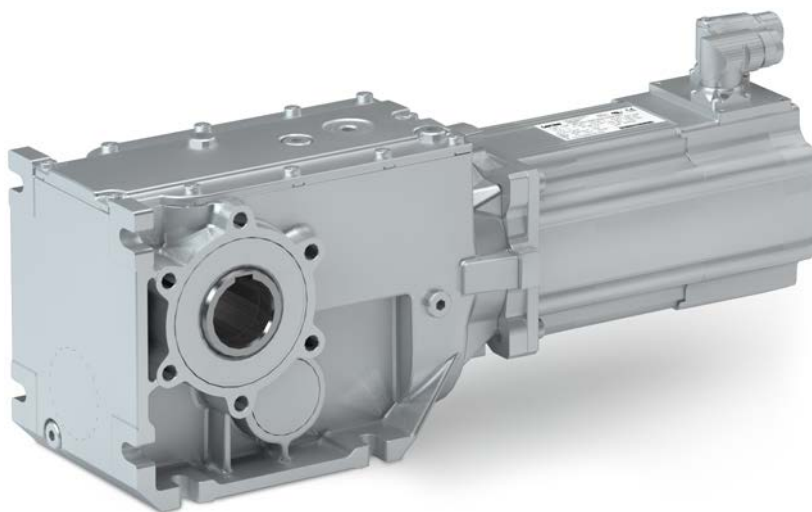


g500-B / MCS bevel geared servo motor



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	15
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	106
Dimensions	136
Basic dimensions	138
Gearbox with pre-stage	276
Additional lengths	277
Weights	280
Basic weights	280
Additional weights	280
Product extensions	281
Torque plates	281
Shaft covers	290
Motor connection	292
Connection via terminal box	292
Connection via connector	296
Brakes	303
Permanent magnet brakes	305
Feedback	308
Resolver	309
Absolute value encoder	310
Blower	313
Temperature monitoring	314
Thermal detectors PT1000	314
Accessories	316
Hollow shaft mounting kit	316
Product codes	317
Motor data	319
Rated data	319
Inverter mains connection 400 V, Self-ventilated motors	319
Inverter mains connection 400 V, Forced ventilated motors	325
Inverter mains connection 230 V, Self-ventilated motors	329
Torque characteristics	332
Environmental notes and recycling	361
Appendix	362
Good to know	362
Operating modes of the motor	362
Enclosures	363



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.



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 bevel 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 efficient bevel 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 4300 Nm and a ratio of up to $i = 3167$.

Designs

- High-efficient right-angle gearbox in a compact design for space-saving installation
- Standardised shaft and flange dimensions for an easy machine integration
- Low backlash and high torsional stiffness provide for exact results in positioning applications

Synchronous servo motors as a basis for geared motors

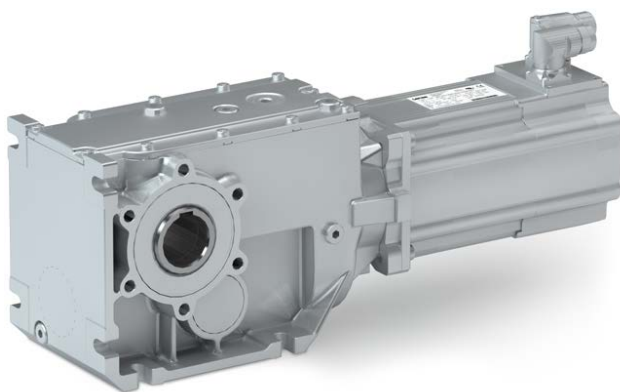
In a power range of 0.25 to 15.8 kW, Lenze offers servo motors with a scalable modular design.

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



MCS12L synchronous servo motor - g500-B450 bevel gearbox



MCS09C synchronous servo motor - g500-B450 bevel gearbox 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
Bevel gearbox	g500	-	B	45	g500-B45
				110	g500-B110
				240	g500-B240
				450	g500-B450
				600	g500-B600
				820	g500-B820
				1500	g500-B1500
				2700	g500-B2700
				4300	g500-B4300

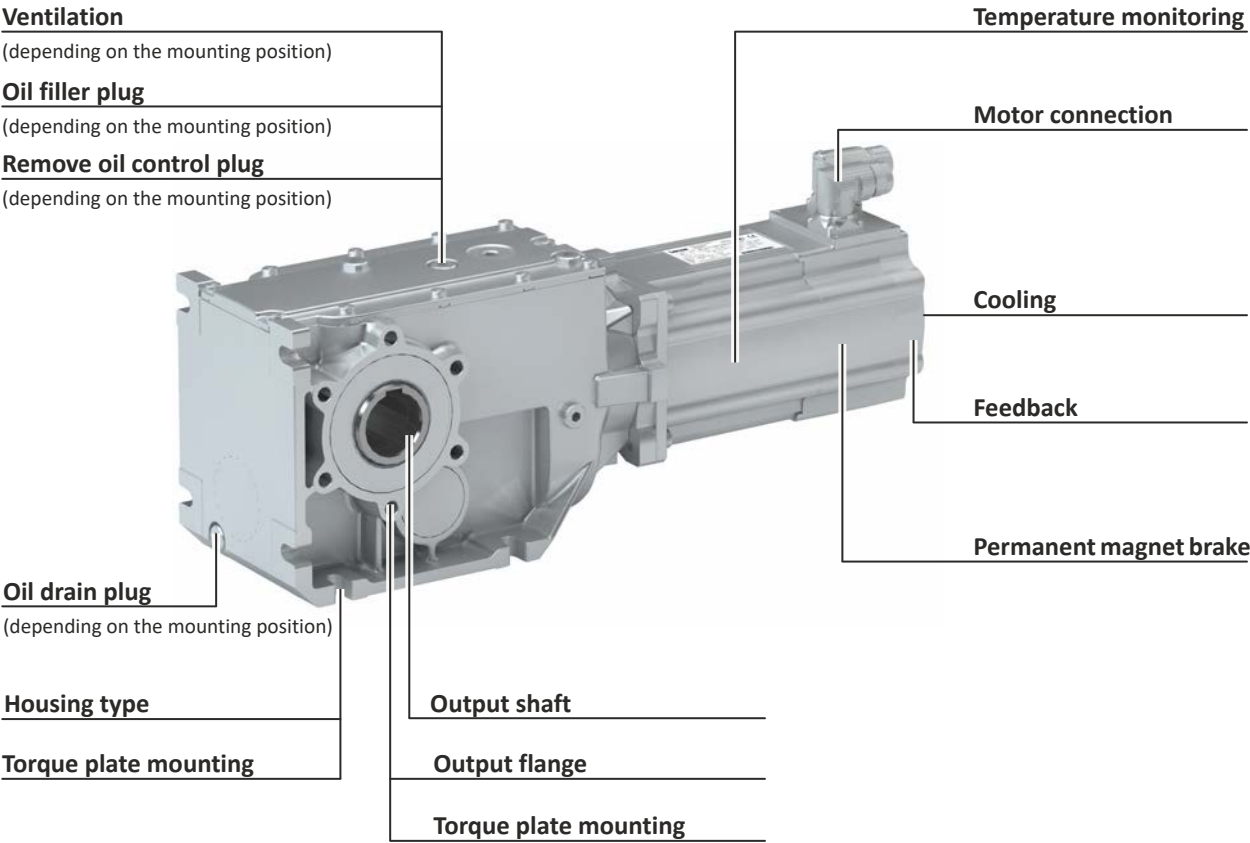
Product name: MCS synchronous servo motor

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 450 Nm

Gearbox		g500-B45	g500-B110	g500-B240	g500-B450
Min. motor assignment		MCS06	MCS06	MCS06	MCS06
Max. motor assignment		MCS06	MCS09	MCS12	MCS14
Technical data					
Max. output torque	Nm	45	110	240	450
Min. drive torque	Nm	0.6	0.6	0.6	0.6
Max. drive torque	Nm	0.6	4.5	17	42
Mounting position					
Standard		M1, M2, M3, M4, M5, M6 (ABCDEF)			
Combined		M1-M6 (A-F)	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	20 x 40	20 x 40	30 x 60	30 x 60
Hollow shaft with keyway (H)	mm	18/20	20/25	30/35	35/40
Hollow shaft with shrink disc (S)	mm	20	20	30/35	35
Shaft material		Steel Stainless steel			
Shaft sealing ring material		NBR FKM (Viton)			
Output shaft bearing		Standard Reinforced			
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	110/120	120/160	160/200	200
Lubricant		Synthetic oil Food-grade oil			
Ventilation		Without			Vent valve
Torque plate		At threaded pitch circle Rubber buffers	At threaded pitch circle	At threaded pitch circle On the housing foot	
Shaft cover		Hollow shaft cover, hoseproof 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 600 Nm to 4300 Nm

Gearbox		g500-B600	g500-B820	g500-B1500	g500-B2700	g500-B4300
Min. motor assignment		MCS06	MCS06	MCS09	MCS12	MCS12
Max. motor assignment		MCS14	MCS14	MCS19	MCS19	MCS19
Technical data						
Max. output torque	Nm	600	820	1500	2700	4300
Min. drive torque	Nm	0.6	0.6	2.3	4.3	4.3
Max. drive torque	Nm	42	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	40 x 80	50 x 100	60 x 120	70 x 140
Hollow shaft with keyway (H)	mm	40/45	40/45	50/55	60/70	70/80
Hollow shaft with shrink disc (S)	mm	40	40	50	65	75/80
Shaft material		Steel Stainless steel				
Shaft sealing ring material		NBR FKM (Viton)				
Output shaft bearing		Standard Reinforced				
Gearbox design		With foot (HBR)/(VBR/SBR) With foot and centering (HAR/VAR/SAR) With foot and output flange (HAK/VAK/SAK)				
Output flange	mm	200/250	200/250	250/300	350	400/450
Lubricant		Synthetic oil Food-grade oil				
Ventilation		Vent valve		Vent valve Oil compensation reservoir		
Torque plate		At threaded pitch circle On the housing foot			On the housing foot	
Shaft covers		Hollow shaft cover, hoseproof 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

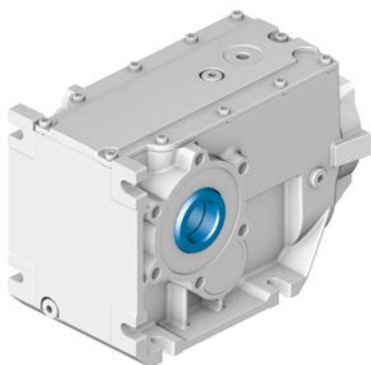


Please observe the available gearbox designs!

► [The modular system](#) 11

g500-B45 ... B4300

Hollow shaft, with foot



Without centring (HBR)

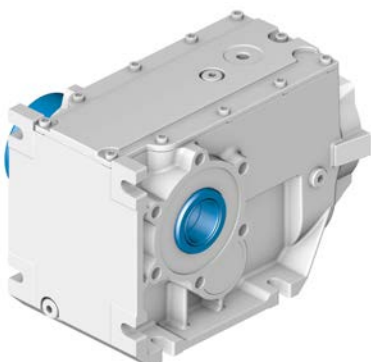


With centring (HAR)

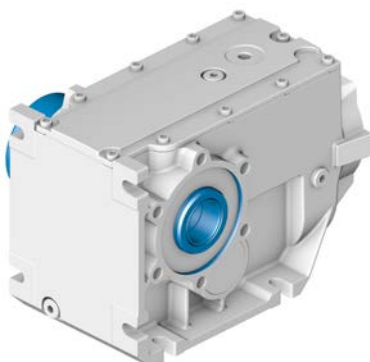


Flange with through holes (HAK)

Hollow shaft with shrink disc, with foot



Without centring (SBR)

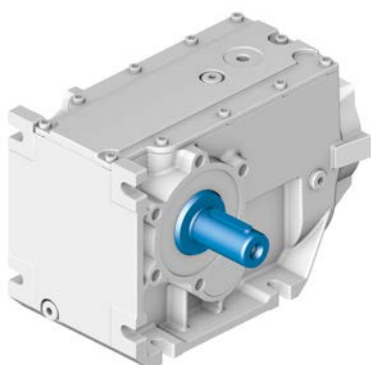


With centring (SAR)

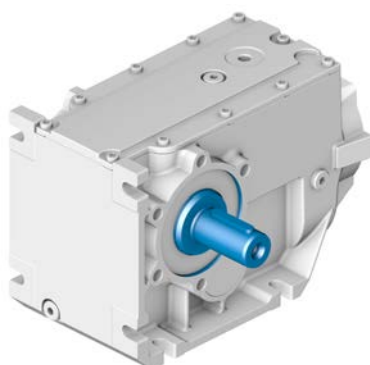


Flange with through holes (SAK)

Solid shaft, with foot



Without centring (VBR)



With centring (VAR)



Flange with through holes (VAK)

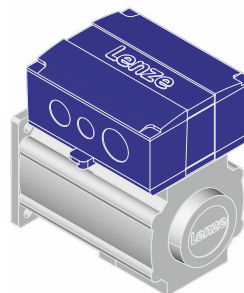
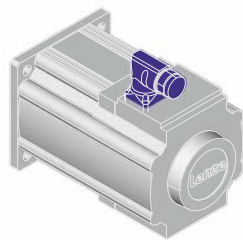
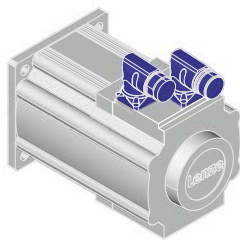
Product information

The modular system
Designs



Models at the output

Motor connection

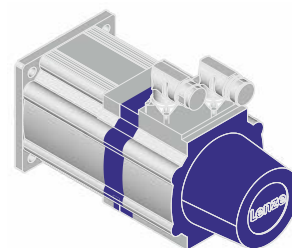
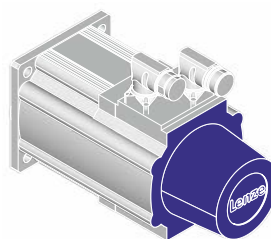
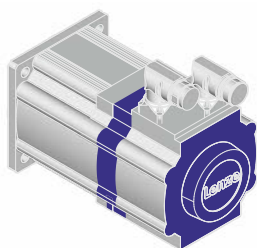
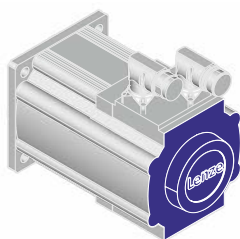


Connector

ICN hybrid connector for One Cable
Technology (OCT)

Terminal box

Cooling: Self-ventilated



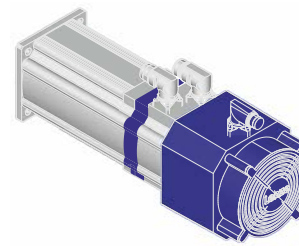
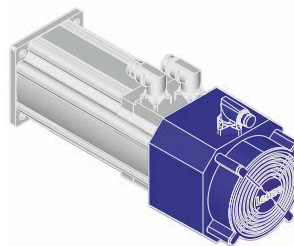
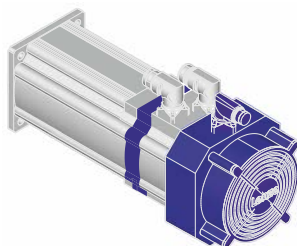
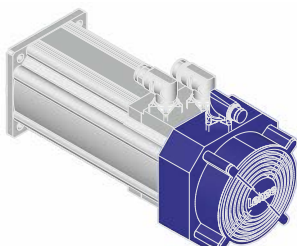
Resolver

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

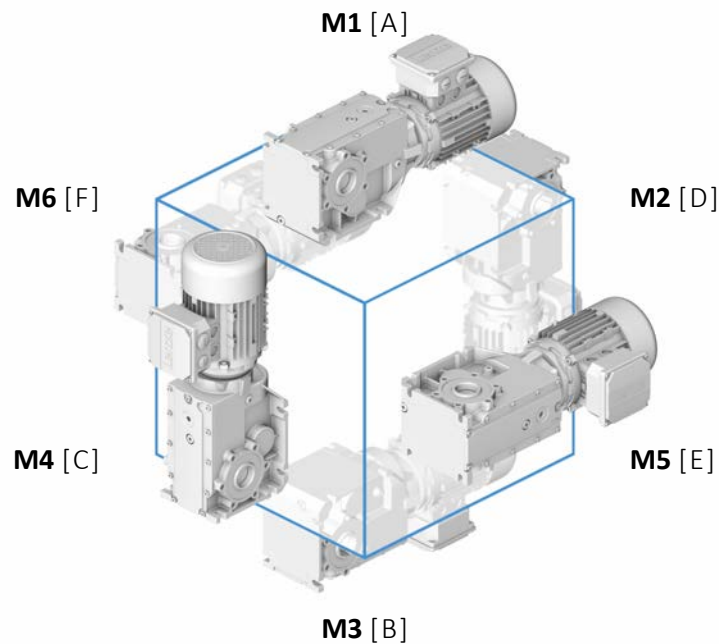


Mounting positions

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.

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

- g500-B45 in M1-M6 (A-F) mounting position
- g500-B110 ... B450 in M1/5/6 (AEF) mounting position



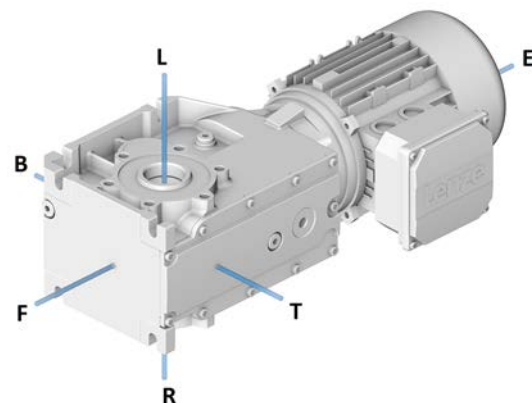
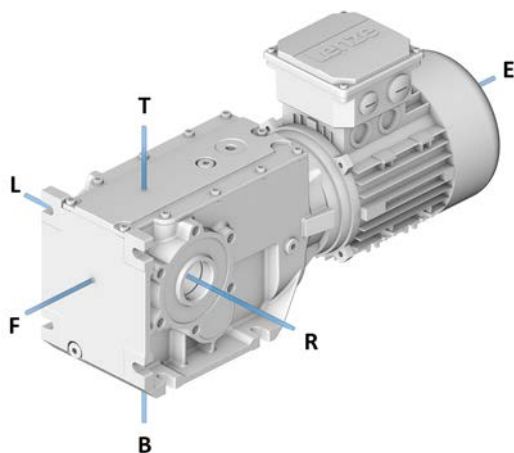
Defined positions on the geared motor

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 (E)

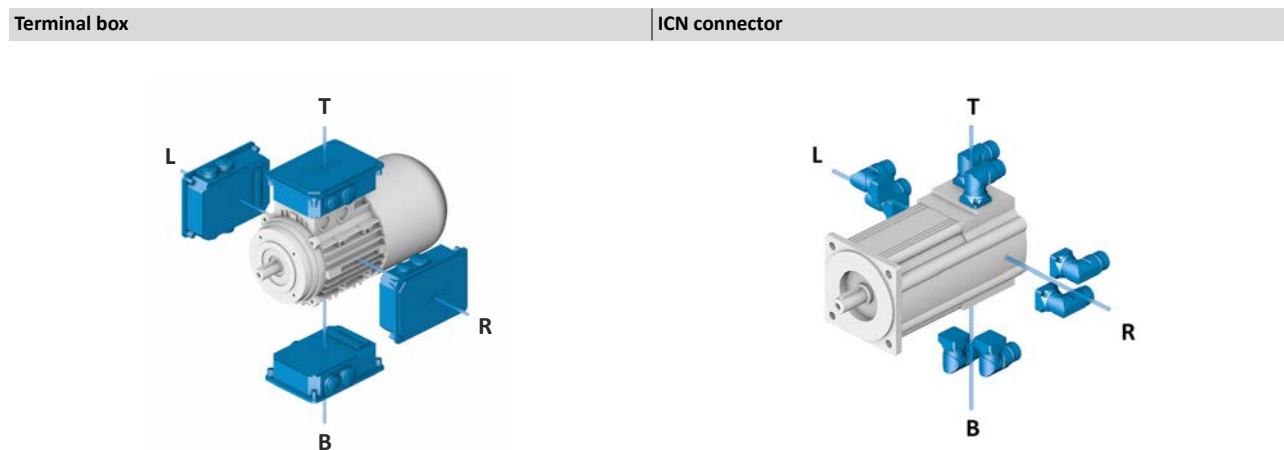


Product information

The modular system
Mounting positions



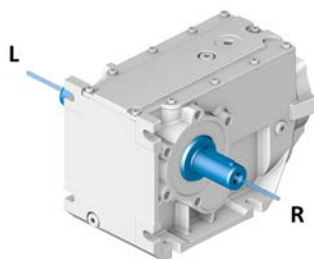
Positions of the terminal boxes/connectors



Position of the solid shaft



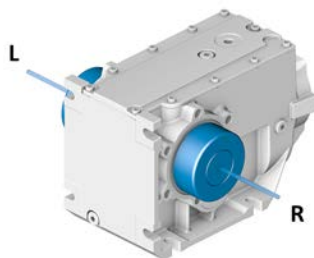
Double-ended output shaft journal "L+R".



Position of the hollow shaft with shrink disc



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





Position of the output flange

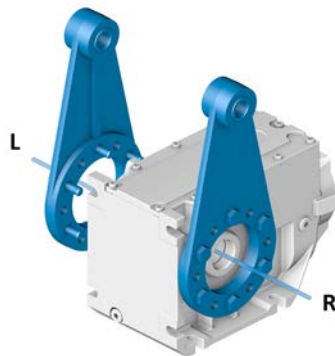


Output flange on both sides "L+R".

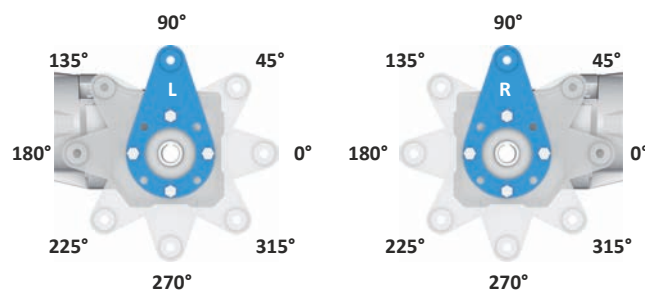


Position of the torque plate on the threaded pitch circle

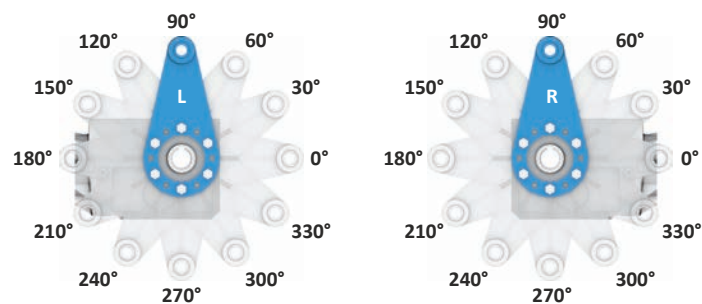
Position of the torque plate



Angle of the torque plate
g500-B45 ... B110



g500-B240 ... B1500



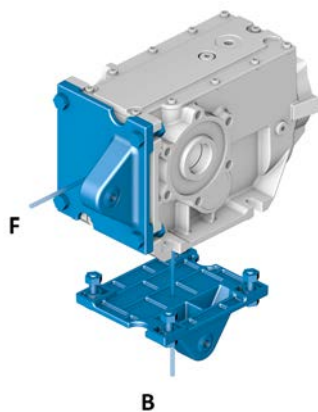
Product information

The modular system
Mounting positions

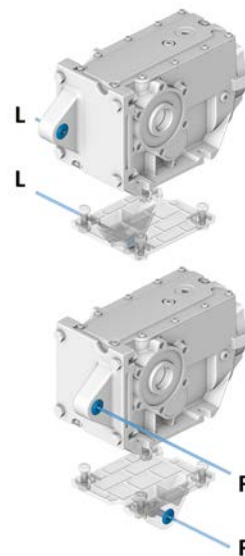


Position of the torque plate on the housing foot

Position of the torque plate



Position of the rubber buffer on the torque plate





Safety instructions

Basic safety instructions

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

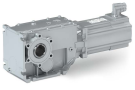
- Only use the product as directed.
- Never commission the product in the event of visible damage.
- Never modify the product technically.
- Never commission the product before assembly has been completed.
- Never operate the product without the required covers.
- Connect/disconnect all pluggable connections 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 $+30 \text{ }^\circ\text{C}$.

Motor	Mounting position A	Mounting position B, E, F	Mounting position C, D
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

Gearboxes	Ratio i
g500-B1500 ... B4300	≤ 50



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.

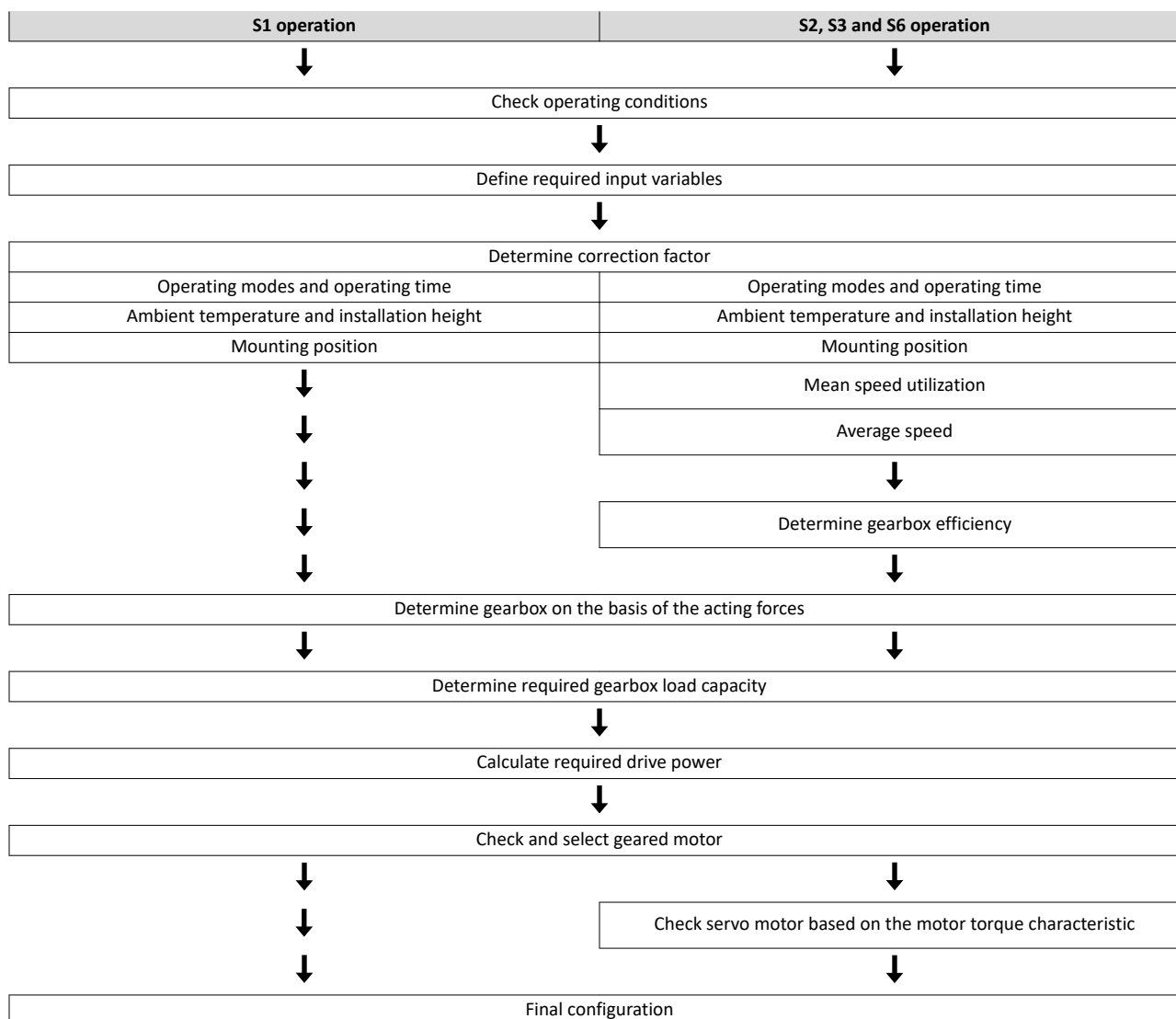
The mean speed of the drive should not exceed the values specified.



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 [362](#)

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-B		
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

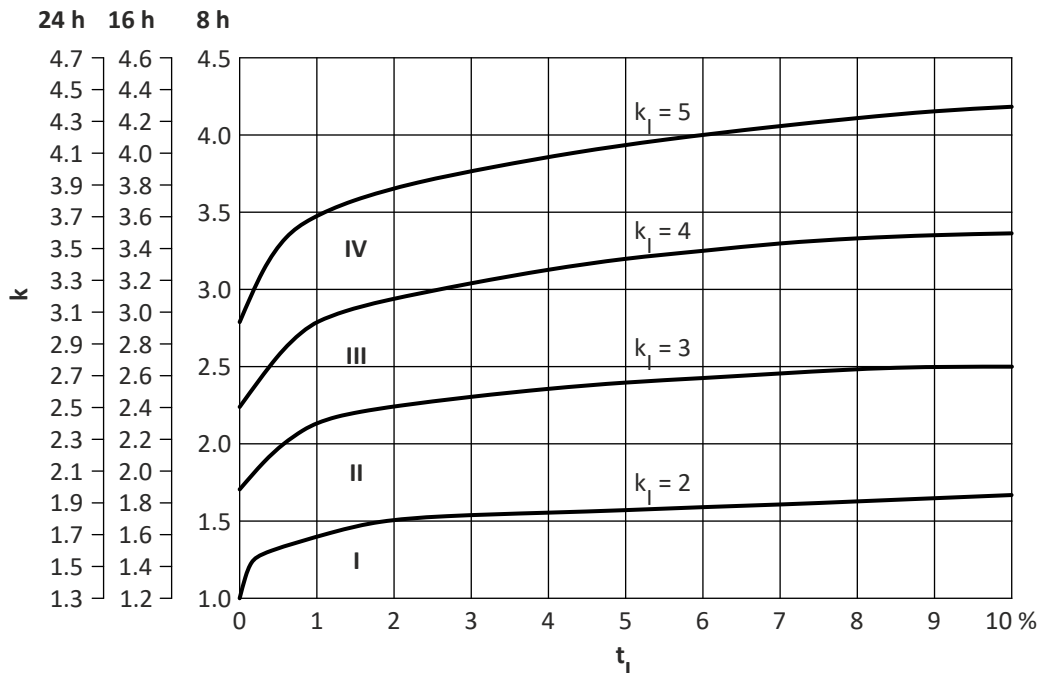
► [Radial forces and axial forces](#) 57



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 [332](#)

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](#) 281



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-B45
- g500-B110
- g500-B240

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 (E)	M6 (F)	M1-M6 (A-F)	M1, M5, M6 (AEF)
Gearboxes									
g500-B45	I	0.4	0.4	0.4	0.4	0.4	0.4	0.4	-
g500-B110	I	.3	0.6	0.7	.9	0.5	0.4	-	0.5
g500-B240	I	.9	1.2	1.3	1.8	1.4	1.0	-	1.4
g500-B450	I	.9	1.6	1.9	2.3	1.8	1.7	-	1.8
g500-B600	I	1.4	2.3	2.7	3.2	2.6	2.6	-	-
g500-B820	I	1.9	2.8	3.4	4.2	3.2	2.7	-	-
g500-B1500	I	3.8	5.7	6.4	8.4	5.9	3.9	-	-
g500-B2700	I	6.0	9.0	10.0	12.7	8.5	9.5	-	-
g500-B4300	I	9.5	11.5	16.5	21.0	14.0	16.0	-	-
Pre-stage	I	0.4							

► Gearbox with pre-stage 276



Ventilation



No venting measures are required for the g500-B45 ... B240 gearboxes.

The g500-B240 gearbox can optionally be equipped with breather elements.

From g500-B450 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-B45 in M1-M6 (A-F) mounting position
- g500-B110 ... B450 in M1/5/6 (AEF) mounting position



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-B240

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

Ventilation
 Change oil
 Fill oil
 Oil level



g500-B450

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

Ventilation

Change oil

Fill oil

Oil level

g500-B600

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

Ventilation

Change oil

Fill oil

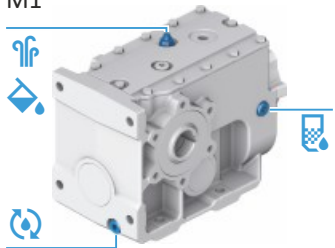
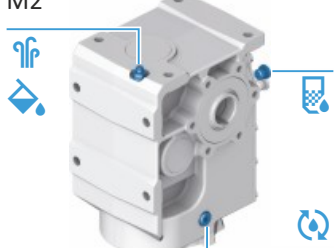
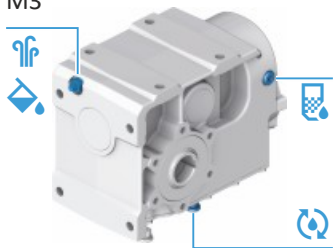
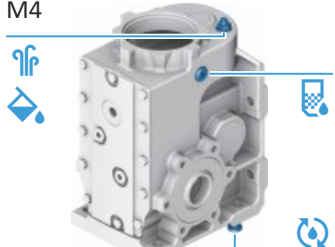
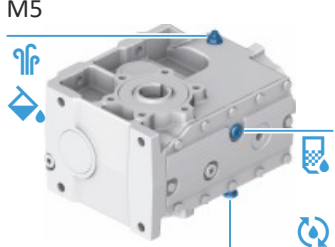
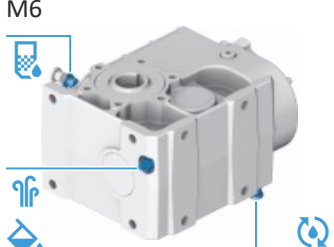
Oil level

Information on project planning

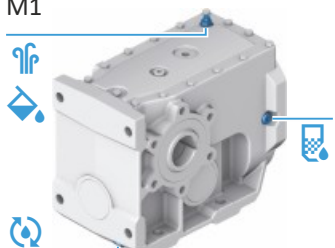
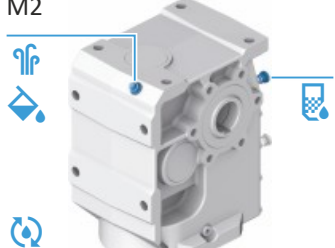
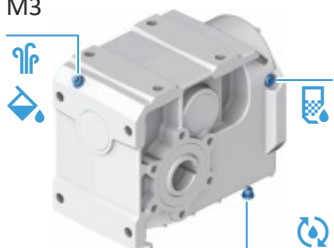
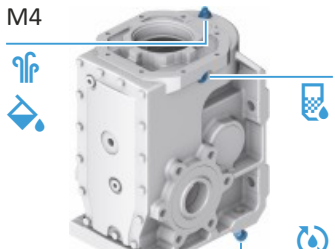
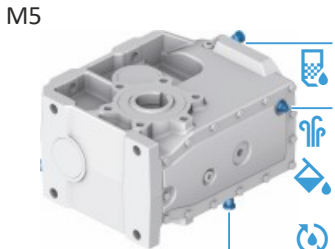
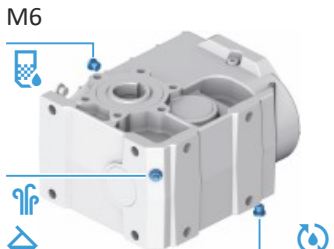
Final configuration
Ventilation



g500-B820

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

g500-B1500

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



g500-B2700

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

g500-B4300

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



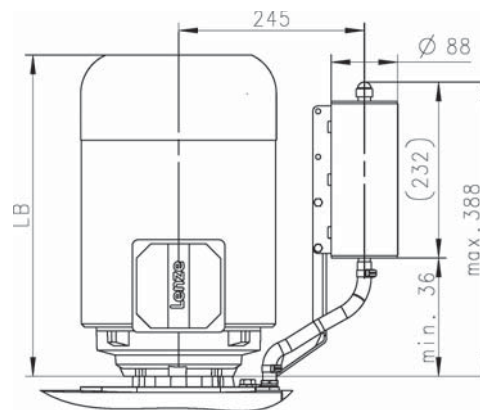
Gearbox with oil compensation reservoir for mounting position M4 (C)

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-B1500		g500-B2700		g500-B4300	
Gearbox ratio	Min. input speed	Gearbox ratio	Min. input speed	Gearbox ratio	Min. input speed
	rpm		rpm		rpm
6.866	2000	6.918	2000	5.488	2000
9.516	2000	8.793	2000	6.976	2000
10.902	2000	11.713	2000	9.156	2000
11.985	2000	12.863	2000	10.137	2000
13.118	2000	14.888	2000	11.080	2000
15.111	2000	16.351	2000	12.885	2000
16.611	2000	19.542	2000	14.084	2000
18.598	2000	22.269	2000	16.913	2000
20.444	2000	24.456	2000	18.486	2000
22.898	2000	26.814	3000	21.065	2000
23.973	3000	29.447	3000	23.206	3000
26.353	2000	32.873	3000	25.365	3000
29.206	3000	36.102	3000	28.013	2000
32.547	3000	42.772	2000	31.097	3000
35.778	3000	46.973	2000	35.607	2000
36.526	2000	48.912	3000	38.546	3000
40.895	2000	54.082	3000	42.760	2000
44.955	2000	59.393	3000	46.737	2000
46.568	3000	64.452	3000	53.258	2000
51.920	3000	71.951	3000	58.671	3000
57.074	3000	76.862	4000	64.127	3000
58.422	3000	84.940	4000	71.930	3000
64.221	3000	93.283	4000	78.619	3000
71.566	3000	97.481	3000	97.453	3000
74.963	4000	107.056	3000	106.517	3000
82.762	4000	118.370	3000	118.336	3000
90.978	4000	129.996	3000	129.342	3000
93.150	3000	153.185	4000	153.141	4000
102.396	3000	168.230	4000	167.383	4000
114.166	3000	185.911	4000	185.857	4000
125.498	3000	204.170	4000	203.143	4000
149.949	4000	235.000	4000	234.932	4000
164.833	4000	258.080	4000	256.781	4000
181.983	4000				
200.048	4000				
230.035	4000				
252.869	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 eye bolt is not included in the scope of supply!

Position of the eye bolt or lifting eye

Geared motor			
	Eye bolt on the shaft	Eye bolt on the housing	Lifting eye on the housing
G50AB045Mxxxxxx	M6	-	-
G50BB111Mxxxxxx	M6	-	-
G50BB124Mxxxxxx	M10	-	-
G50BB145Mxxxxxx	-	M10	-
G50BB160Mxxxxxx	-	M12	-
G50BB182Mxxxxxx	-	M16	-
G50BB215Mxxxxxx	-	M16	-
G50BB227Mxxxxxx	-	M16	-
G50BB243Mxxxxxx	-	M20	-
G50BB280Mxxxxxx	-	-	•
G50BB313Mxxxxxx	-	-	•
G50BB320Mxxxxxx	-	-	•



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.

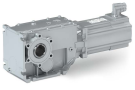
Operation on an external inverter

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 bevel geared motors \(Lenze.com\)](https://www.lenze.com/g500-mcs-bevel-g 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



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-B45, 2-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
M _{z, max}	i	z _g	z _t	
Nm				'
39.0	5.411	1120	207	26
40.5	6.222	56	9	25
43.0	7.111	64	9	25
44.0	8.178	368	45	24
45.0	9.101	1720	189	25
45.0	10.466	1978	189	24
45.0	11.640	2200	189	24
45.0	13.386	2530	189	23
45.0	15.111	136	9	24
45.0	17.378	782	45	23
45.0	19.365	1220	63	23
45.0	22.270	1403	63	23
45.0	25.051	2480	99	23
45.0	28.808	2852	99	22
45.0	32.593	880	27	23
45.0	37.481	1012	27	22

g500-B110, 2-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
M _{2, max}	i	z _g	z _t	
Nm				'
69.0	5.185	140	27	21
72.0	5.963	161	27	20
77.0	7.111	64	9	20
81.0	8.178	368	45	20
84.0	9.101	1720	189	20
89.0	10.466	1978	189	19
90.0	11.449	2576	225	19
90.0	12.698	800	63	20
90.0	14.603	920	63	19
92.0	15.556	140	9	19
96.0	17.889	161	9	19
100	19.556	176	9	19
104	22.489	1012	45	19
108	25.185	680	27	19
110	28.963	782	27	19
106	37.400	187	5	18
110	48.167	289	6	18



g500-B110, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
110	107.090	20240	189	19
108	114.074	3080	27	19
110	131.185	3542	27	19
108	143.407	3872	27	19
110	164.919	22264	135	19
110	178.095	3740	21	19
110	200.151	45034	225	19
108	224.148	6052	27	19
110	257.770	34799	135	18
108	284.081	28124	99	19
110	326.693	161713	495	18

g500-B240, 2-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
138	3.565	385	108	17
147	4.889	44	9	17
156	6.257	2365	378	17
179	6.883	413	60	13
187	7.817	469	60	12
191	9.440	236	25	13
204	10.720	268	25	12
208	12.081	2537	210	13
217	13.719	2881	210	12
223	15.008	1876	125	12
240	16.857	118	7	12
240	19.143	134	7	12
240	20.650	413	20	12
240	23.450	469	20	12
240	26.878	2419	90	12
240	30.522	2747	90	12
240	33.433	1003	30	12
240	37.967	1139	30	12
240	43.267	649	15	12
240	49.133	737	15	12
233	52.510	5251	100	12
240	59.630	5963	100	11



g500-B240, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
M _{2, max}	i	z _g	z _t	
Nm				'
240	68.459	43129	630	13
240	77.741	48977	630	12
240	87.563	11033	126	13
240	99.437	12529	126	12
240	113.673	17051	150	13
240	129.087	19363	150	12

g500-B240, 4-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
M _{2, max}	i	z _g	z _t	
Nm				'
240	392.284	88264	225	13
240	445.476	100232	225	13
240	502.031	474419	945	13
240	570.103	538747	945	13
240	642.132	121363	189	13
240	729.201	137819	189	13



g500-B450, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
280	5.002	2401	480	21
308	6.860	343	50	21
368	9.315	3577	384	15
384	10.328	2107	204	14
404	12.775	511	40	15
422	14.165	1204	85	14
434	16.349	3139	192	14
446	17.885	3577	200	14
450	19.831	8428	425	13
450	22.813	365	16	14
450	25.294	430	17	13
450	27.945	3577	128	14
450	30.985	2107	68	13
450	36.373	20951	576	14
450	40.330	12341	306	13
450	45.245	8687	192	14
450	50.167	301	6	13
450	56.154	730	13	12
450	62.262	13760	221	12
450	68.788	3577	52	12
450	76.271	16856	221	12
450	89.534	20951	234	12
450	99.274	197456	1989	12
450	111.372	8687	78	12
450	123.487	4816	39	12
450	144.128	5621	39	12
450	159.807	105952	663	12
450	174.919	45479	260	12
450	193.948	214312	1105	12



g500-B450, 4-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
450	204.072	318353	1560	13
450	230.605	44968	195	13
450	255.691	847616	3315	12
450	295.120	34529	117	13
450	322.847	314776	975	13
450	357.968	5933312	16575	12
450	411.795	16060	39	13
450	456.591	302720	663	12
450	504.449	39347	78	13
450	559.324	370832	663	12
450	656.584	230461	351	13
450	728.009	4344032	5967	12
450	816.726	95557	117	13
450	905.573	105952	117	12
450	1056.940	123662	117	13
450	1171.918	2330944	1989	12
450	1282.741	500269	390	12
450	1422.282	4714864	3315	12



g500-B600, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
376	5.067	6293	1242	20
398	6.949	7192	1035	19
462	7.617	15631	2052	17
541	10.741	290	27	14
553	13.369	13717	1026	16
600	14.730	928	63	14
600	18.851	24940	1323	14
600	20.622	928	45	14
600	22.852	15631	684	16
600	25.347	2408	95	14
600	26.061	860	33	12
600	29.744	91553	3078	16
600	32.439	1849	57	14
600	35.740	2752	77	12
600	36.999	37961	1026	16
600	41.940	23780	567	13
600	45.739	73960	1617	12
600	50.036	2752	55	12
600	55.447	2107	38	14
600	63.822	34400	539	12
600	67.513	12760	189	13
600	72.170	12341	171	14
600	78.182	860	11	12
600	81.937	5162	63	13
600	89.772	5117	57	14
600	101.760	70520	693	12
600	116.175	6622	57	14
600	126.580	29240	231	12
600	140.995	26789	190	14
600	163.810	3440	21	12
600	178.224	13545	76	14
600	198.805	15308	77	12
600	251.299	19350	77	12



g500-B600, 4-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
600	201.089	286552	1425	14
600	227.943	112832	495	12
600	252.594	86387	342	14
600	283.539	46784	165	12
600	328.773	505981	1539	14
600	366.933	5504	15	12
600	406.614	23177	57	14
600	468.027	68800	147	12
600	529.244	271502	513	14
600	573.333	1720	3	12
600	642.309	1098349	1710	14
600	695.818	7654	11	12
600	746.243	141040	189	12
600	851.953	145684	171	14
600	928.254	58480	63	12
600	1033.961	294679	285	14
600	1126.563	260236	231	12
600	1254.853	2384221	1900	14
600	1457.905	30616	21	12
600	1769.366	681206	385	12



g500-B820, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
312	4.958	119	24	21
391	6.800	34	5	20
424	7.618	259	34	16
459	8.517	511	60	15
496	9.520	238	25	19
528	10.447	888	85	16
569	11.680	292	25	15
544	12.143	85	7	19
619	13.370	1591	119	15
653	14.626	6216	425	15
708	16.352	2044	125	15
747	18.655	2220	119	15
820	20.857	146	7	15
820	22.853	777	34	15
820	25.550	511	20	14
820	26.324	8687	330	12
820	29.745	1517	51	15
820	32.291	1776	55	12
820	36.102	9928	275	14
820	37.000	37	1	12
820	41.325	3182	77	12
820	45.207	12432	275	12
820	50.543	69496	1375	12
820	57.662	4440	77	12
820	64.468	4964	77	12
820	70.636	777	11	12
820	78.973	8687	110	12
820	91.939	3034	33	12
820	102.790	50881	495	12
820	114.364	1258	11	12
820	127.861	21097	165	12
820	148.000	148	1	12
820	165.467	2482	15	12
820	179.618	9879	55	12
820	200.816	110449	550	12
820	227.045	4995	22	12
820	253.841	11169	44	11



g500-B820, 4-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
820	201.818	2220	11	12
820	225.636	2482	11	12
820	256.175	70448	275	12
820	286.408	1181432	4125	12
820	321.788	10619	33	12
820	359.765	356167	990	12
820	400.273	4403	11	12
820	468.265	2086121	4455	12
820	518.000	518	1	12
820	579.133	8687	15	12
820	674.222	6068	9	12
820	753.793	101762	135	12
820	838.667	2516	3	12
820	937.644	42194	45	12
820	1017.836	55981	55	12
820	1085.333	3256	3	12
820	1213.422	54604	45	12
820	1317.200	6586	5	12
820	1472.653	110449	75	12
820	1598.602	879231	550	12
820	1787.266	9829961	5500	12



g500-B1500, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
837	6.866	1792	261	15
1006	9.516	1456	153	15
1330	10.902	36992	3393	12
1461	11.985	3128	261	11
1118	13.118	50176	3825	14
1500	15.111	136	9	12
1500	16.611	299	18	11
1500	18.598	2176	117	11
1500	20.444	184	9	11
1500	22.898	5152	225	11
1500	23.973	99416	4147	10
1500	26.353	16813	638	10
1500	29.206	1840	63	11
1500	32.547	3808	117	11
1500	35.778	322	9	11
1500	36.526	12857	352	10
1500	40.895	5848	143	10
1500	44.955	989	22	10
1500	46.568	3772	81	11
1500	51.920	18224	351	11
1500	57.074	1541	27	11
1500	58.422	58480	1001	10
1500	64.221	4945	77	10
1500	71.566	10234	143	10
1500	74.963	2024	27	11
1500	82.762	48416	585	11
1500	90.978	4094	45	10
1500	93.150	119884	1287	10
1500	102.396	40549	396	10
1500	114.166	48977	429	10
1500	125.498	66263	528	10
1500	149.949	5848	39	10
1500	164.833	989	6	10
1500	181.983	130118	715	10
1500	200.048	88021	440	10
1500	230.035	32895	143	10
1500	252.869	44505	176	10



g500-B1500, 4-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
1500	204.476	29240	143	10
1500	224.773	4945	22	10
1500	250.483	35819	143	10
1500	275.347	48461	176	10
1500	326.025	419594	1287	10
1500	358.388	283843	792	10
1500	405.543	173978	429	10
1500	445.799	117691	264	10
1500	520.087	2008057	3861	10
1500	571.714	2716783	4752	10
1500	646.938	832609	1287	10
1500	711.156	1126471	1584	10
1500	829.035	5334838	6435	10
1500	911.329	3608861	3960	10
1500	1016.073	4358953	4290	10
1500	1116.933	5897407	5280	10
1500	1208.778	10879	9	10
1500	1334.544	260236	195	10
1500	1467.017	88021	60	10
1500	1619.651	5790251	3575	10
1500	1780.425	7833869	4400	10



g500-B2700, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	'
Nm				
1446	6.918	28917	4180	14
1528	8.793	41769	4750	14
2212	11.713	2448	209	10
2262	12.863	18819	1463	9
2380	14.888	7072	475	10
2429	16.351	54366	3325	9
2579	19.542	23392	1197	9
2684	22.269	3808	171	9
2700	24.456	1394	57	9
2700	26.814	32096	1197	9
2700	29.447	82246	2793	9
2700	32.873	16864	513	9
2700	36.102	43214	1197	9
2700	42.772	8084	189	9
2700	46.973	82861	1764	8
2700	48.912	2788	57	9
2700	54.082	9248	171	9
2700	59.393	23698	399	9
2700	64.452	113693	1764	8
2700	71.951	5828	81	8
2700	76.862	30668	399	9
2700	84.940	24208	285	9
2700	93.283	62033	665	9
2700	97.481	2632	27	8
2700	107.056	1927	18	8
2700	118.370	3196	27	8
2700	129.996	32759	252	8
2700	153.185	4136	27	8
2700	168.230	21197	126	8
2700	185.911	8366	45	8
2700	204.170	171503	840	8
2700	235.000	235	1	8
2700	258.080	28905	112	8



g500-B2700, 4-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
2700	205.407	5546	27	9
2700	225.581	113693	504	8
2700	265.150	178976	675	9
2700	291.191	65518	225	8
2700	332.564	188564	567	9
2700	365.227	1932781	5292	8
2700	414.296	11186	27	9
2700	454.986	32759	72	8
2700	487.698	79007	162	8
2700	552.395	44744	81	9
2700	606.648	32759	54	8
2700	697.844	169576	243	9
2700	785.074	21197	27	8
2700	868.049	70312	81	9
2700	953.304	360349	378	8
2700	1123.358	90992	81	9
2700	1233.688	233167	189	8
2700	1363.348	184052	135	9
2700	1654.609	372287	225	9
2700	1817.115	15263767	8400	8



g500-B4300, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
2160	5.488	1147	209	14
2400	6.976	29822	4275	13
2700	9.156	98642	10773	13
3950	10.137	67797	6688	9
4250	11.080	23157	2090	9
4300	12.885	97929	7600	9
4300	14.084	33449	2375	8
4300	16.913	35991	2128	9
4300	18.486	110639	5985	8
4300	21.065	18011	855	8
4300	23.206	49383	2128	9
4300	25.365	151807	5985	8
4300	28.013	2241	80	8
4300	31.097	79763	2565	8
4300	35.607	35607	1000	8
4300	38.546	5859	152	9
4300	42.760	38313	896	8
4300	46.737	39259	840	8
4300	53.258	6391	120	8
4300	58.671	52569	896	8
4300	64.127	53867	840	8
4300	71.930	9207	128	8
4300	78.619	28303	360	8
4300	97.453	6237	64	8
4300	106.517	6391	60	7
4300	118.336	15147	128	8
4300	129.342	15521	120	7
4300	153.141	9801	64	8
4300	167.383	10043	60	7
4300	185.857	237897	1280	8
4300	203.143	81257	400	7
4300	234.932	120285	512	8
4300	256.781	8217	32	7



g500-B4300, 4-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
4300	205.348	52569	256	8
4300	224.446	53867	240	8
4300	265.073	106029	400	8
4300	278.438	4455	16	8
4300	304.333	913	3	8
4300	369.548	15521	42	8
4300	414.176	106029	256	8
4300	452.696	108647	240	8
4300	485.243	262031	540	8
4300	552.234	35343	64	8
4300	603.594	108647	180	8
4300	697.641	44649	64	8
4300	762.524	411763	540	8
4300	867.797	55539	64	8
4300	948.506	170731	180	8
4300	1123.031	35937	32	8
4300	1227.478	110473	90	8
4300	1362.952	872289	640	8
4300	1654.128	21172833	12800	8
4300	1807.968	7231873	4000	8



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 .

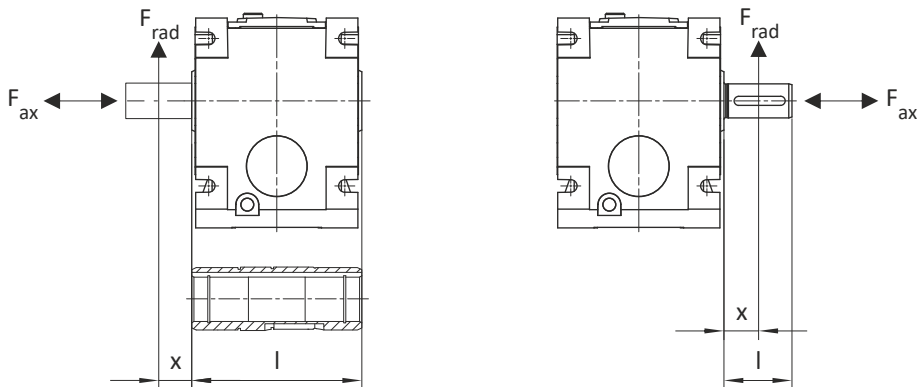
$$F_{\text{rad, perm}} = f_w \times F_{\text{rad, max}}$$

Permissible axial force

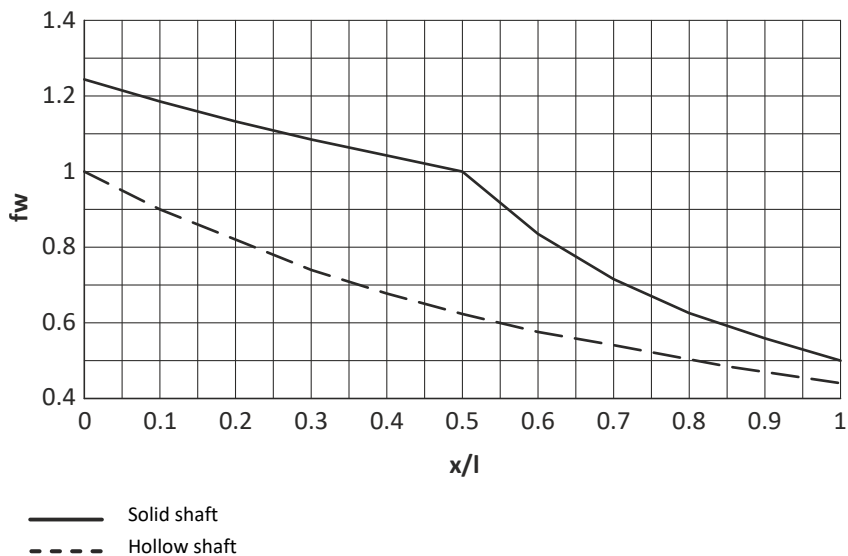
If there is no radial force, the maximum axial force is 50% of the value in the table $F_{\text{rad, max}}$

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

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□□)

Getriebe	Output speed n_2 [rpm]									
	1000	630	400	250	160	100	63	40	25	16
	Max. radial force $F_{rad,max}$ [rated]									
g500-B45	900	1200	2200	2500	2800	3000	3000	3000	3000	3000
g500-B110	1000	2200	2600	3000	3300	3600	3600	3600	3600	3600
g500-B240	1500	2300	3800	4500	5100	6200	7400	7800	7800	7800
g500-B450	3000	3800	4500	5200	5200	5500	7000	9000	9000	9000
g500-B600	3500	4000	4700	5400	5600	6000	8000	9400	9500	9500
g500-B820	4000	4200	5400	5800	6000	7000	9000	9800	10200	10200
g500-B1500	3700	5000	6000	7000	8000	9000	10500	13000	16000	16000
g500-B2700	4400	5700	7000	8200	9400	10600	12200	15000	18000	21900
g500-B4300	5000	6600	8000	9000	10500	12000	15500	21000	27900	35100

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-B45	900	1200	1800	2100	2400	2800	3000	3000	3000	3000
g500-B110	1000	1800	2100	2500	2700	3000	3000	3000	3000	3000
g500-B240	1500	2400	3000	3600	4500	5000	6000	6500	6500	6500
g500-B450	2000	2800	3600	3900	4300	5000	6000	7600	7800	7800
g500-B600	2500	3200	4000	4700	5400	6700	8300	9000	9000	9000
g500-B820	5200	6000	8200	9800	11000	11000	11000	11000	11000	11000
g500-B1500	6300	8200	10000	11500	13000	16000	16000	16000	16000	16000
g500-B2700	6600	8500	10400	12000	14000	16500	20100	22700	25500	27500
g500-B4300	7300	9500	11600	13300	14900	17300	20800	25700	32200	40000

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-B45	900	1200	1800	2100	2400	2800	3000	3000	3000	3000
g500-B110	1000	1800	2100	2500	2700	3000	3000	3000	3000	3000
g500-B240	2400	3600	5200	6000	6500	6500	6500	6500	6500	6500
g500-B450	3000	4000	4700	5100	5600	6400	7700	7800	7800	7800
g500-B600	3400	4100	5000	5300	6000	7300	9000	9000	9000	9000
g500-B820	6000	7000	8900	10200	11000	11000	11000	11000	11000	11000
g500-B1500	7000	9000	11000	12000	13000	15000	16000	16000	16000	16000
g500-B2700	8400	10900	13300	14400	15800	17700	20100	22700	25500	27500
g500-B4300	9200	11700	14300	15800	17800	20800	24800	29500	35100	40000



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
6.0	387	5.4	24.0	387	0.263	10.466	B45	06C41-	2	5.4
7.0	348	4.9	27.0	348	0.226	11.640	B45	06C41-	2	5.4
8.0	303	4.2	31.0	303	0.219	13.386	B45	06C41-	2	5.4
9.0	268	3.8	34.0	268	0.199	15.111	B45	06C41-	2	5.4

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 [319](#)

► Torque characteristics [332](#)

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
6.0	387	5.4	24.0	387	0.263	10.466	B45	06C41-	2	5.4
7.0	348	4.9	27.0	348	0.226	11.640	B45	06C41-	2	5.4
8.0	303	4.2	31.0	303	0.219	13.386	B45	06C41-	2	5.4
9.0	268	3.8	34.0	268	0.199	15.111	B45	06C41-	2	5.4
10.0	233	3.3	40.0	233	0.195	17.378	B45	06C41-	2	5.4
11.0	209	2.9	44.0	209	0.178	19.365	B45	06C41-	2	5.4
13.0	182	2.6	45.0	182	0.194	22.270	B45	06C41-	2	5.4
14.0	162	2.6	45.0	162	0.165	25.051	B45	06C41-	2	5.4
14.0	161	5.4	57.0	161	0.203	25.185	B110	06C41-	2	7.0
16.0	141	2.2	45.0	141	0.163	28.808	B45	06C41-	2	5.4
19.0	124	2.0	45.0	124	0.156	32.593	B45	06C41-	2	5.4
21.0	108	3.6	85.0	108	0.212	37.400	B110	06C41-	2	7.0
21.0	108	1.7	45.0	108	0.155	37.481	B45	06C41-	2	5.4
27.0	84.1	3.3	110	84.1	0.190	48.167	B110	06C41-	2	7.0
34.0	67.9	5.8	136	67.9	0.207	59.630	B240	06C41-	2	11
43.0	52.1	4.5	173	52.1	0.231	77.741	B240	06C41-	3	12
55.0	40.7	3.5	221	40.7	0.201	99.437	B240	06C41-	3	12
63.0	35.5	1.5	108	35.5	0.231	114.074	B110	06C41-	3	10
70.0	32.8	5.8	282	32.8	0.299	123.487	B450	06C41-	3	15
72.0	31.4	3.0	240	31.4	0.183	129.087	B240	06C41-	3	12
80.0	28.2	1.2	108	28.2	0.230	143.407	B110	06C41-	3	10
91.0	25.3	4.5	364	25.3	0.239	159.807	B450	06C41-	3	15
93.0	24.7	5.8	373	24.7	0.364	163.810	B600	06C41-	3	33
99.0	22.7	1.0	110	22.7	0.231	178.095	B110	06C41-	3	10
111	20.9	3.7	442	20.9	0.212	193.948	B450	06C41-	3	15
113	20.4	4.8	453	20.4	0.306	198.805	B600	06C41-	3	33
126	17.9	5.9	506	17.9	0.627	225.636	B820	06C41-	4	41
128	17.8	4.3	511	17.8	0.390	227.943	B600	06C41-	4	36
143	16.1	3.8	573	16.1	0.248	251.299	B600	06C41-	3	33
143	15.8	2.8	450	15.8	0.250	255.691	B450	06C41-	4	18
145	16.0	5.1	579	16.0	0.250	253.841	B820	06C41-	3	38
159	14.3	3.4	600	14.3	0.318	283.539	B600	06C41-	4	36
160	14.1	4.6	642	14.1	0.320	286.408	B820	06C41-	4	41
201	11.3	2.0	450	11.3	0.241	357.968	B450	06C41-	4	18
202	11.3	3.7	806	11.3	0.366	359.765	B820	06C41-	4	41
206	11.0	2.6	600	11.0	0.251	366.933	B600	06C41-	4	36
250	9.1	5.4	999	9.1	0.347	445.799	B1500	06C41-	4	71
256	8.9	1.6	450	8.9	0.237	456.591	B450	06C41-	4	18
262	8.7	2.1	600	8.7	0.245	468.027	B600	06C41-	4	36
262	8.6	2.8	820	8.6	0.355	468.265	B820	06C41-	4	41
313	7.2	1.3	450	7.2	0.235	559.324	B450	06C41-	4	18
320	7.1	4.2	1281	7.1	0.383	571.714	B1500	06C41-	4	71
321	7.1	1.7	600	7.1	0.241	573.333	B600	06C41-	4	36
324	7.0	2.3	820	7.0	0.242	579.133	B820	06C41-	4	41
390	5.8	1.4	600	5.8	0.214	695.818	B600	06C41-	4	36
398	5.7	3.4	1500	5.7	0.314	711.156	B1500	06C41-	4	71
408	5.6	1.0	450	5.6	0.232	728.009	B450	06C41-	4	18
418	5.4	1.3	600	5.4	0.237	746.243	B600	06C41-	4	36
422	5.4	1.8	820	5.4	0.238	753.793	B820	06C41-	4	41
440	5.2	5.6	1759	5.2	0.308	785.074	B2700	06C41-	4	112



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
511	4.4	2.7	1500	4.4	0.223	911.329	B1500	06C41-	4	71
520	4.4	1.0	600	4.4	0.235	928.254	B600	06C41-	4	36
525	4.3	1.4	820	4.3	0.235	937.644	B820	06C41-	4	41
534	4.2	4.6	2136	4.2	0.289	953.304	B2700	06C41-	4	112
626	3.6	2.2	1500	3.6	0.218	1116.933	B1500	06C41-	4	71
677	3.4	2.0	1500	3.4	0.242	1208.778	B1500	06C41-	4	71
680	3.3	1.1	820	3.3	0.233	1213.422	B820	06C41-	4	41
688	3.3	5.7	2751	3.3	0.272	1227.478	B4300	06C41-	4	174
691	3.3	3.5	2700	3.3	0.269	1233.688	B2700	06C41-	4	112
822	2.8	1.7	1500	2.8	0.238	1467.017	B1500	06C41-	4	71
997	2.3	1.4	1500	2.3	0.211	1780.425	B1500	06C41-	4	71
1013	2.2	3.8	4052	2.2	0.227	1807.968	B4300	06C41-	4	174
1018	2.2	2.4	2700	2.2	0.225	1817.115	B2700	06C41-	4	112

Technical data

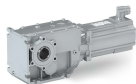
Selection tables

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
6.0	749	4.5	23.0	749	0.527	5.411	B45	06F41-	2	5.8
7.0	651	4.1	26.0	651	0.496	6.222	B45	06F41-	2	5.8
8.0	570	3.8	30.0	570	0.416	7.111	B45	06F41-	2	5.8
9.0	495	3.4	34.0	495	0.398	8.178	B45	06F41-	2	5.8
10.0	445	3.1	38.0	445	0.354	9.101	B45	06F41-	2	5.8
10.0	445	5.8	38.0	445	0.543	9.101	B110	06F41-	2	7.4
12.0	387	2.7	44.0	387	0.343	10.466	B45	06F41-	2	5.8
13.0	348	2.4	45.0	348	0.306	11.640	B45	06F41-	2	5.8
14.0	319	4.5	53.0	319	0.413	12.698	B110	06F41-	2	7.4
15.0	303	2.1	45.0	303	0.299	13.386	B45	06F41-	2	5.8
17.0	268	1.9	45.0	268	0.279	15.111	B45	06F41-	2	5.8
18.0	260	3.7	65.0	260	0.363	15.556	B110	06F41-	2	7.4
20.0	233	1.6	45.0	233	0.275	17.378	B45	06F41-	2	5.8
22.0	209	1.5	45.0	209	0.258	19.365	B45	06F41-	2	5.8
22.0	207	3.2	82.0	207	0.315	19.556	B110	06F41-	2	7.4
25.0	182	1.3	45.0	182	0.274	22.270	B45	06F41-	2	5.8
29.0	162	1.3	45.0	162	0.245	25.051	B45	06F41-	2	5.8
29.0	161	2.7	105	161	0.283	25.185	B110	06F41-	2	7.4
33.0	141	1.1	45.0	141	0.243	28.808	B45	06F41-	2	5.8
35.0	133	5.0	128	133	0.420	30.522	B240	06F41-	2	12
43.0	108	1.8	106	108	0.292	37.400	B110	06F41-	2	7.4
43.0	107	4.0	159	107	0.366	37.967	B240	06F41-	2	12
55.0	84.1	1.6	110	84.1	0.270	48.167	B110	06F41-	2	7.4
56.0	82.4	3.5	205	82.4	0.312	49.133	B240	06F41-	2	12
57.0	80.7	5.4	210	80.7	0.431	50.167	B450	06F41-	3	15
68.0	67.9	2.9	240	67.9	0.287	59.630	B240	06F41-	2	12
71.0	65.0	5.2	260	65.0	0.691	62.262	B450	06F41-	3	15
77.0	60.0	5.3	282	60.0	0.501	67.513	B600	06F41-	3	33
86.0	52.1	2.3	240	52.1	0.311	77.741	B240	06F41-	3	12
87.0	53.1	4.2	319	53.1	0.576	76.271	B450	06F41-	3	15
93.0	49.4	4.4	342	49.4	0.425	81.937	B600	06F41-	3	33
110	40.7	1.8	240	40.7	0.281	99.437	B240	06F41-	3	12
113	40.8	3.2	415	40.8	0.440	99.274	B450	06F41-	3	15
116	39.8	4.2	425	39.8	0.749	101.760	B600	06F41-	3	33
117	39.4	5.7	430	39.4	0.709	102.790	B820	06F41-	3	38
141	32.8	2.9	450	32.8	0.379	123.487	B450	06F41-	3	15
143	31.4	1.5	240	31.4	0.263	129.087	B240	06F41-	3	12
144	32.0	3.8	529	32.0	0.576	126.580	B600	06F41-	3	33
146	31.7	5.1	534	31.7	0.585	127.861	B820	06F41-	3	38
182	25.3	2.2	450	25.3	0.319	159.807	B450	06F41-	3	15
187	24.7	2.9	600	24.7	0.444	163.810	B600	06F41-	3	33
189	24.5	3.9	692	24.5	0.449	165.467	B820	06F41-	3	38
221	20.9	1.8	450	20.9	0.292	193.948	B450	06F41-	3	15
227	20.4	2.4	600	20.4	0.386	198.805	B600	06F41-	3	33
229	20.2	3.2	820	20.2	0.389	200.816	B820	06F41-	3	38
252	18.0	5.4	923	18.0	0.755	224.773	B1500	06F41-	4	71
253	17.9	2.9	820	17.9	0.707	225.636	B820	06F41-	4	41
255	17.8	2.1	600	17.8	0.470	227.943	B600	06F41-	4	36
286	16.1	1.9	600	16.1	0.328	251.299	B600	06F41-	3	33
286	15.8	1.4	450	15.8	0.330	255.691	B450	06F41-	4	18
289	16.0	2.6	820	16.0	0.330	253.841	B820	06F41-	3	38



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
309	14.7	4.4	1131	14.7	0.702	275.347	B1500	06F41-	4	71
318	14.3	1.7	600	14.3	0.398	283.539	B600	06F41-	4	36
321	14.1	2.3	820	14.1	0.400	286.408	B820	06F41-	4	41
401	11.3	1.0	450	11.3	0.321	357.968	B450	06F41-	4	18
402	11.3	3.4	1472	11.3	0.515	358.388	B1500	06F41-	4	71
403	11.3	1.8	820	11.3	0.446	359.765	B820	06F41-	4	41
409	11.1	5.9	1500	11.1	0.630	365.227	B2700	06F41-	4	113
411	11.0	1.3	600	11.0	0.331	366.933	B600	06F41-	4	36
499	9.1	2.7	1500	9.1	0.427	445.799	B1500	06F41-	4	71
510	8.9	4.8	1869	8.9	0.791	454.986	B2700	06F41-	4	113
524	8.7	1.0	600	8.7	0.325	468.027	B600	06F41-	4	36
525	8.6	1.4	820	8.6	0.435	468.265	B820	06F41-	4	41
546	8.3	4.5	2004	8.3	0.618	487.698	B2700	06F41-	4	113
641	7.1	2.1	1500	7.1	0.463	571.714	B1500	06F41-	4	71
649	7.0	1.1	820	7.0	0.322	579.133	B820	06F41-	4	41
676	6.7	5.8	2480	6.7	0.510	603.594	B4300	06F41-	4	175
680	6.7	3.6	2492	6.7	0.493	606.648	B2700	06F41-	4	113
797	5.7	1.7	1500	5.7	0.394	711.156	B1500	06F41-	4	71
854	5.3	4.6	3133	5.3	0.526	762.524	B4300	06F41-	4	175
880	5.2	2.8	2700	5.2	0.388	785.074	B2700	06F41-	4	113
1021	4.4	1.3	1500	4.4	0.303	911.329	B1500	06F41-	4	71
1063	4.3	3.7	3897	4.3	0.434	948.506	B4300	06F41-	4	175
1068	4.2	2.3	2700	4.2	0.369	953.304	B2700	06F41-	4	113
1251	3.6	1.1	1500	3.6	0.298	1116.933	B1500	06F41-	4	71
1354	3.4	1.0	1500	3.4	0.322	1208.778	B1500	06F41-	4	71
1375	3.3	2.8	4300	3.3	0.352	1227.478	B4300	06F41-	4	175
1382	3.3	1.8	2700	3.3	0.349	1233.688	B2700	06F41-	4	113
2026	2.2	1.9	4300	2.2	0.307	1807.968	B4300	06F41-	4	175
2036	2.2	1.2	2700	2.2	0.305	1817.115	B2700	06F41-	4	113

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
8.0	749	3.6	32.0	749	0.607	5.411	B45	06I41-	2	6.5
9.0	651	3.3	37.0	651	0.576	6.222	B45	06I41-	2	6.5
10.0	570	3.1	42.0	570	0.496	7.111	B45	06I41-	2	6.5
10.0	570	5.5	42.0	568	0.778	7.111	B110	06I41-	2	8.1
12.0	495	2.7	44.0	495	0.478	8.178	B45	06I41-	2	6.5
13.0	445	2.5	45.0	445	0.434	9.101	B45	06I41-	2	6.5
13.0	445	4.7	54.0	445	0.623	9.101	B110	06I41-	2	8.1
15.0	387	2.2	45.0	387	0.423	10.466	B45	06I41-	2	6.5
17.0	348	2.0	45.0	348	0.386	11.640	B45	06I41-	2	6.5
18.0	319	3.6	75.0	319	0.493	12.698	B110	06I41-	2	8.1
19.0	303	1.7	45.0	303	0.379	13.386	B45	06I41-	2	6.5
22.0	268	1.5	45.0	268	0.359	15.111	B45	06I41-	2	6.5
22.0	260	3.0	92.0	260	0.443	15.556	B110	06I41-	2	8.1
25.0	233	1.3	45.0	233	0.355	17.378	B45	06I41-	2	6.5
28.0	209	1.2	45.0	209	0.338	19.365	B45	06I41-	2	6.5
28.0	207	2.6	100	207	0.395	19.556	B110	06I41-	2	8.1
32.0	182	1.0	45.0	182	0.354	22.270	B45	06I41-	2	6.5
33.0	173	5.2	138	173	0.622	23.450	B240	06I41-	2	12
36.0	162	1.0	45.0	162	0.325	25.051	B45	06I41-	2	6.5
36.0	161	2.2	108	161	0.363	25.185	B110	06I41-	2	8.1
43.0	133	4.0	180	133	0.500	30.522	B240	06I41-	2	12
44.0	131	5.6	182	131	0.794	30.985	B450	06I41-	3	16
53.0	108	1.4	106	108	0.372	37.400	B110	06I41-	2	8.1
54.0	107	3.2	224	107	0.446	37.967	B240	06I41-	2	12
57.0	100	5.1	238	100	0.602	40.330	B450	06I41-	3	16
69.0	84.1	1.3	110	84.1	0.350	48.167	B110	06I41-	2	8.1
70.0	82.4	2.8	240	82.4	0.392	49.133	B240	06I41-	2	12
71.0	80.7	4.3	295	80.7	0.511	50.167	B450	06I41-	3	16
85.0	67.9	2.3	240	67.9	0.367	59.630	B240	06I41-	2	12
89.0	65.0	4.1	367	65.0	0.771	62.262	B450	06I41-	3	16
91.0	63.5	5.4	376	61.5	1.379	63.822	B600	06I41-	3	34
96.0	60.0	4.3	398	60.0	0.581	67.513	B600	06I41-	3	34
108	52.1	1.8	240	52.1	0.391	77.741	B240	06I41-	3	13
109	53.1	3.4	449	53.1	0.656	76.271	B450	06I41-	3	16
117	49.4	3.5	483	49.4	0.505	81.937	B600	06I41-	3	34
138	40.7	1.4	240	40.7	0.361	99.437	B240	06I41-	3	13
141	40.8	2.6	450	40.8	0.520	99.274	B450	06I41-	3	16
145	39.8	3.4	599	39.8	0.829	101.760	B600	06I41-	3	34
146	39.4	4.6	605	39.4	0.789	102.790	B820	06I41-	3	39
176	32.8	2.3	450	32.8	0.459	123.487	B450	06I41-	3	16
179	31.4	1.2	240	31.4	0.343	129.087	B240	06I41-	3	13
180	32.0	3.0	600	32.0	0.656	126.580	B600	06I41-	3	34
182	31.7	4.1	753	31.7	0.665	127.861	B820	06I41-	3	39
228	25.3	1.8	450	25.3	0.399	159.807	B450	06I41-	3	16
233	24.7	2.3	600	24.7	0.524	163.810	B600	06I41-	3	34
236	24.5	3.2	820	24.5	0.529	165.467	B820	06I41-	3	39
276	20.9	1.5	450	20.9	0.372	193.948	B450	06I41-	3	16
283	20.4	1.9	600	20.4	0.466	198.805	B600	06I41-	3	34
286	20.2	2.6	820	20.2	0.469	200.816	B820	06I41-	3	39
315	18.0	4.3	1301	18.0	0.835	224.773	B1500	06I41-	4	72
316	17.9	2.4	820	17.9	0.787	225.636	B820	06I41-	4	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	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
319	17.8	1.7	600	17.8	0.550	227.943	B600	06I41-	4	37
358	16.1	1.5	600	16.1	0.408	251.299	B600	06I41-	3	34
358	15.8	1.1	450	15.8	0.410	255.691	B450	06I41-	4	19
362	16.0	2.1	820	16.0	0.410	253.841	B820	06I41-	3	39
386	14.7	3.5	1500	14.7	0.782	275.347	B1500	06I41-	4	72
397	14.3	1.4	600	14.3	0.478	283.539	B600	06I41-	4	37
401	14.1	1.9	820	14.1	0.480	286.408	B820	06I41-	4	42
408	13.9	6.0	1686	13.9	1.496	291.191	B2700	06I41-	4	113
502	11.3	2.7	1500	11.3	0.595	358.388	B1500	06I41-	4	72
504	11.3	1.5	820	11.3	0.526	359.765	B820	06I41-	4	42
512	11.1	4.8	2114	11.1	0.710	365.227	B2700	06I41-	4	113
514	11.0	1.1	600	11.0	0.411	366.933	B600	06I41-	4	37
624	9.1	2.2	1500	9.1	0.507	445.799	B1500	06I41-	4	72
637	8.9	3.8	2634	8.9	0.871	454.986	B2700	06I41-	4	113
656	8.6	1.1	820	8.6	0.515	468.265	B820	06I41-	4	42
680	8.3	5.7	2809	8.3	0.723	485.243	B4300	06I41-	4	175
683	8.3	3.6	2700	8.3	0.698	487.698	B2700	06I41-	4	113
801	7.1	1.7	1500	7.1	0.543	571.714	B1500	06I41-	4	72
845	6.7	4.6	3494	6.7	0.590	603.594	B4300	06I41-	4	175
850	6.7	2.9	2700	6.7	0.573	606.648	B2700	06I41-	4	113
996	5.7	1.4	1500	5.7	0.474	711.156	B1500	06I41-	4	72
1068	5.3	3.6	4300	5.3	0.606	762.524	B4300	06I41-	4	175
1100	5.2	2.2	2700	5.2	0.468	785.074	B2700	06I41-	4	113
1276	4.4	1.1	1500	4.4	0.383	911.329	B1500	06I41-	4	72
1328	4.3	2.9	4300	4.3	0.514	948.506	B4300	06I41-	4	175
1335	4.2	1.8	2700	4.2	0.449	953.304	B2700	06I41-	4	113
1719	3.3	2.3	4300	3.3	0.432	1227.478	B4300	06I41-	4	175
1728	3.3	1.4	2700	3.3	0.429	1233.688	B2700	06I41-	4	113
2532	2.2	1.5	4300	2.2	0.387	1807.968	B4300	06I41-	4	175

