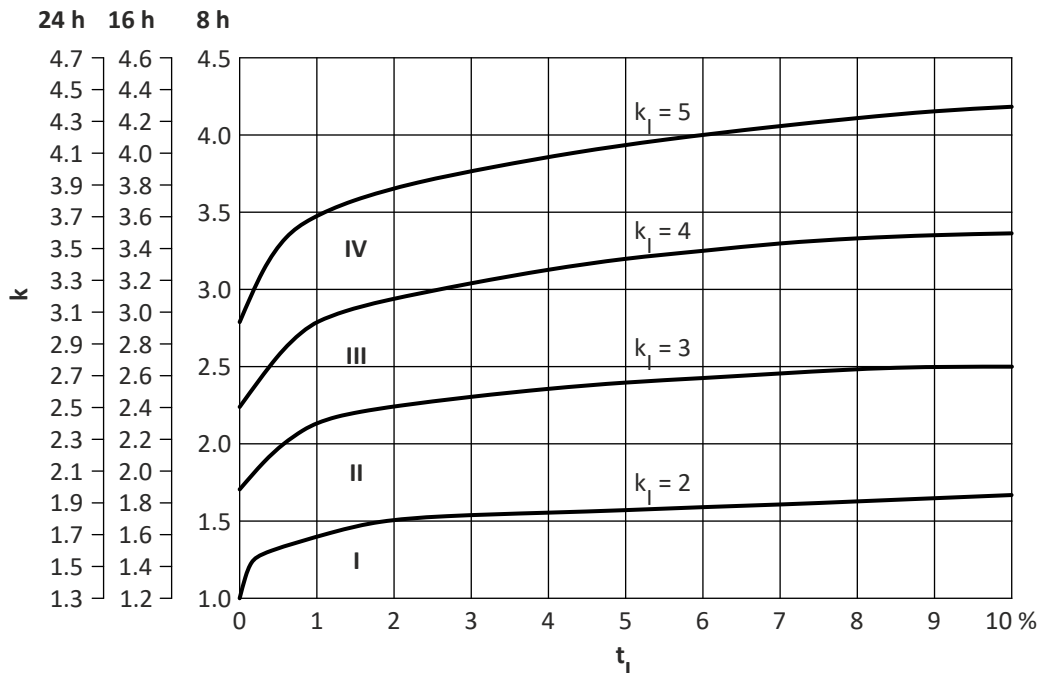
► [Radial forces and axial forces](#) 57



Determination of the required gearbox load capacity

Define the required load factor at runtime t_L		
Runtime $t_L \leq 10\%$	Take the load factor k from diagram into account	
Runtime $t_L > 10\%$	Take intensity k_i from calculation into account	
Calculate intensity		
no alternating load	$k_i = M_{L,max} / M_L$	$k_i =$
at alternating load	$k_i = M_{L,max} / M_L \times 1.4$	$k_i =$

Load factor k



Operating mode S1

Calculation of the required drive power			
	Calculation	Result	Unit
Output torque	$M_R \geq M_L / (k_L \times k_H)$	$M_R =$	Nm
Output speed	$n_R \geq n_L / k_E$	$n_R =$	rpm
Drive power	$P_R \geq M_R \times n_R / 9549$	$P_R =$	kW

Check geared servo motor and determine from the selection table			
	Check	Selection	Unit
Drive power	$P_1 \geq P_R$	$P_1 =$	kW
Output torque	$M_2 \geq M_L$	$M_2 =$	Nm
Output speed	$n_{2,th} \geq n_L$	$n_{2,th} =$	rpm
Load capacity of the geared motor	$c \geq k$ $c \geq k_I$	$c =$	
Short-time maximum torque			
no alternating load	$M_{2,max} \geq M_{L,max}$	$M_{2,max} =$	Nm
at alternating load	$M_{2,max} \times 1.5 \geq M_{L,max}$	$M_{2,max} =$	Nm
Ratio		$i =$	

► Selection tables 59



Order data			
	Ratio i	Geared motor	
Example	4.368	g500-H45	MCS06C40-
Example	35.493	g500-S130	MCS06C41-
Example	10.466	g500-B45	MCS06C41-

Operating modes S2, S3, and S6

Calculation of the required drive power			
	Calculation	Result	Unit
Output torque	$M_R \geq M_L / (k_L \times k_H)$	$M_R =$	Nm
Output speed	$n_R \geq (n_L \times k_M) / (k_E \times k_{rated})$	$n_R =$	rpm
Drive power	$P_R \geq M_R \times n_R / 9549$	$p_R =$	kW

Check geared servo motor and determine from the selection table			
	Check	Selection	Unit
Drive power	$P_1 \geq P_R$	$p_1 =$	kW
Output torque	$M_2 \geq M_L$	$M_2 =$	Nm
Output speed	$n_2 \geq n_L$	$n_2 =$	rpm
Load capacity of the geared motor	$c \geq k$ $c \geq k_i$	$c =$	
Short-time maximum torque			
no alternating load	$M_{2,max} \geq M_{L,max}$	$M_{2,max} =$	Nm
at alternating load	$M_{2,max} \times 1.5 \geq M_{L,max}$	$M_{2,max} =$	Nm
Ratio		$i =$	

► Selection tables [59](#)

Check servo motor based on the motor torque characteristic		
Gearbox efficiency	$\eta_G = \eta_{c1} - (c - 1) \times 0.01$	$\eta_G =$
All operating points (●)		$i \times n_L$
below the maximum torque characteristic of the servo motor/ inverter combination here, $M_{L,max}$ must be considered		$M_L / (i \times \eta_G)$
Thermally effective operating point (○)		$(i \times n_L \times k_M) / (k_E \times k_{rated})$
below the S1 torque characteristic of the servo motor		$M_L / (k_L \times k_H \times i \times \eta_G)$

► Torque characteristics [354](#)

Order data			
	Ratio i	Geared motor	
Example	4.368	g500-H45	MCS06C40-
Example	35.493	g500-S130	MCS06C41-
Example	10.466	g500-B45	MCS06C41-



Final configuration

	Screening
Connection dimensions	Output shaft Output flange/foot
Mounting position	Geared motor Connector/terminal box Driven shaft/output flange
Product extensions	Torque plate Shaft cover Connector/terminal box Brake Feedback Blower Temperature monitoring Second shaft end Handwheel Protection cover ...

More information about the final configuration:

- ▶ [The modular system](#) 11
- ▶ [Product extensions](#) 312



Surface and corrosion protection

Depending on the ambient conditions, the surface and corrosion protection system (called OKS) offers tailor-made solutions for optimum protection.

Various surface coatings ensure that the motors operate reliably even at high air humidity, in outdoor installation or in the presence of atmospheric impurities. Any color from the "RAL Classic" collection can be chosen for the top coat.



The OKS-XL (extra Large) version requires a check by your responsible Lenze subsidiary.

Surface and corrosion protection	Applications	Product g500
OKS-G (primed)	Dependent on subsequent top coat applied	Standard
OKS-S (small)	- Standard applications - Internal installation in heated buildings - Air humidity up to 90%	Optional
OKS-M (medium)	- Internal installation in non-heated buildings - Covered, protected external installation - Air humidity up to 95 %	Optional
OKS-L (large)	- External installation - Air humidity above 95 % - Chemical industrial plants - Food industry	
OKS-XL (extra Large)	- External installation - Air humidity above 95 % - Chemical industrial plants - Food industry - Coastal areas with moderate salinity	

Surface and corrosion protection	Corrosivity category	Surface coating	Color	Coating thickness
	DIN EN ISO 12944-2	Design		
OKS-G (primed)		2K PUR priming coat		60 ... 90 µm
OKS-S (small)	Comparable to C1	2K-PUR top coat	- Standard: RAL 7012 - Optional: RAL Classic	80 ... 120 µm
OKS-M (medium)	Comparable to C2	2K PUR priming coat		110 ... 160 µm
OKS-L (large)	Comparable to C3	2K-PUR top coat		140 ... 200 µm
OKS-XL (extra large)	Comparable to C4	2K-EP priming coat (two times) 2K-PUR top coat		160 ... 240 µm



Lubricants

The following gearboxes are lubricated for life:

- g500-S130

Recommended lubricants:

Lubricant	CLP HC 220	CLP HC 320	CLP HC 46 NSF H1	CLP HC 220 NSF H1
Ambient temperature	-30 ... +40 °C	-20 ... +50 °C	-30 ... +10 °C	-20 ... +40 °C
Specification	Synthetic oil (polyalphaolefins basis)			
Changing interval				
Operating hours	25000	25000	16000	16000
Not later than after	4 years	4 years	3 Jahren	3 Jahren
At oil temperature	70 C°			
Fuchs	Renolin Unisyn XT 220	Renolin Unisyn XT 320		Cassida Fluid GL 220
Klüber	Klübersynth GEM4-220 N	Klübersynth GEM4-320 N	Klüberoil Summit HYSYN FG-46	Klüberoil 4 UH1-220 N
SHELL	Shell Omala S4 GXV 220	Shell Omala S4 GXV 320		

Lubricant amounts for stocking

All lubricant amounts are reference values for a change of lubricant. They serve stocking purposes, for example.

The exact values can be found on the nameplate.

Mounting position		M1 (A)	M2 (D)	M3 (B)	M4 (C)	M5 (F)	M6 (E)	M1, M5, M6 (AEF)
Gearboxes								
g500-S130	I	0.7	0.8	0.7	0.7	0.6	0.6	0.7
g500-S220	I	1.1	1.1	.9	1.1	1.0	0.8	1.1
g500-S400	I	1.6	1.3	1.2	1.5	1.3	1.1	1.6
g500-S660	I	2.5	2.4	1.8	2.4	1.9	1.9	2.5
g500-S950	I	2.9	3.2	2.4	3.2	2.4	2.4	-
g500-S2100	I	7.1	7.5	6.0	7.5	5.6	5.5	-
g500-S3100	I	9.7	10.6	8.0	11.7	8.7	7.3	-
g500-S4500	I	19.4	20.0	13.7	21.2	14.7	15.8	-
Pre-stage	I	0.4						

► Gearbox with pre-stage [307](#)



Ventilation



No venting measures are required for the g500-S130 ... S220 gearboxes.

The g500-S220 gearbox can optionally be equipped with a breather element.

From g500-S400 onwards, the gearboxes are supplied with breather elements as standard.

To reduce the number of different versions, the following gearboxes can also be ordered with combined mounting positions:

- g500-S130 ... S660 in mounting position M1/5/6 (AEF)



In these gearboxes, the lubricant amount has been optimised for the use in different mounting positions. If required, the breather elements are loosely enclosed and must be mounted before commissioning depending on the mounting position.

NOTICE

- For gearboxes with ventilation, a gap of at least 30 mm has to be observed to the machine wall on the corresponding gearbox side.

g500-S220

Mounting position		
M1 (A)	M2 (D)	M3 (B)
M1	M2	M3
M4 (C)	M5 (F)	M6 (E)
M4	M5	M6

Ventilation

Change oil

Fill oil

Oil level



g500-S400

Mounting position		
M1 (A)	M2 (D)	M3 (B)
M1	M2	M3
M4 (C)	M5 (F)	M6 (E)
M4	M5	M6

🌀 Ventilation

🔄 Change oil

⬇️ Fill oil

📊 Oil level

g500-S660

Mounting position		
M1 (A)	M2 (D)	M3 (B)
M1	M2	M3
M4 (C)	M5 (F)	M6 (E)
M4	M5	M6

🌀 Ventilation

🔄 Change oil

⬇️ Fill oil

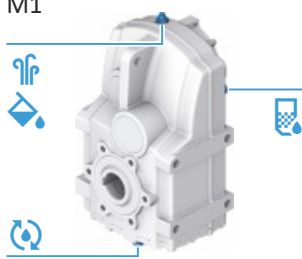
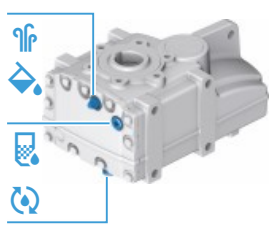
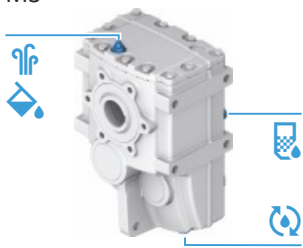
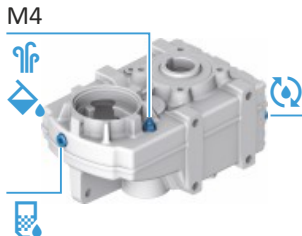
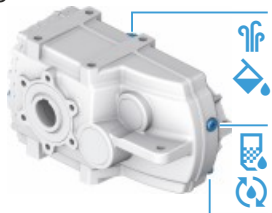
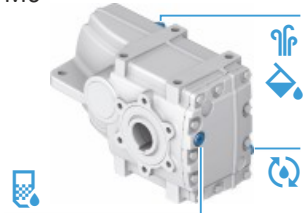
📊 Oil level

Information on project planning

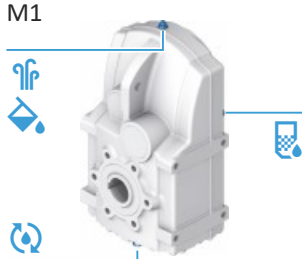
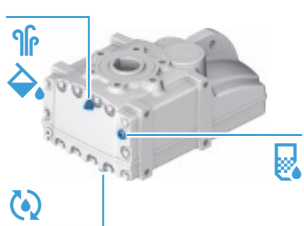
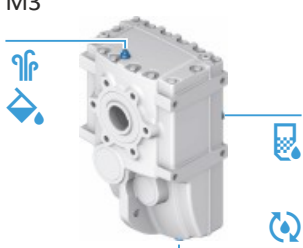
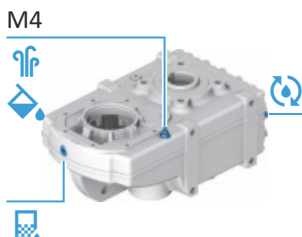
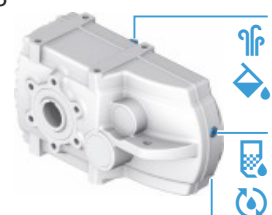
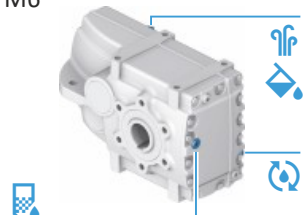
Final configuration
Ventilation



g500-S950

Mounting position			
M1 (A)	M2 (D)	M3 (B)	
M1 	M2 	M3 	
M4 (C)	M5 (F)	M6 (E)	
M4 	M5 	M6 	
 Ventilation	 Change oil	 Fill oil	 Oil level

g500-S2100

Mounting position			
M1 (A)	M2 (D)	M3 (B)	
M1 	M2 	M3 	
M4 (C)	M5 (F)	M6 (E)	
M4 	M5 	M6 	
 Ventilation	 Change oil	 Fill oil	 Oil level



g500-S3100

Mounting position		
M1 (A)	M2 (D)	M3 (B)
M1	M2	M3
M4 (C)	M5 (F)	M6 (E)
M4	M5	M6
Ventilation Change oil Fill oil Oil level		

g500-S4500

Mounting position		
M1 (A)	M2 (D)	M3 (B)
M1	M2	M3
M4 (C)	M5 (F)	M6 (E)
M4	M5	M6
Ventilation Change oil Fill oil Oil level		



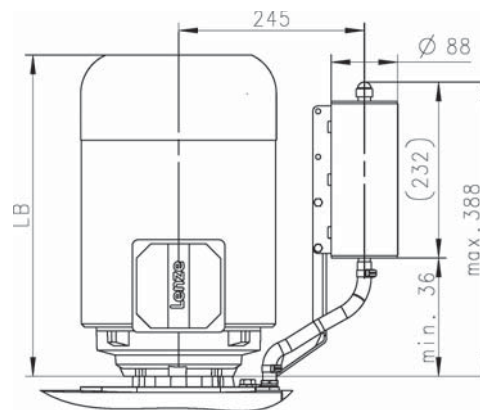
Gearbox with oil compensation reservoir for mounting position M4 (C)

In order to guarantee a reliable lubrication of the toothed parts in mounting position M4 (C) (motor is on the gearbox vertical from the top), a high filling level is required in the gearbox. As a result of the reduced volume of air in the gearbox, this may lead to oil escaping from the ventilation at higher input speeds. The oil compensation reservoir increases the expansion space for the lubricant.

The oil compensation reservoir can be ordered as a mounting set for fastening to the gearbox.

If insufficient space is available, the oil compensation reservoir can also be mounted over the gearbox hose connection on nearby system parts.

Dimensions of the oil compensation reservoir



8800783-00

For the following gearboxes in mounting position M4 (C), which exceed the specified min. input speed, an oil expansion reservoir is required depending on the specified gear ratio:



Information on project planning

Final configuration
Ventilation

g500-S2100		g500-S3100		g500-S4500	
Gearbox ratio	Min. input speed	Gearbox ratio	Min. input speed	Gearbox ratio	Min. input speed
	rpm		rpm		rpm
4.593	2000	4.951	2000	4.914	2000
6.029	2000	6.499	2000	6.450	2000
6.870	2000	7.406	2000	7.056	2000
8.272	2000	8.917	2000	8.944	2000
9.452	2000	10.932	2000	9.984	2000
10.504	2000	11.128	2000	11.740	2000
12.406	2000	12.584	2000	12.843	2000
13.787	2000	14.606	2000	13.105	2000
14.137	2000	16.517	2000	14.336	2000
15.711	2000	16.644	2000	16.381	2000
17.022	3000	18.822	2000	18.286	2000
18.917	3000	20.041	3000	20.067	2000
20.869	3000	22.663	3000	22.400	2000
23.193	3000	24.570	3000	26.437	3000
28.275	3000	27.785	3000	29.511	3000
31.422	3000	33.289	3000	32.489	3000
34.333	3000	37.644	3000	36.267	3000
38.156	3000	40.422	3000	42.044	3000
44.431	4000	45.711	3000	46.933	3000
49.378	4000	52.311	4000	51.027	4000
53.924	4000	59.156	4000	56.960	4000
59.927	4000	63.487	4000	64.500	4000
68.162	4000	71.793	4000	72.000	4000
75.750	4000				



Mechanical installation

Important notes

- Install the product according to the information in the chapter "Standards and operating conditions".
 - ▶ [Standards and operating conditions](#)  47
- The technical data and the data regarding the supply conditions can be found on the nameplate and in this documentation.
- Ambient media – especially chemically aggressive ones – may damage shaft sealing rings, lacquers and plastics.
- Lenze offers special surface and corrosion protection in this case.



Transport

CAUTION!

Danger from tipping and falling loads!

Standing beneath suspended loads is prohibited!

Possible consequences: Minor or moderate injuries.

- ▶ To achieve a load direction that is as vertical as possible (maximum load-bearing capacity), use additional, suitable load carriers if necessary. Secure the load carrier against slipping!
- ▶ Screw in the transport aids completely. They must lie flat and over the entire surface!
- ▶ Load the transport aids vertically in the direction of the screw axis! Inclined or lateral tension reduces the load-bearing capacity! Observe the specifications in the DIN 580!

NOTICE

Eye bolts or lifting eyes on the motor are not suitable for transporting geared motors.

Only use these for mounting/dismounting the motor on the gearbox.

Possible consequences: Damage to the geared motor.

- ▶ Only use the threads provided on the gearbox for eye bolts or lifting eyes for transporting the geared motor.

Preconditions

- Ensure appropriate handling.
- Make sure that all component parts are securely mounted. Secure or remove loose component parts.
- Only use safely fixed transport aids (e.g., eye bolts or support plates).
- Do not damage any components during transport.
- Avoid electrostatic discharges on electronic components and contacts.
- Avoid impacts.
- Check the carrying capacity of the hoists and load handling devices. The weights can be found in the shipping documents.
- Secure the load against tipping and falling down.
- Standing beneath suspended loads is prohibited.



The lifting eye is not included in the scope of supply!

Position of the lifting eye

Geared motor		
	Lifting eye on the housing	
G50BS113Mxxxxxx		•
G50BS122Mxxxxxx		•
G50BS140Mxxxxxx		•
G50BS166Mxxxxxx		•
G50BS195Mxxxxxx		•
G50BS221Mxxxxxx		•
G50BS231Mxxxxxx		•
G50BS245Mxxxxxx		•
G50BS280Mxxxxxx		•
G50BS314Mxxxxxx		•
G50BS319Mxxxxxx		•



Installation

Ventilation elements

Gearboxes that are supplied with a pre-assembled ventilation element:

- The ventilation element is identified by a sign on the gearbox.
- Remove the transport lock from the ventilation element before initial commissioning.

Gearboxes that are supplied with a loosely attached ventilation element:

- Before commissioning for the first time, install the ventilation element according to the mounting position.

Mounting surfaces

- The mounting surfaces must be plane, torsionally rigid and free from vibrations.
- The mounting areas must be suited to absorb the forces and torques generated during operation.
- Ensure an unhindered ventilation.
- For versions with a fan, keep a minimum distance of 10 % from the outside diameter of the fan cover in intake direction.



Electrical installation

Important notes

DANGER!

Risk of injury and risk of burns from dangerous voltage

Power terminals may also carry voltage in the switched-off state or when the motor is stopped and may cause life-threatening cardiac arrhythmia and serious burns.

- ▶ Disconnect the product from the mains.
- ▶ Check that the power terminals are deenergized before starting work.

-
- When working on energized products, comply with the applicable national accident prevention regulations.
 - The electrical installation must be carried out according to the appropriate regulations (e.g. cable cross-sections, fuses, PE connection).
 - The manufacturer of the system or machine is responsible for adherence to the limits required in connection with EMC legislation.

Operation on an external inverter

A max. pulse voltage amplitude of $U_{pk} = 1560 \text{ V}$ at the motor terminals must not be exceeded.

Here, the minimum pulse rise time must be $t_r = 0.1 \text{ }\mu\text{s}$.

If it cannot be ruled out that the permissible voltage peaks will be exceeded or that the minimum pulse rise time will not be reached, the following measures must be initiated:

- Reduction of the DC-bus voltage (threshold for brake chopper voltage)
- Use of filters, chokes
- Use of special motor cables



Preparation



The notes for the electrical connection can be found in the enclosed mounting instructions.

EMC-compliant wiring



The EMC-compliant wiring is described in detail in the documentation of the Lenze inverters.



Technical data

Notes regarding the given data

Catalog data

The power values, torques and speeds specified in the configuration are rounded values and apply to:

- Operating time per day = 8 hrs (100 % ED)
- Duty class up to 10 switching operations per hour
- Ambient temperature = 40 °C
- Site altitude ≤ 1000 m above mean sea level
- The selection tables indicate the mechanically permissible power levels and torques.
- The ratings apply to the operating mode S1 (acc. to EN 60034-1).

NOTICE

In case of other operating conditions, the achievable values can differ for those mentioned.

► In case of extreme operating conditions, please get in touch with your Lenze representative.



Standards and operating conditions

Conformities and approvals

More information and certificates of approval can be found under

[g500 + MCS shaft-mounted helical geared motors \(Lenze.com\)](https://www.lenze.com/g500-mcs-shaft-mounted-helical-geared-motors)

Europe					
Country	Conformity/ approval	Law/standard	Description	Special feature	Product representation
European Union	CE	2006/42/EC	Machinery Directive	Only for safety- relevant components	CE mark
		2011/65/EU	RoHS	-	
		2014/30/EU	EMC Directive		
		2014/35/EU	Low-Voltage Directive		
Great Britain	UKCA	S.I. 2008/1597	The Supply of Machinery (Safety) Regulations 2008	Only for safety- relevant components	UKCA mark
		S.I. 2012/3032	The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012	-	
		S.I. 2016/1091	The Electromagnetic Compatibility Regulations 2016		
		S.I. 2016/1101	The Electrical Equipment (Safety) Regulations 2016		

America					
Country	Conformity/ approval	Law/standard	Description	Special feature	Product representation
Canada	CSA	CSA 22.1 No. 100	CSA Standard for Motors and Generators	-	cURus mark
USA	UL	UL 1004-1	UL Standard for Rotating Electrical Machines		

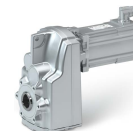
Asia					
Country	Conformity/ approval	Law/standard	Description	Special feature	Product representation
China	-	GB 30253	Minimum allowable values of energy efficiency and energy efficiency grades for permanent magnet synchronous motors	-	CEL mark
		GB/T 26572	Requirements on concentration limits for certain restricted substances in electrical and electronic products		EFUP mark

Protection of persons and device protection

Degree of protection			
-	EN IEC 60529, EN IEC 60034-5	IP54	Self-ventilated: MCS06 ... MCS19
		IP65	Forced ventilated: MCS12 ... MCS19
			Self-ventilated: MCS06 ... MCS19
Temperature class			
-	EN IEC 60034-1	F (155 °C)	Insulation system
Permissible voltage			
-	IEC 60034-18-41	IVIC C	At 500 V
	IEC/TS 60034-25:2007	Limit curve A	Of the pulse voltage

Technical data

Standards and operating conditions
EMC data



EMC data

Noise emission		
-	EN IEC 60034-1	A final overall assessment of the drive system is indispensable

Noise immunity		
-	EN IEC 60034-1	A final overall assessment of the drive system is indispensable

Environmental conditions

Climate			
Storage	EN 60721-3-1:1997	1K3 (-20 ... +40 °C)	>3 months
		1K3 (-20 ... +60 °C)	<3 months
Transport	EN 60721-3-2:1997	2K3 (-20 ... +70 °C)	
Operation	EN 60721-3-3:1995 + A2:1997	3K3 (-10 ... +40 °C)	Operation, without brake
		3K3 (-15 ... +40 °C)	Operation without brake, forced ventilated
		3K3 (-20 ... +40 °C)	Operation without brake, self-ventilated

Site altitude		
0 ... 1000 m amsl	-	Without current derating
1000 ... 4000 m amsl		Reduce rated output current by 5 %/1000 m

Air humidity			
-	-	Average relative humidity 85 %	Without condensation



Technical data

Data overview

In order to calculate the exact ratio, the number of teeth z_g (driven) can be divided by the number of teeth z_t (driving).

g500-S130, 2-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
63.0	3.661	637	174	19
76.0	5.021	728	145	18
87.0	6.425	559	87	18
92.0	7.029	5096	725	18
116	8.322	749	90	13
125	9.411	847	90	12
130	11.413	856	75	13
130	12.907	968	75	12
130	14.606	4601	315	12
130	15.979	5992	375	12
130	18.069	6776	375	12
130	20.381	428	21	13
130	23.048	484	21	12
130	24.967	749	30	12
130	28.233	847	30	12
130	31.387	2354	75	12
130	35.493	2662	75	12
130	40.422	1819	45	12
130	45.711	2057	45	12

g500-S130, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
130	83.698	18832	225	13
130	94.649	21296	225	12
130	107.113	101222	945	13
130	117.177	131824	1125	13
130	132.508	149072	1125	12
130	149.460	9416	63	13
130	169.016	10648	63	12
130	183.089	8239	45	13
130	207.044	9317	45	12
130	230.169	51788	225	12
130	251.277	75383	300	12
130	279.341	104753	375	12
130	315.891	118459	375	12
130	359.758	161891	450	12
130	406.829	183073	450	12



g500-S220, 2-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
M _{2, max}	i	z _g	z _t	
Nm				'
178	3.840	553	144	16
181	5.267	79	15	16
220	6.767	203	30	13
217	7.667	23	3	12
220	9.280	232	25	13
220	10.514	368	35	12
220	11.876	1247	105	12
220	12.992	1624	125	12
220	13.456	1978	147	12
220	14.720	368	25	12
220	16.571	116	7	12
220	18.776	920	49	12
220	20.300	203	10	12
220	23.000	23	1	11
220	26.422	1189	45	12
220	29.937	1886	63	11
220	32.867	493	15	12
220	37.238	782	21	11
220	42.533	638	15	12
220	48.190	1012	21	11
220	51.620	2581	50	11
220	58.486	2047	35	11

g500-S220, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
M _{2, max}	i	z _g	z _t	'
Nm				
220	52.587	3944	75	12
220	59.581	6256	105	12
220	67.298	21199	315	12
220	76.249	33626	441	12
220	86.079	5423	63	12
220	97.528	43010	441	12
220	111.747	8381	75	12
220	126.610	13294	105	12

g500-S220, 4-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
M _{2, max}	i	z _g	z _t	
Nm				'
220	293.418	303688	1035	13
220	332.444	2992	9	12
220	385.636	86768	225	13
220	436.927	137632	315	12
220	493.522	466378	945	13
220	559.163	739772	1323	12
220	631.249	119306	189	13



g500-S400, 2-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
203	3.339	581	174	16
243	4.579	664	145	16
258	5.860	3569	609	13
261	6.411	4648	725	12
365	7.467	112	15	13
380	8.436	329	39	12
400	10.240	256	25	12
400	11.569	752	65	12
400	13.105	1376	105	12
400	14.336	1792	125	12
400	14.806	4042	273	12
400	16.197	5264	325	12
400	18.286	128	7	12
400	20.659	1880	91	11
400	22.400	112	5	12
400	25.308	329	13	11
400	29.156	1312	45	12
400	32.940	3854	117	11
400	36.267	544	15	12
400	40.974	1598	39	11
314	46.933	704	15	11
348	53.026	2068	39	11
268	56.960	1424	25	11
302	64.354	4183	65	11

g500-S400, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
400	58.027	4352	75	11
400	65.559	12784	195	11
400	74.260	23392	315	11
400	83.900	68714	819	11
400	94.984	5984	63	11
399	107.314	87890	819	11
400	123.307	9248	75	11
399	139.313	27166	195	11



g500-S400, 4-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
400	425.529	95744	225	11
400	480.766	281248	585	11
400	544.576	514624	945	11
400	615.266	1511708	2457	11
400	696.550	131648	189	11
400	786.968	1933580	2457	11
400	904.249	203456	225	11
400	1021.627	597652	585	11
400	1097.429	411536	375	11
400	1239.884	1208887	975	11

g500-S660, 2-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
419	3.920	98	25	14
492	5.376	672	125	13
601	6.417	77	12	11
496	6.880	172	25	13
593	7.311	329	45	11
638	8.800	44	5	10
625	10.027	752	75	10
660	11.262	473	42	10
660	12.320	308	25	10
660	12.832	4042	315	10
660	14.037	5264	375	10
660	15.714	110	7	10
660	17.905	376	21	10
660	19.250	77	4	10
660	21.933	329	15	9
578	25.056	451	18	10
660	28.548	3854	135	9
660	31.167	187	6	10
660	35.511	1598	45	9
545	40.333	121	3	10
620	45.956	2068	45	9
446	48.950	979	20	10
508	55.773	4183	75	9



g500-S660, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
625	49.867	748	15	10
650	56.818	12784	225	10
660	63.817	8041	126	10
660	69.813	5236	75	10
660	72.713	68714	945	10
660	79.545	89488	1125	10
660	89.048	1870	21	10
660	101.460	6392	63	10
660	109.083	1309	12	10
660	124.289	5593	45	10
660	137.133	2057	15	10
660	156.249	35156	225	10
660	176.611	3179	18	10
660	201.230	27166	135	10

g500-S660, 4-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
660	318.039	214676	675	11
592	365.689	16456	45	11
640	416.664	281248	675	10
660	467.995	88451	189	11
660	511.964	115192	225	11
660	583.329	1968736	3375	10
660	653.016	41140	63	11
660	744.042	140624	189	10
660	799.944	14399	18	11
660	911.452	123046	135	10
660	1005.644	45254	45	11
660	1145.825	773432	675	10
660	1295.148	34969	27	10
660	1475.684	597652	405	10
660	1641.444	14773	9	10
660	1870.252	252484	135	10
660	1992.117	119527	60	10



g500-S950, 2-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
M _{2, max}	i	z _g	z _t	'
Nm				
621	4.380	403	92	15
691	5.391	124	23	14
732	6.038	3472	575	14
783	7.702	1240	161	14
950	9.100	91	10	10
950	10.183	611	60	10
950	11.200	56	5	10
950	12.544	1568	125	9
950	14.037	5264	375	9
950	16.000	16	1	9
950	17.905	376	21	9
950	19.600	98	5	9
950	21.933	329	15	9
950	25.511	1148	45	9
950	28.548	3854	135	9
950	31.267	469	15	9
950	34.989	3149	90	9
950	41.067	616	15	9
950	45.956	2068	45	9
924	49.840	1246	25	9
950	55.773	4183	75	9
668	63.000	63	1	9
736	70.500	141	2	9

g500-S950, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
M _{2, max}	i	z _g	z _t	'
Nm				
950	50.027	3752	75	10
950	55.982	12596	225	9
950	64.022	2881	45	10
950	70.037	26264	375	9
950	71.644	135407	1890	10
950	78.375	88172	1125	9
950	89.333	268	3	10
950	99.968	6298	63	9
950	109.433	3283	30	9
950	122.461	22043	180	9
950	142.437	19229	135	9
950	159.394	129109	810	9
950	177.178	7973	45	9
950	198.270	53533	270	9
950	229.289	10318	45	9
950	256.585	34639	135	9
950	278.273	41741	150	9
950	311.401	280261	900	9
950	355.658	42679	120	9
950	397.999	286559	720	9



g500-S950, 4-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
950	319.059	1076824	3375	10
950	357.042	3615052	10125	10
950	406.963	10988	27	10
950	455.411	258218	567	10
950	513.607	577808	1125	10
950	574.751	1939784	3375	10
950	655.111	5896	9	10
950	733.101	138556	189	10
950	802.511	36113	45	10
950	898.048	242473	270	10
950	1044.538	423038	405	9
950	1168.888	1420199	1215	10
950	1299.304	175406	135	9
950	1453.983	588863	405	10
950	1681.452	226996	135	9
950	1881.625	762058	405	9
950	2040.671	459151	225	9
950	2283.608	3082871	1350	9
950	2476.633	3714949	1500	9
950	2771.470	24943229	9000	9

g500-S2100, 2-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
1331	4.593	689	150	12
1487	6.029	2279	378	11
1487	6.870	371	54	11
1487	8.272	3127	378	11
1866	9.452	4017	425	8
1872	10.504	1313	125	8
2030	12.406	4429	357	7
2047	13.787	4343	315	7
2050	14.137	721	51	7
2050	15.711	707	45	7
2050	17.022	6077	357	7
2050	18.917	5959	315	7
2050	20.869	3193	153	7
2050	23.193	3131	135	7
2050	28.275	1442	51	8
2050	31.422	1414	45	7
2050	34.333	103	3	7
2050	38.156	1717	45	7
2044	44.431	2266	51	7
2050	49.378	2222	45	7
1957	53.924	9167	170	7
2050	59.927	8989	150	7
1454	68.162	4635	68	7
1576	75.750	303	4	7



g500-S2100, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
1945	40.056	721	18	8
2050	44.515	12019	270	8
2050	54.933	824	15	8
2050	61.049	13736	225	8
2050	70.302	4429	63	8
2050	76.907	5768	75	8
2050	78.128	73831	945	7
2050	85.468	96152	1125	7
2050	98.095	2060	21	8
2050	109.016	6868	63	7
2050	120.167	721	6	8
2050	133.544	12019	90	7
2050	156.407	4223	27	8
2050	173.820	70397	405	7
2050	194.556	1751	9	8
2050	216.215	29189	135	7
2050	251.778	2266	9	8
2050	279.807	37774	135	7
2050	305.567	9167	30	8
2050	339.584	152813	450	7
2050	386.250	1545	4	7
2050	429.250	1717	4	7



g500-S2100, 4-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
2050	320.263	181589	567	8
2050	350.353	236488	675	8
2050	389.356	3942232	10125	8
2050	446.878	84460	189	8
2050	496.628	281588	567	8
2050	547.426	29561	54	8
2050	608.369	492779	810	8
2050	712.523	173143	243	8
2050	791.846	2886277	3645	8
2050	886.309	71791	81	8
2050	984.979	1196749	1215	8
2050	1146.988	92906	81	8
2050	1274.678	1548734	1215	8
2050	1426.741	38522	27	8
2050	1585.575	642158	405	8
2050	1846.370	49852	27	8
2050	2051.921	831028	405	8
2050	2240.822	100837	45	8
2050	2490.286	1680943	675	8
2050	2719.543	815863	300	8
2050	3022.302	13600357	4500	8
2050	3475.821	834197	240	8
2050	3862.773	13905983	3600	8
2050	4393.594	140595	32	8
2050	4882.719	156247	32	8



g500-S3100, 2-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
M _{2, max}	i	z _g	z _t	'
Nm				
1842	4.951	2847	575	10
2110	6.499	3139	483	10
2235	7.406	511	69	9
2264	8.917	4307	483	9
2275	10.932	2263	207	9
3022	11.128	1391	125	6
2965	12.584	1573	125	6
3100	14.606	4601	315	6
3100	16.517	5203	315	6
3100	16.644	749	45	6
3100	18.822	847	45	6
3100	20.041	6313	315	6
3100	22.663	7139	315	6
3100	24.570	3317	135	6
3100	27.785	3751	135	6
3100	33.289	1498	45	6
3100	37.644	1694	45	6
3100	40.422	1819	45	6
3100	45.711	2057	45	6
2587	52.311	2354	45	6
2743	59.156	2662	45	6
2250	63.487	9523	150	6
2408	71.793	10769	150	6

g500-S3100, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
M _{2, max}	i	z _g	z _t	'
Nm				
2958	47.159	12733	270	6
3054	53.330	14399	270	6
3100	64.676	14552	225	6
3100	73.138	16456	225	6
3100	82.769	78217	945	6
3100	90.546	101864	1125	6
3100	93.599	88451	945	6
3100	102.393	115192	1125	6
3100	115.492	7276	63	6
3100	130.603	8228	63	6
3100	141.478	12733	90	6
3100	159.989	14399	90	6
3100	184.146	74579	405	6
3100	208.240	84337	405	6
3100	229.059	30923	135	6
3100	259.030	34969	135	6
3100	296.430	40018	135	6
3100	335.215	45254	135	6
3100	359.758	161891	450	6
3100	406.829	183073	450	6

Technical data

Data overview



g500-S3100, 4-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
3100	316.910	356524	1125	7
3100	358.375	403172	1125	6
3100	404.222	3638	9	7
3100	457.111	4114	9	6
3100	495.172	89131	180	6
3100	559.961	100793	180	6
3100	644.510	522053	810	6
3100	728.838	590359	810	6
3100	801.707	216461	270	6
3100	906.604	244783	270	6
3100	1043.492	1267843	1215	6
3100	1180.024	1433729	1215	6
3100	1298.002	525691	405	6
3100	1467.835	594473	405	6
3100	1679.768	680306	405	6
3100	1899.551	769318	405	6
3100	2173.817	880396	405	6
3100	2458.242	995588	405	6
3100	2638.224	1780801	675	6
3100	2983.412	2013803	675	6
3030	3201.844	14408299	4500	6
3100	3620.777	16293497	4500	6
3030	4092.245	14732081	3600	6
3100	4627.679	16659643	3600	6
2392	5172.781	165529	32	6
2794	5849.594	187187	32	6



g500-S4500, 2-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
M _{2, max}	i	z _g	z _t	'
Nm				
2352	4.914	2457	500	9
2451	6.450	129	20	9
2535	7.056	882	125	9
4087	8.944	1118	125	5
4163	9.984	1248	125	5
4451	11.740	3698	315	5
4500	12.843	4816	375	5
4500	13.105	1376	105	4
4500	14.336	1792	125	4
4500	16.381	344	21	5
4500	18.286	128	7	4
4500	20.067	301	15	5
4500	22.400	112	5	4
4500	26.437	3569	135	5
4500	29.511	1328	45	4
4500	32.489	1462	45	5
4500	36.267	544	15	4
4101	42.044	1892	45	5
4394	46.933	704	15	4
3653	51.027	3827	75	5
3946	56.960	1424	25	4
2488	64.500	129	2	5
2586	72.000	72	1	4

g500-S4500, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
M _{z, max}	i	z _g	z _t	'
Nm				
4150	38.090	49708	1305	5
4291	42.520	18496	435	4
4500	52.794	9503	180	5
4500	58.933	884	15	4
4500	64.978	2924	45	5
4500	72.533	1088	15	4
4500	72.775	81872	1125	5
4500	81.237	30464	375	4
4500	92.825	5848	63	5
4500	103.619	2176	21	4
4500	113.711	5117	45	5
4500	126.933	1904	15	4
4500	148.005	59942	405	5
4500	165.215	22304	135	4
4500	181.396	48977	270	5
4500	202.489	9112	45	4
4500	238.252	32164	135	5
4500	265.956	11968	45	4
4500	289.151	65059	225	5
4500	322.773	24208	75	4
3962	365.500	731	2	5
4410	408.000	408	1	4



g500-S4500, 4-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
4500	324.889	2924	9	5
4500	362.667	1088	3	5
4500	397.989	35819	90	5
4500	444.267	6664	15	5
4500	518.017	209797	405	5
4500	578.252	78064	135	4
4500	634.887	342839	540	5
4500	708.711	31892	45	4
4500	826.361	2008057	2430	5
4500	922.449	373592	405	4
4500	1027.912	832609	810	5
4500	1147.437	154904	135	4
4500	1211.575	490688	405	4
4500	1350.094	546788	405	5
4500	1507.081	203456	135	4
4500	1747.180	707608	405	5
4500	1950.341	263296	135	4
4500	2120.441	1431298	675	5
4500	2367.004	532576	225	4
4500	2872.683	1077256	375	4
4500	3025.244	136136	45	4
4500	3289.094	5920369	1800	5
4500	3671.547	275366	75	4
3598	4157.563	66521	16	5
4016	4641.000	4641	1	4



Radial forces and axial forces

Permissible radial force

The calculation of the permissible radial force must take account of the additional load factor f_w .

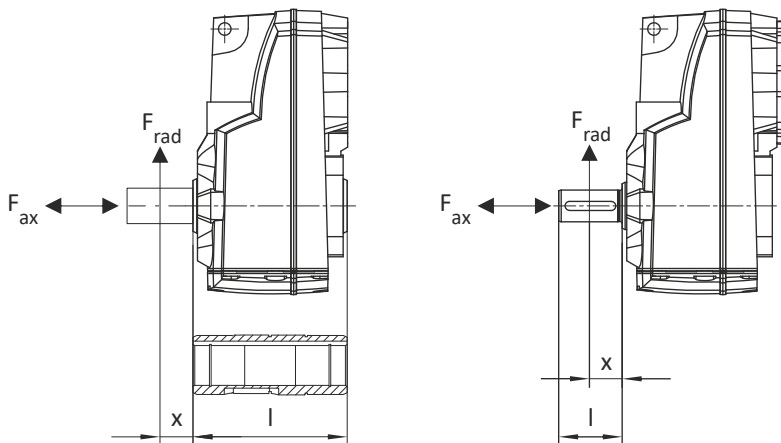
$$F_{\text{rad, perm}} = f_w \times F_{\text{rad, max}}$$

Permissible axial force

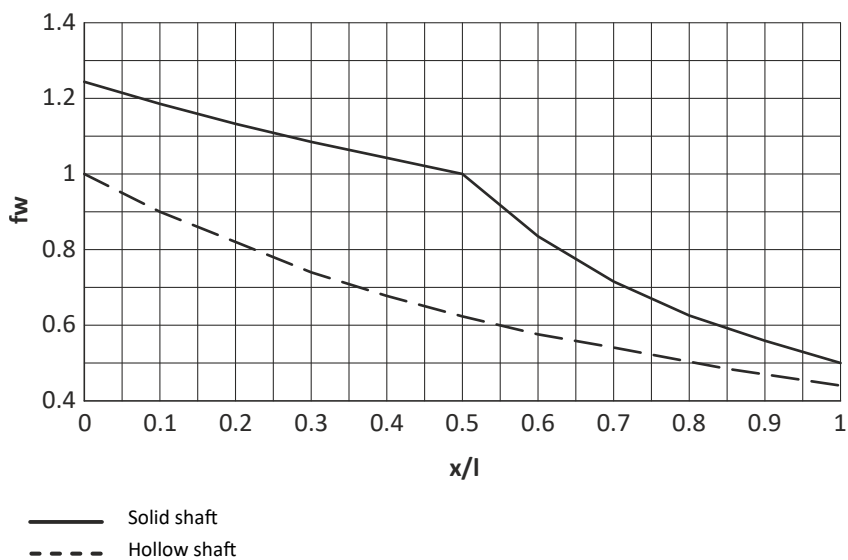
If there is no radial force, the maximum axial force is 50% of the value in the table $F_{\text{rad, max}}$

$$F_{\text{ax, zul}} = 0.5 \times F_{\text{rad, max}}$$

Application of forces



Additional load factor f_w on the drive shaft



Technical data

Radial forces and axial forces



The values given in the tables refer to the centre shaft end force application point and are minimum values calculated according to the most unfavourable conditions (force application angle, mounting position, direction of rotation). The values were calculated with a load capacity of $c = 1.3$ and an input speed of 1400 rpm.



In case of different operating conditions, considerably higher forces can be transmitted. Please get in touch with your Lenze representative



A hollow shaft with shrink disc (SAR/SBR/SCR/SDR/SAK/SCK) requires a check by Lenze.

Max. radial force, gearbox with hollow shaft (H□R/H□K)

Getriebe	Output speed n_2 [rpm]									
	1000	630	400	250	160	100	63	40	25	16
	Max. radial force $F_{rad,max}$ [rated]									
g500-S130	1000	1100	1300	1500	1650	2200	2750	3450	4200	4500
g500-S220	2100	2300	2800	3200	3800	4600	5500	6300	7000	7000
g500-S400	2200	2500	3000	3400	4100	5000	6000	7100	8000	8000
g500-S660	2500	2900	3500	4000	5000	6600	8500	10800	12000	12000
g500-S950	3400	4000	4300	5000	6000	8000	10300	11500	12500	13000
g500-S2100	4500	5100	6200	6500	7500	10000	12000	15700	15700	16000
g500-S3100	5200	5700	7000	8000	9000	12500	15000	17000	19800	19800
g500-S4500	11100	12900	15000	17500	19000	20000	23000	30000	30000	30000

Max. radial force, gearbox with solid shaft, without flange (V□R)

Getriebe	Output speed n_2 [rpm]									
	1000	630	400	250	160	100	63	40	25	16
	Max. radial force $F_{rad,max}$ [rated]									
g500-S130	1000	1100	1300	1500	1650	2200	2750	3450	4200	4500
g500-S220	1700	1900	2300	2700	3200	3600	3600	3600	3600	3600
g500-S400	1700	1900	2300	2700	3200	4000	4800	5800	6200	6200
g500-S660	2300	2600	3100	3600	3900	5100	6500	8400	9000	9000
g500-S950	6100	6800	8200	9500	10300	10300	10300	10300	10300	10300
g500-S2100	7500	8200	10000	11500	13600	15700	15700	15700	15700	15700
g500-S3100	9400	10300	12600	14500	16500	18000	19800	19800	19800	19800
g500-S4500	12000	13100	16100	18500	20000	22000	25000	30000	30000	30000

Max. radial force, gearbox with solid shaft and flange (V□K)

Getriebe	Output speed n_2 [rpm]									
	1000	630	400	250	160	100	63	40	25	16
	Max. radial force $F_{rad,max}$ [rated]									
g500-S130	1000	1100	1300	1500	1650	2200	2750	3450	4200	4500
g500-S220	2400	2600	3200	3700	4400	4600	4600	4600	4600	4600
g500-S400	3300	3600	4400	5100	5900	6800	7000	7000	7000	7000
g500-S660	4500	5000	6100	7000	7800	9600	10000	10000	10000	10000
g500-S950	4900	5300	6500	7500	8500	10300	10300	10300	10300	10300
g500-S2100	7400	8200	10000	11500	13600	15700	15700	15700	15700	15700
g500-S3100	12800	14100	17200	19800	19800	19800	19800	19800	19800	19800
g500-S4500	17500	19200	23500	27000	28000	30000	30000	30000	30000	30000



Selection tables

Notes on the selection tables

The selection tables represent the available combinations of gearbox, number of stages, ratio and motor for the mounting position M1. They only serve as a rough overview.

The following legend shows the layout of the selection tables:

Example

Inverter power supply 400 V, self-ventilated motors
0.25 kW

Explanation

Voltage of inverter mains connection, motor cooling type
Rated motor power

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2,max}	n _{2,th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
21.0	114	5.7	83.0	114	0.251	35.493	S130	06C41-	2	7.8
24.0	100	5.0	94.0	100	0.199	40.422	S130	06C41-	2	7.8
27.0	88.6	4.4	106	88.6	0.214	45.711	S130	06C41-	2	7.8
30.0	77.0	6.0	121	77.0	0.274	52.587	S220	06C41-	3	9.8

Motors for inverter mains connection 230 V



The data in the selection tables are given for an inverter mains connection 3x 400 V. These motors are identified via "-" (example MCS06C41-).

In case of an inverter mains connection 1x 230 V, or 3x 230 V, the same data in the selection tables for the following self-ventilated motors with the "L" ID apply (example MCS06C41L).

MCS06		MCS09		MCS12	
Rated power	Product name	Rated power	Product name	Rated power	Product name
P_{rated}		P_{rated}		P_{rated}	
kW		kW		kW	
0.25	MCS06C41L	1.0	MCS09D41L	1.1	MCS12D20L
0.51	MCS06F41L	1.2	MCS09F38L	1.8	MCS12D41L
0.64	MCS06I41L	1.6	MCS09H41L	1.6	MCS12H15L
		1.9	MCS09L41L	2.5	MCS12H30L
				2.8	MCS12L20L

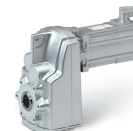
► Rated data [341](#)

► Torque characteristics [354](#)

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



Inverter mains connection 400 V, Self-ventilated motors

0.25 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
21.0	114	5.7	83.0	114	0.251	35.493	S130	06C41-	2	7.8
27.0	88.6	4.4	106	88.6	0.214	45.711	S130	06C41-	2	7.8
34.0	69.2	5.9	136	69.2	0.207	58.486	S220	06C41-	2	9.6
34.0	68.0	5.3	137	68.0	0.271	59.581	S220	06C41-	3	9.8
44.0	53.1	4.6	175	53.1	0.231	76.249	S220	06C41-	3	9.8
54.0	42.8	2.2	130	42.8	0.277	94.649	S130	06C41-	3	11
56.0	41.5	3.6	220	41.5	0.201	97.528	S220	06C41-	3	9.8
62.0	37.7	5.9	246	37.7	0.204	107.314	S400	06C41-	3	13
73.0	32.0	2.7	220	32.0	0.183	126.610	S220	06C41-	3	9.8
76.0	30.6	1.6	130	30.6	0.254	132.508	S130	06C41-	3	11
80.0	29.1	4.5	320	29.1	0.185	139.313	S400	06C41-	3	13
97.0	24.0	1.2	130	24.0	0.244	169.016	S130	06C41-	3	11
115	20.1	5.2	462	20.1	0.196	201.230	S660	06C41-	3	19
147	15.8	5.8	589	15.8	0.236	256.585	S950	06C41-	3	39
166	13.8	1.2	220	13.8	0.232	293.418	S220	06C41-	4	13
179	13.0	4.8	714	13.0	0.210	311.401	S950	06C41-	3	39
202	11.3	4.3	807	11.3	0.362	357.042	S950	06C41-	4	42
235	9.7	1.3	340	9.7	0.235	416.664	S660	06C41-	4	22
257	8.9	3.3	950	8.9	0.354	455.411	S950	06C41-	4	42
272	8.4	1.3	400	8.4	0.231	480.766	S400	06C41-	4	16
325	7.0	2.7	950	7.0	0.240	574.751	S950	06C41-	4	42
329	6.9	1.8	660	6.9	0.233	583.329	S660	06C41-	4	22
344	6.7	5.4	1374	6.7	0.375	608.369	S2100	06C41-	4	74
348	6.6	1.0	400	6.6	0.230	615.266	S400	06C41-	4	16
414	5.5	2.1	950	5.5	0.237	733.101	S950	06C41-	4	42
420	5.4	1.4	660	5.4	0.231	744.042	S660	06C41-	4	22
447	5.1	4.2	1789	5.1	0.361	791.846	S2100	06C41-	4	74
507	4.5	1.7	950	4.5	0.235	898.048	S950	06C41-	4	42
512	4.5	5.5	2048	4.5	0.310	906.604	S3100	06C41-	4	113
515	4.4	1.2	660	4.4	0.231	911.452	S660	06C41-	4	22
556	4.1	3.3	2050	4.1	0.299	984.979	S2100	06C41-	4	74
660	3.5	1.3	950	3.5	0.232	1168.888	S950	06C41-	4	42
666	3.4	4.2	2666	3.4	0.300	1180.024	S3100	06C41-	4	113
684	3.3	6.0	2737	3.3	0.263	1211.575	S4500	06C41-	4	188
720	3.2	2.6	2050	3.2	0.240	1274.678	S2100	06C41-	4	74
821	2.8	1.1	950	2.8	0.231	1453.983	S950	06C41-	4	42
829	2.8	3.4	3100	2.8	0.294	1467.835	S3100	06C41-	4	113
851	2.7	4.8	3405	2.7	0.307	1507.081	S4500	06C41-	4	188
896	2.6	2.1	2050	2.6	0.237	1585.575	S2100	06C41-	4	74
1073	2.1	2.6	3100	2.1	0.237	1899.551	S3100	06C41-	4	113
1102	2.1	3.7	4406	2.1	0.245	1950.341	S4500	06C41-	4	188
1159	2.0	1.6	2050	2.0	0.233	2051.921	S2100	06C41-	4	74
1337	1.7	3.1	4500	1.7	0.240	2367.004	S4500	06C41-	4	188
1388	1.6	2.0	3100	1.6	0.234	2458.242	S3100	06C41-	4	113
1407	1.6	1.3	2050	1.6	0.208	2490.286	S2100	06C41-	4	74
1622	1.4	2.5	4500	1.4	0.213	2872.683	S4500	06C41-	4	188
1685	1.4	1.7	3100	1.4	0.208	2983.412	S3100	06C41-	4	113
1707	1.3	1.1	2050	1.3	0.207	3022.302	S2100	06C41-	4	74
2045	1.1	1.4	3100	1.1	0.207	3620.777	S3100	06C41-	4	113



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

0.51 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
21.0	224	5.0	77.0	224	0.564	18.069	S130	06F41-	2	8.2
27.0	176	4.0	98.0	176	0.452	23.048	S130	06F41-	2	8.2
33.0	143	3.2	121	143	0.389	28.233	S130	06F41-	2	8.2
35.0	135	5.2	128	135	0.419	29.937	S220	06F41-	2	10
41.0	114	2.9	130	114	0.331	35.493	S130	06F41-	2	8.2
43.0	109	4.6	159	109	0.365	37.238	S220	06F41-	2	10
48.0	98.8	5.9	175	98.8	0.384	40.974	S400	06F41-	2	14
53.0	88.6	2.2	130	88.6	0.294	45.711	S130	06F41-	2	8.2
54.0	88.1	5.9	196	88.1	0.495	45.956	S660	06F41-	2	19
56.0	84.0	3.6	206	84.0	0.311	48.190	S220	06F41-	2	10
62.0	76.4	4.8	226	76.4	0.323	53.026	S400	06F41-	2	14
65.0	72.6	4.9	238	72.6	0.421	55.773	S660	06F41-	2	19
68.0	69.2	2.9	220	69.2	0.287	58.486	S220	06F41-	2	10
68.0	68.0	2.6	220	68.0	0.351	59.581	S220	06F41-	3	10
75.0	62.9	3.7	275	62.9	0.294	64.354	S400	06F41-	2	14
75.0	61.8	4.3	276	61.8	0.359	65.559	S400	06F41-	3	14
87.0	53.1	2.3	220	53.1	0.311	76.249	S220	06F41-	3	10
96.0	48.3	3.8	353	48.3	0.315	83.900	S400	06F41-	3	14
109	42.8	1.1	130	42.8	0.357	94.649	S130	06F41-	3	11
112	41.5	1.8	220	41.5	0.281	97.528	S220	06F41-	3	10
116	39.9	5.1	427	39.9	0.382	101.460	S660	06F41-	3	19
123	37.7	2.9	399	37.7	0.284	107.314	S400	06F41-	3	14
143	32.6	4.2	523	32.6	0.343	124.289	S660	06F41-	3	19
145	32.0	1.4	220	32.0	0.263	126.610	S220	06F41-	3	10
160	29.1	2.3	399	29.1	0.265	139.313	S400	06F41-	3	14
179	25.9	3.3	657	25.9	0.302	156.249	S660	06F41-	3	19
183	25.4	4.7	670	25.4	0.432	159.394	S950	06F41-	3	39
227	20.4	3.8	834	20.4	0.373	198.270	S950	06F41-	3	39
231	20.1	2.6	660	20.1	0.276	201.230	S660	06F41-	3	19
294	15.8	2.9	950	15.8	0.316	256.585	S950	06F41-	3	39
321	14.5	5.8	1177	14.5	0.490	279.807	S2100	06F41-	3	71
357	13.0	2.4	950	13.0	0.290	311.401	S950	06F41-	3	39
384	12.1	5.9	1410	12.1	0.505	335.215	S3100	06F41-	3	111
389	11.9	4.8	1428	11.9	0.417	339.584	S2100	06F41-	3	71
403	11.3	2.1	950	11.3	0.442	357.042	S950	06F41-	4	42
440	10.4	4.2	1613	10.4	0.494	389.356	S2100	06F41-	4	74
467	10.0	4.9	1711	10.0	0.427	406.829	S3100	06F41-	3	111
492	9.4	3.8	1805	9.4	0.347	429.250	S2100	06F41-	3	71
514	8.9	1.7	950	8.9	0.434	455.411	S950	06F41-	4	42
516	8.9	5.4	1893	8.9	0.631	457.111	S3100	06F41-	4	114
561	8.2	3.3	2050	8.2	0.469	496.628	S2100	06F41-	4	74
633	7.2	4.4	2319	7.2	0.605	559.961	S3100	06F41-	4	114
649	7.0	1.3	950	7.0	0.320	574.751	S950	06F41-	4	42
687	6.7	2.7	2050	6.7	0.455	608.369	S2100	06F41-	4	74
801	5.7	5.1	2935	5.7	0.638	708.711	S4500	06F41-	4	189
823	5.6	3.4	3019	5.6	0.458	728.838	S3100	06F41-	4	114
828	5.5	1.0	950	5.5	0.317	733.101	S950	06F41-	4	42
894	5.1	2.1	2050	5.1	0.441	791.846	S2100	06F41-	4	74
1024	4.5	2.7	3100	4.5	0.390	906.604	S3100	06F41-	4	114
1042	4.4	3.9	3821	4.4	0.477	922.449	S4500	06F41-	4	189
1113	4.1	1.7	2050	4.1	0.379	984.979	S2100	06F41-	4	74

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
1296	3.5	3.1	4500	3.5	0.402	1147.437	S4500	06F41-	4	189
1333	3.4	2.1	3100	3.4	0.380	1180.024	S3100	06F41-	4	114
1369	3.3	3.0	4500	3.3	0.343	1211.575	S4500	06F41-	4	189
1440	3.2	1.3	2050	3.2	0.320	1274.678	S2100	06F41-	4	74
1658	2.8	1.7	3100	2.8	0.374	1467.835	S3100	06F41-	4	114
1702	2.7	2.4	4500	2.7	0.387	1507.081	S4500	06F41-	4	189
1791	2.6	1.0	2050	2.6	0.317	1585.575	S2100	06F41-	4	74
2146	2.1	1.3	3100	2.1	0.317	1899.551	S3100	06F41-	4	114
2203	2.1	1.9	4500	2.1	0.325	1950.341	S4500	06F41-	4	189
2674	1.7	1.5	4500	1.7	0.320	2367.004	S4500	06F41-	4	189
2777	1.6	1.0	3100	1.6	0.314	2458.242	S3100	06F41-	4	114
3245	1.4	1.3	4500	1.4	0.293	2872.683	S4500	06F41-	4	189



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

0.64 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
19.0	314	5.0	78.0	308	0.904	12.907	S130	06I41-	2	8.9
26.0	224	4.0	109	224	0.644	18.069	S130	06I41-	2	8.9
33.0	176	5.4	138	176	0.620	23.000	S220	06I41-	2	11
34.0	176	3.2	130	176	0.532	23.048	S130	06I41-	2	8.9
41.0	143	2.6	130	143	0.469	28.233	S130	06I41-	2	8.9
44.0	135	4.1	180	135	0.499	29.937	S220	06I41-	2	11
48.0	123	5.7	198	123	0.528	32.940	S400	06I41-	2	14
52.0	114	2.3	130	114	0.411	35.493	S130	06I41-	2	8.9
52.0	114	5.9	214	114	0.742	35.511	S660	06I41-	2	19
54.0	109	3.7	220	109	0.445	37.238	S220	06I41-	2	11
60.0	98.8	4.8	246	98.8	0.464	40.974	S400	06I41-	2	14
67.0	88.6	1.8	130	88.6	0.374	45.711	S130	06I41-	2	8.9
67.0	88.1	4.7	276	88.1	0.575	45.956	S660	06I41-	2	19
70.0	84.0	2.8	220	84.0	0.391	48.190	S220	06I41-	2	11
77.0	76.4	3.8	319	76.4	0.403	53.026	S400	06I41-	2	14
81.0	72.6	3.9	335	72.6	0.501	55.773	S660	06I41-	2	19
85.0	69.2	2.3	220	69.2	0.367	58.486	S220	06I41-	2	11
85.0	68.0	2.1	220	68.0	0.431	59.581	S220	06I41-	3	11
94.0	62.9	2.9	302	62.9	0.374	64.354	S400	06I41-	2	14
94.0	61.8	3.5	388	61.8	0.439	65.559	S400	06I41-	3	14
104	55.7	5.7	431	55.7	0.564	72.713	S660	06I41-	3	20
109	53.1	1.8	220	53.1	0.391	76.249	S220	06I41-	3	11
114	50.9	5.2	471	50.9	0.530	79.545	S660	06I41-	3	20
120	48.3	3.0	400	48.3	0.395	83.900	S400	06I41-	3	14
140	41.5	1.4	220	41.5	0.361	97.528	S220	06I41-	3	11
143	40.5	6.0	592	40.5	0.749	99.968	S950	06I41-	3	40
145	39.9	4.1	601	39.9	0.462	101.460	S660	06I41-	3	20
154	37.7	2.4	399	37.7	0.364	107.314	S400	06I41-	3	14
176	33.1	4.9	726	33.1	0.641	122.461	S950	06I41-	3	40
178	32.6	3.4	660	32.6	0.423	124.289	S660	06I41-	3	20
181	32.0	1.1	220	32.0	0.343	126.610	S220	06I41-	3	11
200	29.1	1.8	399	29.1	0.345	139.313	S400	06I41-	3	14
224	25.9	2.7	660	25.9	0.382	156.249	S660	06I41-	3	20
228	25.4	3.8	944	25.4	0.512	159.394	S950	06I41-	3	40
284	20.4	3.0	950	20.4	0.453	198.270	S950	06I41-	3	40
288	20.1	2.1	660	20.1	0.356	201.230	S660	06I41-	3	20
310	18.7	5.9	1281	18.7	0.733	216.215	S2100	06I41-	3	72
368	15.8	2.3	950	15.8	0.396	256.585	S950	06I41-	3	40
371	15.6	5.9	1535	15.6	0.758	259.030	S3100	06I41-	3	111
401	14.5	4.6	1658	14.5	0.570	279.807	S2100	06I41-	3	72
446	13.0	1.9	950	13.0	0.370	311.401	S950	06I41-	3	40
481	12.1	4.7	1986	12.1	0.585	335.215	S3100	06I41-	3	111
487	11.9	3.8	2012	11.9	0.497	339.584	S2100	06I41-	3	72
504	11.3	1.7	950	11.3	0.522	357.042	S950	06I41-	4	43
506	11.3	5.5	2092	11.3	0.757	358.375	S3100	06I41-	4	114
550	10.4	3.4	2050	10.4	0.574	389.356	S2100	06I41-	4	75
583	10.0	3.9	2411	10.0	0.507	406.829	S3100	06I41-	3	111
615	9.4	3.0	2050	9.4	0.427	429.250	S2100	06I41-	3	72
643	8.9	1.3	950	8.9	0.514	455.411	S950	06I41-	4	43
645	8.9	4.4	2668	8.9	0.711	457.111	S3100	06I41-	4	114
701	8.2	2.7	2050	8.2	0.549	496.628	S2100	06I41-	4	75

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
791	7.2	3.6	3100	7.2	0.685	559.961	S3100	06I41-	4	114
812	7.0	1.1	950	7.0	0.400	574.751	S950	06I41-	4	43
816	7.0	5.0	3375	7.0	0.759	578.252	S4500	06I41-	4	189
859	6.7	2.2	2050	6.7	0.535	608.369	S2100	06I41-	4	75
1001	5.7	4.1	4136	5.7	0.718	708.711	S4500	06I41-	4	189
1029	5.6	2.7	3100	5.6	0.538	728.838	S3100	06I41-	4	114
1118	5.1	1.7	2050	5.1	0.521	791.846	S2100	06I41-	4	75
1280	4.5	2.2	3100	4.5	0.470	906.604	S3100	06I41-	4	114
1303	4.4	3.1	4500	4.4	0.557	922.449	S4500	06I41-	4	189
1391	4.1	1.3	2050	4.1	0.459	984.979	S2100	06I41-	4	75
1620	3.5	2.5	4500	3.5	0.482	1147.437	S4500	06I41-	4	189
1666	3.4	1.7	3100	3.4	0.460	1180.024	S3100	06I41-	4	114
1711	3.3	2.4	4500	3.3	0.423	1211.575	S4500	06I41-	4	189
1800	3.2	1.0	2050	3.2	0.400	1274.678	S2100	06I41-	4	75
2073	2.8	1.4	3100	2.8	0.454	1467.835	S3100	06I41-	4	114
2128	2.7	1.9	4500	2.7	0.467	1507.081	S4500	06I41-	4	189
2682	2.1	1.1	3100	2.1	0.397	1899.551	S3100	06I41-	4	114
2754	2.1	1.5	4500	2.1	0.405	1950.341	S4500	06I41-	4	189
3342	1.7	1.2	4500	1.7	0.400	2367.004	S4500	06I41-	4	189
4056	1.4	1.0	4500	1.4	0.373	2872.683	S4500	06I41-	4	189



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

1 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
8.0	1106	5.5	34.0	1004	2.663	3.661	S130	09D41-	2	10
11.0	807	4.9	46.0	790	1.987	5.021	S130	09D41-	2	10
14.0	630	4.4	59.0	630	1.673	6.425	S130	09D41-	2	10
16.0	576	4.2	65.0	576	1.588	7.029	S130	09D41-	2	10
21.0	430	4.3	87.0	373	2.130	9.411	S130	09D41-	2	10
29.0	314	3.2	119	287	1.704	12.907	S130	09D41-	2	10
30.0	301	5.3	124	288	1.773	13.456	S220	09D41-	2	12
33.0	275	4.8	136	269	1.683	14.720	S220	09D41-	2	12
40.0	224	2.6	130	224	1.444	18.069	S130	09D41-	2	10
42.0	216	4.3	173	216	1.518	18.776	S220	09D41-	2	12
51.0	176	3.5	212	176	1.420	23.000	S220	09D41-	2	12
51.0	176	2.1	130	176	1.332	23.048	S130	09D41-	2	10
56.0	160	5.8	233	160	1.470	25.308	S400	09D41-	2	16
63.0	143	1.7	130	143	1.269	28.233	S130	09D41-	2	10
67.0	135	2.7	220	135	1.299	29.937	S220	09D41-	2	12
74.0	123	4.9	304	123	1.328	32.940	S400	09D41-	2	16
79.0	114	5.7	327	114	1.542	35.511	S660	09D41-	2	21
83.0	109	2.4	220	109	1.245	37.238	S220	09D41-	2	12
91.0	98.8	4.0	378	98.8	1.264	40.974	S400	09D41-	2	16
103	88.1	4.5	424	88.1	1.375	45.956	S660	09D41-	2	21
103	88.1	5.7	424	88.1	1.861	45.956	S950	09D41-	2	40
124	72.6	3.7	508	72.6	1.301	55.773	S660	09D41-	2	21
124	72.6	4.7	514	72.6	1.660	55.773	S950	09D41-	2	40
125	71.3	4.3	516	71.3	1.481	56.818	S660	09D41-	3	21
131	68.0	1.4	220	68.0	1.231	59.581	S220	09D41-	3	12
144	61.8	2.3	400	61.8	1.239	65.559	S400	09D41-	3	16
157	57.4	3.8	650	57.4	1.461	70.500	S950	09D41-	2	40
157	56.5	5.5	650	56.5	1.834	71.644	S950	09D41-	3	41
160	55.7	3.7	660	55.7	1.364	72.713	S660	09D41-	3	21
168	53.1	1.2	220	53.1	1.191	76.249	S220	09D41-	3	12
172	51.7	5.0	712	51.7	1.734	78.375	S950	09D41-	3	41
175	50.9	3.4	660	50.9	1.330	79.545	S660	09D41-	3	21
184	48.3	2.0	400	48.3	1.195	83.900	S400	09D41-	3	16
220	40.5	3.9	908	40.5	1.549	99.968	S950	09D41-	3	41
223	39.9	2.7	660	39.9	1.262	101.460	S660	09D41-	3	21
269	33.1	3.2	950	33.1	1.441	122.461	S950	09D41-	3	41
273	32.6	2.2	660	32.6	1.223	124.289	S660	09D41-	3	21
350	25.4	2.5	950	25.4	1.312	159.394	S950	09D41-	3	41
382	23.3	4.9	1578	23.3	1.695	173.820	S2100	09D41-	3	73
436	20.4	2.0	950	20.4	1.253	198.270	S950	09D41-	3	41
475	18.7	3.9	1963	18.7	1.533	216.215	S2100	09D41-	3	73
569	15.6	4.9	2352	15.6	1.558	259.030	S3100	09D41-	3	113
585	15.2	5.7	2415	15.2	1.961	265.956	S4500	09D41-	3	188
615	14.5	3.0	2050	14.5	1.370	279.807	S2100	09D41-	3	73
709	12.5	4.7	2930	12.5	1.728	322.773	S4500	09D41-	3	188
737	12.1	3.8	3043	12.1	1.385	335.215	S3100	09D41-	3	113
746	11.9	2.5	2050	11.9	1.297	339.584	S2100	09D41-	3	73
773	11.3	1.1	950	11.3	1.322	357.042	S950	09D41-	4	44
776	11.3	3.6	3100	11.3	1.557	358.375	S3100	09D41-	4	116
785	11.2	5.2	3243	11.2	1.722	362.667	S4500	09D41-	4	191
843	10.4	2.2	2050	10.4	1.374	389.356	S2100	09D41-	4	76

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
894	10.0	3.1	3100	10.0	1.307	406.829	S3100	09D41-	3	113
897	9.9	3.8	3704	9.9	1.503	408.000	S4500	09D41-	3	188
962	9.1	4.2	3973	9.1	1.640	444.267	S4500	09D41-	4	191
990	8.9	2.8	3100	8.9	1.511	457.111	S3100	09D41-	4	116
1075	8.2	1.7	2050	8.2	1.349	496.628	S2100	09D41-	4	76
1212	7.2	2.3	3100	7.2	1.485	559.961	S3100	09D41-	4	116
1252	7.0	3.3	4500	7.0	1.559	578.252	S4500	09D41-	4	191
1317	6.7	1.4	2050	6.7	1.335	608.369	S2100	09D41-	4	76
1534	5.7	2.7	4500	5.7	1.518	708.711	S4500	09D41-	4	191
1578	5.6	1.8	3100	5.6	1.338	728.838	S3100	09D41-	4	116
1714	5.1	1.1	2050	5.1	1.321	791.846	S2100	09D41-	4	76
1963	4.5	1.4	3100	4.5	1.270	906.604	S3100	09D41-	4	116
1997	4.4	2.0	4500	4.4	1.357	922.449	S4500	09D41-	4	191
2484	3.5	1.6	4500	3.5	1.282	1147.437	S4500	09D41-	4	191
2555	3.4	1.1	3100	3.4	1.260	1180.024	S3100	09D41-	4	116
3263	2.7	1.3	4500	2.7	1.267	1507.081	S4500	09D41-	4	191



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

1.1 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
28.0	370	5.9	92.0	370	5.544	5.267	S220	12D20-	2	14
31.0	333	5.4	102	333	5.861	5.860	S400	12D20-	2	18
34.0	304	5.2	112	304	5.576	6.411	S400	12D20-	2	18
41.0	254	4.9	134	254	5.499	7.667	S220	12D20-	2	14
56.0	186	3.6	184	186	4.961	10.514	S220	12D20-	2	14
62.0	169	5.9	202	169	5.198	11.569	S400	12D20-	2	18
72.0	145	2.8	220	145	4.673	13.456	S220	12D20-	2	14
79.0	133	2.6	220	133	4.583	14.720	S220	12D20-	2	14
79.0	132	4.6	259	132	4.817	14.806	S400	12D20-	2	18
86.0	120	4.2	283	120	4.704	16.197	S400	12D20-	2	18
96.0	109	5.4	313	109	5.415	17.905	S660	12D20-	2	23
100	104	2.2	220	104	4.418	18.776	S220	12D20-	2	14
110	94.4	3.6	361	94.4	4.492	20.659	S400	12D20-	2	18
117	88.9	5.1	383	88.9	5.089	21.933	S660	12D20-	2	23
123	84.8	1.8	220	84.8	4.320	23.000	S220	12D20-	2	14
135	77.1	3.0	400	77.1	4.370	25.308	S400	12D20-	2	18
152	68.3	4.1	499	68.3	4.609	28.548	S660	12D20-	2	23
152	68.3	5.0	499	68.3	5.763	28.548	S950	12D20-	2	43
187	55.7	4.3	611	55.7	5.214	34.989	S950	12D20-	2	43
189	54.9	3.4	620	54.9	4.442	35.511	S660	12D20-	2	23
204	51.1	5.3	666	51.1	7.981	38.156	S2100	12D20-	2	75
244	42.7	5.3	798	42.7	8.689	45.711	S3100	12D20-	2	114
245	42.4	3.4	803	42.4	4.761	45.956	S950	12D20-	2	43
263	39.5	4.2	862	39.5	6.536	49.378	S2100	12D20-	2	75
294	34.8	3.2	950	34.8	5.061	55.982	S950	12D20-	3	43
298	35.0	2.8	835	35.0	4.560	55.773	S950	12D20-	2	43
316	33.0	4.2	1033	33.0	6.959	59.156	S3100	12D20-	2	114
320	32.5	3.5	1047	32.5	5.854	59.927	S2100	12D20-	2	75
377	27.2	2.5	950	27.2	4.734	71.644	S950	12D20-	3	43
383	27.2	3.5	1254	27.2	6.141	71.793	S3100	12D20-	2	114
404	25.7	2.8	1144	25.7	5.224	75.750	S2100	12D20-	2	75
411	25.0	5.0	1344	25.0	6.146	78.128	S2100	12D20-	3	75
412	24.9	2.3	950	24.9	4.634	78.375	S950	12D20-	3	43
449	22.8	4.6	1470	22.8	5.904	85.468	S2100	12D20-	3	75
525	19.5	1.8	950	19.5	4.449	99.968	S950	12D20-	3	43
538	19.0	5.8	1761	19.0	6.068	102.393	S3100	12D20-	3	115
573	17.9	3.6	1875	17.9	5.379	109.016	S2100	12D20-	3	75
644	15.9	1.5	950	15.9	4.341	122.461	S950	12D20-	3	43
686	14.9	4.5	2247	14.9	5.480	130.603	S3100	12D20-	3	115
702	14.6	2.9	2050	14.6	5.065	133.544	S2100	12D20-	3	75
841	12.2	3.7	2752	12.2	5.132	159.989	S3100	12D20-	3	115
868	11.8	5.0	2842	11.8	6.022	165.215	S4500	12D20-	3	190
914	11.2	2.2	2050	11.2	4.595	173.820	S2100	12D20-	3	75
1064	9.6	4.2	3483	9.6	5.386	202.489	S4500	12D20-	3	190
1095	9.4	2.8	3100	9.4	4.687	208.240	S3100	12D20-	3	115
1136	9.0	1.8	2050	9.0	4.433	216.215	S2100	12D20-	3	75
1362	7.5	2.3	3100	7.5	4.458	259.030	S3100	12D20-	3	115
1398	7.3	3.2	4500	7.3	4.861	265.956	S4500	12D20-	3	190
1697	6.0	2.7	4500	6.0	4.628	322.773	S4500	12D20-	3	190
1855	5.4	1.7	3100	5.4	4.457	358.375	S3100	12D20-	4	118
1878	5.4	2.4	4500	5.4	4.622	362.667	S4500	12D20-	4	193

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
2300	4.4	2.0	4500	4.4	4.540	444.267	S4500	12D20-	4	193
2367	4.3	1.3	3100	4.3	4.411	457.111	S3100	12D20-	4	118
2899	3.5	1.1	3100	3.5	4.385	559.961	S3100	12D20-	4	118
2994	3.4	1.5	4500	3.4	4.459	578.252	S4500	12D20-	4	193
3669	2.8	1.2	4500	2.8	4.418	708.711	S4500	12D20-	4	193



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

1.2 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
11.0	1024	4.2	53.0	956	3.063	3.661	S130	09F38-	2	11
15.0	747	3.7	73.0	747	2.387	5.021	S130	09F38-	2	11
18.0	640	6.0	85.0	640	3.361	5.860	S400	09F38-	2	17
19.0	585	5.7	93.0	585	3.076	6.411	S400	09F38-	2	17
19.0	584	3.3	87.0	584	2.073	6.425	S130	09F38-	2	11
21.0	534	3.2	92.0	534	1.988	7.029	S130	09F38-	2	11
28.0	399	3.3	125	354	2.530	9.411	S130	09F38-	2	11
32.0	357	5.1	153	338	2.461	10.514	S220	09F38-	2	13
39.0	291	2.5	130	274	2.104	12.907	S130	09F38-	2	11
40.0	279	4.0	196	275	2.173	13.456	S220	09F38-	2	13
44.0	255	3.7	214	255	2.083	14.720	S220	09F38-	2	13
45.0	253	6.0	215	253	2.317	14.806	S400	09F38-	2	17
49.0	232	5.7	236	232	2.204	16.197	S400	09F38-	2	17
54.0	209	6.0	261	209	2.915	17.905	S660	09F38-	2	22
54.0	208	2.0	130	208	1.844	18.069	S130	09F38-	2	11
56.0	200	3.3	220	200	1.918	18.776	S220	09F38-	2	13
62.0	182	5.4	301	182	1.992	20.659	S400	09F38-	2	17
66.0	171	5.8	319	171	2.589	21.933	S660	09F38-	2	22
69.0	163	2.7	220	163	1.820	23.000	S220	09F38-	2	13
69.0	163	1.6	130	163	1.732	23.048	S130	09F38-	2	11
76.0	148	4.4	368	148	1.870	25.308	S400	09F38-	2	17
85.0	133	1.3	130	133	1.669	28.233	S130	09F38-	2	11
86.0	131	4.7	415	131	2.109	28.548	S660	09F38-	2	22
86.0	131	5.8	415	131	3.263	28.548	S950	09F38-	2	41
90.0	125	2.1	220	125	1.699	29.937	S220	09F38-	2	13
99.0	114	3.8	400	114	1.728	32.940	S400	09F38-	2	17
105	107	5.5	509	107	2.714	34.989	S950	09F38-	2	41
107	106	4.3	497	106	1.942	35.511	S660	09F38-	2	22
112	101	1.8	220	101	1.645	37.238	S220	09F38-	2	13
123	91.5	3.0	400	91.5	1.664	40.974	S400	09F38-	2	17
138	81.6	3.5	515	81.6	1.775	45.956	S660	09F38-	2	22
138	81.6	4.3	641	81.6	2.261	45.956	S950	09F38-	2	41
166	67.0	4.8	803	67.0	2.561	55.982	S950	09F38-	3	42
168	67.2	2.8	508	67.2	1.701	55.773	S660	09F38-	2	22
168	67.2	3.6	649	67.2	2.060	55.773	S950	09F38-	2	41
168	66.0	3.2	650	66.0	1.881	56.818	S660	09F38-	3	22
177	62.9	1.0	220	62.9	1.631	59.581	S220	09F38-	3	13
194	57.2	1.7	400	57.2	1.639	65.559	S400	09F38-	3	17
212	53.2	2.9	657	53.2	1.861	70.500	S950	09F38-	2	41
212	52.3	4.2	950	52.3	2.234	71.644	S950	09F38-	3	42
215	51.6	2.8	660	51.6	1.764	72.713	S660	09F38-	3	22
232	47.8	3.8	950	47.8	2.134	78.375	S950	09F38-	3	42
236	47.1	2.6	660	47.1	1.730	79.545	S660	09F38-	3	22
249	44.7	1.5	400	44.7	1.595	83.900	S400	09F38-	3	17
296	37.5	3.0	950	37.5	1.949	99.968	S950	09F38-	3	42
301	37.0	2.0	660	37.0	1.662	101.460	S660	09F38-	3	22
323	34.4	5.9	1563	34.4	2.879	109.016	S2100	09F38-	3	74
363	30.6	2.4	950	30.6	1.841	122.461	S950	09F38-	3	42
368	30.2	1.7	660	30.2	1.623	124.289	S660	09F38-	3	22
396	28.1	4.8	1914	28.1	2.565	133.544	S2100	09F38-	3	74
472	23.5	1.9	950	23.5	1.712	159.394	S950	09F38-	3	42

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
515	21.6	3.7	2050	21.6	2.095	173.820	S2100	09F38-	3	74
587	18.9	1.5	950	18.9	1.653	198.270	S950	09F38-	3	42
600	18.5	5.5	2903	18.5	2.886	202.489	S4500	09F38-	3	189
617	18.0	4.7	2985	18.0	2.187	208.240	S3100	09F38-	3	114
641	17.3	3.0	2050	17.3	1.933	216.215	S2100	09F38-	3	74
767	14.5	3.8	3100	14.5	1.958	259.030	S3100	09F38-	3	114
788	14.1	4.3	3655	14.1	2.361	265.956	S4500	09F38-	3	189
829	13.4	2.3	2050	13.4	1.770	279.807	S2100	09F38-	3	74
956	11.6	3.6	3698	11.6	2.128	322.773	S4500	09F38-	3	189
993	11.2	2.9	3100	11.2	1.785	335.215	S3100	09F38-	3	114
1006	11.0	1.9	2050	11.0	1.697	339.584	S2100	09F38-	3	74
1046	10.5	2.8	3100	10.5	1.957	358.375	S3100	09F38-	4	117
1058	10.3	4.0	4500	10.3	2.122	362.667	S4500	09F38-	4	192
1136	9.6	1.7	2050	9.6	1.774	389.356	S2100	09F38-	4	77
1205	9.2	2.4	3100	9.2	1.707	406.829	S3100	09F38-	3	114
1209	9.2	2.9	3743	9.2	1.903	408.000	S4500	09F38-	3	189
1296	8.4	3.2	4500	8.4	2.040	444.267	S4500	09F38-	4	192
1334	8.2	2.2	3100	8.2	1.911	457.111	S3100	09F38-	4	117
1449	7.6	1.3	2050	7.6	1.749	496.628	S2100	09F38-	4	77
1634	6.7	1.8	3100	6.7	1.885	559.961	S3100	09F38-	4	117
1687	6.5	2.5	4500	6.5	1.959	578.252	S4500	09F38-	4	192
1775	6.2	1.1	2050	6.2	1.735	608.369	S2100	09F38-	4	77
2068	5.3	2.0	4500	5.3	1.918	708.711	S4500	09F38-	4	192
2127	5.1	1.4	3100	5.1	1.738	728.838	S3100	09F38-	4	117
2646	4.1	1.1	3100	4.1	1.670	906.604	S3100	09F38-	4	117
2692	4.1	1.6	4500	4.1	1.757	922.449	S4500	09F38-	4	192
3348	3.3	1.3	4500	3.3	1.682	1147.437	S4500	09F38-	4	192



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

1.45 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
41.0	328	6.0	129	328	11.007	4.579	S400	14D15-	2	22
52.0	256	4.9	165	256	9.961	5.860	S400	14D15-	2	22
57.0	234	4.6	180	234	9.676	6.411	S400	14D15-	2	22
75.0	178	5.0	237	178	10.045	8.436	S400	14D15-	2	22
103	130	3.9	326	130	9.298	11.569	S400	14D15-	2	22
115	117	5.8	361	117	10.316	12.832	S660	14D15-	2	27
125	107	5.3	395	107	10.063	14.037	S660	14D15-	2	27
132	101	3.0	400	101	8.917	14.806	S400	14D15-	2	22
145	92.6	2.8	400	92.6	8.804	16.197	S400	14D15-	2	22
160	83.8	4.1	504	83.8	9.515	17.905	S660	14D15-	2	27
160	83.8	5.9	504	83.8	11.442	17.905	S950	14D15-	2	47
184	72.6	2.2	400	72.6	8.592	20.659	S400	14D15-	2	22
196	68.4	3.4	617	68.4	9.189	21.933	S660	14D15-	2	27
196	68.4	4.9	617	68.4	10.674	21.933	S950	14D15-	2	47
255	52.5	2.6	660	52.5	8.709	28.548	S660	14D15-	2	27
255	52.5	3.7	803	52.5	9.863	28.548	S950	14D15-	2	47
280	47.7	5.8	884	47.7	13.388	31.422	S2100	14D15-	2	79
312	42.9	3.0	950	42.9	9.314	34.989	S950	14D15-	2	47
336	39.8	5.8	1059	39.8	14.432	37.644	S3100	14D15-	2	118
341	39.3	4.9	1074	39.3	12.081	38.156	S2100	14D15-	2	79
391	33.7	5.2	1234	33.7	12.779	44.515	S2100	14D15-	3	80
408	32.8	4.9	1286	32.8	12.789	45.711	S3100	14D15-	2	118
419	32.0	4.9	1321	32.0	16.686	46.933	S4500	14D15-	2	191
441	30.4	4.0	1389	30.4	10.636	49.378	S2100	14D15-	2	79
492	26.8	1.9	950	26.8	9.161	55.982	S950	14D15-	3	48
508	26.3	4.1	1603	26.3	14.347	56.960	S4500	14D15-	2	191
528	25.4	4.0	1664	25.4	11.059	59.156	S3100	14D15-	2	118
535	25.0	3.3	1686	25.0	9.954	59.927	S2100	14D15-	2	79
537	24.6	3.8	1692	24.6	11.172	61.049	S2100	14D15-	3	80
630	20.9	1.5	950	20.9	8.834	71.644	S950	14D15-	3	48
641	20.9	3.3	2020	20.9	10.241	71.793	S3100	14D15-	2	118
643	20.8	3.3	2026	20.8	12.187	72.000	S4500	14D15-	2	191
643	20.5	4.8	2027	20.5	11.494	73.138	S3100	14D15-	3	119
687	19.2	3.0	2050	19.2	10.246	78.128	S2100	14D15-	3	80
689	19.1	1.4	950	19.1	8.734	78.375	S950	14D15-	3	48
751	17.6	2.7	2050	17.6	10.004	85.468	S2100	14D15-	3	80
823	16.0	3.8	2594	16.0	10.442	93.599	S3100	14D15-	3	119
879	15.0	1.1	950	15.0	8.549	99.968	S950	14D15-	3	48
900	14.6	3.4	2838	14.6	10.168	102.393	S3100	14D15-	3	119
911	14.5	4.9	2872	14.5	12.099	103.619	S4500	14D15-	3	194
958	13.8	2.1	2050	13.8	9.479	109.016	S2100	14D15-	3	80
1116	11.8	4.0	3518	11.8	11.112	126.933	S4500	14D15-	3	194
1148	11.5	2.7	3100	11.5	9.580	130.603	S3100	14D15-	3	119
1174	11.2	1.8	2050	11.2	9.165	133.544	S2100	14D15-	3	80
1407	9.4	2.2	3100	9.4	9.232	159.989	S3100	14D15-	3	119
1453	9.1	3.1	4500	9.1	10.122	165.215	S4500	14D15-	3	194
1528	8.6	1.3	2050	8.6	8.695	173.820	S2100	14D15-	3	80
1780	7.4	2.5	4500	7.4	9.486	202.489	S4500	14D15-	3	194
1831	7.2	1.7	3100	7.2	8.787	208.240	S3100	14D15-	3	119

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



1.6 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
13.0	1106	3.4	63.0	916	3.463	3.661	S130	09H41-	2	12
17.0	884	5.7	89.0	789	4.807	4.579	S400	09H41-	2	17
19.0	807	3.0	76.0	726	2.787	5.021	S130	09H41-	2	12
19.0	769	5.7	102	686	3.444	5.267	S220	09H41-	2	14
22.0	691	4.8	114	651	3.761	5.860	S400	09H41-	2	17
24.0	632	4.5	124	611	3.476	6.411	S400	09H41-	2	17
24.0	630	2.6	87.0	630	2.473	6.425	S130	09H41-	2	12
25.0	589	5.9	134	513	5.384	6.880	S660	09H41-	2	23
26.0	576	2.6	92.0	576	2.388	7.029	S130	09H41-	2	12
28.0	528	5.5	149	401	3.399	7.667	S220	09H41-	2	14
28.0	526	5.9	149	461	6.980	7.702	S950	09H41-	2	42
32.0	449	4.6	94.0	449	12.460	3.339	S400	12H15-	2	21
35.0	430	2.6	125	339	2.930	9.411	S130	09H41-	2	12
37.0	391	4.6	108	391	9.896	3.840	S220	12H15-	2	17
38.0	383	5.8	110	383	16.101	3.920	S660	12H15-	2	26
39.0	385	4.1	204	324	2.861	10.514	S220	09H41-	2	14
43.0	350	5.7	224	312	3.098	11.569	S400	09H41-	2	17
44.0	328	3.9	129	328	10.207	4.579	S400	12H15-	2	21
47.0	316	5.9	249	275	4.116	12.832	S660	09H41-	2	23
48.0	314	2.0	130	262	2.504	12.907	S130	09H41-	2	12
50.0	301	3.2	220	264	2.573	13.456	S220	09H41-	2	14
51.0	285	3.5	148	285	8.844	5.267	S220	12H15-	2	17
52.0	289	5.6	272	257	3.863	14.037	S660	09H41-	2	23
52.0	279	4.8	151	279	12.564	5.376	S660	12H15-	2	26
52.0	278	5.0	152	278	16.548	5.391	S950	12H15-	2	46
54.0	275	2.9	220	247	2.483	14.720	S220	09H41-	2	14
55.0	274	4.8	287	258	2.717	14.806	S400	09H41-	2	17
57.0	256	3.3	165	256	9.161	5.860	S400	12H15-	2	21
59.0	248	4.8	170	248	14.806	6.038	S950	12H15-	2	46
60.0	250	4.5	314	242	2.604	16.197	S400	09H41-	2	17
62.0	234	3.1	180	234	8.876	6.411	S400	12H15-	2	21
66.0	226	4.8	347	215	3.315	17.905	S660	09H41-	2	23
66.0	226	5.9	347	198	5.242	17.905	S950	09H41-	2	42
67.0	224	1.6	130	207	2.244	18.069	S130	09H41-	2	12
67.0	218	4.0	194	218	10.784	6.880	S660	12H15-	2	26
69.0	216	2.6	220	216	2.318	18.776	S220	09H41-	2	14
71.0	205	5.8	206	205	12.196	7.311	S660	12H15-	2	26
74.0	196	2.9	216	196	8.799	7.667	S220	12H15-	2	17
75.0	195	4.0	217	195	12.380	7.702	S950	12H15-	2	46
76.0	196	4.3	400	196	2.392	20.659	S400	09H41-	2	17
80.0	181	5.0	233	181	24.092	8.272	S2100	12H15-	2	78
81.0	185	4.6	426	185	2.989	21.933	S660	09H41-	2	23
82.0	178	4.6	237	178	9.245	8.436	S400	12H15-	2	21
85.0	176	2.1	220	176	2.220	23.000	S220	09H41-	2	14
85.0	176	1.3	130	168	2.132	23.048	S130	09H41-	2	12
87.0	168	5.0	251	168	35.471	8.917	S3100	12H15-	2	117
93.0	160	3.5	400	160	2.270	25.308	S400	09H41-	2	17
97.0	150	4.8	282	150	10.488	10.027	S660	12H15-	2	26
102	143	2.2	220	143	8.261	10.514	S220	12H15-	2	17
104	143	1.0	130	143	2.069	28.233	S130	09H41-	2	12
105	142	3.7	479	142	2.509	28.548	S660	09H41-	2	23



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
105	142	4.6	554	142	3.663	28.548	S950	09H41-	2	42
110	135	1.6	220	135	2.099	29.937	S220	09H41-	2	14
112	130	3.6	326	130	8.498	11.569	S400	12H15-	2	21
121	123	3.0	400	123	2.128	32.940	S400	09H41-	2	17
124	117	4.0	361	117	9.516	12.832	S660	12H15-	2	26
129	116	4.4	624	116	3.114	34.989	S950	09H41-	2	42
131	114	3.4	497	114	2.342	35.511	S660	09H41-	2	23
131	112	1.7	220	112	7.973	13.456	S220	12H15-	2	17
136	107	3.9	395	107	9.263	14.037	S660	12H15-	2	26
136	107	4.8	395	107	11.978	14.037	S950	12H15-	2	46
137	109	1.5	220	109	2.045	37.238	S220	09H41-	2	14
143	102	1.5	220	102	7.883	14.720	S220	12H15-	2	17
144	101	2.8	400	101	8.117	14.806	S400	12H15-	2	21
151	98.8	2.4	400	98.8	2.064	40.974	S400	09H41-	2	17
157	92.6	2.6	400	92.6	8.004	16.197	S400	12H15-	2	21
169	88.1	2.8	515	88.1	2.175	45.956	S660	09H41-	2	23
169	88.1	3.4	641	88.1	2.661	45.956	S950	09H41-	2	42
174	83.8	3.3	504	83.8	8.715	17.905	S660	12H15-	2	26
174	83.8	4.0	504	83.8	10.642	17.905	S950	12H15-	2	46
182	79.9	1.2	220	79.9	7.718	18.776	S220	12H15-	2	17
184	79.3	5.0	532	79.3	18.803	18.917	S2100	12H15-	2	78
200	72.6	2.0	400	72.6	7.792	20.659	S400	12H15-	2	21
203	72.3	3.8	950	72.3	2.961	55.982	S950	09H41-	3	43
206	72.6	2.2	508	72.6	2.101	55.773	S660	09H41-	2	23
206	72.6	2.9	649	72.6	2.460	55.773	S950	09H41-	2	42
206	71.3	2.6	650	71.3	2.281	56.818	S660	09H41-	3	23
213	68.4	2.8	593	68.4	8.389	21.933	S660	12H15-	2	26
213	68.4	3.5	617	68.4	9.874	21.933	S950	12H15-	2	46
220	66.2	5.0	638	66.2	21.683	22.663	S3100	12H15-	2	117
238	61.8	1.4	400	61.8	2.039	65.559	S400	09H41-	3	18
246	59.3	1.6	400	59.3	7.670	25.308	S400	12H15-	2	21
260	57.4	2.3	657	57.4	2.261	70.500	S950	09H41-	2	42
260	56.5	3.3	950	56.5	2.634	71.644	S950	09H41-	3	43
264	55.7	2.3	660	55.7	2.164	72.713	S660	09H41-	3	23
277	52.5	2.2	618	52.5	7.909	28.548	S660	12H15-	2	26
277	52.5	2.8	766	52.5	9.063	28.548	S950	12H15-	2	46
285	51.7	3.0	950	51.7	2.534	78.375	S950	09H41-	3	43
289	50.9	2.1	660	50.9	2.130	79.545	S660	09H41-	3	23
305	48.3	1.2	400	48.3	1.995	83.900	S400	09H41-	3	18
305	47.7	3.4	884	47.7	12.588	31.422	S2100	12H15-	2	78
310	47.4	6.0	1634	47.4	3.804	85.468	S2100	09H41-	3	75
339	42.9	2.4	803	42.9	8.514	34.989	S950	12H15-	2	46
345	42.2	1.9	642	42.2	7.742	35.511	S660	12H15-	2	26
363	40.5	2.4	950	40.5	2.349	99.968	S950	09H41-	3	43
365	39.8	3.4	1059	39.8	13.632	37.644	S3100	12H15-	2	117
368	39.9	1.6	660	39.9	2.062	101.460	S660	09H41-	3	23
370	39.3	2.9	1074	39.3	11.281	38.156	S2100	12H15-	2	78
396	37.2	4.7	2050	37.2	3.279	109.016	S2100	09H41-	3	75
425	33.7	4.8	1234	33.7	11.979	44.515	S2100	12H15-	3	79
444	32.8	2.9	1286	32.8	11.989	45.711	S3100	12H15-	2	117
445	33.1	1.9	950	33.1	2.241	122.461	S950	09H41-	3	43
446	32.6	1.9	825	32.6	8.061	45.956	S950	12H15-	2	46

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
451	32.6	1.3	660	32.6	2.023	124.289	S660	09H41-	3	23
474	31.0	5.9	2496	31.0	3.380	130.603	S3100	09H41-	3	115
479	30.4	2.3	1116	30.4	9.836	49.378	S2100	12H15-	2	78
485	30.3	3.8	2050	30.3	2.965	133.544	S2100	09H41-	3	75
510	28.1	5.8	1478	28.1	12.583	53.330	S3100	12H15-	3	118
535	26.8	1.8	950	26.8	8.361	55.982	S950	12H15-	3	46
541	26.9	1.5	835	26.9	7.860	55.773	S950	12H15-	2	46
574	25.4	2.3	1337	25.4	10.259	59.156	S3100	12H15-	2	117
579	25.4	1.5	950	25.4	2.112	159.394	S950	09H41-	3	43
581	25.3	4.8	3058	25.3	3.032	159.989	S3100	09H41-	3	115
581	25.0	1.9	1130	25.0	9.154	59.927	S2100	12H15-	2	78
583	24.6	3.5	1692	24.6	10.372	61.049	S2100	12H15-	3	79
600	24.5	5.1	3158	24.5	3.922	165.215	S4500	09H41-	3	190
631	23.3	2.9	2050	23.3	2.495	173.820	S2100	09H41-	3	75
685	20.9	1.4	950	20.9	8.034	71.644	S950	12H15-	3	46
693	20.7	5.0	2010	20.7	14.343	72.533	S4500	12H15-	3	193
697	20.9	1.9	1353	20.9	9.441	71.793	S3100	12H15-	2	117
699	20.5	4.4	2027	20.5	10.694	73.138	S3100	12H15-	3	118
720	20.4	1.2	950	20.4	2.053	198.270	S950	09H41-	3	43
735	20.0	4.4	3557	20.0	3.286	202.489	S4500	09H41-	3	190
735	19.8	1.6	1144	19.8	8.524	75.750	S2100	12H15-	2	78
747	19.2	2.8	2050	19.2	9.446	78.128	S2100	12H15-	3	79
749	19.1	1.3	950	19.1	7.934	78.375	S950	12H15-	3	46
756	19.4	3.7	3100	19.4	2.587	208.240	S3100	09H41-	3	115
776	18.5	4.8	2251	18.5	13.049	81.237	S4500	12H15-	3	193
785	18.7	2.4	2050	18.7	2.333	216.215	S2100	09H41-	3	75
817	17.6	2.5	2050	17.6	9.204	85.468	S2100	12H15-	3	79
894	16.0	3.5	2594	16.0	9.642	93.599	S3100	12H15-	3	118
941	15.6	3.0	3100	15.6	2.358	259.030	S3100	09H41-	3	115
966	15.2	3.4	3655	15.2	2.761	265.956	S4500	09H41-	3	190
979	14.6	3.2	2838	14.6	9.368	102.393	S3100	12H15-	3	118
990	14.5	4.0	2872	14.5	11.299	103.619	S4500	12H15-	3	193
1016	14.5	1.8	2050	14.5	2.170	279.807	S2100	09H41-	3	75
1042	13.8	2.0	2050	13.8	8.679	109.016	S2100	12H15-	3	79
1172	12.5	2.9	3698	12.5	2.528	322.773	S4500	09H41-	3	190
1213	11.8	3.5	3518	11.8	10.312	126.933	S4500	12H15-	3	193
1217	12.1	2.3	3100	12.1	2.185	335.215	S3100	09H41-	3	115
1233	11.9	1.5	2050	11.9	2.097	339.584	S2100	09H41-	3	75
1248	11.5	2.5	3100	11.5	8.780	130.603	S3100	12H15-	3	118
1276	11.2	1.6	2050	11.2	8.365	133.544	S2100	12H15-	3	79
1282	11.3	2.2	3100	11.3	2.357	358.375	S3100	09H41-	4	118
1297	11.2	3.1	4500	11.2	2.522	362.667	S4500	09H41-	4	193
1393	10.4	1.3	2050	10.4	2.174	389.356	S2100	09H41-	4	78
1477	10.0	1.9	3100	10.0	2.107	406.829	S3100	09H41-	3	115
1482	9.9	2.3	3743	9.9	2.303	408.000	S4500	09H41-	3	190
1529	9.4	2.0	3100	9.4	8.432	159.989	S3100	12H15-	3	118
1579	9.1	2.8	4366	9.1	9.322	165.215	S4500	12H15-	3	193
1589	9.1	2.6	4500	9.1	2.440	444.267	S4500	09H41-	4	193
1635	8.9	1.7	3100	8.9	2.311	457.111	S3100	09H41-	4	118
1661	8.6	1.2	2050	8.6	7.895	173.820	S2100	12H15-	3	79
1776	8.2	1.0	2050	8.2	2.149	496.628	S2100	09H41-	4	78
1935	7.4	2.3	4500	7.4	8.686	202.489	S4500	12H15-	3	193



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
1990	7.2	1.6	3100	7.2	7.987	208.240	S3100	12H15-	3	118
2003	7.2	1.4	3100	7.2	2.285	559.961	S3100	09H41-	4	118
2068	7.0	2.0	4500	7.0	2.359	578.252	S4500	09H41-	4	193
2475	5.8	1.3	3100	5.8	7.758	259.030	S3100	12H15-	3	118
2535	5.7	1.6	4500	5.7	2.318	708.711	S4500	09H41-	4	193
2542	5.6	1.8	4500	5.6	8.161	265.956	S4500	12H15-	3	193
2607	5.6	1.1	3100	5.6	2.138	728.838	S3100	09H41-	4	118
3085	4.6	1.5	4500	4.6	7.928	322.773	S4500	12H15-	3	193
3300	4.4	1.2	4500	4.4	2.157	922.449	S4500	09H41-	4	193
3414	4.1	1.3	4500	4.1	7.922	362.667	S4500	12H15-	4	196
4182	3.4	1.1	4500	3.4	7.840	444.267	S4500	12H15-	4	196

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



1.8 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
22.0	769	5.9	92.0	691	5.544	5.267	S220	12D41-	2	14
24.0	691	5.5	102	665	5.861	5.860	S400	12D41-	2	18
27.0	632	5.2	112	624	5.576	6.411	S400	12D41-	2	18
32.0	528	4.9	134	392	5.499	7.667	S220	12D41-	2	14
44.0	385	3.6	184	316	4.961	10.514	S220	12D41-	2	14
48.0	350	6.0	202	315	5.198	11.569	S400	12D41-	2	18
56.0	301	2.8	220	258	4.673	13.456	S220	12D41-	2	14
61.0	275	2.6	220	241	4.583	14.720	S220	12D41-	2	14
62.0	274	4.7	259	257	4.817	14.806	S400	12D41-	2	18
68.0	250	4.3	283	239	4.704	16.197	S400	12D41-	2	18
75.0	226	5.4	313	220	5.415	17.905	S660	12D41-	2	23
78.0	216	2.3	220	216	4.418	18.776	S220	12D41-	2	14
86.0	196	3.8	361	196	4.492	20.659	S400	12D41-	2	18
92.0	185	5.3	383	185	5.089	21.933	S660	12D41-	2	23
96.0	176	1.9	220	176	4.320	23.000	S220	12D41-	2	14
106	160	3.1	400	160	4.370	25.308	S400	12D41-	2	18
119	142	4.2	499	142	4.609	28.548	S660	12D41-	2	23
119	142	5.3	499	142	5.763	28.548	S950	12D41-	2	43
146	116	5.0	611	116	5.214	34.989	S950	12D41-	2	43
148	114	3.9	620	114	4.442	35.511	S660	12D41-	2	23
192	88.1	3.9	803	88.1	4.761	45.956	S950	12D41-	2	43
206	82.0	4.9	862	82.0	6.536	49.378	S2100	12D41-	2	75
230	72.3	3.4	950	72.3	5.061	55.982	S950	12D41-	3	43
233	72.6	3.3	835	72.6	4.560	55.773	S950	12D41-	2	43
247	68.5	4.9	1033	68.5	6.959	59.156	S3100	12D41-	2	114
250	67.6	4.1	1047	67.6	5.854	59.927	S2100	12D41-	2	75
294	56.5	2.9	950	56.5	4.734	71.644	S950	12D41-	3	43
300	56.4	4.1	1254	56.4	6.141	71.793	S3100	12D41-	2	114
316	53.5	3.3	1144	53.5	5.224	75.750	S2100	12D41-	2	75
321	51.8	5.8	1344	51.8	6.146	78.128	S2100	12D41-	3	75
322	51.7	2.7	950	51.7	4.634	78.375	S950	12D41-	3	43
351	47.4	5.3	1470	47.4	5.904	85.468	S2100	12D41-	3	75
411	40.5	2.1	950	40.5	4.449	99.968	S950	12D41-	3	43
448	37.2	4.1	1875	37.2	5.379	109.016	S2100	12D41-	3	75
503	33.1	1.7	950	33.1	4.341	122.461	S950	12D41-	3	43
537	31.0	5.2	2247	31.0	5.480	130.603	S3100	12D41-	3	115
549	30.3	3.4	2050	30.3	5.065	133.544	S2100	12D41-	3	75
657	25.3	4.3	2752	25.3	5.132	159.989	S3100	12D41-	3	115
679	24.5	5.8	2842	24.5	6.022	165.215	S4500	12D41-	3	190
714	23.3	2.6	2050	23.3	4.595	173.820	S2100	12D41-	3	75
832	20.0	4.9	3483	20.0	5.386	202.489	S4500	12D41-	3	190
856	19.4	3.3	3100	19.4	4.687	208.240	S3100	12D41-	3	115
889	18.7	2.1	2050	18.7	4.433	216.215	S2100	12D41-	3	75
1064	15.6	2.6	3100	15.6	4.458	259.030	S3100	12D41-	3	115
1093	15.2	3.7	4500	15.2	4.861	265.956	S4500	12D41-	3	190
1326	12.5	3.1	4500	12.5	4.628	322.773	S4500	12D41-	3	190
1451	11.3	1.9	3100	11.3	4.457	358.375	S3100	12D41-	4	118
1468	11.2	2.8	4500	11.2	4.622	362.667	S4500	12D41-	4	193
1798	9.1	2.3	4500	9.1	4.540	444.267	S4500	12D41-	4	193
1850	8.9	1.5	3100	8.9	4.411	457.111	S3100	12D41-	4	118
2267	7.2	1.2	3100	7.2	4.385	559.961	S3100	12D41-	4	118



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
2341	7.0	1.7	4500	7.0	4.459	578.252	S4500	12D41-	4	193
2869	5.7	1.4	4500	5.7	4.418	708.711	S4500	12D41-	4	193

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



1.9 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
15.0	1213	5.4	104	918	7.960	3.339	S400	09L41-	2	19
16.0	1106	2.8	63.0	886	4.363	3.661	S130	09L41-	2	14
17.0	1055	5.4	119	798	5.396	3.840	S220	09L41-	2	16
20.0	884	4.8	133	765	5.707	4.579	S400	09L41-	2	19
22.0	807	2.5	76.0	705	3.687	5.021	S130	09L41-	2	14
23.0	769	4.8	153	665	4.344	5.267	S220	09L41-	2	16
26.0	691	4.0	143	632	4.661	5.860	S400	09L41-	2	19
28.0	632	3.8	149	594	4.376	6.411	S400	09L41-	2	19
28.0	630	2.2	87.0	630	3.373	6.425	S130	09L41-	2	14
30.0	589	5.0	208	498	6.284	6.880	S660	09L41-	2	24
31.0	576	2.2	92.0	576	3.288	7.029	S130	09L41-	2	14
33.0	528	4.7	217	388	4.299	7.667	S220	09L41-	2	16
34.0	526	5.0	233	447	7.880	7.702	S950	09L41-	2	44
37.0	480	5.4	262	363	4.745	8.436	S400	09L41-	2	19
41.0	430	2.2	125	327	3.830	9.411	S130	09L41-	2	14
46.0	385	3.4	220	313	3.761	10.514	S220	09L41-	2	16
51.0	350	4.8	336	303	3.998	11.569	S400	09L41-	2	19
56.0	316	5.0	389	267	5.016	12.832	S660	09L41-	2	24
56.0	314	1.7	130	241	3.404	12.907	S130	09L41-	2	14
59.0	301	2.7	220	256	3.473	13.456	S220	09L41-	2	16
61.0	289	4.8	406	250	4.763	14.037	S660	09L41-	2	24
64.0	275	2.5	220	239	3.383	14.720	S220	09L41-	2	16
65.0	274	4.0	362	250	3.617	14.806	S400	09L41-	2	19
71.0	250	3.8	378	235	3.504	16.197	S400	09L41-	2	19
78.0	226	4.0	436	209	4.215	17.905	S660	09L41-	2	24
78.0	226	5.0	541	192	6.142	17.905	S950	09L41-	2	44
79.0	224	1.3	130	192	3.144	18.069	S130	09L41-	2	14
82.0	216	2.2	220	216	3.218	18.776	S220	09L41-	2	16
90.0	196	3.6	400	196	3.292	20.659	S400	09L41-	2	19
96.0	185	3.9	459	185	3.889	21.933	S660	09L41-	2	24
100	176	1.8	220	176	3.120	23.000	S220	09L41-	2	16
101	176	1.1	130	158	3.032	23.048	S130	09L41-	2	14
110	160	3.0	400	160	3.170	25.308	S400	09L41-	2	19
125	142	3.1	479	142	3.409	28.548	S660	09L41-	2	24
125	142	3.9	595	142	4.563	28.548	S950	09L41-	2	44
131	135	1.4	220	135	2.999	29.937	S220	09L41-	2	16
144	123	2.5	400	123	3.028	32.940	S400	09L41-	2	19
153	116	3.7	624	116	4.014	34.989	S950	09L41-	2	44
155	114	2.9	497	114	3.242	35.511	S660	09L41-	2	24
163	109	1.2	220	109	2.945	37.238	S220	09L41-	2	16
179	98.8	2.0	400	98.8	2.964	40.974	S400	09L41-	2	19
201	88.1	2.3	515	88.1	3.075	45.956	S660	09L41-	2	24
201	88.1	2.9	641	88.1	3.561	45.956	S950	09L41-	2	44
241	72.3	3.2	950	72.3	3.861	55.982	S950	09L41-	3	45
244	72.6	1.9	508	72.6	3.001	55.773	S660	09L41-	2	24
244	72.6	2.4	649	72.6	3.360	55.773	S950	09L41-	2	44
244	71.3	2.2	650	71.3	3.181	56.818	S660	09L41-	3	25
282	61.8	1.2	400	61.8	2.939	65.559	S400	09L41-	3	19
308	57.4	1.9	657	57.4	3.161	70.500	S950	09L41-	2	44
308	56.5	2.8	950	56.5	3.534	71.644	S950	09L41-	3	45
313	55.7	1.9	660	55.7	3.064	72.713	S660	09L41-	3	25



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
336	51.8	5.5	2050	51.8	4.946	78.128	S2100	09L41-	3	77
337	51.7	2.6	950	51.7	3.434	78.375	S950	09L41-	3	45
342	50.9	1.8	660	50.9	3.030	79.545	S660	09L41-	3	25
361	48.3	1.0	400	48.3	2.895	83.900	S400	09L41-	3	19
368	47.4	5.1	2050	47.4	4.704	85.468	S2100	09L41-	3	77
430	40.5	2.0	950	40.5	3.249	99.968	S950	09L41-	3	45
436	39.9	1.4	660	39.9	2.962	101.460	S660	09L41-	3	25
440	39.6	6.0	2919	39.6	4.868	102.393	S3100	09L41-	3	116
469	37.2	4.0	2050	37.2	4.179	109.016	S2100	09L41-	3	77
527	33.1	1.6	950	33.1	3.141	122.461	S950	09L41-	3	45
535	32.6	1.1	660	32.6	2.923	124.289	S660	09L41-	3	25
562	31.0	5.0	3100	31.0	4.280	130.603	S3100	09L41-	3	116
574	30.3	3.2	2050	30.3	3.865	133.544	S2100	09L41-	3	77
685	25.4	1.3	950	25.4	3.012	159.394	S950	09L41-	3	45
688	25.3	4.1	3100	25.3	3.932	159.989	S3100	09L41-	3	116
711	24.5	4.3	3393	24.5	4.822	165.215	S4500	09L41-	3	191
748	23.3	2.5	2050	23.3	3.395	173.820	S2100	09L41-	3	77
853	20.4	1.0	950	20.4	2.953	198.270	S950	09L41-	3	45
871	20.0	3.7	3557	20.0	4.186	202.489	S4500	09L41-	3	191
896	19.4	3.1	3100	19.4	3.487	208.240	S3100	09L41-	3	116
930	18.7	2.0	2050	18.7	3.233	216.215	S2100	09L41-	3	77
1114	15.6	2.5	3100	15.6	3.258	259.030	S3100	09L41-	3	116
1144	15.2	2.9	3655	15.2	3.661	265.956	S4500	09L41-	3	191
1203	14.5	1.5	2050	14.5	3.070	279.807	S2100	09L41-	3	77
1388	12.5	2.4	3698	12.5	3.428	322.773	S4500	09L41-	3	191
1442	12.1	2.0	3100	12.1	3.085	335.215	S3100	09L41-	3	116
1460	11.9	1.3	2050	11.9	2.997	339.584	S2100	09L41-	3	77
1518	11.3	1.9	3100	11.3	3.257	358.375	S3100	09L41-	4	119
1536	11.2	2.7	4500	11.2	3.422	362.667	S4500	09L41-	4	194
1649	10.4	1.1	2050	10.4	3.074	389.356	S2100	09L41-	4	80
1750	10.0	1.6	3100	10.0	3.007	406.829	S3100	09L41-	3	116
1755	9.9	1.9	3743	9.9	3.203	408.000	S4500	09L41-	3	191
1882	9.1	2.2	4500	9.1	3.340	444.267	S4500	09L41-	4	194
1936	8.9	1.5	3100	8.9	3.211	457.111	S3100	09L41-	4	119
2372	7.2	1.2	3100	7.2	3.185	559.961	S3100	09L41-	4	119
2449	7.0	1.7	4500	7.0	3.259	578.252	S4500	09L41-	4	194
3002	5.7	1.4	4500	5.7	3.218	708.711	S4500	09L41-	4	194
3908	4.4	1.0	4500	4.4	3.057	922.449	S4500	09L41-	4	194

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



2.5 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
52.0	449	3.9	178	449	19.360	3.339	S400	14H15-	2	27
61.0	383	5.6	209	383	23.001	3.920	S660	14H15-	2	32
68.0	342	5.7	234	342	27.317	4.380	S950	14H15-	2	52
71.0	328	3.4	243	328	17.107	4.579	S400	14H15-	2	27
83.0	279	4.7	287	279	19.464	5.376	S660	14H15-	2	32
84.0	278	4.9	288	278	23.448	5.391	S950	14H15-	2	52
91.0	256	2.8	258	256	16.061	5.860	S400	14H15-	2	27
94.0	248	4.6	322	248	21.706	6.038	S950	14H15-	2	52
100	234	2.6	261	234	15.776	6.411	S400	14H15-	2	27
107	218	5.6	367	218	36.762	6.870	S2100	14H15-	2	84
107	218	3.9	367	218	17.684	6.880	S660	14H15-	2	32
113	205	5.2	390	205	19.096	7.311	S660	14H15-	2	32
115	203	5.6	395	203	53.259	7.406	S3100	14H15-	2	123
120	195	3.5	411	195	19.280	7.702	S950	14H15-	2	52
128	181	4.9	441	181	30.992	8.272	S2100	14H15-	2	84
131	178	2.9	380	178	16.145	8.436	S400	14H15-	2	27
138	168	4.9	476	168	42.371	8.917	S3100	14H15-	2	123
156	150	4.0	535	150	17.388	10.027	S660	14H15-	2	32
158	147	5.7	543	147	21.944	10.183	S950	14H15-	2	52
170	137	4.2	583	137	34.082	10.932	S3100	14H15-	2	123
180	130	2.2	400	130	15.398	11.569	S400	14H15-	2	27
199	117	3.3	660	117	16.416	12.832	S660	14H15-	2	32
218	107	3.0	660	107	16.163	14.037	S660	14H15-	2	32
218	107	4.4	749	107	18.878	14.037	S950	14H15-	2	52
230	101	1.7	400	101	15.017	14.806	S400	14H15-	2	27
244	95.5	5.6	838	95.5	29.094	15.711	S2100	14H15-	2	84
251	92.6	1.6	400	92.6	14.904	16.197	S400	14H15-	2	27
278	83.8	2.4	660	83.8	15.615	17.905	S660	14H15-	2	32
278	83.8	3.4	950	83.8	17.542	17.905	S950	14H15-	2	52
292	79.7	5.6	1004	79.7	33.270	18.822	S3100	14H15-	2	123
294	79.3	4.9	1009	79.3	25.703	18.917	S2100	14H15-	2	84
321	72.6	1.3	400	72.6	14.692	20.659	S400	14H15-	2	27
340	68.4	1.9	660	68.4	15.289	21.933	S660	14H15-	2	32
340	68.4	2.8	950	68.4	16.774	21.933	S950	14H15-	2	52
352	66.2	4.9	1209	66.2	28.583	22.663	S3100	14H15-	2	123
360	64.7	4.2	1238	64.7	22.992	23.193	S2100	14H15-	2	84
431	54.0	4.2	1483	54.0	24.908	27.785	S3100	14H15-	2	123
443	52.5	1.5	660	52.5	14.809	28.548	S660	14H15-	2	32
443	52.5	2.1	950	52.5	15.963	28.548	S950	14H15-	2	52
458	50.8	4.2	1575	50.8	32.641	29.511	S4500	14H15-	2	196
488	47.7	3.3	1614	47.7	19.488	31.422	S2100	14H15-	2	84
543	42.9	1.8	950	42.9	15.414	34.989	S950	14H15-	2	52
563	41.4	3.5	1935	41.4	27.695	36.267	S4500	14H15-	2	196
584	39.8	3.3	1934	39.8	20.532	37.644	S3100	14H15-	2	123
592	39.3	2.8	1677	39.3	18.181	38.156	S2100	14H15-	2	84
681	33.7	3.0	2050	33.7	18.879	44.515	S2100	14H15-	3	85
710	32.8	2.8	2009	32.8	18.889	45.711	S3100	14H15-	2	123
729	32.0	2.8	2046	32.0	22.786	46.933	S4500	14H15-	2	196
767	30.4	2.3	1739	30.4	16.736	49.378	S2100	14H15-	2	84
815	28.1	3.8	2803	28.1	19.483	53.330	S3100	14H15-	3	124
856	26.8	1.1	950	26.8	15.261	55.982	S950	14H15-	3	52



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
884	26.3	2.3	2071	26.3	20.447	56.960	S4500	14H15-	2	196
901	25.5	5.0	3098	25.5	23.977	58.933	S4500	14H15-	3	199
918	25.4	2.3	2083	25.4	17.159	59.156	S3100	14H15-	2	123
930	25.0	1.9	1759	25.0	16.054	59.927	S2100	14H15-	2	84
933	24.6	2.2	2050	24.6	17.272	61.049	S2100	14H15-	3	85
1109	20.7	4.1	3812	20.7	21.243	72.533	S4500	14H15-	3	199
1114	20.9	1.9	2108	20.9	16.341	71.793	S3100	14H15-	2	123
1118	20.8	1.9	2096	20.8	18.287	72.000	S4500	14H15-	2	196
1118	20.5	2.8	3100	20.5	17.594	73.138	S3100	14H15-	3	124
1195	19.2	1.7	2050	19.2	16.346	78.128	S2100	14H15-	3	85
1242	18.5	3.6	4270	18.5	19.949	81.237	S4500	14H15-	3	199
1307	17.6	1.6	2050	17.6	16.104	85.468	S2100	14H15-	3	85
1431	16.0	2.2	3100	16.0	16.542	93.599	S3100	14H15-	3	124
1566	14.6	2.0	3100	14.6	16.268	102.393	S3100	14H15-	3	124
1584	14.5	2.8	4500	14.5	18.199	103.619	S4500	14H15-	3	199
1667	13.8	1.2	2050	13.8	15.579	109.016	S2100	14H15-	3	85
1941	11.8	2.3	4500	11.8	17.212	126.933	S4500	14H15-	3	199
1997	11.5	1.6	3100	11.5	15.680	130.603	S3100	14H15-	3	124
2042	11.2	1.0	2050	11.2	15.265	133.544	S2100	14H15-	3	85
2446	9.4	1.3	3100	9.4	15.332	159.989	S3100	14H15-	3	124
2526	9.1	1.8	4500	9.1	16.222	165.215	S4500	14H15-	3	199
3096	7.4	1.5	4500	7.4	15.586	202.489	S4500	14H15-	3	199

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



2.8 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
24.0	1056	4.7	94.0	891	12.460	3.339	S400	12H35-	2	21
28.0	918	4.7	108	775	9.896	3.840	S220	12H35-	2	17
29.0	899	5.8	110	671	16.101	3.920	S660	12H35-	2	26
33.0	786	5.5	129	784	11.007	4.579	S400	14D36-	2	22
33.0	770	3.9	129	736	10.207	4.579	S400	12H35-	2	21
38.0	669	3.6	148	629	8.844	5.267	S220	12H35-	2	17
39.0	656	4.8	151	547	12.564	5.376	S660	12H35-	2	26
39.0	654	5.1	152	529	16.548	5.391	S950	12H35-	2	46
43.0	614	4.5	165	613	9.961	5.860	S400	14D36-	2	22
43.0	602	3.3	165	602	9.161	5.860	S400	12H35-	2	21
44.0	584	3.2	150	584	15.760	3.339	S400	12L20-	2	24
44.0	584	4.8	170	485	14.806	6.038	S950	12H35-	2	46
47.0	562	4.2	180	560	9.676	6.411	S400	14D36-	2	22
47.0	550	3.1	180	550	8.876	6.411	S400	12H35-	2	21
50.0	512	4.1	194	478	10.784	6.880	S660	12H35-	2	26
50.0	508	3.2	173	508	13.196	3.840	S220	12L20-	2	21
51.0	497	3.9	213	497	19.401	3.920	S660	12L20-	2	29
53.0	482	5.8	206	360	12.196	7.311	S660	12H35-	2	26
56.0	467	5.5	217	456	13.180	7.702	S950	14D36-	2	47
56.0	460	2.9	216	354	8.799	7.667	S220	12H35-	2	17
56.0	458	4.0	217	430	12.380	7.702	S950	12H35-	2	46
60.0	426	5.1	233	344	24.092	8.272	S2100	12H35-	2	78
60.0	426	2.6	172	426	13.507	4.579	S400	12L20-	2	24
61.0	427	4.6	237	352	10.045	8.436	S400	14D36-	2	22
61.0	418	4.7	237	353	9.245	8.436	S400	12H35-	2	21
65.0	395	5.1	251	320	35.471	8.917	S3100	12H35-	2	117
69.0	370	2.4	181	370	12.144	5.267	S220	12L20-	2	21
70.0	363	3.3	250	363	15.864	5.376	S660	12L20-	2	29
71.0	362	3.4	263	362	19.848	5.391	S950	12L20-	2	49
73.0	352	4.8	282	293	10.488	10.027	S660	12H35-	2	26
77.0	335	2.2	220	285	8.261	10.514	S220	12H35-	2	17
77.0	333	2.2	185	333	12.461	5.860	S400	12L20-	2	24
79.0	323	3.2	279	323	18.106	6.038	S950	12L20-	2	49
84.0	311	3.6	326	286	9.298	11.569	S400	14D36-	2	22
84.0	305	3.6	326	287	8.498	11.569	S400	12H35-	2	21
84.0	304	2.1	193	304	12.176	6.411	S400	12L20-	2	24
90.0	283	2.7	269	283	14.084	6.880	S660	12L20-	2	29
93.0	281	5.3	361	270	10.316	12.832	S660	14D36-	2	27
93.0	275	4.1	361	256	9.516	12.832	S660	12H35-	2	26
96.0	267	3.9	397	267	15.496	7.311	S660	12L20-	2	29
98.0	262	1.7	220	223	7.973	13.456	S220	12H35-	2	17
100	254	2.0	217	254	12.099	7.667	S220	12L20-	2	21
101	253	2.7	300	253	15.680	7.702	S950	12L20-	2	49
102	257	4.8	395	250	10.063	14.037	S660	14D36-	2	27
102	251	3.9	395	240	9.263	14.037	S660	12H35-	2	26
102	251	4.8	395	209	11.978	14.037	S950	12H35-	2	46
107	240	1.5	220	204	7.883	14.720	S220	12H35-	2	17
108	243	2.8	400	234	8.917	14.806	S400	14D36-	2	22
108	238	2.8	400	235	8.117	14.806	S400	12H35-	2	21
108	236	3.4	405	236	27.392	8.272	S2100	12L20-	2	81
110	231	3.2	380	231	12.545	8.436	S400	12L20-	2	24



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
117	219	3.4	436	219	38.771	8.917	S3100	12L20-	2	120
118	222	2.5	400	219	8.804	16.197	S400	14D36-	2	22
118	218	2.6	400	218	8.004	16.197	S400	12H35-	2	21
130	201	3.8	504	201	9.515	17.905	S660	14D36-	2	27
130	201	5.5	504	196	11.442	17.905	S950	14D36-	2	47
130	197	3.3	504	197	8.715	17.905	S660	12H35-	2	26
130	197	4.0	504	185	10.642	17.905	S950	12H35-	2	46
131	195	3.3	467	195	13.788	10.027	S660	12L20-	2	29
137	188	1.4	220	179	7.718	18.776	S220	12H35-	2	17
138	186	5.8	532	155	18.803	18.917	S2100	12H35-	2	78
138	186	1.5	220	186	11.561	10.514	S220	12L20-	2	21
150	174	2.3	400	174	8.592	20.659	S400	14D36-	2	22
150	171	2.3	400	171	7.792	20.659	S400	12H35-	2	21
152	169	2.4	400	169	11.798	11.569	S400	12L20-	2	24
160	164	3.5	617	164	9.189	21.933	S660	14D36-	2	27
160	164	5.1	617	164	10.674	21.933	S950	14D36-	2	47
160	161	3.2	593	161	8.389	21.933	S660	12H35-	2	26
160	161	3.9	617	161	9.874	21.933	S950	12H35-	2	46
165	156	5.8	638	129	21.683	22.663	S3100	12H35-	2	117
167	153	1.1	220	153	7.620	23.000	S220	12H35-	2	17
168	152	2.7	502	152	12.816	12.832	S660	12L20-	2	29
176	145	1.1	220	145	11.273	13.456	S220	12L20-	2	21
184	139	1.9	400	139	7.670	25.308	S400	12H35-	2	21
184	139	2.6	525	139	12.563	14.037	S660	12L20-	2	29
184	139	3.2	649	139	15.278	14.037	S950	12L20-	2	49
193	133	1.1	220	133	11.183	14.720	S220	12L20-	2	21
194	132	1.9	400	132	11.417	14.806	S400	12L20-	2	24
208	126	2.7	660	126	8.709	28.548	S660	14D36-	2	27
208	126	3.9	803	126	9.863	28.548	S950	14D36-	2	47
208	124	2.5	618	124	7.909	28.548	S660	12H35-	2	26
208	124	3.2	766	124	9.063	28.548	S950	12H35-	2	46
212	120	1.7	400	120	11.304	16.197	S400	12L20-	2	24
229	112	4.3	884	112	12.588	31.422	S2100	12H35-	2	78
235	109	2.2	564	109	12.015	17.905	S660	12L20-	2	29
235	109	2.7	697	109	13.942	17.905	S950	12L20-	2	49
248	103	3.7	925	103	22.103	18.917	S2100	12L20-	2	81
255	103	3.5	950	103	9.314	34.989	S950	14D36-	2	47
255	101	3.0	803	101	8.514	34.989	S950	12H35-	2	46
258	99.3	2.4	642	99.3	7.742	35.511	S660	12H35-	2	26
271	94.4	1.5	400	94.4	11.092	20.659	S400	12L20-	2	24
274	93.6	4.3	1059	93.6	13.632	37.644	S3100	12H35-	2	117
278	94.4	5.7	1074	94.1	12.081	38.156	S2100	14D36-	2	79
278	92.4	3.7	1074	92.4	11.281	38.156	S2100	12H35-	2	78
287	88.9	2.1	593	88.9	11.689	21.933	S660	12L20-	2	29
287	88.9	2.6	733	88.9	13.174	21.933	S950	12L20-	2	49
297	86.0	3.7	1109	86.0	24.983	22.663	S3100	12L20-	2	120
319	80.9	4.8	1234	74.0	12.779	44.515	S2100	14D36-	3	80
319	79.2	4.8	1234	74.1	11.979	44.515	S2100	12H35-	3	79
331	77.1	1.2	400	77.1	10.970	25.308	S400	12L20-	2	24
333	78.8	5.7	1286	78.5	12.789	45.711	S3100	14D36-	2	118
333	77.1	3.7	1286	77.1	11.989	45.711	S3100	12H35-	2	117
334	76.7	2.3	825	76.7	8.061	45.956	S950	12H35-	2	46