0.75 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
6.0	1109	4.0	32.0	776	0.607	5.411	B45	06I60-	2	6.5
7.0	964	3.6	37.0	675	0.576	6.222	B45	06I60-	2	6.5
8.0	844	3.3	42.0	591	0.496	7.111	B45	06I60-	2	6.5
9.0	734	3.0	44.0	514	0.478	8.178	B45	06I60-	2	6.5
10.0	659	2.7	45.0	462	0.434	9.101	B45	06I60-	2	6.5
12.0	573	2.4	45.0	401	0.423	10.466	B45	06I60-	2	6.5
13.0	516	2.1	45.0	361	0.386	11.640	B45	06I60-	2	6.5
15.0	448	1.9	45.0	314	0.379	13.386	B45	06I60-	2	6.5
17.0	397	1.7	45.0	278	0.359	15.111	B45	06I60-	2	6.5
20.0	345	1.4	45.0	242	0.355	17.378	B45	06I60-	2	6.5
22.0	310	1.3	45.0	217	0.338	19.365	B45	06I60-	2	6.5
25.0	269	1.1	45.0	189	0.354	22.270	B45	06I60-	2	6.5
29.0	240	1.1	45.0	168	0.325	25.051	B45	06I60-	2	6.5

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
11.0	781	4.4	47.0	679	1.893	5.185	B110	09D41-	2	9.5
16.0	570	3.6	64.0	530	1.578	7.111	B110	09D41-	2	9.5
20.0	445	3.0	82.0	445	1.423	9.101	B110	09D41-	2	9.5
28.0	319	2.3	90.0	319	1.293	12.698	B110	09D41-	2	9.5
30.0	295	5.2	124	282	1.777	13.719	B240	09D41-	2	14
33.0	270	4.9	135	264	1.686	15.008	B240	09D41-	2	14
34.0	260	1.9	92.0	260	1.243	15.556	B110	09D41-	2	9.5
42.0	212	4.1	173	212	1.520	19.143	B240	09D41-	2	14
51.0	173	3.4	212	173	1.422	23.450	B240	09D41-	2	14
55.0	160	5.9	228	160	1.778	25.294	B450	09D41-	3	17
67.0	133	2.6	240	133	1.300	30.522	B240	09D41-	2	14
68.0	131	4.8	280	131	1.594	30.985	B450	09D41-	3	17
83.0	107	2.1	240	107	1.246	37.967	B240	09D41-	2	14
88.0	100	4.2	364	100	1.402	40.330	B450	09D41-	3	17
92.0	96.6	5.3	378	96.6	1.776	41.940	B600	09D41-	3	35
100	88.5	4.9	413	74.6	2.662	45.739	B600	09D41-	3	35
109	80.9	4.5	452	69.2	2.517	50.036	B600	09D41-	3	35
110	80.7	3.4	450	80.7	1.311	50.167	B450	09D41-	3	17
136	65.0	2.7	450	65.0	1.571	62.262	B450	09D41-	3	17
139	63.5	3.5	576	57.2	2.179	63.822	B600	09D41-	3	35
141	62.8	4.8	582	59.7	2.212	64.468	B820	09D41-	3	40
147	60.0	3.3	600	60.0	1.381	67.513	B600	09D41-	3	35
164	54.0	5.1	676	54.0	2.006	74.963	B1500	09D41-	3	71
166	52.1	1.2	240	52.1	1.191	77.741	B240	09D41-	3	14
167	53.1	2.2	450	53.1	1.456	76.271	B450	09D41-	3	17
171	51.8	2.9	600	51.8	1.965	78.182	B600	09D41-	3	35
173	51.3	3.9	713	51.3	1.987	78.973	B820	09D41-	3	40
179	49.4	2.7	600	49.4	1.305	81.937	B600	09D41-	3	35
199	44.5	4.3	821	44.5	1.758	90.978	B1500	09D41-	3	71
217	40.8	1.7	450	40.8	1.320	99.274	B450	09D41-	3	17
222	39.8	2.2	600	39.8	1.629	101.760	B600	09D41-	3	35
224	39.6	5.5	924	39.6	2.705	102.396	B1500	09D41-	3	71
225	39.4	3.0	820	39.4	1.589	102.790	B820	09D41-	3	40
270	32.8	1.5	450	32.8	1.259	123.487	B450	09D41-	3	17
274	32.3	5.0	1132	32.3	2.213	125.498	B1500	09D41-	3	71
277	32.0	2.0	600	32.0	1.456	126.580	B600	09D41-	3	35
279	31.7	2.7	820	31.7	1.465	127.861	B820	09D41-	3	40
358	24.7	1.5	600	24.7	1.324	163.810	B600	09D41-	3	35
360	24.6	3.8	1487	24.6	1.800	164.833	B1500	09D41-	3	71
361	24.5	2.1	820	24.5	1.329	165.467	B820	09D41-	3	40
434	20.4	1.3	600	20.4	1.266	198.805	B600	09D41-	3	35
437	20.2	3.1	1500	20.2	1.619	200.048	B1500	09D41-	3	71
439	20.2	1.7	820	20.2	1.269	200.816	B820	09D41-	3	40
483	18.0	2.8	1500	18.0	1.635	224.773	B1500	09D41-	4	74
484	18.0	5.0	2001	18.0	2.114	225.581	B2700	09D41-	4	115
485	17.9	1.5	820	17.9	1.587	225.636	B820	09D41-	4	43
490	17.8	1.1	600	17.8	1.350	227.943	B600	09D41-	4	38
552	16.0	2.5	1500	16.0	1.435	252.869	B1500	09D41-	3	71
591	14.7	2.3	1500	14.7	1.582	275.347	B1500	09D41-	4	74
615	14.1	1.2	820	14.1	1.280	286.408	B820	09D41-	4	43
625	13.9	3.9	2583	13.9	2.296	291.191	B2700	09D41-	4	115



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
654	13.3	6.0	2700	13.3	2.086	304.333	B4300	09D41-	4	177
770	11.3	1.8	1500	11.3	1.395	358.388	B1500	09D41-	4	74
784	11.1	3.1	2700	11.1	1.510	365.227	B2700	09D41-	4	115
794	11.0	4.9	3278	11.0	1.938	369.548	B4300	09D41-	4	177
957	9.1	1.4	1500	9.1	1.307	445.799	B1500	09D41-	4	74
972	8.9	4.0	4016	8.9	1.700	452.696	B4300	09D41-	4	177
977	8.9	2.5	2700	8.9	1.671	454.986	B2700	09D41-	4	115
1042	8.3	3.7	4300	8.3	1.523	485.243	B4300	09D41-	4	177
1047	8.3	2.3	2700	8.3	1.498	487.698	B2700	09D41-	4	115
1228	7.1	1.1	1500	7.1	1.343	571.714	B1500	09D41-	4	74
1296	6.7	3.0	4300	6.7	1.390	603.594	B4300	09D41-	4	177
1303	6.7	1.9	2700	6.7	1.373	606.648	B2700	09D41-	4	115
1638	5.3	2.4	4300	5.3	1.406	762.524	B4300	09D41-	4	177
2037	4.3	1.9	4300	4.3	1.314	948.506	B4300	09D41-	4	177

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
26.0	399	5.3	84.0	399	5.744	4.889	B240	12D20-	2	16
33.0	312	4.4	107	312	5.151	6.257	B240	12D20-	2	16
41.0	250	4.2	134	250	5.513	7.817	B240	12D20-	2	16
56.0	182	3.3	183	182	4.968	10.720	B240	12D20-	2	16
63.0	161	5.4	208	161	6.520	12.143	B820	12D20-	3	42
72.0	142	2.8	217	142	4.677	13.719	B240	12D20-	2	16
74.0	138	5.2	242	138	5.791	14.165	B450	12D20-	3	19
78.0	130	2.6	223	130	4.586	15.008	B240	12D20-	2	16
98.0	103	5.6	322	103	6.288	18.851	B600	12D20-	3	37
100	102	2.2	240	102	4.420	19.143	B240	12D20-	2	16
104	98.3	4.0	339	98.3	5.006	19.831	B450	12D20-	3	19
108	94.6	5.1	353	94.6	6.023	20.622	B600	12D20-	3	37
109	93.5	5.4	357	93.5	6.111	20.857	B820	12D20-	3	42
123	83.2	1.8	240	83.2	4.322	23.450	B240	12D20-	2	16
132	77.1	3.1	432	77.1	4.678	25.294	B450	12D20-	3	19
133	76.3	4.6	437	76.3	5.553	25.550	B820	12D20-	3	42
136	74.8	4.0	446	74.8	6.882	26.061	B600	12D20-	3	37
138	74.1	5.5	450	74.1	7.077	26.324	B820	12D20-	3	42
162	62.9	2.6	450	62.9	4.494	30.985	B450	12D20-	3	19
187	54.6	2.9	600	54.6	6.117	35.740	B600	12D20-	3	37
187	54.5	5.7	612	54.5	7.210	35.778	B1500	12D20-	3	73
189	54.0	4.0	617	54.0	6.220	36.102	B820	12D20-	3	42
219	46.5	2.7	600	46.5	4.676	41.940	B600	12D20-	3	37
239	42.6	2.5	600	42.6	5.562	45.739	B600	12D20-	3	37
243	41.9	5.0	796	41.9	6.138	46.568	B1500	12D20-	3	73
261	39.0	2.3	600	39.0	5.417	50.036	B600	12D20-	3	37
264	38.6	3.1	820	38.6	5.470	50.543	B820	12D20-	3	42
283	36.1	5.3	925	36.1	5.113	54.082	B2700	12D20-	3	114
298	34.2	4.3	976	34.2	5.464	57.074	B1500	12D20-	3	73
310	32.8	5.3	1015	32.8	5.113	59.393	B2700	12D20-	3	114
325	31.3	1.4	450	31.3	4.471	62.262	B450	12D20-	3	19
333	30.6	1.8	600	30.6	5.079	63.822	B600	12D20-	3	37
336	30.4	4.5	1098	30.4	6.940	64.221	B1500	12D20-	3	73
337	30.2	2.4	820	30.2	5.112	64.468	B820	12D20-	3	42
392	26.0	3.4	1282	26.0	4.906	74.963	B1500	12D20-	3	73
398	25.6	1.1	450	25.6	4.356	76.271	B450	12D20-	3	19
402	25.4	4.2	1314	25.4	6.609	76.862	B2700	12D20-	3	114
408	24.9	1.5	600	24.9	4.865	78.182	B600	12D20-	3	37
413	24.7	2.0	820	24.7	4.887	78.973	B820	12D20-	3	42
444	23.0	3.5	1452	23.0	5.923	84.940	B2700	12D20-	3	114
475	21.4	2.8	1333	21.4	4.658	90.978	B1500	12D20-	3	73
487	20.9	3.5	1595	20.9	5.904	93.283	B2700	12D20-	3	114
509	20.0	5.3	1667	20.0	8.457	97.481	B2700	12D20-	3	114
532	19.2	1.1	600	19.2	4.529	101.760	B600	12D20-	3	37
535	19.0	2.8	1500	19.0	5.605	102.396	B1500	12D20-	3	73
537	19.0	1.5	820	19.0	4.489	102.790	B820	12D20-	3	42
559	18.2	4.8	1830	18.2	8.442	107.056	B2700	12D20-	3	114
618	16.5	4.4	2024	16.5	5.113	118.370	B2700	12D20-	3	114
656	15.5	2.3	1500	15.5	5.113	125.498	B1500	12D20-	3	73
668	15.3	1.2	820	15.3	4.365	127.861	B820	12D20-	3	42
676	15.1	5.3	2211	15.1	5.113	129.342	B4300	12D20-	3	176



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
679	15.0	4.0	2223	15.0	5.113	129.996	B2700	12D20-	3	114
800	12.7	3.4	2619	12.7	6.199	153.185	B2700	12D20-	3	114
861	11.8	1.7	1500	11.8	4.700	164.833	B1500	12D20-	3	73
874	11.6	4.2	2862	11.6	6.403	167.383	B4300	12D20-	3	176
879	11.6	3.1	2700	11.6	6.193	168.230	B2700	12D20-	3	114
971	10.5	2.8	2700	10.5	5.626	185.911	B2700	12D20-	3	114
1045	9.7	1.4	1500	9.7	4.519	200.048	B1500	12D20-	3	73
1061	9.6	3.5	3473	9.6	5.764	203.143	B4300	12D20-	3	176
1067	9.6	2.5	2700	9.6	5.622	204.170	B2700	12D20-	3	114
1153	8.7	3.7	3772	8.7	5.131	224.446	B4300	12D20-	4	179
1154	8.7	1.3	1500	8.7	4.535	224.773	B1500	12D20-	4	76
1158	8.6	2.3	2700	8.6	5.014	225.581	B2700	12D20-	4	117
1228	8.3	2.2	2700	8.3	5.080	235.000	B2700	12D20-	3	114
1341	7.6	2.8	3798	7.6	5.167	256.781	B4300	12D20-	3	176
1348	7.6	2.0	2700	7.6	5.078	258.080	B2700	12D20-	3	114
1414	7.1	1.1	1500	7.1	4.482	275.347	B1500	12D20-	4	76
1495	6.7	1.8	2700	6.7	5.196	291.191	B2700	12D20-	4	117
1563	6.4	2.8	4300	6.4	4.986	304.333	B4300	12D20-	4	179
1898	5.3	2.3	4300	5.3	4.838	369.548	B4300	12D20-	4	179
2325	4.3	1.9	4300	4.3	4.600	452.696	B4300	12D20-	4	179
2337	4.3	1.2	2700	4.3	4.571	454.986	B2700	12D20-	4	117

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
15.0	723	3.3	69.0	646	2.293	5.185	B110	09F38-	2	10
18.0	599	6.0	89.0	599	2.651	6.257	B240	09F38-	2	15
21.0	527	2.7	77.0	505	1.978	7.111	B110	09F38-	2	10
23.0	480	6.0	111	399	3.013	7.817	B240	09F38-	2	15
27.0	412	2.3	84.0	412	1.823	9.101	B110	09F38-	2	10
32.0	350	4.8	153	327	2.468	10.720	B240	09F38-	2	15
36.0	309	6.0	173	309	4.020	12.143	B820	09F38-	3	41
37.0	295	1.8	90.0	295	1.693	12.698	B110	09F38-	2	10
40.0	273	4.0	196	269	2.177	13.719	B240	09F38-	2	15
44.0	250	3.7	214	250	2.086	15.008	B240	09F38-	2	15
46.0	241	1.5	92.0	241	1.643	15.556	B110	09F38-	2	10
56.0	196	3.1	240	196	1.920	19.143	B240	09F38-	2	15
58.0	189	5.7	283	189	2.506	19.831	B450	09F38-	3	18
61.0	180	6.0	297	180	3.611	20.857	B820	09F38-	3	41
69.0	160	2.6	240	160	1.822	23.450	B240	09F38-	2	15
74.0	148	4.5	360	148	2.178	25.294	B450	09F38-	3	18
75.0	147	5.1	364	147	3.053	25.550	B820	09F38-	3	41
90.0	123	2.0	240	123	1.700	30.522	B240	09F38-	2	15
91.0	121	3.6	441	121	1.994	30.985	B450	09F38-	3	18
112	98.8	1.6	240	98.8	1.646	37.967	B240	09F38-	2	15
119	93.0	3.2	450	93.0	1.802	40.330	B450	09F38-	3	18
123	89.4	4.1	598	89.4	2.176	41.940	B600	09F38-	3	36
135	82.0	3.7	600	70.8	3.062	45.739	B600	09F38-	3	36
137	80.5	5.8	663	80.5	3.638	46.568	B1500	09F38-	3	71
147	74.9	3.4	600	65.8	2.917	50.036	B600	09F38-	3	36
148	74.8	2.6	450	74.8	1.711	50.167	B450	09F38-	3	18
149	74.2	4.6	720	68.9	2.970	50.543	B820	09F38-	3	41
168	65.7	5.0	813	65.7	2.964	57.074	B1500	09F38-	3	71
183	60.2	2.1	450	60.2	1.971	62.262	B450	09F38-	3	18
188	58.8	2.7	600	54.5	2.579	63.822	B600	09F38-	3	36
190	58.2	3.6	820	57.0	2.612	64.468	B820	09F38-	3	41
199	55.5	2.5	600	55.5	1.781	67.513	B600	09F38-	3	36
221	50.0	3.9	1024	50.0	2.406	74.963	B1500	09F38-	3	71
225	49.2	1.7	450	49.2	1.856	76.271	B450	09F38-	3	18
230	48.0	2.2	600	48.0	2.365	78.182	B600	09F38-	3	36
233	47.5	3.0	820	47.5	2.387	78.973	B820	09F38-	3	41
241	45.8	2.1	600	45.8	1.705	81.937	B600	09F38-	3	36
268	41.2	3.2	1036	41.2	2.158	90.978	B1500	09F38-	3	71
292	37.8	1.3	450	37.8	1.720	99.274	B450	09F38-	3	18
300	36.9	1.7	600	36.9	2.029	101.760	B600	09F38-	3	36
302	36.6	4.2	1459	36.6	3.105	102.396	B1500	09F38-	3	71
303	36.5	2.3	820	36.5	1.989	102.790	B820	09F38-	3	41
364	30.4	1.2	450	30.4	1.659	123.487	B450	09F38-	3	18
370	29.9	3.8	1500	29.9	2.613	125.498	B1500	09F38-	3	71
373	29.6	1.5	600	29.6	1.856	126.580	B600	09F38-	3	36
376	29.3	2.0	820	29.3	1.865	127.861	B820	09F38-	3	41
482	22.9	1.2	600	22.9	1.724	163.810	B600	09F38-	3	36
485	22.8	2.9	1500	22.8	2.200	164.833	B1500	09F38-	3	71
487	22.7	1.6	820	22.7	1.729	165.467	B820	09F38-	3	41
589	18.7	2.4	1500	18.7	2.019	200.048	B1500	09F38-	3	71
591	18.7	1.3	820	18.7	1.669	200.816	B820	09F38-	3	41



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
650	16.7	5.2	3144	16.7	2.631	224.446	B4300	09F38-	4	178
651	16.7	2.1	1500	16.7	2.035	224.773	B1500	09F38-	4	74
653	16.6	1.2	820	16.6	1.987	225.636	B820	09F38-	4	44
653	16.6	3.8	2700	16.6	2.514	225.581	B2700	09F38-	4	116
745	14.8	1.9	1500	14.8	1.835	252.869	B1500	09F38-	3	71
797	13.6	1.8	1500	13.6	1.982	275.347	B1500	09F38-	4	74
843	12.9	3.0	2700	12.9	2.696	291.191	B2700	09F38-	4	116
881	12.3	4.5	4262	12.3	2.486	304.333	B4300	09F38-	4	178
1037	10.5	1.3	1500	10.5	1.795	358.388	B1500	09F38-	4	74
1057	10.3	2.4	2700	10.3	1.910	365.227	B2700	09F38-	4	116
1070	10.1	3.7	4300	10.1	2.338	369.548	B4300	09F38-	4	178
1290	8.4	1.1	1500	8.4	1.707	445.799	B1500	09F38-	4	74
1310	8.3	3.1	4300	8.3	2.100	452.696	B4300	09F38-	4	178
1317	8.2	1.9	2700	8.2	2.071	454.986	B2700	09F38-	4	116
1405	7.7	2.8	4300	7.7	1.923	485.243	B4300	09F38-	4	178
1412	7.7	1.8	2700	7.7	1.898	487.698	B2700	09F38-	4	116
1747	6.2	2.3	4300	6.2	1.790	603.594	B4300	09F38-	4	178
1756	6.2	1.4	2700	6.2	1.773	606.648	B2700	09F38-	4	116
2207	4.9	1.8	4300	4.9	1.806	762.524	B4300	09F38-	4	178
2745	4.0	1.5	4300	4.0	1.714	948.506	B4300	09F38-	4	178

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
60.0	219	5.1	189	219	10.582	6.860	B450	14D15-	3	24
83.0	158	6.0	262	158	11.861	9.520	B820	14D15-	3	47
90.0	145	4.3	285	145	11.160	10.328	B450	14D15-	3	24
94.0	140	5.8	296	140	13.218	10.741	B600	14D15-	3	42
102	128	5.6	322	128	13.507	11.680	B820	14D15-	3	47
106	124	5.1	334	124	10.620	12.143	B820	14D15-	3	47
124	106	3.4	390	106	9.891	14.165	B450	14D15-	3	24
129	102	4.7	406	102	11.406	14.730	B600	14D15-	3	42
143	91.7	5.0	450	91.7	11.196	16.352	B820	14D15-	3	47
165	79.6	3.6	519	79.6	10.388	18.851	B600	14D15-	3	42
173	75.6	2.6	450	75.6	9.106	19.831	B450	14D15-	3	24
180	72.7	3.3	568	72.7	10.123	20.622	B600	14D15-	3	42
182	71.9	4.5	575	71.9	10.211	20.857	B820	14D15-	3	47
221	59.3	2.0	450	59.3	8.778	25.294	B450	14D15-	3	24
223	58.7	3.7	704	58.7	9.653	25.550	B820	14D15-	3	47
228	57.6	2.6	600	57.6	10.982	26.061	B600	14D15-	3	42
230	57.0	3.6	725	57.0	11.177	26.324	B820	14D15-	3	47
255	51.4	5.9	805	51.4	12.394	29.206	B1500	14D15-	3	77
312	42.0	1.9	600	42.0	10.217	35.740	B600	14D15-	3	42
313	41.9	4.8	986	41.9	11.310	35.778	B1500	14D15-	3	77
315	41.5	2.6	820	41.5	10.320	36.102	B820	14D15-	3	47
319	41.1	4.7	1006	41.1	14.990	36.526	B1500	14D15-	3	77
367	35.8	1.6	600	35.8	8.776	41.940	B600	14D15-	3	42
393	33.4	3.8	1238	33.4	13.369	44.955	B1500	14D15-	3	77
400	32.8	1.5	600	32.8	9.662	45.739	B600	14D15-	3	42
407	32.2	3.7	1283	32.2	10.238	46.568	B1500	14D15-	3	77
427	30.7	5.8	1347	30.7	13.568	48.912	B2700	14D15-	3	118
437	30.0	1.4	600	30.0	9.517	50.036	B600	14D15-	3	42
442	29.7	1.9	820	29.7	9.570	50.543	B820	14D15-	3	47
473	27.7	4.9	1490	27.7	9.213	54.082	B2700	14D15-	3	118
499	26.3	3.0	1500	26.3	9.564	57.074	B1500	14D15-	3	77
519	25.3	4.9	1636	25.3	9.213	59.393	B2700	14D15-	3	118
558	23.5	1.1	600	23.5	9.179	63.822	B600	14D15-	3	42
561	23.4	2.7	1500	23.4	11.040	64.221	B1500	14D15-	3	77
563	23.3	1.5	820	23.3	9.212	64.468	B820	14D15-	3	47
563	23.3	4.8	1775	23.3	17.270	64.452	B2700	14D15-	3	118
629	20.8	4.3	1982	20.8	15.366	71.951	B2700	14D15-	3	118
672	19.5	4.0	2117	19.5	10.709	76.862	B2700	14D15-	3	118
690	19.0	1.2	820	19.0	8.987	78.973	B820	14D15-	3	47
742	17.7	3.3	2340	17.7	10.023	84.940	B2700	14D15-	3	118
815	16.1	3.3	2570	16.1	10.004	93.283	B2700	14D15-	3	118
852	15.4	3.2	2685	15.4	12.557	97.481	B2700	14D15-	3	118
895	14.6	1.7	1500	14.6	9.705	102.396	B1500	14D15-	3	77
931	14.1	4.6	2934	14.1	13.060	106.517	B4300	14D15-	3	180
936	14.0	2.9	2700	14.0	12.542	107.056	B2700	14D15-	3	118
1034	12.7	2.6	2700	12.7	9.213	118.370	B2700	14D15-	3	118
1097	12.0	1.4	1500	12.0	9.213	125.498	B1500	14D15-	3	77
1130	11.6	3.8	3563	11.6	9.213	129.342	B4300	14D15-	3	180
1136	11.5	2.4	2700	11.5	9.213	129.996	B2700	14D15-	3	118
1339	9.8	2.0	2700	9.8	10.299	153.185	B2700	14D15-	3	118
1463	9.0	2.9	4300	9.0	10.503	167.383	B4300	14D15-	3	180



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
1470	8.9	1.8	2700	8.9	10.293	168.230	B2700	14D15-	3	118
1625	8.1	1.7	2700	8.1	9.726	185.911	B2700	14D15-	3	118
1775	7.4	2.4	4300	7.4	9.864	203.143	B4300	14D15-	3	180
1784	7.3	1.5	2700	7.3	9.722	204.170	B2700	14D15-	3	118
2501	5.2	1.1	2700	5.2	9.296	291.191	B2700	14D15-	4	121
2614	4.9	1.6	4300	4.9	9.086	304.333	B4300	14D15-	4	183
3174	4.1	1.4	4300	4.1	8.938	369.548	B4300	14D15-	4	183

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
18.0	828	5.7	93.0	739	3.644	4.889	B240	09H41-	2	16
19.0	781	2.7	69.0	617	2.693	5.185	B110	09H41-	2	11
23.0	647	4.8	119	609	3.051	6.257	B240	09H41-	2	16
25.0	590	5.7	130	527	4.382	6.860	B450	09H41-	3	19
26.0	570	2.2	77.0	484	2.378	7.111	B110	09H41-	2	11
28.0	518	4.8	149	382	3.413	7.817	B240	09H41-	2	16
33.0	445	1.8	84.0	424	2.223	9.101	B110	09H41-	2	11
34.0	425	5.6	181	379	5.661	9.520	B820	09H41-	3	42
34.0	421	4.1	98.0	421	10.272	3.565	B240	12H15-	2	19
39.0	378	3.8	204	313	2.868	10.720	B240	09H41-	2	16
44.0	334	4.8	231	317	4.420	12.143	B820	09H41-	3	42
46.0	319	1.4	90.0	319	2.093	12.698	B110	09H41-	2	11
46.0	307	3.2	135	307	9.044	4.889	B240	12H15-	2	19
47.0	303	5.8	137	303	18.822	4.958	B820	12H15-	3	46
48.0	300	4.6	138	300	11.660	5.002	B450	12H15-	3	22
48.0	296	5.8	140	296	14.031	5.067	B600	12H15-	3	40
50.0	295	3.2	217	259	2.577	13.719	B240	09H41-	2	16
51.0	286	5.7	269	255	3.691	14.165	B450	09H41-	3	19
54.0	270	3.0	223	243	2.486	15.008	B240	09H41-	2	16
56.0	260	1.2	92.0	260	2.043	15.556	B110	09H41-	2	11
59.0	248	5.6	311	221	4.996	16.352	B820	09H41-	3	42
59.0	240	2.6	156	240	8.451	6.257	B240	12H15-	2	19
65.0	221	4.8	187	221	14.011	6.800	B820	12H15-	3	46
65.0	219	3.9	189	219	9.782	6.860	B450	12H15-	3	22
66.0	216	4.8	191	216	11.463	6.949	B600	12H15-	3	40
68.0	215	5.9	358	187	4.188	18.851	B600	09H41-	3	37
69.0	212	2.5	240	212	2.320	19.143	B240	09H41-	2	16
72.0	204	4.5	377	197	2.906	19.831	B450	09H41-	3	19
74.0	196	5.6	392	175	3.923	20.622	B600	09H41-	3	37
74.0	192	2.5	187	192	8.813	7.817	B240	12H15-	2	19
75.0	194	4.8	396	184	4.011	20.857	B820	09H41-	3	42
81.0	176	5.7	235	176	16.371	8.517	B820	12H15-	3	46
85.0	173	2.0	240	173	2.222	23.450	B240	09H41-	2	16
90.0	158	3.9	262	158	11.061	9.520	B820	12H15-	3	46
91.0	160	3.5	450	160	2.578	25.294	B450	09H41-	3	19
92.0	159	4.1	485	159	3.453	25.550	B820	09H41-	3	42
98.0	145	3.9	285	145	10.360	10.328	B450	12H15-	3	22
102	140	2.0	204	140	8.268	10.720	B240	12H15-	2	19
102	140	5.3	296	140	12.418	10.741	B600	12H15-	3	40
105	139	5.9	555	122	6.194	29.206	B1500	09H41-	3	72
110	133	1.6	240	133	2.100	30.522	B240	09H41-	2	16
111	128	4.8	322	128	12.707	11.680	B820	12H15-	3	46
112	131	2.9	450	131	2.394	30.985	B450	09H41-	3	19
115	124	3.3	334	124	9.820	12.143	B820	12H15-	3	46
125	114	4.8	361	114	14.961	13.118	B1500	12H15-	3	76
130	109	1.7	217	109	7.977	13.719	B240	12H15-	2	19
135	106	3.1	390	106	9.091	14.165	B450	12H15-	3	22
137	107	1.3	240	107	2.046	37.967	B240	09H41-	2	16
140	102	4.3	406	102	10.606	14.730	B600	12H15-	3	40
143	99.9	1.6	223	99.9	7.886	15.008	B240	12H15-	2	19
146	100	2.5	450	100	2.202	40.330	B450	09H41-	3	19



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
151	96.6	3.2	600	96.6	2.576	41.940	B600	09H41-	3	37
155	91.7	3.9	450	91.7	10.396	16.352	B820	12H15-	3	46
165	88.5	3.0	600	67.6	3.462	45.739	B600	09H41-	3	37
168	87.0	4.6	885	87.0	4.038	46.568	B1500	09H41-	3	72
179	79.6	3.4	519	79.6	9.588	18.851	B600	12H15-	3	40
181	80.9	2.7	600	62.8	3.317	50.036	B600	09H41-	3	37
181	80.7	2.0	450	80.7	2.111	50.167	B450	09H41-	3	19
182	80.1	3.7	820	66.0	3.370	50.543	B820	09H41-	3	42
182	78.4	1.3	240	78.4	7.720	19.143	B240	12H15-	2	19
188	75.6	2.4	450	75.6	8.306	19.831	B450	12H15-	3	22
194	73.4	5.0	563	73.4	15.331	20.444	B1500	12H15-	3	76
196	72.7	3.1	568	72.7	9.323	20.622	B600	12H15-	3	40
198	71.9	3.3	575	71.9	9.411	20.857	B820	12H15-	3	46
206	71.0	4.0	996	71.0	3.364	57.074	B1500	09H41-	3	72
217	65.5	4.8	631	65.5	13.915	22.898	B1500	12H15-	3	76
223	64.0	1.1	240	64.0	7.622	23.450	B240	12H15-	2	19
225	65.0	1.6	450	58.8	2.371	62.262	B450	09H41-	3	19
230	63.5	2.1	600	52.2	2.979	63.822	B600	09H41-	3	37
232	63.1	5.3	1220	54.2	4.840	64.221	B1500	09H41-	3	72
233	62.8	2.9	820	54.7	3.012	64.468	B820	09H41-	3	42
240	59.3	1.9	450	59.3	7.978	25.294	B450	12H15-	3	22
241	59.1	5.0	699	59.1	29.470	25.365	B4300	12H15-	3	179
243	58.7	2.8	676	58.7	8.853	25.550	B820	12H15-	3	46
244	60.0	2.0	600	60.0	2.181	67.513	B600	09H41-	3	37
248	57.6	2.4	600	57.6	10.182	26.061	B600	12H15-	3	40
250	57.0	3.3	725	57.0	10.377	26.324	B820	12H15-	3	46
255	55.9	5.0	739	55.9	19.488	26.814	B2700	12H15-	3	117
271	54.0	3.1	1024	54.0	2.806	74.963	B1500	09H41-	3	72
275	53.1	1.3	450	49.1	2.256	76.271	B450	09H41-	3	19
277	51.4	4.0	805	51.4	11.594	29.206	B1500	12H15-	3	76
280	50.9	5.0	811	50.9	19.299	29.447	B2700	12H15-	3	117
282	51.8	1.7	600	46.2	2.765	78.182	B600	09H41-	3	37
285	51.3	2.4	820	50.7	2.787	78.973	B820	09H41-	3	42
294	48.4	1.5	450	48.4	7.794	30.985	B450	12H15-	3	22
296	49.4	1.7	600	49.4	2.105	81.937	B600	09H41-	3	37
328	44.5	2.6	1036	44.5	2.558	90.978	B1500	09H41-	3	72
339	42.0	1.8	600	42.0	9.417	35.740	B600	12H15-	3	40
340	41.9	3.5	986	41.9	10.510	35.778	B1500	12H15-	3	76
343	41.5	2.4	820	41.5	9.520	36.102	B820	12H15-	3	46
358	40.8	1.0	450	40.8	2.120	99.274	B450	09H41-	3	19
367	39.8	1.3	600	36.6	2.429	101.760	B600	09H41-	3	37
370	39.6	3.3	1500	39.6	3.505	102.396	B1500	09H41-	3	72
371	39.4	1.8	820	39.4	2.389	102.790	B820	09H41-	3	42
398	35.8	1.5	600	35.8	7.976	41.940	B600	12H15-	3	40
427	33.4	3.5	1238	33.4	12.569	44.955	B1500	12H15-	3	76
434	32.8	1.4	600	32.8	8.862	45.739	B600	12H15-	3	40
442	32.2	2.8	1223	32.2	9.438	46.568	B1500	12H15-	3	76
453	32.3	3.0	1500	32.3	3.013	125.498	B1500	09H41-	3	72
457	32.0	1.2	600	32.0	2.256	126.580	B600	09H41-	3	37
462	31.7	1.6	820	31.7	2.265	127.861	B820	09H41-	3	42
465	30.7	3.4	1347	30.7	12.768	48.912	B2700	12H15-	3	117
475	30.0	1.3	600	30.0	8.717	50.036	B600	12H15-	3	40

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
480	29.7	1.7	820	29.7	8.770	50.543	B820	12H15-	3	46
514	27.7	2.9	1490	27.7	8.413	54.082	B2700	12H15-	3	117
542	26.3	2.4	1282	26.3	8.764	57.074	B1500	12H15-	3	76
564	25.3	2.9	1636	25.3	8.413	59.393	B2700	12H15-	3	117
595	24.6	2.3	1500	24.6	2.600	164.833	B1500	09H41-	3	72
597	24.5	1.2	820	24.5	2.129	165.467	B820	09H41-	3	42
609	23.4	5.0	1766	23.4	17.898	64.127	B4300	12H15-	3	179
610	23.4	2.5	1500	23.4	10.240	64.221	B1500	12H15-	3	76
612	23.3	1.3	820	23.3	8.412	64.468	B820	12H15-	3	46
612	23.3	4.4	1775	23.3	16.470	64.452	B2700	12H15-	3	117
712	20.0	1.9	1318	20.0	8.206	74.963	B1500	12H15-	3	76
722	20.2	1.9	1500	20.2	2.419	200.048	B1500	09H41-	3	72
725	20.2	1.0	820	20.2	2.069	200.816	B820	09H41-	3	42
730	19.5	2.3	1700	19.5	9.909	76.862	B2700	12H15-	3	117
750	19.0	1.1	820	19.0	8.187	78.973	B820	12H15-	3	46
796	18.0	4.1	3638	18.0	3.031	224.446	B4300	09H41-	4	179
798	18.0	1.7	1500	18.0	2.435	224.773	B1500	09H41-	4	75
800	18.0	3.1	2700	18.0	2.914	225.581	B2700	09H41-	4	117
807	17.7	1.9	1568	17.7	9.223	84.940	B2700	12H15-	3	117
864	16.5	1.5	1333	16.5	7.958	90.978	B1500	12H15-	3	76
886	16.1	1.9	1722	16.1	9.204	93.283	B2700	12H15-	3	117
913	16.0	1.5	1500	16.0	2.235	252.869	B1500	09H41-	3	72
926	15.4	2.9	2685	15.4	11.757	97.481	B2700	12H15-	3	117
973	14.6	1.5	1500	14.6	8.905	102.396	B1500	12H15-	3	76
977	14.7	1.4	1500	14.7	2.382	275.347	B1500	09H41-	4	75
1012	14.1	3.4	2934	14.1	12.260	106.517	B4300	12H15-	3	179
1017	14.0	2.7	2700	14.0	11.742	107.056	B2700	12H15-	3	117
1033	13.9	2.4	2700	13.9	3.096	291.191	B2700	09H41-	4	117
1080	13.3	3.6	4300	13.3	2.886	304.333	B4300	09H41-	4	179
1124	12.7	2.4	2700	12.7	8.413	118.370	B2700	12H15-	3	117
1192	12.0	1.3	1500	12.0	8.413	125.498	B1500	12H15-	3	76
1229	11.6	2.9	3563	11.6	8.413	129.342	B4300	12H15-	3	179
1235	11.5	2.2	2700	11.5	8.413	129.996	B2700	12H15-	3	117
1272	11.3	1.1	1500	11.3	2.195	358.388	B1500	09H41-	4	75
1296	11.1	1.9	2700	11.1	2.310	365.227	B2700	09H41-	4	117
1311	11.0	3.0	4300	11.0	2.738	369.548	B4300	09H41-	4	179
1455	9.8	1.9	2700	9.8	9.499	153.185	B2700	12H15-	3	117
1590	9.0	2.3	3703	9.0	9.703	167.383	B4300	12H15-	3	179
1598	8.9	1.7	2700	8.9	9.493	168.230	B2700	12H15-	3	117
1606	8.9	2.4	4300	8.9	2.500	452.696	B4300	09H41-	4	179
1614	8.9	1.5	2700	8.9	2.471	454.986	B2700	09H41-	4	117
1722	8.3	2.3	4300	8.3	2.323	485.243	B4300	09H41-	4	179
1730	8.3	1.4	2700	8.3	2.298	487.698	B2700	09H41-	4	117
1766	8.1	1.5	2700	8.1	8.926	185.911	B2700	12H15-	3	117
1930	7.4	1.9	3749	7.4	9.064	203.143	B4300	12H15-	3	179
1939	7.3	1.4	2700	7.3	8.922	204.170	B2700	12H15-	3	117
2096	6.7	2.1	4300	6.7	8.431	224.446	B4300	12H15-	4	182
2106	6.6	1.3	2700	6.6	8.314	225.581	B2700	12H15-	4	120
2142	6.7	1.8	4300	6.7	2.190	603.594	B4300	09H41-	4	179
2152	6.7	1.1	2700	6.7	2.173	606.648	B2700	09H41-	4	117
2232	6.4	1.2	2700	6.4	8.380	235.000	B2700	12H15-	3	117
2439	5.8	1.6	3798	5.8	8.467	256.781	B4300	12H15-	3	179



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
2451	5.8	1.1	2700	5.8	8.378	258.080	B2700	12H15-	3	117
2706	5.3	1.4	4300	5.3	2.206	762.524	B4300	09H41-	4	179
2842	4.9	1.5	4300	4.9	8.286	304.333	B4300	12H15-	4	182
3365	4.3	1.2	4300	4.3	2.114	948.506	B4300	09H41-	4	179
3451	4.1	1.3	4300	4.1	8.138	369.548	B4300	12H15-	4	182
4227	3.3	1.0	4300	3.3	7.900	452.696	B4300	12H15-	4	182

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
20.0	828	5.3	84.0	730	5.744	4.889	B240	12D41-	2	16
26.0	647	4.4	107	601	5.151	6.257	B240	12D41-	2	16
32.0	518	4.2	134	373	5.513	7.817	B240	12D41-	2	16
44.0	378	3.4	183	306	4.968	10.720	B240	12D41-	2	16
50.0	334	5.4	208	324	6.520	12.143	B820	12D41-	3	42
56.0	295	2.8	217	253	4.677	13.719	B240	12D41-	2	16
58.0	286	5.2	242	252	5.791	14.165	B450	12D41-	3	19
61.0	270	2.6	223	237	4.586	15.008	B240	12D41-	2	16
77.0	215	5.6	322	186	6.288	18.851	B600	12D41-	3	37
78.0	212	2.2	240	212	4.420	19.143	B240	12D41-	2	16
81.0	204	4.0	339	193	5.006	19.831	B450	12D41-	3	19
84.0	196	5.1	353	172	6.023	20.622	B600	12D41-	3	37
85.0	194	5.4	357	189	6.111	20.857	B820	12D41-	3	42
96.0	173	1.8	240	173	4.322	23.450	B240	12D41-	2	16
103	160	3.1	432	160	4.678	25.294	B450	12D41-	3	19
104	159	4.7	437	159	5.553	25.550	B820	12D41-	3	42
106	155	4.1	446	93.9	6.882	26.061	B600	12D41-	3	37
108	154	5.5	450	98.8	7.077	26.324	B820	12D41-	3	42
127	131	2.6	450	131	4.494	30.985	B450	12D41-	3	19
146	113	3.0	600	74.4	6.117	35.740	B600	12D41-	3	37
146	113	5.8	612	107	7.210	35.778	B1500	12D41-	3	73
147	112	4.0	617	78.5	6.220	36.102	B820	12D41-	3	42
171	96.6	2.9	600	96.6	4.676	41.940	B600	12D41-	3	37
187	88.5	2.6	600	65.9	5.562	45.739	B600	12D41-	3	37
190	87.0	5.3	796	87.0	6.138	46.568	B1500	12D41-	3	73
204	80.9	2.4	600	61.2	5.417	50.036	B600	12D41-	3	37
206	80.1	3.2	820	64.5	5.470	50.543	B820	12D41-	3	42
221	74.9	5.5	925	74.9	5.113	54.082	B2700	12D41-	3	114
233	71.0	4.5	976	71.0	5.464	57.074	B1500	12D41-	3	73
243	68.2	5.5	1015	68.2	5.113	59.393	B2700	12D41-	3	114
254	65.0	1.4	450	55.3	4.471	62.262	B450	12D41-	3	19
261	63.5	1.9	600	50.2	5.079	63.822	B600	12D41-	3	37
262	63.1	4.7	1098	53.0	6.940	64.221	B1500	12D41-	3	73
263	62.8	2.5	820	53.5	5.112	64.468	B820	12D41-	3	42
306	54.0	3.5	1282	54.0	4.906	74.963	B1500	12D41-	3	73
312	53.1	1.2	450	46.8	4.356	76.271	B450	12D41-	3	19
314	52.7	4.4	1314	52.7	6.609	76.862	B2700	12D41-	3	114
319	51.8	1.5	600	43.3	4.865	78.182	B600	12D41-	3	37
323	51.3	2.1	820	49.5	4.887	78.973	B820	12D41-	3	42
347	47.7	3.7	1452	47.7	5.923	84.940	B2700	12D41-	3	114
372	44.5	2.9	1333	44.5	4.658	90.978	B1500	12D41-	3	73
381	43.4	3.7	1595	43.4	5.904	93.283	B2700	12D41-	3	114
398	41.5	5.5	1667	38.8	8.457	97.481	B2700	12D41-	3	114
416	39.8	1.2	600	34.8	4.529	101.760	B600	12D41-	3	37
418	39.6	2.9	1500	39.6	5.605	102.396	B1500	12D41-	3	73
420	39.4	1.6	820	39.1	4.489	102.790	B820	12D41-	3	42
437	37.8	5.0	1830	34.8	8.442	107.056	B2700	12D41-	3	114
483	34.2	5.1	2024	34.2	5.113	118.370	B2700	12D41-	3	114
513	32.3	2.7	1500	32.3	5.113	125.498	B1500	12D41-	3	73
517	32.0	1.1	600	31.7	4.356	126.580	B600	12D41-	3	37
522	31.7	1.4	820	31.7	4.365	127.861	B820	12D41-	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	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
531	31.2	4.6	2223	31.2	5.113	129.996	B2700	12D41-	3	114
626	26.4	3.9	2619	26.4	6.199	153.185	B2700	12D41-	3	114
673	24.6	2.0	1500	24.6	4.700	164.833	B1500	12D41-	3	73
684	24.2	4.9	2862	24.2	6.403	167.383	B4300	12D41-	3	176
687	24.1	3.6	2700	24.1	6.193	168.230	B2700	12D41-	3	114
759	21.8	3.2	2700	21.8	5.626	185.911	B2700	12D41-	3	114
817	20.2	1.7	1500	20.2	4.519	200.048	B1500	12D41-	3	73
830	19.9	4.1	3473	19.9	5.764	203.143	B4300	12D41-	3	176
834	19.8	2.9	2700	19.8	5.622	204.170	B2700	12D41-	3	114
901	18.0	4.3	3772	18.0	5.131	224.446	B4300	12D41-	4	179
902	18.0	1.5	1500	18.0	4.535	224.773	B1500	12D41-	4	76
906	18.0	2.7	2700	18.0	5.014	225.581	B2700	12D41-	4	117
960	17.2	2.6	2700	17.2	5.080	235.000	B2700	12D41-	3	114
1049	15.8	3.3	3798	15.8	5.167	256.781	B4300	12D41-	3	176
1054	15.7	2.3	2700	15.7	5.078	258.080	B2700	12D41-	3	114
1106	14.7	1.2	1500	14.7	4.482	275.347	B1500	12D41-	4	76
1169	13.9	2.1	2700	13.9	5.196	291.191	B2700	12D41-	4	117
1222	13.3	3.2	4300	13.3	4.986	304.333	B4300	12D41-	4	179
1484	11.0	2.6	4300	11.0	4.838	369.548	B4300	12D41-	4	179
1818	8.9	2.1	4300	8.9	4.600	452.696	B4300	12D41-	4	179
1827	8.9	1.3	2700	8.9	4.571	454.986	B2700	12D41-	4	117

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	1136	5.4	108	860	5.772	3.565	B240	09L41-	2	17
21.0	828	4.8	139	717	4.544	4.889	B240	09L41-	2	17
21.0	810	5.4	152	613	7.160	5.002	B450	09L41-	3	21
22.0	781	2.2	69.0	597	3.593	5.185	B110	09L41-	2	13
27.0	647	4.0	150	592	3.951	6.257	B240	09L41-	2	17
29.0	590	4.8	195	511	5.282	6.860	B450	09L41-	3	21
30.0	570	1.8	77.0	458	3.278	7.111	B110	09L41-	2	13
33.0	518	4.0	187	370	4.313	7.817	B240	09L41-	2	17
39.0	445	1.6	84.0	388	3.123	9.101	B110	09L41-	2	13
41.0	425	4.8	270	368	6.561	9.520	B820	09L41-	3	44
44.0	392	5.4	314	297	5.860	10.328	B450	09L41-	3	21
46.0	378	3.2	204	303	3.768	10.720	B240	09L41-	2	17
52.0	334	4.0	290	308	5.320	12.143	B820	09L41-	3	44
54.0	319	1.2	90.0	299	2.993	12.698	B110	09L41-	2	13
59.0	295	2.7	217	251	3.477	13.719	B240	09L41-	2	17
61.0	286	4.8	403	247	4.591	14.165	B450	09L41-	3	21
64.0	270	2.5	223	235	3.386	15.008	B240	09L41-	2	17
70.0	248	4.8	463	214	5.896	16.352	B820	09L41-	3	44
81.0	215	5.0	559	182	5.088	18.851	B600	09L41-	3	39
82.0	212	2.1	240	212	3.220	19.143	B240	09L41-	2	17
85.0	204	3.8	450	192	3.806	19.831	B450	09L41-	3	21
88.0	196	4.8	584	170	4.823	20.622	B600	09L41-	3	39
89.0	194	4.0	498	179	4.911	20.857	B820	09L41-	3	44
100	173	1.7	240	173	3.122	23.450	B240	09L41-	2	17
108	160	3.0	450	160	3.478	25.294	B450	09L41-	3	21
109	159	3.4	523	159	4.353	25.550	B820	09L41-	3	44
125	139	5.0	865	118	7.094	29.206	B1500	09L41-	3	74
130	133	1.3	240	133	3.000	30.522	B240	09L41-	2	17
132	131	2.4	450	131	3.294	30.985	B450	09L41-	3	21
162	107	1.1	240	107	2.946	37.967	B240	09L41-	2	17
172	100	2.1	450	100	3.102	40.330	B450	09L41-	3	21
179	96.6	2.7	600	96.6	3.476	41.940	B600	09L41-	3	39
196	88.5	2.5	600	65.2	4.362	45.739	B600	09L41-	3	39
199	87.0	3.9	951	87.0	4.938	46.568	B1500	09L41-	3	74
214	80.9	2.3	600	60.7	4.217	50.036	B600	09L41-	3	39
214	80.7	1.7	450	80.7	3.011	50.167	B450	09L41-	3	21
216	80.1	3.1	820	63.9	4.270	50.543	B820	09L41-	3	44
244	71.0	3.3	996	71.0	4.264	57.074	B1500	09L41-	3	74
266	65.0	1.4	450	54.2	3.271	62.262	B450	09L41-	3	21
273	63.5	1.8	600	49.1	3.879	63.822	B600	09L41-	3	39
275	63.1	4.5	1500	52.5	5.740	64.221	B1500	09L41-	3	74
276	62.8	2.4	820	53.0	3.912	64.468	B820	09L41-	3	44
289	60.0	1.7	600	60.0	3.081	67.513	B600	09L41-	3	39
320	54.0	2.6	1024	54.0	3.706	74.963	B1500	09L41-	3	74
326	53.1	1.1	450	46.0	3.156	76.271	B450	09L41-	3	21
334	51.8	1.5	600	42.3	3.665	78.182	B600	09L41-	3	39
338	51.3	2.0	820	49.3	3.687	78.973	B820	09L41-	3	44
350	49.4	1.4	600	49.4	3.005	81.937	B600	09L41-	3	39
389	44.5	2.2	1036	44.5	3.458	90.978	B1500	09L41-	3	74
435	39.8	1.1	600	34.3	3.329	101.760	B600	09L41-	3	39
438	39.6	2.8	1500	39.6	4.405	102.396	B1500	09L41-	3	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	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
439	39.4	1.5	820	38.3	3.289	102.790	B820	09L41-	3	44
536	32.3	2.5	1500	32.3	3.913	125.498	B1500	09L41-	3	74
541	32.0	1.0	600	31.1	3.156	126.580	B600	09L41-	3	39
547	31.7	1.4	820	31.7	3.165	127.861	B820	09L41-	3	44
705	24.6	1.9	1500	24.6	3.500	164.833	B1500	09L41-	3	74
707	24.5	1.1	820	24.5	3.029	165.467	B820	09L41-	3	44
855	20.2	1.6	1500	20.2	3.319	200.048	B1500	09L41-	3	74
943	18.0	3.5	3638	18.0	3.931	224.446	B4300	09L41-	4	180
944	18.0	1.4	1500	18.0	3.335	224.773	B1500	09L41-	4	77
948	18.0	2.6	2700	18.0	3.814	225.581	B2700	09L41-	4	118
1081	16.0	1.3	1500	16.0	3.135	252.869	B1500	09L41-	3	74
1157	14.7	1.2	1500	14.7	3.282	275.347	B1500	09L41-	4	77
1224	13.9	2.0	2700	13.9	3.996	291.191	B2700	09L41-	4	118
1279	13.3	3.0	4300	13.3	3.786	304.333	B4300	09L41-	4	180
1535	11.1	1.6	2700	11.1	3.210	365.227	B2700	09L41-	4	118
1553	11.0	2.5	4300	11.0	3.638	369.548	B4300	09L41-	4	180
1902	8.9	2.1	4300	8.9	3.400	452.696	B4300	09L41-	4	180
1912	8.9	1.3	2700	8.9	3.371	454.986	B2700	09L41-	4	118
2039	8.3	1.9	4300	8.3	3.223	485.243	B4300	09L41-	4	180
2049	8.3	1.2	2700	8.3	3.198	487.698	B2700	09L41-	4	118
2536	6.7	1.5	4300	6.7	3.090	603.594	B4300	09L41-	4	180
3204	5.3	1.2	4300	5.3	3.106	762.524	B4300	09L41-	4	180

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
75.0	303	4.1	259	303	25.722	4.958	B820	14H15-	3	52
76.0	300	3.7	261	300	18.560	5.002	B450	14H15-	3	28
77.0	296	4.9	265	296	20.931	5.067	B600	14H15-	3	47
103	221	3.8	355	221	20.911	6.800	B820	14H15-	3	52
104	219	3.0	308	219	16.682	6.860	B450	14H15-	3	28
106	216	3.8	363	216	18.363	6.949	B600	14H15-	3	47
129	176	3.6	445	176	23.271	8.517	B820	14H15-	3	52
145	158	3.4	496	158	17.961	9.520	B820	14H15-	3	52
145	158	5.7	497	158	27.264	9.516	B1500	14H15-	3	82
157	145	2.5	384	145	17.260	10.328	B450	14H15-	3	28
163	140	3.3	541	140	19.318	10.741	B600	14H15-	3	47
178	128	3.2	569	128	19.607	11.680	B820	14H15-	3	52
185	124	3.0	544	124	16.720	12.143	B820	14H15-	3	52
199	114	4.6	685	114	21.861	13.118	B1500	14H15-	3	82
215	106	2.0	422	106	15.991	14.165	B450	14H15-	3	28
224	102	2.7	600	102	17.506	14.730	B600	14H15-	3	47
249	91.7	2.9	708	91.7	17.296	16.352	B820	14H15-	3	52
252	90.3	5.7	868	90.3	25.275	16.611	B1500	14H15-	3	82
286	79.6	2.1	600	79.6	16.488	18.851	B600	14H15-	3	47
301	75.6	1.5	450	75.6	15.206	19.831	B450	14H15-	3	28
311	73.4	4.8	1068	73.4	22.231	20.444	B1500	14H15-	3	82
313	72.7	1.9	600	72.7	16.223	20.622	B600	14H15-	3	47
317	71.9	2.6	820	71.9	16.311	20.857	B820	14H15-	3	52
320	71.2	5.6	1101	71.2	44.559	21.065	B4300	14H15-	3	185
338	67.4	5.6	1163	67.4	30.087	22.269	B2700	14H15-	3	123
348	65.5	4.3	1196	65.5	20.815	22.898	B1500	14H15-	3	82
372	61.3	5.6	1278	61.3	29.813	24.456	B2700	14H15-	3	123
384	59.3	1.2	450	59.3	14.878	25.294	B450	14H15-	3	28
385	59.1	4.9	1325	59.1	36.370	25.365	B4300	14H15-	3	185
388	58.7	2.1	820	58.7	15.753	25.550	B820	14H15-	3	52
396	57.6	1.5	600	57.6	17.082	26.061	B600	14H15-	3	47
400	57.0	2.1	820	57.0	17.277	26.324	B820	14H15-	3	52
401	56.9	3.8	1377	56.9	24.293	26.353	B1500	14H15-	3	82
408	55.9	4.9	1401	55.9	26.388	26.814	B2700	14H15-	3	123
444	51.4	3.4	1500	51.4	18.494	29.206	B1500	14H15-	3	82
448	50.9	4.9	1538	50.9	26.199	29.447	B2700	14H15-	3	123
473	48.2	4.2	1625	48.2	30.089	31.097	B4300	14H15-	3	185
500	45.6	4.2	1717	45.6	23.448	32.873	B2700	14H15-	3	123
543	42.0	1.1	600	42.0	16.317	35.740	B600	14H15-	3	47
544	41.9	2.8	1500	41.9	17.410	35.778	B1500	14H15-	3	82
549	41.5	1.5	820	41.5	16.420	36.102	B820	14H15-	3	52
549	41.5	4.2	1886	41.5	23.322	36.102	B2700	14H15-	3	123
555	41.1	2.7	1500	41.1	21.090	36.526	B1500	14H15-	3	82
650	35.1	4.2	2235	35.1	28.339	42.772	B2700	14H15-	3	123
683	33.4	2.2	1500	33.4	19.469	44.955	B1500	14H15-	3	82
708	32.2	2.1	1500	32.2	16.338	46.568	B1500	14H15-	3	82
714	31.9	3.8	2454	31.9	28.265	46.973	B2700	14H15-	3	123
743	30.7	3.3	2460	30.7	19.668	48.912	B2700	14H15-	3	123
768	29.7	1.1	820	29.7	15.670	50.543	B820	14H15-	3	52
809	28.2	5.3	2782	28.2	27.783	53.258	B4300	14H15-	3	185
822	27.7	2.8	2327	27.7	15.313	54.082	B2700	14H15-	3	123



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
867	26.3	1.7	1500	26.3	15.664	57.074	B1500	14H15-	3	82
903	25.3	2.8	2556	25.3	15.313	59.393	B2700	14H15-	3	123
975	23.4	4.4	3350	23.4	24.798	64.127	B4300	14H15-	3	185
976	23.4	1.5	1500	23.4	17.140	64.221	B1500	14H15-	3	82
980	23.3	2.8	2700	23.3	23.370	64.452	B2700	14H15-	3	123
1093	20.8	2.5	2700	20.8	21.466	71.951	B2700	14H15-	3	123
1168	19.5	2.3	2650	19.5	16.809	76.862	B2700	14H15-	3	123
1195	19.1	3.6	4107	19.1	22.391	78.619	B4300	14H15-	3	185
1291	17.7	1.9	2441	17.7	16.123	84.940	B2700	14H15-	3	123
1418	16.1	1.9	2681	16.1	16.104	93.283	B2700	14H15-	3	123
1482	15.4	1.8	2700	15.4	18.657	97.481	B2700	14H15-	3	123
1619	14.1	2.7	4300	14.1	19.160	106.517	B4300	14H15-	3	185
1627	14.0	1.7	2700	14.0	18.642	107.056	B2700	14H15-	3	123
1799	12.7	1.5	2700	12.7	15.313	118.370	B2700	14H15-	3	123
1966	11.6	2.2	4300	11.6	15.313	129.342	B4300	14H15-	3	185
1976	11.5	1.4	2700	11.5	15.313	129.996	B2700	14H15-	3	123
2328	9.8	1.2	2700	9.8	16.399	153.185	B2700	14H15-	3	123
2544	9.0	1.7	4300	9.0	16.603	167.383	B4300	14H15-	3	185
2557	8.9	1.1	2700	8.9	16.393	168.230	B2700	14H15-	3	123
3087	7.4	1.4	4300	7.4	15.964	203.143	B4300	14H15-	3	185

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
25.0	989	4.1	98.0	814	10.272	3.565	B240	12H35-	2	19
35.0	721	3.2	135	663	9.044	4.889	B240	12H35-	2	19
35.0	711	5.8	137	530	18.822	4.958	B820	12H35-	3	46
36.0	720	5.9	138	621	12.460	5.002	B450	14D36-	3	24
36.0	705	4.7	138	595	11.660	5.002	B450	12H35-	3	22
36.0	696	5.8	140	519	14.031	5.067	B600	12H35-	3	40
45.0	563	2.6	156	549	8.451	6.257	B240	12H35-	2	19
46.0	547	2.8	138	547	13.572	3.565	B240	12L20-	2	22
48.0	518	4.8	187	432	14.011	6.800	B820	12H35-	3	46
49.0	525	4.7	189	509	10.582	6.860	B450	14D36-	3	24
49.0	514	3.9	189	492	9.782	6.860	B450	12H35-	3	22
50.0	507	4.8	191	423	11.463	6.949	B600	12H35-	3	40
56.0	451	2.5	187	336	8.813	7.817	B240	12H35-	2	19
61.0	423	5.7	235	307	17.171	8.517	B820	14D36-	3	47
61.0	414	5.7	235	308	16.371	8.517	B820	12H35-	3	46
63.0	399	2.2	147	399	12.344	4.889	B240	12L20-	2	22
64.0	393	3.9	264	393	22.122	4.958	B820	12L20-	3	49
64.0	390	3.2	221	390	14.960	5.002	B450	12L20-	3	25
65.0	385	3.9	270	385	17.331	5.067	B600	12L20-	3	44
68.0	378	5.5	262	377	11.861	9.520	B820	14D36-	3	47
68.0	370	3.9	262	354	11.061	9.520	B820	12H35-	3	46
74.0	349	3.9	285	278	11.160	10.328	B450	14D36-	3	24
74.0	341	3.9	285	279	10.360	10.328	B450	12H35-	3	22
76.0	329	2.0	204	275	8.268	10.720	B240	12H35-	2	19
77.0	335	5.3	296	241	13.218	10.741	B600	14D36-	3	42
77.0	328	5.3	296	241	12.418	10.741	B600	12H35-	3	40
80.0	312	1.8	156	312	11.751	6.257	B240	12L20-	2	22
83.0	308	5.1	322	255	13.507	11.680	B820	14D36-	3	47
83.0	302	4.8	322	252	12.707	11.680	B820	12H35-	3	46
87.0	297	4.7	334	296	10.620	12.143	B820	14D36-	3	47
87.0	290	3.3	334	290	9.820	12.143	B820	12H35-	3	46
87.0	287	3.3	310	287	17.311	6.800	B820	12L20-	3	49
88.0	284	2.6	253	284	13.082	6.860	B450	12L20-	3	25
89.0	281	3.3	317	281	14.763	6.949	B600	12L20-	3	44
93.0	269	4.8	361	223	14.961	13.118	B1500	12H35-	3	76
98.0	257	1.7	217	218	7.977	13.719	B240	12H35-	2	19
100	250	1.7	187	250	12.113	7.817	B240	12L20-	2	22
101	254	3.1	390	228	9.891	14.165	B450	14D36-	3	24
101	249	3.2	390	229	9.091	14.165	B450	12H35-	3	22
105	244	4.3	406	195	11.406	14.730	B600	14D36-	3	42
105	239	4.3	406	195	10.606	14.730	B600	12H35-	3	40
107	235	1.6	223	202	7.886	15.008	B240	12H35-	2	19
109	229	3.9	453	229	19.671	8.517	B820	12L20-	3	49
116	220	4.5	450	212	11.196	16.352	B820	14D36-	3	47
116	216	3.9	450	206	10.396	16.352	B820	12H35-	3	46
122	205	2.6	349	205	14.361	9.520	B820	12L20-	3	49
132	189	2.7	384	189	13.660	10.328	B450	12L20-	3	25
134	191	3.3	519	168	10.388	18.851	B600	14D36-	3	42
134	187	3.4	519	168	9.588	18.851	B600	12H35-	3	40
136	184	1.3	240	173	7.720	19.143	B240	12H35-	2	19
137	182	1.4	204	182	11.568	10.720	B240	12L20-	2	22



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
138	182	3.6	541	182	15.718	10.741	B600	12L20-	3	44
141	182	2.4	450	177	9.106	19.831	B450	14D36-	3	24
141	178	2.4	450	177	8.306	19.831	B450	12H35-	3	22
146	172	5.1	563	139	15.331	20.444	B1500	12H35-	3	76
147	175	3.1	568	156	10.123	20.622	B600	14D36-	3	42
147	171	3.1	568	156	9.323	20.622	B600	12H35-	3	40
149	173	4.1	575	172	10.211	20.857	B820	14D36-	3	47
149	169	3.3	575	169	9.411	20.857	B820	12H35-	3	46
150	167	3.3	532	167	16.007	11.680	B820	12L20-	3	49
156	161	2.2	374	161	13.120	12.143	B820	12L20-	3	49
163	154	4.8	631	128	13.915	22.898	B1500	12H35-	3	76
167	150	1.1	240	148	7.622	23.450	B240	12H35-	2	19
168	149	3.2	594	149	18.261	13.118	B1500	12L20-	3	79
176	142	1.1	217	142	11.277	13.719	B240	12L20-	2	22
180	142	1.9	450	142	8.778	25.294	B450	14D36-	3	24
180	139	1.9	450	139	7.978	25.294	B450	12H35-	3	22
181	139	5.1	699	112	29.470	25.365	B4300	12H35-	3	179
182	141	3.4	704	141	9.653	25.550	B820	14D36-	3	47
182	138	2.8	676	138	8.853	25.550	B820	12H35-	3	46
182	138	2.1	422	138	12.391	14.165	B450	12L20-	3	25
186	138	2.4	600	83.8	10.982	26.061	B600	14D36-	3	42
186	135	2.4	600	83.9	10.182	26.061	B600	12H35-	3	40
188	137	3.3	725	88.8	11.177	26.324	B820	14D36-	3	47
188	137	6.0	726	86.2	18.193	26.353	B1500	14D36-	3	77
188	134	3.3	725	89.0	10.377	26.324	B820	12H35-	3	46
189	132	2.9	600	132	13.906	14.730	B600	12L20-	3	44
191	132	5.1	739	106	19.488	26.814	B2700	12H35-	3	117
192	130	1.1	223	130	11.186	15.008	B240	12L20-	2	22
208	123	5.4	805	120	12.394	29.206	B1500	14D36-	3	77
208	121	4.0	805	113	11.594	29.206	B1500	12H35-	3	76
210	120	5.1	811	96.8	19.299	29.447	B2700	12H35-	3	117
210	119	2.6	599	119	13.696	16.352	B820	12L20-	3	49
221	114	1.5	450	114	7.794	30.985	B450	12H35-	3	22
242	103	2.3	600	103	12.888	18.851	B600	12L20-	3	44
254	98.3	1.6	450	98.3	11.606	19.831	B450	12L20-	3	25
255	101	1.8	600	63.7	10.217	35.740	B600	14D36-	3	42
255	101	4.4	986	100	11.310	35.778	B1500	14D36-	3	77
255	98.6	1.8	600	64.0	9.417	35.740	B600	12H35-	3	40
255	98.5	3.5	986	97.8	10.510	35.778	B1500	12H35-	3	76
257	99.7	2.4	820	70.3	10.320	36.102	B820	14D36-	3	47
257	97.6	2.4	820	70.4	9.520	36.102	B820	12H35-	3	46
260	98.6	4.3	1006	66.8	14.990	36.526	B1500	14D36-	3	77
262	95.4	3.4	978	95.4	18.631	20.444	B1500	12L20-	3	79
264	94.6	2.1	600	94.6	12.623	20.622	B600	12L20-	3	44
267	93.5	2.2	643	93.5	12.711	20.857	B820	12L20-	3	49
294	85.2	3.2	1036	85.2	17.215	22.898	B1500	12L20-	3	79
299	85.8	1.7	600	85.6	8.776	41.940	B600	14D36-	3	42
299	84.0	1.7	600	84.0	7.976	41.940	B600	12H35-	3	40
320	80.1	4.0	1238	60.4	13.369	44.955	B1500	14D36-	3	77
320	78.4	4.0	1238	60.5	12.569	44.955	B1500	12H35-	3	76
324	77.1	1.3	450	77.1	11.278	25.294	B450	12L20-	3	25
325	76.9	3.4	1215	76.9	32.770	25.365	B4300	12L20-	3	182

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
326	78.7	1.6	600	54.0	9.662	45.739	B600	14D36-	3	42
326	77.1	1.6	600	54.2	8.862	45.739	B600	12H35-	3	40
328	76.3	1.9	676	76.3	12.153	25.550	B820	12L20-	3	49
332	77.3	3.8	1283	77.1	10.238	46.568	B1500	14D36-	3	77
332	75.7	3.2	1223	75.7	9.438	46.568	B1500	12H35-	3	76
334	74.8	1.7	600	71.9	13.482	26.061	B600	12L20-	3	44
338	74.1	2.2	820	74.1	13.677	26.324	B820	12L20-	3	49
344	72.7	3.4	1284	72.7	22.788	26.814	B2700	12L20-	3	120
348	73.6	6.0	1347	73.4	13.568	48.912	B2700	14D36-	3	118
348	72.1	3.9	1347	72.1	12.768	48.912	B2700	12H35-	3	117
356	71.9	1.4	600	49.2	9.517	50.036	B600	14D36-	3	42
356	70.4	1.4	600	49.4	8.717	50.036	B600	12H35-	3	40
360	71.2	1.9	820	57.5	9.570	50.543	B820	14D36-	3	47
360	69.7	2.0	820	57.8	8.770	50.543	B820	12H35-	3	46
375	66.8	2.7	1113	66.8	14.894	29.206	B1500	12L20-	3	79
378	66.2	3.4	1410	66.2	22.599	29.447	B2700	12L20-	3	120
385	66.6	5.1	1490	66.4	9.213	54.082	B2700	14D36-	3	118
385	65.2	3.3	1490	65.2	8.413	54.082	B2700	12H35-	3	117
397	62.9	1.0	450	62.9	11.094	30.985	B450	12L20-	3	25
407	63.1	3.1	1500	62.9	9.564	57.074	B1500	14D36-	3	77
407	61.8	2.7	1282	61.8	8.764	57.074	B1500	12H35-	3	76
423	60.6	5.1	1636	60.5	9.213	59.393	B2700	14D36-	3	118
423	59.3	3.3	1636	59.3	8.413	59.393	B2700	12H35-	3	117
455	56.4	1.1	600	39.7	9.179	63.822	B600	14D36-	3	42
455	55.2	1.1	600	39.8	8.379	63.822	B600	12H35-	3	40
457	55.0	5.8	1766	45.6	17.898	64.127	B4300	12H35-	3	179
458	56.1	2.8	1500	47.8	11.040	64.221	B1500	14D36-	3	77
458	54.9	2.8	1500	47.9	10.240	64.221	B1500	12H35-	3	76
458	54.6	1.2	600	52.1	12.717	35.740	B600	12L20-	3	44
459	55.9	5.0	1775	44.1	17.270	64.452	B2700	14D36-	3	118
459	55.8	1.5	820	44.7	9.212	64.468	B820	14D36-	3	47
459	54.7	1.5	820	44.9	8.412	64.468	B820	12H35-	3	46
459	54.7	5.0	1775	44.2	16.470	64.452	B2700	12H35-	3	117
459	54.5	2.3	1171	54.5	13.810	35.778	B1500	12L20-	3	79
463	54.0	1.6	820	54.0	12.820	36.102	B820	12L20-	3	49
513	50.0	4.5	1982	41.8	15.366	71.951	B2700	14D36-	3	118
534	47.0	2.1	1318	47.0	8.206	74.963	B1500	12H35-	3	76
538	46.5	1.1	600	46.5	11.276	41.940	B600	12L20-	3	44
548	46.8	4.1	2117	46.7	10.709	76.862	B2700	14D36-	3	118
548	45.9	2.7	1700	45.9	9.909	76.862	B2700	12H35-	3	117
563	45.6	1.2	820	38.6	8.987	78.973	B820	14D36-	3	47
563	44.6	1.3	820	38.7	8.187	78.973	B820	12H35-	3	46
576	43.4	2.6	1500	43.4	15.869	44.955	B1500	12L20-	3	79
587	42.6	1.0	600	42.6	12.162	45.739	B600	12L20-	3	44
597	41.9	2.1	1223	41.9	12.738	46.568	B1500	12L20-	3	79
605	42.4	3.4	2340	42.3	10.023	84.940	B2700	14D36-	3	118
605	41.5	2.2	1568	41.5	9.223	84.940	B2700	12H35-	3	117
627	39.9	2.5	1575	39.9	16.068	48.912	B2700	12L20-	3	120
648	38.7	1.8	1333	38.7	7.958	90.978	B1500	12H35-	3	76
648	38.6	1.3	820	38.6	12.070	50.543	B820	12L20-	3	49
665	38.6	3.4	2570	38.5	10.004	93.283	B2700	14D36-	3	118
665	37.8	2.2	1722	37.8	9.204	93.283	B2700	12H35-	3	117



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
693	36.1	2.2	1492	36.1	11.713	54.082	B2700	12L20-	3	120
694	36.9	3.3	2685	35.4	12.557	97.481	B2700	14D36-	3	118
694	36.2	3.3	2685	35.5	11.757	97.481	B2700	12H35-	3	117
729	35.2	1.7	1500	35.1	9.705	102.396	B1500	14D36-	3	77
729	34.4	1.8	1500	34.4	8.905	102.396	B1500	12H35-	3	76
732	34.2	1.8	1282	34.2	12.064	57.074	B1500	12L20-	3	79
759	33.8	4.8	2934	33.7	13.060	106.517	B4300	14D36-	3	180
759	33.1	3.9	2934	33.1	12.260	106.517	B4300	12H35-	3	179
762	32.8	2.2	1639	32.8	11.713	59.393	B2700	12L20-	3	120
763	33.6	3.0	2700	31.7	12.542	107.056	B2700	14D36-	3	118
763	32.9	3.0	2700	31.7	11.742	107.056	B2700	12H35-	3	117
822	30.4	3.7	3071	30.4	21.198	64.127	B4300	12L20-	3	182
824	30.4	1.8	1500	30.4	13.540	64.221	B1500	12L20-	3	79
826	30.3	3.3	2700	30.3	19.770	64.452	B2700	12L20-	3	120
843	30.4	3.0	2700	30.3	9.213	118.370	B2700	14D36-	3	118
843	29.8	3.0	2700	29.8	8.413	118.370	B2700	12H35-	3	117
894	28.7	1.6	1500	28.6	9.213	125.498	B1500	14D36-	3	77
894	28.1	1.6	1500	28.1	8.413	125.498	B1500	12H35-	3	76
921	27.8	4.4	3563	27.8	9.213	129.342	B4300	14D36-	3	180
921	27.3	3.7	3563	27.3	8.413	129.342	B4300	12H35-	3	179
926	27.7	2.7	2700	27.6	9.213	129.996	B2700	14D36-	3	118
926	27.1	2.8	2700	27.1	8.413	129.996	B2700	12H35-	3	117
961	26.0	1.4	1318	26.0	11.506	74.963	B1500	12L20-	3	79
986	25.4	1.7	1700	25.4	13.209	76.862	B2700	12L20-	3	120
1089	23.0	1.4	1568	23.0	12.523	84.940	B2700	12L20-	3	120
1091	23.5	2.3	2700	23.4	10.299	153.185	B2700	14D36-	3	118
1091	23.0	2.3	2700	23.0	9.499	153.185	B2700	12H35-	3	117
1167	21.4	1.1	1333	21.4	11.258	90.978	B1500	12L20-	3	79
1174	21.4	1.2	1500	21.4	8.000	164.833	B1500	12H35-	3	76
1192	21.5	3.4	4300	21.4	10.503	167.383	B4300	14D36-	3	180
1192	21.1	2.9	3703	21.1	9.703	167.383	B4300	12H35-	3	179
1196	20.9	1.4	1722	20.9	12.504	93.283	B2700	12L20-	3	120
1198	21.4	2.1	2700	21.3	10.293	168.230	B2700	14D36-	3	118
1198	21.0	2.1	2700	21.0	9.493	168.230	B2700	12H35-	3	117
1250	20.0	2.2	2700	20.0	15.057	97.481	B2700	12L20-	3	120
1313	19.0	1.1	1500	19.0	12.205	102.396	B1500	12L20-	3	79
1324	19.4	1.9	2700	19.3	9.726	185.911	B2700	14D36-	3	118
1324	19.0	1.9	2700	19.0	8.926	185.911	B2700	12H35-	3	117
1366	18.3	2.5	3430	18.3	15.560	106.517	B4300	12L20-	3	182
1373	18.2	2.0	2700	18.2	15.042	107.056	B2700	12L20-	3	120
1425	17.6	1.0	1500	17.6	7.819	200.048	B1500	12H35-	3	76
1447	17.7	2.8	4300	17.7	9.864	203.143	B4300	14D36-	3	180
1447	17.4	2.5	3749	17.4	9.064	203.143	B4300	12H35-	3	179
1455	17.6	1.8	2700	17.6	9.722	204.170	B2700	14D36-	3	118
1455	17.3	1.8	2700	17.3	8.922	204.170	B2700	12H35-	3	117
1518	16.5	1.8	2700	16.5	11.713	118.370	B2700	12L20-	3	120
1572	15.7	2.6	4300	15.7	8.431	224.446	B4300	12H35-	4	182
1580	15.6	1.6	2700	15.6	8.314	225.581	B2700	12H35-	4	120
1659	15.1	2.2	3569	15.1	11.713	129.342	B4300	12L20-	3	182
1667	15.0	1.6	2700	15.0	11.713	129.996	B2700	12L20-	3	120
1674	15.0	1.5	2700	15.0	8.380	235.000	B2700	12H35-	3	117
1829	13.7	2.0	3798	13.7	8.467	256.781	B4300	12H35-	3	179

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
1839	13.7	1.4	2700	13.7	8.378	258.080	B2700	12H35-	3	117
1964	12.7	1.4	2700	12.7	12.799	153.185	B2700	12L20-	3	120
2039	12.4	1.3	2700	12.3	9.296	291.191	B2700	14D36-	4	121
2039	12.1	1.3	2700	12.1	8.496	291.191	B2700	12H35-	4	120
2131	11.8	1.9	4300	11.8	9.086	304.333	B4300	14D36-	4	183
2131	11.6	1.9	4300	11.6	8.286	304.333	B4300	12H35-	4	182
2146	11.6	1.7	3703	11.6	13.003	167.383	B4300	12L20-	3	182
2157	11.6	1.3	2700	11.6	12.793	168.230	B2700	12L20-	3	120
2384	10.5	1.1	2700	10.5	12.226	185.911	B2700	12L20-	3	120
2588	9.7	1.6	4300	9.7	8.938	369.548	B4300	14D36-	4	183
2588	9.5	1.6	4300	9.5	8.138	369.548	B4300	12H35-	4	182
2605	9.6	1.4	3749	9.6	12.364	203.143	B4300	12L20-	3	182
2618	9.6	1.0	2700	9.6	12.222	204.170	B2700	12L20-	3	120
2829	8.7	1.5	4300	8.7	11.731	224.446	B4300	12L20-	4	185
3170	7.8	1.3	4300	7.8	7.900	452.696	B4300	12H35-	4	182
3293	7.6	1.2	3798	7.6	11.767	256.781	B4300	12L20-	3	182
3836	6.4	1.1	4300	6.4	11.586	304.333	B4300	12L20-	4	185



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
108	303	2.9	312	303	34.922	4.958	B820	14L15-	3	56
109	300	2.6	280	300	27.760	5.002	B450	14L15-	3	33
111	296	3.4	371	296	30.131	5.067	B600	14L15-	3	51
149	221	2.6	391	221	30.111	6.800	B820	14L15-	3	56
150	219	2.1	308	219	25.882	6.860	B450	14L15-	3	33
150	219	4.5	502	219	45.352	6.866	B1500	14L15-	3	87
152	216	2.6	398	216	27.563	6.949	B600	14L15-	3	51
186	176	2.5	459	176	32.471	8.517	B820	14L15-	3	56
200	164	4.3	670	164	73.053	9.156	B4300	14L15-	3	190
208	158	2.4	496	158	27.161	9.520	B820	14L15-	3	56
208	158	4.0	696	158	36.464	9.516	B1500	14L15-	3	87
226	145	1.7	384	145	26.460	10.328	B450	14L15-	3	33
235	140	2.3	541	140	28.518	10.741	B600	14L15-	3	51
255	128	2.2	569	128	28.807	11.680	B820	14L15-	3	56
262	125	4.5	877	125	41.532	11.985	B1500	14L15-	3	87
265	124	2.1	544	124	25.920	12.143	B820	14L15-	3	56
287	114	3.2	923	114	31.061	13.118	B1500	14L15-	3	87
309	106	1.4	422	106	25.191	14.165	B450	14L15-	3	33
322	102	1.9	600	102	26.706	14.730	B600	14L15-	3	51
357	91.7	2.0	708	91.7	26.496	16.352	B820	14L15-	3	56
363	90.3	4.0	1215	90.3	34.475	16.611	B1500	14L15-	3	87
404	81.1	4.3	1352	81.1	61.939	18.486	B4300	14L15-	3	190
412	79.6	1.5	600	79.6	25.688	18.851	B600	14L15-	3	51
427	76.8	4.3	1429	76.8	43.148	19.542	B2700	14L15-	3	128
433	75.6	1.0	450	75.6	24.406	19.831	B450	14L15-	3	33
447	73.4	3.4	1495	73.4	31.431	20.444	B1500	14L15-	3	87
451	72.7	1.3	600	72.7	25.423	20.622	B600	14L15-	3	51
456	71.9	1.8	820	71.9	25.511	20.857	B820	14L15-	3	56
460	71.2	3.9	1541	71.2	53.759	21.065	B4300	14L15-	3	190
487	67.4	3.9	1629	67.4	39.287	22.269	B2700	14L15-	3	128
500	65.5	3.0	1500	65.5	30.015	22.898	B1500	14L15-	3	87
534	61.3	3.9	1789	61.3	39.013	24.456	B2700	14L15-	3	128
554	59.1	3.4	1855	59.1	45.570	25.365	B4300	14L15-	3	190
558	58.7	1.5	820	58.7	24.953	25.550	B820	14L15-	3	56
569	57.6	1.1	600	57.3	26.282	26.061	B600	14L15-	3	51
575	57.0	1.4	820	57.0	26.477	26.324	B820	14L15-	3	56
576	56.9	2.6	1500	56.9	33.493	26.353	B1500	14L15-	3	87
586	55.9	3.4	1961	55.9	35.588	26.814	B2700	14L15-	3	128
638	51.4	2.4	1500	51.4	27.694	29.206	B1500	14L15-	3	87
643	50.9	3.4	2154	50.9	35.399	29.447	B2700	14L15-	3	128
679	48.2	3.0	2001	48.2	39.289	31.097	B4300	14L15-	3	190
718	45.6	3.0	2115	45.6	32.648	32.873	B2700	14L15-	3	128
782	41.9	1.9	1500	41.9	26.610	35.778	B1500	14L15-	3	87
789	41.5	1.0	820	41.5	25.620	36.102	B820	14L15-	3	56
789	41.5	3.0	2323	41.5	32.522	36.102	B2700	14L15-	3	128
798	41.1	1.9	1500	41.1	30.290	36.526	B1500	14L15-	3	87
934	35.1	2.9	2700	35.1	37.539	42.772	B2700	14L15-	3	128
982	33.4	1.5	1500	33.4	28.669	44.955	B1500	14L15-	3	87
1017	32.2	1.5	1500	32.2	25.538	46.568	B1500	14L15-	3	87
1021	32.1	4.2	3418	32.1	40.155	46.737	B4300	14L15-	3	190
1026	31.9	2.6	2700	31.9	37.465	46.973	B2700	14L15-	3	128