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
342	76.7	5.6	1321	76.5	16.686	46.933	S4500	14D36-	2	191
359	72.9	4.6	1389	72.7	10.636	49.378	S2100	14D36-	2	79
359	71.4	2.9	1116	71.4	9.836	49.378	S2100	12H35-	2	78
374	68.3	1.7	618	68.3	11.209	28.548	S660	12L20-	2	29
374	68.3	2.1	766	68.3	12.363	28.548	S950	12L20-	2	49
401	64.3	2.0	950	64.1	9.161	55.982	S950	14D36-	3	48
401	63.0	2.0	950	63.0	8.361	55.982	S950	12H35-	3	46
406	63.2	2.0	835	63.2	7.860	55.773	S950	12H35-	2	46
412	62.1	2.5	1033	62.1	15.888	31.422	S2100	12L20-	2	81
414	63.2	4.7	1603	63.0	14.347	56.960	S4500	14D36-	2	191
430	60.9	4.6	1664	60.7	11.059	59.156	S3100	14D36-	2	118
430	59.6	2.9	1337	59.6	10.259	59.156	S3100	12H35-	2	117
436	60.1	3.8	1686	59.9	9.954	59.927	S2100	14D36-	2	79
436	58.8	2.5	1130	58.8	9.154	59.927	S2100	12H35-	2	78
438	59.0	4.0	1692	58.8	11.172	61.049	S2100	14D36-	3	80
438	57.7	4.0	1692	57.7	10.372	61.049	S2100	12H35-	3	79
458	55.7	1.8	803	55.7	11.814	34.989	S950	12L20-	2	49
465	54.9	1.4	642	54.9	11.042	35.511	S660	12L20-	2	29
493	51.8	2.5	1238	51.8	16.932	37.644	S3100	12L20-	2	120
500	51.1	2.2	1075	51.1	14.581	38.156	S2100	12L20-	2	81
514	50.2	1.7	950	50.1	8.834	71.644	S950	14D36-	3	48
514	49.2	1.8	950	49.2	8.034	71.644	S950	12H35-	3	46
522	50.1	3.8	2020	50.0	10.241	71.793	S3100	14D36-	2	118
522	49.1	2.5	1353	49.1	9.441	71.793	S3100	12H35-	2	117
524	50.0	3.8	2026	49.9	12.187	72.000	S4500	14D36-	2	191
524	49.2	5.6	2027	49.1	11.494	73.138	S3100	14D36-	3	119
524	48.2	5.6	2027	48.2	10.694	73.138	S3100	12H35-	3	118
551	46.5	2.0	1144	46.5	8.524	75.750	S2100	12H35-	2	78
560	46.1	3.4	2050	46.0	10.246	78.128	S2100	14D36-	3	80
560	45.1	3.5	2050	45.1	9.446	78.128	S2100	12H35-	3	79
562	45.9	1.6	950	45.8	8.734	78.375	S950	14D36-	3	48
562	45.0	1.6	950	45.0	7.934	78.375	S950	12H35-	3	46
574	43.8	3.3	2050	43.8	15.279	44.515	S2100	12L20-	3	82
599	42.7	2.2	1288	42.7	15.289	45.711	S3100	12L20-	2	120
602	42.4	1.4	825	42.4	11.361	45.956	S950	12L20-	2	49
613	42.1	3.2	2050	42.0	10.004	85.468	S2100	14D36-	3	80
613	41.2	3.2	2050	41.2	9.204	85.468	S2100	12H35-	3	79
647	39.5	1.7	1116	39.5	13.136	49.378	S2100	12L20-	2	81
671	38.5	4.4	2594	38.4	10.442	93.599	S3100	14D36-	3	119
671	37.7	4.4	2594	37.7	9.642	93.599	S3100	12H35-	3	118
688	36.6	4.3	2854	36.6	15.883	53.330	S3100	12L20-	3	121
717	36.0	1.3	950	35.9	8.549	99.968	S950	14D36-	3	48
717	35.3	1.3	950	35.3	7.749	99.968	S950	12H35-	3	46
722	34.8	1.3	950	34.8	11.661	55.982	S950	12L20-	3	49
731	35.0	1.1	835	35.0	11.160	55.773	S950	12L20-	2	49
734	35.2	4.0	2838	35.1	10.168	102.393	S3100	14D36-	3	119
734	34.4	4.0	2838	34.4	9.368	102.393	S3100	12H35-	3	118
743	34.7	5.7	2872	34.6	12.099	103.619	S4500	14D36-	3	194
743	34.0	5.1	2872	34.0	11.299	103.619	S4500	12H35-	3	193
775	33.0	1.7	1337	33.0	13.559	59.156	S3100	12L20-	2	120
781	33.0	2.5	2050	32.9	9.479	109.016	S2100	14D36-	3	80
781	32.3	2.5	2050	32.3	8.679	109.016	S2100	12H35-	3	79



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
785	32.5	1.4	1130	32.5	12.454	59.927	S2100	12L20-	2	81
788	31.9	2.6	2050	31.9	13.672	61.049	S2100	12L20-	3	82
878	28.8	1.0	950	28.8	7.641	122.461	S950	12H35-	3	46
910	28.4	4.7	3518	28.3	11.112	126.933	S4500	14D36-	3	194
910	27.8	4.4	3518	27.8	10.312	126.933	S4500	12H35-	3	193
924	27.2	1.0	950	27.2	11.334	71.644	S950	12L20-	3	49
936	27.6	3.1	3100	27.5	9.580	130.603	S3100	14D36-	3	119
936	27.0	3.1	3100	27.0	8.780	130.603	S3100	12H35-	3	118
936	26.9	3.7	3492	26.9	17.643	72.533	S4500	12L20-	3	196
940	27.2	1.4	1353	27.2	12.741	71.793	S3100	12L20-	2	120
944	26.7	3.3	3100	26.7	13.994	73.138	S3100	12L20-	3	121
957	27.0	2.0	2050	26.9	9.165	133.544	S2100	14D36-	3	80
957	26.4	2.0	2050	26.4	8.365	133.544	S2100	12H35-	3	79
992	25.7	1.2	1144	25.7	11.824	75.750	S2100	12L20-	2	81
1008	25.0	2.0	2050	25.0	12.746	78.128	S2100	12L20-	3	82
1048	24.0	3.5	3699	24.0	16.349	81.237	S4500	12L20-	3	196
1103	22.8	1.9	2050	22.8	12.504	85.468	S2100	12L20-	3	82
1147	22.5	2.5	3100	22.4	9.232	159.989	S3100	14D36-	3	119
1147	22.0	2.6	3100	22.0	8.432	159.989	S3100	12H35-	3	118
1184	21.8	3.6	4500	21.7	10.122	165.215	S4500	14D36-	3	194
1184	21.3	3.5	4366	21.3	9.322	165.215	S4500	12H35-	3	193
1208	20.8	2.6	3100	20.8	12.942	93.599	S3100	12L20-	3	121
1246	20.7	1.6	2050	20.7	8.695	173.820	S2100	14D36-	3	80
1246	20.3	1.6	2050	20.3	7.895	173.820	S2100	12H35-	3	79
1321	19.0	2.4	3100	19.0	12.668	102.393	S3100	12L20-	3	121
1337	18.8	3.0	3972	18.8	14.599	103.619	S4500	12L20-	3	196
1406	17.9	1.5	2050	17.9	11.979	109.016	S2100	12L20-	3	82
1451	17.8	2.9	4500	17.7	9.486	202.489	S4500	14D36-	3	194
1451	17.4	2.9	4500	17.4	8.686	202.489	S4500	12H35-	3	193
1493	17.3	2.0	3100	17.2	8.787	208.240	S3100	14D36-	3	119
1493	16.9	2.0	3100	16.9	7.987	208.240	S3100	12H35-	3	118
1550	16.3	1.3	2050	16.3	7.733	216.215	S2100	12H35-	3	79
1638	15.4	2.6	4180	15.4	13.612	126.933	S4500	12L20-	3	196
1685	14.9	1.8	3100	14.9	12.080	130.603	S3100	12L20-	3	121
1723	14.6	1.2	2050	14.6	11.665	133.544	S2100	12L20-	3	82
1857	13.6	1.6	3100	13.6	7.758	259.030	S3100	12H35-	3	118
1906	13.3	2.2	4500	13.3	8.161	265.956	S4500	12H35-	3	193
2064	12.2	1.5	3100	12.2	11.732	159.989	S3100	12L20-	3	121
2132	11.8	2.1	4366	11.8	12.622	165.215	S4500	12L20-	3	196
2313	10.9	1.8	4500	10.9	7.928	322.773	S4500	12H35-	3	193
2530	9.8	1.2	3100	9.8	7.757	358.375	S3100	12H35-	4	121
2560	9.7	1.7	4500	9.7	7.922	362.667	S4500	12H35-	4	196
2612	9.6	1.7	4500	9.6	11.986	202.489	S4500	12L20-	3	196
2687	9.4	1.2	3100	9.4	11.287	208.240	S3100	12L20-	3	121
3137	7.9	1.4	4500	7.9	7.840	444.267	S4500	12H35-	4	196
3431	7.3	1.3	4500	7.3	11.461	265.956	S4500	12L20-	3	196
4082	6.1	1.0	4500	6.1	7.759	578.252	S4500	12H35-	4	196
4164	6.0	1.1	4500	6.0	11.228	322.773	S4500	12L20-	3	196

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



3.6 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
75.0	449	2.7	203	449	28.560	3.339	S400	14L15-	2	32
87.0	383	3.9	293	383	32.201	3.920	S660	14L15-	2	37
98.0	342	4.0	327	342	36.517	4.380	S950	14L15-	2	56
102	328	2.4	243	328	26.307	4.579	S400	14L15-	2	32
120	279	3.2	388	279	28.664	5.376	S660	14L15-	2	37
120	278	3.4	403	278	32.648	5.391	S950	14L15-	2	56
131	256	2.0	258	256	25.261	5.860	S400	14L15-	2	32
135	249	4.3	450	249	52.632	6.029	S2100	14L15-	2	89
135	248	3.2	434	248	30.906	6.038	S950	14L15-	2	56
143	234	1.8	261	234	24.976	6.411	S400	14L15-	2	32
145	231	4.3	486	231	74.053	6.499	S3100	14L15-	2	128
153	218	3.9	513	218	45.962	6.870	S2100	14L15-	2	89
154	218	2.7	417	218	26.884	6.880	S660	14L15-	2	37
163	205	3.6	546	205	28.296	7.311	S660	14L15-	2	37
165	203	3.9	553	203	62.459	7.406	S3100	14L15-	2	128
172	195	2.4	415	195	28.480	7.702	S950	14L15-	2	56
185	181	3.4	618	181	40.192	8.272	S2100	14L15-	2	89
188	178	2.0	380	178	25.345	8.436	S400	14L15-	2	32
199	168	3.4	666	168	51.571	8.917	S3100	14L15-	2	128
224	150	2.8	625	150	26.588	10.027	S660	14L15-	2	37
227	147	4.0	761	147	31.144	10.183	S950	14L15-	2	56
244	137	3.0	719	137	43.282	10.932	S3100	14L15-	2	128
258	130	1.6	400	130	24.598	11.569	S400	14L15-	2	32
286	117	2.3	660	117	25.616	12.832	S660	14L15-	2	37
308	109	4.3	1030	109	42.674	13.787	S2100	14L15-	2	89
313	107	2.1	660	107	25.363	14.037	S660	14L15-	2	37
313	107	3.0	950	107	28.078	14.037	S950	14L15-	2	56
330	101	1.2	400	101	24.217	14.806	S400	14L15-	2	32
351	95.5	3.9	1174	95.5	38.294	15.711	S2100	14L15-	2	89
361	92.6	1.1	400	92.6	24.104	16.197	S400	14L15-	2	32
369	90.8	4.3	1234	90.8	48.096	16.517	S3100	14L15-	2	128
400	83.8	1.7	660	83.8	24.815	17.905	S660	14L15-	2	37
400	83.8	2.4	950	83.8	26.742	17.905	S950	14L15-	2	56
408	82.0	4.2	1366	82.0	62.154	18.286	S4500	14L15-	2	201
420	79.7	3.9	1406	79.7	42.470	18.822	S3100	14L15-	2	128
422	79.3	3.4	1413	79.3	34.903	18.917	S2100	14L15-	2	89
489	68.4	1.4	660	68.4	24.489	21.933	S660	14L15-	2	37
489	68.4	1.9	950	68.4	25.974	21.933	S950	14L15-	2	56
506	66.2	3.4	1693	66.2	37.783	22.663	S3100	14L15-	2	128
518	64.7	3.0	1524	64.7	32.192	23.193	S2100	14L15-	2	89
620	54.0	3.0	1826	54.0	34.108	27.785	S3100	14L15-	2	128
637	52.5	1.0	660	52.5	24.009	28.548	S660	14L15-	2	37
637	52.5	1.5	950	52.5	25.163	28.548	S950	14L15-	2	56
659	50.8	2.9	1924	50.8	41.841	29.511	S4500	14L15-	2	201
701	47.7	2.3	1614	47.7	28.688	31.422	S2100	14L15-	2	89
781	42.9	1.2	950	42.9	24.614	34.989	S950	14L15-	2	56
809	41.4	2.4	1973	41.4	36.895	36.267	S4500	14L15-	2	201
840	39.8	2.3	1934	39.8	29.732	37.644	S3100	14L15-	2	128
851	39.3	2.0	1677	39.3	27.381	38.156	S2100	14L15-	2	89
935	35.3	4.5	3129	35.3	39.402	42.520	S4500	14L15-	3	204
978	33.7	2.1	2050	33.7	28.079	44.515	S2100	14L15-	3	89



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
1020	32.8	2.0	2009	32.8	28.089	45.711	S3100	14L15-	2	128
1047	32.0	2.0	2046	32.0	31.986	46.933	S4500	14L15-	2	201
1102	30.4	1.6	1739	30.4	25.936	49.378	S2100	14L15-	2	89
1172	28.1	2.6	3054	28.1	28.683	53.330	S3100	14L15-	3	129
1271	26.3	1.6	2071	26.3	29.647	56.960	S4500	14L15-	2	201
1295	25.5	3.5	4337	25.5	33.177	58.933	S4500	14L15-	3	204
1320	25.4	1.6	2083	25.4	26.359	59.156	S3100	14L15-	2	128
1337	25.0	1.3	1759	25.0	25.254	59.927	S2100	14L15-	2	89
1342	24.6	1.5	2050	24.6	26.472	61.049	S2100	14L15-	3	89
1594	20.7	2.8	4500	20.7	30.443	72.533	S4500	14L15-	3	204
1602	20.9	1.3	2108	20.9	25.541	71.793	S3100	14L15-	2	128
1607	20.8	1.3	2096	20.8	27.487	72.000	S4500	14L15-	2	201
1608	20.5	1.9	3100	20.5	26.794	73.138	S3100	14L15-	3	129
1717	19.2	1.2	2050	19.2	25.546	78.128	S2100	14L15-	3	89
1786	18.5	2.5	4500	18.5	29.149	81.237	S4500	14L15-	3	204
1879	17.6	1.1	2050	17.6	25.304	85.468	S2100	14L15-	3	89
2057	16.0	1.5	3100	16.0	25.742	93.599	S3100	14L15-	3	129
2251	14.6	1.4	3100	14.6	25.468	102.393	S3100	14L15-	3	129
2278	14.5	2.0	4500	14.5	27.399	103.619	S4500	14L15-	3	204
2790	11.8	1.6	4500	11.8	26.412	126.933	S4500	14L15-	3	204
2871	11.5	1.1	3100	11.5	24.880	130.603	S3100	14L15-	3	129
3631	9.1	1.2	4500	9.1	25.422	165.215	S4500	14L15-	3	204
4451	7.4	1.0	4500	7.4	24.786	202.489	S4500	14L15-	3	204

4 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
158	236	5.7	503	236	94.232	6.029	S2100	19F14-	2	92
170	219	5.7	542	219	115.653	6.499	S3100	19F14-	2	131
180	207	5.2	573	207	87.562	6.870	S2100	19F14-	2	92
194	192	5.2	618	192	104.059	7.406	S3100	19F14-	2	131
217	172	4.5	690	172	81.792	8.272	S2100	19F14-	2	92
234	160	4.5	744	160	93.171	8.917	S3100	19F14-	2	131
286	130	3.9	912	130	84.882	10.932	S3100	19F14-	2	131
361	103	5.7	1150	103	84.274	13.787	S2100	19F14-	2	92
412	90.7	5.0	1311	90.7	79.894	15.711	S2100	19F14-	2	92
433	86.3	5.7	1378	86.3	89.696	16.517	S3100	19F14-	2	131
479	77.9	5.6	1526	77.9	103.754	18.286	S4500	19F14-	2	204
493	75.7	5.2	1571	75.7	84.070	18.822	S3100	19F14-	2	131
496	75.3	4.1	1578	75.3	76.503	18.917	S2100	19F14-	2	92
587	63.6	4.8	1869	63.6	94.159	22.400	S4500	19F14-	2	204
594	62.9	4.5	1891	62.9	79.383	22.663	S3100	19F14-	2	131
608	61.4	3.4	1935	61.4	73.792	23.193	S2100	19F14-	2	92
728	51.3	3.9	2318	51.3	75.708	27.785	S3100	19F14-	2	131
773	48.3	3.9	2462	48.3	83.441	29.511	S4500	19F14-	2	204
950	39.3	3.2	3026	39.3	78.495	36.267	S4500	19F14-	2	204
1097	33.5	3.9	3495	33.5	81.002	42.520	S4500	19F14-	3	207
1521	24.2	3.0	4500	24.2	74.777	58.933	S4500	19F14-	3	207
1872	19.6	2.4	4500	19.6	72.043	72.533	S4500	19F14-	3	207
2096	17.5	2.2	4500	17.5	70.749	81.237	S4500	19F14-	3	207

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



4.2 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
97.0	404	2.1	203	404	39.860	3.339	S400	14P14-	2	36
114	344	3.0	338	344	43.501	3.920	S660	14P14-	2	42
128	308	3.0	387	308	47.817	4.380	S950	14P14-	2	61
133	295	1.8	243	295	37.607	4.579	S400	14P14-	2	36
156	251	2.5	388	251	39.964	5.376	S660	14P14-	2	42
157	250	2.6	413	250	43.948	5.391	S950	14P14-	2	61
171	230	1.5	258	230	36.561	5.860	S400	14P14-	2	36
175	224	3.3	575	224	63.932	6.029	S2100	14P14-	2	94
176	224	2.5	434	224	42.206	6.038	S950	14P14-	2	61
187	211	1.4	261	211	36.276	6.411	S400	14P14-	2	36
189	208	3.3	620	208	85.353	6.499	S3100	14P14-	2	133
200	197	3.0	600	197	57.262	6.870	S2100	14P14-	2	94
200	196	2.1	417	196	38.184	6.880	S660	14P14-	2	42
213	185	2.8	593	185	39.596	7.311	S660	14P14-	2	42
216	182	3.0	647	182	73.759	7.406	S3100	14P14-	2	133
224	175	1.9	415	175	39.780	7.702	S950	14P14-	2	61
241	163	2.6	633	163	51.492	8.272	S2100	14P14-	2	94
246	160	1.6	380	160	36.645	8.436	S400	14P14-	2	36
260	151	2.6	683	151	62.871	8.917	S3100	14P14-	2	133
292	135	2.1	625	135	37.888	10.027	S660	14P14-	2	42
296	133	3.0	899	133	42.444	10.183	S950	14P14-	2	61
318	124	2.3	719	124	54.582	10.932	S3100	14P14-	2	133
337	117	1.2	400	117	35.898	11.569	S400	14P14-	2	36
373	105	1.8	660	105	36.916	12.832	S660	14P14-	2	42
401	97.9	3.3	1316	97.9	53.974	13.787	S2100	14P14-	2	94
409	96.2	1.6	660	96.2	36.663	14.037	S660	14P14-	2	42
409	96.2	2.3	950	96.2	39.378	14.037	S950	14P14-	2	61
457	85.9	3.0	1373	85.9	49.594	15.711	S2100	14P14-	2	94
481	81.7	3.3	1576	81.7	59.396	16.517	S3100	14P14-	2	133
521	75.4	1.3	660	75.4	36.115	17.905	S660	14P14-	2	42
521	75.4	1.8	950	75.4	38.042	17.905	S950	14P14-	2	61
532	73.8	3.3	1732	73.8	73.454	18.286	S4500	14P14-	2	206
548	71.7	3.0	1645	71.7	53.770	18.822	S3100	14P14-	2	133
551	71.4	2.6	1449	71.4	46.203	18.917	S2100	14P14-	2	94
638	61.6	1.0	660	61.6	35.789	21.933	S660	14P14-	2	42
638	61.6	1.5	950	61.6	37.274	21.933	S950	14P14-	2	61
660	59.6	2.6	1735	59.6	49.083	22.663	S3100	14P14-	2	133
675	58.2	2.3	1524	58.2	43.492	23.193	S2100	14P14-	2	94
809	48.6	2.3	1826	48.6	45.408	27.785	S3100	14P14-	2	133
831	47.3	1.1	950	47.3	36.463	28.548	S950	14P14-	2	61
859	45.7	2.2	1924	45.7	53.141	29.511	S4500	14P14-	2	206
915	43.0	1.8	1614	43.0	39.988	31.422	S2100	14P14-	2	94
1056	37.2	1.9	1973	37.2	48.195	36.267	S4500	14P14-	2	206
1096	35.9	1.8	1934	35.9	41.032	37.644	S3100	14P14-	2	133
1111	35.4	1.5	1677	35.4	38.681	38.156	S2100	14P14-	2	94
1219	31.8	3.4	4175	31.8	50.702	42.520	S4500	14P14-	3	209
1276	30.3	1.6	2050	30.3	39.379	44.515	S2100	14P14-	3	94
1331	29.5	1.5	2009	29.5	39.389	45.711	S3100	14P14-	2	133
1366	28.8	1.5	2046	28.8	43.286	46.933	S4500	14P14-	2	206
1437	27.3	1.2	1739	27.3	37.236	49.378	S2100	14P14-	2	94
1529	25.3	2.0	3054	25.3	39.983	53.330	S3100	14P14-	3	134



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
1658	23.7	1.3	2071	23.7	40.947	56.960	S4500	14P14-	2	206
1690	22.9	2.7	4500	22.9	44.477	58.933	S4500	14P14-	3	209
1722	22.8	1.2	2083	22.8	37.659	59.156	S3100	14P14-	2	133
1744	22.5	1.0	1759	22.5	36.554	59.927	S2100	14P14-	2	94
1750	22.1	1.2	2050	22.1	37.772	61.049	S2100	14P14-	3	94
2080	18.6	2.2	4500	18.6	41.743	72.533	S4500	14P14-	3	209
2090	18.8	1.0	2108	18.8	36.841	71.793	S3100	14P14-	2	133
2096	18.8	1.0	2096	18.8	38.787	72.000	S4500	14P14-	2	206
2097	18.5	1.5	3100	18.5	38.094	73.138	S3100	14P14-	3	134
2329	16.6	1.9	4500	16.6	40.449	81.237	S4500	14P14-	3	209
2683	14.4	1.2	3100	14.4	37.042	93.599	S3100	14P14-	3	134
2936	13.2	1.1	3100	13.2	36.768	102.393	S3100	14P14-	3	134
2971	13.0	1.5	4500	13.0	38.699	103.619	S4500	14P14-	3	209
3639	10.6	1.2	4500	10.6	37.712	126.933	S4500	14P14-	3	209

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



4.7 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
36.0	1213	3.0	150	818	15.760	3.339	S400	12L41-	2	24
41.0	1055	3.0	173	711	13.196	3.840	S220	12L41-	2	21
42.0	1033	3.8	213	615	19.401	3.920	S660	12L41-	2	29
45.0	966	3.5	178	841	19.360	3.339	S400	14H32-	2	27
49.0	884	2.5	172	676	13.507	4.579	S400	12L41-	2	24
53.0	823	4.9	209	650	23.001	3.920	S660	14H32-	2	32
56.0	769	2.3	181	577	12.144	5.267	S220	12L41-	2	21
57.0	753	3.1	250	501	15.864	5.376	S660	12L41-	2	29
58.0	751	3.3	263	483	19.848	5.391	S950	12L41-	2	49
60.0	736	5.0	234	575	27.317	4.380	S950	14H32-	2	52
62.0	704	3.0	243	701	17.107	4.579	S400	14H32-	2	27
63.0	691	2.1	185	563	12.461	5.860	S400	12L41-	2	24
64.0	671	3.1	279	445	18.106	6.038	S950	12L41-	2	49
68.0	632	2.0	193	530	12.176	6.411	S400	12L41-	2	24
73.0	600	4.1	287	530	19.464	5.376	S660	14H32-	2	32
73.0	598	4.4	288	514	23.448	5.391	S950	14H32-	2	52
73.0	589	2.6	269	438	14.084	6.880	S660	12L41-	2	29
78.0	554	3.8	397	330	15.496	7.311	S660	12L41-	2	29
80.0	550	2.5	258	550	16.061	5.860	S400	14H32-	2	27
82.0	535	5.4	322	388	43.432	6.029	S2100	14H32-	2	84
82.0	534	4.1	322	471	21.706	6.038	S950	14H32-	2	52
82.0	528	1.9	217	318	12.099	7.667	S220	12L41-	2	21
82.0	526	2.6	300	394	15.680	7.702	S950	12L41-	2	49
87.0	503	2.3	261	503	15.776	6.411	S400	14H32-	2	27
88.0	496	5.4	347	360	64.853	6.499	S3100	14H32-	2	123
88.0	490	3.3	405	315	27.392	8.272	S2100	12L41-	2	81
90.0	480	3.0	380	324	12.545	8.436	S400	12L41-	2	24
93.0	469	5.0	367	366	36.762	6.870	S2100	14H32-	2	84
93.0	469	3.5	367	464	17.684	6.880	S660	14H32-	2	32
95.0	454	3.3	436	292	38.771	8.917	S3100	12L41-	2	120
99.0	441	4.6	390	344	19.096	7.311	S660	14H32-	2	32
101	436	5.0	395	339	53.259	7.406	S3100	14H32-	2	123
105	419	3.1	411	407	19.280	7.702	S950	14H32-	2	52
107	404	3.1	467	269	13.788	10.027	S660	12L41-	2	29
112	390	4.4	441	334	30.992	8.272	S2100	14H32-	2	84
112	385	1.4	220	232	11.561	10.514	S220	12L41-	2	21
115	382	2.6	380	313	16.145	8.436	S400	14H32-	2	27
121	362	4.4	476	310	42.371	8.917	S3100	14H32-	2	123
123	350	2.3	400	263	11.798	11.569	S400	12L41-	2	24
136	322	3.6	535	276	17.388	10.027	S660	14H32-	2	32
137	316	2.6	502	235	12.816	12.832	S660	12L41-	2	29
138	317	5.0	543	247	21.944	10.183	S950	14H32-	2	52
144	301	1.1	220	184	11.273	13.456	S220	12L41-	2	21
148	295	3.8	583	266	34.082	10.932	S3100	14H32-	2	123
150	289	2.5	525	221	12.563	14.037	S660	12L41-	2	29
150	289	3.1	649	191	15.278	14.037	S950	12L41-	2	49
157	279	2.0	400	254	15.398	11.569	S400	14H32-	2	27
157	275	1.0	220	172	11.183	14.720	S220	12L41-	2	21
158	274	1.8	400	210	11.417	14.806	S400	12L41-	2	24
173	250	1.7	400	192	11.304	16.197	S400	12L41-	2	24
174	251	2.9	660	240	16.416	12.832	S660	14H32-	2	32



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
187	234	5.4	736	170	33.474	13.787	S2100	14H32-	2	84
191	230	2.7	660	223	16.163	14.037	S660	14H32-	2	32
191	230	3.9	749	200	18.878	14.037	S950	14H32-	2	52
191	226	2.1	564	186	12.015	17.905	S660	12L41-	2	29
191	226	2.6	697	169	13.942	17.905	S950	12L41-	2	49
201	218	1.5	400	194	15.017	14.806	S400	14H32-	2	27
202	214	3.7	925	142	22.103	18.917	S2100	12L41-	2	81
213	205	5.0	838	160	29.094	15.711	S2100	14H32-	2	84
220	199	1.4	400	178	14.904	16.197	S400	14H32-	2	27
220	196	1.5	400	169	11.092	20.659	S400	12L41-	2	24
224	195	5.4	881	142	38.896	16.517	S3100	14H32-	2	123
234	185	2.1	593	178	11.689	21.933	S660	12L41-	2	29
234	185	2.6	733	151	13.174	21.933	S950	12L41-	2	49
242	179	3.7	1109	118	24.983	22.663	S3100	12L41-	2	120
243	180	2.1	660	180	15.615	17.905	S660	14H32-	2	32
243	180	3.0	950	175	17.542	17.905	S950	14H32-	2	52
256	171	5.7	1004	137	33.270	18.822	S3100	14H32-	2	123
257	171	5.0	1009	150	25.703	18.917	S2100	14H32-	2	84
270	160	1.2	400	142	10.970	25.308	S400	12L41-	2	24
281	156	1.3	400	156	14.692	20.659	S400	14H32-	2	27
298	147	2.0	660	147	15.289	21.933	S660	14H32-	2	32
298	147	2.8	950	147	16.774	21.933	S950	14H32-	2	52
305	142	1.7	618	142	11.209	28.548	S660	12L41-	2	29
305	142	2.1	766	136	12.363	28.548	S950	12L41-	2	49
308	142	5.0	1209	125	28.583	22.663	S3100	14H32-	2	123
315	139	4.3	1238	129	22.992	23.193	S2100	14H32-	2	84
335	129	2.8	1033	106	15.888	31.422	S2100	12L41-	2	81
373	116	2.0	803	116	11.814	34.989	S950	12L41-	2	49
377	116	4.3	1483	107	24.908	27.785	S3100	14H32-	2	123
379	114	1.5	642	114	11.042	35.511	S660	12L41-	2	29
388	113	1.5	660	113	14.809	28.548	S660	14H32-	2	32
388	113	2.2	950	113	15.963	28.548	S950	14H32-	2	52
401	109	4.2	1575	101	32.641	29.511	S4500	14H32-	2	196
402	108	2.8	1238	88.8	16.932	37.644	S3100	12L41-	2	120
407	106	2.4	1075	101	14.581	38.156	S2100	12L41-	2	81
427	103	3.7	1614	103	19.488	31.422	S2100	14H32-	2	84
468	91.0	3.2	2050	67.7	15.279	44.515	S2100	12L41-	3	82
475	92.2	2.0	950	92.2	15.414	34.989	S950	14H32-	2	52
488	88.6	2.4	1288	84.3	15.289	45.711	S3100	12L41-	2	120
490	88.1	1.5	825	88.1	11.361	45.956	S950	12L41-	2	49
493	88.9	3.9	1935	88.9	27.695	36.267	S4500	14H32-	2	196
511	85.7	3.7	1934	85.7	20.532	37.644	S3100	14H32-	2	123
518	84.5	3.2	1677	84.5	18.181	38.156	S2100	14H32-	2	84
527	82.0	1.9	1116	82.0	13.136	49.378	S2100	12L41-	2	81
561	75.9	4.3	2854	60.3	15.883	53.330	S3100	12L41-	3	121
569	75.8	5.7	2235	68.8	30.202	42.520	S4500	14H32-	3	199
589	72.3	1.3	950	54.8	11.661	55.982	S950	12L41-	3	49
595	72.6	1.3	835	72.6	11.160	55.773	S950	12L41-	2	49
596	72.4	2.7	2050	65.3	18.879	44.515	S2100	14H32-	3	85
621	70.6	3.2	2009	70.6	18.889	45.711	S3100	14H32-	2	123
631	68.5	1.9	1337	68.5	13.559	59.156	S3100	12L41-	2	120
638	68.7	3.1	2046	68.7	22.786	46.933	S4500	14H32-	2	196

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
640	67.6	1.6	1130	67.6	12.454	59.927	S2100	12L41-	2	81
642	66.3	2.6	2050	55.1	13.672	61.049	S2100	12L41-	3	82
671	65.3	2.5	1739	65.3	16.736	49.378	S2100	14H32-	2	84
714	60.5	3.8	2803	58.8	19.483	53.330	S3100	14H32-	3	124
749	57.6	1.1	950	50.6	15.261	55.982	S950	14H32-	3	52
753	56.5	1.1	950	45.6	11.334	71.644	S950	12L41-	3	49
762	55.8	4.1	3492	49.1	17.643	72.533	S4500	12L41-	3	196
766	56.4	1.6	1353	56.4	12.741	71.793	S3100	12L41-	2	120
769	55.4	3.7	3100	49.4	13.994	73.138	S3100	12L41-	3	121
774	56.6	2.6	2071	56.6	20.447	56.960	S4500	14H32-	2	196
788	54.7	5.0	3098	54.7	23.977	58.933	S4500	14H32-	3	199
804	54.5	2.5	2083	54.5	17.159	59.156	S3100	14H32-	2	123
808	53.5	1.3	1144	53.5	11.824	75.750	S2100	12L41-	2	81
814	53.8	2.1	1759	53.8	16.054	59.927	S2100	14H32-	2	84
817	52.8	2.2	2050	52.8	17.272	61.049	S2100	14H32-	3	85
821	51.8	2.3	2050	48.5	12.746	78.128	S2100	12L41-	3	82
824	51.7	1.0	950	42.5	11.234	78.375	S950	12L41-	3	49
854	49.9	3.9	3699	45.1	16.349	81.237	S4500	12L41-	3	196
898	47.4	2.1	2050	45.2	12.504	85.468	S2100	12L41-	3	82
970	44.5	4.5	3812	44.5	21.243	72.533	S4500	14H32-	3	199
975	44.9	2.1	2108	44.9	16.341	71.793	S3100	14H32-	2	123
978	44.8	2.1	2096	44.8	18.287	72.000	S4500	14H32-	2	196
979	44.1	3.1	3100	44.1	17.594	73.138	S3100	14H32-	3	124
984	43.3	2.9	3100	42.6	12.942	93.599	S3100	12L41-	3	121
1045	41.3	1.9	2050	41.3	16.346	78.128	S2100	14H32-	3	85
1076	39.6	2.6	3100	39.6	12.668	102.393	S3100	12L41-	3	121
1087	39.7	4.0	4270	39.7	19.949	81.237	S4500	14H32-	3	199
1089	39.1	3.3	3972	39.1	14.599	103.619	S4500	12L41-	3	196
1144	37.7	1.8	2050	37.7	16.104	85.468	S2100	14H32-	3	85
1146	37.2	1.6	2050	35.5	11.979	109.016	S2100	12L41-	3	82
1252	34.5	2.4	3100	34.5	16.542	93.599	S3100	14H32-	3	124
1334	31.9	2.8	4180	31.9	13.612	126.933	S4500	12L41-	3	196
1370	31.5	2.2	3100	31.5	16.268	102.393	S3100	14H32-	3	124
1373	31.0	2.0	3100	31.0	12.080	130.603	S3100	12L41-	3	121
1386	31.1	3.2	4500	31.1	18.199	103.619	S4500	14H32-	3	199
1404	30.3	1.3	2050	30.3	11.665	133.544	S2100	12L41-	3	82
1459	29.6	1.4	2050	29.6	15.579	109.016	S2100	14H32-	3	85
1682	25.3	1.7	3100	25.3	11.732	159.989	S3100	12L41-	3	121
1698	25.4	2.6	4500	25.4	17.212	126.933	S4500	14H32-	3	199
1737	24.5	2.3	4366	24.5	12.622	165.215	S4500	12L41-	3	196
1747	24.7	1.7	3100	24.7	15.680	130.603	S3100	14H32-	3	124
1787	24.1	1.1	2050	24.1	15.265	133.544	S2100	14H32-	3	85
1827	23.3	1.0	2050	23.3	11.195	173.820	S2100	12L41-	3	82
2129	20.0	1.9	4500	20.0	11.986	202.489	S4500	12L41-	3	196
2141	20.2	1.4	3100	20.2	15.332	159.989	S3100	14H32-	3	124
2189	19.4	1.3	3100	19.4	11.287	208.240	S3100	12L41-	3	121
2210	19.5	2.0	4500	19.5	16.222	165.215	S4500	14H32-	3	199
2709	15.9	1.6	4500	15.9	15.586	202.489	S4500	14H32-	3	199
2723	15.6	1.0	3100	15.6	11.058	259.030	S3100	12L41-	3	121
2786	15.5	1.1	3100	15.5	14.887	208.240	S3100	14H32-	3	124
2796	15.2	1.5	4500	15.2	11.461	265.956	S4500	12L41-	3	196
3393	12.5	1.2	4500	12.5	11.228	322.773	S4500	12L41-	3	196



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
3755	11.2	1.1	4500	11.2	11.222	362.667	S4500	12L41-	4	199

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



5.8 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
56.0	966	2.8	203	806	28.560	3.339	S400	14L32-	2	32
65.0	823	4.0	293	623	32.201	3.920	S660	14L32-	2	37
73.0	736	4.1	327	551	36.517	4.380	S950	14L32-	2	56
76.0	704	2.5	243	673	26.307	4.579	S400	14L32-	2	32
90.0	600	3.4	388	508	28.664	5.376	S660	14L32-	2	37
90.0	598	3.6	403	492	32.648	5.391	S950	14L32-	2	56
98.0	550	2.0	258	550	25.261	5.860	S400	14L32-	2	32
101	535	4.4	450	372	52.632	6.029	S2100	14L32-	2	89
101	534	3.3	434	451	30.906	6.038	S950	14L32-	2	56
107	503	1.9	261	503	24.976	6.411	S400	14L32-	2	32
108	496	4.4	486	345	74.053	6.499	S3100	14L32-	2	128
115	469	4.1	513	351	45.962	6.870	S2100	14L32-	2	89
115	469	2.8	417	445	26.884	6.880	S660	14L32-	2	37
122	441	3.8	546	330	28.296	7.311	S660	14L32-	2	37
124	436	4.1	553	325	62.459	7.406	S3100	14L32-	2	128
129	419	2.5	415	390	28.480	7.702	S950	14L32-	2	56
138	390	3.6	618	320	40.192	8.272	S2100	14L32-	2	89
141	382	2.1	380	299	25.345	8.436	S400	14L32-	2	32
149	362	3.6	666	297	51.571	8.917	S3100	14L32-	2	128
167	322	2.9	625	264	26.588	10.027	S660	14L32-	2	37
170	317	4.1	761	237	31.144	10.183	S950	14L32-	2	56
182	295	3.1	719	256	43.282	10.932	S3100	14L32-	2	128
193	279	1.6	400	226	24.598	11.569	S400	14L32-	2	32
214	251	2.4	660	230	25.616	12.832	S660	14L32-	2	37
230	234	4.4	1030	163	42.674	13.787	S2100	14L32-	2	89
234	230	2.2	660	214	25.363	14.037	S660	14L32-	2	37
234	230	3.1	950	192	28.078	14.037	S950	14L32-	2	56
247	218	1.3	400	177	24.217	14.806	S400	14L32-	2	32
262	205	4.1	1174	153	38.294	15.711	S2100	14L32-	2	89
270	199	1.2	400	164	24.104	16.197	S400	14L32-	2	32
276	195	4.4	1234	136	48.096	16.517	S3100	14L32-	2	128
299	180	1.7	660	171	24.815	17.905	S660	14L32-	2	37
299	180	2.5	950	167	26.742	17.905	S950	14L32-	2	56
305	176	5.0	1366	126	62.154	18.286	S4500	14L32-	2	201
314	171	4.6	1406	131	42.470	18.822	S3100	14L32-	2	128
316	171	4.0	1413	144	34.903	18.917	S2100	14L32-	2	89
345	156	1.0	400	144	23.892	20.659	S400	14L32-	2	32
366	147	1.6	660	147	24.489	21.933	S660	14L32-	2	37
366	147	2.3	950	147	25.974	21.933	S950	14L32-	2	56
378	142	4.0	1693	120	37.783	22.663	S3100	14L32-	2	128
387	139	3.5	1524	124	32.192	23.193	S2100	14L32-	2	89
464	116	3.5	1826	103	34.108	27.785	S3100	14L32-	2	128
476	113	1.2	660	113	24.009	28.548	S660	14L32-	2	37
476	113	1.8	950	113	25.163	28.548	S950	14L32-	2	56
492	109	3.4	1924	97.1	41.841	29.511	S4500	14L32-	2	201
524	103	3.0	1614	103	28.688	31.422	S2100	14L32-	2	89
584	92.2	1.6	950	92.2	24.614	34.989	S950	14L32-	2	56
605	88.9	3.2	1973	88.9	36.895	36.267	S4500	14L32-	2	201
628	85.7	3.0	1934	85.7	29.732	37.644	S3100	14L32-	2	128
637	84.5	2.6	1677	84.5	27.381	38.156	S2100	14L32-	2	89
699	75.8	4.6	3129	65.8	39.402	42.520	S4500	14L32-	3	204



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
732	72.4	2.2	2050	62.2	28.079	44.515	S2100	14L32-	3	89
763	70.6	2.6	2009	70.6	28.089	45.711	S3100	14L32-	2	128
783	68.7	2.6	2046	68.7	31.986	46.933	S4500	14L32-	2	201
824	65.3	2.1	1739	65.3	25.936	49.378	S2100	14L32-	2	89
877	60.5	3.1	3054	56.2	28.683	53.330	S3100	14L32-	3	129
951	56.6	2.1	2071	56.6	29.647	56.960	S4500	14L32-	2	201
969	54.7	4.1	4337	53.2	33.177	58.933	S4500	14L32-	3	204
987	54.5	2.1	2083	54.5	26.359	59.156	S3100	14L32-	2	128
1000	53.8	1.7	1759	53.8	25.254	59.927	S2100	14L32-	2	89
1003	52.8	1.8	2050	49.1	26.472	61.049	S2100	14L32-	3	89
1192	44.5	3.7	4500	44.5	30.443	72.533	S4500	14L32-	3	204
1198	44.9	1.7	2108	44.9	25.541	71.793	S3100	14L32-	2	128
1202	44.8	1.7	2096	44.8	27.487	72.000	S4500	14L32-	2	201
1202	44.1	2.5	3100	44.1	26.794	73.138	S3100	14L32-	3	129
1284	41.3	1.6	2050	41.0	25.546	78.128	S2100	14L32-	3	89
1335	39.7	3.3	4500	39.7	29.149	81.237	S4500	14L32-	3	204
1405	37.7	1.4	2050	37.4	25.304	85.468	S2100	14L32-	3	89
1539	34.5	2.0	3100	34.5	25.742	93.599	S3100	14L32-	3	129
1683	31.5	1.8	3100	31.5	25.468	102.393	S3100	14L32-	3	129
1703	31.1	2.6	4500	31.1	27.399	103.619	S4500	14L32-	3	204
1792	29.6	1.1	2050	29.6	24.779	109.016	S2100	14L32-	3	89
2086	25.4	2.1	4500	25.4	26.412	126.933	S4500	14L32-	3	204
2147	24.7	1.4	3100	24.7	24.880	130.603	S3100	14L32-	3	129
2630	20.2	1.2	3100	20.2	24.532	159.989	S3100	14L32-	3	129
2716	19.5	1.6	4500	19.5	25.422	165.215	S4500	14L32-	3	204
3328	15.9	1.3	4500	15.9	24.786	202.489	S4500	14L32-	3	204

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



6 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
178	310	4.5	575	310	150.551	4.593	S2100	19J14-	2	99
191	290	5.6	615	290	266.684	4.914	S4500	19J14-	2	211
192	288	4.5	620	288	187.458	4.951	S3100	19J14-	2	138
234	236	3.8	755	236	134.232	6.029	S2100	19J14-	2	99
250	221	4.8	807	221	206.485	6.450	S4500	19J14-	2	211
252	219	3.8	813	219	155.653	6.499	S3100	19J14-	2	138
267	207	3.5	860	207	127.562	6.870	S2100	19J14-	2	99
274	202	4.5	883	202	190.966	7.056	S4500	19J14-	2	211
287	192	3.5	927	192	144.059	7.406	S3100	19J14-	2	138
321	172	3.1	984	172	121.792	8.272	S2100	19J14-	2	99
346	160	3.1	1061	160	133.171	8.917	S3100	19J14-	2	138
387	143	5.6	1250	143	203.730	9.984	S4500	19J14-	2	211
408	136	4.5	1315	136	133.396	10.504	S2100	19J14-	2	99
424	130	2.6	1117	130	124.882	10.932	S3100	19J14-	2	138
488	113	4.5	1575	113	142.737	12.584	S3100	19J14-	2	138
509	109	4.8	1640	109	169.945	13.105	S4500	19J14-	2	211
535	103	3.8	1726	103	124.274	13.787	S2100	19J14-	2	99
556	99.4	4.5	1794	99.4	160.433	14.336	S4500	19J14-	2	211
610	90.7	3.4	1966	90.7	119.894	15.711	S2100	19J14-	2	99
641	86.3	3.8	2067	86.3	129.696	16.517	S3100	19J14-	2	138
710	77.9	3.8	2289	77.9	143.754	18.286	S4500	19J14-	2	211
730	75.7	3.5	2356	75.7	124.070	18.822	S3100	19J14-	2	138
734	75.3	2.8	2050	75.3	116.503	18.917	S2100	19J14-	2	99
869	63.6	3.3	2804	63.6	134.159	22.400	S4500	19J14-	2	211
880	62.9	3.1	2696	62.9	119.383	22.663	S3100	19J14-	2	138
900	61.4	2.3	2050	61.4	113.792	23.193	S2100	19J14-	2	99
1078	51.3	2.6	2839	51.3	115.708	27.785	S3100	19J14-	2	138
1145	48.3	2.6	2992	48.3	123.441	29.511	S4500	19J14-	2	211
1407	39.3	2.2	3066	39.3	118.495	36.267	S4500	19J14-	2	211
1625	33.5	2.6	4291	33.5	121.002	42.520	S4500	19J14-	3	214
2253	24.2	2.0	4500	24.2	114.777	58.933	S4500	19J14-	3	214
2773	19.6	1.6	4500	19.6	112.043	72.533	S4500	19J14-	3	214
3105	17.5	1.5	4500	17.5	110.749	81.237	S4500	19J14-	3	214



6.6 kW

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
123	498	5.8	503	367	94.232	6.029	S2100	19F30-	2	92
132	462	5.8	542	340	115.653	6.499	S3100	19F30-	2	131
140	437	5.3	573	322	87.562	6.870	S2100	19F30-	2	92
151	405	5.3	618	299	104.059	7.406	S3100	19F30-	2	131
169	363	4.6	690	267	81.792	8.272	S2100	19F30-	2	92
182	336	4.6	744	248	93.171	8.917	S3100	19F30-	2	131
223	274	4.0	912	202	84.882	10.932	S3100	19F30-	2	131
281	218	5.8	1150	160	84.274	13.787	S2100	19F30-	2	92
320	191	5.1	1311	141	79.894	15.711	S2100	19F30-	2	92
337	182	5.8	1378	134	89.696	16.517	S3100	19F30-	2	131
385	159	4.8	1578	117	76.503	18.917	S2100	19F30-	2	92
456	134	5.6	1869	98.7	94.159	22.400	S4500	19F30-	2	204
462	132	5.3	1891	97.5	79.383	22.663	S3100	19F30-	2	131
473	129	3.9	1935	95.3	73.792	23.193	S2100	19F30-	2	92
566	108	4.5	2318	79.6	75.708	27.785	S3100	19F30-	2	131
601	102	4.5	2462	74.9	83.441	29.511	S4500	19F30-	2	204
739	82.7	4.2	3026	61.0	78.495	36.267	S4500	19F30-	2	204
853	70.6	4.0	3495	52.0	81.002	42.520	S4500	19F30-	3	207
1183	50.9	3.4	4500	37.5	74.777	58.933	S4500	19F30-	3	207
1456	41.4	3.1	4500	30.5	72.043	72.533	S4500	19F30-	3	207
1630	36.9	2.8	4500	27.2	70.749	81.237	S4500	19F30-	3	207

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



7.1 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
68.0	966	2.3	203	772	39.860	3.339	S400	14P32-	2	36
80.0	823	3.3	338	597	43.501	3.920	S660	14P32-	2	42
89.0	736	3.4	387	528	47.817	4.380	S950	14P32-	2	61
93.0	704	2.0	243	645	37.607	4.579	S400	14P32-	2	36
110	600	2.7	388	487	39.964	5.376	S660	14P32-	2	42
110	598	2.9	413	471	43.948	5.391	S950	14P32-	2	61
119	550	1.7	258	509	36.561	5.860	S400	14P32-	2	36
123	535	3.6	575	356	63.932	6.029	S2100	14P32-	2	94
123	534	2.7	434	433	42.206	6.038	S950	14P32-	2	61
131	503	1.6	261	470	36.276	6.411	S400	14P32-	2	36
132	496	3.6	620	330	85.353	6.499	S3100	14P32-	2	133
140	469	3.3	600	336	57.262	6.870	S2100	14P32-	2	94
140	469	2.3	417	426	38.184	6.880	S660	14P32-	2	42
149	441	3.1	593	316	39.596	7.311	S660	14P32-	2	42
151	436	3.3	647	311	73.759	7.406	S3100	14P32-	2	133
157	419	2.1	415	374	39.780	7.702	S950	14P32-	2	61
169	390	2.9	633	306	51.492	8.272	S2100	14P32-	2	94
172	382	1.7	380	272	36.645	8.436	S400	14P32-	2	36
182	362	2.9	683	284	62.871	8.917	S3100	14P32-	2	133
204	322	2.4	625	253	37.888	10.027	S660	14P32-	2	42
207	317	3.4	899	227	42.444	10.183	S950	14P32-	2	61
223	295	2.5	719	245	54.582	10.932	S3100	14P32-	2	133
236	279	1.3	400	204	35.898	11.569	S400	14P32-	2	36
261	251	2.0	660	220	36.916	12.832	S660	14P32-	2	42
281	234	3.6	1316	156	53.974	13.787	S2100	14P32-	2	94
286	230	1.8	660	198	36.663	14.037	S660	14P32-	2	42
286	230	2.6	950	184	39.378	14.037	S950	14P32-	2	61
302	218	1.0	400	163	35.517	14.806	S400	14P32-	2	36
320	205	3.3	1373	147	49.594	15.711	S2100	14P32-	2	94
337	195	3.6	1576	130	59.396	16.517	S3100	14P32-	2	133
365	180	1.4	660	155	36.115	17.905	S660	14P32-	2	42
365	180	2.0	950	160	38.042	17.905	S950	14P32-	2	61
373	176	4.1	1732	121	73.454	18.286	S4500	14P32-	2	206
383	171	3.8	1645	126	53.770	18.822	S3100	14P32-	2	133
385	171	3.3	1449	138	46.203	18.917	S2100	14P32-	2	94
447	147	1.3	660	142	35.789	21.933	S660	14P32-	2	42
447	147	1.9	950	139	37.274	21.933	S950	14P32-	2	61
462	142	3.3	1735	115	49.083	22.663	S3100	14P32-	2	133
473	139	2.8	1524	119	43.492	23.193	S2100	14P32-	2	94
566	116	2.8	1826	99.1	45.408	27.785	S3100	14P32-	2	133
582	113	1.0	660	113	35.309	28.548	S660	14P32-	2	42
582	113	1.4	950	113	36.463	28.548	S950	14P32-	2	61
601	109	2.8	1924	93.3	53.141	29.511	S4500	14P32-	2	206
640	103	2.5	1614	103	39.988	31.422	S2100	14P32-	2	94
713	92.2	1.3	950	92.2	35.914	34.989	S950	14P32-	2	61
739	88.9	2.6	1973	87.4	48.195	36.267	S4500	14P32-	2	206
767	85.7	2.5	1934	85.7	41.032	37.644	S3100	14P32-	2	133
777	84.5	2.1	1677	84.5	38.681	38.156	S2100	14P32-	2	94
853	75.8	3.8	4175	62.9	50.702	42.520	S4500	14P32-	3	209
893	72.4	1.8	2050	57.2	39.379	44.515	S2100	14P32-	3	94
931	70.6	2.1	2009	70.6	39.389	45.711	S3100	14P32-	2	133



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
956	68.7	2.1	2046	68.7	43.286	46.933	S4500	14P32-	2	206
1006	65.3	1.7	1739	65.3	37.236	49.378	S2100	14P32-	2	94
1070	60.5	2.5	3054	53.7	39.983	53.330	S3100	14P32-	3	134
1161	56.6	1.7	2071	56.6	40.947	56.960	S4500	14P32-	2	206
1183	54.7	3.4	4500	51.0	44.477	58.933	S4500	14P32-	3	209
1205	54.5	1.7	2083	54.5	37.659	59.156	S3100	14P32-	2	133
1221	53.8	1.4	1759	53.8	36.554	59.927	S2100	14P32-	2	94
1225	52.8	1.5	2050	44.0	37.772	61.049	S2100	14P32-	3	94
1456	44.5	3.0	4500	44.5	41.743	72.533	S4500	14P32-	3	209
1463	44.9	1.4	2108	44.9	36.841	71.793	S3100	14P32-	2	133
1467	44.8	1.4	2096	44.8	38.787	72.000	S4500	14P32-	2	206
1468	44.1	2.1	3100	43.7	38.094	73.138	S3100	14P32-	3	134
1568	41.3	1.3	2050	36.9	36.846	78.128	S2100	14P32-	3	94
1630	39.7	2.7	4500	39.7	40.449	81.237	S4500	14P32-	3	209
1715	37.7	1.2	2050	33.9	36.604	85.468	S2100	14P32-	3	94
1878	34.5	1.6	3100	34.5	37.042	93.599	S3100	14P32-	3	134
2055	31.5	1.5	3100	31.5	36.768	102.393	S3100	14P32-	3	134
2080	31.1	2.1	4500	31.1	38.699	103.619	S4500	14P32-	3	209
2547	25.4	1.7	4500	25.4	37.712	126.933	S4500	14P32-	3	209
2621	24.7	1.2	3100	24.7	36.180	130.603	S3100	14P32-	3	134
3316	19.5	1.3	4500	19.5	36.722	165.215	S4500	14P32-	3	209
4064	15.9	1.1	4500	15.9	36.086	202.489	S4500	14P32-	3	209

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



7.2 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
227	294	3.6	808	294	205.551	4.593	S2100	19P14-	2	109
243	275	4.4	906	275	321.684	4.914	S4500	19P14-	2	221
245	273	3.6	871	273	242.458	4.951	S3100	19P14-	2	148
298	224	3.0	894	224	189.232	6.029	S2100	19P14-	2	109
319	209	3.7	1189	209	261.485	6.450	S4500	19P14-	2	221
322	208	3.0	963	208	210.653	6.499	S3100	19P14-	2	148
340	197	2.7	933	197	182.562	6.870	S2100	19P14-	2	109
349	191	3.5	1232	191	245.966	7.056	S4500	19P14-	2	221
366	182	2.7	1005	182	199.059	7.406	S3100	19P14-	2	148
409	163	2.4	984	163	176.792	8.272	S2100	19P14-	2	109
441	151	2.4	1061	151	188.171	8.917	S3100	19P14-	2	148
494	135	4.4	1840	135	258.730	9.984	S4500	19P14-	2	221
520	129	3.6	1848	129	188.396	10.504	S2100	19P14-	2	109
541	124	2.1	1117	124	179.882	10.932	S3100	19P14-	2	148
623	107	3.6	2214	107	197.737	12.584	S3100	19P14-	2	148
648	103	3.7	2416	103	224.945	13.105	S4500	19P14-	2	221
682	97.9	3.0	2044	97.9	179.274	13.787	S2100	19P14-	2	109
709	94.2	3.5	2504	94.2	215.433	14.336	S4500	19P14-	2	221
777	85.9	2.6	2050	85.9	174.894	15.711	S2100	19P14-	2	109
817	81.7	3.0	2449	81.7	184.696	16.517	S3100	19P14-	2	148
905	73.8	3.0	2690	73.8	198.754	18.286	S4500	19P14-	2	221
931	71.7	2.7	2555	71.7	179.070	18.822	S3100	19P14-	2	148
936	71.4	2.2	2050	71.4	171.503	18.917	S2100	19P14-	2	109
1108	60.3	2.6	2832	60.3	189.159	22.400	S4500	19P14-	2	221
1121	59.6	2.4	2696	59.6	174.383	22.663	S3100	19P14-	2	148
1148	58.2	1.8	2050	58.2	168.792	23.193	S2100	19P14-	2	109
1375	48.6	2.1	2839	48.6	170.708	27.785	S3100	19P14-	2	148
1460	45.7	2.1	2992	45.7	178.441	29.511	S4500	19P14-	2	221
1795	37.2	1.7	3066	37.2	173.495	36.267	S4500	19P14-	2	221
2072	31.8	2.1	4291	31.8	176.002	42.520	S4500	19P14-	3	224
2872	22.9	1.6	4500	22.9	169.777	58.933	S4500	19P14-	3	224
3535	18.6	1.3	4500	18.6	167.043	72.533	S4500	19P14-	3	224
3959	16.6	1.1	4500	16.6	165.749	81.237	S4500	19P14-	3	224



9.1 kW

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
129	653	5.0	575	440	150.551	4.593	S2100	19J30-	2	99
139	606	5.0	620	408	187.458	4.951	S3100	19J30-	2	138
170	498	4.2	755	367	134.232	6.029	S2100	19J30-	2	99
181	465	5.2	807	308	206.485	6.450	S4500	19J30-	2	211
183	462	4.2	813	340	155.653	6.499	S3100	19J30-	2	138
193	437	3.8	860	322	127.562	6.870	S2100	19J30-	2	99
199	425	4.9	883	287	190.966	7.056	S4500	19J30-	2	211
208	405	3.8	927	299	144.059	7.406	S3100	19J30-	2	138
233	363	3.4	984	267	121.792	8.272	S2100	19J30-	2	99
251	336	3.4	1061	248	133.171	8.917	S3100	19J30-	2	138
296	286	5.0	1315	192	133.396	10.504	S2100	19J30-	2	99
308	274	2.9	1117	202	124.882	10.932	S3100	19J30-	2	138
354	238	5.0	1575	161	142.737	12.584	S3100	19J30-	2	138
369	229	5.2	1640	152	169.945	13.105	S4500	19J30-	2	211
388	218	4.2	1726	160	124.274	13.787	S2100	19J30-	2	99
403	209	4.9	1794	141	160.433	14.336	S4500	19J30-	2	211
442	191	3.7	1966	141	119.894	15.711	S2100	19J30-	2	99
465	182	4.2	2067	134	129.696	16.517	S3100	19J30-	2	138
514	164	4.7	2289	121	143.754	18.286	S4500	19J30-	2	211
530	159	4.4	2356	117	124.070	18.822	S3100	19J30-	2	138
532	159	3.5	2050	117	116.503	18.917	S2100	19J30-	2	99
630	134	4.1	2804	98.7	134.159	22.400	S4500	19J30-	2	211
638	132	3.8	2696	97.5	119.383	22.663	S3100	19J30-	2	138
653	129	2.8	2050	95.3	113.792	23.193	S2100	19J30-	2	99
782	108	3.3	2839	79.6	115.708	27.785	S3100	19J30-	2	138
830	102	3.3	2992	74.9	123.441	29.511	S4500	19J30-	2	211
1020	82.7	3.0	3066	61.0	118.495	36.267	S4500	19J30-	2	211
1178	70.6	2.9	4291	52.0	121.002	42.520	S4500	19J30-	3	214
1633	50.9	2.5	4500	37.5	114.777	58.933	S4500	19J30-	3	214
2010	41.4	2.2	4500	30.5	112.043	72.533	S4500	19J30-	3	214
2251	36.9	2.0	4500	27.2	110.749	81.237	S4500	19J30-	3	214

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



10 kW

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
143	653	4.5	808	431	205.551	4.593	S2100	19P30-	2	109
153	611	5.6	906	354	321.684	4.914	S4500	19P30-	2	221
154	606	4.5	871	400	242.458	4.951	S3100	19P30-	2	148
187	498	3.8	894	360	189.232	6.029	S2100	19P30-	2	109
200	465	4.7	1189	302	261.485	6.450	S4500	19P30-	2	221
202	462	3.8	963	334	210.653	6.499	S3100	19P30-	2	148
213	437	3.5	933	322	182.562	6.870	S2100	19P30-	2	109
219	425	4.5	1232	281	245.966	7.056	S4500	19P30-	2	221
230	405	3.5	1005	299	199.059	7.406	S3100	19P30-	2	148
257	363	3.0	984	267	176.792	8.272	S2100	19P30-	2	109
277	336	3.0	1061	248	188.171	8.917	S3100	19P30-	2	148
310	301	5.6	1840	174	258.730	9.984	S4500	19P30-	2	221
326	286	4.5	1848	188	188.396	10.504	S2100	19P30-	2	109
339	274	2.6	1117	202	179.882	10.932	S3100	19P30-	2	148
391	238	4.5	2214	157	197.737	12.584	S3100	19P30-	2	148
407	229	4.7	2416	149	224.945	13.105	S4500	19P30-	2	221
428	218	3.8	2044	157	179.274	13.787	S2100	19P30-	2	109
445	209	4.5	2504	138	215.433	14.336	S4500	19P30-	2	221
488	191	3.3	2050	141	174.894	15.711	S2100	19P30-	2	109
513	182	3.8	2449	131	184.696	16.517	S3100	19P30-	2	148
568	164	4.3	2690	121	198.754	18.286	S4500	19P30-	2	221
584	159	3.9	2555	117	179.070	18.822	S3100	19P30-	2	148
587	159	3.2	2050	117	171.503	18.917	S2100	19P30-	2	109
695	134	3.7	2832	98.7	189.159	22.400	S4500	19P30-	2	221
704	132	3.5	2696	97.5	174.383	22.663	S3100	19P30-	2	148
720	129	2.6	2050	95.3	168.792	23.193	S2100	19P30-	2	109
863	108	3.0	2839	79.6	170.708	27.785	S3100	19P30-	2	148
916	102	2.9	2992	74.9	178.441	29.511	S4500	19P30-	2	221
1126	82.7	2.7	3066	61.0	173.495	36.267	S4500	19P30-	2	221
1300	70.6	2.6	4291	52.0	176.002	42.520	S4500	19P30-	3	224
1802	50.9	2.3	4500	37.5	169.777	58.933	S4500	19P30-	3	224
2218	41.4	2.0	4500	30.5	167.043	72.533	S4500	19P30-	3	224
2484	36.9	1.8	4500	27.2	165.749	81.237	S4500	19P30-	3	224



Inverter mains connection 400 V, Forced ventilated motors

1.2 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
31.0	360	5.4	79.0	360	6.907	4.579	S400	12D17-	2	20
36.0	313	4.9	90.0	313	5.544	5.267	S220	12D17-	2	16
40.0	282	4.5	101	282	5.861	5.860	S400	12D17-	2	20
44.0	257	4.3	110	257	5.576	6.411	S400	12D17-	2	20
47.0	240	5.6	118	240	7.484	6.880	S660	12D17-	2	25
52.0	215	4.0	132	215	5.499	7.667	S220	12D17-	2	16
52.0	214	5.6	132	214	9.080	7.702	S950	12D17-	2	45
71.0	157	3.0	181	157	4.961	10.514	S220	12D17-	2	16
79.0	143	4.9	199	143	5.198	11.569	S400	12D17-	2	20
87.0	129	5.6	220	129	6.216	12.832	S660	12D17-	2	25
91.0	123	2.3	220	123	4.673	13.456	S220	12D17-	2	16
95.0	118	5.3	241	118	5.963	14.037	S660	12D17-	2	25
100	112	2.1	220	112	4.583	14.720	S220	12D17-	2	16
101	111	3.9	254	111	4.817	14.806	S400	12D17-	2	20
110	102	3.5	278	102	4.704	16.197	S400	12D17-	2	20
122	92.2	4.5	307	92.2	5.415	17.905	S660	12D17-	2	25
122	92.2	5.6	307	92.2	7.342	17.905	S950	12D17-	2	45
128	87.9	1.7	220	87.9	4.418	18.776	S220	12D17-	2	16
140	79.9	2.9	355	79.9	4.492	20.659	S400	12D17-	2	20
149	75.2	4.0	377	75.2	5.089	21.933	S660	12D17-	2	25
149	75.2	4.9	377	75.2	6.574	21.933	S950	12D17-	2	45
156	71.7	1.4	220	71.7	4.320	23.000	S220	12D17-	2	16
172	65.2	2.3	400	65.2	4.370	25.308	S400	12D17-	2	20
194	57.8	3.2	490	57.8	4.609	28.548	S660	12D17-	2	25
194	57.8	4.0	490	57.8	5.763	28.548	S950	12D17-	2	45
213	52.5	4.8	540	52.5	9.288	31.422	S2100	12D17-	2	77
238	47.2	3.4	601	47.2	5.214	34.989	S950	12D17-	2	45
241	46.5	2.7	610	46.5	4.442	35.511	S660	12D17-	2	25
256	43.8	4.8	646	43.8	10.332	37.644	S3100	12D17-	2	116
259	43.2	4.2	655	43.2	7.981	38.156	S2100	12D17-	2	77
310	36.1	4.2	785	36.1	8.689	45.711	S3100	12D17-	2	116
312	35.9	2.6	789	35.9	4.761	45.956	S950	12D17-	2	45
335	33.4	3.3	848	33.4	6.536	49.378	S2100	12D17-	2	77
375	29.5	2.5	947	29.5	5.061	55.982	S950	12D17-	3	45
379	29.6	2.2	835	29.6	4.560	55.773	S950	12D17-	2	45
402	27.9	3.3	1016	27.9	6.959	59.156	S3100	12D17-	2	116
407	27.5	2.8	1029	27.5	5.854	59.927	S2100	12D17-	2	77
408	27.0	5.0	1033	27.0	7.072	61.049	S2100	12D17-	3	78
479	23.0	2.0	950	23.0	4.734	71.644	S950	12D17-	3	45
488	23.0	2.8	1233	23.0	6.141	71.793	S3100	12D17-	2	116
514	21.8	2.2	1144	21.8	5.224	75.750	S2100	12D17-	2	77
523	21.1	3.9	1322	21.1	6.146	78.128	S2100	12D17-	3	78
524	21.1	1.8	950	21.1	4.634	78.375	S950	12D17-	3	45
572	19.3	3.6	1446	19.3	5.904	85.468	S2100	12D17-	3	78
626	17.6	5.0	1583	17.6	6.342	93.599	S3100	12D17-	3	117
669	16.5	1.4	950	16.5	4.449	99.968	S950	12D17-	3	45
685	16.1	4.5	1732	16.1	6.068	102.393	S3100	12D17-	3	117
693	15.9	5.7	1753	15.9	7.999	103.619	S4500	12D17-	3	192
729	15.1	2.8	1844	15.1	5.379	109.016	S2100	12D17-	3	78
819	13.5	1.2	950	13.5	4.341	122.461	S950	12D17-	3	45

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
849	13.0	4.9	2147	13.0	7.012	126.933	S4500	12D17-	3	192
874	12.6	3.6	2209	12.6	5.480	130.603	S3100	12D17-	3	117
893	12.4	2.3	2050	12.4	5.065	133.544	S2100	12D17-	3	78
1070	10.3	2.9	2706	10.3	5.132	159.989	S3100	12D17-	3	117
1105	10.0	4.0	2795	10.0	6.022	165.215	S4500	12D17-	3	192
1163	9.5	1.8	2050	9.5	4.595	173.820	S2100	12D17-	3	78
1355	8.1	3.3	3425	8.1	5.386	202.489	S4500	12D17-	3	192
1393	7.9	2.2	3100	7.9	4.687	208.240	S3100	12D17-	3	117
1446	7.6	1.4	2050	7.6	4.433	216.215	S2100	12D17-	3	78
1733	6.4	1.8	3100	6.4	4.458	259.030	S3100	12D17-	3	117
1779	6.2	2.5	4499	6.2	4.861	265.956	S4500	12D17-	3	192
2159	5.1	2.1	4500	5.1	4.628	322.773	S4500	12D17-	3	192
2361	4.6	1.3	3100	4.6	4.457	358.375	S3100	12D17-	4	120
2390	4.5	1.9	4500	4.5	4.622	362.667	S4500	12D17-	4	195
2927	3.7	1.5	4500	3.7	4.540	444.267	S4500	12D17-	4	195
3012	3.6	1.0	3100	3.6	4.411	457.111	S3100	12D17-	4	120
3810	2.9	1.2	4500	2.9	4.459	578.252	S4500	12D17-	4	195



Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors

1.7 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
39.0	404	3.9	94.0	404	12.460	3.339	S400	12H14-	2	23
39.0	404	5.2	94.0	404	13.260	3.339	S400	14D14-	2	26
45.0	352	3.9	108	352	9.896	3.840	S220	12H14-	2	20
46.0	344	4.8	110	344	16.101	3.920	S660	12H14-	2	28
53.0	295	3.2	129	295	10.207	4.579	S400	12H14-	2	23
53.0	295	4.6	129	295	11.007	4.579	S400	14D14-	2	26
61.0	256	3.0	148	256	8.844	5.267	S220	12H14-	2	20
63.0	251	4.0	151	251	12.564	5.376	S660	12H14-	2	28
63.0	250	4.2	152	250	16.548	5.391	S950	12H14-	2	48
68.0	230	2.7	165	230	9.161	5.860	S400	12H14-	2	23
68.0	230	3.8	165	230	9.961	5.860	S400	14D14-	2	26
70.0	224	4.0	170	224	14.806	6.038	S950	12H14-	2	48
75.0	211	2.6	180	211	8.876	6.411	S400	12H14-	2	23
75.0	211	3.5	180	211	9.676	6.411	S400	14D14-	2	26
80.0	196	3.4	194	196	10.784	6.880	S660	12H14-	2	28
80.0	196	5.2	194	196	11.584	6.880	S660	14D14-	2	31
85.0	185	4.8	206	185	12.196	7.311	S660	12H14-	2	28
89.0	176	2.4	216	176	8.799	7.667	S220	12H14-	2	20
90.0	175	3.3	217	175	12.380	7.702	S950	12H14-	2	48
90.0	175	4.6	217	175	13.180	7.702	S950	14D14-	2	51
96.0	163	4.2	233	163	24.092	8.272	S2100	12H14-	2	80
98.0	160	3.9	237	160	9.245	8.436	S400	12H14-	2	23
98.0	160	3.9	237	160	10.045	8.436	S400	14D14-	2	26
104	151	4.2	251	151	35.471	8.917	S3100	12H14-	2	119
117	135	4.0	282	135	10.488	10.027	S660	12H14-	2	28
117	135	5.4	282	135	11.288	10.027	S660	14D14-	2	31
122	128	1.8	220	128	8.261	10.514	S220	12H14-	2	20
127	124	5.6	308	124	27.982	10.932	S3100	14D14-	2	122
135	117	3.0	326	117	8.498	11.569	S400	12H14-	2	23
135	117	3.0	326	117	9.298	11.569	S400	14D14-	2	26
149	105	3.4	361	105	9.516	12.832	S660	12H14-	2	28
149	105	4.4	361	105	10.316	12.832	S660	14D14-	2	31
157	100	1.4	220	100	7.973	13.456	S220	12H14-	2	20
163	96.2	3.2	395	96.2	9.263	14.037	S660	12H14-	2	28
163	96.2	4.0	395	96.2	11.978	14.037	S950	12H14-	2	48
163	96.2	4.0	395	96.2	10.063	14.037	S660	14D14-	2	31
163	96.2	5.8	395	96.2	12.778	14.037	S950	14D14-	2	51
171	91.7	1.3	220	91.7	7.883	14.720	S220	12H14-	2	20
172	91.2	2.3	400	91.2	8.117	14.806	S400	12H14-	2	23
172	91.2	2.3	400	91.2	8.917	14.806	S400	14D14-	2	26
189	83.3	2.1	400	83.3	8.004	16.197	S400	12H14-	2	23
189	83.3	2.1	400	83.3	8.804	16.197	S400	14D14-	2	26
208	75.4	2.7	504	75.4	8.715	17.905	S660	12H14-	2	28
208	75.4	3.2	504	75.4	9.515	17.905	S660	14D14-	2	31
208	75.4	3.3	504	75.4	10.642	17.905	S950	12H14-	2	48
208	75.4	4.6	504	75.4	11.442	17.905	S950	14D14-	2	51
219	71.9	1.0	220	71.9	7.718	18.776	S220	12H14-	2	20
220	71.4	4.2	532	71.4	18.803	18.917	S2100	12H14-	2	80
241	65.3	1.7	400	65.3	7.792	20.659	S400	12H14-	2	23
241	65.3	1.7	400	65.3	8.592	20.659	S400	14D14-	2	26
255	61.6	2.3	593	61.6	8.389	21.933	S660	12H14-	2	28

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
255	61.6	2.6	617	61.6	9.189	21.933	S660	14D14-	2	31
255	61.6	2.9	617	61.6	9.874	21.933	S950	12H14-	2	48
255	61.6	3.7	617	61.6	10.674	21.933	S950	14D14-	2	51
264	59.6	4.2	638	59.6	21.683	22.663	S3100	12H14-	2	119
270	58.2	5.6	653	58.2	16.892	23.193	S2100	14D14-	2	83
295	53.3	1.4	400	53.3	7.670	25.308	S400	12H14-	2	23
323	48.6	5.6	782	48.6	18.808	27.785	S3100	14D14-	2	122
332	47.3	1.9	618	47.3	7.909	28.548	S660	12H14-	2	28
332	47.3	2.0	660	47.3	8.709	28.548	S660	14D14-	2	31
332	47.3	2.3	766	47.3	9.063	28.548	S950	12H14-	2	48
332	47.3	2.9	803	47.3	9.863	28.548	S950	14D14-	2	51
344	45.7	5.6	830	45.7	26.541	29.511	S4500	14D14-	2	195
366	43.0	2.8	884	43.0	12.588	31.422	S2100	12H14-	2	80
366	43.0	4.4	884	43.0	13.388	31.422	S2100	14D14-	2	83
407	38.6	2.0	803	38.6	8.514	34.989	S950	12H14-	2	48
407	38.6	2.3	950	38.6	9.314	34.989	S950	14D14-	2	51
413	38.0	1.6	642	38.0	7.742	35.511	S660	12H14-	2	28
422	37.2	4.7	1020	37.2	21.595	36.267	S4500	14D14-	2	195
438	35.9	2.8	1059	35.9	13.632	37.644	S3100	12H14-	2	119
438	35.9	4.4	1059	35.9	14.432	37.644	S3100	14D14-	2	122
444	35.4	2.4	1074	35.4	11.281	38.156	S2100	12H14-	2	80
444	35.4	3.8	1074	35.4	12.081	38.156	S2100	14D14-	2	83
510	30.3	4.0	1234	30.3	11.979	44.515	S2100	12H14-	3	81
510	30.3	4.0	1234	30.3	12.779	44.515	S2100	14D14-	3	84
532	29.5	2.4	1286	29.5	11.989	45.711	S3100	12H14-	2	119
532	29.5	3.8	1286	29.5	12.789	45.711	S3100	14D14-	2	122
535	29.4	1.5	825	29.4	8.061	45.956	S950	12H14-	2	48
546	28.8	3.7	1321	28.8	16.686	46.933	S4500	14D14-	2	195
575	27.3	1.9	1116	27.3	9.836	49.378	S2100	12H14-	2	80
575	27.3	3.0	1389	27.3	10.636	49.378	S2100	14D14-	2	83
612	25.3	4.8	1478	25.3	12.583	53.330	S3100	12H14-	3	120
612	25.3	5.0	1478	25.3	13.383	53.330	S3100	14D14-	3	123
642	24.1	1.5	950	24.1	8.361	55.982	S950	12H14-	3	48
642	24.1	1.5	950	24.1	9.161	55.982	S950	14D14-	3	51
649	24.2	1.3	835	24.2	7.860	55.773	S950	12H14-	2	48
663	23.7	3.1	1603	23.7	14.347	56.960	S4500	14D14-	2	195
689	22.8	1.9	1337	22.8	10.259	59.156	S3100	12H14-	2	119
689	22.8	3.0	1664	22.8	11.059	59.156	S3100	14D14-	2	122
698	22.5	1.6	1130	22.5	9.154	59.927	S2100	12H14-	2	80
698	22.5	2.5	1686	22.5	9.954	59.927	S2100	14D14-	2	83
700	22.1	2.9	1692	22.1	10.372	61.049	S2100	12H14-	3	81
700	22.1	2.9	1692	22.1	11.172	61.049	S2100	14D14-	3	84
822	18.8	1.2	950	18.8	8.034	71.644	S950	12H14-	3	48
822	18.8	1.2	950	18.8	8.834	71.644	S950	14D14-	3	51
832	18.6	4.2	2010	18.6	14.343	72.533	S4500	12H14-	3	195
832	18.6	5.4	2010	18.6	15.143	72.533	S4500	14D14-	3	198
836	18.8	1.6	1353	18.8	9.441	71.793	S3100	12H14-	2	119
836	18.8	2.5	2020	18.8	10.241	71.793	S3100	14D14-	2	122
838	18.8	2.5	2026	18.8	12.187	72.000	S4500	14D14-	2	195
839	18.5	3.7	2027	18.5	10.694	73.138	S3100	12H14-	3	120
839	18.5	3.7	2027	18.5	11.494	73.138	S3100	14D14-	3	123
882	17.8	1.3	1144	17.8	8.524	75.750	S2100	12H14-	2	80



Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
896	17.3	2.3	2050	17.3	9.446	78.128	S2100	12H14-	3	81
896	17.3	2.3	2050	17.3	10.246	78.128	S2100	14D14-	3	84
899	17.2	1.1	950	17.2	7.934	78.375	S950	12H14-	3	48
899	17.2	1.1	950	17.2	8.734	78.375	S950	14D14-	3	51
932	16.6	4.0	2251	16.6	13.049	81.237	S4500	12H14-	3	195
932	16.6	4.8	2251	16.6	13.849	81.237	S4500	14D14-	3	198
980	15.8	2.1	2050	15.8	9.204	85.468	S2100	12H14-	3	81
980	15.8	2.1	2050	15.8	10.004	85.468	S2100	14D14-	3	84
1073	14.4	2.9	2594	14.4	9.642	93.599	S3100	12H14-	3	120
1073	14.4	2.9	2594	14.4	10.442	93.599	S3100	14D14-	3	123
1174	13.2	2.6	2838	13.2	9.368	102.393	S3100	12H14-	3	120
1174	13.2	2.6	2838	13.2	10.168	102.393	S3100	14D14-	3	123
1188	13.0	3.3	2872	13.0	11.299	103.619	S4500	12H14-	3	195
1188	13.0	3.8	2872	13.0	12.099	103.619	S4500	14D14-	3	198
1250	12.4	1.6	2050	12.4	8.679	109.016	S2100	12H14-	3	81
1250	12.4	1.6	2050	12.4	9.479	109.016	S2100	14D14-	3	84
1456	10.6	2.9	3518	10.6	10.312	126.933	S4500	12H14-	3	195
1456	10.6	3.1	3518	10.6	11.112	126.933	S4500	14D14-	3	198
1498	10.3	2.1	3100	10.3	8.780	130.603	S3100	12H14-	3	120
1498	10.3	2.1	3100	10.3	9.580	130.603	S3100	14D14-	3	123
1531	10.1	1.3	2050	10.1	8.365	133.544	S2100	12H14-	3	81
1531	10.1	1.3	2050	10.1	9.165	133.544	S2100	14D14-	3	84
1835	8.4	1.7	3100	8.4	8.432	159.989	S3100	12H14-	3	120
1835	8.4	1.7	3100	8.4	9.232	159.989	S3100	14D14-	3	123
1895	8.2	2.3	4366	8.2	9.322	165.215	S4500	12H14-	3	195
1895	8.2	2.4	4500	8.2	10.122	165.215	S4500	14D14-	3	198
1993	7.8	1.0	2050	7.8	7.895	173.820	S2100	12H14-	3	81
1993	7.8	1.0	2050	7.8	8.695	173.820	S2100	14D14-	3	84
2322	6.7	1.9	4500	6.7	8.686	202.489	S4500	12H14-	3	195
2322	6.7	1.9	4500	6.7	9.486	202.489	S4500	14D14-	3	198
2388	6.5	1.3	3100	6.5	7.987	208.240	S3100	12H14-	3	120
2388	6.5	1.3	3100	6.5	8.787	208.240	S3100	14D14-	3	123
2971	5.2	1.0	3100	5.2	7.758	259.030	S3100	12H14-	3	120
3050	5.1	1.5	4500	5.1	8.161	265.956	S4500	12H14-	3	195
3702	4.2	1.2	4500	4.2	7.928	322.773	S4500	12H14-	3	195
4097	3.7	1.1	4500	3.7	7.922	362.667	S4500	12H14-	4	198

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



2.2 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
19.0	1056	5.8	57.0	929	9.160	3.339	S400	12D35-	2	20
22.0	918	5.8	66.0	808	6.596	3.840	S220	12D35-	2	16
27.0	770	4.9	79.0	768	6.907	4.579	S400	12D35-	2	20
31.0	669	4.4	90.0	656	5.544	5.267	S220	12D35-	2	16
34.0	602	4.1	101	602	5.861	5.860	S400	12D35-	2	20
35.0	584	6.0	104	506	11.506	6.038	S950	12D35-	2	45
37.0	550	3.9	110	550	5.576	6.411	S400	12D35-	2	20
40.0	512	5.1	118	499	7.484	6.880	S660	12D35-	2	25
45.0	460	3.7	132	370	5.499	7.667	S220	12D35-	2	16
45.0	458	5.0	132	448	9.080	7.702	S950	12D35-	2	45
49.0	418	5.8	145	368	5.945	8.436	S400	12D35-	2	20
61.0	335	2.7	181	299	4.961	10.514	S220	12D35-	2	16
67.0	305	4.5	199	299	5.198	11.569	S400	12D35-	2	20
75.0	275	5.1	220	268	6.216	12.832	S660	12D35-	2	25
78.0	262	2.1	220	245	4.673	13.456	S220	12D35-	2	16
82.0	251	4.8	241	250	5.963	14.037	S660	12D35-	2	25
82.0	251	6.0	241	218	8.678	14.037	S950	12D35-	2	45
86.0	240	1.9	220	228	4.583	14.720	S220	12D35-	2	16
86.0	238	3.5	254	238	4.817	14.806	S400	12D35-	2	20
94.0	218	3.2	278	218	4.704	16.197	S400	12D35-	2	20
104	197	4.1	307	197	5.415	17.905	S660	12D35-	2	25
104	197	5.0	307	193	7.342	17.905	S950	12D35-	2	45
109	188	1.7	220	188	4.418	18.776	S220	12D35-	2	16
120	171	2.8	355	171	4.492	20.659	S400	12D35-	2	20
128	161	4.0	377	161	5.089	21.933	S660	12D35-	2	25
128	161	4.9	377	161	6.574	21.933	S950	12D35-	2	45
134	153	1.4	220	153	4.320	23.000	S220	12D35-	2	16
147	139	2.3	400	139	4.370	25.308	S400	12D35-	2	20
166	124	3.2	490	124	4.609	28.548	S660	12D35-	2	25
166	124	3.9	490	124	5.763	28.548	S950	12D35-	2	45
183	112	5.4	540	112	9.288	31.422	S2100	12D35-	2	77
204	101	3.7	601	101	5.214	34.989	S950	12D35-	2	45
207	99.3	2.9	610	99.3	4.442	35.511	S660	12D35-	2	25
219	93.6	5.4	646	93.6	10.332	37.644	S3100	12D35-	2	116
222	92.4	4.6	655	92.4	7.981	38.156	S2100	12D35-	2	77
266	77.1	4.6	785	77.1	8.689	45.711	S3100	12D35-	2	116
268	76.7	2.9	789	76.7	4.761	45.956	S950	12D35-	2	45
287	71.4	3.7	848	71.4	6.536	49.378	S2100	12D35-	2	77
321	63.0	2.5	947	63.0	5.061	55.982	S950	12D35-	3	45
325	63.2	2.4	835	63.2	4.560	55.773	S950	12D35-	2	45
344	59.6	3.7	1016	59.6	6.959	59.156	S3100	12D35-	2	116
349	58.8	3.1	1029	58.8	5.854	59.927	S2100	12D35-	2	77
350	57.7	5.0	1033	57.7	7.072	61.049	S2100	12D35-	3	78
411	49.2	2.2	950	49.2	4.734	71.644	S950	12D35-	3	45
418	49.1	3.1	1233	49.1	6.141	71.793	S3100	12D35-	2	116
441	46.5	2.5	1144	46.5	5.224	75.750	S2100	12D35-	2	77
448	45.1	4.3	1322	45.1	6.146	78.128	S2100	12D35-	3	78
449	45.0	2.0	950	45.0	4.634	78.375	S950	12D35-	3	45
490	41.2	4.0	1446	41.2	5.904	85.468	S2100	12D35-	3	78
537	37.7	5.5	1583	37.7	6.342	93.599	S3100	12D35-	3	117
573	35.3	1.6	950	35.3	4.449	99.968	S950	12D35-	3	45



Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
587	34.4	5.0	1732	34.4	6.068	102.393	S3100	12D35-	3	117
625	32.3	3.1	1844	32.3	5.379	109.016	S2100	12D35-	3	78
702	28.8	1.3	950	28.8	4.341	122.461	S950	12D35-	3	45
728	27.8	5.4	2147	27.8	7.012	126.933	S4500	12D35-	3	192
749	27.0	3.9	2209	27.0	5.480	130.603	S3100	12D35-	3	117
766	26.4	2.5	2050	26.4	5.065	133.544	S2100	12D35-	3	78
917	22.0	3.2	2706	22.0	5.132	159.989	S3100	12D35-	3	117
947	21.3	4.4	2795	21.3	6.022	165.215	S4500	12D35-	3	192
997	20.3	2.0	2050	20.3	4.595	173.820	S2100	12D35-	3	78
1161	17.4	3.7	3425	17.4	5.386	202.489	S4500	12D35-	3	192
1194	16.9	2.5	3100	16.9	4.687	208.240	S3100	12D35-	3	117
1240	16.3	1.6	2050	16.3	4.433	216.215	S2100	12D35-	3	78
1485	13.6	2.0	3100	13.6	4.458	259.030	S3100	12D35-	3	117
1525	13.3	2.8	4499	13.3	4.861	265.956	S4500	12D35-	3	192
1851	10.9	2.3	4500	10.9	4.628	322.773	S4500	12D35-	3	192
2024	9.8	1.5	3100	9.8	4.457	358.375	S3100	12D35-	4	120
2048	9.7	2.1	4500	9.7	4.622	362.667	S4500	12D35-	4	195
2509	7.9	1.7	4500	7.9	4.540	444.267	S4500	12D35-	4	195
2582	7.7	1.1	3100	7.7	4.411	457.111	S3100	12D35-	4	120
3266	6.1	1.3	4500	6.1	4.459	578.252	S4500	12D35-	4	195
4003	5.0	1.1	4500	5.0	4.418	708.711	S4500	12D35-	4	195

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



2.9 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
55.0	494	2.6	150	494	15.760	3.339	S400	12L17-	2	26
63.0	430	2.6	173	430	13.196	3.840	S220	12L17-	2	23
65.0	421	3.3	215	421	19.401	3.920	S660	12L17-	2	31
76.0	360	2.2	172	360	13.507	4.579	S400	12L17-	2	26
87.0	313	2.0	181	313	12.144	5.267	S220	12L17-	2	23
89.0	307	2.7	250	307	15.864	5.376	S660	12L17-	2	31
89.0	306	2.9	263	306	19.848	5.391	S950	12L17-	2	51
97.0	282	1.9	185	282	12.461	5.860	S400	12L17-	2	26
100	273	2.7	279	273	18.106	6.038	S950	12L17-	2	51
106	257	1.8	193	257	12.176	6.411	S400	12L17-	2	26
113	240	2.3	269	240	14.084	6.880	S660	12L17-	2	31
121	226	3.3	400	226	15.496	7.311	S660	12L17-	2	31
126	215	1.7	217	215	12.099	7.667	S220	12L17-	2	23
127	214	2.3	300	214	15.680	7.702	S950	12L17-	2	51
136	200	2.9	405	200	27.392	8.272	S2100	12L17-	2	83
139	196	2.6	380	196	12.545	8.436	S400	12L17-	2	26
147	185	2.9	436	185	38.771	8.917	S3100	12L17-	2	122
165	165	2.7	467	165	13.788	10.027	S660	12L17-	2	31
173	157	1.2	220	157	11.561	10.514	S220	12L17-	2	23
191	143	2.0	400	143	11.798	11.569	S400	12L17-	2	26
212	129	2.3	502	129	12.816	12.832	S660	12L17-	2	31
232	118	2.2	525	118	12.563	14.037	S660	12L17-	2	31
232	118	2.7	649	118	15.278	14.037	S950	12L17-	2	51
244	111	1.6	400	111	11.417	14.806	S400	12L17-	2	26
267	102	1.5	400	102	11.304	16.197	S400	12L17-	2	26
295	92.2	1.9	564	92.2	12.015	17.905	S660	12L17-	2	31
295	92.2	2.3	697	92.2	13.942	17.905	S950	12L17-	2	51
312	87.2	3.0	925	87.2	22.103	18.917	S2100	12L17-	2	83
341	79.9	1.2	400	79.9	11.092	20.659	S400	12L17-	2	26
362	75.2	1.6	593	75.2	11.689	21.933	S660	12L17-	2	31
362	75.2	2.0	733	75.2	13.174	21.933	S950	12L17-	2	51
374	72.8	3.0	1109	72.8	24.983	22.663	S3100	12L17-	2	122
471	57.8	1.3	618	57.8	11.209	28.548	S660	12L17-	2	31
471	57.8	1.6	766	57.8	12.363	28.548	S950	12L17-	2	51
518	52.5	2.0	1033	52.5	15.888	31.422	S2100	12L17-	2	83
577	47.2	1.4	803	47.2	11.814	34.989	S950	12L17-	2	51
586	46.5	1.1	642	46.5	11.042	35.511	S660	12L17-	2	31
621	43.8	2.0	1238	43.8	16.932	37.644	S3100	12L17-	2	122
629	43.2	1.7	1075	43.2	14.581	38.156	S2100	12L17-	2	83
723	37.1	2.8	2050	37.1	15.279	44.515	S2100	12L17-	3	84
754	36.1	1.7	1288	36.1	15.289	45.711	S3100	12L17-	2	122
758	35.9	1.1	825	35.9	11.361	45.956	S950	12L17-	2	51
814	33.4	1.4	1116	33.4	13.136	49.378	S2100	12L17-	2	83
866	30.9	3.4	2874	30.9	15.883	53.330	S3100	12L17-	3	123
910	29.5	1.0	950	29.5	11.661	55.982	S950	12L17-	3	52
976	27.9	1.4	1337	27.9	13.559	59.156	S3100	12L17-	2	122
988	27.5	1.1	1130	27.5	12.454	59.927	S2100	12L17-	2	83
992	27.0	2.1	2050	27.0	13.672	61.049	S2100	12L17-	3	84
1178	22.7	3.0	3492	22.7	17.643	72.533	S4500	12L17-	3	198
1184	23.0	1.1	1353	23.0	12.741	71.793	S3100	12L17-	2	122
1188	22.6	2.6	3100	22.6	13.994	73.138	S3100	12L17-	3	123



Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
1269	21.1	1.6	2050	21.1	12.746	78.128	S2100	12L17-	3	84
1320	20.3	2.8	3699	20.3	16.349	81.237	S4500	12L17-	3	198
1389	19.3	1.5	2050	19.3	12.504	85.468	S2100	12L17-	3	84
1521	17.6	2.0	3100	17.6	12.942	93.599	S3100	12L17-	3	123
1664	16.1	1.9	3100	16.1	12.668	102.393	S3100	12L17-	3	123
1683	15.9	2.4	3972	15.9	14.599	103.619	S4500	12L17-	3	198
1771	15.1	1.2	2050	15.1	11.979	109.016	S2100	12L17-	3	84
2062	13.0	2.0	4180	13.0	13.612	126.933	S4500	12L17-	3	198
2122	12.6	1.5	3100	12.6	12.080	130.603	S3100	12L17-	3	123
2599	10.3	1.2	3100	10.3	11.732	159.989	S3100	12L17-	3	123
2684	10.0	1.6	4366	10.0	12.622	165.215	S4500	12L17-	3	198
3290	8.1	1.4	4500	8.1	11.986	202.489	S4500	12L17-	3	198
4321	6.2	1.0	4500	6.2	11.461	265.956	S4500	12L17-	3	198

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



3 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
76.0	359	2.7	178	359	19.360	3.339	S400	14H12-	2	31
89.0	306	3.8	208	306	23.001	3.920	S660	14H12-	2	36
100	274	3.9	233	274	27.317	4.380	S950	14H12-	2	56
104	262	2.3	243	262	17.107	4.579	S400	14H12-	2	31
123	223	3.2	286	223	19.464	5.376	S660	14H12-	2	36
123	223	3.4	287	223	23.448	5.391	S950	14H12-	2	56
134	205	1.9	258	205	16.061	5.860	S400	14H12-	2	31
137	199	4.2	321	199	43.432	6.029	S2100	14H12-	2	88
138	199	3.2	321	199	21.706	6.038	S950	14H12-	2	56
146	187	1.8	261	187	15.776	6.411	S400	14H12-	2	31
148	185	4.2	346	185	64.853	6.499	S3100	14H12-	2	127
157	175	3.8	365	175	36.762	6.870	S2100	14H12-	2	88
157	174	2.7	366	174	17.684	6.880	S660	14H12-	2	36
167	164	3.6	389	164	19.096	7.311	S660	14H12-	2	36
169	162	3.8	394	162	53.259	7.406	S3100	14H12-	2	127
176	156	2.4	409	156	19.280	7.702	S950	14H12-	2	56
189	145	3.4	440	145	30.992	8.272	S2100	14H12-	2	88
192	142	2.0	380	142	16.145	8.436	S400	14H12-	2	31
203	135	3.4	474	135	42.371	8.917	S3100	14H12-	2	127
229	120	2.7	533	120	17.388	10.027	S660	14H12-	2	36
232	118	3.9	541	118	21.944	10.183	S950	14H12-	2	56
249	110	2.9	581	110	34.082	10.932	S3100	14H12-	2	127
264	104	1.5	400	104	15.398	11.569	S400	14H12-	2	31
293	93.5	2.3	660	93.5	16.416	12.832	S660	14H12-	2	36
314	87.0	4.2	733	87.0	33.474	13.787	S2100	14H12-	2	88
320	85.5	2.1	660	85.5	16.163	14.037	S660	14H12-	2	36
320	85.5	3.0	746	85.5	18.878	14.037	S950	14H12-	2	56
338	81.0	1.2	400	81.0	15.017	14.806	S400	14H12-	2	31
358	76.4	3.8	835	76.4	29.094	15.711	S2100	14H12-	2	88
369	74.1	1.1	400	74.1	14.904	16.197	S400	14H12-	2	31
377	72.7	4.2	878	72.7	38.896	16.517	S3100	14H12-	2	127
408	67.0	1.6	660	67.0	15.615	17.905	S660	14H12-	2	36
408	67.0	2.3	950	67.0	17.542	17.905	S950	14H12-	2	56
417	65.6	4.2	972	65.6	52.954	18.286	S4500	14H12-	2	200
429	63.8	3.8	1001	63.8	33.270	18.822	S3100	14H12-	2	127
431	63.4	3.4	1006	63.4	25.703	18.917	S2100	14H12-	2	88
500	54.7	1.3	660	54.7	15.289	21.933	S660	14H12-	2	36
500	54.7	1.9	950	54.7	16.774	21.933	S950	14H12-	2	56
517	52.9	3.4	1205	52.9	28.583	22.663	S3100	14H12-	2	127
529	51.7	2.9	1233	51.7	22.992	23.193	S2100	14H12-	2	88
634	43.2	2.9	1477	43.2	24.908	27.785	S3100	14H12-	2	127
651	42.0	1.0	660	42.0	14.809	28.548	S660	14H12-	2	36
651	42.0	1.5	950	42.0	15.963	28.548	S950	14H12-	2	56
673	40.7	2.9	1569	40.7	32.641	29.511	S4500	14H12-	2	200
716	38.2	2.3	1614	38.2	19.488	31.422	S2100	14H12-	2	88
798	34.3	1.2	950	34.3	15.414	34.989	S950	14H12-	2	56
827	33.1	2.4	1928	33.1	27.695	36.267	S4500	14H12-	2	200
858	31.9	2.3	1934	31.9	20.532	37.644	S3100	14H12-	2	127
870	31.5	1.9	1677	31.5	18.181	38.156	S2100	14H12-	2	88
955	28.2	4.4	2227	28.2	30.202	42.520	S4500	14H12-	3	203
1000	27.0	2.1	2050	27.0	18.879	44.515	S2100	14H12-	3	89



Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
1042	26.3	1.9	2009	26.3	18.889	45.711	S3100	14H12-	2	127
1070	25.6	1.9	2046	25.6	22.786	46.933	S4500	14H12-	2	200
1126	24.3	1.5	1739	24.3	16.736	49.378	S2100	14H12-	2	88
1198	22.5	2.6	2793	22.5	19.483	53.330	S3100	14H12-	3	128
1299	21.1	1.6	2071	21.1	20.447	56.960	S4500	14H12-	2	200
1324	20.4	3.4	3086	20.4	23.977	58.933	S4500	14H12-	3	203
1349	20.3	1.5	2083	20.3	17.159	59.156	S3100	14H12-	2	127
1366	20.0	1.3	1759	20.0	16.054	59.927	S2100	14H12-	2	88
1371	19.7	1.5	2050	19.7	17.272	61.049	S2100	14H12-	3	89
1629	16.5	2.8	3799	16.5	21.243	72.533	S4500	14H12-	3	203
1637	16.7	1.3	2108	16.7	16.341	71.793	S3100	14H12-	2	127
1642	16.7	1.3	2096	16.7	18.287	72.000	S4500	14H12-	2	200
1643	16.4	1.9	3100	16.4	17.594	73.138	S3100	14H12-	3	128
1755	15.4	1.2	2050	15.4	16.346	78.128	S2100	14H12-	3	89
1824	14.8	2.5	4254	14.8	19.949	81.237	S4500	14H12-	3	203
1919	14.0	1.1	2050	14.0	16.104	85.468	S2100	14H12-	3	89
2102	12.8	1.5	3100	12.8	16.542	93.599	S3100	14H12-	3	128
2300	11.7	1.4	3100	11.7	16.268	102.393	S3100	14H12-	3	128
2327	11.6	1.9	4500	11.6	18.199	103.619	S4500	14H12-	3	203
2851	9.5	1.6	4500	9.5	17.212	126.933	S4500	14H12-	3	203
2933	9.2	1.1	3100	9.2	15.680	130.603	S3100	14H12-	3	128
3710	7.3	1.2	4500	7.3	16.222	165.215	S4500	14H12-	3	203

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



3.3 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
34.0	899	4.7	94.0	895	13.260	3.339	S400	14D30-	2	26
47.0	655	4.1	129	655	11.007	4.579	S400	14D30-	2	26
55.0	558	5.6	151	558	13.364	5.376	S660	14D30-	2	31
55.0	557	6.0	152	547	17.348	5.391	S950	14D30-	2	51
60.0	512	3.4	165	512	9.961	5.860	S400	14D30-	2	26
62.0	497	5.6	170	497	15.606	6.038	S950	14D30-	2	51
65.0	468	3.2	180	468	9.676	6.411	S400	14D30-	2	26
70.0	436	4.7	194	436	11.584	6.880	S660	14D30-	2	31
78.0	390	4.2	217	390	13.180	7.702	S950	14D30-	2	51
84.0	363	6.0	233	356	24.892	8.272	S2100	14D30-	2	83
86.0	356	3.5	237	334	10.045	8.436	S400	14D30-	2	26
91.0	336	6.0	251	330	36.271	8.917	S3100	14D30-	2	122
102	299	4.9	282	294	11.288	10.027	S660	14D30-	2	31
111	274	5.1	308	274	27.982	10.932	S3100	14D30-	2	122
118	259	2.7	326	259	9.298	11.569	S400	14D30-	2	26
131	234	4.0	361	234	10.316	12.832	S660	14D30-	2	31
143	214	3.7	395	214	10.063	14.037	S660	14D30-	2	31
143	214	5.3	395	213	12.778	14.037	S950	14D30-	2	51
151	203	2.1	400	203	8.917	14.806	S400	14D30-	2	26
165	185	1.9	400	185	8.804	16.197	S400	14D30-	2	26
182	168	2.9	504	168	9.515	17.905	S660	14D30-	2	31
182	168	4.1	504	168	11.442	17.905	S950	14D30-	2	51
210	145	1.7	400	145	8.592	20.659	S400	14D30-	2	26
223	137	2.7	617	137	9.189	21.933	S660	14D30-	2	31
223	137	3.8	617	137	10.674	21.933	S950	14D30-	2	51
236	129	5.8	653	129	16.892	23.193	S2100	14D30-	2	83
283	108	5.8	782	108	18.808	27.785	S3100	14D30-	2	122
291	105	2.1	660	105	8.709	28.548	S660	14D30-	2	31
291	105	3.0	803	105	9.863	28.548	S950	14D30-	2	51
301	102	5.8	830	102	26.541	29.511	S4500	14D30-	2	195
320	95.5	5.0	884	95.5	13.388	31.422	S2100	14D30-	2	83
356	85.7	2.7	950	85.7	9.314	34.989	S950	14D30-	2	51
369	82.7	5.3	1020	82.7	21.595	36.267	S4500	14D30-	2	195
383	79.7	5.0	1059	79.7	14.432	37.644	S3100	14D30-	2	122
389	78.6	4.3	1074	78.6	12.081	38.156	S2100	14D30-	2	83
447	67.4	3.6	1234	67.4	12.779	44.515	S2100	14D30-	3	84
466	65.6	4.3	1286	65.6	12.789	45.711	S3100	14D30-	2	122
478	63.9	4.3	1321	63.9	16.686	46.933	S4500	14D30-	2	195
503	60.8	3.5	1389	60.8	10.636	49.378	S2100	14D30-	2	83
535	56.3	5.2	1478	56.3	13.383	53.330	S3100	14D30-	3	123
562	53.6	1.5	950	53.6	9.161	55.982	S950	14D30-	3	51
580	52.7	3.6	1603	52.7	14.347	56.960	S4500	14D30-	2	195
603	50.7	3.5	1664	50.7	11.059	59.156	S3100	14D30-	2	122
610	50.1	2.9	1686	50.1	9.954	59.927	S2100	14D30-	2	83
613	49.1	3.0	1692	49.1	11.172	61.049	S2100	14D30-	3	84
719	41.9	1.3	950	41.9	8.834	71.644	S950	14D30-	3	51
731	41.8	2.9	2020	41.8	10.241	71.793	S3100	14D30-	2	122
733	41.7	2.9	2026	41.7	12.187	72.000	S4500	14D30-	2	195
734	41.0	4.2	2027	41.0	11.494	73.138	S3100	14D30-	3	123
784	38.4	2.6	2050	38.4	10.246	78.128	S2100	14D30-	3	84
786	38.3	1.2	950	38.3	8.734	78.375	S950	14D30-	3	51



Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
815	36.9	5.5	2251	36.9	13.849	81.237	S4500	14D30-	3	198
858	35.1	2.4	2050	35.1	10.004	85.468	S2100	14D30-	3	84
939	32.1	3.3	2594	32.1	10.442	93.599	S3100	14D30-	3	123
1027	29.3	3.0	2838	29.3	10.168	102.393	S3100	14D30-	3	123
1040	29.0	4.3	2872	29.0	12.099	103.619	S4500	14D30-	3	198
1094	27.5	1.9	2050	27.5	9.479	109.016	S2100	14D30-	3	84
1274	23.6	3.5	3518	23.6	11.112	126.933	S4500	14D30-	3	198
1311	23.0	2.4	3100	23.0	9.580	130.603	S3100	14D30-	3	123
1340	22.5	1.5	2050	22.5	9.165	133.544	S2100	14D30-	3	84
1605	18.8	1.9	3100	18.8	9.232	159.989	S3100	14D30-	3	123
1658	18.2	2.7	4500	18.2	10.122	165.215	S4500	14D30-	3	198
1744	17.3	1.2	2050	17.3	8.695	173.820	S2100	14D30-	3	84
2032	14.8	2.2	4500	14.8	9.486	202.489	S4500	14D30-	3	198
2090	14.4	1.5	3100	14.4	8.787	208.240	S3100	14D30-	3	123

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



3.7 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
34.0	1011	3.4	94.0	836	12.460	3.339	S400	12H34-	2	23
39.0	879	3.4	108	727	9.896	3.840	S220	12H34-	2	20
40.0	861	4.2	110	629	16.101	3.920	S660	12H34-	2	28
47.0	737	2.8	129	691	10.207	4.579	S400	12H34-	2	23
54.0	641	2.6	148	590	8.844	5.267	S220	12H34-	2	20
55.0	628	3.5	151	513	12.564	5.376	S660	12H34-	2	28
55.0	626	3.7	152	495	16.548	5.391	S950	12H34-	2	48
60.0	576	2.4	165	575	9.161	5.860	S400	12H34-	2	23
62.0	559	3.5	170	455	14.806	6.038	S950	12H34-	2	48
65.0	526	2.3	180	526	8.876	6.411	S400	12H34-	2	23
70.0	491	2.9	194	448	10.784	6.880	S660	12H34-	2	28
74.0	462	4.2	206	337	12.196	7.311	S660	12H34-	2	28
78.0	440	2.1	216	330	8.799	7.667	S220	12H34-	2	20
78.0	438	2.9	217	403	12.380	7.702	S950	12H34-	2	48
84.0	408	3.7	233	322	24.092	8.272	S2100	12H34-	2	80
86.0	400	3.4	237	331	9.245	8.436	S400	12H34-	2	23
91.0	379	3.7	251	299	35.471	8.917	S3100	12H34-	2	119
102	337	3.5	282	275	10.488	10.027	S660	12H34-	2	28
107	321	1.6	220	246	8.261	10.514	S220	12H34-	2	20
118	292	2.6	326	269	8.498	11.569	S400	12H34-	2	23
131	263	2.9	361	240	9.516	12.832	S660	12H34-	2	28
137	251	1.2	220	192	7.973	13.456	S220	12H34-	2	20
143	240	2.8	395	225	9.263	14.037	S660	12H34-	2	28
143	240	3.5	395	196	11.978	14.037	S950	12H34-	2	48
150	229	1.1	220	179	7.883	14.720	S220	12H34-	2	20
151	228	2.0	400	221	8.117	14.806	S400	12H34-	2	23
165	208	1.9	400	202	8.004	16.197	S400	12H34-	2	23
182	189	2.4	504	189	8.715	17.905	S660	12H34-	2	28
182	189	2.9	504	173	10.642	17.905	S950	12H34-	2	48
191	180	1.0	220	156	7.718	18.776	S220	12H34-	2	20
193	178	4.2	532	145	18.803	18.917	S2100	12H34-	2	80
210	163	1.7	400	163	7.792	20.659	S400	12H34-	2	23
223	154	2.3	593	154	8.389	21.933	S660	12H34-	2	28
223	154	2.9	617	154	9.874	21.933	S950	12H34-	2	48
231	149	4.2	638	121	21.683	22.663	S3100	12H34-	2	119
258	133	1.4	400	133	7.670	25.308	S400	12H34-	2	23
291	118	1.8	618	118	7.909	28.548	S660	12H34-	2	28
291	118	2.3	766	118	9.063	28.548	S950	12H34-	2	48
320	107	3.1	884	107	12.588	31.422	S2100	12H34-	2	80
356	96.5	2.2	803	96.5	8.514	34.989	S950	12H34-	2	48
362	95.0	1.7	642	95.0	7.742	35.511	S660	12H34-	2	28
383	89.7	3.1	1059	89.7	13.632	37.644	S3100	12H34-	2	119
389	88.5	2.7	1074	88.5	11.281	38.156	S2100	12H34-	2	80
447	75.8	3.5	1234	69.3	11.979	44.515	S2100	12H34-	3	81
466	73.8	2.7	1286	73.8	11.989	45.711	S3100	12H34-	2	119
468	73.4	1.7	825	73.4	8.061	45.956	S950	12H34-	2	48
503	68.4	2.1	1116	68.4	9.836	49.378	S2100	12H34-	2	80
535	63.3	4.8	1478	61.7	12.583	53.330	S3100	12H34-	3	120
562	60.3	1.5	950	57.9	8.361	55.982	S950	12H34-	3	48
568	60.5	1.4	835	60.5	7.860	55.773	S950	12H34-	2	48
603	57.1	2.1	1337	57.1	10.259	59.156	S3100	12H34-	2	119



Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
610	56.3	1.8	1130	56.3	9.154	59.927	S2100	12H34-	2	80
613	55.3	2.9	1692	55.3	10.372	61.049	S2100	12H34-	3	81
719	47.1	1.3	950	47.1	8.034	71.644	S950	12H34-	3	48
728	46.5	4.6	2010	46.5	14.343	72.533	S4500	12H34-	3	195
731	47.0	1.8	1353	47.0	9.441	71.793	S3100	12H34-	2	119
734	46.1	4.1	2027	46.1	10.694	73.138	S3100	12H34-	3	120
772	44.6	1.4	1144	44.6	8.524	75.750	S2100	12H34-	2	80
784	43.2	2.5	2050	43.2	9.446	78.128	S2100	12H34-	3	81
786	43.1	1.2	950	43.1	7.934	78.375	S950	12H34-	3	48
815	41.5	4.4	2251	41.5	13.049	81.237	S4500	12H34-	3	195
858	39.5	2.3	2050	39.5	9.204	85.468	S2100	12H34-	3	81
939	36.1	3.2	2594	36.1	9.642	93.599	S3100	12H34-	3	120
1027	33.0	2.9	2838	33.0	9.368	102.393	S3100	12H34-	3	120
1040	32.6	3.7	2872	32.6	11.299	103.619	S4500	12H34-	3	195
1094	31.0	1.8	2050	31.0	8.679	109.016	S2100	12H34-	3	81
1274	26.6	3.2	3518	26.6	10.312	126.933	S4500	12H34-	3	195
1311	25.8	2.3	3100	25.8	8.780	130.603	S3100	12H34-	3	120
1340	25.3	1.5	2050	25.3	8.365	133.544	S2100	12H34-	3	81
1605	21.1	1.9	3100	21.1	8.432	159.989	S3100	12H34-	3	120
1658	20.4	2.5	4366	20.4	9.322	165.215	S4500	12H34-	3	195
1744	19.4	1.1	2050	19.4	7.895	173.820	S2100	12H34-	3	81
2032	16.7	2.1	4500	16.7	8.686	202.489	S4500	12H34-	3	195
2090	16.2	1.4	3100	16.2	7.987	208.240	S3100	12H34-	3	120
2599	13.0	1.2	3100	13.0	7.758	259.030	S3100	12H34-	3	120
2669	12.7	1.6	4500	12.7	8.161	265.956	S4500	12H34-	3	195
3239	10.5	1.3	4500	10.5	7.928	322.773	S4500	12H34-	3	195
3585	9.3	1.2	4500	9.3	7.922	362.667	S4500	12H34-	4	198

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



4.3 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
99.0	404	2.1	203	404	28.560	3.339	S400	14L14-	2	36
116	344	2.9	293	344	32.201	3.920	S660	14L14-	2	41
130	308	3.0	328	308	36.517	4.380	S950	14L14-	2	60
136	295	1.8	243	295	26.307	4.579	S400	14L14-	2	36
159	251	2.4	388	251	28.664	5.376	S660	14L14-	2	41
160	250	2.6	403	250	32.648	5.391	S950	14L14-	2	60
173	230	1.5	258	230	25.261	5.860	S400	14L14-	2	36
178	224	3.2	451	224	52.632	6.029	S2100	14L14-	2	93
179	224	2.4	434	224	30.906	6.038	S950	14L14-	2	60
190	211	1.4	261	211	24.976	6.411	S400	14L14-	2	36
192	208	3.2	486	208	74.053	6.499	S3100	14L14-	2	132
203	197	3.0	514	197	45.962	6.870	S2100	14L14-	2	93
204	196	2.1	417	196	26.884	6.880	S660	14L14-	2	41
216	185	2.7	547	185	28.296	7.311	S660	14L14-	2	41
219	182	3.0	554	182	62.459	7.406	S3100	14L14-	2	132
228	175	1.8	415	175	28.480	7.702	S950	14L14-	2	60
245	163	2.6	619	163	40.192	8.272	S2100	14L14-	2	93
250	160	1.5	380	160	25.345	8.436	S400	14L14-	2	36
264	151	2.6	667	151	51.571	8.917	S3100	14L14-	2	132
297	135	2.1	625	135	26.588	10.027	S660	14L14-	2	41
301	133	3.0	762	133	31.144	10.183	S950	14L14-	2	60
324	124	2.2	719	124	43.282	10.932	S3100	14L14-	2	132
342	117	1.2	400	117	24.598	11.569	S400	14L14-	2	36
380	105	1.7	660	105	25.616	12.832	S660	14L14-	2	41
408	97.9	3.2	1031	97.9	42.674	13.787	S2100	14L14-	2	93
415	96.2	1.6	660	96.2	25.363	14.037	S660	14L14-	2	41
415	96.2	2.3	950	96.2	28.078	14.037	S950	14L14-	2	60
465	85.9	3.0	1175	85.9	38.294	15.711	S2100	14L14-	2	93
489	81.7	3.2	1236	81.7	48.096	16.517	S3100	14L14-	2	132
530	75.4	1.3	660	75.4	24.815	17.905	S660	14L14-	2	41
530	75.4	1.8	950	75.4	26.742	17.905	S950	14L14-	2	60
541	73.8	3.2	1368	73.8	62.154	18.286	S4500	14L14-	2	205
557	71.7	3.0	1408	71.7	42.470	18.822	S3100	14L14-	2	132
560	71.4	2.6	1415	71.4	34.903	18.917	S2100	14L14-	2	93
649	61.6	1.0	660	61.6	24.489	21.933	S660	14L14-	2	41
649	61.6	1.5	950	61.6	25.974	21.933	S950	14L14-	2	60
671	59.6	2.6	1695	59.6	37.783	22.663	S3100	14L14-	2	132
686	58.2	2.2	1524	58.2	32.192	23.193	S2100	14L14-	2	93
822	48.6	2.2	1826	48.6	34.108	27.785	S3100	14L14-	2	132
845	47.3	1.1	950	47.3	25.163	28.548	S950	14L14-	2	60
873	45.7	2.2	1924	45.7	41.841	29.511	S4500	14L14-	2	205
930	43.0	1.7	1614	43.0	28.688	31.422	S2100	14L14-	2	93
1073	37.2	1.8	1973	37.2	36.895	36.267	S4500	14L14-	2	205
1114	35.9	1.7	1934	35.9	29.732	37.644	S3100	14L14-	2	132
1129	35.4	1.5	1677	35.4	27.381	38.156	S2100	14L14-	2	93
1239	31.8	3.4	3133	31.8	39.402	42.520	S4500	14L14-	3	208
1298	30.3	1.6	2050	30.3	28.079	44.515	S2100	14L14-	3	93
1353	29.5	1.5	2009	29.5	28.089	45.711	S3100	14L14-	2	132
1389	28.8	1.5	2046	28.8	31.986	46.933	S4500	14L14-	2	205
1461	27.3	1.2	1739	27.3	25.936	49.378	S2100	14L14-	2	93
1554	25.3	2.0	3054	25.3	28.683	53.330	S3100	14L14-	3	133



Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
1686	23.7	1.2	2071	23.7	29.647	56.960	S4500	14L14-	2	205
1718	22.9	2.6	4342	22.9	33.177	58.933	S4500	14L14-	3	208
1751	22.8	1.2	2083	22.8	26.359	59.156	S3100	14L14-	2	132
1779	22.1	1.2	2050	22.1	26.472	61.049	S2100	14L14-	3	93
2114	18.6	2.1	4500	18.6	30.443	72.533	S4500	14L14-	3	208
2132	18.5	1.5	3100	18.5	26.794	73.138	S3100	14L14-	3	133
2368	16.6	1.9	4500	16.6	29.149	81.237	S4500	14L14-	3	208
2728	14.4	1.1	3100	14.4	25.742	93.599	S3100	14L14-	3	133
2985	13.2	1.0	3100	13.2	25.468	102.393	S3100	14L14-	3	133
3020	13.0	1.5	4500	13.0	27.399	103.619	S4500	14L14-	3	208
3700	10.6	1.2	4500	10.6	26.412	126.933	S4500	14L14-	3	208

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



4.6 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
136	315	1.5	203	315	39.860	3.339	S400	14P11-	2	41
160	268	2.1	338	268	43.501	3.920	S660	14P11-	2	46
179	240	2.2	387	240	47.817	4.380	S950	14P11-	2	65
187	229	1.3	243	229	37.607	4.579	S400	14P11-	2	41
219	195	1.8	388	195	39.964	5.376	S660	14P11-	2	46
220	195	1.9	413	195	43.948	5.391	S950	14P11-	2	65
239	179	1.1	258	179	36.561	5.860	S400	14P11-	2	41
246	174	2.3	575	174	63.932	6.029	S2100	14P11-	2	98
246	174	1.8	434	174	42.206	6.038	S950	14P11-	2	65
261	164	1.0	261	164	36.276	6.411	S400	14P11-	2	41
265	162	2.3	620	162	85.353	6.499	S3100	14P11-	2	137
280	153	2.1	600	153	57.262	6.870	S2100	14P11-	2	98
280	153	1.5	417	153	38.184	6.880	S660	14P11-	2	46
298	144	2.0	593	144	39.596	7.311	S660	14P11-	2	46
302	142	2.1	647	142	73.759	7.406	S3100	14P11-	2	137
314	136	1.3	415	136	39.780	7.702	S950	14P11-	2	65
337	127	1.9	633	127	51.492	8.272	S2100	14P11-	2	98
344	125	1.1	380	125	36.645	8.436	S400	14P11-	2	41
363	118	1.9	683	118	62.871	8.917	S3100	14P11-	2	137
409	105	1.5	625	105	37.888	10.027	S660	14P11-	2	46
415	103	2.2	899	103	42.444	10.183	S950	14P11-	2	65
445	96.0	1.6	719	96.0	54.582	10.932	S3100	14P11-	2	137
523	81.8	1.3	660	81.8	36.916	12.832	S660	14P11-	2	46
562	76.2	2.3	1316	76.2	53.974	13.787	S2100	14P11-	2	98
572	74.8	1.2	660	74.8	36.663	14.037	S660	14P11-	2	46
572	74.8	1.7	950	74.8	39.378	14.037	S950	14P11-	2	65
640	66.8	2.1	1373	66.8	49.594	15.711	S2100	14P11-	2	98
673	63.6	2.3	1576	63.6	59.396	16.517	S3100	14P11-	2	137
730	58.6	1.3	950	58.6	38.042	17.905	S950	14P11-	2	65
745	57.4	2.3	1732	57.4	73.454	18.286	S4500	14P11-	2	210
767	55.8	2.1	1645	55.8	53.770	18.822	S3100	14P11-	2	137
771	55.5	1.9	1449	55.5	46.203	18.917	S2100	14P11-	2	98
894	47.9	1.1	950	47.9	37.274	21.933	S950	14P11-	2	65
924	46.3	1.9	1735	46.3	49.083	22.663	S3100	14P11-	2	137
945	45.3	1.6	1524	45.3	43.492	23.193	S2100	14P11-	2	98
1132	37.8	1.6	1826	37.8	45.408	27.785	S3100	14P11-	2	137
1203	35.6	1.6	1924	35.6	53.141	29.511	S4500	14P11-	2	210
1280	33.4	1.3	1614	33.4	39.988	31.422	S2100	14P11-	2	98
1478	29.0	1.3	1973	29.0	48.195	36.267	S4500	14P11-	2	210
1534	27.9	1.3	1934	27.9	41.032	37.644	S3100	14P11-	2	137
1555	27.5	1.1	1677	27.5	38.681	38.156	S2100	14P11-	2	98
1707	24.7	2.5	4175	24.7	50.702	42.520	S4500	14P11-	3	213
1787	23.6	1.2	2050	23.6	39.379	44.515	S2100	14P11-	3	98
1863	23.0	1.1	2009	23.0	39.389	45.711	S3100	14P11-	2	137
1913	22.4	1.1	2046	22.4	43.286	46.933	S4500	14P11-	2	210
2141	19.7	1.4	3054	19.7	39.983	53.330	S3100	14P11-	3	138
2365	17.8	1.9	4500	17.8	44.477	58.933	S4500	14P11-	3	213
2911	14.5	1.6	4500	14.5	41.743	72.533	S4500	14P11-	3	213
2936	14.4	1.1	3100	14.4	38.094	73.138	S3100	14P11-	3	138
3261	12.9	1.4	4500	12.9	40.449	81.237	S4500	14P11-	3	213
4159	10.1	1.1	4500	10.1	38.699	103.619	S4500	14P11-	3	213



4.8 kW

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
169	261	4.8	383	261	110.551	4.593	S2100	19F12-	2	98
181	244	5.9	410	244	226.684	4.914	S4500	19F12-	2	210
183	242	4.8	413	242	147.458	4.951	S3100	19F12-	2	137
222	199	4.0	503	199	94.232	6.029	S2100	19F12-	2	98
238	186	5.0	538	186	166.485	6.450	S4500	19F12-	2	210
240	185	4.0	542	185	115.653	6.499	S3100	19F12-	2	137
253	175	3.7	573	175	87.562	6.870	S2100	19F12-	2	98
260	170	4.7	589	170	150.966	7.056	S4500	19F12-	2	210
273	162	3.7	618	162	104.059	7.406	S3100	19F12-	2	137
305	145	3.2	690	145	81.792	8.272	S2100	19F12-	2	98
329	135	3.2	744	135	93.171	8.917	S3100	19F12-	2	137
368	120	5.9	833	120	163.730	9.984	S4500	19F12-	2	210
387	114	4.8	876	114	93.396	10.504	S2100	19F12-	2	98
403	110	2.8	912	110	84.882	10.932	S3100	19F12-	2	137
464	95.4	4.8	1050	95.4	102.737	12.584	S3100	19F12-	2	137
483	91.6	5.0	1093	91.6	129.945	13.105	S4500	19F12-	2	210
508	87.0	4.0	1150	87.0	84.274	13.787	S2100	19F12-	2	98
529	83.7	4.7	1196	83.7	120.433	14.336	S4500	19F12-	2	210
579	76.4	3.5	1311	76.4	79.894	15.711	S2100	19F12-	2	98
609	72.7	4.0	1378	72.7	89.696	16.517	S3100	19F12-	2	137
674	65.6	4.0	1526	65.6	103.754	18.286	S4500	19F12-	2	210
694	63.8	3.7	1571	63.8	84.070	18.822	S3100	19F12-	2	137
697	63.4	2.9	1578	63.4	76.503	18.917	S2100	19F12-	2	98
826	53.6	3.4	1869	53.6	94.159	22.400	S4500	19F12-	2	210
836	52.9	3.2	1891	52.9	79.383	22.663	S3100	19F12-	2	137
855	51.7	2.4	1935	51.7	73.792	23.193	S2100	19F12-	2	98
1024	43.2	2.8	2318	43.2	75.708	27.785	S3100	19F12-	2	137
1088	40.7	2.8	2462	40.7	83.441	29.511	S4500	19F12-	2	210
1337	33.1	2.3	3026	33.1	78.495	36.267	S4500	19F12-	2	210
1544	28.2	2.8	3495	28.2	81.002	42.520	S4500	19F12-	3	213
2140	20.4	2.1	4500	20.4	74.777	58.933	S4500	19F12-	3	213
2634	16.5	1.7	4500	16.5	72.043	72.533	S4500	19F12-	3	213
2950	14.8	1.5	4500	14.8	70.749	81.237	S4500	19F12-	3	213

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



5.7 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
45.0	1168	2.4	150	779	15.760	3.339	S400	12L39-	2	26
52.0	1016	2.4	173	677	13.196	3.840	S220	12L39-	2	23
53.0	995	3.0	215	585	19.401	3.920	S660	12L39-	2	31
62.0	852	2.0	172	644	13.507	4.579	S400	12L39-	2	26
72.0	741	1.8	181	536	12.144	5.267	S220	12L39-	2	23
73.0	725	2.5	250	477	15.864	5.376	S660	12L39-	2	31
73.0	723	2.6	263	459	19.848	5.391	S950	12L39-	2	51
80.0	666	1.7	185	513	12.461	5.860	S400	12L39-	2	26
82.0	646	2.5	279	423	18.106	6.038	S950	12L39-	2	51
87.0	608	1.6	193	479	12.176	6.411	S400	12L39-	2	26
93.0	567	2.1	269	417	14.084	6.880	S660	12L39-	2	31
99.0	533	3.0	400	314	15.496	7.311	S660	12L39-	2	31
104	509	1.5	217	281	12.099	7.667	S220	12L39-	2	23
105	506	2.1	300	375	15.680	7.702	S950	12L39-	2	51
112	471	2.6	405	299	27.392	8.272	S2100	12L39-	2	83
115	462	2.4	380	308	12.545	8.436	S400	12L39-	2	26
121	437	2.6	436	278	38.771	8.917	S3100	12L39-	2	122
136	389	2.5	467	256	13.788	10.027	S660	12L39-	2	31
143	371	1.1	220	208	11.561	10.514	S220	12L39-	2	23
157	337	1.9	400	245	11.798	11.569	S400	12L39-	2	26
174	304	2.1	502	224	12.816	12.832	S660	12L39-	2	31
191	278	2.0	525	210	12.563	14.037	S660	12L39-	2	31
191	278	2.5	649	182	15.278	14.037	S950	12L39-	2	51
201	263	1.5	400	188	11.417	14.806	S400	12L39-	2	26
220	241	1.3	400	173	11.304	16.197	S400	12L39-	2	26
243	218	1.7	564	170	12.015	17.905	S660	12L39-	2	31
243	218	2.1	697	161	13.942	17.905	S950	12L39-	2	51
257	206	3.0	925	135	22.103	18.917	S2100	12L39-	2	83
281	189	1.2	400	152	11.092	20.659	S400	12L39-	2	26
298	178	1.6	593	160	11.689	21.933	S660	12L39-	2	31
298	178	2.0	733	144	13.174	21.933	S950	12L39-	2	51
308	172	3.0	1109	112	24.983	22.663	S3100	12L39-	2	122
388	137	1.3	618	130	11.209	28.548	S660	12L39-	2	31
388	137	1.6	766	121	12.363	28.548	S950	12L39-	2	51
427	124	2.2	1033	102	15.888	31.422	S2100	12L39-	2	83
475	112	1.6	803	109	11.814	34.989	S950	12L39-	2	51
482	110	1.2	642	110	11.042	35.511	S660	12L39-	2	31
511	104	2.2	1238	84.9	16.932	37.644	S3100	12L39-	2	122
518	102	1.9	1075	95.3	14.581	38.156	S2100	12L39-	2	83
596	87.6	2.5	2050	64.3	15.279	44.515	S2100	12L39-	3	84
621	85.3	1.9	1288	79.6	15.289	45.711	S3100	12L39-	2	122
624	84.9	1.2	825	84.9	11.361	45.956	S950	12L39-	2	51
671	79.0	1.5	1116	76.4	13.136	49.378	S2100	12L39-	2	83
714	73.1	3.4	2874	57.5	15.883	53.330	S3100	12L39-	3	123
749	69.7	1.1	950	49.2	11.661	55.982	S950	12L39-	3	52
758	69.9	1.0	835	69.9	11.160	55.773	S950	12L39-	2	51
804	65.9	1.5	1337	63.8	13.559	59.156	S3100	12L39-	2	122
814	65.1	1.3	1130	65.1	12.454	59.927	S2100	12L39-	2	83
817	63.9	2.1	2050	52.4	13.672	61.049	S2100	12L39-	3	84
970	53.8	3.3	3492	46.7	17.643	72.533	S4500	12L39-	3	198
975	54.3	1.3	1353	54.3	12.741	71.793	S3100	12L39-	2	122



Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
979	53.3	2.9	3100	47.1	13.994	73.138	S3100	12L39-	3	123
1029	51.5	1.0	1144	51.5	11.824	75.750	S2100	12L39-	2	83
1045	49.9	1.8	2050	44.6	12.746	78.128	S2100	12L39-	3	84
1087	48.0	3.1	3699	43.0	16.349	81.237	S4500	12L39-	3	198
1144	45.6	1.6	2050	40.3	12.504	85.468	S2100	12L39-	3	84
1252	41.7	2.3	3100	40.6	12.942	93.599	S3100	12L39-	3	123
1370	38.1	2.1	3100	37.7	12.668	102.393	S3100	12L39-	3	123
1386	37.6	2.6	3972	37.6	14.599	103.619	S4500	12L39-	3	198
1459	35.8	1.3	2050	32.0	11.979	109.016	S2100	12L39-	3	84
1698	30.7	2.3	4180	30.7	13.612	126.933	S4500	12L39-	3	198
1747	29.9	1.6	3100	29.7	12.080	130.603	S3100	12L39-	3	123
1787	29.2	1.1	2050	27.6	11.665	133.544	S2100	12L39-	3	84
2141	24.4	1.3	3100	24.4	11.732	159.989	S3100	12L39-	3	123
2210	23.6	1.8	4366	23.6	12.622	165.215	S4500	12L39-	3	198
2709	19.3	1.5	4500	19.3	11.986	202.489	S4500	12L39-	3	198
2786	18.7	1.0	3100	18.7	11.287	208.240	S3100	12L39-	3	123
3558	14.7	1.2	4500	14.7	11.461	265.956	S4500	12L39-	3	198

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



6 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
66.0	831	2.5	178	785	19.360	3.339	S400	14H28-	2	31
78.0	708	3.5	208	607	23.001	3.920	S660	14H28-	2	36
87.0	634	3.6	233	537	27.317	4.380	S950	14H28-	2	56
91.0	606	2.2	243	606	17.107	4.579	S400	14H28-	2	31
107	516	3.0	286	495	19.464	5.376	S660	14H28-	2	36
107	515	3.1	287	479	23.448	5.391	S950	14H28-	2	56
117	474	1.8	258	474	16.061	5.860	S400	14H28-	2	31
120	460	3.9	321	362	43.432	6.029	S2100	14H28-	2	88
120	460	2.9	321	440	21.706	6.038	S950	14H28-	2	56
128	433	1.7	261	433	15.776	6.411	S400	14H28-	2	31
129	427	3.9	346	336	64.853	6.499	S3100	14H28-	2	127
137	404	3.6	365	341	36.762	6.870	S2100	14H28-	2	88
137	403	2.5	366	403	17.684	6.880	S660	14H28-	2	36
145	380	3.3	389	321	19.096	7.311	S660	14H28-	2	36
147	375	3.6	394	317	53.259	7.406	S3100	14H28-	2	127
153	360	2.2	409	360	19.280	7.702	S950	14H28-	2	56
165	335	3.1	440	312	30.992	8.272	S2100	14H28-	2	88
168	329	1.8	380	284	16.145	8.436	S400	14H28-	2	31
177	311	3.1	474	289	42.371	8.917	S3100	14H28-	2	127
199	277	2.6	533	257	17.388	10.027	S660	14H28-	2	36
203	273	3.6	541	231	21.944	10.183	S950	14H28-	2	56
217	254	2.7	581	249	34.082	10.932	S3100	14H28-	2	127
230	240	1.4	400	212	15.398	11.569	S400	14H28-	2	31
255	216	2.1	660	216	16.416	12.832	S660	14H28-	2	36
274	201	3.9	733	158	33.474	13.787	S2100	14H28-	2	88
279	198	1.9	660	198	16.163	14.037	S660	14H28-	2	36
279	198	2.8	746	187	18.878	14.037	S950	14H28-	2	56
294	187	1.1	400	168	15.017	14.806	S400	14H28-	2	31
312	177	3.6	835	149	29.094	15.711	S2100	14H28-	2	88
322	171	1.0	400	156	14.904	16.197	S400	14H28-	2	31
329	168	3.9	878	132	38.896	16.517	S3100	14H28-	2	127
356	155	1.5	660	155	15.615	17.905	S660	14H28-	2	36
356	155	2.2	950	155	17.542	17.905	S950	14H28-	2	56
364	152	4.4	972	123	52.954	18.286	S4500	14H28-	2	200
374	147	4.1	1001	128	33.270	18.822	S3100	14H28-	2	127
376	147	3.6	1006	140	25.703	18.917	S2100	14H28-	2	88
436	127	1.4	660	127	15.289	21.933	S660	14H28-	2	36
436	127	2.0	950	127	16.774	21.933	S950	14H28-	2	56
451	122	3.6	1205	117	28.583	22.663	S3100	14H28-	2	127
461	120	3.1	1233	120	22.992	23.193	S2100	14H28-	2	88
553	99.9	3.1	1477	99.9	24.908	27.785	S3100	14H28-	2	127
568	97.2	1.1	660	97.2	14.809	28.548	S660	14H28-	2	36
568	97.2	1.6	950	97.2	15.963	28.548	S950	14H28-	2	56
587	94.0	3.0	1569	94.0	32.641	29.511	S4500	14H28-	2	200
625	88.3	2.6	1614	88.3	19.488	31.422	S2100	14H28-	2	88
696	79.3	1.4	950	79.3	15.414	34.989	S950	14H28-	2	56
721	76.5	2.7	1928	76.5	27.695	36.267	S4500	14H28-	2	200
749	73.7	2.6	1934	73.7	20.532	37.644	S3100	14H28-	2	127
759	72.7	2.2	1677	72.7	18.181	38.156	S2100	14H28-	2	88
833	65.3	4.1	2227	64.0	30.202	42.520	S4500	14H28-	3	203
872	62.3	1.9	2050	59.8	18.879	44.515	S2100	14H28-	3	89



Technical data

Selection tables

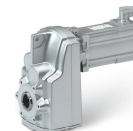
Inverter mains connection 400 V, Forced ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
909	60.7	2.2	2009	60.7	18.889	45.711	S3100	14H28-	2	127
933	59.1	2.2	2046	59.1	22.786	46.933	S4500	14H28-	2	200
982	56.2	1.8	1739	56.2	16.736	49.378	S2100	14H28-	2	88
1045	52.0	2.7	2793	52.0	19.483	53.330	S3100	14H28-	3	128
1133	48.7	1.8	2071	48.7	20.447	56.960	S4500	14H28-	2	200
1155	47.1	3.6	3086	47.1	23.977	58.933	S4500	14H28-	3	203
1177	46.9	1.8	2083	46.9	17.159	59.156	S3100	14H28-	2	127
1192	46.3	1.5	1759	46.3	16.054	59.927	S2100	14H28-	2	88
1196	45.5	1.6	2050	45.5	17.272	61.049	S2100	14H28-	3	89
1421	38.3	3.2	3799	38.3	21.243	72.533	S4500	14H28-	3	203
1428	38.7	1.5	2108	38.7	16.341	71.793	S3100	14H28-	2	127
1432	38.5	1.5	2096	38.5	18.287	72.000	S4500	14H28-	2	200
1433	37.9	2.2	3100	37.9	17.594	73.138	S3100	14H28-	3	128
1531	35.5	1.3	2050	35.5	16.346	78.128	S2100	14H28-	3	89
1592	34.2	2.8	4254	34.2	19.949	81.237	S4500	14H28-	3	203
1674	32.5	1.2	2050	32.5	16.104	85.468	S2100	14H28-	3	89
1834	29.6	1.7	3100	29.6	16.542	93.599	S3100	14H28-	3	128
2006	27.1	1.6	3100	27.1	16.268	102.393	S3100	14H28-	3	128
2030	26.8	2.2	4500	26.8	18.199	103.619	S4500	14H28-	3	203
2487	21.9	1.8	4500	21.9	17.212	126.933	S4500	14H28-	3	203
2559	21.2	1.2	3100	21.2	15.680	130.603	S3100	14H28-	3	128
3237	16.8	1.4	4500	16.8	16.222	165.215	S4500	14H28-	3	203
3967	13.7	1.1	4500	13.7	15.586	202.489	S4500	14H28-	3	203

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



7.9 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
279	261	2.9	575	261	150.551	4.593	S2100	19J12-	2	105
298	244	3.6	615	244	266.684	4.914	S4500	19J12-	2	217
300	242	2.9	620	242	187.458	4.951	S3100	19J12-	2	144
366	199	2.4	755	199	134.232	6.029	S2100	19J12-	2	105
391	186	3.0	807	186	206.485	6.450	S4500	19J12-	2	217
394	185	2.4	813	185	155.653	6.499	S3100	19J12-	2	144
417	175	2.2	860	175	127.562	6.870	S2100	19J12-	2	105
428	170	2.9	883	170	190.966	7.056	S4500	19J12-	2	217
449	162	2.2	927	162	144.059	7.406	S3100	19J12-	2	144
502	145	2.0	984	145	121.792	8.272	S2100	19J12-	2	105
541	135	2.0	1061	135	133.171	8.917	S3100	19J12-	2	144
605	120	3.6	1250	120	203.730	9.984	S4500	19J12-	2	217
637	114	2.9	1315	114	133.396	10.504	S2100	19J12-	2	105
663	110	1.7	1117	110	124.882	10.932	S3100	19J12-	2	144
763	95.4	2.9	1575	95.4	142.737	12.584	S3100	19J12-	2	144
795	91.6	3.0	1640	91.6	169.945	13.105	S4500	19J12-	2	217
836	87.0	2.4	1726	87.0	124.274	13.787	S2100	19J12-	2	105
869	83.7	2.9	1794	83.7	160.433	14.336	S4500	19J12-	2	217
953	76.4	2.2	1966	76.4	119.894	15.711	S2100	19J12-	2	105
1002	72.7	2.4	2067	72.7	129.696	16.517	S3100	19J12-	2	144
1109	65.6	2.4	2289	65.6	143.754	18.286	S4500	19J12-	2	217
1141	63.8	2.2	2356	63.8	124.070	18.822	S3100	19J12-	2	144
1147	63.4	1.8	2050	63.4	116.503	18.917	S2100	19J12-	2	105
1358	53.6	2.1	2804	53.6	134.159	22.400	S4500	19J12-	2	217
1374	52.9	2.0	2696	52.9	119.383	22.663	S3100	19J12-	2	144
1406	51.7	1.5	2050	51.7	113.792	23.193	S2100	19J12-	2	105
1685	43.2	1.7	2839	43.2	115.708	27.785	S3100	19J12-	2	144
1790	40.7	1.7	2992	40.7	123.441	29.511	S4500	19J12-	2	217
2199	33.1	1.4	3066	33.1	118.495	36.267	S4500	19J12-	2	217
2540	28.2	1.7	4291	28.2	121.002	42.520	S4500	19J12-	3	220
3520	20.4	1.3	4500	20.4	114.777	58.933	S4500	19J12-	3	220
4332	16.5	1.0	4500	16.5	112.043	72.533	S4500	19J12-	3	220



Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors

8 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
83.0	899	2.0	203	741	28.560	3.339	S400	14L30-	2	36
97.0	765	2.8	293	575	32.201	3.920	S660	14L30-	2	41
108	685	2.8	328	508	36.517	4.380	S950	14L30-	2	60
113	655	1.7	243	590	26.307	4.579	S400	14L30-	2	36
133	558	2.3	388	469	28.664	5.376	S660	14L30-	2	41
133	557	2.5	403	453	32.648	5.391	S950	14L30-	2	60
145	512	1.4	258	470	25.261	5.860	S400	14L30-	2	36
149	498	3.1	451	343	52.632	6.029	S2100	14L30-	2	93
149	497	2.3	434	417	30.906	6.038	S950	14L30-	2	60
159	468	1.3	261	436	24.976	6.411	S400	14L30-	2	36
161	462	3.1	486	318	74.053	6.499	S3100	14L30-	2	132
170	437	2.8	514	323	45.962	6.870	S2100	14L30-	2	93
170	436	2.0	417	409	26.884	6.880	S660	14L30-	2	41
181	410	2.6	547	304	28.296	7.311	S660	14L30-	2	41
183	405	2.8	554	300	62.459	7.406	S3100	14L30-	2	132
191	390	1.7	415	343	28.480	7.702	S950	14L30-	2	60
205	363	2.5	619	295	40.192	8.272	S2100	14L30-	2	93
209	356	1.4	380	249	25.345	8.436	S400	14L30-	2	36
221	336	2.5	667	273	51.571	8.917	S3100	14L30-	2	132
248	299	2.0	625	245	26.588	10.027	S660	14L30-	2	41
252	295	2.8	762	219	31.144	10.183	S950	14L30-	2	60
270	274	2.1	719	236	43.282	10.932	S3100	14L30-	2	132
286	259	1.1	400	188	24.598	11.569	S400	14L30-	2	36
317	234	1.7	660	199	25.616	12.832	S660	14L30-	2	41
341	218	3.1	1031	150	42.674	13.787	S2100	14L30-	2	93
347	214	1.5	660	180	25.363	14.037	S660	14L30-	2	41
347	214	2.2	950	177	28.078	14.037	S950	14L30-	2	60
389	191	2.8	1175	141	38.294	15.711	S2100	14L30-	2	93
409	182	3.1	1236	125	48.096	16.517	S3100	14L30-	2	132
443	168	1.2	660	145	24.815	17.905	S660	14L30-	2	41
443	168	1.7	950	146	26.742	17.905	S950	14L30-	2	60
452	164	3.5	1368	117	62.154	18.286	S4500	14L30-	2	205
466	159	3.2	1408	121	42.470	18.822	S3100	14L30-	2	132
468	159	2.8	1415	133	34.903	18.917	S2100	14L30-	2	93
543	137	1.1	660	132	24.489	21.933	S660	14L30-	2	41
543	137	1.6	950	128	25.974	21.933	S950	14L30-	2	60
561	132	2.8	1695	111	37.783	22.663	S3100	14L30-	2	132
574	129	2.4	1524	115	32.192	23.193	S2100	14L30-	2	93
687	108	2.4	1826	95.6	34.108	27.785	S3100	14L30-	2	132
706	105	1.2	950	105	25.163	28.548	S950	14L30-	2	60
730	102	2.4	1924	90.0	41.841	29.511	S4500	14L30-	2	205
777	95.5	2.1	1614	95.5	28.688	31.422	S2100	14L30-	2	93
866	85.7	1.1	950	85.7	24.614	34.989	S950	14L30-	2	60
897	82.7	2.2	1973	82.7	36.895	36.267	S4500	14L30-	2	205
931	79.7	2.1	1934	79.7	29.732	37.644	S3100	14L30-	2	132
944	78.6	1.8	1677	78.6	27.381	38.156	S2100	14L30-	2	93
1036	70.6	3.2	3133	60.5	39.402	42.520	S4500	14L30-	3	208
1085	67.4	1.5	2050	52.0	28.079	44.515	S2100	14L30-	3	93
1131	65.6	1.8	2009	65.6	28.089	45.711	S3100	14L30-	2	132
1161	63.9	1.8	2046	63.9	31.986	46.933	S4500	14L30-	2	205
1222	60.8	1.4	1739	60.8	25.936	49.378	S2100	14L30-	2	93

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
1300	56.3	2.1	3054	51.6	28.683	53.330	S3100	14L30-	3	133
1409	52.7	1.5	2071	52.7	29.647	56.960	S4500	14L30-	2	205
1436	50.9	2.8	4342	49.1	33.177	58.933	S4500	14L30-	3	208
1464	50.7	1.4	2083	50.7	26.359	59.156	S3100	14L30-	2	132
1483	50.1	1.2	1759	50.1	25.254	59.927	S2100	14L30-	2	93
1488	49.1	1.2	2050	40.3	26.472	61.049	S2100	14L30-	3	93
1768	41.4	2.6	4500	41.4	30.443	72.533	S4500	14L30-	3	208
1776	41.8	1.2	2108	41.8	25.541	71.793	S3100	14L30-	2	132
1781	41.7	1.2	2096	41.7	27.487	72.000	S4500	14L30-	2	205
1782	41.0	1.7	3100	40.2	26.794	73.138	S3100	14L30-	3	133
1904	38.4	1.1	2050	33.9	25.546	78.128	S2100	14L30-	3	93
1980	36.9	2.3	4500	36.9	29.149	81.237	S4500	14L30-	3	208
2281	32.1	1.4	3100	31.8	25.742	93.599	S3100	14L30-	3	133
2495	29.3	1.2	3100	29.1	25.468	102.393	S3100	14L30-	3	133
2525	29.0	1.8	4500	29.0	27.399	103.619	S4500	14L30-	3	208
3093	23.6	1.5	4500	23.6	26.412	126.933	S4500	14L30-	3	208
4026	18.2	1.1	4500	18.2	25.422	165.215	S4500	14L30-	3	208



Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors

9 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
321	261	2.5	808	261	205.551	4.593	S2100	19P12-	2	115
343	244	3.1	906	244	321.684	4.914	S4500	19P12-	2	227
346	242	2.5	871	242	242.458	4.951	S3100	19P12-	2	154
421	199	2.1	894	199	189.232	6.029	S2100	19P12-	2	115
451	186	2.6	1189	186	261.485	6.450	S4500	19P12-	2	227
454	185	2.1	963	185	210.653	6.499	S3100	19P12-	2	154
480	175	1.9	933	175	182.562	6.870	S2100	19P12-	2	115
493	170	2.5	1232	170	245.966	7.056	S4500	19P12-	2	227
517	162	1.9	1005	162	199.059	7.406	S3100	19P12-	2	154
578	145	1.7	984	145	176.792	8.272	S2100	19P12-	2	115
623	135	1.7	1061	135	188.171	8.917	S3100	19P12-	2	154
697	120	3.1	1840	120	258.730	9.984	S4500	19P12-	2	227
734	114	2.5	1848	114	188.396	10.504	S2100	19P12-	2	115
764	110	1.5	1117	110	179.882	10.932	S3100	19P12-	2	154
879	95.4	2.5	2214	95.4	197.737	12.584	S3100	19P12-	2	154
915	91.6	2.6	2416	91.6	224.945	13.105	S4500	19P12-	2	227
963	87.0	2.1	2044	87.0	179.274	13.787	S2100	19P12-	2	115
1001	83.7	2.5	2504	83.7	215.433	14.336	S4500	19P12-	2	227
1098	76.4	1.9	2050	76.4	174.894	15.711	S2100	19P12-	2	115
1154	72.7	2.1	2449	72.7	184.696	16.517	S3100	19P12-	2	154
1277	65.6	2.1	2690	65.6	198.754	18.286	S4500	19P12-	2	227
1315	63.8	1.9	2555	63.8	179.070	18.822	S3100	19P12-	2	154
1322	63.4	1.6	2050	63.4	171.503	18.917	S2100	19P12-	2	115
1565	53.6	1.8	2832	53.6	189.159	22.400	S4500	19P12-	2	227
1583	52.9	1.7	2696	52.9	174.383	22.663	S3100	19P12-	2	154
1620	51.7	1.3	2050	51.7	168.792	23.193	S2100	19P12-	2	115
1941	43.2	1.5	2839	43.2	170.708	27.785	S3100	19P12-	2	154
2062	40.7	1.5	2992	40.7	178.441	29.511	S4500	19P12-	2	227
2533	33.1	1.2	3066	33.1	173.495	36.267	S4500	19P12-	2	227
2926	28.2	1.5	4291	28.2	176.002	42.520	S4500	19P12-	3	230
4055	20.4	1.1	4500	20.4	169.777	58.933	S4500	19P12-	3	230

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



9.1 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
107	786	1.6	203	658	39.860	3.339	S400	14P26-	2	41
126	670	2.2	338	547	43.501	3.920	S660	14P26-	2	46
140	599	2.3	387	483	47.817	4.380	S950	14P26-	2	65
147	573	1.4	243	527	37.607	4.579	S400	14P26-	2	41
172	488	1.9	388	439	39.964	5.376	S660	14P26-	2	46
173	487	2.0	413	432	43.948	5.391	S950	14P26-	2	65
188	448	1.1	258	429	36.561	5.860	S400	14P26-	2	41
193	435	2.5	575	326	63.932	6.029	S2100	14P26-	2	98
193	435	1.9	434	389	42.206	6.038	S950	14P26-	2	65
205	410	1.1	261	401	36.276	6.411	S400	14P26-	2	41
208	404	2.5	620	303	85.353	6.499	S3100	14P26-	2	137
220	382	2.3	600	307	57.262	6.870	S2100	14P26-	2	98
220	382	1.6	417	360	38.184	6.880	S660	14P26-	2	46
234	359	2.1	593	289	39.596	7.311	S660	14P26-	2	46
237	355	2.3	647	285	73.759	7.406	S3100	14P26-	2	137
247	341	1.4	415	304	39.780	7.702	S950	14P26-	2	65
265	317	2.0	633	281	51.492	8.272	S2100	14P26-	2	98
270	311	1.2	380	224	36.645	8.436	S400	14P26-	2	41
286	294	2.0	683	261	62.871	8.917	S3100	14P26-	2	137
321	262	1.6	625	216	37.888	10.027	S660	14P26-	2	46
326	258	2.3	899	208	42.444	10.183	S950	14P26-	2	65
350	240	1.7	719	215	54.582	10.932	S3100	14P26-	2	137
411	205	1.3	660	177	36.916	12.832	S660	14P26-	2	46
441	190	2.5	1316	143	53.974	13.787	S2100	14P26-	2	98
449	187	1.2	660	162	36.663	14.037	S660	14P26-	2	46
449	187	1.8	950	162	39.378	14.037	S950	14P26-	2	65
503	167	2.3	1373	134	49.594	15.711	S2100	14P26-	2	98
529	159	2.5	1576	119	59.396	16.517	S3100	14P26-	2	137
573	147	1.4	950	130	38.042	17.905	S950	14P26-	2	65
585	144	2.8	1732	111	73.454	18.286	S4500	14P26-	2	210
603	140	2.6	1645	116	53.770	18.822	S3100	14P26-	2	137
606	139	2.3	1449	126	46.203	18.917	S2100	14P26-	2	98
702	120	1.3	950	115	37.274	21.933	S950	14P26-	2	65
726	116	2.3	1735	105	49.083	22.663	S3100	14P26-	2	137
743	113	1.9	1524	109	43.492	23.193	S2100	14P26-	2	98
890	94.5	1.9	1826	90.7	45.408	27.785	S3100	14P26-	2	137
945	88.9	1.9	1924	85.2	53.141	29.511	S4500	14P26-	2	210
1006	83.5	1.6	1614	83.5	39.988	31.422	S2100	14P26-	2	98
1161	72.4	1.7	1973	72.4	48.195	36.267	S4500	14P26-	2	210
1205	69.7	1.6	1934	69.7	41.032	37.644	S3100	14P26-	2	137
1222	68.8	1.4	1677	68.8	38.681	38.156	S2100	14P26-	2	98
1341	61.7	2.6	4175	57.4	50.702	42.520	S4500	14P26-	3	213
1404	59.0	1.2	2050	46.6	39.379	44.515	S2100	14P26-	3	98
1464	57.4	1.4	2009	57.4	39.389	45.711	S3100	14P26-	2	137
1503	55.9	1.4	2046	55.9	43.286	46.933	S4500	14P26-	2	210
1581	53.2	1.1	1739	53.2	37.236	49.378	S2100	14P26-	2	98
1682	49.2	1.7	3054	46.7	39.983	53.330	S3100	14P26-	3	138
1824	46.1	1.1	2071	46.1	40.947	56.960	S4500	14P26-	2	210
1859	44.5	2.3	4500	44.5	44.477	58.933	S4500	14P26-	3	213
1894	44.4	1.1	2083	44.4	37.659	59.156	S3100	14P26-	2	137
1925	43.0	1.0	2050	36.6	37.772	61.049	S2100	14P26-	3	98



Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
2287	36.2	2.0	4500	36.2	41.743	72.533	S4500	14P26-	3	213
2307	35.9	1.3	3100	35.0	38.094	73.138	S3100	14P26-	3	138
2562	32.3	1.8	4500	32.3	40.449	81.237	S4500	14P26-	3	213
2952	28.0	1.1	3100	28.0	37.042	93.599	S3100	14P26-	3	138
3268	25.3	1.4	4500	25.3	38.699	103.619	S4500	14P26-	3	213
4003	20.7	1.1	4500	20.7	37.712	126.933	S4500	14P26-	3	213

9.7 kW

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
145	621	4.5	383	431	110.551	4.593	S2100	19F29-	2	98
155	580	5.6	410	354	226.684	4.914	S4500	19F29-	2	210
156	576	4.5	413	400	147.458	4.951	S3100	19F29-	2	137
190	473	3.8	503	360	94.232	6.029	S2100	19F29-	2	98
203	442	4.7	538	302	166.485	6.450	S4500	19F29-	2	210
205	439	3.8	542	334	115.653	6.499	S3100	19F29-	2	137
217	415	3.5	573	322	87.562	6.870	S2100	19F29-	2	98
222	404	4.5	589	281	150.966	7.056	S4500	19F29-	2	210
234	385	3.5	618	299	104.059	7.406	S3100	19F29-	2	137
261	345	3.1	690	267	81.792	8.272	S2100	19F29-	2	98
281	320	3.1	744	248	93.171	8.917	S3100	19F29-	2	137
315	286	5.6	833	174	163.730	9.984	S4500	19F29-	2	210
331	271	4.5	876	188	93.396	10.504	S2100	19F29-	2	98
345	261	2.6	912	202	84.882	10.932	S3100	19F29-	2	137
397	227	4.5	1050	157	102.737	12.584	S3100	19F29-	2	137
413	218	4.7	1093	149	129.945	13.105	S4500	19F29-	2	210
435	207	3.8	1150	157	84.274	13.787	S2100	19F29-	2	98
452	199	4.5	1196	138	120.433	14.336	S4500	19F29-	2	210
495	181	3.3	1311	141	79.894	15.711	S2100	19F29-	2	98
521	173	3.8	1378	131	89.696	16.517	S3100	19F29-	2	137
577	156	4.3	1526	121	103.754	18.286	S4500	19F29-	2	210
594	151	4.0	1571	117	84.070	18.822	S3100	19F29-	2	137
597	151	3.2	1578	117	76.503	18.917	S2100	19F29-	2	98
706	127	3.7	1869	98.7	94.159	22.400	S4500	19F29-	2	210
715	126	3.5	1891	97.5	79.383	22.663	S3100	19F29-	2	137
731	123	2.6	1935	95.3	73.792	23.193	S2100	19F29-	2	98
876	103	3.0	2318	79.6	75.708	27.785	S3100	19F29-	2	137
931	96.6	3.0	2462	74.9	83.441	29.511	S4500	19F29-	2	210
1144	78.6	2.7	3026	61.0	78.495	36.267	S4500	19F29-	2	210
1321	67.0	2.6	3495	52.0	81.002	42.520	S4500	19F29-	3	213
1830	48.4	2.3	4500	37.5	74.777	58.933	S4500	19F29-	3	213
2253	39.3	2.0	4500	30.5	72.043	72.533	S4500	19F29-	3	213
2523	35.1	1.8	4500	27.2	70.749	81.237	S4500	19F29-	3	213

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



15.1 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
225	621	2.9	575	389	150.551	4.593	S2100	19J29-	2	105
241	580	3.6	615	320	266.684	4.914	S4500	19J29-	2	217
243	576	2.9	620	361	187.458	4.951	S3100	19J29-	2	144
295	473	2.4	755	325	134.232	6.029	S2100	19J29-	2	105
316	442	3.0	807	272	206.485	6.450	S4500	19J29-	2	217
318	439	2.4	813	302	155.653	6.499	S3100	19J29-	2	144
337	415	2.2	860	306	127.562	6.870	S2100	19J29-	2	105
346	404	2.9	883	254	190.966	7.056	S4500	19J29-	2	217
363	385	2.2	927	284	144.059	7.406	S3100	19J29-	2	144
405	345	2.0	984	267	121.792	8.272	S2100	19J29-	2	105
437	320	2.0	1061	248	133.171	8.917	S3100	19J29-	2	144
489	286	3.6	1250	157	203.730	9.984	S4500	19J29-	2	217
515	271	2.9	1315	170	133.396	10.504	S2100	19J29-	2	105
536	261	1.7	1117	202	124.882	10.932	S3100	19J29-	2	144
617	227	2.9	1575	142	142.737	12.584	S3100	19J29-	2	144
642	218	3.0	1640	134	169.945	13.105	S4500	19J29-	2	217
676	207	2.4	1726	142	124.274	13.787	S2100	19J29-	2	105
702	199	2.9	1794	125	160.433	14.336	S4500	19J29-	2	217
770	181	2.2	1966	133	119.894	15.711	S2100	19J29-	2	105
809	173	2.4	2067	119	129.696	16.517	S3100	19J29-	2	144
896	156	2.8	2289	111	143.754	18.286	S4500	19J29-	2	217
922	151	2.5	2356	115	124.070	18.822	S3100	19J29-	2	144
927	151	2.0	2050	117	116.503	18.917	S2100	19J29-	2	105
1098	127	2.4	2804	98.7	134.159	22.400	S4500	19J29-	2	217
1110	126	2.2	2696	97.5	119.383	22.663	S3100	19J29-	2	144
1136	123	1.7	2050	95.3	113.792	23.193	S2100	19J29-	2	105
1361	103	1.9	2839	79.6	115.708	27.785	S3100	19J29-	2	144
1446	96.6	1.9	2992	74.9	123.441	29.511	S4500	19J29-	2	217
1777	78.6	1.7	3066	61.0	118.495	36.267	S4500	19J29-	2	217
2052	67.0	1.7	4291	48.8	121.002	42.520	S4500	19J29-	3	220
2844	48.4	1.5	4500	37.5	114.777	58.933	S4500	19J29-	3	220
3501	39.3	1.3	4500	30.5	112.043	72.533	S4500	19J29-	3	220
3921	35.1	1.2	4500	27.2	110.749	81.237	S4500	19J29-	3	220



15.8 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
236	621	2.8	808	385	205.551	4.593	S2100	19P29-	2	115
253	580	3.4	906	316	321.684	4.914	S4500	19P29-	2	227
255	576	2.8	871	357	242.458	4.951	S3100	19P29-	2	154
310	473	2.3	894	322	189.232	6.029	S2100	19P29-	2	115
332	442	2.9	1189	269	261.485	6.450	S4500	19P29-	2	227
334	439	2.3	963	298	210.653	6.499	S3100	19P29-	2	154
353	415	2.1	933	303	182.562	6.870	S2100	19P29-	2	115
363	404	2.7	1232	251	245.966	7.056	S4500	19P29-	2	227
381	385	2.1	1005	281	199.059	7.406	S3100	19P29-	2	154
425	345	1.9	984	267	176.792	8.272	S2100	19P29-	2	115
459	320	1.9	1061	248	188.171	8.917	S3100	19P29-	2	154
513	286	3.4	1840	156	258.730	9.984	S4500	19P29-	2	227
540	271	2.8	1848	168	188.396	10.504	S2100	19P29-	2	115
562	261	1.6	1117	202	179.882	10.932	S3100	19P29-	2	154
647	227	2.8	2214	140	197.737	12.584	S3100	19P29-	2	154
674	218	2.9	2416	132	224.945	13.105	S4500	19P29-	2	227
709	207	2.3	2044	141	179.274	13.787	S2100	19P29-	2	115
737	199	2.7	2504	123	215.433	14.336	S4500	19P29-	2	227
808	181	2.1	2050	131	174.894	15.711	S2100	19P29-	2	115
849	173	2.3	2449	117	184.696	16.517	S3100	19P29-	2	154
940	156	2.6	2690	109	198.754	18.286	S4500	19P29-	2	227
968	151	2.4	2555	114	179.070	18.822	S3100	19P29-	2	154
973	151	1.9	2050	117	171.503	18.917	S2100	19P29-	2	115
1152	127	2.3	2832	98.2	189.159	22.400	S4500	19P29-	2	227
1165	126	2.1	2696	97.5	174.383	22.663	S3100	19P29-	2	154
1193	123	1.6	2050	95.3	168.792	23.193	S2100	19P29-	2	115
1429	103	1.8	2839	79.6	170.708	27.785	S3100	19P29-	2	154
1518	96.6	1.8	2992	74.9	178.441	29.511	S4500	19P29-	2	227
1865	78.6	1.6	3066	61.0	173.495	36.267	S4500	19P29-	2	227
2154	67.0	1.6	4291	47.4	176.002	42.520	S4500	19P29-	3	230
2985	48.4	1.4	4500	36.7	169.777	58.933	S4500	19P29-	3	230
3674	39.3	1.2	4500	30.5	167.043	72.533	S4500	19P29-	3	230
4115	35.1	1.1	4500	27.2	165.749	81.237	S4500	19P29-	3	230



Dimensions

Notes on the basic dimensions

Gearboxes	Without pre-stage	With pre-stage
g500-S130	2-stage	3-stage
g500-S220 ... S4500	2-/3-stage	4-stage

The ratio range of gearboxes with pre-stage is extended via an additional housing with gear stage between the gearbox and motor.

The basic dimensions are shown without pre-stage and are valid up to the following deviating dimensions for gearbox with pre-stage valid:

- Total length "L"
- Center distance "a" (gearbox output shaft – motor shaft)

Deviating dimensions: [► Gearbox with pre-stage](#) [307](#)

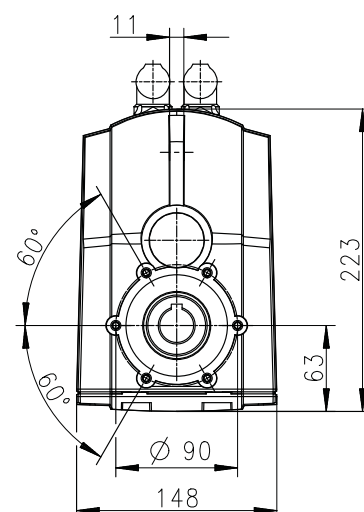
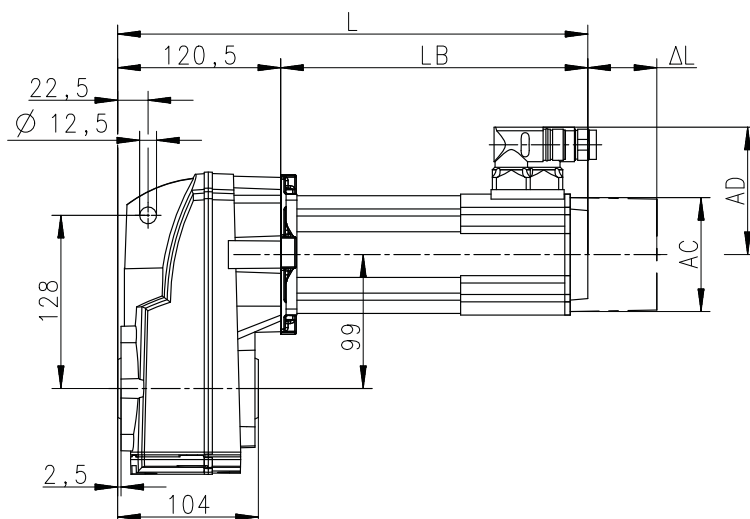
Example

g500-S130 with MCS06

Gearbox version: Hollow shaft without foot (HDR/HCR/HCK) [► Designs](#) [13](#)

Explanation

Gearbox with motor



Motor	MCS		
	06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type	natural	natural	natural
Table content		Explanation	
Total length	L	Total length of the drive with resolver	
Motor length	LB	Length of the motor with resolver	
Length of motor options	Δ L	Additional length (longest version) In detail ► Additional lengths 308	
Motor diameter	AC	Motor diameter	
Motor/connection distance	AD	Distance from motor center to connector end	

NOTICE

For gearboxes with hollow shaft and keyway (H□□), the hole fitting H7 is interrupted in the middle area of the hollow shaft length by a free rotation.

Ensure the double-ended control of the machine shaft in the hollow shaft.

► The specified min. length of the machine shaft must be reached.



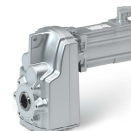
Technical data

Dimensions

Gearboxes	Min. length of the machine shaft
	mm
g500-S130	75
g500-S220	80
g500-S400	100
g500-S660	110
g500-S950	120
g500-S2100	135
g500-S3100	155
g500-S4500	190

Technical data

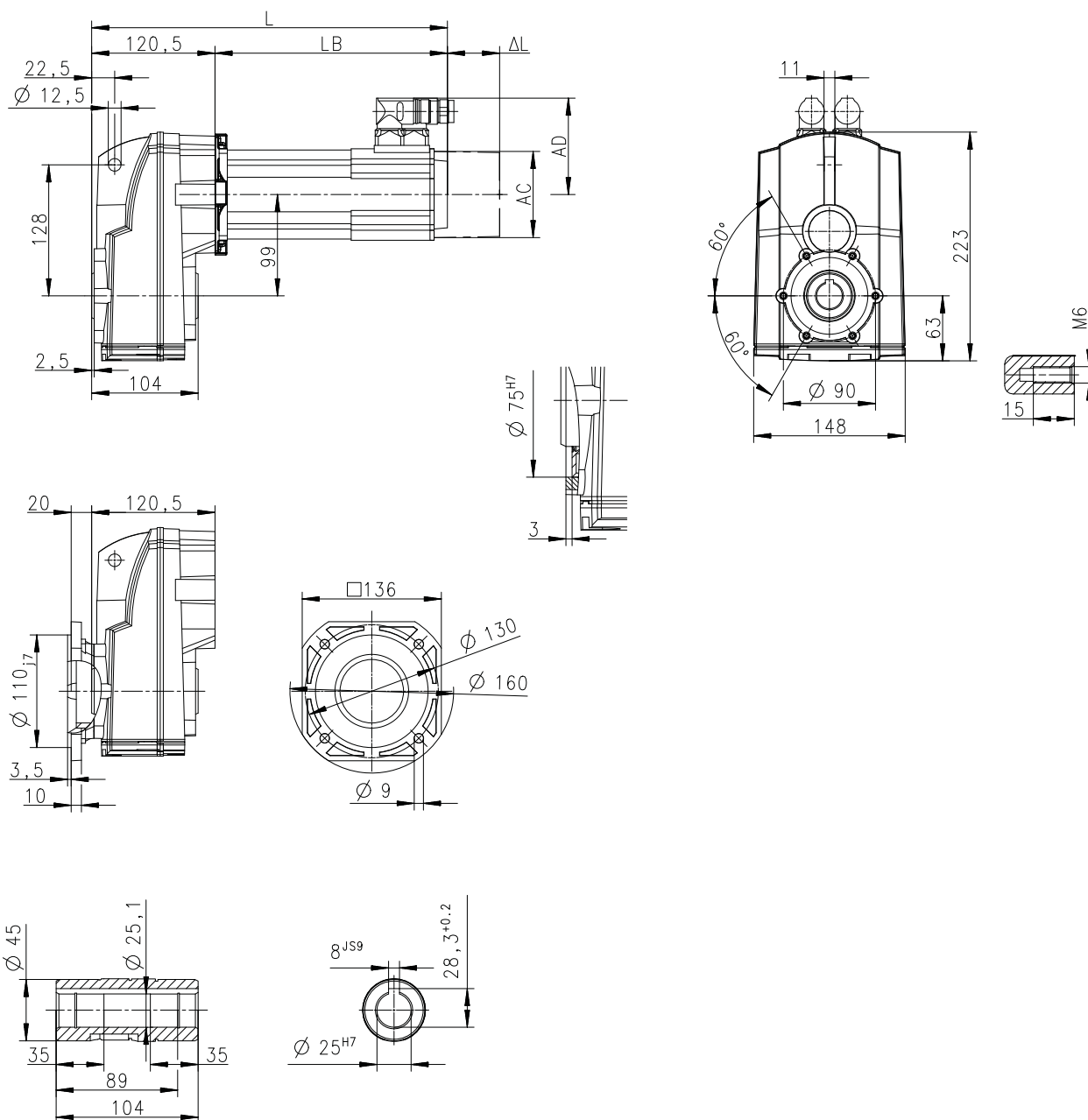
Dimensions
Basic dimensions



Basic dimensions

g500-S130, 2-stage with MCS06

Gearbox version: Hollow shaft without foot (HDR/HCR/HCK)



8800013-00

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	252	282	312
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

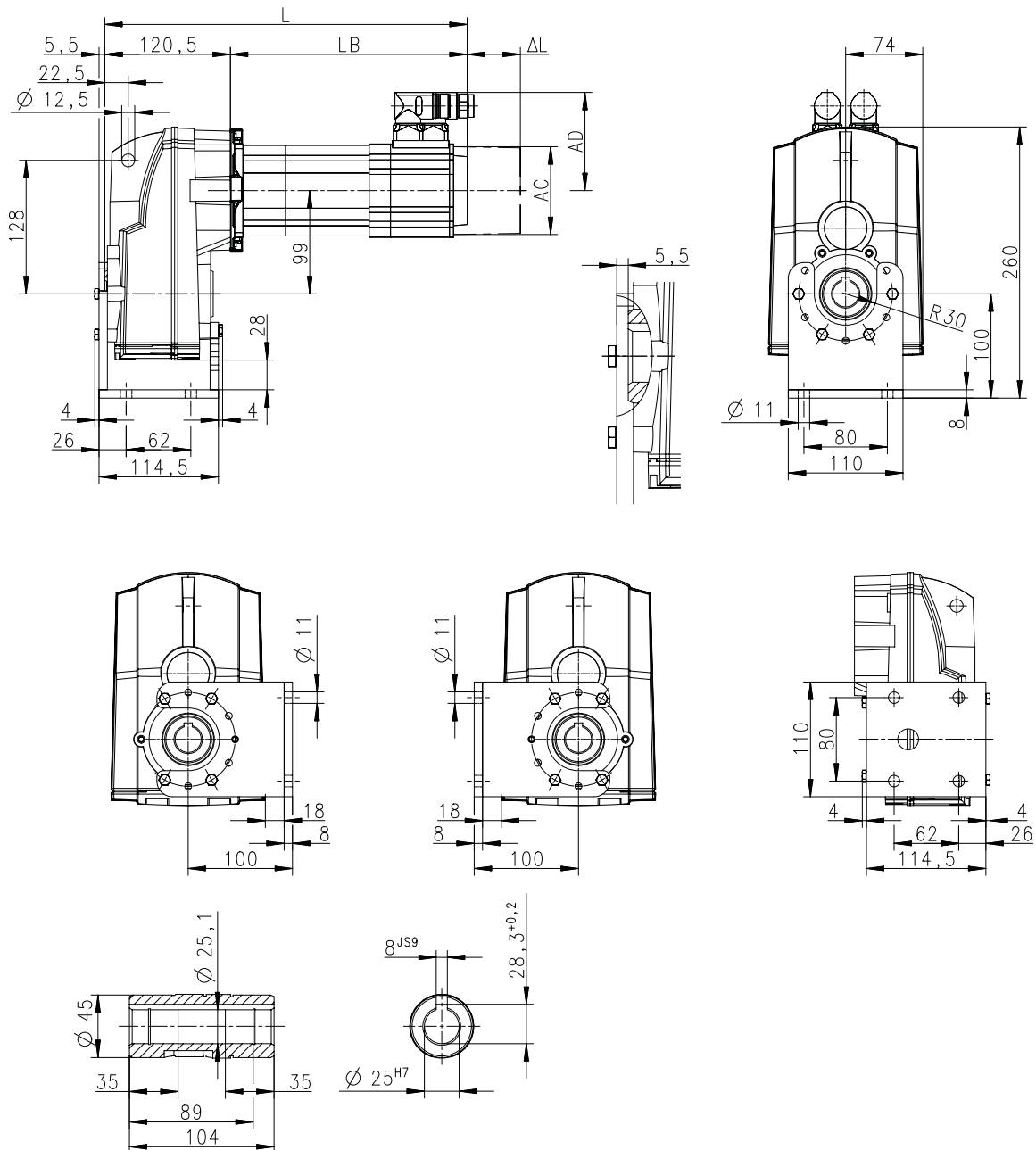


Technical data

Dimensions
Basic dimensions

g500-S130, 2-stage with MCS06

Gearbox version: Hollow shaft with foot (HBR)

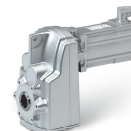


8800552-00

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	252	282	312
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm		82	
Motor diameter	AC	mm		86	
Motor/connection distance	AD	mm		77	

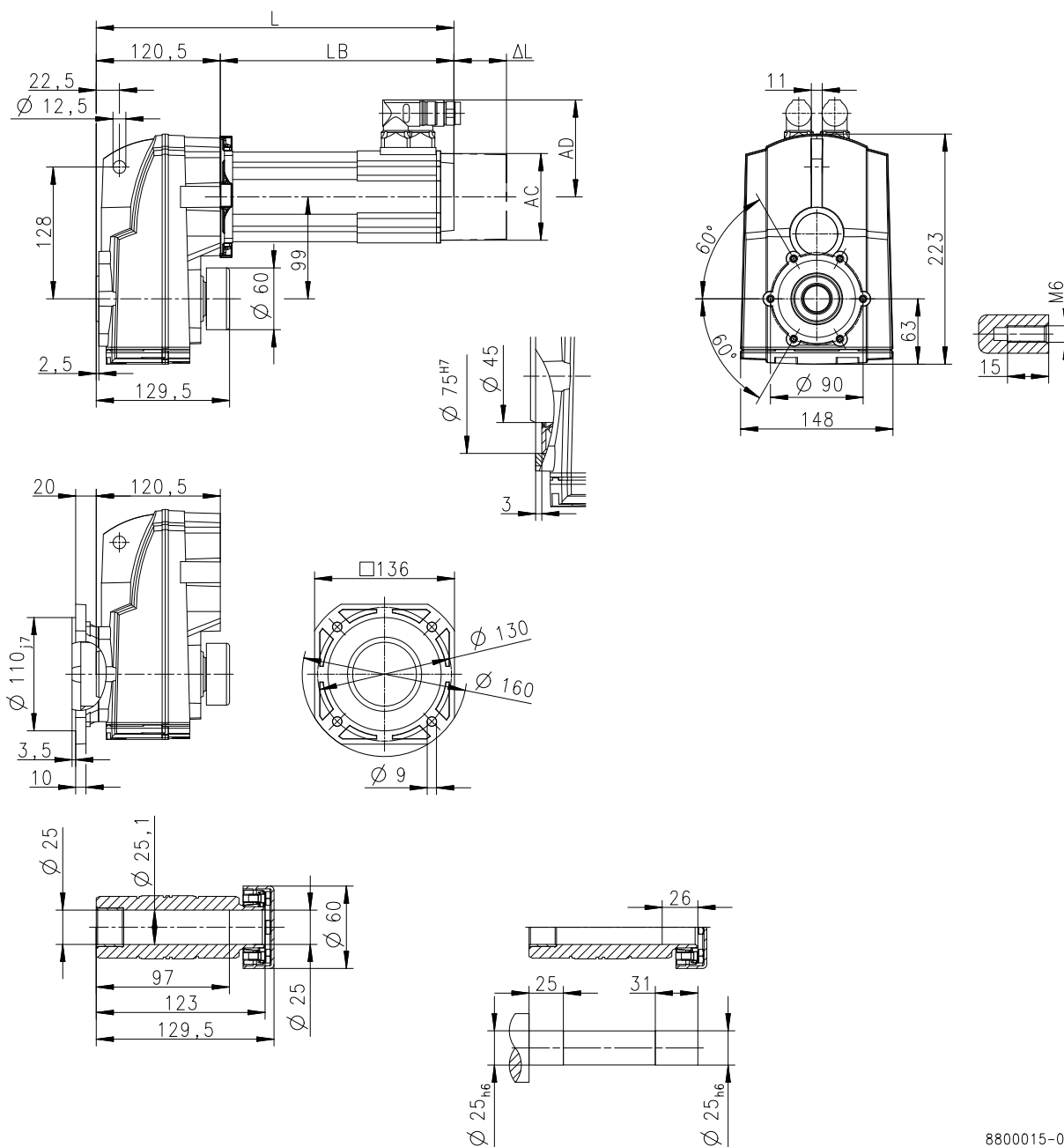
Technical data

Dimensions
Basic dimensions



g500-S130, 2-stage with MCS06

Gearbox version: Hollow shaft with shrink disc, without foot (SDR/SCR/SCK)



8800015-00

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	252	282	312
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm		82	
Motor diameter	AC	mm		86	
Motor/connection distance	AD	mm		77	

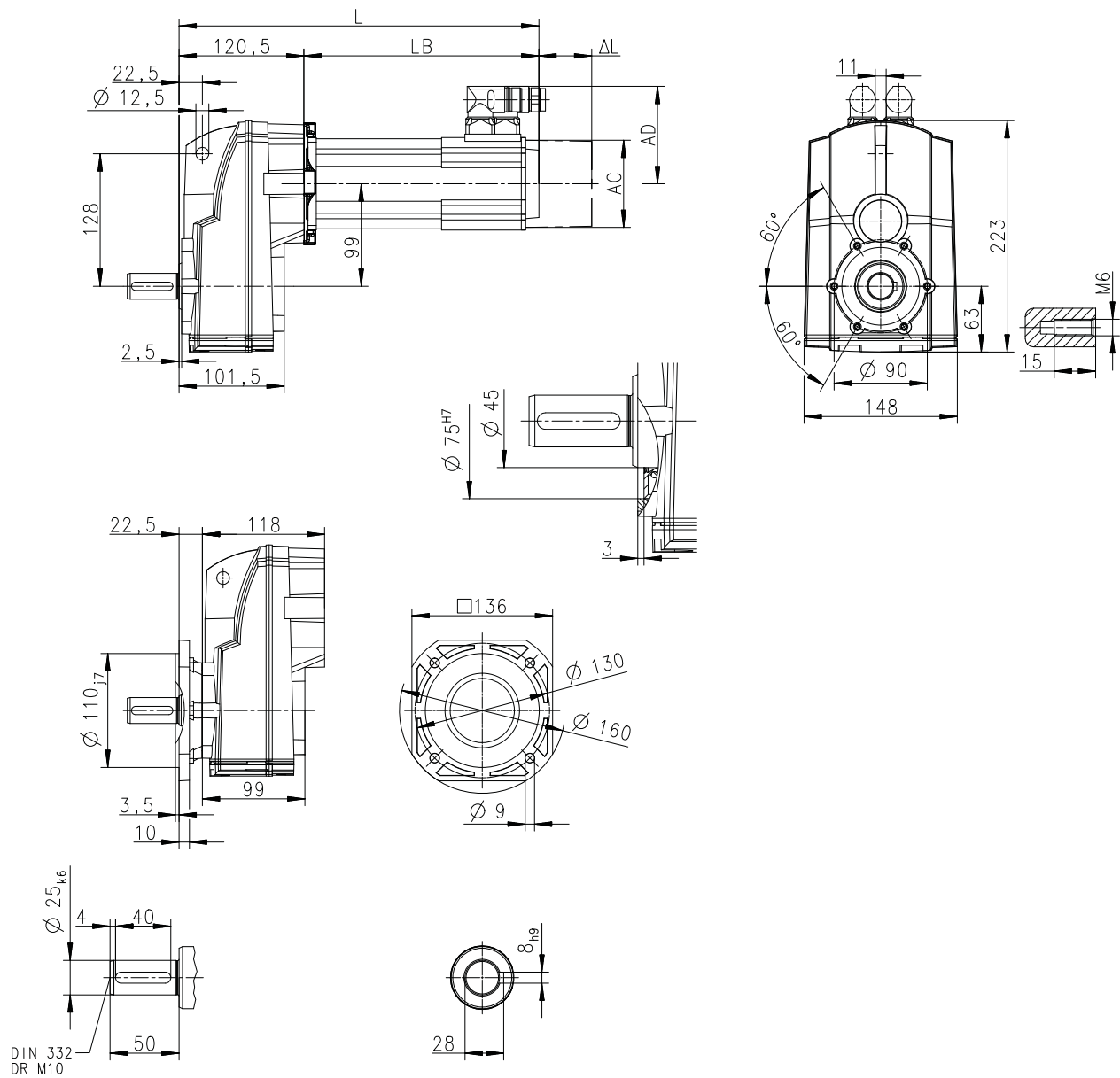


Technical data

Dimensions
Basic dimensions

g500-S130, 2-stage with MCS06

Gearbox version: Solid shaft without foot (VDR/VCR/VCK)



8800014-00

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	252	282	312
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

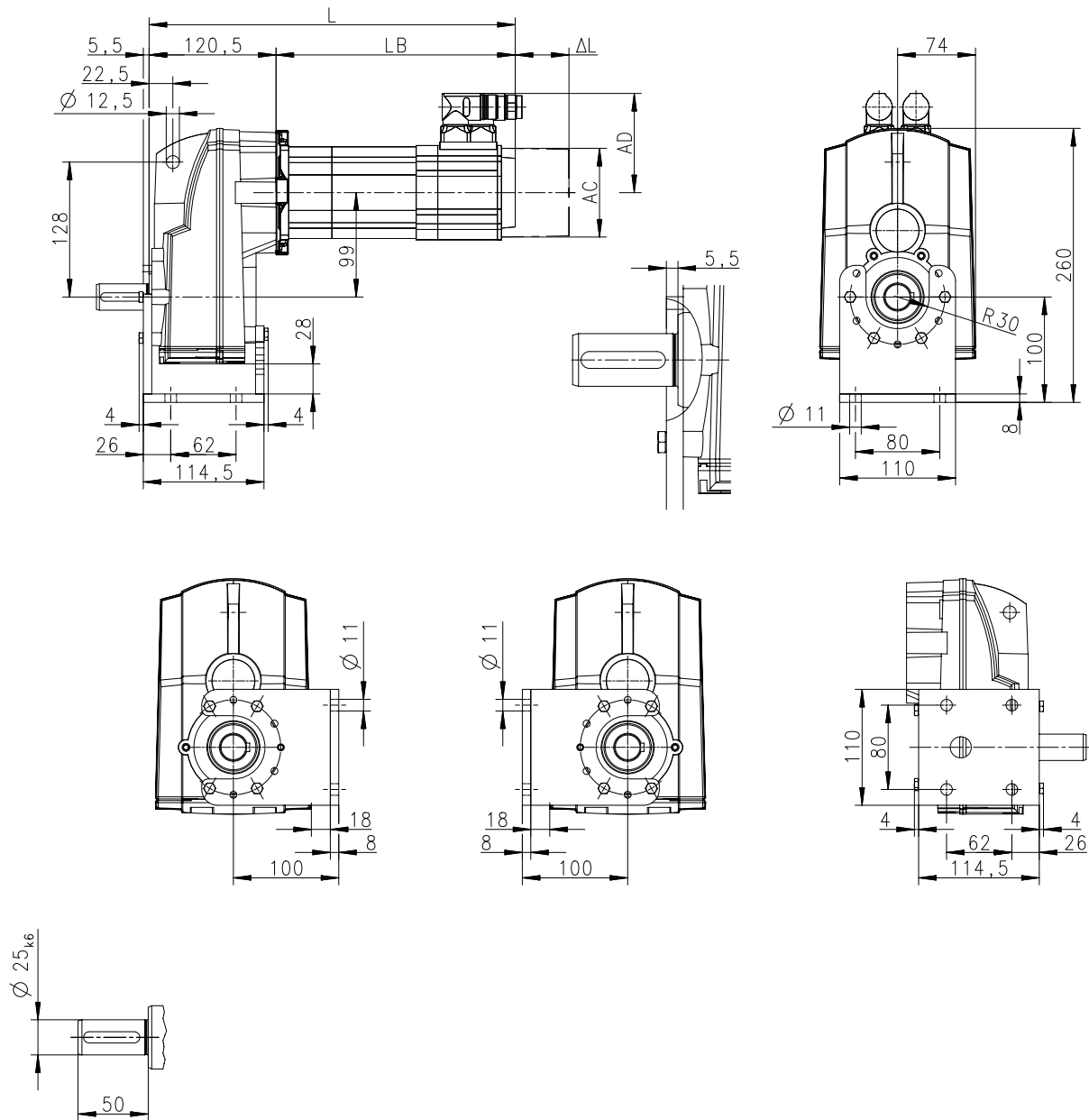
Technical data

Dimensions
Basic dimensions



g500-S130, 2-stage with MCS06

Gearbox version: Solid shaft with foot (VBR)



8800016-00

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	252	282	312
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

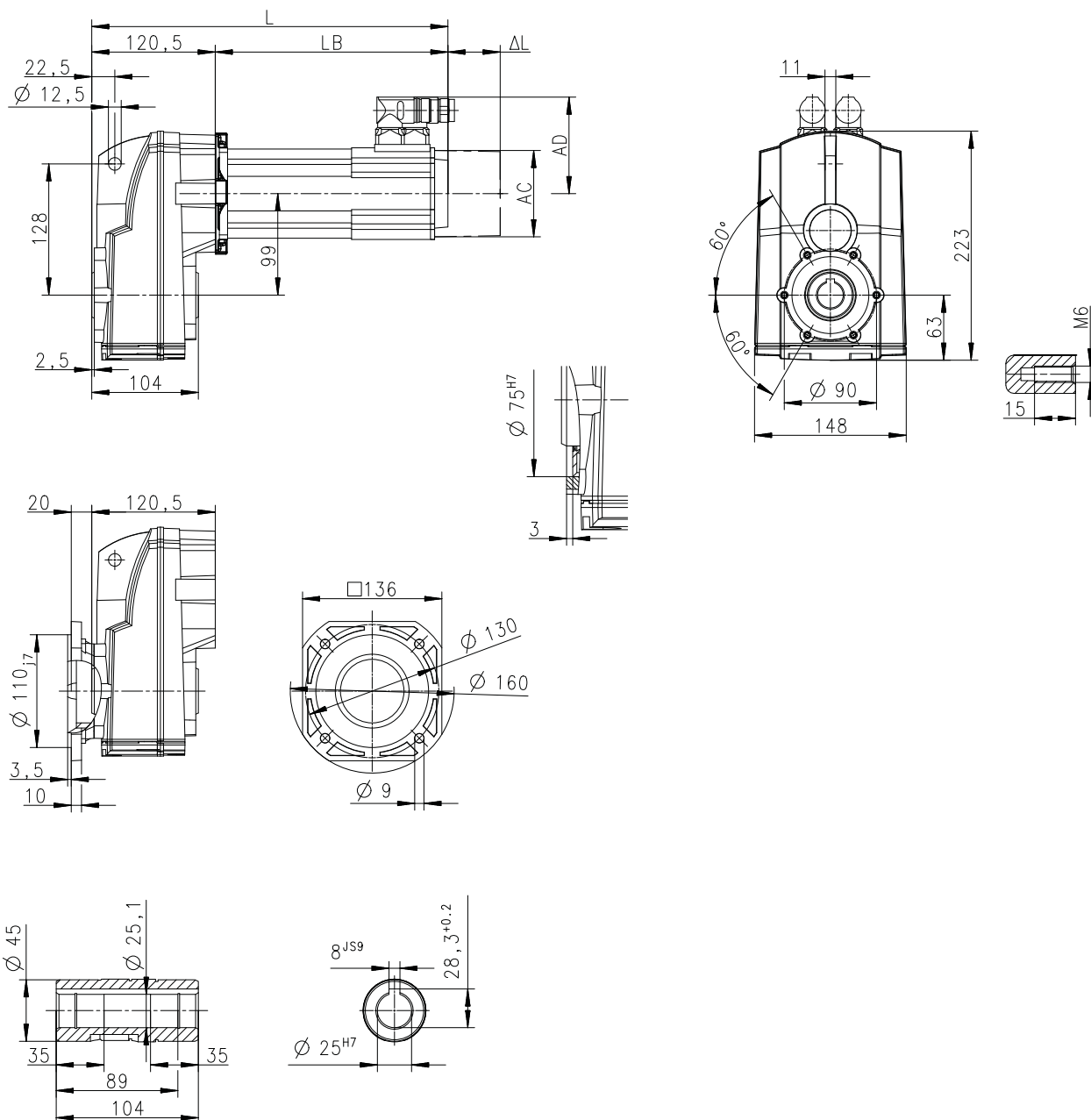


Technical data

Dimensions
Basic dimensions

g500-S130, 2-stage with MCS09

Gearbox version: Hollow shaft without foot (HDR/HCR/HCK)



8800013-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	304	324	344	384
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

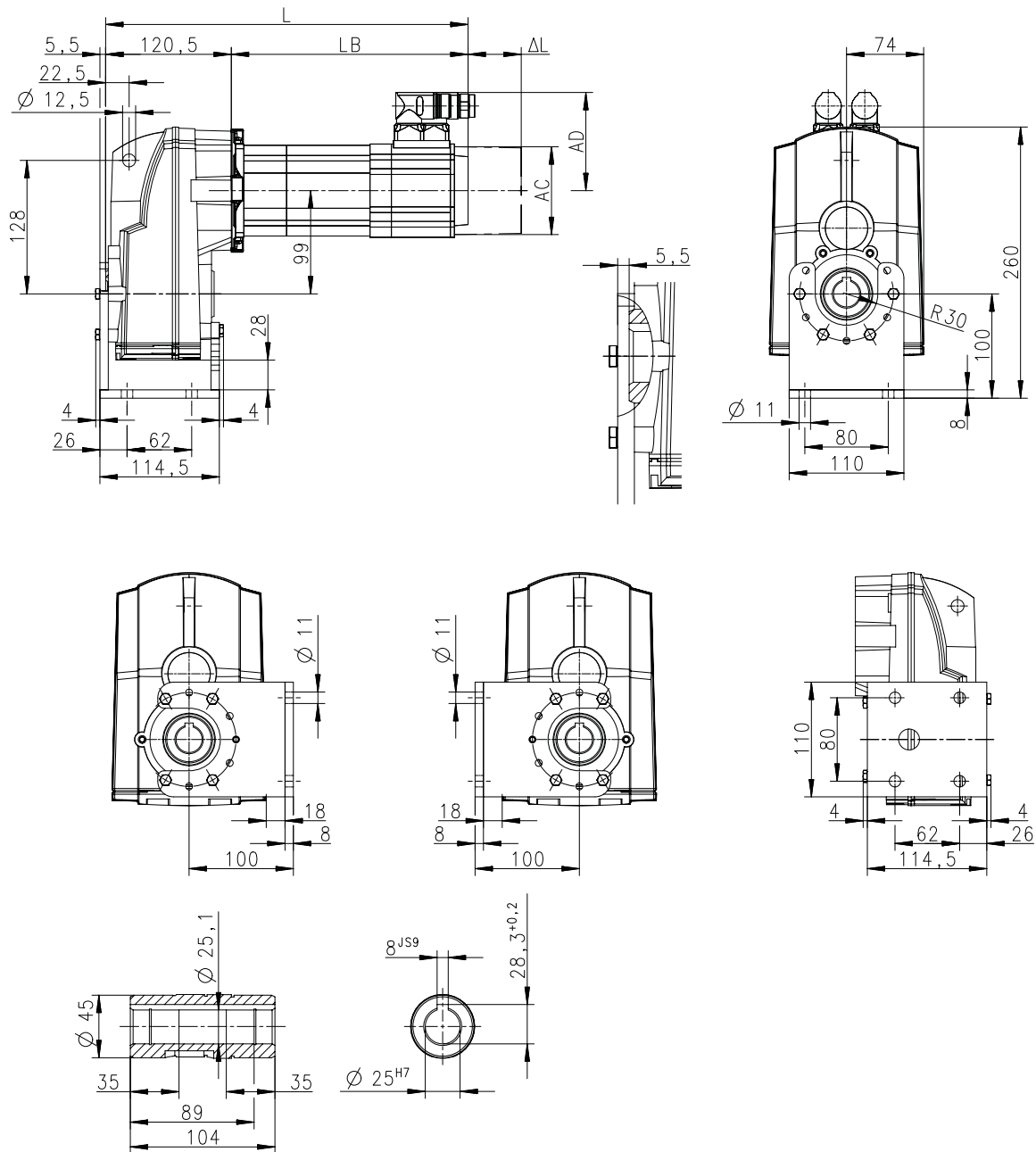
Technical data

Dimensions
Basic dimensions



g500-S130, 2-stage with MCS09

Gearbox version: Hollow shaft with foot (HBR)



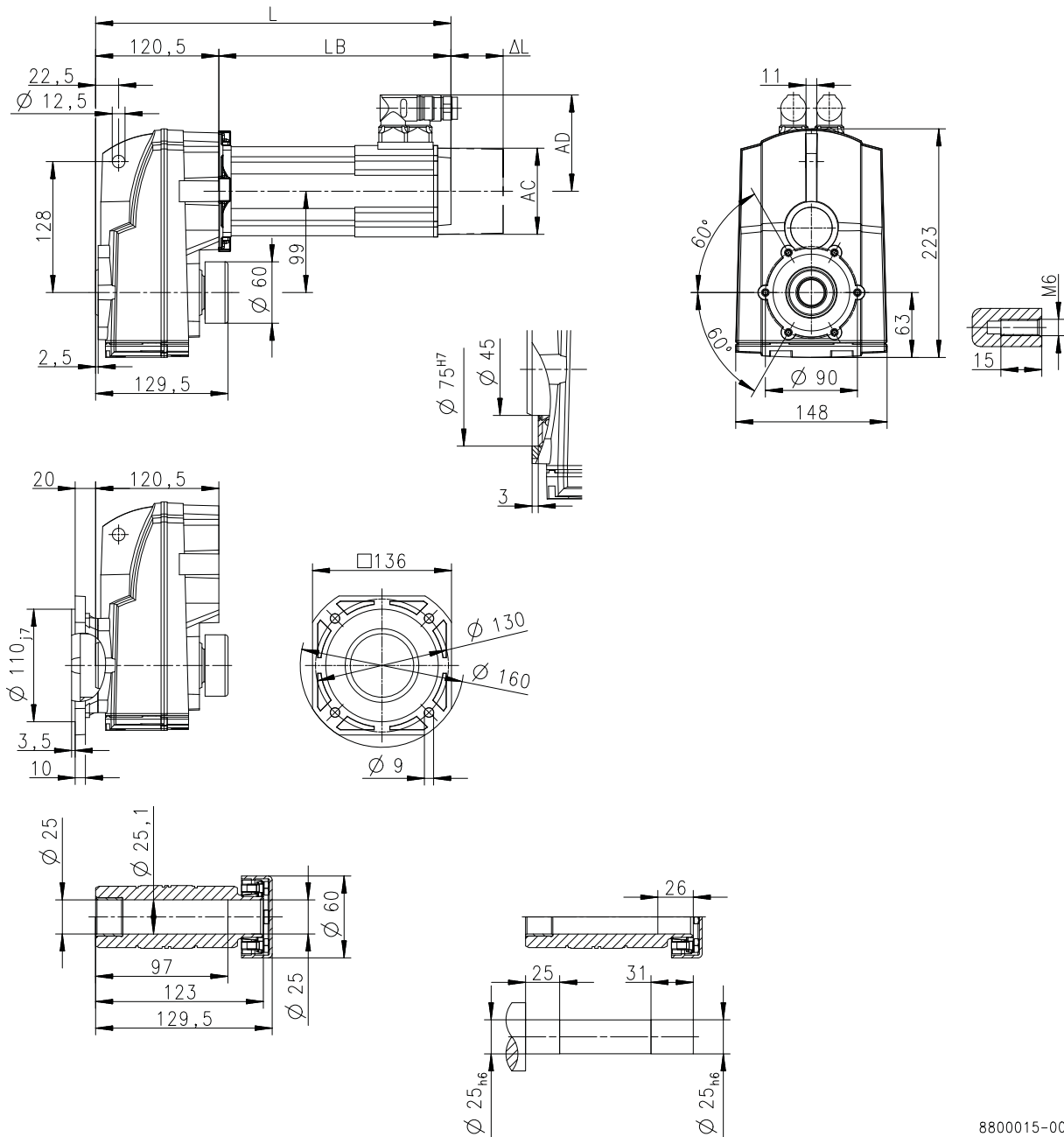
8800552-00

Motor			MCS			
			09D41-09D41L	09F38-09F38L	09H41-09H41L	09L41-09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	304	324	344	384
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			



g500-S130, 2-stage with MCS09

Gearbox version: Hollow shaft with shrink disc, without foot (SDR/SCR/SCK)



8800015-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	304	324	344	384
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

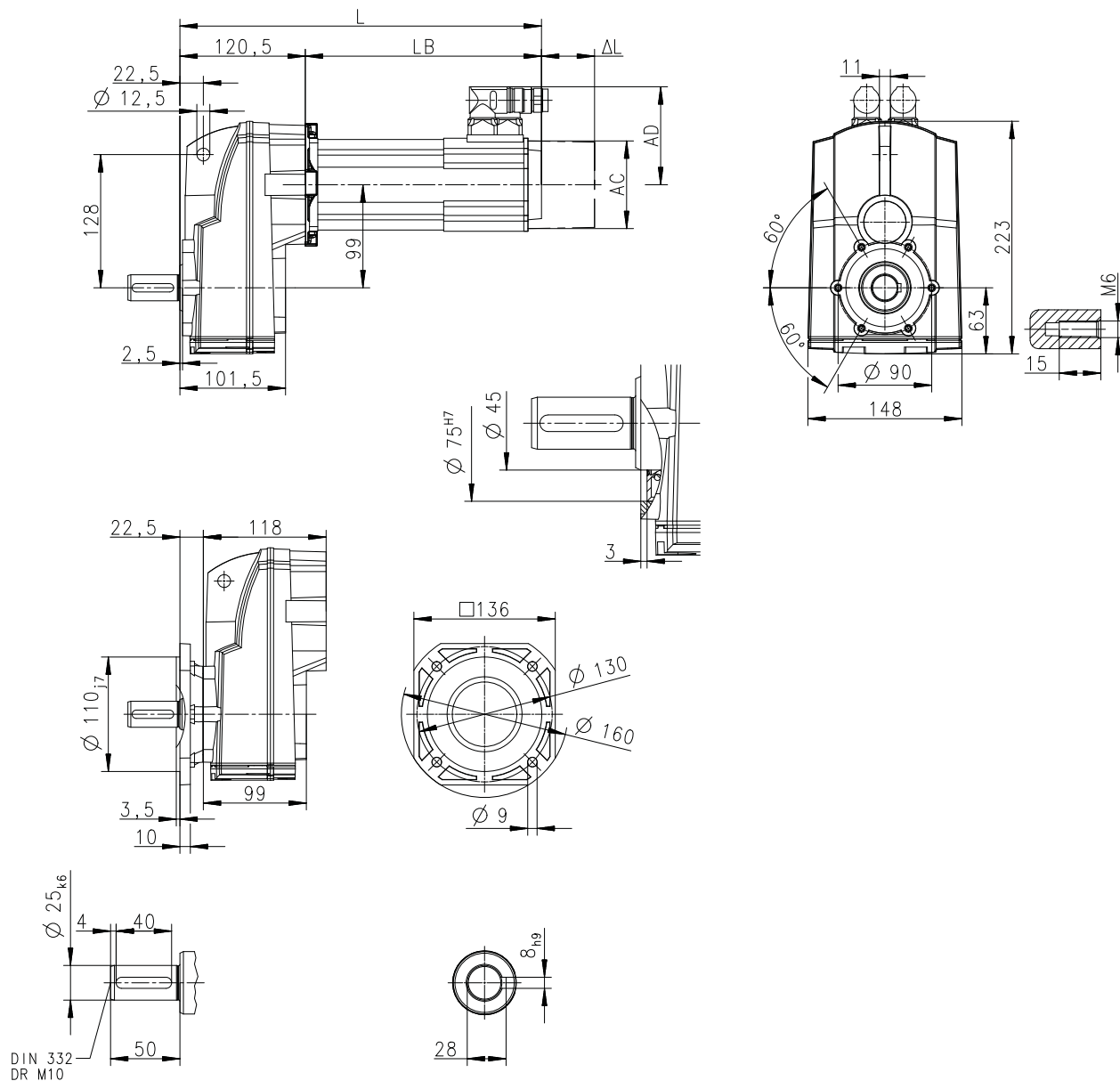
Technical data

Dimensions
Basic dimensions



g500-S130, 2-stage with MCS09

Gearbox version: Solid shaft without foot (VDR/VCR/VCK)



8800014-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	304	324	344	384
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

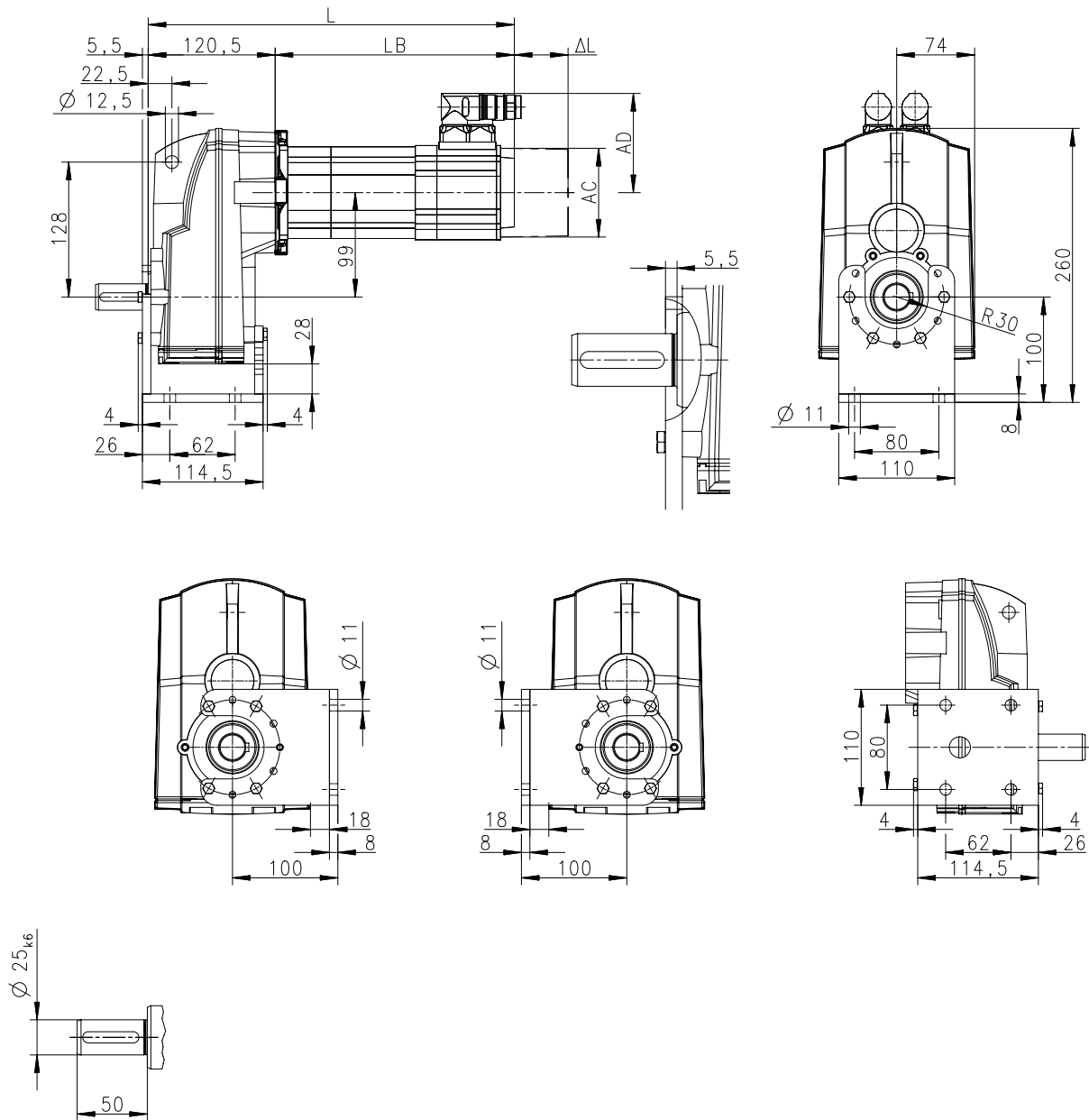


Technical data

Dimensions
Basic dimensions

g500-S130, 2-stage with MCS09

Gearbox version: Solid shaft with foot (VBR)

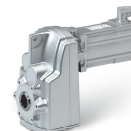


8800016-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	304	324	344	384
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

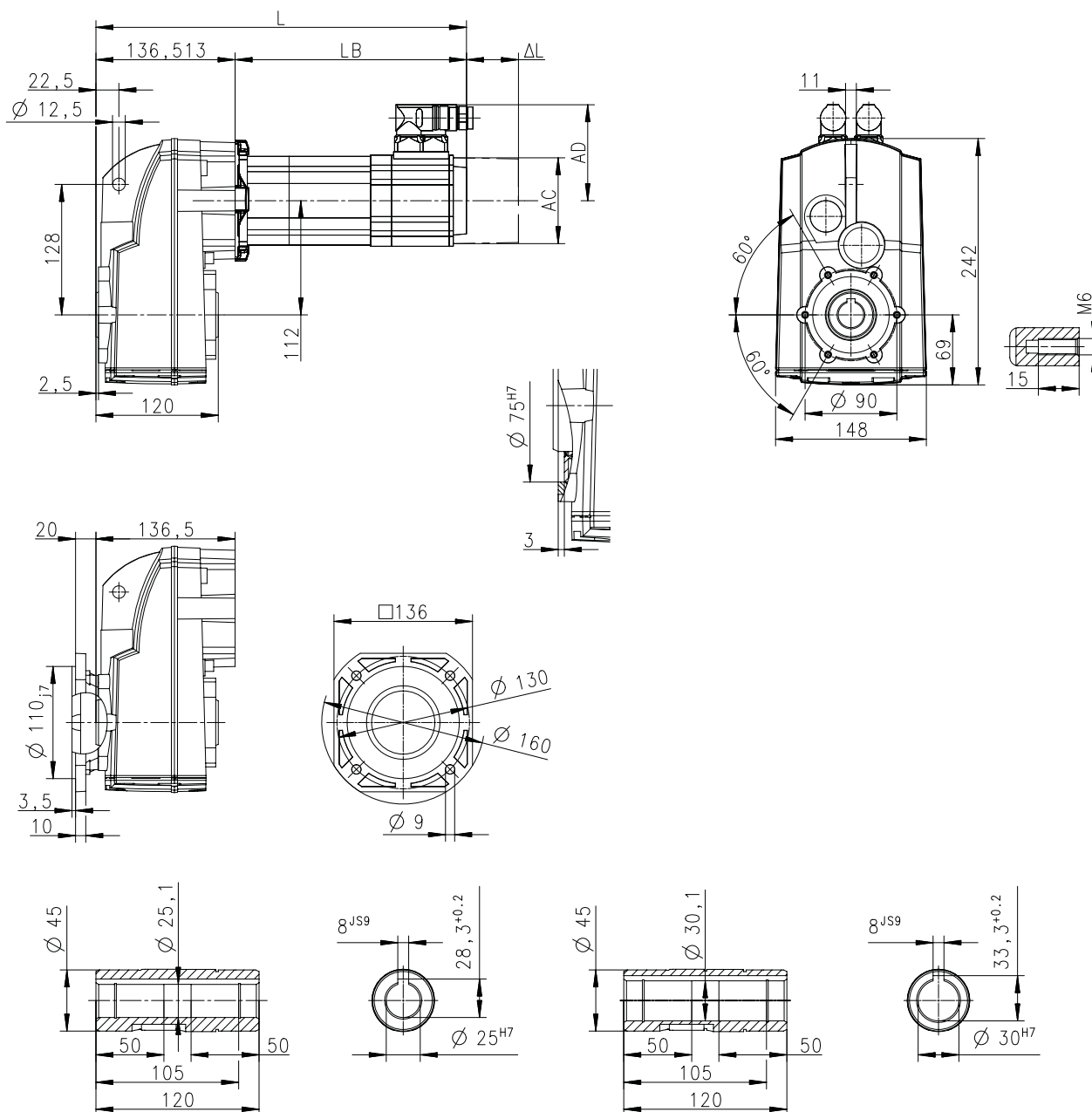
Technical data

Dimensions
Basic dimensions



g500-S220, 2-/3-stage with MCS06

Gearbox version: Hollow shaft without foot (HDR/HCR/HCK)



8800029-01

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	268	298	328
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm		82	
Motor diameter	AC	mm		86	
Motor/connection distance	AD	mm		77	

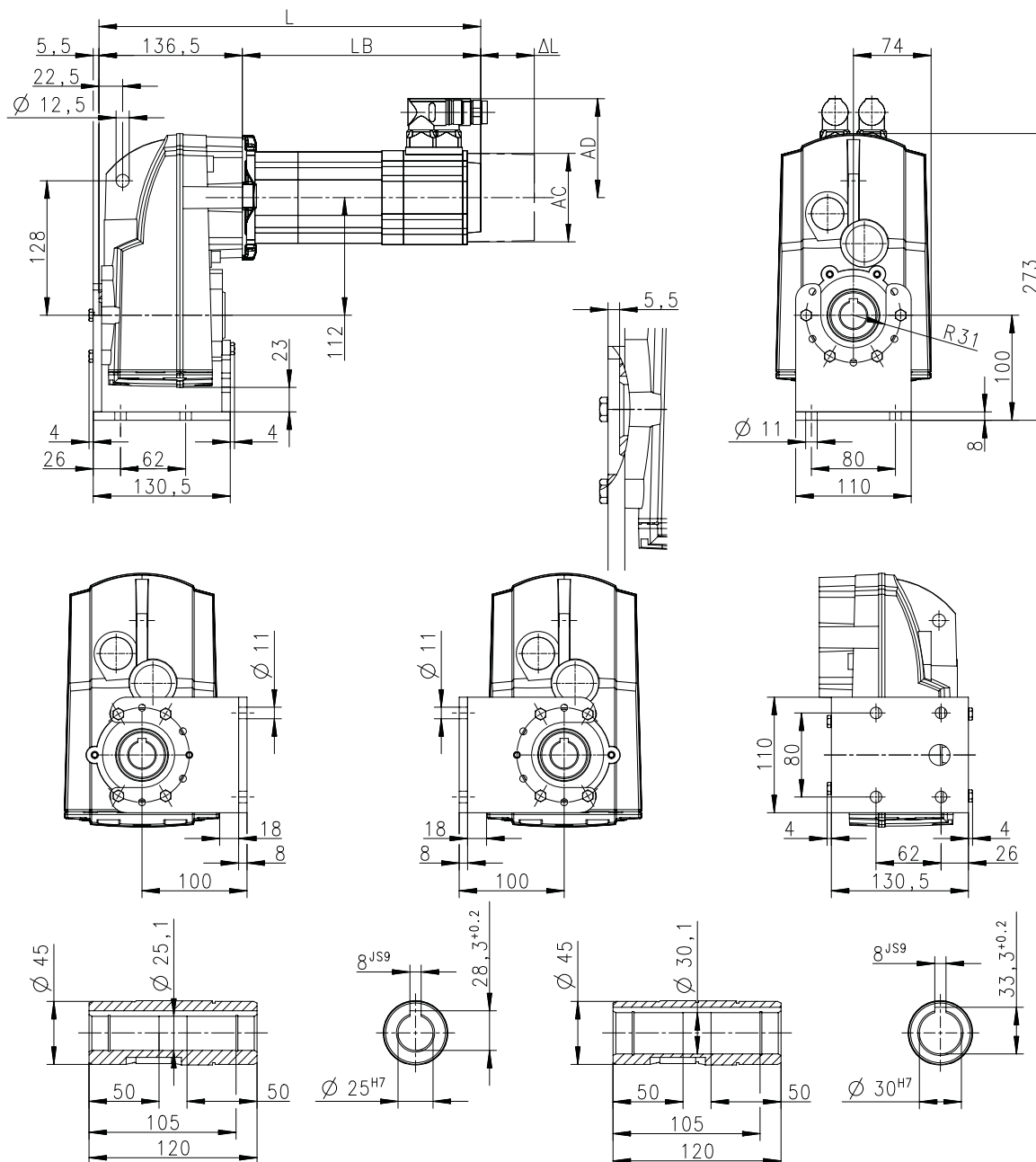


Technical data

Dimensions
Basic dimensions

g500-S220, 2-/3-stage with MCS06

Gearbox version: Hollow shaft with foot (HBR)



8800535-01

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	268	298	328
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm		82	
Motor diameter	AC	mm		86	
Motor/connection distance	AD	mm		77	

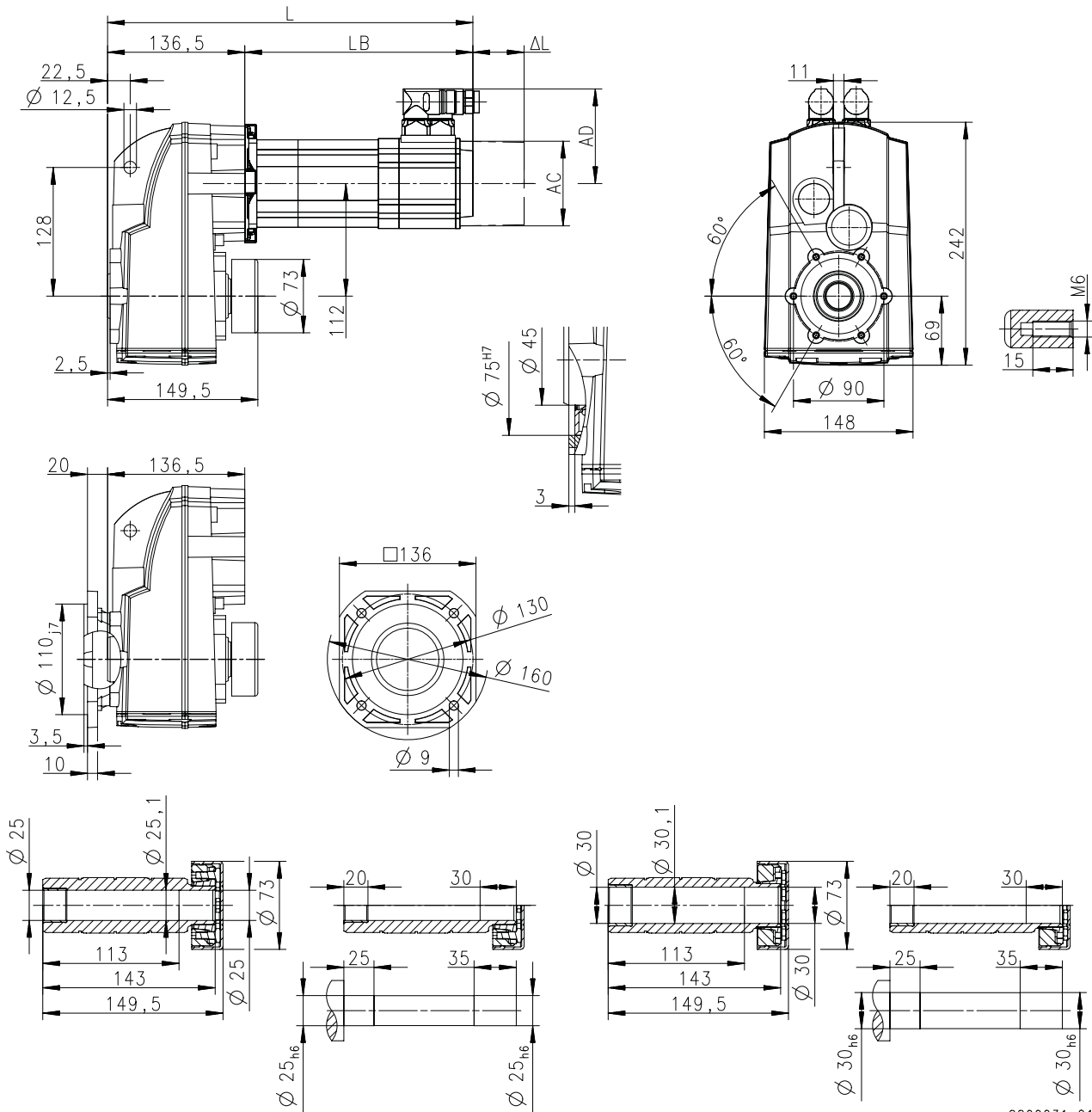
Technical data

Dimensions
Basic dimensions



g500-S220, 2-/3-stage with MCS06

Gearbox version: Hollow shaft with shrink disc, without foot (SDR/SCR/SCK)



8800031-01

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	268	298	328
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

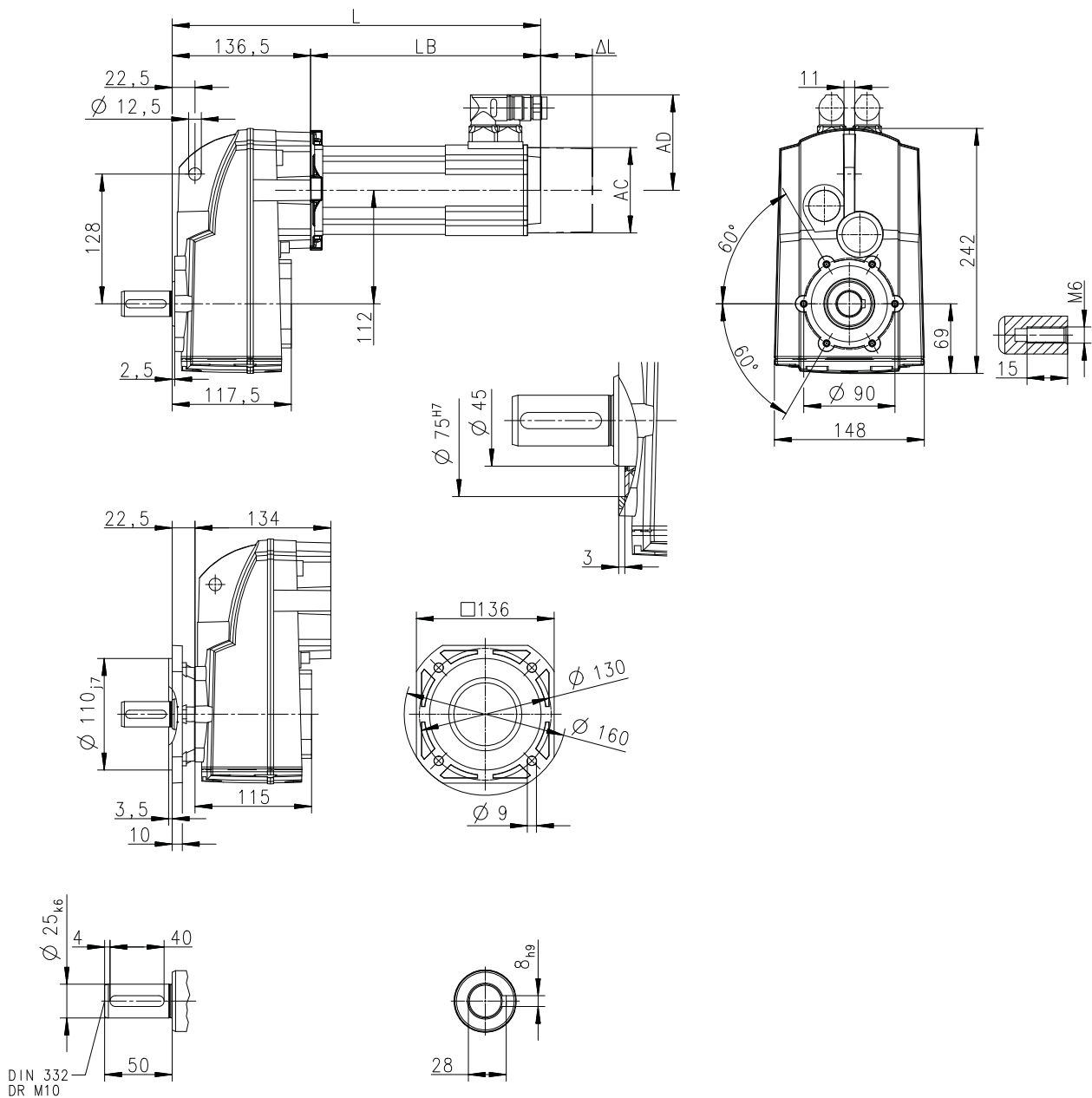


Technical data

Dimensions
Basic dimensions

g500-S220, 2-/3-stage with MCS06

Gearbox version: Solid shaft without foot (VDR/VCR/VCK)



8800030-00

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	268	298	328
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm		82	
Motor diameter	AC	mm		86	
Motor/connection distance	AD	mm		77	

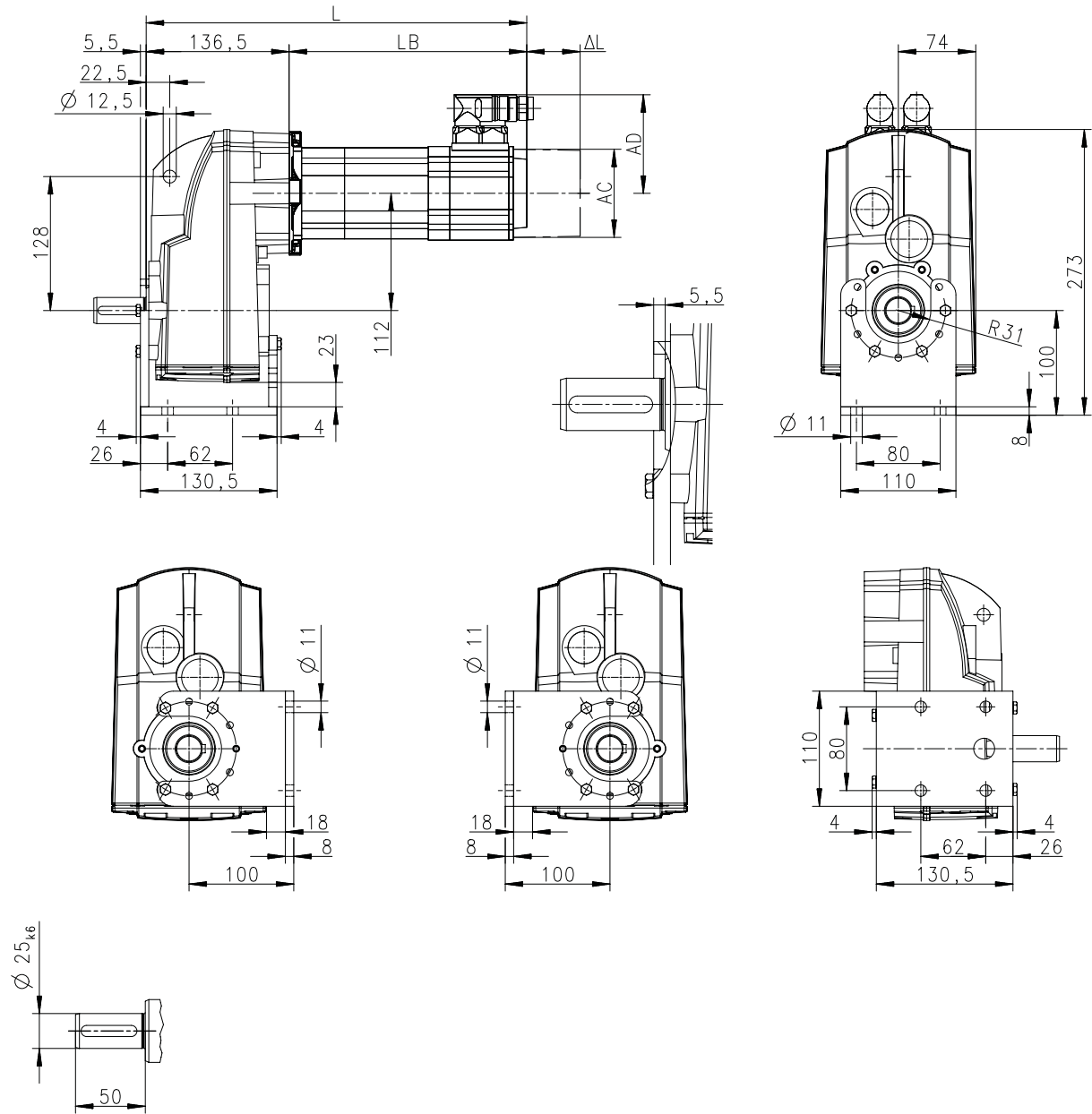
Technical data

Dimensions
Basic dimensions



g500-S220, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot (VBR)



8800032-00

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	268	298	328
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

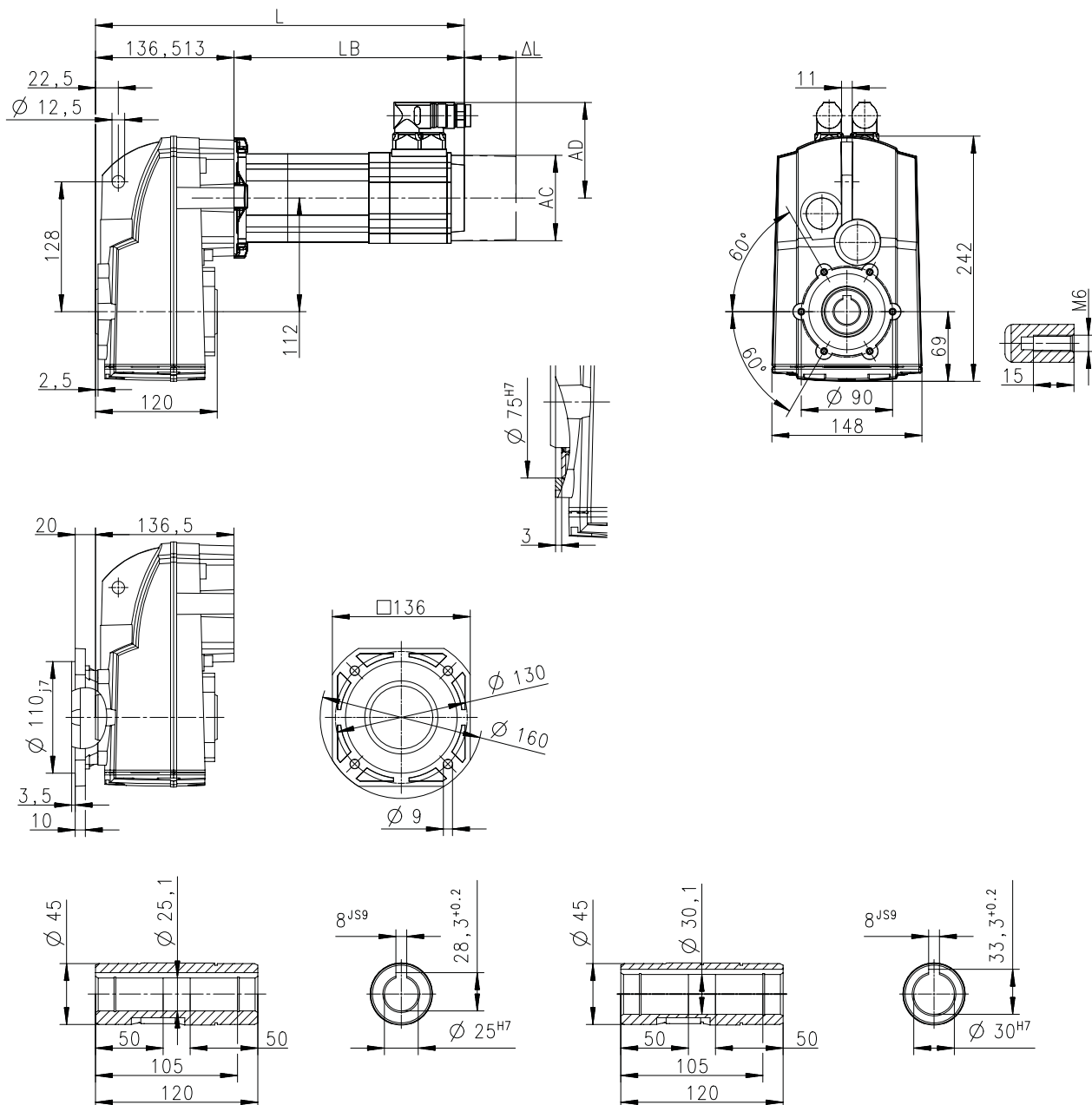


Technical data

Dimensions
Basic dimensions

g500-S220, 2-/3-stage with MCS09

Gearbox version: Hollow shaft without foot (HDR/HCR/HCK)



8800029-01

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	320	340	360	400
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

Dimensions

Basic dimensions



Technical drawing of a mechanical component, likely a pump or valve, showing multiple views: front, side, top, and cross-sections. Dimensions are provided in millimeters.

Front View (Top Left): Shows the main body with dimensions: 5.5, 136.5, LB, AL, AD, AC, 128, 22.5, Ø 12.5, 112, 23, 4, 26, 62, 130.5.

Side View (Top Right): Shows the side profile with dimensions: 74, 273, R31, 100, 80, 110, Ø 11.

Top View (Bottom Left): Shows the top of the component with dimensions: Ø 45, Ø 25.1, 50, 105, 120.

Bottom View (Bottom Right): Shows the bottom of the component with dimensions: Ø 25H7, 28.3^{+0.2}, 8 JS9.

Front View (Bottom Left): Shows the front of the component with dimensions: Ø 11, 18, 8, 100.

Side View (Bottom Right): Shows the side profile with dimensions: Ø 11, 18, 8, 100.

Top View (Bottom Right): Shows the top of the component with dimensions: 110, 80, 4, 62, 26, 130.5.

Bottom View (Bottom Left): Shows the bottom of the component with dimensions: Ø 45, Ø 30.1, 50, 105, 120.

Bottom View (Bottom Right): Shows the bottom of the component with dimensions: Ø 30H7, 33.3^{+0.2}, 8 JS9.

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	320	340	360	400
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

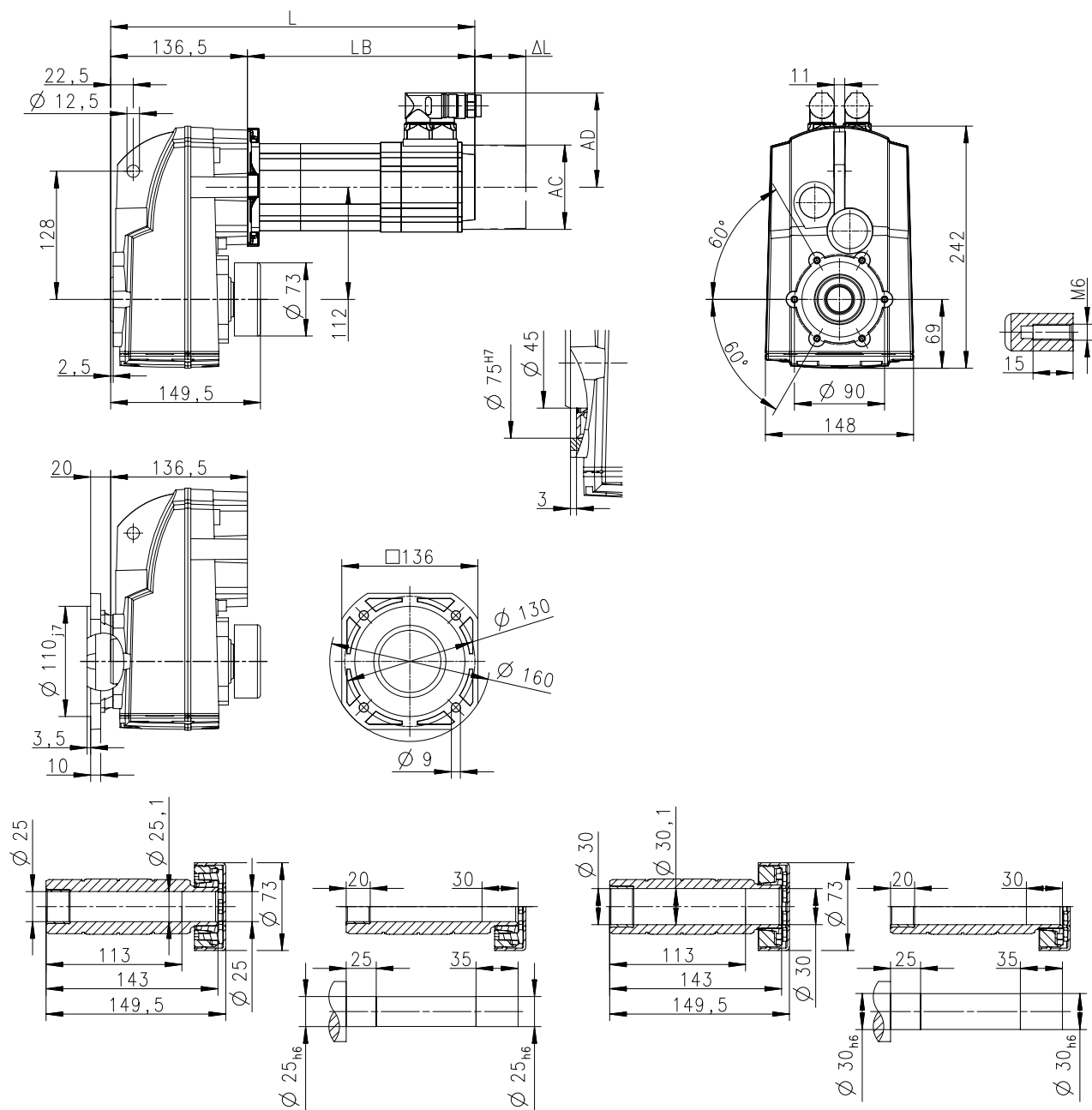


Technical data

Dimensions
Basic dimensions

g500-S220, 2-/3-stage with MCS09

Gearbox version: Hollow shaft with shrink disc, without foot (SDR/SCR/SCK)



8800031-01

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	320	340	360	400
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

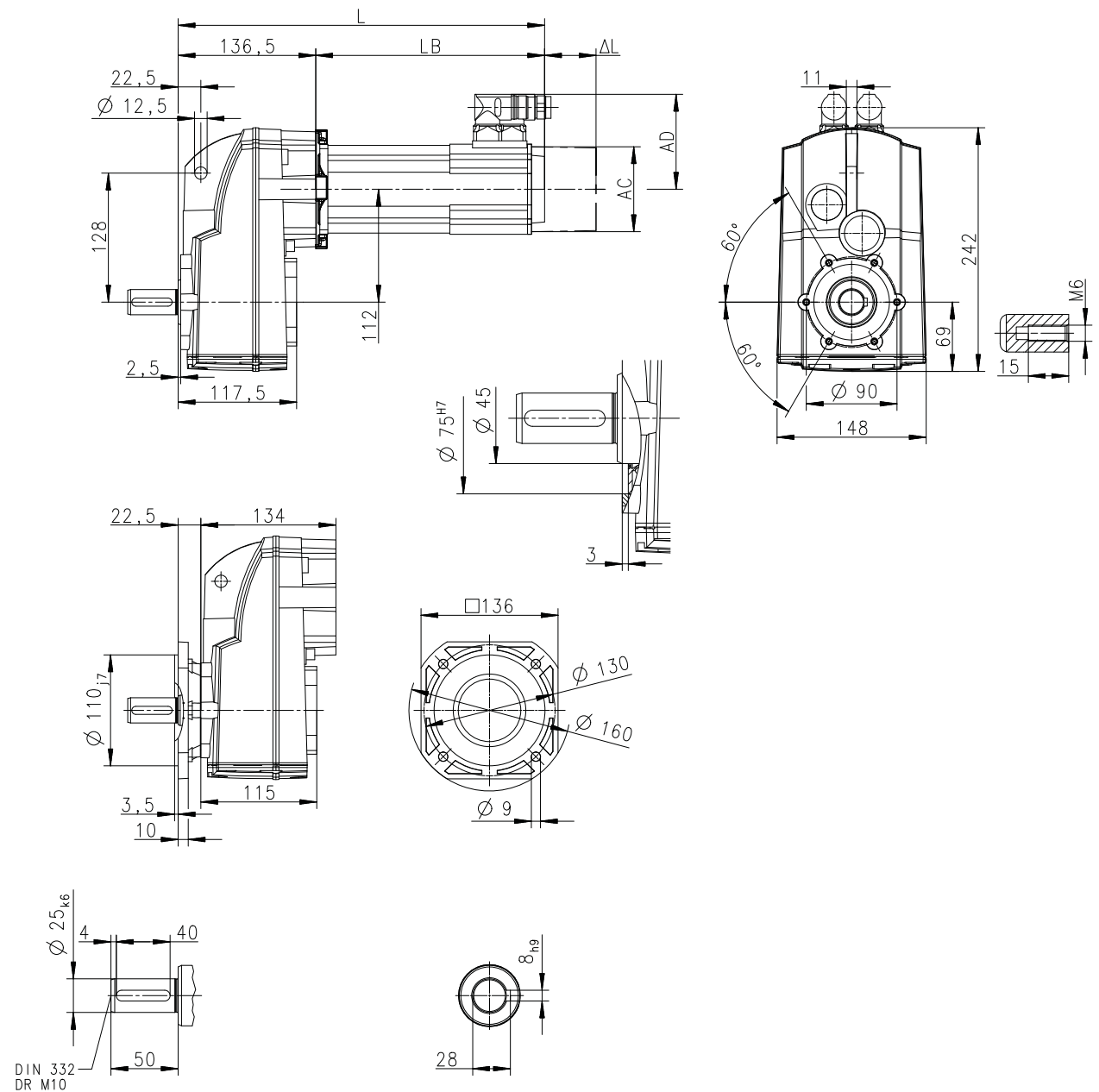
Technical data

Dimensions
Basic dimensions



g500-S220, 2-/3-stage with MCS09

Gearbox version: Solid shaft without foot (VDR/VCR/VCK)



8800030-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	320	340	360	400
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

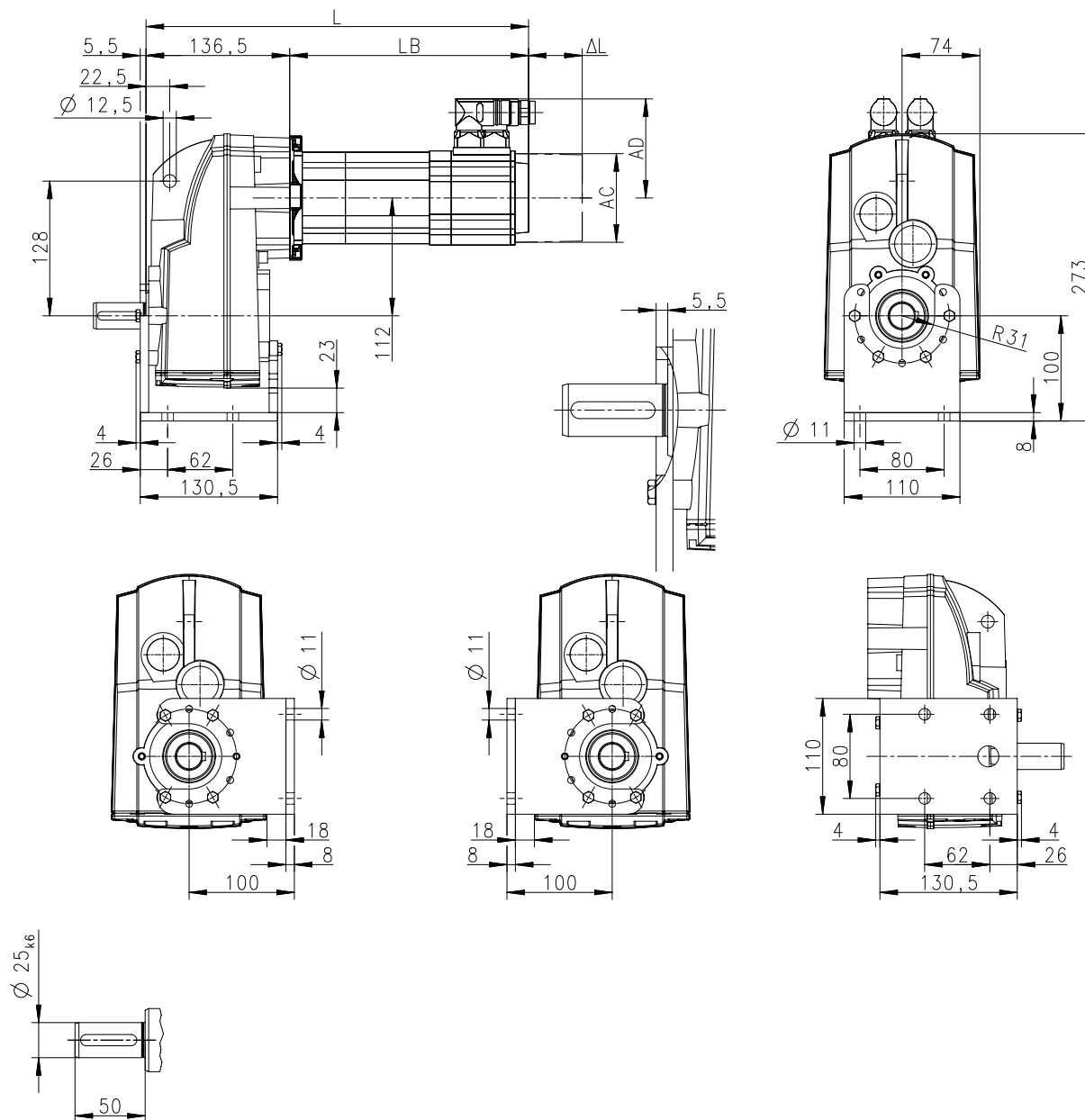


Technical data

Dimensions
Basic dimensions

g500-S220, 2-/3-stage with MCS09

Gearbox version: Solid shaft with foot (VBR)

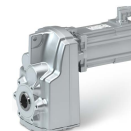


8800032-00

Motor			MCS			
			09D41-09D41L	09F38-09F38L	09H41-09H41L	09L41-09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	320	340	360	400
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

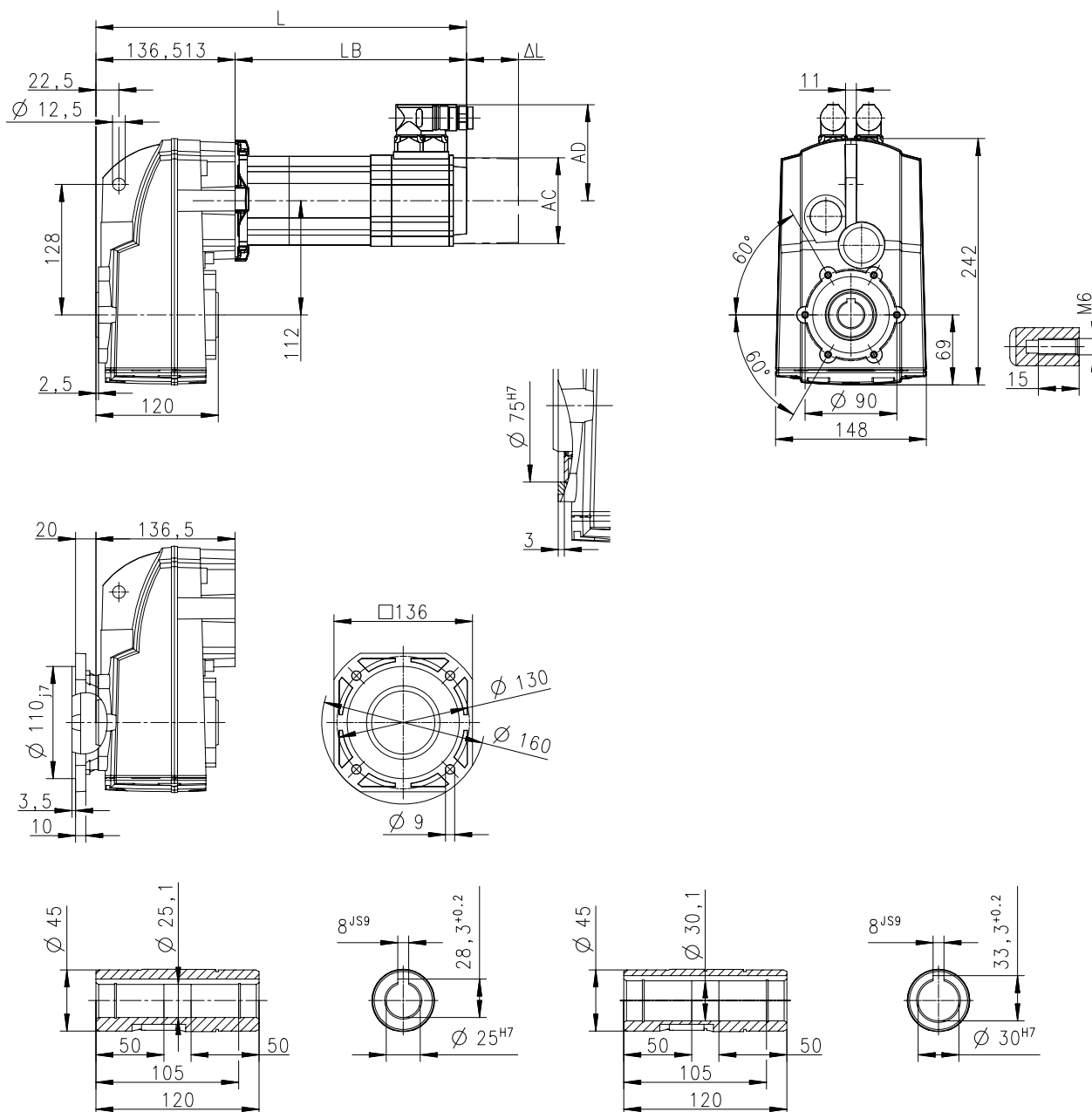
Technical data

Dimensions
Basic dimensions



g500-S220, 2-/3-stage with MCS12

Gearbox version: Hollow shaft without foot (HDR/HCR/HCK)



8800029-01

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	410	337	410	337	450	377
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

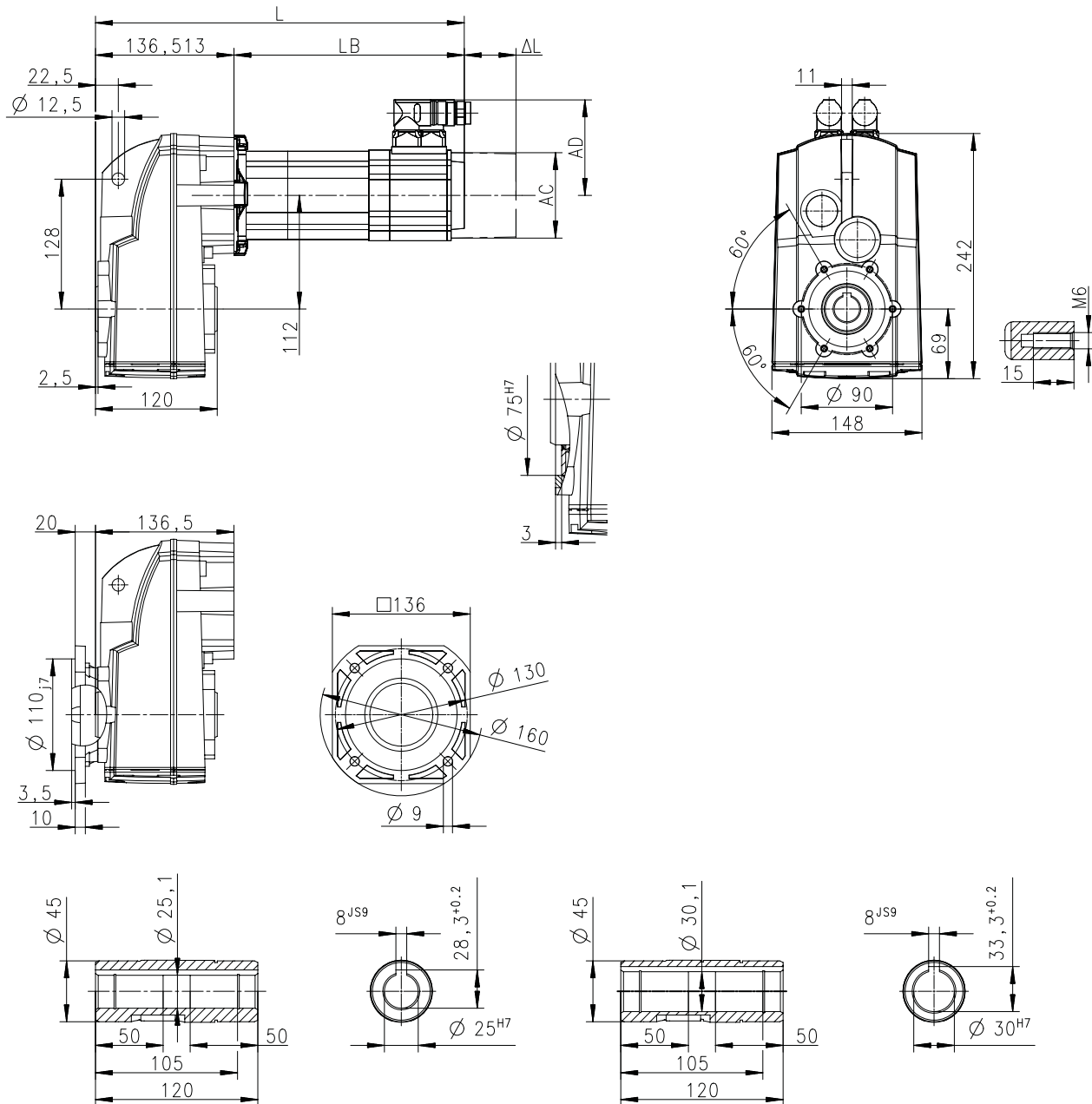


Technical data

Dimensions
Basic dimensions

g500-S220, 2-/3-stage with MCS12

Gearbox version: Hollow shaft without foot (HDR/HCR/HCK)



8800029-01

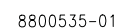
Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	450	377	490	417	490	417
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

Dimensions

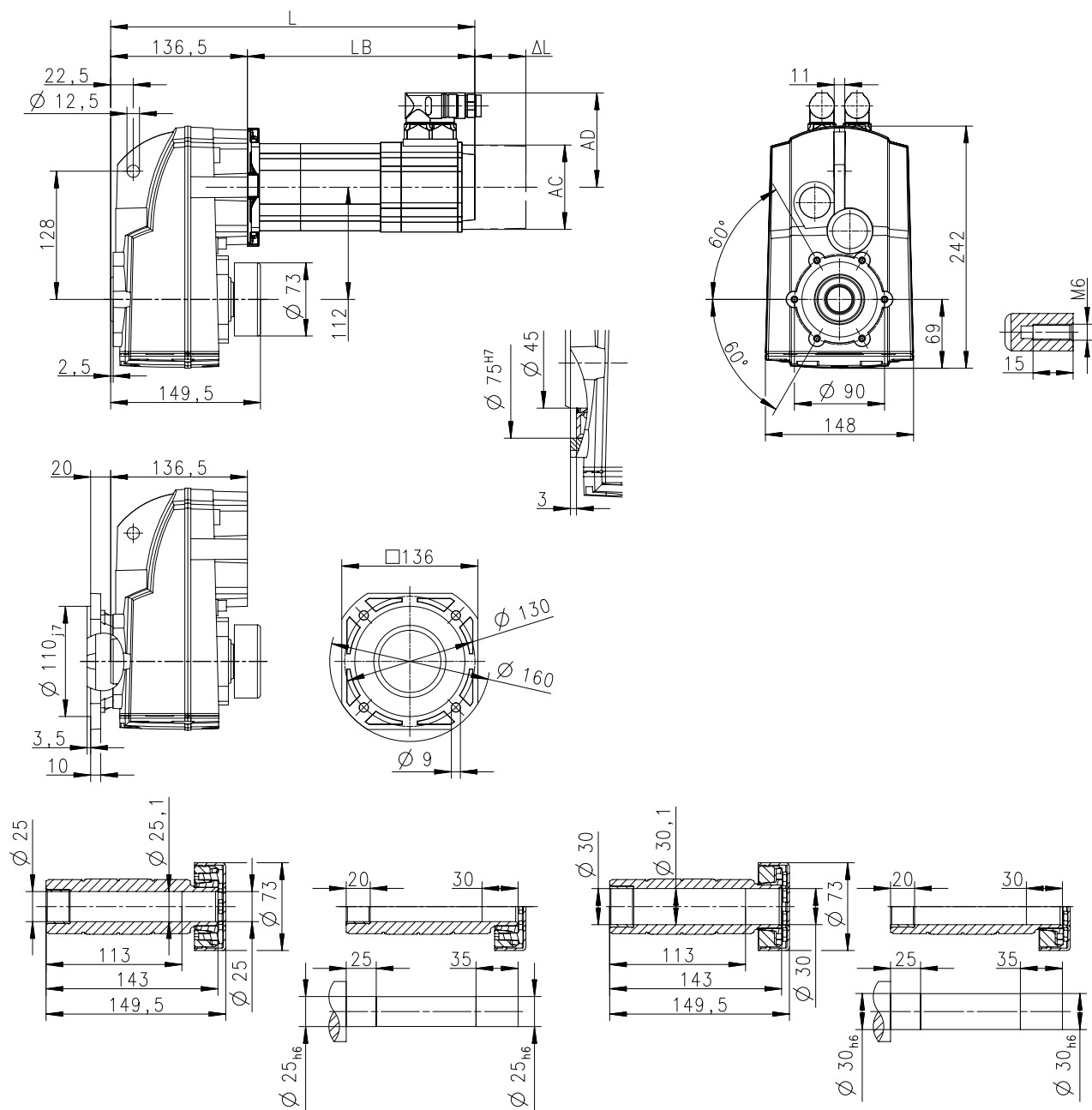
Basic dimensions



Gearbox version: Hollow shaft with foot (HBR)

159

Gearbox version: Hollow shaft with shrink disc, without foot (SDR/SCR/SCK)

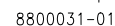


8800031-01

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	410	337	410	337	450	377
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

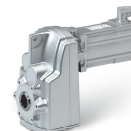


Gearbox version: Hollow shaft with shrink disc, without foot (SDR/SCR/SCK)

161

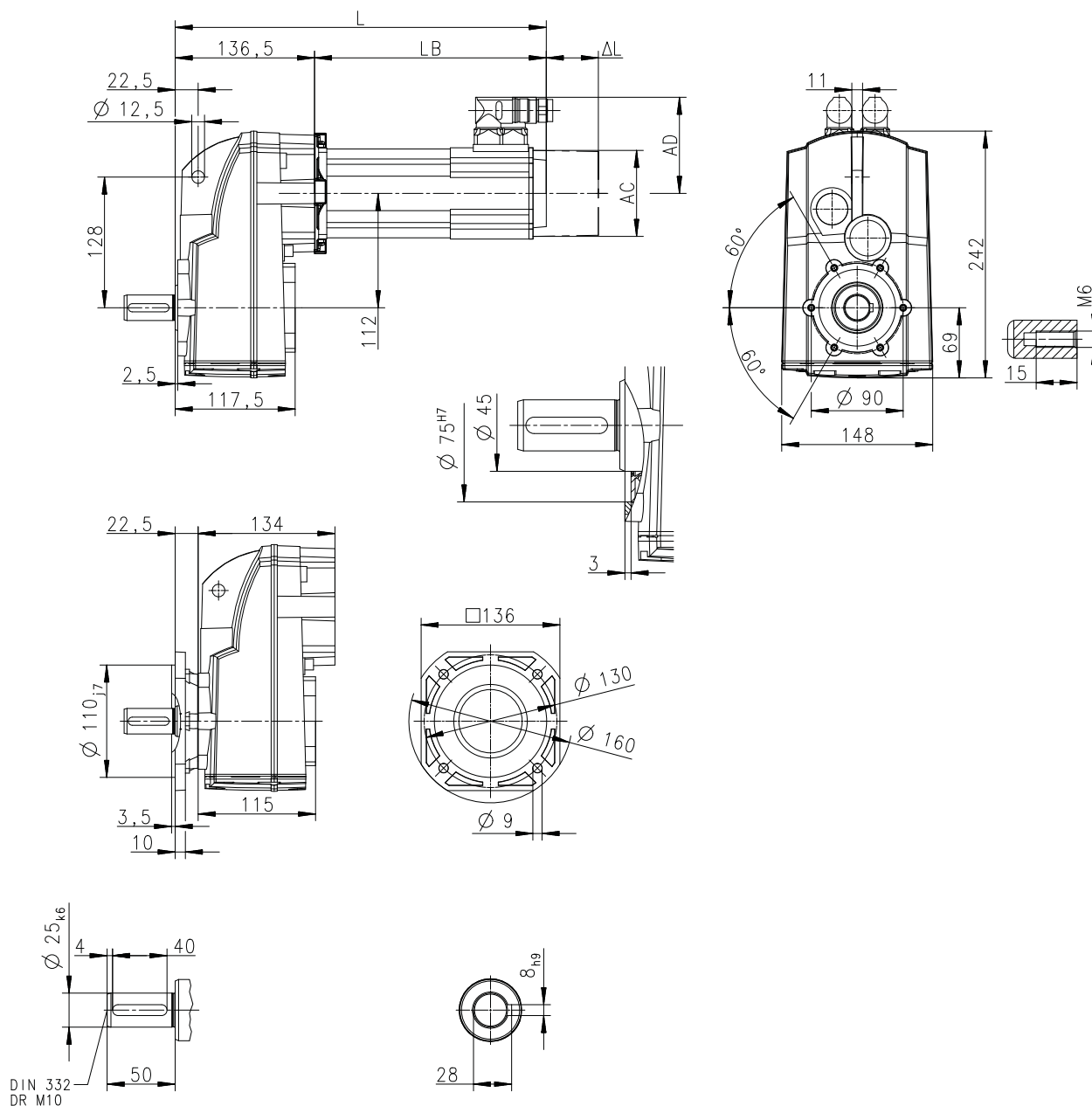
Technical data

Dimensions
Basic dimensions



g500-S220, 2-/3-stage with MCS12

Gearbox version: Solid shaft without foot (VDR/VCR/VCK)