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
1069	30.7	2.3	2460	30.7	28.868	48.912	B2700	14L15-	3	128
1164	28.2	3.7	3895	28.2	36.983	53.258	B4300	14L15-	3	190
1182	27.7	2.0	2327	27.7	24.513	54.082	B2700	14L15-	3	128
1247	26.3	1.2	1500	26.3	24.864	57.074	B1500	14L15-	3	87
1298	25.3	2.0	2556	25.3	24.513	59.393	B2700	14L15-	3	128
1401	23.4	3.1	4300	23.4	33.998	64.127	B4300	14L15-	3	190
1403	23.4	1.1	1500	23.4	26.340	64.221	B1500	14L15-	3	87
1408	23.3	1.9	2700	23.3	32.570	64.452	B2700	14L15-	3	128
1572	20.8	1.7	2700	20.8	30.666	71.951	B2700	14L15-	3	128
1679	19.5	1.6	2650	19.5	26.009	76.862	B2700	14L15-	3	128
1718	19.1	2.5	4300	19.1	31.591	78.619	B4300	14L15-	3	190
1856	17.7	1.3	2441	17.7	25.323	84.940	B2700	14L15-	3	128
2038	16.1	1.3	2681	16.1	25.304	93.283	B2700	14L15-	3	128
2130	15.4	1.3	2700	15.4	27.857	97.481	B2700	14L15-	3	128
2327	14.1	1.9	4300	14.1	28.360	106.517	B4300	14L15-	3	190
2339	14.0	1.2	2700	14.0	27.842	107.056	B2700	14L15-	3	128
2586	12.7	1.0	2700	12.7	24.513	118.370	B2700	14L15-	3	128
2826	11.6	1.5	4300	11.6	24.513	129.342	B4300	14L15-	3	190
3657	9.0	1.2	4300	9.0	25.803	167.383	B4300	14L15-	3	190



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

4 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
176	208	4.8	561	208	86.952	6.866	B1500	19F14-	3	90
235	156	5.7	748	156	114.653	9.156	B4300	19F14-	3	193
244	150	4.1	777	150	78.064	9.516	B1500	19F14-	3	90
307	119	4.8	979	119	83.132	11.985	B1500	19F14-	3	90
336	109	3.3	1072	109	72.661	13.118	B1500	19F14-	3	90
419	87.2	5.8	1336	87.2	94.188	16.351	B2700	19F14-	3	131
426	85.8	3.5	1357	85.8	76.075	16.611	B1500	19F14-	3	90
474	77.1	5.7	1510	77.1	103.539	18.486	B4300	19F14-	3	193
501	72.9	5.2	1596	72.9	84.748	19.542	B2700	19F14-	3	131
524	69.7	2.9	1500	69.7	73.031	20.444	B1500	19F14-	3	90
540	67.6	5.2	1721	67.6	95.359	21.065	B4300	19F14-	3	193
571	64.0	4.7	1819	64.0	80.887	22.269	B2700	19F14-	3	131
587	62.2	2.6	1500	62.2	71.615	22.898	B1500	19F14-	3	90
627	58.3	4.3	1998	58.3	80.613	24.456	B2700	19F14-	3	131
651	56.2	4.5	2072	56.2	87.170	25.365	B4300	19F14-	3	193
676	54.1	2.2	1500	54.1	75.093	26.353	B1500	19F14-	3	90
688	53.1	3.9	2190	53.1	77.188	26.814	B2700	19F14-	3	131
718	50.9	6.0	2288	50.9	99.200	28.013	B4300	19F14-	3	193
755	48.4	3.6	2405	48.4	76.999	29.447	B2700	19F14-	3	131
798	45.8	3.9	2540	45.8	80.889	31.097	B4300	19F14-	3	193
843	43.3	3.2	2685	43.3	74.248	32.873	B2700	19F14-	3	131
913	40.0	4.7	2909	40.0	89.646	35.607	B4300	19F14-	3	193
926	39.5	2.9	2700	39.5	74.122	36.102	B2700	19F14-	3	131
937	39.0	1.6	1500	39.0	71.890	36.526	B1500	19F14-	3	90
1097	33.3	2.5	2700	33.3	79.139	42.772	B2700	19F14-	3	131
1153	31.7	1.3	1500	31.7	70.269	44.955	B1500	19F14-	3	90
1199	30.5	3.6	3818	30.5	81.755	46.737	B4300	19F14-	3	193
1205	30.3	2.2	2700	30.3	79.065	46.973	B2700	19F14-	3	131
1366	26.8	3.2	4300	26.8	78.583	53.258	B4300	19F14-	3	193
1645	22.2	2.6	4300	22.2	75.598	64.127	B4300	19F14-	3	193
1653	22.1	1.6	2700	22.1	74.170	64.452	B2700	19F14-	3	131
1845	19.8	1.5	2700	19.8	72.266	71.951	B2700	19F14-	3	131
2016	18.1	2.1	4300	18.1	73.191	78.619	B4300	19F14-	3	193

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
141	272	2.2	312	272	46.222	4.958	B820	14P14-	3	61
143	270	2.0	280	270	39.060	5.002	B450	14P14-	3	38
144	266	2.6	376	266	41.431	5.067	B600	14P14-	3	56
194	199	2.0	391	199	41.411	6.800	B820	14P14-	3	61
195	197	1.6	308	197	37.182	6.860	B450	14P14-	3	38
196	197	3.4	670	197	56.652	6.866	B1500	14P14-	3	91
198	194	2.0	398	194	38.863	6.949	B600	14P14-	3	56
243	159	1.9	459	159	43.771	8.517	B820	14P14-	3	61
261	147	3.3	855	147	84.353	9.156	B4300	14P14-	3	195
271	142	3.0	822	142	47.764	9.516	B1500	14P14-	3	91
271	142	1.8	496	142	38.461	9.520	B820	14P14-	3	61
294	131	1.3	384	131	37.760	10.328	B450	14P14-	3	38
306	126	1.8	541	126	39.818	10.741	B600	14P14-	3	56
333	116	1.7	569	116	40.107	11.680	B820	14P14-	3	61
342	113	3.4	1170	113	52.832	11.985	B1500	14P14-	3	91
346	111	1.6	544	111	37.220	12.143	B820	14P14-	3	61
374	103	2.5	923	103	42.361	13.118	B1500	14P14-	3	91
404	95.3	1.1	422	95.3	36.491	14.165	B450	14P14-	3	38
420	91.6	1.4	600	91.6	38.006	14.730	B600	14P14-	3	56
466	82.6	1.5	708	82.6	37.796	16.352	B820	14P14-	3	61
473	81.3	3.0	1435	81.3	45.775	16.611	B1500	14P14-	3	91
527	73.0	3.3	1727	73.0	73.239	18.486	B4300	14P14-	3	195
537	71.6	1.1	600	71.6	36.988	18.851	B600	14P14-	3	56
557	69.1	3.3	1826	69.1	54.448	19.542	B2700	14P14-	3	133
583	66.0	2.6	1500	66.0	42.731	20.444	B1500	14P14-	3	91
588	65.5	1.0	600	65.5	36.723	20.622	B600	14P14-	3	56
594	64.7	1.4	820	64.7	36.811	20.857	B820	14P14-	3	61
600	64.1	3.0	1802	64.1	65.059	21.065	B4300	14P14-	3	195
635	60.6	3.0	1905	60.6	50.587	22.269	B2700	14P14-	3	133
652	59.0	2.3	1500	59.0	41.315	22.898	B1500	14P14-	3	91
697	55.2	3.0	2092	55.2	50.313	24.456	B2700	14P14-	3	133
723	53.2	2.6	1901	53.2	56.870	25.365	B4300	14P14-	3	195
728	52.8	1.1	820	52.8	36.253	25.550	B820	14P14-	3	61
750	51.3	1.1	820	51.3	37.777	26.324	B820	14P14-	3	61
751	51.2	2.0	1500	51.2	44.793	26.353	B1500	14P14-	3	91
764	50.3	2.6	2010	50.3	46.888	26.814	B2700	14P14-	3	133
832	46.2	1.8	1500	46.2	38.994	29.206	B1500	14P14-	3	91
839	45.8	2.6	2207	45.8	46.699	29.447	B2700	14P14-	3	133
886	43.4	2.3	2001	43.4	50.589	31.097	B4300	14P14-	3	195
937	41.1	2.3	2115	41.1	43.948	32.873	B2700	14P14-	3	133
1020	37.7	1.5	1500	37.7	37.910	35.778	B1500	14P14-	3	91
1029	37.4	2.3	2323	37.4	43.822	36.102	B2700	14P14-	3	133
1041	37.0	1.4	1500	37.0	41.590	36.526	B1500	14P14-	3	91
1219	31.6	2.2	2700	31.6	48.839	42.772	B2700	14P14-	3	133
1281	30.0	1.2	1500	30.0	39.969	44.955	B1500	14P14-	3	91
1327	29.0	1.1	1500	29.0	36.838	46.568	B1500	14P14-	3	91
1332	28.9	3.2	4300	28.9	51.455	46.737	B4300	14P14-	3	195
1339	28.7	2.0	2700	28.7	48.765	46.973	B2700	14P14-	3	133
1394	27.6	1.8	2460	27.6	40.168	48.912	B2700	14P14-	3	133
1518	25.3	2.8	4300	25.3	48.283	53.258	B4300	14P14-	3	195
1541	25.0	1.5	2327	25.0	35.813	54.082	B2700	14P14-	3	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
1692	22.7	1.5	2556	22.7	35.813	59.393	B2700	14P14-	3	133
1827	21.1	2.4	4300	21.1	45.298	64.127	B4300	14P14-	3	195
1837	20.9	1.5	2700	20.9	43.870	64.452	B2700	14P14-	3	133
2050	18.8	1.3	2700	18.8	41.966	71.951	B2700	14P14-	3	133
2190	17.6	1.2	2650	17.6	37.309	76.862	B2700	14P14-	3	133
2240	17.2	1.9	4300	17.2	42.891	78.619	B4300	14P14-	3	195
2420	15.9	1.0	2441	15.9	36.623	84.940	B2700	14P14-	3	133
2658	14.5	1.0	2681	14.5	36.604	93.283	B2700	14P14-	3	133
3035	12.7	1.4	4300	12.7	39.660	106.517	B4300	14P14-	3	195
3686	10.4	1.2	4300	10.4	35.813	129.342	B4300	14P14-	3	195

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
37.0	1136	2.7	138	745	13.572	3.565	B240	12L41-	2	22
51.0	828	2.1	147	607	12.344	4.889	B240	12L41-	2	22
52.0	817	3.8	264	486	22.122	4.958	B820	12L41-	3	49
52.0	810	3.0	221	546	14.960	5.002	B450	12L41-	3	25
53.0	799	3.8	270	476	17.331	5.067	B600	12L41-	3	44
65.0	647	1.7	156	483	11.751	6.257	B240	12L41-	2	22
66.0	650	3.7	259	484	25.722	4.958	B820	14H32-	3	52
67.0	645	3.3	261	554	18.560	5.002	B450	14H32-	3	28
67.0	637	4.3	265	490	20.931	5.067	B600	14H32-	3	47
71.0	596	3.1	310	396	17.311	6.800	B820	12L41-	3	49
72.0	590	2.5	253	451	13.082	6.860	B450	12L41-	3	25
73.0	583	3.1	317	388	14.763	6.949	B600	12L41-	3	44
82.0	518	1.6	187	287	12.113	7.817	B240	12L41-	2	22
89.0	476	3.7	453	282	19.671	8.517	B820	12L41-	3	49
90.0	474	3.4	355	402	20.911	6.800	B820	14H32-	3	52
91.0	470	2.6	308	455	16.682	6.860	B450	14H32-	3	28
91.0	470	5.7	359	328	36.152	6.866	B1500	14H32-	3	82
92.0	464	3.3	363	393	18.363	6.949	B600	14H32-	3	47
99.0	425	2.5	349	325	14.361	9.520	B820	12L41-	3	49
108	392	2.6	384	255	13.660	10.328	B450	12L41-	3	25
112	378	1.3	204	219	11.568	10.720	B240	12L41-	2	22
112	377	3.5	541	221	15.718	10.741	B600	12L41-	3	44
113	379	3.1	445	272	23.271	8.517	B820	14H32-	3	52
122	352	5.4	478	255	63.853	9.156	B4300	14H32-	3	185
122	347	3.1	532	231	16.007	11.680	B820	12L41-	3	49
127	339	5.0	497	265	27.264	9.516	B1500	14H32-	3	82
127	339	3.0	496	338	17.961	9.520	B820	14H32-	3	52
127	334	2.1	374	274	13.120	12.143	B820	12L41-	3	49
137	312	2.2	384	246	17.260	10.328	B450	14H32-	3	28
137	309	3.1	594	205	18.261	13.118	B1500	12L41-	3	79
143	300	2.9	541	213	19.318	10.741	B600	14H32-	3	47
143	295	1.1	217	180	11.277	13.719	B240	12L41-	2	22
148	286	2.1	422	209	12.391	14.165	B450	12L41-	3	25
154	275	2.8	600	179	13.906	14.730	B600	12L41-	3	44
155	276	2.8	569	226	19.607	11.680	B820	14H32-	3	52
157	270	1.0	223	169	11.186	15.008	B240	12L41-	2	22
159	269	5.7	626	188	32.332	11.985	B1500	14H32-	3	82
161	266	2.6	544	266	16.720	12.143	B820	14H32-	3	52
171	248	2.5	599	189	13.696	16.352	B820	12L41-	3	49
174	246	4.1	685	217	21.861	13.118	B1500	14H32-	3	82
188	228	1.7	422	193	15.991	14.165	B450	14H32-	3	28
196	219	2.4	600	172	17.506	14.730	B600	14H32-	3	47
197	215	2.2	600	154	12.888	18.851	B600	12L41-	3	44
207	204	1.6	450	152	11.606	19.831	B450	12L41-	3	25
214	198	3.3	978	128	18.631	20.444	B1500	12L41-	3	79
215	196	2.0	600	144	12.623	20.622	B600	12L41-	3	44
217	197	2.5	708	189	17.296	16.352	B820	14H32-	3	52
218	194	2.1	643	160	12.711	20.857	B820	12L41-	3	49
221	194	5.0	868	152	25.275	16.611	B1500	14H32-	3	82
239	177	3.1	1036	117	17.215	22.898	B1500	12L41-	3	79
246	175	5.4	966	126	52.739	18.486	B4300	14H32-	3	185



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
251	171	1.9	600	145	16.488	18.851	B600	14H32-	3	47
260	165	5.4	1021	120	33.948	19.542	B2700	14H32-	3	123
264	163	1.3	450	142	15.206	19.831	B450	14H32-	3	28
264	160	1.2	450	126	11.278	25.294	B450	12L41-	3	25
265	160	3.3	1215	103	32.770	25.365	B4300	12L41-	3	182
267	159	1.8	676	145	12.153	25.550	B820	12L41-	3	49
272	158	4.3	1068	135	22.231	20.444	B1500	14H32-	3	82
272	155	1.6	600	70.4	13.482	26.061	B600	12L41-	3	44
274	156	1.7	600	131	16.223	20.622	B600	14H32-	3	47
275	154	2.1	820	80.6	13.677	26.324	B820	12L41-	3	49
277	155	2.3	820	155	16.311	20.857	B820	14H32-	3	52
280	153	5.0	1101	119	44.559	21.065	B4300	14H32-	3	185
280	151	3.3	1284	97.1	22.788	26.814	B2700	12L41-	3	120
296	145	5.0	1163	113	30.087	22.269	B2700	14H32-	3	123
304	141	3.8	1196	122	20.815	22.898	B1500	14H32-	3	82
305	139	2.6	1113	104	14.894	29.206	B1500	12L41-	3	79
308	138	3.3	1410	88.4	22.599	29.447	B2700	12L41-	3	120
324	131	1.0	450	109	11.094	30.985	B450	12L41-	3	25
325	132	5.0	1278	103	29.813	24.456	B2700	14H32-	3	123
336	128	1.0	450	118	14.878	25.294	B450	14H32-	3	28
337	127	4.4	1325	109	36.370	25.365	B4300	14H32-	3	185
340	126	1.9	820	126	15.753	25.550	B820	14H32-	3	52
347	124	1.3	600	64.4	17.082	26.061	B600	14H32-	3	47
350	123	1.8	820	75.3	17.277	26.324	B820	14H32-	3	52
350	122	3.3	1377	75.7	24.293	26.353	B1500	14H32-	3	82
357	120	4.4	1401	103	26.388	26.814	B2700	14H32-	3	123
373	113	1.2	600	51.1	12.717	35.740	B600	12L41-	3	44
374	113	2.3	1171	90.2	13.810	35.778	B1500	12L41-	3	79
377	112	1.6	820	59.0	12.820	36.102	B820	12L41-	3	49
388	110	3.0	1500	107	18.494	29.206	B1500	14H32-	3	82
392	110	4.4	1538	93.9	26.199	29.447	B2700	14H32-	3	123
414	104	3.8	1625	93.6	30.089	31.097	B4300	14H32-	3	185
437	98.1	3.8	1717	88.5	23.448	32.873	B2700	14H32-	3	123
438	96.6	1.1	600	82.9	11.276	41.940	B600	12L41-	3	44
470	90.1	2.6	1500	55.0	15.869	44.955	B1500	12L41-	3	79
476	90.1	2.4	1500	90.1	17.410	35.778	B1500	14H32-	3	82
478	88.5	1.0	600	43.6	12.162	45.739	B600	12L41-	3	44
480	89.3	1.3	820	54.1	16.420	36.102	B820	14H32-	3	52
480	89.3	3.8	1886	80.6	23.322	36.102	B2700	14H32-	3	123
486	88.3	2.4	1500	58.6	21.090	36.526	B1500	14H32-	3	82
487	87.0	2.1	1223	83.2	12.738	46.568	B1500	12L41-	3	79
511	82.8	2.5	1575	67.0	16.068	48.912	B2700	12L41-	3	120
528	80.1	1.3	820	45.8	12.070	50.543	B820	12L41-	3	49
565	74.9	2.2	1492	69.8	11.713	54.082	B2700	12L41-	3	120
569	75.4	4.2	2235	51.7	28.339	42.772	B2700	14H32-	3	123
596	71.0	1.8	1282	70.9	12.064	57.074	B1500	12L41-	3	79
598	71.7	2.2	1500	52.9	19.469	44.955	B1500	14H32-	3	82
619	69.3	2.1	1500	69.3	16.338	46.568	B1500	14H32-	3	82
621	68.2	2.2	1639	63.5	11.713	59.393	B2700	12L41-	3	120
625	68.7	3.8	2454	46.2	28.265	46.973	B2700	14H32-	3	123
650	65.9	3.3	2460	65.9	19.668	48.912	B2700	14H32-	3	123
670	63.2	3.7	3071	41.8	21.198	64.127	B4300	12L41-	3	182

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
671	63.1	1.8	1500	42.4	13.540	64.221	B1500	12L41-	3	79
672	63.8	1.1	820	42.5	15.670	50.543	B820	14H32-	3	52
673	62.8	3.3	2700	40.4	19.770	64.452	B2700	12L41-	3	120
708	60.6	5.3	2782	47.9	27.783	53.258	B4300	14H32-	3	185
719	59.6	2.9	2327	59.6	15.313	54.082	B2700	14H32-	3	123
759	56.5	1.7	1500	56.5	15.664	57.074	B1500	14H32-	3	82
783	54.0	1.4	1318	54.0	11.506	74.963	B1500	12L41-	3	79
790	54.3	2.9	2556	54.3	15.313	59.393	B2700	14H32-	3	123
803	52.7	1.7	1700	52.1	13.209	76.862	B2700	12L41-	3	120
853	50.3	4.4	3350	43.3	24.798	64.127	B4300	14H32-	3	185
854	50.2	1.6	1500	38.6	17.140	64.221	B1500	14H32-	3	82
857	50.0	2.8	2700	38.9	23.370	64.452	B2700	14H32-	3	123
887	47.7	1.4	1568	47.7	12.523	84.940	B2700	12L41-	3	120
951	44.5	1.1	1333	44.5	11.258	90.978	B1500	12L41-	3	79
957	44.8	2.5	2700	37.2	21.466	71.951	B2700	14H32-	3	123
975	43.4	1.4	1722	43.4	12.504	93.283	B2700	12L41-	3	120
1019	41.5	2.2	2700	32.6	15.057	97.481	B2700	12L41-	3	120
1022	42.0	2.3	2650	42.0	16.809	76.862	B2700	14H32-	3	123
1045	41.0	3.6	4107	36.8	22.391	78.619	B4300	14H32-	3	185
1070	39.6	1.1	1500	28.4	12.205	102.396	B1500	12L41-	3	79
1113	38.0	2.5	3430	30.8	15.560	106.517	B4300	12L41-	3	182
1119	37.8	2.0	2700	29.2	15.042	107.056	B2700	12L41-	3	120
1130	38.0	1.9	2441	38.0	16.123	84.940	B2700	14H32-	3	123
1237	34.2	2.0	2700	31.4	11.713	118.370	B2700	12L41-	3	120
1240	34.6	1.9	2681	34.6	16.104	93.283	B2700	14H32-	3	123
1296	33.1	1.8	2700	30.8	18.657	97.481	B2700	14H32-	3	123
1311	32.3	1.0	1500	25.7	11.713	125.498	B1500	12L41-	3	79
1351	31.3	2.4	3569	29.8	11.713	129.342	B4300	12L41-	3	182
1358	31.2	1.8	2700	27.1	11.713	129.996	B2700	12L41-	3	120
1416	30.3	2.7	4300	30.3	19.160	106.517	B4300	14H32-	3	185
1424	30.1	1.7	2700	26.7	18.642	107.056	B2700	14H32-	3	123
1574	27.2	1.7	2700	27.2	15.313	118.370	B2700	14H32-	3	123
1601	26.4	1.5	2700	24.7	12.799	153.185	B2700	12L41-	3	120
1720	24.9	2.4	4300	24.9	15.313	129.342	B4300	14H32-	3	185
1729	24.8	1.5	2700	24.7	15.313	129.996	B2700	14H32-	3	123
1749	24.2	1.9	3703	24.2	13.003	167.383	B4300	12L41-	3	182
1758	24.1	1.4	2700	21.5	12.793	168.230	B2700	12L41-	3	120
1942	21.8	1.3	2700	21.5	12.226	185.911	B2700	12L41-	3	120
2037	21.1	1.3	2700	21.1	16.399	153.185	B2700	14H32-	3	123
2123	19.9	1.6	3749	19.9	12.364	203.143	B4300	12L41-	3	182
2133	19.8	1.2	2700	19.8	12.222	204.170	B2700	12L41-	3	120
2226	19.3	1.9	4300	19.3	16.603	167.383	B4300	14H32-	3	185
2237	19.2	1.2	2700	19.2	16.393	168.230	B2700	14H32-	3	123
2305	18.0	1.7	4300	18.0	11.731	224.446	B4300	12L41-	4	185
2317	18.0	1.1	2700	18.0	11.614	225.581	B2700	12L41-	4	123
2472	17.3	1.1	2700	17.3	15.826	185.911	B2700	14H32-	3	123
2683	15.8	1.3	3798	15.8	11.767	256.781	B4300	12L41-	3	182
2701	15.9	1.6	4300	15.9	15.964	203.143	B4300	14H32-	3	185
3126	13.3	1.2	4300	13.3	11.586	304.333	B4300	12L41-	4	185
3796	11.0	1.0	4300	11.0	11.438	369.548	B4300	12L41-	4	185
3978	10.6	1.1	4300	10.6	15.186	304.333	B4300	14H32-	4	188



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
81.0	650	3.0	312	462	34.922	4.958	B820	14L32-	3	56
82.0	645	2.7	280	531	27.760	5.002	B450	14L32-	3	33
83.0	637	3.5	371	469	30.131	5.067	B600	14L32-	3	51
111	474	2.7	391	385	30.111	6.800	B820	14L32-	3	56
112	470	2.1	308	435	25.882	6.860	B450	14L32-	3	33
112	470	4.6	502	314	45.352	6.866	B1500	14L32-	3	87
114	464	2.7	398	376	27.563	6.949	B600	14L32-	3	51
139	379	2.6	459	260	32.471	8.517	B820	14L32-	3	56
150	352	4.4	670	245	73.053	9.156	B4300	14L32-	3	190
155	339	4.1	696	254	36.464	9.516	B1500	14L32-	3	87
156	339	2.5	496	324	27.161	9.520	B820	14L32-	3	56
169	312	1.8	384	226	26.460	10.328	B450	14L32-	3	33
175	300	2.4	541	203	28.518	10.741	B600	14L32-	3	51
191	276	2.3	569	216	28.807	11.680	B820	14L32-	3	56
196	269	4.6	877	180	41.532	11.985	B1500	14L32-	3	87
198	266	2.1	544	266	25.920	12.143	B820	14L32-	3	56
214	246	3.3	923	208	31.061	13.118	B1500	14L32-	3	87
231	228	1.4	422	173	25.191	14.165	B450	14L32-	3	33
241	219	1.9	600	163	26.706	14.730	B600	14L32-	3	51
267	197	2.1	708	181	26.496	16.352	B820	14L32-	3	56
271	194	4.1	1215	145	34.475	16.611	B1500	14L32-	3	87
302	175	4.4	1352	121	61.939	18.486	B4300	14L32-	3	190
308	171	1.5	600	129	25.688	18.851	B600	14L32-	3	51
319	165	4.4	1429	115	43.148	19.542	B2700	14L32-	3	128
324	163	1.1	450	131	24.406	19.831	B450	14L32-	3	33
334	158	3.5	1495	129	31.431	20.444	B1500	14L32-	3	87
337	156	1.4	600	117	25.423	20.622	B600	14L32-	3	51
341	155	1.9	820	153	25.511	20.857	B820	14L32-	3	56
344	153	4.1	1541	114	53.759	21.065	B4300	14L32-	3	190
364	145	4.1	1629	108	39.287	22.269	B2700	14L32-	3	128
374	141	3.1	1500	117	30.015	22.898	B1500	14L32-	3	87
400	132	4.1	1789	98.5	39.013	24.456	B2700	14L32-	3	128
414	127	3.6	1855	104	45.570	25.365	B4300	14L32-	3	190
417	126	1.5	820	126	24.953	25.550	B820	14L32-	3	56
426	124	1.1	600	58.3	26.282	26.061	B600	14L32-	3	51
430	123	1.5	820	67.1	26.477	26.324	B820	14L32-	3	56
431	122	2.7	1500	72.1	33.493	26.353	B1500	14L32-	3	87
438	120	3.6	1961	98.8	35.588	26.814	B2700	14L32-	3	128
477	110	2.4	1500	102	27.694	29.206	B1500	14L32-	3	87
481	110	3.6	2154	89.9	35.399	29.447	B2700	14L32-	3	128
508	104	3.1	2001	89.8	39.289	31.097	B4300	14L32-	3	190
537	98.1	3.1	2115	85.0	32.648	32.873	B2700	14L32-	3	128
585	90.1	2.0	1500	88.3	26.610	35.778	B1500	14L32-	3	87
590	89.3	1.1	820	49.1	25.620	36.102	B820	14L32-	3	56
590	89.3	3.1	2323	77.4	32.522	36.102	B2700	14L32-	3	128
597	88.3	2.0	1500	55.5	30.290	36.526	B1500	14L32-	3	87
699	75.4	3.4	2700	49.5	37.539	42.772	B2700	14L32-	3	128
734	71.7	1.8	1500	48.7	28.669	44.955	B1500	14L32-	3	87
761	69.3	1.7	1500	69.3	25.538	46.568	B1500	14L32-	3	87
764	69.0	5.0	3418	49.1	40.155	46.737	B4300	14L32-	3	190
767	68.7	3.1	2700	44.1	37.465	46.973	B2700	14L32-	3	128

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
799	65.9	2.7	2460	65.9	28.868	48.912	B2700	14L32-	3	128
870	60.6	4.4	3895	45.9	36.983	53.258	B4300	14L32-	3	190
884	59.6	2.3	2327	59.6	24.513	54.082	B2700	14L32-	3	128
932	56.5	1.4	1500	56.5	24.864	57.074	B1500	14L32-	3	87
970	54.3	2.3	2556	54.3	24.513	59.393	B2700	14L32-	3	128
1048	50.3	3.6	4300	41.4	33.998	64.127	B4300	14L32-	3	190
1049	50.2	1.3	1500	34.6	26.340	64.221	B1500	14L32-	3	87
1053	50.0	2.3	2700	37.1	32.570	64.452	B2700	14L32-	3	128
1176	44.8	2.0	2700	35.6	30.666	71.951	B2700	14L32-	3	128
1256	42.0	1.9	2650	42.0	26.009	76.862	B2700	14L32-	3	128
1284	41.0	3.0	4300	35.3	31.591	78.619	B4300	14L32-	3	190
1388	38.0	1.6	2441	38.0	25.323	84.940	B2700	14L32-	3	128
1524	34.6	1.6	2681	34.6	25.304	93.283	B2700	14L32-	3	128
1593	33.1	1.5	2700	27.7	27.857	97.481	B2700	14L32-	3	128
1740	30.3	2.2	4300	29.9	28.360	106.517	B4300	14L32-	3	190
1749	30.1	1.4	2700	24.1	27.842	107.056	B2700	14L32-	3	128
1934	27.2	1.4	2700	25.5	24.513	118.370	B2700	14L32-	3	128
2113	24.9	2.0	4300	24.9	24.513	129.342	B4300	14L32-	3	190
2124	24.8	1.2	2700	22.2	24.513	129.996	B2700	14L32-	3	128
2503	21.1	1.1	2700	21.1	25.599	153.185	B2700	14L32-	3	128
2735	19.3	1.5	4300	19.3	25.803	167.383	B4300	14L32-	3	190
3319	15.9	1.3	4300	15.9	25.164	203.143	B4300	14L32-	3	190



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
209	260	5.1	672	260	230.776	5.488	B4300	19J14-	3	200
261	208	3.2	837	208	126.952	6.866	B1500	19J14-	3	97
263	206	5.1	848	206	154.215	6.918	B2700	19J14-	3	138
265	204	4.5	855	204	186.324	6.976	B4300	19J14-	3	200
334	162	4.5	1077	162	138.939	8.793	B2700	19J14-	3	138
348	156	3.8	1122	156	154.653	9.156	B4300	19J14-	3	200
362	150	2.8	1006	150	118.064	9.516	B1500	19J14-	3	97
421	129	5.1	1358	129	199.840	11.080	B4300	19J14-	3	200
445	122	5.0	1435	122	147.531	11.713	B2700	19J14-	3	138
455	119	3.2	1461	119	123.132	11.985	B1500	19J14-	3	97
489	111	4.6	1576	111	146.539	12.863	B2700	19J14-	3	138
498	109	2.2	1118	109	112.661	13.118	B1500	19J14-	3	97
535	101	4.5	1726	101	167.177	14.084	B4300	19J14-	3	200
566	95.7	4.2	1824	95.7	134.802	14.888	B2700	19J14-	3	138
621	87.2	3.9	2003	87.2	134.188	16.351	B2700	19J14-	3	138
631	85.8	2.4	1500	85.8	116.075	16.611	B1500	19J14-	3	97
702	77.1	3.8	2265	77.1	143.539	18.486	B4300	19J14-	3	200
742	72.9	3.5	2395	72.9	124.748	19.542	B2700	19J14-	3	138
777	69.7	1.9	1500	69.7	113.031	20.444	B1500	19J14-	3	97
800	67.6	3.5	2581	67.6	135.359	21.065	B4300	19J14-	3	200
846	64.0	3.2	2684	64.0	120.887	22.269	B2700	19J14-	3	138
870	62.2	1.7	1500	62.2	111.615	22.898	B1500	19J14-	3	97
929	58.3	2.9	2700	58.3	120.613	24.456	B2700	19J14-	3	138
964	56.2	3.1	2954	56.2	127.170	25.365	B4300	19J14-	3	200
1001	54.1	1.5	1500	54.1	115.093	26.353	B1500	19J14-	3	97
1019	53.1	2.7	2700	53.1	117.188	26.814	B2700	19J14-	3	138
1064	50.9	4.0	3432	50.9	139.200	28.013	B4300	19J14-	3	200
1119	48.4	2.4	2700	48.4	116.999	29.447	B2700	19J14-	3	138
1182	45.8	2.6	3110	45.8	120.889	31.097	B4300	19J14-	3	200
1249	43.3	2.2	2700	43.3	114.248	32.873	B2700	19J14-	3	138
1353	40.0	3.2	4300	40.0	129.646	35.607	B4300	19J14-	3	200
1372	39.5	2.0	2700	39.5	114.122	36.102	B2700	19J14-	3	138
1388	39.0	1.1	1500	39.0	111.890	36.526	B1500	19J14-	3	97
1625	33.3	1.7	2700	33.3	119.139	42.772	B2700	19J14-	3	138
1776	30.5	2.4	4300	30.5	121.755	46.737	B4300	19J14-	3	200
1785	30.3	1.5	2700	30.3	119.065	46.973	B2700	19J14-	3	138
2024	26.8	2.1	4300	26.8	118.583	53.258	B4300	19J14-	3	200
2436	22.2	1.8	4300	22.2	115.598	64.127	B4300	19J14-	3	200
2449	22.1	1.1	2700	22.1	114.170	64.452	B2700	19J14-	3	138
2987	18.1	1.4	4300	18.1	113.191	78.619	B4300	19J14-	3	200

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



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
137	437	4.9	561	317	86.952	6.866	B1500	19F30-	3	90
183	328	5.8	748	241	114.653	9.156	B4300	19F30-	3	193
190	315	4.2	777	232	78.064	9.516	B1500	19F30-	3	90
239	250	4.9	979	181	83.132	11.985	B1500	19F30-	3	90
262	229	3.4	1072	169	72.661	13.118	B1500	19F30-	3	90
326	184	5.9	1336	128	94.188	16.351	B2700	19F30-	3	131
331	181	3.6	1357	133	76.075	16.611	B1500	19F30-	3	90
369	162	5.8	1510	120	103.539	18.486	B4300	19F30-	3	193
390	154	5.3	1596	113	84.748	19.542	B2700	19F30-	3	131
408	147	2.9	1500	108	73.031	20.444	B1500	19F30-	3	90
420	142	5.3	1721	105	95.359	21.065	B4300	19F30-	3	193
444	135	4.8	1819	99.3	80.887	22.269	B2700	19F30-	3	131
457	131	2.6	1500	96.5	71.615	22.898	B1500	19F30-	3	90
488	123	4.4	1998	90.4	80.613	24.456	B2700	19F30-	3	131
506	118	4.6	2072	87.2	87.170	25.365	B4300	19F30-	3	193
526	114	2.3	1500	68.9	75.093	26.353	B1500	19F30-	3	90
535	112	4.0	2190	82.4	77.188	26.814	B2700	19F30-	3	131
587	102	3.7	2405	75.1	76.999	29.447	B2700	19F30-	3	131
620	96.5	4.0	2540	71.1	80.889	31.097	B4300	19F30-	3	193
656	91.3	3.3	2685	67.2	74.248	32.873	B2700	19F30-	3	131
710	84.3	4.8	2909	56.4	89.646	35.607	B4300	19F30-	3	193
720	83.1	3.0	2700	61.2	74.122	36.102	B2700	19F30-	3	131
729	82.1	1.6	1500	50.0	71.890	36.526	B1500	19F30-	3	90
853	70.1	2.9	2700	47.6	79.139	42.772	B2700	19F30-	3	131
897	66.7	1.5	1500	43.9	70.269	44.955	B1500	19F30-	3	90
932	64.2	4.2	3818	47.3	81.755	46.737	B4300	19F30-	3	193
937	63.9	2.6	2700	42.4	79.065	46.973	B2700	19F30-	3	131
1062	56.3	3.7	4300	41.5	78.583	53.258	B4300	19F30-	3	193
1279	46.8	3.0	4300	34.5	75.598	64.127	B4300	19F30-	3	193
1286	46.5	1.9	2700	34.3	74.170	64.452	B2700	19F30-	3	131
1435	41.7	1.7	2700	30.7	72.266	71.951	B2700	19F30-	3	131
1568	38.2	2.5	4300	28.1	73.191	78.619	B4300	19F30-	3	193



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
99.0	650	2.4	312	442	46.222	4.958	B820	14P32-	3	61
100	645	2.2	280	508	39.060	5.002	B450	14P32-	3	38
101	637	2.9	376	449	41.431	5.067	B600	14P32-	3	56
136	474	2.2	391	368	41.411	6.800	B820	14P32-	3	61
137	470	1.7	308	399	37.182	6.860	B450	14P32-	3	38
137	470	3.8	670	300	56.652	6.866	B1500	14P32-	3	91
139	464	2.2	398	360	38.863	6.949	B600	14P32-	3	56
170	379	2.1	459	248	43.771	8.517	B820	14P32-	3	61
183	352	3.6	855	235	84.353	9.156	B4300	14P32-	3	195
190	339	3.4	822	243	47.764	9.516	B1500	14P32-	3	91
190	339	2.0	496	311	38.461	9.520	B820	14P32-	3	61
206	312	1.4	384	203	37.760	10.328	B450	14P32-	3	38
214	300	2.0	541	193	39.818	10.741	B600	14P32-	3	56
233	276	1.9	569	203	40.107	11.680	B820	14P32-	3	61
239	269	3.8	1170	172	52.832	11.985	B1500	14P32-	3	91
242	266	1.7	544	254	37.220	12.143	B820	14P32-	3	61
262	246	2.7	923	199	42.361	13.118	B1500	14P32-	3	91
283	228	1.2	422	157	36.491	14.165	B450	14P32-	3	38
294	219	1.6	600	146	38.006	14.730	B600	14P32-	3	56
326	197	1.7	708	164	37.796	16.352	B820	14P32-	3	61
331	194	3.4	1435	139	45.775	16.611	B1500	14P32-	3	91
369	175	3.6	1727	116	73.239	18.486	B4300	14P32-	3	195
376	171	1.2	600	116	36.988	18.851	B600	14P32-	3	56
390	165	3.6	1826	110	54.448	19.542	B2700	14P32-	3	133
408	158	2.9	1500	124	42.731	20.444	B1500	14P32-	3	91
411	156	1.1	600	107	36.723	20.622	B600	14P32-	3	56
416	155	1.5	820	139	36.811	20.857	B820	14P32-	3	61
420	153	3.3	1802	110	65.059	21.065	B4300	14P32-	3	195
444	145	3.3	1905	104	50.587	22.269	B2700	14P32-	3	133
457	141	2.5	1500	112	41.315	22.898	B1500	14P32-	3	91
488	132	3.3	2092	94.3	50.313	24.456	B2700	14P32-	3	133
506	127	2.9	1901	99.9	56.870	25.365	B4300	14P32-	3	195
510	126	1.3	820	120	36.253	25.550	B820	14P32-	3	61
525	123	1.2	820	60.6	37.777	26.324	B820	14P32-	3	61
526	122	2.2	1500	68.5	44.793	26.353	B1500	14P32-	3	91
535	120	2.9	2010	94.5	46.888	26.814	B2700	14P32-	3	133
583	110	2.0	1500	98.5	38.994	29.206	B1500	14P32-	3	91
587	110	2.9	2207	86.1	46.699	29.447	B2700	14P32-	3	133
620	104	2.5	2001	86.2	50.589	31.097	B4300	14P32-	3	195
656	98.1	2.5	2115	81.5	43.948	32.873	B2700	14P32-	3	133
714	90.1	1.6	1500	79.4	37.910	35.778	B1500	14P32-	3	91
720	89.3	2.5	2323	74.2	43.822	36.102	B2700	14P32-	3	133
729	88.3	1.6	1500	49.3	41.590	36.526	B1500	14P32-	3	91
853	75.4	2.8	2700	47.3	48.839	42.772	B2700	14P32-	3	133
897	71.7	1.5	1500	43.3	39.969	44.955	B1500	14P32-	3	91
929	69.3	1.4	1500	69.3	36.838	46.568	B1500	14P32-	3	91
932	69.0	4.1	4300	47.1	51.455	46.737	B4300	14P32-	3	195
937	68.7	2.5	2700	42.1	48.765	46.973	B2700	14P32-	3	133
976	65.9	2.2	2460	65.4	40.168	48.912	B2700	14P32-	3	133
1062	60.6	3.6	4300	44.0	48.283	53.258	B4300	14P32-	3	195
1079	59.6	1.9	2327	59.6	35.813	54.082	B2700	14P32-	3	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
1138	56.5	1.2	1500	56.5	36.164	57.074	B1500	14P32-	3	91
1185	54.3	1.9	2556	54.3	35.813	59.393	B2700	14P32-	3	133
1279	50.3	3.0	4300	39.7	45.298	64.127	B4300	14P32-	3	195
1281	50.2	1.0	1500	31.5	37.640	64.221	B1500	14P32-	3	91
1286	50.0	1.9	2700	34.5	43.870	64.452	B2700	14P32-	3	133
1435	44.8	1.7	2700	32.2	41.966	71.951	B2700	14P32-	3	133
1533	42.0	1.5	2650	42.0	37.309	76.862	B2700	14P32-	3	133
1568	41.0	2.4	4300	33.8	42.891	78.619	B4300	14P32-	3	195
1694	38.0	1.3	2441	38.0	36.623	84.940	B2700	14P32-	3	133
1861	34.6	1.3	2681	34.6	36.604	93.283	B2700	14P32-	3	133
1944	33.1	1.2	2700	25.2	39.157	97.481	B2700	14P32-	3	133
2125	30.3	1.8	4300	27.8	39.660	106.517	B4300	14P32-	3	195
2135	30.1	1.1	2700	22.1	39.142	107.056	B2700	14P32-	3	133
2361	27.2	1.1	2700	23.2	35.813	118.370	B2700	14P32-	3	133
2580	24.9	1.6	4300	24.9	35.813	129.342	B4300	14P32-	3	195
2593	24.8	1.0	2700	20.2	35.813	129.996	B2700	14P32-	3	133
3339	19.3	1.3	4300	19.3	37.103	167.383	B4300	14P32-	3	195
4052	15.9	1.0	4300	15.9	36.464	203.143	B4300	14P32-	3	195



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
266	246	4.0	990	246	285.776	5.488	B4300	19P14-	3	210
333	197	2.5	837	197	181.952	6.866	B1500	19P14-	3	107
335	195	4.0	1249	195	209.215	6.918	B2700	19P14-	3	148
338	194	3.6	1201	194	241.324	6.976	B4300	19P14-	3	210
426	154	3.6	1514	154	193.939	8.793	B2700	19P14-	3	148
444	147	3.0	1329	147	209.653	9.156	B4300	19P14-	3	210
461	142	2.2	1006	142	173.064	9.516	B1500	19P14-	3	107
537	122	4.0	2000	122	254.840	11.080	B4300	19P14-	3	210
567	115	3.9	2114	115	202.531	11.713	B2700	19P14-	3	148
581	113	2.5	1461	113	178.132	11.985	B1500	19P14-	3	107
623	105	3.6	2262	105	201.539	12.863	B2700	19P14-	3	148
635	103	1.8	1118	103	167.661	13.118	B1500	19P14-	3	107
682	95.9	3.6	2425	95.9	222.177	14.084	B4300	19P14-	3	210
721	90.7	3.3	2380	90.7	189.802	14.888	B2700	19P14-	3	148
792	82.6	3.1	2429	82.6	189.188	16.351	B2700	19P14-	3	148
805	81.3	1.9	1500	81.3	171.075	16.611	B1500	19P14-	3	107
896	73.0	3.0	2683	73.0	198.539	18.486	B4300	19P14-	3	210
947	69.1	2.7	2579	69.1	179.748	19.542	B2700	19P14-	3	148
990	66.0	1.5	1500	66.0	168.031	20.444	B1500	19P14-	3	107
1020	64.1	2.7	2799	64.1	190.359	21.065	B4300	19P14-	3	210
1079	60.6	2.5	2684	60.6	175.887	22.269	B2700	19P14-	3	148
1109	59.0	1.4	1500	59.0	166.615	22.898	B1500	19P14-	3	107
1185	55.2	2.3	2700	55.2	175.613	24.456	B2700	19P14-	3	148
1229	53.2	2.4	2954	53.2	182.170	25.365	B4300	19P14-	3	210
1277	51.2	1.2	1500	49.4	170.093	26.353	B1500	19P14-	3	107
1299	50.3	2.1	2700	50.3	172.188	26.814	B2700	19P14-	3	148
1357	48.2	3.2	4300	48.2	194.200	28.013	B4300	19P14-	3	210
1427	45.8	1.9	2700	45.8	171.999	29.447	B2700	19P14-	3	148
1506	43.4	2.1	3110	43.4	175.889	31.097	B4300	19P14-	3	210
1592	41.1	1.7	2700	41.1	169.248	32.873	B2700	19P14-	3	148
1725	37.9	2.5	4300	37.9	184.646	35.607	B4300	19P14-	3	210
1749	37.4	1.5	2700	37.4	169.122	36.102	B2700	19P14-	3	148
2072	31.6	1.3	2700	31.6	174.139	42.772	B2700	19P14-	3	148
2264	28.9	1.9	4300	28.9	176.755	46.737	B4300	19P14-	3	210
2276	28.7	1.2	2700	28.7	174.065	46.973	B2700	19P14-	3	148
2580	25.3	1.7	4300	25.3	173.583	53.258	B4300	19P14-	3	210
3107	21.1	1.4	4300	21.1	170.598	64.127	B4300	19P14-	3	210
3809	17.2	1.1	4300	17.2	168.191	78.619	B4300	19P14-	3	210

Technical data

Selection tables

Inverter mains connection 400 V, Self-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
151	547	5.5	672	340	230.776	5.488	B4300	19J30-	3	200
189	437	3.5	837	295	126.952	6.866	B1500	19J30-	3	97
191	434	5.5	848	270	154.215	6.918	B2700	19J30-	3	138
192	430	5.0	855	290	186.324	6.976	B4300	19J30-	3	200
242	341	5.0	1077	230	138.939	8.793	B2700	19J30-	3	138
252	328	4.2	1122	241	154.653	9.156	B4300	19J30-	3	200
262	315	3.1	1006	232	118.064	9.516	B1500	19J30-	3	97
305	271	5.5	1358	169	199.840	11.080	B4300	19J30-	3	200
323	256	5.4	1435	159	147.531	11.713	B2700	19J30-	3	138
330	250	3.5	1461	169	123.132	11.985	B1500	19J30-	3	97
354	233	5.1	1576	142	146.539	12.863	B2700	19J30-	3	138
361	229	2.5	1118	169	112.661	13.118	B1500	19J30-	3	97
388	213	5.0	1726	144	167.177	14.084	B4300	19J30-	3	200
410	202	4.6	1824	134	134.802	14.888	B2700	19J30-	3	138
450	184	4.3	2003	120	134.188	16.351	B2700	19J30-	3	138
458	181	2.6	1500	131	116.075	16.611	B1500	19J30-	3	97
509	162	4.2	2265	120	143.539	18.486	B4300	19J30-	3	200
538	154	3.8	2395	111	124.748	19.542	B2700	19J30-	3	138
563	147	2.1	1500	108	113.031	20.444	B1500	19J30-	3	97
580	142	3.8	2581	105	135.359	21.065	B4300	19J30-	3	200
613	135	3.5	2684	99.3	120.887	22.269	B2700	19J30-	3	138
631	131	1.9	1500	96.5	111.615	22.898	B1500	19J30-	3	97
674	123	3.2	2700	90.4	120.613	24.456	B2700	19J30-	3	138
699	118	3.4	2954	87.2	127.170	25.365	B4300	19J30-	3	200
726	114	1.6	1500	59.5	115.093	26.353	B1500	19J30-	3	97
739	112	2.9	2700	82.4	117.188	26.814	B2700	19J30-	3	138
772	107	4.4	3432	63.4	139.200	28.013	B4300	19J30-	3	200
811	102	2.6	2700	75.1	116.999	29.447	B2700	19J30-	3	138
857	96.5	2.9	3110	71.1	120.889	31.097	B4300	19J30-	3	200
906	91.3	2.4	2700	67.2	114.248	32.873	B2700	19J30-	3	138
981	84.3	3.5	4300	52.4	129.646	35.607	B4300	19J30-	3	200
994	83.1	2.2	2700	61.2	114.122	36.102	B2700	19J30-	3	138
1006	82.1	1.2	1500	42.1	111.890	36.526	B1500	19J30-	3	97
1178	70.1	2.1	2700	44.0	119.139	42.772	B2700	19J30-	3	138
1238	66.7	1.1	1500	37.1	110.269	44.955	B1500	19J30-	3	97
1287	64.2	3.0	4300	44.1	121.755	46.737	B4300	19J30-	3	200
1294	63.9	1.9	2700	38.6	119.065	46.973	B2700	19J30-	3	138
1467	56.3	2.6	4300	41.1	118.583	53.258	B4300	19J30-	3	200
1766	46.8	2.2	4300	34.5	115.598	64.127	B4300	19J30-	3	200
1775	46.5	1.4	2700	29.0	114.170	64.452	B2700	19J30-	3	138
1982	41.7	1.2	2700	27.7	112.266	71.951	B2700	19J30-	3	138
2166	38.2	1.8	4300	28.1	113.191	78.619	B4300	19J30-	3	200



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
167	547	5.0	990	333	285.776	5.488	B4300	19P30-	3	210
209	437	3.2	837	288	181.952	6.866	B1500	19P30-	3	107
210	434	5.0	1249	264	209.215	6.918	B2700	19P30-	3	148
212	430	4.5	1201	284	241.324	6.976	B4300	19P30-	3	210
267	341	4.5	1514	225	193.939	8.793	B2700	19P30-	3	148
278	328	3.8	1329	237	209.653	9.156	B4300	19P30-	3	210
289	315	2.8	1006	232	173.064	9.516	B1500	19P30-	3	107
337	271	5.0	2000	165	254.840	11.080	B4300	19P30-	3	210
356	256	4.9	2114	156	202.531	11.713	B2700	19P30-	3	148
364	250	3.2	1461	165	178.132	11.985	B1500	19P30-	3	107
391	233	4.6	2262	139	201.539	12.863	B2700	19P30-	3	148
399	229	2.2	1118	169	167.661	13.118	B1500	19P30-	3	107
428	213	4.5	2425	141	222.177	14.084	B4300	19P30-	3	210
453	202	4.2	2380	131	189.802	14.888	B2700	19P30-	3	148
497	184	3.9	2429	117	189.188	16.351	B2700	19P30-	3	148
505	181	2.4	1500	128	171.075	16.611	B1500	19P30-	3	107
562	162	3.8	2683	117	198.539	18.486	B4300	19P30-	3	210
594	154	3.5	2579	109	179.748	19.542	B2700	19P30-	3	148
621	147	1.9	1500	108	168.031	20.444	B1500	19P30-	3	107
640	142	3.5	2799	105	190.359	21.065	B4300	19P30-	3	210
677	135	3.2	2684	99.3	175.887	22.269	B2700	19P30-	3	148
696	131	1.7	1500	96.5	166.615	22.898	B1500	19P30-	3	107
743	123	2.9	2700	90.4	175.613	24.456	B2700	19P30-	3	148
771	118	3.0	2954	87.2	182.170	25.365	B4300	19P30-	3	210
801	114	1.5	1500	56.1	170.093	26.353	B1500	19P30-	3	107
815	112	2.6	2700	82.4	172.188	26.814	B2700	19P30-	3	148
851	107	4.0	4300	62.0	194.200	28.013	B4300	19P30-	3	210
895	102	2.4	2700	75.1	171.999	29.447	B2700	19P30-	3	148
945	96.5	2.6	3110	71.1	175.889	31.097	B4300	19P30-	3	210
999	91.3	2.1	2700	67.2	169.248	32.873	B2700	19P30-	3	148
1082	84.3	3.2	4300	51.2	184.646	35.607	B4300	19P30-	3	210
1097	83.1	2.0	2700	61.2	169.122	36.102	B2700	19P30-	3	148
1110	82.1	1.1	1500	40.2	166.890	36.526	B1500	19P30-	3	107
1300	70.1	1.9	2700	42.3	174.139	42.772	B2700	19P30-	3	148
1421	64.2	2.7	4300	43.1	176.755	46.737	B4300	19P30-	3	210
1428	63.9	1.7	2700	36.5	174.065	46.973	B2700	19P30-	3	148
1619	56.3	2.4	4300	40.2	173.583	53.258	B4300	19P30-	3	210
1949	46.8	2.0	4300	34.5	170.598	64.127	B4300	19P30-	3	210
1959	46.5	1.2	2700	27.5	169.170	64.452	B2700	19P30-	3	148
2187	41.7	1.1	2700	26.6	167.266	71.951	B2700	19P30-	3	148
2390	38.2	1.6	4300	28.1	168.191	78.619	B4300	19P30-	3	210

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



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
24.0	463	5.6	60.0	463	6.972	3.565	B240	12D17-	2	18
33.0	338	4.4	82.0	338	5.744	4.889	B240	12D17-	2	18
42.0	264	3.6	105	264	5.151	6.257	B240	12D17-	2	18
46.0	241	5.4	115	241	6.482	6.860	B450	12D17-	3	21
52.0	211	3.5	131	211	5.513	7.817	B240	12D17-	2	18
63.0	173	5.3	160	173	7.761	9.520	B820	12D17-	3	45
69.0	160	5.4	174	160	7.060	10.328	B450	12D17-	3	21
71.0	154	2.8	180	154	4.968	10.720	B240	12D17-	2	18
81.0	136	4.5	204	136	6.520	12.143	B820	12D17-	3	45
91.0	120	2.3	217	120	4.677	13.719	B240	12D17-	2	18
94.0	117	4.3	238	117	5.791	14.165	B450	12D17-	3	21
98.0	112	5.9	248	112	7.306	14.730	B600	12D17-	3	39
100	110	2.2	223	110	4.586	15.008	B240	12D17-	2	18
109	101	5.3	275	101	7.096	16.352	B820	12D17-	3	45
125	87.5	4.6	317	87.5	6.288	18.851	B600	12D17-	3	39
127	86.2	1.8	240	86.2	4.420	19.143	B240	12D17-	2	18
132	83.2	3.3	333	83.2	5.006	19.831	B450	12D17-	3	21
137	80.0	4.2	347	80.0	6.023	20.622	B600	12D17-	3	39
139	79.1	4.5	351	79.1	6.111	20.857	B820	12D17-	3	45
156	70.4	1.5	240	70.4	4.322	23.450	B240	12D17-	2	18
168	65.2	2.6	425	65.2	4.678	25.294	B450	12D17-	3	21
170	64.6	3.9	430	64.6	5.553	25.550	B820	12D17-	3	45
173	63.3	3.4	438	63.3	6.882	26.061	B600	12D17-	3	39
175	62.7	4.5	443	62.7	7.077	26.324	B820	12D17-	3	45
194	56.5	5.6	491	56.5	8.294	29.206	B1500	12D17-	3	75
206	53.3	2.1	450	53.3	4.494	30.985	B450	12D17-	3	21
238	46.2	2.5	600	46.2	6.117	35.740	B600	12D17-	3	39
238	46.1	4.8	602	46.1	7.210	35.778	B1500	12D17-	3	75
240	45.7	3.3	607	45.7	6.220	36.102	B820	12D17-	3	45
279	39.3	2.2	600	39.3	4.676	41.940	B600	12D17-	3	39
299	36.7	5.0	756	36.7	9.269	44.955	B1500	12D17-	3	75
304	36.1	2.0	600	36.1	5.562	45.739	B600	12D17-	3	39
310	35.4	4.0	783	35.4	6.138	46.568	B1500	12D17-	3	75
325	33.7	4.8	822	33.7	9.468	48.912	B2700	12D17-	3	116
333	33.0	1.8	600	33.0	5.417	50.036	B600	12D17-	3	39
336	32.6	2.4	820	32.6	5.470	50.543	B820	12D17-	3	45
360	30.5	4.2	909	30.5	5.113	54.082	B2700	12D17-	3	116
379	28.9	3.4	960	28.9	5.464	57.074	B1500	12D17-	3	75
395	27.8	4.2	999	27.8	5.113	59.393	B2700	12D17-	3	116
414	26.5	1.1	450	26.5	4.471	62.262	B450	12D17-	3	21
424	25.9	1.4	600	25.9	5.079	63.822	B600	12D17-	3	39
427	25.7	3.5	1080	25.7	6.940	64.221	B1500	12D17-	3	75
429	25.6	1.9	820	25.6	5.112	64.468	B820	12D17-	3	45
498	22.0	2.6	1260	22.0	4.906	74.963	B1500	12D17-	3	75
511	21.5	3.3	1292	21.5	6.609	76.862	B2700	12D17-	3	116
520	21.1	1.2	600	21.1	4.865	78.182	B600	12D17-	3	39
525	20.9	1.6	820	20.9	4.887	78.973	B820	12D17-	3	45
565	19.4	2.8	1428	19.4	5.923	84.940	B2700	12D17-	3	116
605	18.1	2.2	1333	18.1	4.658	90.978	B1500	12D17-	3	75
620	17.7	2.8	1568	17.7	5.904	93.283	B2700	12D17-	3	116



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
648	16.9	4.2	1639	16.9	8.457	97.481	B2700	12D17-	3	116
681	16.1	2.2	1500	16.1	5.605	102.396	B1500	12D17-	3	75
683	16.1	1.2	820	16.1	4.489	102.790	B820	12D17-	3	45
708	15.5	4.8	1791	15.5	8.960	106.517	B4300	12D17-	3	178
712	15.4	3.8	1800	15.4	8.442	107.056	B2700	12D17-	3	116
787	13.9	3.4	1990	13.9	5.113	118.370	B2700	12D17-	3	116
834	13.1	1.8	1500	13.1	5.113	125.498	B1500	12D17-	3	75
860	12.8	4.2	2175	12.8	5.113	129.342	B4300	12D17-	3	178
864	12.7	3.1	2186	12.7	5.113	129.996	B2700	12D17-	3	116
1019	10.8	2.7	2575	10.8	6.199	153.185	B2700	12D17-	3	116
1096	10.0	1.4	1500	10.0	4.700	164.833	B1500	12D17-	3	75
1113	9.9	3.3	2814	9.9	6.403	167.383	B4300	12D17-	3	178
1119	9.8	2.4	2700	9.8	6.193	168.230	B2700	12D17-	3	116
1236	8.9	2.2	2700	8.9	5.626	185.911	B2700	12D17-	3	116
1330	8.2	1.1	1500	8.2	4.519	200.048	B1500	12D17-	3	75
1351	8.1	2.8	3415	8.1	5.764	203.143	B4300	12D17-	3	178
1358	8.1	2.0	2700	8.1	5.622	204.170	B2700	12D17-	3	116
1467	7.4	2.9	3709	7.4	5.131	224.446	B4300	12D17-	4	181
1469	7.3	1.0	1500	7.3	4.535	224.773	B1500	12D17-	4	78
1474	7.3	1.8	2700	7.3	5.014	225.581	B2700	12D17-	4	119
1563	7.0	1.7	2700	7.0	5.080	235.000	B2700	12D17-	3	116
1707	6.4	2.2	3798	6.4	5.167	256.781	B4300	12D17-	3	178
1716	6.4	1.6	2700	6.4	5.078	258.080	B2700	12D17-	3	116
1903	5.7	1.4	2700	5.7	5.196	291.191	B2700	12D17-	4	119
1989	5.4	2.2	4300	5.4	4.986	304.333	B4300	12D17-	4	181
2415	4.5	1.8	4300	4.5	4.838	369.548	B4300	12D17-	4	181
2959	3.6	1.5	4300	3.6	4.600	452.696	B4300	12D17-	4	181

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
41.0	379	3.4	98.0	379	10.272	3.565	B240	12H14-	2	21
56.0	276	2.6	135	276	9.044	4.889	B240	12H14-	2	21
57.0	272	4.8	137	272	18.822	4.958	B820	12H14-	3	48
57.0	272	5.5	137	272	19.622	4.958	B820	14D14-	3	51
57.0	270	3.9	138	270	11.660	5.002	B450	12H14-	3	24
57.0	270	4.9	138	270	12.460	5.002	B450	14D14-	3	27
58.0	266	4.8	140	266	14.031	5.067	B600	12H14-	3	43
71.0	216	2.2	156	216	8.451	6.257	B240	12H14-	2	21
78.0	199	4.0	187	199	14.011	6.800	B820	12H14-	3	48
78.0	199	5.1	187	199	14.811	6.800	B820	14D14-	3	51
78.0	197	3.2	189	197	9.782	6.860	B450	12H14-	3	24
78.0	197	3.9	189	197	10.582	6.860	B450	14D14-	3	27
79.0	194	4.0	191	194	11.463	6.949	B600	12H14-	3	43
79.0	194	5.0	191	194	12.263	6.949	B600	14D14-	3	46
89.0	173	2.1	187	173	8.813	7.817	B240	12H14-	2	21
97.0	159	4.7	235	159	16.371	8.517	B820	12H14-	3	48
97.0	159	4.7	235	159	17.171	8.517	B820	14D14-	3	51
109	142	3.2	262	142	11.061	9.520	B820	12H14-	3	48
109	142	4.6	262	142	11.861	9.520	B820	14D14-	3	51
118	131	3.3	285	131	10.360	10.328	B450	12H14-	3	24
118	131	3.3	285	131	11.160	10.328	B450	14D14-	3	27
122	126	1.7	204	126	8.268	10.720	B240	12H14-	2	21
122	126	4.4	296	126	12.418	10.741	B600	12H14-	3	43
122	126	4.4	296	126	13.218	10.741	B600	14D14-	3	46
133	116	4.0	322	116	12.707	11.680	B820	12H14-	3	48
133	116	4.3	322	116	13.507	11.680	B820	14D14-	3	51
138	111	2.7	334	111	9.820	12.143	B820	12H14-	3	48
138	111	3.9	334	111	10.620	12.143	B820	14D14-	3	51
150	103	4.0	361	103	14.961	13.118	B1500	12H14-	3	78
156	98.4	1.4	217	98.4	7.977	13.719	B240	12H14-	2	21
161	95.3	2.6	390	95.3	9.091	14.165	B450	12H14-	3	24
161	95.3	2.6	390	95.3	9.891	14.165	B450	14D14-	3	27
168	91.6	3.6	406	91.6	10.606	14.730	B600	12H14-	3	43
168	91.6	3.6	406	91.6	11.406	14.730	B600	14D14-	3	46
171	90.0	1.3	223	90.0	7.886	15.008	B240	12H14-	2	21
186	82.6	3.2	450	82.6	10.396	16.352	B820	12H14-	3	48
186	82.6	3.8	450	82.6	11.196	16.352	B820	14D14-	3	51
215	71.6	2.8	519	71.6	9.588	18.851	B600	12H14-	3	43
215	71.6	2.8	519	71.6	10.388	18.851	B600	14D14-	3	46
218	70.5	1.1	240	70.5	7.720	19.143	B240	12H14-	2	21
226	68.1	2.0	450	68.1	8.306	19.831	B450	12H14-	3	24
226	68.1	2.0	450	68.1	9.106	19.831	B450	14D14-	3	27
233	66.0	4.2	563	66.0	15.331	20.444	B1500	12H14-	3	78
235	65.5	2.6	568	65.5	9.323	20.622	B600	12H14-	3	43
235	65.5	2.6	568	65.5	10.123	20.622	B600	14D14-	3	46
238	64.7	2.7	575	64.7	9.411	20.857	B820	12H14-	3	48
238	64.7	3.5	575	64.7	10.211	20.857	B820	14D14-	3	51
261	59.0	4.0	631	59.0	13.915	22.898	B1500	12H14-	3	78
261	59.0	5.8	631	59.0	14.715	22.898	B1500	14D14-	3	81
288	53.4	1.6	450	53.4	7.978	25.294	B450	12H14-	3	24
288	53.4	1.6	450	53.4	8.778	25.294	B450	14D14-	3	27



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
289	53.2	4.2	699	53.2	29.470	25.365	B4300	12H14-	3	181
291	52.8	2.3	676	52.8	8.853	25.550	B820	12H14-	3	48
291	52.8	2.8	704	52.8	9.653	25.550	B820	14D14-	3	51
297	51.8	2.0	600	51.8	10.182	26.061	B600	12H14-	3	43
297	51.8	2.0	600	51.8	10.982	26.061	B600	14D14-	3	46
300	51.3	2.7	725	51.3	10.377	26.324	B820	12H14-	3	48
300	51.3	2.7	725	51.3	11.177	26.324	B820	14D14-	3	51
300	51.2	5.0	726	51.2	18.193	26.353	B1500	14D14-	3	81
306	50.3	4.2	739	50.3	19.488	26.814	B2700	12H14-	3	119
333	46.2	3.3	805	46.2	11.594	29.206	B1500	12H14-	3	78
333	46.2	4.5	805	46.2	12.394	29.206	B1500	14D14-	3	81
336	45.8	4.2	811	45.8	19.299	29.447	B2700	12H14-	3	119
353	43.6	1.3	450	43.6	7.794	30.985	B450	12H14-	3	24
354	43.4	5.6	857	43.4	23.989	31.097	B4300	14D14-	3	184
375	41.1	5.6	906	41.1	17.348	32.873	B2700	14D14-	3	122
407	37.8	1.5	600	37.8	9.417	35.740	B600	12H14-	3	43
407	37.8	1.5	600	37.8	10.217	35.740	B600	14D14-	3	46
408	37.7	2.9	986	37.7	10.510	35.778	B1500	12H14-	3	78
408	37.7	3.7	986	37.7	11.310	35.778	B1500	14D14-	3	81
412	37.4	2.0	820	37.4	9.520	36.102	B820	12H14-	3	48
412	37.4	2.0	820	37.4	10.320	36.102	B820	14D14-	3	51
412	37.4	5.6	994	37.4	17.222	36.102	B2700	14D14-	3	122
416	37.0	3.6	1006	37.0	14.990	36.526	B1500	14D14-	3	81
478	32.2	1.3	600	32.2	7.976	41.940	B600	12H14-	3	43
478	32.2	1.3	600	32.2	8.776	41.940	B600	14D14-	3	46
488	31.6	5.5	1178	31.6	22.239	42.772	B2700	14D14-	3	122
512	30.0	2.9	1238	30.0	12.569	44.955	B1500	12H14-	3	78
512	30.0	2.9	1238	30.0	13.369	44.955	B1500	14D14-	3	81
521	29.5	1.2	600	29.5	8.862	45.739	B600	12H14-	3	43
521	29.5	1.2	600	29.5	9.662	45.739	B600	14D14-	3	46
531	29.0	2.3	1223	29.0	9.438	46.568	B1500	12H14-	3	78
531	29.0	2.8	1283	29.0	10.238	46.568	B1500	14D14-	3	81
535	28.7	5.0	1294	28.7	22.165	46.973	B2700	14D14-	3	122
558	27.6	2.8	1347	27.6	12.768	48.912	B2700	12H14-	3	119
558	27.6	4.4	1347	27.6	13.568	48.912	B2700	14D14-	3	122
570	27.0	1.1	600	27.0	8.717	50.036	B600	12H14-	3	43
570	27.0	1.1	600	27.0	9.517	50.036	B600	14D14-	3	46
576	26.7	1.4	820	26.7	8.770	50.543	B820	12H14-	3	48
576	26.7	1.4	820	26.7	9.570	50.543	B820	14D14-	3	51
616	25.0	2.4	1490	25.0	8.413	54.082	B2700	12H14-	3	119
616	25.0	3.8	1490	25.0	9.213	54.082	B2700	14D14-	3	122
651	23.7	2.0	1282	23.7	8.764	57.074	B1500	12H14-	3	78
651	23.7	2.3	1500	23.7	9.564	57.074	B1500	14D14-	3	81
677	22.7	2.4	1636	22.7	8.413	59.393	B2700	12H14-	3	119
677	22.7	3.8	1636	22.7	9.213	59.393	B2700	14D14-	3	122
731	21.1	4.2	1766	21.1	17.898	64.127	B4300	12H14-	3	181
731	21.1	5.9	1766	21.1	18.698	64.127	B4300	14D14-	3	184
732	21.0	2.1	1500	21.0	10.240	64.221	B1500	12H14-	3	78
732	21.0	2.1	1500	21.0	11.040	64.221	B1500	14D14-	3	81
735	20.9	1.1	820	20.9	8.412	64.468	B820	12H14-	3	48
735	20.9	1.1	820	20.9	9.212	64.468	B820	14D14-	3	51
735	20.9	3.7	1775	20.9	16.470	64.452	B2700	12H14-	3	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
735	20.9	3.7	1775	20.9	17.270	64.452	B2700	14D14-	3	122
820	18.8	3.3	1982	18.8	15.366	71.951	B2700	14D14-	3	122
854	18.0	1.5	1318	18.0	8.206	74.963	B1500	12H14-	3	78
876	17.6	1.9	1700	17.6	9.909	76.862	B2700	12H14-	3	119
876	17.6	3.0	2117	17.6	10.709	76.862	B2700	14D14-	3	122
896	17.2	4.8	2166	17.2	16.291	78.619	B4300	14D14-	3	184
968	15.9	1.6	1568	15.9	9.223	84.940	B2700	12H14-	3	119
968	15.9	2.5	2340	15.9	10.023	84.940	B2700	14D14-	3	122
1037	14.8	1.3	1333	14.8	7.958	90.978	B1500	12H14-	3	78
1063	14.5	1.6	1722	14.5	9.204	93.283	B2700	12H14-	3	119
1063	14.5	2.5	2570	14.5	10.004	93.283	B2700	14D14-	3	122
1111	13.8	2.4	2685	13.8	11.757	97.481	B2700	12H14-	3	119
1111	13.8	2.4	2685	13.8	12.557	97.481	B2700	14D14-	3	122
1167	13.2	1.3	1500	13.2	8.905	102.396	B1500	12H14-	3	78
1167	13.2	1.3	1500	13.2	9.705	102.396	B1500	14D14-	3	81
1214	12.7	2.8	2934	12.7	12.260	106.517	B4300	12H14-	3	181
1214	12.7	3.5	2934	12.7	13.060	106.517	B4300	14D14-	3	184
1220	12.6	2.2	2700	12.6	11.742	107.056	B2700	12H14-	3	119
1220	12.6	2.2	2700	12.6	12.542	107.056	B2700	14D14-	3	122
1349	11.4	2.0	2700	11.4	8.413	118.370	B2700	12H14-	3	119
1349	11.4	2.0	2700	11.4	9.213	118.370	B2700	14D14-	3	122
1430	10.8	1.1	1500	10.8	8.413	125.498	B1500	12H14-	3	78
1430	10.8	1.1	1500	10.8	9.213	125.498	B1500	14D14-	3	81
1474	10.4	2.4	3563	10.4	8.413	129.342	B4300	12H14-	3	181
1474	10.4	2.9	3563	10.4	9.213	129.342	B4300	14D14-	3	184
1482	10.4	1.8	2700	10.4	8.413	129.996	B2700	12H14-	3	119
1482	10.4	1.8	2700	10.4	9.213	129.996	B2700	14D14-	3	122
1746	8.8	1.6	2700	8.8	9.499	153.185	B2700	12H14-	3	119
1746	8.8	1.6	2700	8.8	10.299	153.185	B2700	14D14-	3	122
1908	8.1	1.9	3703	8.1	9.703	167.383	B4300	12H14-	3	181
1908	8.1	2.3	4300	8.1	10.503	167.383	B4300	14D14-	3	184
1918	8.0	1.4	2700	8.0	9.493	168.230	B2700	12H14-	3	119
1918	8.0	1.4	2700	8.0	10.293	168.230	B2700	14D14-	3	122
2119	7.3	1.3	2700	7.3	8.926	185.911	B2700	12H14-	3	119
2119	7.3	1.3	2700	7.3	9.726	185.911	B2700	14D14-	3	122
2315	6.6	1.6	3749	6.6	9.064	203.143	B4300	12H14-	3	181
2315	6.6	1.9	4300	6.6	9.864	203.143	B4300	14D14-	3	184
2327	6.6	1.2	2700	6.6	8.922	204.170	B2700	12H14-	3	119
2327	6.6	1.2	2700	6.6	9.722	204.170	B2700	14D14-	3	122
2515	6.0	1.7	4300	6.0	8.431	224.446	B4300	12H14-	4	184
2528	6.0	1.1	2700	6.0	8.314	225.581	B2700	12H14-	4	122
2679	5.7	1.0	2700	5.7	8.380	235.000	B2700	12H14-	3	119
2927	5.3	1.3	3798	5.3	8.467	256.781	B4300	12H14-	3	181
3410	4.4	1.3	4300	4.4	8.286	304.333	B4300	12H14-	4	184
3410	4.4	1.3	4300	4.4	9.086	304.333	B4300	14D14-	4	187
4141	3.7	1.0	4300	3.7	8.138	369.548	B4300	12H14-	4	184
4141	3.7	1.0	4300	3.7	8.938	369.548	B4300	14D14-	4	187



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
20.0	989	5.1	60.0	850	6.972	3.565	B240	12D35-	2	18
28.0	721	4.0	82.0	692	5.744	4.889	B240	12D35-	2	18
29.0	705	5.8	84.0	620	8.360	5.002	B450	12D35-	3	21
36.0	563	3.3	105	563	5.151	6.257	B240	12D35-	2	18
39.0	514	4.9	115	512	6.482	6.860	B450	12D35-	3	21
45.0	451	3.2	131	352	5.513	7.817	B240	12D35-	2	18
54.0	370	4.8	160	369	7.761	9.520	B820	12D35-	3	45
59.0	341	4.9	174	291	7.060	10.328	B450	12D35-	3	21
61.0	329	2.5	180	288	4.968	10.720	B240	12D35-	2	18
69.0	290	4.1	204	290	6.520	12.143	B820	12D35-	3	45
75.0	269	6.0	221	233	11.661	13.118	B1500	12D35-	3	75
78.0	257	2.1	217	240	4.677	13.719	B240	12D35-	2	18
81.0	249	3.9	238	239	5.791	14.165	B450	12D35-	3	21
84.0	239	5.4	248	204	7.306	14.730	B600	12D35-	3	39
86.0	235	2.0	223	225	4.586	15.008	B240	12D35-	2	18
93.0	216	4.8	275	215	7.096	16.352	B820	12D35-	3	45
107	187	4.2	317	176	6.288	18.851	B600	12D35-	3	39
109	184	1.7	240	184	4.420	19.143	B240	12D35-	2	18
113	178	3.0	333	178	5.006	19.831	B450	12D35-	3	21
118	171	3.8	347	163	6.023	20.622	B600	12D35-	3	39
119	169	4.1	351	169	6.111	20.857	B820	12D35-	3	45
130	154	6.0	385	134	10.615	22.898	B1500	12D35-	3	75
134	150	1.4	240	150	4.322	23.450	B240	12D35-	2	18
144	139	2.4	425	139	4.678	25.294	B450	12D35-	3	21
146	138	3.5	430	138	5.553	25.550	B820	12D35-	3	45
149	135	3.0	438	88.3	6.882	26.061	B600	12D35-	3	39
150	134	4.1	443	93.3	7.077	26.324	B820	12D35-	3	45
166	121	5.0	491	118	8.294	29.206	B1500	12D35-	3	75
177	114	1.9	450	114	4.494	30.985	B450	12D35-	3	21
204	98.6	2.2	600	69.9	6.117	35.740	B600	12D35-	3	39
204	98.5	4.3	602	98.5	7.210	35.778	B1500	12D35-	3	75
206	97.6	3.0	607	73.9	6.220	36.102	B820	12D35-	3	45
239	84.0	2.2	600	84.0	4.676	41.940	B600	12D35-	3	39
256	78.4	5.0	756	63.3	9.269	44.955	B1500	12D35-	3	75
261	77.1	2.0	600	61.9	5.562	45.739	B600	12D35-	3	39
265	75.7	3.9	783	75.7	6.138	46.568	B1500	12D35-	3	75
279	72.1	4.8	822	72.1	9.468	48.912	B2700	12D35-	3	116
285	70.4	1.8	600	55.7	5.417	50.036	B600	12D35-	3	39
288	69.7	2.4	820	60.8	5.470	50.543	B820	12D35-	3	45
308	65.2	4.1	909	65.2	5.113	54.082	B2700	12D35-	3	116
325	61.8	3.4	960	61.8	5.464	57.074	B1500	12D35-	3	75
338	59.3	4.1	999	59.3	5.113	59.393	B2700	12D35-	3	116
355	56.6	1.1	450	48.7	4.471	62.262	B450	12D35-	3	21
364	55.2	1.4	600	43.7	5.079	63.822	B600	12D35-	3	39
366	54.9	3.5	1080	50.1	6.940	64.221	B1500	12D35-	3	75
367	54.7	1.9	820	50.1	5.112	64.468	B820	12D35-	3	45
427	47.0	2.6	1260	47.0	4.906	74.963	B1500	12D35-	3	75
438	45.9	3.3	1292	45.9	6.609	76.862	B2700	12D35-	3	116
446	45.1	1.2	600	37.7	4.865	78.182	B600	12D35-	3	39
450	44.6	1.6	820	43.2	4.887	78.973	B820	12D35-	3	45
484	41.5	2.8	1428	41.5	5.923	84.940	B2700	12D35-	3	116

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
518	38.7	2.2	1333	38.7	4.658	90.978	B1500	12D35-	3	75
532	37.8	2.8	1568	37.8	5.904	93.283	B2700	12D35-	3	116
556	36.2	4.2	1639	36.2	8.457	97.481	B2700	12D35-	3	116
584	34.4	2.2	1500	34.4	5.605	102.396	B1500	12D35-	3	75
586	34.3	1.2	820	34.3	4.489	102.790	B820	12D35-	3	45
607	33.1	4.8	1791	33.1	8.960	106.517	B4300	12D35-	3	178
610	32.9	3.8	1800	32.9	8.442	107.056	B2700	12D35-	3	116
675	29.8	3.8	1990	29.8	5.113	118.370	B2700	12D35-	3	116
715	28.1	2.0	1500	28.1	5.113	125.498	B1500	12D35-	3	75
729	27.6	1.1	820	27.6	4.365	127.861	B820	12D35-	3	45
737	27.3	4.6	2175	27.3	5.113	129.342	B4300	12D35-	3	178
741	27.1	3.5	2186	27.1	5.113	129.996	B2700	12D35-	3	116
873	23.0	2.9	2575	23.0	6.199	153.185	B2700	12D35-	3	116
939	21.4	1.5	1500	21.4	4.700	164.833	B1500	12D35-	3	75
954	21.1	3.7	2814	21.1	6.403	167.383	B4300	12D35-	3	178
959	21.0	2.7	2700	21.0	6.193	168.230	B2700	12D35-	3	116
1060	19.0	2.4	2700	19.0	5.626	185.911	B2700	12D35-	3	116
1140	17.6	1.3	1500	17.6	4.519	200.048	B1500	12D35-	3	75
1158	17.4	3.1	3415	17.4	5.764	203.143	B4300	12D35-	3	178
1164	17.3	2.2	2700	17.3	5.622	204.170	B2700	12D35-	3	116
1257	15.7	3.2	3709	15.7	5.131	224.446	B4300	12D35-	4	181
1259	15.7	1.1	1500	15.7	4.535	224.773	B1500	12D35-	4	78
1264	15.6	2.0	2700	15.6	5.014	225.581	B2700	12D35-	4	119
1339	15.0	1.9	2700	15.0	5.080	235.000	B2700	12D35-	3	116
1463	13.7	2.5	3798	13.7	5.167	256.781	B4300	12D35-	3	178
1471	13.7	1.7	2700	13.7	5.078	258.080	B2700	12D35-	3	116
1631	12.1	1.6	2700	12.1	5.196	291.191	B2700	12D35-	4	119
1705	11.6	2.4	4300	11.6	4.986	304.333	B4300	12D35-	4	181
2070	9.5	2.0	4300	9.5	4.838	369.548	B4300	12D35-	4	181
2536	7.8	1.6	4300	7.8	4.600	452.696	B4300	12D35-	4	181
2549	7.7	1.0	2700	7.7	4.571	454.986	B2700	12D35-	4	119



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
58.0	463	2.3	138	463	13.572	3.565	B240	12L17-	2	24
79.0	338	1.8	147	338	12.344	4.889	B240	12L17-	2	24
80.0	333	3.3	266	333	22.122	4.958	B820	12L17-	3	51
81.0	330	2.6	221	330	14.960	5.002	B450	12L17-	3	28
82.0	326	3.3	271	326	17.331	5.067	B600	12L17-	3	46
101	264	1.5	156	264	11.751	6.257	B240	12L17-	2	24
110	243	2.7	310	243	17.311	6.800	B820	12L17-	3	51
111	241	2.2	253	241	13.082	6.860	B450	12L17-	3	28
112	238	2.7	317	238	14.763	6.949	B600	12L17-	3	46
126	211	1.4	187	211	12.113	7.817	B240	12L17-	2	24
138	194	3.2	456	194	19.671	8.517	B820	12L17-	3	51
154	173	2.2	349	173	14.361	9.520	B820	12L17-	3	51
167	160	2.2	384	160	13.660	10.328	B450	12L17-	3	28
173	154	1.1	204	154	11.568	10.720	B240	12L17-	2	24
173	154	3.0	541	154	15.718	10.741	B600	12L17-	3	46
189	141	2.7	532	141	16.007	11.680	B820	12L17-	3	51
196	136	1.9	374	136	13.120	12.143	B820	12L17-	3	51
212	126	2.7	594	126	18.261	13.118	B1500	12L17-	3	81
229	117	1.8	422	117	12.391	14.165	B450	12L17-	3	28
238	112	2.4	600	112	13.906	14.730	B600	12L17-	3	46
264	101	2.2	599	101	13.696	16.352	B820	12L17-	3	51
304	87.5	1.9	600	87.5	12.888	18.851	B600	12L17-	3	46
320	83.2	1.4	450	83.2	11.606	19.831	B450	12L17-	3	28
330	80.7	2.9	978	80.7	18.631	20.444	B1500	12L17-	3	81
333	80.0	1.8	600	80.0	12.623	20.622	B600	12L17-	3	46
337	79.1	1.9	643	79.1	12.711	20.857	B820	12L17-	3	51
370	72.1	2.7	1036	72.1	17.215	22.898	B1500	12L17-	3	81
408	65.2	1.1	450	65.2	11.278	25.294	B450	12L17-	3	28
410	65.1	2.9	1215	65.1	32.770	25.365	B4300	12L17-	3	184
413	64.6	1.6	676	64.6	12.153	25.550	B820	12L17-	3	51
421	63.3	1.4	600	63.3	13.482	26.061	B600	12L17-	3	46
425	62.7	1.9	820	62.7	13.677	26.324	B820	12L17-	3	51
433	61.5	2.9	1284	61.5	22.788	26.814	B2700	12L17-	3	122
472	56.5	2.3	1113	56.5	14.894	29.206	B1500	12L17-	3	81
476	56.0	2.9	1410	56.0	22.599	29.447	B2700	12L17-	3	122
577	46.2	1.0	600	46.2	12.717	35.740	B600	12L17-	3	46
578	46.1	2.0	1171	46.1	13.810	35.778	B1500	12L17-	3	81
583	45.7	1.4	820	45.7	12.820	36.102	B820	12L17-	3	51
726	36.7	2.1	1500	36.7	15.869	44.955	B1500	12L17-	3	81
752	35.4	1.6	1223	35.4	12.738	46.568	B1500	12L17-	3	81
790	33.7	2.0	1575	33.7	16.068	48.912	B2700	12L17-	3	122
816	32.6	1.0	820	32.6	12.070	50.543	B820	12L17-	3	51
873	30.5	1.7	1492	30.5	11.713	54.082	B2700	12L17-	3	122
922	28.9	1.4	1282	28.9	12.064	57.074	B1500	12L17-	3	81
959	27.8	1.7	1639	27.8	11.713	59.393	B2700	12L17-	3	122
1036	25.7	3.0	3071	25.7	21.198	64.127	B4300	12L17-	3	184
1037	25.7	1.5	1500	25.7	13.540	64.221	B1500	12L17-	3	81
1041	25.6	2.6	2700	25.6	19.770	64.452	B2700	12L17-	3	122
1210	22.0	1.1	1318	22.0	11.506	74.963	B1500	12L17-	3	81
1241	21.5	1.4	1700	21.5	13.209	76.862	B2700	12L17-	3	122
1372	19.4	1.1	1568	19.4	12.523	84.940	B2700	12L17-	3	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
1506	17.7	1.1	1722	17.7	12.504	93.283	B2700	12L17-	3	122
1574	16.9	1.7	2700	16.9	15.057	97.481	B2700	12L17-	3	122
1720	15.5	2.0	3430	15.5	15.560	106.517	B4300	12L17-	3	184
1729	15.4	1.6	2700	15.4	15.042	107.056	B2700	12L17-	3	122
1911	13.9	1.4	2700	13.9	11.713	118.370	B2700	12L17-	3	122
2089	12.8	1.7	3569	12.8	11.713	129.342	B4300	12L17-	3	184
2099	12.7	1.3	2700	12.7	11.713	129.996	B2700	12L17-	3	122
2474	10.8	1.1	2700	10.8	12.799	153.185	B2700	12L17-	3	122
2703	9.9	1.4	3703	9.9	13.003	167.383	B4300	12L17-	3	184
3280	8.1	1.1	3749	8.1	12.364	203.143	B4300	12L17-	3	184
3563	7.4	1.2	4300	7.4	11.731	224.446	B4300	12L17-	4	187



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
111	242	2.8	258	242	25.722	4.958	B820	14H12-	3	56
112	240	2.5	260	240	18.560	5.002	B450	14H12-	3	32
113	237	3.3	264	237	20.931	5.067	B600	14H12-	3	51
152	177	2.6	354	177	20.911	6.800	B820	14H12-	3	56
153	175	2.0	308	175	16.682	6.860	B450	14H12-	3	32
153	175	4.4	357	175	36.152	6.866	B1500	14H12-	3	86
155	173	2.6	362	173	18.363	6.949	B600	14H12-	3	51
190	141	2.4	443	141	23.271	8.517	B820	14H12-	3	56
204	131	4.2	477	131	63.853	9.156	B4300	14H12-	3	189
212	126	3.9	495	126	27.264	9.516	B1500	14H12-	3	86
213	126	2.3	496	126	17.961	9.520	B820	14H12-	3	56
231	116	1.7	384	116	17.260	10.328	B450	14H12-	3	32
240	112	2.3	541	112	19.318	10.741	B600	14H12-	3	51
261	103	2.2	569	103	19.607	11.680	B820	14H12-	3	56
268	100	4.4	624	100	32.332	11.985	B1500	14H12-	3	86
271	98.8	2.0	544	98.8	16.720	12.143	B820	14H12-	3	56
293	91.5	3.2	683	91.5	21.861	13.118	B1500	14H12-	3	86
316	84.7	1.3	422	84.7	15.991	14.165	B450	14H12-	3	32
329	81.5	1.8	600	81.5	17.506	14.730	B600	14H12-	3	51
365	73.4	1.9	708	73.4	17.296	16.352	B820	14H12-	3	56
371	72.2	3.9	865	72.2	25.275	16.611	B1500	14H12-	3	86
413	64.9	4.2	962	64.9	52.739	18.486	B4300	14H12-	3	189
421	63.7	1.4	600	63.7	16.488	18.851	B600	14H12-	3	51
436	61.4	4.2	1017	61.4	33.948	19.542	B2700	14H12-	3	127
443	60.5	1.0	450	60.5	15.206	19.831	B450	14H12-	3	32
456	58.7	3.3	1064	58.7	22.231	20.444	B1500	14H12-	3	86
460	58.2	1.3	600	58.2	16.223	20.622	B600	14H12-	3	51
466	57.5	1.8	820	57.5	16.311	20.857	B820	14H12-	3	56
470	57.0	3.8	1097	57.0	44.559	21.065	B4300	14H12-	3	189
497	53.9	3.8	1159	53.9	30.087	22.269	B2700	14H12-	3	127
511	52.4	2.9	1192	52.4	20.815	22.898	B1500	14H12-	3	86
546	49.1	3.8	1273	49.1	29.813	24.456	B2700	14H12-	3	127
566	47.3	3.4	1320	47.3	36.370	25.365	B4300	14H12-	3	189
570	47.0	1.4	820	47.0	15.753	25.550	B820	14H12-	3	56
582	46.0	1.0	600	46.0	17.082	26.061	B600	14H12-	3	51
588	45.6	1.4	820	45.6	17.277	26.324	B820	14H12-	3	56
588	45.5	2.6	1372	45.5	24.293	26.353	B1500	14H12-	3	86
599	44.8	3.4	1396	44.8	26.388	26.814	B2700	14H12-	3	127
652	41.1	2.3	1500	41.1	18.494	29.206	B1500	14H12-	3	86
657	40.8	3.4	1533	40.8	26.199	29.447	B2700	14H12-	3	127
694	38.6	2.9	1619	38.6	30.089	31.097	B4300	14H12-	3	189
734	36.5	2.9	1711	36.5	23.448	32.873	B2700	14H12-	3	127
799	33.5	1.9	1500	33.5	17.410	35.778	B1500	14H12-	3	86
806	33.2	1.0	820	33.2	16.420	36.102	B820	14H12-	3	56
806	33.2	2.9	1879	33.2	23.322	36.102	B2700	14H12-	3	127
815	32.9	1.8	1500	32.9	21.090	36.526	B1500	14H12-	3	86
955	28.1	2.8	2226	28.1	28.339	42.772	B2700	14H12-	3	127
1003	26.7	1.5	1500	26.7	19.469	44.955	B1500	14H12-	3	86
1039	25.8	1.4	1500	25.8	16.338	46.568	B1500	14H12-	3	86
1043	25.7	4.1	2433	25.7	30.955	46.737	B4300	14H12-	3	189
1049	25.5	2.6	2445	25.5	28.265	46.973	B2700	14H12-	3	127

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
1092	24.5	2.3	2460	24.5	19.668	48.912	B2700	14H12-	3	127
1189	22.5	3.6	2772	22.5	27.783	53.258	B4300	14H12-	3	189
1207	22.2	1.9	2327	22.2	15.313	54.082	B2700	14H12-	3	127
1274	21.0	1.2	1500	21.0	15.664	57.074	B1500	14H12-	3	86
1326	20.2	1.9	2556	20.2	15.313	59.393	B2700	14H12-	3	127
1431	18.7	3.0	3338	18.7	24.798	64.127	B4300	14H12-	3	189
1434	18.7	1.1	1500	18.7	17.140	64.221	B1500	14H12-	3	86
1439	18.6	1.9	2700	18.6	23.370	64.452	B2700	14H12-	3	127
1606	16.7	1.7	2700	16.7	21.466	71.951	B2700	14H12-	3	127
1716	15.6	1.5	2650	15.6	16.809	76.862	B2700	14H12-	3	127
1755	15.3	2.5	4092	15.3	22.391	78.619	B4300	14H12-	3	189
1896	14.1	1.3	2441	14.1	16.123	84.940	B2700	14H12-	3	127
2082	12.9	1.3	2681	12.9	16.104	93.283	B2700	14H12-	3	127
2176	12.3	1.2	2700	12.3	18.657	97.481	B2700	14H12-	3	127
2378	11.3	1.8	4300	11.3	19.160	106.517	B4300	14H12-	3	189
2390	11.2	1.1	2700	11.2	18.642	107.056	B2700	14H12-	3	127
2642	10.1	1.0	2700	10.1	15.313	118.370	B2700	14H12-	3	127
2887	9.3	1.5	4300	9.3	15.313	129.342	B4300	14H12-	3	189
3736	7.2	1.2	4300	7.2	16.603	167.383	B4300	14H12-	3	189



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
49.0	605	5.0	137	516	19.622	4.958	B820	14D30-	3	51
50.0	600	4.5	138	590	12.460	5.002	B450	14D30-	3	27
51.0	592	5.9	140	521	14.831	5.067	B600	14D30-	3	46
68.0	441	4.6	187	428	14.811	6.800	B820	14D30-	3	51
68.0	437	3.6	189	437	10.582	6.860	B450	14D30-	3	27
69.0	432	4.6	191	419	12.263	6.949	B600	14D30-	3	46
85.0	352	4.3	235	291	17.171	8.517	B820	14D30-	3	51
95.0	315	4.2	262	315	11.861	9.520	B820	14D30-	3	51
103	291	3.0	285	263	11.160	10.328	B450	14D30-	3	27
107	279	4.0	296	228	13.218	10.741	B600	14D30-	3	46
116	257	3.9	322	241	13.507	11.680	B820	14D30-	3	51
121	247	3.6	334	247	10.620	12.143	B820	14D30-	3	51
131	229	5.6	361	229	15.761	13.118	B1500	14D30-	3	81
141	212	2.4	390	212	9.891	14.165	B450	14D30-	3	27
147	204	3.2	406	184	11.406	14.730	B600	14D30-	3	46
163	184	3.5	450	184	11.196	16.352	B820	14D30-	3	51
188	159	2.5	519	159	10.388	18.851	B600	14D30-	3	46
198	151	1.8	450	151	9.106	19.831	B450	14D30-	3	27
204	147	5.8	563	144	16.131	20.444	B1500	14D30-	3	81
206	146	2.3	568	146	10.123	20.622	B600	14D30-	3	46
208	144	3.1	575	144	10.211	20.857	B820	14D30-	3	51
228	131	5.2	631	130	14.715	22.898	B1500	14D30-	3	81
252	119	1.4	450	119	8.778	25.294	B450	14D30-	3	27
253	118	6.0	699	116	30.270	25.365	B4300	14D30-	3	184
255	117	2.6	704	117	9.653	25.550	B820	14D30-	3	51
260	115	1.8	600	76.5	10.982	26.061	B600	14D30-	3	46
263	114	2.5	725	83.5	11.177	26.324	B820	14D30-	3	51
263	114	4.5	726	81.3	18.193	26.353	B1500	14D30-	3	81
267	112	6.0	739	110	20.288	26.814	B2700	14D30-	3	122
291	103	4.1	805	103	12.394	29.206	B1500	14D30-	3	81
294	102	6.0	811	100	20.099	29.447	B2700	14D30-	3	122
310	96.5	5.1	857	96.5	23.989	31.097	B4300	14D30-	3	184
328	91.3	5.1	906	91.3	17.348	32.873	B2700	14D30-	3	122
356	83.9	1.3	600	54.9	10.217	35.740	B600	14D30-	3	46
357	83.9	3.3	986	83.9	11.310	35.778	B1500	14D30-	3	81
360	83.1	1.8	820	64.0	10.320	36.102	B820	14D30-	3	51
360	83.1	5.1	994	83.1	17.222	36.102	B2700	14D30-	3	122
364	82.1	3.3	1006	62.9	14.990	36.526	B1500	14D30-	3	81
418	71.5	1.3	600	71.5	8.776	41.940	B600	14D30-	3	46
427	70.1	5.7	1178	55.2	22.239	42.772	B2700	14D30-	3	122
448	66.7	3.0	1238	56.9	13.369	44.955	B1500	14D30-	3	81
456	65.6	1.2	600	46.7	9.662	45.739	B600	14D30-	3	46
464	64.4	2.9	1283	64.4	10.238	46.568	B1500	14D30-	3	81
468	63.9	5.2	1294	49.3	22.165	46.973	B2700	14D30-	3	122
488	61.3	4.6	1347	61.3	13.568	48.912	B2700	14D30-	3	122
499	60.0	1.1	600	43.1	9.517	50.036	B600	14D30-	3	46
504	59.4	1.5	820	49.4	9.570	50.543	B820	14D30-	3	51
539	55.5	3.9	1490	55.5	9.213	54.082	B2700	14D30-	3	122
569	52.6	2.4	1500	52.6	9.564	57.074	B1500	14D30-	3	81
592	50.5	3.9	1636	50.5	9.213	59.393	B2700	14D30-	3	122
641	46.7	2.1	1500	45.1	11.040	64.221	B1500	14D30-	3	81

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
643	46.5	1.2	820	39.7	9.212	64.468	B820	14D30-	3	51
643	46.5	3.8	1775	41.7	17.270	64.452	B2700	14D30-	3	122
718	41.7	3.4	1982	39.7	15.366	71.951	B2700	14D30-	3	122
767	39.0	3.1	2117	39.0	10.709	76.862	B2700	14D30-	3	122
784	38.2	5.0	2166	38.2	16.291	78.619	B4300	14D30-	3	184
847	35.3	2.6	2340	35.3	10.023	84.940	B2700	14D30-	3	122
930	32.2	2.6	2570	32.2	10.004	93.283	B2700	14D30-	3	122
972	30.8	2.5	2685	30.8	12.557	97.481	B2700	14D30-	3	122
1021	29.3	1.3	1500	29.3	9.705	102.396	B1500	14D30-	3	81
1062	28.2	3.7	2934	28.2	13.060	106.517	B4300	14D30-	3	184
1068	28.0	2.3	2700	28.0	12.542	107.056	B2700	14D30-	3	122
1181	25.3	2.3	2700	25.3	9.213	118.370	B2700	14D30-	3	122
1252	23.9	1.2	1500	23.9	9.213	125.498	B1500	14D30-	3	81
1290	23.2	3.3	3563	23.2	9.213	129.342	B4300	14D30-	3	184
1297	23.1	2.1	2700	23.1	9.213	129.996	B2700	14D30-	3	122
1528	19.6	1.8	2700	19.6	10.299	153.185	B2700	14D30-	3	122
1669	17.9	2.6	4300	17.9	10.503	167.383	B4300	14D30-	3	184
1678	17.8	1.6	2700	17.8	10.293	168.230	B2700	14D30-	3	122
1854	16.1	1.5	2700	16.1	9.726	185.911	B2700	14D30-	3	122
2026	14.8	2.1	4300	14.8	9.864	203.143	B4300	14D30-	3	184
2036	14.7	1.3	2700	14.7	9.722	204.170	B2700	14D30-	3	122
2984	9.9	1.4	4300	9.9	9.086	304.333	B4300	14D30-	4	187
3623	8.1	1.2	4300	8.1	8.938	369.548	B4300	14D30-	4	187



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
36.0	947	3.0	98.0	763	10.272	3.565	B240	12H34-	2	21
49.0	690	2.3	135	621	9.044	4.889	B240	12H34-	2	21
49.0	681	4.2	137	497	18.822	4.958	B820	12H34-	3	48
50.0	675	3.4	138	558	11.660	5.002	B450	12H34-	3	24
51.0	666	4.2	140	487	14.031	5.067	B600	12H34-	3	43
62.0	539	1.9	156	511	8.451	6.257	B240	12H34-	2	21
68.0	496	3.5	187	405	14.011	6.800	B820	12H34-	3	48
68.0	492	2.8	189	461	9.782	6.860	B450	12H34-	3	24
69.0	486	3.5	191	397	11.463	6.949	B600	12H34-	3	43
78.0	432	1.8	187	305	8.813	7.817	B240	12H34-	2	21
85.0	396	4.1	235	289	16.371	8.517	B820	12H34-	3	48
95.0	355	2.8	262	332	11.061	9.520	B820	12H34-	3	48
103	327	2.8	285	261	10.360	10.328	B450	12H34-	3	24
107	315	1.5	204	232	8.268	10.720	B240	12H34-	2	21
107	314	3.9	296	226	12.418	10.741	B600	12H34-	3	43
116	289	3.5	322	236	12.707	11.680	B820	12H34-	3	48
121	278	2.4	334	278	9.820	12.143	B820	12H34-	3	48
131	257	3.5	361	209	14.961	13.118	B1500	12H34-	3	78
137	246	1.2	217	188	7.977	13.719	B240	12H34-	2	21
141	238	2.3	390	214	9.091	14.165	B450	12H34-	3	24
147	229	3.1	406	183	10.606	14.730	B600	12H34-	3	43
150	225	1.1	223	176	7.886	15.008	B240	12H34-	2	21
163	206	2.8	450	194	10.396	16.352	B820	12H34-	3	48
188	179	2.4	519	157	9.588	18.851	B600	12H34-	3	43
198	170	1.7	450	160	8.306	19.831	B450	12H34-	3	24
204	165	3.7	563	130	15.331	20.444	B1500	12H34-	3	78
206	164	2.2	568	146	9.323	20.622	B600	12H34-	3	43
208	162	2.4	575	162	9.411	20.857	B820	12H34-	3	48
228	147	3.5	631	120	13.915	22.898	B1500	12H34-	3	78
252	133	1.4	450	133	7.978	25.294	B450	12H34-	3	24
253	133	3.7	699	105	29.470	25.365	B4300	12H34-	3	181
255	132	2.0	676	132	8.853	25.550	B820	12H34-	3	48
260	130	1.8	600	74.8	10.182	26.061	B600	12H34-	3	43
263	128	2.4	725	82.7	10.377	26.324	B820	12H34-	3	48
267	126	3.7	739	99.4	19.488	26.814	B2700	12H34-	3	119
291	116	2.9	805	106	11.594	29.206	B1500	12H34-	3	78
294	115	3.7	811	90.5	19.299	29.447	B2700	12H34-	3	119
309	109	1.1	450	109	7.794	30.985	B450	12H34-	3	24
356	94.4	1.3	600	53.9	9.417	35.740	B600	12H34-	3	43
357	94.3	2.5	986	92.1	10.510	35.778	B1500	12H34-	3	78
360	93.5	1.7	820	62.6	9.520	36.102	B820	12H34-	3	48
418	80.5	1.2	600	80.5	7.976	41.940	B600	12H34-	3	43
448	75.1	2.9	1238	56.4	12.569	44.955	B1500	12H34-	3	78
456	73.8	1.1	600	45.8	8.862	45.739	B600	12H34-	3	43
464	72.5	2.3	1223	72.5	9.438	46.568	B1500	12H34-	3	78
488	69.0	2.8	1347	68.4	12.768	48.912	B2700	12H34-	3	119
499	67.5	1.0	600	42.3	8.717	50.036	B600	12H34-	3	43
504	66.8	1.4	820	48.4	8.770	50.543	B820	12H34-	3	48
539	62.4	2.4	1490	62.4	8.413	54.082	B2700	12H34-	3	119
569	59.1	2.0	1282	59.1	8.764	57.074	B1500	12H34-	3	78
592	56.8	2.4	1636	56.8	8.413	59.393	B2700	12H34-	3	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
640	52.6	4.2	1766	42.7	17.898	64.127	B4300	12H34-	3	181
641	52.6	2.0	1500	44.7	10.240	64.221	B1500	12H34-	3	78
643	52.4	1.1	820	39.1	8.412	64.468	B820	12H34-	3	48
643	52.4	3.6	1775	41.3	16.470	64.452	B2700	12H34-	3	119
748	45.0	1.5	1318	45.0	8.206	74.963	B1500	12H34-	3	78
767	43.9	1.9	1700	43.9	9.909	76.862	B2700	12H34-	3	119
847	39.7	1.6	1568	39.7	9.223	84.940	B2700	12H34-	3	119
907	37.1	1.3	1333	37.1	7.958	90.978	B1500	12H34-	3	78
930	36.2	1.6	1722	36.2	9.204	93.283	B2700	12H34-	3	119
972	34.6	2.4	2685	33.3	11.757	97.481	B2700	12H34-	3	119
1021	33.0	1.3	1500	29.9	8.905	102.396	B1500	12H34-	3	78
1062	31.7	2.8	2934	31.4	12.260	106.517	B4300	12H34-	3	181
1068	31.5	2.2	2700	29.8	11.742	107.056	B2700	12H34-	3	119
1181	28.5	2.2	2700	28.5	8.413	118.370	B2700	12H34-	3	119
1252	26.9	1.2	1500	26.8	8.413	125.498	B1500	12H34-	3	78
1290	26.1	2.7	3563	26.1	8.413	129.342	B4300	12H34-	3	181
1297	26.0	2.0	2700	26.0	8.413	129.996	B2700	12H34-	3	119
1528	22.0	1.7	2700	22.0	9.499	153.185	B2700	12H34-	3	119
1669	20.2	2.1	3703	20.2	9.703	167.383	B4300	12H34-	3	181
1678	20.1	1.6	2700	20.1	9.493	168.230	B2700	12H34-	3	119
1854	18.2	1.4	2700	18.2	8.926	185.911	B2700	12H34-	3	119
2026	16.6	1.8	3749	16.6	9.064	203.143	B4300	12H34-	3	181
2036	16.5	1.3	2700	16.5	8.922	204.170	B2700	12H34-	3	119
2200	15.0	1.9	4300	15.0	8.431	224.446	B4300	12H34-	4	184
2212	15.0	1.2	2700	15.0	8.314	225.581	B2700	12H34-	4	122
2344	14.4	1.1	2700	14.4	8.380	235.000	B2700	12H34-	3	119
2561	13.1	1.4	3798	13.1	8.467	256.781	B4300	12H34-	3	181
2574	13.1	1.0	2700	13.1	8.378	258.080	B2700	12H34-	3	119
2984	11.1	1.4	4300	11.1	8.286	304.333	B4300	12H34-	4	184
3623	9.1	1.1	4300	9.1	8.138	369.548	B4300	12H34-	4	184



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
144	272	2.2	312	272	34.922	4.958	B820	14L14-	3	60
145	270	1.9	280	270	27.760	5.002	B450	14L14-	3	37
147	266	2.6	371	266	30.131	5.067	B600	14L14-	3	55
197	199	2.0	391	199	30.111	6.800	B820	14L14-	3	60
199	197	1.6	308	197	25.882	6.860	B450	14L14-	3	37
199	197	3.4	503	197	45.352	6.866	B1500	14L14-	3	90
201	194	2.0	398	194	27.563	6.949	B600	14L14-	3	55
247	159	1.9	459	159	32.471	8.517	B820	14L14-	3	60
265	147	3.2	671	147	73.053	9.156	B4300	14L14-	3	194
276	142	3.0	697	142	36.464	9.516	B1500	14L14-	3	90
276	142	1.8	496	142	27.161	9.520	B820	14L14-	3	60
299	131	1.3	384	131	26.460	10.328	B450	14L14-	3	37
311	126	1.7	541	126	28.518	10.741	B600	14L14-	3	55
338	116	1.7	569	116	28.807	11.680	B820	14L14-	3	60
347	113	3.4	878	113	41.532	11.985	B1500	14L14-	3	90
352	111	1.6	544	111	25.920	12.143	B820	14L14-	3	60
380	103	2.4	923	103	31.061	13.118	B1500	14L14-	3	90
410	95.3	1.0	422	95.3	25.191	14.165	B450	14L14-	3	37
427	91.6	1.4	600	91.6	26.706	14.730	B600	14L14-	3	55
474	82.6	1.5	708	82.6	26.496	16.352	B820	14L14-	3	60
481	81.3	3.0	1217	81.3	34.475	16.611	B1500	14L14-	3	90
536	73.0	3.2	1354	73.0	61.939	18.486	B4300	14L14-	3	194
546	71.6	1.1	600	71.6	25.688	18.851	B600	14L14-	3	55
566	69.1	3.2	1431	69.1	43.148	19.542	B2700	14L14-	3	132
592	66.0	2.5	1497	66.0	31.431	20.444	B1500	14L14-	3	90
597	65.5	1.0	600	65.5	25.423	20.622	B600	14L14-	3	55
604	64.7	1.4	820	64.7	25.511	20.857	B820	14L14-	3	60
610	64.1	3.0	1543	64.1	53.759	21.065	B4300	14L14-	3	194
645	60.6	3.0	1631	60.6	39.287	22.269	B2700	14L14-	3	132
663	59.0	2.3	1500	59.0	30.015	22.898	B1500	14L14-	3	90
709	55.2	3.0	1791	55.2	39.013	24.456	B2700	14L14-	3	132
735	53.2	2.6	1858	53.2	45.570	25.365	B4300	14L14-	3	194
740	52.8	1.1	820	52.8	24.953	25.550	B820	14L14-	3	60
763	51.3	1.1	820	51.3	26.477	26.324	B820	14L14-	3	60
763	51.2	2.0	1500	51.2	33.493	26.353	B1500	14L14-	3	90
777	50.3	2.6	1964	50.3	35.588	26.814	B2700	14L14-	3	132
846	46.2	1.8	1500	46.2	27.694	29.206	B1500	14L14-	3	90
853	45.8	2.6	2157	45.8	35.399	29.447	B2700	14L14-	3	132
901	43.4	2.2	2001	43.4	39.289	31.097	B4300	14L14-	3	194
952	41.1	2.2	2115	41.1	32.648	32.873	B2700	14L14-	3	132
1037	37.7	1.5	1500	37.7	26.610	35.778	B1500	14L14-	3	90
1046	37.4	2.2	2323	37.4	32.522	36.102	B2700	14L14-	3	132
1058	37.0	1.4	1500	37.0	30.290	36.526	B1500	14L14-	3	90
1239	31.6	2.2	2700	31.6	37.539	42.772	B2700	14L14-	3	132
1302	30.0	1.2	1500	30.0	28.669	44.955	B1500	14L14-	3	90
1349	29.0	1.1	1500	29.0	25.538	46.568	B1500	14L14-	3	90
1354	28.9	3.2	3423	28.9	40.155	46.737	B4300	14L14-	3	194
1361	28.7	2.0	2700	28.7	37.465	46.973	B2700	14L14-	3	132
1417	27.6	1.7	2460	27.6	28.868	48.912	B2700	14L14-	3	132
1543	25.3	2.8	3900	25.3	36.983	53.258	B4300	14L14-	3	194
1567	25.0	1.5	2327	25.0	24.513	54.082	B2700	14L14-	3	132

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
1721	22.7	1.5	2556	22.7	24.513	59.393	B2700	14L14-	3	132
1858	21.1	2.3	4300	21.1	33.998	64.127	B4300	14L14-	3	194
1867	20.9	1.5	2700	20.9	32.570	64.452	B2700	14L14-	3	132
2084	18.8	1.3	2700	18.8	30.666	71.951	B2700	14L14-	3	132
2227	17.6	1.2	2650	17.6	26.009	76.862	B2700	14L14-	3	132
2278	17.2	1.9	4300	17.2	31.591	78.619	B4300	14L14-	3	194
3086	12.7	1.4	4300	12.7	28.360	106.517	B4300	14L14-	3	194
3747	10.4	1.2	4300	10.4	24.513	129.342	B4300	14L14-	3	194



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
198	212	1.6	312	212	46.222	4.958	B820	14P11-	3	65
200	210	1.4	280	210	39.060	5.002	B450	14P11-	3	42
202	207	1.9	376	207	41.431	5.067	B600	14P11-	3	60
271	154	1.4	391	154	41.411	6.800	B820	14P11-	3	65
274	153	1.1	308	153	37.182	6.860	B450	14P11-	3	42
274	153	2.5	670	153	56.652	6.866	B1500	14P11-	3	95
277	151	1.4	398	151	38.863	6.949	B600	14P11-	3	60
340	123	1.4	459	123	43.771	8.517	B820	14P11-	3	65
365	115	2.3	855	115	84.353	9.156	B4300	14P11-	3	199
380	110	1.3	496	110	38.461	9.520	B820	14P11-	3	65
380	110	2.2	822	110	47.764	9.516	B1500	14P11-	3	95
428	97.8	1.3	541	97.8	39.818	10.741	B600	14P11-	3	60
466	89.9	1.2	569	89.9	40.107	11.680	B820	14P11-	3	65
478	87.6	2.5	1170	87.6	52.832	11.985	B1500	14P11-	3	95
484	86.5	1.1	544	86.5	37.220	12.143	B820	14P11-	3	65
523	80.0	1.8	923	80.0	42.361	13.118	B1500	14P11-	3	95
588	71.3	1.0	600	71.3	38.006	14.730	B600	14P11-	3	60
652	64.2	1.1	708	64.2	37.796	16.352	B820	14P11-	3	65
663	63.2	2.2	1435	63.2	45.775	16.611	B1500	14P11-	3	95
737	56.8	2.3	1727	56.8	73.239	18.486	B4300	14P11-	3	199
780	53.7	2.3	1826	53.7	54.448	19.542	B2700	14P11-	3	137
816	51.4	1.8	1500	51.4	42.731	20.444	B1500	14P11-	3	95
840	49.8	2.1	1802	49.8	65.059	21.065	B4300	14P11-	3	199
888	47.2	2.1	1905	47.2	50.587	22.269	B2700	14P11-	3	137
913	45.9	1.6	1500	45.9	41.315	22.898	B1500	14P11-	3	95
976	42.9	2.1	2092	42.9	50.313	24.456	B2700	14P11-	3	137
1012	41.4	1.9	1901	41.4	56.870	25.365	B4300	14P11-	3	199
1051	39.8	1.4	1500	39.8	44.793	26.353	B1500	14P11-	3	95
1070	39.2	1.9	2010	39.2	46.888	26.814	B2700	14P11-	3	137
1165	36.0	1.3	1500	36.0	38.994	29.206	B1500	14P11-	3	95
1175	35.7	1.9	2207	35.7	46.699	29.447	B2700	14P11-	3	137
1241	33.8	1.6	2001	33.8	50.589	31.097	B4300	14P11-	3	199
1311	31.9	1.6	2115	31.9	43.948	32.873	B2700	14P11-	3	137
1427	29.3	1.1	1500	29.3	37.910	35.778	B1500	14P11-	3	95
1440	29.1	1.6	2323	29.1	43.822	36.102	B2700	14P11-	3	137
1457	28.7	1.0	1500	28.7	41.590	36.526	B1500	14P11-	3	95
1706	24.5	1.6	2700	24.5	48.839	42.772	B2700	14P11-	3	137
1865	22.5	2.3	4300	22.5	51.455	46.737	B4300	14P11-	3	199
1874	22.4	1.4	2700	22.4	48.765	46.973	B2700	14P11-	3	137
1951	21.5	1.3	2460	21.5	40.168	48.912	B2700	14P11-	3	137
2125	19.7	2.0	4300	19.7	48.283	53.258	B4300	14P11-	3	199
2158	19.4	1.1	2327	19.4	35.813	54.082	B2700	14P11-	3	137
2369	17.7	1.1	2556	17.7	35.813	59.393	B2700	14P11-	3	137
2558	16.4	1.7	4300	16.4	45.298	64.127	B4300	14P11-	3	199
2571	16.3	1.1	2700	16.3	43.870	64.452	B2700	14P11-	3	137
3136	13.4	1.4	4300	13.4	42.891	78.619	B4300	14P11-	3	199
4249	9.9	1.0	4300	9.9	39.660	106.517	B4300	14P11-	3	199

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



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
198	219	5.3	448	219	190.776	5.488	B4300	19F12-	3	199
248	175	3.4	561	175	86.952	6.866	B1500	19F12-	3	96
250	174	5.3	565	174	114.215	6.918	B2700	19F12-	3	137
252	172	4.8	570	172	146.324	6.976	B4300	19F12-	3	199
317	137	4.8	718	137	98.939	8.793	B2700	19F12-	3	137
330	131	4.0	748	131	114.653	9.156	B4300	19F12-	3	199
343	126	2.9	777	126	78.064	9.516	B1500	19F12-	3	96
400	108	5.3	905	108	159.840	11.080	B4300	19F12-	3	199
423	103	5.2	957	103	107.531	11.713	B2700	19F12-	3	137
433	100	3.4	979	100	83.132	11.985	B1500	19F12-	3	96
464	93.3	4.9	1051	93.3	106.539	12.863	B2700	19F12-	3	137
473	91.5	2.4	1072	91.5	72.661	13.118	B1500	19F12-	3	96
508	85.2	4.8	1150	85.2	127.177	14.084	B4300	19F12-	3	199
537	80.6	4.4	1216	80.6	94.802	14.888	B2700	19F12-	3	137
590	73.4	4.1	1336	73.4	94.188	16.351	B2700	19F12-	3	137
600	72.2	2.5	1357	72.2	76.075	16.611	B1500	19F12-	3	96
667	64.9	4.0	1510	64.9	103.539	18.486	B4300	19F12-	3	199
705	61.4	3.7	1596	61.4	84.748	19.542	B2700	19F12-	3	137
738	58.7	2.0	1500	58.7	73.031	20.444	B1500	19F12-	3	96
760	57.0	3.7	1721	57.0	95.359	21.065	B4300	19F12-	3	199
804	53.9	3.3	1819	53.9	80.887	22.269	B2700	19F12-	3	137
826	52.4	1.8	1500	52.4	71.615	22.898	B1500	19F12-	3	96
883	49.1	3.1	1998	49.1	80.613	24.456	B2700	19F12-	3	137
916	47.3	3.2	2072	47.3	87.170	25.365	B4300	19F12-	3	199
951	45.5	1.6	1500	45.5	75.093	26.353	B1500	19F12-	3	96
968	44.8	2.8	2190	44.8	77.188	26.814	B2700	19F12-	3	137
1011	42.8	4.3	2288	42.8	99.200	28.013	B4300	19F12-	3	199
1063	40.8	2.5	2405	40.8	76.999	29.447	B2700	19F12-	3	137
1122	38.6	2.8	2540	38.6	80.889	31.097	B4300	19F12-	3	199
1187	36.5	2.3	2685	36.5	74.248	32.873	B2700	19F12-	3	137
1285	33.7	3.4	2909	33.7	89.646	35.607	B4300	19F12-	3	199
1303	33.2	2.1	2700	33.2	74.122	36.102	B2700	19F12-	3	137
1318	32.9	1.1	1500	32.9	71.890	36.526	B1500	19F12-	3	96
1544	28.1	1.8	2700	28.1	79.139	42.772	B2700	19F12-	3	137
1687	25.7	2.6	3818	25.7	81.755	46.737	B4300	19F12-	3	199
1695	25.5	1.6	2700	25.5	79.065	46.973	B2700	19F12-	3	137
1922	22.5	2.2	4300	22.5	78.583	53.258	B4300	19F12-	3	199
2315	18.7	1.9	4300	18.7	75.598	64.127	B4300	19F12-	3	199
2326	18.6	1.2	2700	18.6	74.170	64.452	B2700	19F12-	3	137
2597	16.7	1.0	2700	16.7	72.266	71.951	B2700	19F12-	3	137
2838	15.3	1.5	4300	15.3	73.191	78.619	B4300	19F12-	3	199



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
47.0	1094	2.1	138	709	13.572	3.565	B240	12L39-	2	24
65.0	798	1.6	147	542	12.344	4.889	B240	12L39-	2	24
66.0	787	3.0	266	463	22.122	4.958	B820	12L39-	3	51
67.0	780	2.4	221	520	14.960	5.002	B450	12L39-	3	28
67.0	770	3.0	271	453	17.331	5.067	B600	12L39-	3	46
83.0	623	1.4	156	433	11.751	6.257	B240	12L39-	2	24
90.0	574	2.5	310	377	17.311	6.800	B820	12L39-	3	51
91.0	569	2.0	253	430	13.082	6.860	B450	12L39-	3	28
92.0	561	2.5	317	369	14.763	6.949	B600	12L39-	3	46
104	499	1.3	187	256	12.113	7.817	B240	12L39-	2	24
113	458	3.0	456	268	19.671	8.517	B820	12L39-	3	51
127	410	2.0	349	310	14.361	9.520	B820	12L39-	3	51
137	378	2.0	384	242	13.660	10.328	B450	12L39-	3	28
143	364	1.0	204	197	11.568	10.720	B240	12L39-	2	24
143	363	2.8	541	210	15.718	10.741	B600	12L39-	3	46
155	334	2.5	532	220	16.007	11.680	B820	12L39-	3	51
161	321	1.7	374	250	13.120	12.143	B820	12L39-	3	51
174	297	2.5	594	195	18.261	13.118	B1500	12L39-	3	81
188	275	1.6	422	186	12.391	14.165	B450	12L39-	3	28
196	265	2.2	600	170	13.906	14.730	B600	12L39-	3	46
217	239	2.0	599	180	13.696	16.352	B820	12L39-	3	51
251	207	1.7	600	139	12.888	18.851	B600	12L39-	3	46
264	197	1.2	450	138	11.606	19.831	B450	12L39-	3	28
272	191	2.6	978	121	18.631	20.444	B1500	12L39-	3	81
274	189	1.6	600	126	12.623	20.622	B600	12L39-	3	46
277	187	1.7	643	146	12.711	20.857	B820	12L39-	3	51
304	170	2.5	1036	112	17.215	22.898	B1500	12L39-	3	81
337	154	2.6	1215	97.5	32.770	25.365	B4300	12L39-	3	184
340	153	1.5	676	129	12.153	25.550	B820	12L39-	3	51
347	150	1.3	600	62.4	13.482	26.061	B600	12L39-	3	46
350	148	1.7	820	72.6	13.677	26.324	B820	12L39-	3	51
357	145	2.6	1284	92.3	22.788	26.814	B2700	12L39-	3	122
388	134	2.1	1113	98.9	14.894	29.206	B1500	12L39-	3	81
392	132	2.6	1410	84.0	22.599	29.447	B2700	12L39-	3	122
476	109	1.8	1171	83.4	13.810	35.778	B1500	12L39-	3	81
480	108	1.2	820	52.4	12.820	36.102	B820	12L39-	3	51
598	86.8	2.1	1500	52.1	15.869	44.955	B1500	12L39-	3	81
619	83.7	1.6	1223	74.4	12.738	46.568	B1500	12L39-	3	81
650	79.7	2.0	1575	64.0	16.068	48.912	B2700	12L39-	3	122
672	77.2	1.0	820	41.3	12.070	50.543	B820	12L39-	3	51
719	72.1	1.7	1492	63.3	11.713	54.082	B2700	12L39-	3	122
759	68.3	1.4	1282	63.8	12.064	57.074	B1500	12L39-	3	81
790	65.7	1.7	1639	57.7	11.713	59.393	B2700	12L39-	3	122
853	60.8	3.0	3071	39.7	21.198	64.127	B4300	12L39-	3	184
854	60.7	1.5	1500	37.3	13.540	64.221	B1500	12L39-	3	81
857	60.5	2.6	2700	38.3	19.770	64.452	B2700	12L39-	3	122
997	52.0	1.1	1318	52.0	11.506	74.963	B1500	12L39-	3	81
1022	50.7	1.4	1700	46.9	13.209	76.862	B2700	12L39-	3	122
1130	45.9	1.2	1568	45.5	12.523	84.940	B2700	12L39-	3	122
1240	41.8	1.2	1722	41.4	12.504	93.283	B2700	12L39-	3	122
1296	40.0	1.7	2700	29.8	15.057	97.481	B2700	12L39-	3	122

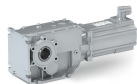
Technical data

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
1416	36.6	2.0	3430	29.4	15.560	106.517	B4300	12L39-	3	184
1424	36.4	1.6	2700	25.8	15.042	107.056	B2700	12L39-	3	122
1574	32.9	1.6	2700	27.6	11.713	118.370	B2700	12L39-	3	122
1720	30.2	1.9	3569	28.1	11.713	129.342	B4300	12L39-	3	184
1729	30.0	1.4	2700	23.9	11.713	129.996	B2700	12L39-	3	122
2037	25.5	1.2	2700	22.3	12.799	153.185	B2700	12L39-	3	122
2226	23.3	1.5	3703	22.5	13.003	167.383	B4300	12L39-	3	184
2237	23.2	1.1	2700	19.6	12.793	168.230	B2700	12L39-	3	122
2472	21.0	1.0	2700	19.9	12.226	185.911	B2700	12L39-	3	122
2701	19.2	1.3	3749	19.2	12.364	203.143	B4300	12L39-	3	184
2934	17.4	1.3	4300	17.4	11.731	224.446	B4300	12L39-	4	187
3415	15.2	1.0	3798	15.2	11.767	256.781	B4300	12L39-	3	184



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
97.0	560	2.6	258	449	25.722	4.958	B820	14H28-	3	56
97.0	555	2.3	260	517	18.560	5.002	B450	14H28-	3	32
99.0	548	3.1	264	456	20.931	5.067	B600	14H28-	3	51
132	408	2.4	354	374	20.911	6.800	B820	14H28-	3	56
134	405	1.9	308	405	16.682	6.860	B450	14H28-	3	32
134	404	4.1	357	305	36.152	6.866	B1500	14H28-	3	86
135	399	2.4	362	366	18.363	6.949	B600	14H28-	3	51
166	326	2.3	443	252	23.271	8.517	B820	14H28-	3	56
178	303	3.9	477	238	63.853	9.156	B4300	14H28-	3	189
185	292	3.6	495	247	27.264	9.516	B1500	14H28-	3	86
185	292	2.2	496	292	17.961	9.520	B820	14H28-	3	56
201	269	1.6	384	211	17.260	10.328	B450	14H28-	3	32
209	258	2.1	541	197	19.318	10.741	B600	14H28-	3	51
227	238	2.0	569	210	19.607	11.680	B820	14H28-	3	56
233	232	4.1	624	175	32.332	11.985	B1500	14H28-	3	86
236	229	1.9	544	229	16.720	12.143	B820	14H28-	3	56
255	212	2.9	683	202	21.861	13.118	B1500	14H28-	3	86
276	196	1.3	422	162	15.991	14.165	B450	14H28-	3	32
287	188	1.7	600	152	17.506	14.730	B600	14H28-	3	51
318	170	1.8	708	170	17.296	16.352	B820	14H28-	3	56
323	167	3.6	865	142	25.275	16.611	B1500	14H28-	3	86
360	150	3.9	962	118	52.739	18.486	B4300	14H28-	3	189
367	147	1.3	600	120	16.488	18.851	B600	14H28-	3	51
381	142	3.9	1017	112	33.948	19.542	B2700	14H28-	3	127
398	136	3.1	1064	126	22.231	20.444	B1500	14H28-	3	86
402	135	1.2	600	110	16.223	20.622	B600	14H28-	3	51
406	133	1.6	820	133	16.311	20.857	B820	14H28-	3	56
410	132	3.6	1097	111	44.559	21.065	B4300	14H28-	3	189
434	125	3.6	1159	105	30.087	22.269	B2700	14H28-	3	127
446	121	2.7	1192	114	20.815	22.898	B1500	14H28-	3	86
476	114	3.6	1273	95.8	29.813	24.456	B2700	14H28-	3	127
494	109	3.1	1320	102	36.370	25.365	B4300	14H28-	3	189
498	109	1.3	820	109	15.753	25.550	B820	14H28-	3	56
513	105	1.3	820	62.8	17.277	26.324	B820	14H28-	3	56
513	105	2.4	1372	69.8	24.293	26.353	B1500	14H28-	3	86
522	104	3.1	1396	96.1	26.388	26.814	B2700	14H28-	3	127
569	95.0	2.2	1500	95.0	18.494	29.206	B1500	14H28-	3	86
573	94.2	3.1	1533	87.5	26.199	29.447	B2700	14H28-	3	127
606	89.2	2.7	1619	87.5	30.089	31.097	B4300	14H28-	3	189
640	84.4	2.7	1711	82.8	23.448	32.873	B2700	14H28-	3	127
697	77.6	1.8	1500	77.6	17.410	35.778	B1500	14H28-	3	86
703	76.9	2.7	1879	75.4	23.322	36.102	B2700	14H28-	3	127
711	76.0	1.7	1500	51.5	21.090	36.526	B1500	14H28-	3	86
833	64.9	3.0	2226	48.1	28.339	42.772	B2700	14H28-	3	127
875	61.7	1.6	1500	45.2	19.469	44.955	B1500	14H28-	3	86
907	59.6	1.5	1500	59.6	16.338	46.568	B1500	14H28-	3	86
910	59.4	4.4	2433	47.8	30.955	46.737	B4300	14H28-	3	189
915	59.1	2.7	2445	42.9	28.265	46.973	B2700	14H28-	3	127
952	56.7	2.4	2460	56.7	19.668	48.912	B2700	14H28-	3	127
1037	52.1	3.8	2772	44.7	27.783	53.258	B4300	14H28-	3	189
1053	51.3	2.1	2327	51.3	15.313	54.082	B2700	14H28-	3	127

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
1111	48.6	1.3	1500	48.6	15.664	57.074	B1500	14H28-	3	86
1157	46.7	2.1	2556	46.7	15.313	59.393	B2700	14H28-	3	127
1249	43.3	3.2	3338	40.3	24.798	64.127	B4300	14H28-	3	189
1251	43.2	1.1	1500	32.6	17.140	64.221	B1500	14H28-	3	86
1255	43.1	2.0	2700	36.1	23.370	64.452	B2700	14H28-	3	127
1401	38.6	1.8	2700	33.5	21.466	71.951	B2700	14H28-	3	127
1497	36.1	1.6	2650	36.1	16.809	76.862	B2700	14H28-	3	127
1531	35.3	2.6	4092	34.4	22.391	78.619	B4300	14H28-	3	189
1654	32.7	1.4	2441	32.7	16.123	84.940	B2700	14H28-	3	127
1816	29.7	1.4	2681	29.7	16.104	93.283	B2700	14H28-	3	127
1898	28.5	1.3	2700	26.1	18.657	97.481	B2700	14H28-	3	127
2074	26.1	1.9	4300	26.1	19.160	106.517	B4300	14H28-	3	189
2085	25.9	1.2	2700	22.8	18.642	107.056	B2700	14H28-	3	127
2305	23.4	1.2	2700	23.4	15.313	118.370	B2700	14H28-	3	127
2519	21.5	1.7	4300	21.5	15.313	129.342	B4300	14H28-	3	189
2531	21.3	1.1	2700	20.7	15.313	129.996	B2700	14H28-	3	127
3259	16.6	1.3	4300	16.6	16.603	167.383	B4300	14H28-	3	189
3956	13.7	1.1	4300	13.7	15.964	203.143	B4300	14H28-	3	189



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
326	219	3.2	672	219	230.776	5.488	B4300	19J12-	3	206
408	175	2.1	837	175	126.952	6.866	B1500	19J12-	3	103
411	174	3.2	848	174	154.215	6.918	B2700	19J12-	3	144
414	172	2.9	855	172	186.324	6.976	B4300	19J12-	3	206
522	137	2.9	1077	137	138.939	8.793	B2700	19J12-	3	144
544	131	2.4	1122	131	154.653	9.156	B4300	19J12-	3	206
565	126	1.8	1006	126	118.064	9.516	B1500	19J12-	3	103
658	108	3.2	1358	108	199.840	11.080	B4300	19J12-	3	206
695	103	3.2	1435	103	147.531	11.713	B2700	19J12-	3	144
711	100	2.1	1461	100	123.132	11.985	B1500	19J12-	3	103
764	93.3	3.0	1576	93.3	146.539	12.863	B2700	19J12-	3	144
779	91.5	1.4	1118	91.5	112.661	13.118	B1500	19J12-	3	103
836	85.2	2.9	1726	85.2	167.177	14.084	B4300	19J12-	3	206
884	80.6	2.7	1824	80.6	134.802	14.888	B2700	19J12-	3	144
971	73.4	2.5	2003	73.4	134.188	16.351	B2700	19J12-	3	144
986	72.2	1.5	1500	72.2	116.075	16.611	B1500	19J12-	3	103
1097	64.9	2.4	2265	64.9	143.539	18.486	B4300	19J12-	3	206
1160	61.4	2.2	2395	61.4	124.748	19.542	B2700	19J12-	3	144
1214	58.7	1.2	1500	58.7	113.031	20.444	B1500	19J12-	3	103
1251	57.0	2.2	2581	57.0	135.359	21.065	B4300	19J12-	3	206
1322	53.9	2.0	2684	53.9	120.887	22.269	B2700	19J12-	3	144
1359	52.4	1.1	1500	52.4	111.615	22.898	B1500	19J12-	3	103
1452	49.1	1.9	2700	49.1	120.613	24.456	B2700	19J12-	3	144
1506	47.3	2.0	2954	47.3	127.170	25.365	B4300	19J12-	3	206
1592	44.8	1.7	2700	44.8	117.188	26.814	B2700	19J12-	3	144
1663	42.8	2.6	3432	42.8	139.200	28.013	B4300	19J12-	3	206
1748	40.8	1.5	2700	40.8	116.999	29.447	B2700	19J12-	3	144
1846	38.6	1.7	3110	38.6	120.889	31.097	B4300	19J12-	3	206
1952	36.5	1.4	2700	36.5	114.248	32.873	B2700	19J12-	3	144
2114	33.7	2.0	4300	33.7	129.646	35.607	B4300	19J12-	3	206
2143	33.2	1.3	2700	33.2	114.122	36.102	B2700	19J12-	3	144
2539	28.1	1.1	2700	28.1	119.139	42.772	B2700	19J12-	3	144
2775	25.7	1.6	4300	25.7	121.755	46.737	B4300	19J12-	3	206
3162	22.5	1.4	4300	22.5	118.583	53.258	B4300	19J12-	3	206
3807	18.7	1.1	4300	18.7	115.598	64.127	B4300	19J12-	3	206

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
120	605	2.1	312	424	34.922	4.958	B820	14L30-	3	60
121	600	1.8	280	477	27.760	5.002	B450	14L30-	3	37
123	592	2.4	371	432	30.131	5.067	B600	14L30-	3	55
165	441	1.9	391	349	30.111	6.800	B820	14L30-	3	60
166	437	1.5	308	364	25.882	6.860	B450	14L30-	3	37
166	437	3.2	503	288	45.352	6.866	B1500	14L30-	3	90
168	432	1.9	398	340	27.563	6.949	B600	14L30-	3	55
206	352	1.8	459	229	32.471	8.517	B820	14L30-	3	60
222	328	3.1	671	226	73.053	9.156	B4300	14L30-	3	194
230	315	2.8	697	234	36.464	9.516	B1500	14L30-	3	90
231	315	1.7	496	285	27.161	9.520	B820	14L30-	3	60
250	291	1.2	384	187	26.460	10.328	B450	14L30-	3	37
260	279	1.7	541	175	28.518	10.741	B600	14L30-	3	55
283	257	1.6	569	185	28.807	11.680	B820	14L30-	3	60
290	250	3.2	878	165	41.532	11.985	B1500	14L30-	3	90
294	247	1.5	544	234	25.920	12.143	B820	14L30-	3	60
318	229	2.3	923	192	31.061	13.118	B1500	14L30-	3	90
357	204	1.3	600	133	26.706	14.730	B600	14L30-	3	55
396	184	1.4	708	150	26.496	16.352	B820	14L30-	3	60
402	181	2.8	1217	134	34.475	16.611	B1500	14L30-	3	90
448	162	3.1	1354	112	61.939	18.486	B4300	14L30-	3	194
457	159	1.0	600	107	25.688	18.851	B600	14L30-	3	55
473	154	3.1	1431	106	43.148	19.542	B2700	14L30-	3	132
495	147	2.4	1497	119	31.431	20.444	B1500	14L30-	3	90
505	144	1.3	820	129	25.511	20.857	B820	14L30-	3	60
510	142	2.8	1543	105	53.759	21.065	B4300	14L30-	3	194
539	135	2.8	1631	99.7	39.287	22.269	B2700	14L30-	3	132
555	131	2.2	1500	108	30.015	22.898	B1500	14L30-	3	90
592	123	2.8	1791	90.7	39.013	24.456	B2700	14L30-	3	132
614	118	2.5	1858	96.1	45.570	25.365	B4300	14L30-	3	194
619	117	1.1	820	111	24.953	25.550	B820	14L30-	3	60
638	114	1.0	820	56.0	26.477	26.324	B820	14L30-	3	60
638	114	1.9	1500	64.3	33.493	26.353	B1500	14L30-	3	90
649	112	2.5	1964	90.9	35.588	26.814	B2700	14L30-	3	132
707	103	1.7	1500	89.0	27.694	29.206	B1500	14L30-	3	90
713	102	2.5	2157	82.8	35.399	29.447	B2700	14L30-	3	132
753	96.5	2.1	2001	83.0	39.289	31.097	B4300	14L30-	3	194
796	91.3	2.1	2115	78.6	32.648	32.873	B2700	14L30-	3	132
867	83.9	1.4	1500	73.1	26.610	35.778	B1500	14L30-	3	90
874	83.1	2.1	2323	71.5	32.522	36.102	B2700	14L30-	3	132
885	82.1	1.4	1500	45.0	30.290	36.526	B1500	14L30-	3	90
1036	70.1	2.4	2700	45.4	37.539	42.772	B2700	14L30-	3	132
1089	66.7	1.2	1500	39.5	28.669	44.955	B1500	14L30-	3	90
1128	64.4	1.2	1500	63.9	25.538	46.568	B1500	14L30-	3	90
1132	64.2	3.4	3423	45.4	40.155	46.737	B4300	14L30-	3	194
1138	63.9	2.1	2700	40.4	37.465	46.973	B2700	14L30-	3	132
1185	61.3	1.9	2460	61.3	28.868	48.912	B2700	14L30-	3	132
1290	56.3	3.0	3900	42.3	36.983	53.258	B4300	14L30-	3	194
1310	55.5	1.6	2327	55.5	24.513	54.082	B2700	14L30-	3	132
1439	50.5	1.6	2556	50.5	24.513	59.393	B2700	14L30-	3	132
1553	46.8	2.5	4300	38.2	33.998	64.127	B4300	14L30-	3	194



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
1561	46.5	1.6	2700	31.2	32.570	64.452	B2700	14L30-	3	132
1743	41.7	1.4	2700	29.5	30.666	71.951	B2700	14L30-	3	132
1862	39.0	1.3	2650	39.0	26.009	76.862	B2700	14L30-	3	132
1904	38.2	2.0	4300	32.6	31.591	78.619	B4300	14L30-	3	194
2057	35.3	1.1	2441	35.3	25.323	84.940	B2700	14L30-	3	132
2259	32.2	1.1	2681	32.2	25.304	93.283	B2700	14L30-	3	132
2361	30.8	1.0	2700	23.5	27.857	97.481	B2700	14L30-	3	132
2580	28.2	1.5	4300	25.4	28.360	106.517	B4300	14L30-	3	194
3133	23.2	1.4	4300	23.2	24.513	129.342	B4300	14L30-	3	194
4054	17.9	1.1	4300	17.9	25.803	167.383	B4300	14L30-	3	194

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
375	219	2.8	990	219	285.776	5.488	B4300	19P12-	3	216
470	175	1.8	837	175	181.952	6.866	B1500	19P12-	3	113
473	174	2.8	1249	174	209.215	6.918	B2700	19P12-	3	154
477	172	2.5	1201	172	241.324	6.976	B4300	19P12-	3	216
601	137	2.5	1514	137	193.939	8.793	B2700	19P12-	3	154
626	131	2.1	1329	131	209.653	9.156	B4300	19P12-	3	216
651	126	1.6	1006	126	173.064	9.516	B1500	19P12-	3	113
758	108	2.8	2000	108	254.840	11.080	B4300	19P12-	3	216
801	103	2.8	2114	103	202.531	11.713	B2700	19P12-	3	154
820	100	1.8	1461	100	178.132	11.985	B1500	19P12-	3	113
880	93.3	2.6	2262	93.3	201.539	12.863	B2700	19P12-	3	154
897	91.5	1.3	1118	91.5	167.661	13.118	B1500	19P12-	3	113
963	85.2	2.5	2425	85.2	222.177	14.084	B4300	19P12-	3	216
1018	80.6	2.3	2380	80.6	189.802	14.888	B2700	19P12-	3	154
1118	73.4	2.2	2429	73.4	189.188	16.351	B2700	19P12-	3	154
1136	72.2	1.3	1500	72.2	171.075	16.611	B1500	19P12-	3	113
1264	64.9	2.1	2683	64.9	198.539	18.486	B4300	19P12-	3	216
1336	61.4	1.9	2579	61.4	179.748	19.542	B2700	19P12-	3	154
1398	58.7	1.1	1500	58.7	168.031	20.444	B1500	19P12-	3	113
1441	57.0	1.9	2799	57.0	190.359	21.065	B4300	19P12-	3	216
1523	53.9	1.8	2684	53.9	175.887	22.269	B2700	19P12-	3	154
1673	49.1	1.6	2700	49.1	175.613	24.456	B2700	19P12-	3	154
1735	47.3	1.7	2954	47.3	182.170	25.365	B4300	19P12-	3	216
1834	44.8	1.5	2700	44.8	172.188	26.814	B2700	19P12-	3	154
1916	42.8	2.2	4300	42.8	194.200	28.013	B4300	19P12-	3	216
2014	40.8	1.3	2700	40.8	171.999	29.447	B2700	19P12-	3	154
2127	38.6	1.5	3110	38.6	175.889	31.097	B4300	19P12-	3	216
2248	36.5	1.2	2700	36.5	169.248	32.873	B2700	19P12-	3	154
2435	33.7	1.8	4300	33.7	184.646	35.607	B4300	19P12-	3	216
2469	33.2	1.1	2700	33.2	169.122	36.102	B2700	19P12-	3	154
3196	25.7	1.4	4300	25.7	176.755	46.737	B4300	19P12-	3	216
3642	22.5	1.2	4300	22.5	173.583	53.258	B4300	19P12-	3	216

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
155	529	1.7	312	381	46.222	4.958	B820	14P26-	3	65
157	525	1.5	280	425	39.060	5.002	B450	14P26-	3	42
159	518	2.0	376	410	41.431	5.067	B600	14P26-	3	60
213	386	1.5	391	309	41.411	6.800	B820	14P26-	3	65
215	383	1.2	308	327	37.182	6.860	B450	14P26-	3	42
215	382	2.6	670	274	56.652	6.866	B1500	14P26-	3	95
218	378	1.5	398	302	38.863	6.949	B600	14P26-	3	60
267	308	1.4	459	204	43.771	8.517	B820	14P26-	3	65
287	287	2.5	855	215	84.353	9.156	B4300	14P26-	3	199
298	276	2.3	822	223	47.764	9.516	B1500	14P26-	3	95
298	276	1.4	496	254	38.461	9.520	B820	14P26-	3	65
337	244	1.3	541	156	39.818	10.741	B600	14P26-	3	60
366	225	1.3	569	165	40.107	11.680	B820	14P26-	3	65
376	219	2.6	1170	157	52.832	11.985	B1500	14P26-	3	95
381	216	1.2	544	213	37.220	12.143	B820	14P26-	3	65
411	200	1.9	923	179	42.361	13.118	B1500	14P26-	3	95
462	178	1.1	600	120	38.006	14.730	B600	14P26-	3	60
513	161	1.2	708	135	37.796	16.352	B820	14P26-	3	65
521	158	2.3	1435	127	45.775	16.611	B1500	14P26-	3	95
579	142	2.5	1727	106	73.239	18.486	B4300	14P26-	3	199
613	134	2.5	1826	101	54.448	19.542	B2700	14P26-	3	137
641	128	1.9	1500	112	42.731	20.444	B1500	14P26-	3	95
654	126	1.0	820	118	36.811	20.857	B820	14P26-	3	65
660	125	2.3	1802	100	65.059	21.065	B4300	14P26-	3	199
698	118	2.3	1905	94.8	50.587	22.269	B2700	14P26-	3	137
718	115	1.7	1500	98.4	41.315	22.898	B1500	14P26-	3	95
767	107	2.3	2092	86.3	50.313	24.456	B2700	14P26-	3	137
795	104	2.0	1901	91.7	56.870	25.365	B4300	14P26-	3	199
826	99.6	1.5	1500	56.6	44.793	26.353	B1500	14P26-	3	95
840	97.9	2.0	2010	86.7	46.888	26.814	B2700	14P26-	3	137
915	89.9	1.4	1500	79.2	38.994	29.206	B1500	14P26-	3	95
923	89.1	2.0	2207	79.0	46.699	29.447	B2700	14P26-	3	137
975	84.4	1.7	2001	75.5	50.589	31.097	B4300	14P26-	3	199
1030	79.9	1.7	2115	71.4	43.948	32.873	B2700	14P26-	3	137
1121	73.4	1.1	1500	66.5	37.910	35.778	B1500	14P26-	3	95
1132	72.7	1.7	2323	65.1	43.822	36.102	B2700	14P26-	3	137
1145	71.9	1.1	1500	40.4	41.590	36.526	B1500	14P26-	3	95
1341	61.4	1.9	2700	42.6	48.839	42.772	B2700	14P26-	3	137
1409	58.4	1.0	1500	35.6	39.969	44.955	B1500	14P26-	3	95
1465	56.2	2.8	4300	43.2	51.455	46.737	B4300	14P26-	3	199
1472	55.9	1.7	2700	36.8	48.765	46.973	B2700	14P26-	3	137
1533	53.7	1.5	2460	53.7	40.168	48.912	B2700	14P26-	3	137
1669	49.3	2.4	4300	40.3	48.283	53.258	B4300	14P26-	3	199
1695	48.5	1.3	2327	48.5	35.813	54.082	B2700	14P26-	3	137
1862	44.2	1.3	2556	44.2	35.813	59.393	B2700	14P26-	3	137
2010	40.9	2.0	4300	36.3	45.298	64.127	B4300	14P26-	3	199
2020	40.7	1.3	2700	27.7	43.870	64.452	B2700	14P26-	3	137
2255	36.5	1.1	2700	26.7	41.966	71.951	B2700	14P26-	3	137
2409	34.2	1.0	2650	34.2	37.309	76.862	B2700	14P26-	3	137
2464	33.4	1.7	4300	29.3	42.891	78.619	B4300	14P26-	3	199
3339	24.6	1.2	4300	23.0	39.660	106.517	B4300	14P26-	3	199



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
4054	20.3	1.1	4300	20.3	35.813	129.342	B4300	14P26-	3	199

9.7 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
169	519	5.0	448	333	190.776	5.488	B4300	19F29-	3	199
212	415	3.2	561	288	86.952	6.866	B1500	19F29-	3	96
214	412	5.0	565	264	114.215	6.918	B2700	19F29-	3	137
215	409	4.5	570	284	146.324	6.976	B4300	19F29-	3	199
271	324	4.5	718	225	98.939	8.793	B2700	19F29-	3	137
283	311	3.8	748	237	114.653	9.156	B4300	19F29-	3	199
294	300	2.8	777	232	78.064	9.516	B1500	19F29-	3	96
342	257	5.0	905	165	159.840	11.080	B4300	19F29-	3	199
362	243	4.9	957	156	107.531	11.713	B2700	19F29-	3	137
370	238	3.2	979	165	83.132	11.985	B1500	19F29-	3	96
397	222	4.6	1051	139	106.539	12.863	B2700	19F29-	3	137
405	217	2.2	1072	169	72.661	13.118	B1500	19F29-	3	96
435	202	4.5	1150	141	127.177	14.084	B4300	19F29-	3	199
460	191	4.2	1216	131	94.802	14.888	B2700	19F29-	3	137
505	174	3.9	1336	117	94.188	16.351	B2700	19F29-	3	137
513	172	2.4	1357	128	76.075	16.611	B1500	19F29-	3	96
571	154	3.8	1510	117	103.539	18.486	B4300	19F29-	3	199
603	146	3.5	1596	109	84.748	19.542	B2700	19F29-	3	137
631	139	1.9	1500	108	73.031	20.444	B1500	19F29-	3	96
650	135	3.5	1721	105	95.359	21.065	B4300	19F29-	3	199
687	128	3.2	1819	99.3	80.887	22.269	B2700	19F29-	3	137
707	125	1.7	1500	96.5	71.615	22.898	B1500	19F29-	3	96
755	117	2.9	1998	90.4	80.613	24.456	B2700	19F29-	3	137
783	112	3.1	2072	87.2	87.170	25.365	B4300	19F29-	3	199
814	108	1.5	1500	56.2	75.093	26.353	B1500	19F29-	3	96
828	106	2.6	2190	82.4	77.188	26.814	B2700	19F29-	3	137
865	102	4.0	2288	62.0	99.200	28.013	B4300	19F29-	3	199
909	96.8	2.4	2405	75.1	76.999	29.447	B2700	19F29-	3	137
960	91.6	2.6	2540	71.1	80.889	31.097	B4300	19F29-	3	199
1015	86.7	2.2	2685	67.2	74.248	32.873	B2700	19F29-	3	137
1099	80.0	3.2	2909	51.2	89.646	35.607	B4300	19F29-	3	199
1114	78.9	2.0	2700	61.2	74.122	36.102	B2700	19F29-	3	137
1128	78.0	1.1	1500	40.2	71.890	36.526	B1500	19F29-	3	96
1320	66.6	1.9	2700	42.3	79.139	42.772	B2700	19F29-	3	137
1443	61.0	2.7	3818	43.1	81.755	46.737	B4300	19F29-	3	199
1450	60.7	1.7	2700	36.5	79.065	46.973	B2700	19F29-	3	137
1644	53.5	2.4	4300	40.2	78.583	53.258	B4300	19F29-	3	199
1980	44.4	2.0	4300	34.5	75.598	64.127	B4300	19F29-	3	199
1990	44.2	1.2	2700	27.6	74.170	64.452	B2700	19F29-	3	137
2221	39.6	1.1	2700	26.6	72.266	71.951	B2700	19F29-	3	137
2427	36.3	1.6	4300	28.1	73.191	78.619	B4300	19F29-	3	199

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
263	519	3.2	672	301	230.776	5.488	B4300	19J29-	3	206
329	415	2.1	837	258	126.952	6.866	B1500	19J29-	3	103
332	412	3.2	848	239	154.215	6.918	B2700	19J29-	3	144
335	409	2.9	855	256	186.324	6.976	B4300	19J29-	3	206
422	324	2.9	1077	203	138.939	8.793	B2700	19J29-	3	144
439	311	2.4	1122	214	154.653	9.156	B4300	19J29-	3	206
456	300	1.8	1006	202	118.064	9.516	B1500	19J29-	3	103
531	257	3.2	1358	149	199.840	11.080	B4300	19J29-	3	206
562	243	3.2	1435	140	147.531	11.713	B2700	19J29-	3	144
575	238	2.1	1461	148	123.132	11.985	B1500	19J29-	3	103
617	222	3.0	1576	126	146.539	12.863	B2700	19J29-	3	144
629	217	1.4	1118	155	112.661	13.118	B1500	19J29-	3	103
676	202	2.9	1726	127	167.177	14.084	B4300	19J29-	3	206
714	191	2.7	1824	118	134.802	14.888	B2700	19J29-	3	144
784	174	2.5	2003	105	134.188	16.351	B2700	19J29-	3	144
797	172	1.5	1500	106	116.075	16.611	B1500	19J29-	3	103
887	154	2.4	2265	106	143.539	18.486	B4300	19J29-	3	206
937	146	2.2	2395	98.1	124.748	19.542	B2700	19J29-	3	144
981	139	1.2	1500	86.6	113.031	20.444	B1500	19J29-	3	103
1010	135	2.2	2581	99.9	135.359	21.065	B4300	19J29-	3	206
1068	128	2.0	2684	92.3	120.887	22.269	B2700	19J29-	3	144
1098	125	1.1	1500	78.0	111.615	22.898	B1500	19J29-	3	103
1173	117	1.9	2700	80.5	120.613	24.456	B2700	19J29-	3	144
1217	112	2.0	2954	87.2	127.170	25.365	B4300	19J29-	3	206
1286	106	1.7	2700	78.7	117.188	26.814	B2700	19J29-	3	144
1344	102	2.6	3432	55.7	139.200	28.013	B4300	19J29-	3	206
1413	96.8	1.5	2700	67.9	116.999	29.447	B2700	19J29-	3	144
1492	91.6	1.7	3110	71.1	120.889	31.097	B4300	19J29-	3	206
1577	86.7	1.4	2700	64.2	114.248	32.873	B2700	19J29-	3	144
1708	80.0	2.0	4300	45.9	129.646	35.607	B4300	19J29-	3	206
1732	78.9	1.3	2700	55.9	114.122	36.102	B2700	19J29-	3	144
2052	66.6	1.2	2700	33.4	119.139	42.772	B2700	19J29-	3	144
2242	61.0	1.8	4300	37.3	121.755	46.737	B4300	19J29-	3	206
2253	60.7	1.1	2700	29.1	119.065	46.973	B2700	19J29-	3	144
2555	53.5	1.5	4300	33.2	118.583	53.258	B4300	19J29-	3	206
3076	44.4	1.3	4300	28.1	115.598	64.127	B4300	19J29-	3	206
3771	36.3	1.1	4300	23.7	113.191	78.619	B4300	19J29-	3	206



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
276	519	3.1	990	297	285.776	5.488	B4300	19P29-	3	216
346	415	2.0	837	254	181.952	6.866	B1500	19P29-	3	113
348	412	3.1	1249	236	209.215	6.918	B2700	19P29-	3	154
351	409	2.8	1201	253	241.324	6.976	B4300	19P29-	3	216
443	324	2.8	1514	201	193.939	8.793	B2700	19P29-	3	154
461	311	2.3	1329	212	209.653	9.156	B4300	19P29-	3	216
479	300	1.7	1006	196	173.064	9.516	B1500	19P29-	3	113
558	257	3.1	2000	147	254.840	11.080	B4300	19P29-	3	216
590	243	3.0	2114	139	202.531	11.713	B2700	19P29-	3	154
603	238	2.0	1461	146	178.132	11.985	B1500	19P29-	3	113
648	222	2.8	2262	124	201.539	12.863	B2700	19P29-	3	154
660	217	1.4	1118	151	167.661	13.118	B1500	19P29-	3	113
709	202	2.8	2425	125	222.177	14.084	B4300	19P29-	3	216
750	191	2.6	2380	117	189.802	14.888	B2700	19P29-	3	154
823	174	2.4	2429	104	189.188	16.351	B2700	19P29-	3	154
836	172	1.5	1500	103	171.075	16.611	B1500	19P29-	3	113
931	154	2.3	2683	105	198.539	18.486	B4300	19P29-	3	216
984	146	2.1	2579	96.9	179.748	19.542	B2700	19P29-	3	154
1029	139	1.2	1500	84.5	168.031	20.444	B1500	19P29-	3	113
1060	135	2.1	2799	98.7	190.359	21.065	B4300	19P29-	3	216
1121	128	1.9	2684	90.6	175.887	22.269	B2700	19P29-	3	154
1153	125	1.1	1500	76.3	166.615	22.898	B1500	19P29-	3	113
1231	117	1.8	2700	78.2	175.613	24.456	B2700	19P29-	3	154
1277	112	1.9	2954	87.2	182.170	25.365	B4300	19P29-	3	216
1350	106	1.6	2700	76.5	172.188	26.814	B2700	19P29-	3	154
1410	102	2.5	4300	55.0	194.200	28.013	B4300	19P29-	3	216
1482	96.8	1.5	2700	66.0	171.999	29.447	B2700	19P29-	3	154
1565	91.6	1.6	3110	71.1	175.889	31.097	B4300	19P29-	3	216
1655	86.7	1.3	2700	62.7	169.248	32.873	B2700	19P29-	3	154
1793	80.0	1.9	4300	45.1	184.646	35.607	B4300	19P29-	3	216
1817	78.9	1.2	2700	54.7	169.122	36.102	B2700	19P29-	3	154
2153	66.6	1.2	2700	32.7	174.139	42.772	B2700	19P29-	3	154
2353	61.0	1.7	4300	36.3	176.755	46.737	B4300	19P29-	3	216
2365	60.7	1.1	2700	28.5	174.065	46.973	B2700	19P29-	3	154
2681	53.5	1.5	4300	32.3	173.583	53.258	B4300	19P29-	3	216
3228	44.4	1.2	4300	27.4	170.598	64.127	B4300	19P29-	3	216
3958	36.3	1.0	4300	23.2	168.191	78.619	B4300	19P29-	3	216



Dimensions

Notes on the basic dimensions

Gearboxes	Without pre-stage	With pre-stage
g500-B45	2-stufig	-
g500-B110	2-stage	3-stage
g500-B240	2-/3-stage	4-stage
g500-B450 ... B4300	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 276](#)

Example

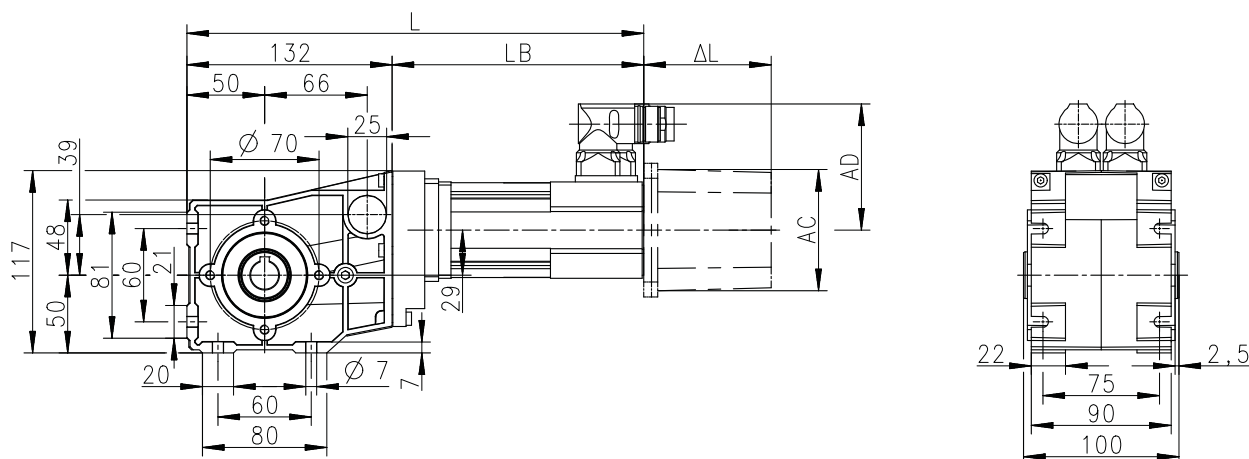
g500-B45 with MCS06

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

Explanation

Gearbox with motor

[► Designs 13](#)



Motor	MCS		
	06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type	natural	natural	natural
Table content			
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 277	
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.