8800030-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	410	337	410	337	450	377
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

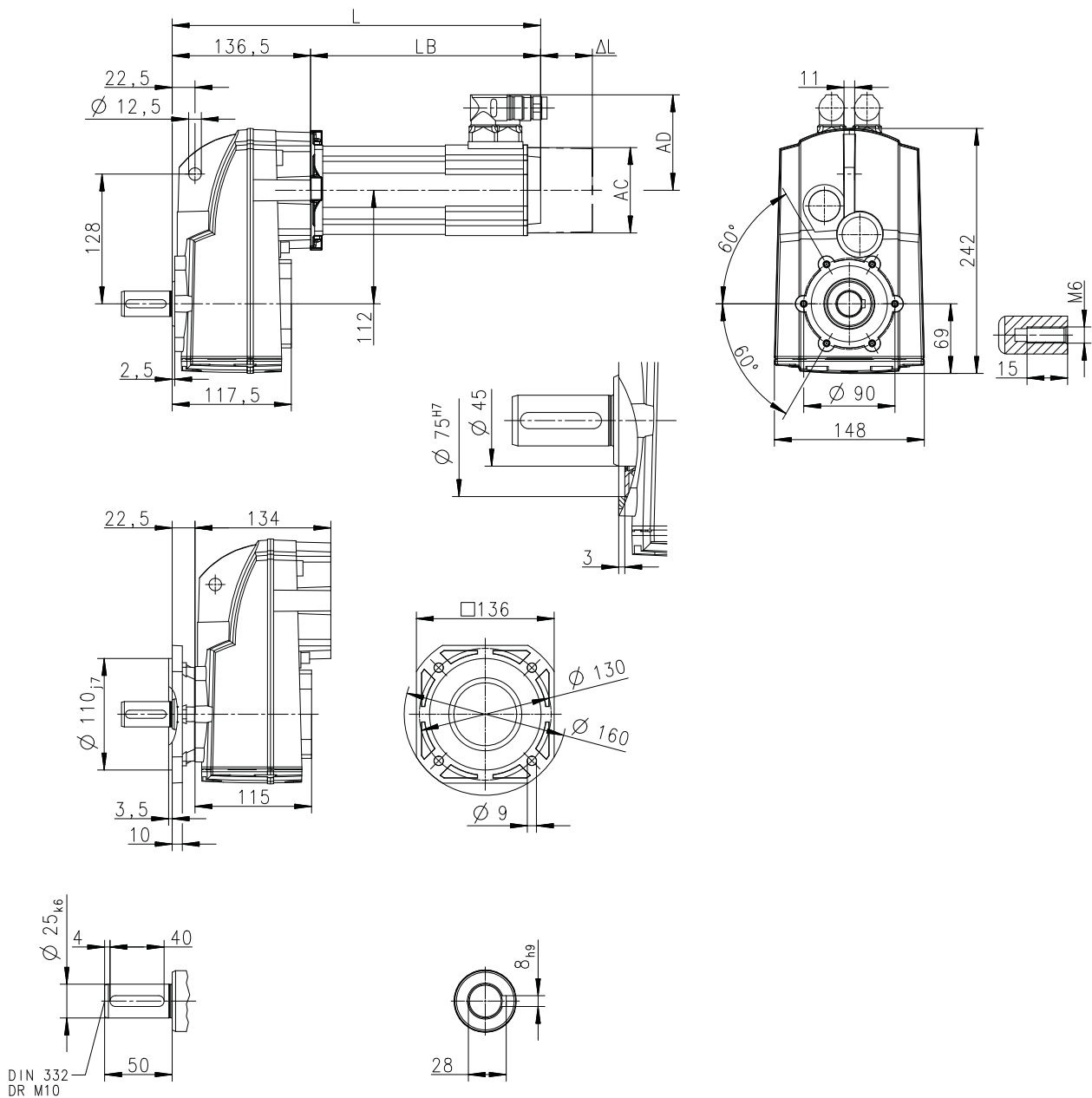


Technical data

Dimensions
Basic dimensions

g500-S220, 2-/3-stage with MCS12

Gearbox version: Solid shaft without foot (VDR/VCR/VCK)

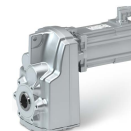


8800030-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	450	377	490	417	490	417
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

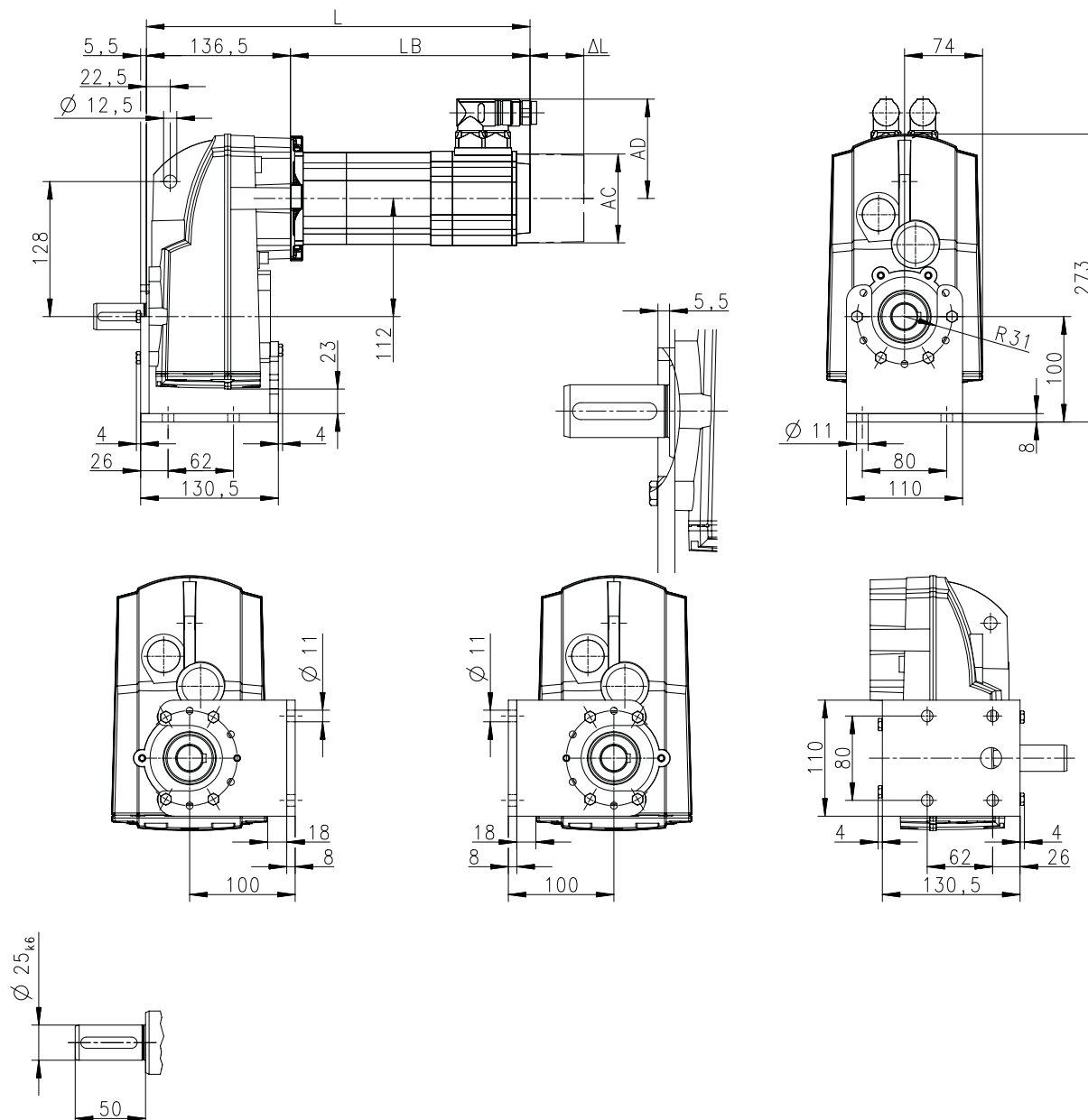
Technical data

Dimensions
Basic dimensions



g500-S220, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot (VBR)

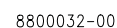


8800032-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	410	337	410	337	450	377
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

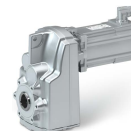


Gearbox version: Solid shaft with foot (VBR)

165

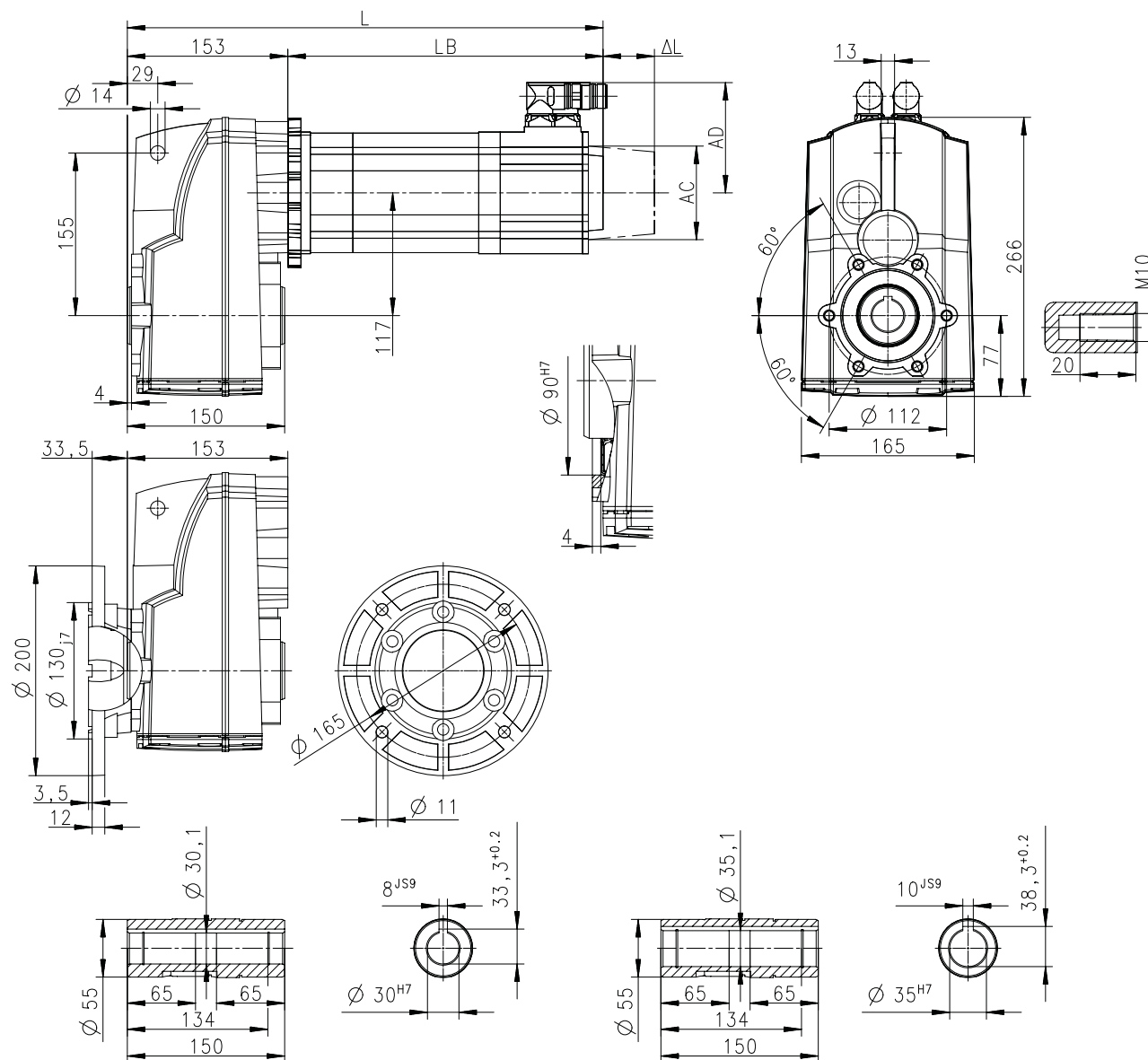
Technical data

Dimensions
Basic dimensions



g500-S400, 2-/3-stage with MCS06

Gearbox version: Hollow shaft without foot (HDR/HCR/HCK)



8800045-01

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	284	314	344
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm		82	
Motor diameter	AC	mm		86	
Motor/connection distance	AD	mm		77	

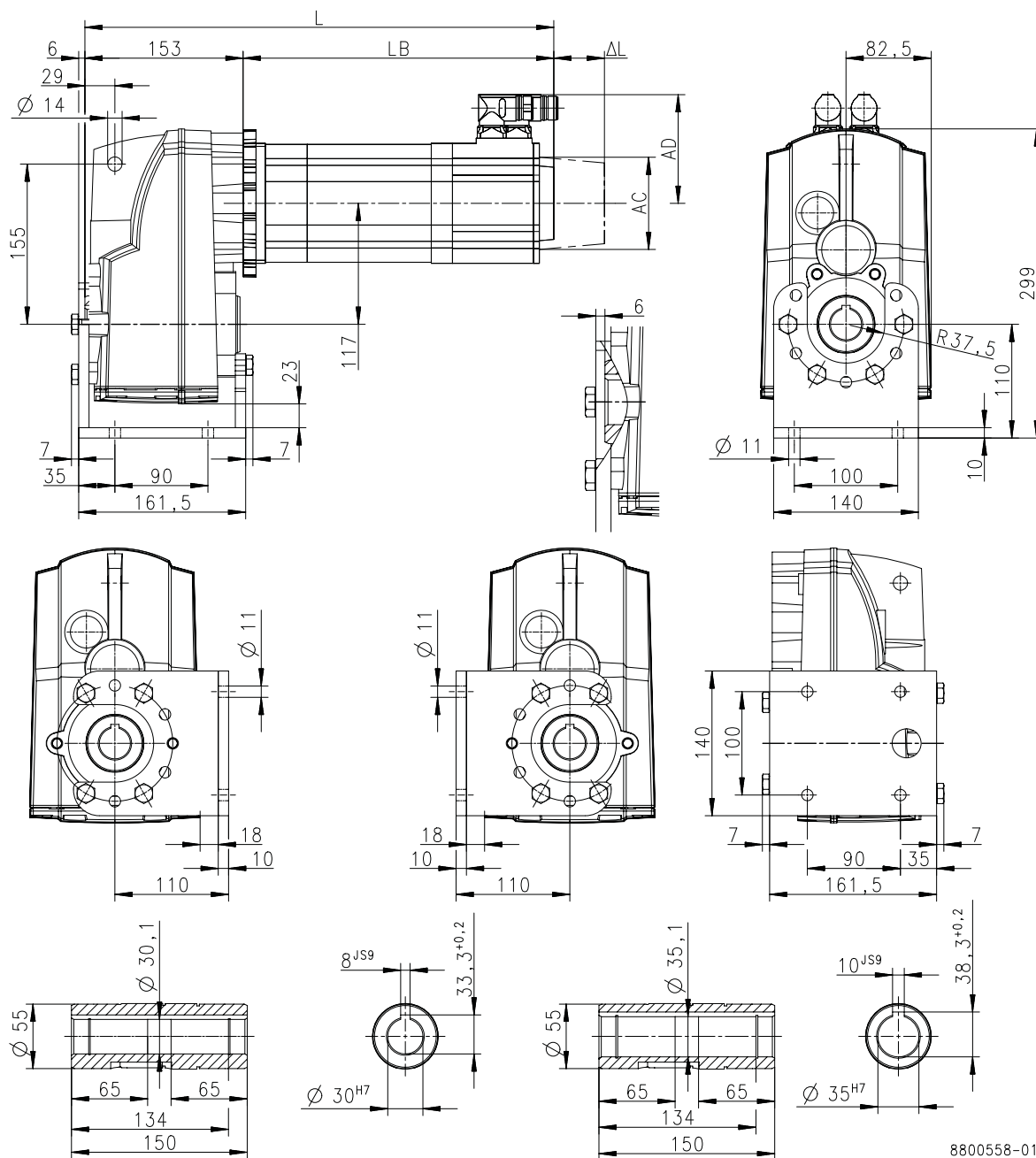


Technical data

Dimensions
Basic dimensions

g500-S400, 2-/3-stage with MCS06

Gearbox version: Hollow shaft with foot (HBR)



8800558-01

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	284	314	344
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm		82	
Motor diameter	AC	mm		86	
Motor/connection distance	AD	mm		77	

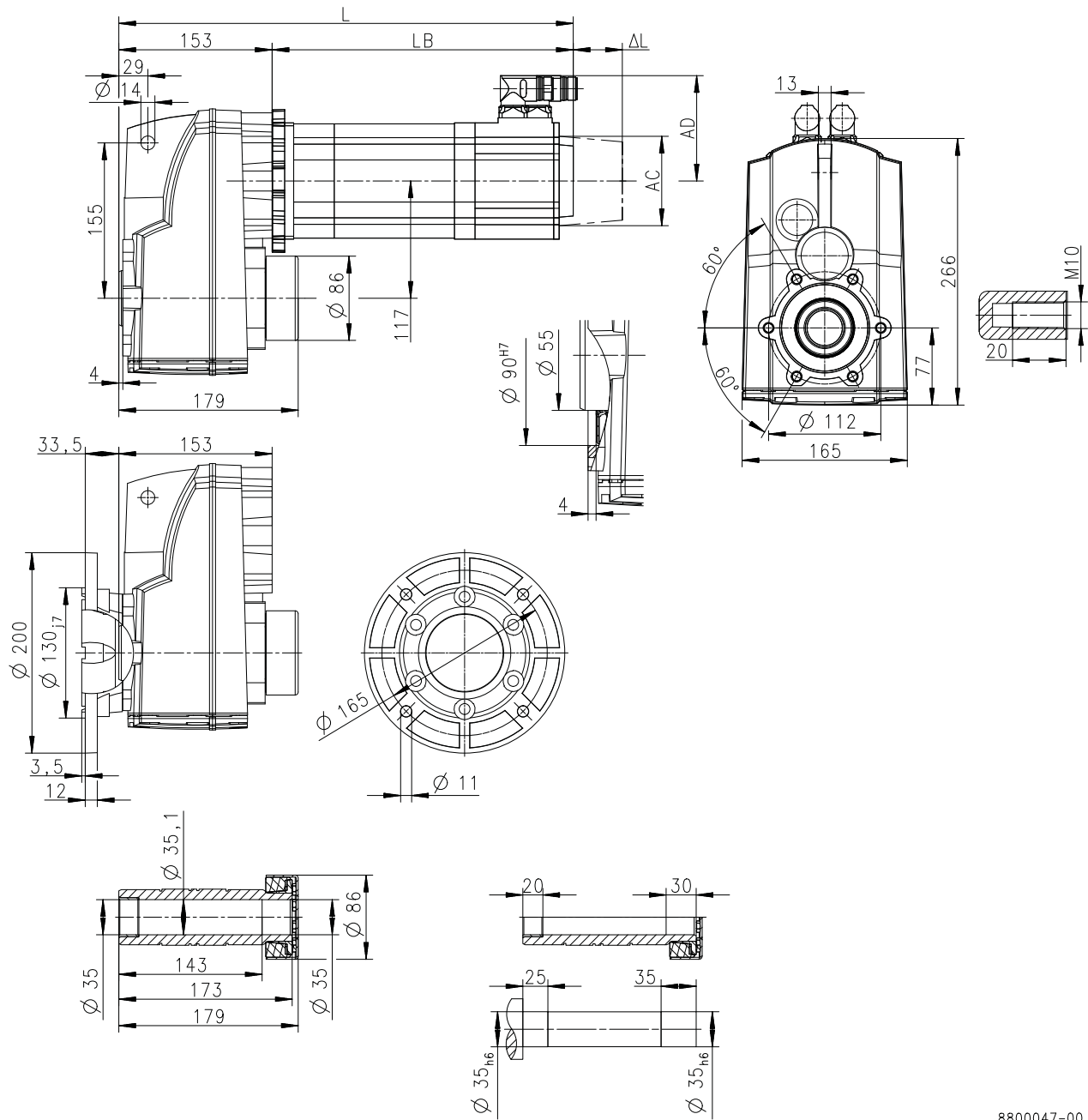
Technical data

Dimensions
Basic dimensions



g500-S400, 2-/3-stage with MCS06

Gearbox version: Hollow shaft with shrink disc, without foot (SDR/SCR/SCK)



8800047-00

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	284	314	344
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

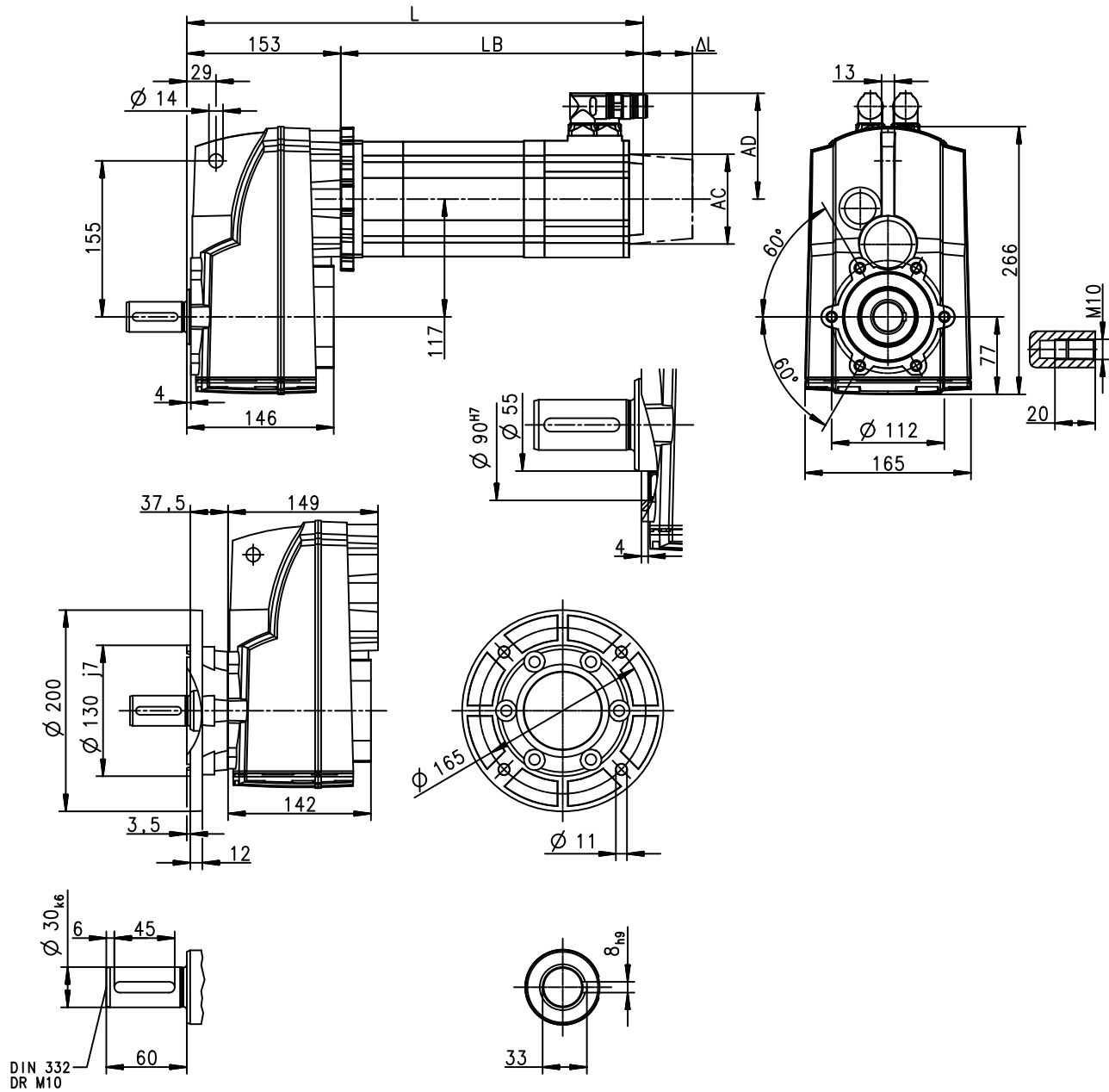


Technical data

Dimensions
Basic dimensions

g500-S400, 2-/3-stage with MCS06

Gearbox design: Solid shaft without foot (VDR/VCR/VCK)



8800046-01

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	284	314	344
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm		82	
Motor diameter	AC	mm		86	
Motor/connection distance	AD	mm		77	

Dimensions

Basic dimensions

[illegible]

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	284	314	344
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		



Gearbox version: Hollow shaft without foot (HDR/HCR/HCK)

171

Dimensions
Basic dimensions

[illegible]

8800558-01

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	337	357	377	417
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

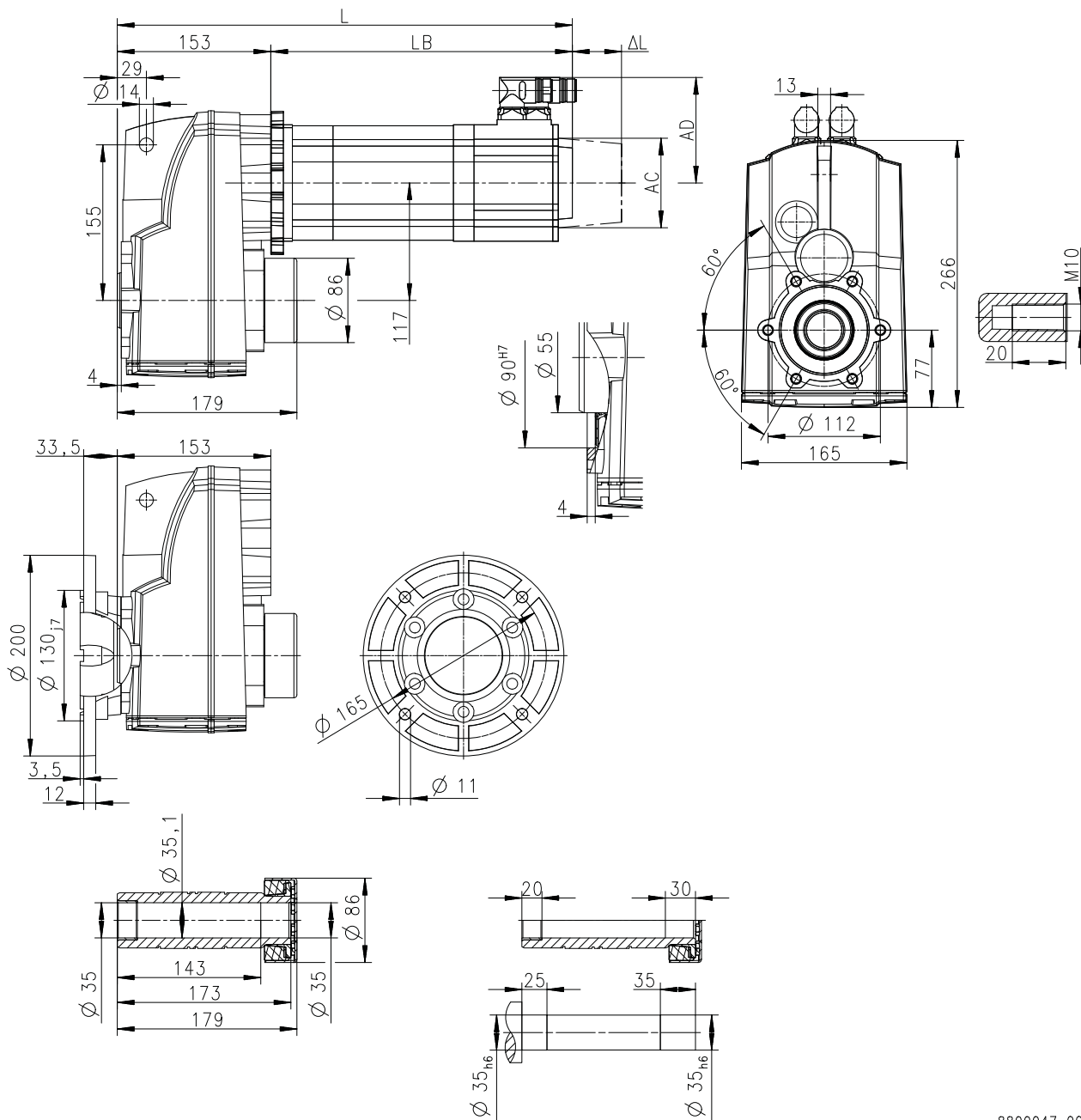


Technical data

Dimensions
Basic dimensions

g500-S400, 2-/3-stage with MCS09

Gearbox version: Hollow shaft with shrink disc, without foot (SDR/SCR/SCK)

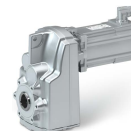


8800047-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	337	357	377	417
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

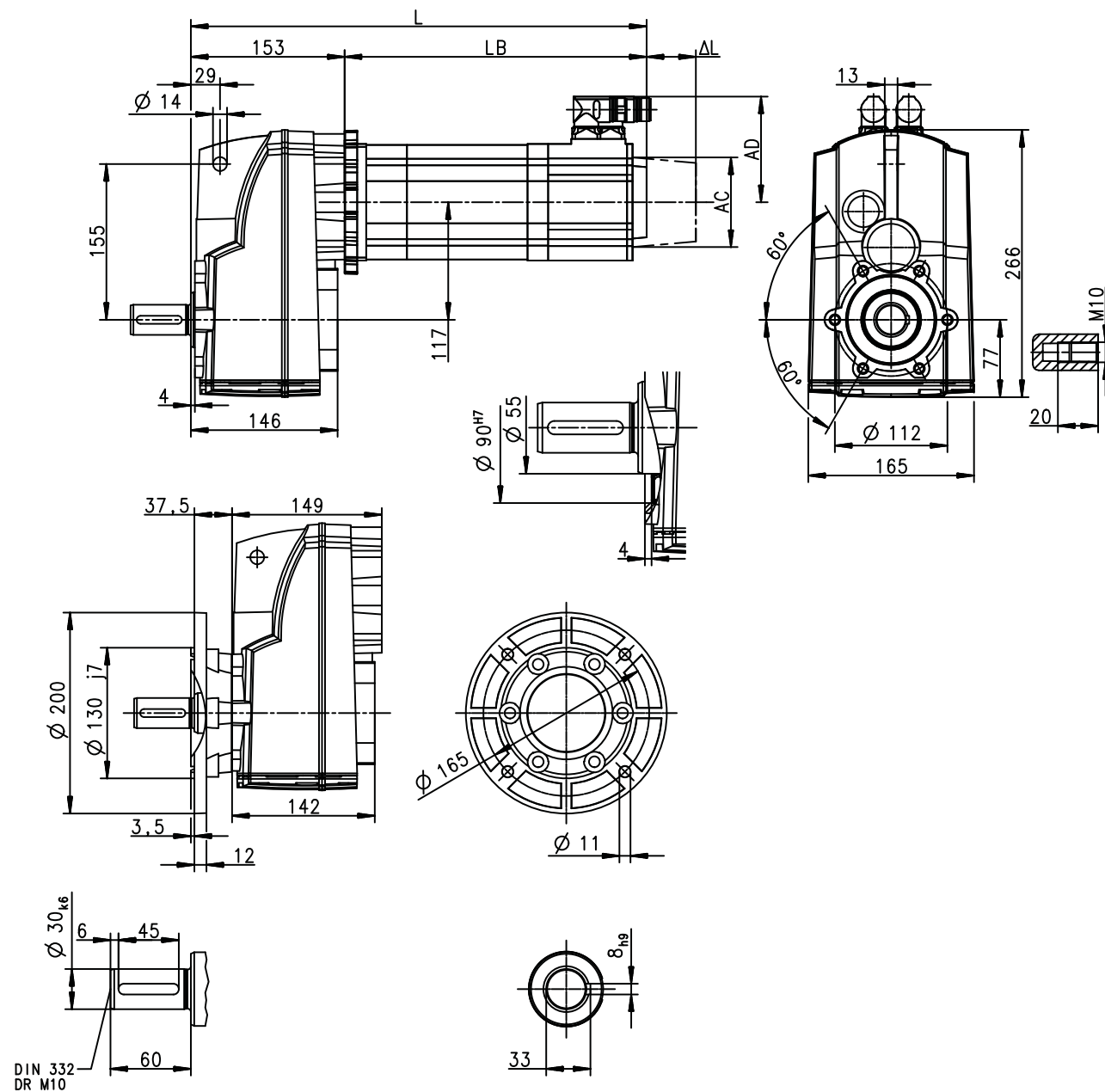
Technical data

Dimensions
Basic dimensions



g500-S400, 2-/3-stage with MCS09

Gearbox design: Solid shaft without foot (VDR/VCR/VCK)



8800046-01

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	337	357	377	417
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

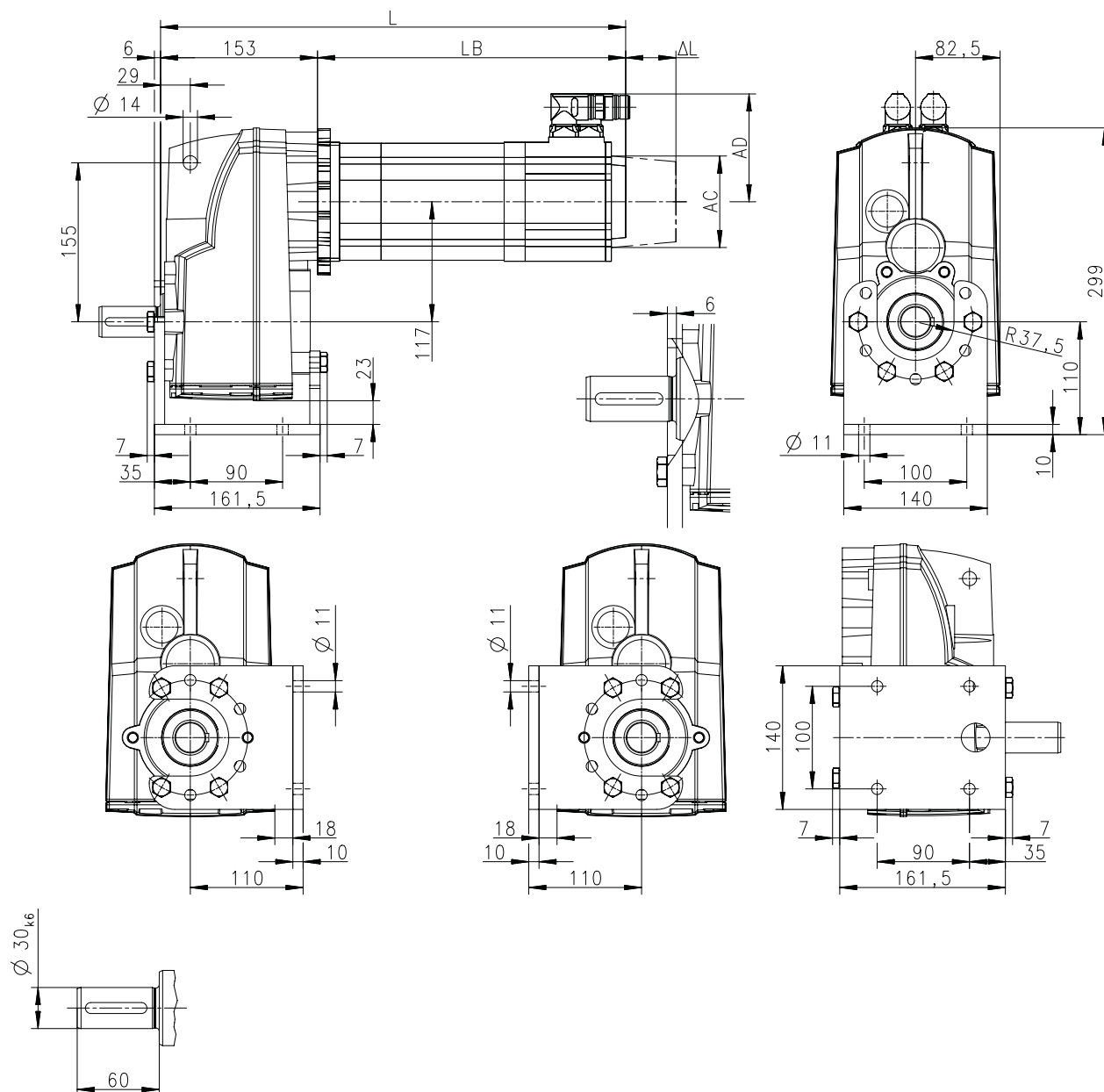


Technical data

Dimensions
Basic dimensions

g500-S400, 2-/3-stage with MCS09

Gearbox version: Solid shaft with foot (VBR)

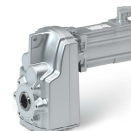


8800048-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	337	357	377	417
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

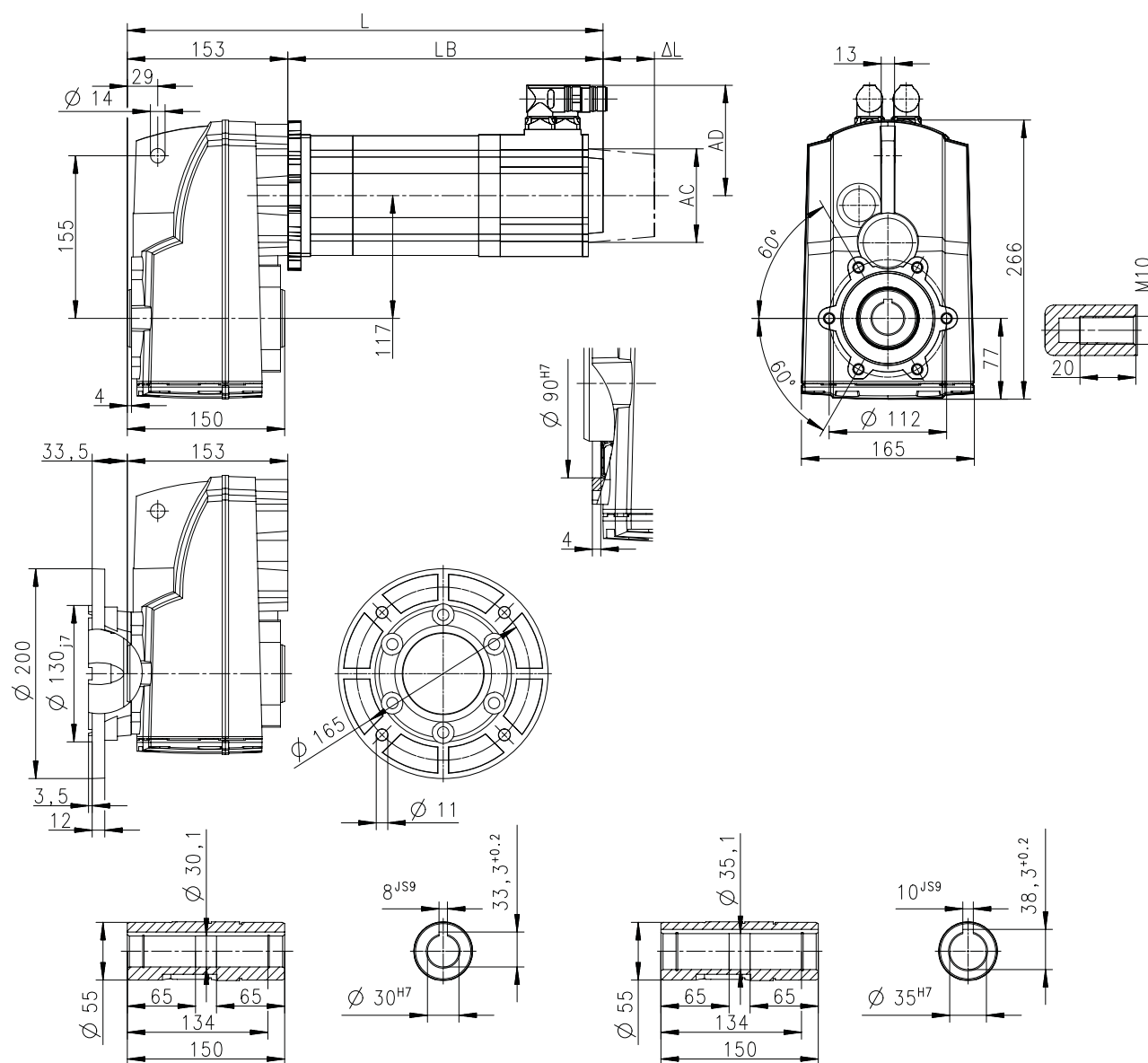
Technical data

Dimensions
Basic dimensions



g500-S400, 2-/3-stage with MCS12

Gearbox version: Hollow shaft without foot (HDR/HCR/HCK)



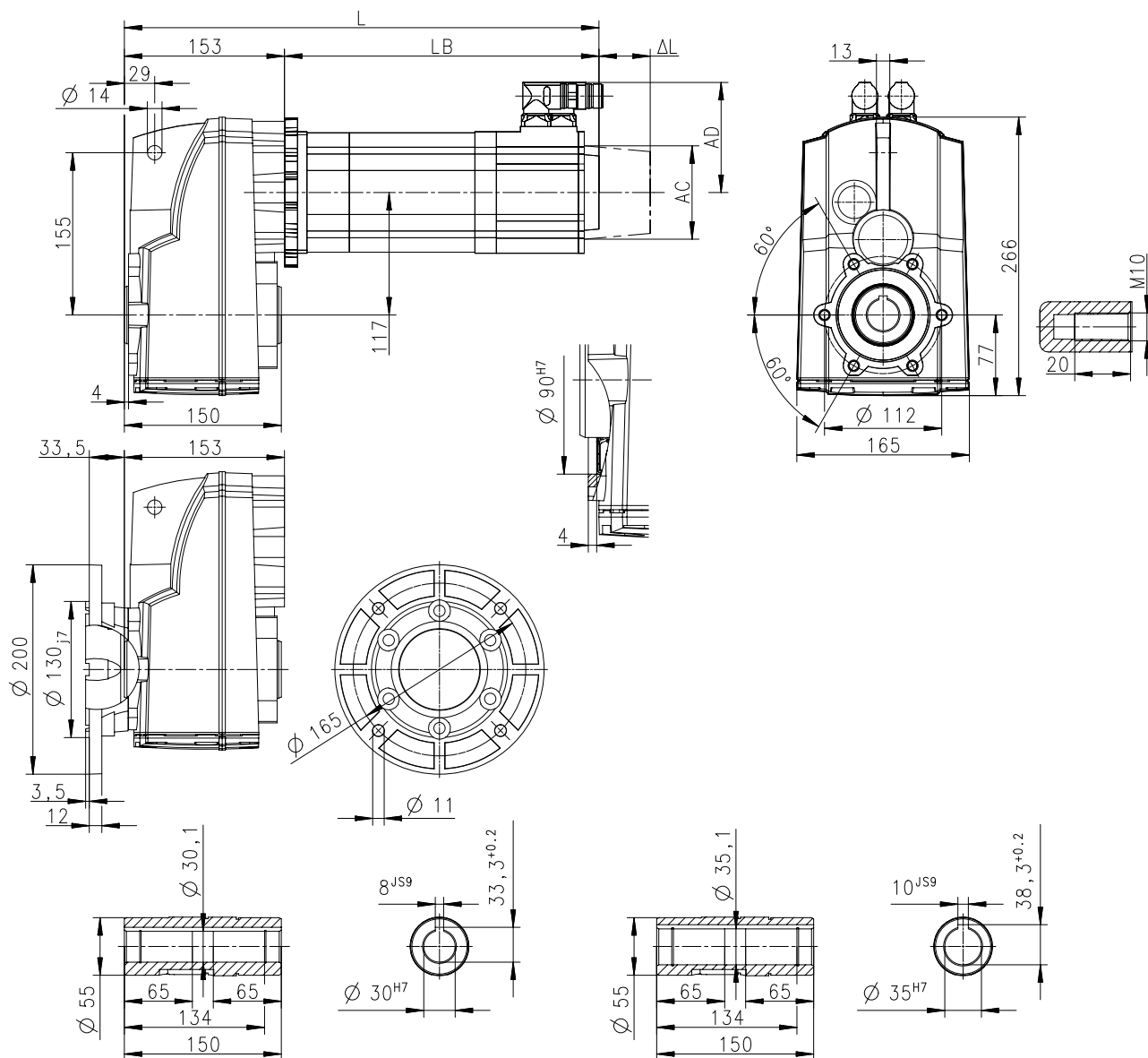
8800045-01

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	427	354	427	354	467	394
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105



g500-S400, 2-/3-stage with MCS12

Gearbox version: Hollow shaft without foot (HDR/HCR/HCK)



8800045-01

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	467	394	507	434	507	434
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

Dimensions

Basic dimensions

[illegible]

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	427	354	427	354	467	394
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

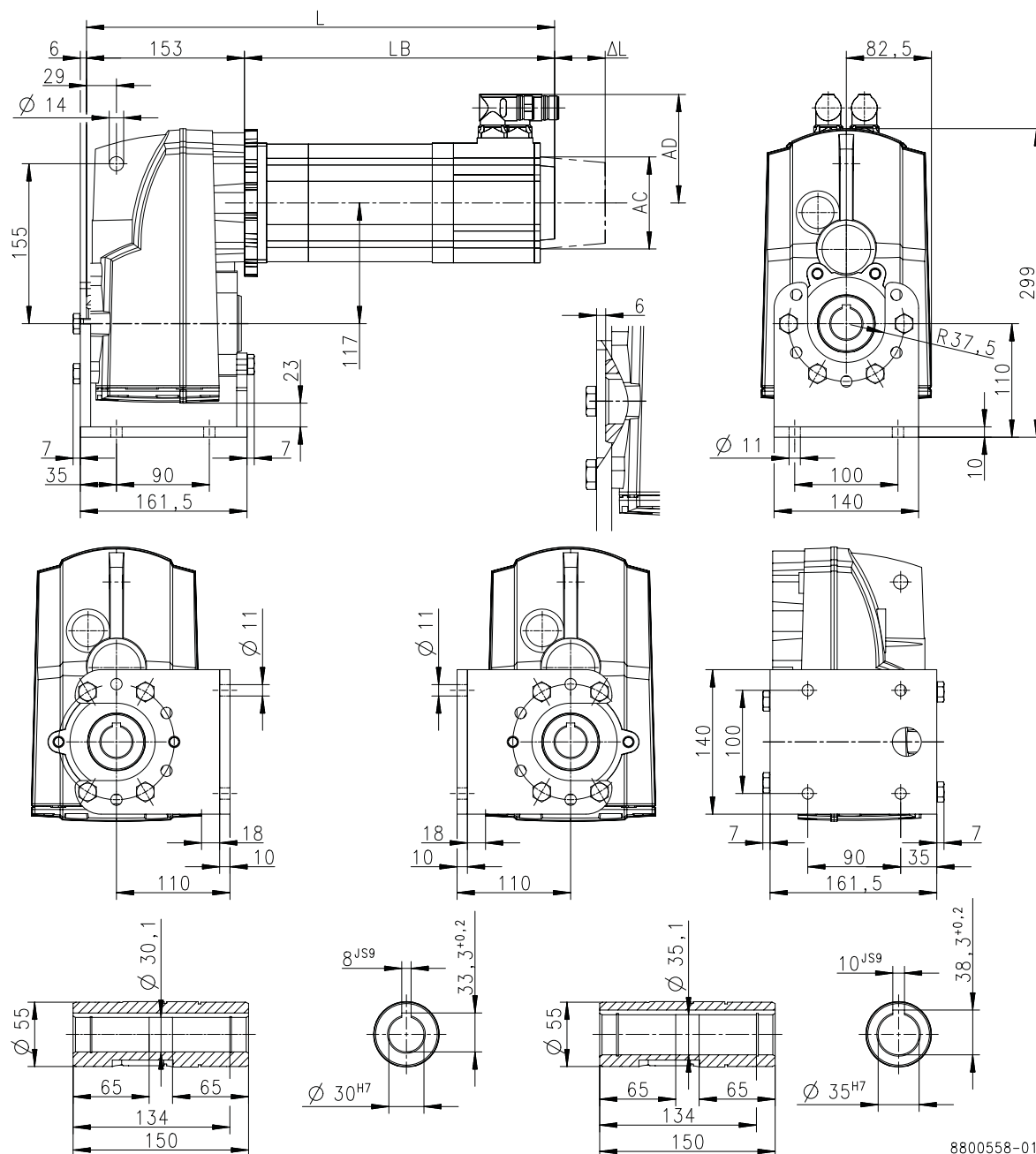


Technical data

Dimensions
Basic dimensions

g500-S400, 2-/3-stage with MCS12

Gearbox version: Hollow shaft with foot (HBR)



8800558-01

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	467	394	507	434	507	434
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

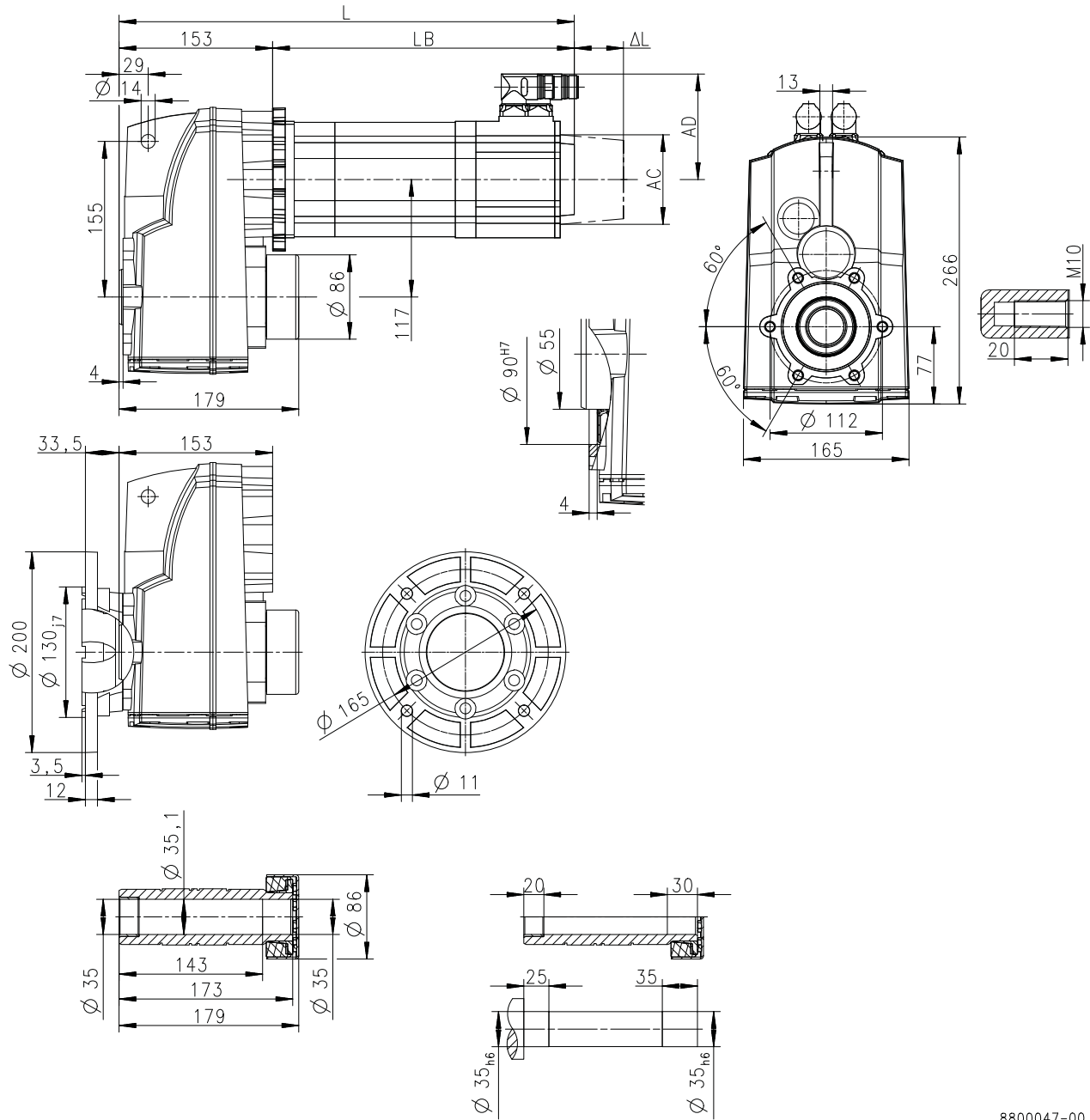
Technical data

Dimensions
Basic dimensions



g500-S400, 2-/3-stage with MCS12

Gearbox version: Hollow shaft with shrink disc, without foot (SDR/SCR/SCK)



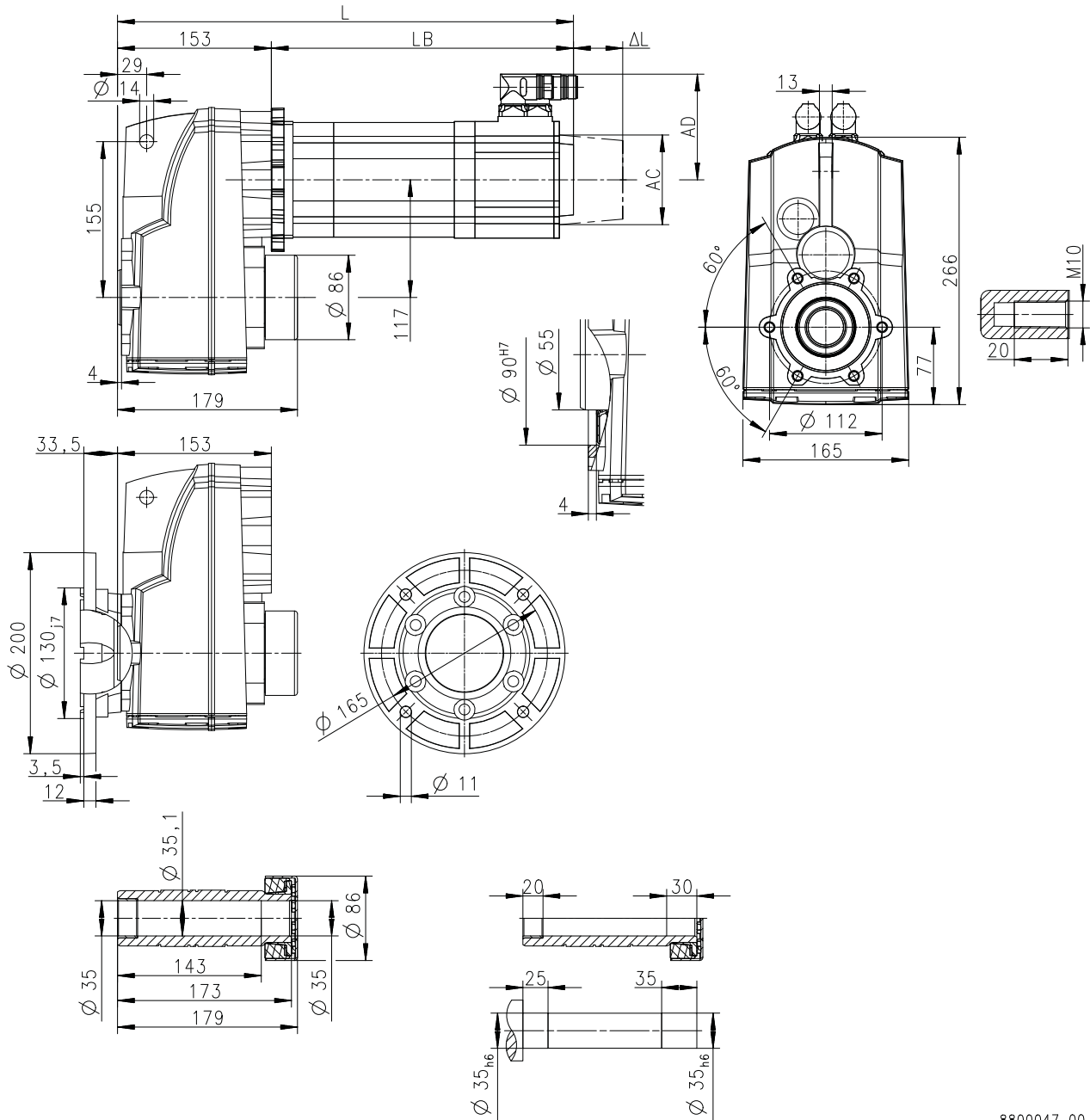
8800047-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	427	354	427	354	467	394
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105



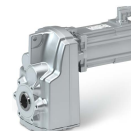
g500-S400, 2-/3-stage with MCS12

Gearbox version: Hollow shaft with shrink disc, without foot (SDR/SCR/SCK)



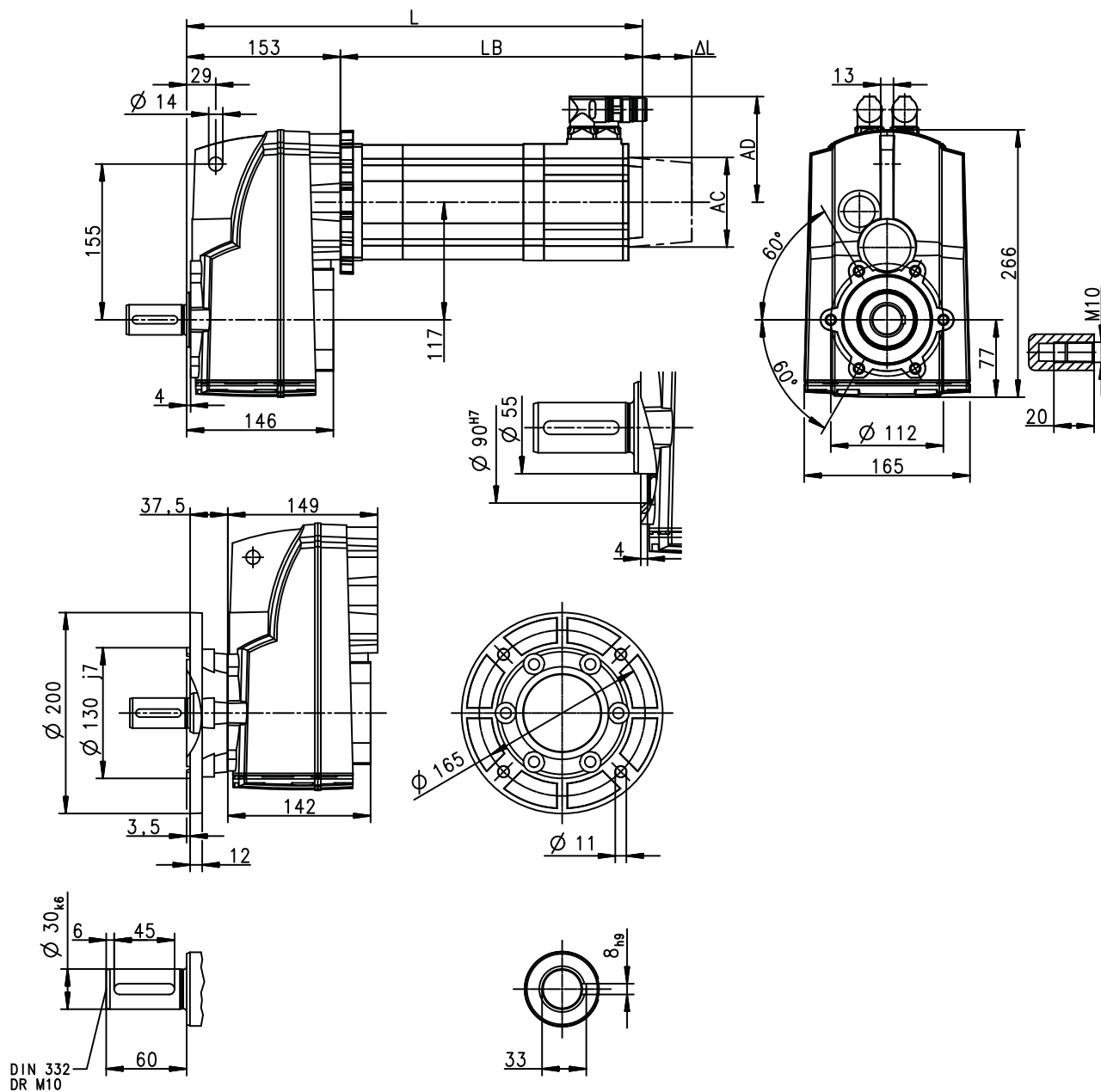
8800047-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	467	394	507	434	507	434
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105



g500-S400, 2-/3-stage with MCS12

Gearbox design: Solid shaft without foot (VDR/VCR/VCK)



8800046-01

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	427	354	427	354	467	394
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

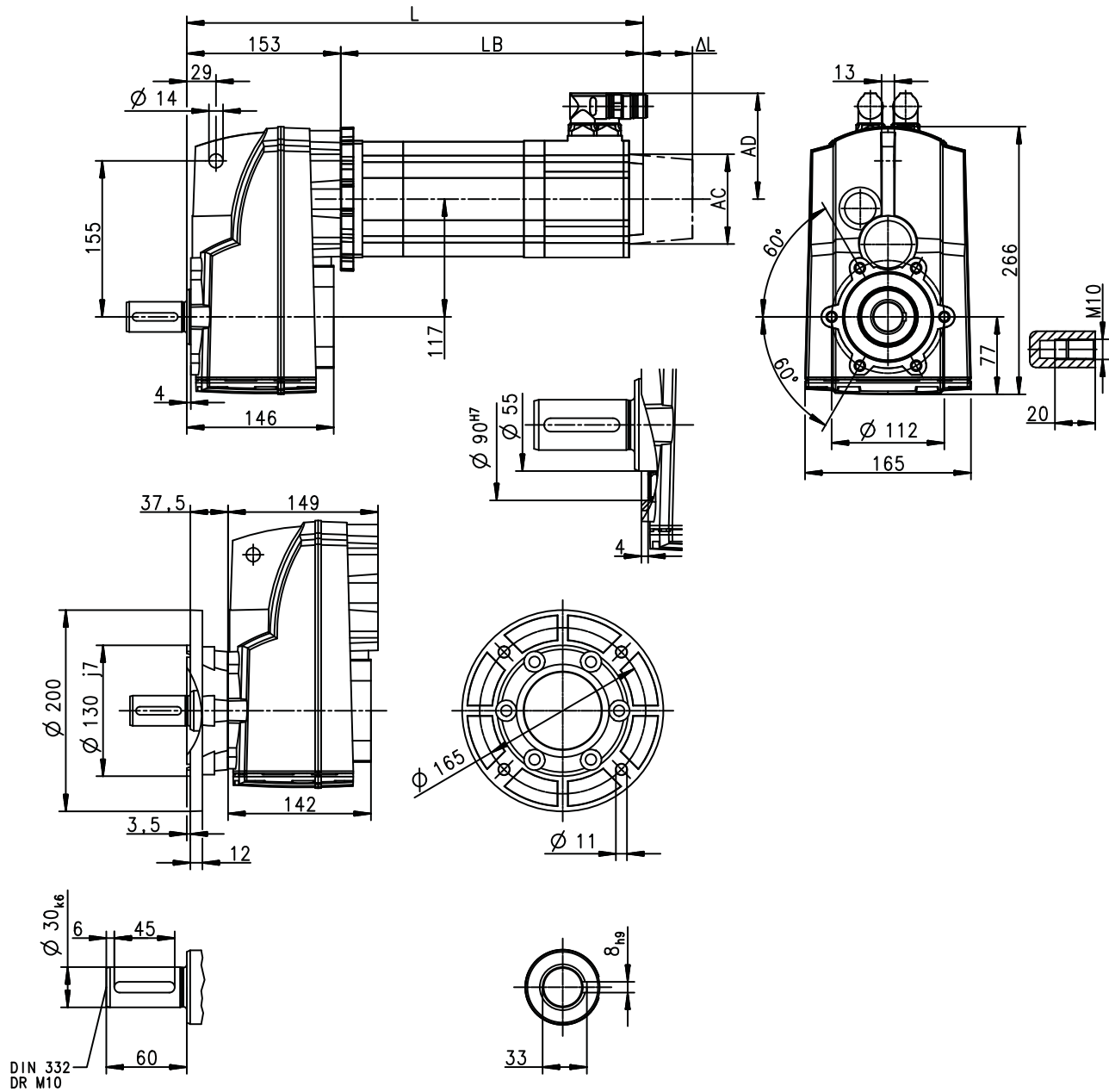


Technical data

Dimensions
Basic dimensions

g500-S400, 2-/3-stage with MCS12

Gearbox design: Solid shaft without foot (VDR/VCR/VCK)



DIN 332
DR M10

8800046-01

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	467	394	507	434	507	434
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

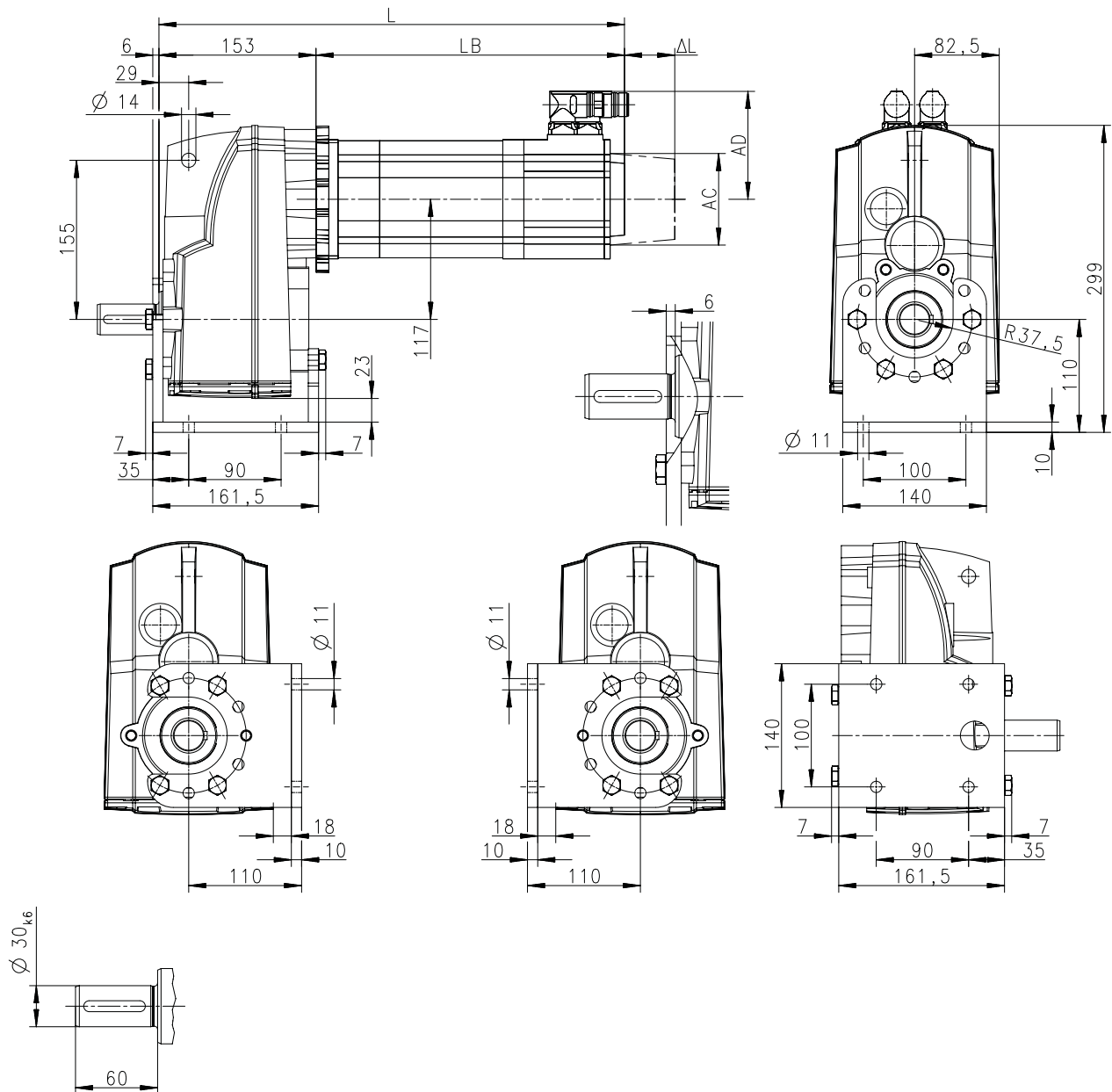
Technical data

Dimensions
Basic dimensions



g500-S400, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot (VBR)



8800048-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	427	354	427	354	467	394
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

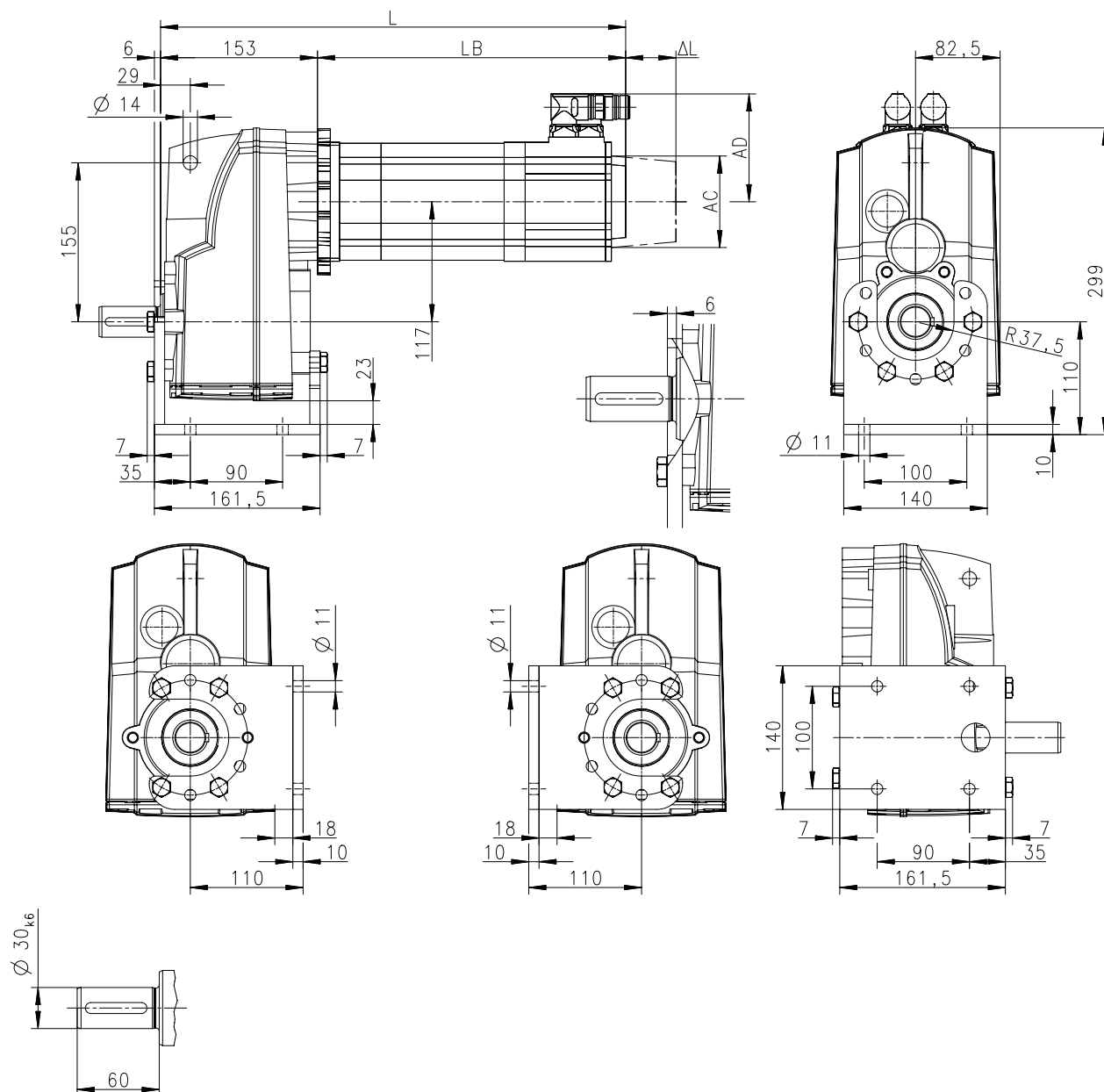


Technical data

Dimensions
Basic dimensions

g500-S400, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot (VBR)



8800048-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	467	394	507	434	507	434
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

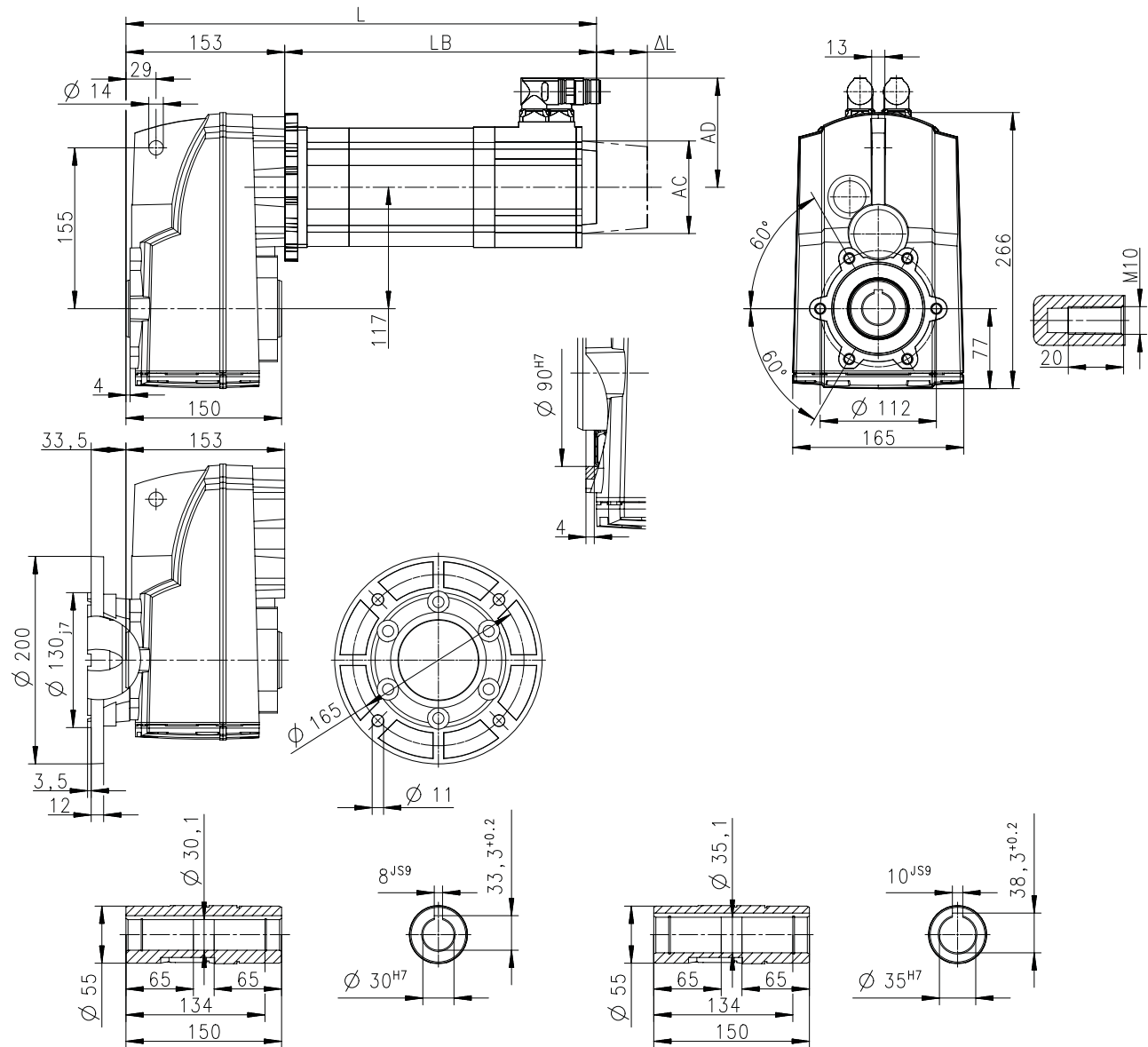
Technical data

Dimensions
Basic dimensions



g500-S400, 2-/3-stage with MCS14

Gearbox version: Hollow shaft without foot (HDR/HCR/HCK)



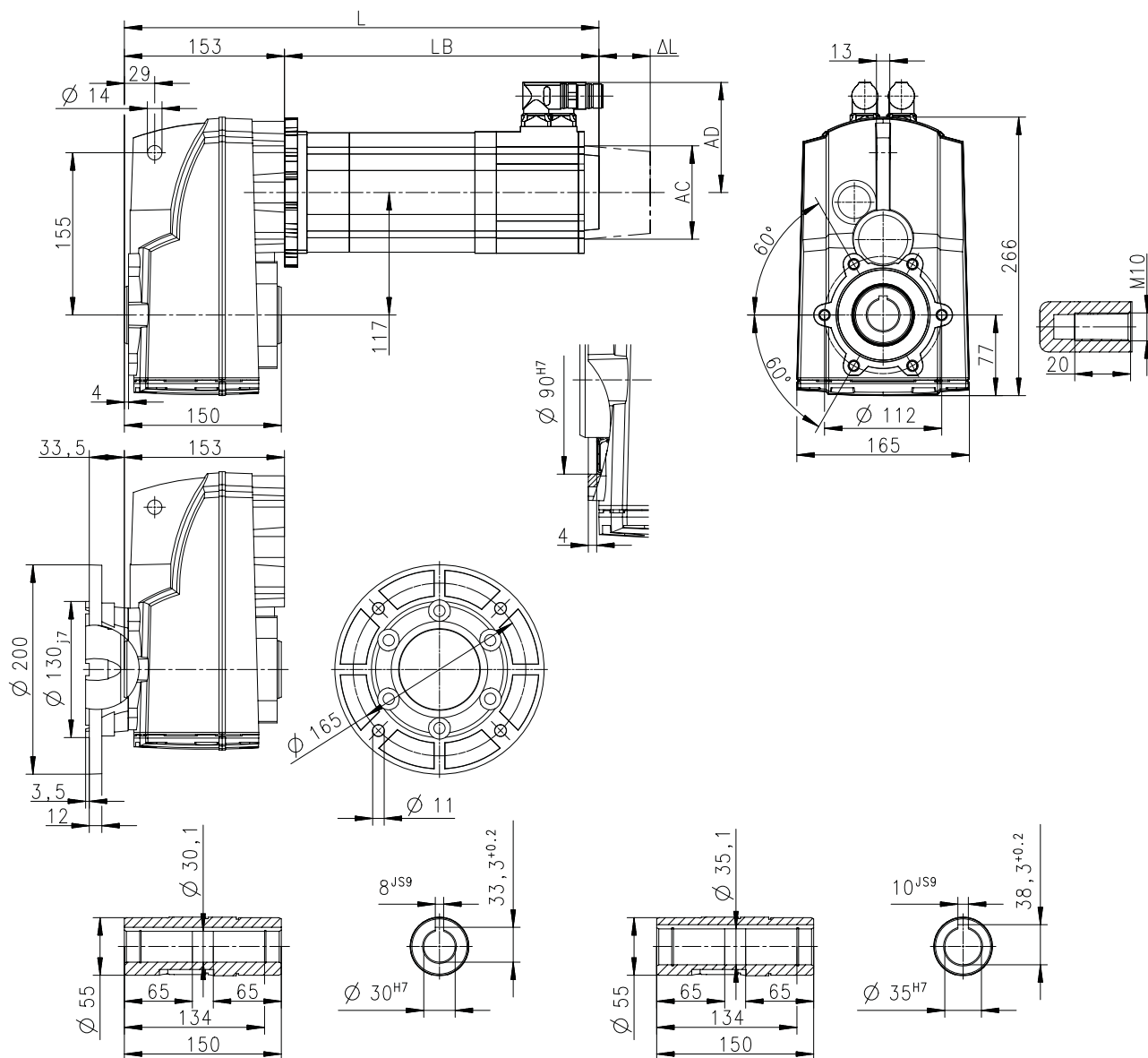
8800045-01

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	457	369	457	369	497	409	497	409
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117



g500-S400, 2-/3-stage with MCS14

Gearbox version: Hollow shaft without foot (HDR/HCR/HCK)

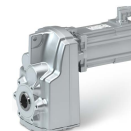


8800045-01

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	537	449	537	449	577	489	577	489
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

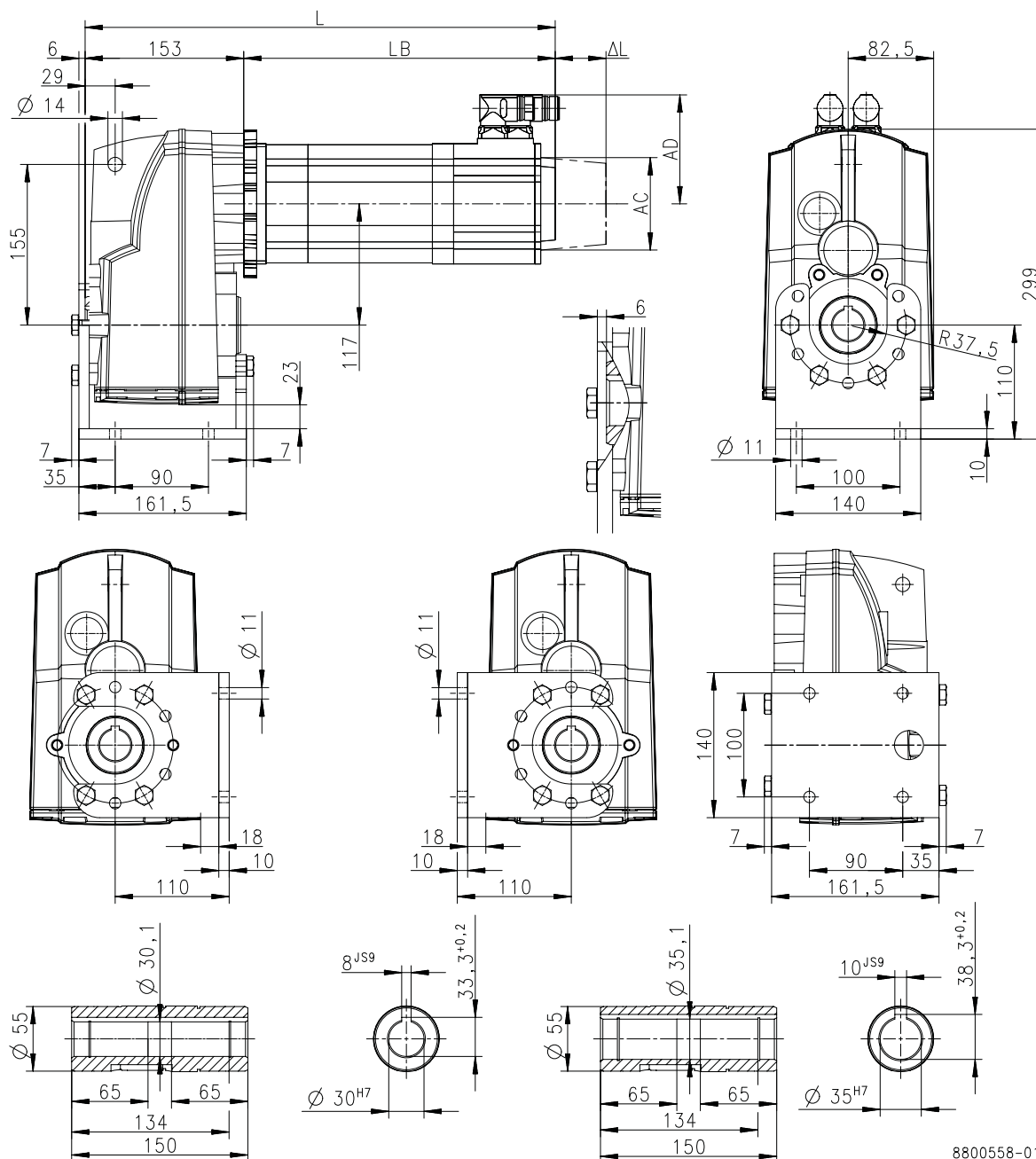
Technical data

Dimensions
Basic dimensions



g500-S400, 2-/3-stage with MCS14

Gearbox version: Hollow shaft with foot (HBR)



8800558-01

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	457	369	457	369	497	409	497	409
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117

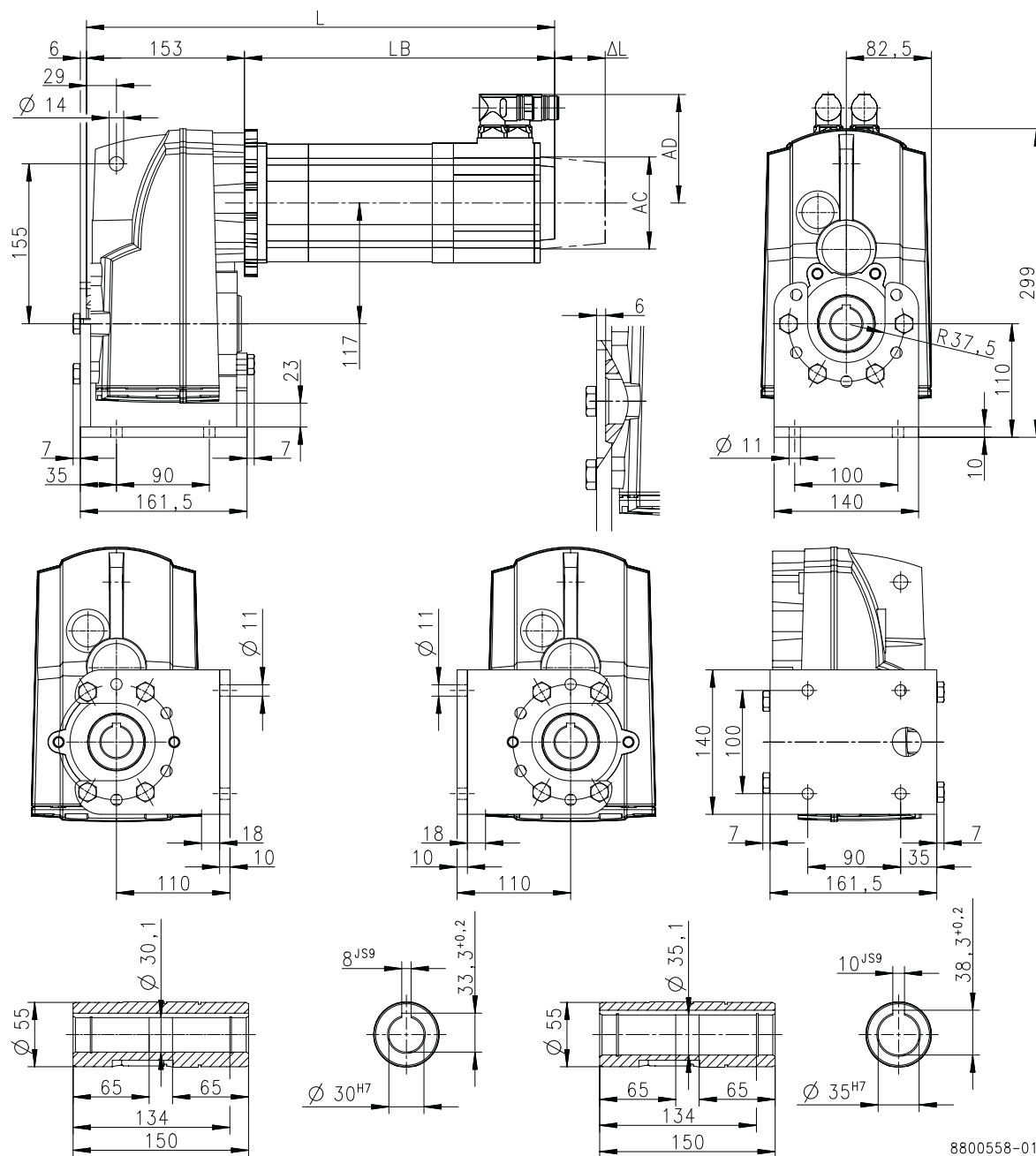


Technical data

Dimensions
Basic dimensions

g500-S400, 2-/3-stage with MCS14

Gearbox version: Hollow shaft with foot (HBR)

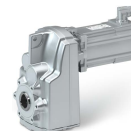


8800558-01

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	537	449	537	449	577	489	577	489
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

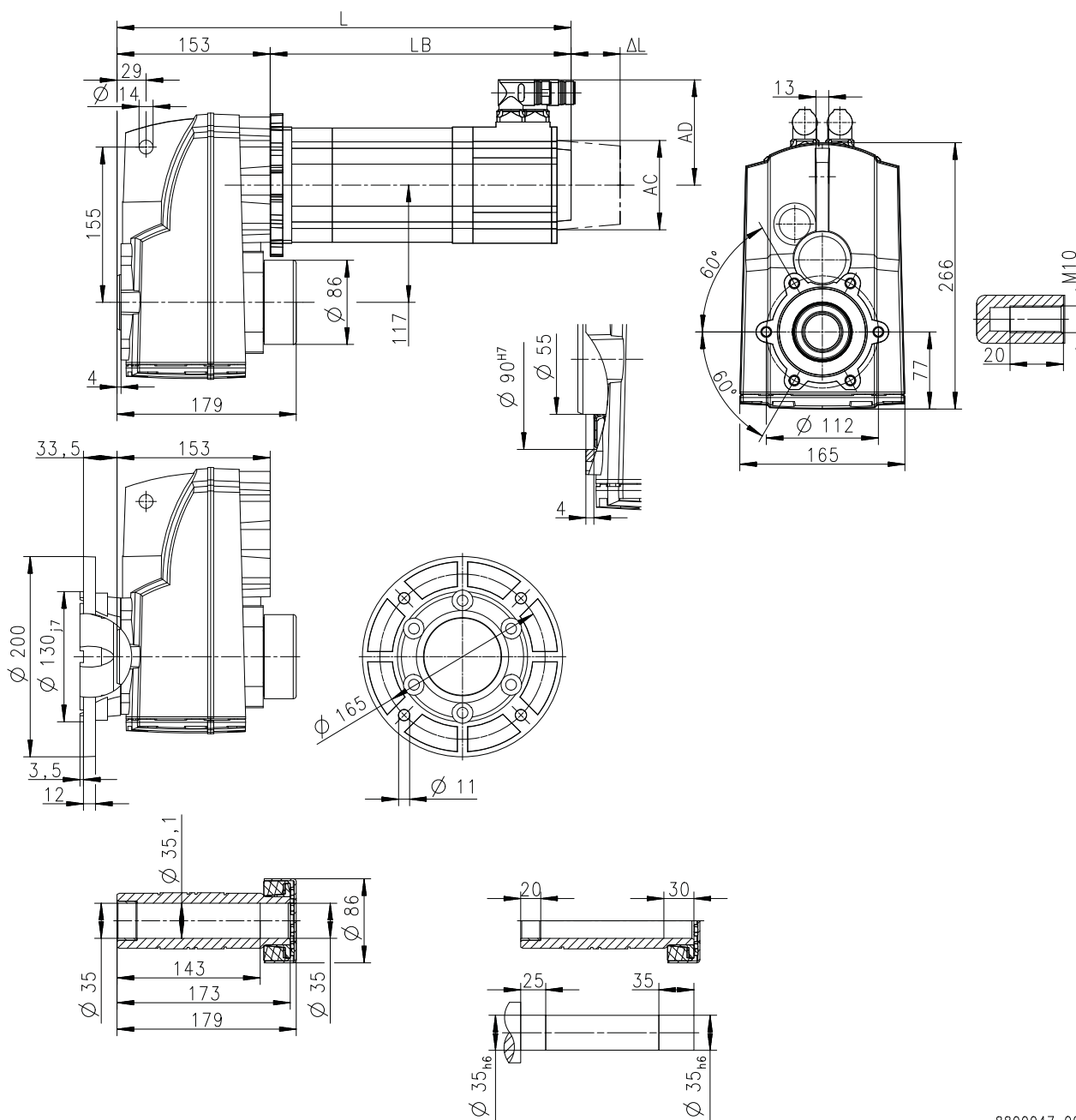
Technical data

Dimensions
Basic dimensions



g500-S400, 2-/3-stage with MCS14

Gearbox version: Hollow shaft with shrink disc, without foot (SDR/SCR/SCK)



8800047-00

Motor			MCS							
			14D14-Blower	14D15-natural	14D30-Blower	14D36-natural	14H12-Blower	14H15-natural	14H28-Blower	14H32-natural
Total length	L	mm	457	369	457	369	497	409	497	409
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117

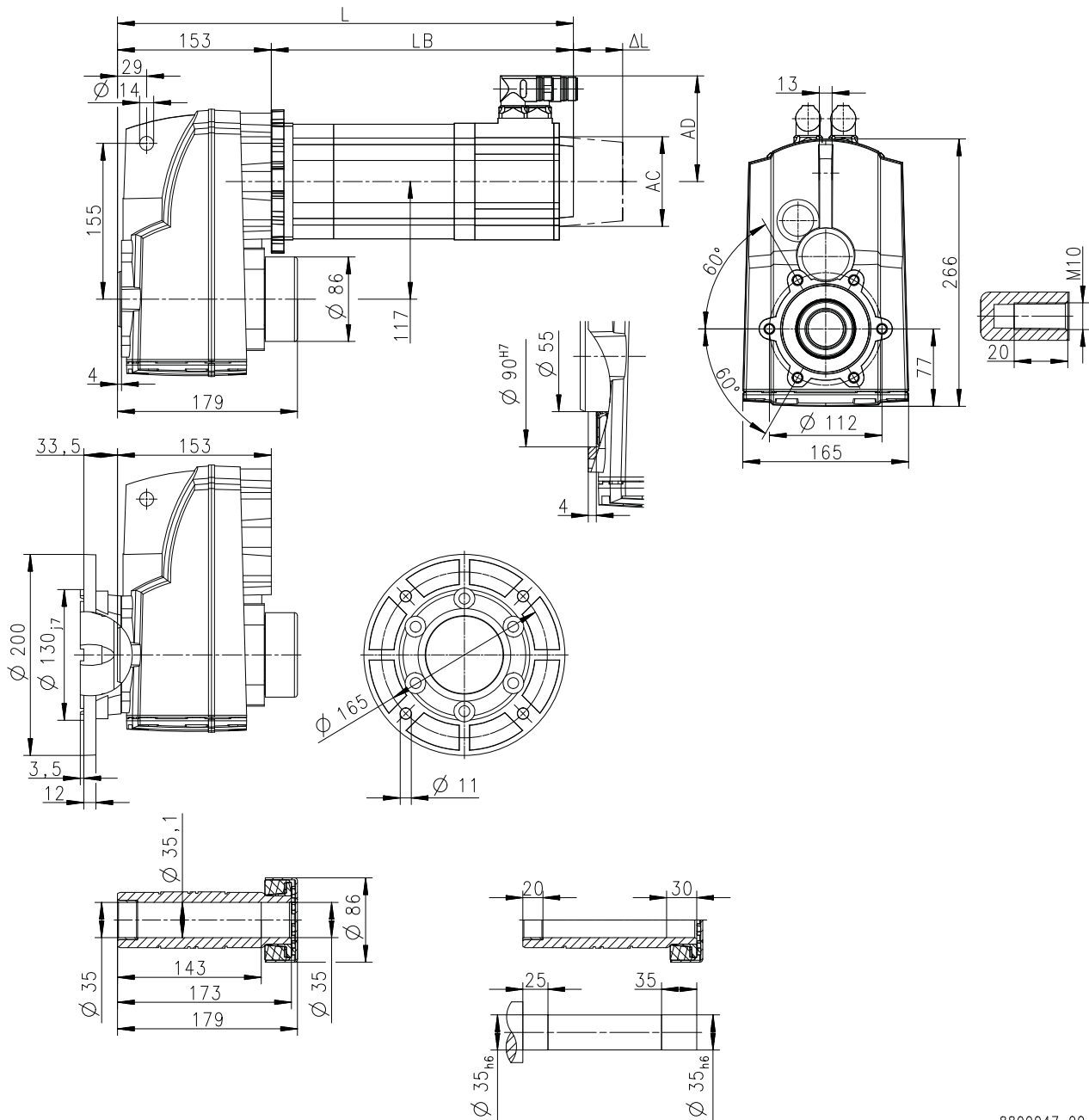


Technical data

Dimensions
Basic dimensions

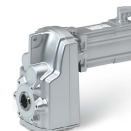
g500-S400, 2-/3-stage with MCS14

Gearbox version: Hollow shaft with shrink disc, without foot (SDR/SCR/SCK)



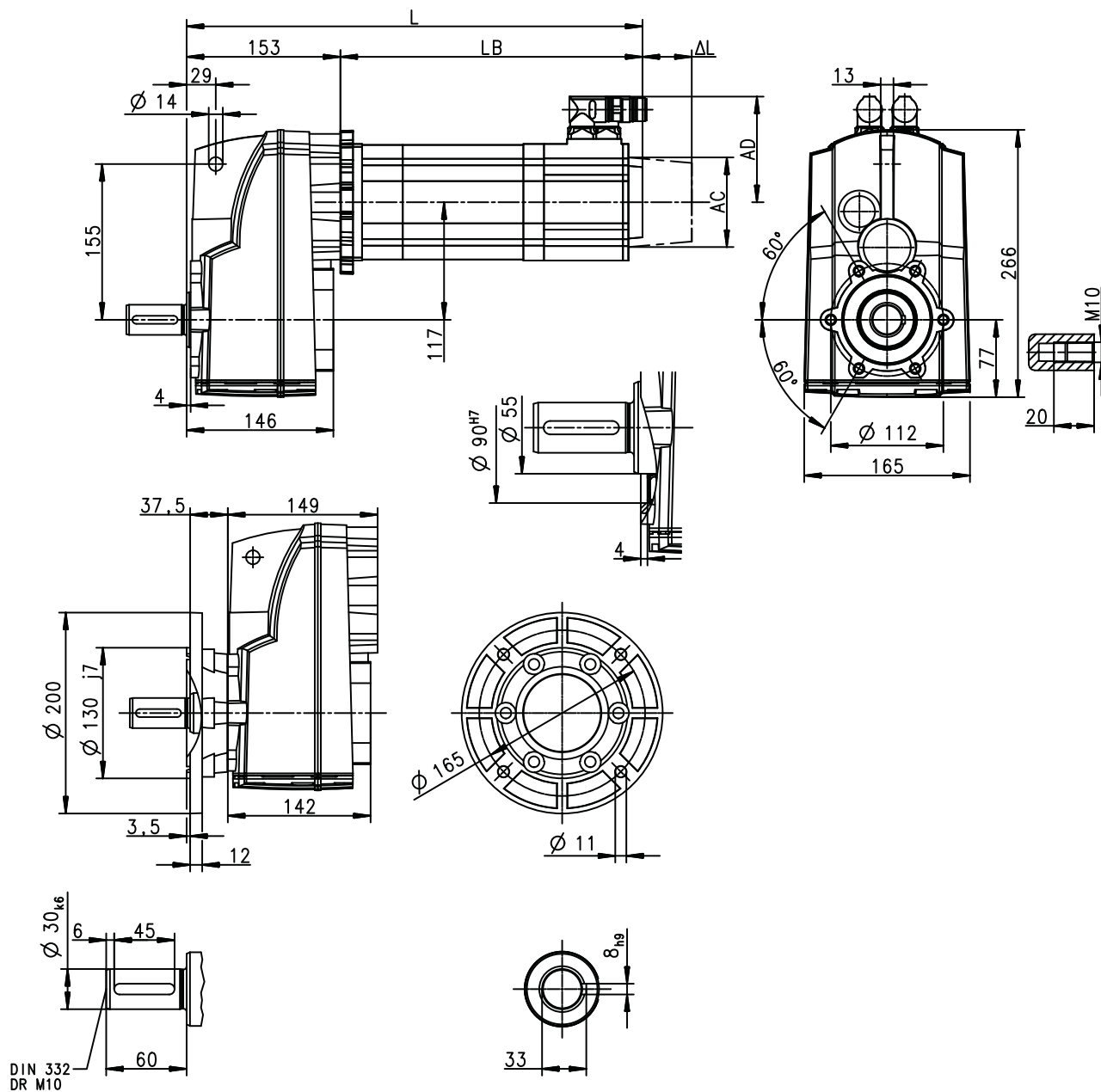
8800047-00

Motor			MCS							
			14L14- Blower	14L15- natural	14L30- Blower	14L32- natural	14P11- Blower	14P14- natural	14P26- Blower	14P32- natural
Total length	L	mm	537	449	537	449	577	489	577	489
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146



g500-S400, 2-/3-stage with MCS14

Gearbox design: Solid shaft without foot (VDR/VCR/VCK)



8800046-01

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	457	369	457	369	497	409	497	409
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117

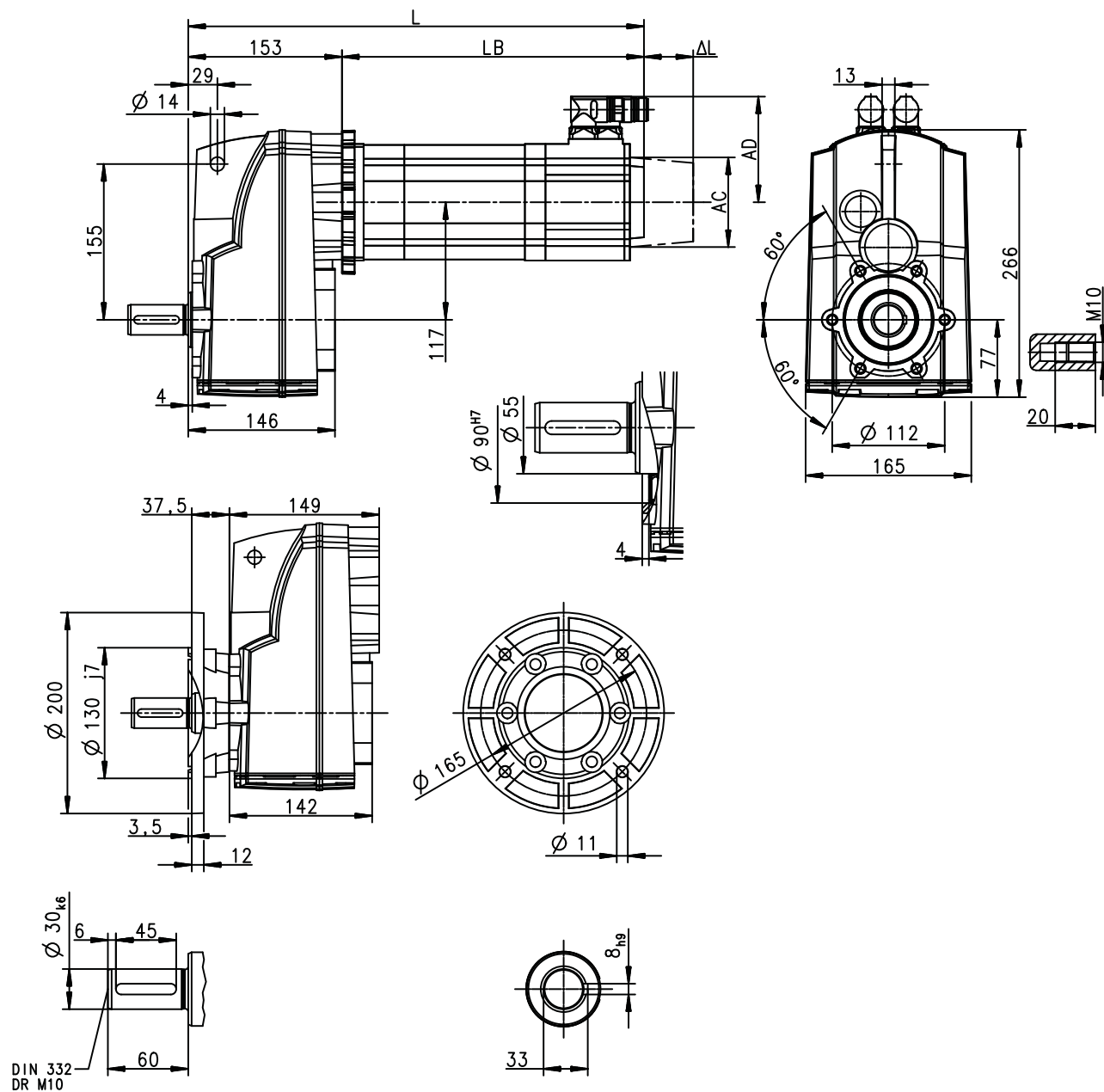


Technical data

Dimensions
Basic dimensions

g500-S400, 2-/3-stage with MCS14

Gearbox design: Solid shaft without foot (VDR/VCR/VCK)

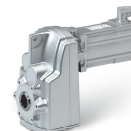


8800046-01

Motor			MCS							
			14L14- Blower	14L15- natural	14L30- Blower	14L32- natural	14P11- Blower	14P14- natural	14P26- Blower	14P32- natural
Total length	L	mm	537	449	537	449	577	489	577	489
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

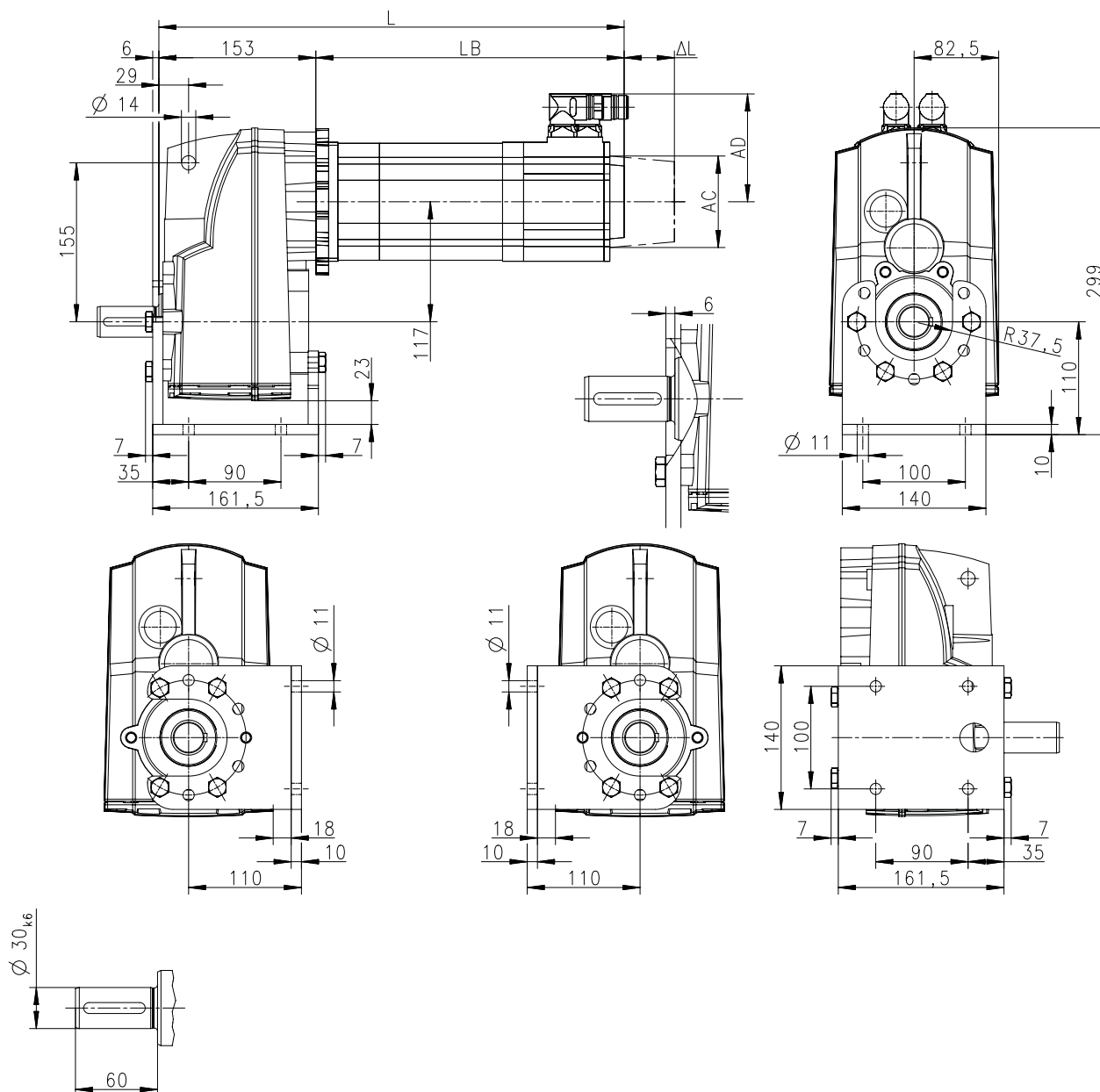
Technical data

Dimensions
Basic dimensions



g500-S400, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot (VBR)



8800048-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	457	369	457	369	497	409	497	409
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117

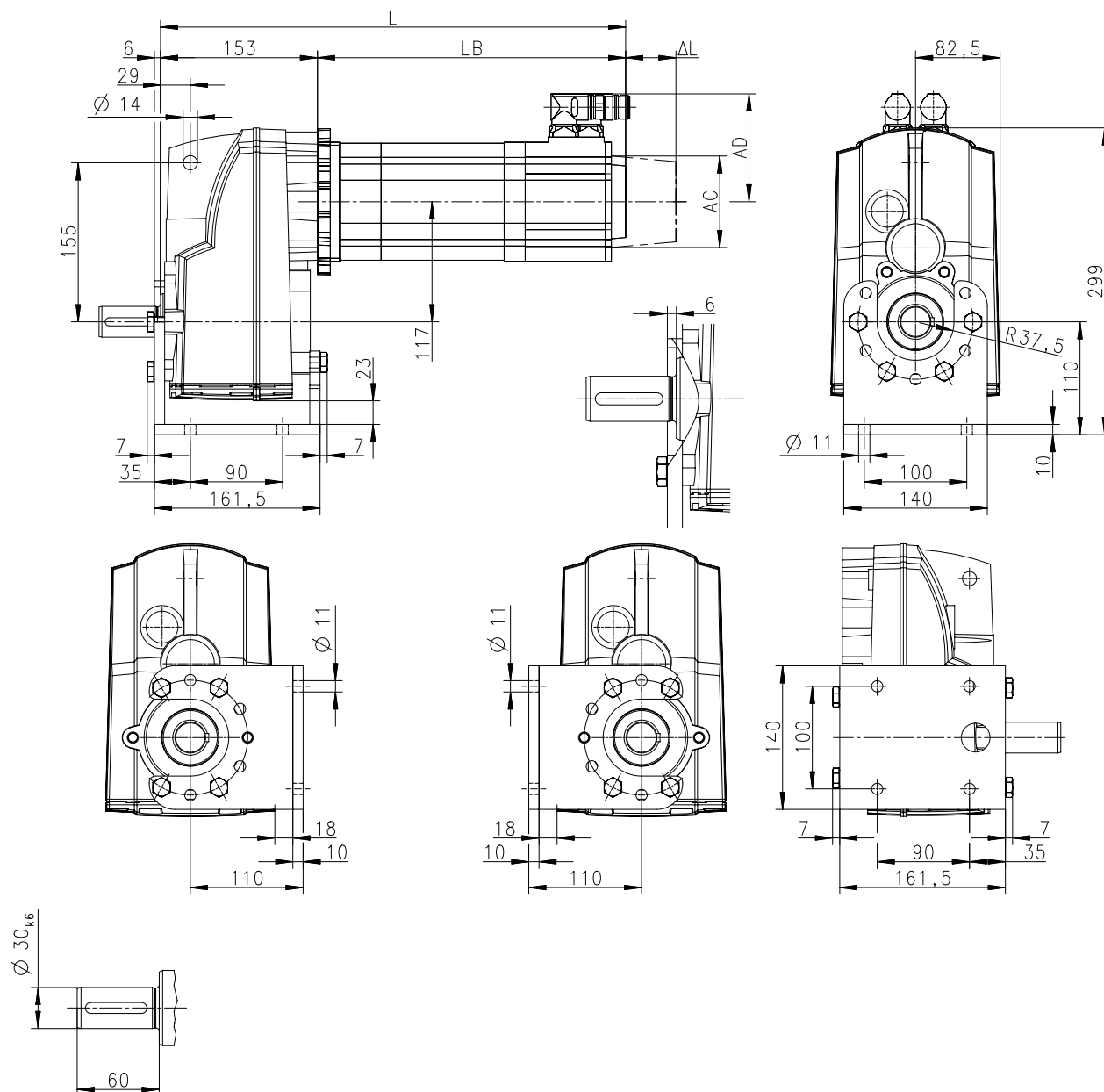


Technical data

Dimensions
Basic dimensions

g500-S400, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot (VBR)

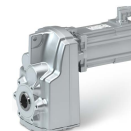


8800048-00

Motor			MCS							
			14L14-Blower	14L15-natural	14L30-Blower	14L32-natural	14P11-Blower	14P14-natural	14P26-Blower	14P32-natural
Total length	L	mm	537	449	537	449	577	489	577	489
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

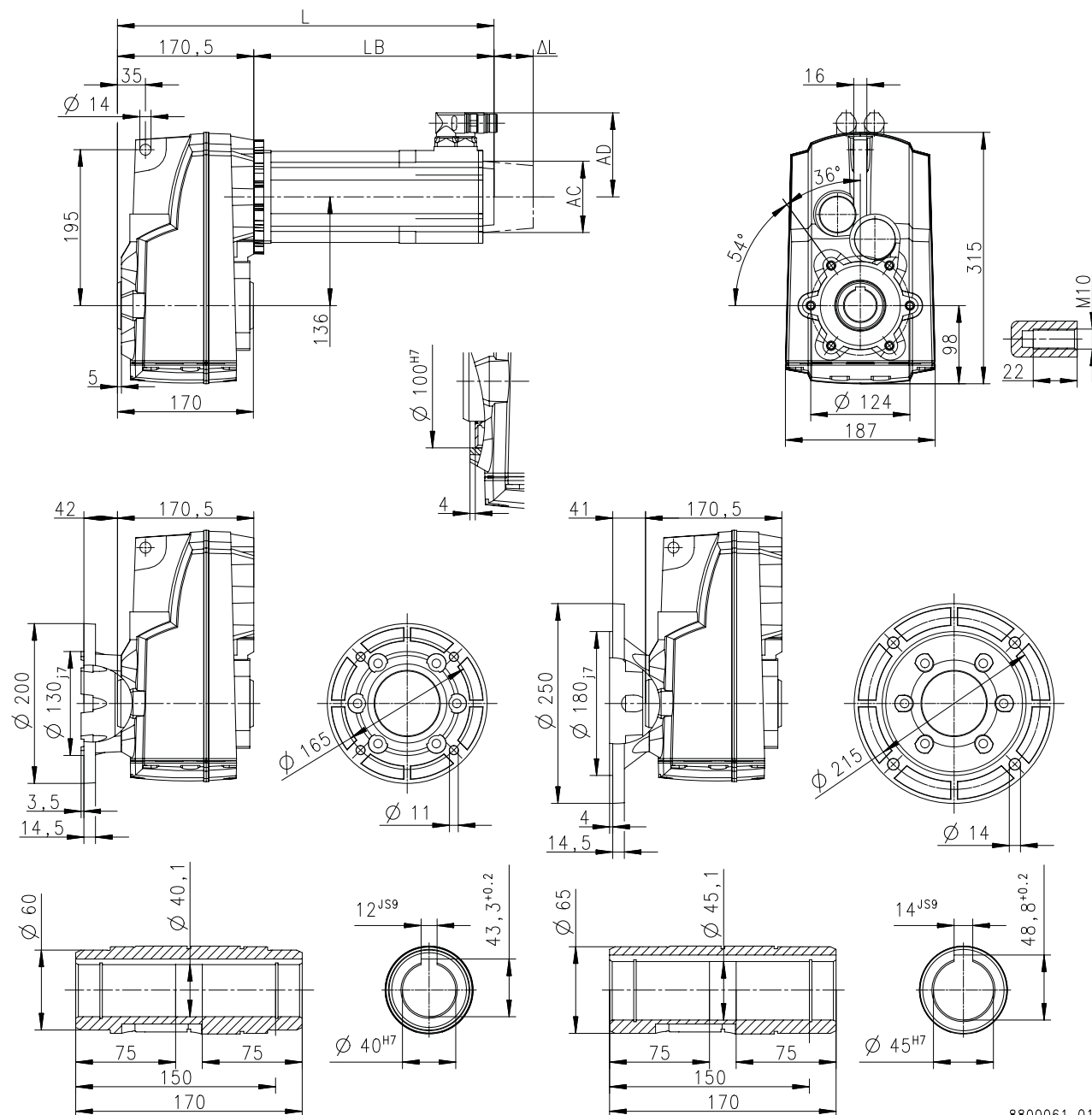
Technical data

Dimensions
Basic dimensions



g500-S660, 2-/3-stage with MCS06

Gearbox version: Hollow shaft without foot (HDR/HCR/HCK)



8800061-01

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	302	332	362
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm		82	
Motor diameter	AC	mm		86	
Motor/connection distance	AD	mm		77	

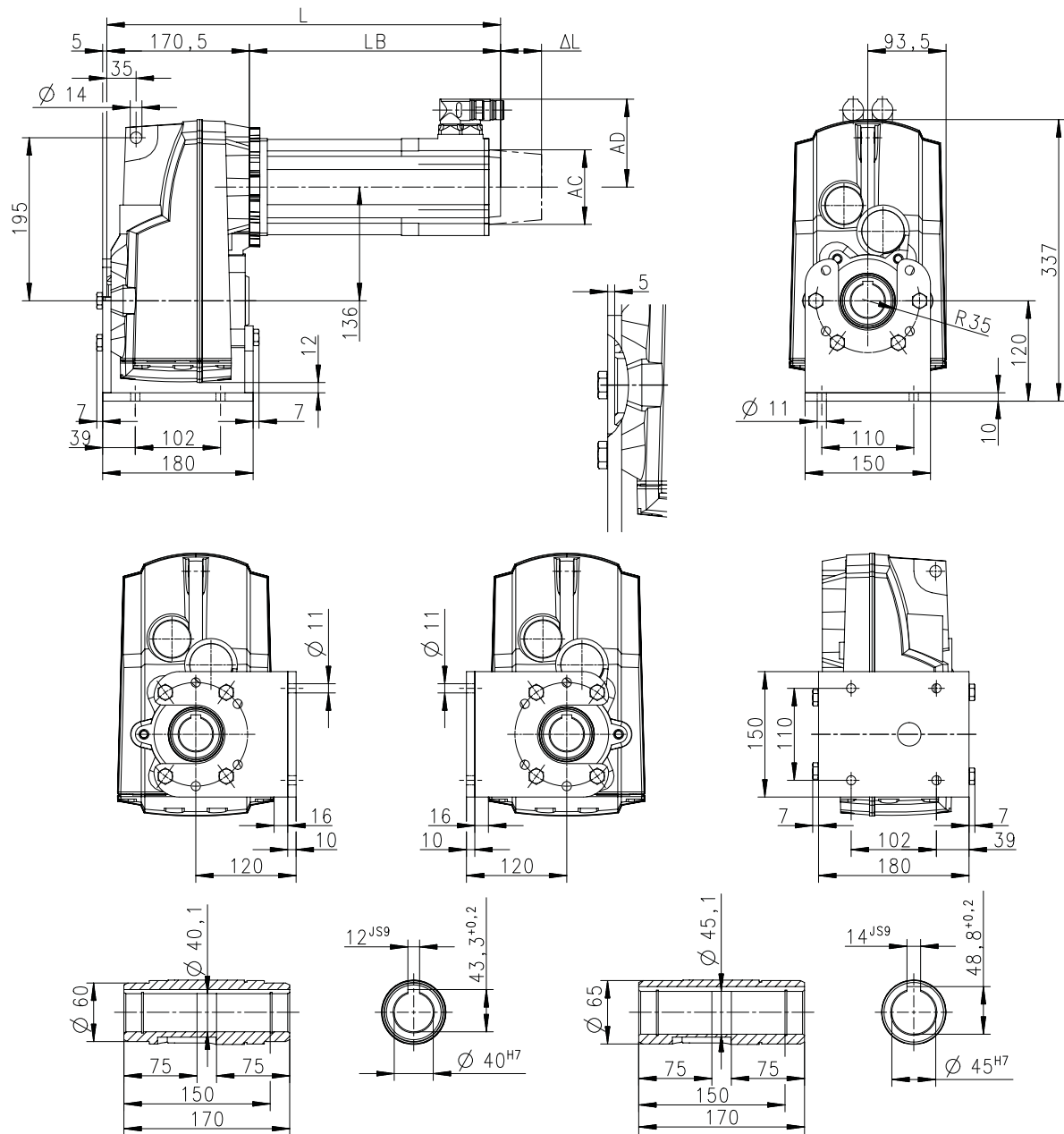


Technical data

Dimensions
Basic dimensions

g500-S660, 2-/3-stage with MCS06

Gearbox version: Hollow shaft with foot (HBR)

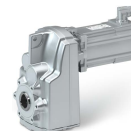


8800561-01

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	302	332	362
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm		82	
Motor diameter	AC	mm		86	
Motor/connection distance	AD	mm		77	

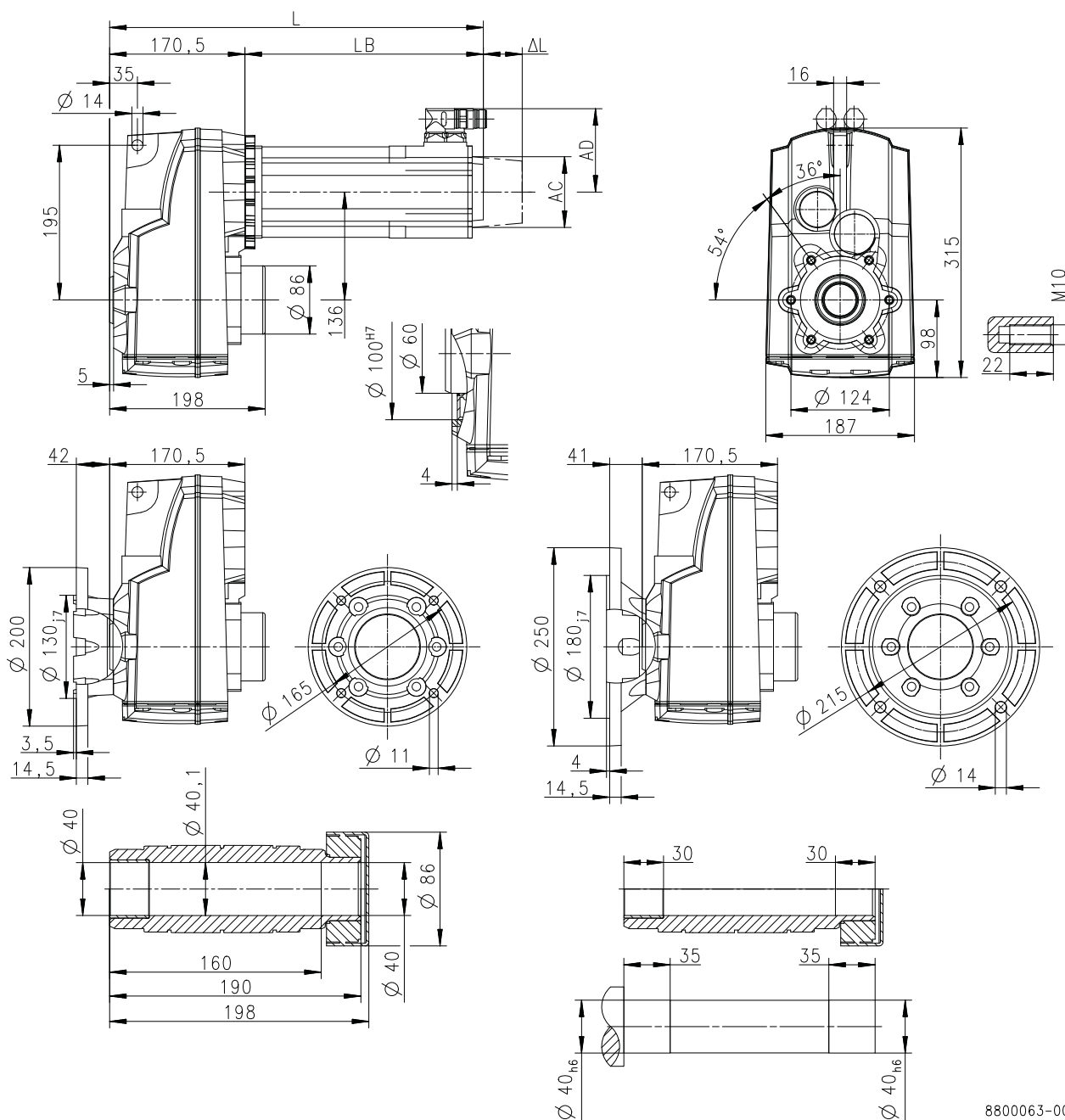
Technical data

Dimensions
Basic dimensions



g500-S660, 2-/3-stage with MCS06

Gearbox version: Hollow shaft with shrink disc, without foot (SDR/SCR/SCK)



8800063-00

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	302	332	362
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm		82	
Motor diameter	AC	mm		86	
Motor/connection distance	AD	mm		77	

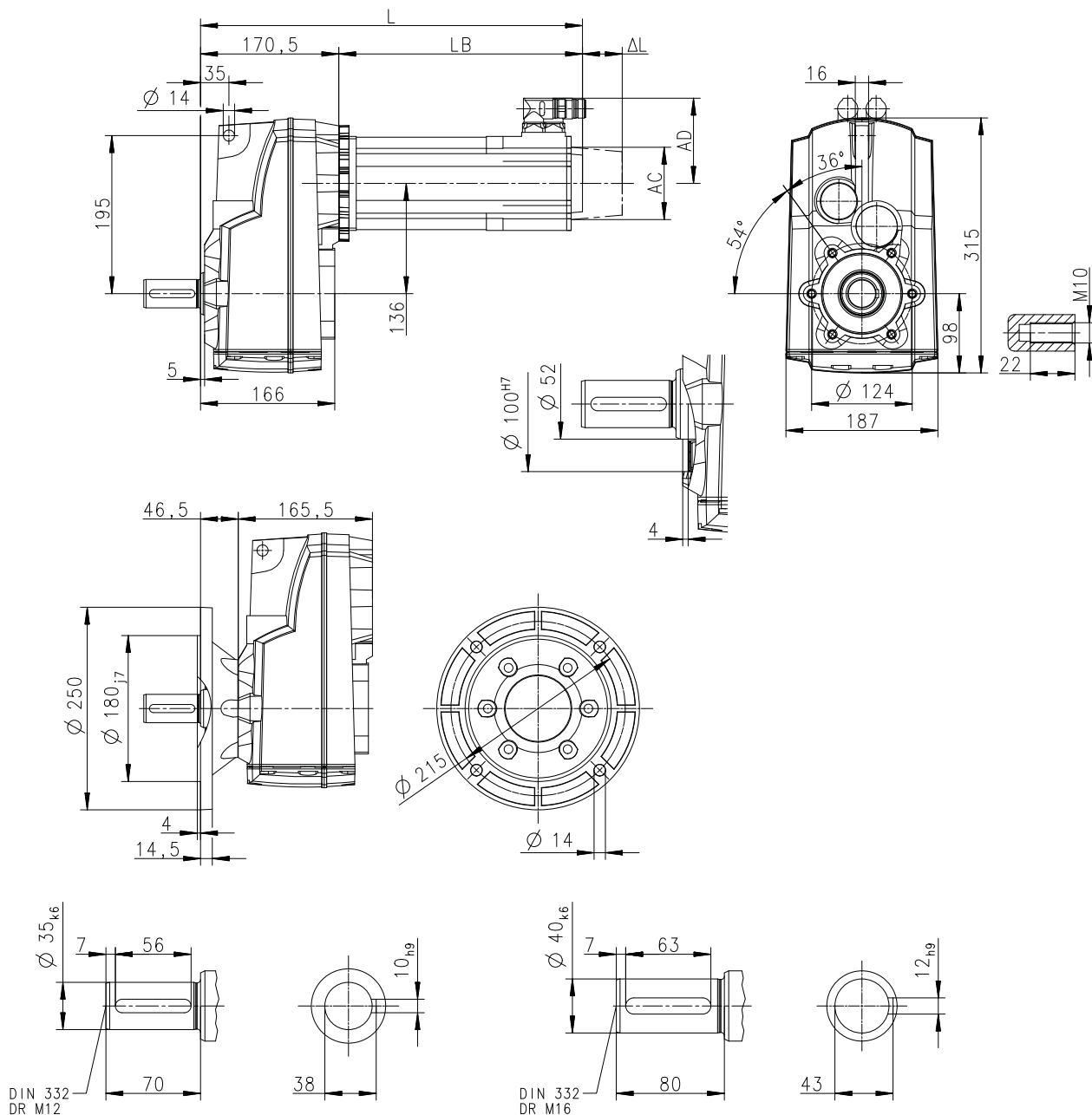


Technical data

Dimensions
Basic dimensions

g500-S660, 2-/3-stage with MCS06

Gearbox version: Solid shaft without foot (VDR/VCR/VCK)