Gearboxes	Min. length of the machine shaft
	mm
g500-B45	85
g500-B110	105
g500-B240	127
g500-B450	100
g500-B600	110
g500-B820	120
g500-B1500	135
g500-B2700	155
g500-B4300	190



If the mounting area (foot support) towards the motor is longer than the gearbox foot, some motors collide with the mounting area!

For an accurate check of the geometrical data, Lenze recommends the use of the »Product Finder« at **www.Lenze.com**.

Technical data

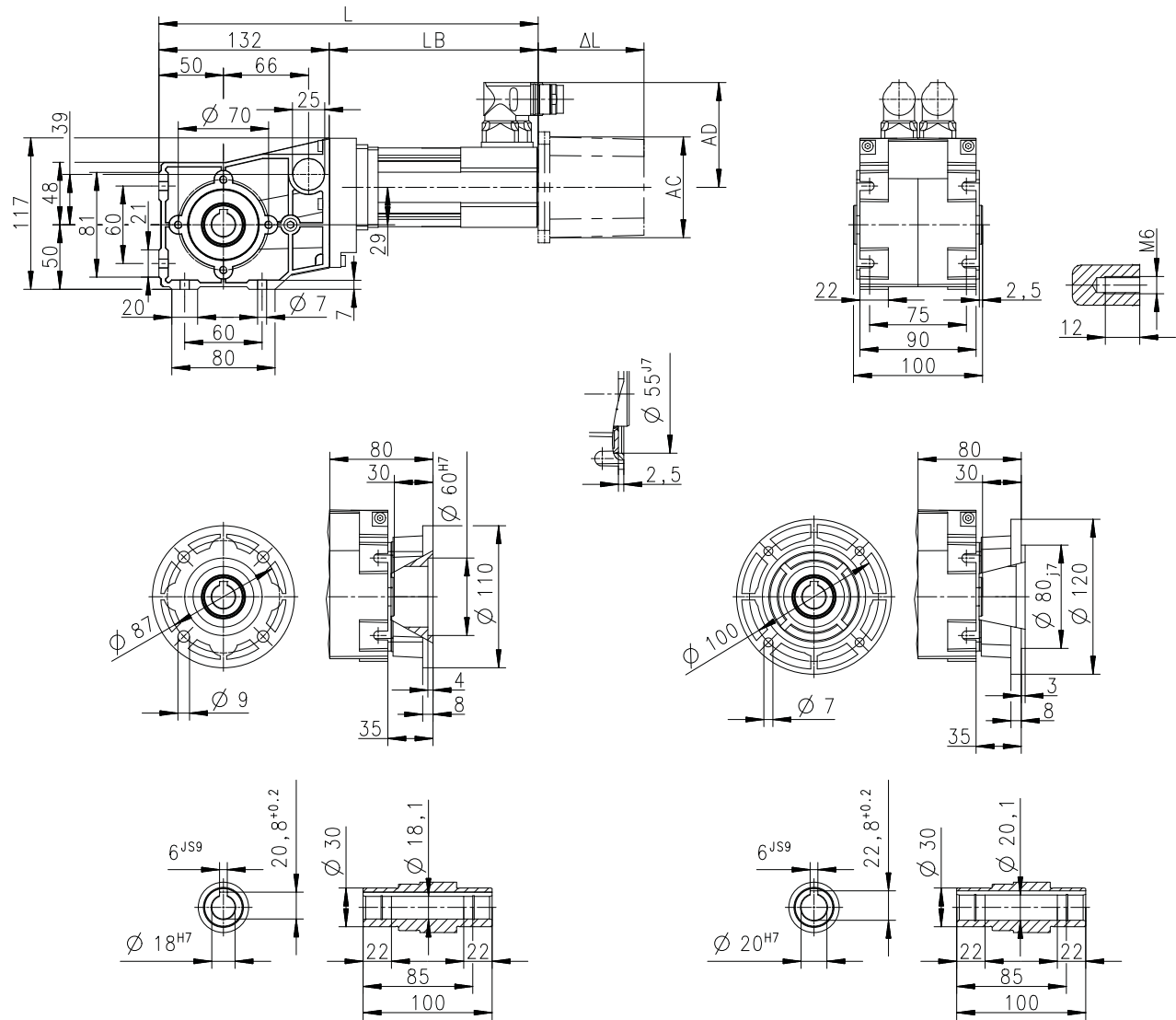
Dimensions
Basic dimensions



Basic dimensions

g500-B45, 2-stage with MCS06

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

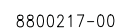


8800145-00

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	294	324	354
Motor length	LB	mm	162	192	222
Length of motor options	Δ L	mm	142		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		



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

139

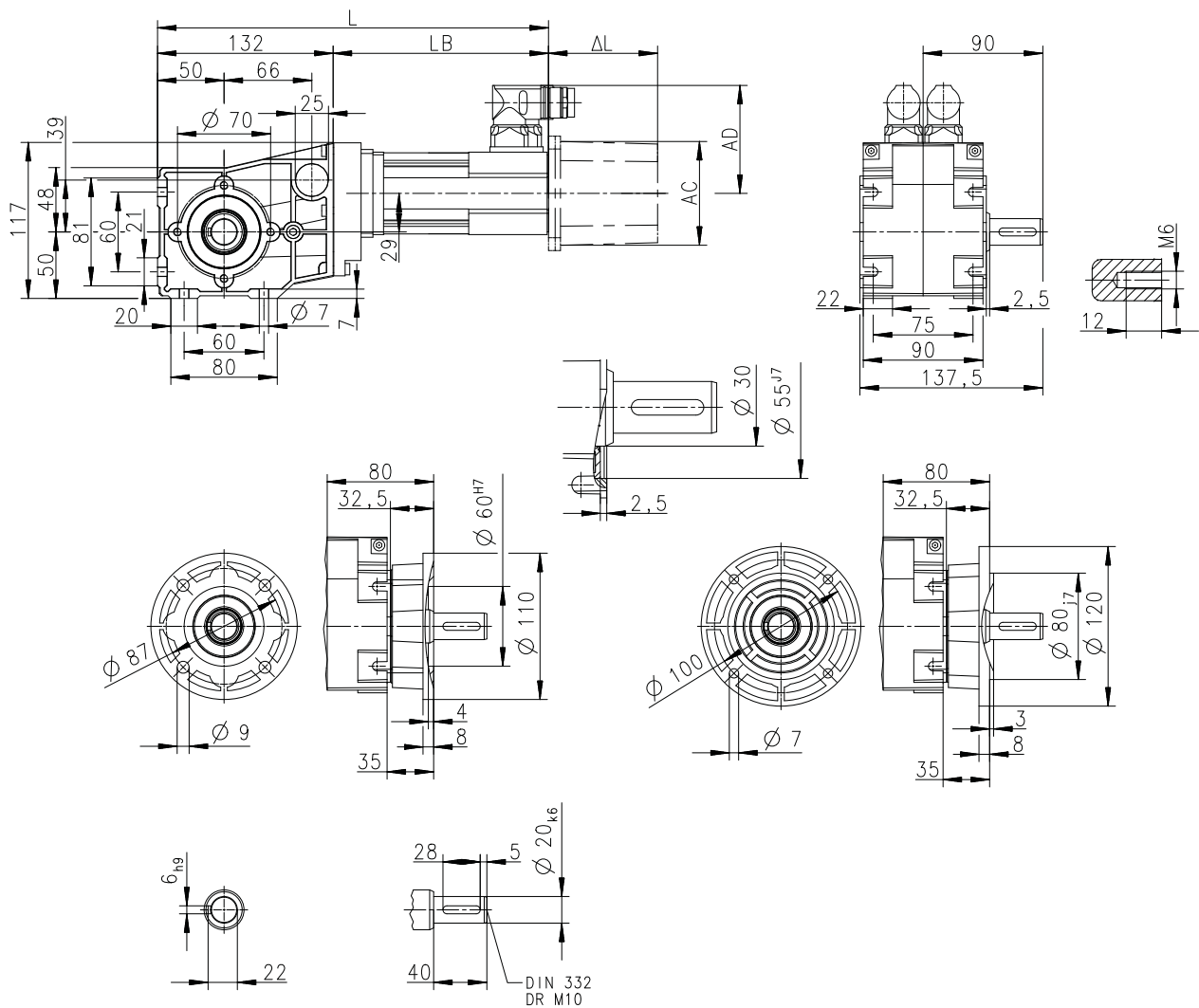
Technical data

Dimensions
Basic dimensions



g500-B45, 2-stage with MCS06

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



8800146-00

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	294	324	354
Motor length	LB	mm	162	192	222
Length of motor options	Δ L	mm		142	
Motor diameter	AC	mm		86	
Motor/connection distance	AD	mm		77	

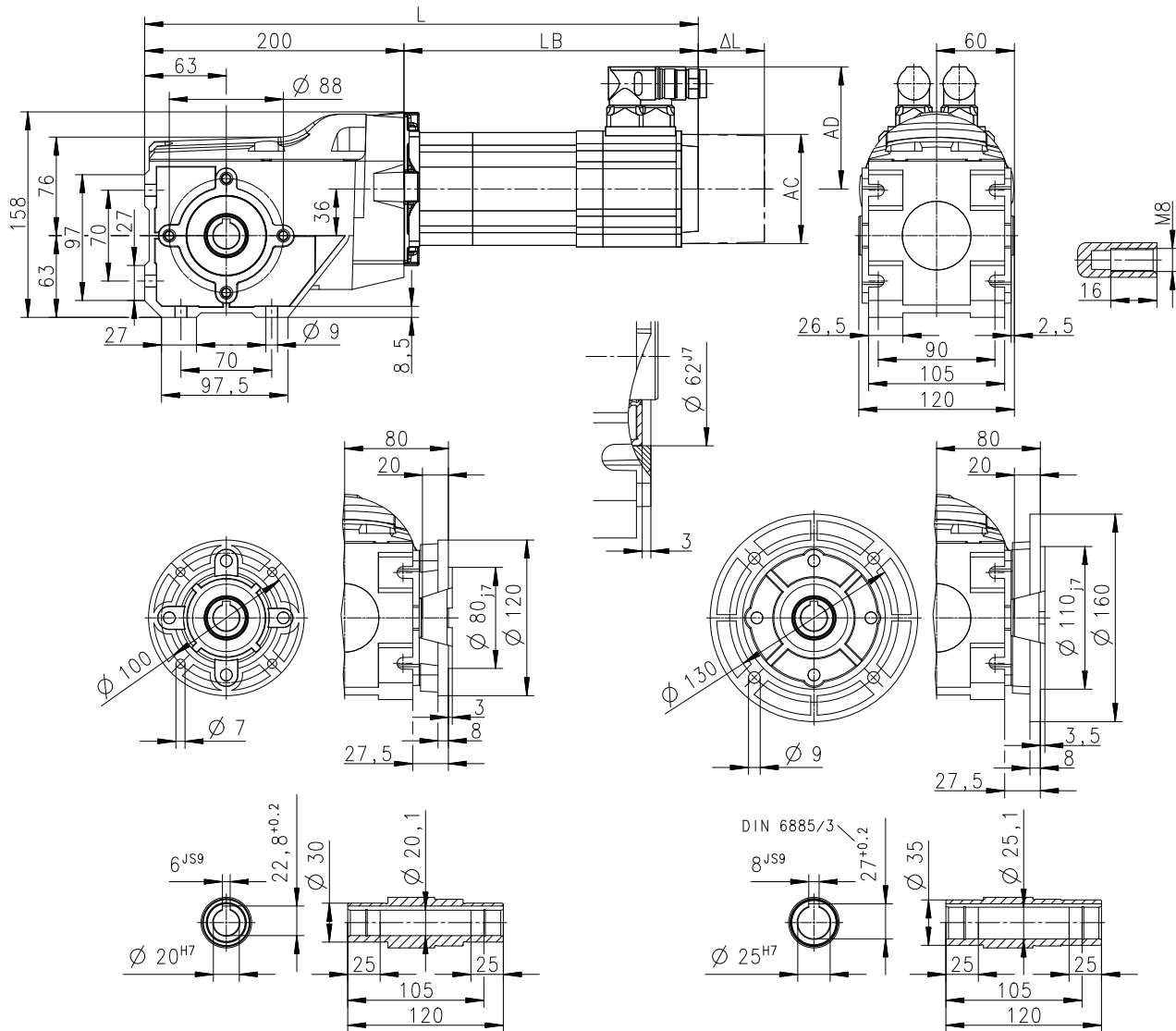


Technical data

Dimensions
Basic dimensions

g500-B110, 2-stage with MCS06

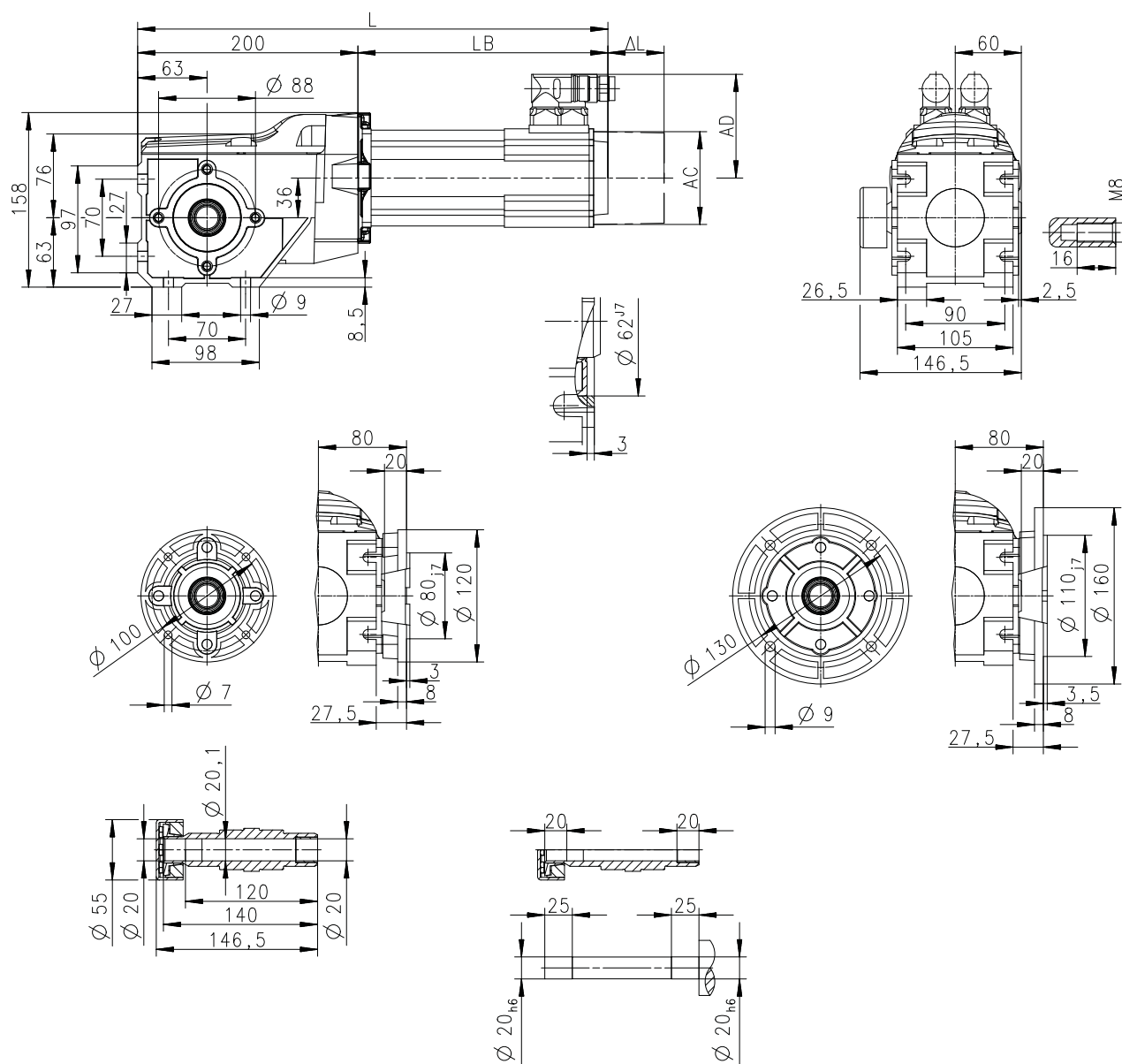
Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)



8800153-01

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	331	361	391
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	

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



8800221-00

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	331	361	391
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		



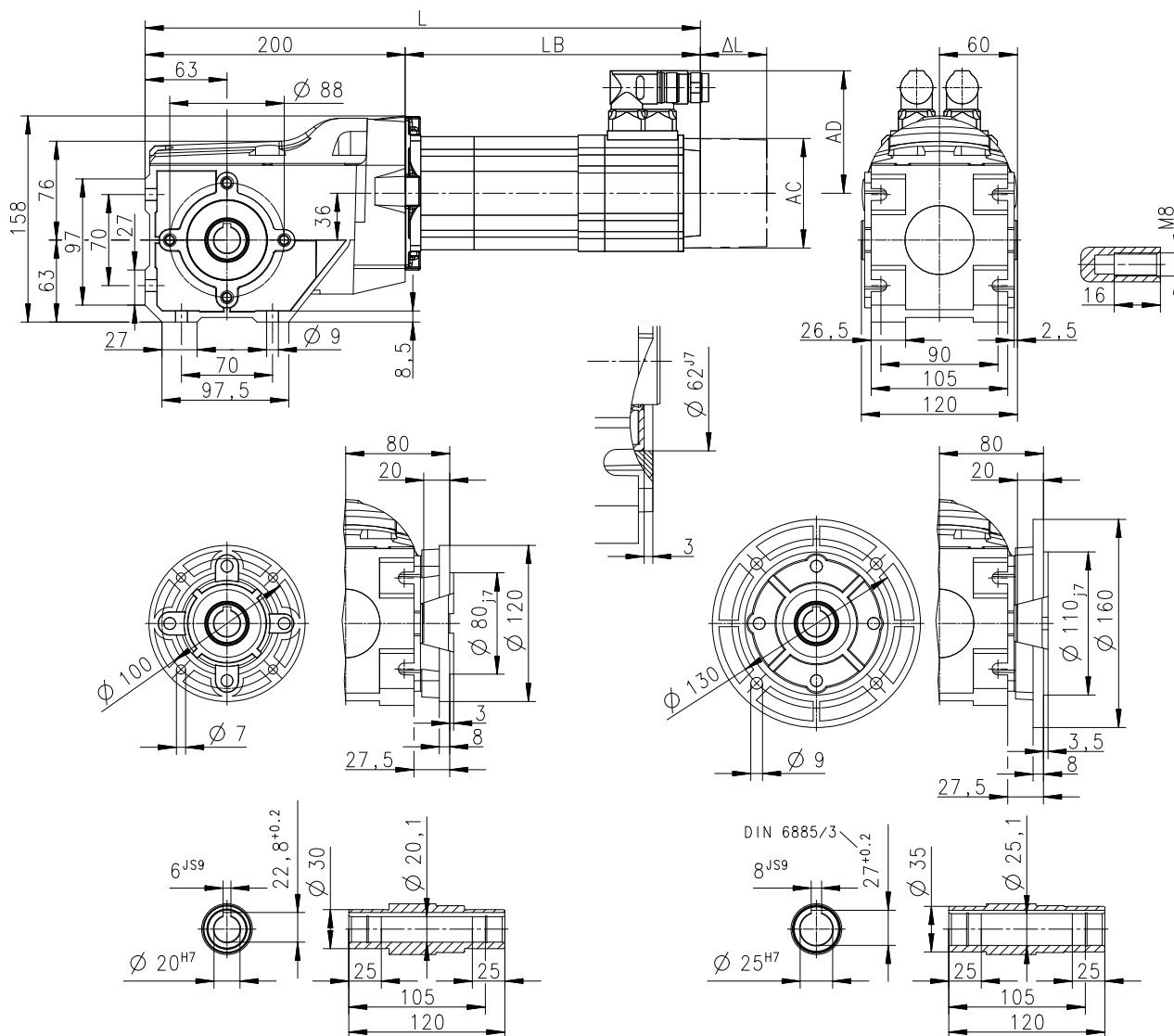
Technical data

Dimensions
Basic dimensions



g500-B110, 2-stage with MCS09

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

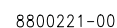


8800153-01

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	384	404	424	464
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			



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

145

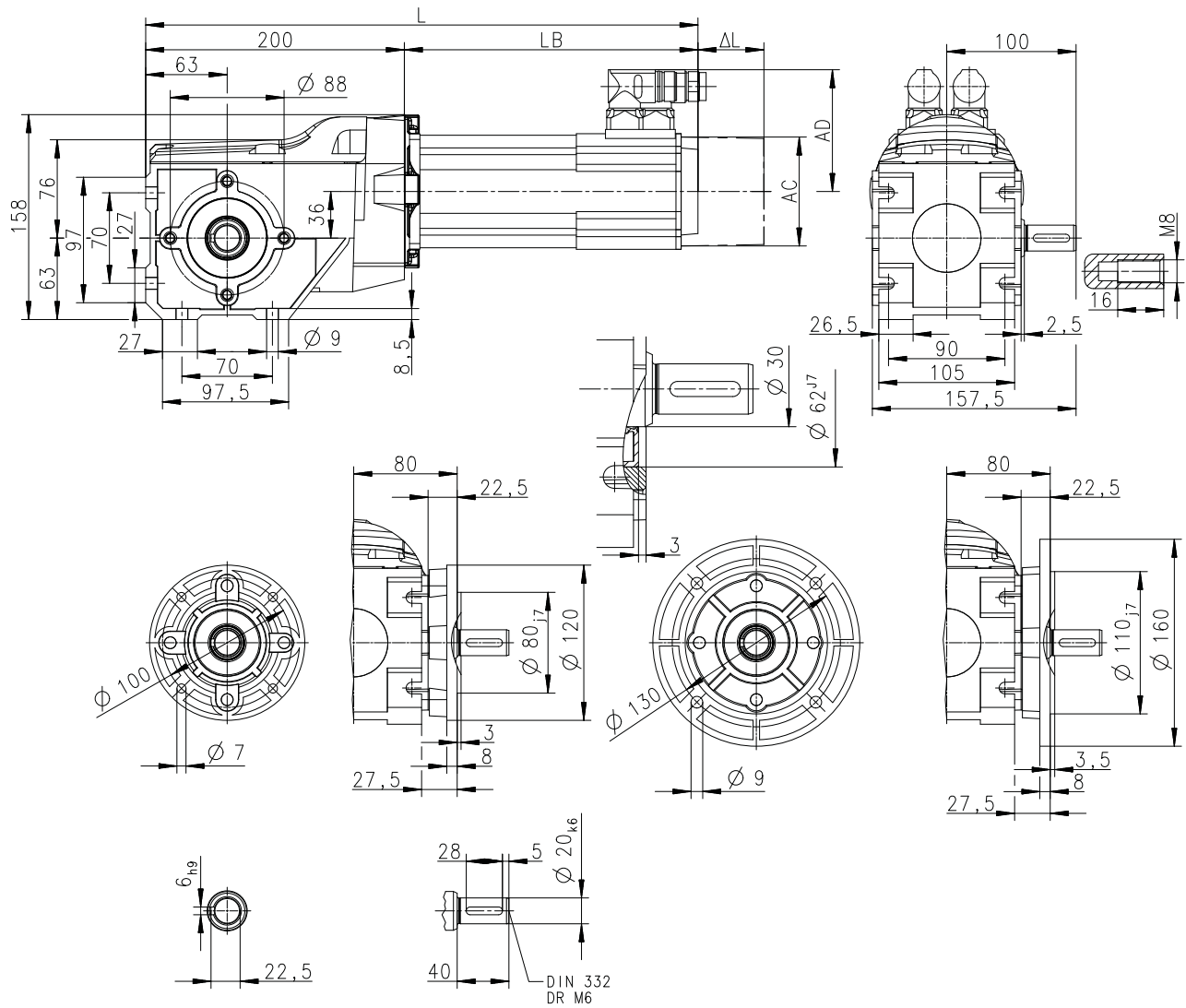
Technical data

Dimensions
Basic dimensions



g500-B110, 2-stage with MCS09

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



8800154-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	384	404	424	464
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			



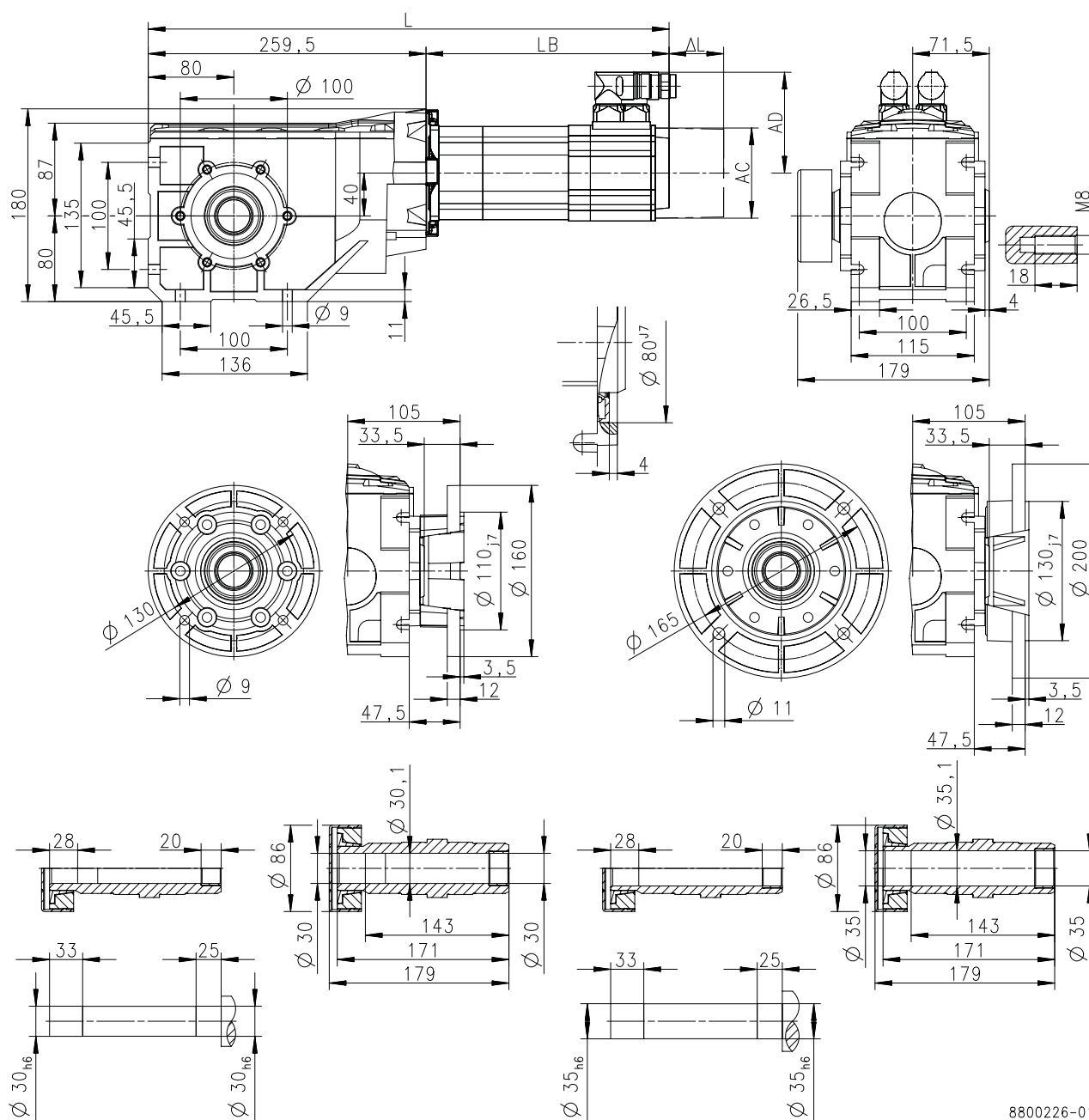
Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)

8800161-01



g500-B240, 2-/3-stage with MCS06

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

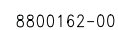


8800226-01

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	391	421	451
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		



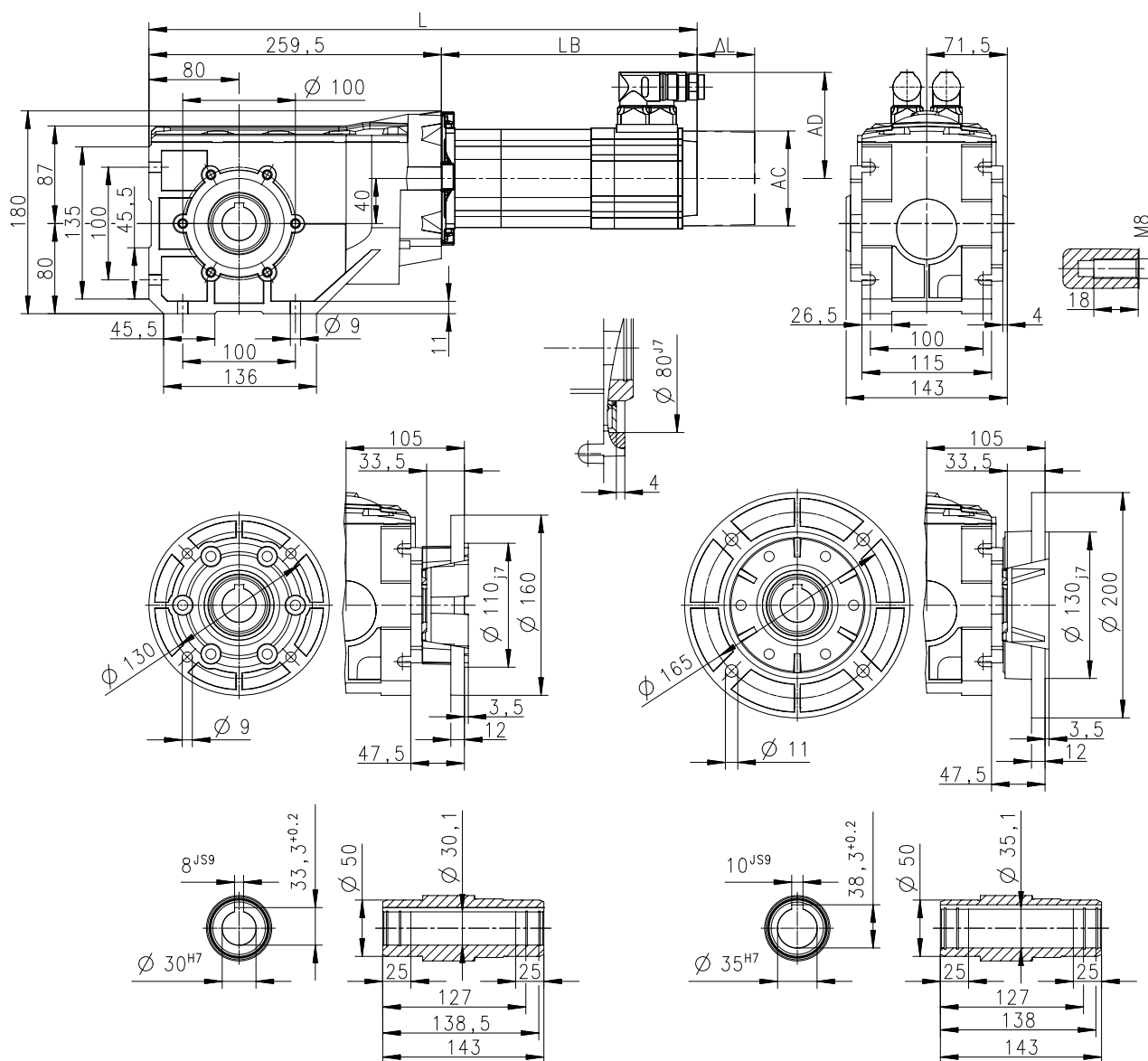
Gearbox version: Solid shaft with foot (VAR/VBR/VAK)

149



g500-B240, 2-/3-stage with MCS09

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



8800161-01

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	443	463	483	523
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			

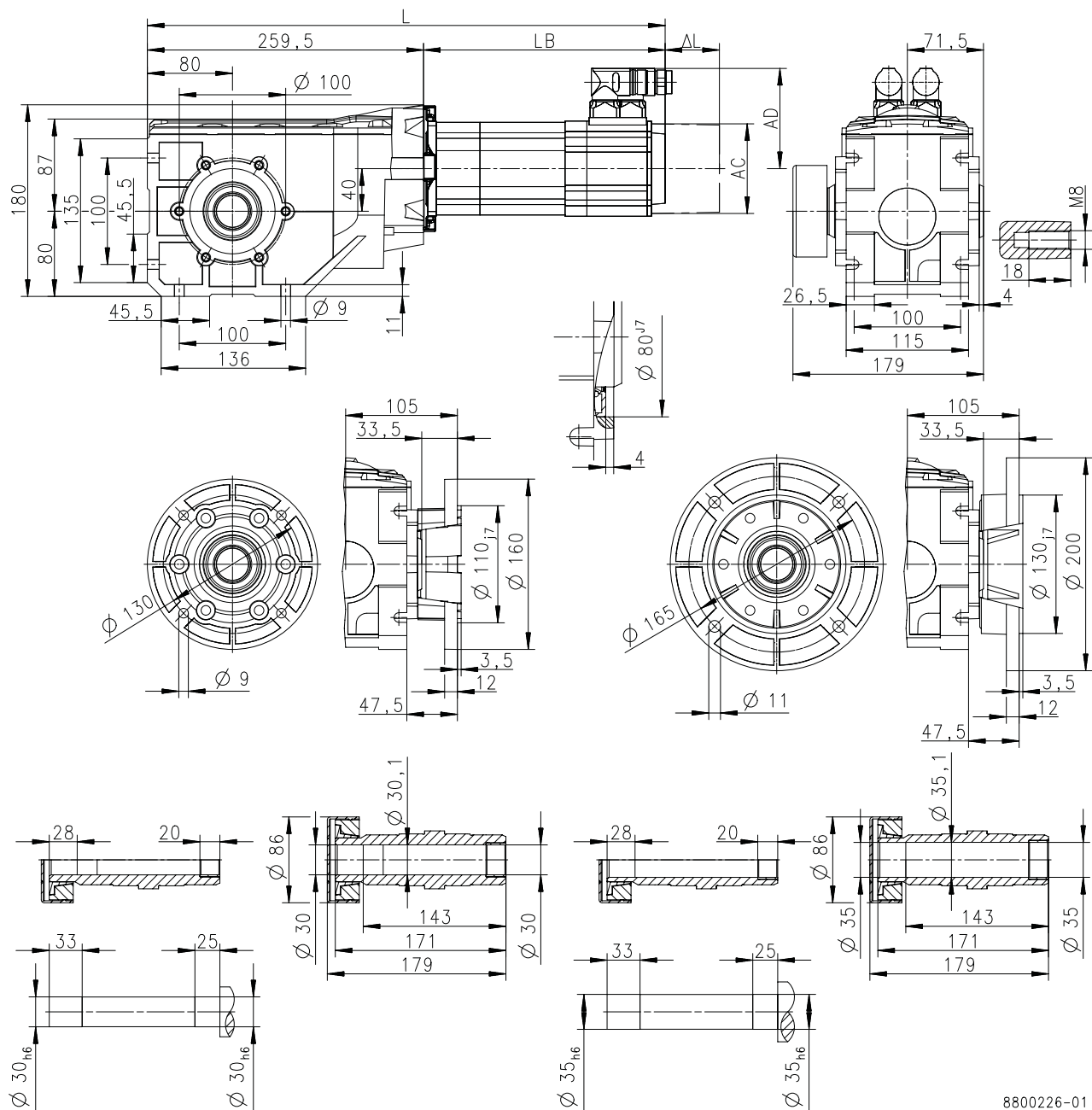


Technical data

Dimensions
Basic dimensions

g500-B240, 2-/3-stage with MCS09

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



8800226-01

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	443	463	483	523
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			

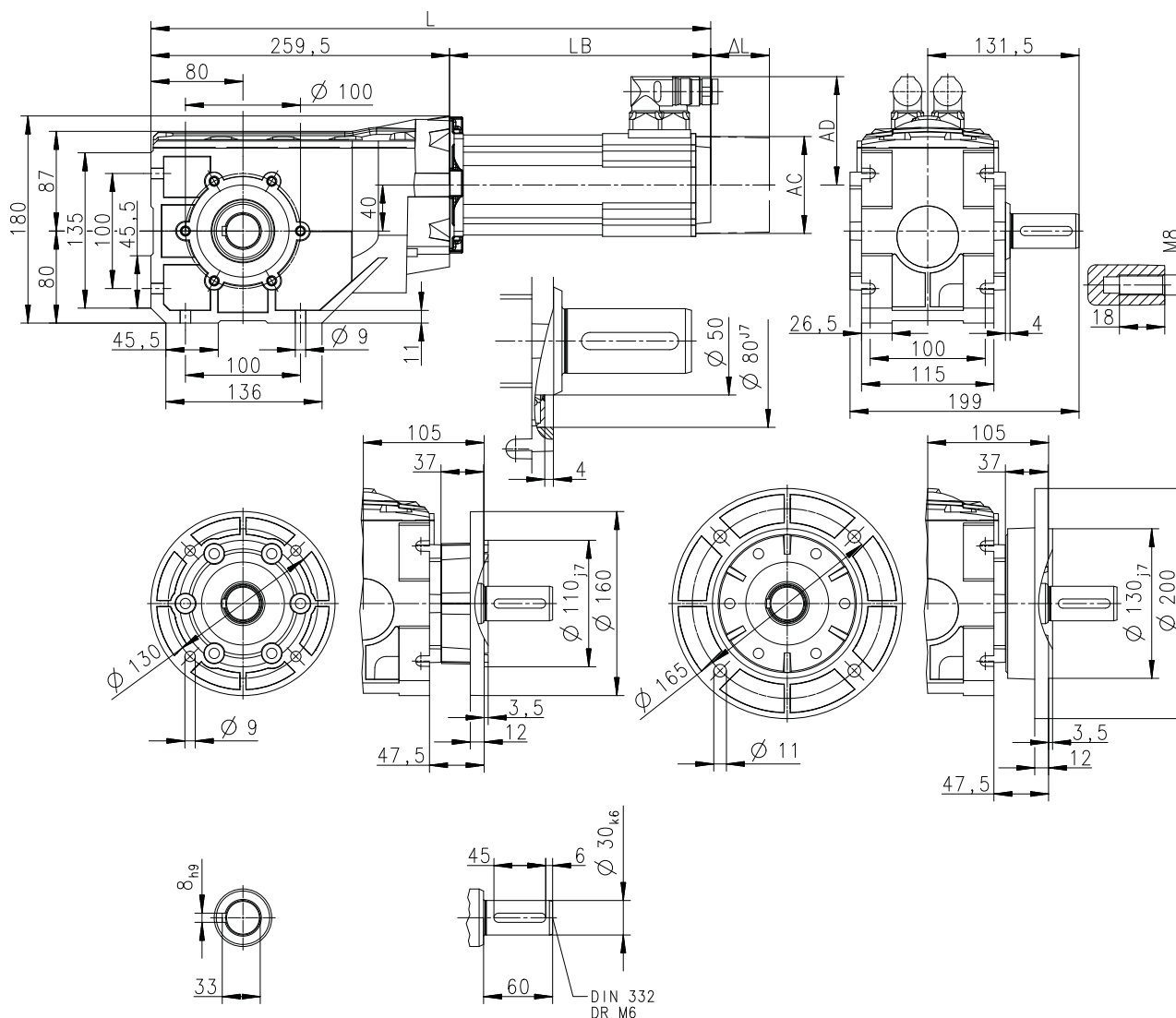
Technical data

Dimensions
Basic dimensions



g500-B240, 2-/3-stage with MCS09

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



8800162-00

Motor			MCS			
			09D41-09D41L	09F38-09F38L	09H41-09H41L	09L41-09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	443	463	483	523
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			

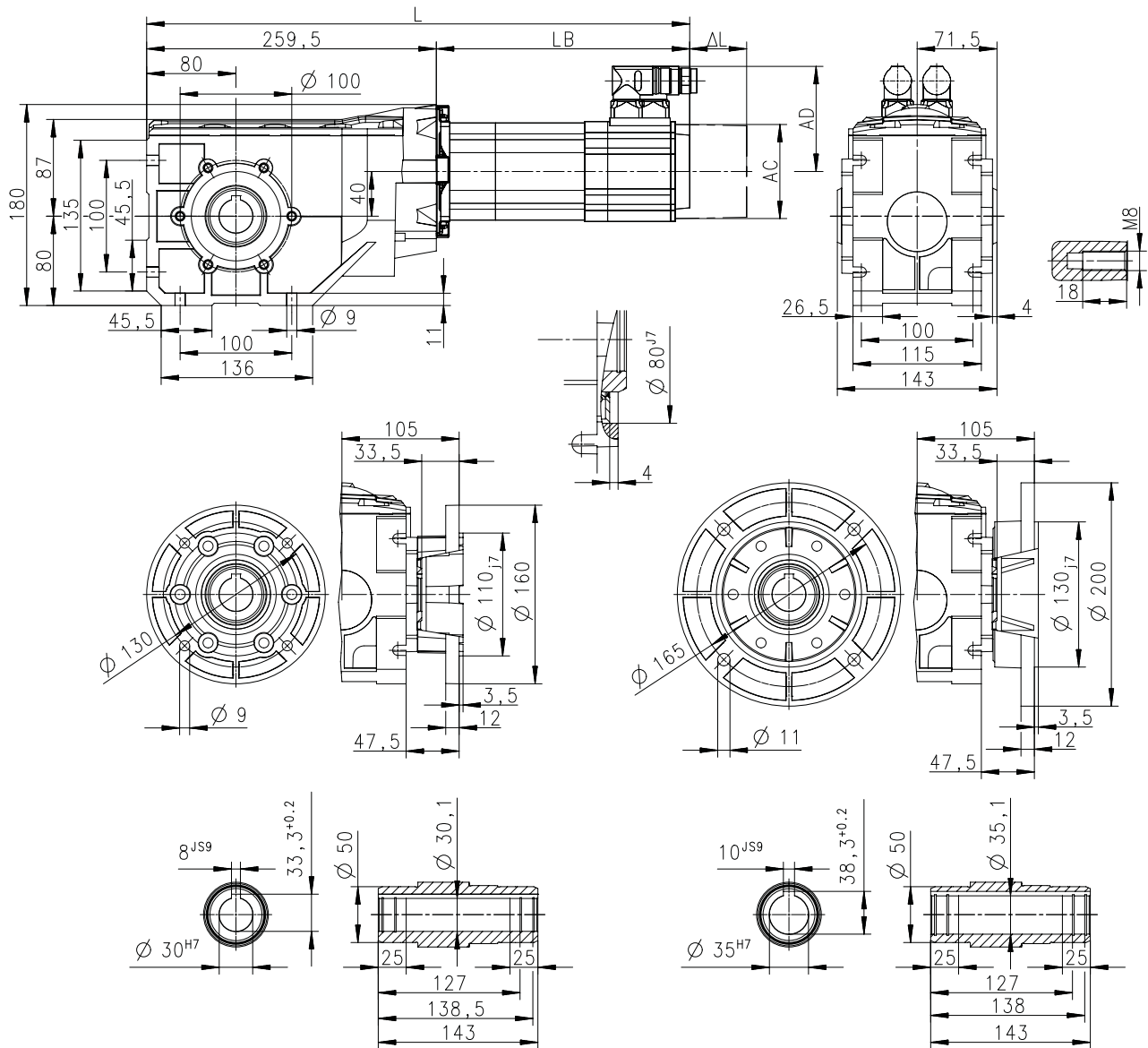


Technical data

Dimensions
Basic dimensions

g500-B240, 2-/3-stage with MCS12

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



8800161-01

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	533	460	533	460	573	500
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

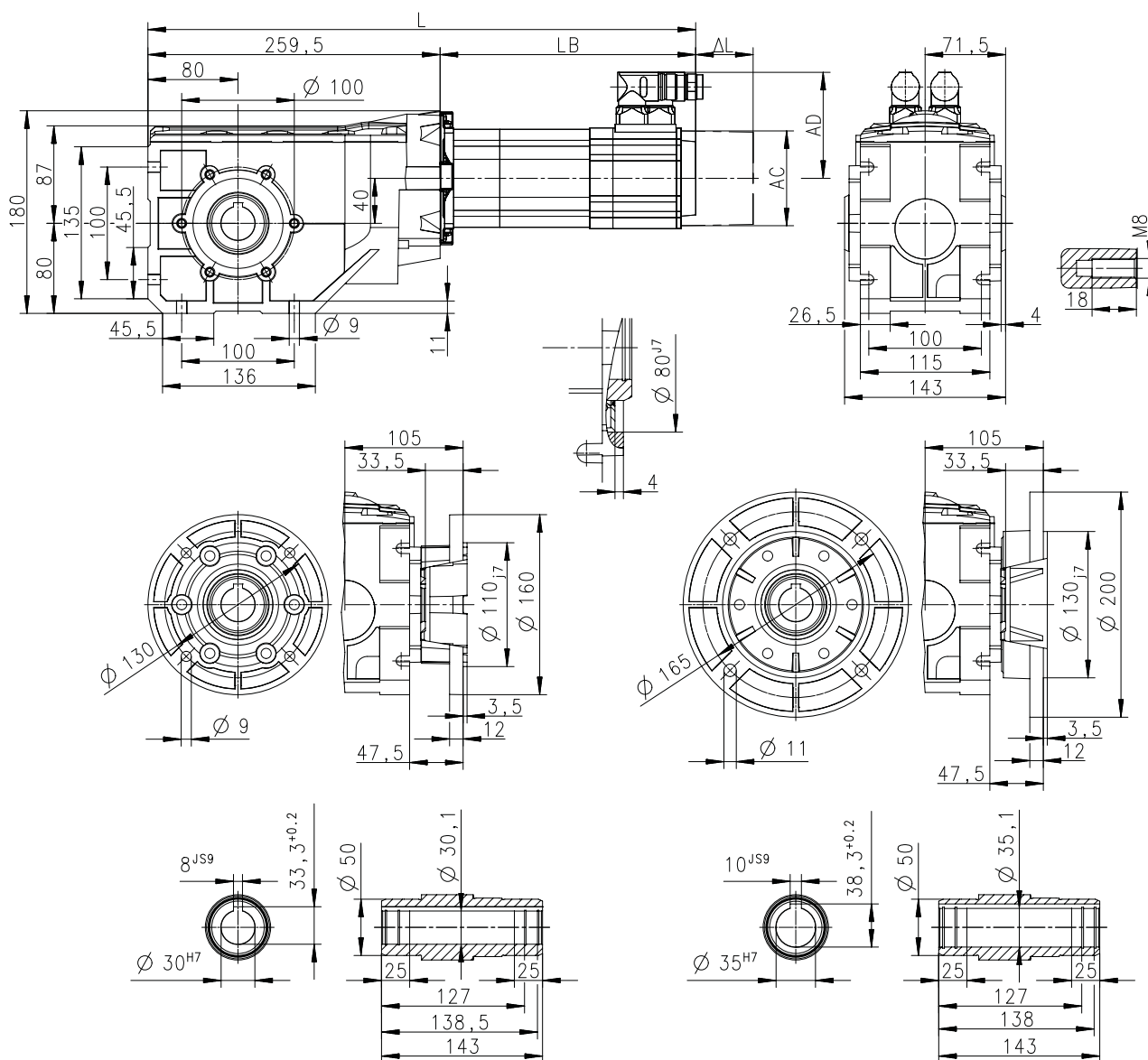
Technical data

Dimensions
Basic dimensions



g500-B240, 2-/3-stage with MCS12

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



8800161-01

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	573	500	613	540	613	540
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

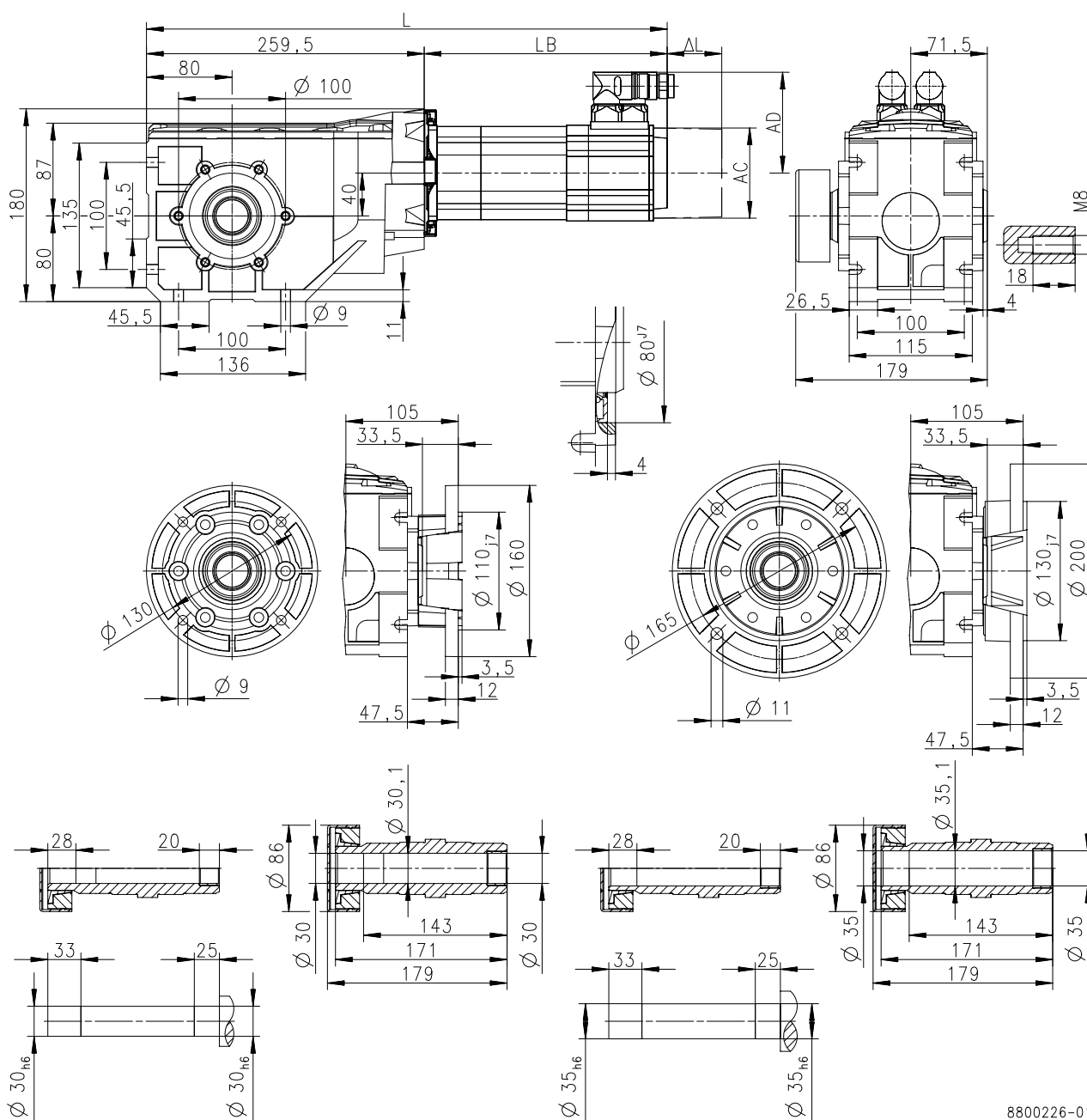
Technical data

Dimensions
Basic dimensions



g500-B240, 2-/3-stage with MCS12

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



8800226-01

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	573	500	613	540	613	540
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)

Dimensions
Basic dimensions



Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	573	500	613	540	613	540
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

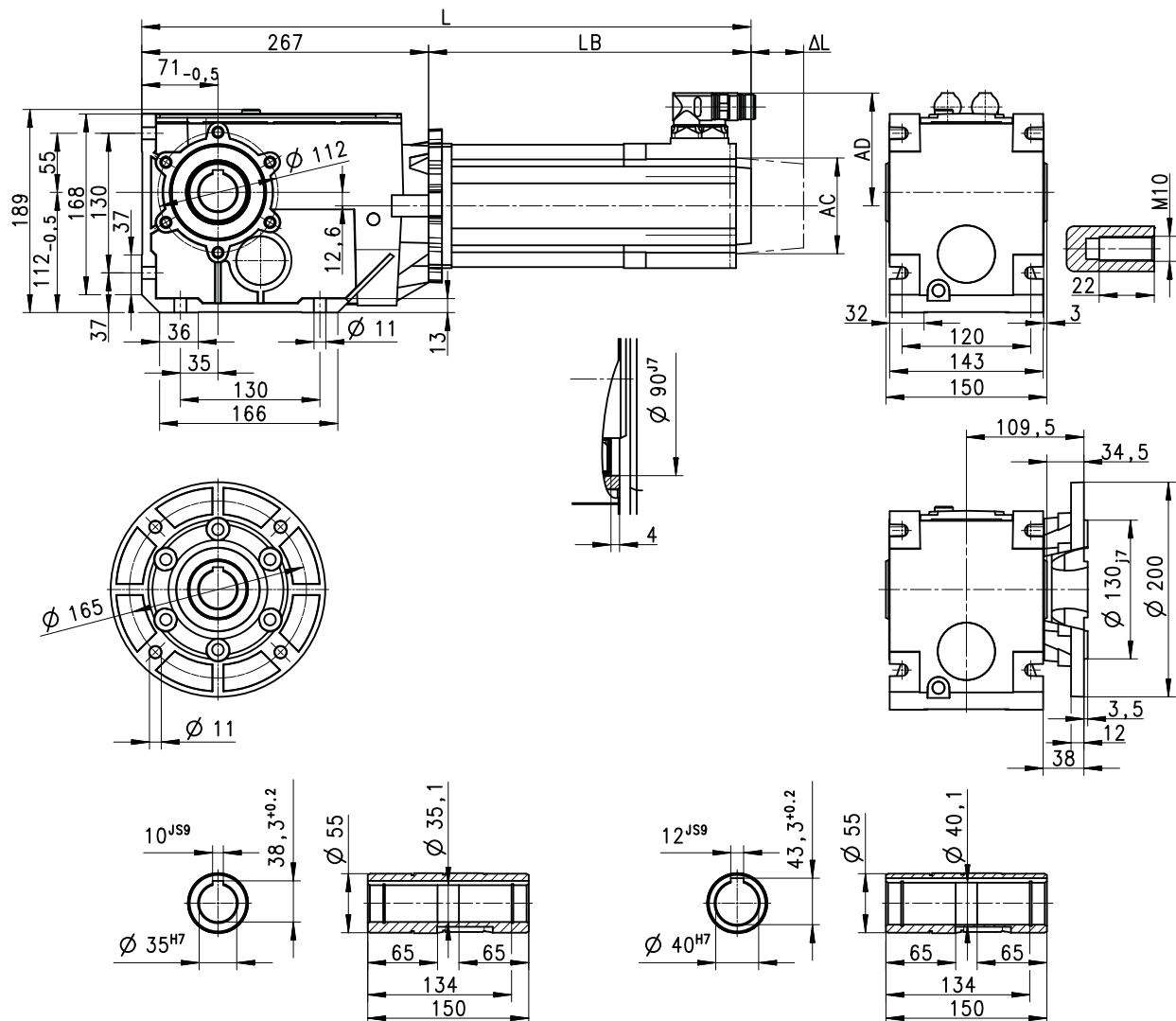


Technical data

Dimensions
Basic dimensions

g500-B450, 3-stage with MCS06

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



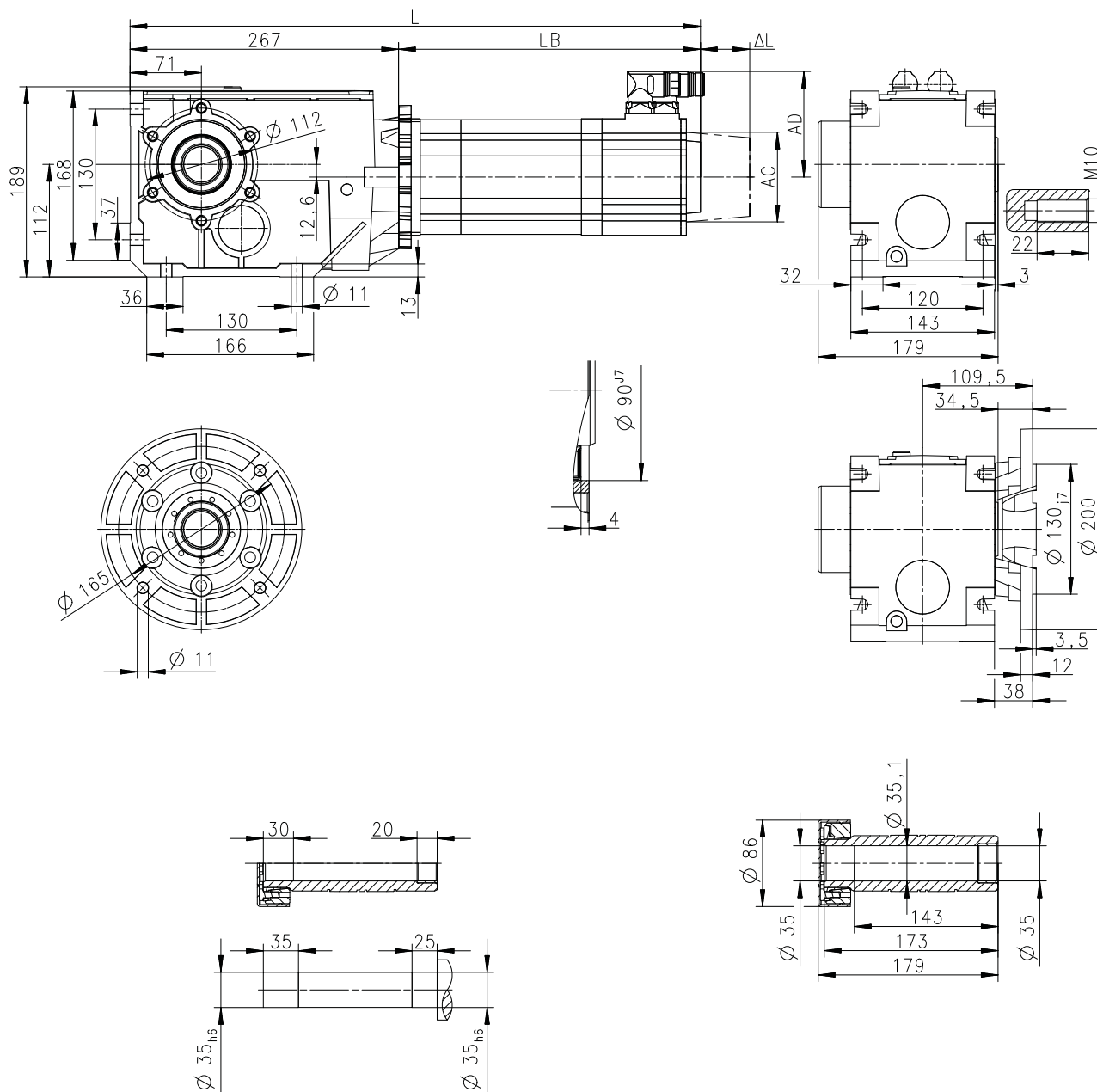
8800169-02

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	398	428	458
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-B450, 3-stage with MCS06

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



8800231-01

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	398	428	458
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		



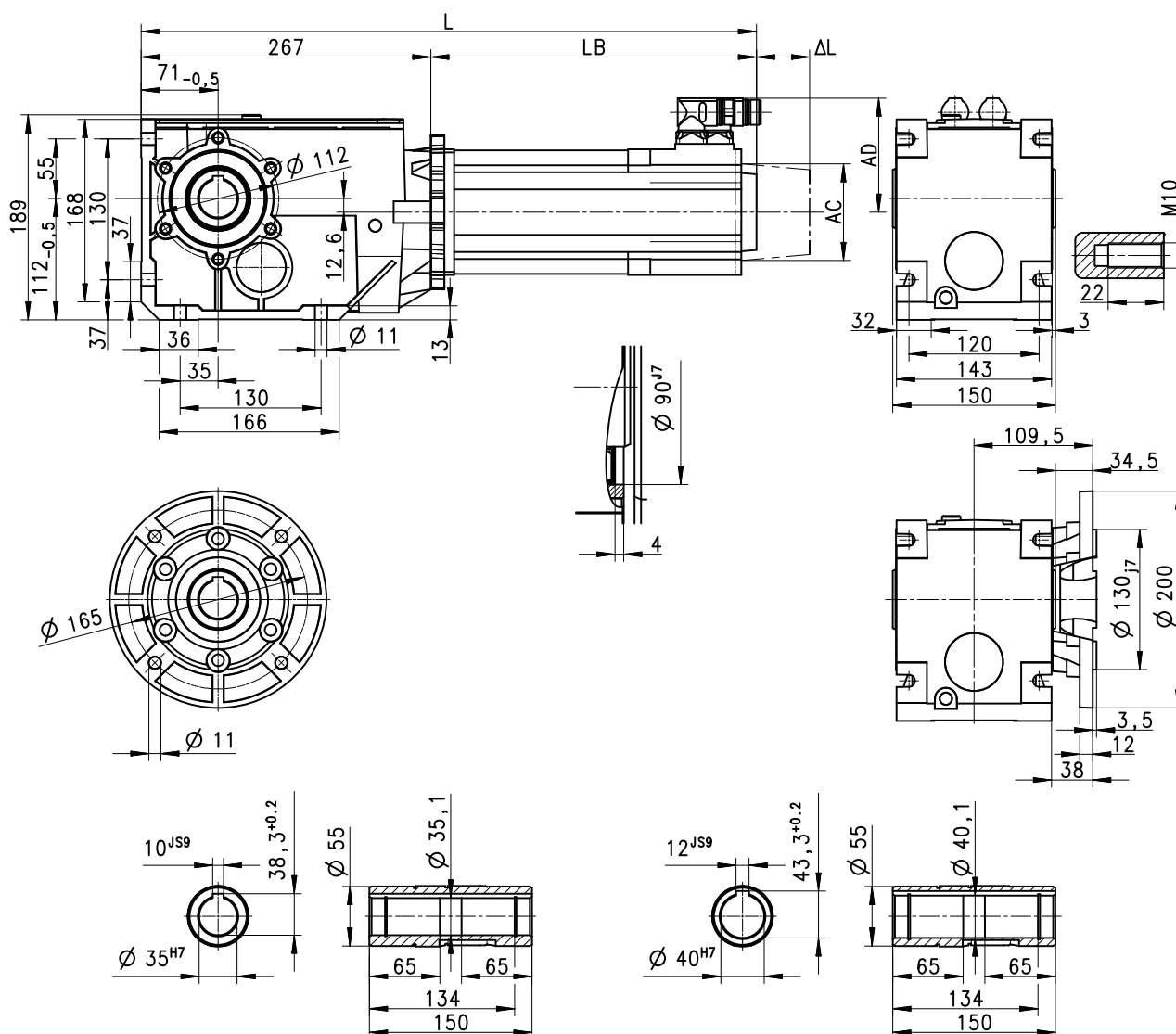
Technical data

Dimensions
Basic dimensions



g500-B450, 3-stage with MCS09

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



8800169-02

Motor			MCS			
			09D41-09D41L	09F38-09F38L	09H41-09H41L	09L41-09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	451	471	491	531
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			



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

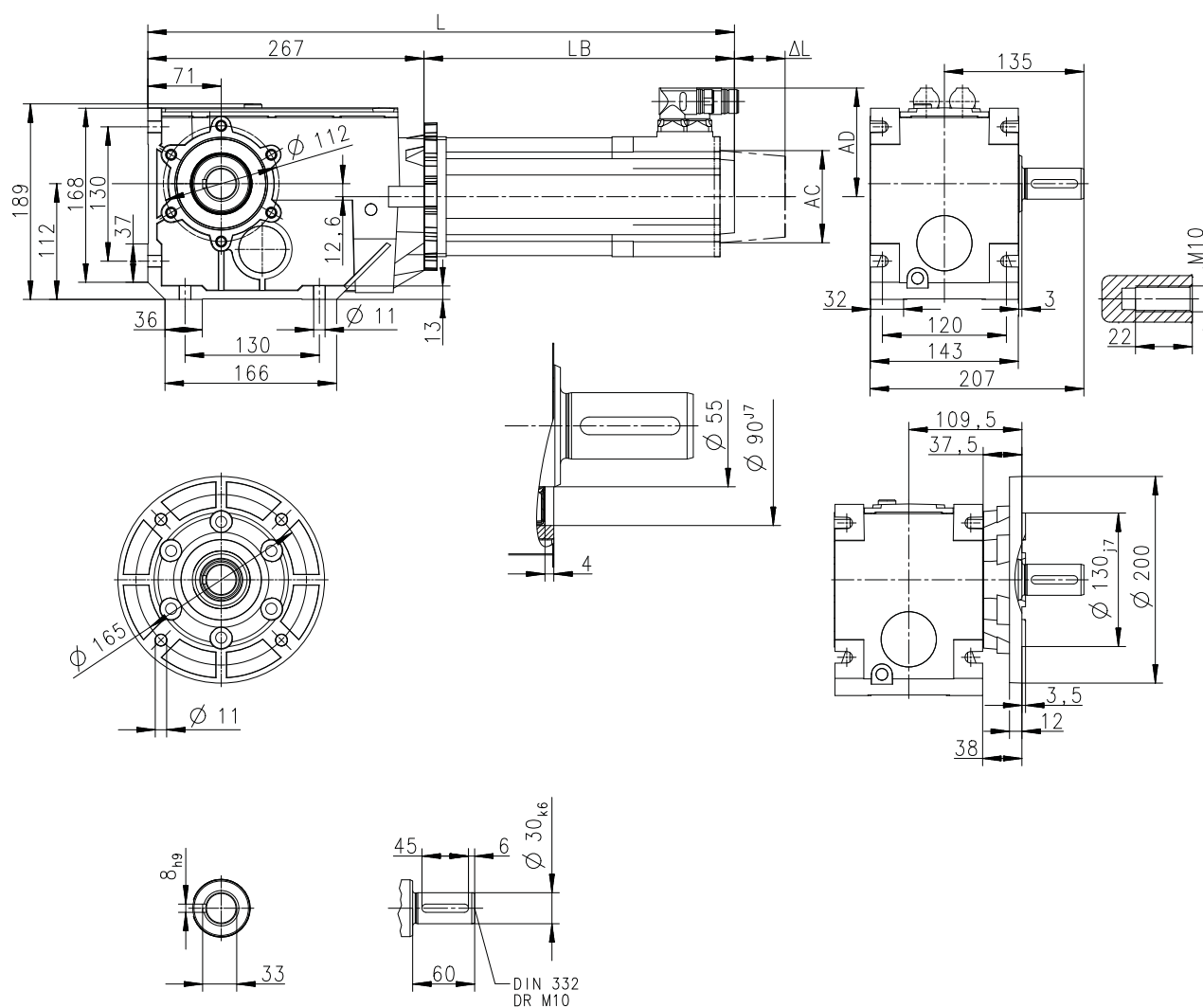
8800231-01

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	451	471	491	531
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			



g500-B450, 3-stage with MCS09

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



8800170-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	451	471	491	531
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			

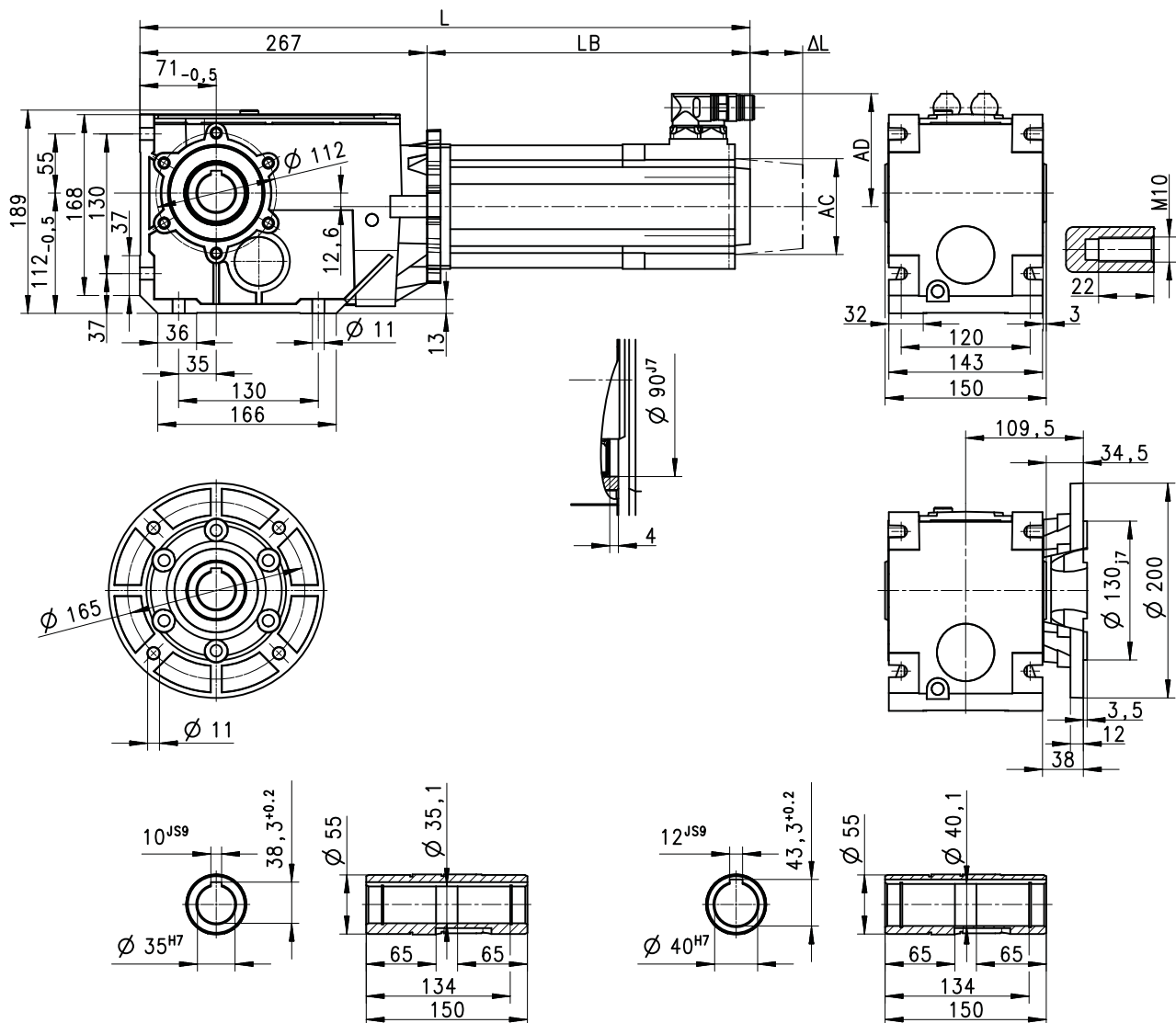


Technical data

Dimensions
Basic dimensions

g500-B450, 3-stage with MCS12

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



8800169-02

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	541	468	541	468	581	508
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

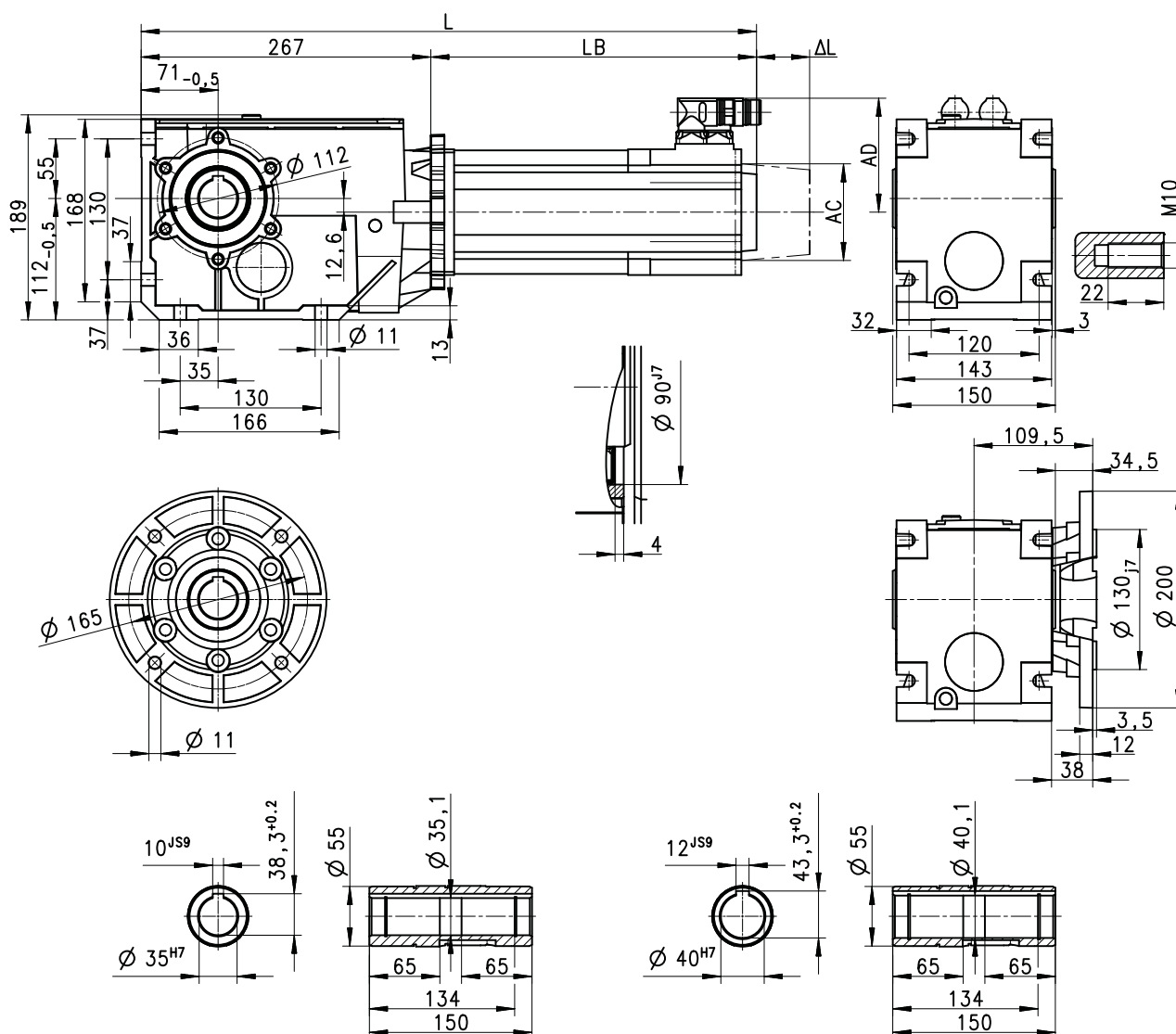
Technical data

Dimensions
Basic dimensions



g500-B450, 3-stage with MCS12

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



8800169-02

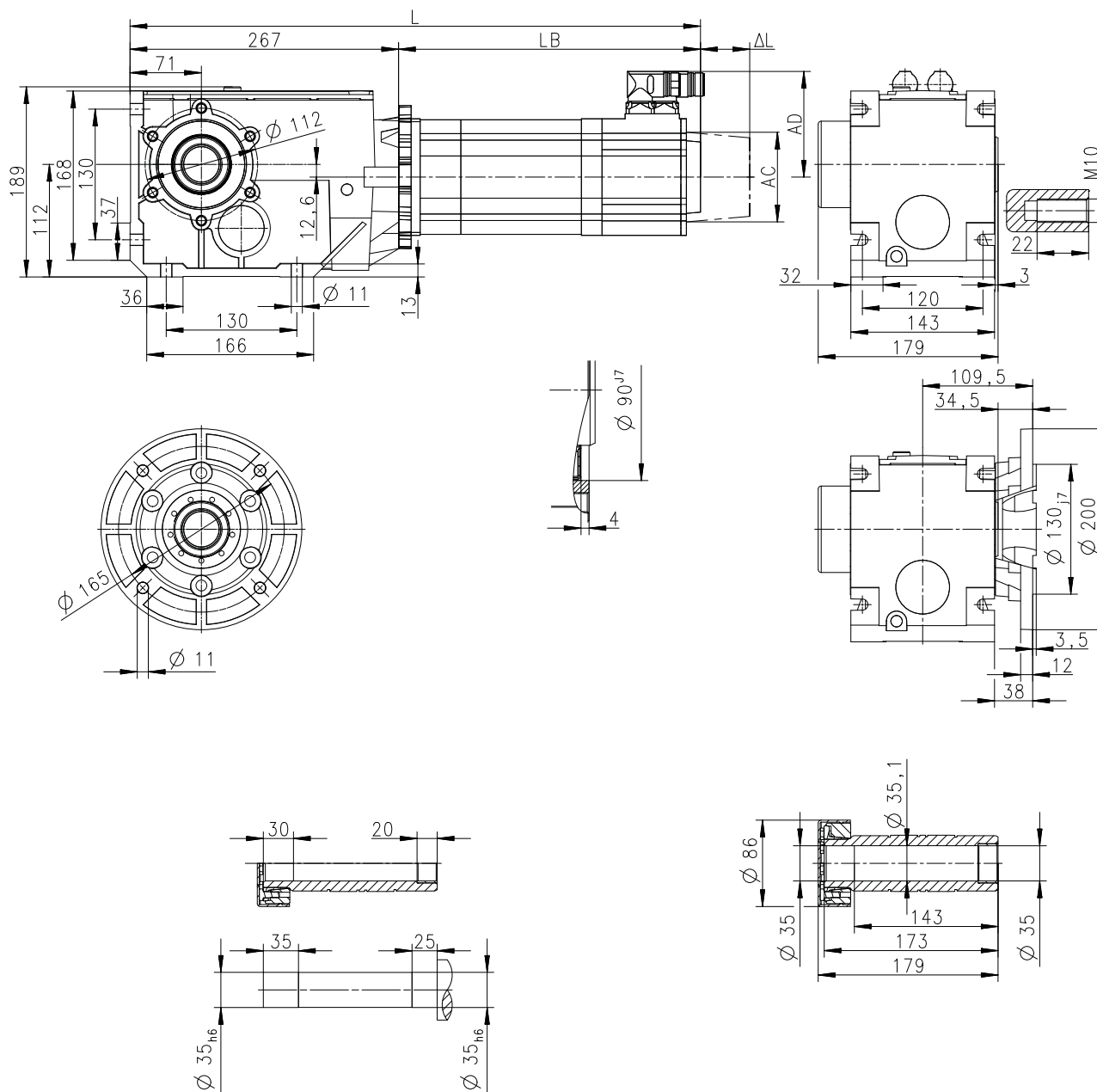
Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	581	508	621	548	621	548
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105





g500-B450, 3-stage with MCS12

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



8800231-01

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	581	508	621	548	621	548
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 hydraulic cylinder with 16 MPa pressure rating. The drawing includes a front view, a side view, a top view, and a detail view of the end cap. Dimensions are given in mm. Key features include a 112 mm bore, 165 mm outer diameter, 130 mm stroke, and 109.5 mm mounting bracket width. The drawing is labeled '100 16 MPa' and 'DIN 332 DR M10'.