8800062-00

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	302	332	362
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm		82	
Motor diameter	AC	mm		86	
Motor/connection distance	AD	mm		77	

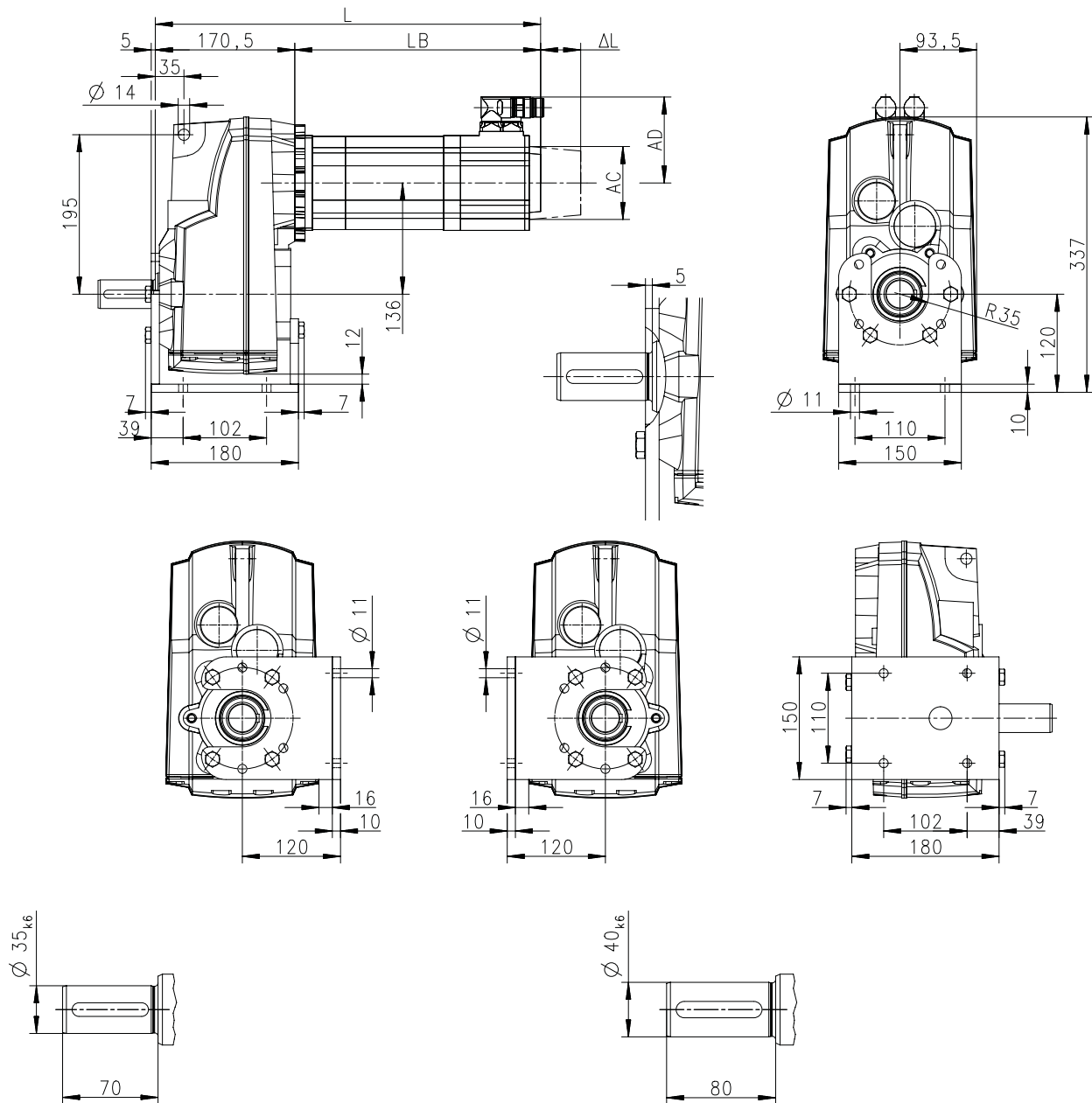
Technical data

Dimensions
Basic dimensions



g500-S660, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot (VBR)



8800064-00

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	302	332	362
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm		82	
Motor diameter	AC	mm		86	
Motor/connection distance	AD	mm		77	

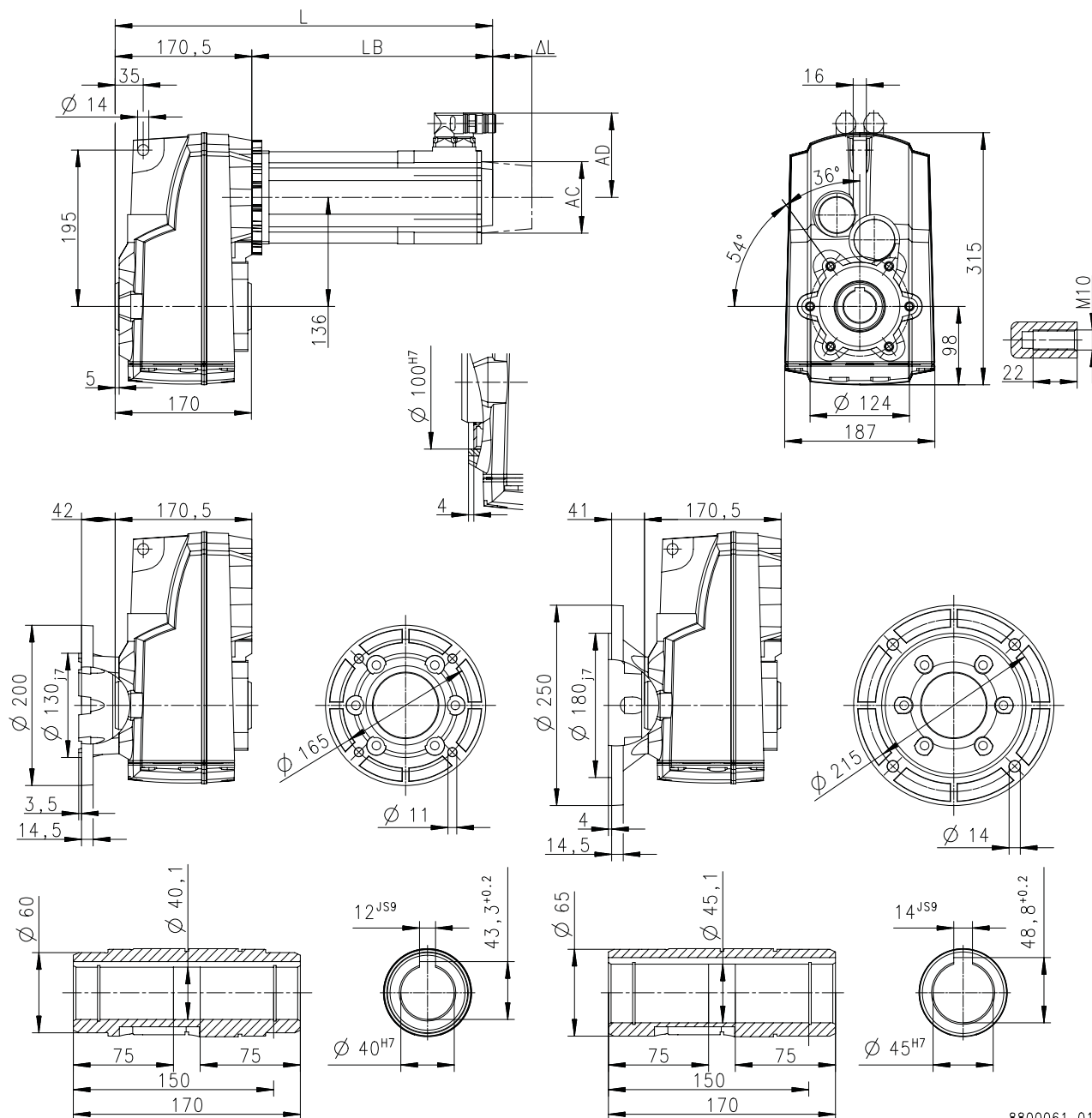


Technical data

Dimensions
Basic dimensions

g500-S660, 2-/3-stage with MCS09

Gearbox version: Hollow shaft without foot (HDR/HCR/HCK)



8800061-01

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	354	374	394	434
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

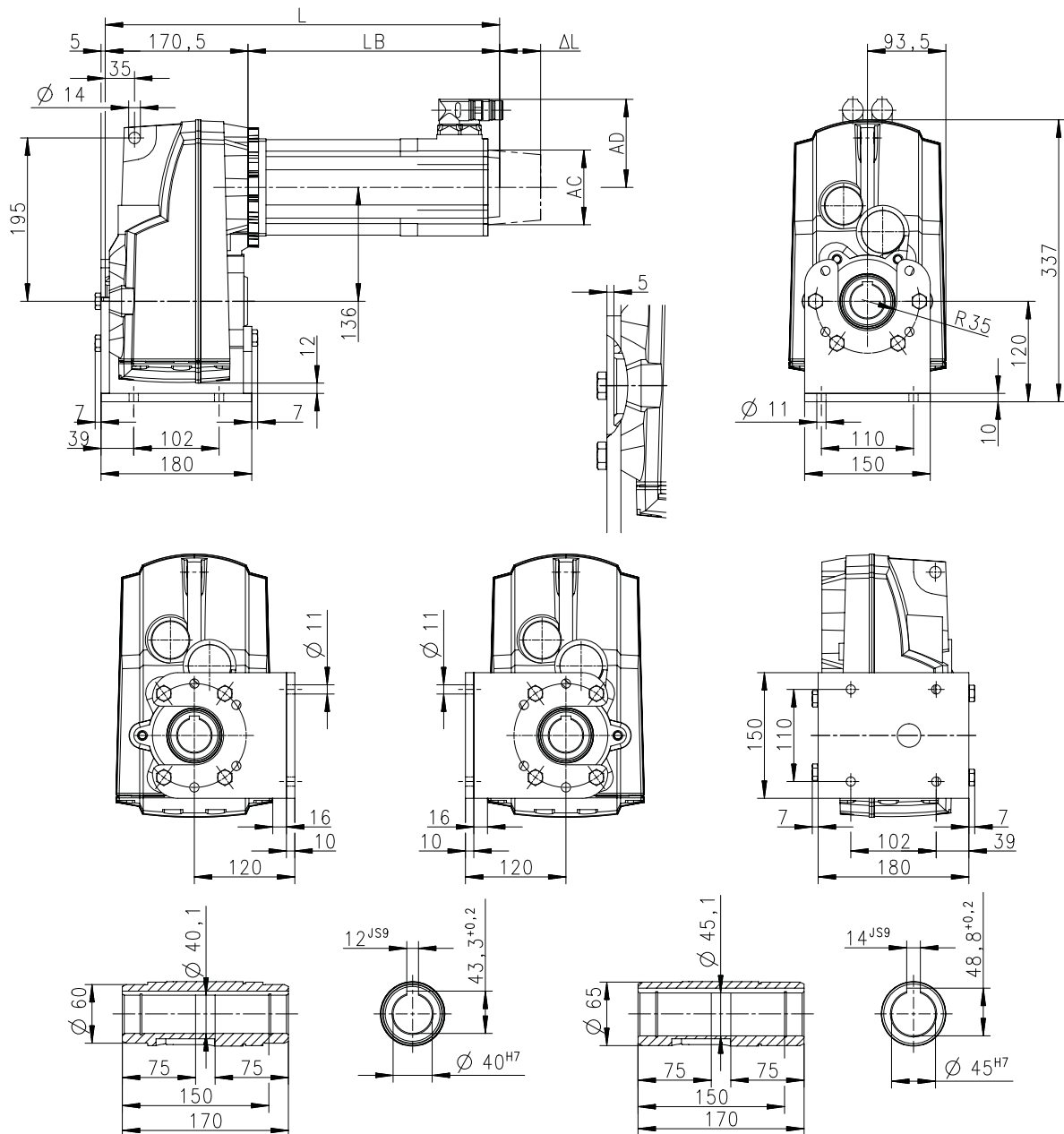
Technical data

Dimensions
Basic dimensions



g500-S660, 2-/3-stage with MCS09

Gearbox version: Hollow shaft with foot (HBR)

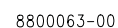


8800561-01

Motor			MCS			
			09D41-09D41L	09F38-09F38L	09H41-09H41L	09L41-09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	354	374	394	434
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			



Gearbox version: Hollow shaft with shrink disc, without foot (SDR/SCR/SCK)

203

Dimensions
Basic dimensions



Technical drawing of a 100H7 ball bearing, showing multiple views and dimensions:

- Top View:** Shows the outer diameter $\varnothing 124$, inner diameter $\varnothing 100^{H7}$, and width 187 . The bearing is shown with a 36° angle and a 54° angle. The outer ring has a width of 16 and a height of 315 . The inner ring has a width of 98 and a height of 22 . The outer ring is labeled M10.
- Front View:** Shows the outer diameter $\varnothing 124$, inner diameter $\varnothing 100^{H7}$, and width 187 . The bearing is shown with a 36° angle and a 54° angle. The outer ring has a width of 16 and a height of 315 . The inner ring has a width of 98 and a height of 22 . The outer ring is labeled M10.
- Side View:** Shows the outer diameter $\varnothing 124$, inner diameter $\varnothing 100^{H7}$, and width 187 . The bearing is shown with a 36° angle and a 54° angle. The outer ring has a width of 16 and a height of 315 . The inner ring has a width of 98 and a height of 22 . The outer ring is labeled M10.
- End View:** Shows the outer diameter $\varnothing 124$, inner diameter $\varnothing 100^{H7}$, and width 187 . The bearing is shown with a 36° angle and a 54° angle. The outer ring has a width of 16 and a height of 315 . The inner ring has a width of 98 and a height of 22 . The outer ring is labeled M10.
- Dimensions:**
 - Outer diameter: $\varnothing 124$
 - Inner diameter: $\varnothing 100^{H7}$
 - Width: 187
 - Outer ring width: 16
 - Outer ring height: 315
 - Inner ring width: 98
 - Inner ring height: 22
 - Outer ring label: M10

8800062-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	354	374	394	434
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

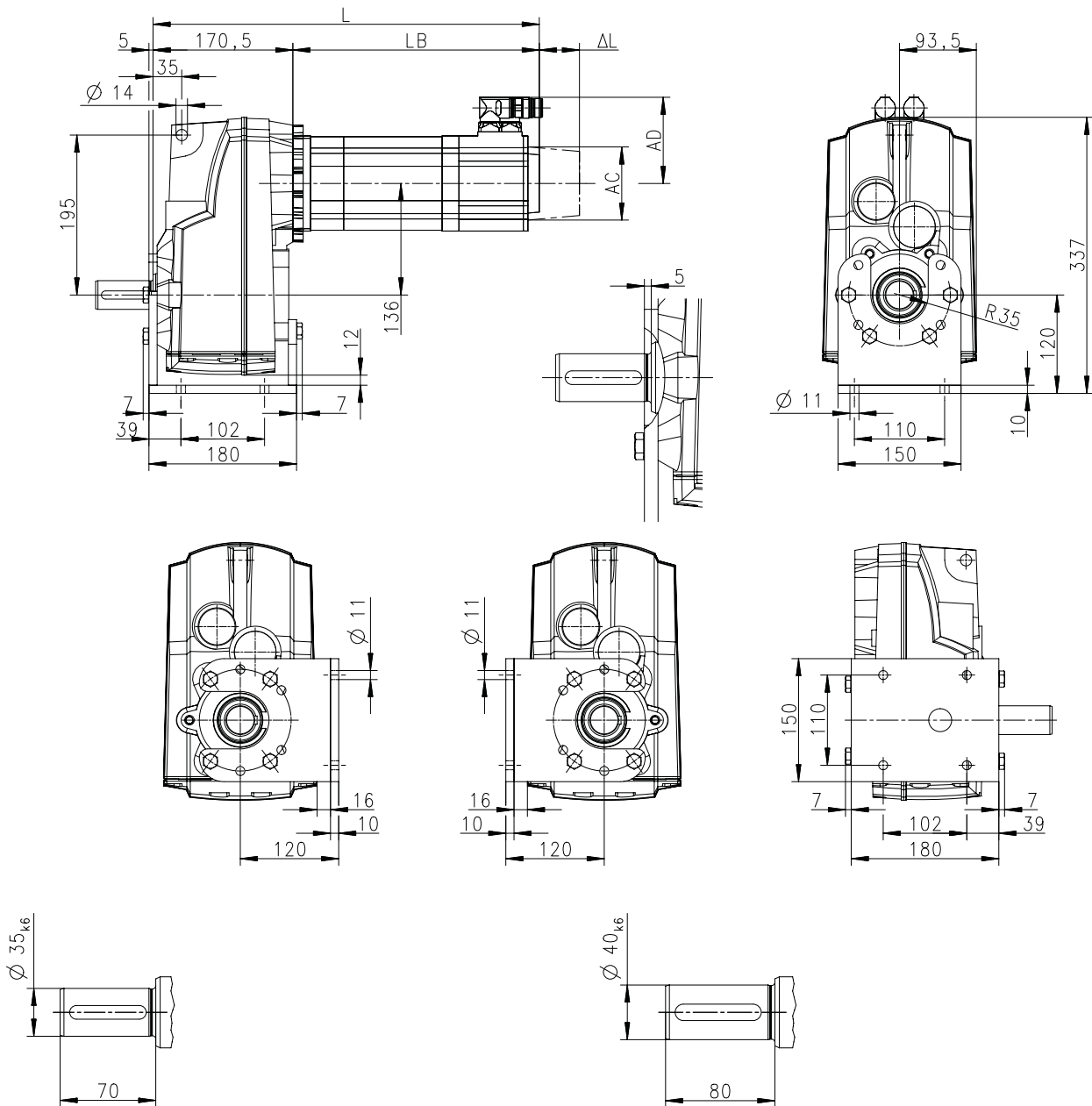


Technical data

Dimensions
Basic dimensions

g500-S660, 2-/3-stage with MCS09

Gearbox version: Solid shaft with foot (VBR)

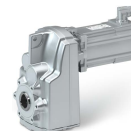


8800064-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	354	374	394	434
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

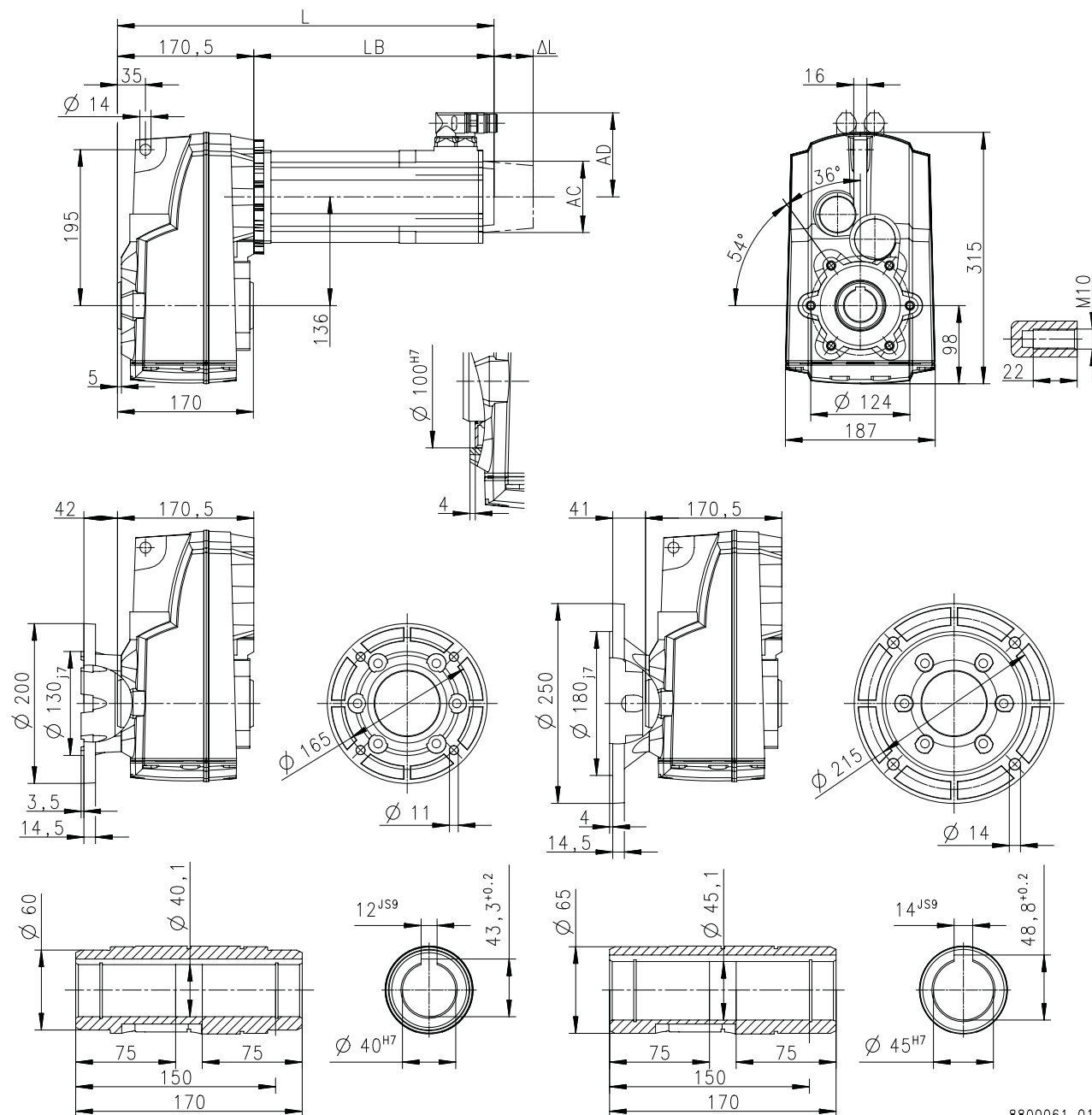
Technical data

Dimensions
Basic dimensions



g500-S660, 2-/3-stage with MCS12

Gearbox version: Hollow shaft without foot (HDR/HCR/HCK)



8800061-01

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	444	371	444	371	484	411
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

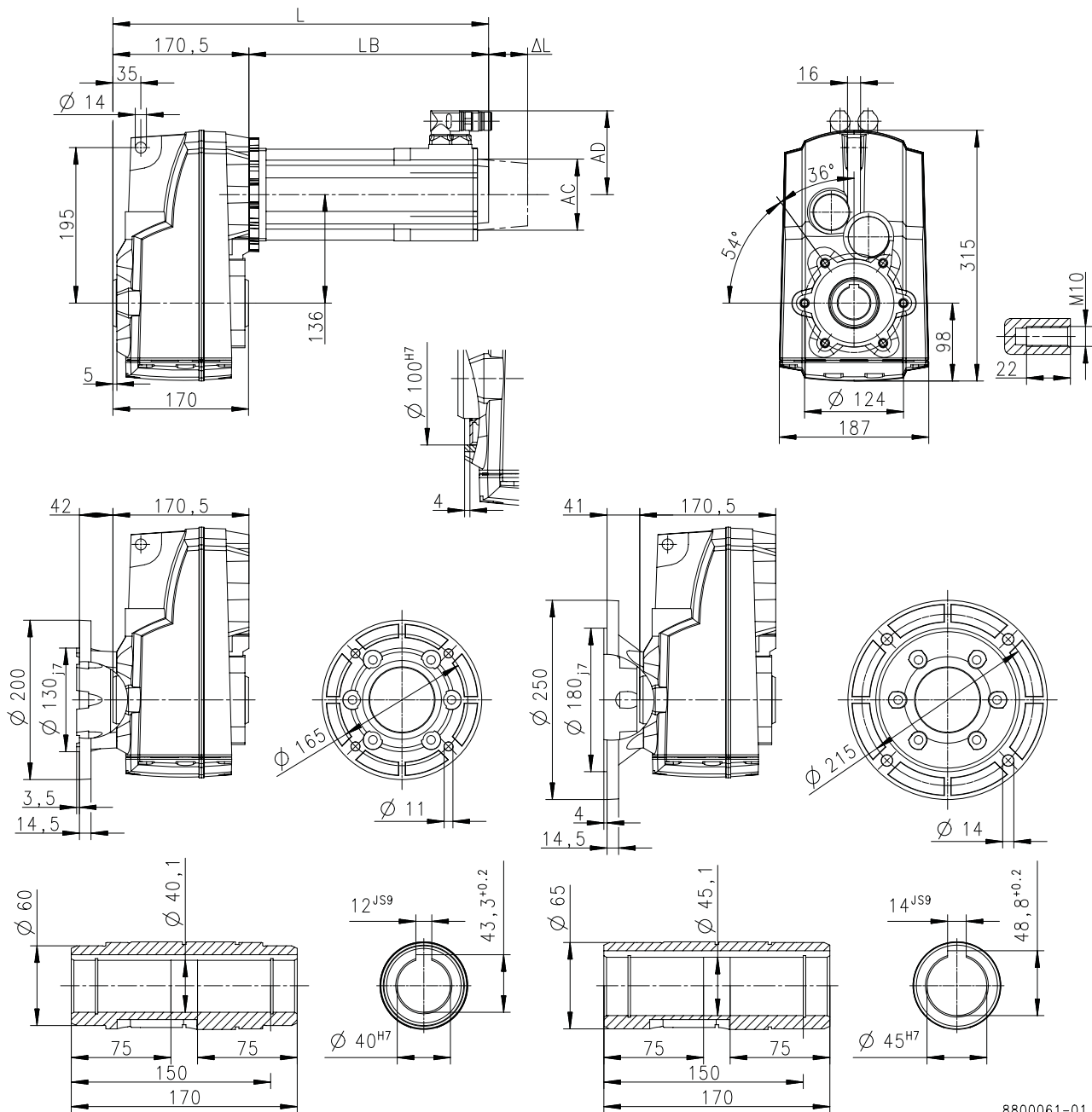


Technical data

Dimensions
Basic dimensions

g500-S660, 2-/3-stage with MCS12

Gearbox version: Hollow shaft without foot (HDR/HCR/HCK)



8800061-01

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	484	411	524	451	524	451
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

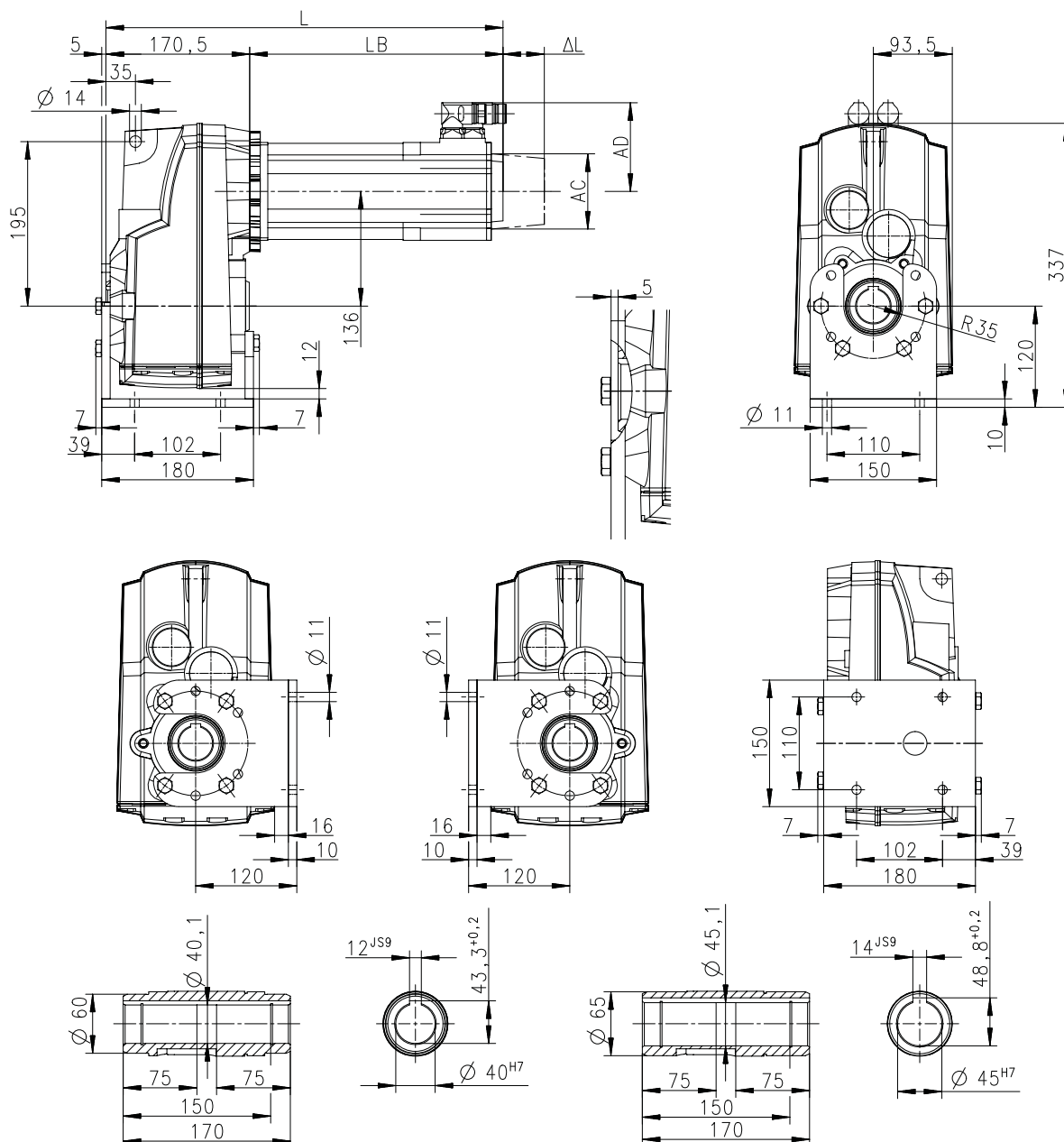
Technical data

Dimensions
Basic dimensions



g500-S660, 2-/3-stage with MCS12

Gearbox version: Hollow shaft with foot (HBR)



8800561-01

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	444	371	444	371	484	411
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

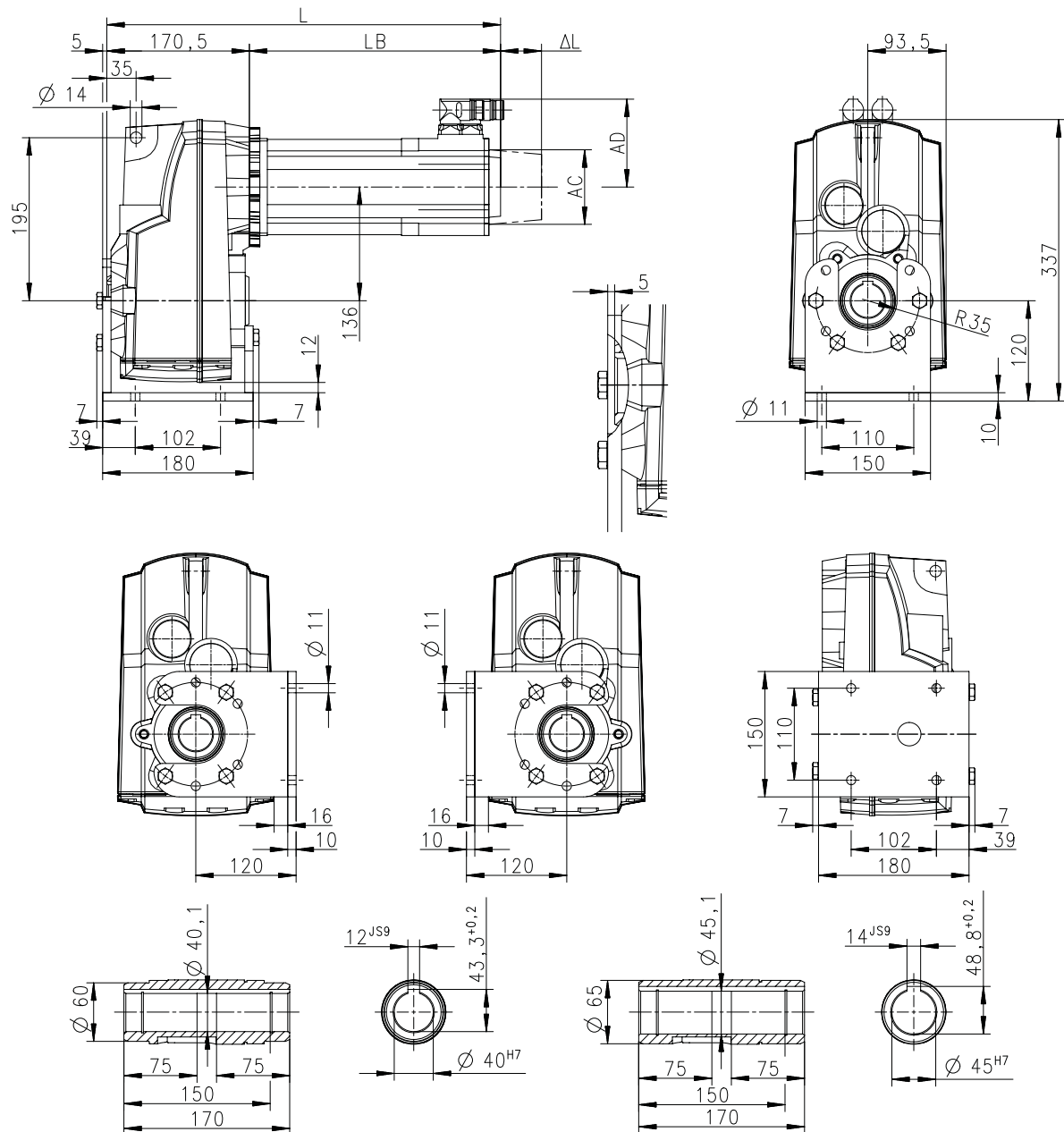


Technical data

Dimensions
Basic dimensions

g500-S660, 2-/3-stage with MCS12

Gearbox version: Hollow shaft with foot (HBR)

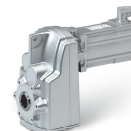


8800561-01

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	484	411	524	451	524	451
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

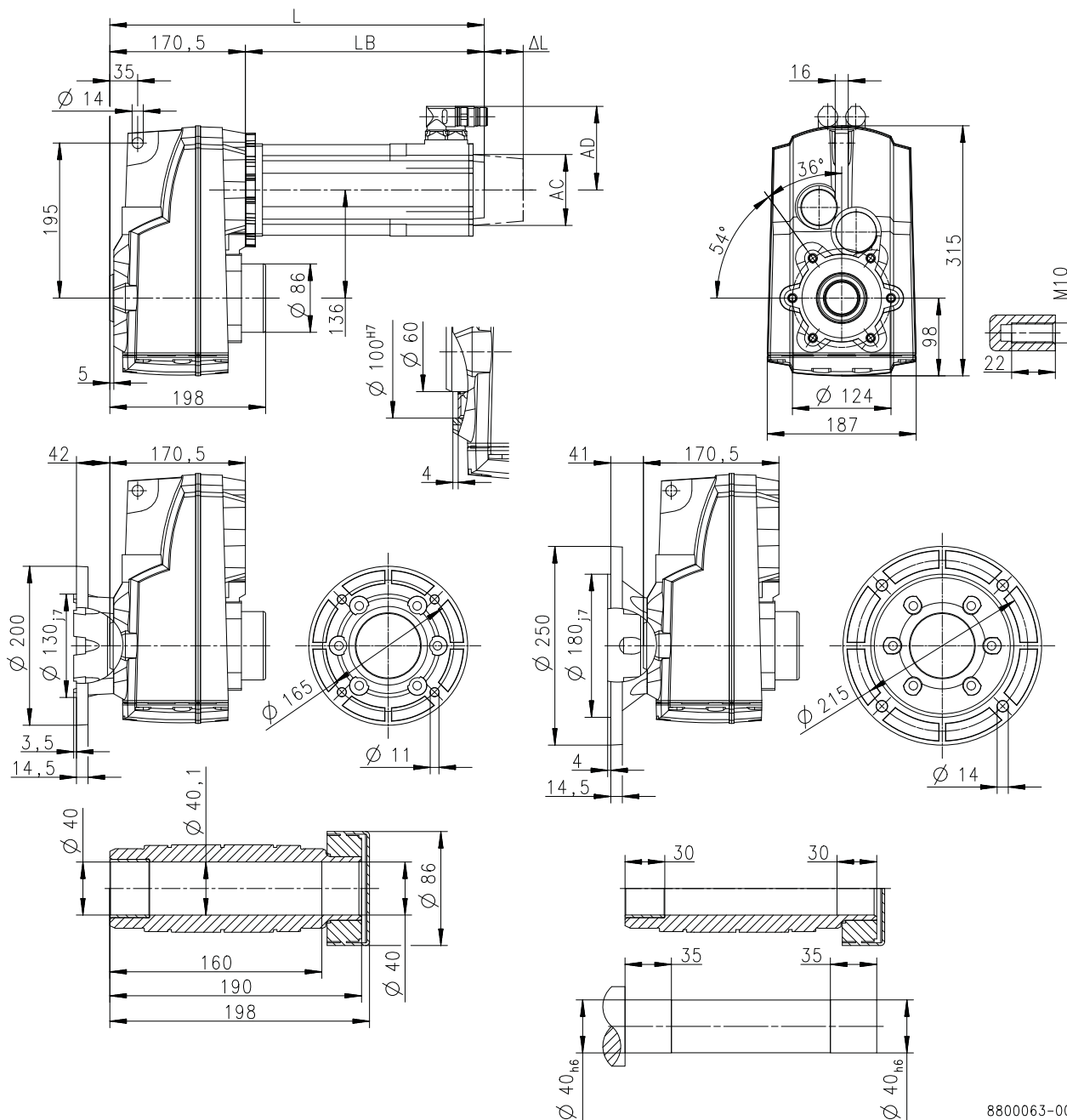
Technical data

Dimensions
Basic dimensions



g500-S660, 2-/3-stage with MCS12

Gearbox version: Hollow shaft with shrink disc, without foot (SDR/SCR/SCK)



8800063-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	444	371	444	371	484	411
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

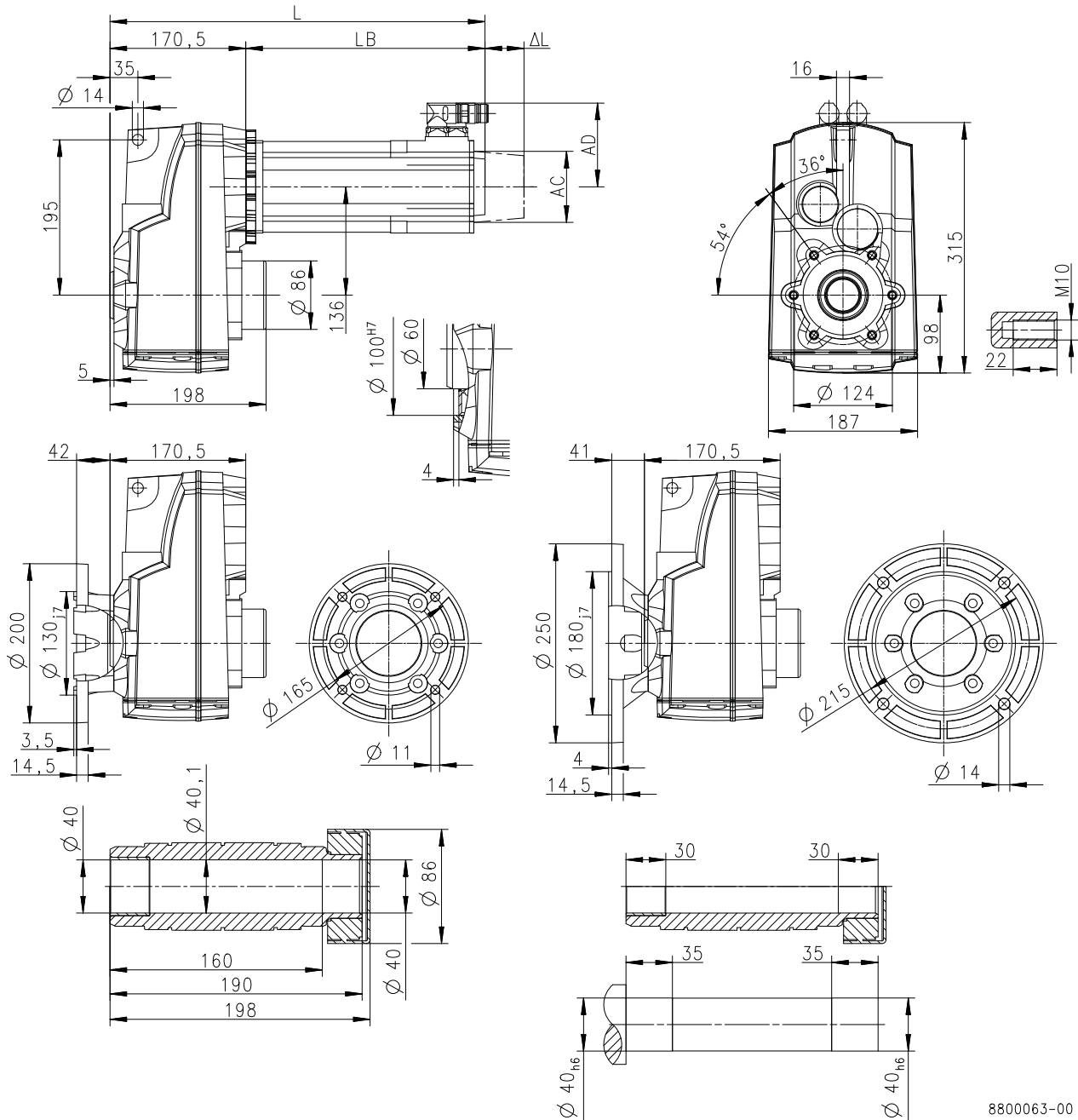


Technical data

Dimensions
Basic dimensions

g500-S660, 2-/3-stage with MCS12

Gearbox version: Hollow shaft with shrink disc, without foot (SDR/SCR/SCK)

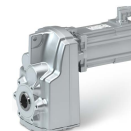


8800063-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	484	411	524	451	524	451
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

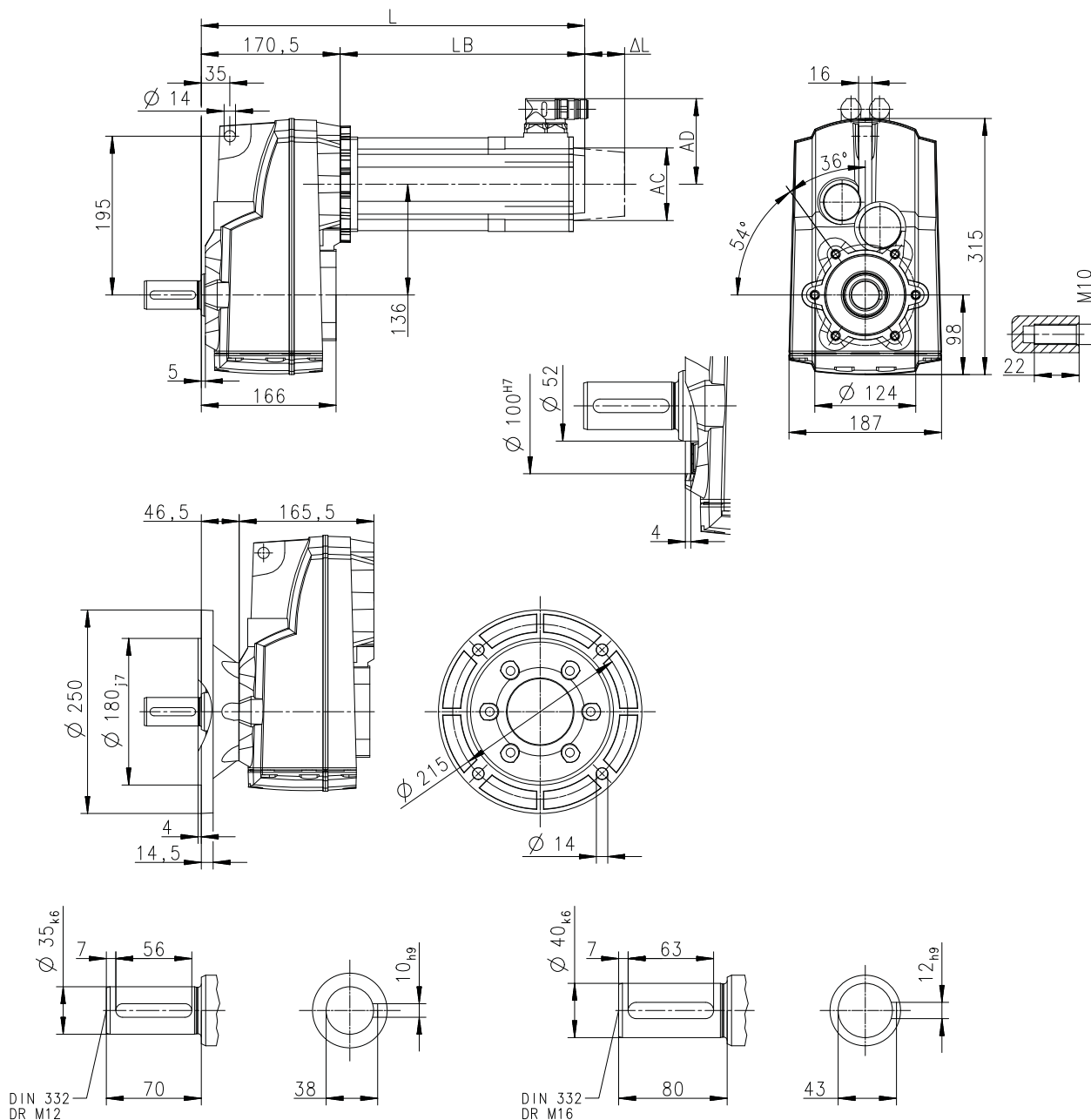
Technical data

Dimensions
Basic dimensions



g500-S660, 2-/3-stage with MCS12

Gearbox version: Solid shaft without foot (VDR/VCR/VCK)



8800062-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	444	371	444	371	484	411
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

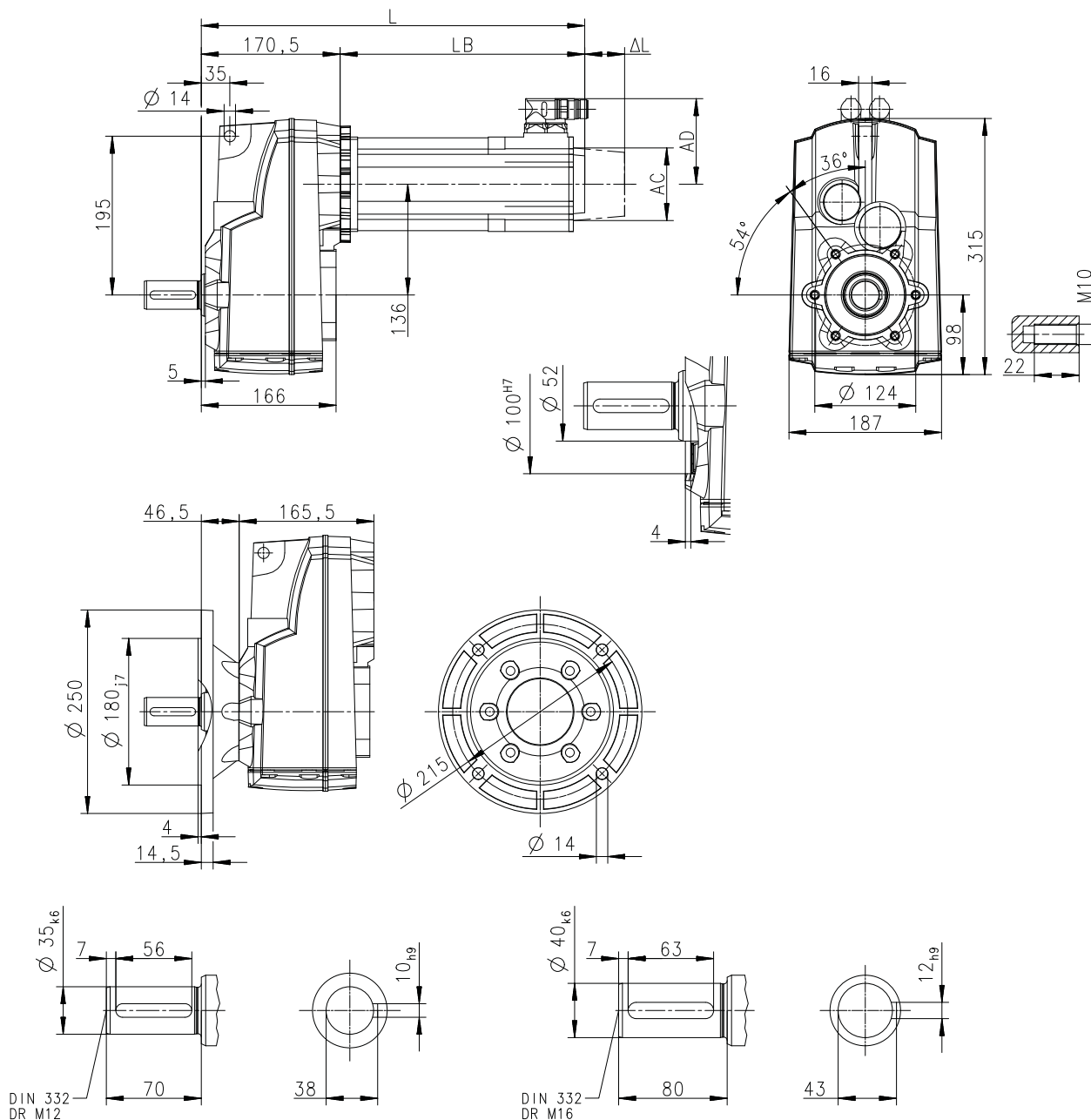


Technical data

Dimensions
Basic dimensions

g500-S660, 2-/3-stage with MCS12

Gearbox version: Solid shaft without foot (VDR/VCR/VCK)

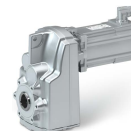


8800062-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	484	411	524	451	524	451
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

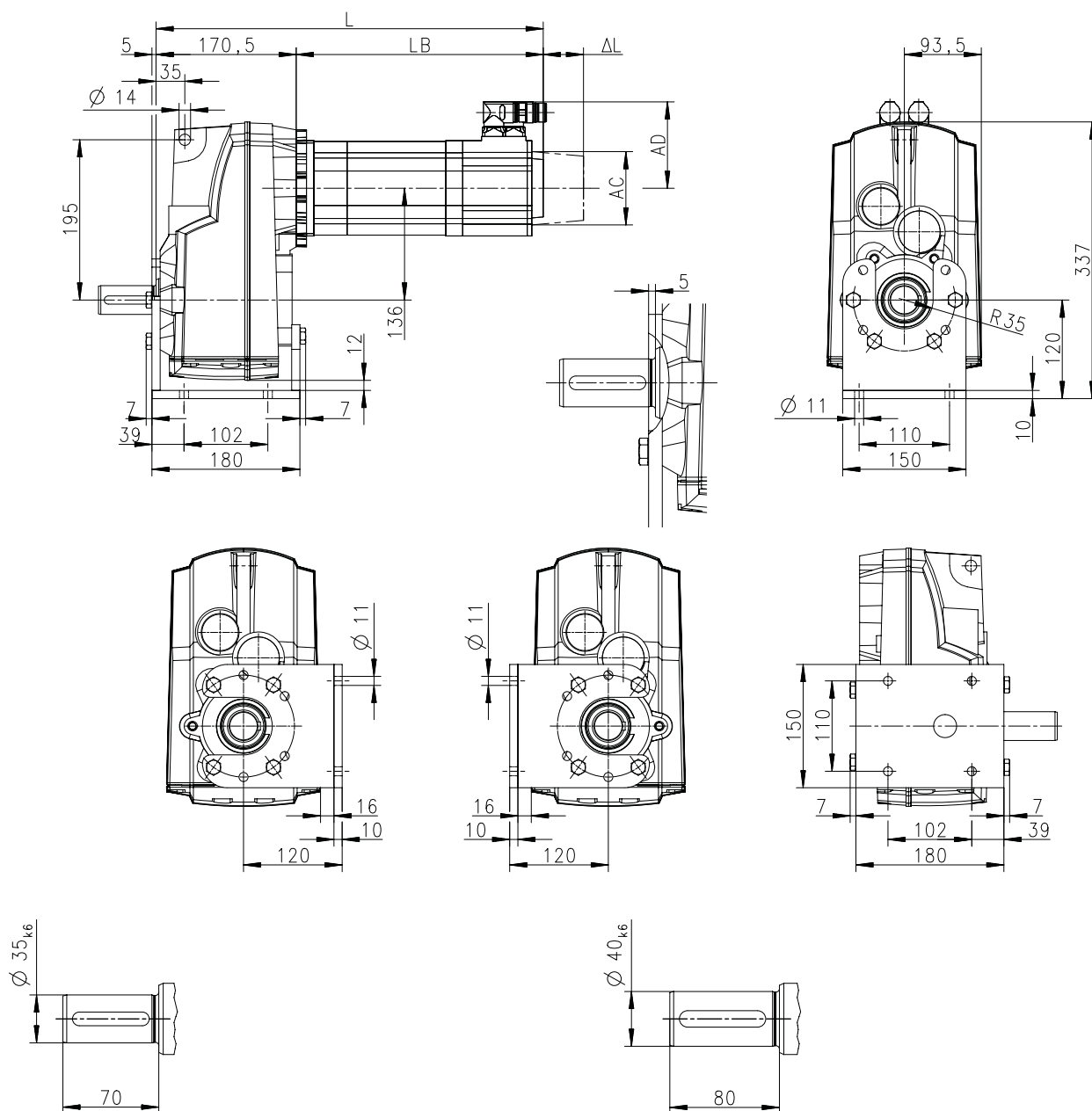
Technical data

Dimensions
Basic dimensions



g500-S660, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot (VBR)



8800064-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	444	371	444	371	484	411
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

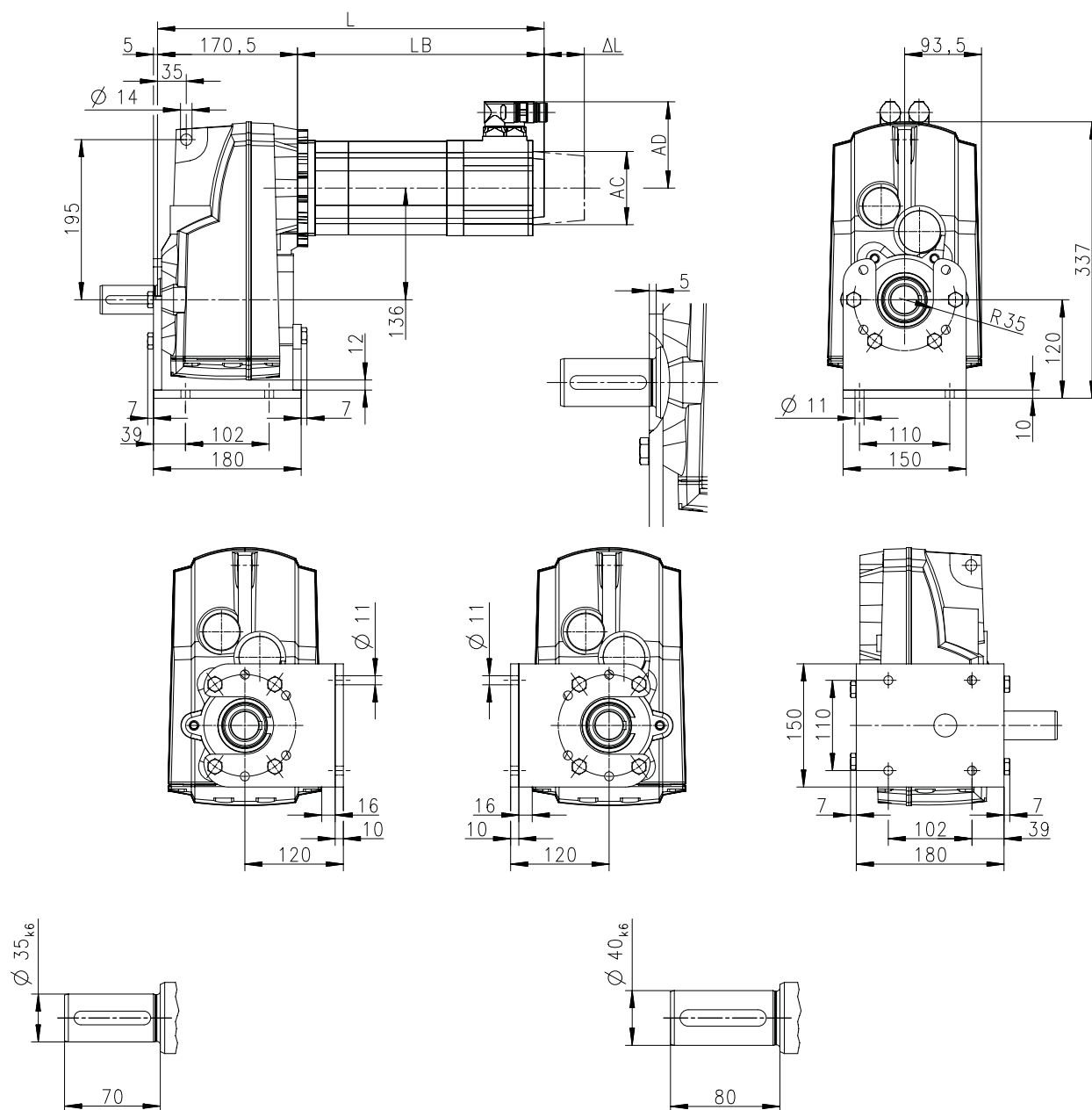


Technical data

Dimensions
Basic dimensions

g500-S660, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot (VBR)



8800064-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	484	411	524	451	524	451
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

Dimensions

Basic dimensions

[illegible]

8800061-01

[illegible]

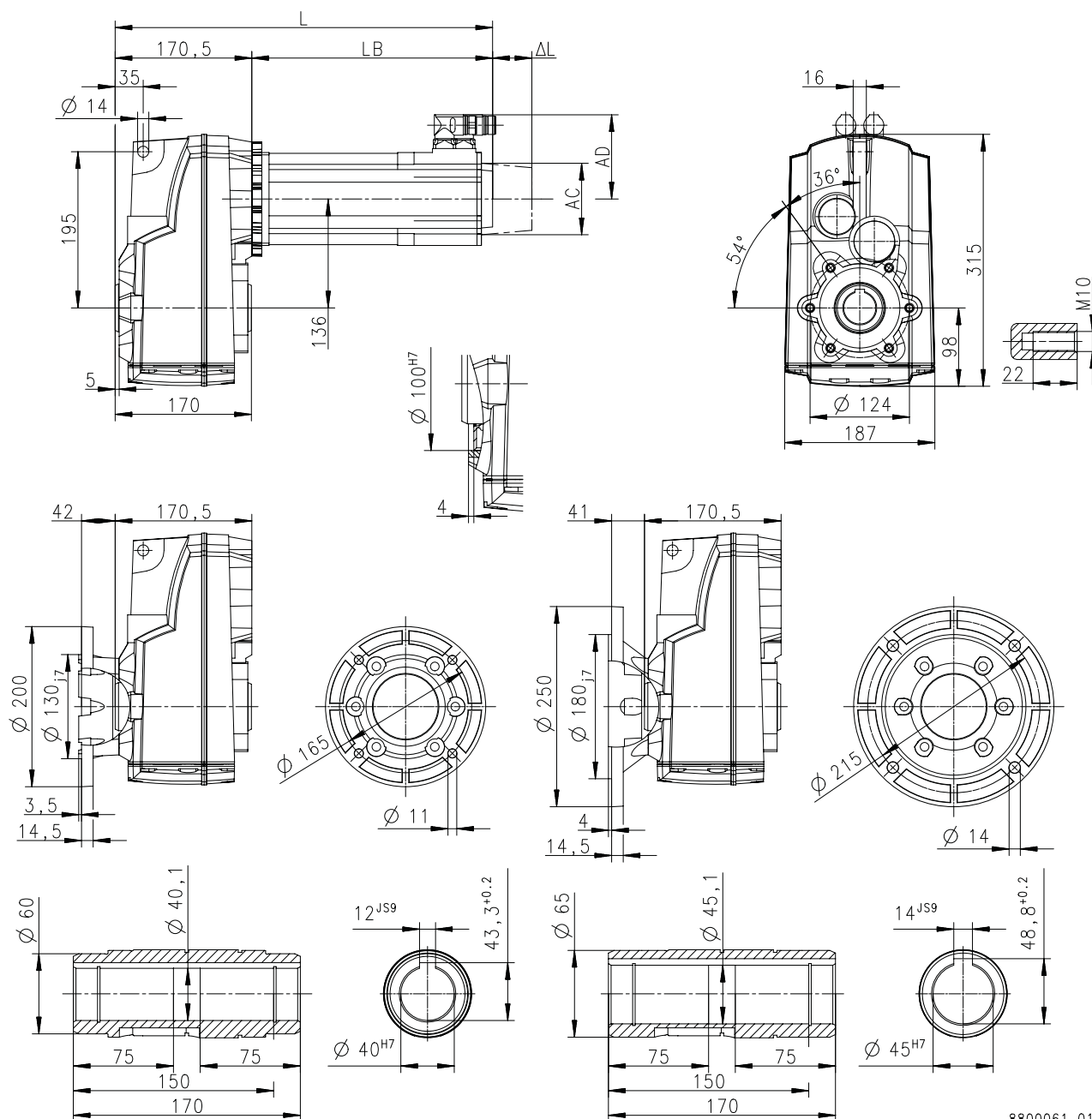


Technical data

Dimensions
Basic dimensions

g500-S660, 2-/3-stage with MCS14

Gearbox version: Hollow shaft without foot (HDR/HCR/HCK)

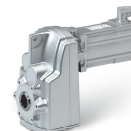


8800061-01

Motor			MCS							
			14L14-Blower	14L15-natural	14L30-Blower	14L32-natural	14P11-Blower	14P14-natural	14P26-Blower	14P32-natural
Total length	L	mm	555	467	555	467	595	507	595	507
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

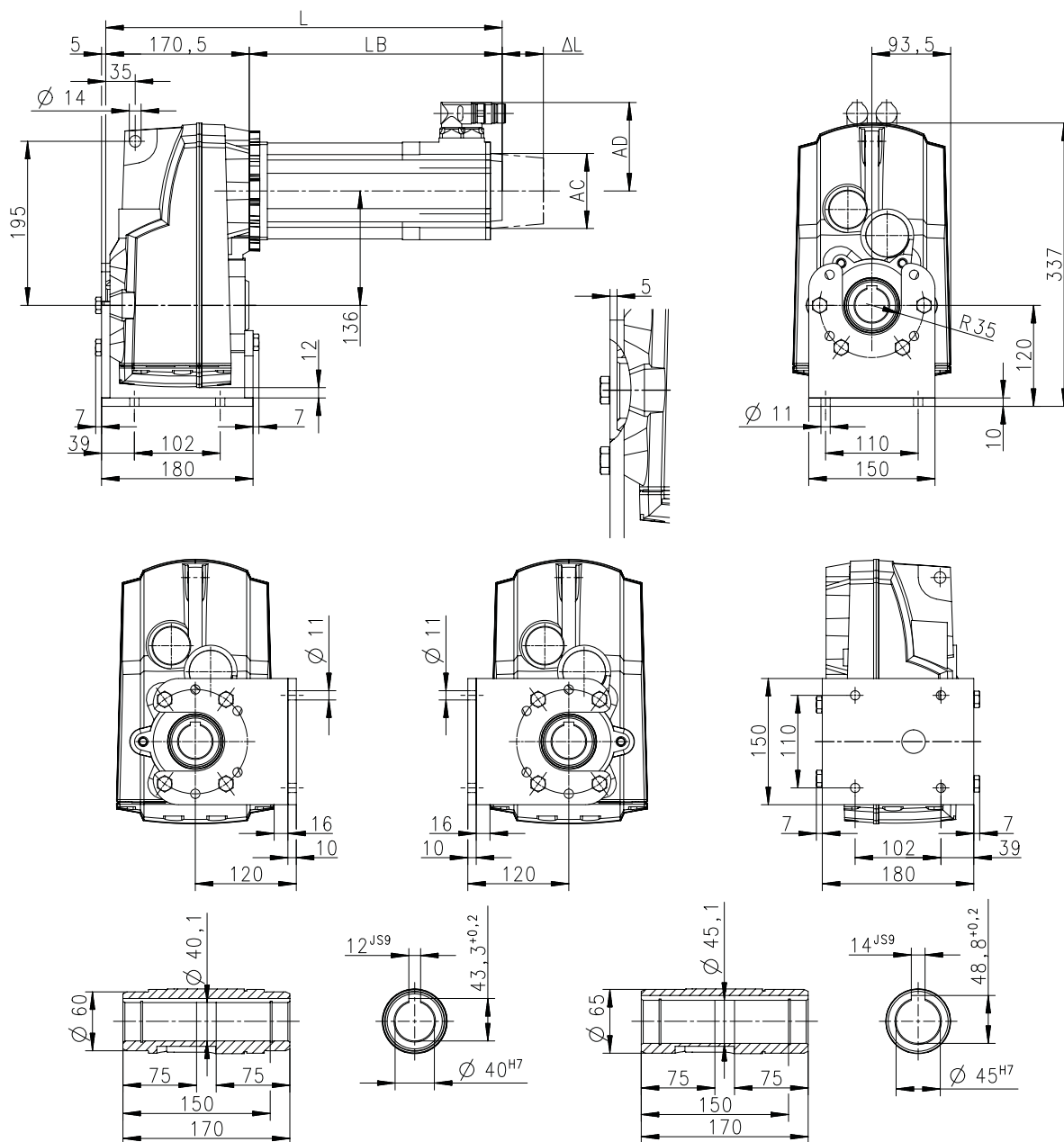
Technical data

Dimensions
Basic dimensions



g500-S660, 2-/3-stage with MCS14

Gearbox version: Hollow shaft with foot (HBR)



8800561-01

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	475	387	475	387	515	427	515	427
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117

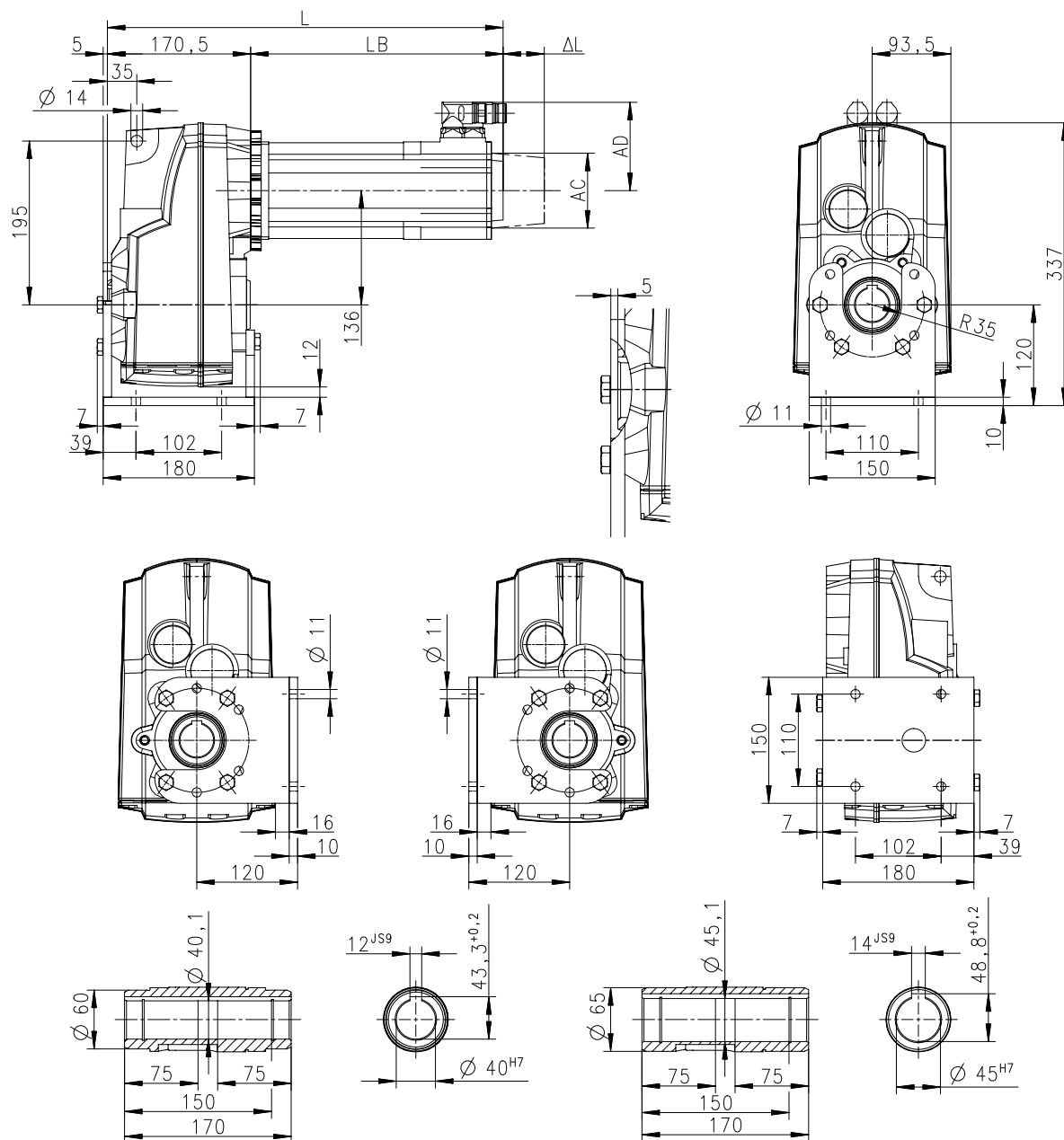


Technical data

Dimensions
Basic dimensions

g500-S660, 2-/3-stage with MCS14

Gearbox version: Hollow shaft with foot (HBR)



8800561-01

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	555	467	555	467	595	507	595	507
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

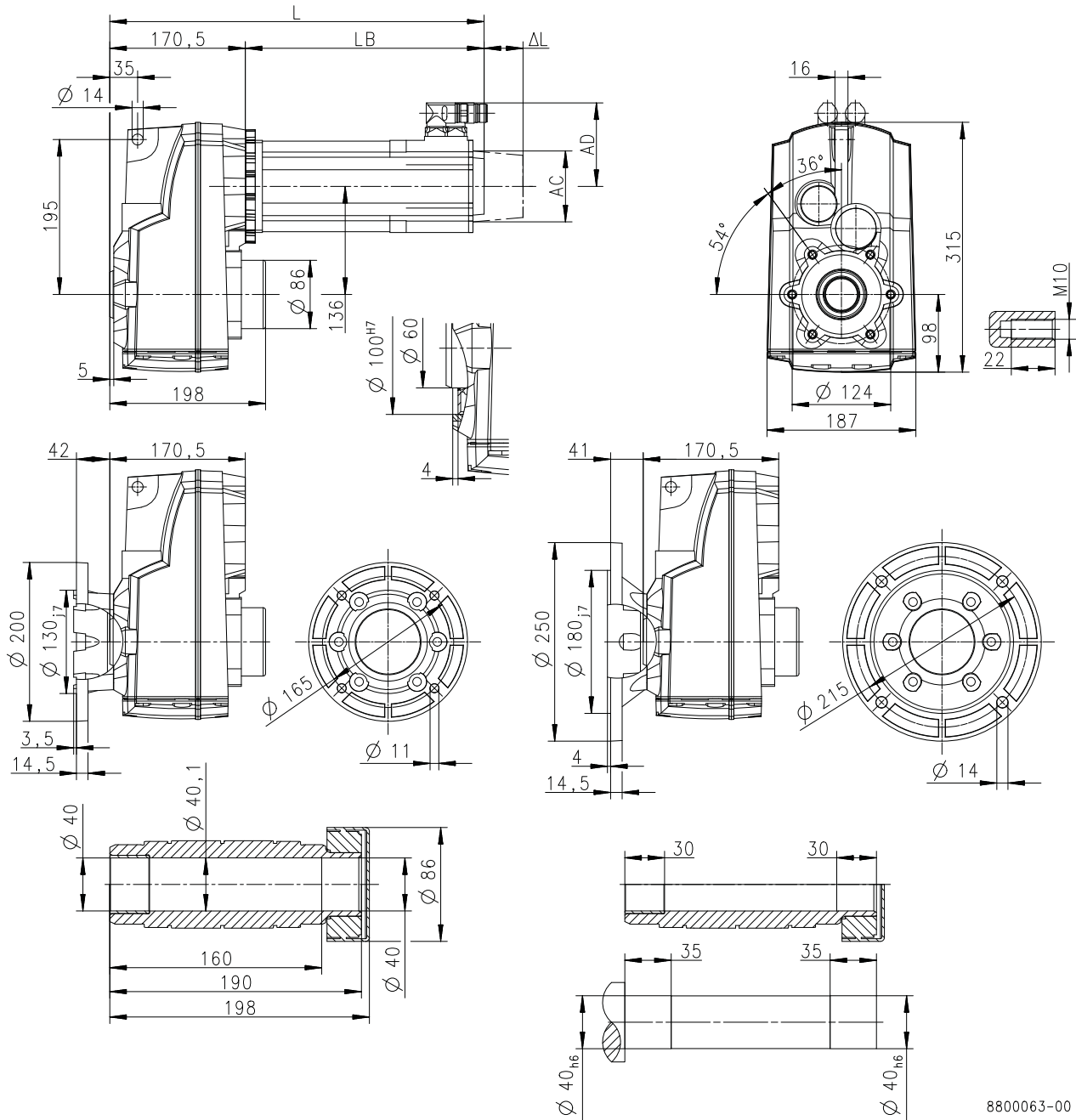
Technical data

Dimensions
Basic dimensions



g500-S660, 2-/3-stage with MCS14

Gearbox version: Hollow shaft with shrink disc, without foot (SDR/SCR/SCK)



8800063-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	475	387	475	387	515	427	515	427
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117

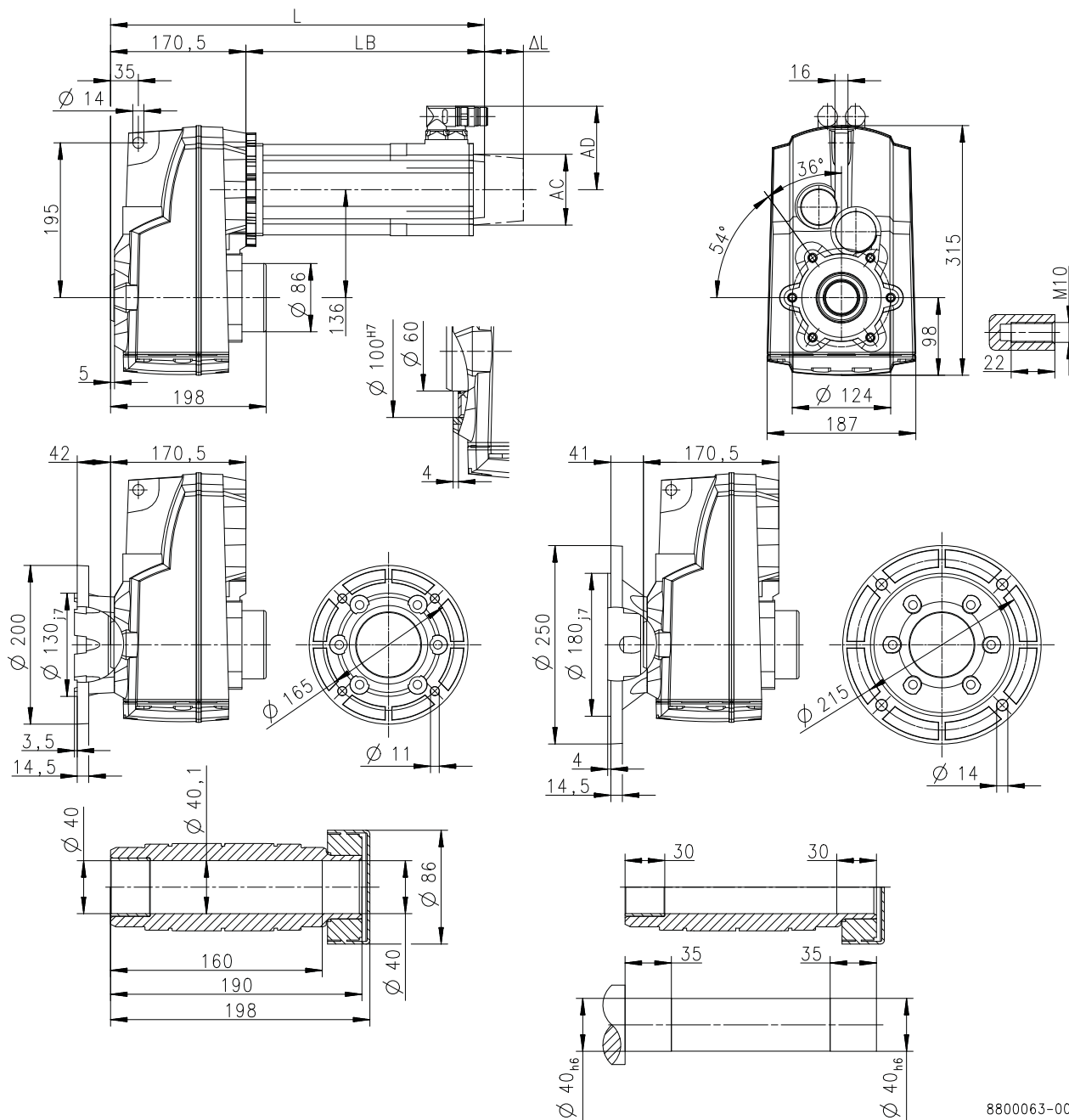


Technical data

Dimensions
Basic dimensions

g500-S660, 2-/3-stage with MCS14

Gearbox version: Hollow shaft with shrink disc, without foot (SDR/SCR/SCK)

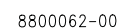
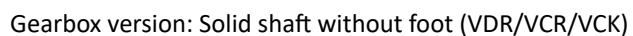


8800063-00

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	555	467	555	467	595	507	595	507
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

Dimensions

Basic dimensions

222

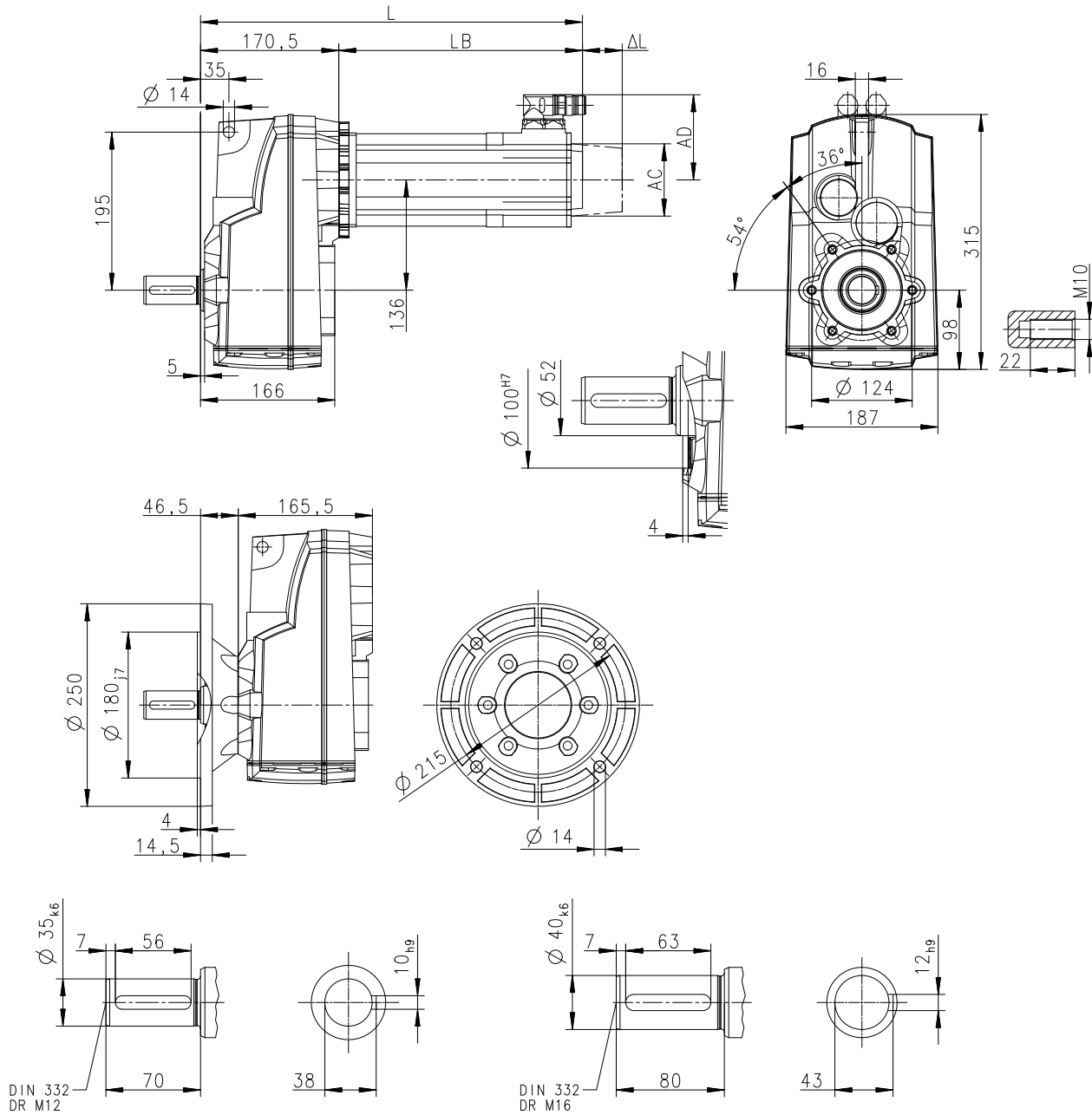


Technical data

Dimensions
Basic dimensions

g500-S660, 2-/3-stage with MCS14

Gearbox version: Solid shaft without foot (VDR/VCR/VCK)



8800062-00

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	555	467	555	467	595	507	595	507
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

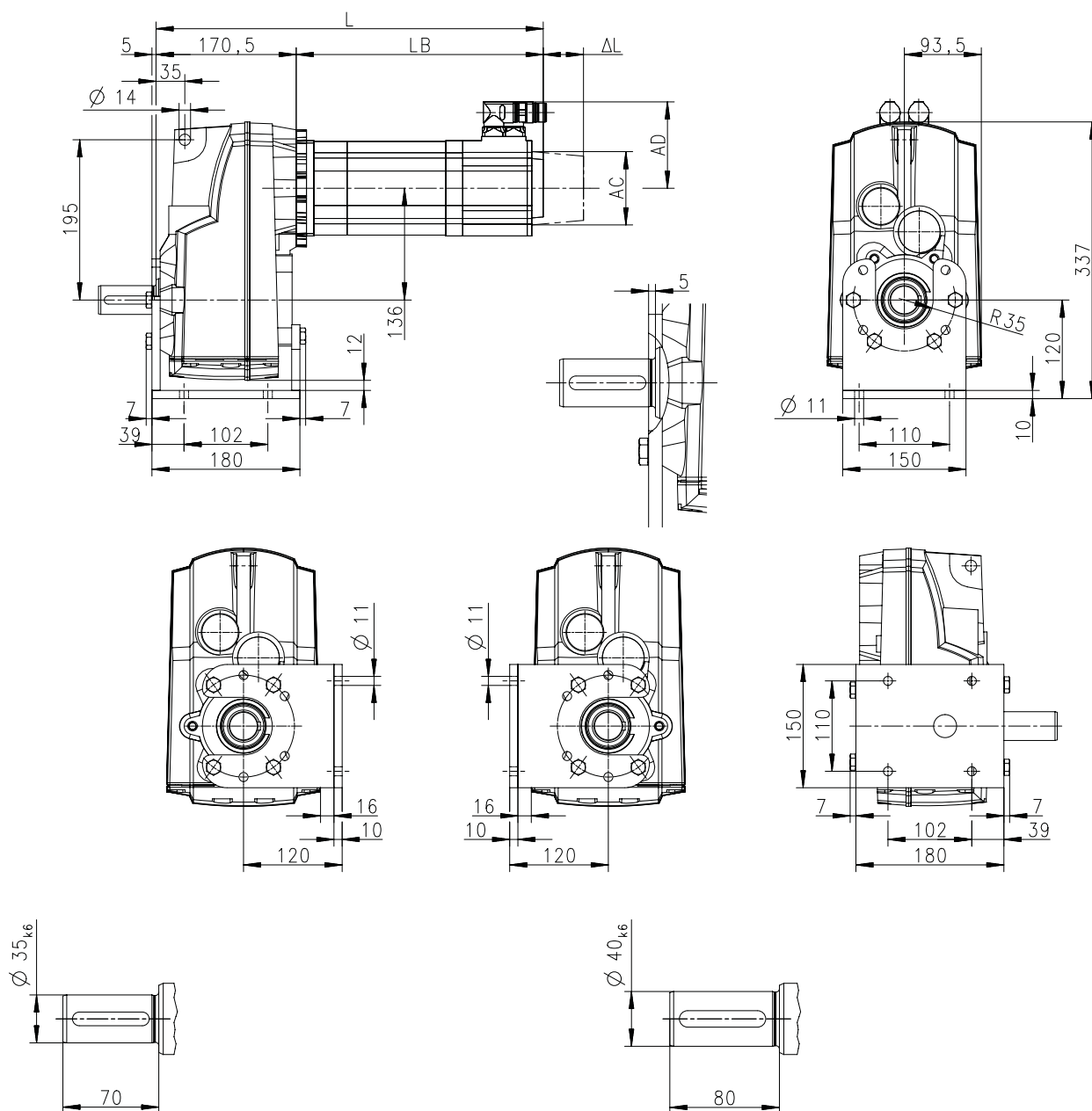
Technical data

Dimensions
Basic dimensions



g500-S660, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot (VBR)



8800064-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	475	387	475	387	515	427	515	427
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117

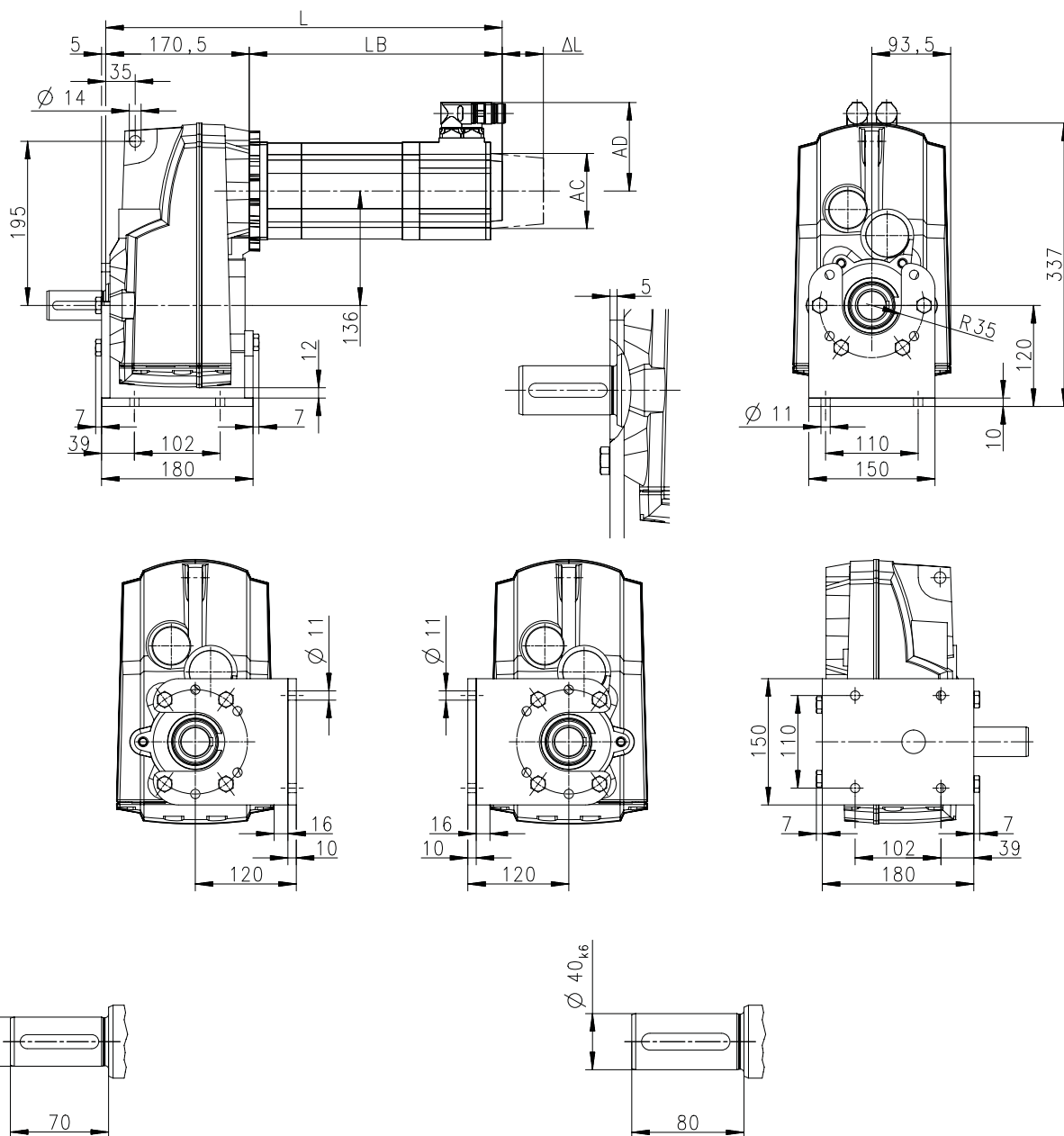


Technical data

Dimensions
Basic dimensions

g500-S660, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot (VBR)

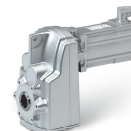


8800064-00

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	555	467	555	467	595	507	595	507
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

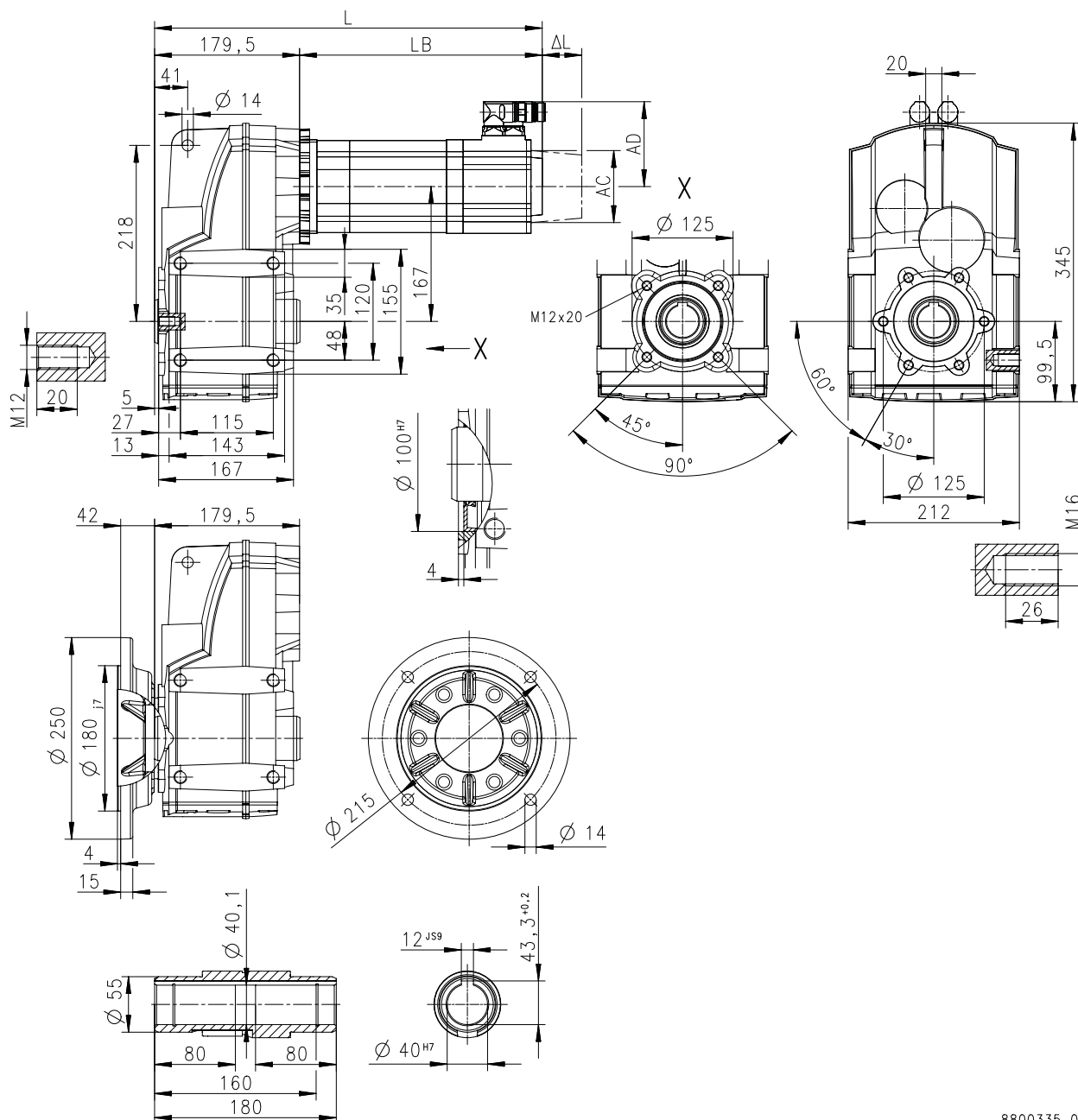
Technical data

Dimensions
Basic dimensions



g500-S950, 2-/3-stage with MCS06

Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)



8800335-03

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	311	341	371
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm		82	
Motor diameter	AC	mm		86	
Motor/connection distance	AD	mm		77	

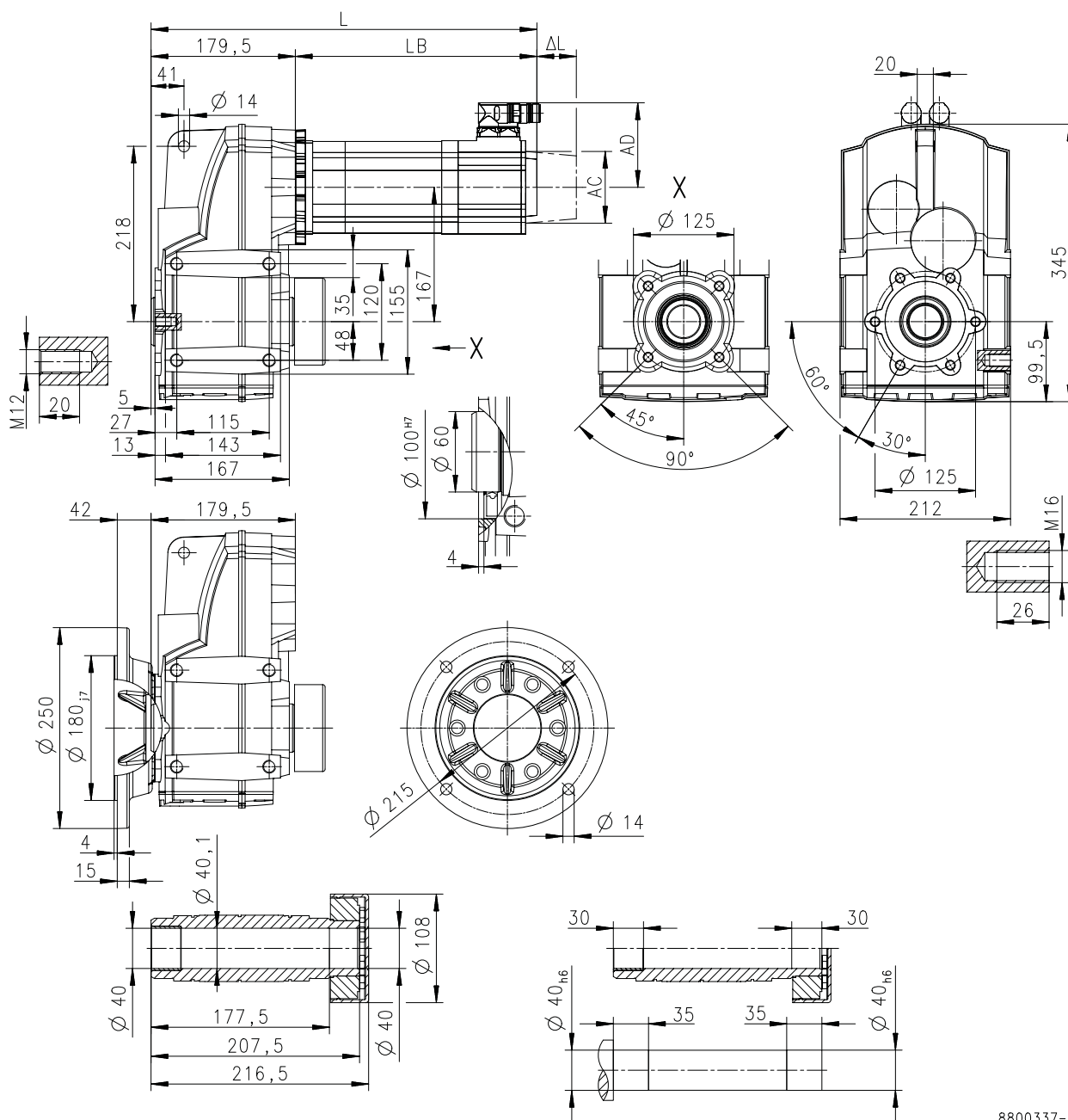


Technical data

Dimensions
Basic dimensions

g500-S950, 2-/3-stage with MCS06

Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)

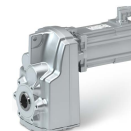


8800337-02

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	311	341	371
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm		82	
Motor diameter	AC	mm		86	
Motor/connection distance	AD	mm		77	

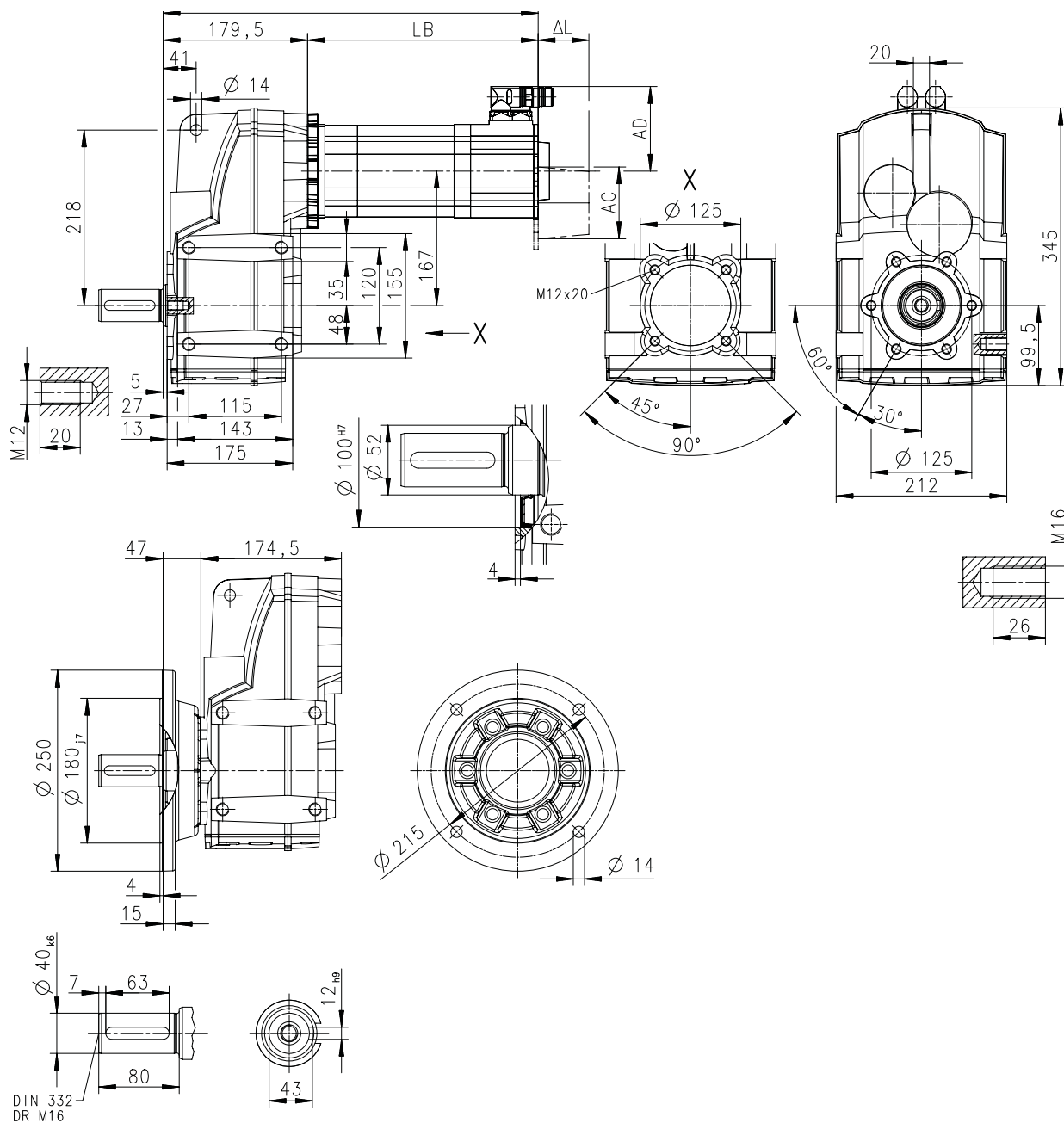
Technical data

Dimensions
Basic dimensions



g500-S950, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot (VAR/VBR/VAK)



8800336-02

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	311	341	371
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

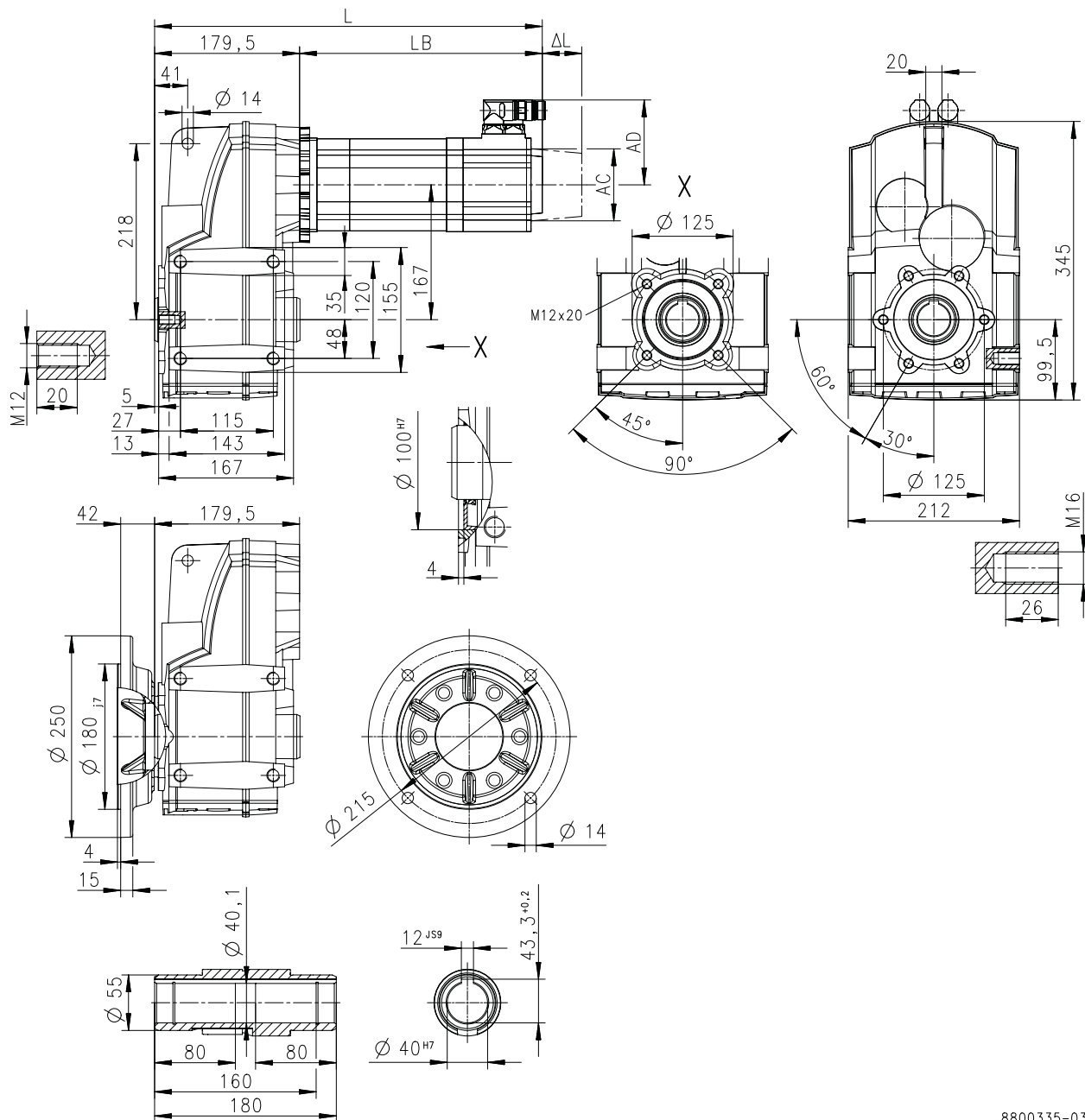


Technical data

Dimensions
Basic dimensions

g500-S950, 2-/3-stage with MCS09

Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)



8800335-03

Motor			MCS			
			09D41-09D41L	09F38-09F38L	09H41-09H41L	09L41-09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	363	383	403	443
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71	71	71	71
Motor diameter	AC	mm	89	89	89	89
Motor/connection distance	AD	mm	90	90	90	90

Dimensions

Basic dimensions



8800337-02

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	363	383	403	443
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71	71	71	71
Motor diameter	AC	mm	89	89	89	89
Motor/connection distance	AD	mm	90	90	90	90

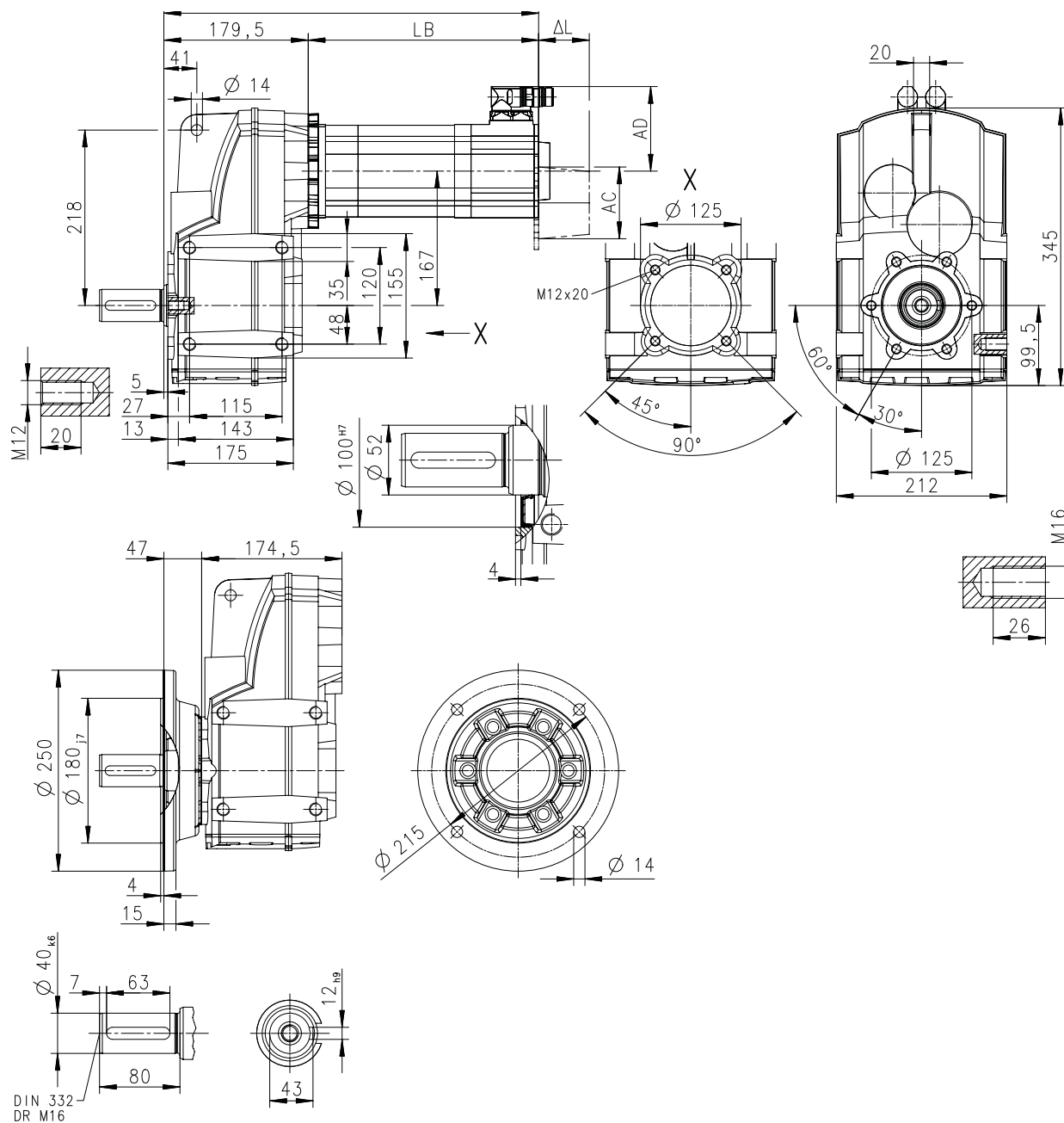


Technical data

Dimensions
Basic dimensions

g500-S950, 2-/3-stage with MCS09

Gearbox version: Solid shaft with foot (VAR/VBR/VAK)

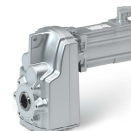


8800336-02

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	363	383	403	443
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71	71	71	71
Motor diameter	AC	mm	89	89	89	89
Motor/connection distance	AD	mm	90	90	90	90

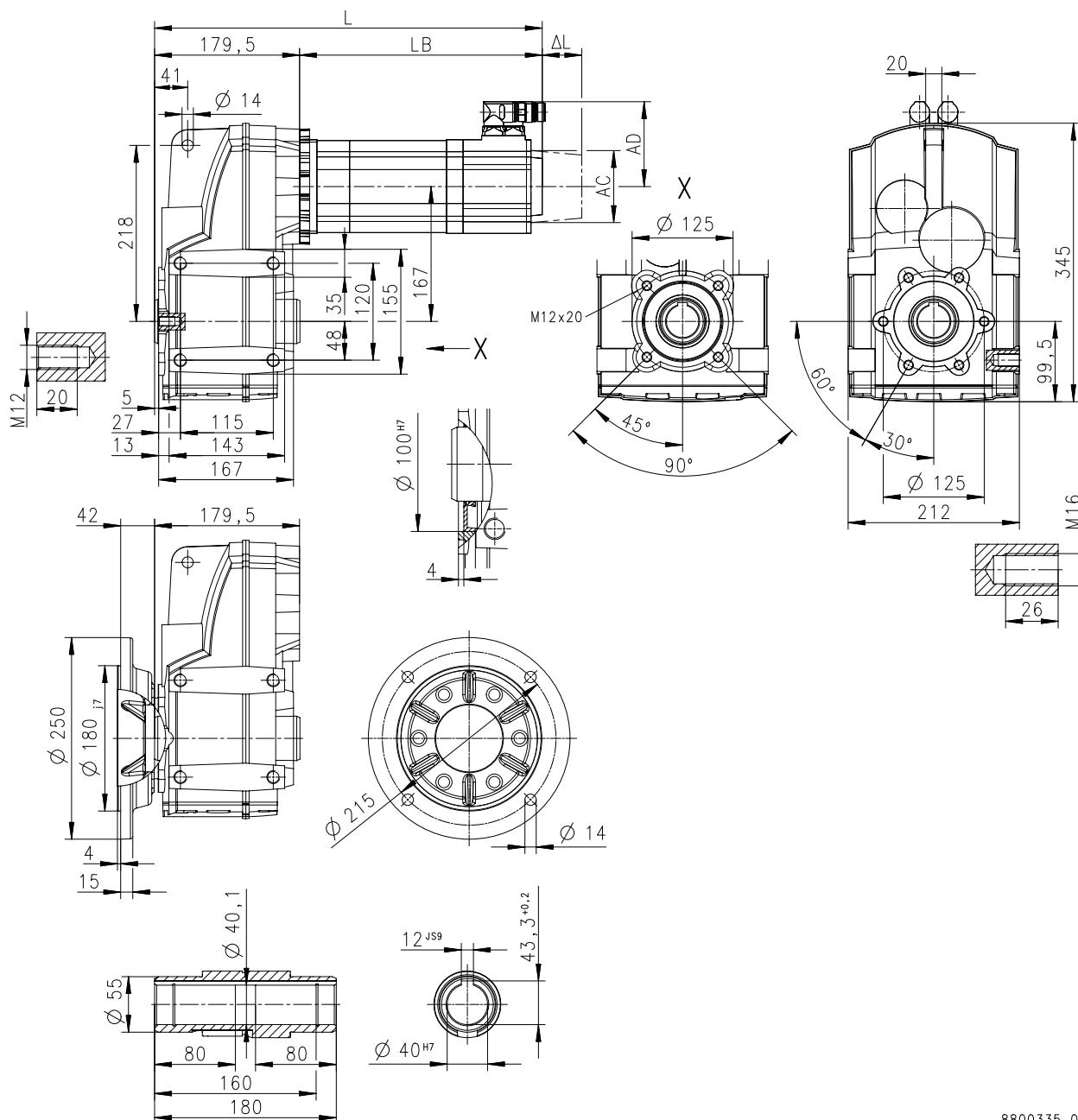
Technical data

Dimensions
Basic dimensions



g500-S950, 2-/3-stage with MCS12

Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)



8800335-03

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	453	380	453	380	493	420
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

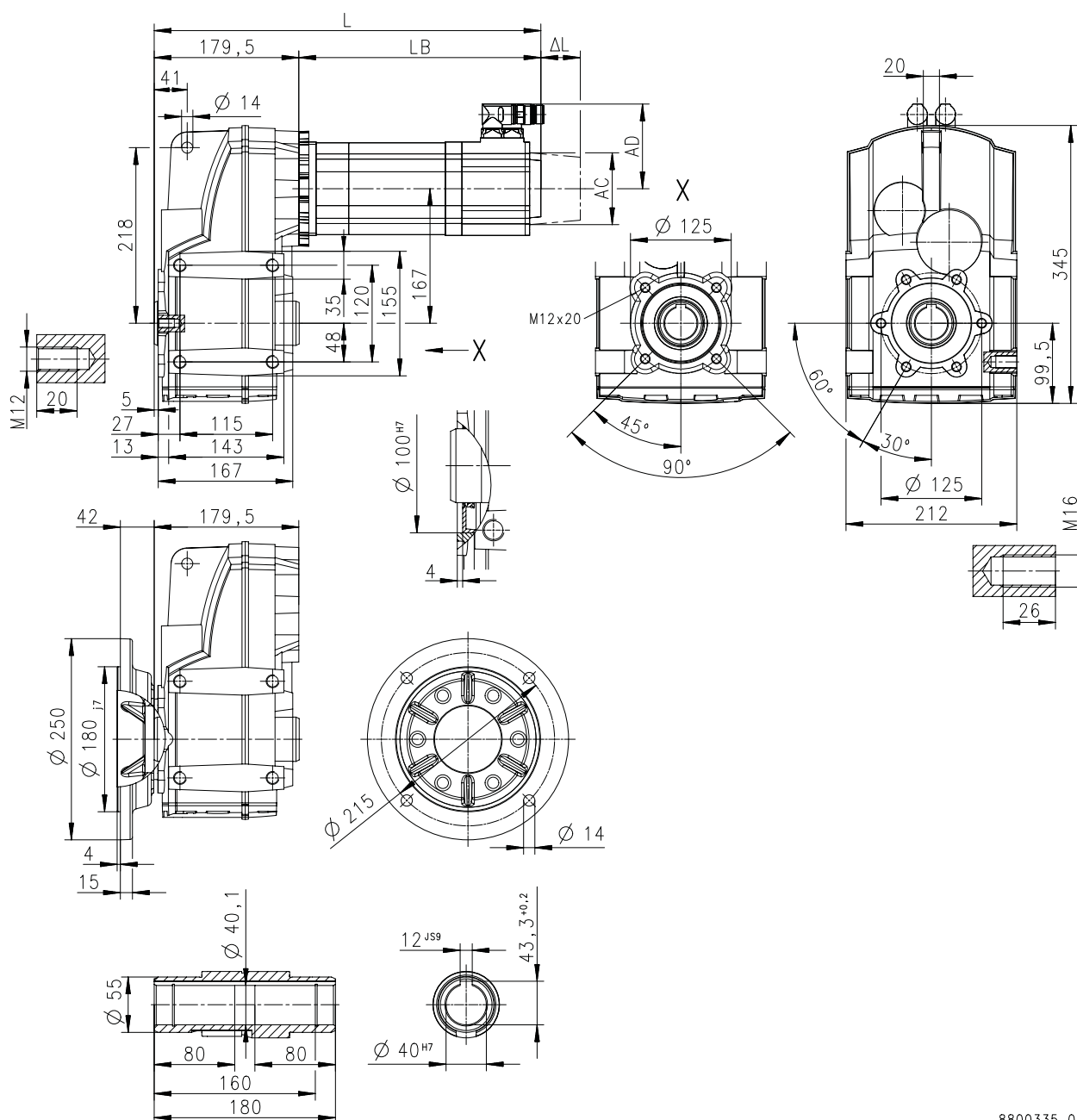


Technical data

Dimensions
Basic dimensions

g500-S950, 2-/3-stage with MCS12

Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)

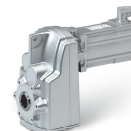


8800335-03

Motor			MCS					
			12H34-	12H35 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	493	420	533	460	533	460
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

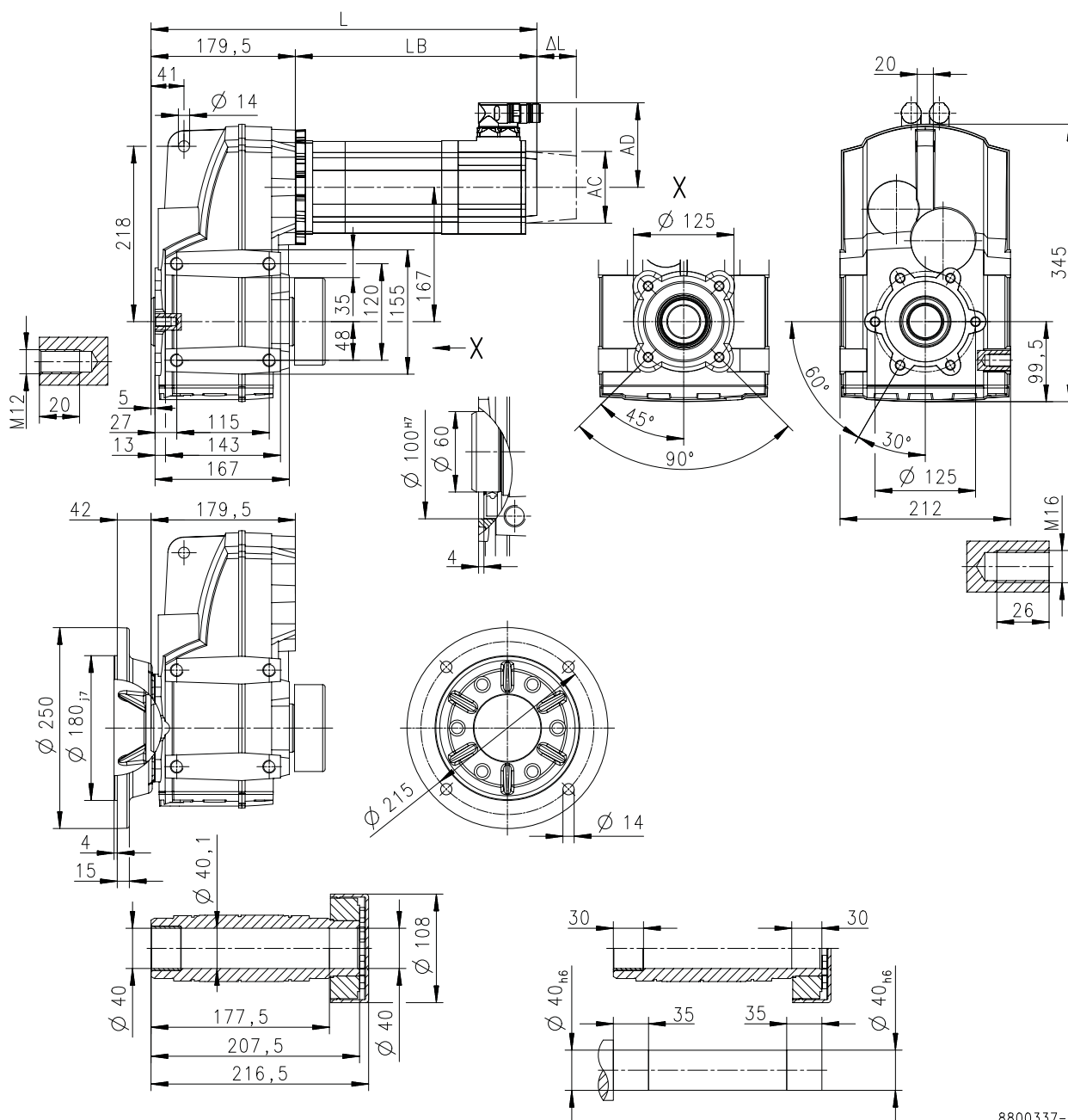
Technical data

Dimensions
Basic dimensions



g500-S950, 2-/3-stage with MCS12

Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)

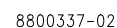


8800337-02

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	453	380	453	380	493	420
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

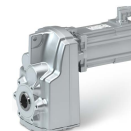


Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)

235

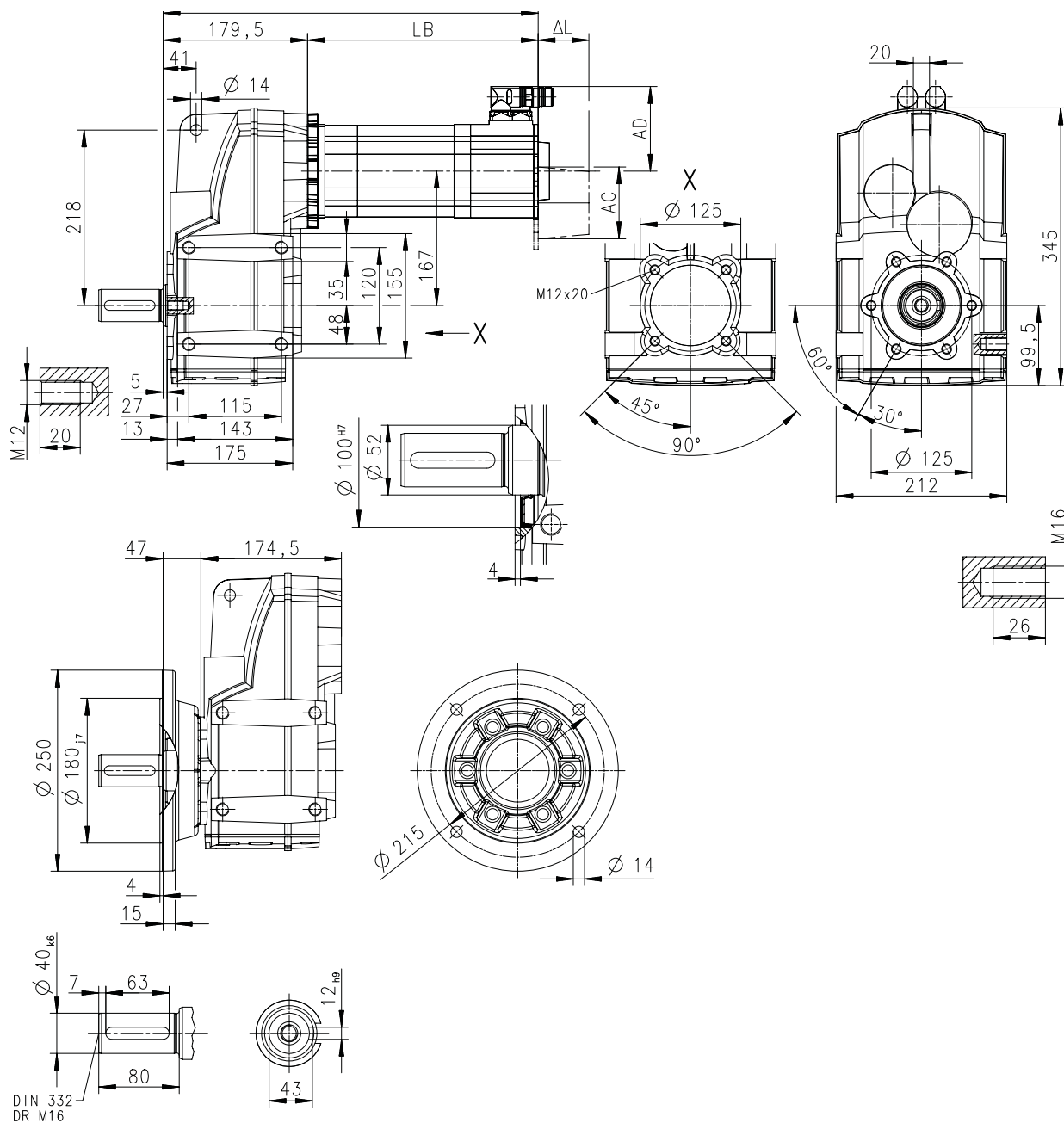
Technical data

Dimensions
Basic dimensions



g500-S950, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot (VAR/VBR/VAK)

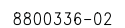


8800336-02

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	453	380	453	380	493	420
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

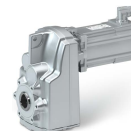


Gearbox version: Solid shaft with foot (VAR/VBR/VAK)

237

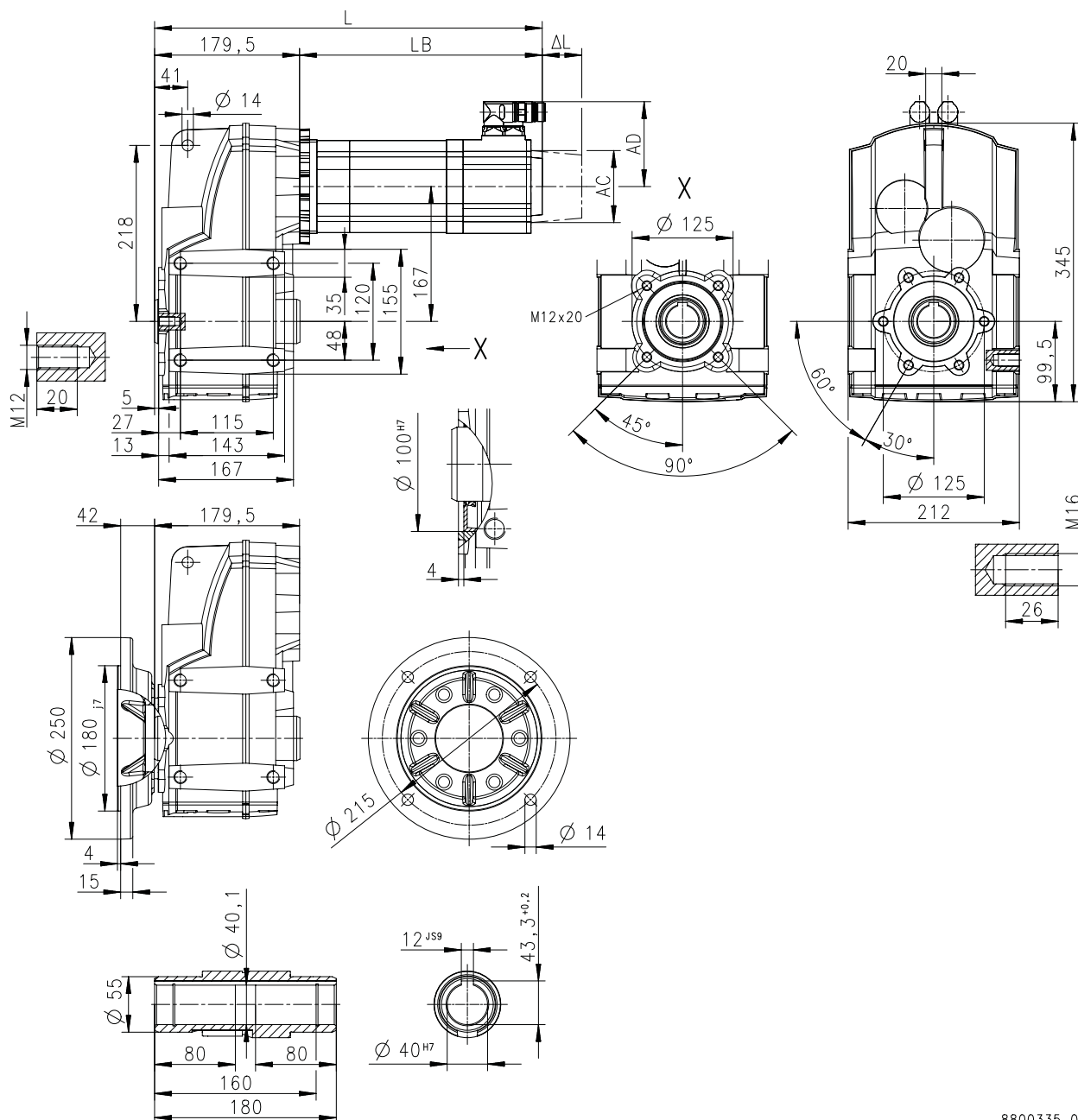
Technical data

Dimensions
Basic dimensions



g500-S950, 2-/3-stage with MCS14

Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)