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	581	508	621	548	621	548
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

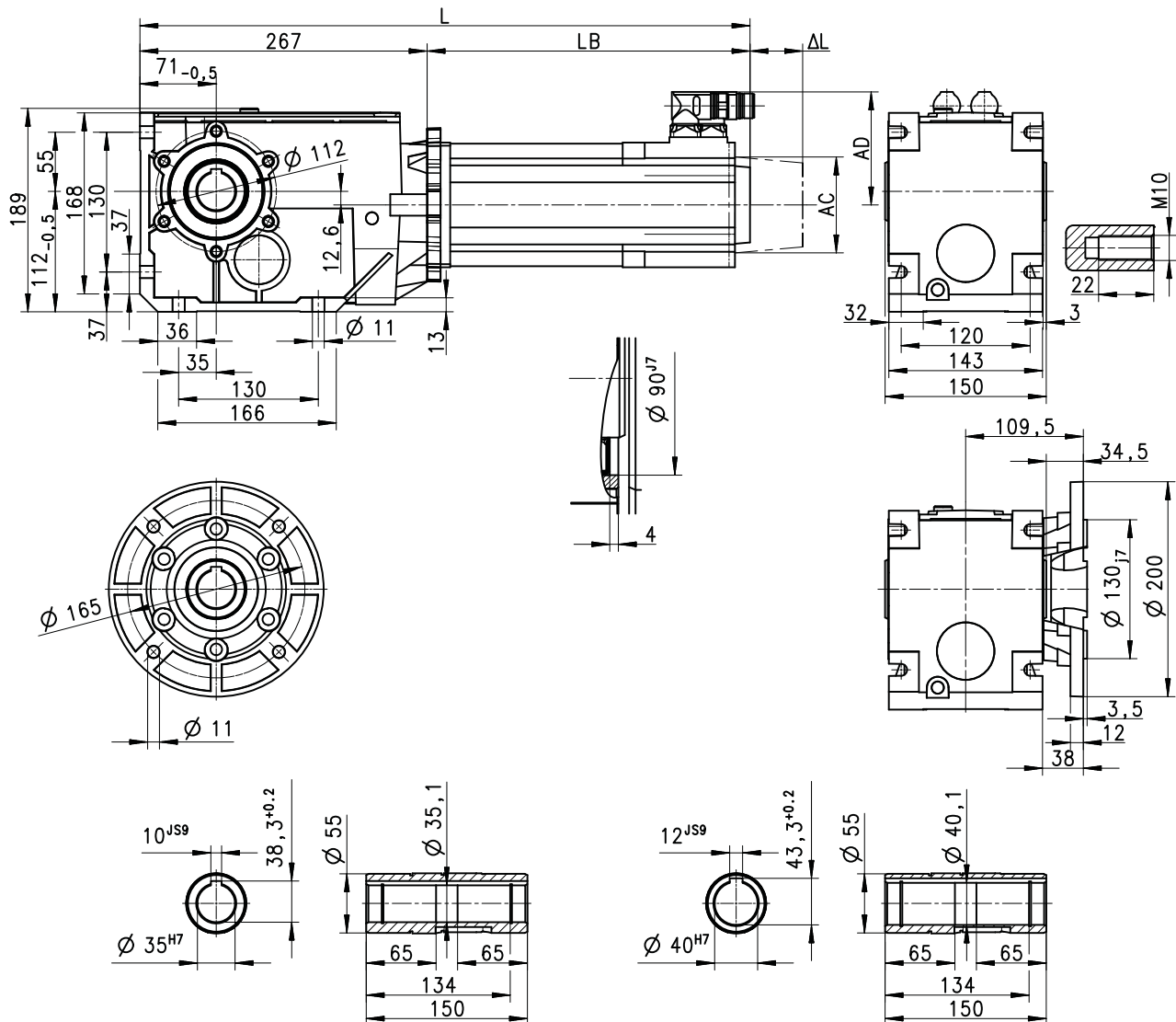


Technical data

Dimensions
Basic dimensions

g500-B450, 3-stage with MCS14

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



8800169-02

Motor			MCS							
			14D14- Blower	14D15- natural	14D30- Blower	14D36- natural	14H12- Blower	14H15- natural	14H28- Blower	14H32- natural
Total length	L	mm	571	483	571	483	611	523	611	523
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

Dimensions

Basic dimensions



Technical drawing of a mechanical component, likely a pump or motor housing, showing multiple views: front, top, side, and cross-sections. The drawing includes detailed dimensions in millimeters and various tolerances.

Front View Dimensions:

- Overall length: L
- Overall width: LB
- Overall height: AD
- Flange diameter: $\phi 112$
- Central bore diameter: $\phi 11$
- Flange thickness: 12.6
- Flange outer diameter: $112_{-0.5}$
- Flange inner diameter: $71_{-0.5}$
- Flange hole diameter: $\phi 11$
- Flange hole spacing: 36
- Flange hole diameter: $\phi 11$
- Flange hole spacing: 35
- Flange hole diameter: $\phi 11$
- Flange hole spacing: 130
- Flange hole diameter: $\phi 11$
- Flange hole spacing: 166

Top View Dimensions:

- Overall diameter: $\phi 165$
- Central bore diameter: $\phi 11$
- Flange thickness: 12.6
- Flange outer diameter: $112_{-0.5}$
- Flange inner diameter: $71_{-0.5}$
- Flange hole diameter: $\phi 11$
- Flange hole spacing: 36
- Flange hole diameter: $\phi 11$
- Flange hole spacing: 35
- Flange hole diameter: $\phi 11$
- Flange hole spacing: 130
- Flange hole diameter: $\phi 11$
- Flange hole spacing: 166

Side View Dimensions:

- Overall length: L
- Overall width: LB
- Overall height: AD
- Flange diameter: $\phi 112$
- Central bore diameter: $\phi 11$
- Flange thickness: 12.6
- Flange outer diameter: $112_{-0.5}$
- Flange inner diameter: $71_{-0.5}$
- Flange hole diameter: $\phi 11$
- Flange hole spacing: 36
- Flange hole diameter: $\phi 11$
- Flange hole spacing: 35
- Flange hole diameter: $\phi 11$
- Flange hole spacing: 130
- Flange hole diameter: $\phi 11$
- Flange hole spacing: 166

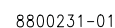
Cross-section Dimensions:

- Overall diameter: $\phi 112$
- Central bore diameter: $\phi 11$
- Flange thickness: 12.6
- Flange outer diameter: $112_{-0.5}$
- Flange inner diameter: $71_{-0.5}$
- Flange hole diameter: $\phi 11$
- Flange hole spacing: 36
- Flange hole diameter: $\phi 11$
- Flange hole spacing: 35
- Flange hole diameter: $\phi 11$
- Flange hole spacing: 130
- Flange hole diameter: $\phi 11$
- Flange hole spacing: 166

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	651	563	651	563	691	603	691	603
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



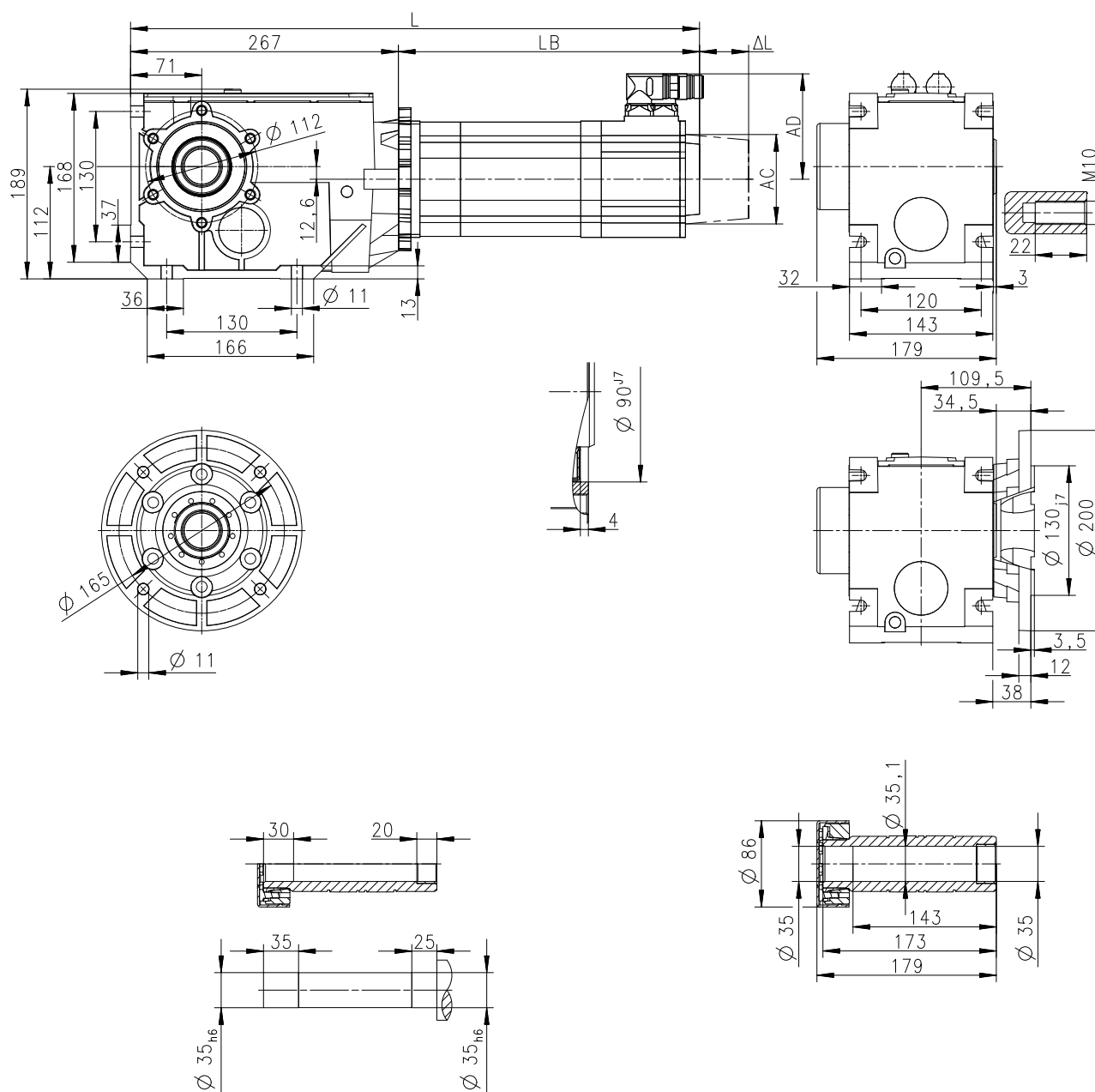
Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)

173



g500-B450, 3-stage with MCS14

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



8800231-01

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	651	563	651	563	691	603	691	603
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

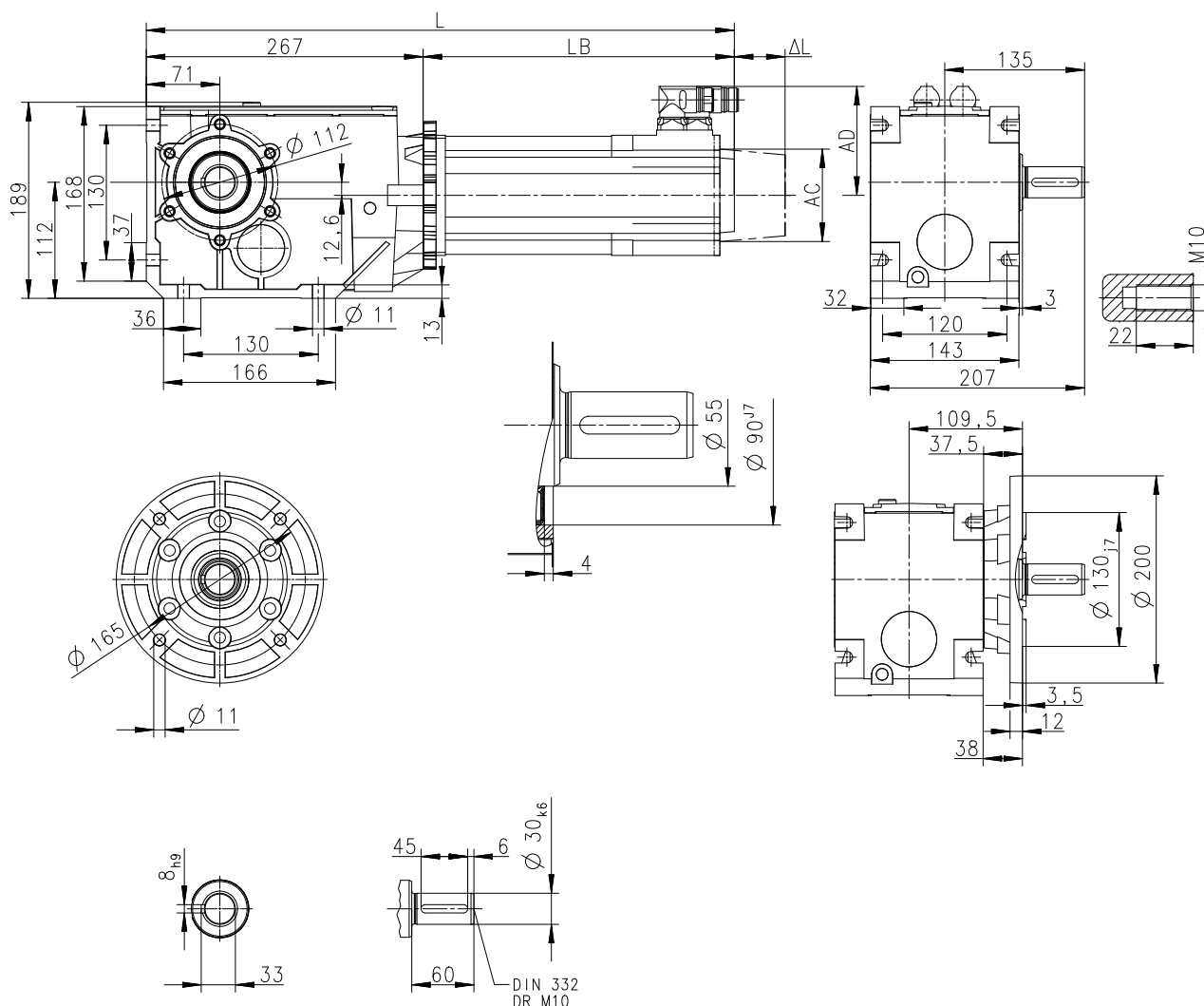
Technical data

Dimensions
Basic dimensions



g500-B450, 3-stage with MCS14

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



8800170-00

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	651	563	651	563	691	603	691	603
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

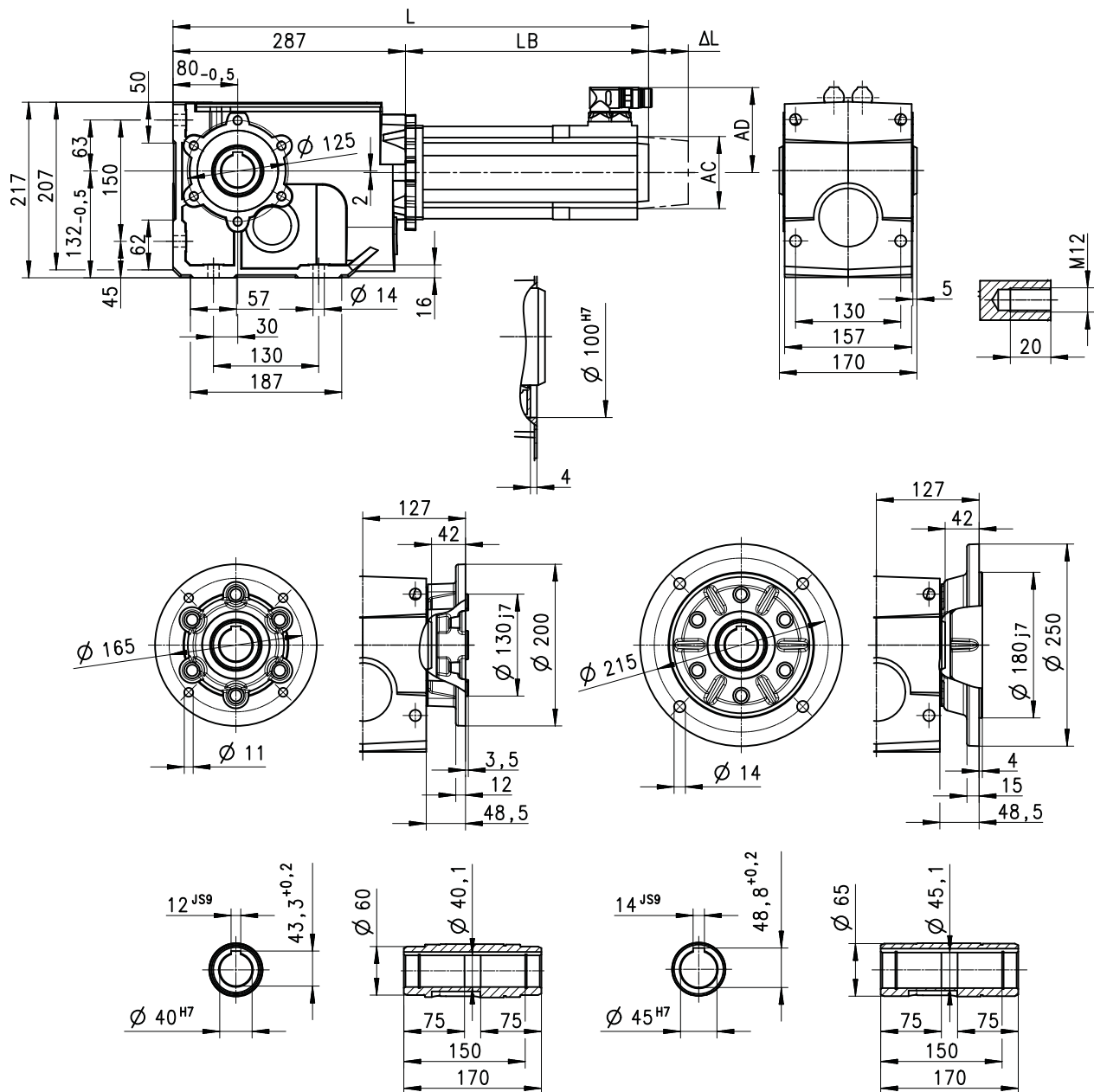


Technical data

Dimensions
Basic dimensions

g500-B600, 3-stage with MCS06

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



8800569-02

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	418	448	478
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	

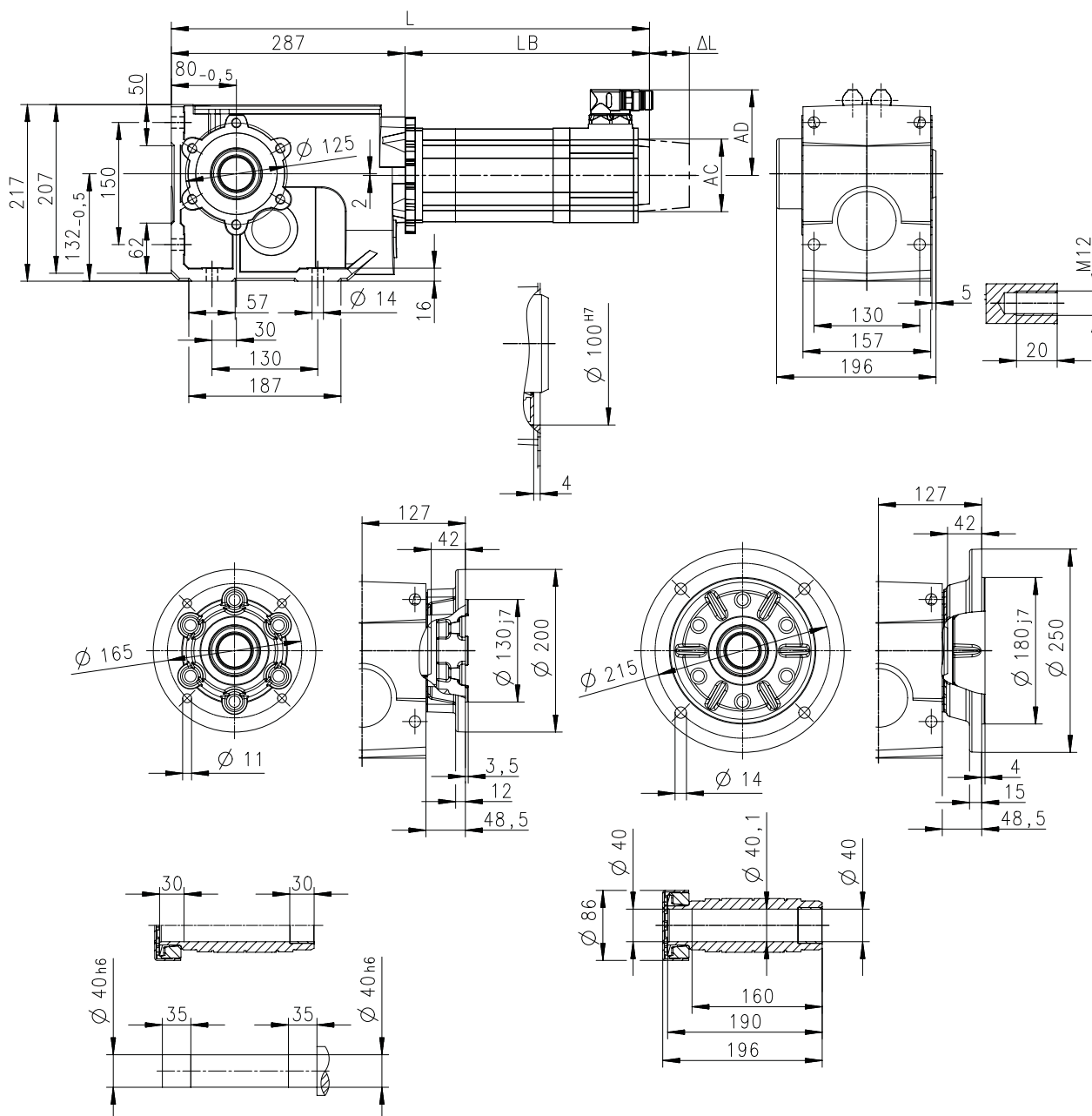
Technical data

Dimensions
Basic dimensions



g500-B600, 3-stage with MCS06

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



8800571-00

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	418	448	478
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	



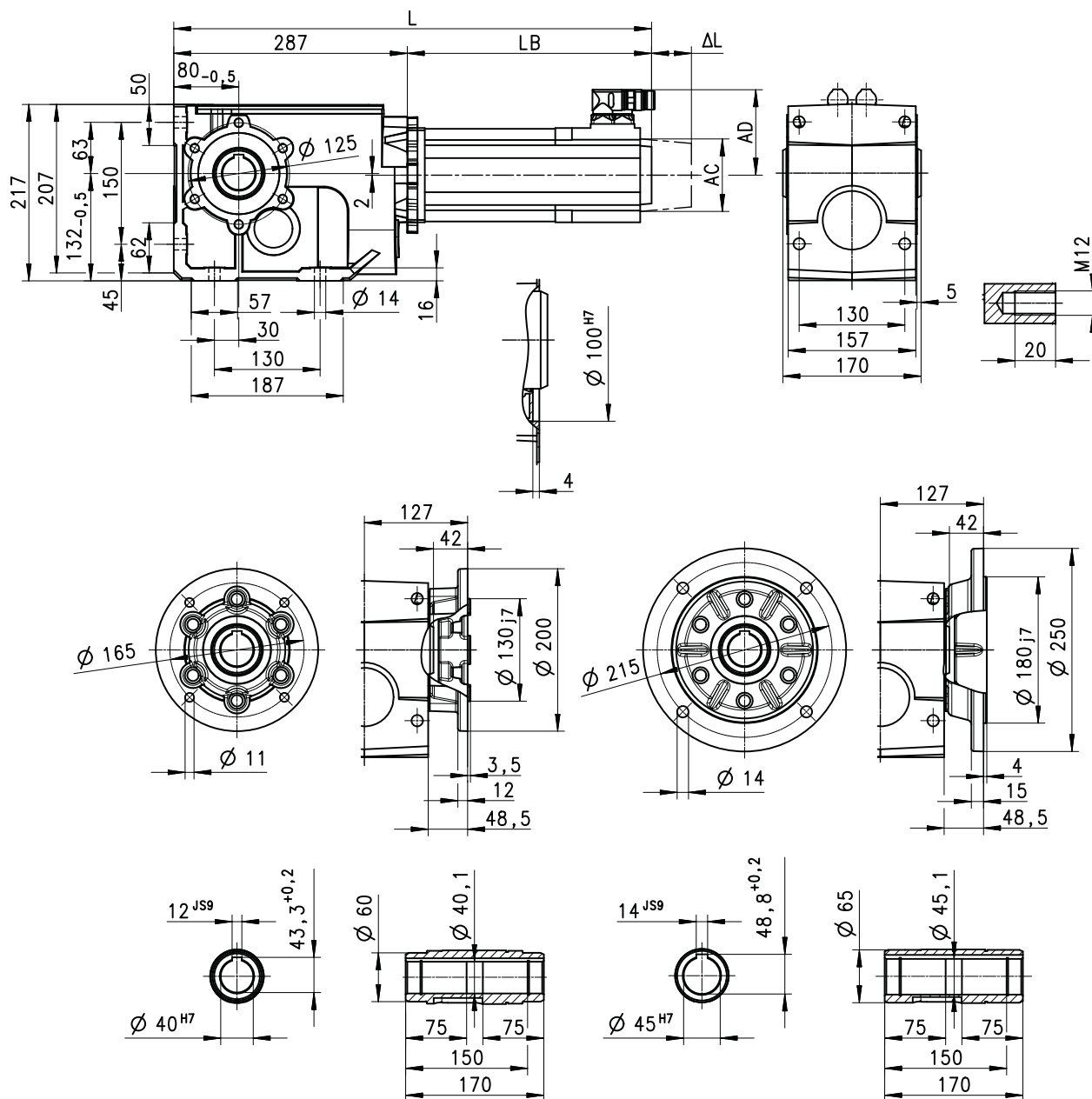
Technical data

Dimensions
Basic dimensions



g500-B600, 3-stage with MCS09

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

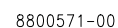


8800569-02

Motor			MCS			
			09D41-09D41L	09F38-09F38L	09H41-09H41L	09L41-09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	471	491	511	551
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			



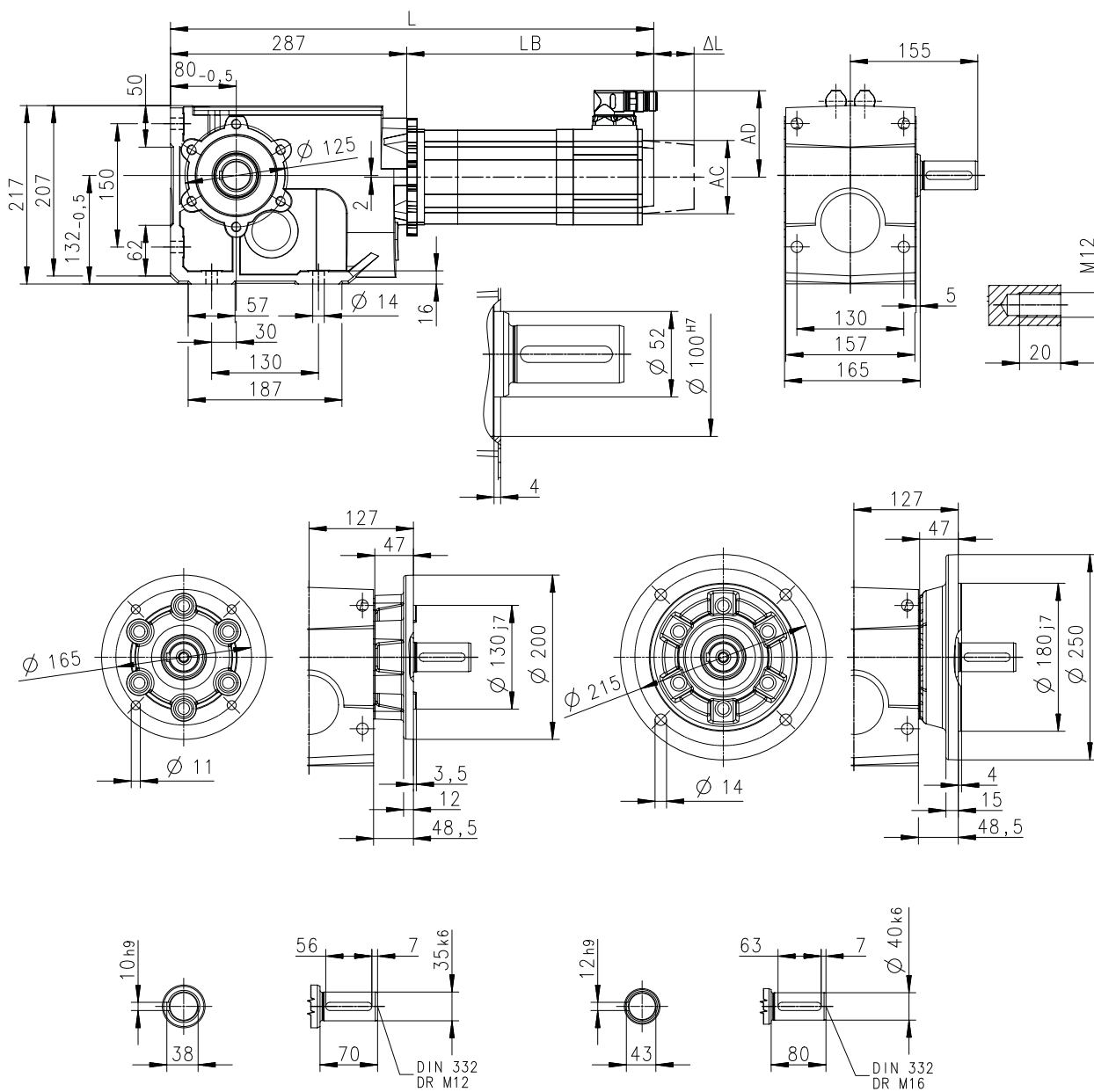
Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)

181



g500-B600, 3-stage with MCS09

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



8800570-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	471	491	511	551
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			

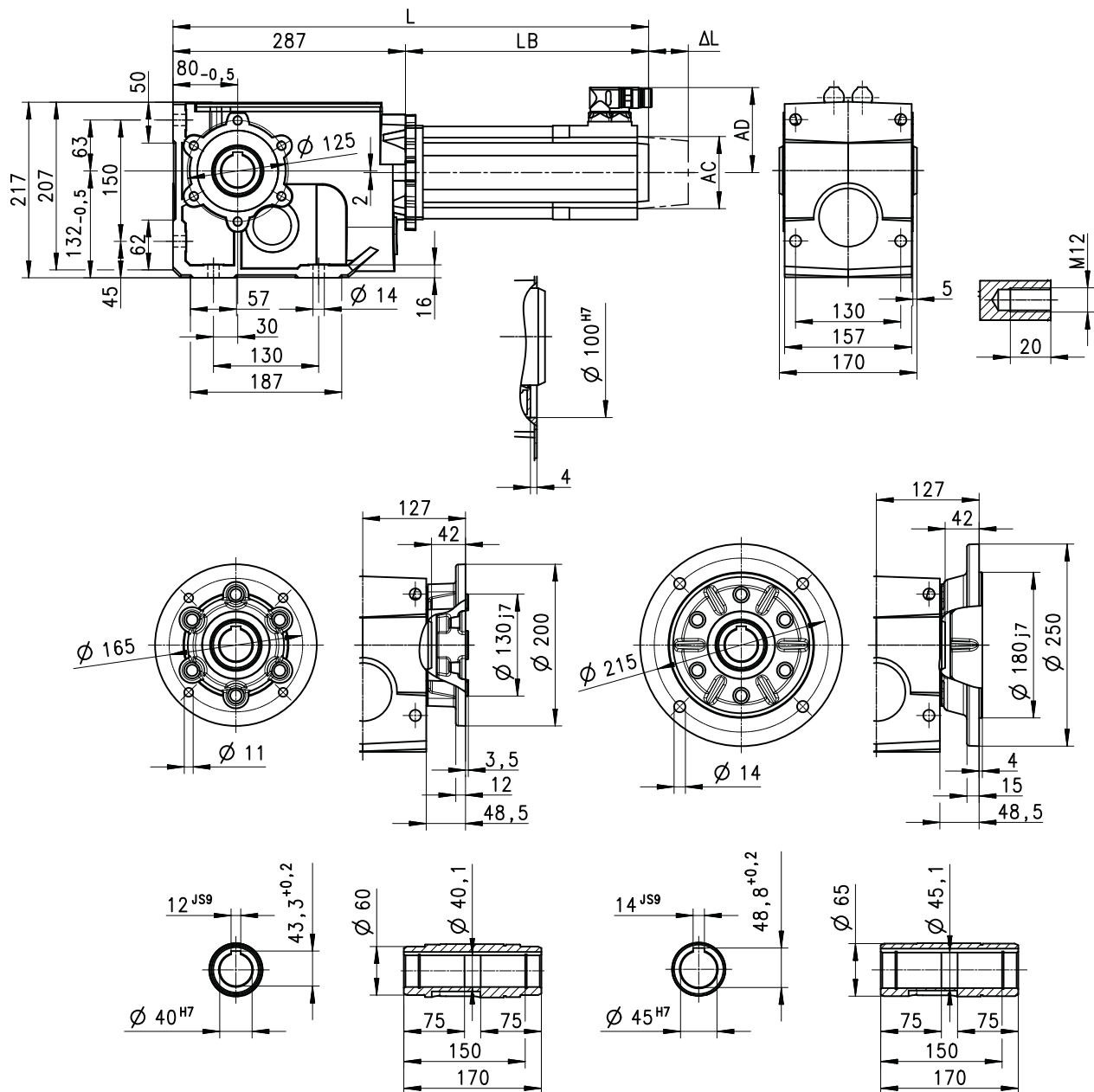


Technical data

Dimensions
Basic dimensions

g500-B600, 3-stage with MCS12

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



8800569-02

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	561	488	561	488	601	528
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

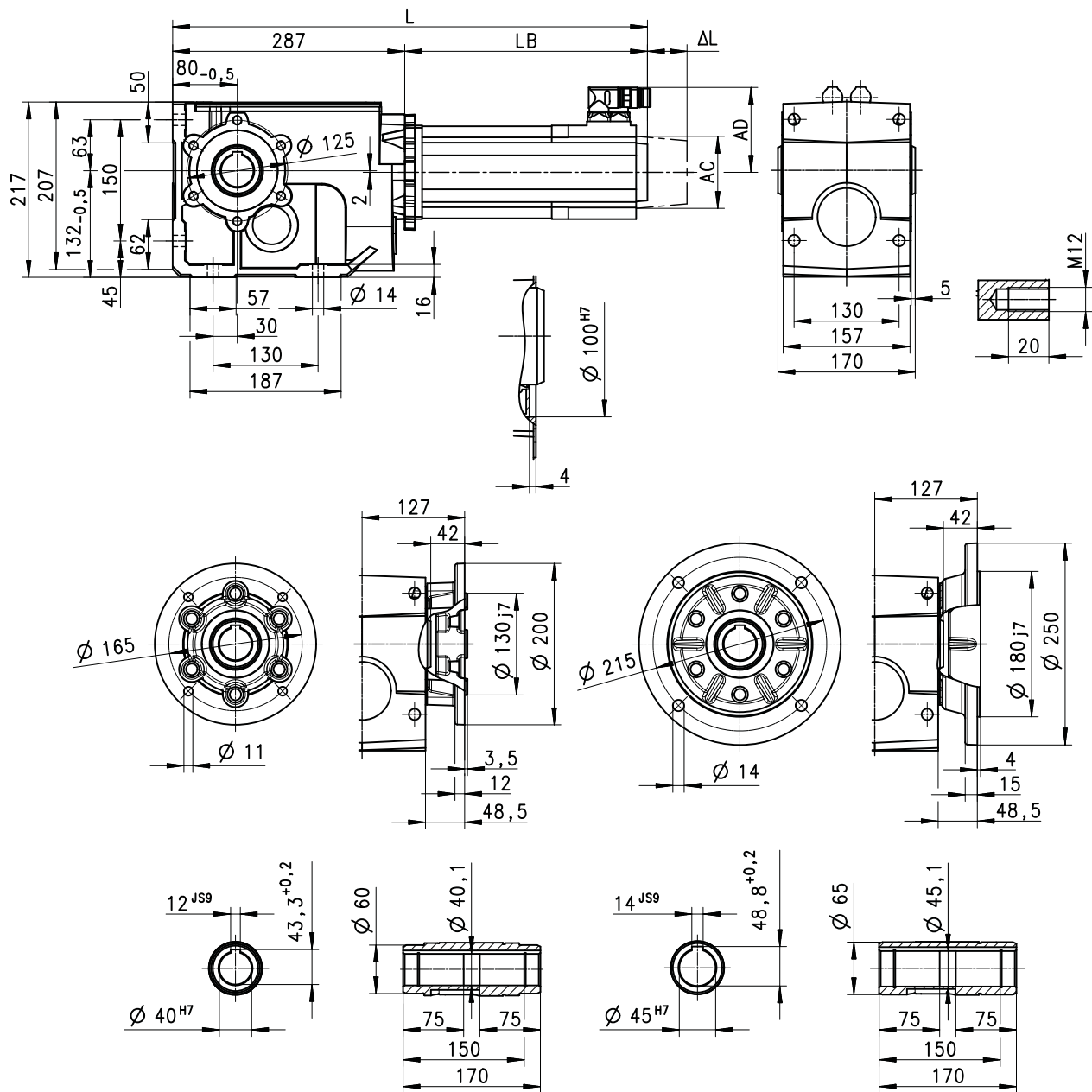
Technical data

Dimensions
Basic dimensions



g500-B600, 3-stage with MCS12

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



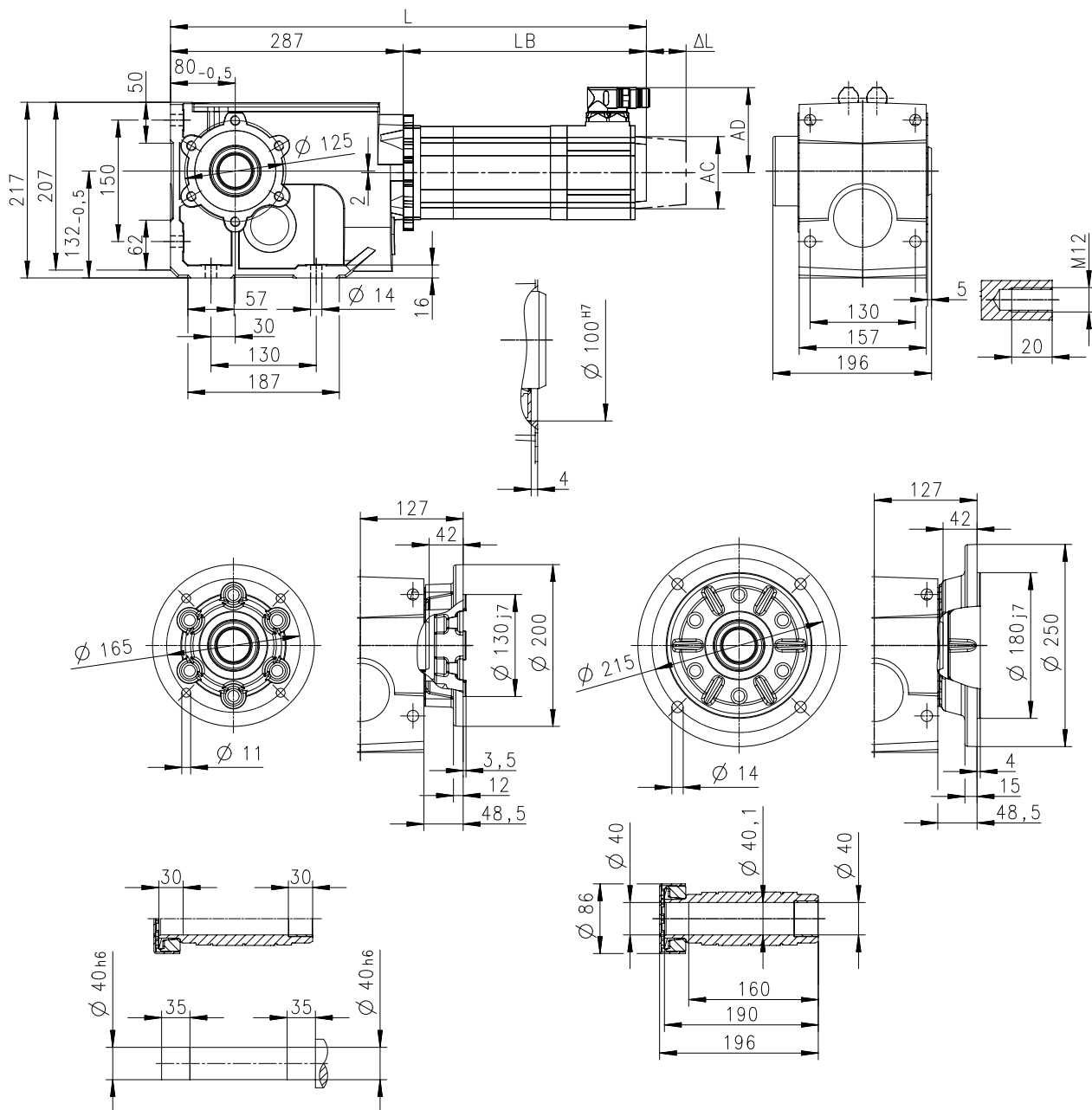
8800569-02

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	601	528	641	568	641	568
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-B600, 3-stage with MCS12

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



8800571-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	561	488	561	488	601	528
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

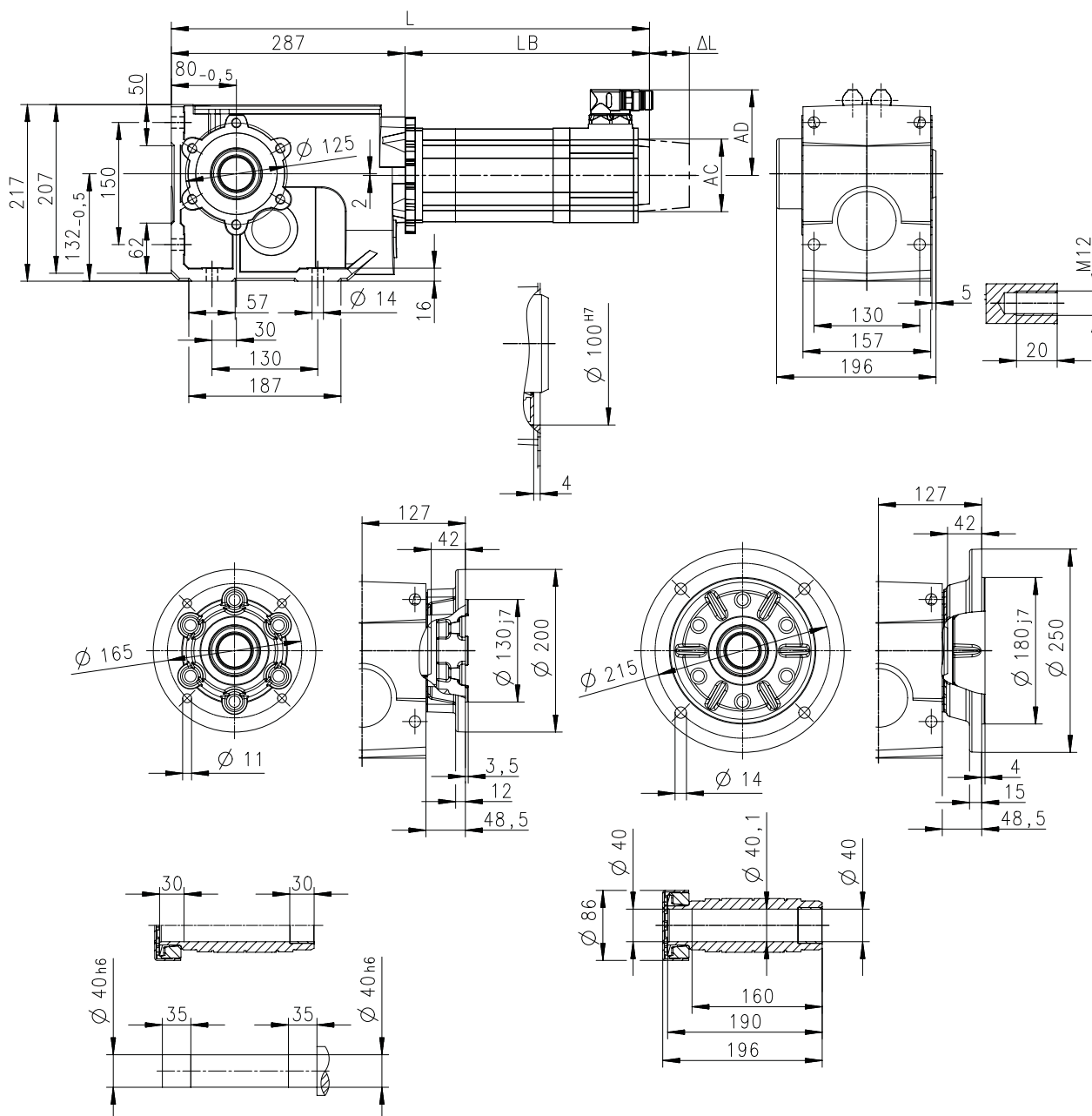
Technical data

Dimensions
Basic dimensions



g500-B600, 3-stage with MCS12

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



8800571-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	601	528	641	568	641	568
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

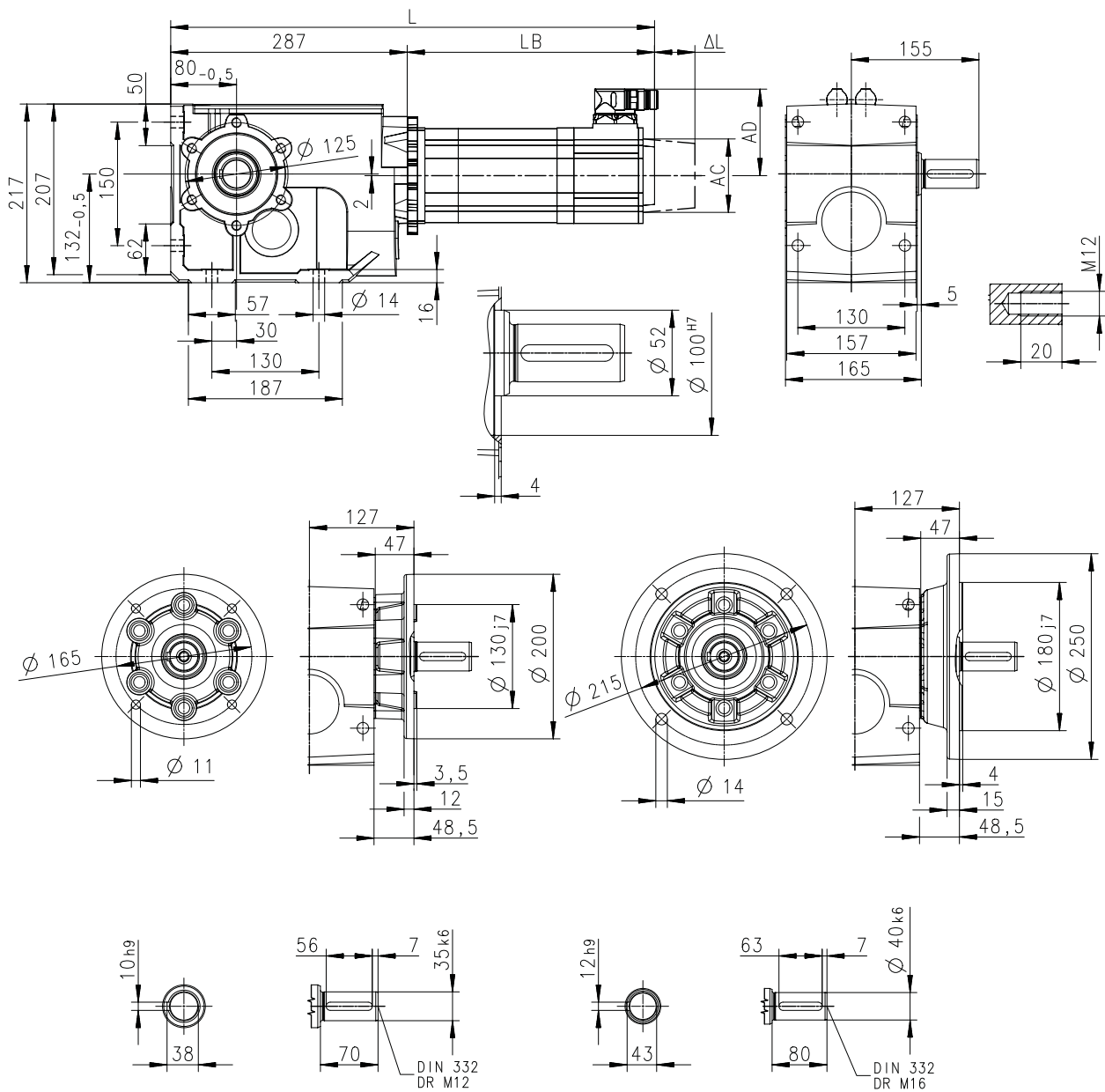


Technical data

Dimensions
Basic dimensions

g500-B600, 3-stage with MCS12

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



8800570-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	561	488	561	488	601	528
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

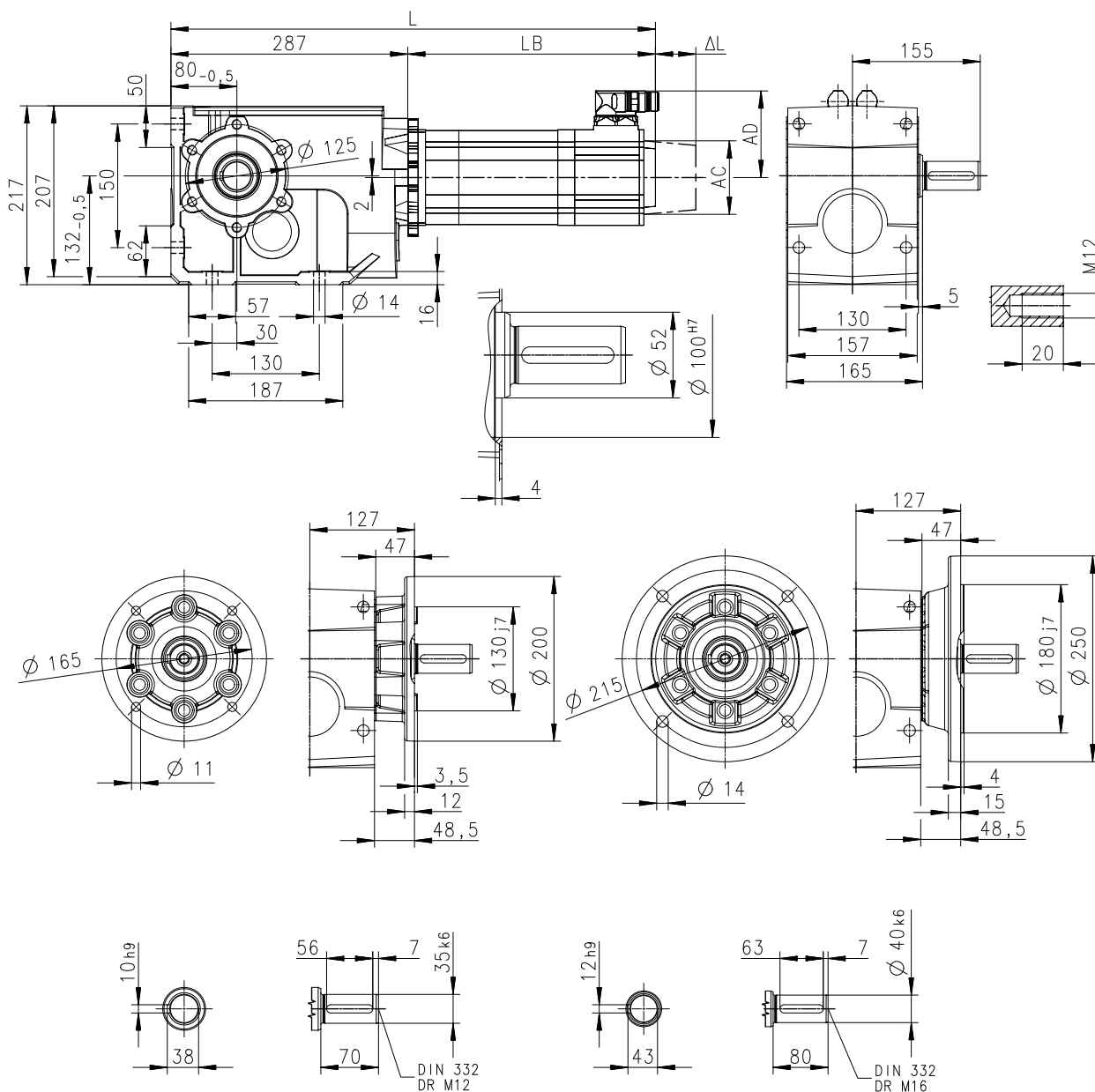
Technical data

Dimensions
Basic dimensions



g500-B600, 3-stage with MCS12

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



8800570-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	601	528	641	568	641	568
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

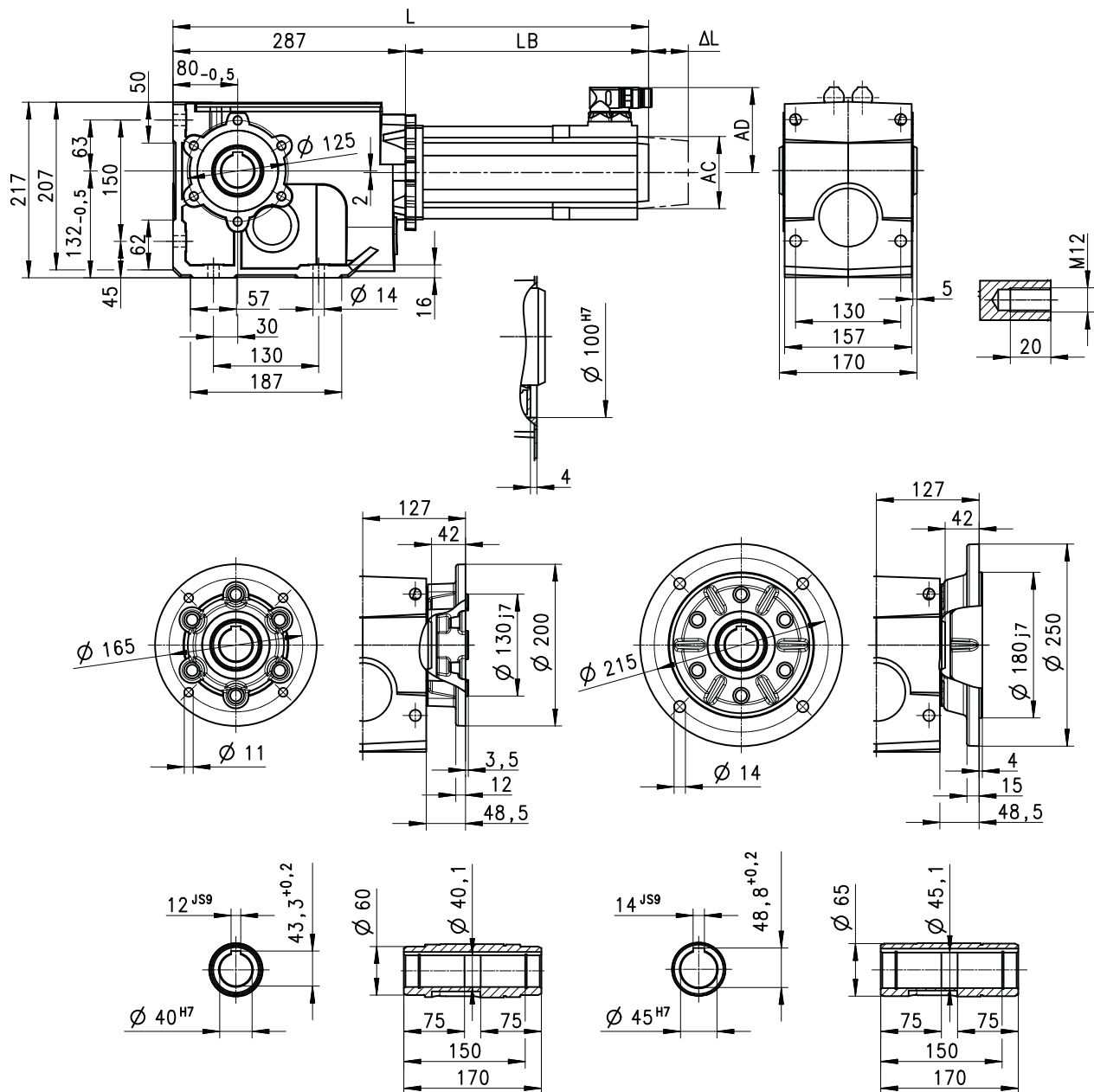


Technical data

Dimensions
Basic dimensions

g500-B600, 3-stage with MCS14

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



8800569-02

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	591	503	591	503	631	543	631	543
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

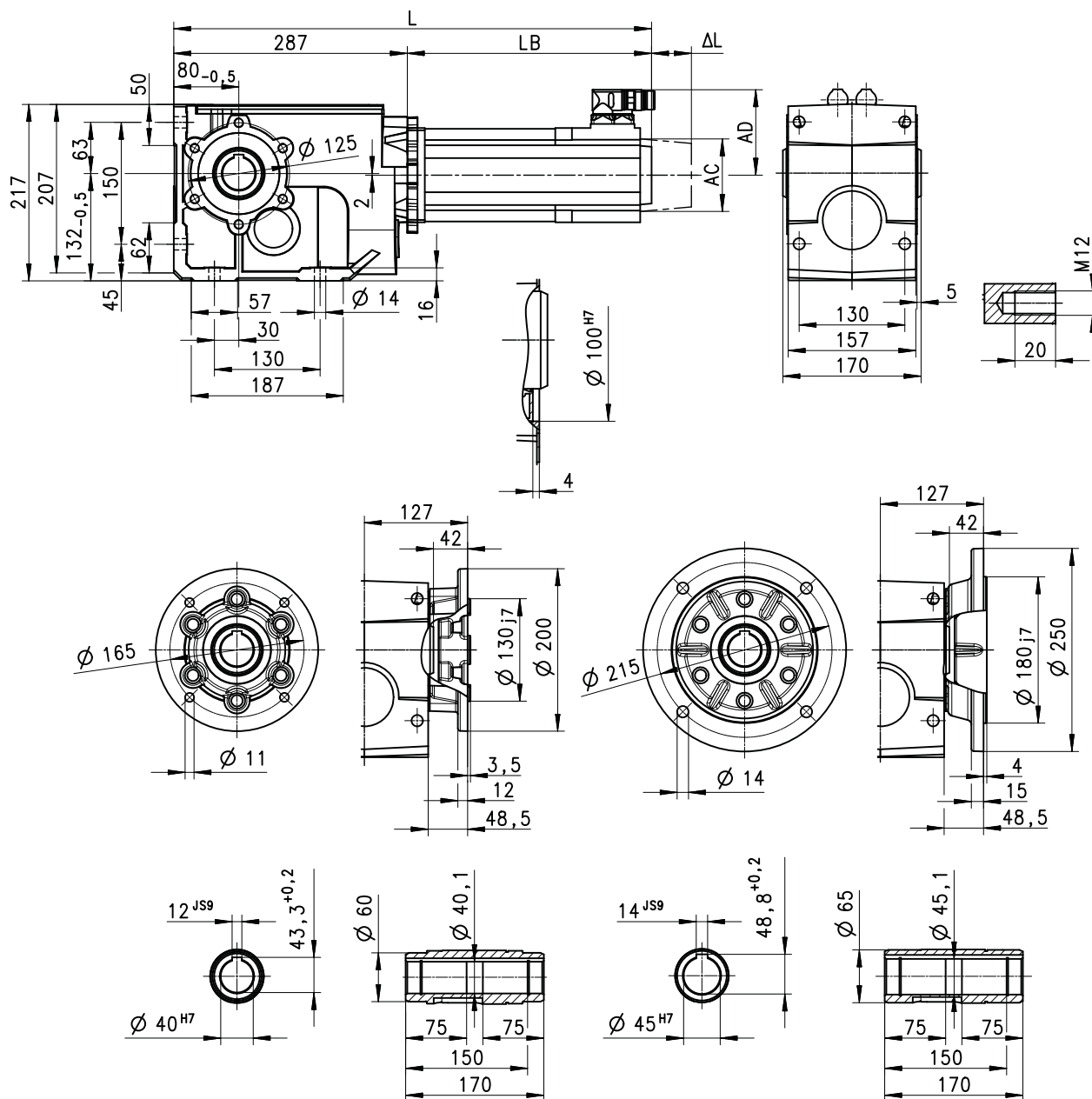
Technical data

Dimensions
Basic dimensions



g500-B600, 3-stage with MCS14

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



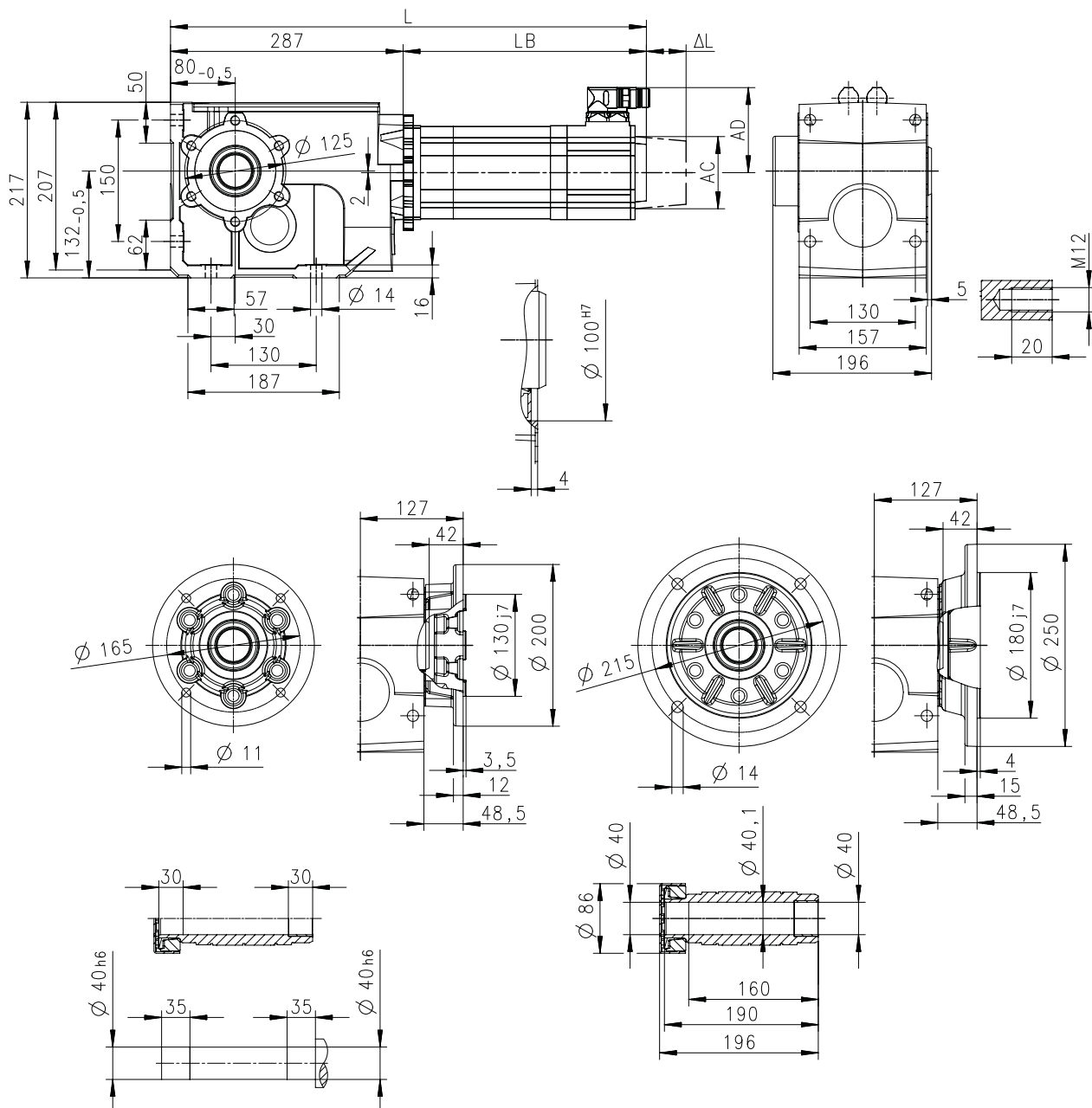
8800569-02

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	671	583	671	583	711	623	711	623
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-B600, 3-stage with MCS14

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



8800571-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	591	503	591	503	631	543	631	543
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

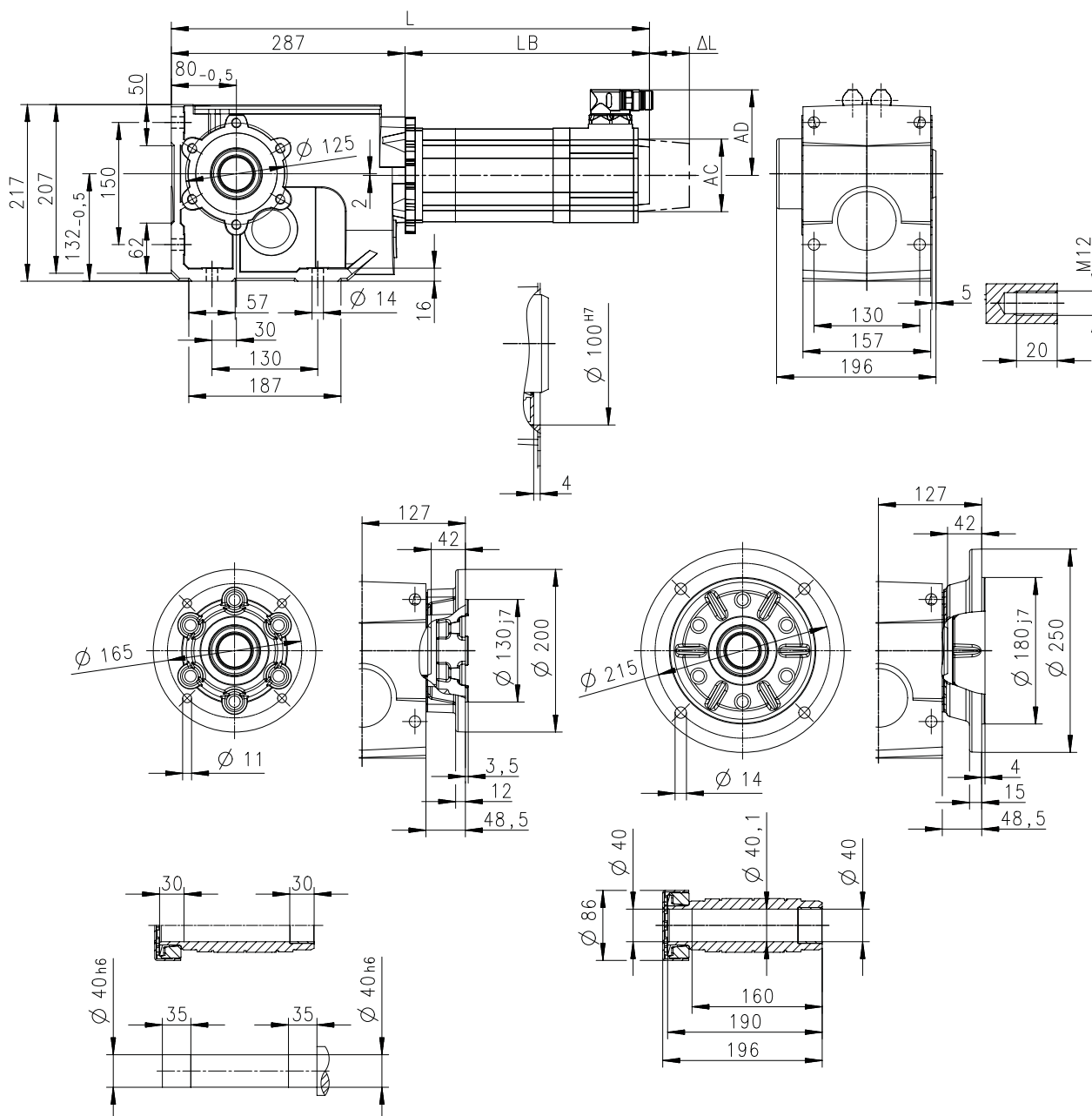
Technical data

Dimensions
Basic dimensions



g500-B600, 3-stage with MCS14

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



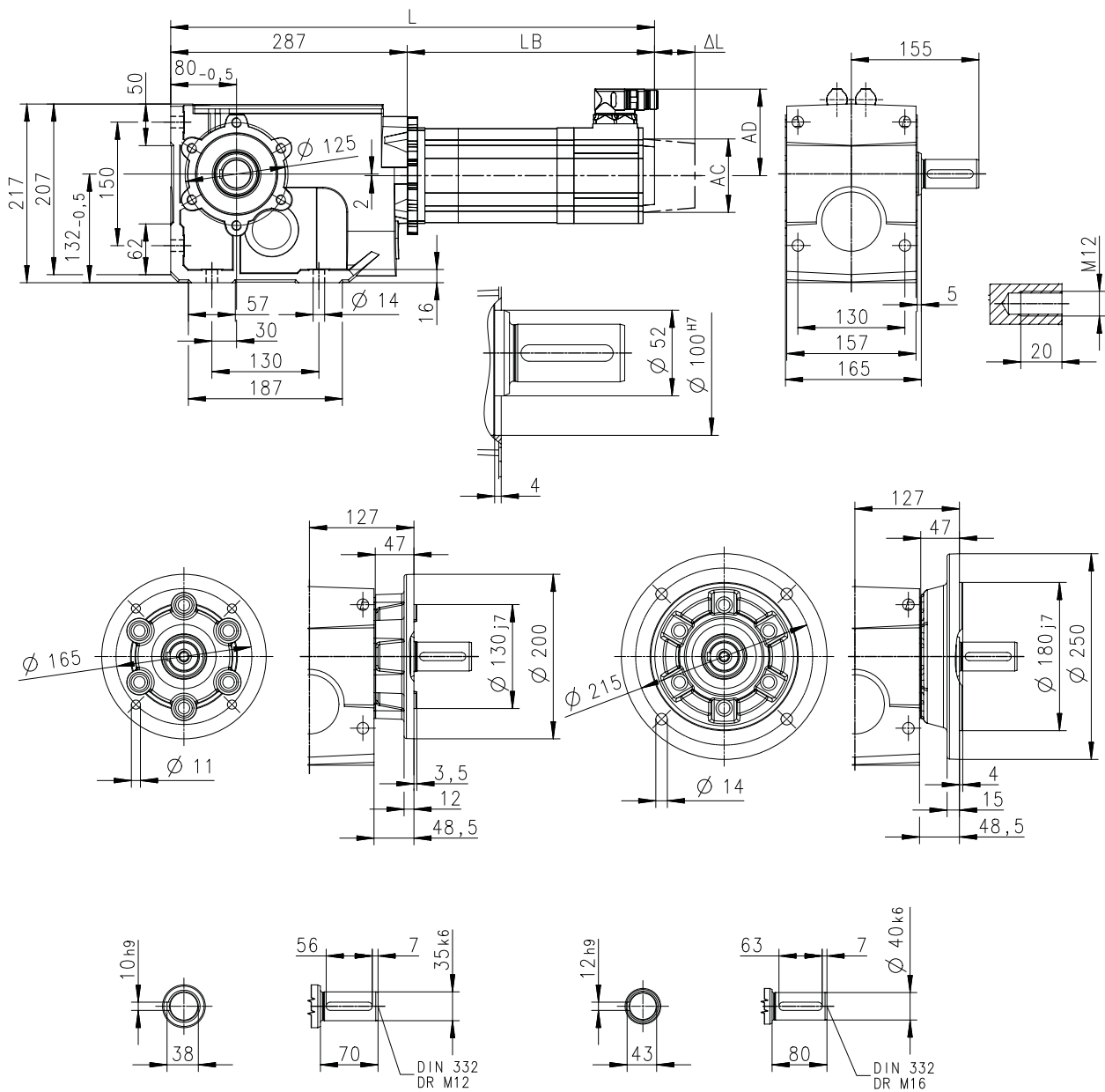
8800571-00

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	671	583	671	583	711	623	711	623
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-B600, 3-stage with MCS14

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



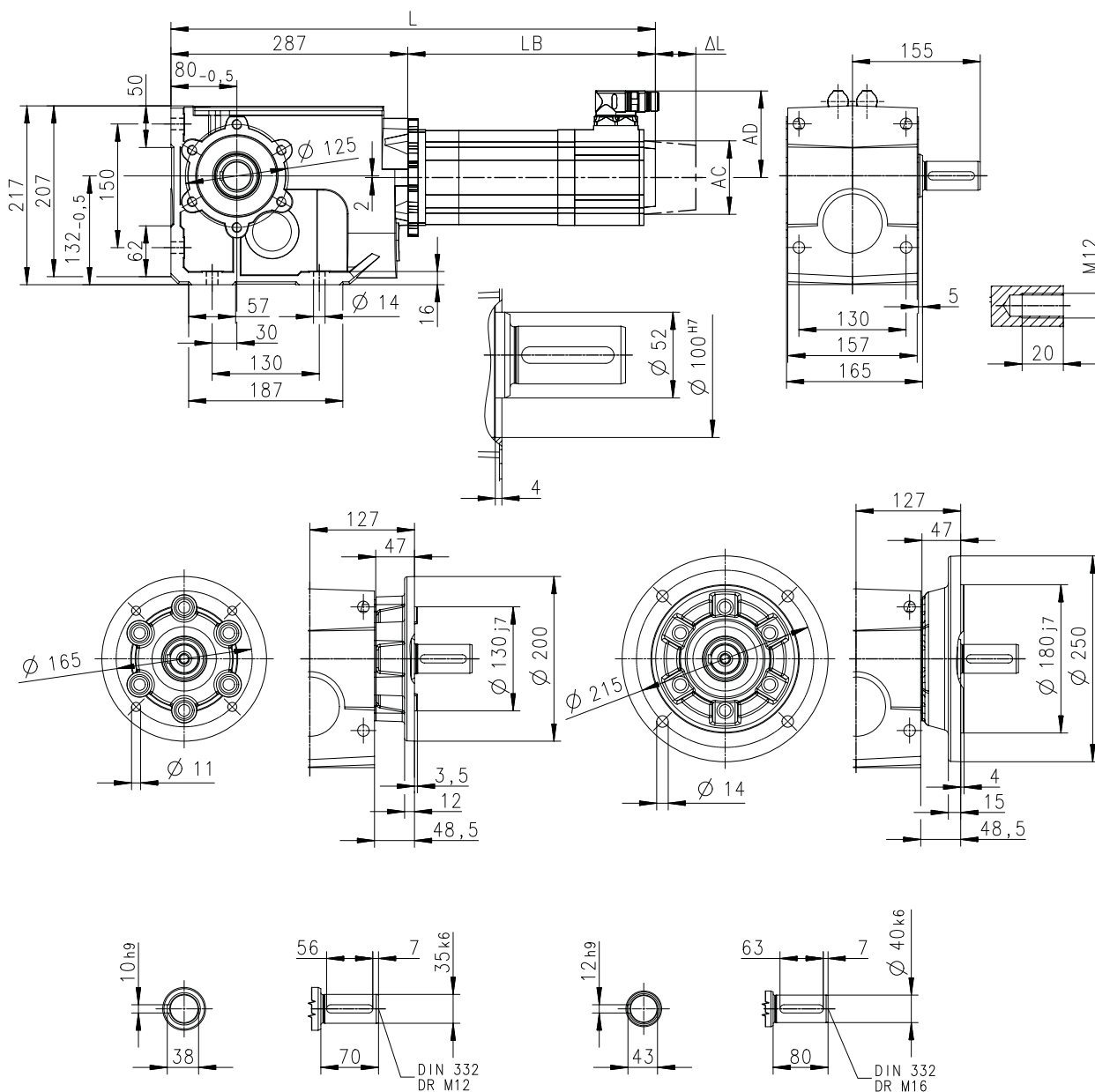
8800570-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	591	503	591	503	631	543	631	543
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



g500-B600, 3-stage with MCS14

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



8800570-00

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	671	583	671	583	711	623	711	623
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



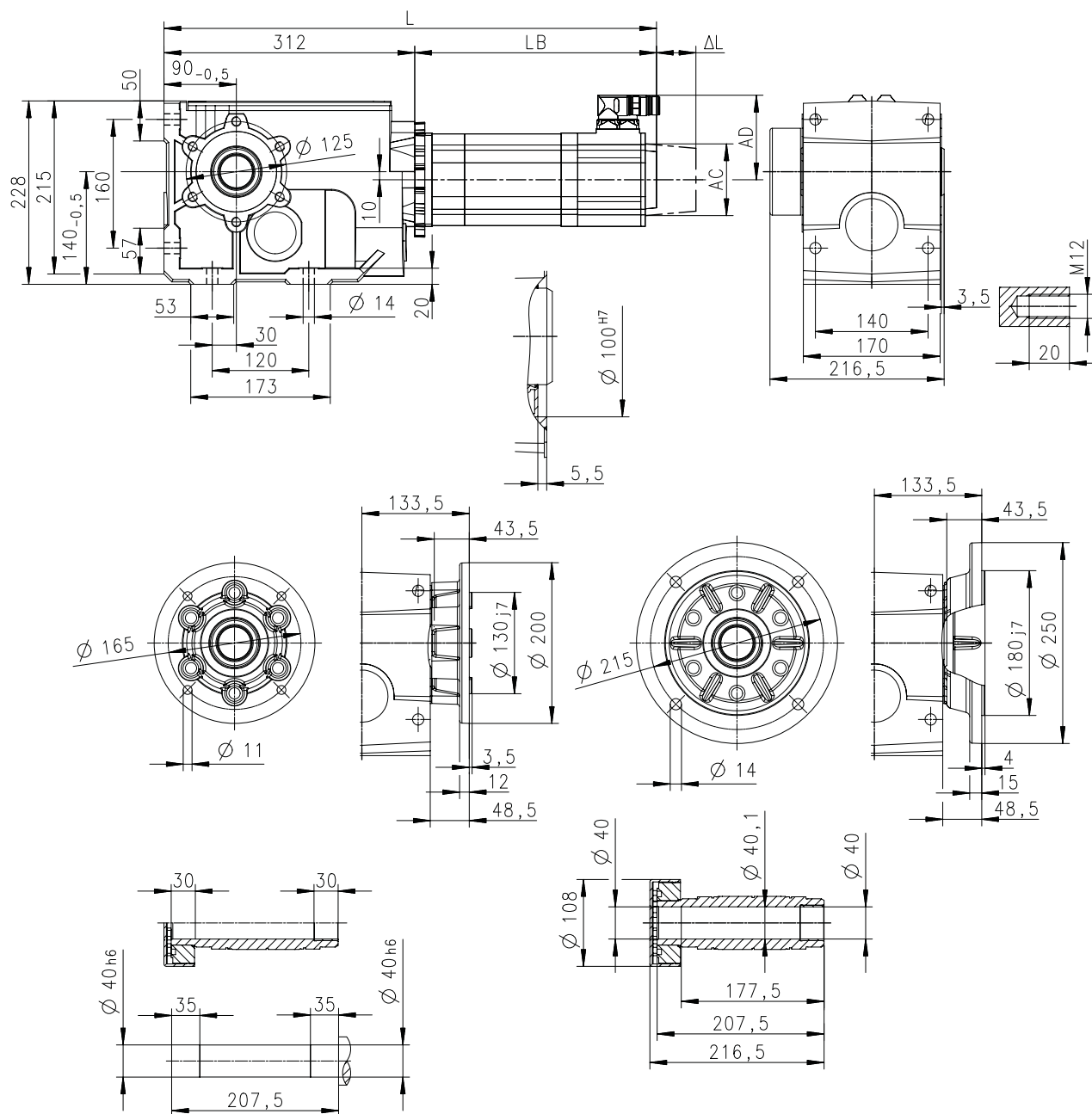
Gearbox version: Hollow shaft with foot (HAR/HBR/HAK)

8800572-02



g500-B820, 3-stage with MCS06

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



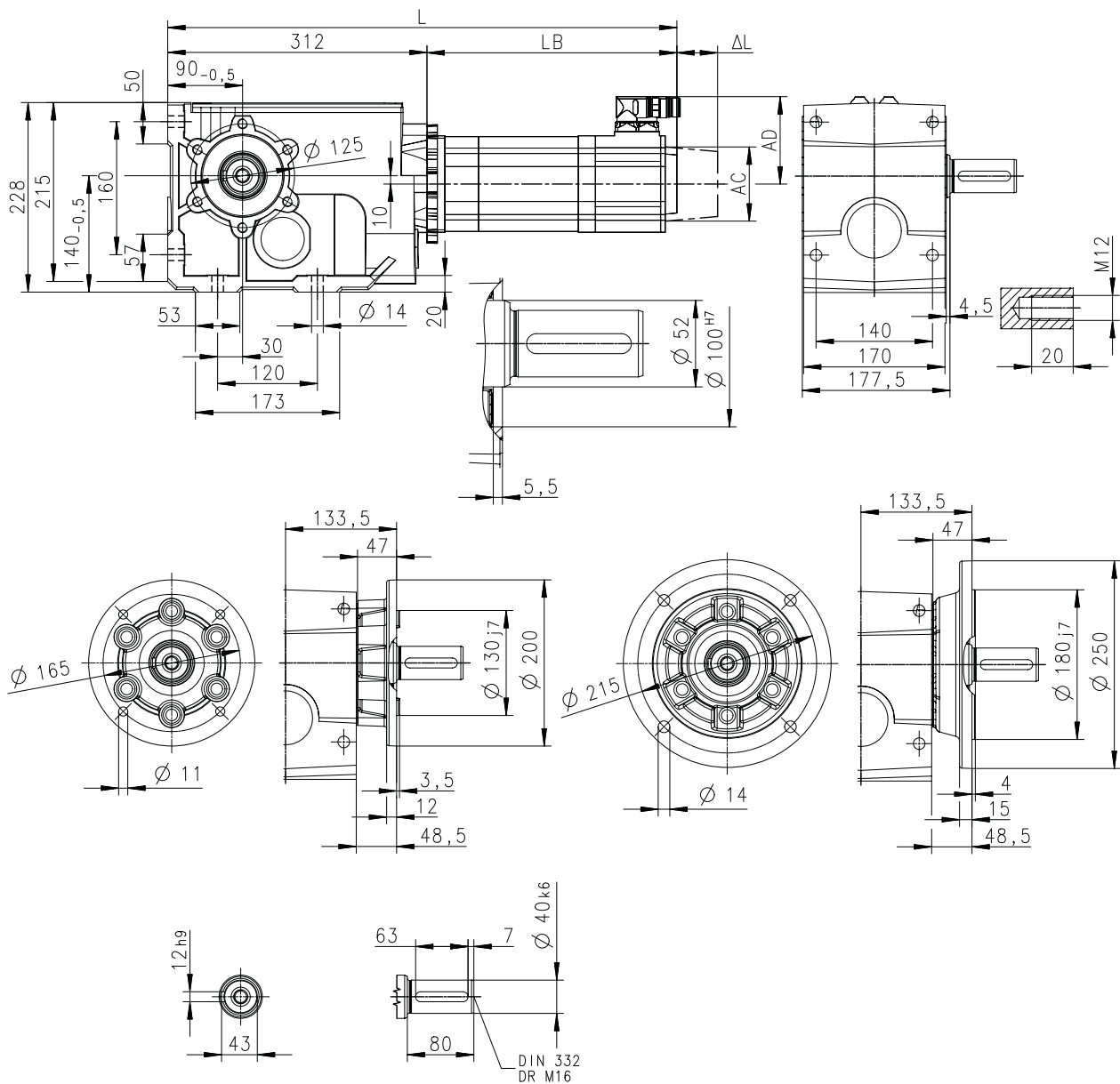
8800574-00

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	443	473	503
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		



g500-B820, 3-stage with MCS06

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



8800573-00

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	443	473	503
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	

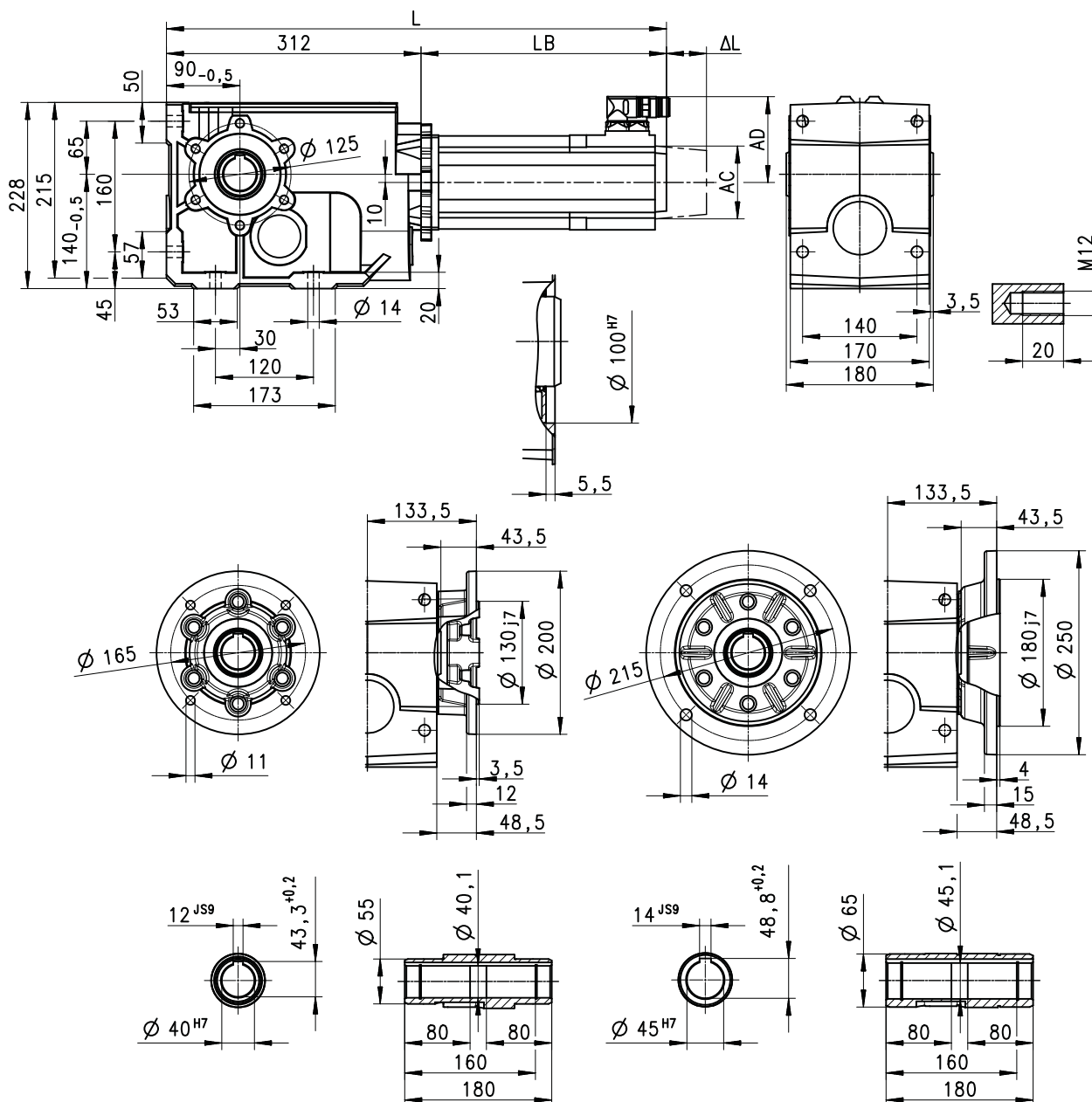
Technical data

Dimensions
Basic dimensions



g500-B820, 3-stage with MCS09

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



8800572-02

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	496	516	536	576
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			

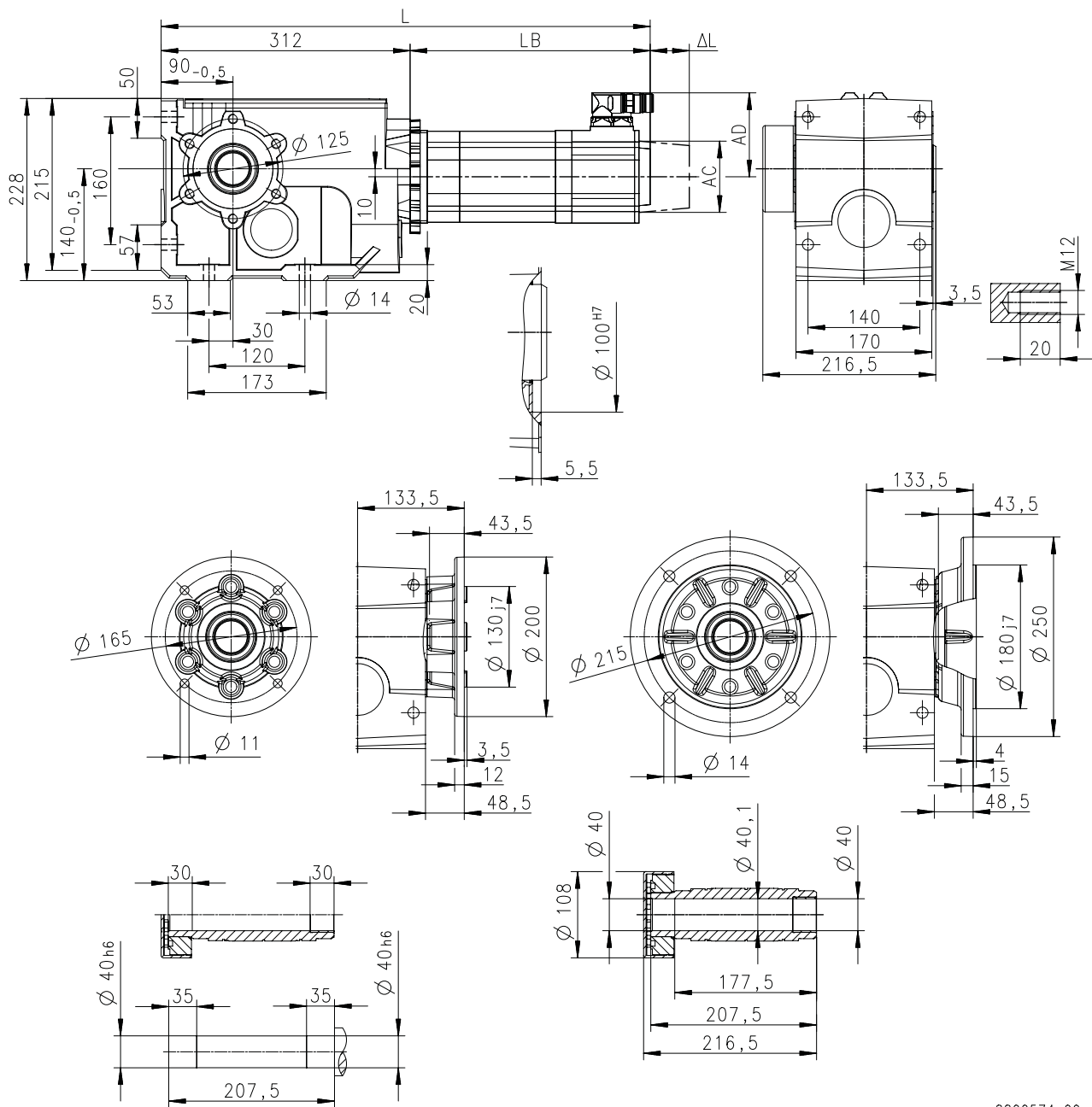


Technical data

Dimensions
Basic dimensions

g500-B820, 3-stage with MCS09

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



8800574-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	496	516	536	576
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			

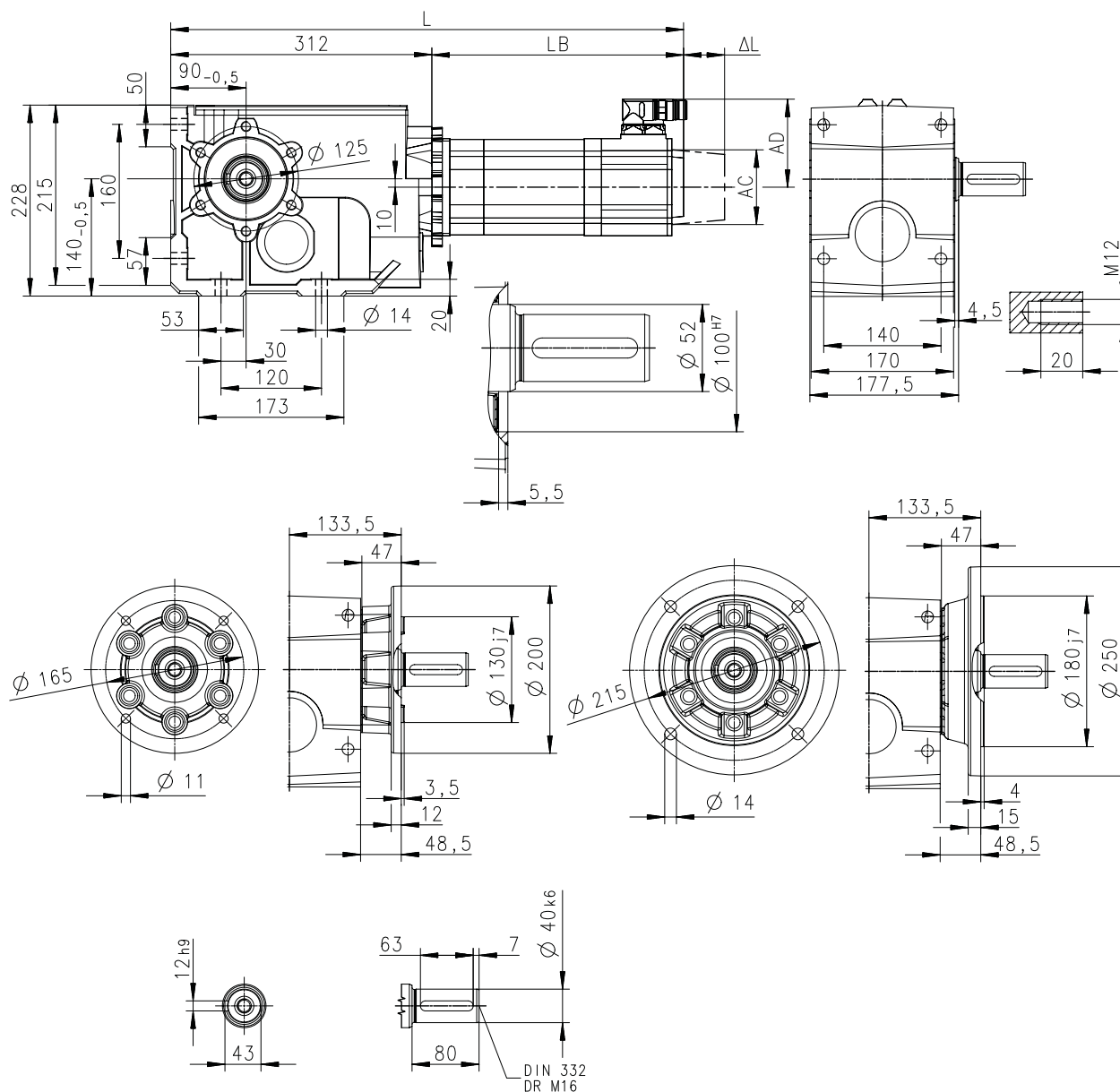
Technical data

Dimensions
Basic dimensions



g500-B820, 3-stage with MCS09

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



8800573-00

Motor			MCS			
			09D41-09D41L	09F38-09F38L	09H41-09H41L	09L41-09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	496	516	536	576
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			

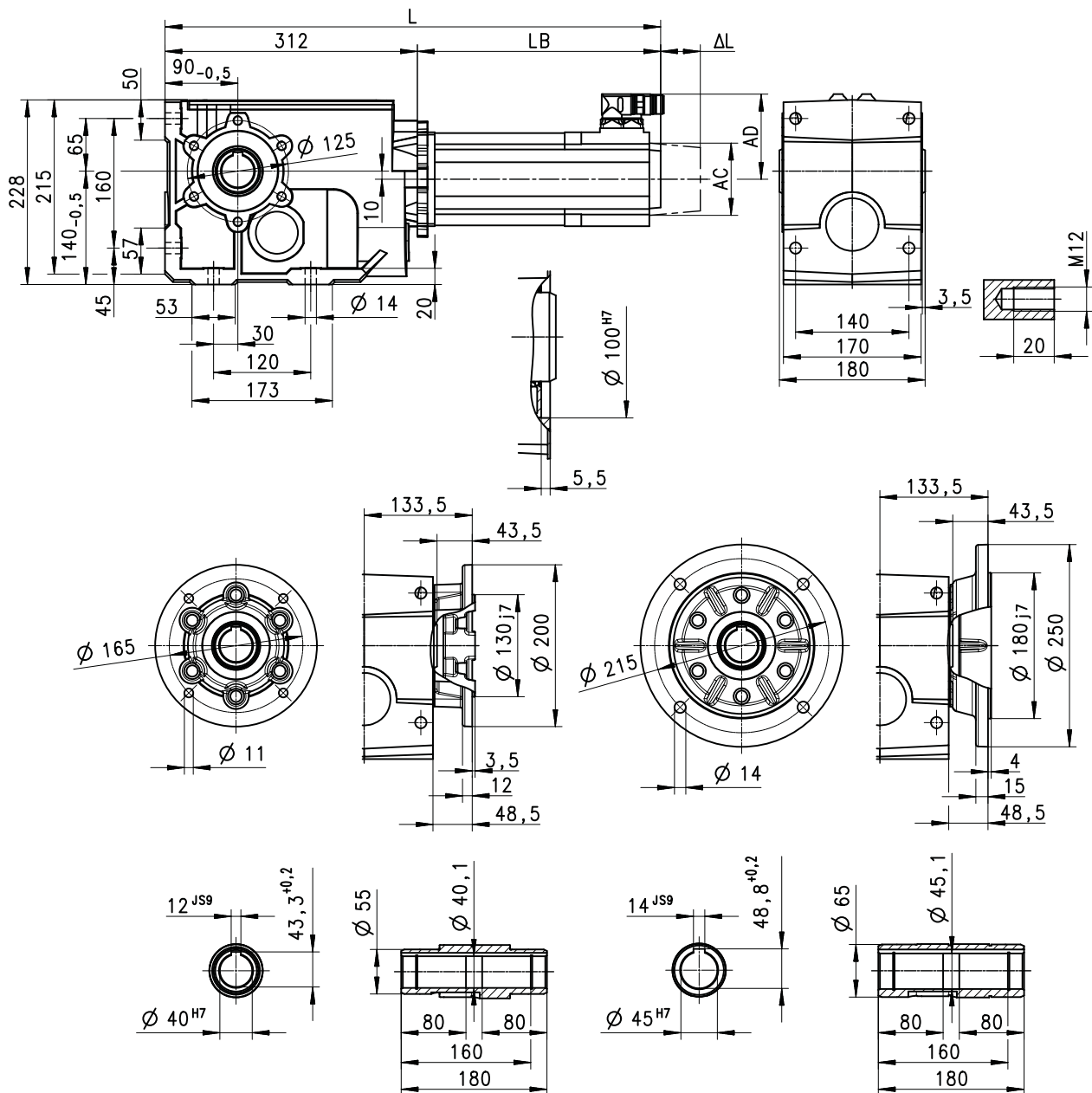


Technical data

Dimensions
Basic dimensions

g500-B820, 3-stage with MCS12

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



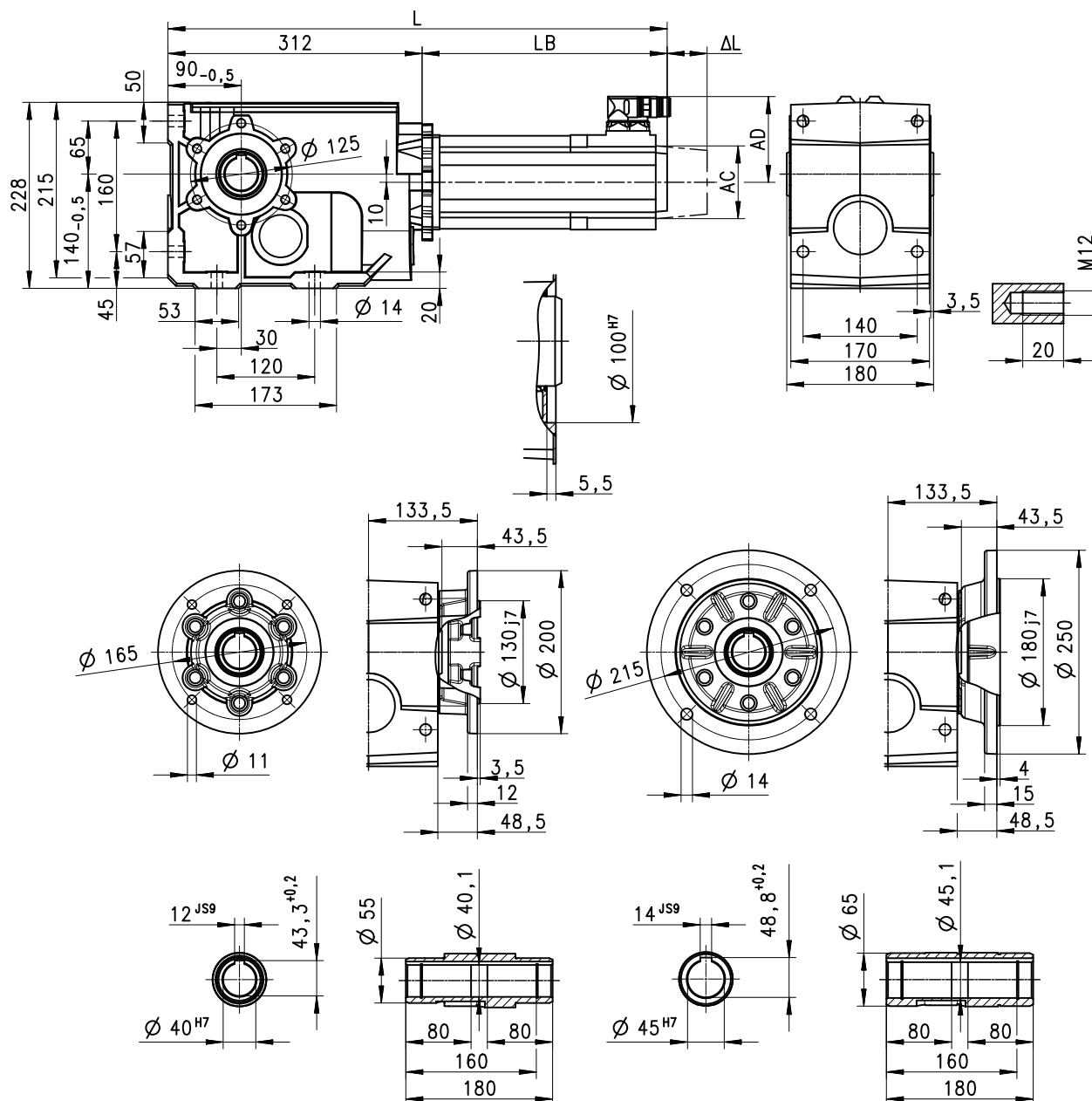
8800572-02

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	586	513	586	513	626	553
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-B820, 3-stage with MCS12

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



8800572-02

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	626	553	666	593	666	593
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

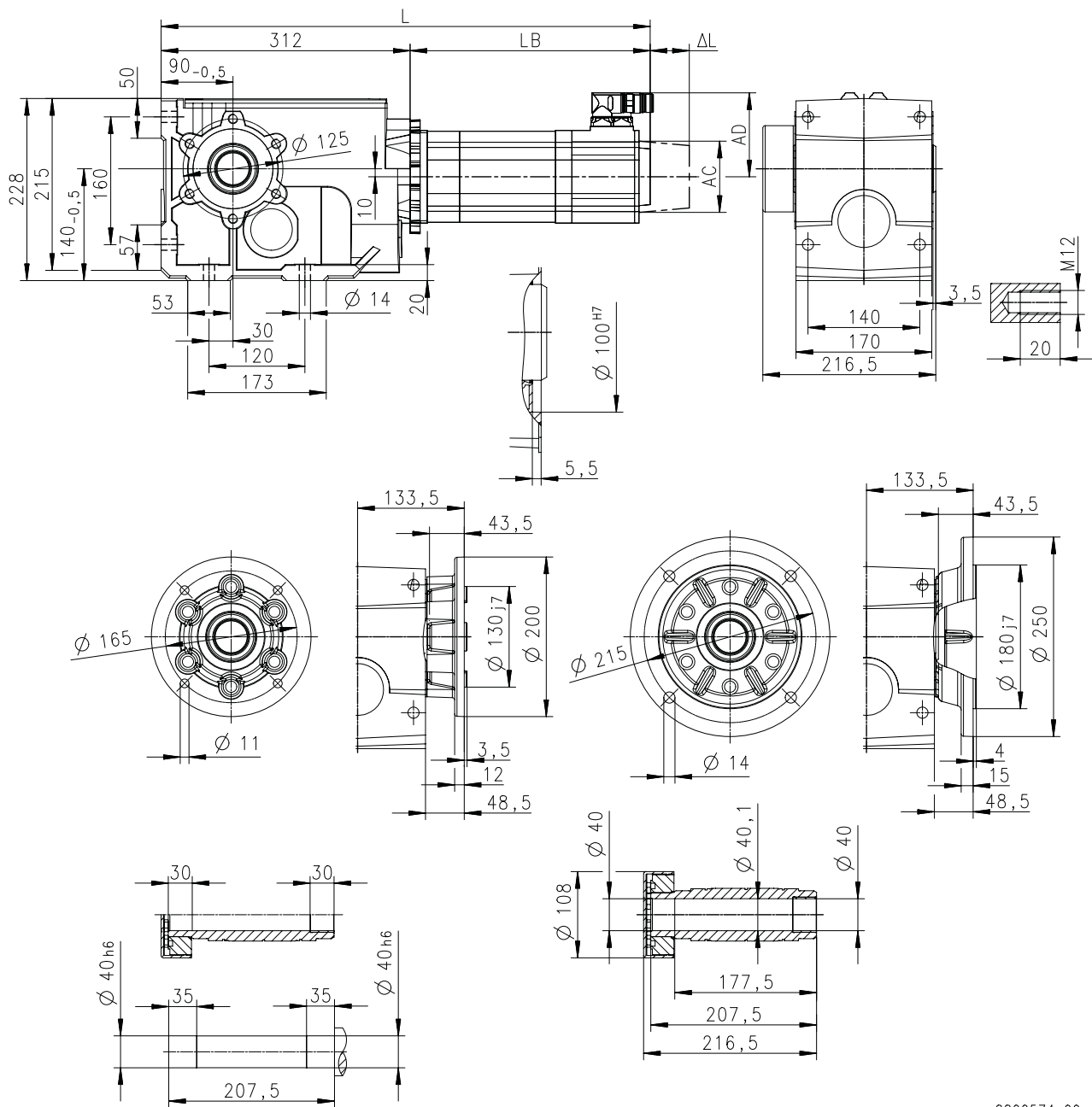


Technical data

Dimensions
Basic dimensions

g500-B820, 3-stage with MCS12

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



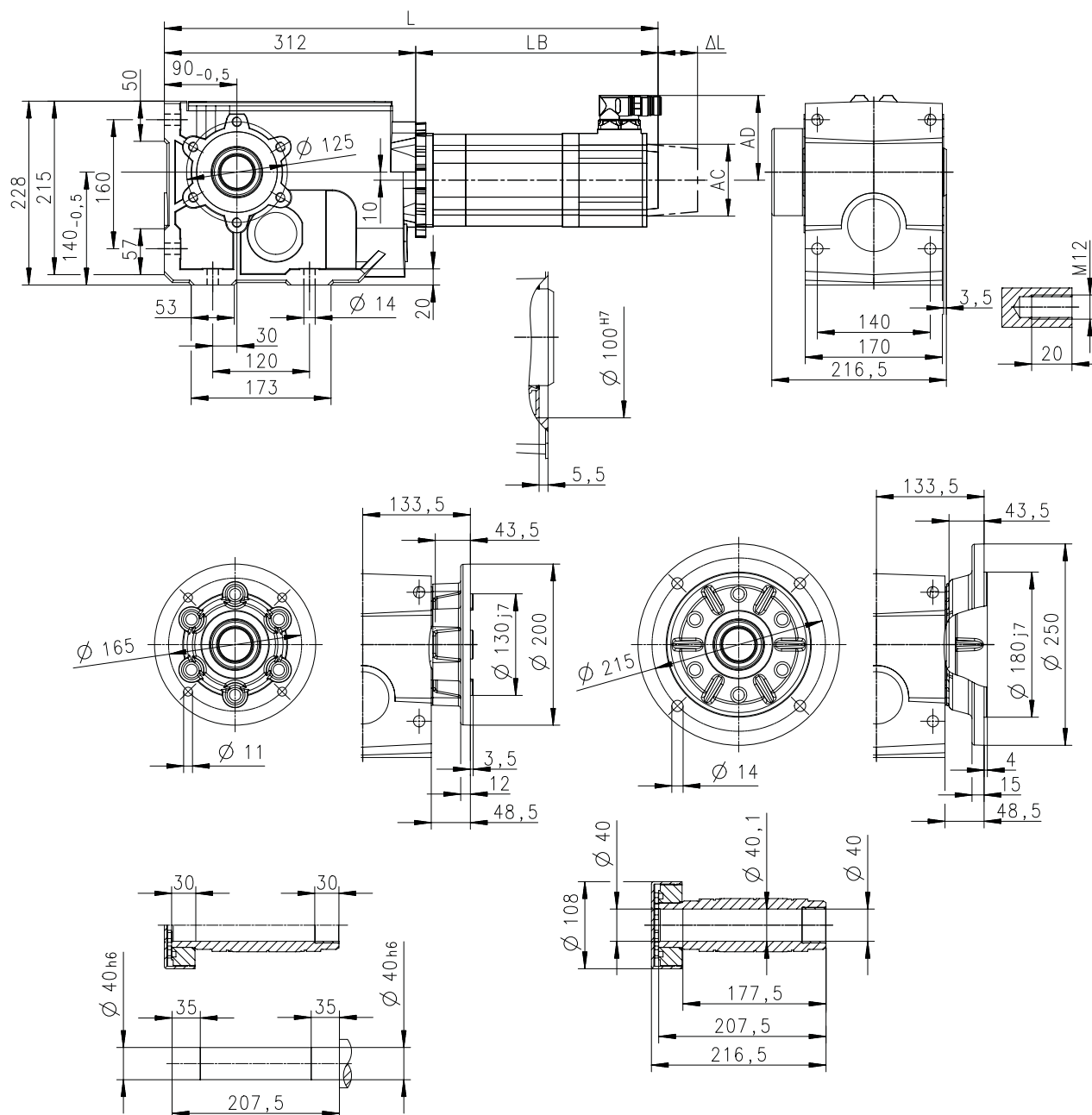
8800574-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	586	513	586	513	626	553
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-B820, 3-stage with MCS12

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



8800574-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	626	553	666	593	666	593
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

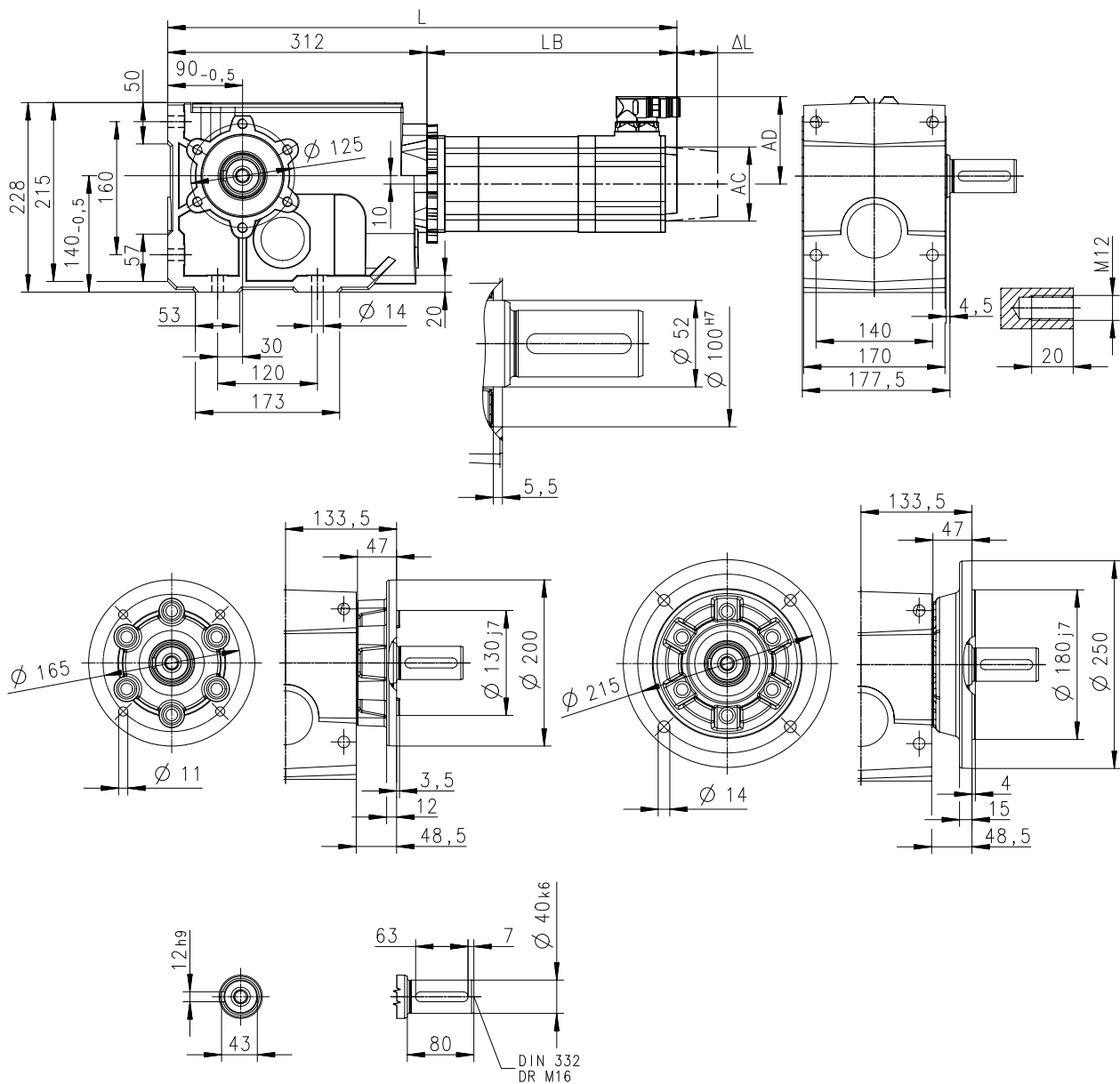


Technical data

Dimensions
Basic dimensions

g500-B820, 3-stage with MCS12

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



8800573-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	586	513	586	513	626	553
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

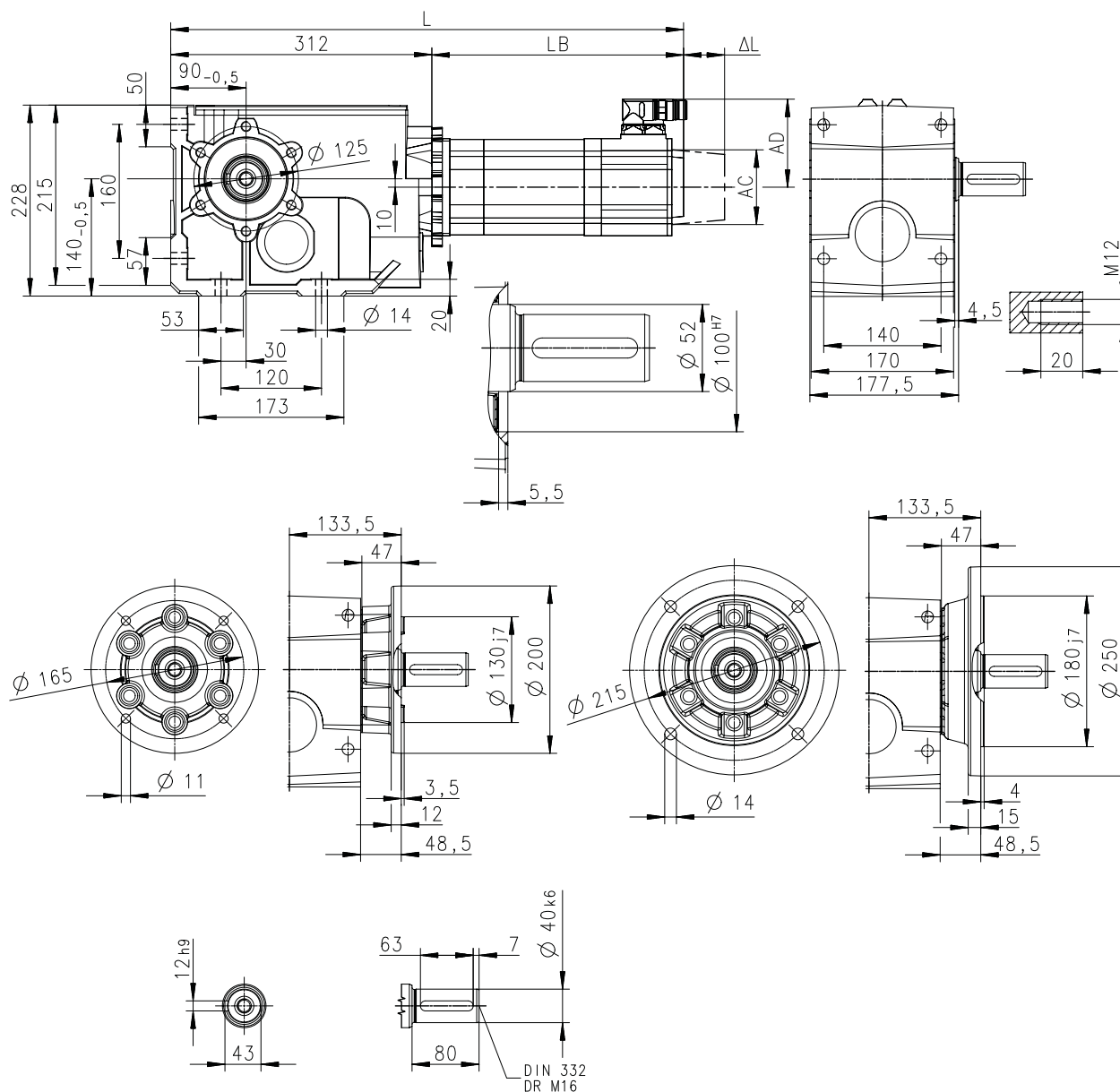
Technical data

Dimensions
Basic dimensions



g500-B820, 3-stage with MCS12

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



8800573-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	626	553	666	593	666	593
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

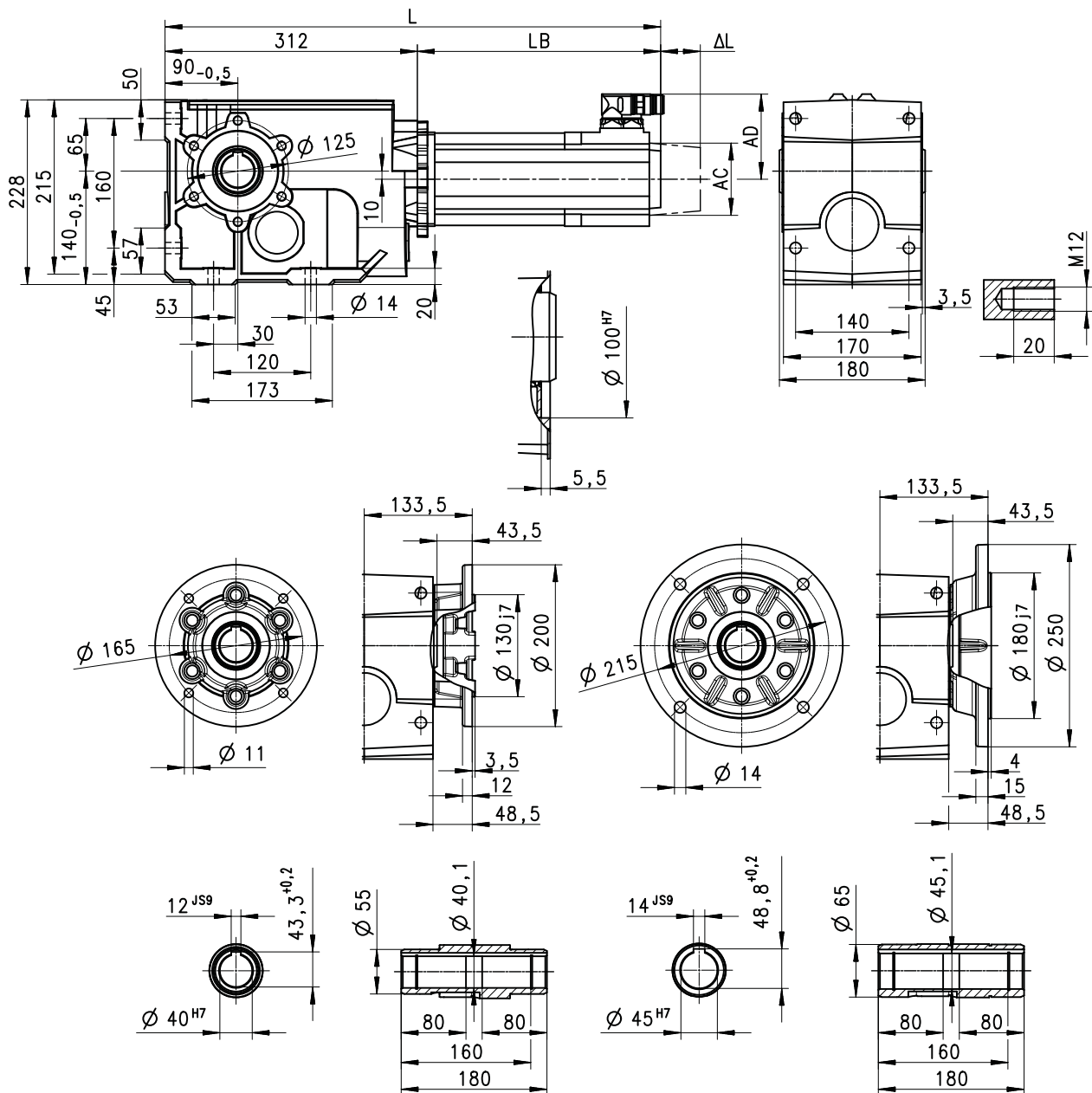


Technical data

Dimensions
Basic dimensions

g500-B820, 3-stage with MCS14

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



8800572-02

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	616	528	616	528	656	568	656	568
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

Dimensions
Basic dimensions



Technical drawing of the 100H7 hydraulic cylinder, showing front, side, and end views with detailed dimensions in millimeters.

Front View Dimensions:

- Overall width: 312
- Overall height: 228
- Mounting flange outer diameter: $\varnothing 125$
- Mounting flange thickness: 10
- Mounting flange hole diameter: $\varnothing 14$
- Mounting flange hole spacing: 173 (center-to-center), 120 (edge-to-edge), 30 (flange to body)
- Body diameter: $\varnothing 100^{H7}$
- Body length: L
- Stroke: LB
- End cap diameter: $\varnothing 140$
- End cap thickness: 3.5
- End cap hole diameter: $\varnothing 12$
- End cap hole spacing: 180 (center-to-center), 170 (edge-to-edge)

Side View Dimensions:

- Overall height: 215
- Mounting flange hole diameter: $\varnothing 14$
- Mounting flange hole spacing: 173 (center-to-center), 120 (edge-to-edge), 30 (flange to body)
- Body diameter: $\varnothing 100^{H7}$
- Body length: L
- Stroke: LB
- End cap diameter: $\varnothing 140$
- End cap thickness: 3.5
- End cap hole diameter: $\varnothing 12$
- End cap hole spacing: 180 (center-to-center), 170 (edge-to-edge)

End View Dimensions:

- Overall diameter: $\varnothing 215$
- Overall height: 250
- Mounting flange outer diameter: $\varnothing 165$
- Mounting flange thickness: 12
- Mounting flange hole diameter: $\varnothing 11$
- Mounting flange hole spacing: 133.5 (center-to-center), 43.5 (edge-to-edge)
- Body diameter: $\varnothing 100^{H7}$
- Body length: L
- Stroke: LB
- End cap diameter: $\varnothing 180^{1/7}$
- End cap thickness: 4
- End cap hole diameter: $\varnothing 15$
- End cap hole spacing: 180 (center-to-center), 170 (edge-to-edge)

Detail Dimensions:

- Mounting flange hole diameter: $\varnothing 40^{H7}$
- Mounting flange hole spacing: 12 JS9
- Mounting flange hole diameter: $\varnothing 45^{H7}$
- Mounting flange hole spacing: 14 JS9
- Mounting flange hole diameter: $\varnothing 45,1$
- Mounting flange hole spacing: 14 JS9
- Mounting flange hole diameter: $\varnothing 45,1$
- Mounting flange hole spacing: 14 JS9

8800572-02

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	696	608	696	608	736	648	736	648
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



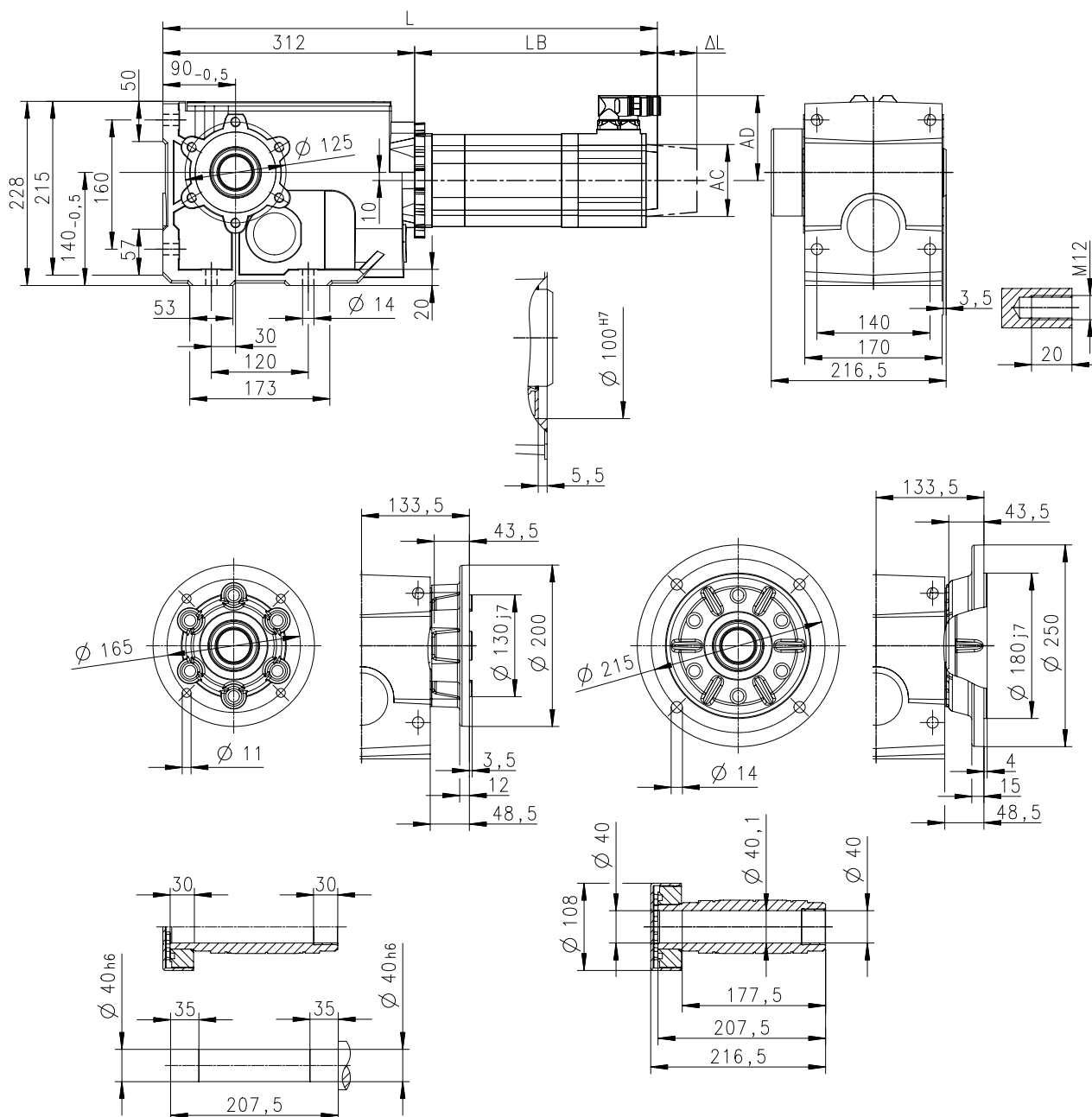
Technical data

Dimensions
Basic dimensions



g500-B820, 3-stage with MCS14

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



8800574-00

Motor			MCS							
			14L14- Blower	14L15- natural	14L30- Blower	14L32- natural	14P11- Blower	14P14- natural	14P26- Blower	14P32- natural
Total length	L	mm	696	608	696	608	736	648	736	648
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

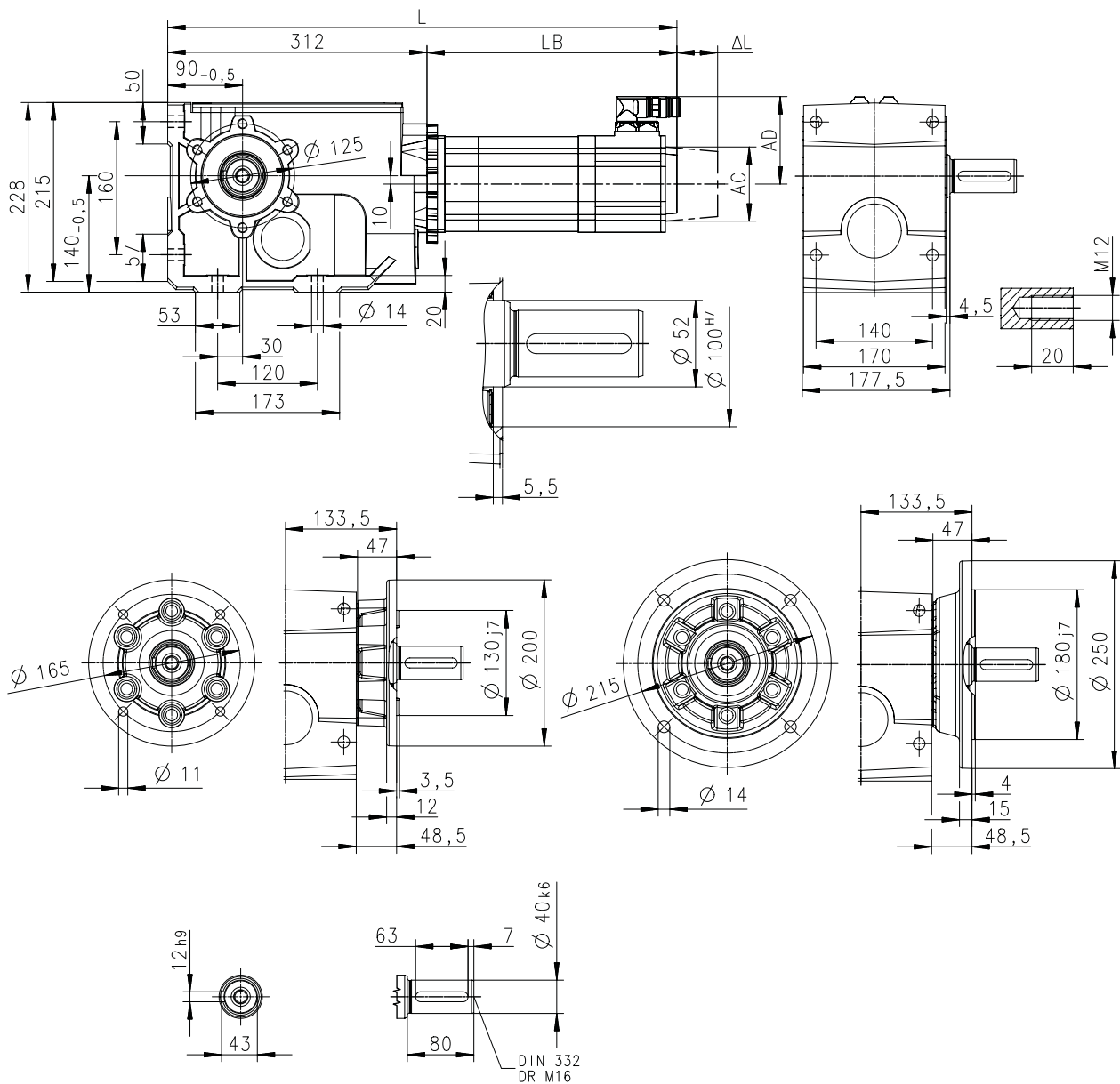


Technical data

Dimensions
Basic dimensions

g500-B820, 3-stage with MCS14

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



8800573-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	616	528	616	528	656	568	656	568
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

Dimensions

Basic dimensions



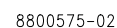
Technical drawing of a 100 mm diameter hydraulic cylinder with 16 mm bore. The drawing includes front, side, and end views with the following dimensions (in mm):

- Front View:**
 - Overall length: 312
 - Stroke: LB
 - Mounting flange diameter: $\varnothing 125$
 - Mounting flange thickness: 10
 - Mounting flange bore: $\varnothing 14$
 - Mounting flange outer diameter: 228
 - Mounting flange inner diameter: 215
 - Mounting flange thickness: 140 $_{-0,5}^{0}$
 - Mounting flange outer diameter: 160
 - Mounting flange thickness: 57
 - Mounting flange outer diameter: 53
 - Mounting flange thickness: 30
 - Mounting flange outer diameter: 120
 - Mounting flange outer diameter: 173
- Side View:**
 - Overall length: 5,5
 - Stroke: 52
 - Stroke tolerance: $\varnothing 100^{H7}$
- End View (Left):**
 - Overall diameter: $\varnothing 165$
 - Mounting flange diameter: $\varnothing 11$
- End View (Right):**
 - Overall diameter: $\varnothing 215$
 - Mounting flange diameter: $\varnothing 14$
- Mounting Flange Details:**
 - Mounting flange diameter: 133,5
 - Mounting flange thickness: 47
 - Mounting flange bore: $\varnothing 130^{j7}$
 - Mounting flange outer diameter: $\varnothing 200$
 - Mounting flange thickness: 3,5
 - Mounting flange thickness: 12
 - Mounting flange thickness: 48,5
- Stroke Details:**
 - Stroke: 63
 - Stroke tolerance: 7
 - Stroke diameter: $\varnothing 40^{k6}$
 - Stroke diameter: $\varnothing 40^{k6}$
 - Stroke diameter: 80
 - Stroke diameter: 43
 - Stroke diameter: 12 $_{h9}^{h8}$
- Stroke Details (DIN 332 DR M16):**
 - Stroke: 63
 - Stroke tolerance: 7
 - Stroke diameter: $\varnothing 40^{k6}$
 - Stroke diameter: $\varnothing 40^{k6}$
 - Stroke diameter: 80
 - Stroke diameter: 43
 - Stroke diameter: 12 $_{h9}^{h8}$

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	696	608	696	608	736	648	736	648
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 foot (HAR/HBR/HAK)

213

Dimensions

Basic dimensions

[illegible]

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	509	539	569
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		

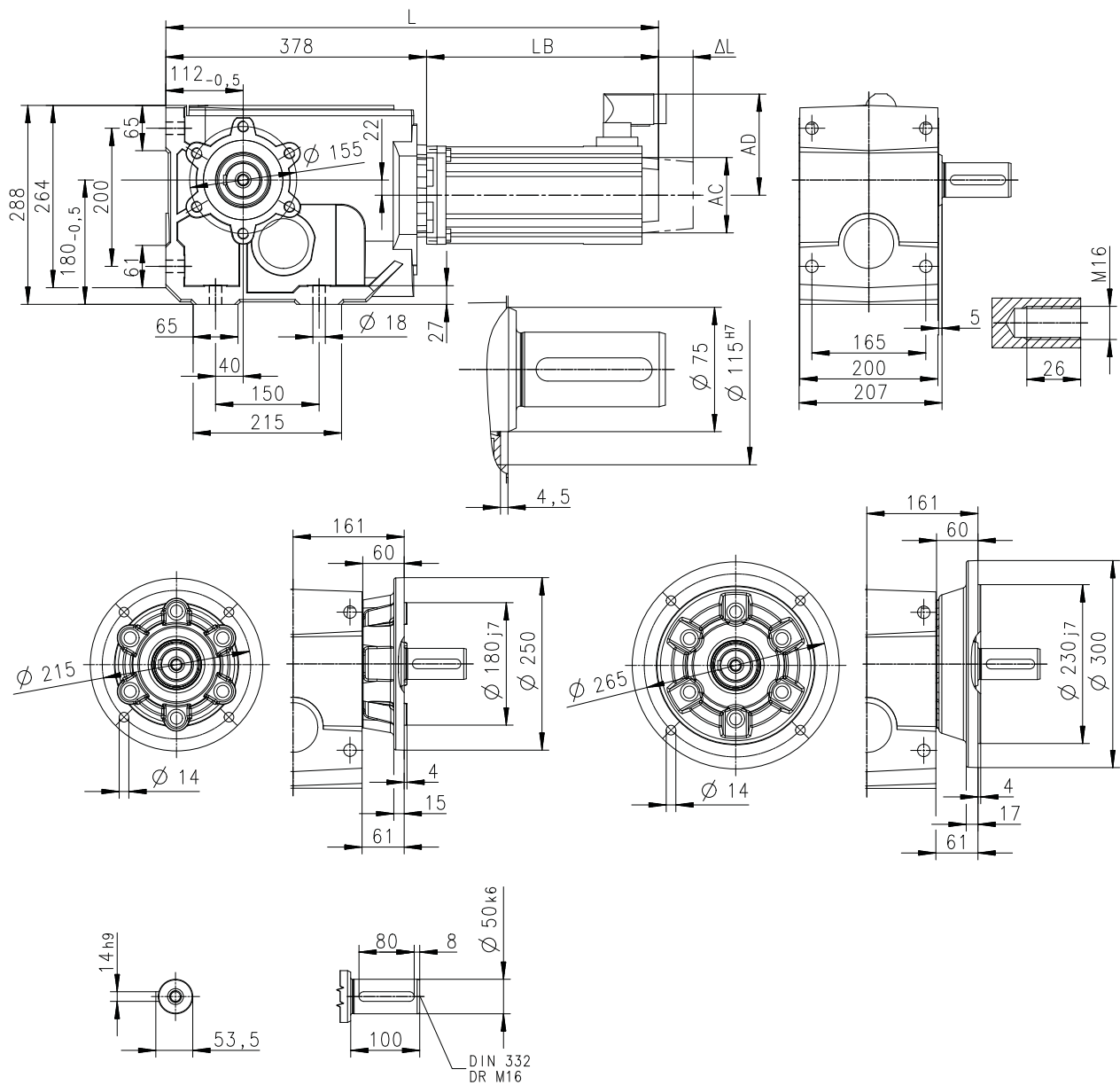


Technical data

Dimensions
Basic dimensions

g500-B1500, 3-stage with MCS06

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



8800576-00

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	509	539	569
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	

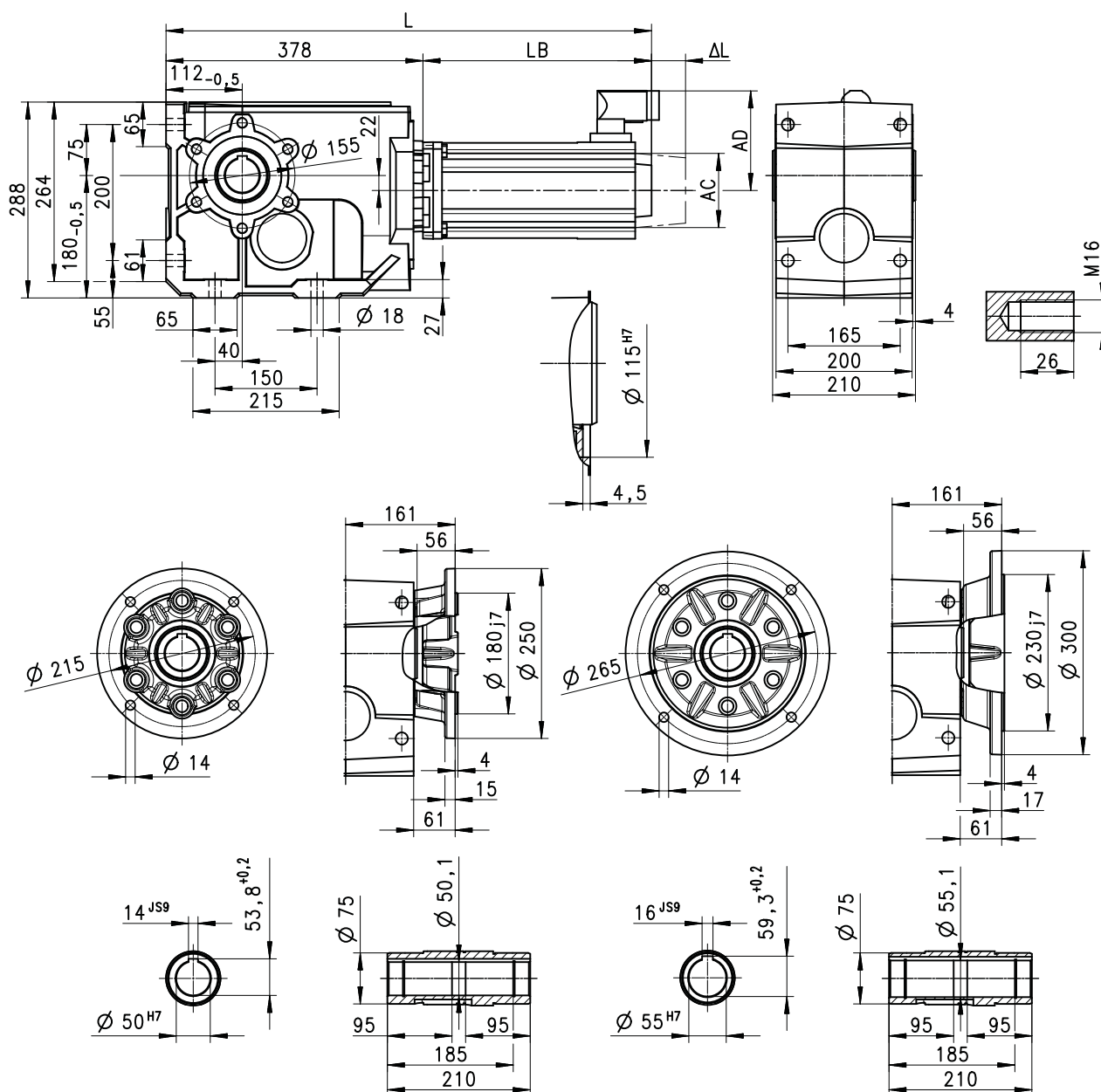
Technical data

Dimensions
Basic dimensions



g500-B1500, 3-stage with MCS09

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



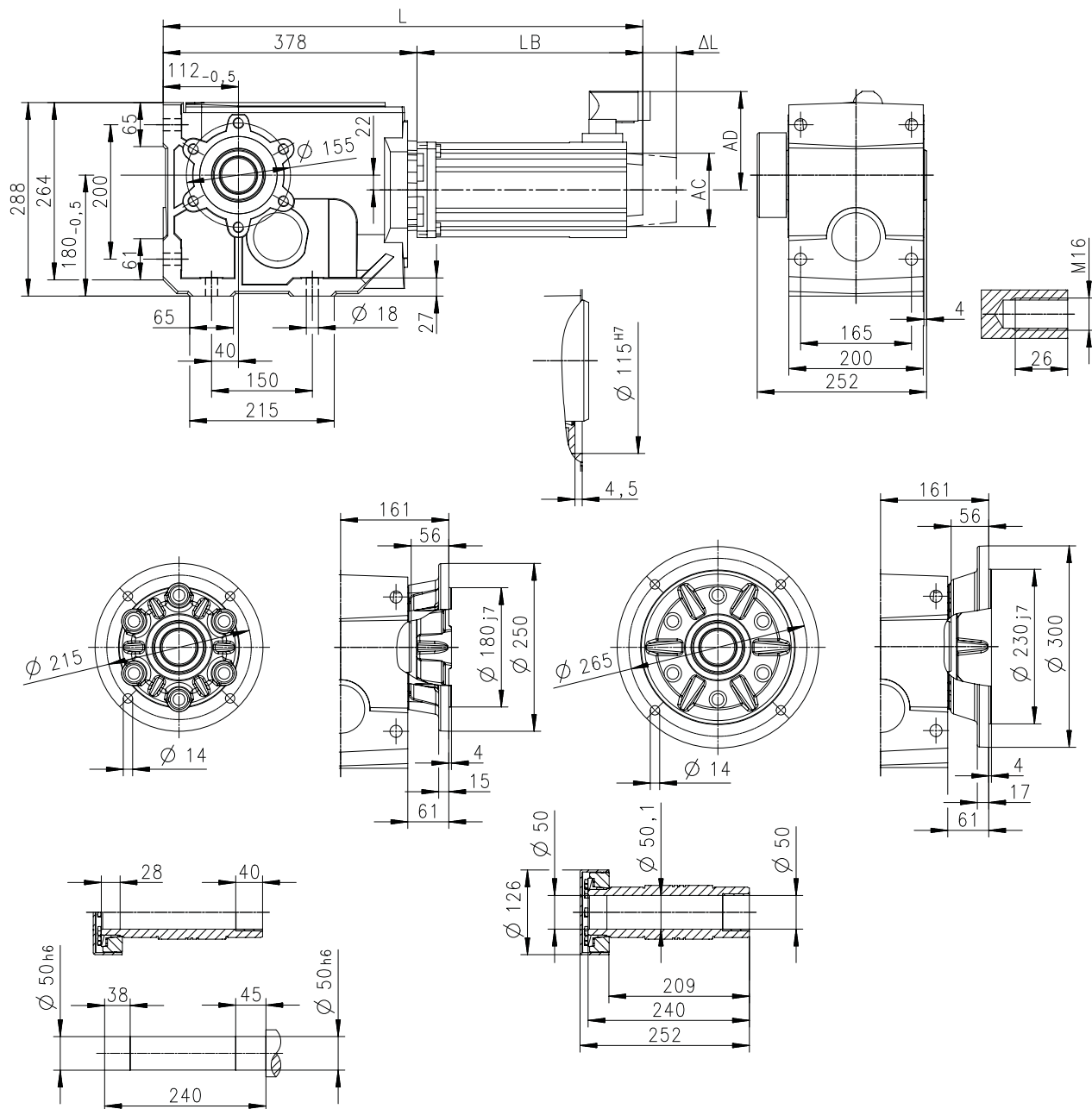
8800575-02

Motor			MCS			
			09D41-09D41L	09F38-09F38L	09H41-09H41L	09L41-09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	562	582	602	642
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-B1500, 3-stage with MCS09

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



8800577-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	562	582	602	642
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			

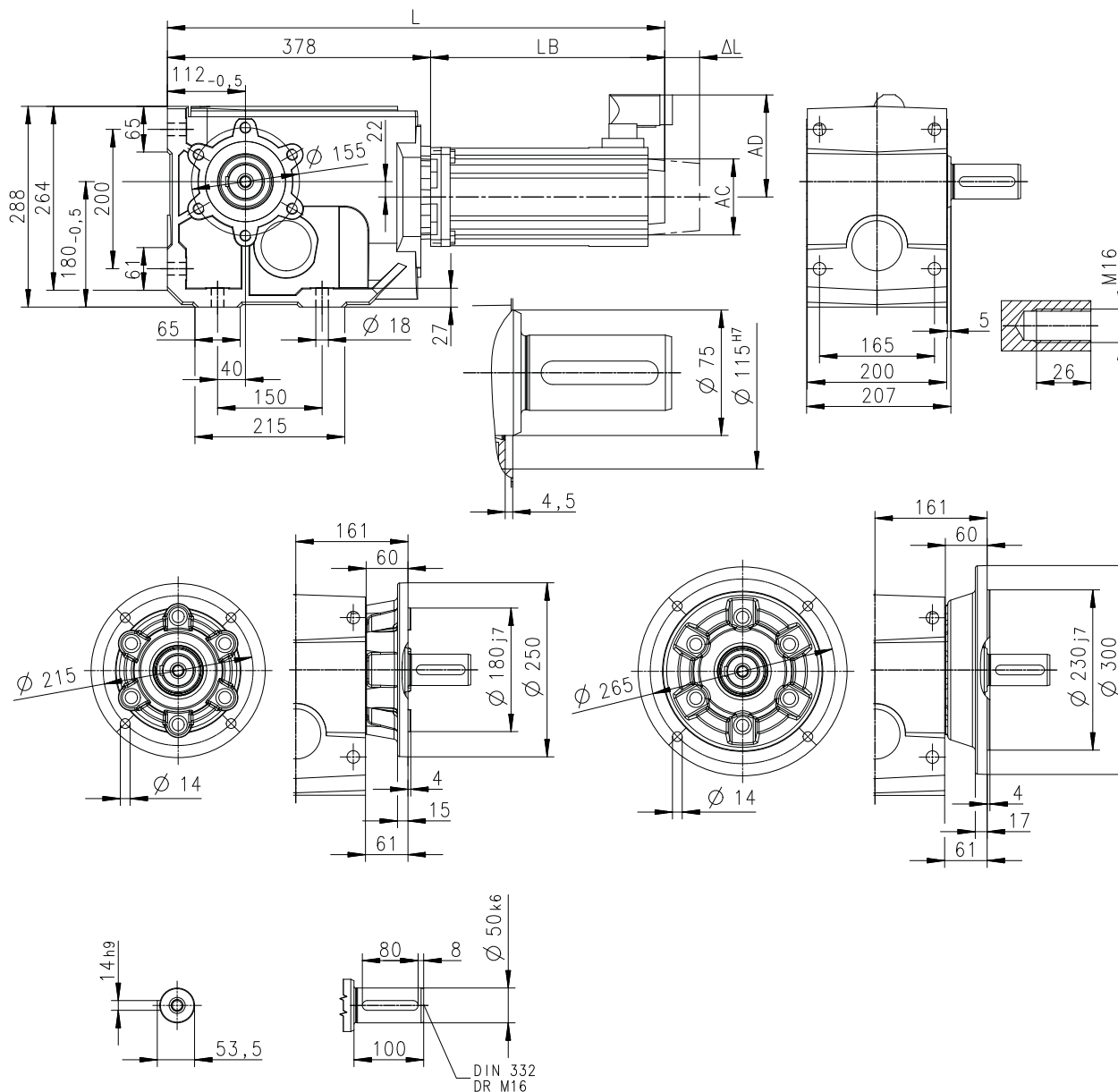
Technical data

Dimensions
Basic dimensions



g500-B1500, 3-stage with MCS09

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



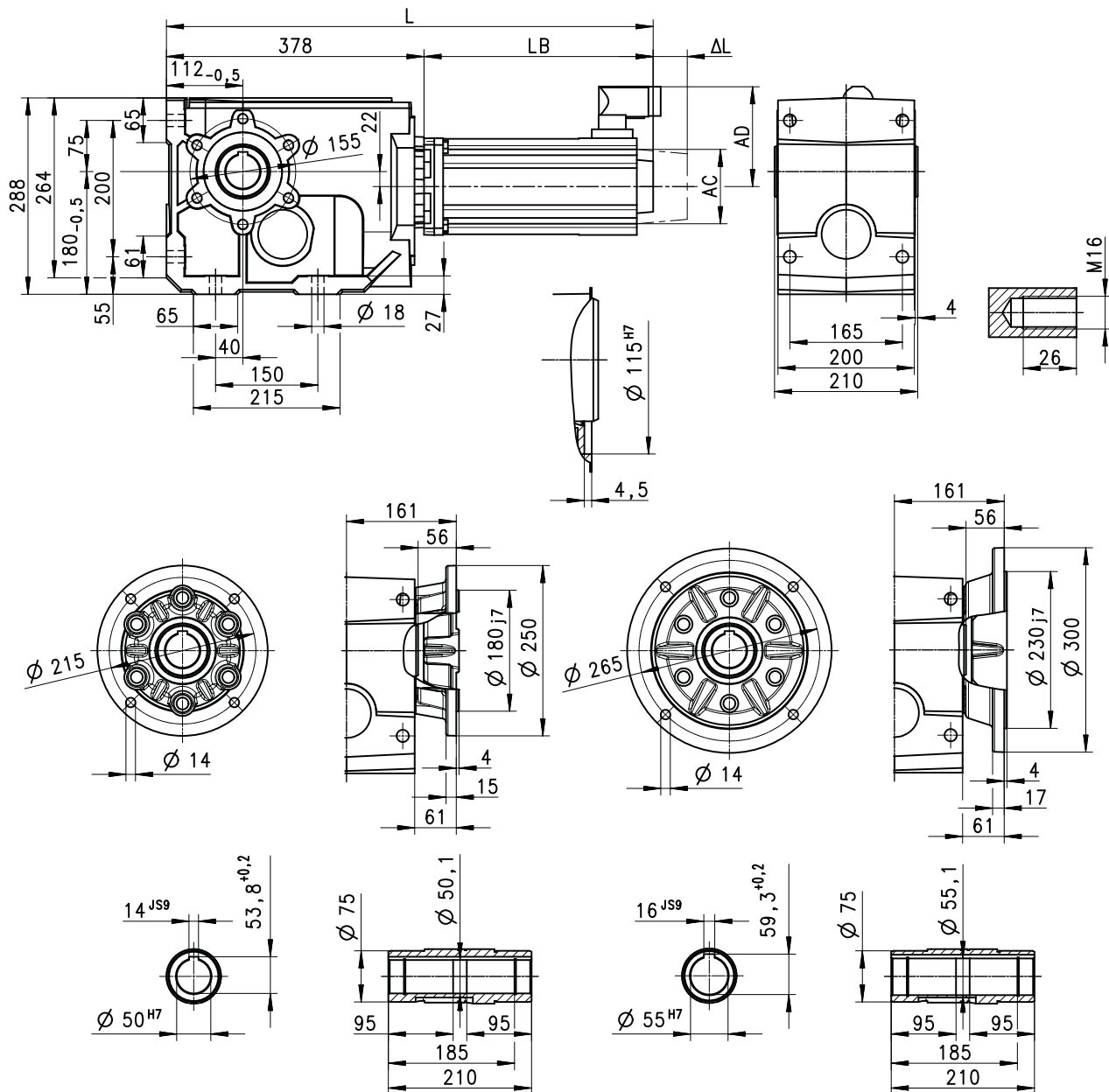
8800576-00

Motor			MCS			
			09D41-09D41L	09F38-09F38L	09H41-09H41L	09L41-09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	562	582	602	642
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-B1500, 3-stage with MCS12

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



8800575-02

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	652	579	652	579	692	619
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