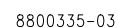


8800335-03

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	484	396	484	396	524	436	524	436
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117



Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)

239

Dimensions
Basic dimensions

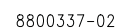


8800337-02

[illegible]



Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)

241

Dimensions

Basic dimensions

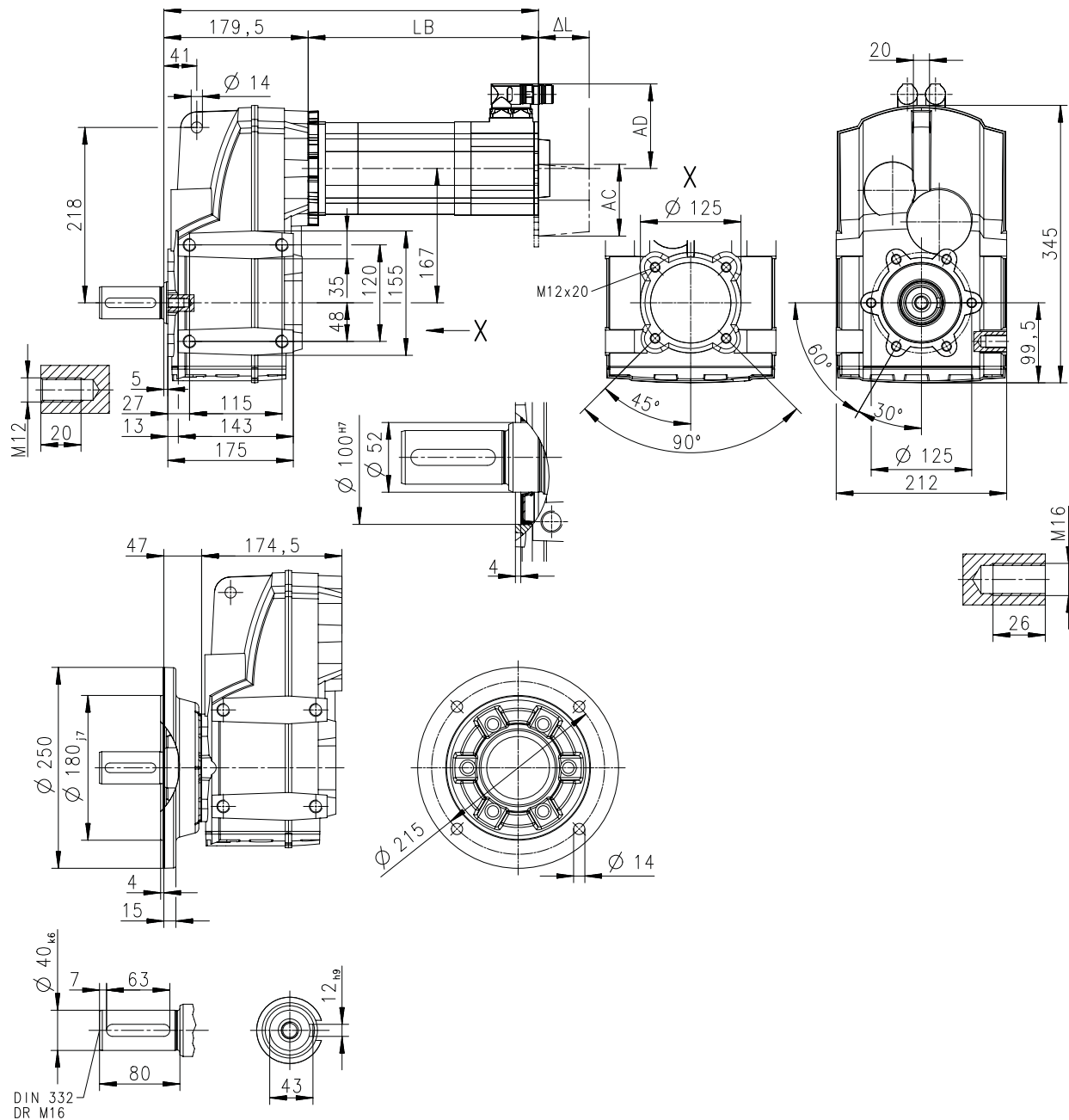


Technical data

Dimensions
Basic dimensions

g500-S950, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot (VAR/VBR/VAK)



8800336-02

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	564	476	564	476	604	516	604	516
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

Dimensions

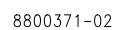
Basic dimensions

[illegible]

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	335	365	395
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		



Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)

245

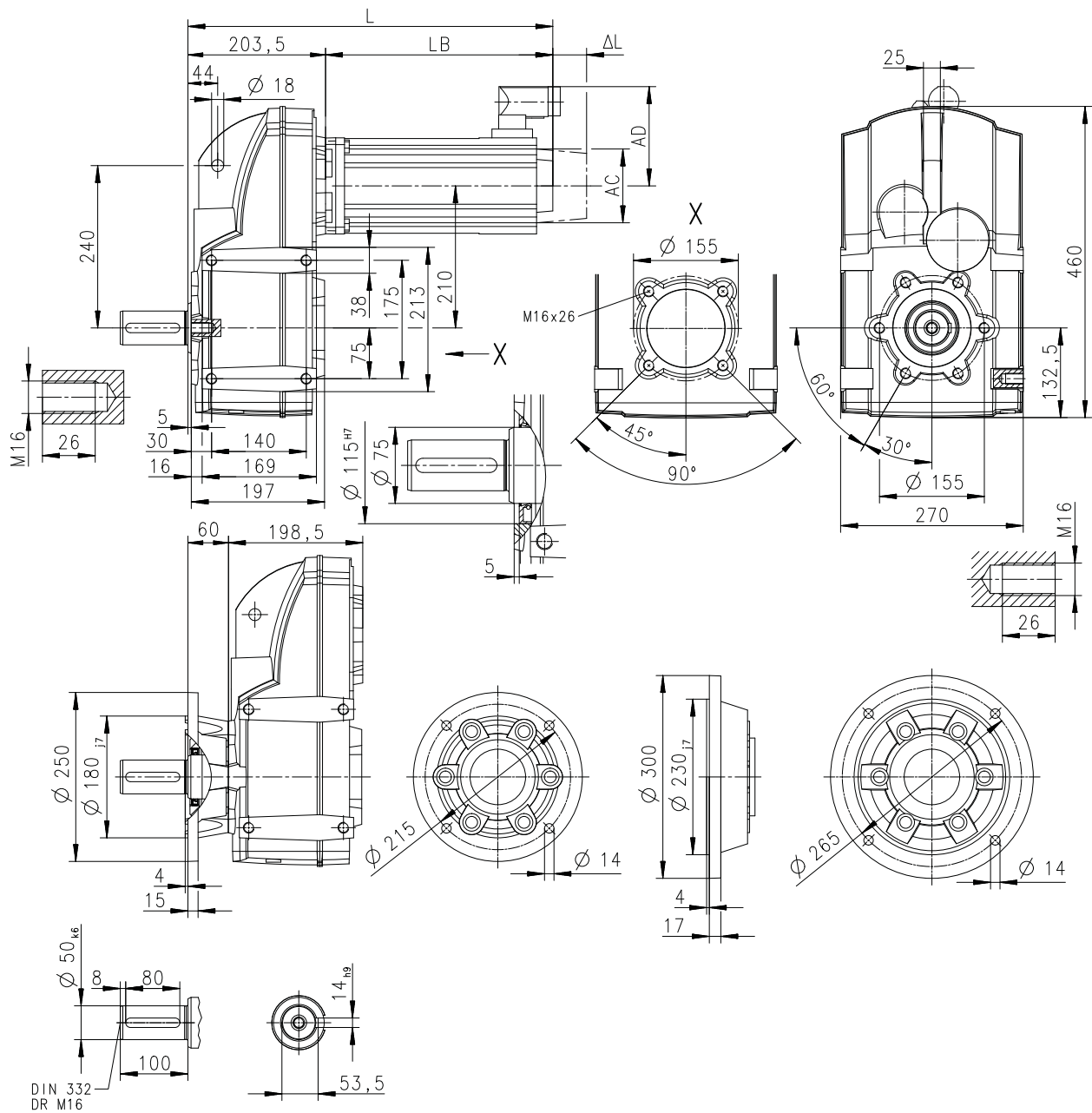
Technical data

Dimensions
Basic dimensions



g500-S2100, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot (VAR/VBR/VAK)



8800370-02

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	335	365	395
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

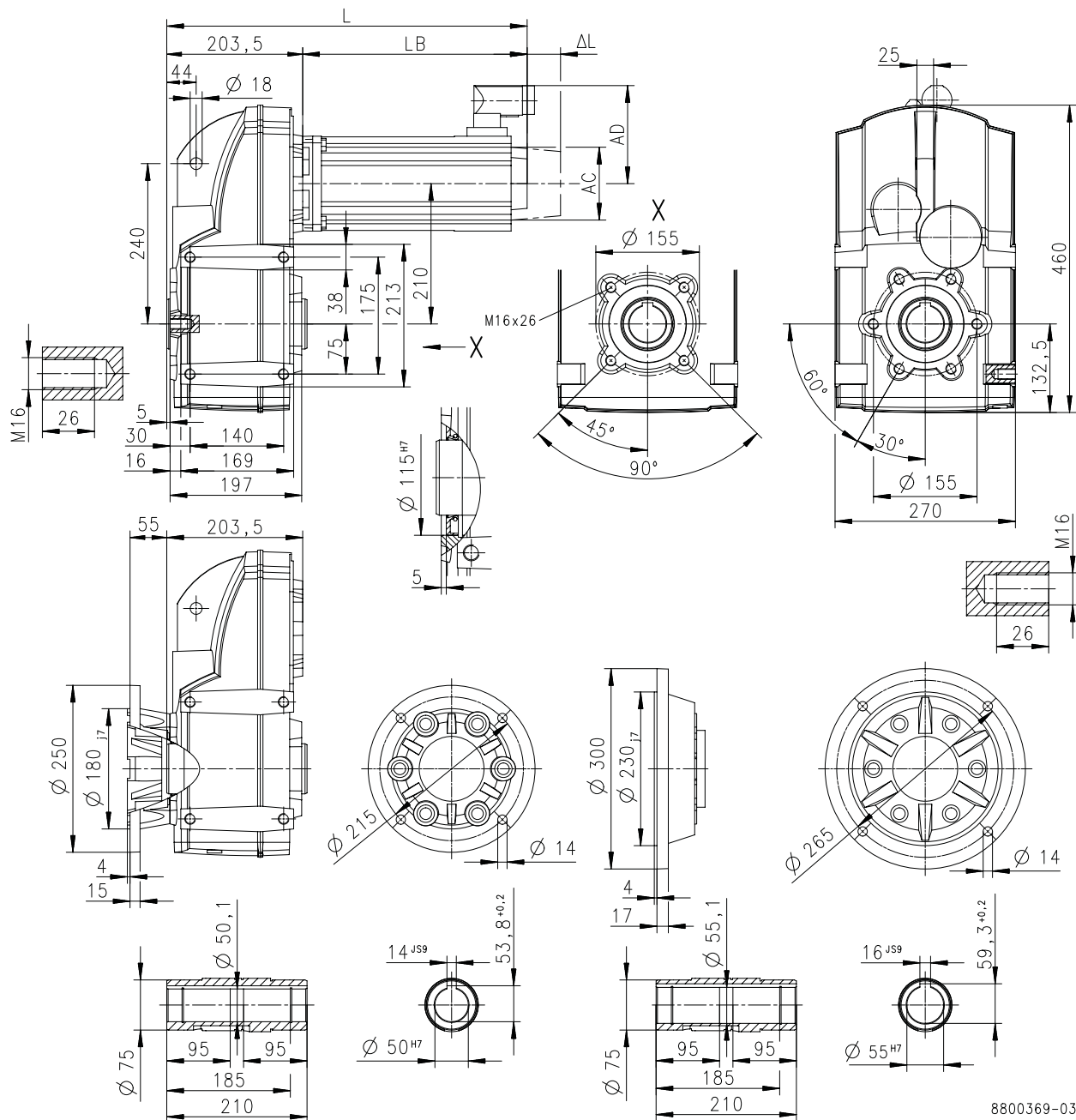


Technical data

Dimensions
Basic dimensions

g500-S2100, 2-/3-stage with MCS09

Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)

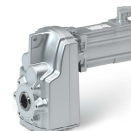


8800369-03

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	387	407	427	467
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

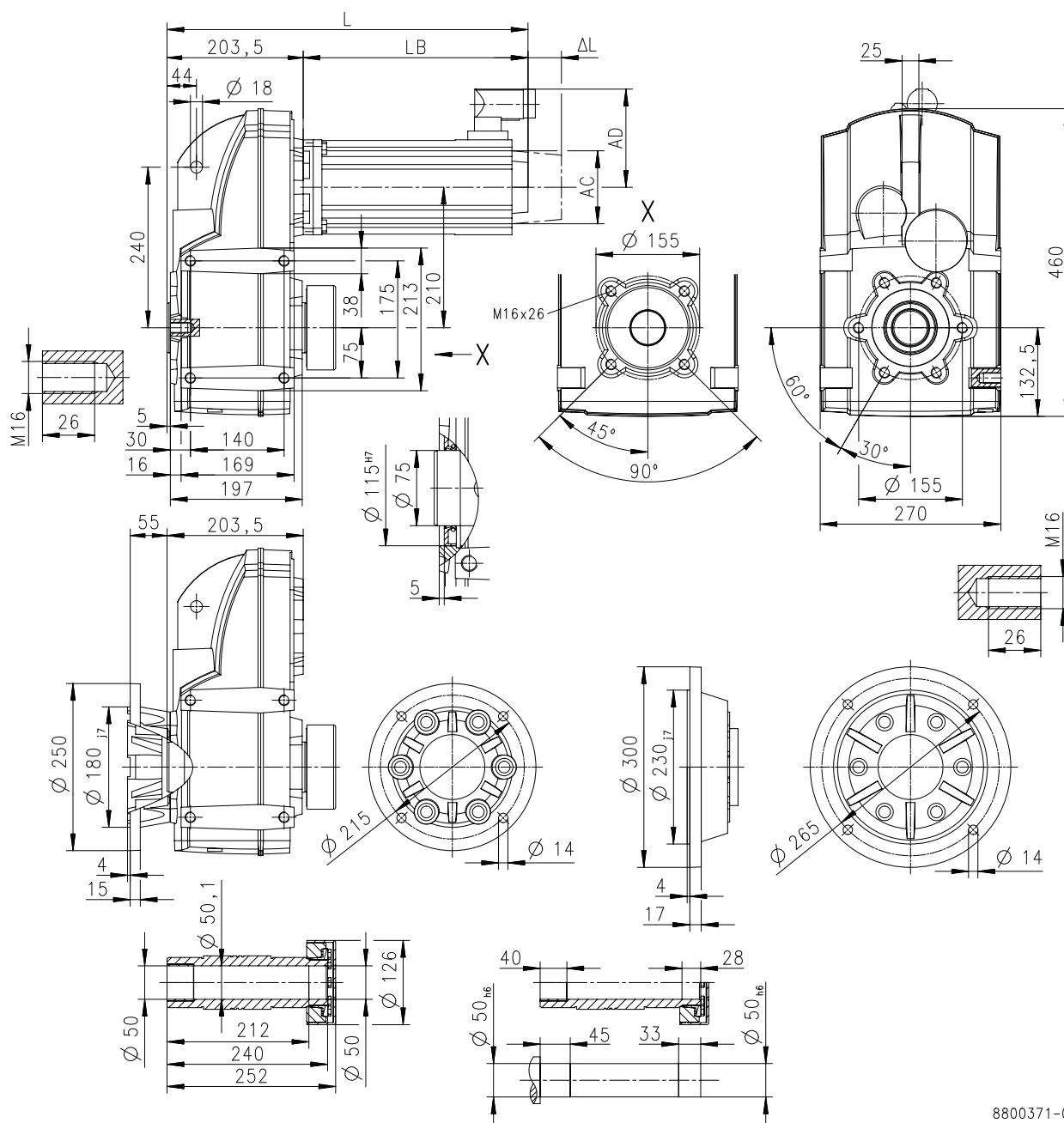
Technical data

Dimensions
Basic dimensions



g500-S2100, 2-/3-stage with MCS09

Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)

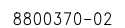


8800371-02

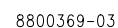
Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	387	407	427	467
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			



Gearbox version: Solid shaft with foot (VAR/VBR/VAK)

249

Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)

250

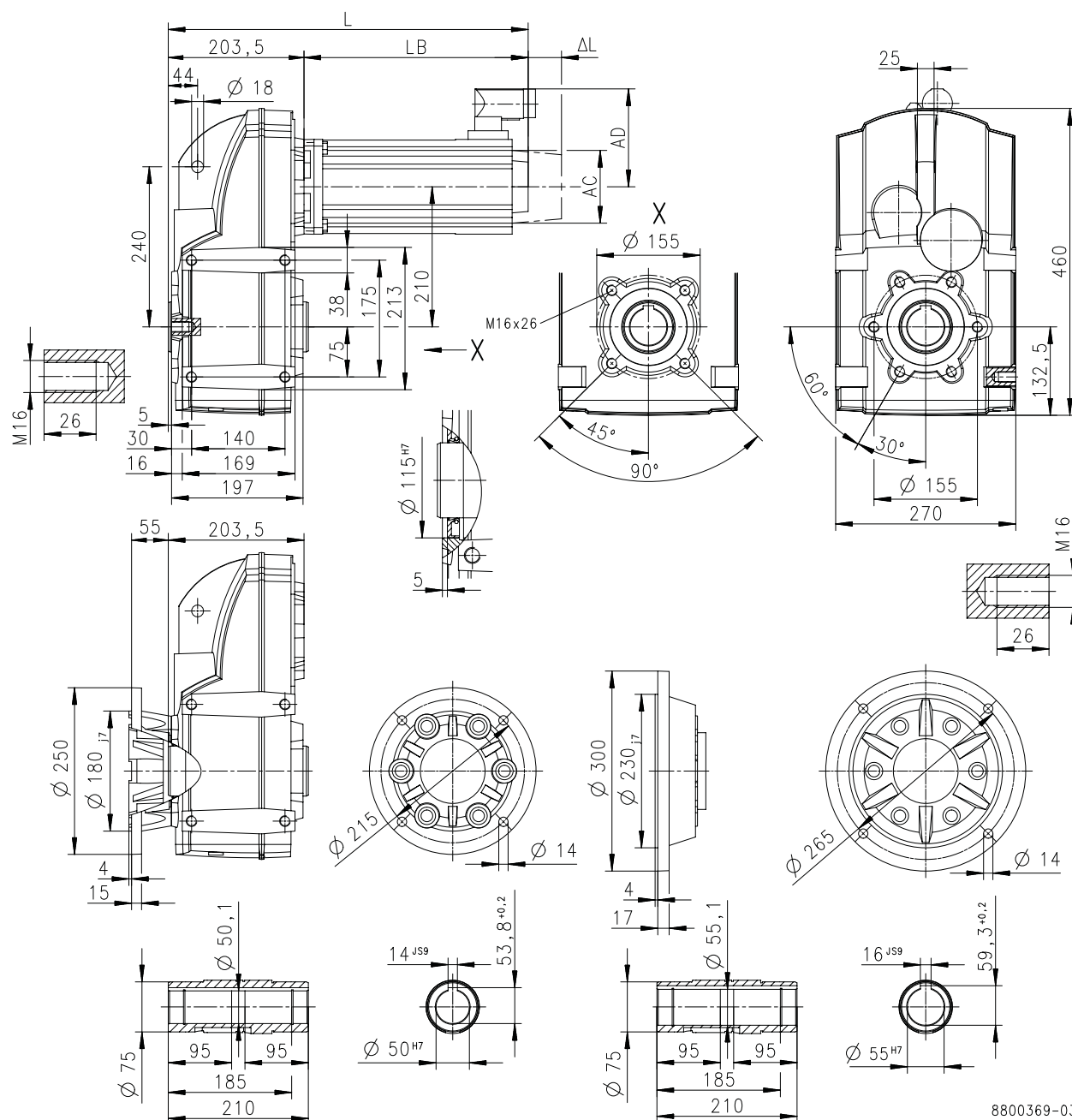


Technical data

Dimensions
Basic dimensions

g500-S2100, 2-/3-stage with MCS12

Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)



8800369-03

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	517	444	557	484	557	484
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

Dimensions

Basic dimensions



Technical drawing of a 100 mm diameter, 100 mm stroke pneumatic cylinder, model 8800371-4. The drawing includes multiple views: front, side, end, and detail views. Key dimensions are provided in millimeters.

Front View Dimensions:

- Total length: 203,5
- Stroke: 100
- Diameter: $\varnothing 100$
- Mounting bracket height: 140
- Mounting bracket width: 26
- Mounting bracket thickness: 5
- Mounting bracket hole diameter: $\varnothing 18$
- Mounting bracket hole position: 44
- Mounting bracket hole offset: 16
- Mounting bracket hole offset: 30
- Mounting bracket hole offset: 140
- Mounting bracket hole offset: 169
- Mounting bracket hole offset: 197

Side View Dimensions:

- Total height: 240
- Mounting bracket height: 140
- Mounting bracket width: 26
- Mounting bracket thickness: 5
- Mounting bracket hole diameter: $\varnothing 18$
- Mounting bracket hole position: 44
- Mounting bracket hole offset: 16
- Mounting bracket hole offset: 30
- Mounting bracket hole offset: 140
- Mounting bracket hole offset: 169
- Mounting bracket hole offset: 197

End View Dimensions:

- Diameter: $\varnothing 155$
- Mounting bracket height: 132,5
- Mounting bracket width: 26
- Mounting bracket thickness: 5
- Mounting bracket hole diameter: $\varnothing 18$
- Mounting bracket hole position: 44
- Mounting bracket hole offset: 16
- Mounting bracket hole offset: 30
- Mounting bracket hole offset: 140
- Mounting bracket hole offset: 169
- Mounting bracket hole offset: 197

Detail View Dimensions:

- Mounting bracket hole diameter: $\varnothing 18$
- Mounting bracket hole position: 44
- Mounting bracket hole offset: 16
- Mounting bracket hole offset: 30
- Mounting bracket hole offset: 140
- Mounting bracket hole offset: 169
- Mounting bracket hole offset: 197

Other Dimensions:

- Stroke: 100
- Mounting bracket height: 140
- Mounting bracket width: 26
- Mounting bracket thickness: 5
- Mounting bracket hole diameter: $\varnothing 18$
- Mounting bracket hole position: 44
- Mounting bracket hole offset: 16
- Mounting bracket hole offset: 30
- Mounting bracket hole offset: 140
- Mounting bracket hole offset: 169
- Mounting bracket hole offset: 197

8800371-02

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	477	404	477	404	517	444
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

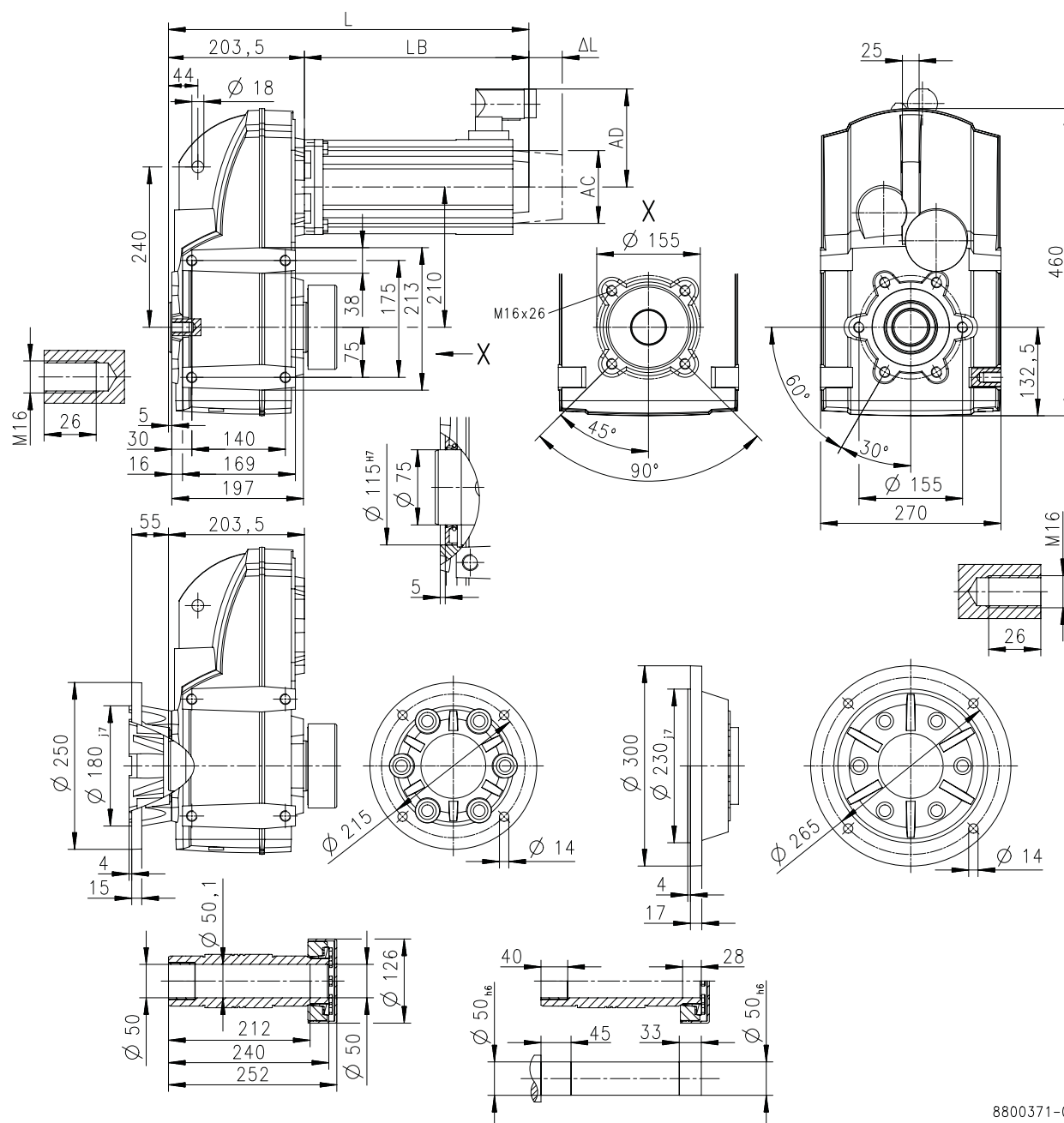


Technical data

Dimensions
Basic dimensions

g500-S2100, 2-/3-stage with MCS12

Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)

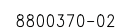


8800371-02

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	517	444	557	484	557	484
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

Dimensions

Basic dimensions

254

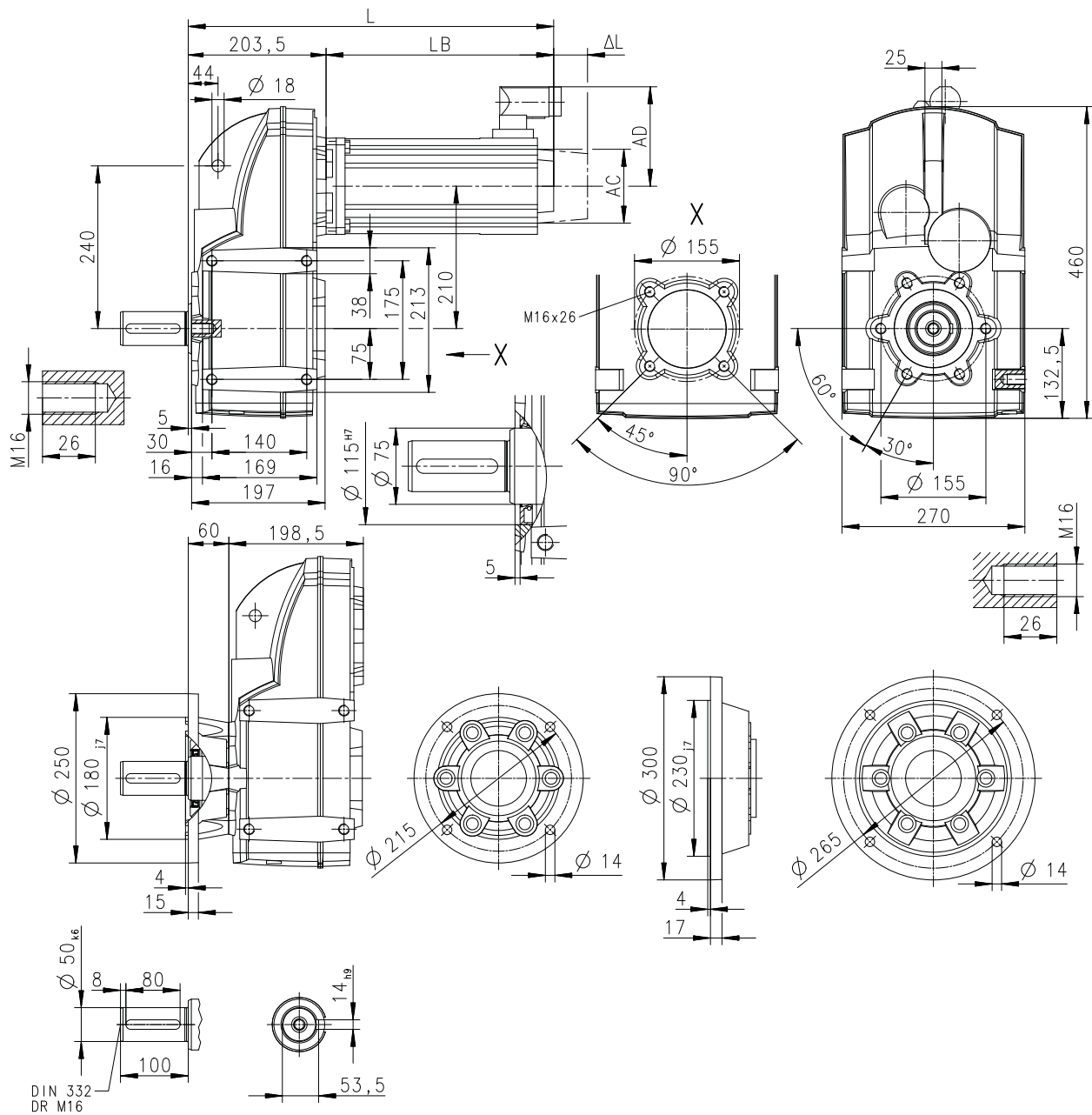


Technical data

Dimensions
Basic dimensions

g500-S2100, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot (VAR/VBR/VAK)

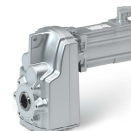


8800370-02

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	517	444	557	484	557	484
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

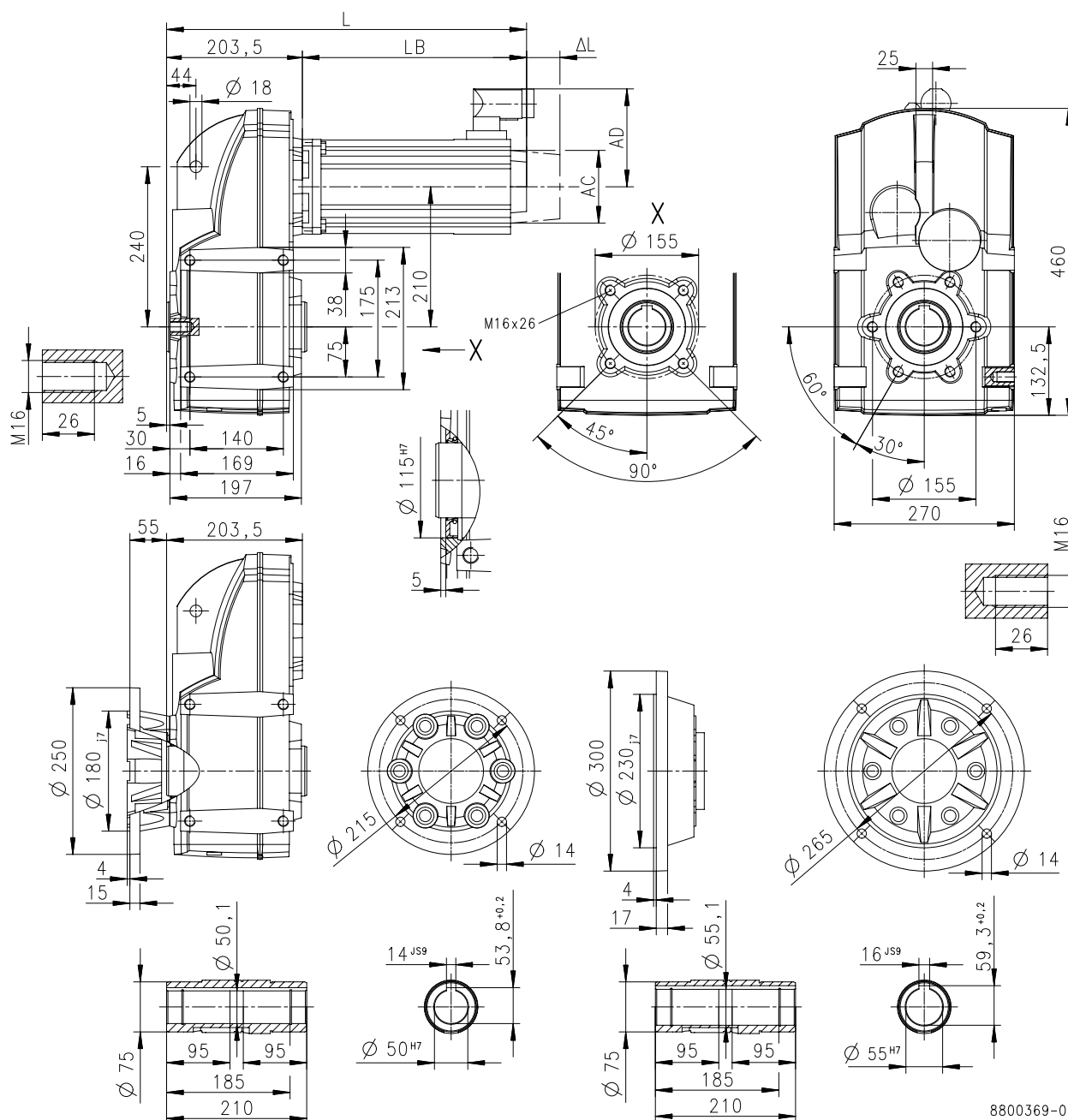
Technical data

Dimensions
Basic dimensions



g500-S2100, 2-/3-stage with MCS14

Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)

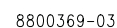


8800369-03

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	508	420	508	420	548	460	548	460
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117

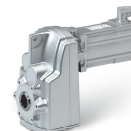


Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)

257

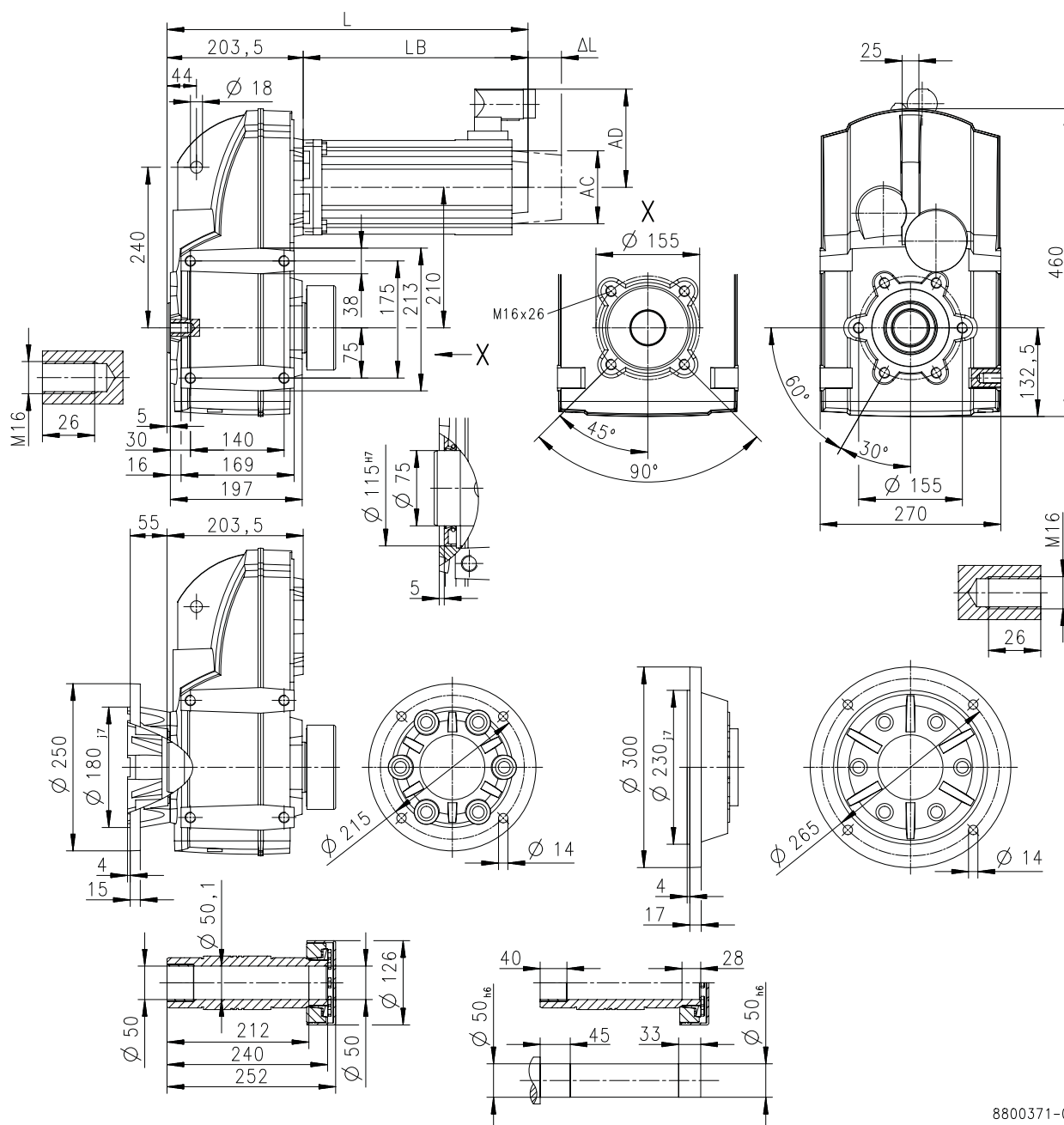
Technical data

Dimensions
Basic dimensions



g500-S2100, 2-/3-stage with MCS14

Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)

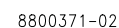


8800371-02

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	508	420	508	420	548	460	548	460
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117



Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)

259

Dimensions

Basic dimensions



Dimensions

Basic dimensions

[illegible]

8800369-03

Motor			MCS									
			19F12-	19F14-	19F29-	19F30-	19J12- 19J29-	19J14-	19J30-	19P12- 19P29-	19P14-	19P30-
Cooling type			Blower	natural	Blower	natural	Blower	natural	natural	Blower	natural	natural
Total length	L	mm	566	459	566	459	606	499	499	606	559	559
Motor length	LB	mm	362	255	362	255	402	295	295	402	355	355
Length of motor options	Δ L	mm	72	93	72	93	72	93	93	72	93	93
Motor diameter	AC	mm	212	192	212	192	212	192	192	212	192	192
Motor/connection distance	AD	mm	142	142	171	171	171	142	171	171	171	171

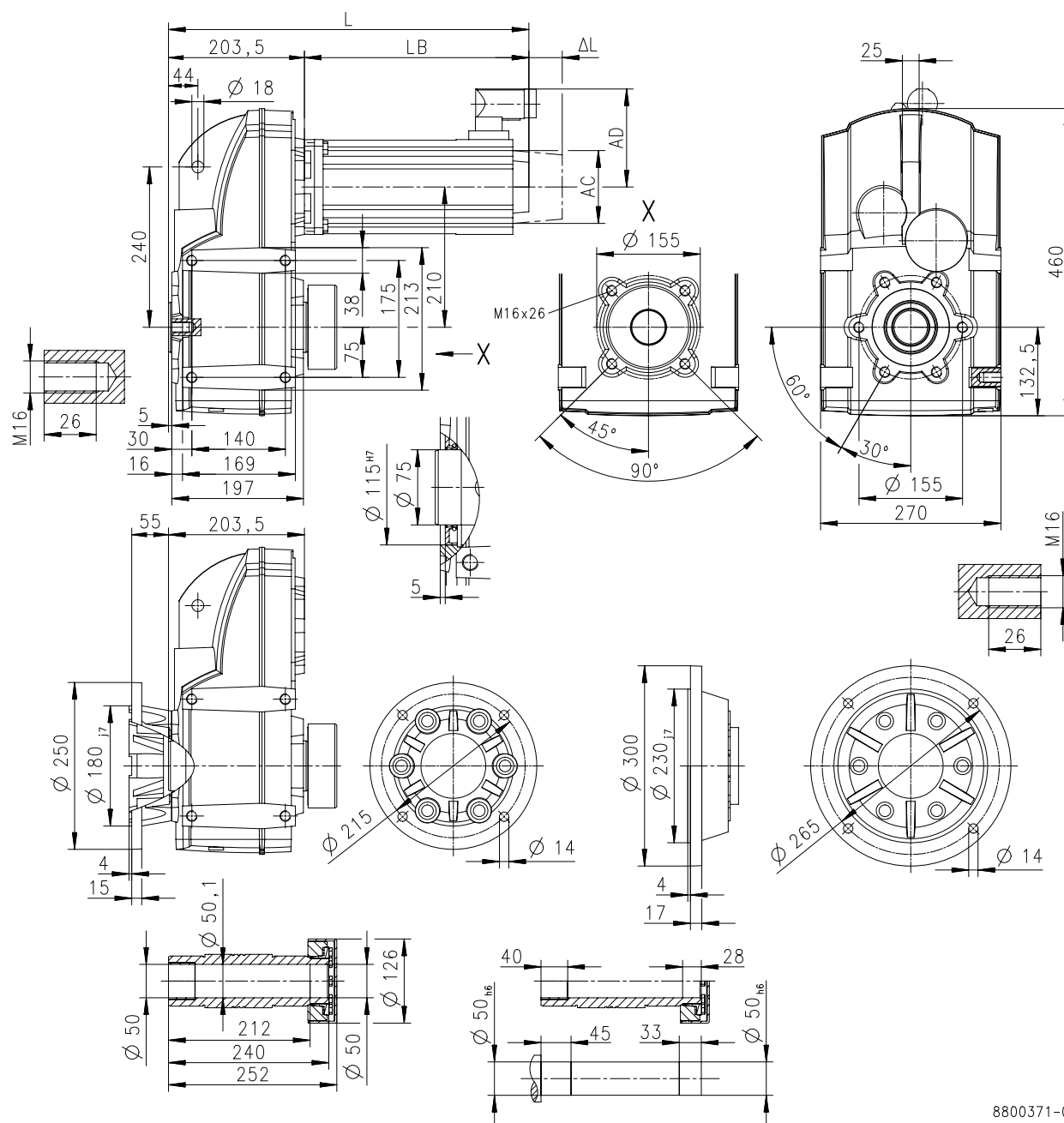


Technical data

Dimensions
Basic dimensions

g500-S2100, 2-/3-stage with MCS19

Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)

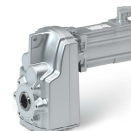


8800371-02

Motor			MCS									
			19F12-	19F14-	19F29-	19F30-	19J12- 19J29-	19J14-	19J30-	19P12- 19P29-	19P14-	19P30-
Cooling type			Blower	natural	Blower	natural	Blower	natural	natural	Blower	natural	natural
Total length	L	mm	566	459	566	459	606	499	499	606	559	559
Motor length	LB	mm	362	255	362	255	402	295	295	402	355	355
Length of motor options	Δ L	mm	72	93	72	93	72	93	93	72	93	93
Motor diameter	AC	mm	212	192	212	192	212	192	192	212	192	192
Motor/connection distance	AD	mm	142	142	171	171	171	142	171	171	171	171

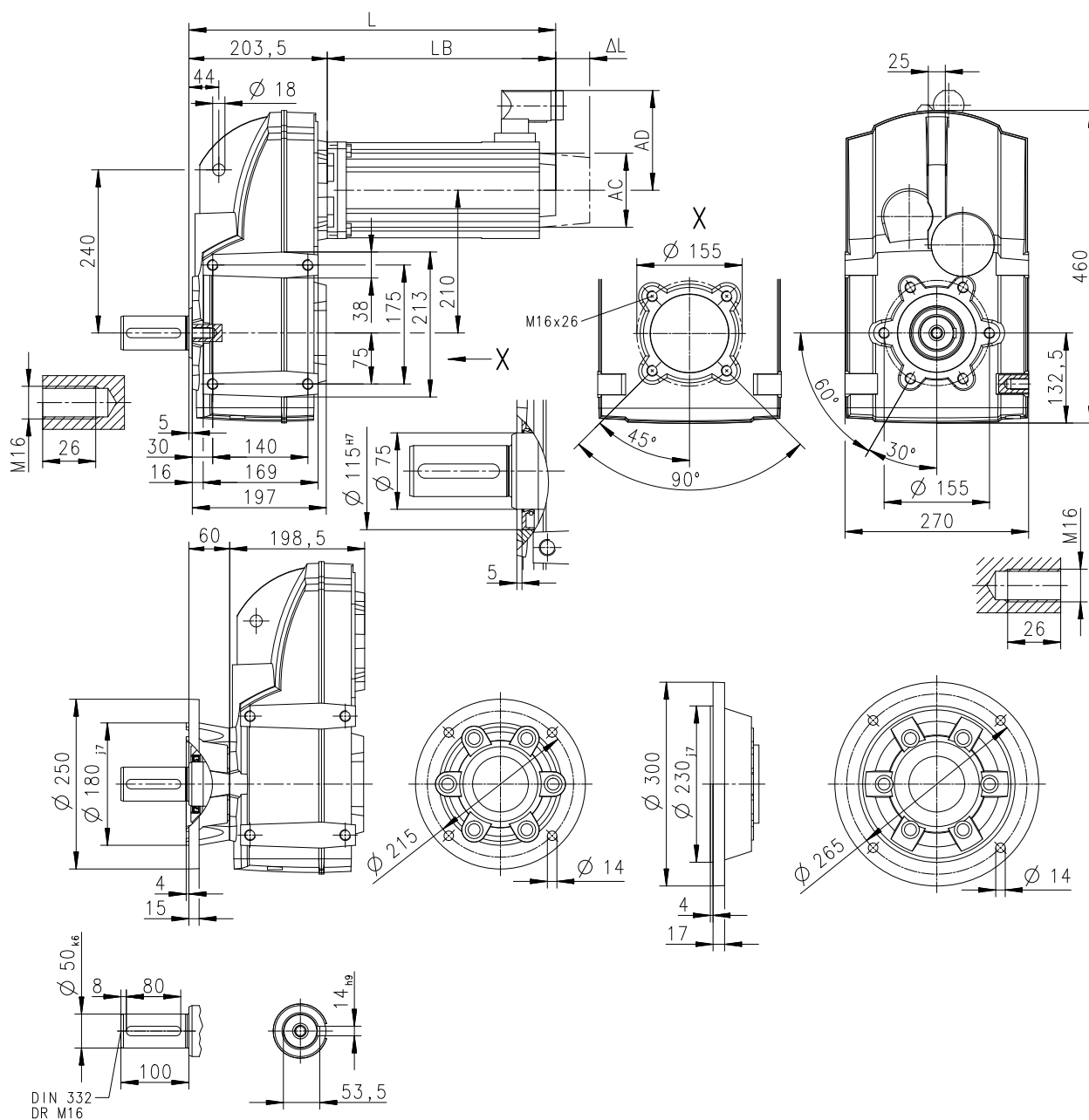
Technical data

Dimensions
Basic dimensions



g500-S2100, 2-/3-stage with MCS19

Gearbox version: Solid shaft with foot (VAR/VBR/VAK)



8800370-02

Motor			MCS								
			19F12-	19F14-	19F29-	19F30-	19J12- 19J29-	19J14-	19J30-	19P12- 19P29-	19P14- 19P30-
Cooling type			Blower	natural	Blower	natural	Blower	natural	natural	Blower	natural
Total length	L	mm	566	459	566	459	606	499	499	606	559
Motor length	LB	mm	362	255	362	255	402	295	295	402	355
Length of motor options	Δ L	mm	72	93	72	93	72	93	93	72	93
Motor diameter	AC	mm	212	192	212	192	212	192	192	212	192
Motor/connection distance	AD	mm	142	142	171	171	171	142	171	171	171

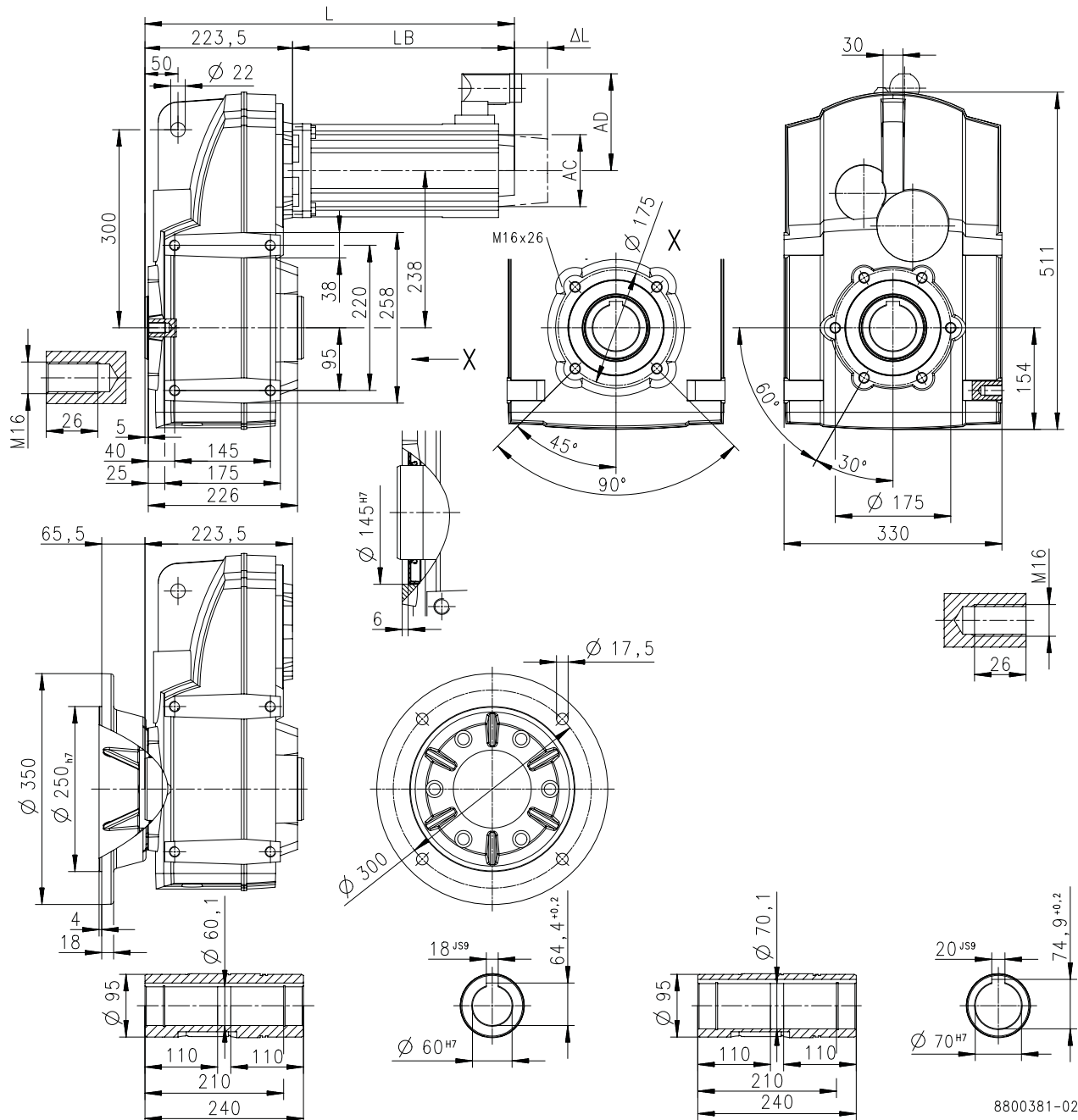


Technical data

Dimensions
Basic dimensions

g500-S3100, 2-/3-stage with MCS06

Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)



8800381-02

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	355	385	415
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm		82	
Motor diameter	AC	mm		86	
Motor/connection distance	AD	mm		77	

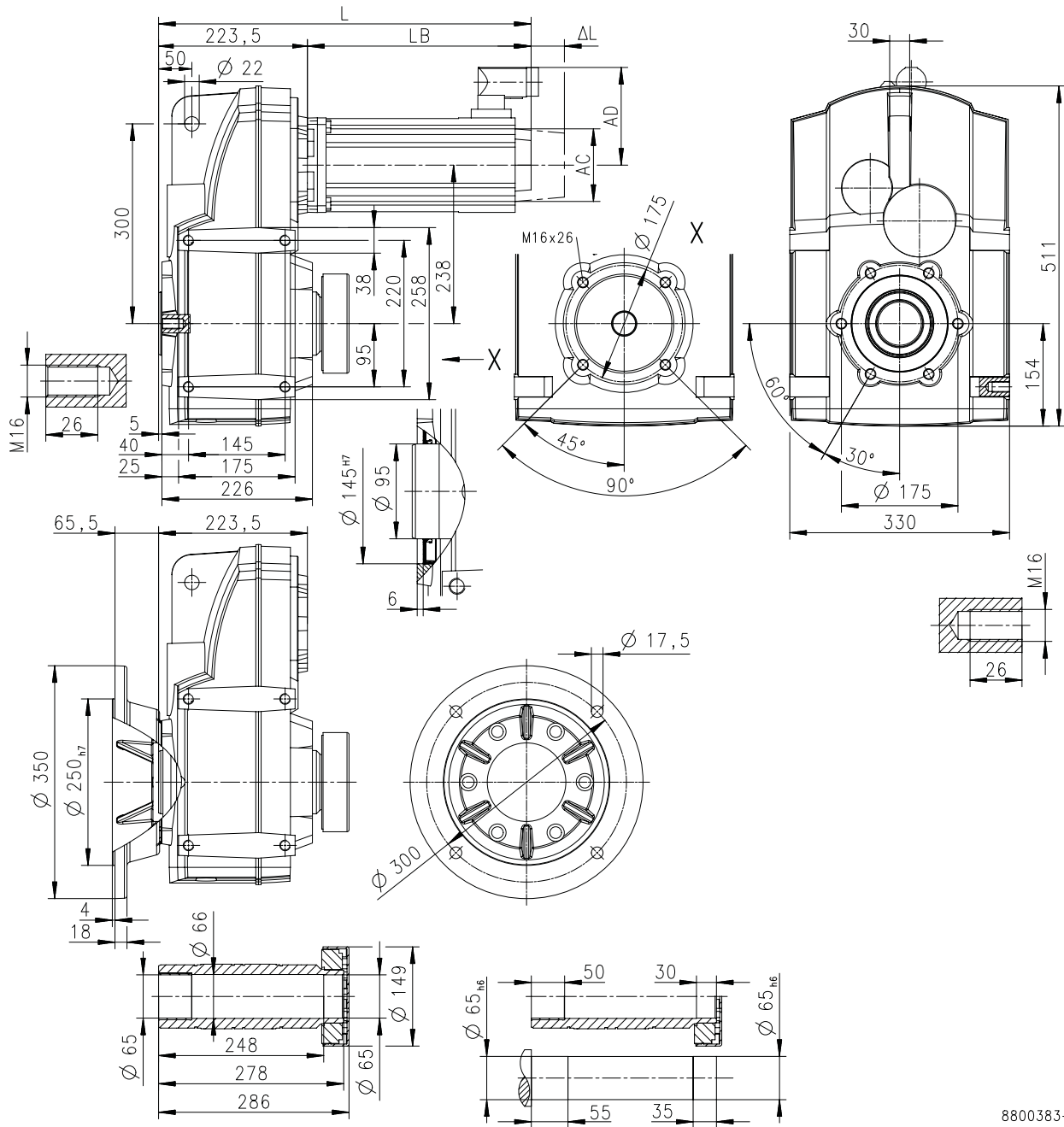
Technical data

Dimensions
Basic dimensions



g500-S3100, 2-/3-stage with MCS06

Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)



8800383-01

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	355	385	415
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

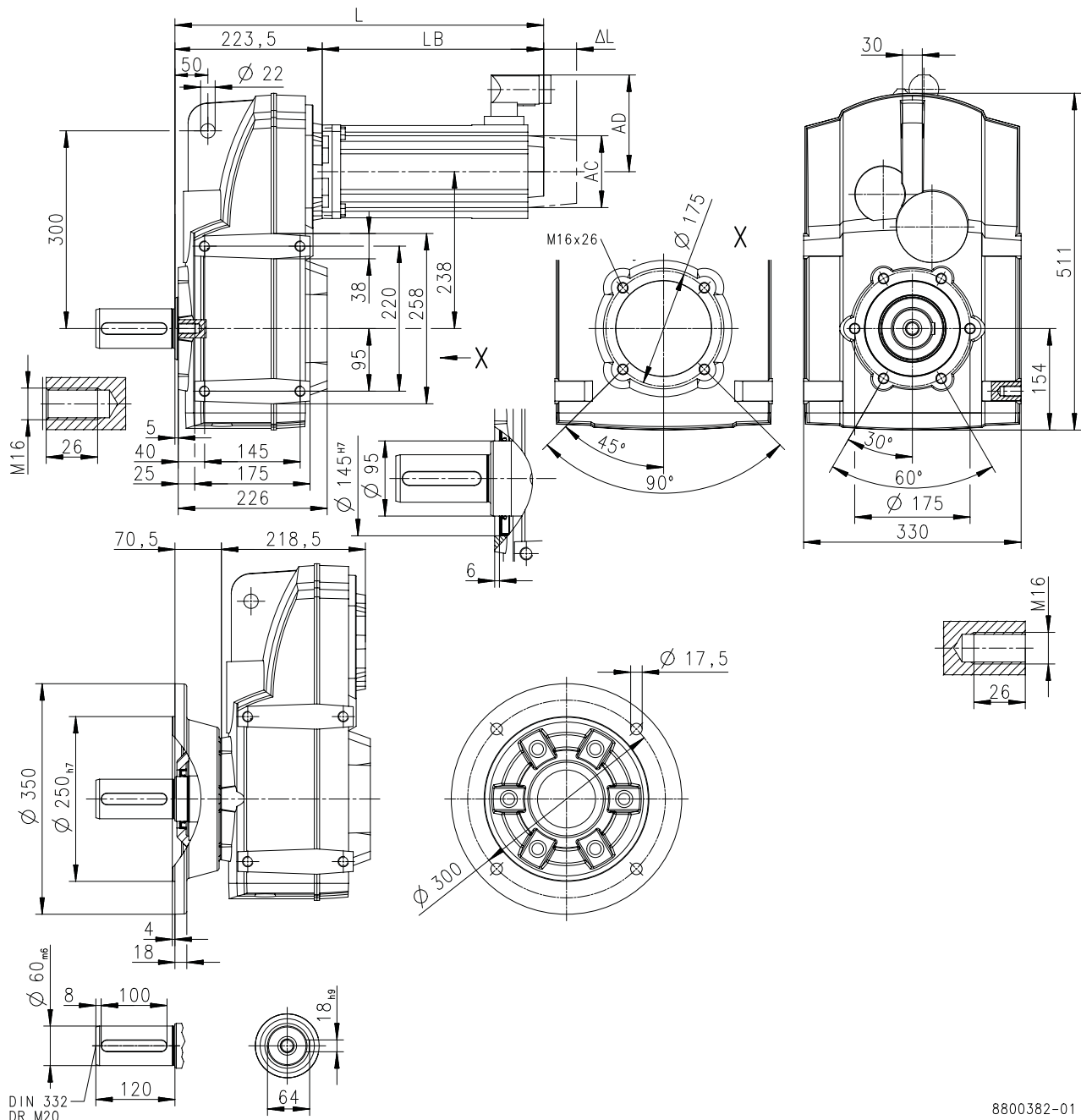


Technical data

Dimensions
Basic dimensions

g500-S3100, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot (VAR/VBR/VAK)

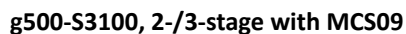


8800382-01

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	355	385	415
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

Dimensions

Basic dimensions

[illegible]

8800381-02

268

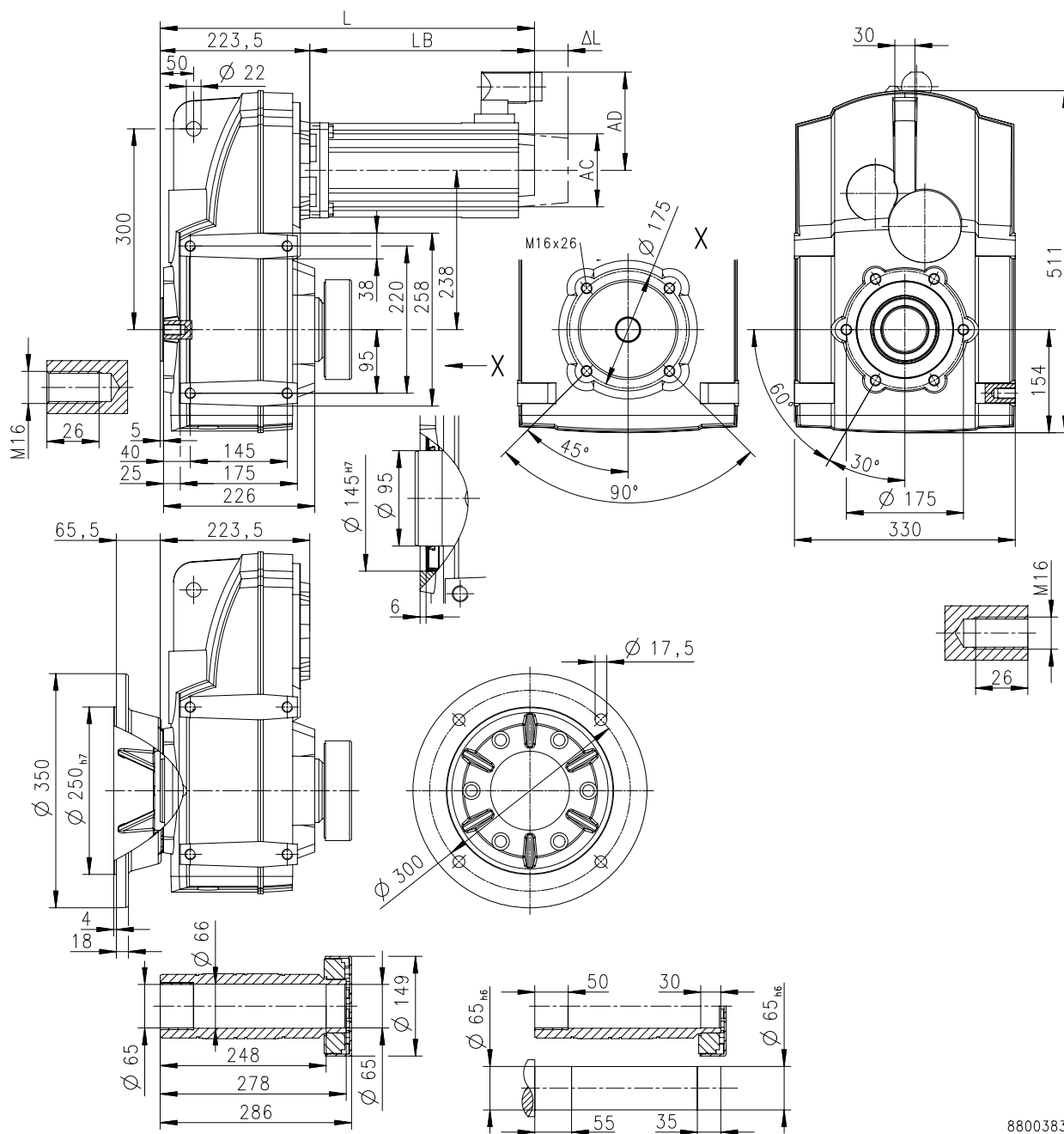


Technical data

Dimensions
Basic dimensions

g500-S3100, 2-/3-stage with MCS09

Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)

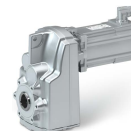


8800383-01

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	407	427	447	487
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

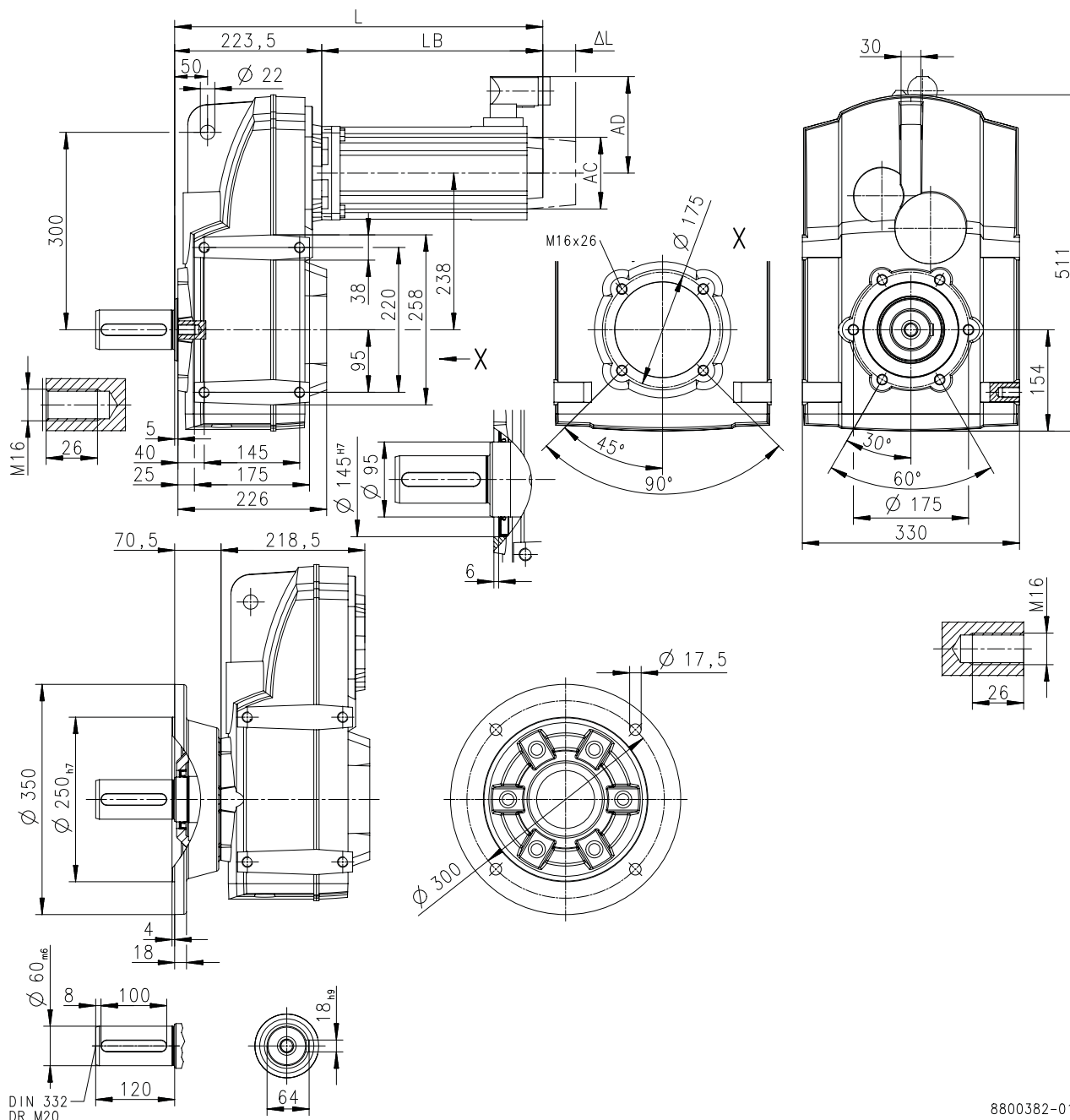
Technical data

Dimensions
Basic dimensions



g500-S3100, 2-/3-stage with MCS09

Gearbox version: Solid shaft with foot (VAR/VBR/VAK)



8800382-01

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	407	427	447	487
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

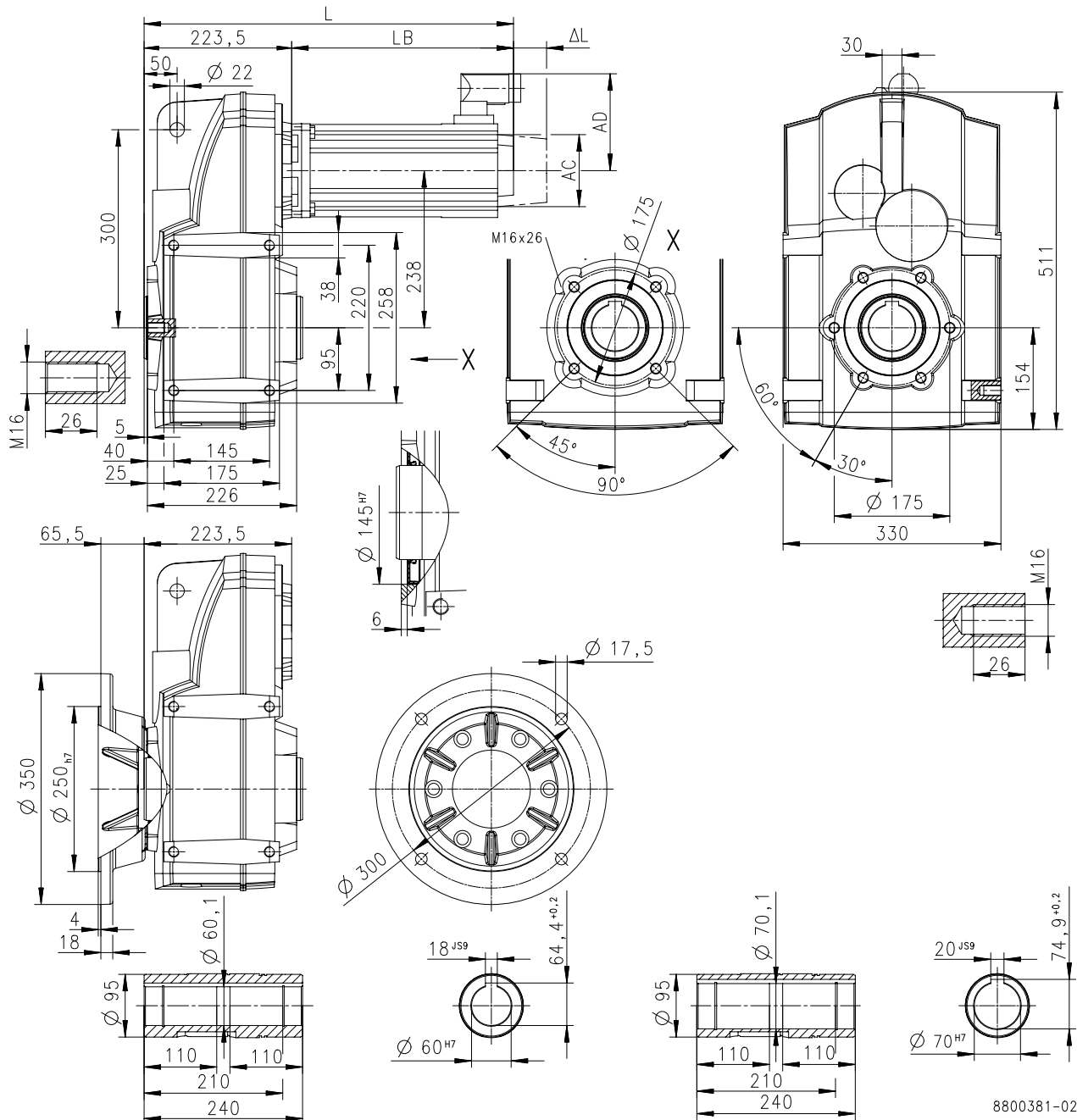


Technical data

Dimensions
Basic dimensions

g500-S3100, 2-/3-stage with MCS12

Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)

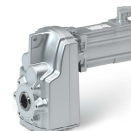


8800381-02

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	497	424	497	424	537	464
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

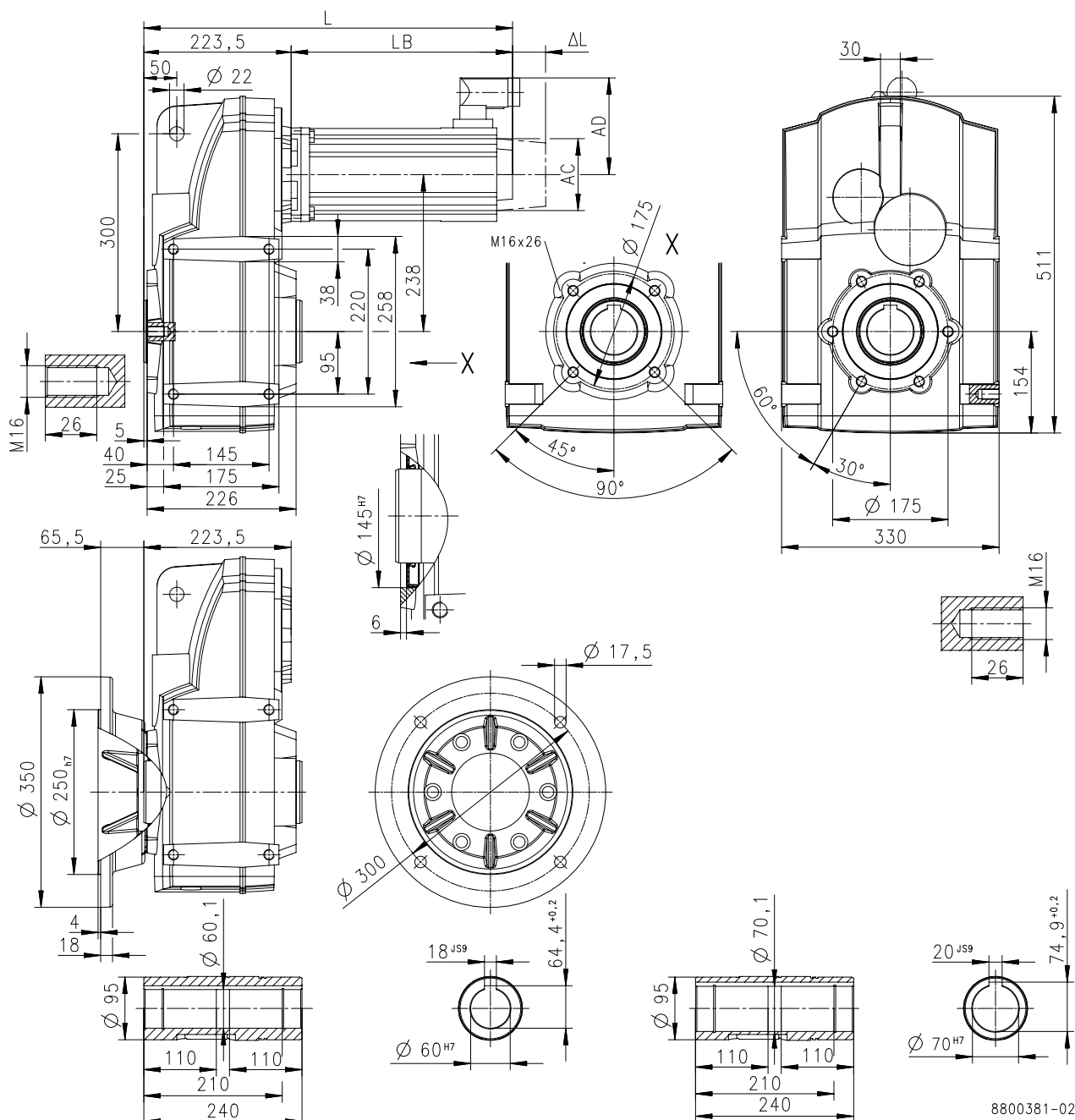
Technical data

Dimensions
Basic dimensions



g500-S3100, 2-/3-stage with MCS12

Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)



8800381-02

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	537	464	577	504	577	504
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

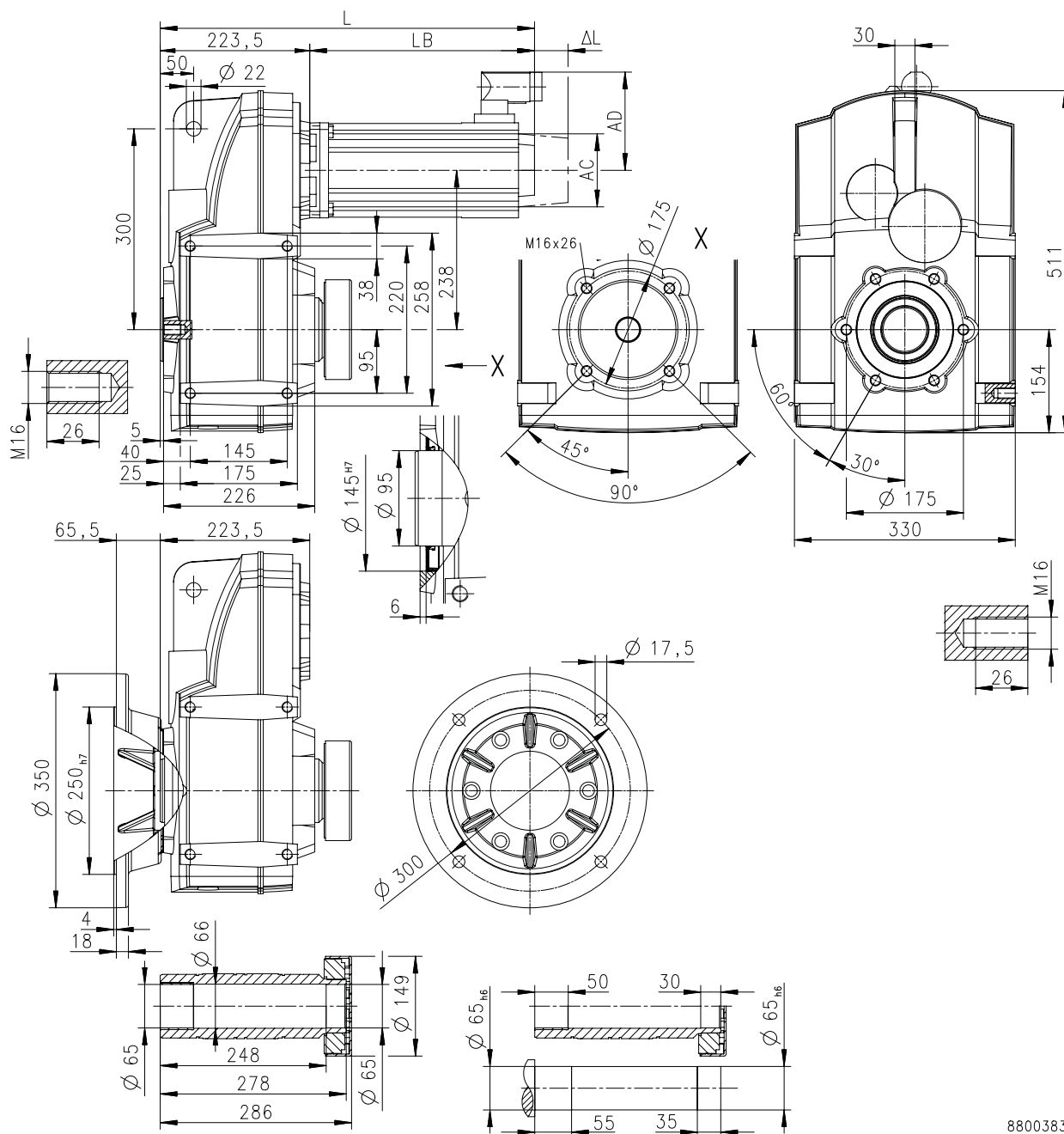


Technical data

Dimensions
Basic dimensions

g500-S3100, 2-/3-stage with MCS12

Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)

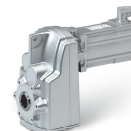


8800383-01

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	497	424	497	424	537	464
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

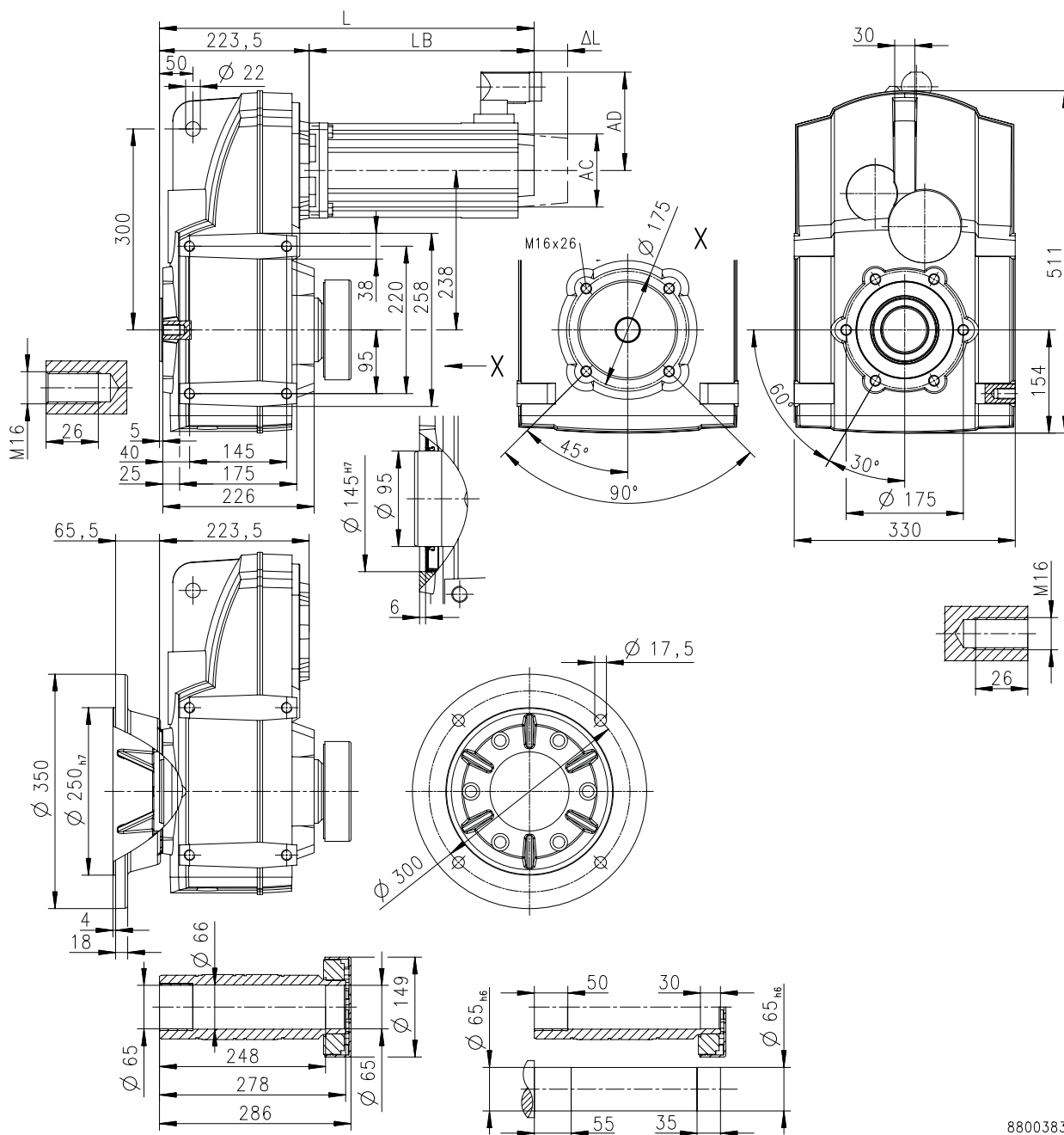
Technical data

Dimensions
Basic dimensions



g500-S3100, 2-/3-stage with MCS12

Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)

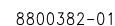


8800383-01

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	537	464	577	504	577	504
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105



Gearbox version: Solid shaft with foot (VAR/VBR/VAK)

275

Dimensions

Basic dimensions

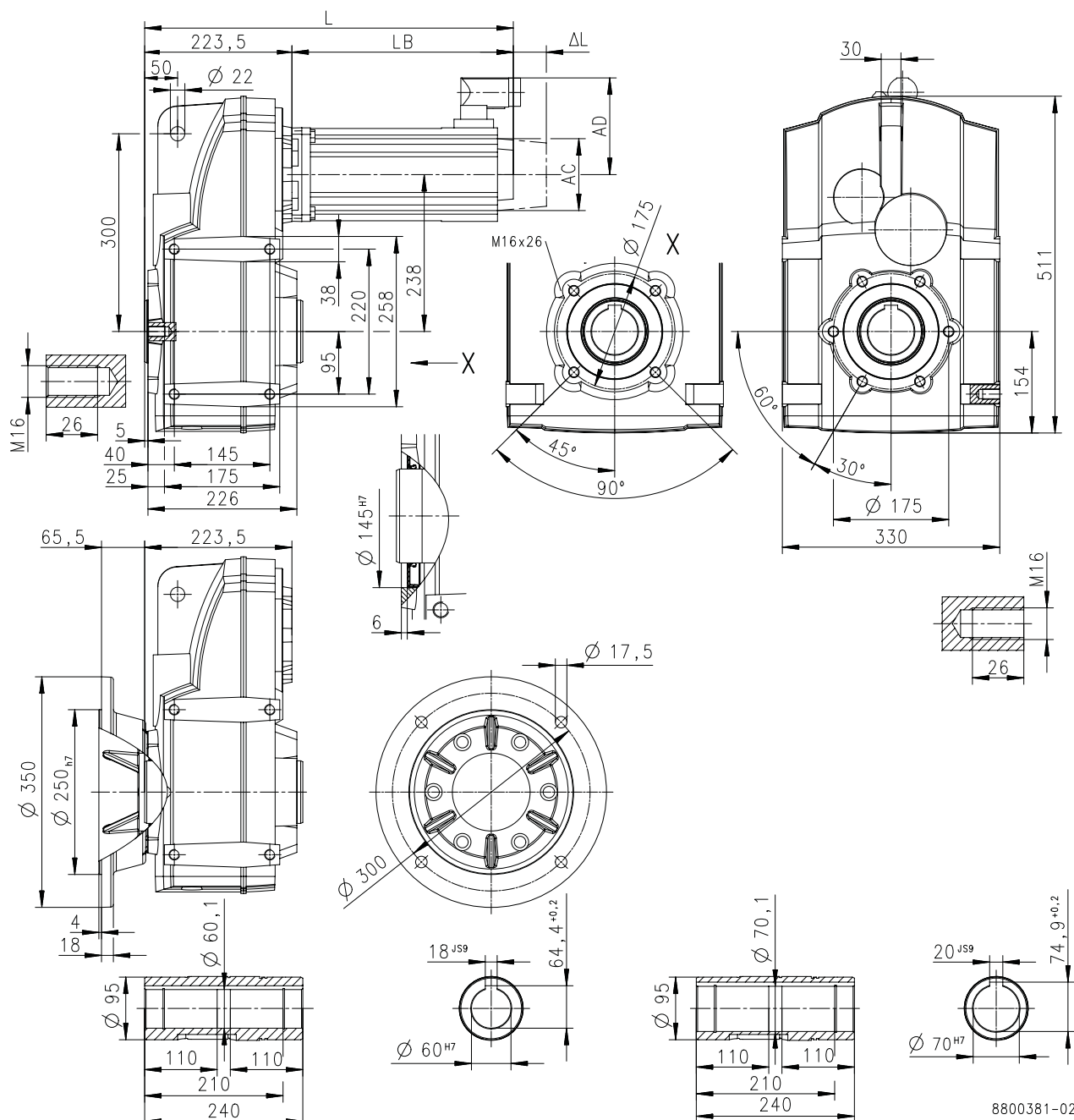


Technical data

Dimensions
Basic dimensions

g500-S3100, 2-/3-stage with MCS14

Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)

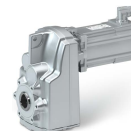


8800381-02

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	528	440	528	440	568	480	568	480
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117

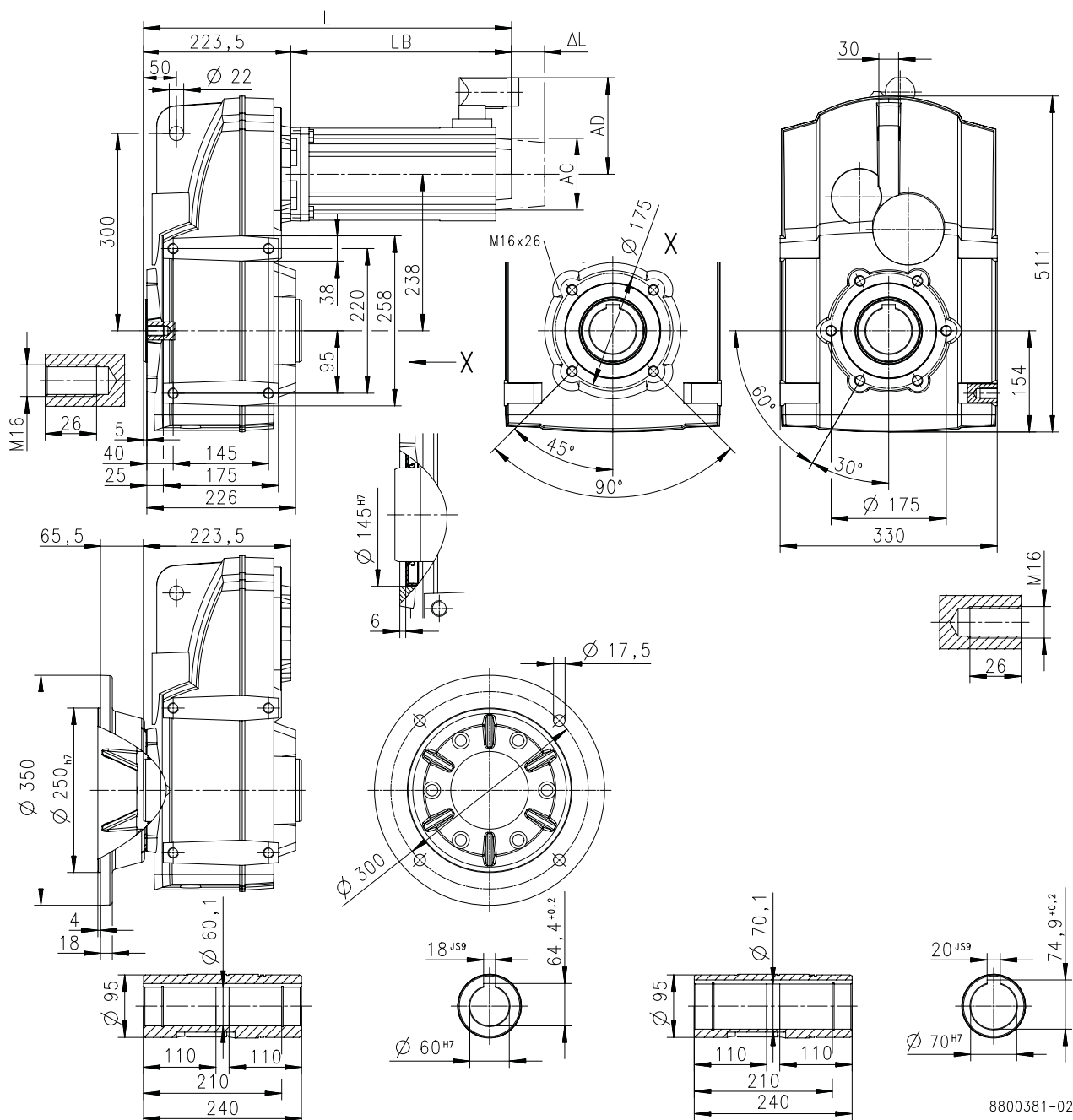
Technical data

Dimensions
Basic dimensions



g500-S3100, 2-/3-stage with MCS14

Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)

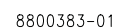


8800381-02

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	608	520	608	520	648	560	648	560
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146



Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)

279

Dimensions

Basic dimensions



8800383-01

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	608	520	608	520	648	560	648	560
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

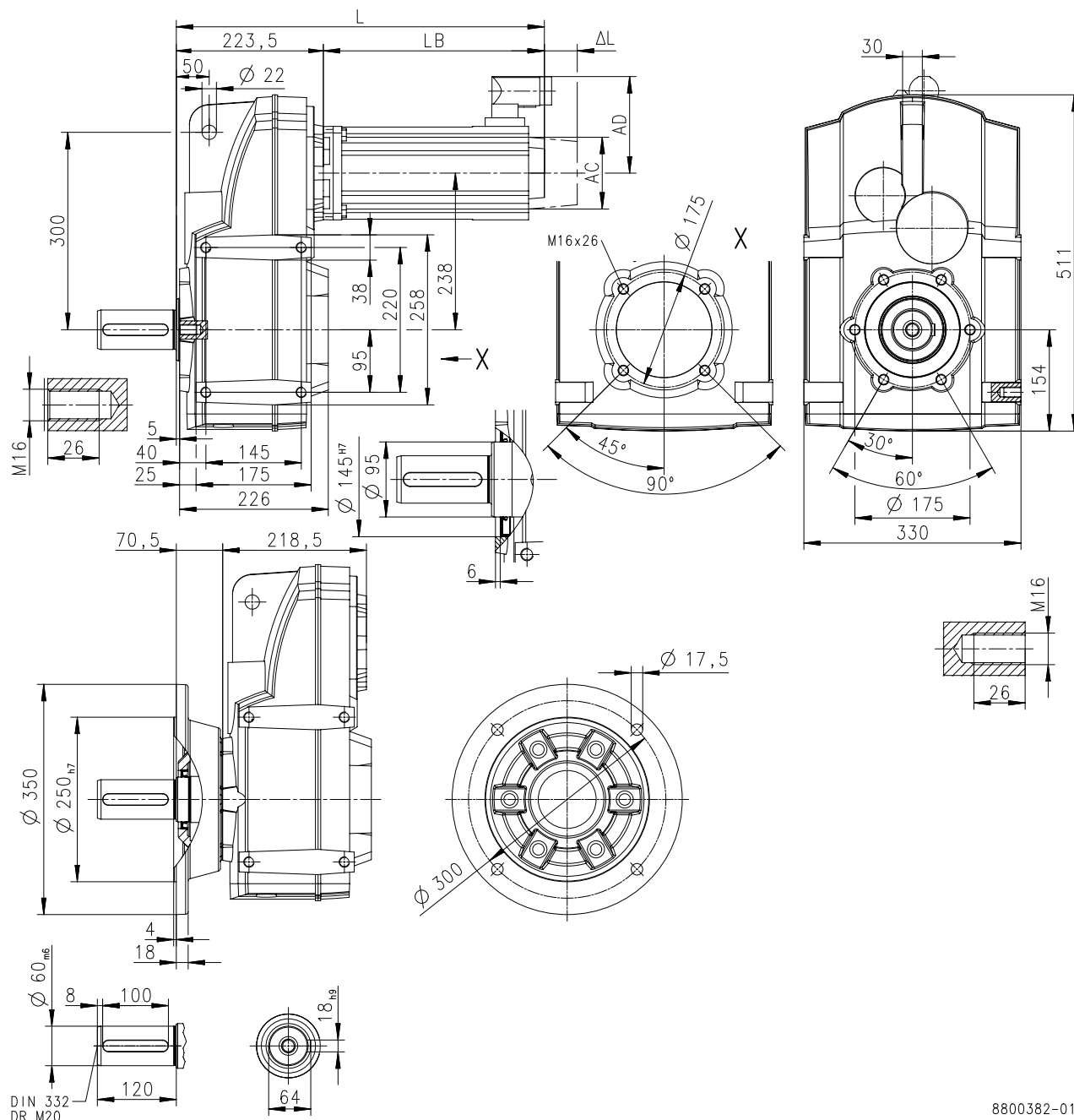


Technical data

Dimensions
Basic dimensions

g500-S3100, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot (VAR/VBR/VAK)

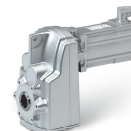


8800382-01

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	528	440	528	440	568	480	568	480
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117

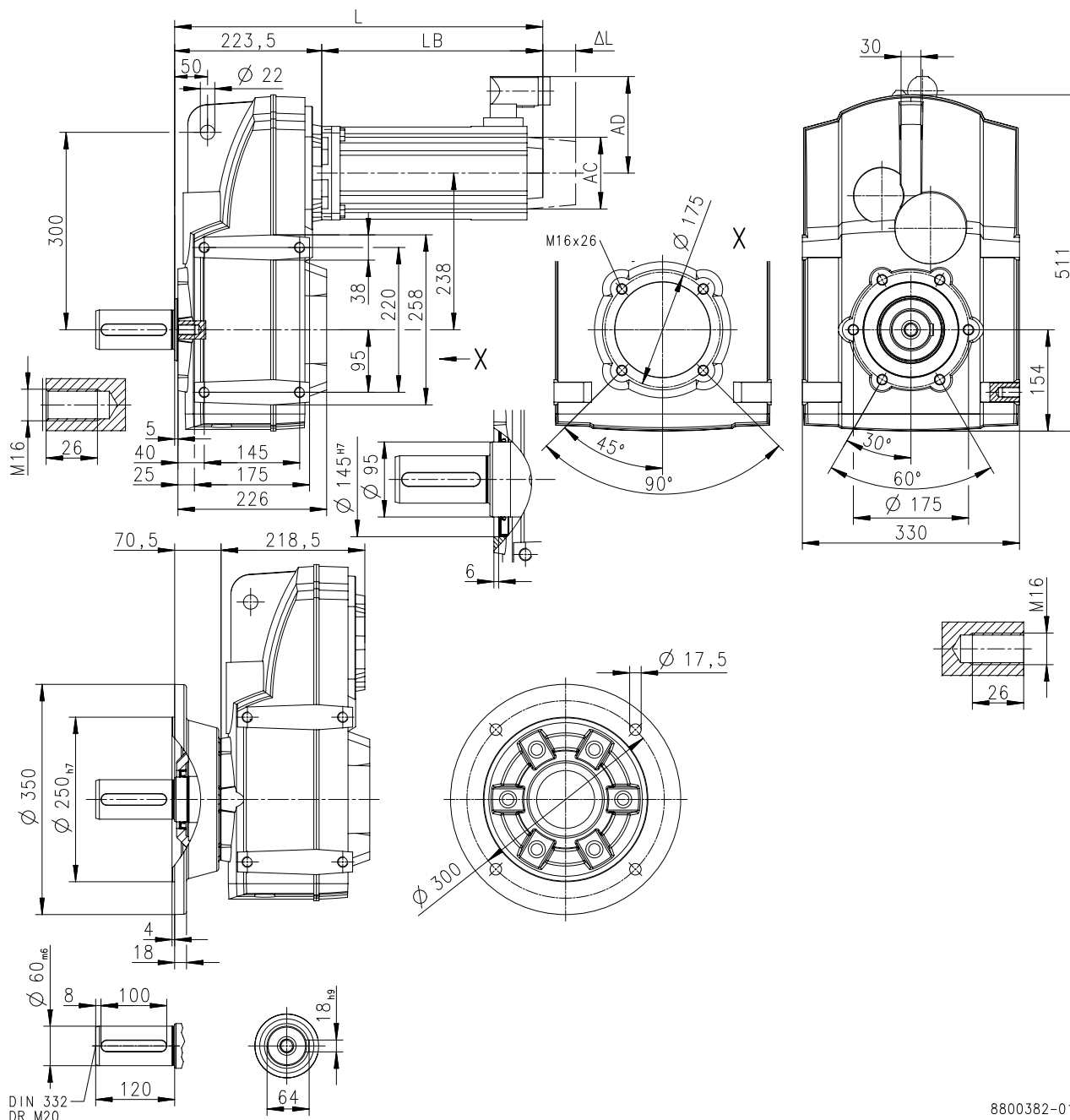
Technical data

Dimensions
Basic dimensions



g500-S3100, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot (VAR/VBR/VAK)



8800382-01

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	608	520	608	520	648	560	648	560
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

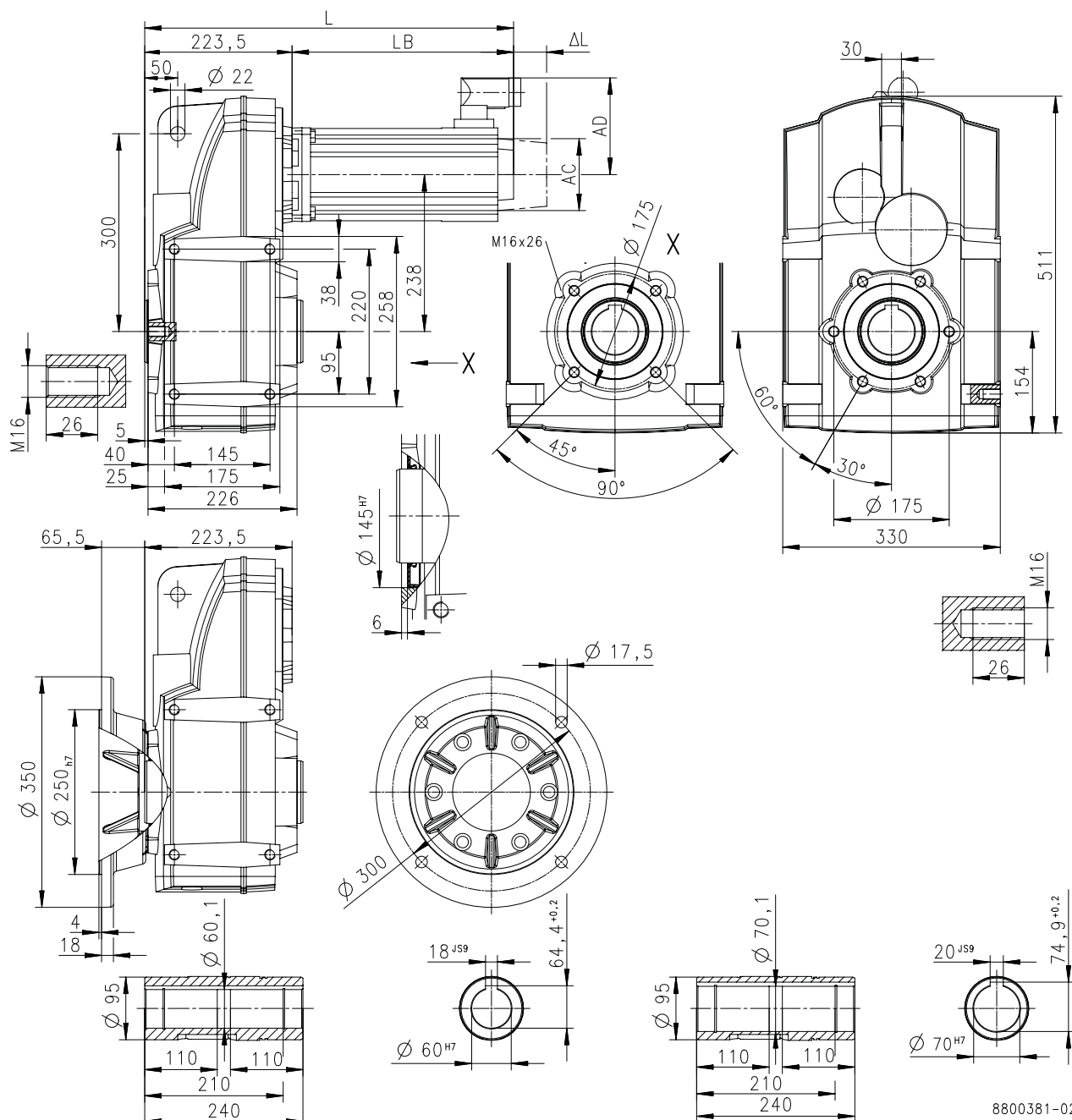


Technical data

Dimensions
Basic dimensions

g500-S3100, 2-/3-stage with MCS19

Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)

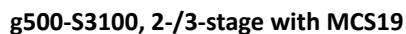


8800381-02

Motor			MCS									
			19F12-	19F14-	19F29-	19F30-	19J12- 19J29-	19J14-	19J30-	19P12- 19P29-	19P14-	19P30-
Cooling type			Blower	natural	Blower	natural	Blower	natural	natural	Blower	natural	natural
Total length	L	mm	586	479	586	479	626	519	519	626	579	579
Motor length	LB	mm	362	255	362	255	402	295	295	402	355	355
Length of motor options	Δ L	mm	72	93	72	93	72	93	93	72	93	93
Motor diameter	AC	mm	212	192	212	192	212	192	192	212	192	192
Motor/connection distance	AD	mm	142	142	171	171	171	142	171	171	171	171

Dimensions

Basic dimensions



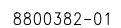
Technical drawing of a 1000W three-phase asynchronous motor with dimensions in mm. The drawing includes a front view, a side view, a top view, and a bottom view. Key dimensions include: total length L, mounting bracket length LB, and terminal box length ΔL. The motor frame has a total width of 330 mm and a height of 511 mm. The terminal box is 154 mm high and 175 mm wide. The motor has a 4-pole design with a synchronous speed of 1450 rpm. The drawing also shows the mounting feet with dimensions 248, 278, and 286 mm. The motor is equipped with a 16A thermal relay and a 16A circuit breaker. The drawing is labeled with 'X' for the motor and 'Y' for the terminal box.

8800383-01

Motor			MCS									
			19F12-	19F14-	19F29-	19F30-	19J12- 19J29-	19J14-	19J30-	19P12- 19P29-	19P14-	19P30-
Cooling type			Blower	natural	Blower	natural	Blower	natural	natural	Blower	natural	natural
Total length	L	mm	586	479	586	479	626	519	519	626	579	579
Motor length	LB	mm	362	255	362	255	402	295	295	402	355	355
Length of motor options	Δ L	mm	72	93	72	93	72	93	93	72	93	93
Motor diameter	AC	mm	212	192	212	192	212	192	192	212	192	192
Motor/connection distance	AD	mm	142	142	171	171	171	142	171	171	171	171

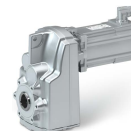


Gearbox version: Solid shaft with foot (VAR/VBR/VAK)

285

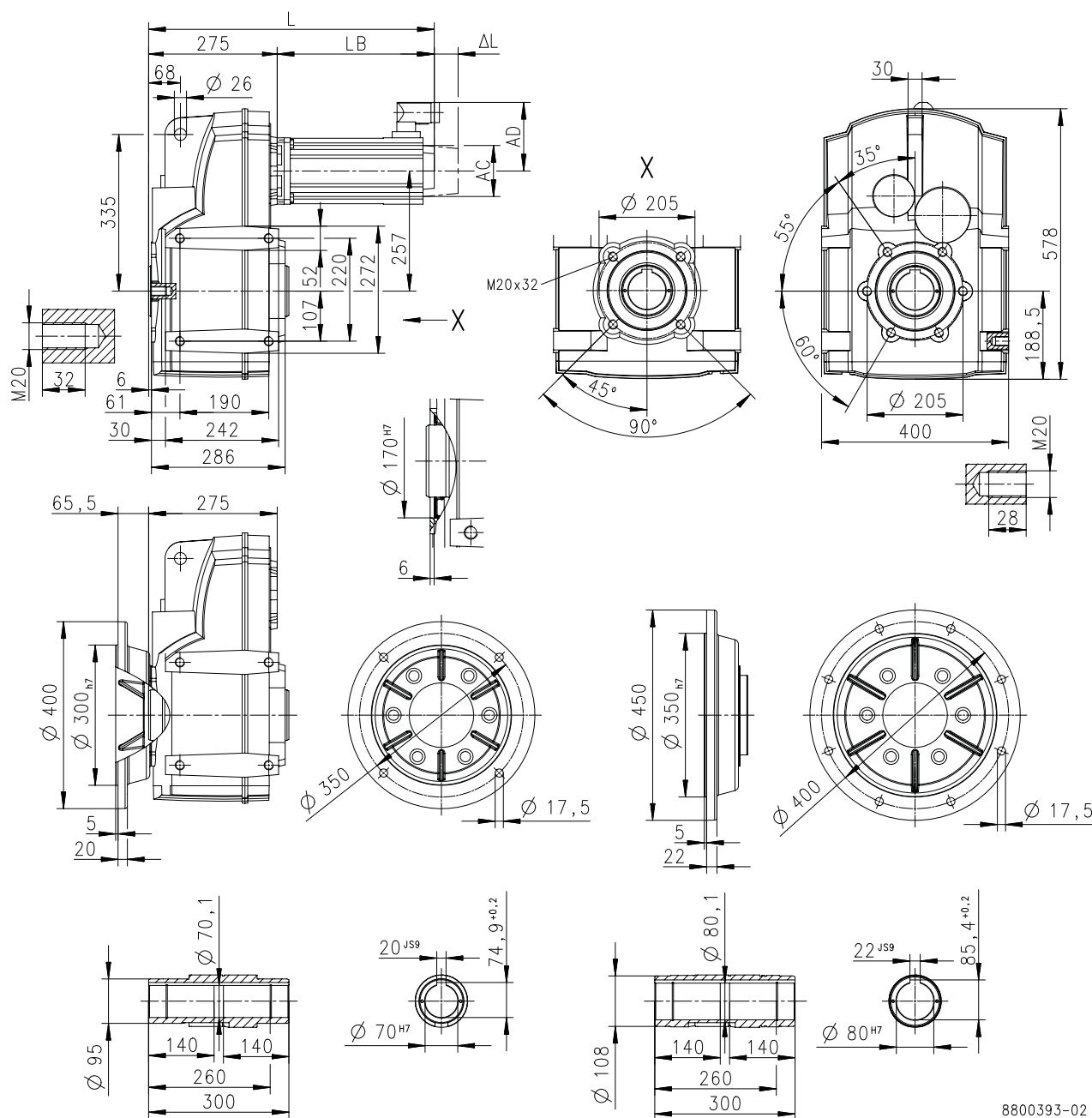
Technical data

Dimensions
Basic dimensions



g500-S4500, 2-/3-stage with MCS06

Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)



8800393-02

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	406	436	466
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm		82	
Motor diameter	AC	mm		86	
Motor/connection distance	AD	mm		77	

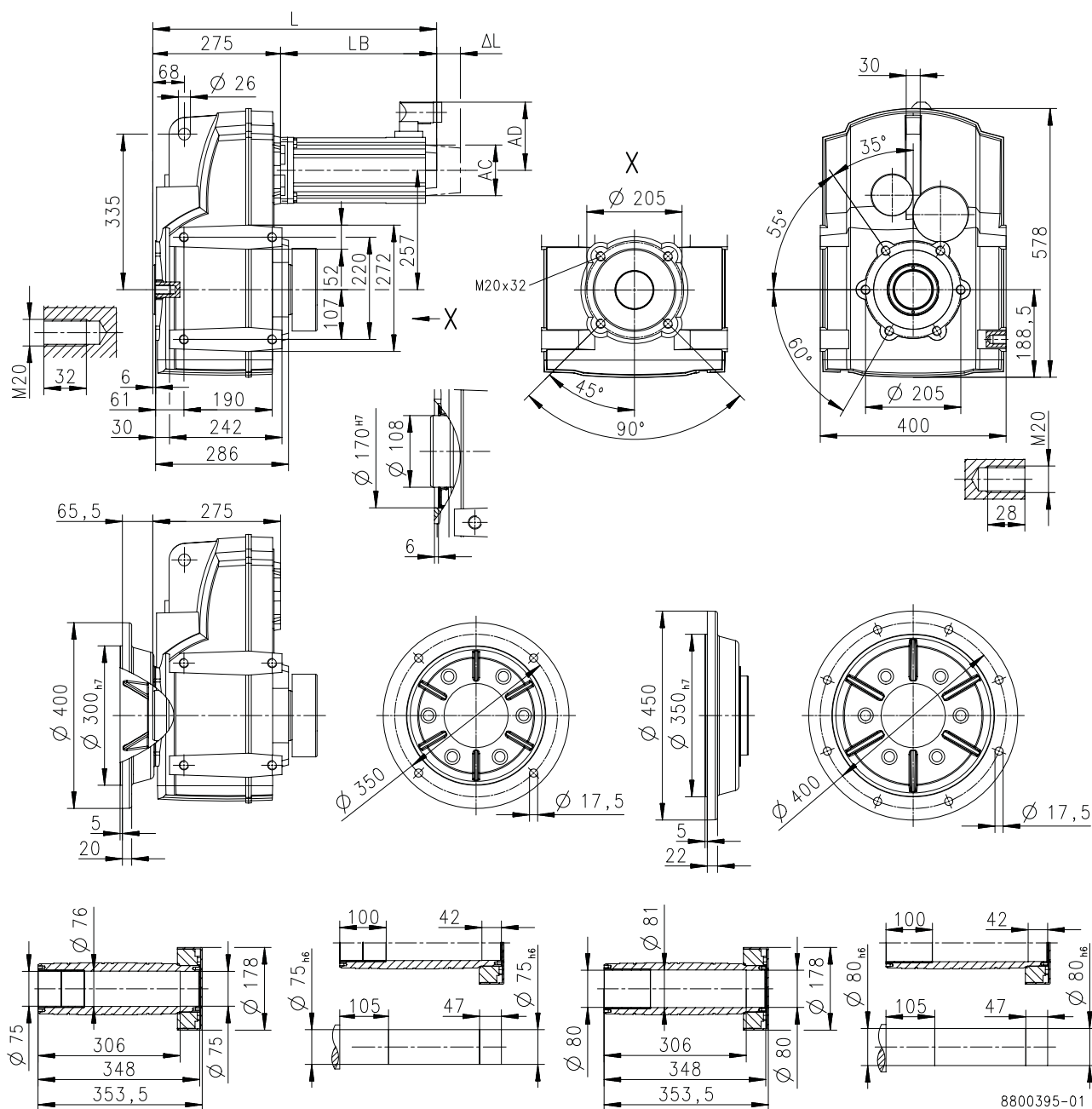


Technical data

Dimensions
Basic dimensions

g500-S4500, 2-/3-stage with MCS06

Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)



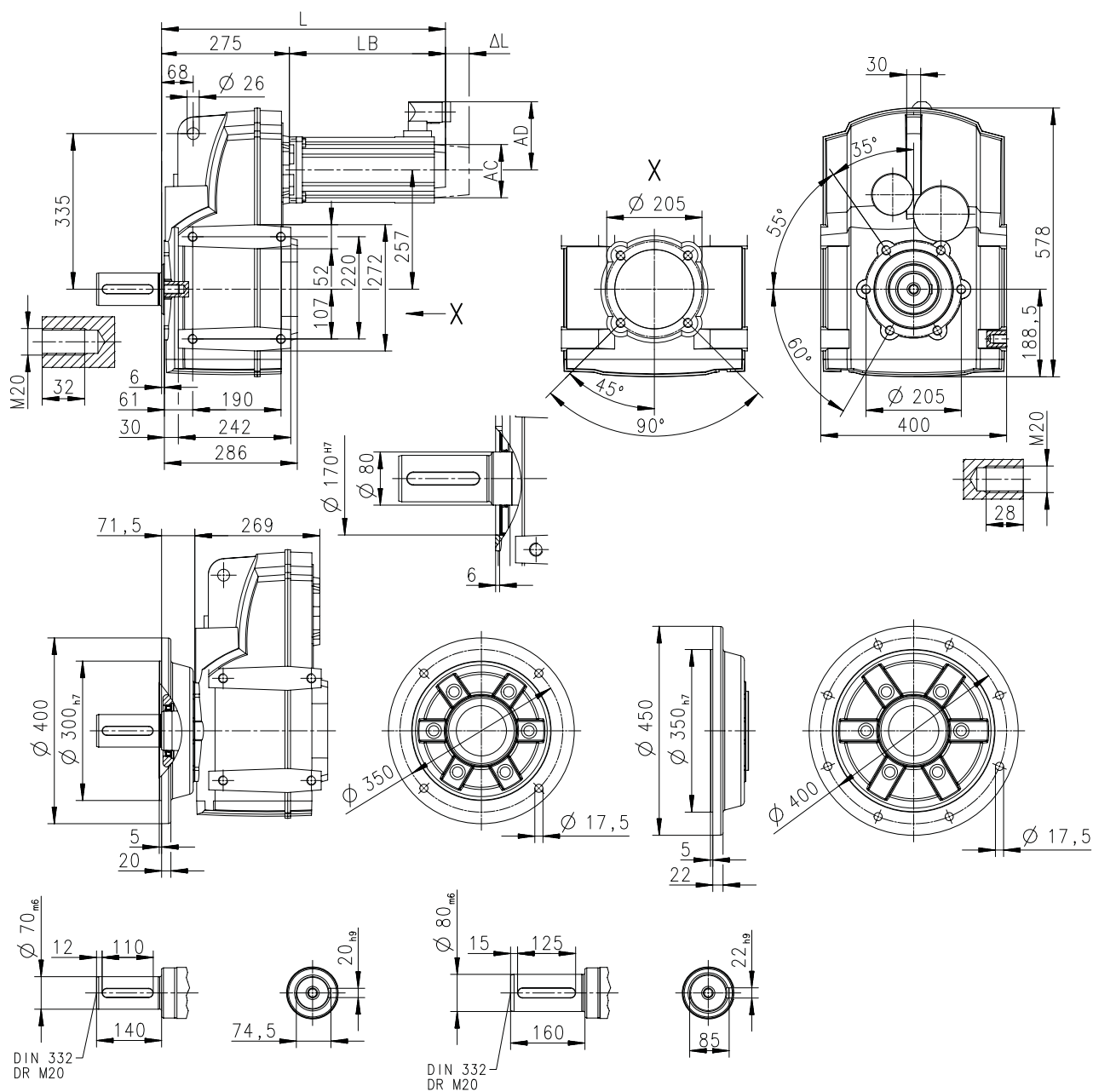
8800395-01

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	406	436	466
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm		82	
Motor diameter	AC	mm		86	
Motor/connection distance	AD	mm		77	



g500-S4500, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot (VAR/VBR/VAK)



8800394-01

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	406	436	466
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

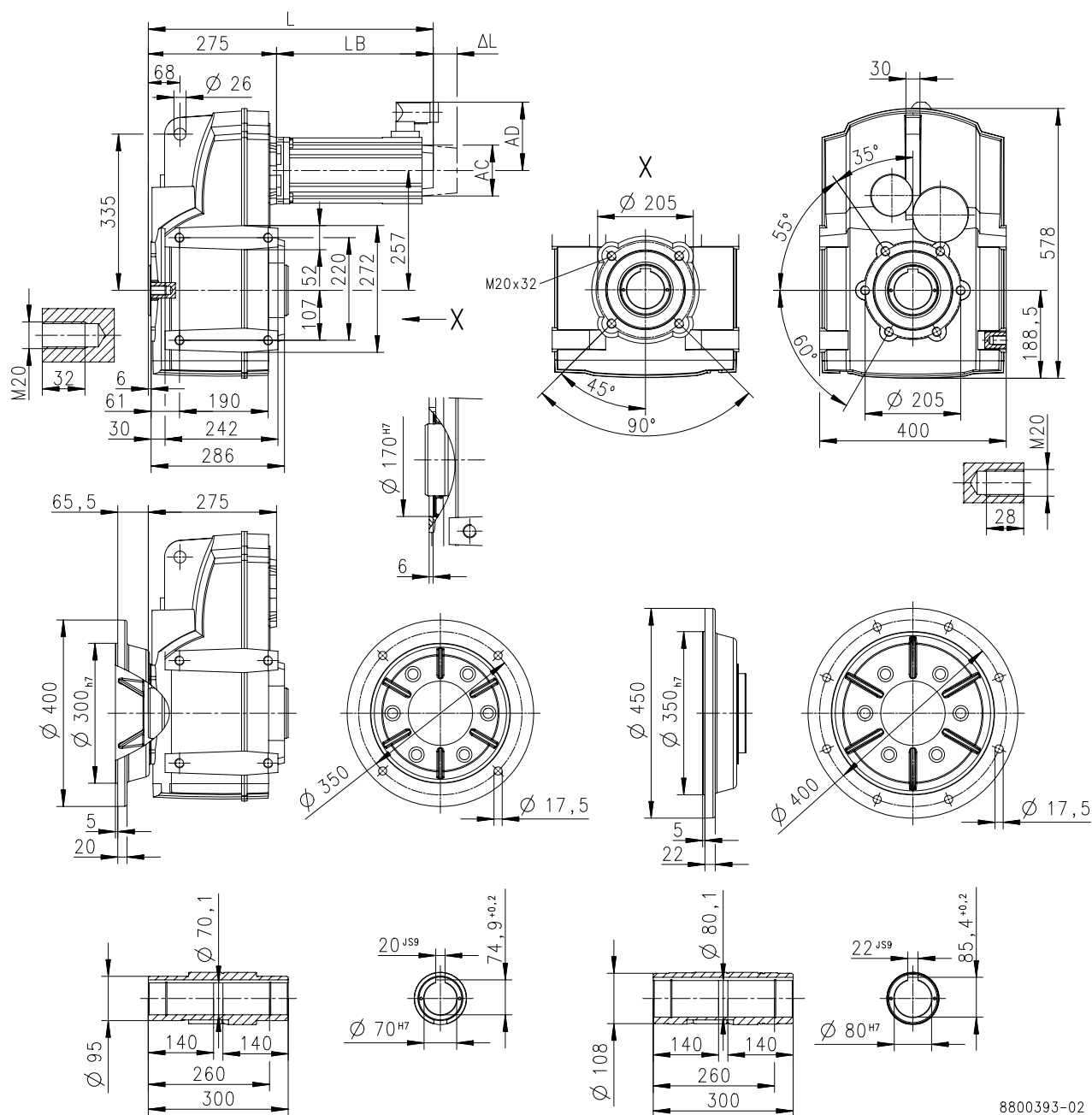


Technical data

Dimensions
Basic dimensions

g500-S4500, 2-/3-stage with MCS09

Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)

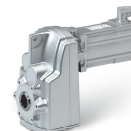


8800393-02

Motor			MCS			
			09D41-09D41L	09F38-09F38L	09H41-09H41L	09L41-09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	459	479	499	539
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

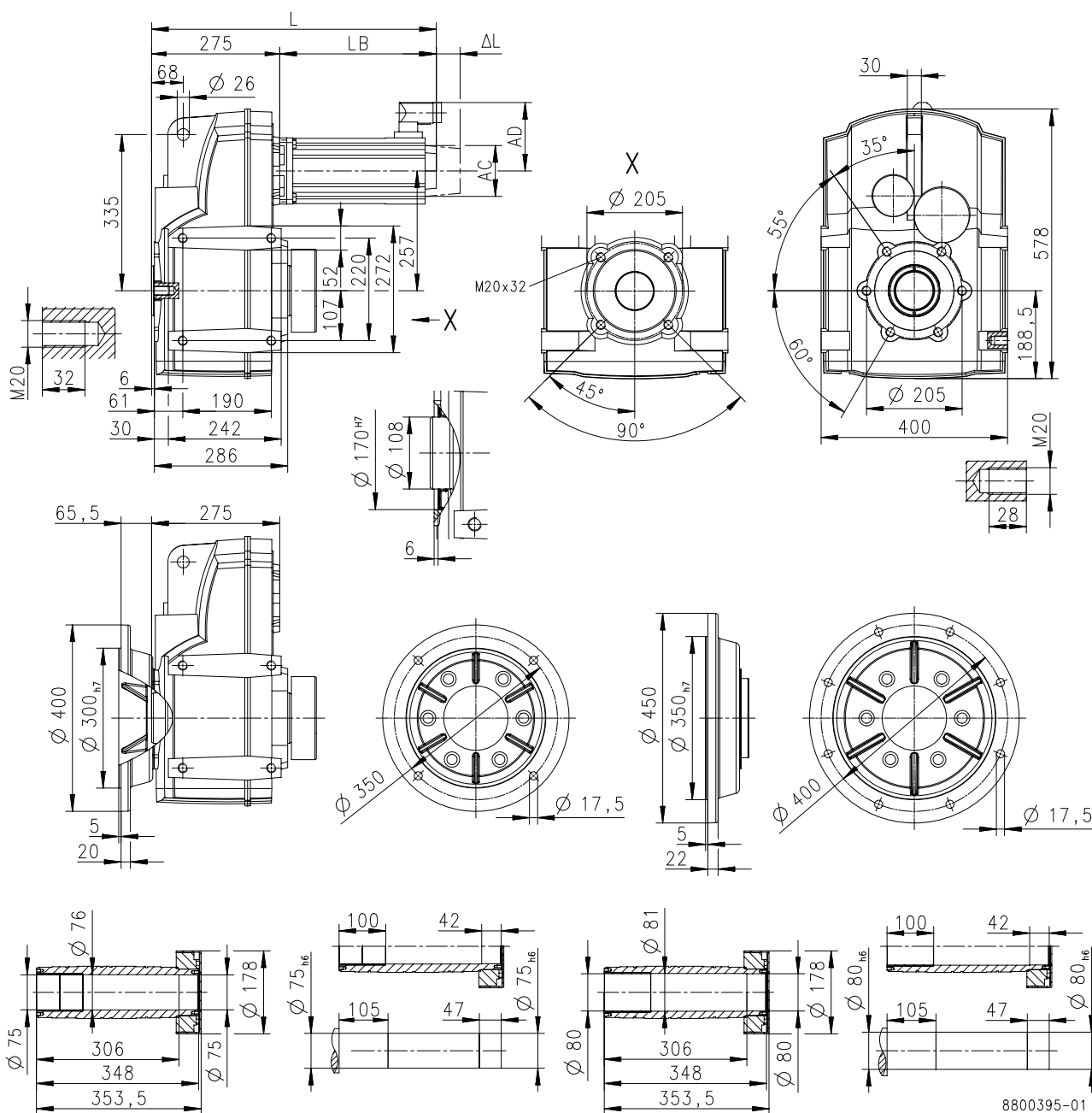
Technical data

Dimensions
Basic dimensions



g500-S4500, 2-/3-stage with MCS09

Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)



Motor			MCS			
			09D41-09D41L	09F38-09F38L	09H41-09H41L	09L41-09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	459	479	499	539
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

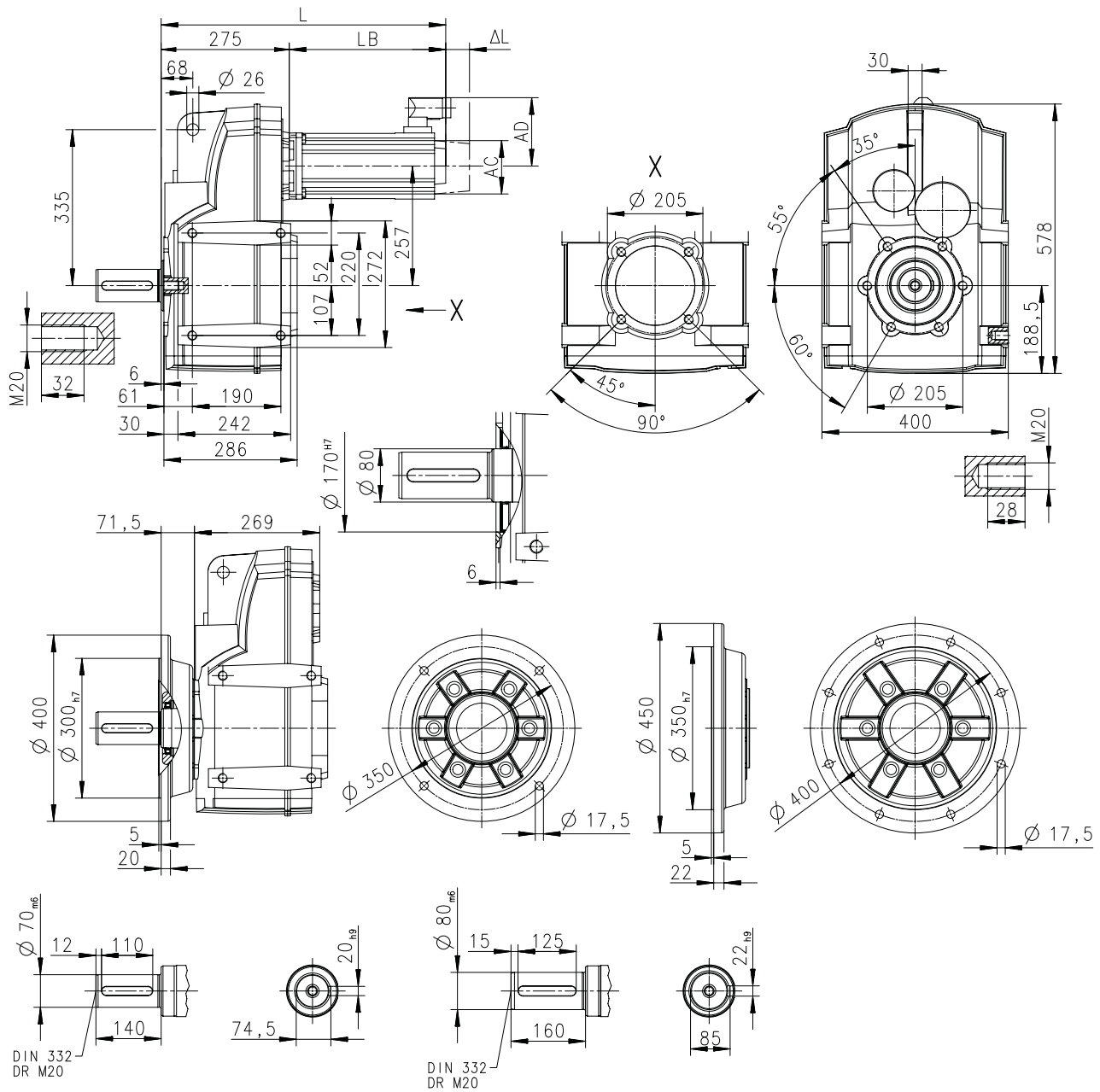


Technical data

Dimensions
Basic dimensions

g500-S4500, 2-/3-stage with MCS09

Gearbox version: Solid shaft with foot (VAR/VBR/VAK)



8800394-01

Motor			MCS			
			09D41-09D41L	09F38-09F38L	09H41-09H41L	09L41-09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	459	479	499	539
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

Dimensions

Basic dimensions

[illegible]

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	549	476	549	476	589	516
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

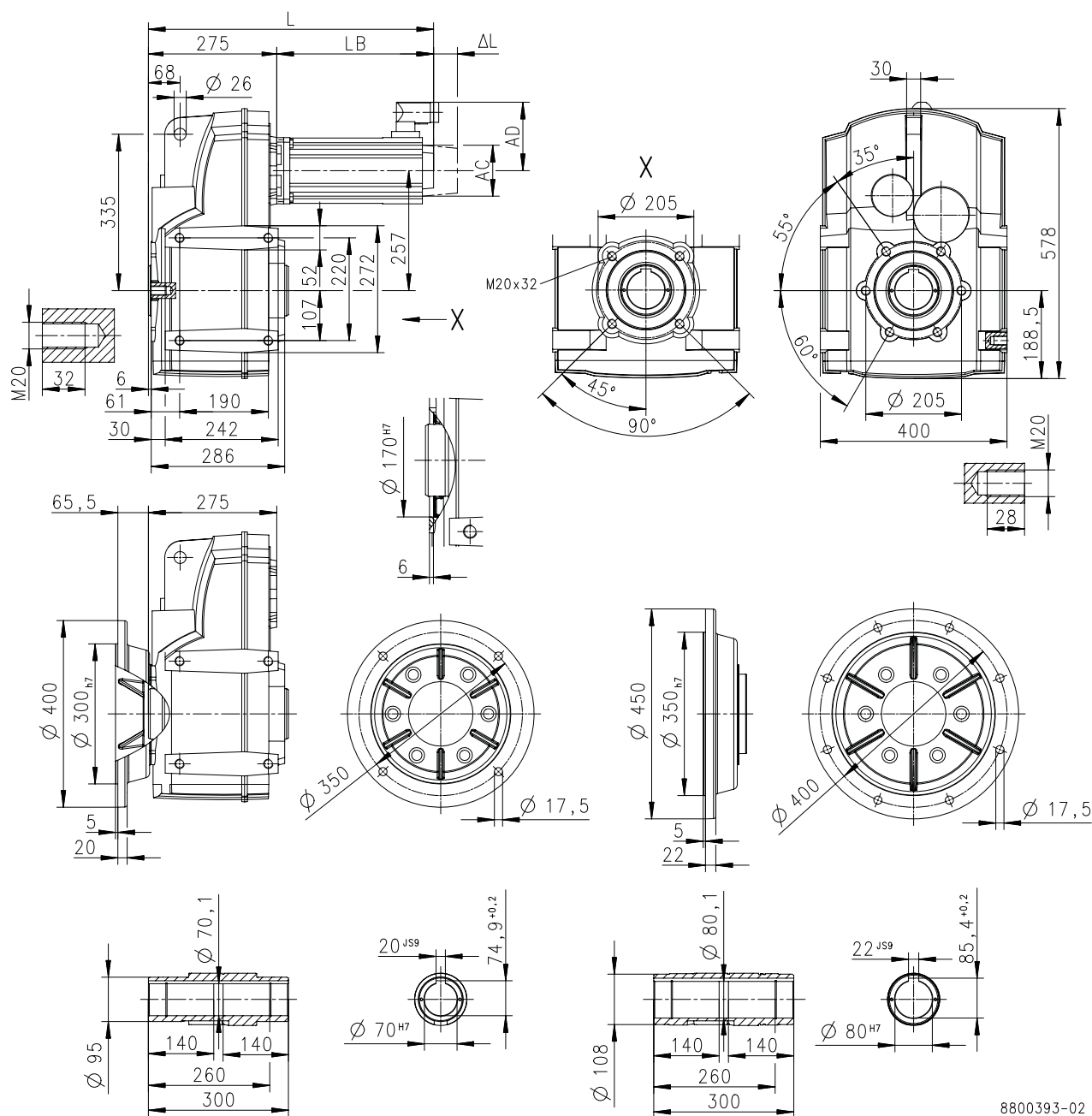


Technical data

Dimensions
Basic dimensions

g500-S4500, 2-/3-stage with MCS12

Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)

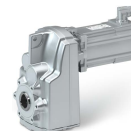


8800393-02

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	589	516	629	556	629	556
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

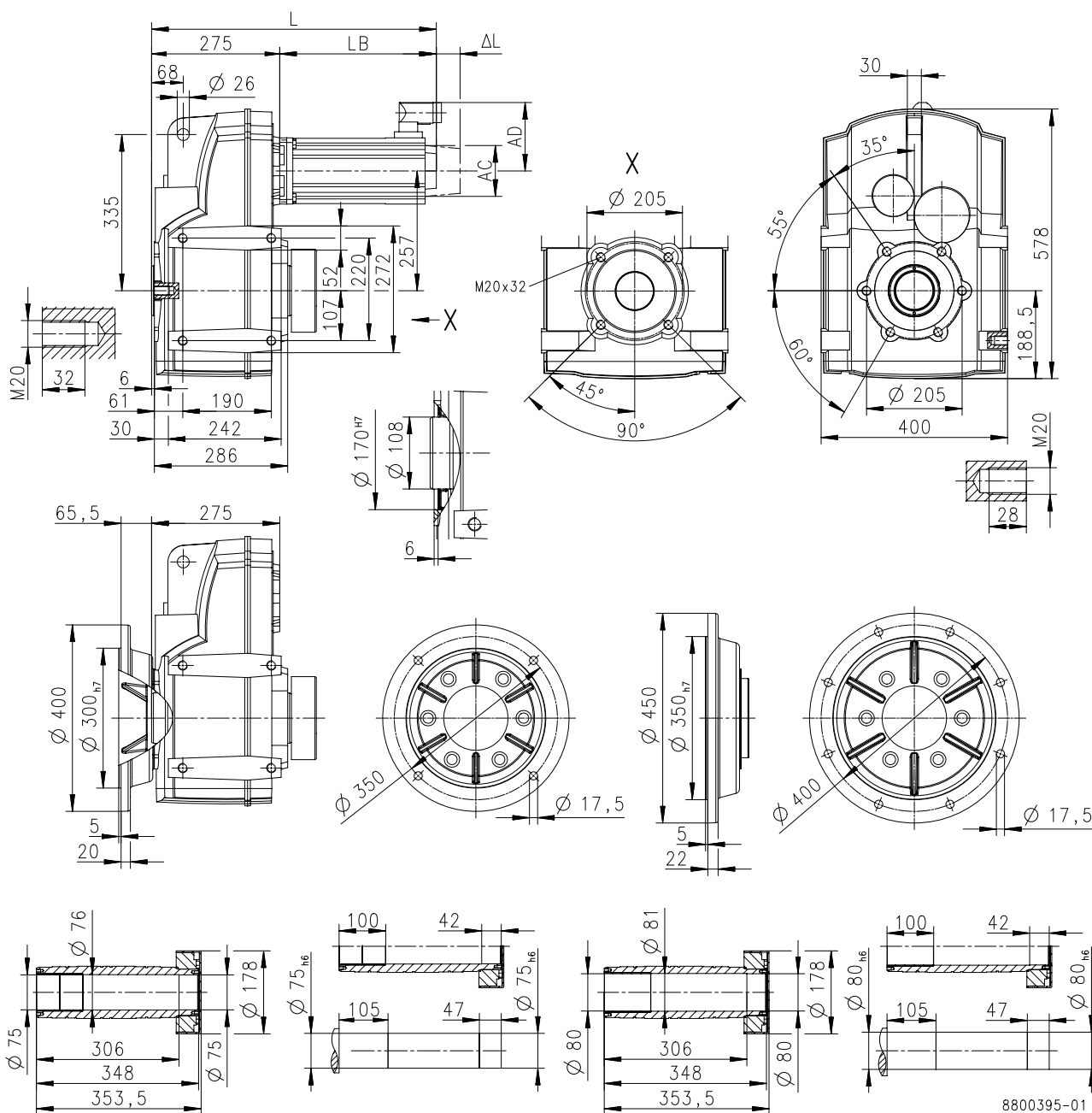
Technical data

Dimensions
Basic dimensions



g500-S4500, 2-/3-stage with MCS12

Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)

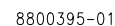


8800395-01

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	549	476	549	476	589	516
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

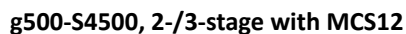


Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)

295

Dimensions

Basic dimensions

[illegible]

8800394-01

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	549	476	549	476	589	516
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

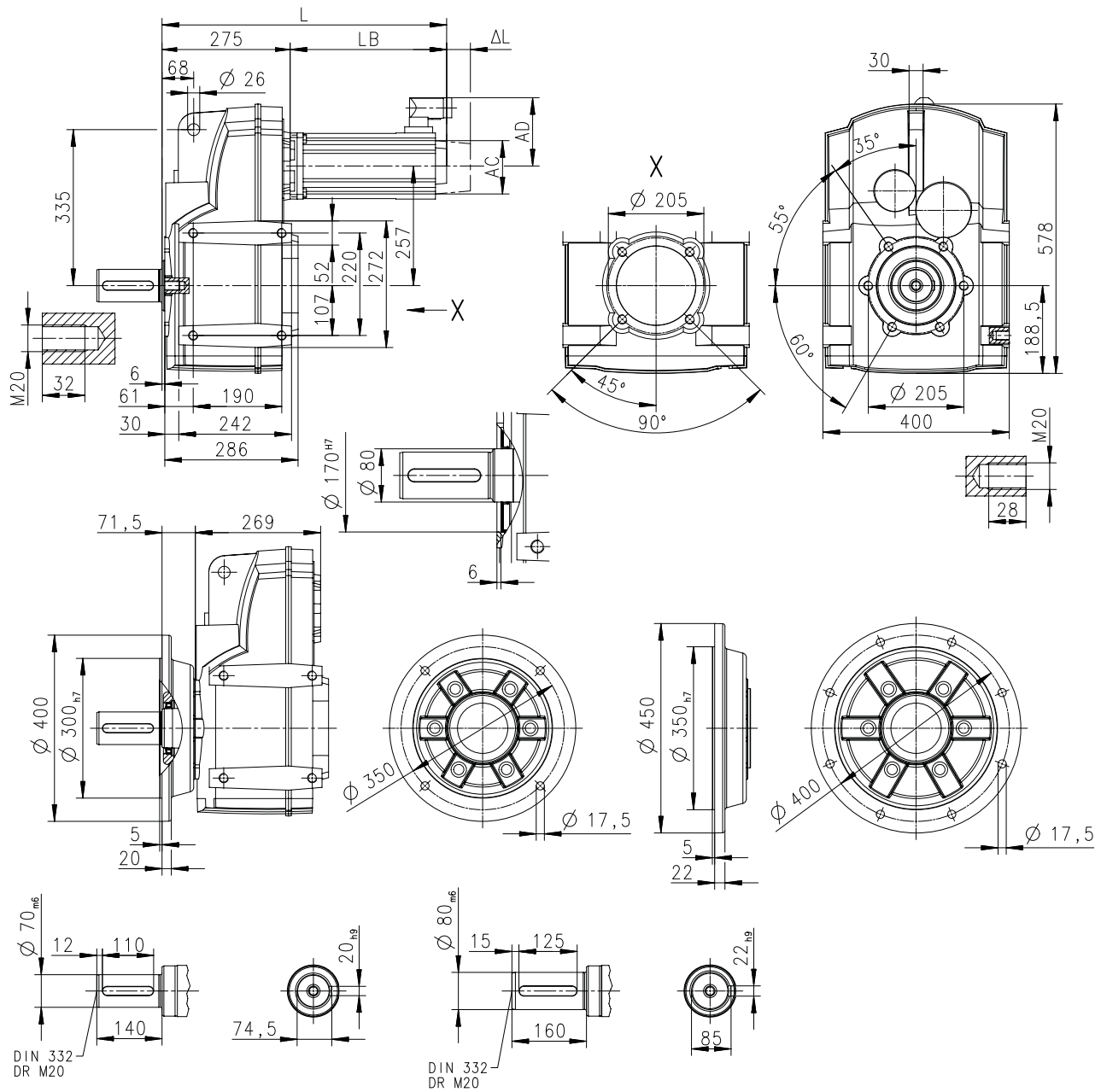


Technical data

Dimensions
Basic dimensions

g500-S4500, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot (VAR/VBR/VAK)

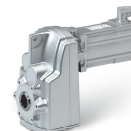


8800394-01

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	589	516	629	556	629	556
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

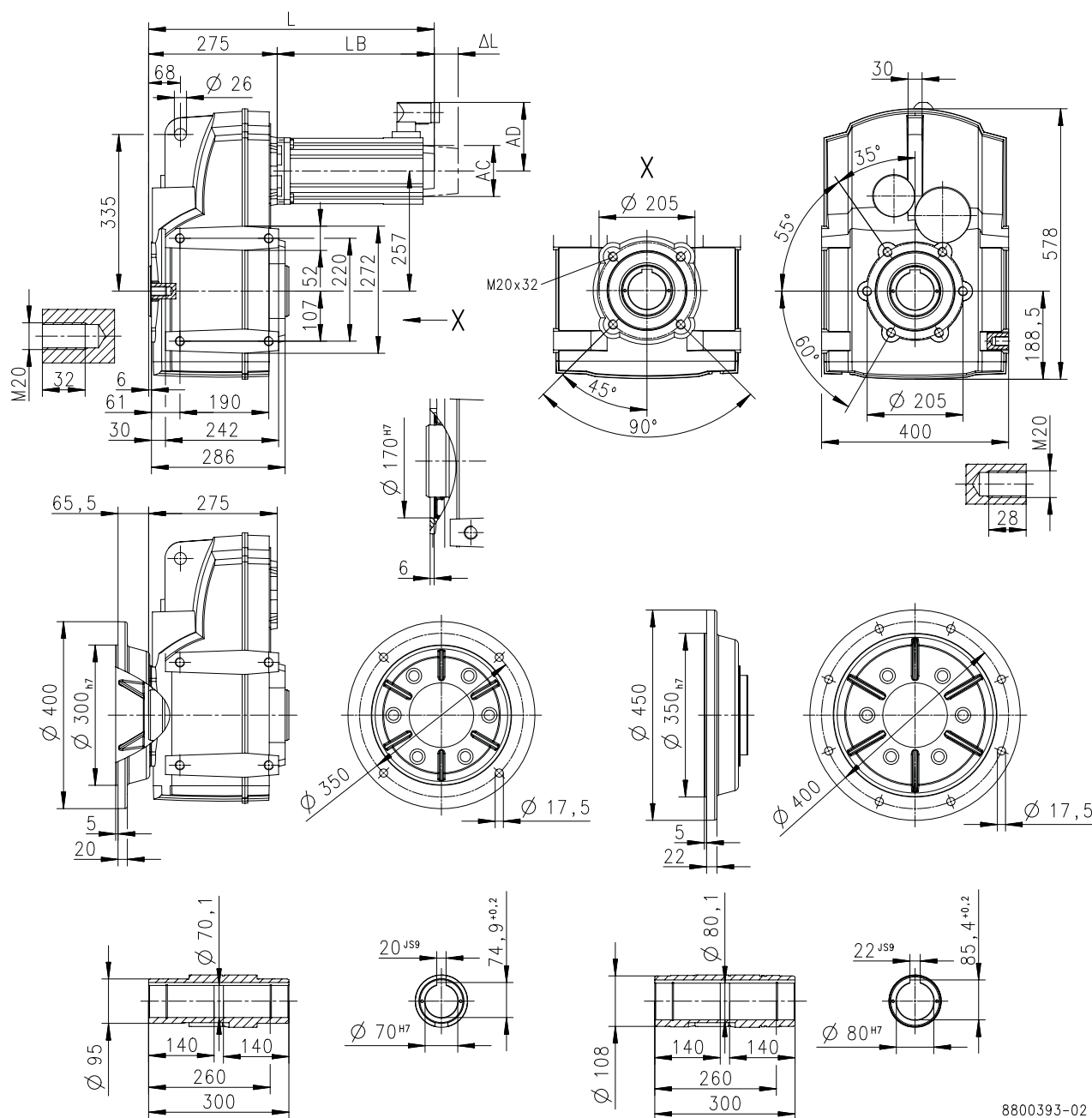
Technical data

Dimensions
Basic dimensions



g500-S4500, 2-/3-stage with MCS14

Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)



8800393-02

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	579	491	579	491	619	531	619	531
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117

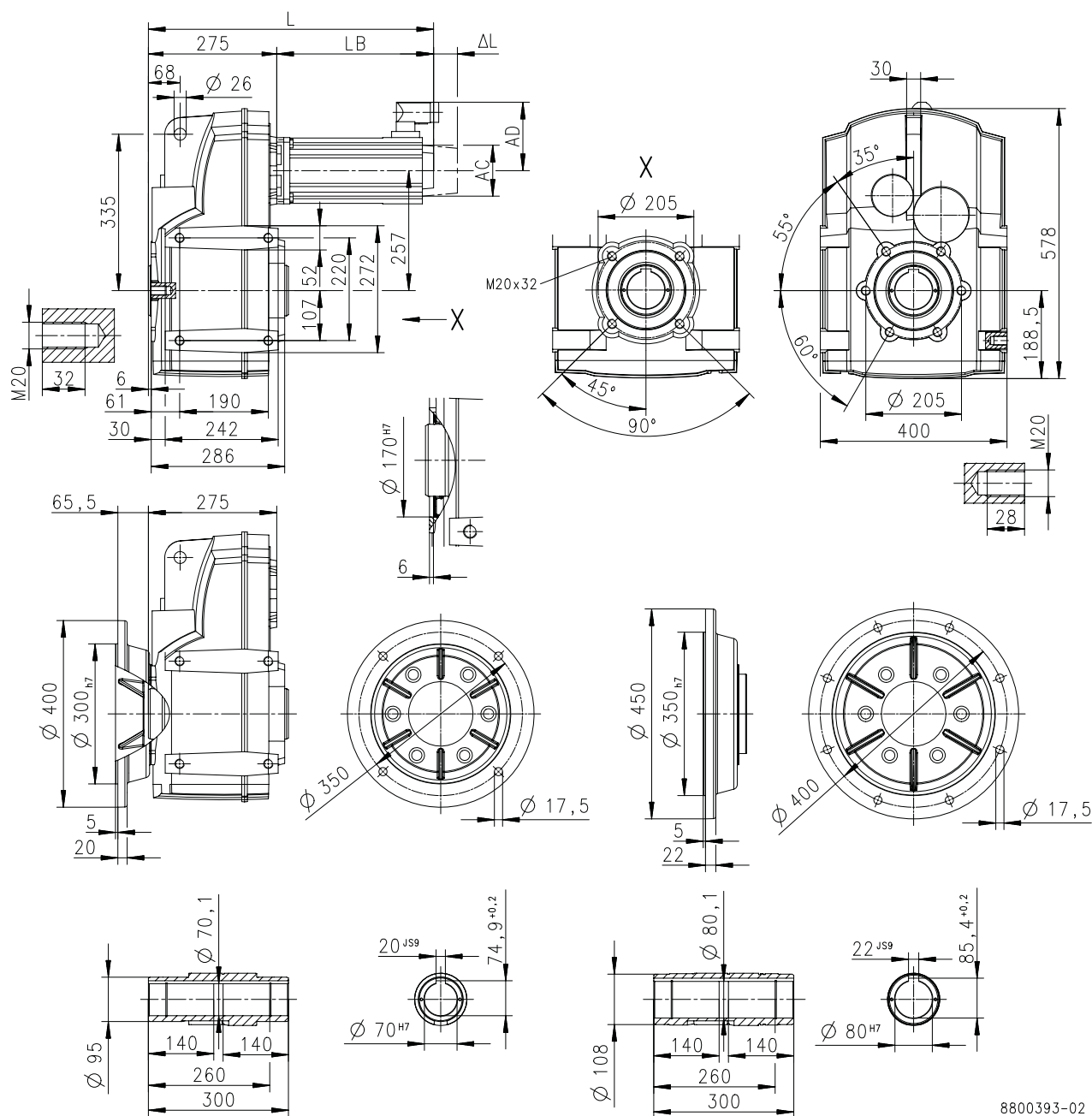


Technical data

Dimensions
Basic dimensions

g500-S4500, 2-/3-stage with MCS14

Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)



8800393-02

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	659	571	659	571	699	611	699	611
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

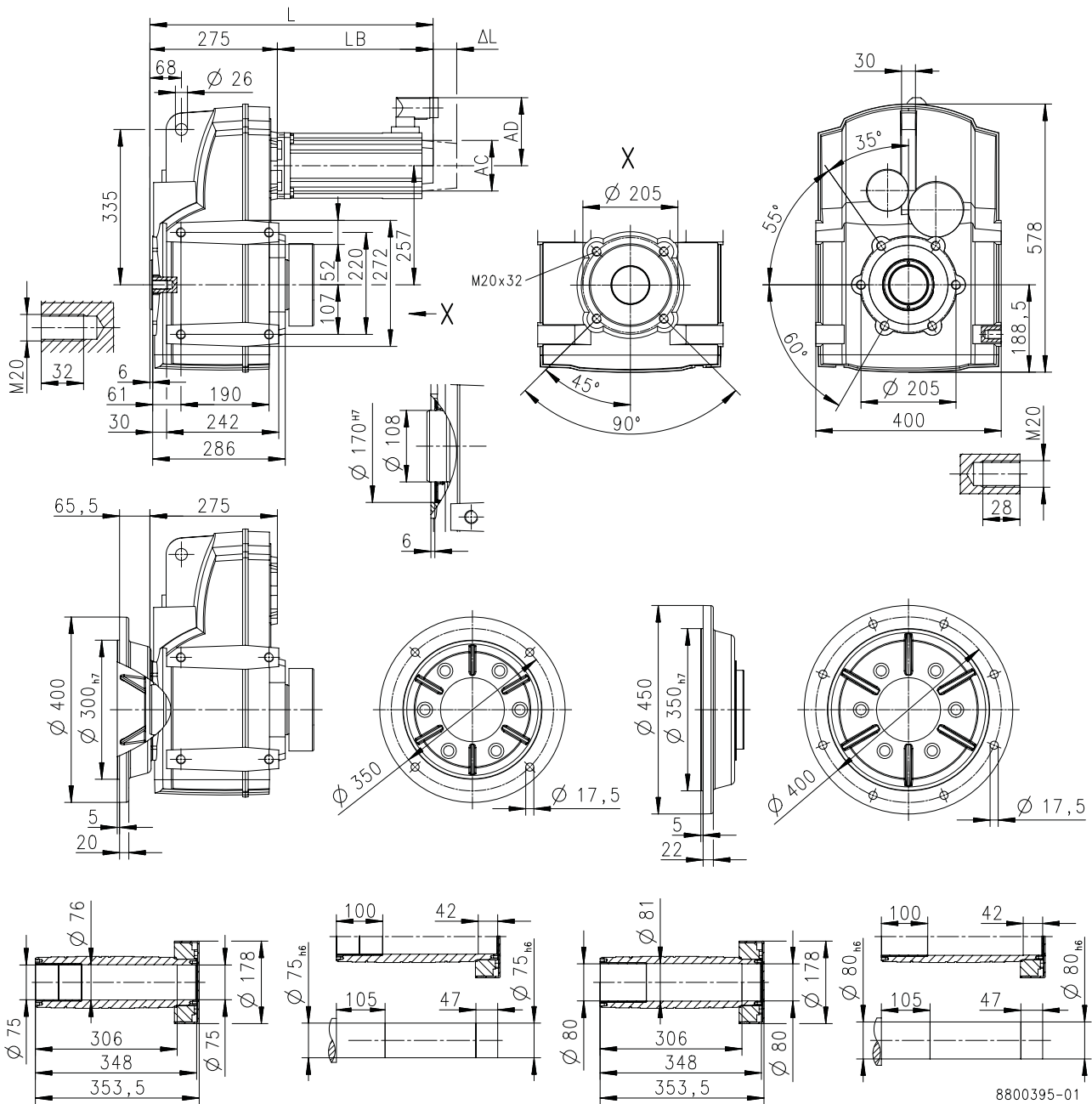
Technical data

Dimensions
Basic dimensions



g500-S4500, 2-/3-stage with MCS14

Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)



8800395-01

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	579	491	579	491	619	531	619	531
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117

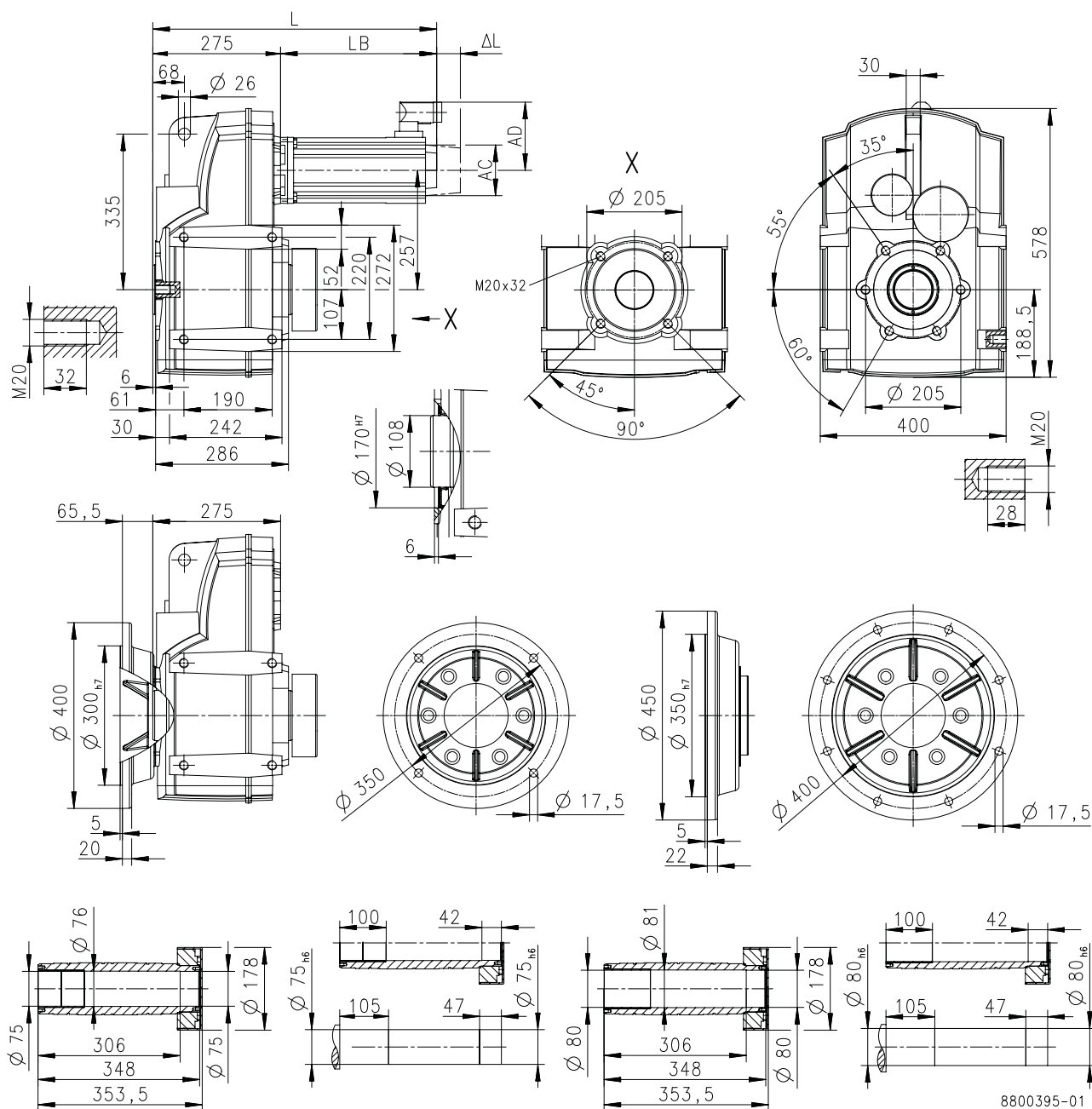


Technical data

Dimensions
Basic dimensions

g500-S4500, 2-/3-stage with MCS14

Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)

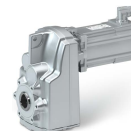


8800395-01

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	659	571	659	571	699	611	699	611
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

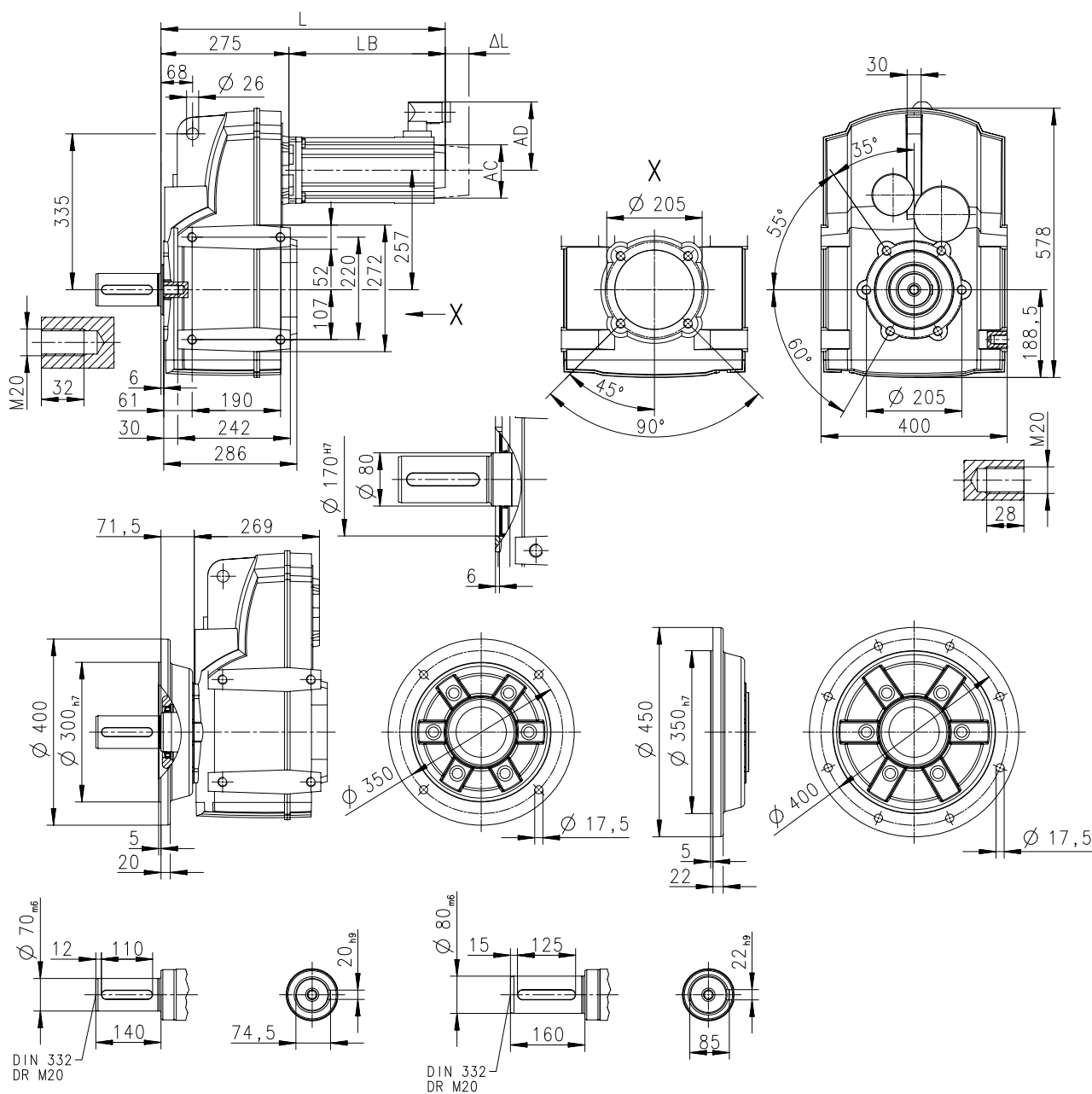
Technical data

Dimensions
Basic dimensions



g500-S4500, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot (VAR/VBR/VAK)



8800394-01

Motor			MCS							
			14D14-Blower	14D15-natural	14D30-Blower	14D36-natural	14H12-Blower	14H15-natural	14H28-Blower	14H32-natural
Total length	L	mm	579	491	579	491	619	531	619	531
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117

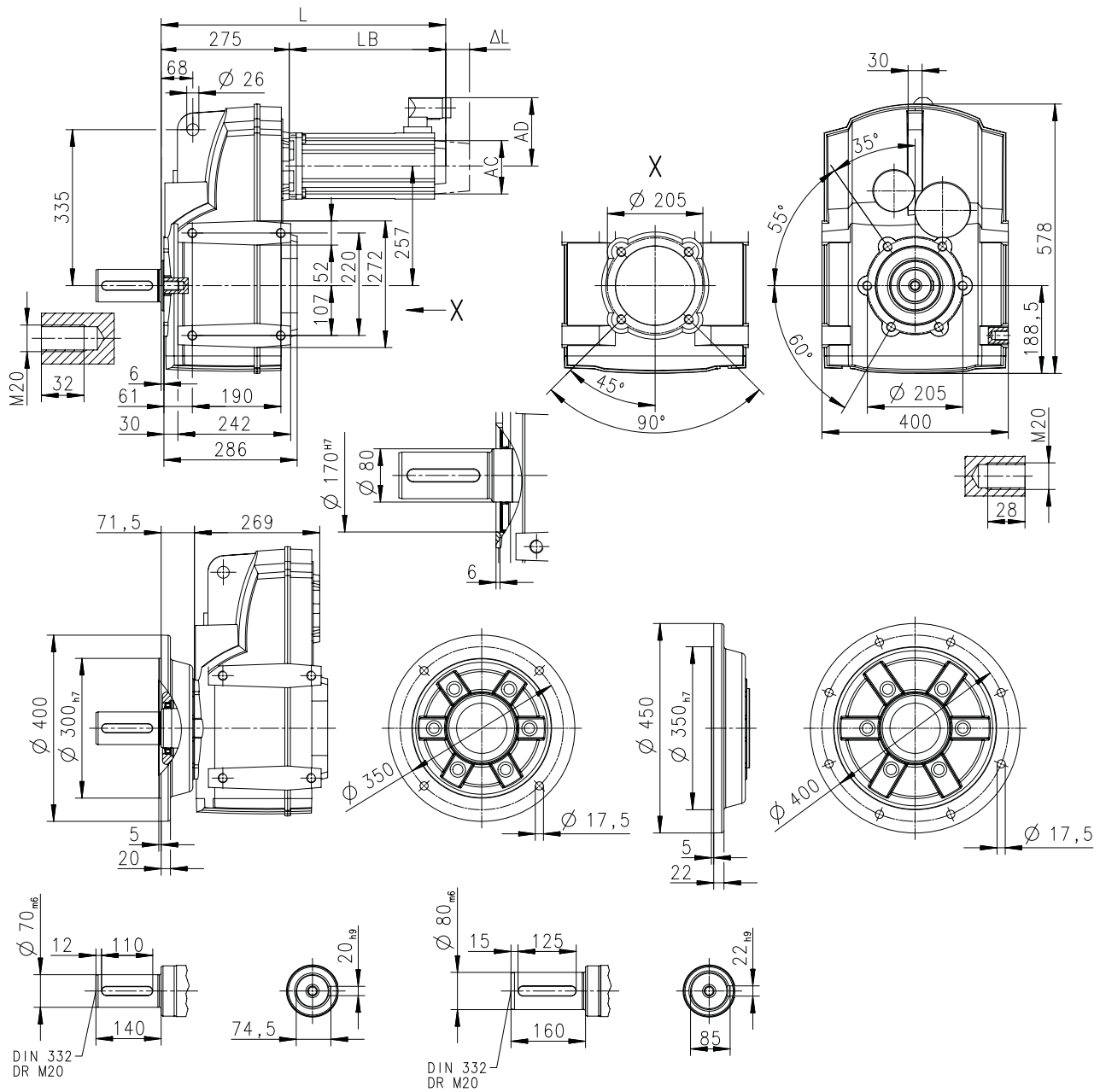


Technical data

Dimensions
Basic dimensions

g500-S4500, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot (VAR/VBR/VAK)



8800394-01

Motor			MCS							
			14L14-Blower	14L15-natural	14L30-Blower	14L32-natural	14P11-Blower	14P14-natural	14P26-Blower	14P32-natural
Total length	L	mm	659	571	659	571	699	611	699	611
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

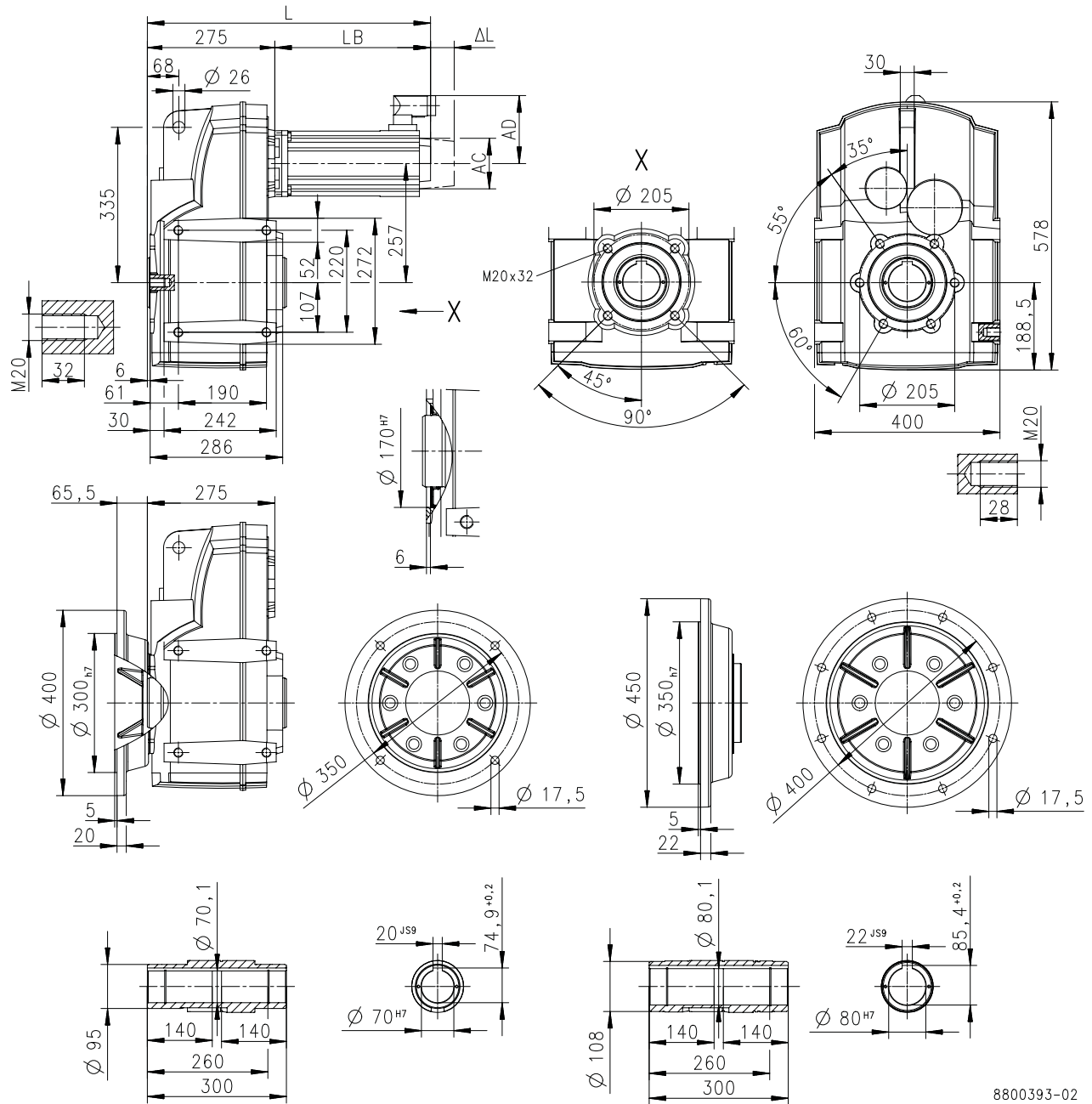
Technical data

Dimensions
Basic dimensions



g500-S4500, 2-/3-stage with MCS19

Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)



8800393-02

Motor			MCS								
			19F12-	19F14-	19F29-	19F30-	19J12-19J29-	19J14-	19J30-	19P12-19P29-	19P30-
Cooling type			Blower	natural	Blower	natural	Blower	natural	natural	Blower	natural
Total length	L	mm	637	530	637	530	677	570	570	677	630
Motor length	LB	mm	362	255	362	255	402	295	295	402	355
Length of motor options	Δ L	mm	72	93	72	93	72	93	93	72	93
Motor diameter	AC	mm	212	192	212	192	212	192	192	212	192
Motor/connection distance	AD	mm	142	142	171	171	171	142	171	171	171

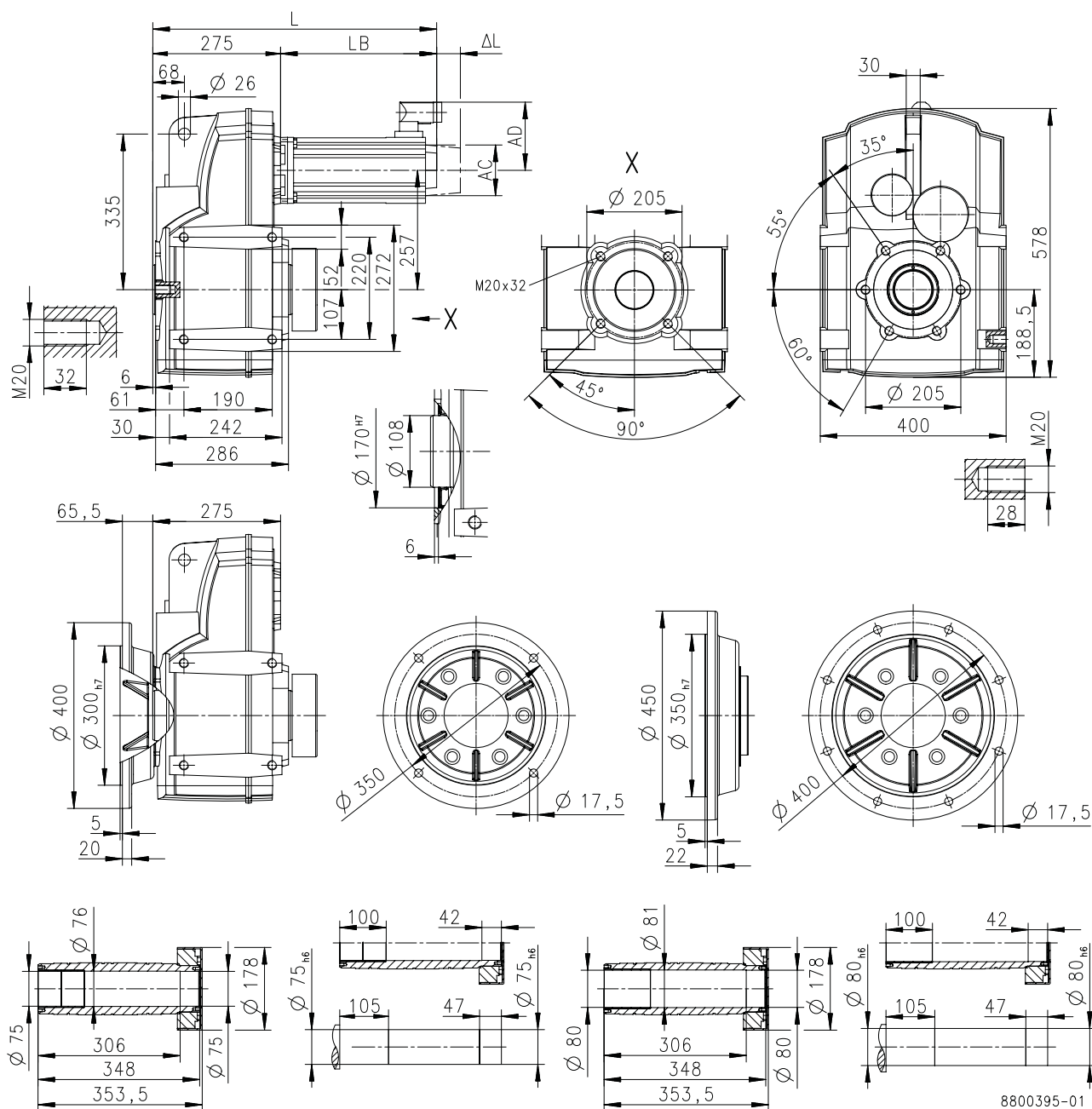


Technical data

Dimensions
Basic dimensions

g500-S4500, 2-/3-stage with MCS19

Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)



8800395-01

Motor			MCS									
			19F12-	19F14-	19F29-	19F30-	19J12-19J29-	19J14-	19J30-	19P12-19P29-	19P14-	19P30-
Cooling type			Blower	natural	Blower	natural	Blower	natural	natural	Blower	natural	natural
Total length	L	mm	637	530	637	530	677	570	570	677	630	630
Motor length	LB	mm	362	255	362	255	402	295	295	402	355	355
Length of motor options	Δ L	mm	72	93	72	93	72	93	93	72	93	93
Motor diameter	AC	mm	212	192	212	192	212	192	192	212	192	192
Motor/connection distance	AD	mm	142	142	171	171	171	142	171	171	171	171

Dimensions

Basic dimensions



Technical drawing of a 1000 mm x 1000 mm x 1000 mm ball mill, showing front, side, and detail views with dimensions in mm.

Front View (Top Left): Shows the main body with dimensions: 275, LB, ΔL , 68, $\varnothing 26$, 335, 6, 32, M20, 61, 190, 30, 242, 286, 107, 52, 220, 272, 257, AC, AD, and X.

Side View (Top Right): Shows the side profile with dimensions: 30, 35°, 55°, 60°, 578, 188,5, $\varnothing 205$, 400, M20, 28, and 90°.

Top View (Middle Left): Shows the top of the mill with dimensions: 71,5, 269, $\varnothing 400$, $\varnothing 300_{H7}$, 5, 20, and 6.

Bottom View (Middle Right): Shows the bottom of the mill with dimensions: $\varnothing 450$, $\varnothing 350_{H7}$, 5, 22, and $\varnothing 17,5$.

Detail Views (Bottom): Shows four detail views of the mill's components, including the main body, the base, and the mounting feet. Dimensions include: $\varnothing 70_{m6}$, 12, 110, 140, 74,5, $\varnothing 80_{m6}$, 15, 125, 160, 22, and 85.

Standards: DIN 332 DR M20.

8800394-01

Motor			MCS									
			19F12-	19F14-	19F29-	19F30-	19J12- 19J29-	19J14-	19J30-	19P12- 19P29-	19P14-	19P30-
Cooling type			Blower	natural	Blower	natural	Blower	natural	natural	Blower	natural	natural
Total length	L	mm	637	530	637	530	677	570	570	677	630	630
Motor length	LB	mm	362	255	362	255	402	295	295	402	355	355
Length of motor options	Δ L	mm	72	93	72	93	72	93	93	72	93	93
Motor diameter	AC	mm	212	192	212	192	212	192	192	212	192	192
Motor/connection distance	AD	mm	142	142	171	171	171	142	171	171	171	171



Gearbox with pre-stage

g500-S130, 3-stage

g500-S220 ... S4500, 4-stage

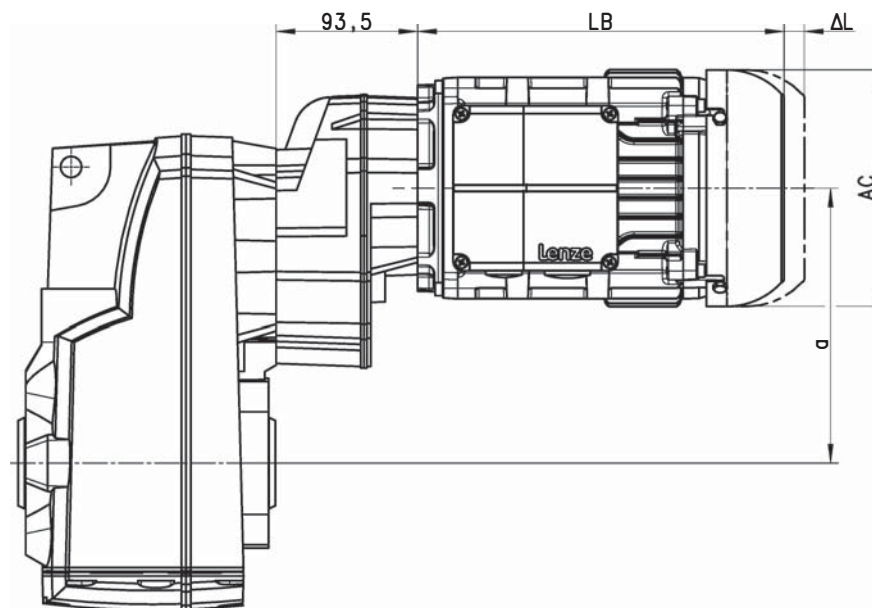


The geared motor dimensions can be found in the basic dimensions, except the total length "L" and the center distance "a".

► [Basic dimensions](#) 136

The total length "L" in the basic dimensions is extended by the 93.5 mm of the pre-stage.

Pay attention to the altered center distance "a" between the gearbox and motor shaft.



8801278-00

Gearboxes			S130	S220	S400	S660	S950	S2100	S3100	S4500
			3-stage	4-stage						
Center distance	a	mm	144	157	162	181	212	255	283	302



Additional lengths



The motor code indicates the short designation of the brake and feedback. Detailed information can be found for

► [Product codes](#) 339

► [Brakes](#) 325

► [Feedback](#) 330

MCS06

Motor	MCS		
	06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type	natural	natural	natural
Feedback (without brake B0)			
R□0	Δ L mm	0	
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L mm	82	
S□M (AM128...) / EKM / EVM	Δ L mm	35	
Brake (P1/P2) and feedback			
R□0	Δ L mm	19	
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L mm	101	
S□M (AM128...) / EKM / EVM	Δ L mm	54	

MCS09

Motor	MCS			
	09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type	natural	natural	natural	natural
Feedback (without brake B0)				
R□0	Δ L mm	0		
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L mm	51		
S□M (AM128...) / EKM / EVM	Δ L mm	20		
Brake (P1/P2) and feedback				
R□0	Δ L mm	20		
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L mm	71		
S□M (AM128...) / EKM / EVM	Δ L mm	40		



MCS12

Motor			MCS								
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L 12H30L	12H34-	12H35-	12L17- 12L39- 12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural	Blower
Feedback (without brake B0)											
R□0	Δ L	mm	0	0	0	0	0	0	0	0	0
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L	mm	43	49	43	49	43	49	43	49	43
S□M (AM128...) / EKM / EVM	Δ L	mm		20		20		20		20	
Brake (P1/P2) and feedback											
R□0	Δ L	mm	20	20	20	20	20	20	20	20	20
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L	mm	63	69	63	69	63	69	63	69	63
S□M (AM128...) / EKM / EVM	Δ L	mm		40		40		40		40	

MCS14

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Feedback (without brake B0)										
R□0	Δ L	mm	0	0	0	0	0	0	0	0
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L	mm	53	50	53	50	53	50	53	50
S□M (AM128...) / EKM / EVM	Δ L	mm		18		18		18		18
Brake (P1/P2) and feedback										
R□0	Δ L	mm	29	28	29	28	29	28	29	28
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L	mm	82	78	82	78	82	78	82	78
S□M (AM128...) / EKM / EVM	Δ L	mm		46		46		46		46

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Feedback (without brake B0)										
R□0	Δ L	mm	0	0	0	0	0	0	0	0
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L	mm	53	50	53	50	53	50	53	50
S□M (AM128...) / EKM / EVM	Δ L	mm		18		18		18		18
Brake (P1/P2) and feedback										
R□0	Δ L	mm	29	28	29	28	29	28	29	28
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L	mm	82	78	82	78	82	78	82	78
S□M (AM128...) / EKM / EVM	Δ L	mm		46		46		46		46

Technical data

Dimensions
Additional lengths



MCS19

Motor			MCS									
			19F12-	19F14-	19F29-	19F30-	19J14-	19J29-	19J30-	19P14-	19P29-	19P30-
Cooling type			Forced	Natural	Forced	Natural	Natural	Forced	Natural	Natural	Forced	Natural
Feedback (without brake B0)												
R□0	Δ L	mm	0	0	0	0	0	0	0	0	0	0
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L	mm	72	49	72	49	49	72	49	49	72	49
S□M (AM128...) / EKM / EVM	Δ L	mm		19		19	19		19	19		19
Brake (P1/P2) and feedback												
R□0	Δ L	mm	34	34	34	34	34	34	34	34	34	34
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L	mm	72	83	72	83	83	72	83	83	72	83
S□M (AM128...) / EKM / EVM	Δ L	mm		53		53	53		53	53		53



Weights

Basic weights



The basic weights are listed in the selection tables.

Weights with lubricant for mounting position M1, all data approximate values. The exact values can be found in the delivery documents

► [Selection tables](#)  59

Observe ► [Additional weights](#)  311!

Additional weights

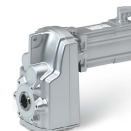
Gearboxes

Gearboxes			g500-S130	g500-S220	g500-S400	g500-S660
Solid shaft	m	kg	0.5	0.5	1.7	2.5
Shrink disc	m	kg	0.2	0.4	0.6	0.6
Foot	m	kg	1.7	1.8	3.3	4.3
Flange	m	kg	0.4	0.4	0.9	1.7
Torque plate						
Rubber buffers	m	kg	0.1	0.1	0.1	0.1
Shaft cover						
Shrink disc cover	m	kg	0.1	0.1	0.1	0.1

Gearboxes			g500-S950	g500-S2100	g500-S3100	g500-S4500
Solid shaft	m	kg	3.0	5.5	8.4	19.0
Shrink disc	m	kg	1.2	1.7	2.3	4.3
Foot	m	kg		-	-	-
Flange	m	kg	6.0	11.5	15.0	29.0
Torque plate						
Rubber buffers	m	kg	0.1	0.5	0.5	0.5
Shaft cover						
Shrink disc cover	m	kg	0.1	0.2	0.3	0.4

Motors

Motor			MCS06C MCS06F MCS06I	MCS09D MCS09F MCS09H MCS09L	MCS12D MCS12H MCS12L	MCS14D MCS14H MCS14L MCS14P	MCS19F	MCS19J MCS19P
Permanent magnet holding brake								
Standard braking torque	m	kg	0.3	0.8	0.9	1.9	3.1	
Increased braking torque	m	kg		0.8	1.2	3.1		4.3



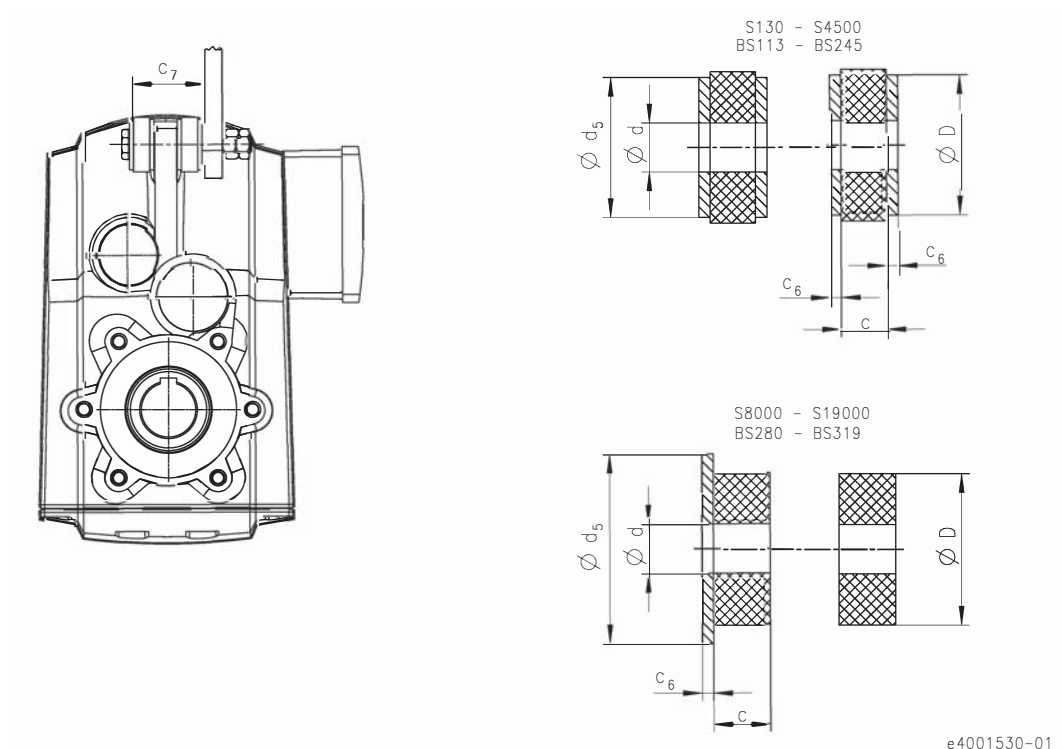
Product extensions

Torque plates

Torque support is usually provided by means of the foot or flange.

The integrated torque plate is another simple possibility. In this case, torque support is provided only via one point and is suitable for shaft-mounted gearboxes, among other things. Moreover, suitable rubber buffers ensure stress-free installation and absorb any slight impacts.

Rubber buffer for torque plate



Gearboxes	Dimensions					
	d	D	d ₅	c	c ₆	c ₇
	mm	mm	mm	mm	mm	mm
g500-S130	11.0	30.0	30	12.0	2.50	45.0
g500-S220	11.0	30.0	30	12.0	2.50	45.0
g500-S400	13.0	40,0	37	12.0	3.00	49.0
g500-S660	13.0	40,0	37	12.0	3.00	52.0
g500-S950	13.0	40,0	37	12.0	3.00	56.0
g500-S2100	17.0	50.0	50	24.0	3.00	85.0
g500-S3100	21.0	60.0	60	24.0	4.00	94.0
g500-S4500	26.0	72.0	72	24.0	5.00	98.0



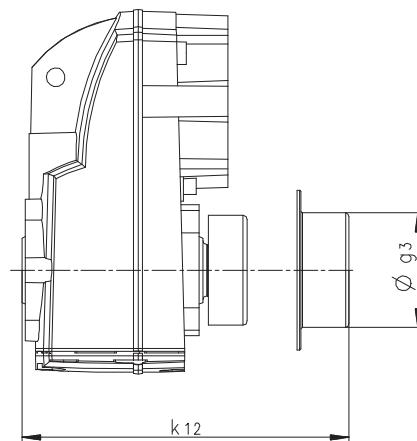
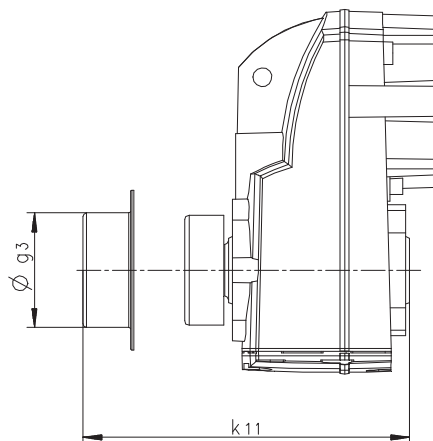
Shaft covers

The shrink disc cover is provided for the shrink disc to be protected from contact.

The cover is mounted by means of a plug connection.

The shrink disc cover is provided for the shrink disc to be protected from contact.

Shrink disc cover



Gearboxes	Dimensions		
	G_3	k_{11}	k_{12}
	mm	mm	mm
g500-S130	63.0	132	132
g500-S220	76.0	152	152
g500-S400	90.0	182	182
g500-S660	90.0	200	202
g500-S950	110	219	219
g500-S2100	127	252	252
g500-S3100	155	290	290
g500-S4500	188	355	357

Product extensions

Motor connection
Connection via terminal box



Motor connection

Connection via terminal box

If a motor is to be connected to an existing cable or plug connectors are not to be used for other reasons, the connection can also be made via a terminal box.

The terminals are designed as tension spring terminals to ensure here the long-term vibration resistance of the cable contacts with adequate contact pressure required.

The terminal boxes have generously dimensioned space for the customer's own wiring and large surface shield connection areas to ensure a secure EMC-compliant connection. The cable outlet may be to the left or to the right, depending on requirements.



It is not possible to attach a terminal box to the MCS06 or to models with the blower.





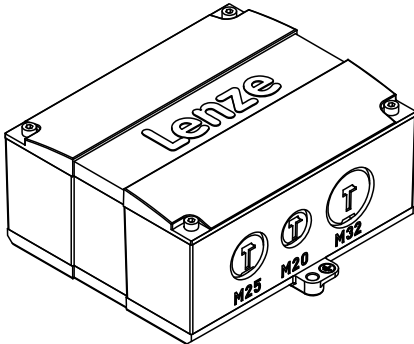
Product extensions

Motor connection
Connection via terminal box

Cable glands

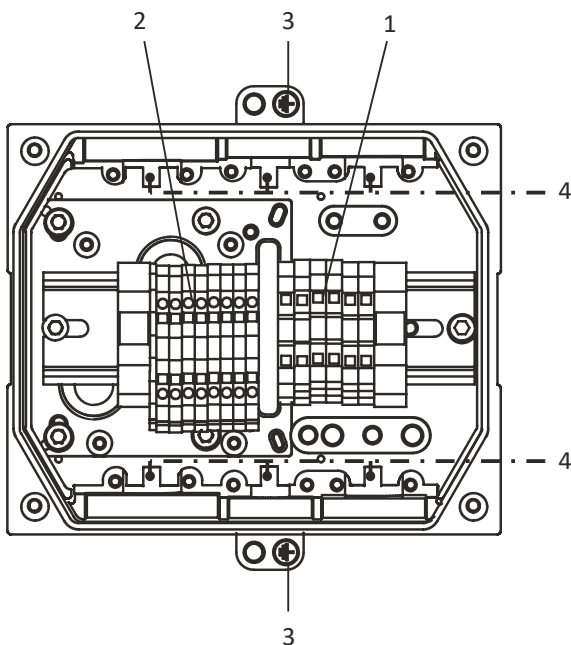


The bore holes for the cable glands M25, M20 and M32 are located on both sides and closed. They can be opened according to need.



Motor		MCS09 MCS12 MCS14H	MCS14L15 MCS14P14 MCS19F15 MCS19J15	MCS14L32 MCS14P32 MCS19F13 MCS19J30 MCS19P
Screwed connections		2x M20 2x M25 2x M32		
cable cross-section	mm ²	0.08 ... 2.5 4 (without wire end ferrule)		0.2 ... 10
Stripping length	mm	10 ... 11		
Terminal design		Spring-loaded terminal		

Position of the connections



Position	Meaning
1	Power connection Brake connection
2	Feedback connection Connection of temperature monitoring
3	PE connection
4	Large area shield contact.

Product extensions

Motor connection
Connection via terminal box



Terminal box, power		
Contact	Name	Meaning
U1	L1	Motor winding phase
V1	L2	
W1	L3	
PE	PE	PE conductor

Terminal box, DC brake		
Contact	Name	Meaning
BD1	+	Brake +
BD2	-	Brake -

Terminal box, resolver		
Contact	Name	Meaning
B1	+Ref	Transformer windings (reference windings)
B2	-Ref	
B3	+VCC ETS	Supply: Electronic nameplate (only for variant with electronic nameplate ETS)
B4	+COS	Cosine stator windings
B5	-COS	
B6	+SIN	Sine stator windings
B7	-SIN	
B8		Not assigned

Terminal box, SinCos absolute value encoder with Hiperface		
Contact	Name	Meaning
B1	+ UB	Supply +
B2	GND	Mass
B3	A	Track A / + COS
B4	A ⁻	Track A inverse /-COS
B5	B	Track B / +SIN
B6	B ⁻	Track B inverse/-SIN
B7	Z	Zero track / + RS485
B8	Z ⁻	Zero track inverse /-RS485
B10		Incremental encoder shield

Terminal box, SinCos absolute value encoder with EnDat		
Contact	Name	Meaning
B1	+ UB	Supply +
B2	GND	Mass
B3	A	Track A / + COS
B4	A ⁻	Track A inverse /-COS
B5	B	Track B / +SIN
B6	B ⁻	Track B inverse/-SIN
B7	Daten	EnDat interface data
B8	Daten ⁻	Data inverse EnDat interface
B20	Takt	EnDat interface cycle
B21	Takt ⁻	Inverse EnDat interface cycle
B22	Up Sensor	Up Sensor
B23	0 V Sensor	0 V sensor
B24	Schirm	Encoder housing shield
B25		Not assigned

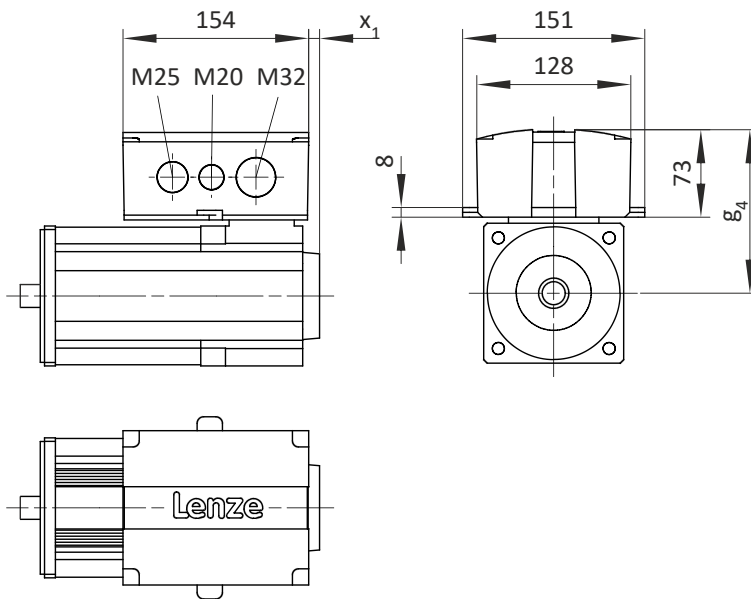
Terminal box with temperature monitoring R		
Contact	Name	Meaning
R1	+	Temperature sensor +
R2	-	Temperature sensor -



Product extensions

Motor connection
Connection via terminal box

Terminal box dimensions



Motor			MCS09D MCS09F MCS09H MCS09L	MCS12D MCS12H MCS12L	MCS14D MCS14H MCS14L MCS14P	MCS19F MCS19J MCS19P
Motor/connection distance	g_4	mm	121	136	147	172
Feedback						
Resolver/TTL incremental encoder	x_1	mm	5	9	21	12
SinCos absolute value encoder	x_1	mm	56	58	71	61

Product extensions

Motor connection
Connection via connector



Connection via connector

The electrical connection to the servo motors is made via M23 or M40 plug connectors as standard.

The connection is made via two connectors:

- For power and brake
- For feedback and temperature monitoring

Alternatively, Lenze offers a One Cable Technology (OCT).

The connectors can be rotated by 270 ° and are provided with a bayonet catch. Since the catch of the connector is also compatible with conventional box nuts, existing mating connectors with a screw plug can continue to be used without any problems.



Preassembled Lenze system cables are available for fast and error-free connection of Lenze motors to Lenze inverters.

Details and data can be found in the "Accessories" brochure on the Internet.

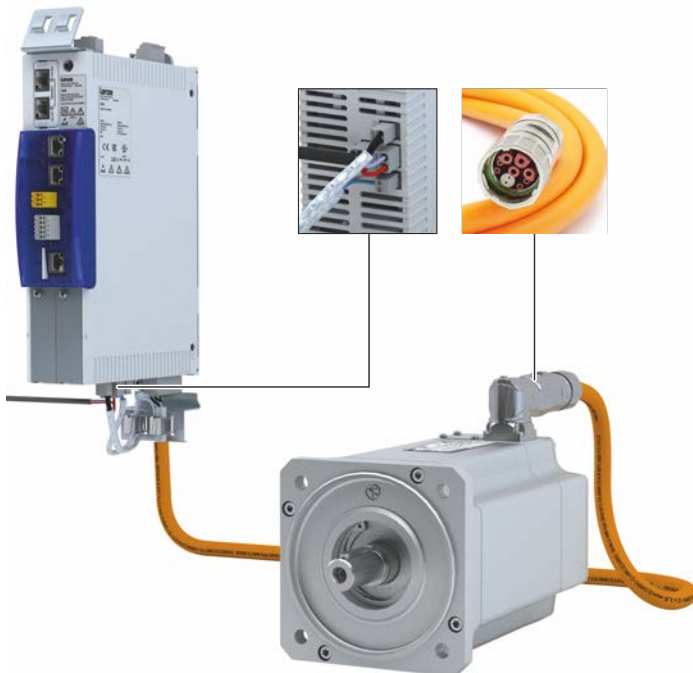


One Cable Technology (OCT)

With the help of digital absolute value encoders and the HIPERFACE DSL® open motor feedback protocol, the motor supports the use of future-oriented One Cable Technology (OCT).

Advantages

- All the wiring required is carried out in just one connector.
- The use of system cables merges the servo and feedback cables.
- Connection cables, cable variance, and connection costs are thus reasonably minimized.
- The motor temperature is transmitted digitally together with the encoder signal. An additional connection for a motor temperature sensor is not required.
- Speed-dependent safety functions can be realized by using the safety-rated digital absolute value encoder.



The M23 connector for One Cable Technology (OCT) has been changed; the change can be recognized by the color of the connector:

- Old connector: Blue
- New connector: Red

Only motor/system cable connectors of the same color can be plugged in.

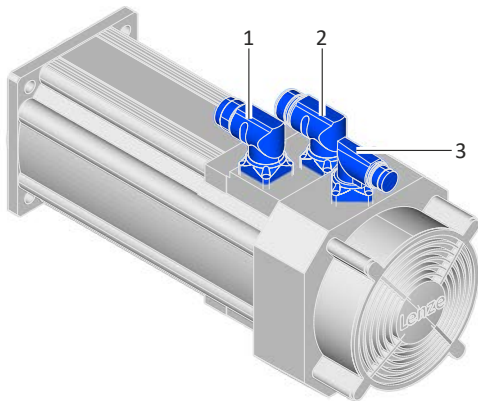
Product extensions

Motor connection
Connection via connector

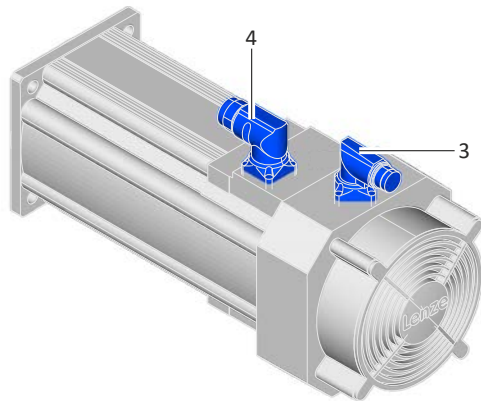


Position of the connections

Standard connection



One Cable Technology (OCT)



Position	Meaning	Position	Meaning
1	M23 connector, 6-pole M40 connector, 8-pole - Power connection - Brake connection - PE connection	4	For One Cable Technology (OCT) M23 connector, hybrid M40 connector, hybrid - Power connection - Brake connection - PE connection - Digital absolute value encoder connection - Temperature monitoring connection
2	M23 connector - Feedback connection - Temperature monitoring connection		
3	M17 connector Blower connection		

Motor/connector assignment

Standard connection: Power and brake							
One Cable Technology (OCT): Power, brake, feedback and temperature monitoring connection							
Motor	Connector	Motor	Connector	Motor	Connector	Motor	Connector
MCS06...	M23	MCS14H15-	M23	MCS14P14-	M23	MCS19J14-	M23
MCS09...	M23	MCS14H28-	M40	MCS14P26-	M40	MCS19J29-	M40
MCS12...	M23	MCS14H32-	M23	MCS14P32-	M40	MCS19J30-	M40
MCS14D14-	M23	MCS14L14-	M23	MCS19F12-	M23	MCS19P12-	M40
MCS14D15-	M23	MCS14L15-	M23	MCS19F14-	M23	MCS19P14-	M40
MCS14D30-	M23	MCS14L30-	M40	MCS19F29-	M40	MCS19P29-	M40
MCS14D36-	M23	MCS14L32-	M40	MCS19F30-	M40	MCS19P30-	M40
MCS14H12-	M23	MCS14P11-	M23	MCS19J12-	M40		

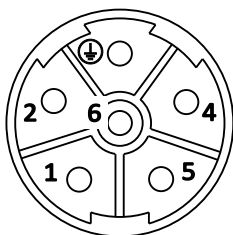


Product extensions

Motor connection
Connection via connector

ICN-M23 connector assignment

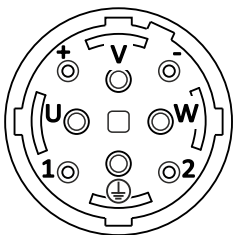
6-pole



M23 6-pole		
Contact	Name	Meaning
PE	PE	PE conductor
1	BD1	DC +/AC brake
2	BD2	DC -/AC brake
4	U	Power phase U
5	V	Power phase V
6	W	Power phase W

M40 connector assignment for motor cables

8-pole



M40 8-pole		
Contact	Name	Meaning
V	V	Power phase V
PE	PE	PE conductor
W	W	Power phase W
-	BD2	Holding brake -
U	U	Power phase U
+	BD1	Holding brake +
1		Not assigned
2		Not assigned

Product extensions

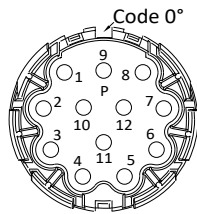
Motor connection
Connection via connector



Feedback and temperature monitoring connection

ICN-M23 connector assignment

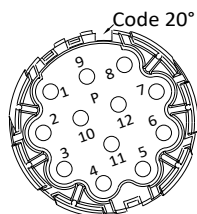
Resolver



M23 for resolvers		
Contact	Name	Meaning
1	+Ref	Transformer windings
2	-Ref	Transformer windings
3	+VCC ETS	Supply: Electronic nameplate (Only for motors and inverters that support this function)
4	+COS	Cosine stator windings
5	-COS	Cosine stator windings
6	+SIN	Sine stator windings
7	-SIN	Sine stator windings
8		Not assigned
9		Not assigned
10	Schirm	Encoder housing shield
11	+	Temperature monitoring: PT1000
12	-	Temperature monitoring: PT1000

ICN-M23 connector assignment

Incremental and SinCos absolute value encoder Hiperface®



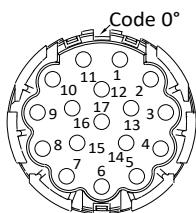
ICN M23 for encoders		
Contact	Name	Meaning
1	B	Track B / +SIN
2	A ⁻	Track A inverse / -COS
3	A	Track A / + COS
4	+UB	Supply +
5	GND	Mass
6	Z ⁻	Zero track inverse / -RS485
7	Z	Zero track / + RS485
8		Not assigned
9	B ⁻	Track B inverse/-SIN
10	Schirm	Encoder housing shield
11	+	Temperature monitoring: PT1000
12	-	Temperature monitoring: PT1000



Product extensions

Motor connection
Connection via connector

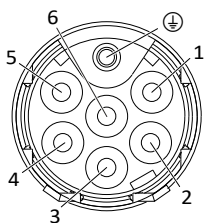
M23 connector assignment for EnDat cables



M23 for EnDat encoders		
Contact	Name	Meaning
1	UP Sensor	Up Sensor
2		Not assigned
3		Not assigned
4	0 V Sensor	0 V sensor
5	+	PT1000/KTY temperature sensor
6	-	PT1000/KTY temperature sensor
7	+UB	Supply +
8	Takt	EnDat interface cycle
9	Takt-	Inverse EnDat interface cycle
10	GND	Mass
11	Schirm	Encoder housing shield
12	B	Track B
13	B-	Track B inverse/-SIN
14	Daten	EnDat interface data
15	A	Track A
16	A-	Track A inverse /-COS
17	Daten-	Data inverse EnDat interface

Blower

Pin assignment ICN-M17



M17 for blowers 1-ph		
Contact	Name	Meaning
PE	PE	PE conductor
1	U1	Fan
2	U2	Fan
3		Not assigned
4		Not assigned
5		Not assigned
6		Not assigned

Product extensions

Motor connection
Connection via connector



One Cable Technology (OCT)

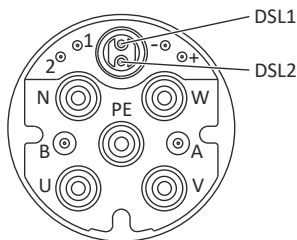
Power, brake, feedback and temperature monitoring connection

M23 connector assignment for OCT motor cables



M23_OCT		
Contact	Name	Meaning
A	BD1	Holding brake +
B	BD2	Holding brake -
C		Not assigned
D		Not assigned
H	VCC/Daten +	VCC/data +
L	GND/Daten -	GND/data -
PE	PE	PE
U	U	Power phase U
V	V	Power phase V
W	W	Power phase W

M40 connector assignment for OCT motor cables



M40_OCT		
Contact	Name	Meaning
-		Not assigned
+		Not assigned
1		Not assigned
2		Not assigned
A	BD1	Holding brake +
B	BD2	Holding brake -
DSL1	+	VCC/data +
DSL2	-	GND/data -
N		Not assigned
PE	PE	PE
U	U	Power phase U
V	V	Power phase V
W	W	Power phase W



Brakes

Optionally, the motors can be ordered with a permanent magnet brake as holding brake.

⚠ CAUTION!

They may not be used as safety elements (particularly with hoist axes) without additional measures being implemented.

The brakes used are not fail-safe brakes in the sense that prospective disruptive factors, e.g. oil ingress, can lead to a reduction in torque!

- ▶ The brakes must only be used as holding brakes for holding the axes at a standstill or in the deenergised state.
- ▶ The brake must not be used as a service brake.

⚠ CAUTION!

If no suitable voltage (incorrect value, incorrect polarity) is applied to the brake, the brake will be applied and can be overheated and destroyed by the motor continuing to rotate.

Motor supply cables

If long motor supply cables are used, pay attention to the ohmic voltage drop along the cable and compensate for it with a higher voltage at the input end of the cable.

The following applies to Lenze system cables:

$U[V] = U_B[V] + 0.08 \frac{[V]}{[A] \times [m]} \times l_{Lg}[m] \times I_B[A]$	U	V	Resulting supply voltage
	U _B	V	Rated voltage of the brake
	l _{Lg}	m	Cable length
	I _B	A	Rated current of the brake

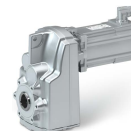
NOTICE

- ▶ The brakes become active when the supply voltage has been switched off (closed-circuit principle).
- ▶ When using the brakes purely as holding brakes, virtually no wear occurs on the friction surfaces.
- ▶ The friction surfaces must always be free from oil and grease because even small amounts of grease or oil will considerably reduce the braking torque.

NOTICE

In case of these permanent magnet brakes, the rated torque applies solely as holding torque at standstill.

- ▶ Emergency stops at higher speeds are possible but high switching energy increases wear on the friction surfaces and the hub.
- ▶ During braking from full motor speed, e.g. in the event of emergency stops, the braking torque is significantly reduced.



NOTICE

In case of travel axes, the compliance of the permissible ratio of mass inertia load/brake motor (J_L/J_{MB}) ensures that the permissible maximum switching energy of the brake will not be exceeded and at least the values given for the emergency stop functions from the given speed (see rated data) are applied.

For hoist axes, the load torque resulting from the weight acts additionally. In this case, the specifications for (J_L/J_{MB}) do not apply.

To simplify matters, the friction energy per switching cycle can be calculated using the formula below and must not exceed the limit value for emergency stops, which depends on the switching rate:

$Q = \frac{1}{2} \times J_{ges} \times \left(2\pi \times \frac{\Delta n}{60} \right)^2 \times \frac{M_N}{M_N - M_L}$	Q	J	Friction energy
	J_{total}	kgm ²	Total mass inertia (motor + load)
	Δn	rpm	Differential speed
	M_N	Nm	Rated torque of the brake
	M_L	nM	Load torque



The shortest operating times of the brakes are achieved by DC switching of the voltage and an external suppressor circuit (varistor or spark suppressor).

Without suppressor circuit, the operating times may increase. A varistor/ spark suppressor limits the breaking voltage peaks. It must be ensured that the power limit of the suppressor circuit is not exceeded. This limit depends on the brake current, brake voltage, disengagement time and the switching operations per time unit.

Furthermore the suppressor circuit is necessary for interference suppression and for increasing the service life of the relay contacts (external, is not integrated into the motor).



It is not possible to readjust the brake.



Permanent magnet brakes

Rated data

NOTICE

Engagement and disengagement times apply to rated voltage ($\pm 0\%$) and suppressor circuit of the brakes with a varistor with DC switching. Without a suppressor circuit, the times may be longer.

The currents are the maximum values when the brake is cold (value used for dimensioning the current supply). The values for a motor at operating temperature are considerably lower.

Requirements with regard to the DC 24 V brake: smoothed DC voltage, ripple $\leq 1\%$.

Maximum switching energy per emergency stop with $n = 3000$ rpm for at least 2000 emergency stops.

Product extensions

Permanent magnet brakes



Motor			MCS06C	MCS06F	MCS06I	MCS09D		MCS09F		MCS09H
Motor code			P1	P1	P1	P1	P2	P1	P2	P1
Supply voltage range	V_{in}	V	21.84 ... 25.2							
Supply voltage	V_{rated}	V	24							
Bemessungsdrehmoment										
At 20 °C	M_{rated}	Nm	2.2			8	12	8	12	8
At 120 °C	M_{rated}	Nm	2			6	10	6	10	6
Rated current	I_{rated}	A	0.34			0.67				
Engagement time t_1	t_1	ms	15			20	13	20	13	20
Disengagement time t_2	t_2	ms	30			40	43	40	43	40
Friction energy	Q_E	kJ	0.030			0.400				
Weight	m	kg	0.30			0.80	0.9	0.80	0.9	0.80
Massenträgheitsmoment										
Brake	J	kgcm ²	0.12			1.07				
Brake motor	J_{MB}	kgcm ²	0.26	0.34	0.42	2.17		2.57		2.97
Load/brake motor ratio	J_L/J_{MB}		22.1	16.6	13.3	36.4		30.5		26.3

Motor			MCS09H	MCS09L		MCS12D		MCS12H		MCS12L
Motor code			P2	P1	P2	P1	P2	P1	P2	P1
Supply voltage range	V _{in}	V	21.84 ... 25.2							
Supply voltage	V _{rated}	V	24							
Bemessungsdrehmoment										
At 20 °C	M _{rated}	Nm	12	8	12		24	12	24	12
At 120 °C	M _{rated}	Nm	10	6	10		19	10	19	10
Rated current	I _{rated}	A	0.67				0.75	0.67	0.75	0.67
Engagement time t1	t ₁	ms	13	20	13		16	13	16	13
Disengagement time t2	t ₂	ms	43	40	43		90	43	90	43
Friction energy	Q _E	kJ	0.400				0.890	0.400	0.890	0.400
Weight	m	kg	0.9	0.80	0.9		1.20	0.9	1.20	0.9
Massenträgheitsmoment										
Brake	J	kgcm ²	1.07				3.13	1.07	3.13	1.07
Brake motor	J _{MB}	kgcm ²	2.97	3.87		5.07	7.1	8.4	10.4	11.7
Load/brake motor ratio	J _L /J _{MB}		26.3	19.9		15	24.3	8.7	16.3	5.9



Product extensions

Permanent magnet brakes

Motor			MCS12L	MCS14D		MCS14H		MCS14L		MCS14P
Motor code			P2	P1	P2	P1	P2	P1	P2	P1
Supply voltage range	V_{in}	V	21.84 ... 25.2							
Supply voltage	V_{rated}	V	24							
Bemessungsdrehmoment										
At 20 °C	M_{rated}	Nm	24	22	37	22	37	22	37	22
At 120 °C	M_{rated}	Nm	19	18	32	18	32	18	32	18
Rated current	I_{rated}	A	0.75		0.81	0.75	0.81	0.75	0.81	0.75
Engagement time t1	t_1	ms	16	15	96	15	96	15	96	15
Disengagement time t2	t_2	ms	90	150	113	150	113	150	113	150
Friction energy	Q_E	kJ	0.890	0.640	2.350	0.640	2.350	0.640	2.350	0.640
Weight	m	kg	1.20	1.9	3.1	1.9	3.1	1.9	3.1	1.9
Massenträgheitsmoment										
Brake	J	kgcm ²	3.13	3.2	12.4	3.2	12.4	3.2	12.4	3.2
Brake motor	J_{MB}	kgcm ²	13.7	11.3	20.5	17.4	26.6		35.8	37.9
Load/brake motor ratio	J_L/J_{MB}		12.1	10.5	22.2	6.5	16.9	3.9	12.3	2.4

Motor			MCS14P	MCS19F	MCS19J	MCS19P
Motor code			P2	P1	P2	P2
Supply voltage range	V _{in}	V	21.84 ... 25.2			
Supply voltage	V _{rated}	V	24			
Bemessungsdrehmoment						
At 20 °C	M _{rated}	Nm	37		95	
At 120 °C	M _{rated}	Nm	32		80	
Rated current	I _{rated}	A	0.81		1.46	
Engagement time t1	t ₁	ms	96		23	
Disengagement time t2	t ₂	ms	113		140	
Friction energy	Q _E	kJ	2.350		2.80	
Weight	m	kg	3.1		3.9	
Massenträgheitsmoment						
Brake	J	kgcm ²	12.4		31.8	
Brake motor	J _{MB}	kgcm ²	47.1	77	135	190
Load/brake motor ratio	J _L /J _{MB}		9.1	5.2	2.2	1.2



Feedback

For speed control with a servo inverter, the servo motor can be equipped with the following feedback systems:

Inverter	Feedback without functional safety		
	Resolver	Absolute value encoder	Digital absolute value encoder for OCT
i950 servo inverter	RS0	AM128-8V-H AM1024-8V-H AS1024-8V-H	AM20-8V-D
i750 servo inverter	RS0	AM128-8V-H AM1024-8V-H AS1024-8V-H	-
8400 TopLine inverter drives	RS0	AM128-8V-H AM1024-8V-H AS1024-8V-H	-
9400 HighLine servo drives	RS0	AM32-5V-E AM128-8V-H AM1024-8V-H AM2048-5V-E AS1024-8V-H AS2048-5V-E	-

Inverter	Feedback with functional safety		
	Resolver	Absolute value encoder	Digital absolute value encoder for OCT
i950 servo inverter	RV03	AM128-8V-K2 AM1024-8V-K2 AS1024-8V-K2	AM20-8V-D2
9400 HighLine servo drives	RV03	AM128-8V-K2 AM1024-8V-K2 AS1024-8V-K2	-

Feedbacks in the environment of functional safety

Motors can perform speed-dependent safety functions for safe speed and/or safe relative position monitoring in a drive system by Lenze inverters or Controllers. In case of inverters, these functions are implemented by integrable safety modules and in case of Controllers by the additionally required Safety Controller.

When planning systems/installations of this kind, always observe the following:

- When using just one single feedback system in the environment of these safety applications, the applicable safety engineering standard EN 61800-5-2 (adjustable speed electrical power drive systems - Part: 5-2: Safety requirements - Functional) stipulates special requirements for the connection between feedback system and motor shaft.
- This is due to the fact that two-channel safety systems at this point in the mechanical system are actually designed as single-channel systems. If this mechanical connection is designed with considerable overdimensioning, the standard permits exclusion of the fault "encoder-shaft breakage" or "encoder-shaft slip". As such, the permissible angular acceleration limit values must not be exceeded for the individual drive solutions.

You can find the limit values in the corresponding feedback data of the individual motor ranges.



Speed-dependent safety functions

Examples of speed-dependent safety functions:

- Safe stop 1 (SS1)
- Safe operational stop (SOS)
- Safely limited speed (SLS)
- Safe maximum speed (SMS)
- Safe direction (SDI)
- Operation mode selector (OMS) with confirmation (ES)
- Safe speed monitor (SSM)
- Safely limited increment (SLI)

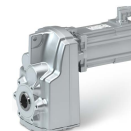
Resolver

The stator-supplied, 2-pole resolver with two stator windings shifted by 90 degrees and a rotor winding with a transformer winding can record both the speed and the rotor position, just like a single-turn absolute value encoder. The rotor position can be determined within one mechanical motor revolution after a voltage failure.

Feedback type			Resolver	
Feedback			RS0	RV03
Speed-dependent safety functions			Nein	Ja
Design			Mounting	
Resolution - angle		'	0.8	0.8
Min. accuracy		'	-10	-10
Max. accuracy		'	10	10
Absolute positioning			1 revolution	1 revolution
Max. speed	$n_{\max}$	rpm	8000	8000
Max. DC input voltage	$V_{\text{in,max}}$	V	10	10
Max. input frequency	$f_{\text{in,max}}$	kHz	4	4
Ratio stator/rotor			0.3	0.3
Min ratio tolerance		%	-5	-5
Max ratio tolerance		%	5	5
Rotor impedance	Z_{ro}	Ω	51+j90	51+j90
Stator impedance	Z_{so}	Ω	102+j150	102+j150
Impedance	Z_{rs}	Ω	44+j76	44+j76
Min. insulation resistance at DC 500 V	R_{min}	M Ω	10	10
Number of pole pairs			1	1
Max. angle error Min		'	-10	-10
Max. angle error Max		'	10	10

Speed-dependent safety functions

Feedback			RV03
Motor code			RV03
Max. permissible angular acceleration			
MCS06	α	rad/s ²	56000
MCS09 ... MCS19	α	rad/s ²	19000
Functional safety			
IEC 61508			SIL3
EN 13849-1			Up to Performance Level e



Absolute value encoder

Absolute value encoders can detect the speed, the rotor position, and the machine position with a very high resolution. They are used for the positioning of dynamic applications and do not require homing.



In conjunction with the AMxx-8V-D digital absolute value encoder, the motor supports the HIPERFACE DSL® open motor feedback protocol for One Cable Technology (OCT).



Product extensions

Feedback
Absolute value encoder

Feedback type			Digital absolute value encoder		SinCos absolute value encoder			
Feedback			AM20-8V-D	AM20-8V-D2	AM32-5V-E	AM128-8V-H	AM128-8V-K2	AM1024-8V-H
Speed-dependent safety functions			Nein	Ja	Nein	Nein	Ja	Nein
Design			Mounting	Mounting	Mounting	Mounting	Mounting	Mounting
Encoder type			Multi-turn	Multi-turn	Multi-turn	Multi-turn	Multi-turn	Multi-turn
Resolution		bit	20	20	-	-	-	-
Pulses			-	-	32	128	128	1024
Output signals			Digital	Digital	SinCos 1 Vss	SinCos 1 Vss	SinCos 1 Vss	SinCos 1 Vss
Interfaces			Hiperface	Hiperface	EnDat	Hiperface	Hiperface	Hiperface
Absolute revolution			4096	4096	4096	4096	4096	4096
Resolution - angle			0.02	0.02	0.4	0.4	0.4	0.4
Min. accuracy		'	-	-	-5	-1.3	-1.3	-0.8
Max. accuracy		'	-	-	5	1.3	1.3	0.8
Fehlergrenze Positionswert								
System accuracy			1.7	1.7	-	-	-	-
Integral nonlinearity			1	1	-	-	-	-
Min. DC input voltage	$V_{in,min}$	V	-	-	4.75	7	7	7
Max. DC input voltage	$V_{in,max}$	V	-	-	5.25	12	12	12
Max. current consumption	I_{max}	A	0.15	0.15	0.17	0.06	0.06	0.08
Limit frequency	f_{max}	kHz	-	-	600	200	200	200

Feedback type			SinCos absolute value encoder				
Feedback			AM1024-8V-K2	AM2048-5V-E	AS1024-8V-H	AS1024-8V-K2	AS2048-5V-E
Speed-dependent safety functions			Ja	Nein	Nein	Ja	Nein
Design			Mounting	Mounting	Mounting	Mounting	Mounting
Encoder type			Multi-turn	Multi-turn	Single-turn	Single-turn	Single-turn
Resolution		bit	-	-	-	-	-
Pulses			1024	2048	1024	1024	2048
Output signals			SinCos 1 Vss	SinCos 1 Vss	SinCos 1 Vss	SinCos 1 Vss	SinCos 1 Vss
Interfaces			Hiperface	EnDat	Hiperface	Hiperface	EnDat
Absolute revolution			4096	4096	1	1	1
Resolution - angle			0.4	0.4	0.4	0.4	0.4
Min. accuracy		'	-0.8	-0.6	-0.8	-0.8	-0.6
Max. accuracy		'	0.8	0.6	0.8	0.8	0.6
Fehlergrenze Positionswert							
System accuracy			-	-	-	-	-
Integral nonlinearity			-	-	-	-	-
Min. DC input voltage	$V_{in,min}$	V	7	4.75	7	7	4.75
Max. DC input voltage	$V_{in,max}$	V	12	5.25	12	12	5.25
Max. current consumption	I_{max}	A	0.08	0.25	0.08	0.08	0.15
Limit frequency	f_{max}	kHz	200	200	200	200	200

Product extensions

Feedback
Absolute value encoder



Speed-dependent safety functions

Feedback			AM20-8V-D2	AM128-8V-K2	AM1024-8V-K2	AS1024-8V-K2
Motor code			EVM	SVM	SVM	SVS
Max. permissible angular acceleration						
MCS06	α	rad/s^2	240000	970000		
MCS09 ... MCS19	α	rad/s^2	240000	240000		
Functional safety						
IEC 61508			SIL2			
EN 13849-1			Up to Performance Level d			



Blower

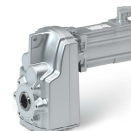
The forced ventilation motors are cooled as a standard by means of a separate axial fan.

Rated data 50 Hz

Motor series			MCS					
Size			12		14		19	
Degree of protection			IP54					
Number of phases			1	1	1	1	1	1
Rated voltage	V _{rated}	V	115	230	115	230	115	230
Rated power	P _{rated}	kW	0.018	0.019	0.042	0.05	0.055	0.055
Rated current	I _{rated}	A	0.22	0.12	0.56	0.3	0.5	0.25

Rated data 60 Hz

Motor series			MCS					
Size			12		14		19	
Degree of protection			IP54					
Number of phases			1	1	1	1	1	1
Rated voltage	V _{rated}	V	115	230	115	230	115	230
Rated power	P _{rated}	kW	0.018	0.019	0.044	0.044	0.07	0.065
Rated current	I _{rated}	A	0.22	0.12	0.56	0.25	0.61	0.29



Temperature monitoring

Thermal detectors PT1000

The thermal detector used continuously monitors the motor temperature. The temperature information is transferred to the inverter using the system cable of the feedback system. **This is not a full motor protection!**

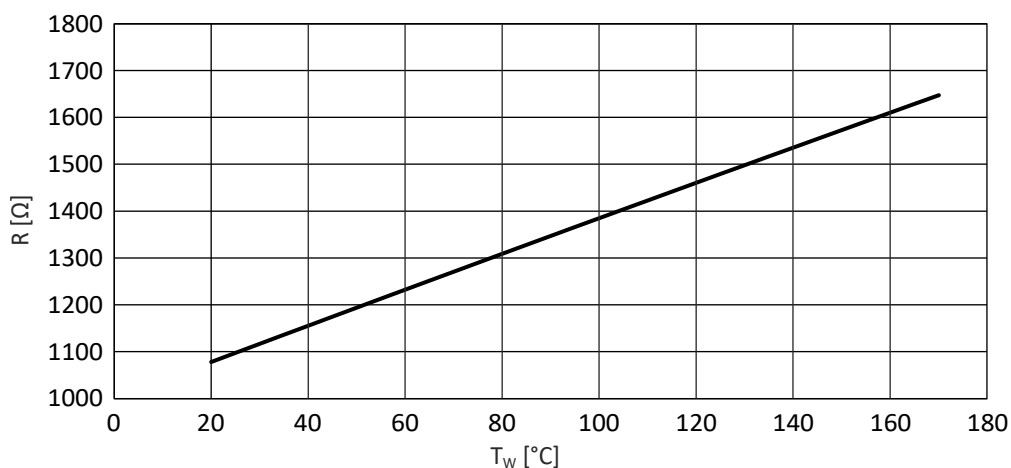
This makes it possible to determine the motor temperature in the permissible operating range with great accuracy.

MCS06

In case of this motor, the winding temperature of a winding phase is monitored with a thermal sensor PT1000.



When supplying the thermal sensors with a measurement current of 1 mA, the connection between the temperature and the resistance measured applies.



R Resistance
 T_w Winding temperature

MCS09 ... 19

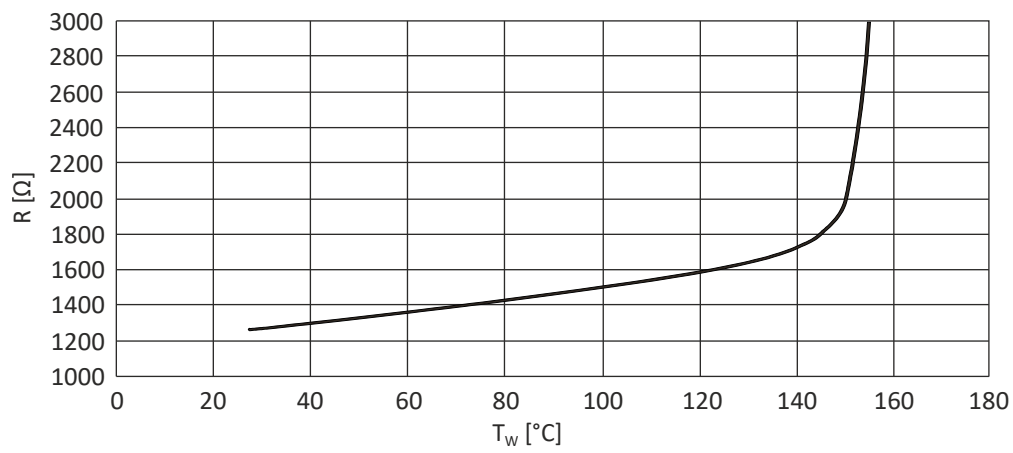
These motors are monitored via three thermal sensors connected in series (1x PT1000 + 2x PTC 150 °C). This makes it possible to determine the motor temperature in the permissible operating range and at the same time execute the overtemperature response configured in the controller in one of the winding strands.



The three thermal sensors connected in series are identified on the nameplate by the short designation "PT1k+2PTC".



When supplying the thermal sensors with a measurement current of 1 mA, the connection between the temperature and the resistance measured applies.



R Resistance
 T_w Winding temperature

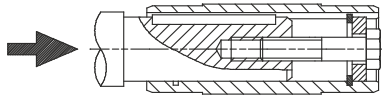


Accessories

Hollow shaft mounting kit

A mounting kit is available for easy installation of the solid shaft.

Scope of supply



- Hexagon head screw
- Circlip
- Washer

Mounting set		Solid shaft	Hollow shaft diameter g500-													
Name	Material number	Thread	S130	S220	S400	S660	S950	S2100	S3100	S4500						
			25	25	30	30	35	40	45	40	50	55	60	70	70	80
Mounting kit B18	415783	M6														
Mounting kit B20	407309	M6														
Mounting kit B25	395903	M10	•	•												
Mounting kit B30	395904	M10			•	•										
Mounting kit B35	395905	M12				•										
Mounting kit B40	395906	M16					•		•							
Mounting kit B45	395907	M16						•								
Mounting kit B50	395908	M16								•						
Mounting kit B55	395909	M20									•					
Mounting kit B60	395910	M20										•				
Mounting kit B70	395911	M20											•	•		
Mounting kit B80	395912	M20														•



Product codes

Gearbox product code

Example		G	50	B	S	113	M	H	D	R	2	C	1B
Product type	Gearbox	G											
Product family			50										
Version				B									
Gearbox type	Shaft-mounted helical gearbox				S								
Output torque	130 Nm					113							
	220 Nm					122							
	400 Nm					140							
	660 Nm					166							
	950 Nm					195							
	2100 Nm					221							
	3100 Nm					231							
	4500 Nm					245							
	8000 Nm					280							
	14000 Nm					314							
	19000 Nm					319							
Type of construction	Geared motor						M						
	Gearbox						N						
Shaft design	Solid shaft with featherkey							V					
	Hollow shaft with keyway							H					
	Hollow shaft with shrink disc							S					
Housing type	Foot mounting + centering								A				
	Foot mounting								B				
	With centering								C				
	Threaded pitch circle								D				
Flange mounting	Without flange									R			
	Flange with through holes									K			
Number of stages	2-stage										2		
	3-stage										3		
	4-stage										4		
Motor mounting	Integrated motor											C	
	IEC adapter with jaw coupling											N T	
	IEC adapter with plug-in hollow shaft											H	
	NEMA adapter with jaw coupling											A	
	NEMA adapter with plug-in hollow shaft											B	
	Servo motor adapter with plug-in hollow shaft											S	
	Servo motor adapter with jaw coupling											E D G	
Drive size													1A ... □H 08 ... 82



Product code of MCS synchronous servo motor

Example		M	C	S	06	C	41	-	RS0	B0
Meaning	Variant	Product code								
Product family	Motor	M								
Type	Compact servo motors		C							
Version	Synchronous			S						
Motor frame size	Square dimension 62 mm				06					
	Square dimension 89 mm				09					
	Square dimension 116 mm				12					
	Square dimension 142 mm				14					
	Square dimension 192 mm				19					
Overall length						C ... P				
Rated speed	rpm x 100						11 ... 60			
Inverter mains connection	3 x 230 V							L		
	3 x 400 V							-		
Feedback	SinCos absolute value encoder, single-turn, EnDat AS2048-5V-E									ECN
	Digital absolute value encoder, multi-turn, Hiperface DSL® AM20-8V-D									EKM
	SinCos absolute value encoder, multi-turn, EnDat AM32-5V-E									EQI
	SinCos absolute value encoder, multi-turn, EnDat AM2048-5V-E									EQN
	Digital safety absolute value encoder, multi-turn, Hiperface DSL® AM20-8V-D2									EVM
	Resolver p=1									RS0
	Safety resolver, p=1 RV03									RV0
	SinCos absolute value encoder, multi-turn, Hiperface® AM128-8V-H									SKM
	SinCos absolute value encoder, multi-turn, Hiperface® AM1024-8V-H									SRM
	SinCos absolute value encoder, single-turn, Hiperface® AS1024-8V-H									SRS
	SinCos safety absolute value encoder, multi-turn, Hiperface® AM128-8V-K2									SVM
	SinCos safety absolute value encoder, multi-turn, Hiperface® AM1024-8V-K2									SVM
	SinCos safety absolute value encoder, single-turn, Hiperface® AS1024-8V-K2									SVS
Brake	Without brake									B0
	Permanent magnet brake DC 24V									P1
	Permanent magnet brake DC 24V, reinforced									P2



Motor data

Rated data

Inverter mains connection 400 V, Self-ventilated motors

Motor data

Rated data

Inverter mains connection 400 V, Self-ventilated motors

Motor			MCS 06C60-	MCS 06C41-	MCS 06F60-	MCS 06F41-	MCS 06I60-	MCS 06I41-
Standstill torque	M_0	Nm	0.800	0.800	1.50	1.50	2.00	2.00
Rated torque	M_{rated}	Nm	0.500	0.600	0.900	1.20	1.20	1.50
Max. torque	M_{max}	Nm	2.40	2.40	4.40	4.40	6.20	6.20
Rated speed	n_{rated}	rpm	6000	4050	6000	4050	6000	4050
Max. speed	n_{max}	rpm	8000	8000	8000	8000	8000	8000
Rated power	P_{rated}	kW	0.31	0.25	0.57	0.51	0.75	0.64
Standstill current	I_0	A	2.50	1.30	2.90	1.50	3.40	1.70
Rated current	I_{rated}	A	2.40	1.30	2.50	1.50	2.90	1.60
Max. current	I_{max}	A	10.8	5.40	10.5	5.30	11.8	5.90
Rated voltage	V_{rated}	V	135	225	180	320	190	325
Rated frequency	f_{rated}	Hz	400	270	400	270	400	270
Moment of inertia	J	kgcm ²	0.140	0.140	0.220	0.220	0.300	0.300
Efficiency	η		0.7	0.65	0.81	0.77	0.84	0.81
Torque constant	$Kt_{0.150}$	Nm/A	0.320	0.615	0.517	1.00	0.588	1.18
Voltage constant	$KE_{LL 150}$	V/(1000/min) °C	17.89	35.79	29.33	58.76	35.88	71.77
Stator terminal resistance	$R_{UV 20}$	Ω	6.8	27	5.4	21.8	4.6	18.8
Stator terminal resistance	$R_{UV 150}$	Ω	10.248	40.689	8.138	32.853	6.932	28.332
Stator inductance	L	mH	12.8	51.0	15.9	63.5	15.1	60.2
Weight	m	kg	2.30	2.30	2.70	2.70	3.40	3.40

Motor data

Rated data

Inverter mains connection 400 V, Self-ventilated motors



Motor			MCS 09D60-	MCS 09D41-	MCS 09F60-	MCS 09H60-	MCS 09F38-	MCS 09L51-
Standstill torque	M_0	Nm	3.30	3.30	4.20	5.50	4.20	7.50
Rated torque	M_{rated}	Nm	1.80	2.30	2.40	3.00	3.10	3.60
Max. torque	M_{max}	Nm	9.50	9.50	15.0	20.0	15.0	32.0
Rated speed	n_{rated}	rpm	6000	4050	6000	6000	3750	5100
Max. speed	n_{max}	rpm	7000	7000	7000	7000	7000	7000
Rated power	P_{rated}	kW	1.1	1	1.5	1.9	1.2	1.9
Standstill current	I_0	A	5.30	2.60	6.00	8.50	3.00	12.4
Rated current	I_{rated}	A	3.80	2.30	4.50	6.00	2.50	6.90
Max. current	I_{max}	A	20.0	10.0	30.0	40.0	15.0	64.0
Rated voltage	V_{rated}	V	210	320	230	190	330	180
Rated frequency	f_{rated}	Hz	400	270	400	400	250	340
Moment of inertia	J	kgcm ²	1.10	1.10	1.50	1.90	1.50	2.80
Efficiency	η		0.87	0.82	0.9	0.91	0.9	0.91
Torque constant	$K_{t_{0.150}}$ °C	Nm/A	0.623	1.27	0.700	0.647	1.40	0.605
Voltage constant	$K_{E_{LL 150}}$ °C	V/ (1000/ min)	34.81	69.62	39.01	36.96	78.02	35.1
Stator terminal resistance	$R_{UV 20}$ °C	Ω	1.8	7	1.2	0.8	5.2	0.44
Stator terminal resistance	$R_{UV 150}$ °C	Ω	2.713	10.549	1.808	1.206	7.836	0.663
Stator inductance	L	mH	6.30	25.1	6.15	4.02	24.6	2.50
Weight	m	kg	4.80	4.80	5.70	6.60	5.70	8.40



Motor data

Rated data

Inverter mains connection 400 V, Self-ventilated motors

Motor			MCS 09H41-	MCS 09L41-	MCS 12D41-	MCS 12D20-	MCS 12H35-	MCS 12H15-
Standstill torque	M_0	Nm	5.50	7.50	6.40	6.40	11.4	11.4
Rated torque	M_{rated}	Nm	3.80	4.50	4.30	5.50	7.50	10.0
Max. torque	M_{max}	Nm	20.0	32.0	18.0	18.0	29.0	29.0
Rated speed	n_{rated}	rpm	4050	4050	4050	1950	3525	1500
Max. speed	n_{max}	rpm	7000	7000	6000	6000	6000	6000
Rated power	P_{rated}	kW	1.6	1.9	1.8	1.1	2.8	1.6
Standstill current	I_0	A	4.30	6.20	5.50	2.70	8.20	4.10
Rated current	I_{rated}	A	3.40	4.20	4.50	2.60	5.70	3.80
Max. current	I_{max}	A	20.0	32.0	20.0	10.0	24.0	12.0
Rated voltage	V_{rated}	V	300	295	310	345	325	300
Rated frequency	f_{rated}	Hz	270	270	270	130	235	100
Moment of inertia	J	kgcm ²	1.90	2.80	4.00	4.00	7.30	7.30
Efficiency	η		0.91	0.91	0.84	0.85	0.91	0.88
Torque constant	$K_{t_{0.150}}$	Nm/A	1.28	1.21	1.16	2.37	1.39	2.78
	°C							
Voltage constant	$K_{E_{LL 150}}$	V/(1000/min)	74.02	70.1	67.07	133.95	84.58	169.15
	°C							
Stator terminal resistance	$R_{UV 20}$	Ω	3.2	1.8	2.2	8.7	1.4	5.8
	°C							
Stator terminal resistance	$R_{UV 150}$	Ω	4.822	2.713	3.315	13.111	2.11	8.741
	°C							
Stator inductance	L	mH	16.1	9.90	13.0	52.2	10.5	42.1
Weight	m	kg	6.60	8.40	7	7	10.1	10.1

Motor data

Rated data

Inverter mains connection 400 V, Self-ventilated motors



Motor			MCS 12L41-	MCS 12L20-	MCS 14D36-	MCS 14D15-	MCS 14H32-	MCS 14H15-
Standstill torque	M_0	Nm	15.0	15.0	11.0	11.0	21.0	21.0
Rated torque	M_{rated}	Nm	11.0	13.5	7.50	9.20	14.0	16.0
Max. torque	M_{max}	Nm	56.0	56.0	29.0	29.0	55.0	55.0
Rated speed	n_{rated}	rpm	4050	1950	3600	1500	3225	1500
Max. speed	n_{max}	rpm	6000	6000	6000	6000	6000	6000
Rated power	P_{rated}	kW	4.7	2.8	2.8	1.45	4.7	2.5
Standstill current	I_0	A	12.4	6.20	10.0	5.00	16.9	8.50
Rated current	I_{rated}	A	10.2	5.90	7.50	4.50	11.9	6.60
Max. current	I_{max}	A	56.0	28.0	33.0	16.5	51.5	25.8
Rated voltage	V_{rated}	V	300	330	295	305	295	325
Rated frequency	f_{rated}	Hz	270	130	240	100	215	100
Moment of inertia	J	kgcm ²	10.6	10.6	8.10	8.10	14.2	14.2
Efficiency	η		0.91	0.9	0.92	0.88	0.93	0.92
Torque constant	K_{t0150}	Nm/A	1.21	2.42	1.10	2.20	1.24	2.47
	°C							
Voltage constant	$K_{E_{LL150}}$	V/(1000/min)	72.94	145.69	62.77	126.13	74.6	149.6
	°C							
Stator terminal resistance	R_{UV20}	Ω	0.6	2.2	1	4	0.52	2.08
	°C							
Stator terminal resistance	R_{UV150}	Ω	0.904	3.315	1.507	6.028	0.784	3.135
	°C							
Stator inductance	L	mH	5.45	21.8	12.5	49.8	8.53	34.1
Weight	m	kg	13.2	13.2	11.4	11.4	16.2	16.2



Motor data

Rated data
Inverter mains connection 400 V, Self-ventilated motors

Motor			MCS 14L32-	MCS 14P32-	MCS 14L15-	MCS 14P14-	MCS 19F30-	MCS 19F14-
Standstill torque	M_0	Nm	28.0	37.0	28.0	37.0	32.0	32.0
Rated torque	M_{rated}	Nm	17.2	21.0	23.0	30.0	21.0	27.0
Max. torque	M_{max}	Nm	77.0	105	77.0	105	86.0	86.0
Rated speed	n_{rated}	rpm	3225	3225	1500	1350	3000	1425
Max. speed	n_{max}	rpm	6000	6000	6000	6000	4000	4000
Rated power	P_{rated}	kW	5.8	7.1	3.6	4.2	6.6	4
Standstill current	I_0	A	24.0	24.3	12.0	12.2	19.8	9.90
Rated current	I_{rated}	A	15.0	15.6	9.70	10.8	14.0	8.60
Max. current	I_{max}	A	74.5	92.0	37.3	46.0	62.5	31.3
Rated voltage	V_{rated}	V	275	315	315	340	300	335
Rated frequency	f_{rated}	Hz	215	215	100	90	200	95
Moment of inertia	J	kgcm ²	23.4	34.7	23.4	34.7	65.0	65.0
Efficiency	η		0.93	0.93	0.9	0.9	0.93	0.92
Torque constant	$K_{t_{0.150}}$ °C	Nm/A	1.17	1.52	2.33	3.03	1.62	3.23
Voltage constant	$K_{E_{LL 150}}$ °C	V/ (1000/ min)	74.5	87.41	148.62	175.02	95.04	190.66
Stator terminal resistance	$R_{UV 20}$ °C	Ω	0.4	0.28	1.2	1.2	0.32	1.3
Stator terminal resistance	$R_{UV 150}$ °C	Ω	0.603	0.422	1.808	1.808	0.482	1.959
Stator inductance	L	mH	5.51	5.99	22.0	23.9	5.20	20.8
Weight	m	kg	20.8	25.6	20.8	25.6	24	24

Motor data

Rated data

Inverter mains connection 400 V, Self-ventilated motors



Motor			MCS 19J30-	MCS 19P30-	MCS 19J14-	MCS 19P14-
Standstill torque	M_0	Nm	51.0	64.0	51.0	64.0
Rated torque	M_{rated}	Nm	29.0	32.0	40.0	51.0
Max. torque	M_{max}	Nm	129	190	129	190
Rated speed	n_{rated}	rpm	3000	3000	1425	1350
Max. speed	n_{max}	rpm	4000	4000	4000	4000
Rated power	P_{rated}	kW	9.1	10	6	7.2
Standstill current	I_0	A	30.5	34.9	15.2	17.5
Rated current	I_{rated}	A	18.5	19.0	12.3	14.3
Max. current	I_{max}	A	89.6	120	44.8	60.0
Rated voltage	V_{rated}	V	300	320	330	330
Rated frequency	f_{rated}	Hz	200	200	95	90
Moment of inertia	J	kgcm ²	105	160	105	160
Efficiency	η		0.93	0.93	0.92	0.92
Torque constant	$K_{t_{0.150}}$ °C	Nm/A	1.67	1.83	3.36	3.66
Voltage constant	$K_{E_{LL 150}}$ °C	V/ (1000/ min)	97.29	105.6	194.57	211.19
Stator terminal resistance	$R_{UV 20}$ °C	Ω	0.16	0.14	0.66	0.54
Stator terminal resistance	$R_{UV 150}$ °C	Ω	0.241	0.211	0.995	0.814
Stator inductance	L	mH	3.20	2.40	12.8	9.60
Weight	m	kg	31	41	31	41



Motor data

Rated data

Inverter mains connection 400 V, Forced ventilated motors

Inverter mains connection 400 V, Forced ventilated motors

Motor			MCS 12H34-	MCS 12H14-	MCS 12L39-	MCS 12L17-	MCS 12D35-	MCS 12D17-
Standstill torque	M_0	Nm	12.8	12.8	19.0	19.0	7.50	7.50
Rated torque	M_{rated}	Nm	10.5	12.0	14.0	17.0	6.00	7.00
Max. torque	M_{max}	Nm	29.0	29.0	56.4	56.4	17.7	17.7
Rated speed	n_{rated}	rpm	3375	1350	3900	1650	3525	1650
Max. speed	n_{max}	rpm	6000	6000	6000	6000	6000	6000
Rated power	P_{rated}	kW	3.7	1.7	5.7	2.9	2.2	1.2
Standstill current	I_0	A	8.50	4.60	14.4	7.20	6.40	3.20
Rated current	I_{rated}	A	7.50	4.10	11.7	6.70	5.60	3.00
Max. current	I_{max}	A	24.0	12.0	57.0	28.0	20.0	10.0
Rated voltage	V_{rated}	V	320	310	295	300	300	330
Rated frequency	f_{rated}	Hz	225	90	260	110	235	110
Moment of inertia	J	kgcm ²	7.30	7.30	10.6	10.6	4.00	4.00
Efficiency	η		0.86	0.8	0.94	0.9	0.85	0.75
Torque constant	$K_{t0\ 150}$	Nm/A	1.51	2.78	1.32	2.64	1.17	2.34
Voltage constant	$K_{E\ LL\ 150}$	V/(1000/min) °C	84.58	169.15	72.94	145.69	67.07	133.95
Stator terminal resistance	$R_{UV\ 20}$	Ω	1.4	5.8	0.6	2.2	4.4	17.4
Stator terminal resistance	$R_{UV\ 150}$	Ω	2.11	8.741	0.904	3.315	6.631	26.222
Stator inductance	L	mH	10.5	42.1	5.45	21.8	13.0	52.2
Weight	m	kg	12.2	12.2	15.3	15.3	9.1	9.1

Motor data

Rated data

Inverter mains connection 400 V, Forced ventilated motors



Motor			MCS 14D30-	MCS 14D14-	MCS 14H28-	MCS 14H12-	MCS 14L30-	MCS 14L14-
Standstill torque	M_0	Nm	12.5	12.5	25.5	25.5	34.5	34.5
Rated torque	M_{rated}	Nm	10.5	12.0	20.5	23.5	25.5	30.5
Max. torque	M_{max}	Nm	29.0	29.0	54.8	54.8	77.1	77.1
Rated speed	n_{rated}	rpm	3000	1350	2775	1200	3000	1350
Max. speed	n_{max}	rpm	6000	6000	6000	6000	6000	6000
Rated power	P_{rated}	kW	3.3	1.7	6	3	8	4.3
Standstill current	I_0	A	11.4	5.70	18.4	9.30	26.7	13.4
Rated current	I_{rated}	A	9.70	5.40	15.0	8.30	20.8	11.8
Max. current	I_{max}	A	33.0	16.5	51.5	25.8	74.5	37.3
Rated voltage	V_{rated}	V	325	345	325	335	310	335
Rated frequency	f_{rated}	Hz	200	90	185	80	200	90
Moment of inertia	J	kgcm ²	8.10	8.10	14.2	14.2	23.4	23.4
Efficiency	η		0.92	0.84	0.93	0.87	0.92	0.88
Torque constant	$K_{t_{0.150}}$	Nm/A	1.10	2.19	1.39	2.74	1.29	2.57
	°C							
Voltage constant	$K_{E_{LL 150}}$	V/(1000/min)	62.77	126.13	74.6	149.6	74.5	148.62
	°C							
Stator terminal resistance	$R_{UV 20}$	Ω	1	4	0.52	2.08	0.4	1.2
	°C							
Stator terminal resistance	$R_{UV 150}$	Ω	1.507	6.028	0.784	3.135	0.603	1.808
	°C							
Stator inductance	L	mH	12.5	49.8	8.53	34.1	5.51	22.0
Weight	m	kg	15.2	15.2	20.2	20.2	24.7	24.7



Motor data

Rated data

Inverter mains connection 400 V, Forced ventilated motors

Motor			MCS 14P26-	MCS 14P11-	MCS 19F29-	MCS 19F12-	MCS 19J29-	MCS 19P29-
Standstill torque	M_0	Nm	43.5	43.5	41.5	41.5	70.5	86.0
Rated torque	M_{rated}	Nm	33.0	42.0	32.5	38.0	50.5	53.0
Max. torque	M_{max}	Nm	105	105	86.0	86.0	129	190
Rated speed	n_{rated}	rpm	2625	1050	2850	1200	2850	2850
Max. speed	n_{max}	rpm	6000	6000	4000	4000	4000	4000
Rated power	P_{rated}	kW	9.1	4.6	9.7	4.8	15.1	15.8
Standstill current	I_0	A	28.3	14.1	24.5	12.2	40.6	44.7
Rated current	I_{rated}	A	21.9	13.4	20.1	11.3	31.0	29.5
Max. current	I_{max}	A	92.0	46.0	62.5	31.3	89.6	120
Rated voltage	V_{rated}	V	325	330	320	320	315	315
Rated frequency	f_{rated}	Hz	175	70	190	80	190	190
Moment of inertia	J	kgcm ²	34.7	34.7	65.0	65.0	105	160
Efficiency	η		0.92	0.86	0.95	0.9	0.93	0.93
Torque constant	$K_{t_{0.150}}$ °C	Nm/A	1.54	3.09	1.69	3.40	1.74	1.92
Voltage constant	$K_{E_{LL 150}}$ °C	V/ (1000/ min)	87.41	175.02	95.04	190.66	97.29	105.6
Stator terminal resistance	$R_{UV 20}$ °C	Ω	0.28	1.2	0.32	1.3	0.16	0.14
Stator terminal resistance	$R_{UV 150}$ °C	Ω	0.422	1.808	0.482	1.959	0.241	0.211
Stator inductance	L	mH	5.99	23.9	5.20	20.8	3.20	2.40
Weight	m	kg	29.7	29.7	30	30	37	47

Motor data

Rated data

Inverter mains connection 400 V, Forced ventilated motors



Motor			MCS 19J12-	MCS 19P12-
Standstill torque	M_0	Nm	70.5	86.0
Rated torque	M_{rated}	Nm	62.5	72.0
Max. torque	M_{max}	Nm	129	190
Rated speed	n_{rated}	rpm	1200	1200
Max. speed	n_{max}	rpm	4000	4000
Rated power	P_{rated}	kW	7.9	9
Standstill current	I_0	A	20.3	22.4
Rated current	I_{rated}	A	18.3	21.3
Max. current	I_{max}	A	44.8	60.0
Rated voltage	V_{rated}	V	320	310
Rated frequency	f_{rated}	Hz	80	80
Moment of inertia	J	kgcm ²	105	160
Efficiency	η		0.89	0.9
Torque constant	$K_{t_{0.150}}$ °C	Nm/A	3.47	3.84
Voltage constant	$K_{E_{LL 150}}$ °C	V/ (1000/ min)	194.57	211.19
Stator terminal resistance	$R_{UV 20}$ °C	Ω	0.66	0.54
Stator terminal resistance	$R_{UV 150}$ °C	Ω	0.995	0.814
Stator inductance	L	mH	12.8	9.60
Weight	m	kg	37	47



Motor data

Rated data

Inverter mains connection 230 V, Self-ventilated motors

Inverter mains connection 230 V, Self-ventilated motors

Motor			MCS 06C60L	MCS 06C41L	MCS 06F60L	MCS 06F41L	MCS 06I60L	MCS 06I41L
Standstill torque	M_0	Nm	0.800	0.800	1.50	1.50	2.00	2.00
Rated torque	M_{rated}	Nm	0.500	0.600	0.900	1.20	1.20	1.50
Max. torque	M_{max}	Nm	2.40	2.40	4.40	4.40	6.20	6.20
Rated speed	n_{rated}	rpm	6000	4050	6000	4050	6000	4050
Max. speed	n_{max}	rpm	8000	8000	8000	8000	8000	8000
Rated power	P_{rated}	kW	0.31	0.25	0.57	0.51	0.75	0.64
Standstill current	I_0	A	4.30	2.50	3.80	2.90	4.20	3.10
Rated current	I_{rated}	A	4.00	2.50	3.40	2.90	3.60	2.90
Max. current	I_{max}	A	18.5	10.8	16.5	10.5	16.0	11.8
Rated voltage	V_{rated}	V	85	125	125	165	150	175
Rated frequency	f_{rated}	Hz	400	270	400	270	400	270
Moment of inertia	J	kgcm ²	0.140	0.140	0.220	0.220	0.300	0.300
Efficiency	η		0.7	0.65	0.82	0.81	0.84	0.81
Torque constant	$K_{t_{0\ 150}}$	Nm/A	0.186	0.320	0.395	0.517	0.476	0.645
Voltage constant	$K_{E_{LL\ 150}}$	V/ (1000/ min)	12.22	21.02	21.71	33.73	27.87	37.15
Stator terminal resistance	$R_{UV\ 20}$	Ω	2.148	5.926	2.222	5.481	2.519	4.593
Stator terminal resistance	$R_{UV\ 150}$	Ω	3.237	8.93	3.349	8.26	3.796	6.922
Stator inductance	L	mH	4.30	12.8	6.90	15.9	9.30	15.1
Weight	m	kg	2.30	2.30	2.70	2.70	3.40	3.40

Motor data

Rated data

Inverter mains connection 230 V, Self-ventilated motors



Motor			MCS 09D60L	MCS 09D41L	MCS 09F60L	MCS 09H60L	MCS 09F38L	MCS 09H41L
Standstill torque	M_0	Nm	3.30	3.30	4.20	5.50	4.20	5.50
Rated torque	M_{rated}	Nm	1.80	2.30	2.40	3.00	3.10	3.80
Max. torque	M_{max}	Nm	9.50	9.50	15.0	20.0	15.0	20.0
Rated speed	n_{rated}	rpm	6000	4050	6000	6000	3750	4050
Max. speed	n_{max}	rpm	7000	7000	7000	7000	7000	7000
Rated power	P_{rated}	kW	1.1	1	1.5	1.9	1.2	1.6
Standstill current	I_0	A	10.3	5.30	10.5	12.0	6.00	8.50
Rated current	I_{rated}	A	7.00	4.60	7.90	8.00	5.00	6.80
Max. current	I_{max}	A	39.0	20.0	52.5	57.0	30.0	40.0
Rated voltage	V_{rated}	V	110	165	125	145	160	160
Rated frequency	f_{rated}	Hz	400	270	400	400	250	270
Moment of inertia	J	kgcm ²	1.10	1.10	1.50	1.90	1.50	1.90
Efficiency	η		0.87	0.87	0.9	0.91	0.9	0.91
Torque constant	$K_{t_{0.150}}$ °C	Nm/A	0.320	0.623	0.400	0.458	0.700	0.647
Voltage constant	$K_{E_{LL 150}}$ °C	V/ (1000/ min)	17.89	34.81	22.29	26.01	39.01	36.96
Stator terminal resistance	$R_{UV 20}$ °C	Ω	0.45	1.75	0.415	0.356	1.333	0.889
Stator terminal resistance	$R_{UV 150}$ °C	Ω	0.678	2.637	0.625	0.536	2.009	1.34
Stator inductance	L	mH	1.70	6.30	2.00	2.00	6.20	4.00
Weight	m	kg	4.90	4.90	5.80	6.70	5.80	6.70



Motor data

Rated data

Inverter mains connection 230 V, Self-ventilated motors

Motor			MCS 09L41L	MCS 12H15L	MCS 12L20L	MCS 12D41L	MCS 12D20L	MCS 12H30L
Standstill torque	M_0	Nm	7.50	11.4	15.0	6.40	6.40	11.4
Rated torque	M_{rated}	Nm	4.50	10.0	13.5	4.30	5.50	8.00
Max. torque	M_{max}	Nm	32.0	29.0	56.0	18.0	18.0	29.0
Rated speed	n_{rated}	rpm	4050	1500	1950	4050	1950	3000
Max. speed	n_{max}	rpm	7000	6000	6000	6000	6000	6000
Rated power	P_{rated}	kW	1.9	1.6	2.8	1.8	1.1	2.5
Standstill current	I_0	A	12.4	8.20	12.4	10.7	5.50	13.5
Rated current	I_{rated}	A	8.40	7.60	11.8	8.80	5.20	10.5
Max. current	I_{max}	A	64.0	24.0	57.0	40.0	20.0	39.0
Rated voltage	V_{rated}	V	145	158	165	155	175	165
Rated frequency	f_{rated}	Hz	270	100	130	270	130	200
Moment of inertia	J	kgcm ²	2.80	7.30	10.6	4.00	4.00	7.30
Efficiency	η		0.91	0.86	0.9	0.84	0.85	0.87
Torque constant	$K_{t_{0.150}}$	Nm/A	0.605	1.39	1.21	0.598	1.16	0.844
	°C							
Voltage constant	$K_{E_{LL 150}}$	V/(1000/min)	35.1	84.58	75.19	34.22	67.07	51.82
	°C							
Stator terminal resistance	$R_{UV 20}$	Ω	0.44	1.41	0.548	0.55	2.2	0.489
	°C							
Stator terminal resistance	$R_{UV 150}$	Ω	0.663	2.125	0.826	0.829	3.315	0.737
	°C							
Stator inductance	L	mH	2.50	10.5	5.50	3.40	13.0	4.00
Weight	m	kg	8.50	10.2	13.3	7.10	7.10	10.2



Torque characteristics



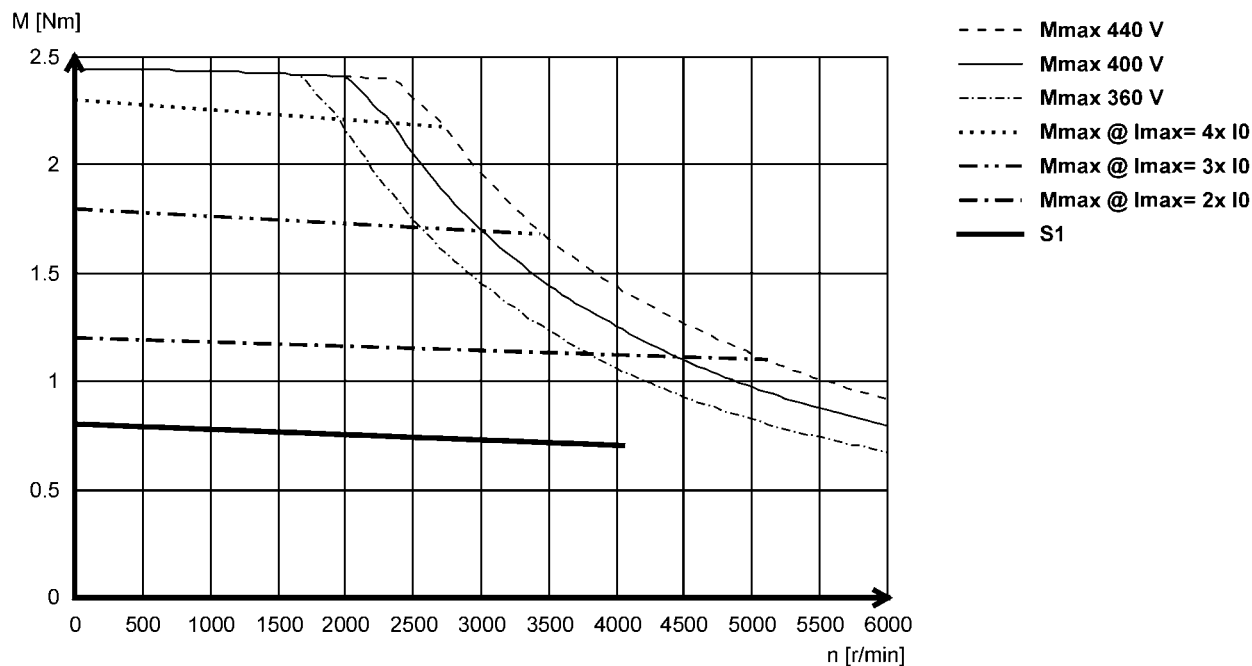
The torque/speed characteristic for your motor/inverter combination can be found on the Internet:

<http://www.lenze.com> → Product Finder → M-n characteristics

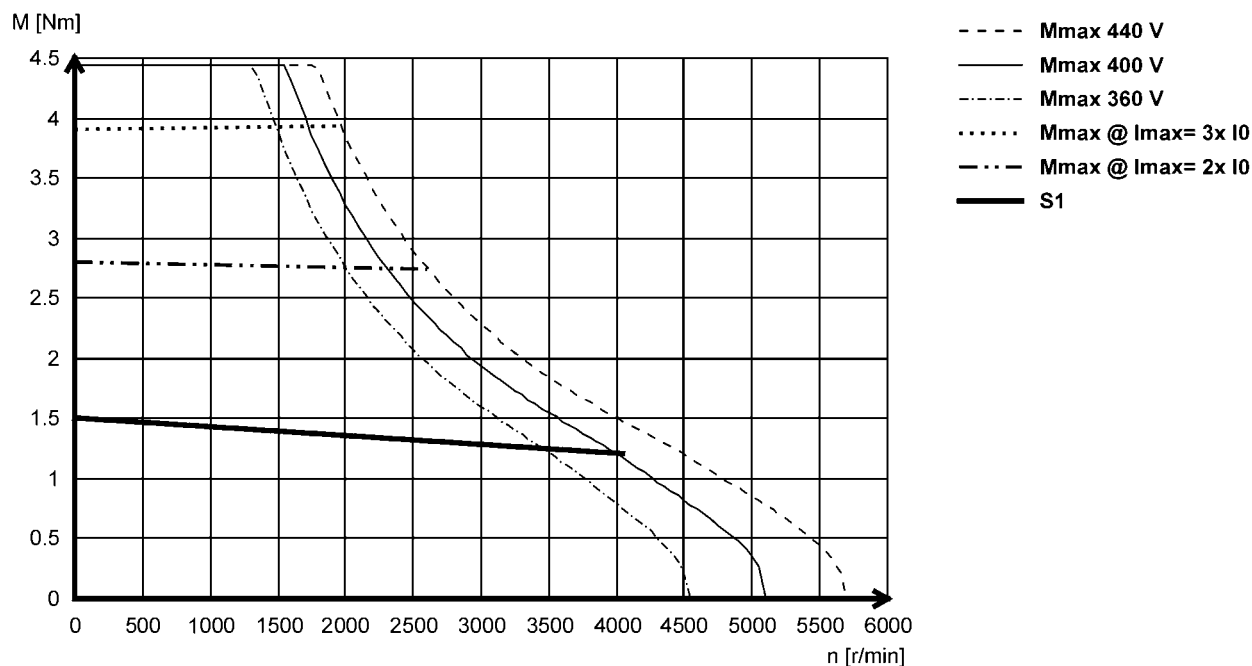


The following data apply to a mains voltage 3 x 400 V of the inverter.

MCS06C41- (self-ventilated)

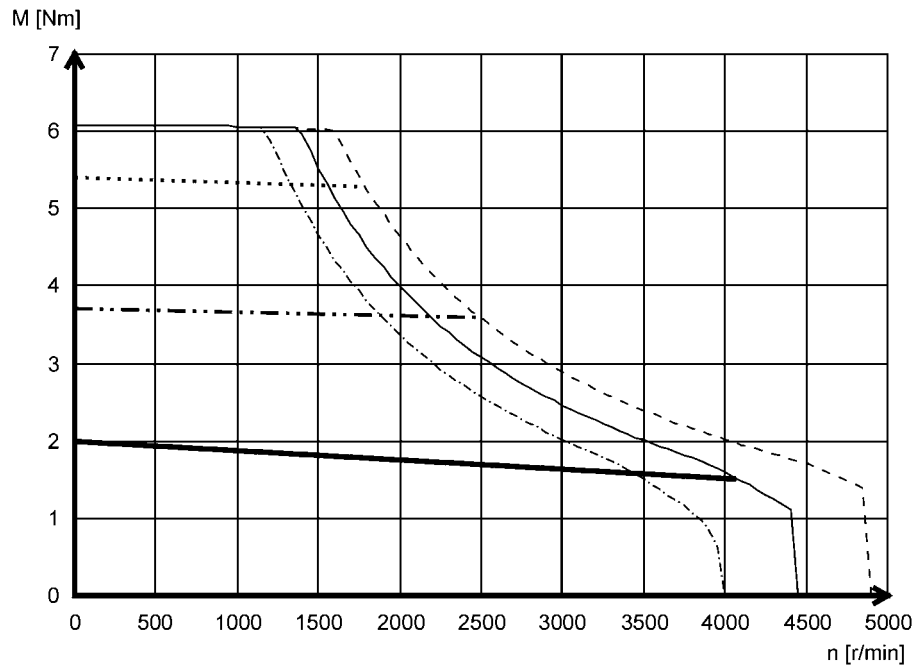


MCS06F41- (self-ventilated)



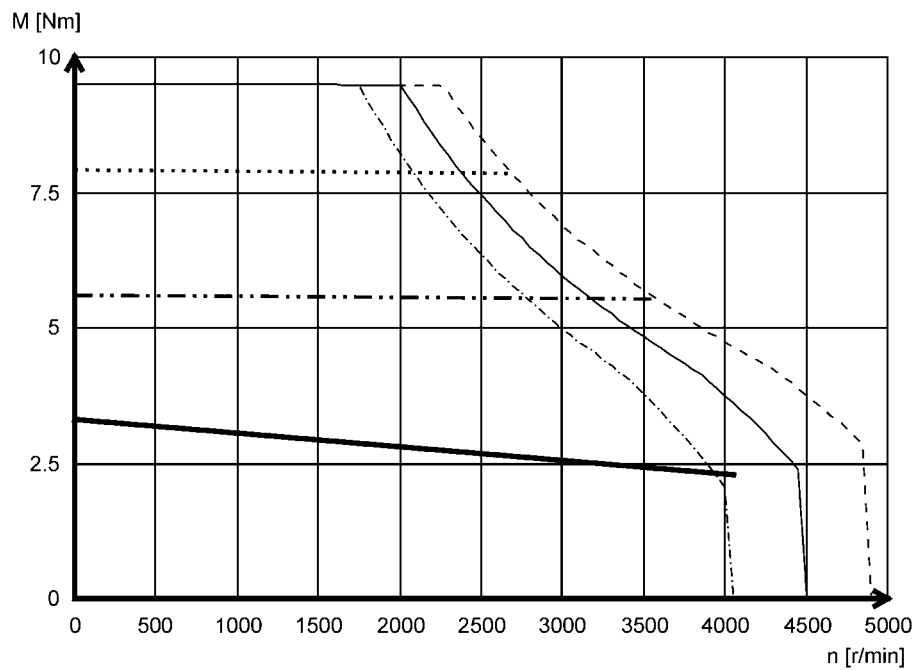


MCS06I41- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- Mmax 360 V
- Mmax @ Imax= 3x I₀
- · - · - Mmax @ Imax= 2x I₀
- S1

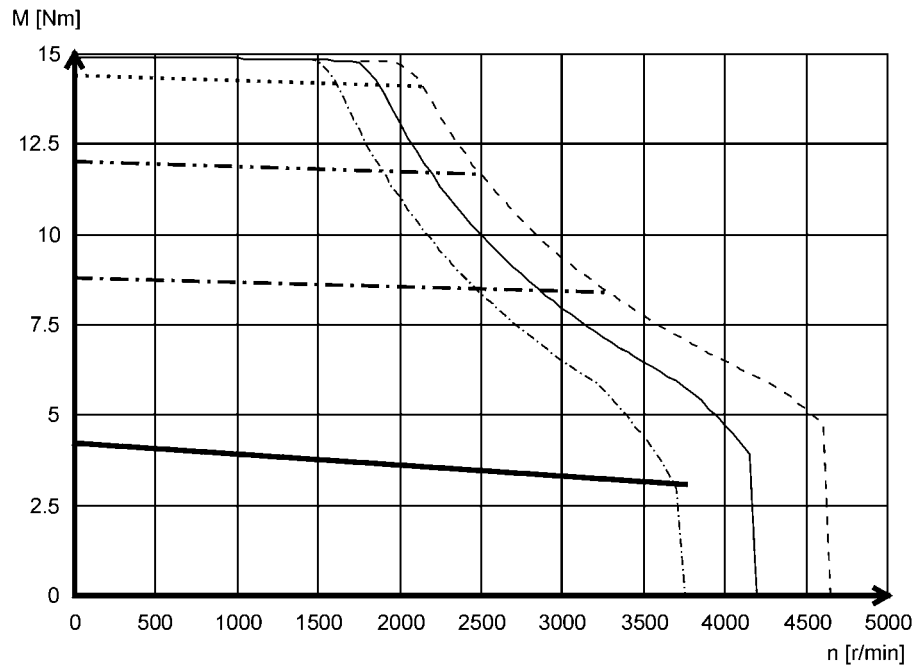
MCS09D41- (self-ventilated)



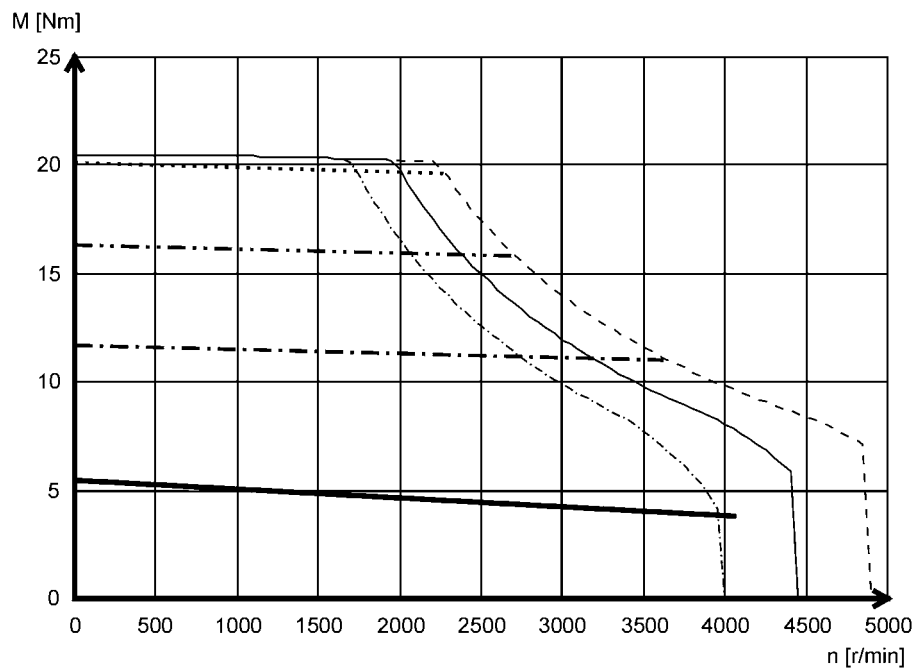
- Mmax 440 V
- Mmax 400 V
- Mmax 360 V
- Mmax @ Imax= 3x I₀
- · - · - Mmax @ Imax= 2x I₀
- S1



MCS09F38- (self-ventilated)

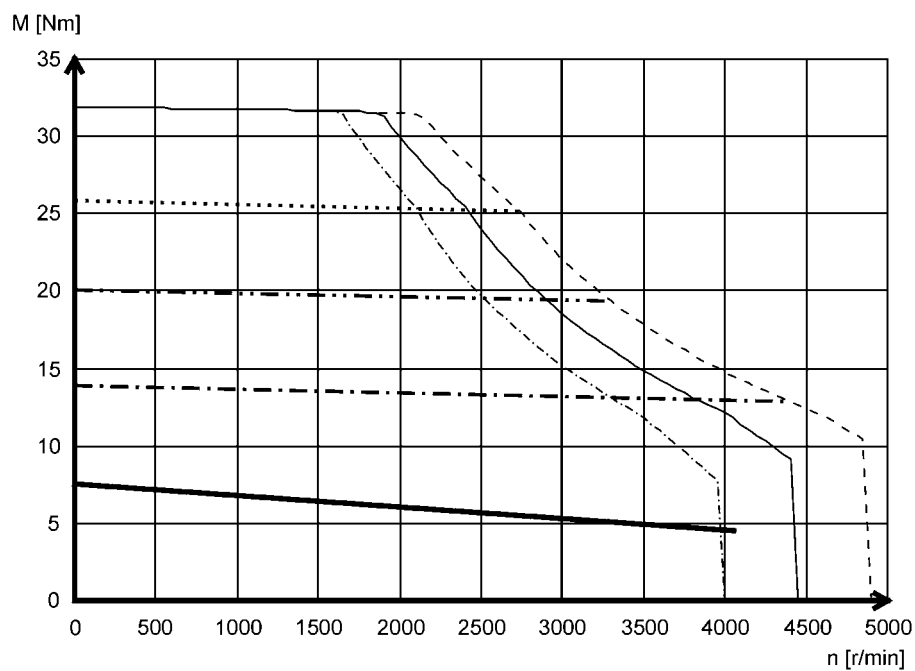


MCS09H41- (self-ventilated)

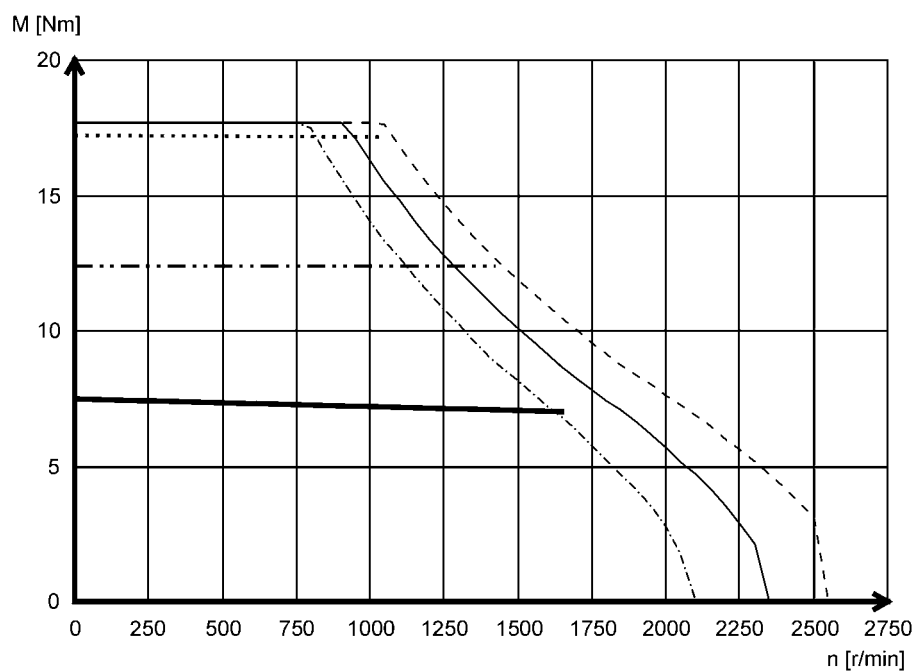




MCS09L41- (self-ventilated)

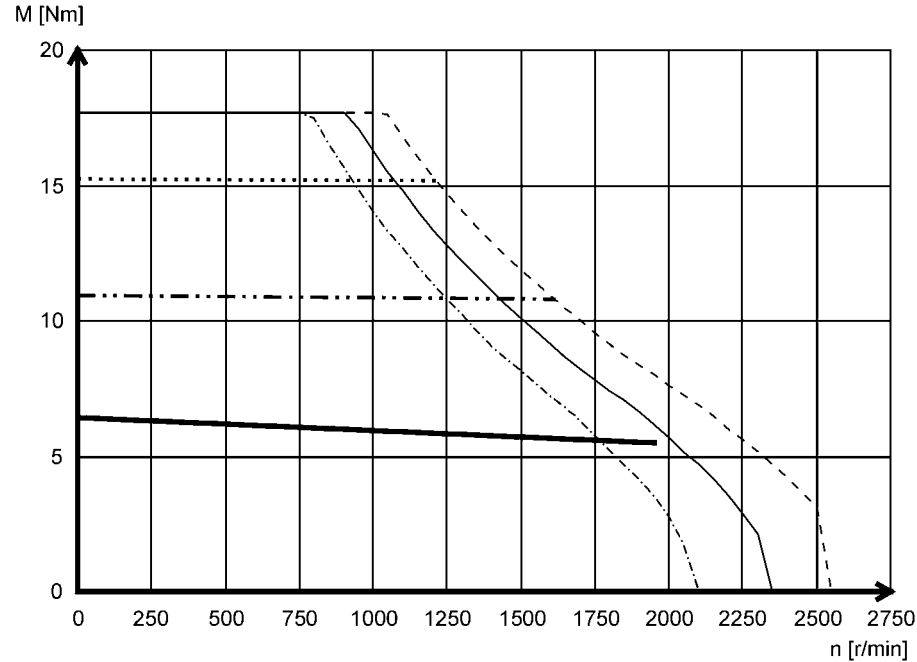


MCS12D17- (forced ventilated)



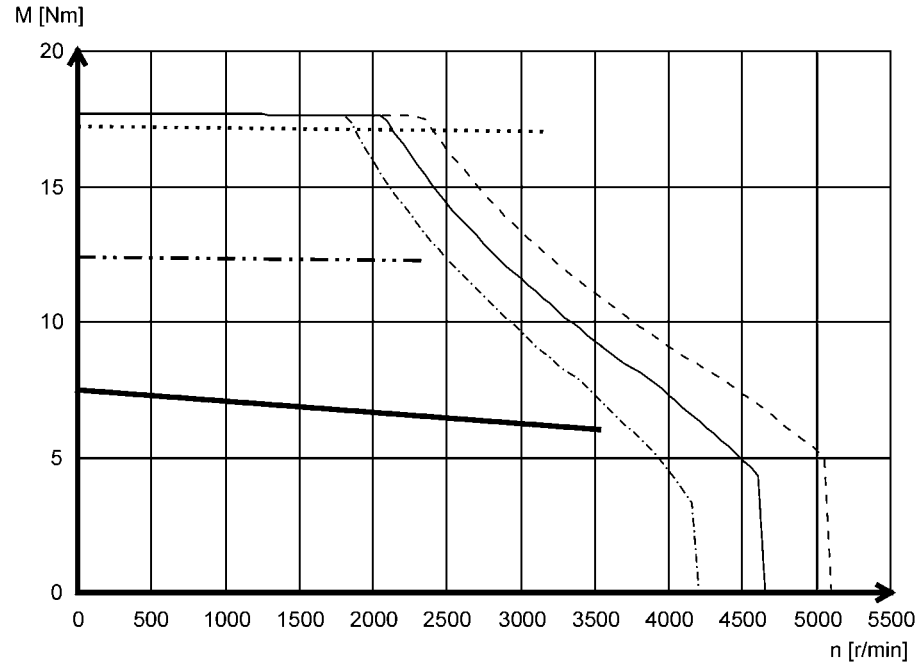


MCS12D20- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ I_{max}= 3x I₀
- · - · - Mmax @ I_{max}= 2x I₀
- S1

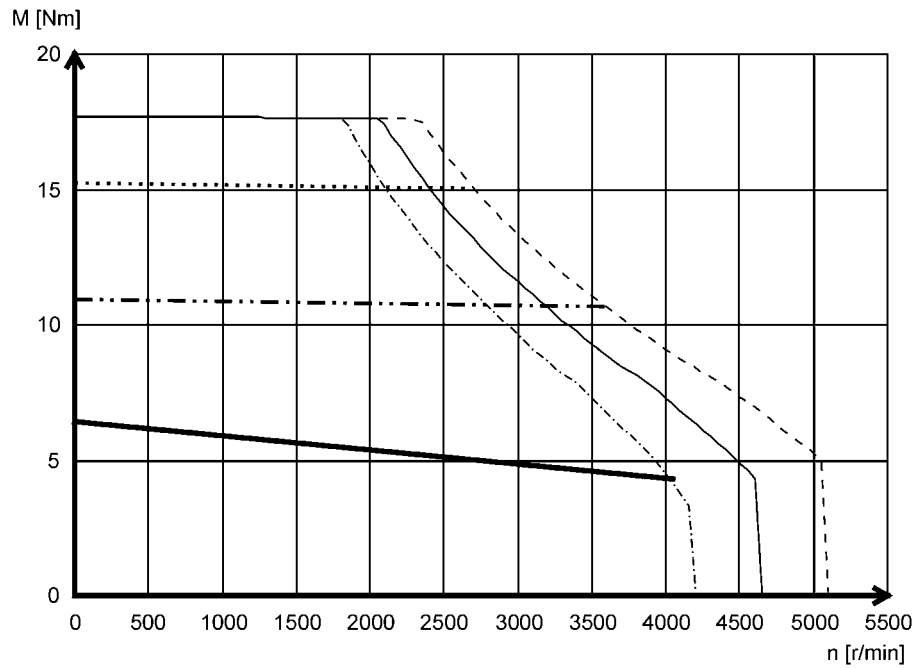
MCS12D35- (forced ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ I_{max}= 3x I₀
- · - · - Mmax @ I_{max}= 2x I₀
- S1

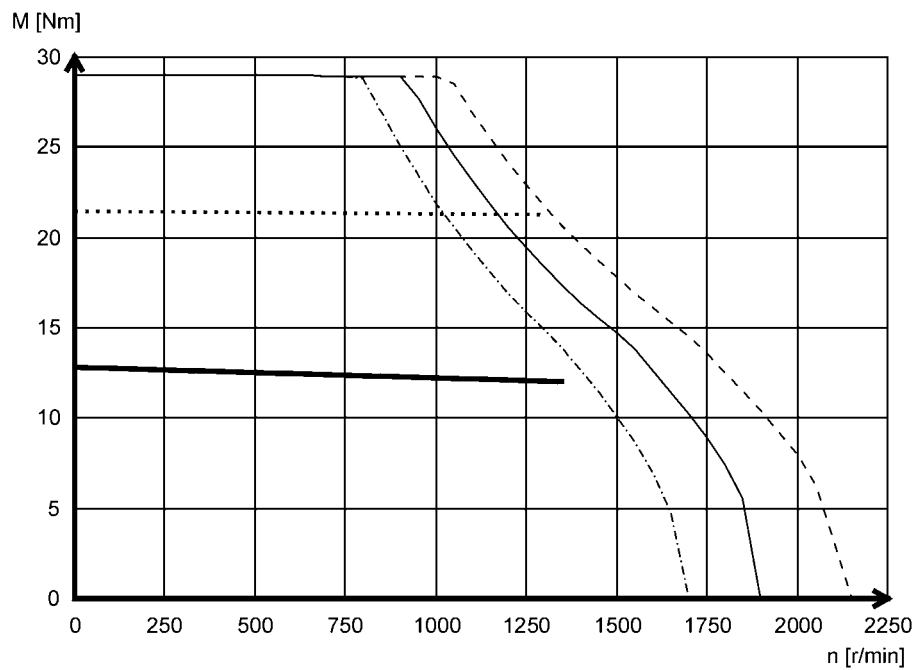


MCS12D41- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ Imax= 3x I₀
- · - · - Mmax @ Imax= 2x I₀
- S1

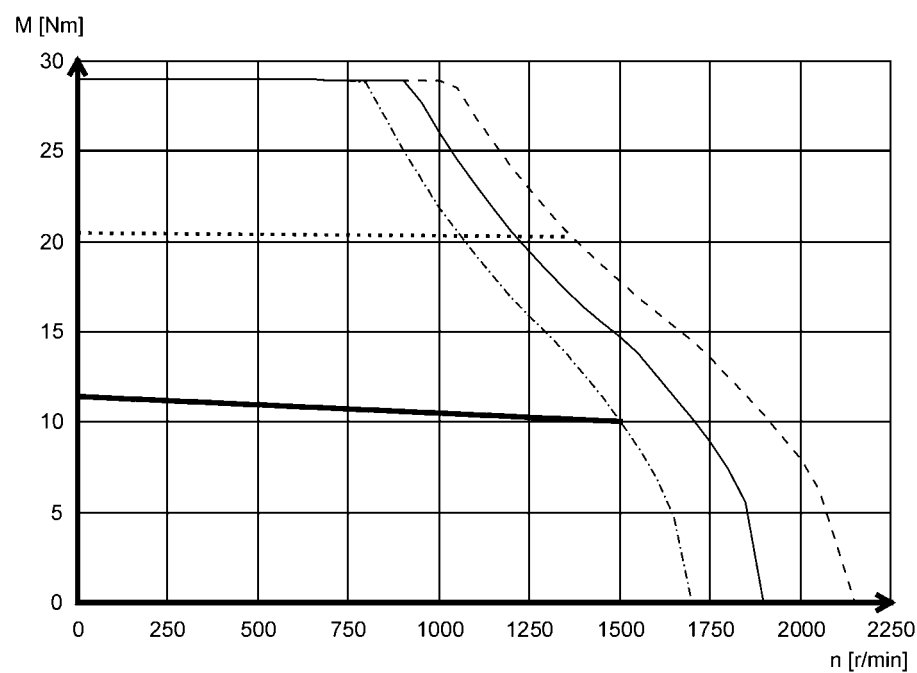
MCS12H14- (forced ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ Imax= 2x I₀
- · - · - Mmax @ Imax= 3x I₀
- S1

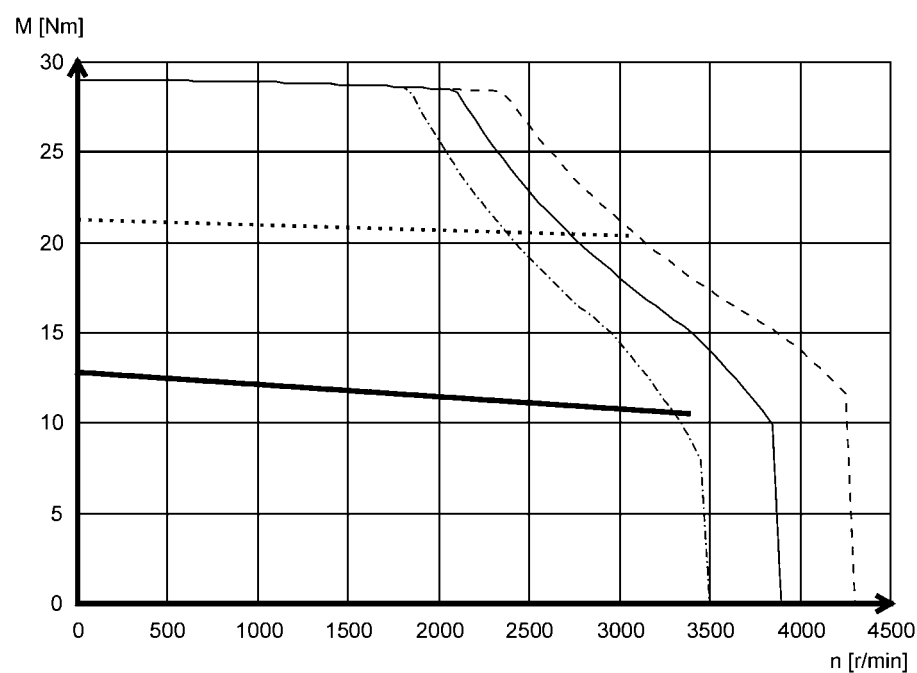


MCS12H15- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- - - Mmax 360 V
- Mmax @ Imax= 2x I0
- S1

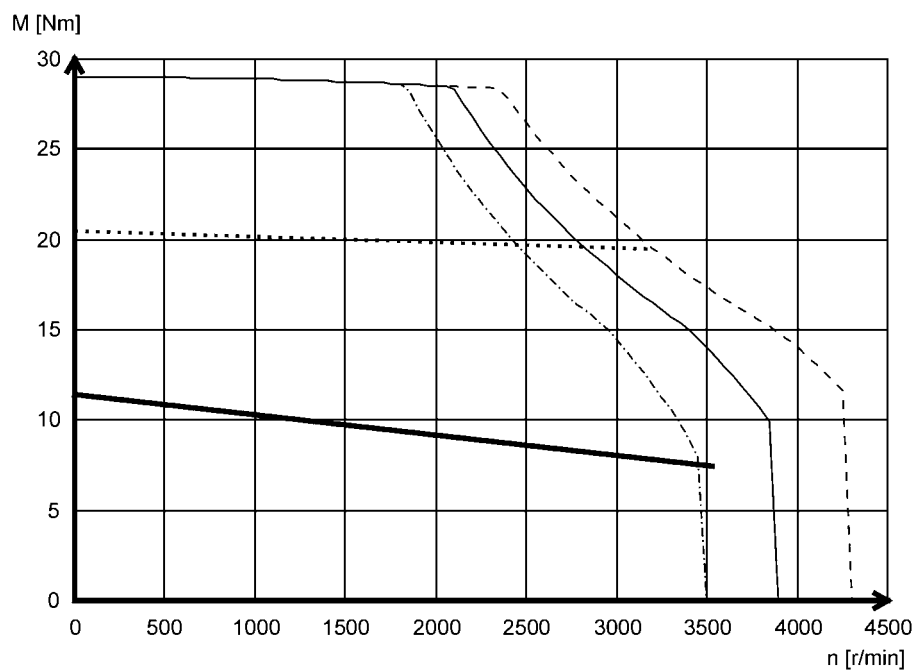
MCS12H34- (forced ventilated)



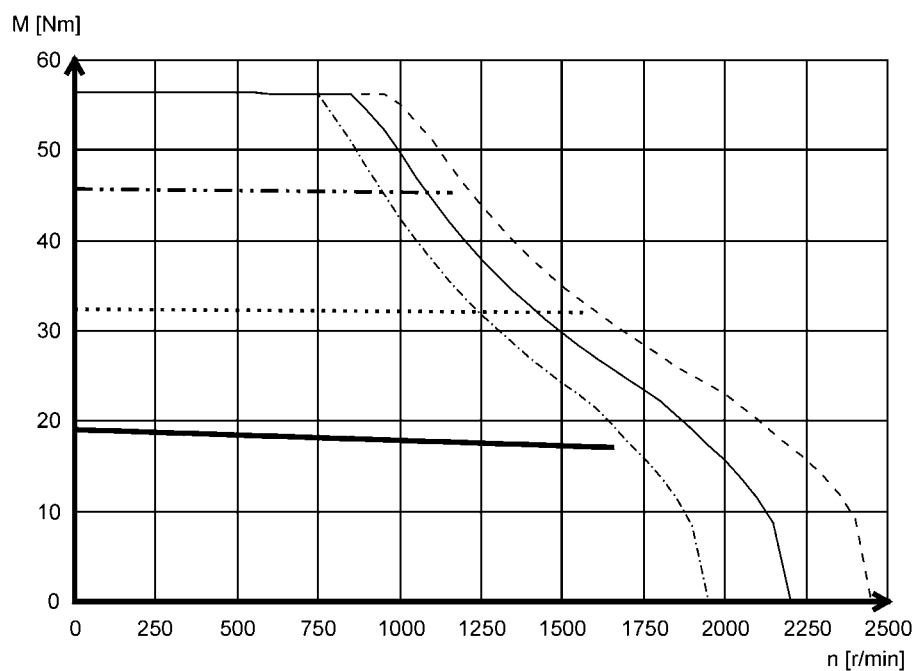
- Mmax 440 V
- Mmax 400 V
- - - Mmax 360 V
- Mmax @ Imax= 2x I0
- S1



MCS12H35- (self-ventilated)

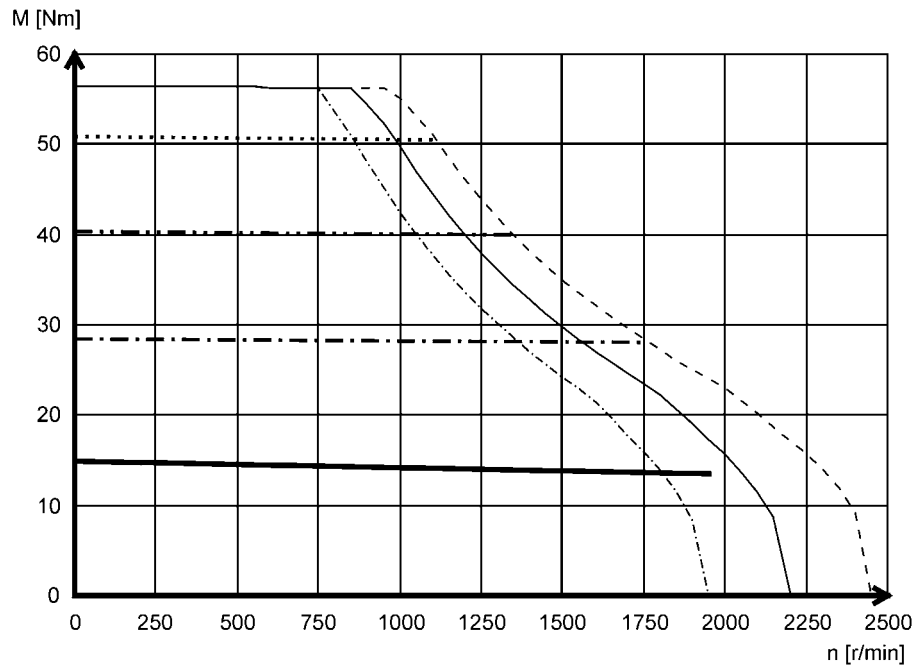


MCS12L17- (forced ventilated)

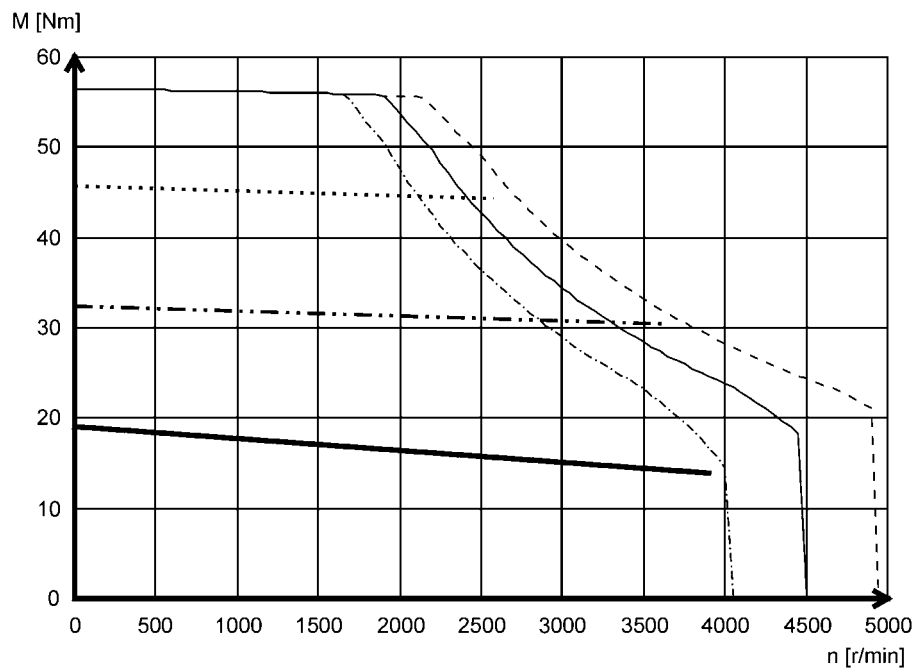




MCS12L20- (self-ventilated)

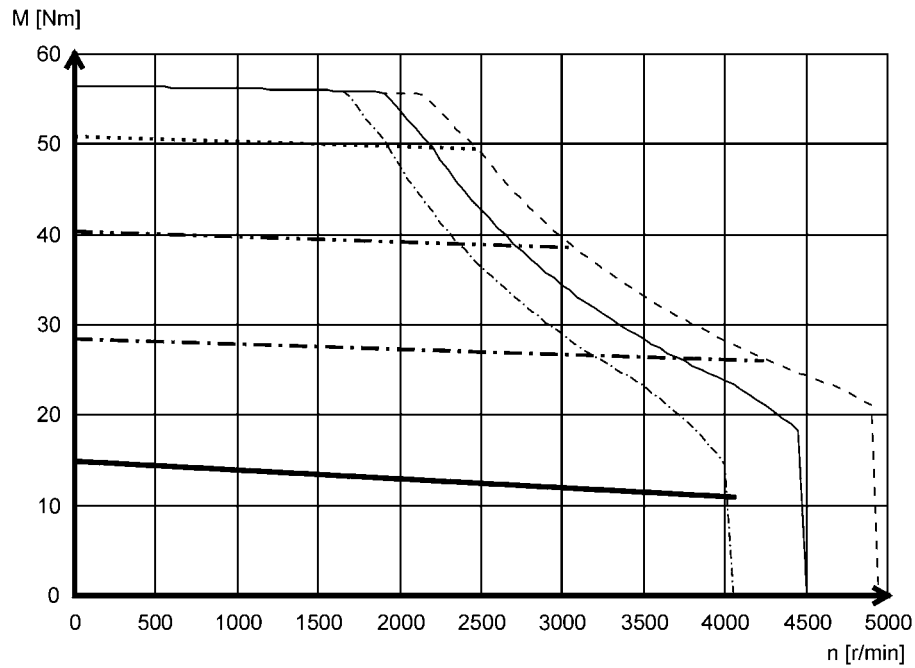


MCS12L39- (forced ventilated)

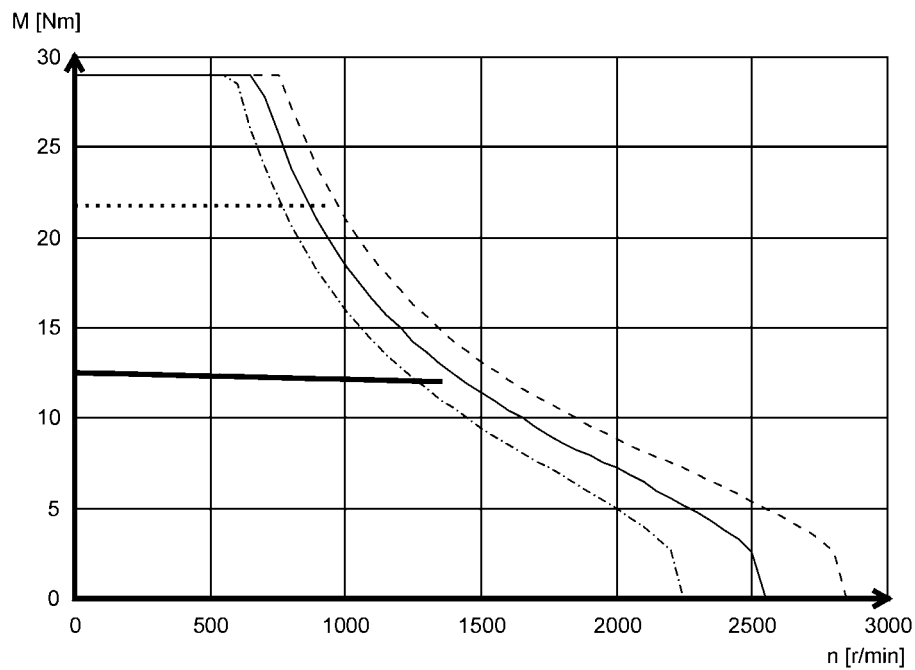




MCS12L41- (self-ventilated)

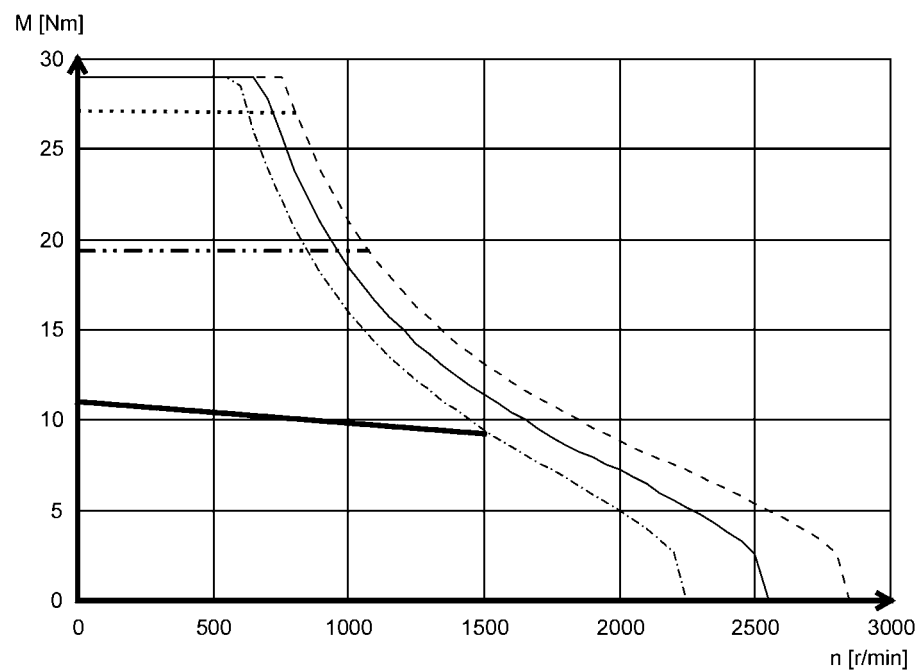


MCS14D14- (forced ventilated)



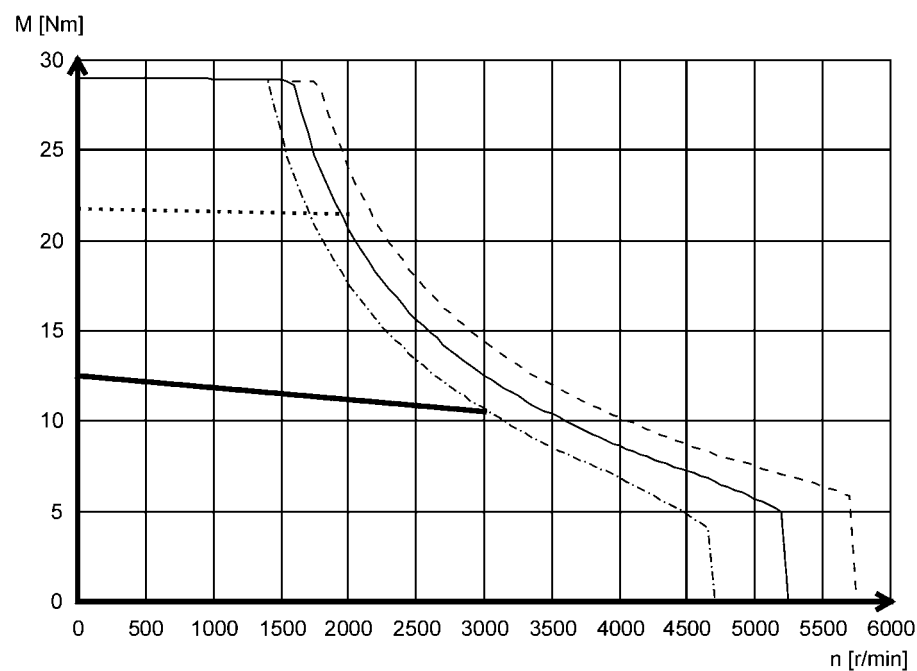


MCS14D15- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - Mmax 360 V
- Mmax @ Imax= 3x I0
- · · - Mmax @ Imax= 2x I0
- S1

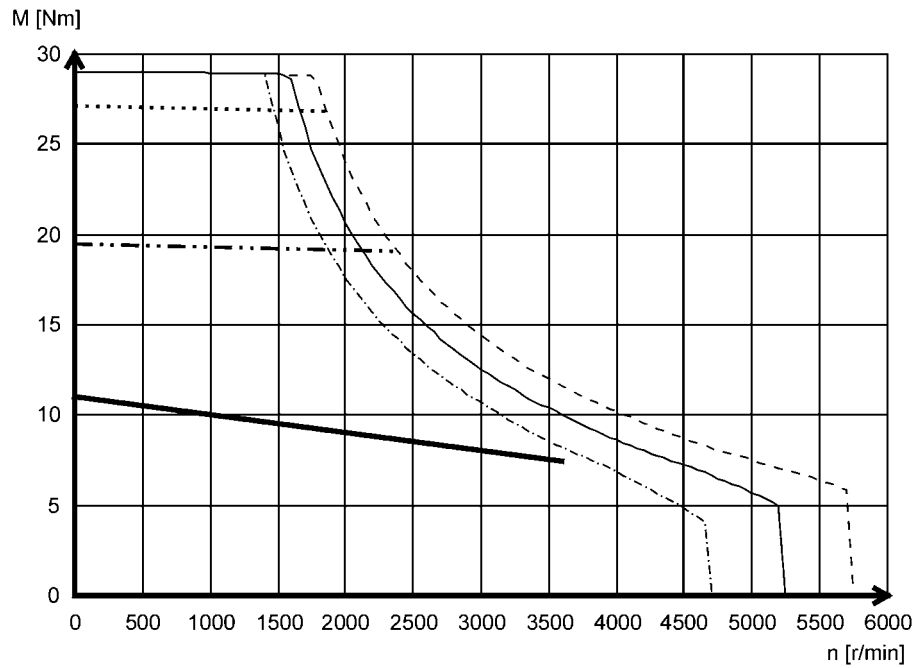
MCS14D30- (forced ventilated)



- Mmax 440 V
- Mmax 400 V
- · - Mmax 360 V
- Mmax @ Imax= 2x I0
- S1

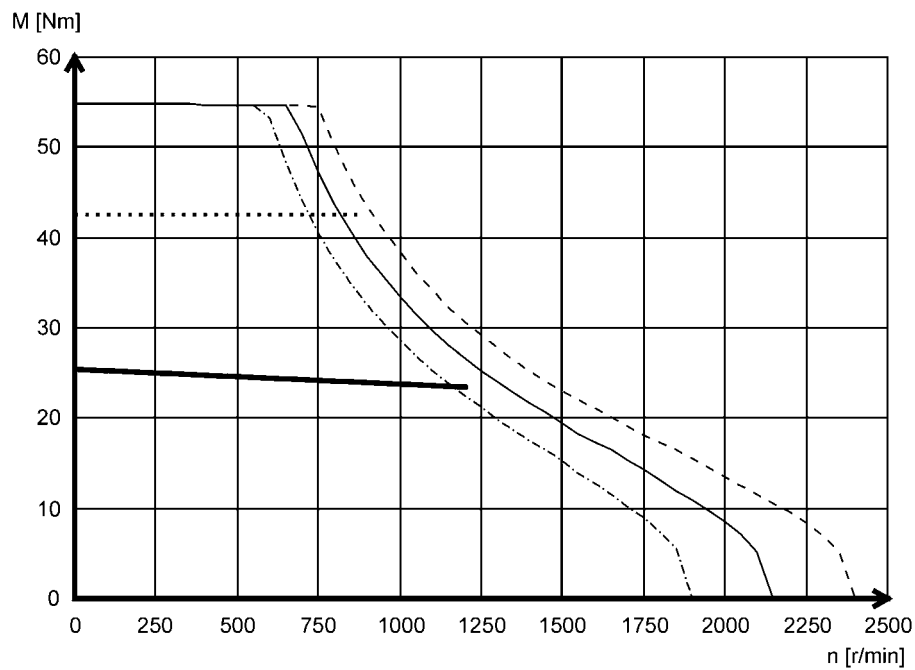


MCS14D36- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ Imax= 3x I0
- · - · - Mmax @ Imax= 2x I0
- S1

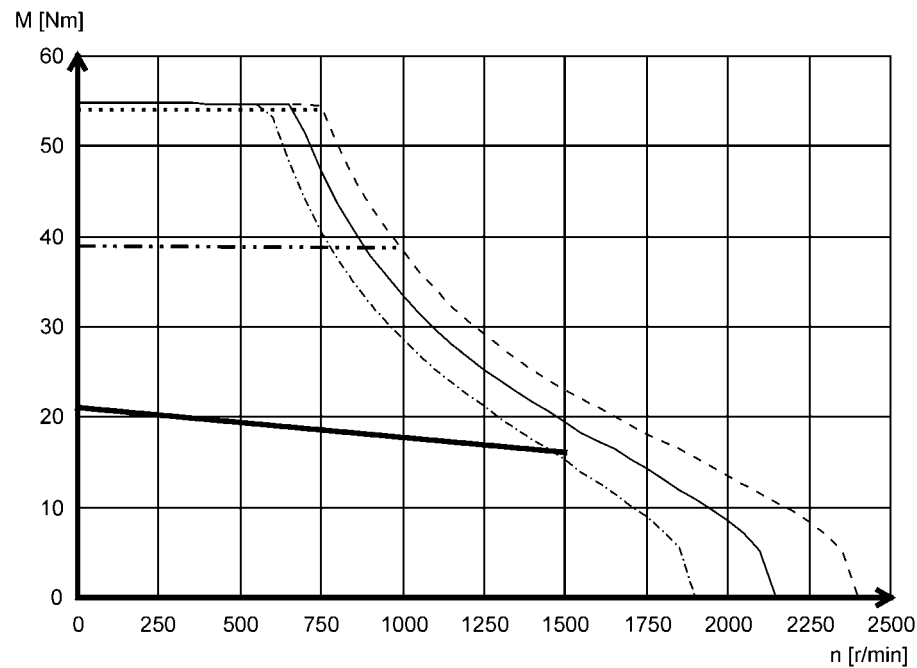
MCS14H12- (forced ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ Imax= 2x I0
- · - · - Mmax @ Imax= 2x I0
- S1

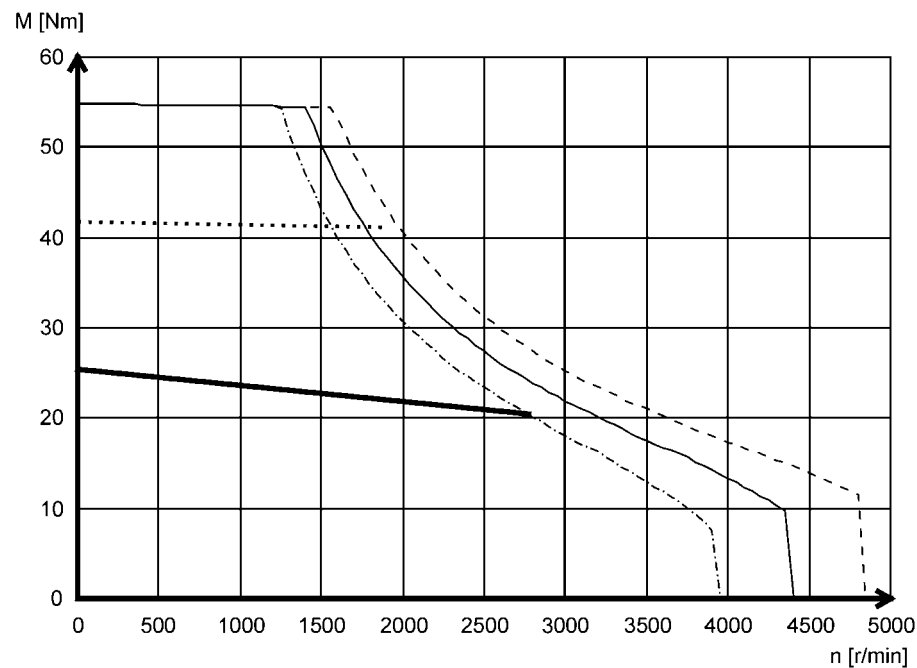


MCS14H15- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- . - . - Mmax 360 V
- Mmax @ I_{max}= 3x I₀
- Mmax @ I_{max}= 2x I₀
- S1

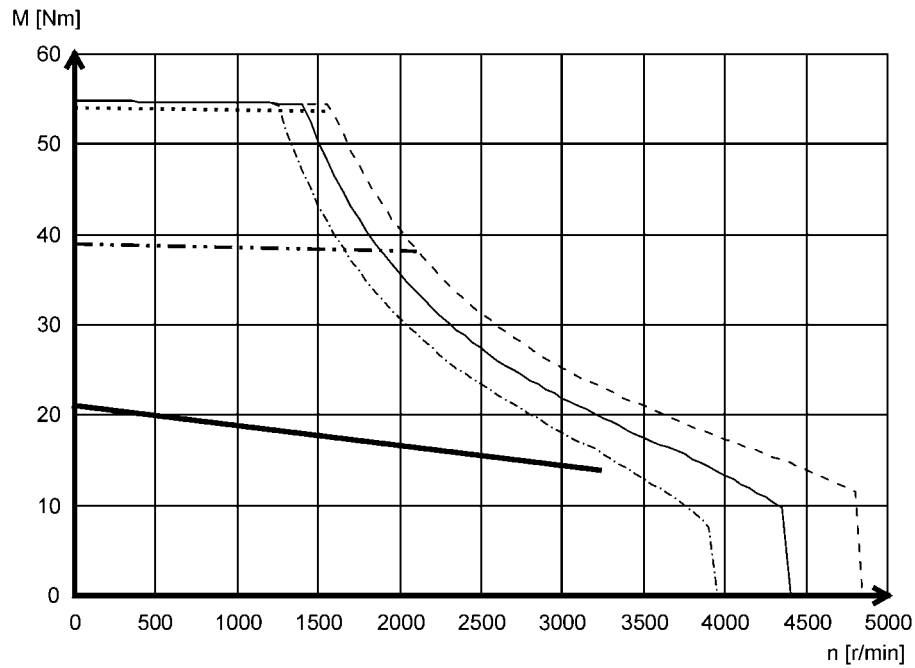
MCS14H28- (forced ventilated)



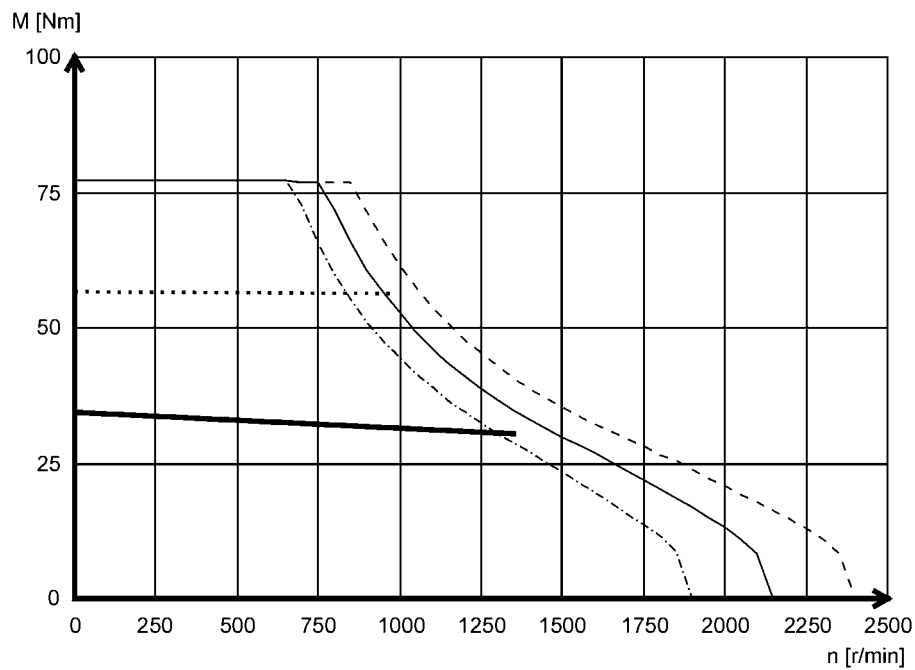
- Mmax 440 V
- Mmax 400 V
- . - . - Mmax 360 V
- Mmax @ I_{max}= 2x I₀
- S1



MCS14H32- (self-ventilated)

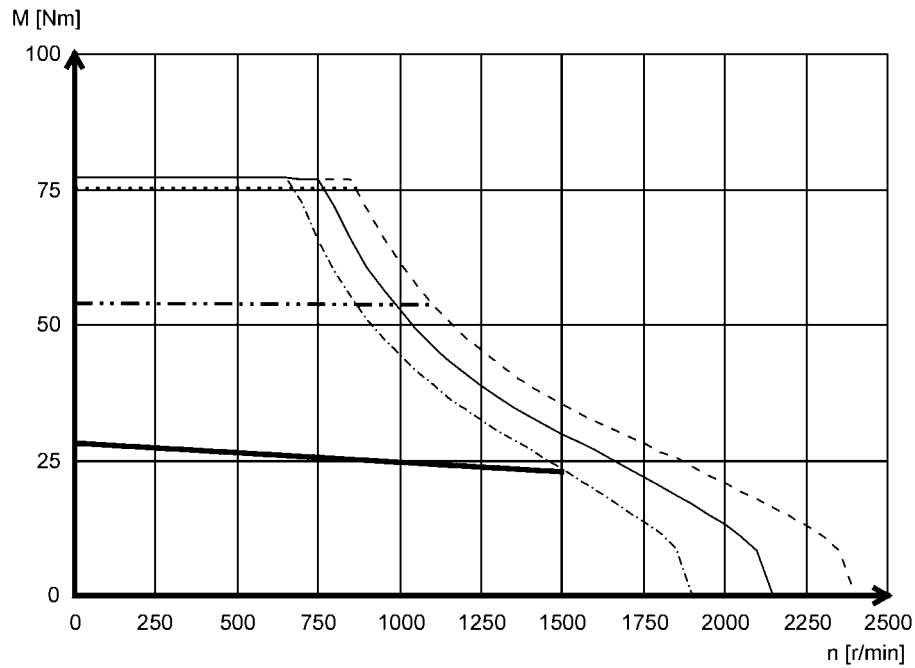


MCS14L14- (forced ventilated)

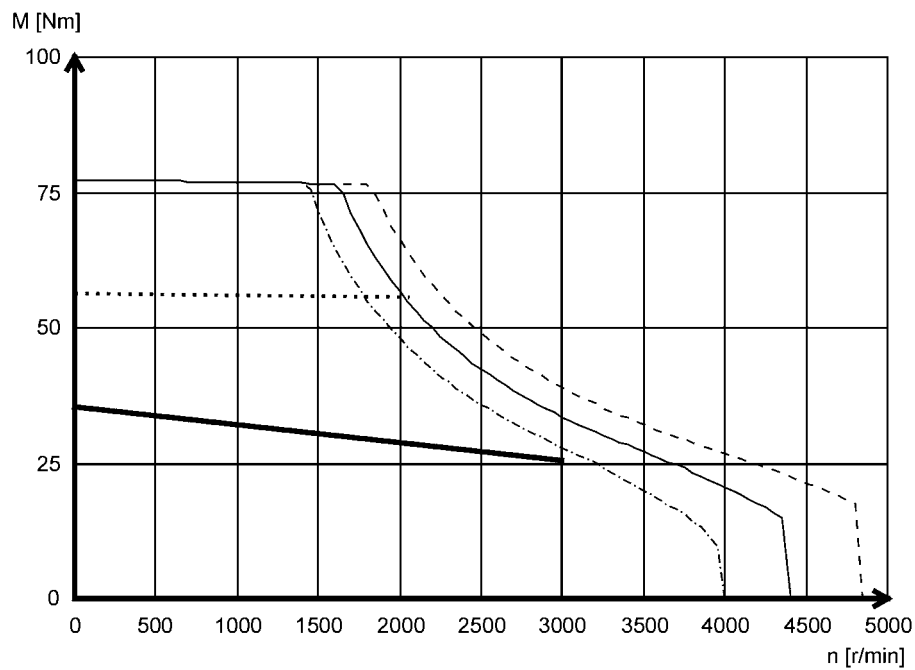




MCS14L15- (self-ventilated)

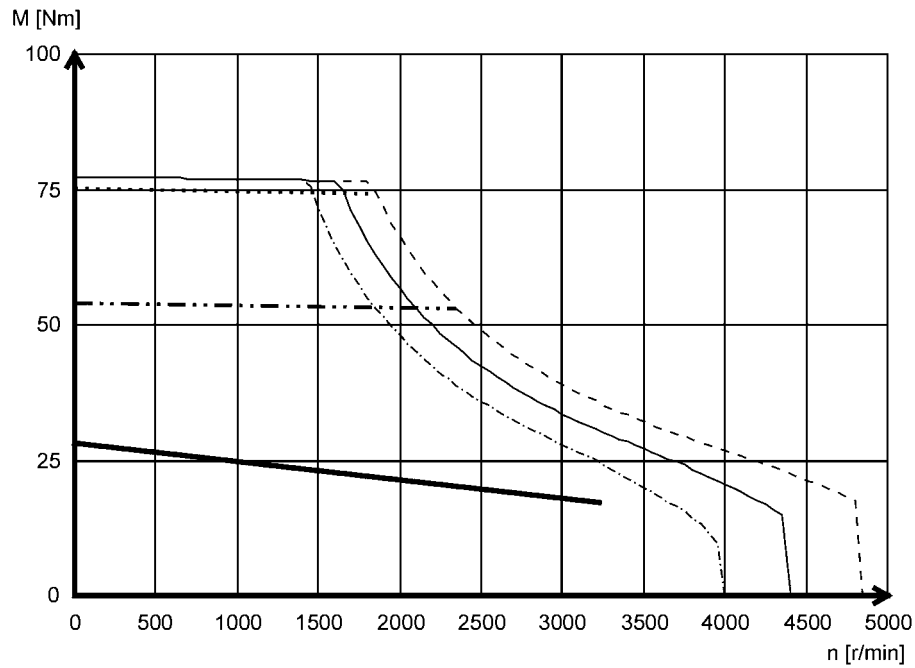


MCS14L30- (forced ventilated)

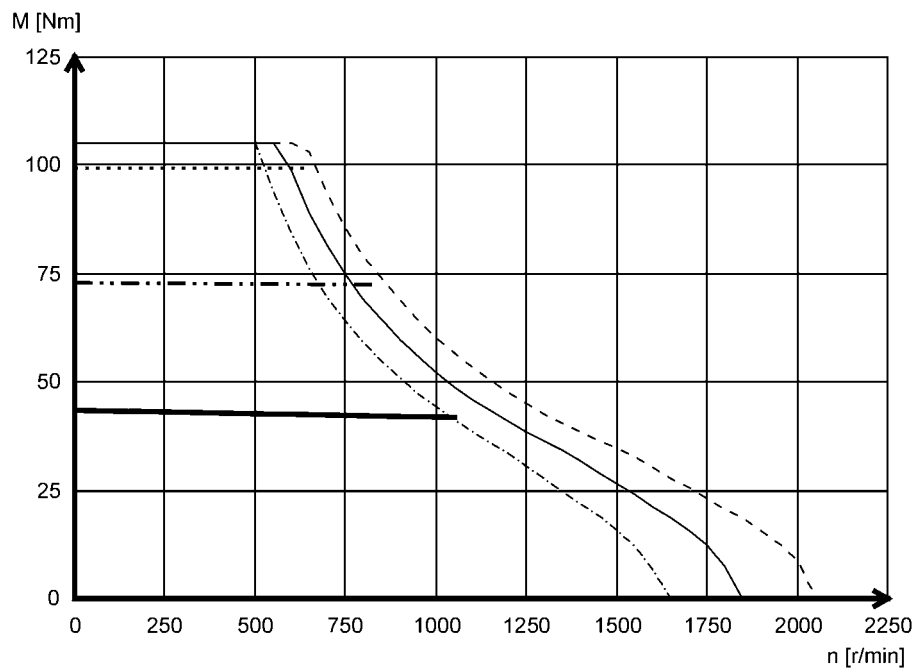




MCS14L32- (self-ventilated)

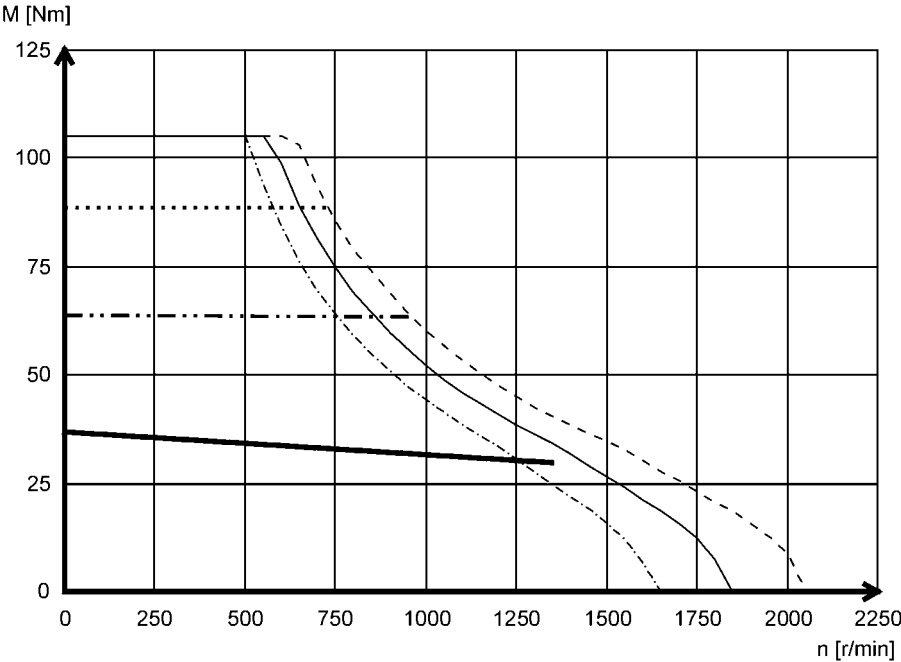


MCS14P11- (forced ventilated)



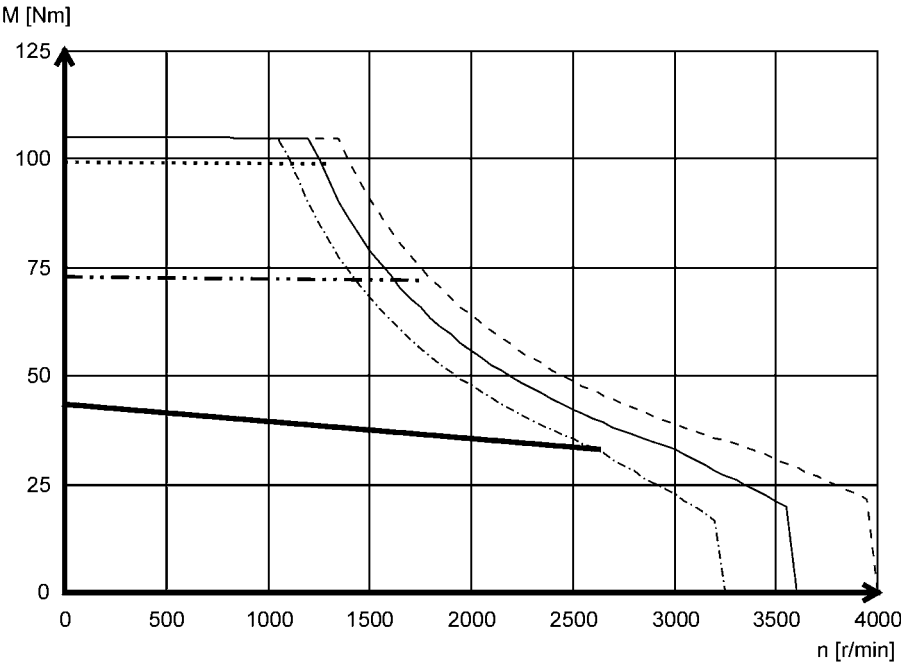


MCS14P14- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- Mmax 360 V
- Mmax @ Imax= 3x I0
- · - · Mmax @ Imax= 2x I0
- S1

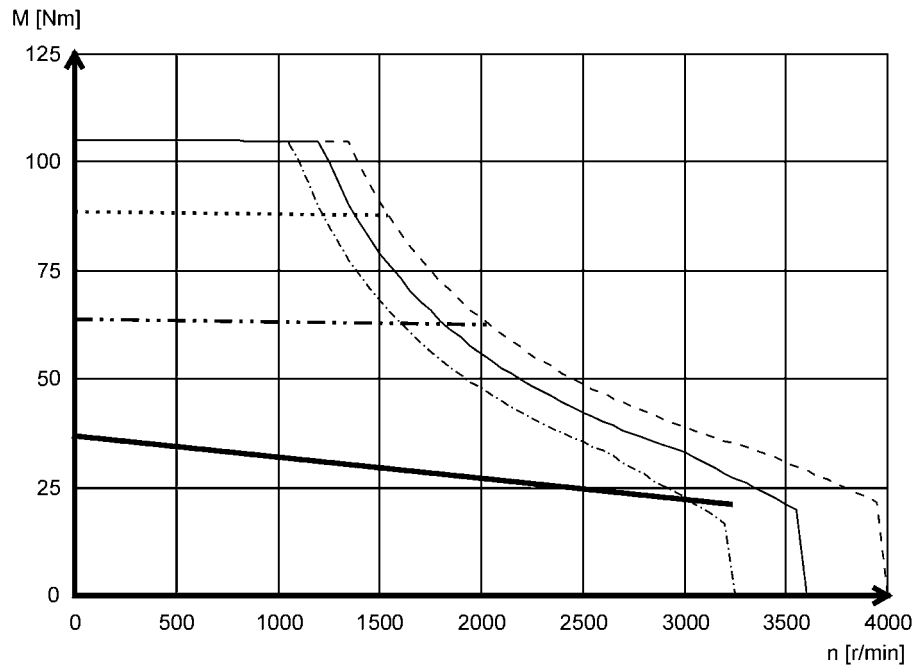
MCS14P26- (forced ventilated)



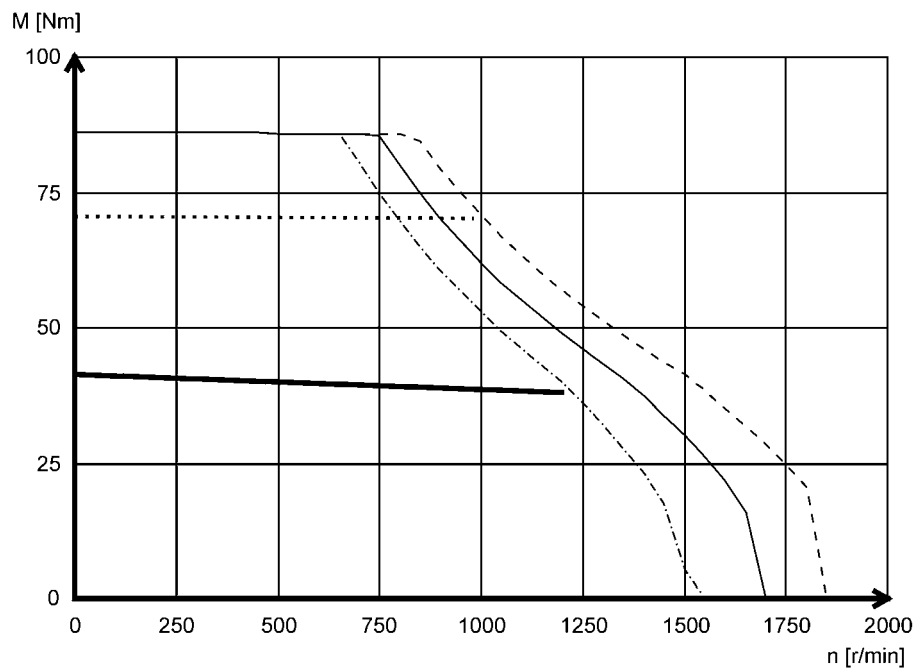
- Mmax 440 V
- Mmax 400 V
- Mmax 360 V
- Mmax @ Imax= 3x I0
- · - · Mmax @ Imax= 2x I0
- S1



MCS14P32- (self-ventilated)

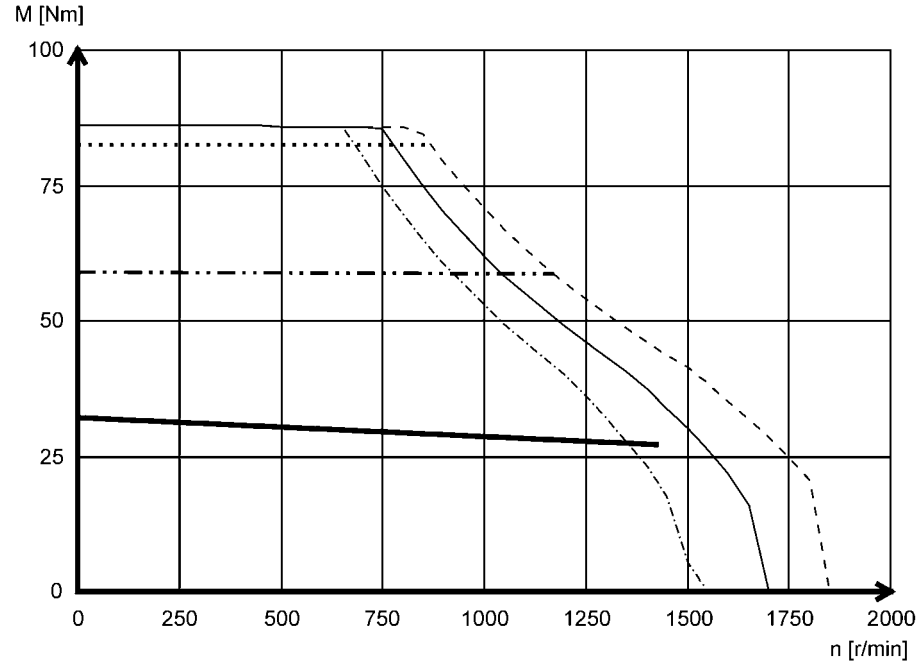


MCS19F12- (forced ventilated)



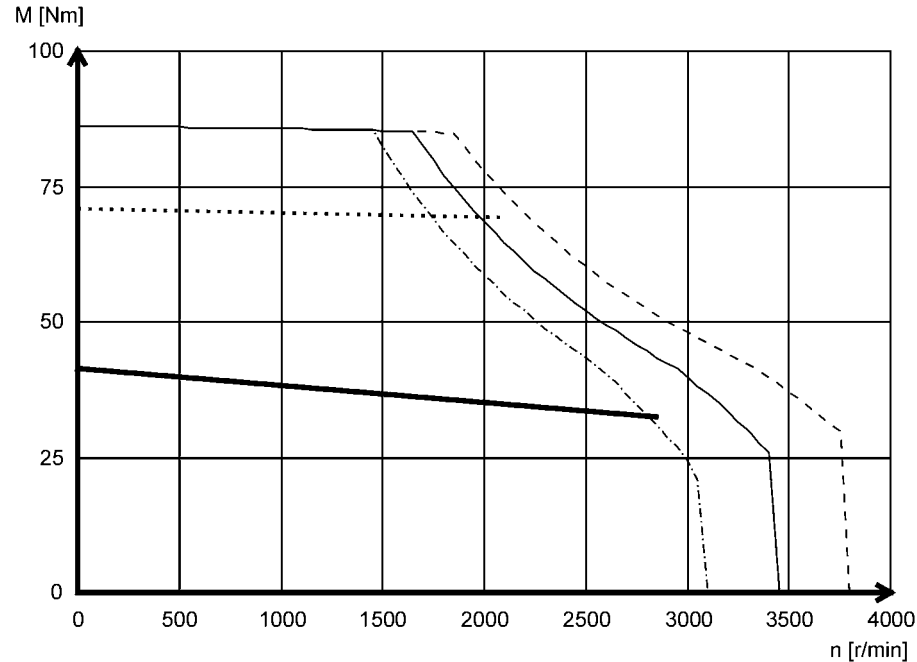


MCS19F14- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - Mmax 360 V
- Mmax @ Imax= 3x I0
- - - Mmax @ Imax= 2x I0
- S1

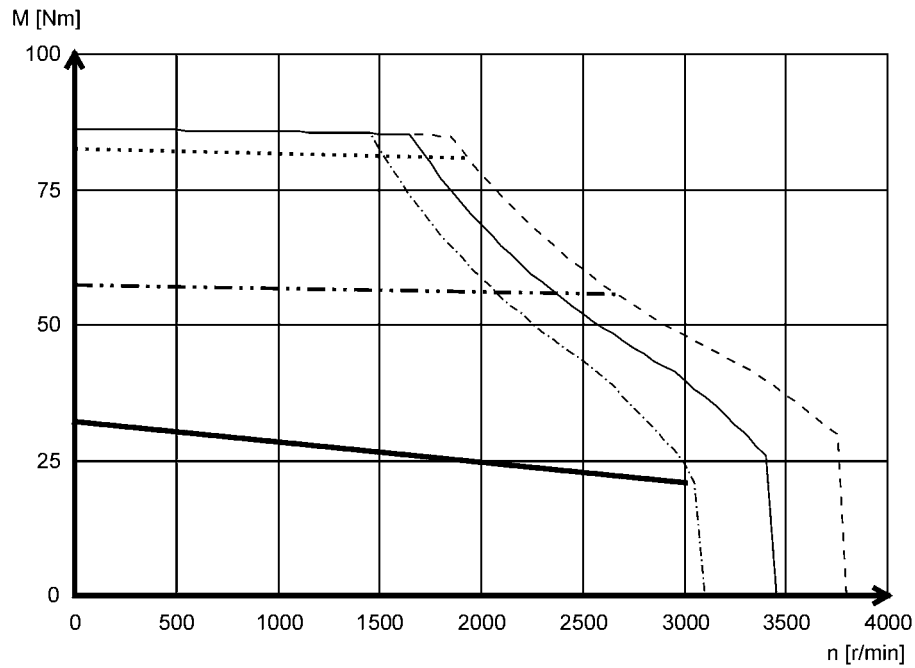
MCS19F29- (forced ventilated)



- Mmax 440 V
- Mmax 400 V
- · - Mmax 360 V
- Mmax @ Imax= 2x I0
- S1

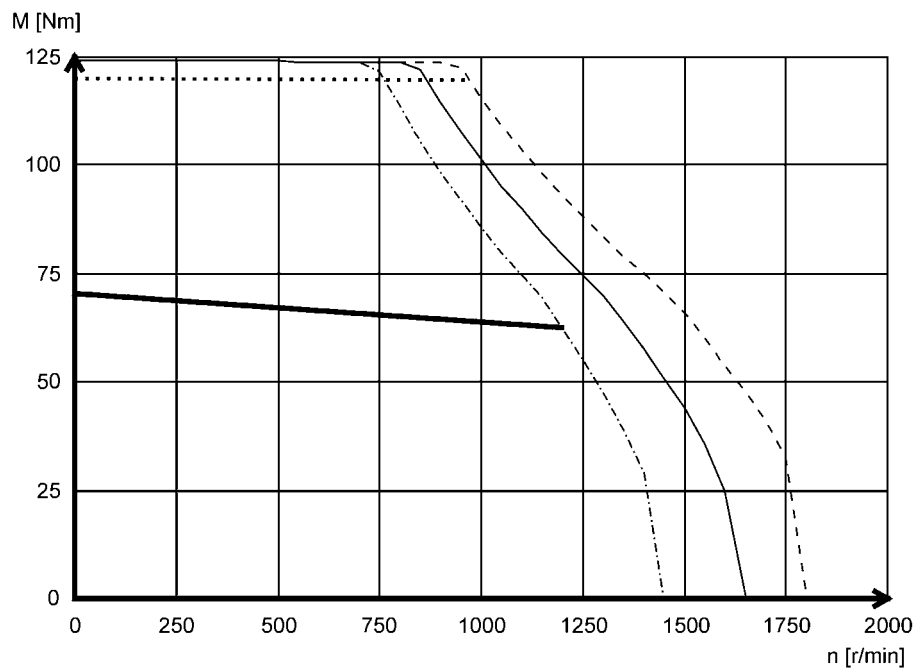


MCS19F30- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - Mmax 360 V
- Mmax @ $I_{max} = 3 \times I_0$
- - - Mmax @ $I_{max} = 2 \times I_0$
- S1

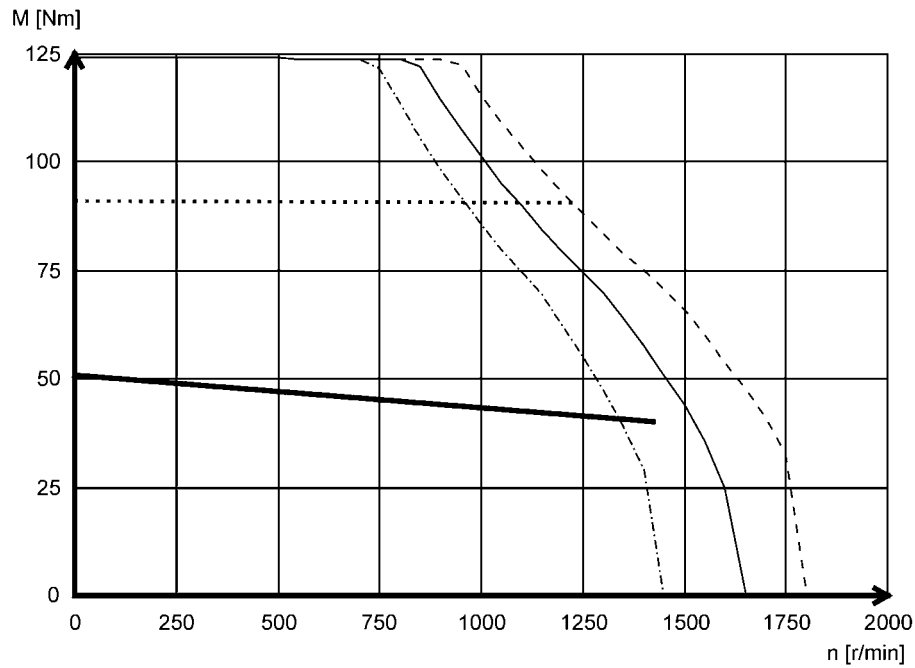
MCS19J12- (forced ventilated)



- Mmax 440 V
- Mmax 400 V
- · - Mmax 360 V
- Mmax @ $I_{max} = 2 \times I_0$
- S1

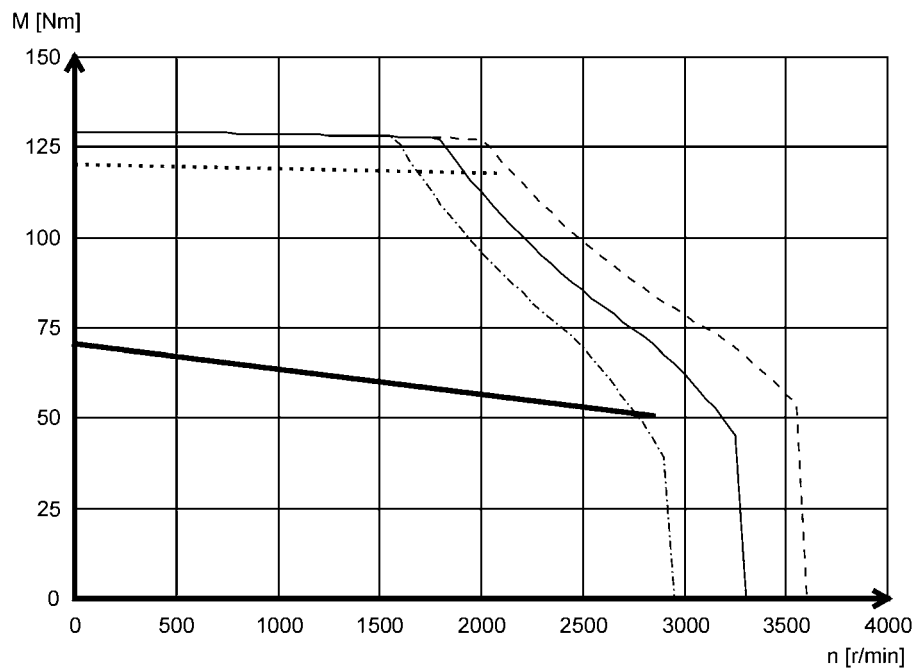


MCS19J14- (self-ventilated)



- - - - M_{max} 440 V
 — M_{max} 400 V
 - · - · M_{max} 360 V
 · · · · M_{max} @ $I_{max} = 2 \times I_0$
 — S1

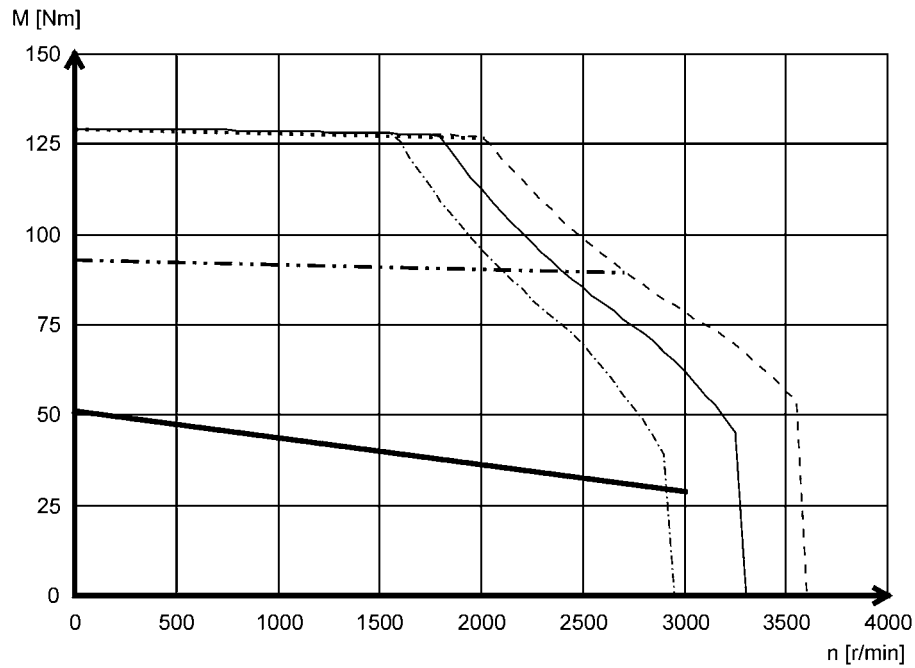
MCS19J29- (forced ventilated)



- - - - M_{max} 440 V
 — M_{max} 400 V
 - · - · M_{max} 360 V
 · · · · M_{max} @ $I_{max} = 2 \times I_0$
 — S1

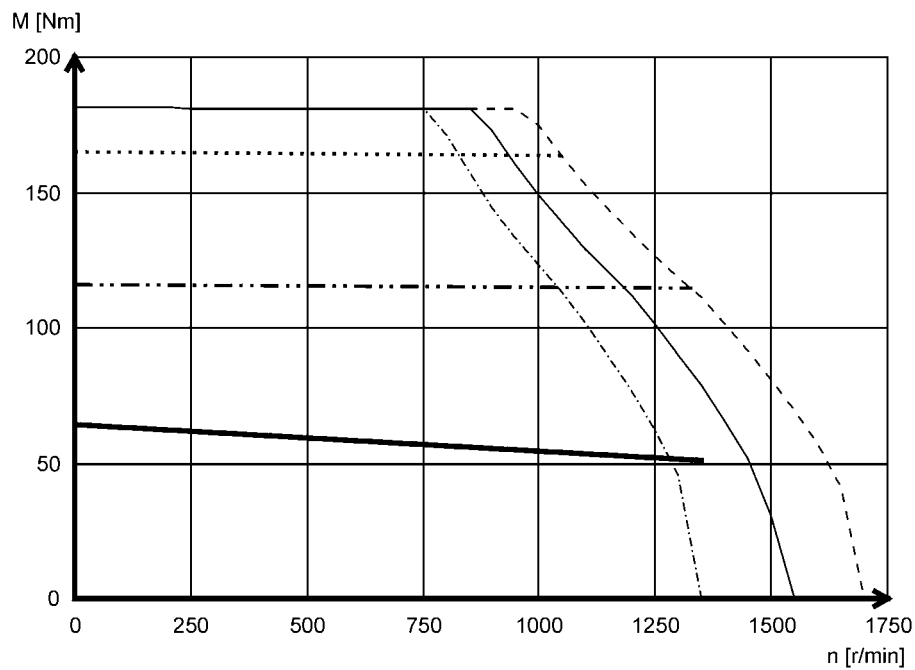


MCS19J30- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ I_{max} = 3x I₀
- - - - Mmax @ I_{max} = 2x I₀
- S1

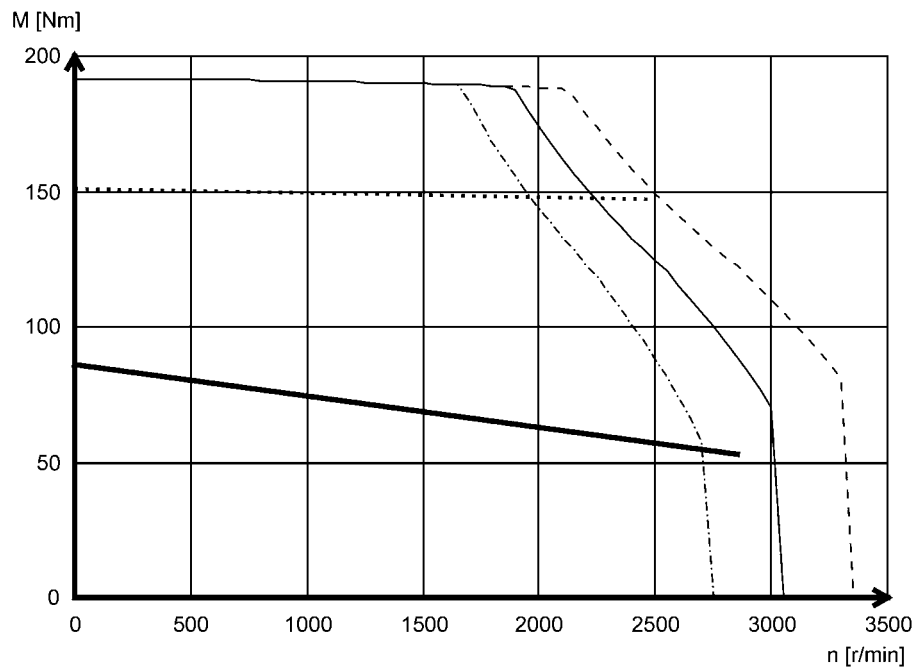
MCS19P14- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ I_{max} = 3x I₀
- - - - Mmax @ I_{max} = 2x I₀
- S1

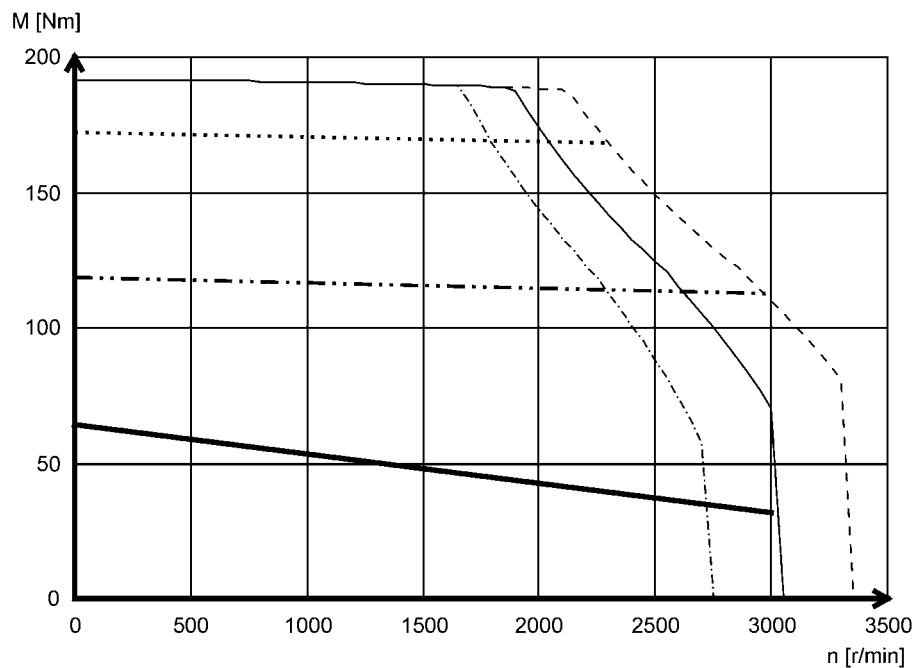


MCS19P29- (forced ventilated)



- Mmax 440 V
- Mmax 400 V
- - - - Mmax 360 V
- Mmax @ I_{max}= 2x I₀
- S1

MCS19P30- (self-ventilated)

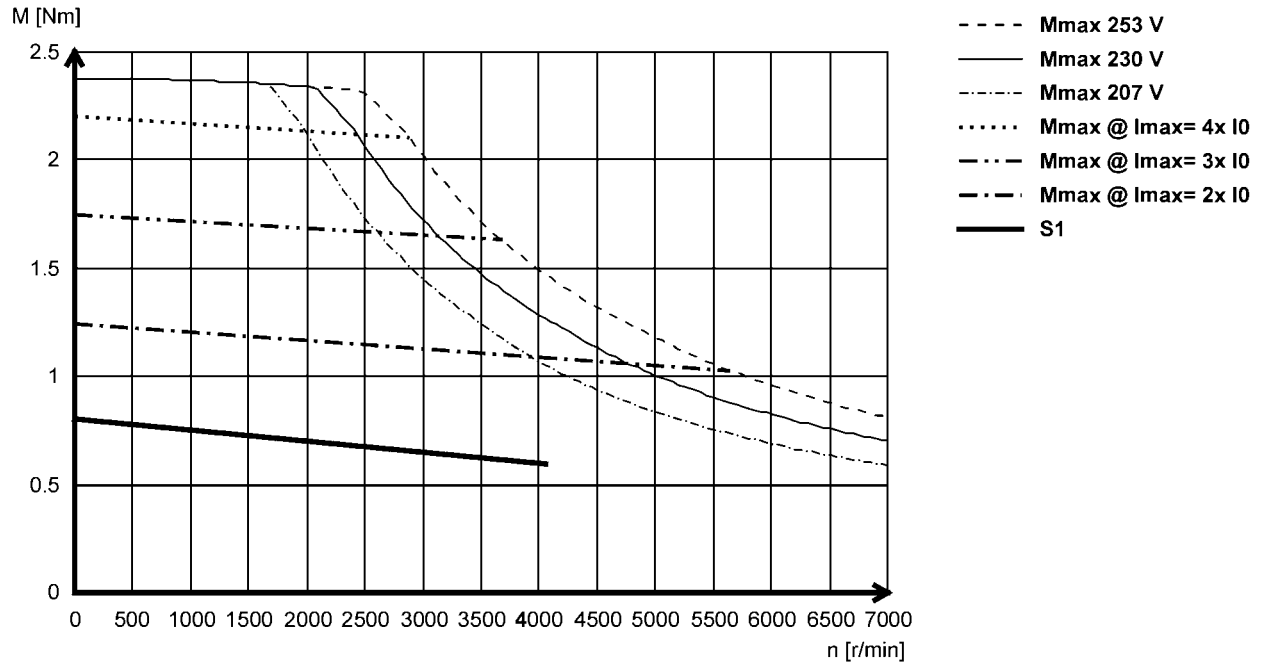


- Mmax 440 V
- Mmax 400 V
- - - - Mmax 360 V
- Mmax @ I_{max}= 3x I₀
- · - · Mmax @ I_{max}= 2x I₀
- S1

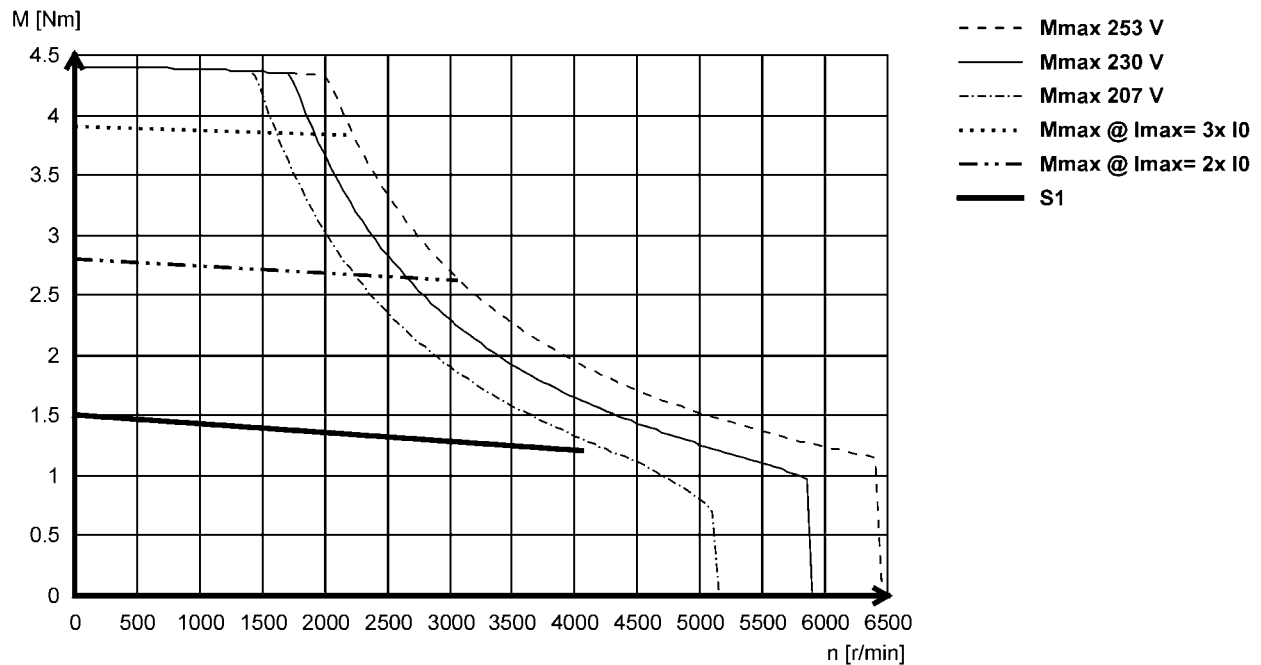


The following data apply to an inverter mains voltage 3 x 230 V.

MCS06C41L (self-ventilated)

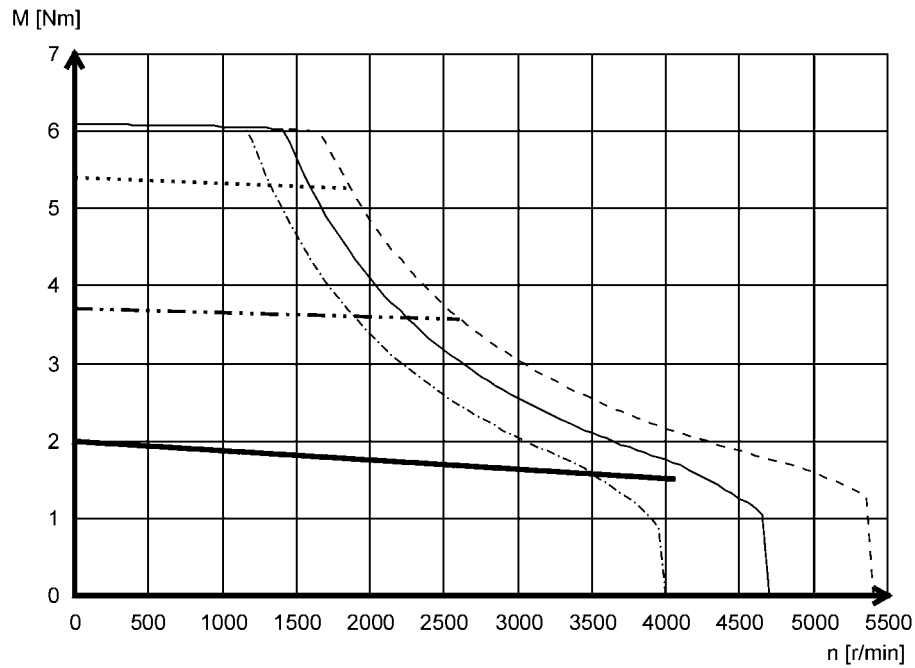


MCS06F41L (self-ventilated)



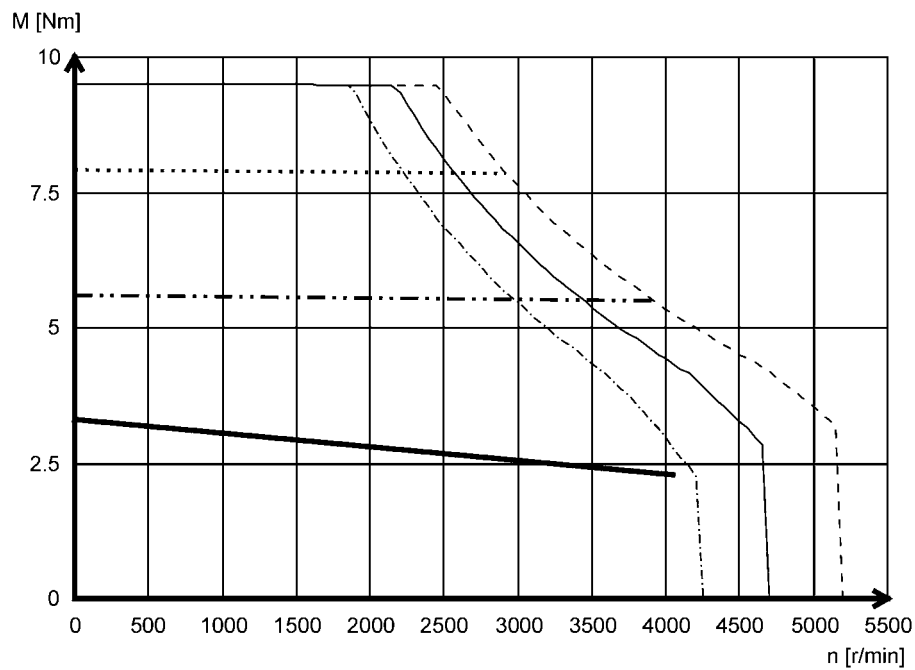


MCS06I41L (self-ventilated)



- Mmax 253 V
- Mmax 230 V
- · - · - Mmax 207 V
- Mmax @ Imax= 3x I₀
- Mmax @ Imax= 2x I₀
- S1

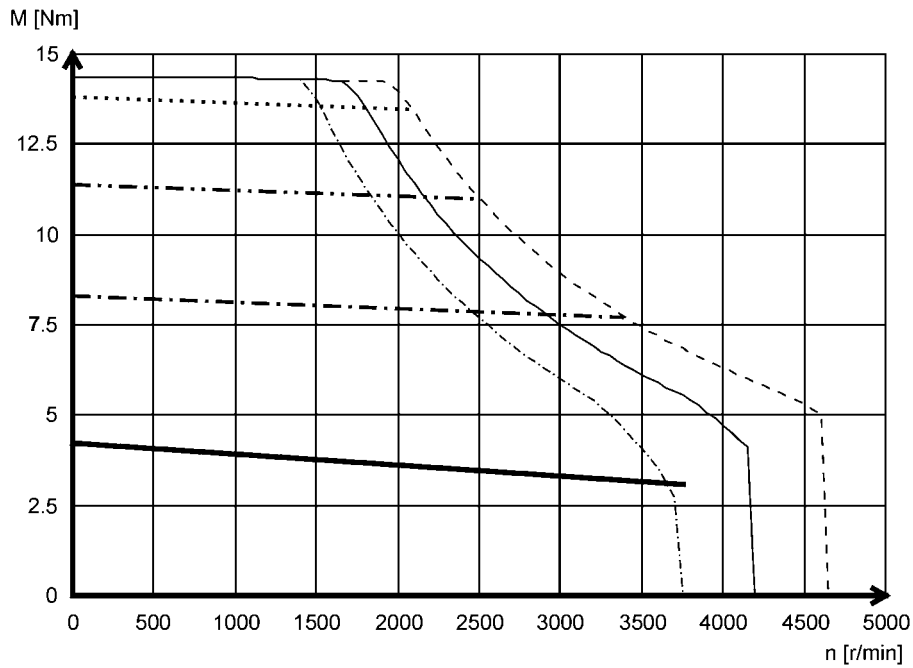
MCS09D41L (self-ventilated)



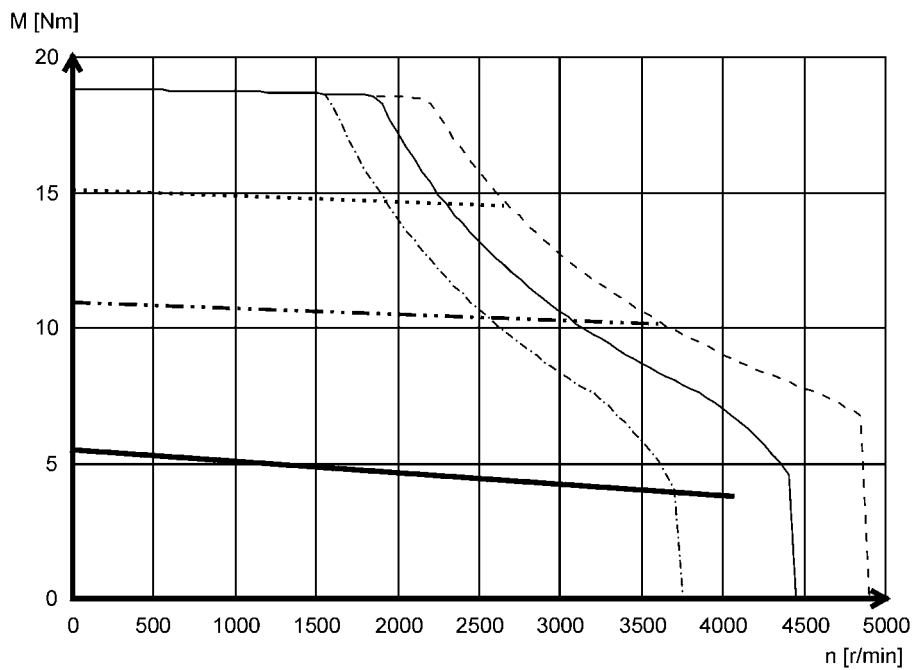
- Mmax 253 V
- Mmax 230 V
- · - · - Mmax 207 V
- Mmax @ Imax= 3x I₀
- Mmax @ Imax= 2x I₀
- S1



MCS09F38L (self-ventilated)

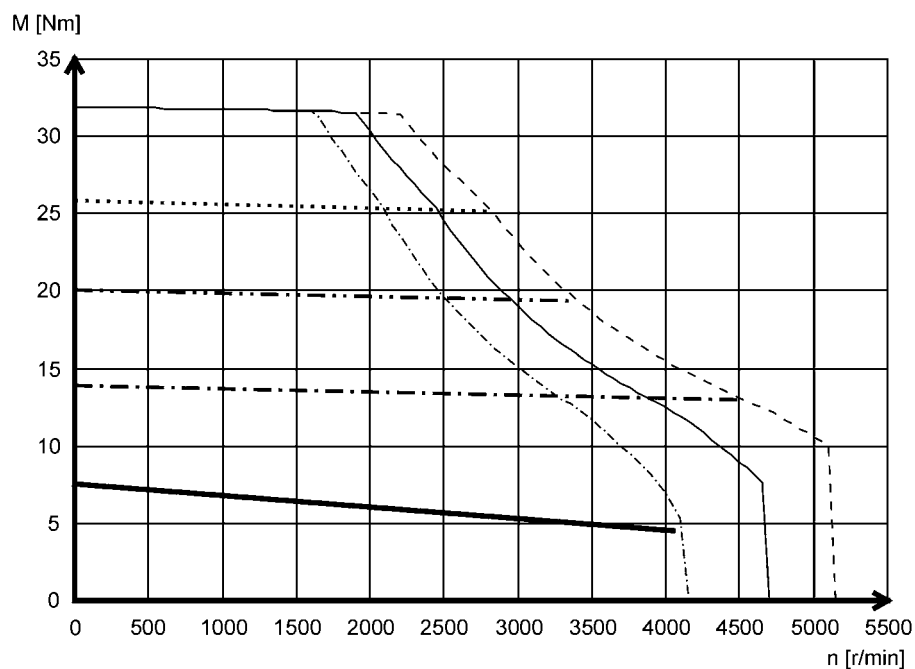


MCS09H41L (self-ventilated)

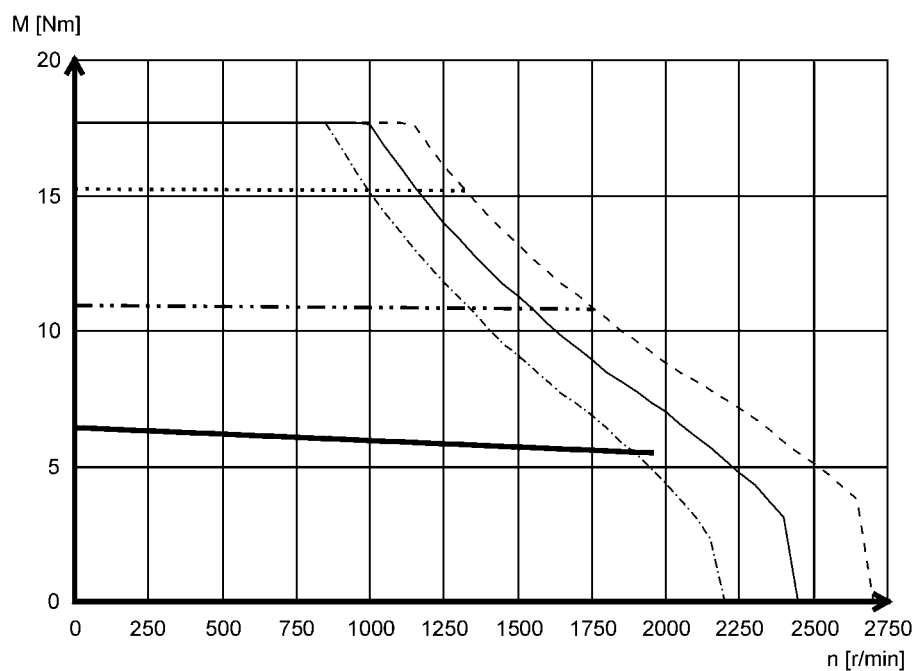




MCS09L41L (self-ventilated)

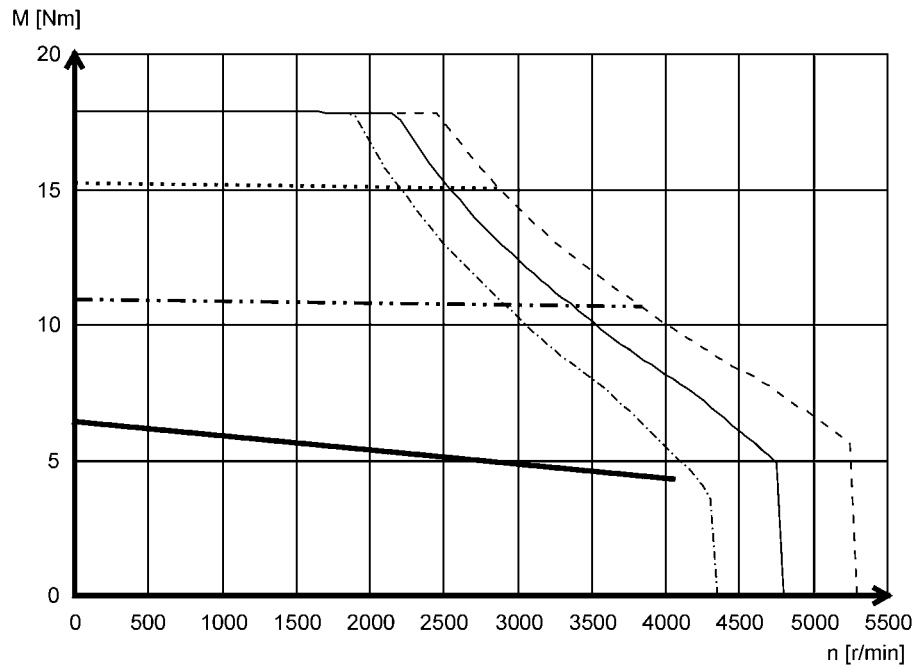


MCS12D20L (self-ventilated)



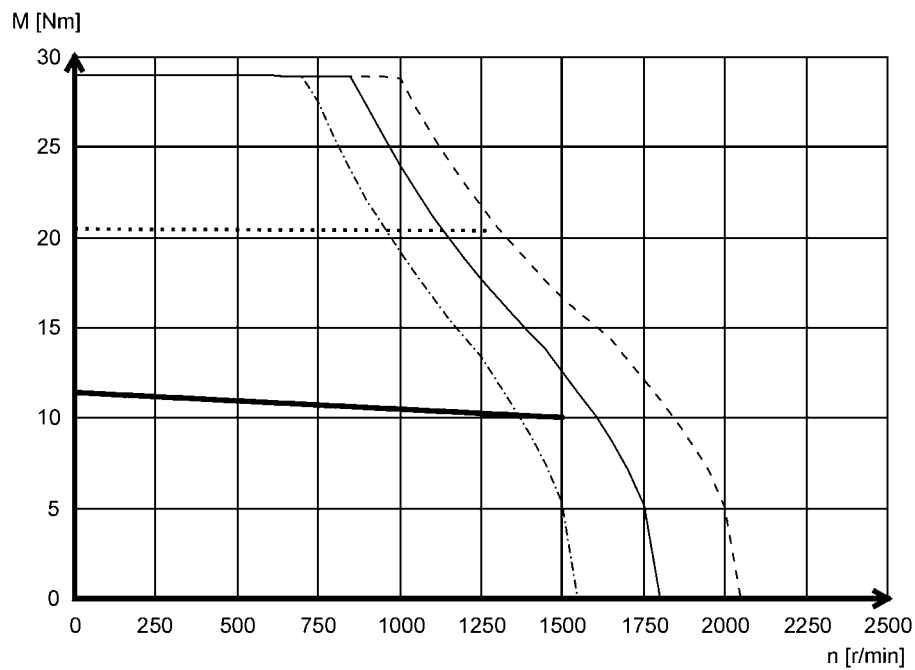


MCS12D41L (self-ventilated)



- Mmax 253 V
- Mmax 230 V
- · - · - Mmax 207 V
- Mmax @ Imax= 3x I₀
- · - · - Mmax @ Imax= 2x I₀
- S1

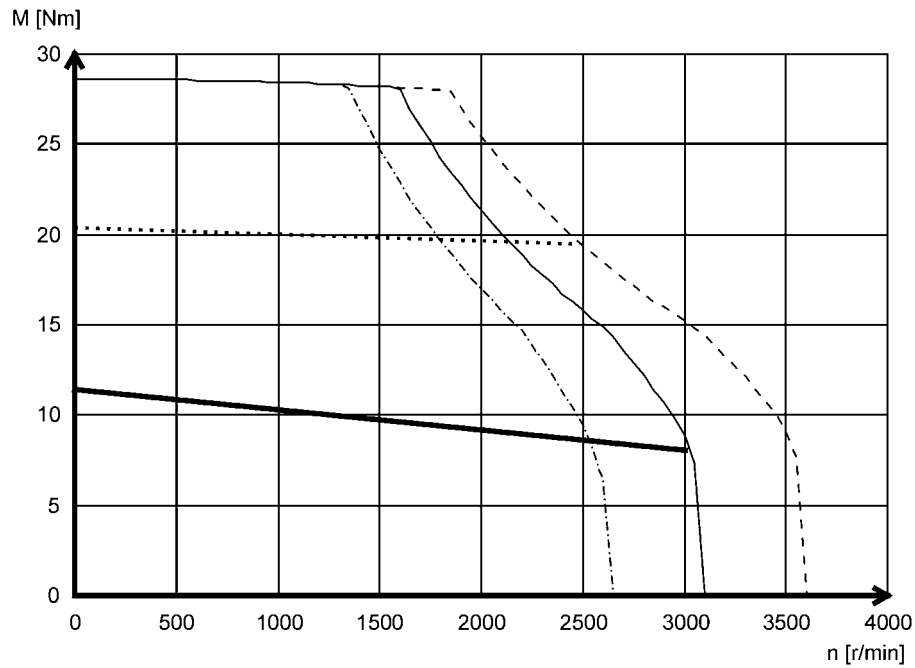
MCS12H15L (self-ventilated)



- Mmax 253 V
- Mmax 230 V
- · - · - Mmax 207 V
- Mmax @ Imax= 2x I₀
- S1

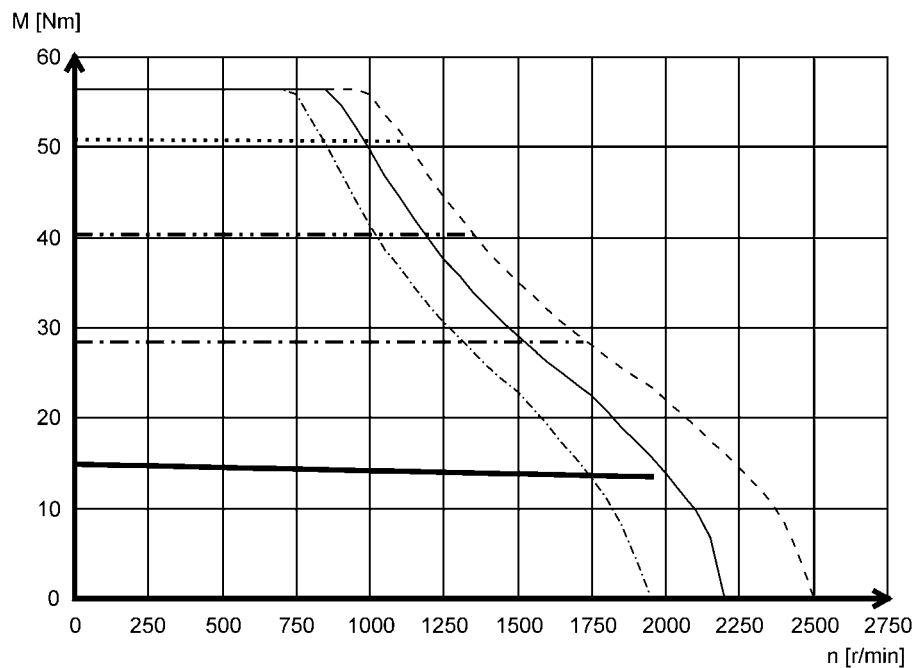


MCS12H30L- (self-ventilated)



- Mmax 253 V
- Mmax 230 V
- - - Mmax 207 V
- Mmax @ $I_{max} = 2 \times I_0$
- S1

MCS12L20L (self-ventilated)



- Mmax 253 V
- Mmax 230 V
- - - Mmax 207 V
- Mmax @ $I_{max} = 4 \times I_0$
- - - Mmax @ $I_{max} = 3 \times I_0$
- . - Mmax @ $I_{max} = 2 \times I_0$
- S1



Environmental notes and recycling

Lenze has been certified to the worldwide environmental management standard for many years (DIN EN ISO 14001). As part of our environmental policy and the associated climate responsibility, please note the following information on hazardous ingredients and the recycling of Lenze products and their packaging:



Lenze products are partly subject to the EU Directive on the restriction of certain hazardous substances in electrical and electronic equipment 2011/65/EU: RoHS Directive [UKCA: S.I. 2012/3032 - The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012] . This is documented accordingly in the EU declaration of conformity and with the CE mark.



The crossed-out wheeled bin symbol is located on the equipment. This information indicates that used electrical and electronic products must not be disposed of with normal household waste.

The EU Directive 2012/19/EU: Directive on waste electrical and electronic equipment (WEEE) [UKCA: S.I. 2013/3113 - The Waste Electrical and Electronic Equipment Regulations 2013] , which has been transposed into national law by the respective EU member states, applies to the disposal of equipment. As a customer, you have the option of disposing of the electrical and electronic equipment that you have purchased from us and that is subject to WEEE via the Lenze branch in your country.

Lenze addresses in Europe: <https://www.lenze.com/en-de/company/global-presence>

Some Lenze products contain batteries/rechargeable batteries in accordance with EU Directive 2006/66/EC: Battery Directive [UKCA: S.I. 2009/890 - The Waste Batteries and Accumulators Regulations 2009] . Any batteries/rechargeable batteries included are designed to last the life of the product and do not need to be replaced or otherwise removed by the end user.



Lenze products are usually sold with cardboard or plastic packaging. This packaging complies with EU Directive 94/62/EC: Directive on packaging and packaging waste [UKCA: S.I. 1997/648 - The Producer Responsibility Obligations (Packaging Waste) Regulations 1997] . The required disposal route is indicated by material-specific labels with the "recycling triangle". Example: "21 - other cardboard"

REACH

Lenze products are subject to REGULATION (EC) No 1907/2006: REACH Regulation [UKCA: S.I. 2008/2852 - The REACH Enforcement Regulations 2008] . When used as intended, exposure of substances to humans, animals and the environment is excluded.

Lenze products are industrial electrical and electronic products and are disposed of professionally. Both the mechanical and electrical components such as electric motors, gearboxes or inverters contain valuable raw materials that can be recycled and reused. Proper recycling and thus maintaining the highest possible level of recyclability is therefore important and sensible from an economic and ecological point of view.

- Coordinate professional disposal with your waste disposal company.
- Separate mechanical and electrical components, packaging, hazardous waste (e.g. gear oils) and batteries/rechargeable batteries wherever possible.
- Dispose of the separated waste in an environmentally sound and proper manner (no household waste or municipal bulky waste).

What?	Material	Disposal instructions
Pallets	Wood	Return to manufacturers, freight forwarders or reusable materials collection system
Packaging material	Paper, cardboard, pasteboard, plastics	Collect and dispose of separately
Products		
Electronic devices	Metal, plastics, circuit boards, heatsinks	As electronic waste give to professional disposer for recycling
Gearbox	Oil	Drain oil and dispose of separately
	Casting, steel, aluminium	Dispose as metal scrap
Motors	Casting, copper, rotors, magnets, potting compound	As engine scrap give to professional disposer for recycling
Dry-cell batteries/rechargeable batteries		As used batteries give to professional disposer for recycling



Further information on Lenze's environmental and climate responsibility and on the topic of energy efficiency can be found on the Internet:

www.Lenze.com → search word: "Sustainability"



Appendix

Good to know

Operating modes of the motor

Operating modes S1 ... S10 as specified by EN 60034-1 describe the basic stress of an electrical machine.

In continuous operation a motor reaches its permissible temperature limit if it outputs the rated power dimensioned for continuous operation. However, if the motor is only subjected to load for a short time, the power output by the motor may be greater without the motor reaching its permissible temperature limit. This behaviour is referred to as overload capacity.

Depending on the duration of the load and the resulting temperature rise, the required motor can be selected reduced by the overload capacity.

The most important operating modes

Continuous operation S1	Short-time operation S2
Operation with a constant load until the motor reaches the thermal steady state. The motor may be actuated continuously with its rated power.	Operation with constant load; however, the motor does not reach the thermal steady state. During the following standstill, the motor winding cools down to the ambient temperature again. The increase in power depends on the load duration.



Intermittent operation S3	Non-intermittent periodic operation S6
Sequence of identical duty cycles comprising operation with a constant load and subsequent standstill. Start-up and braking processes do not have an impact on the winding temperature. The steady-state is not reached. The guide values apply to a cycle duration of 10 minutes. The power increase depends on the cycle duration and on the load period/downtime ratio.	Sequence of identical duty cycles comprising operation with a constant load and subsequent no-load operation. The motor cools down during the no-load phase. Start-up and braking processes do not have an impact on the winding temperature. The steady-state is not reached. The guide values apply to a cycle duration of 10 minutes. The power increase depends on the cycle duration and on the load period/idle time ratio.

P Power
t Time
 t_L Idle time
 θ Temperature

P_V Power loss
 t_B Load period
 t_S Cycle duration

Enclosures

The protection class indicates the suitability of a product for specific ambient conditions with regard to humidity as well as the protection against contact and the ingress of foreign particles. The protection classes are classified in the EN 60034-5/ EN IEC 60529.

The first code number after the code letters IP indicates the protection against the ingress of foreign particles and dust. The second code number refers to the protection against the ingress of humidity.

Code number 1	Degree of protection	Code number 2	Degree of protection
0	No protection	0	No protection
1	Protection against the ingress of foreign particles $d > 50$ mm. No protection in case of deliberate access.	1	Protection against vertically dripping water (dripping water).
2	Protection against medium-sized foreign particles, $d > 12$ mm, keeping away fingers or the like.	2	Protection against diagonally falling water (dripping water), 15° compared to normal service position.
3	Protection against small foreign particles $d > 2.5$ mm. Keeping away tools, wires or the like.	3	Protection against spraying water, up to 60° from vertical.
4	Protection against granular foreign particles, $d > 1$ mm, keeping away tools, wire or the like.	4	Protection against spraying water from all directions.
5	Protection against dust deposits (dust-protected), complete protection against contact.	5	Protection against water jets from all directions.
6	Protection against the ingress of dust (dust-proof), complete protection against contact.	6	Protection against choppy seas or heavy water jets (flood protection).

Lenze SE

Postfach 101352 · 31763 Hameln
Hans-Lenze-Straße 1 · 31855 Aerzen
GERMANY

Hannover HRB 204803
Phone +49 5154 82-0
Fax +49 5154 82-2800
sales.de@lenze.com
www.lenze.com