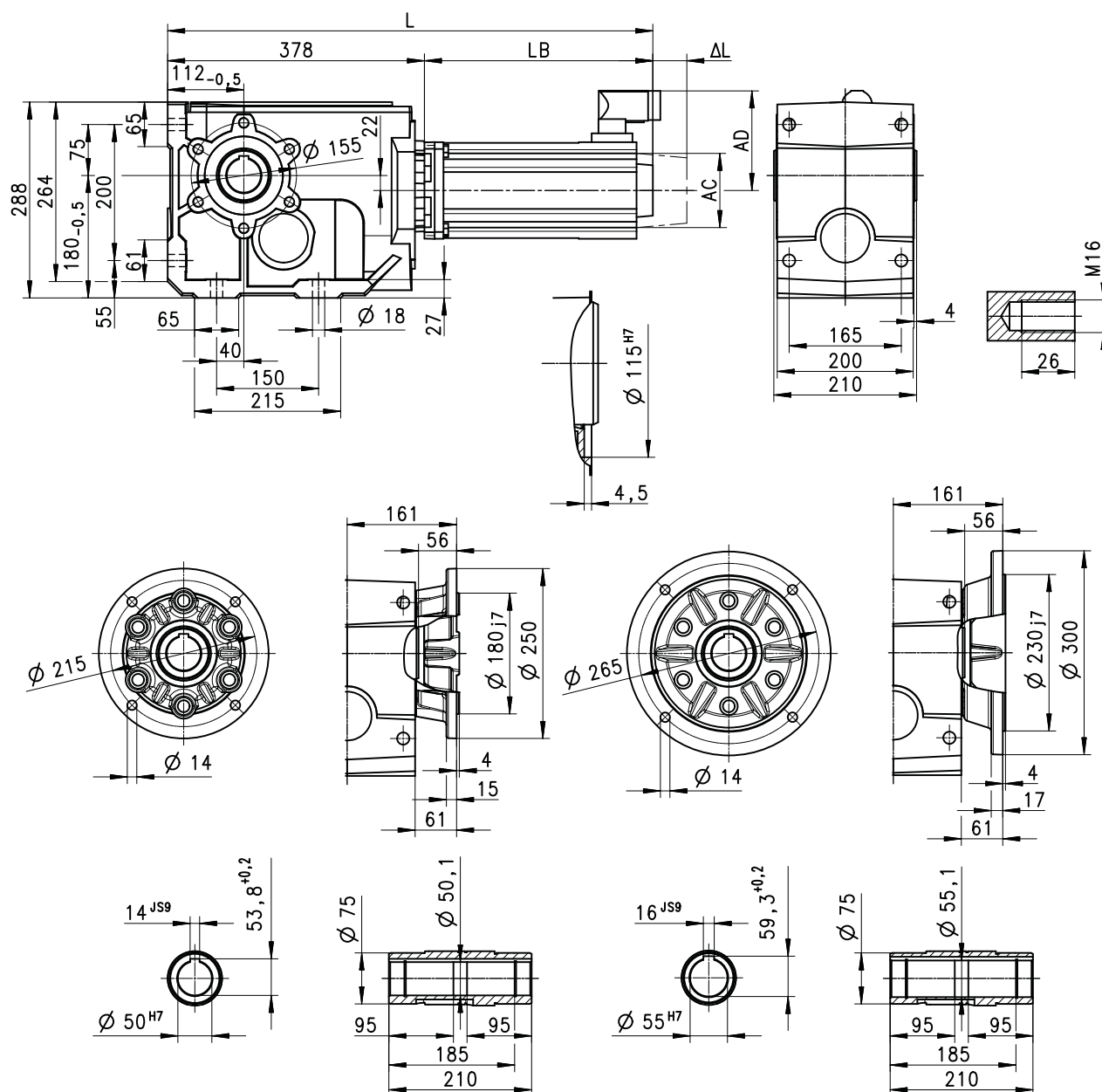
Technical data

Dimensions
Basic dimensions



g500-B1500, 3-stage with MCS12

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



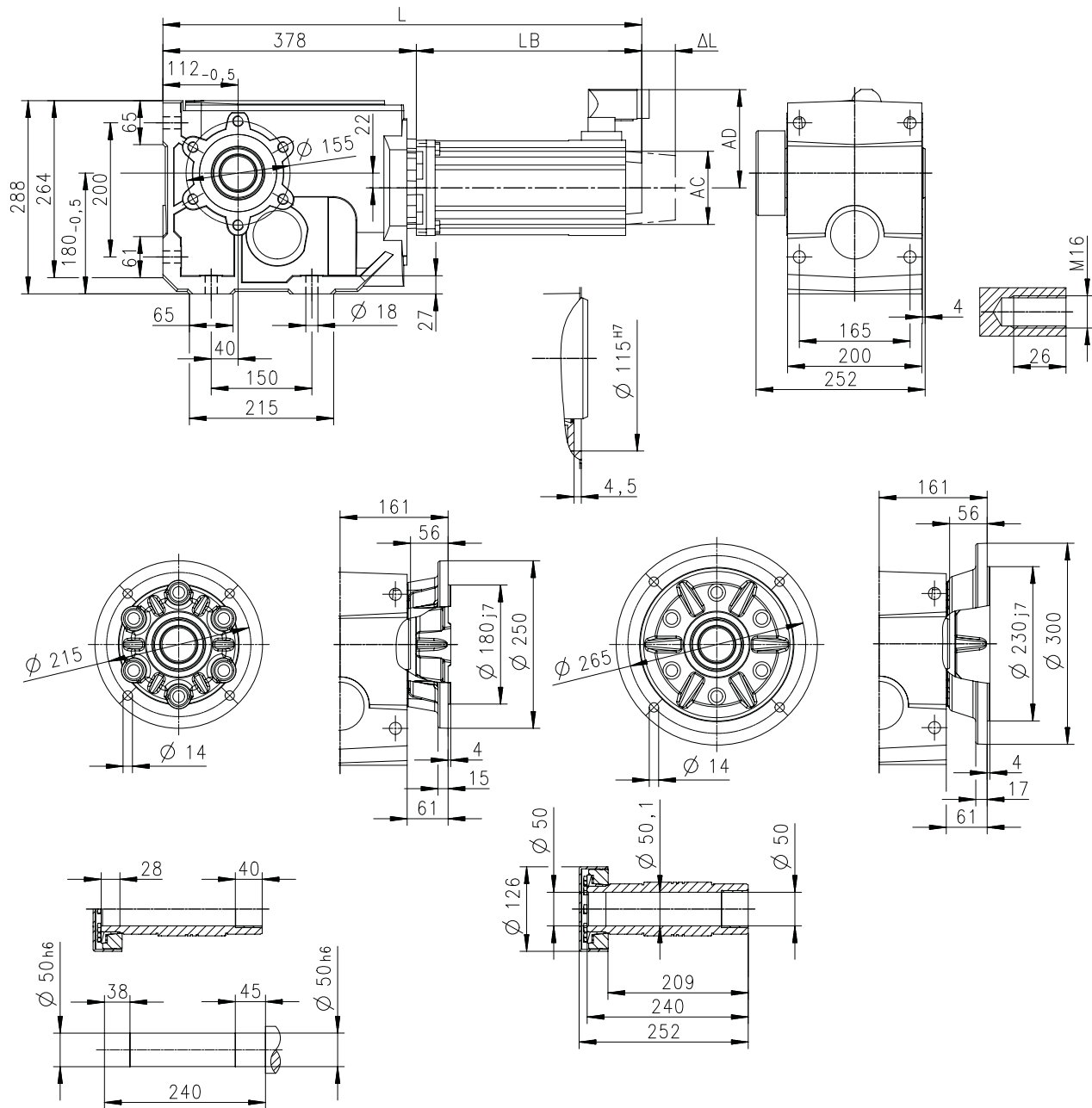
8800575-02

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	692	619	732	659	732	659
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-B1500, 3-stage with MCS12

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



8800577-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	652	579	652	579	692	619
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

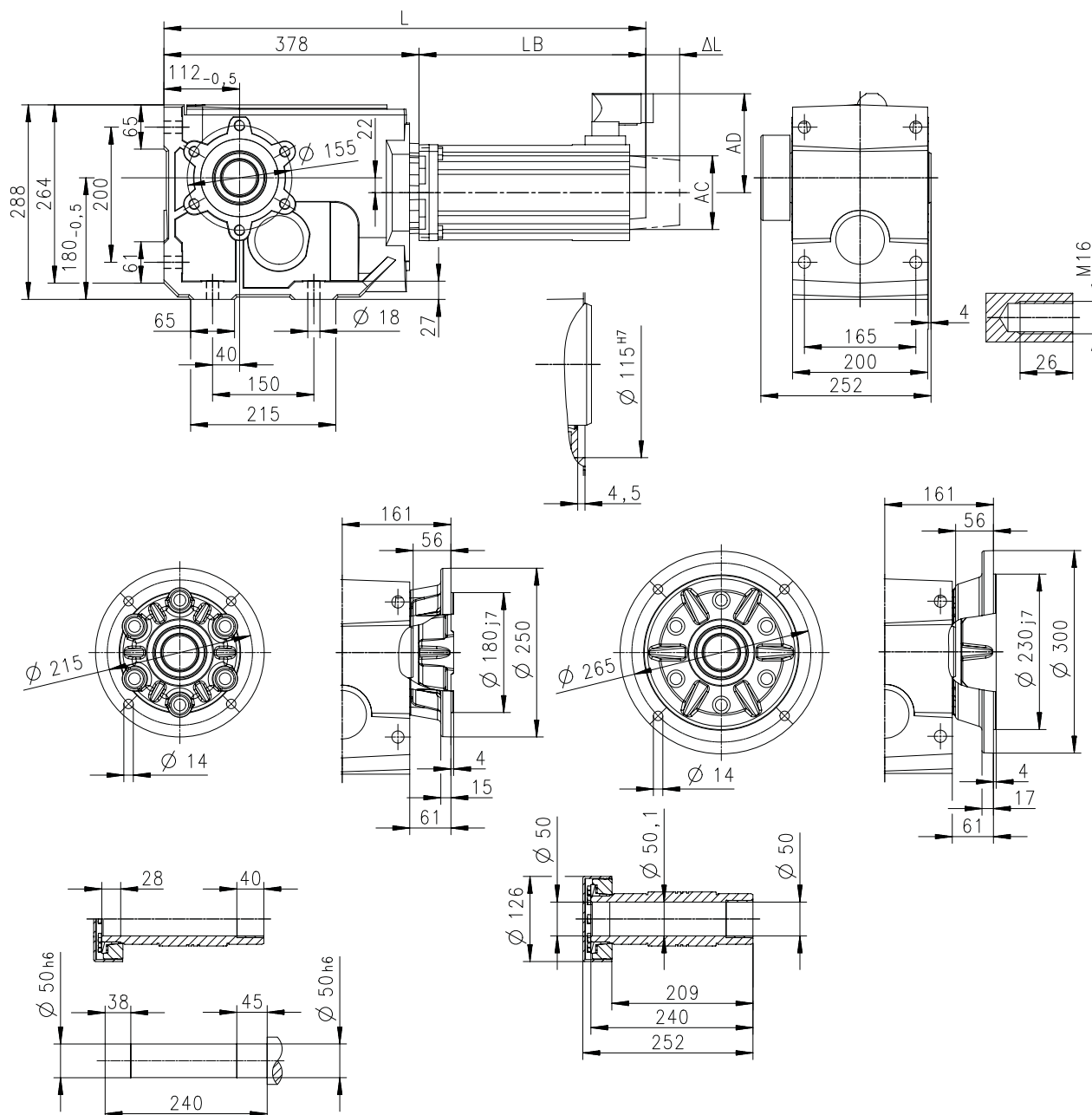
Technical data

Dimensions
Basic dimensions



g500-B1500, 3-stage with MCS12

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



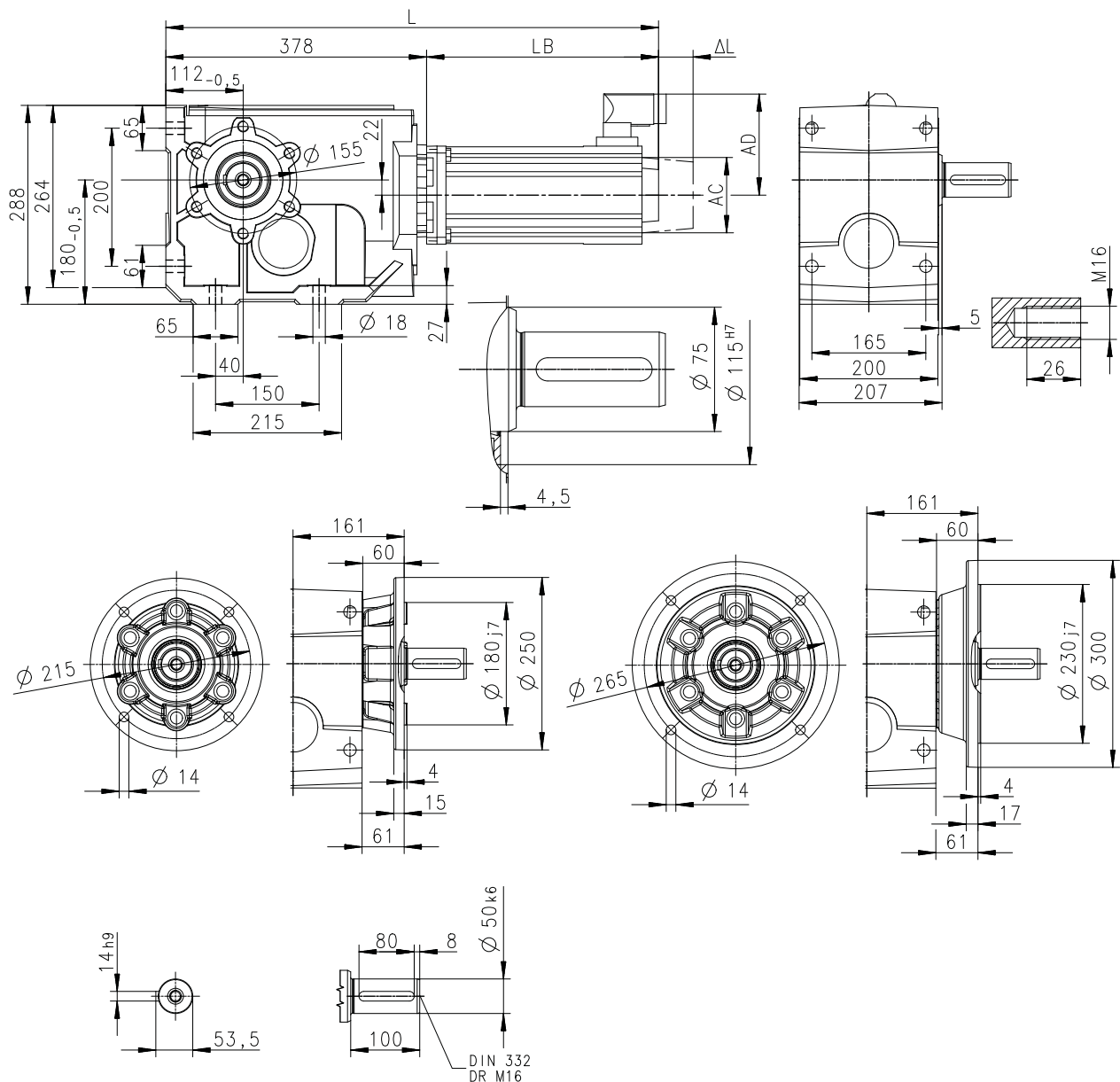
8800577-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	692	619	732	659	732	659
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



g500-B1500, 3-stage with MCS12

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



8800576-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	652	579	652	579	692	619
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

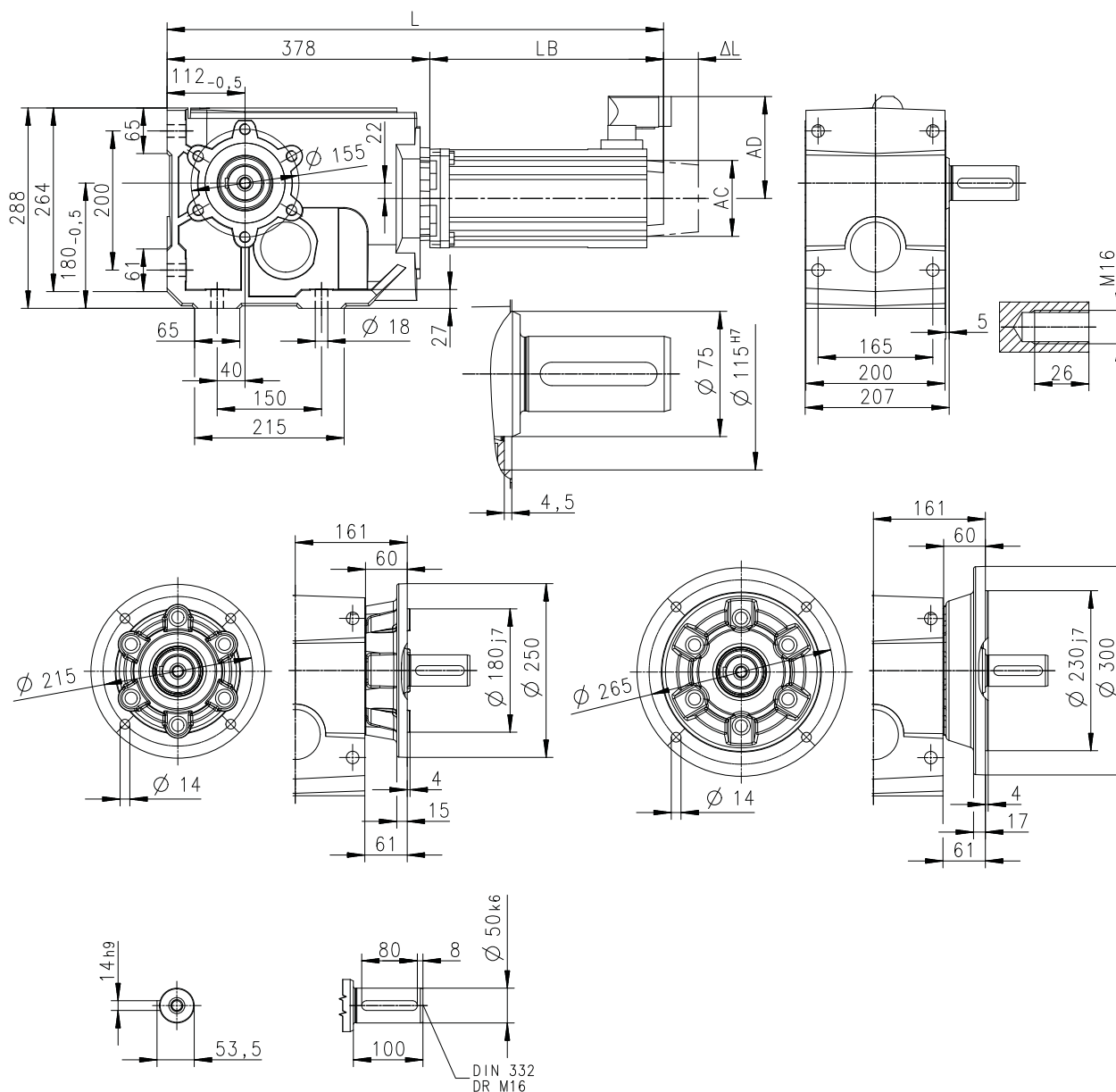
Technical data

Dimensions
Basic dimensions



g500-B1500, 3-stage with MCS12

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



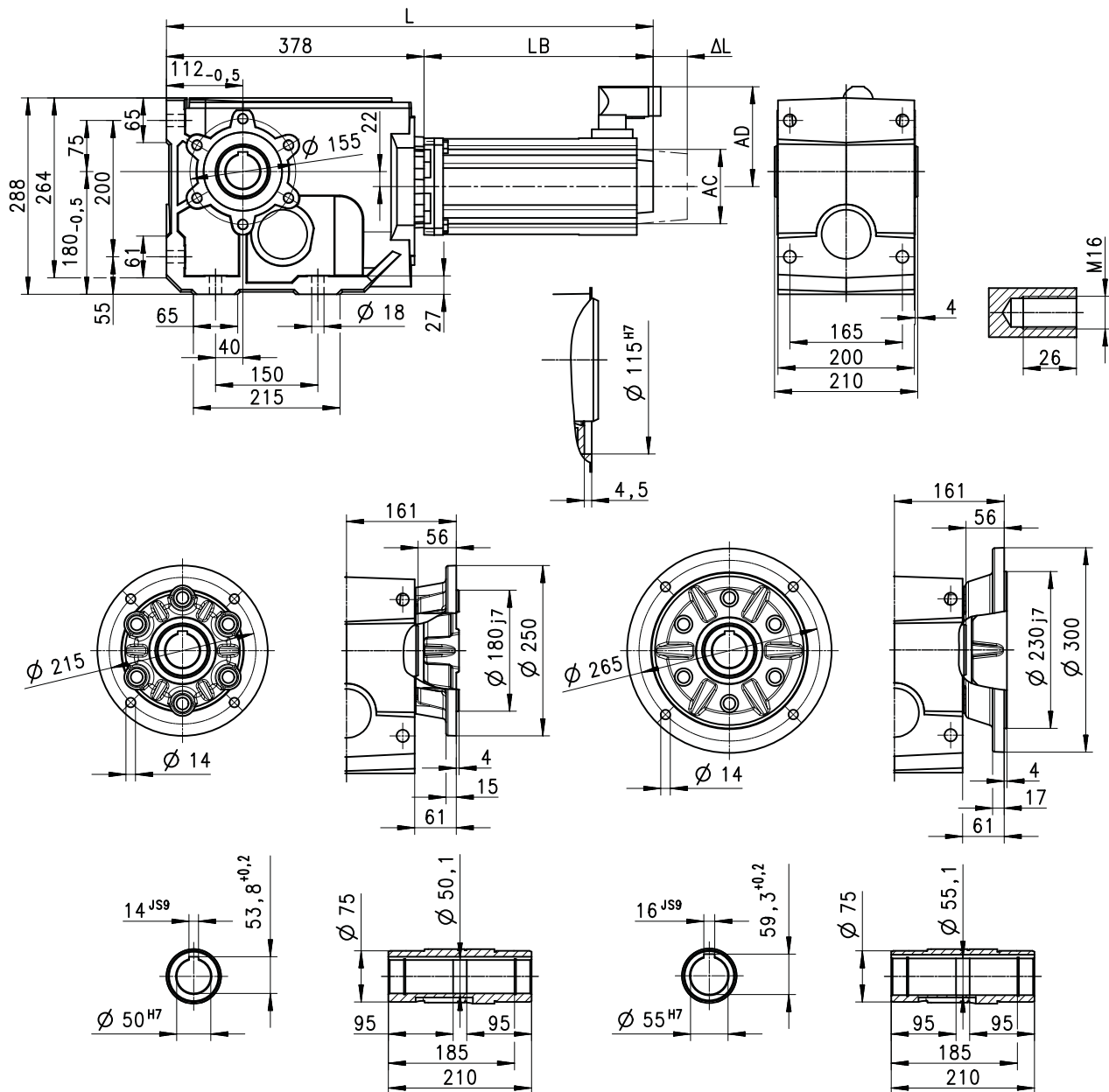
8800576-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	692	619	732	659	732	659
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-B1500, 3-stage with MCS14

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



8800575-02

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	682	594	682	594	722	634	722	634
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

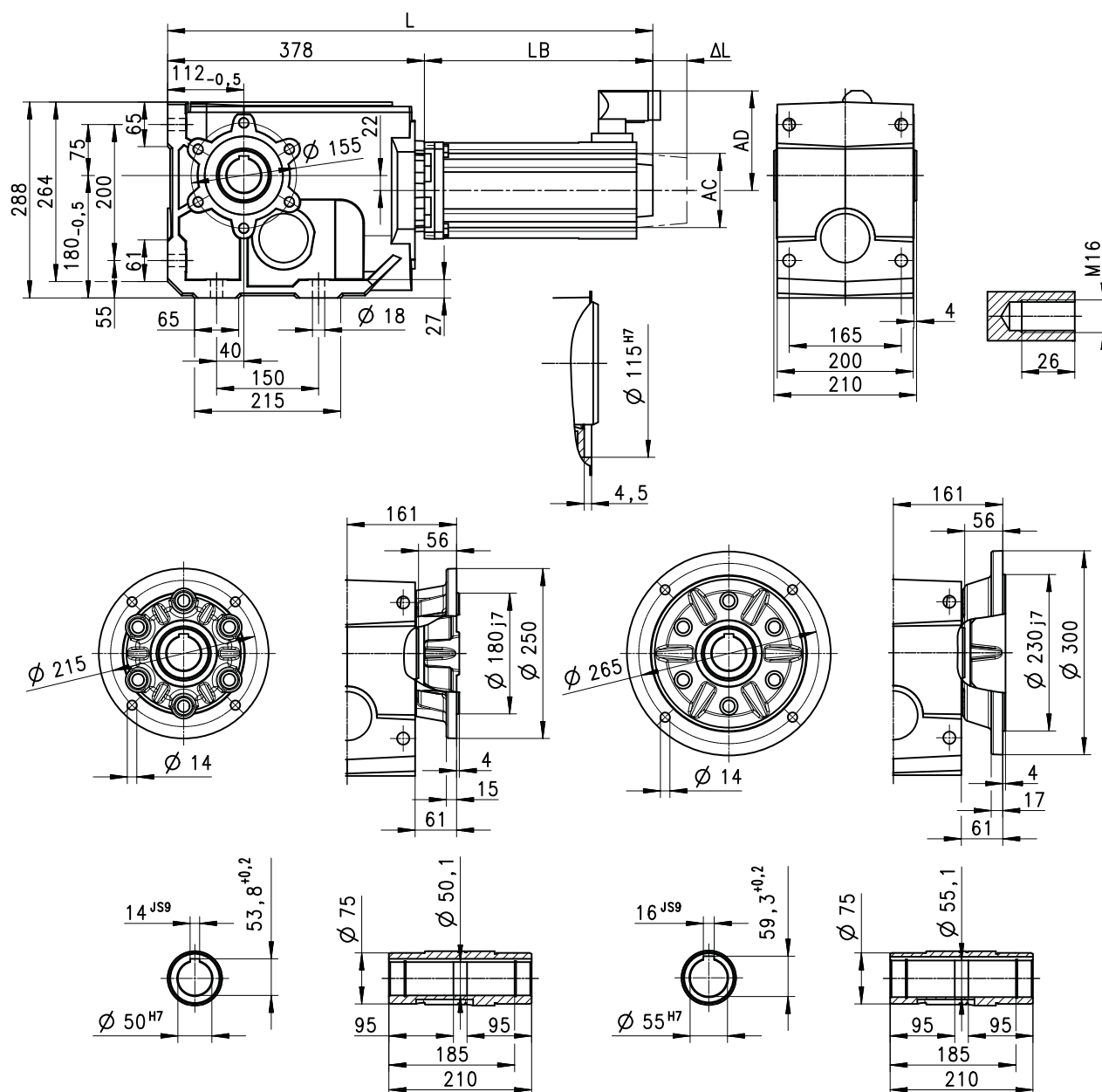
Technical data

Dimensions
Basic dimensions



g500-B1500, 3-stage with MCS14

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



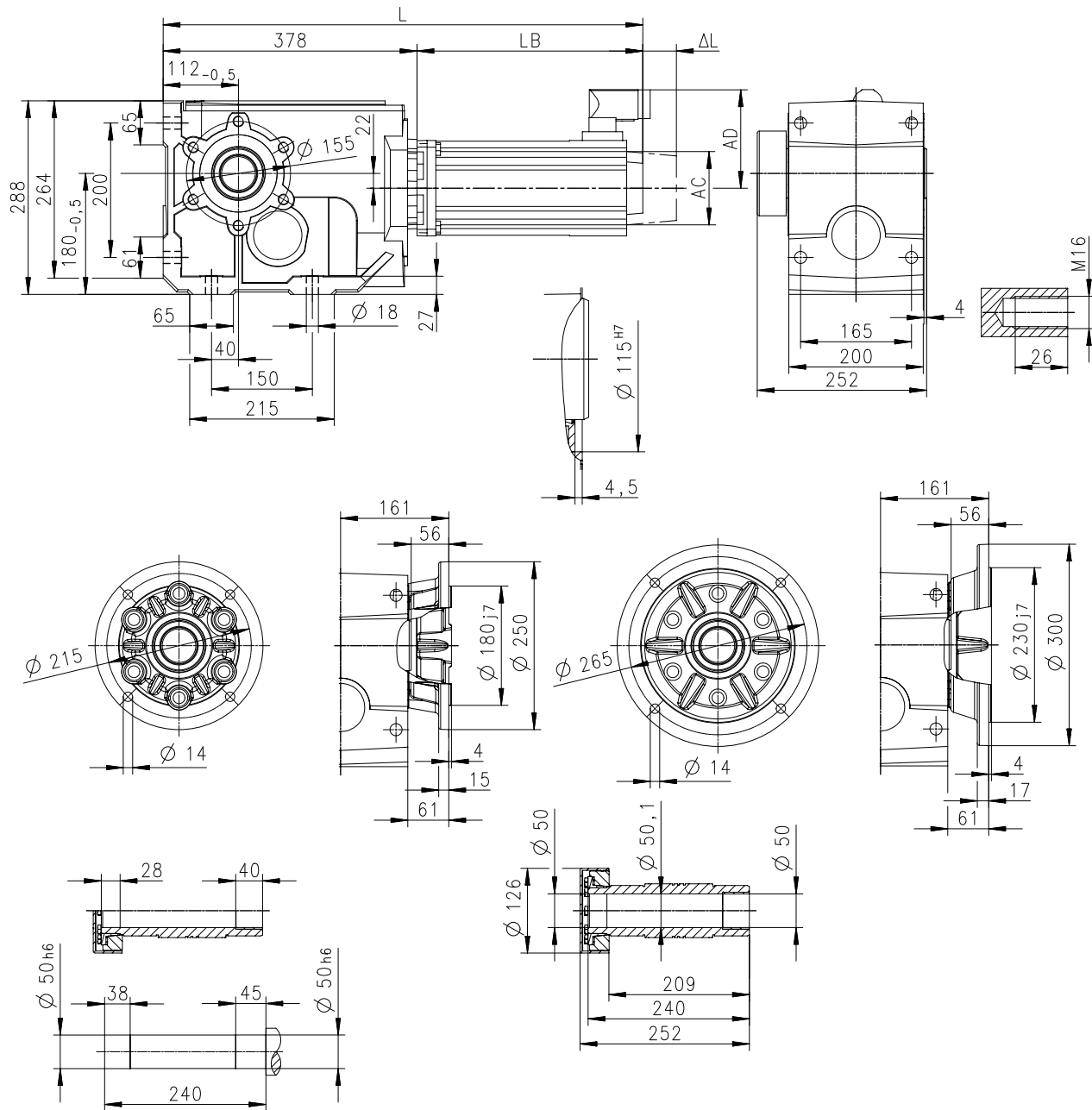
8800575-02

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	762	674	762	674	802	714	802	714
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



g500-B1500, 3-stage with MCS14

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



8800577-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	682	594	682	594	722	634	722	634
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

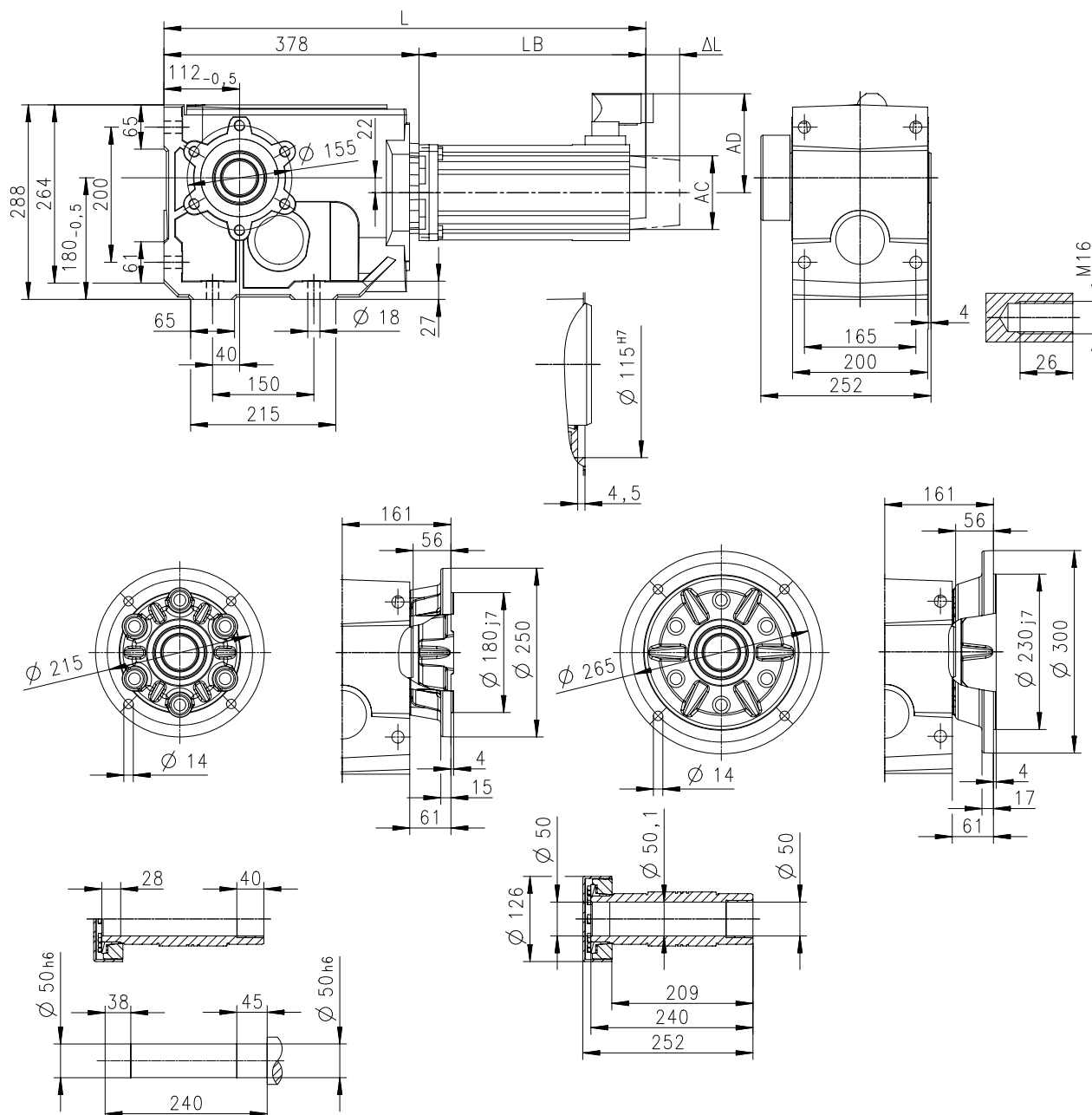
Technical data

Dimensions
Basic dimensions



g500-B1500, 3-stage with MCS14

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



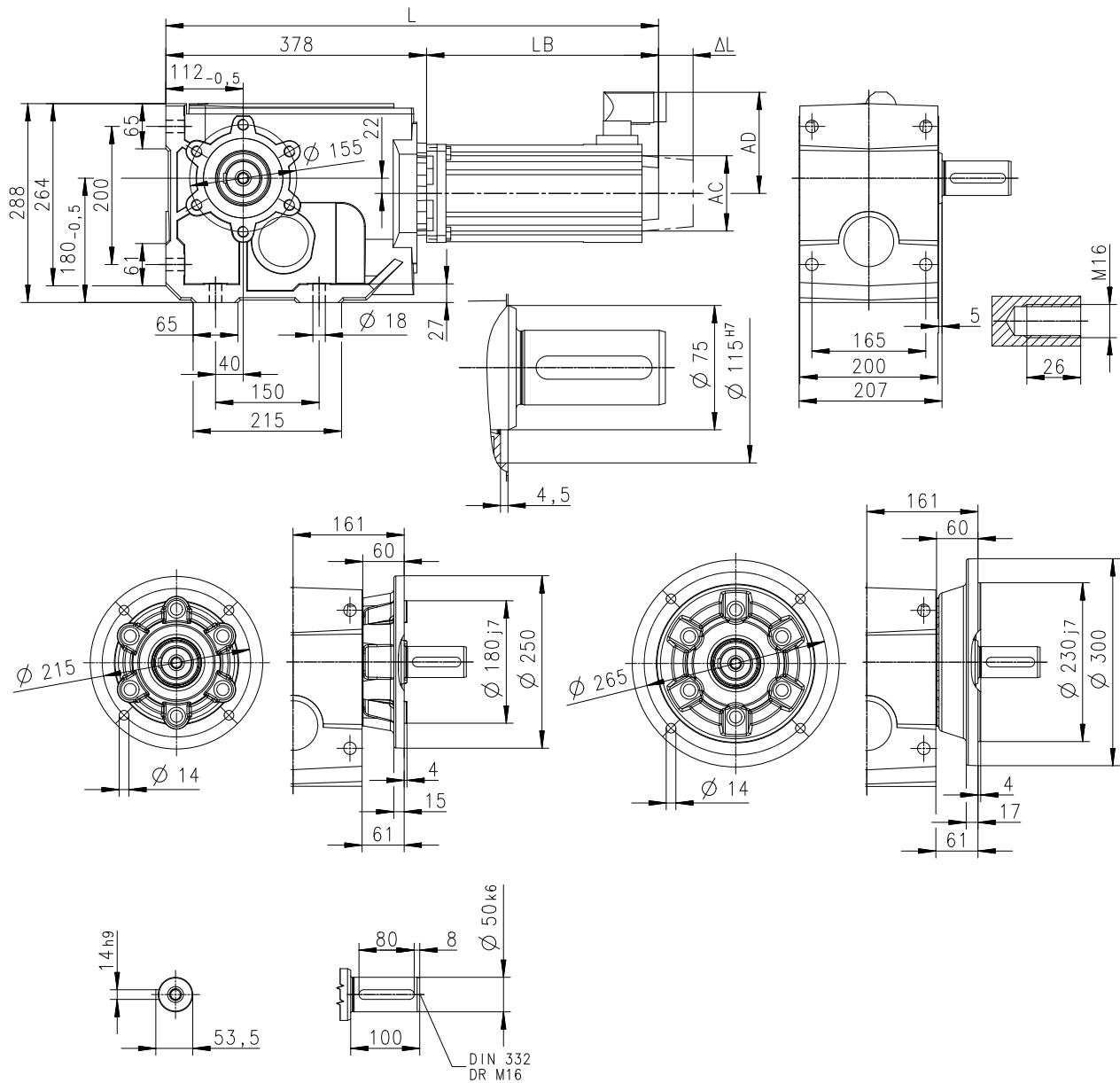
8800577-00

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	762	674	762	674	802	714	802	714
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-B1500, 3-stage with MCS14

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



8800576-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	682	594	682	594	722	634	722	634
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

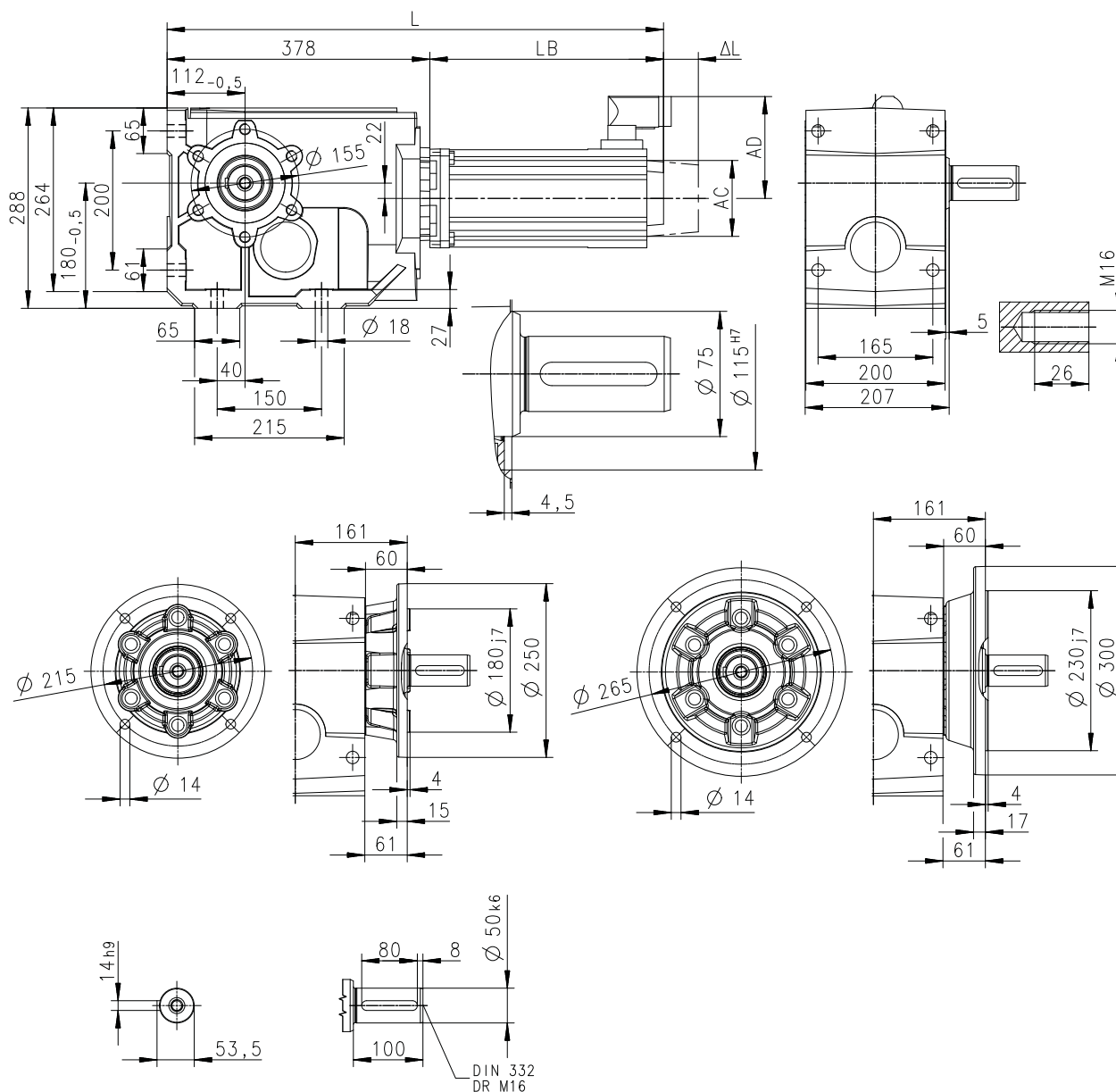
Technical data

Dimensions
Basic dimensions



g500-B1500, 3-stage with MCS14

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



8800576-00

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	762	674	762	674	802	714	802	714
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 foot (HAR/HBR/HAK)

8800575-02

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	740	633	740	633	780	673	673	780	733	733
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

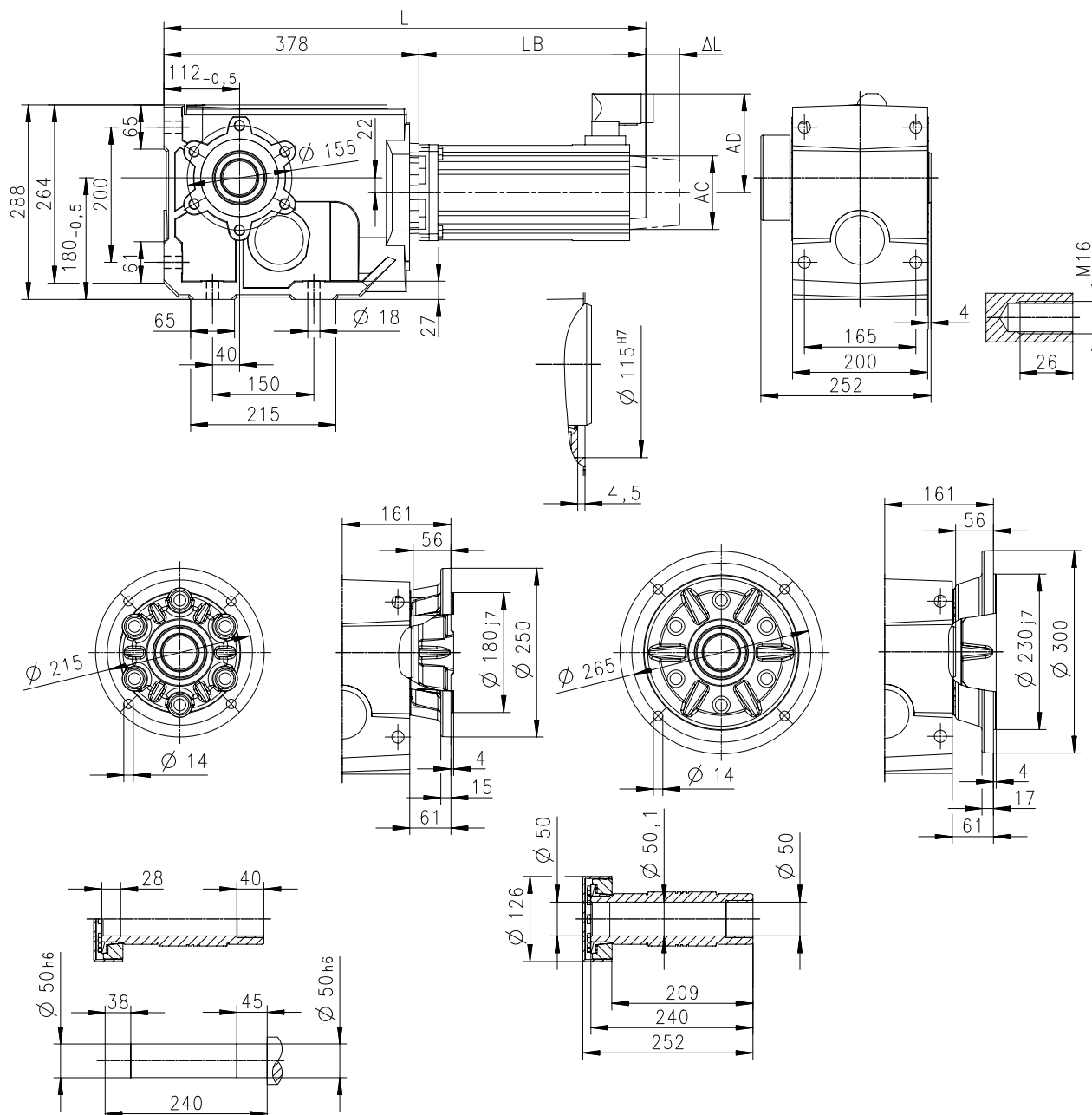
Technical data

Dimensions
Basic dimensions



g500-B1500, 3-stage with MCS19

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



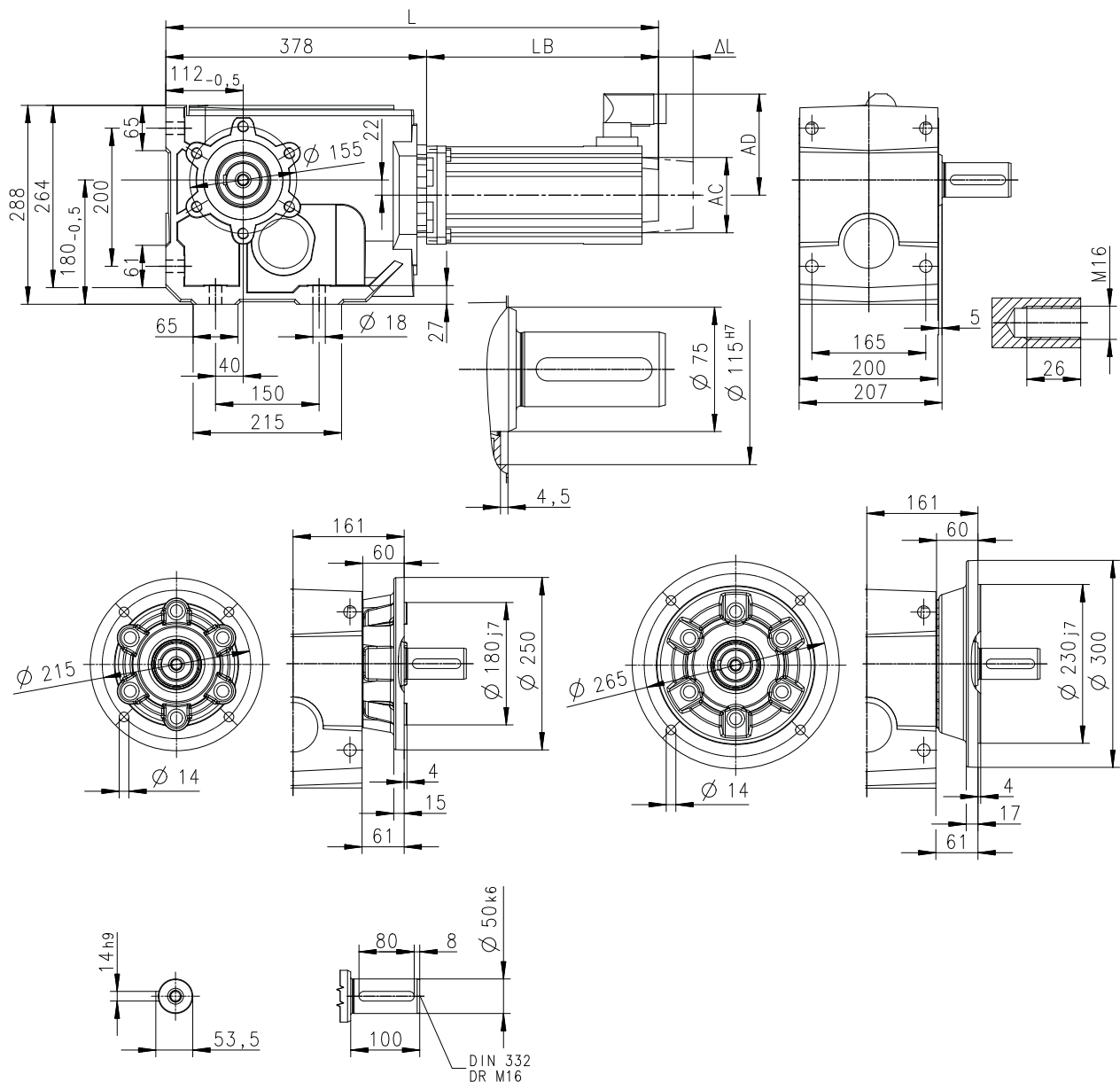
8800577-00

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	740	633	740	633	780	673	673	780	733	733
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



g500-B1500, 3-stage with MCS19

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



8800576-00

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	740	633	740	633	780	673	673	780	733	733
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

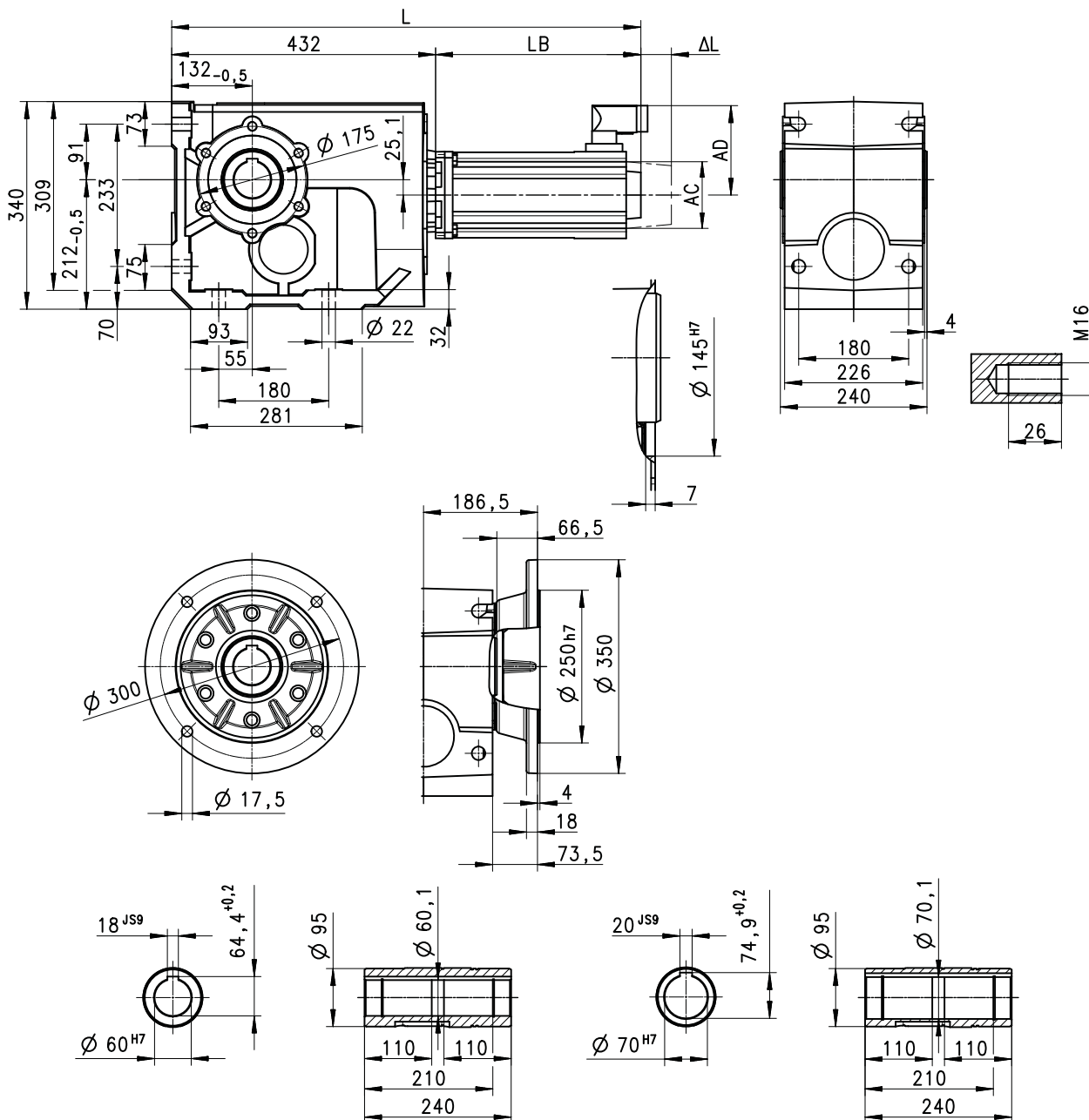
Technical data

Dimensions
Basic dimensions



g500-B2700, 3-stage with MCS06

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



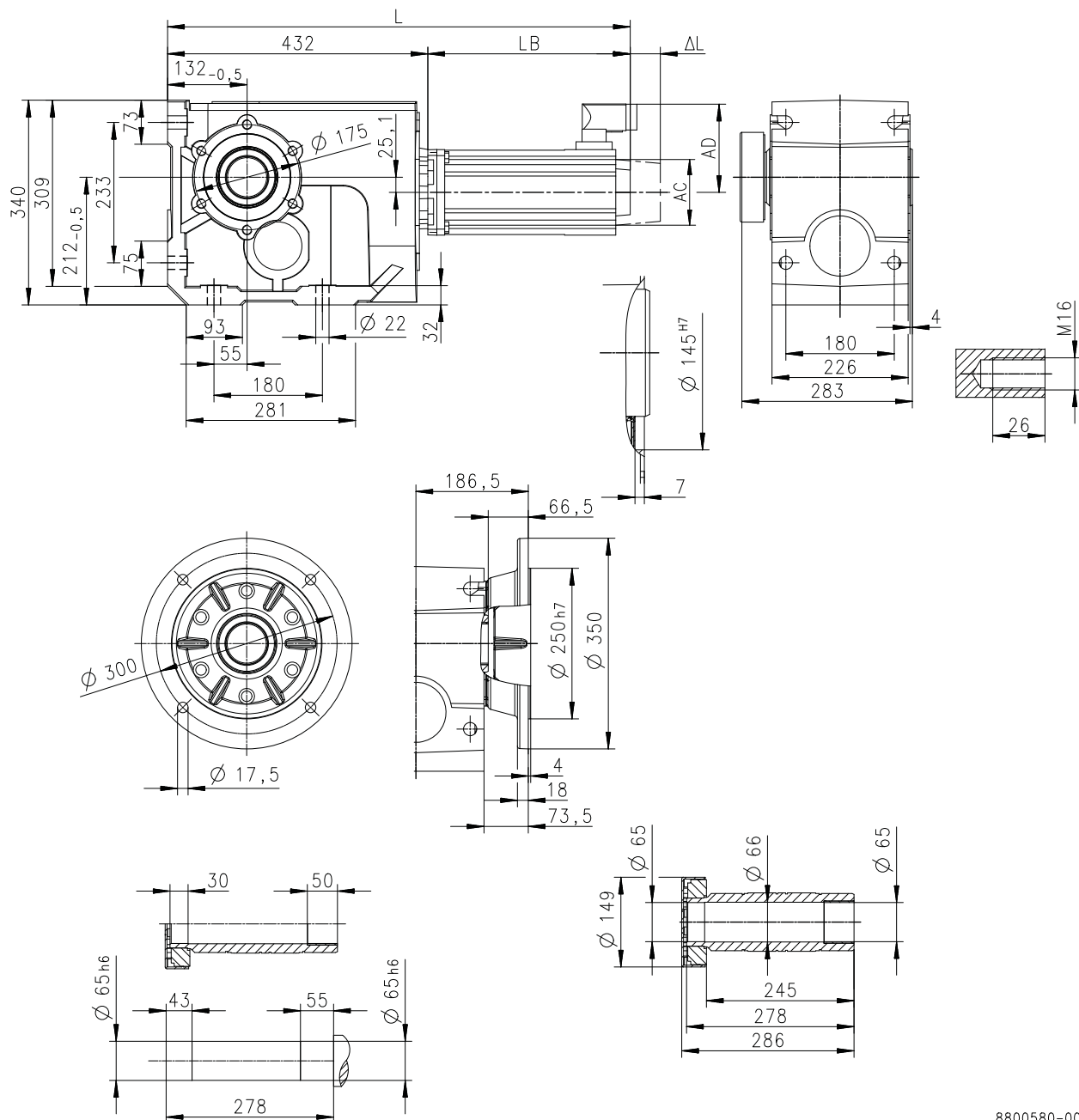
8800578-02

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	563	593	623
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	



g500-B2700, 3-stage with MCS06

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



8800580-00

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	563	593	623
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	

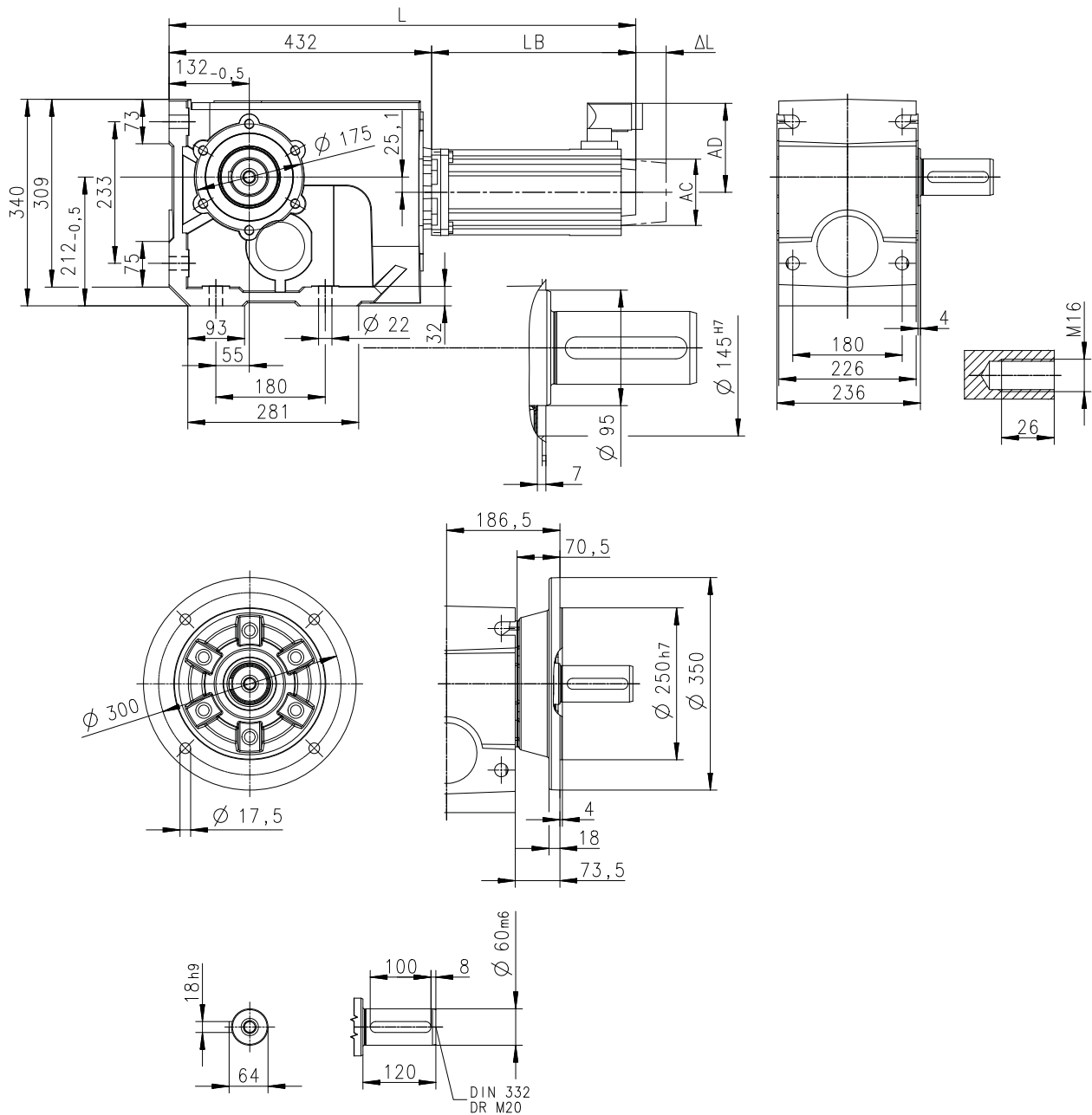
Technical data

Dimensions
Basic dimensions



g500-B2700, 3-stage with MCS06

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



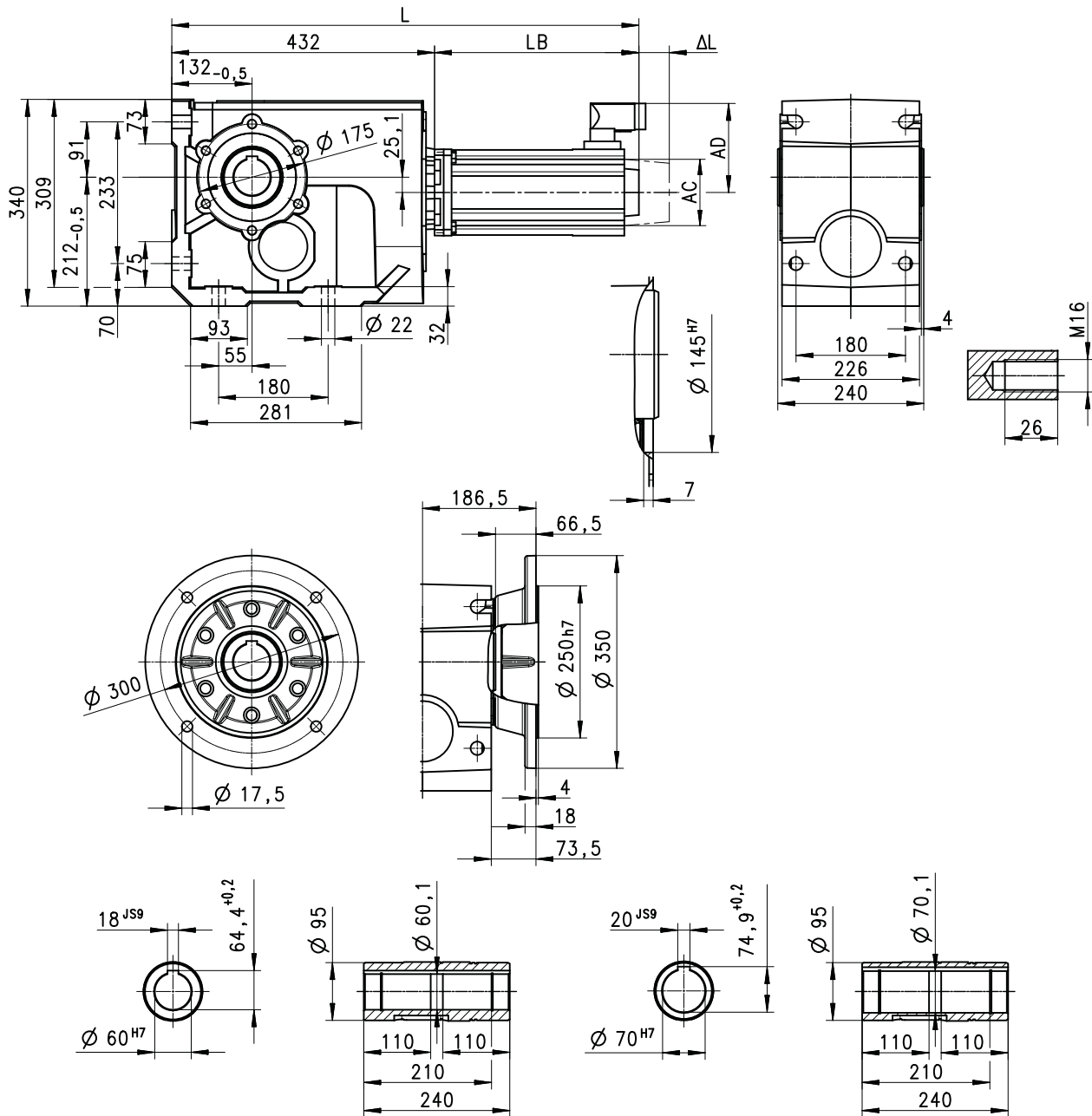
8800579-00

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	563	593	623
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	



g500-B2700, 3-stage with MCS09

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



8800578-02

Motor			MCS			
			09D41-09D41L	09F38-09F38L	09H41-09H41L	09L41-09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	616	636	656	696
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			

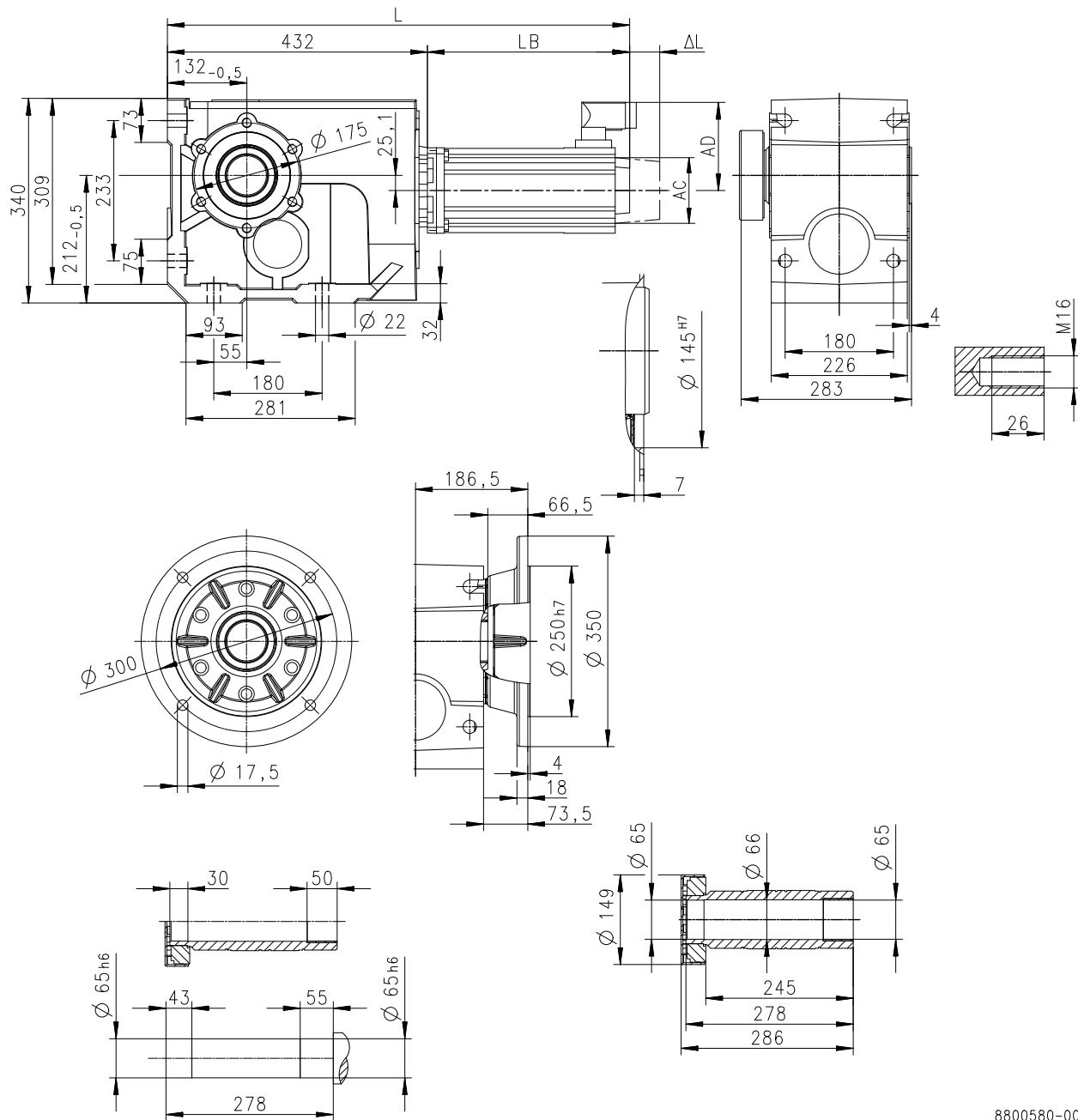
Technical data

Dimensions
Basic dimensions



g500-B2700, 3-stage with MCS09

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

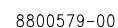


8800580-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	616	636	656	696
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)

239

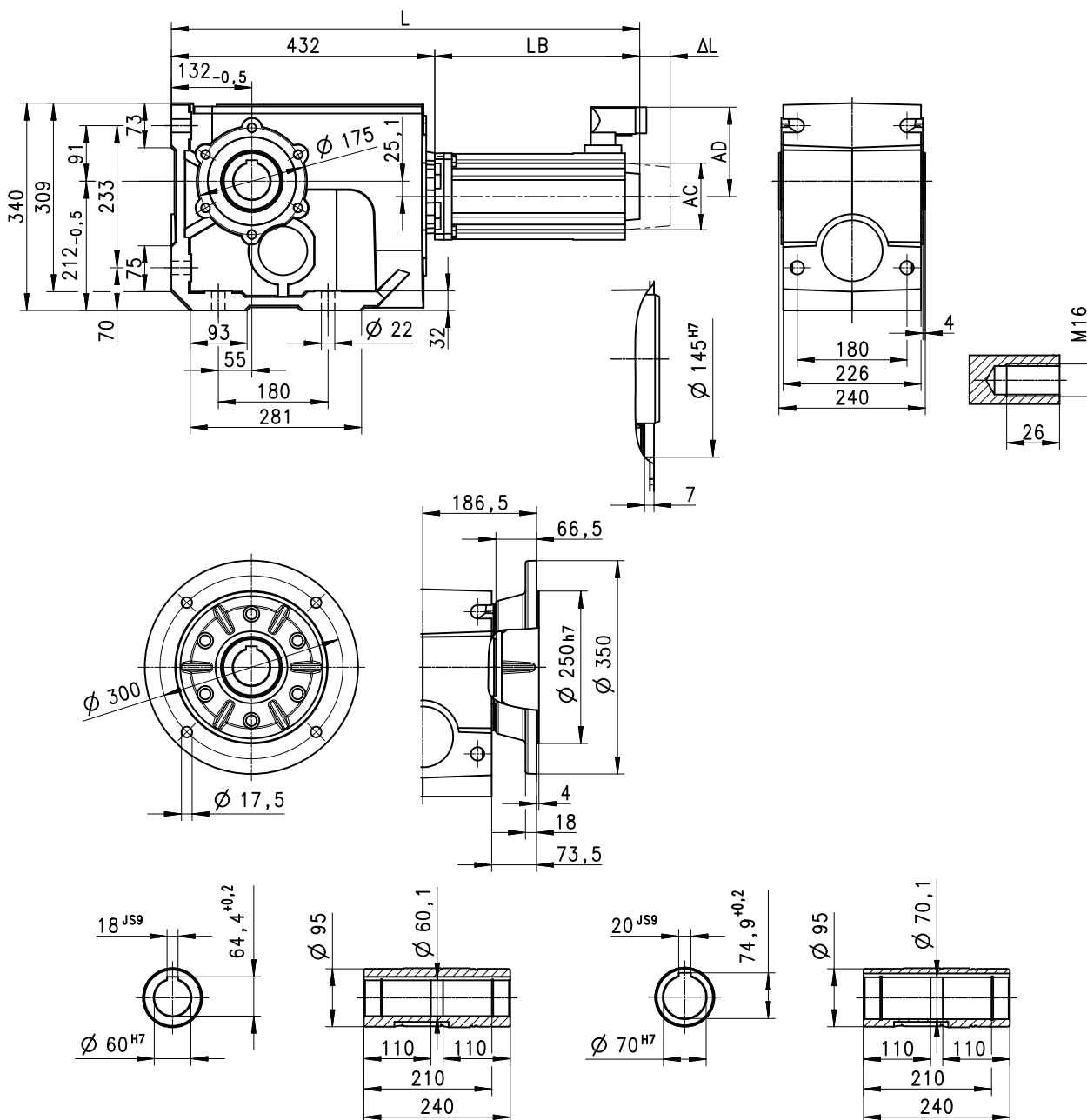
Technical data

Dimensions
Basic dimensions



g500-B2700, 3-stage with MCS12

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

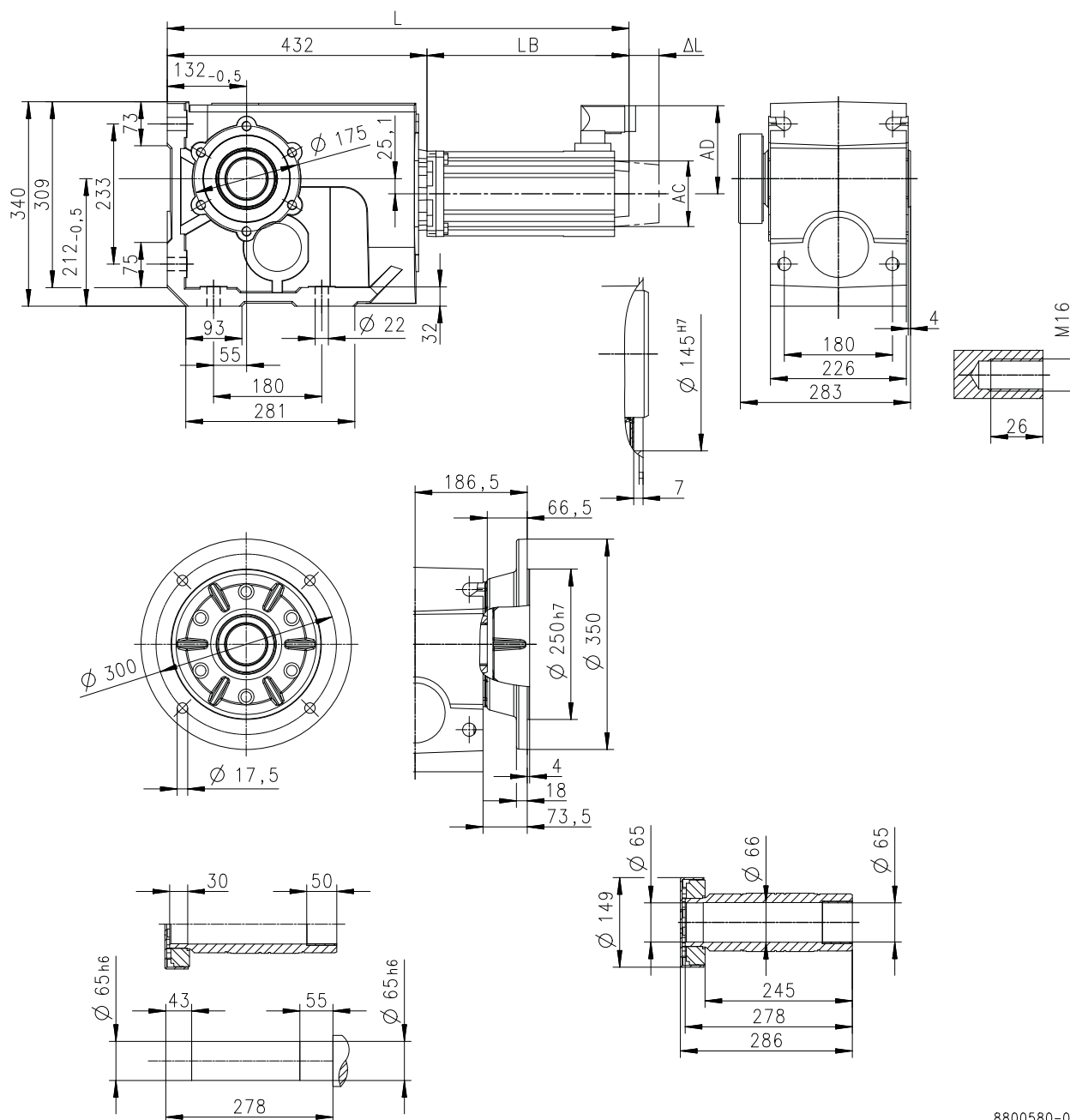


8800578-02

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	706	633	706	633	746	673
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)



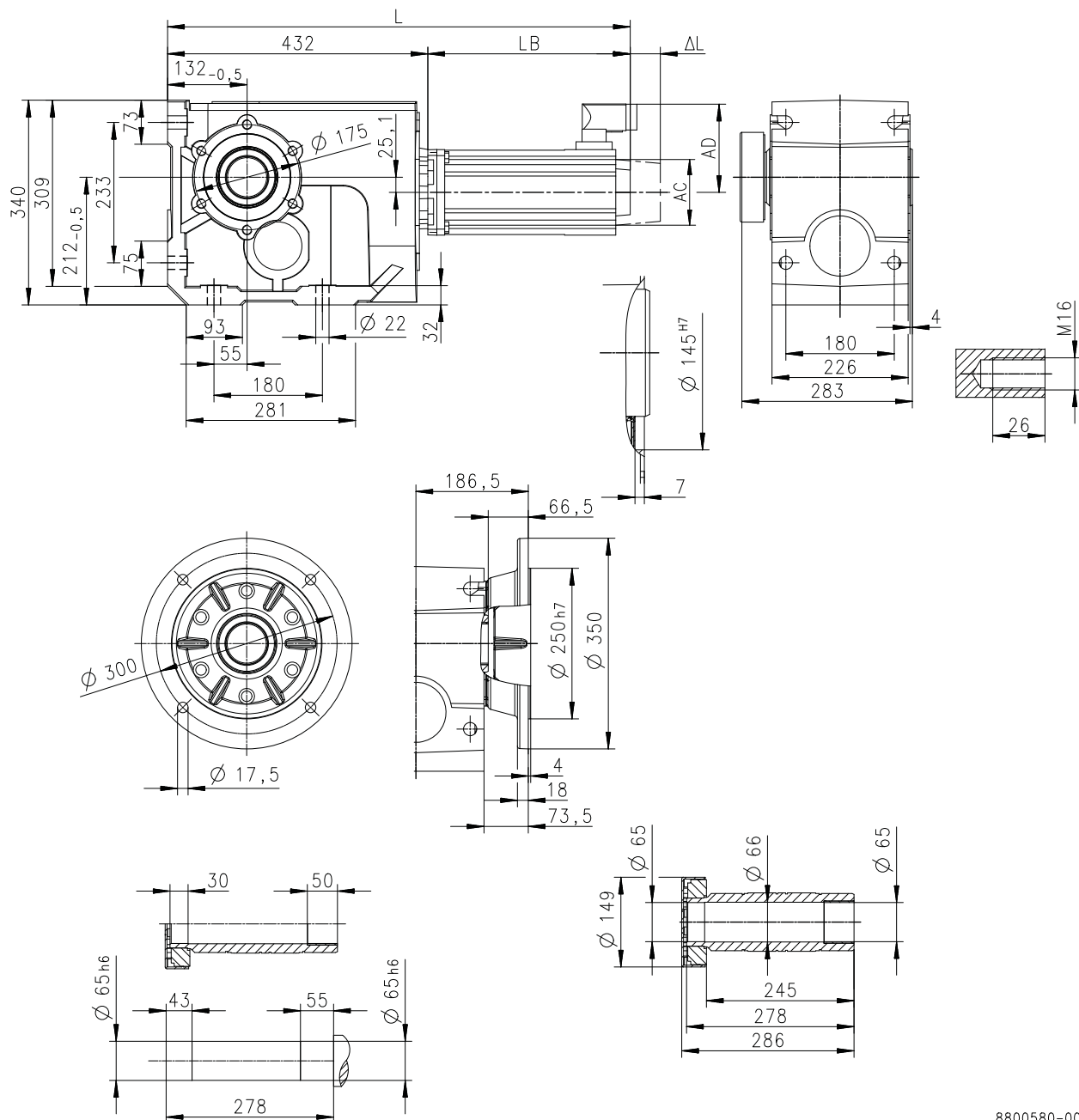
8800580-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	706	633	706	633	746	673
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-B2700, 3-stage with MCS12

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



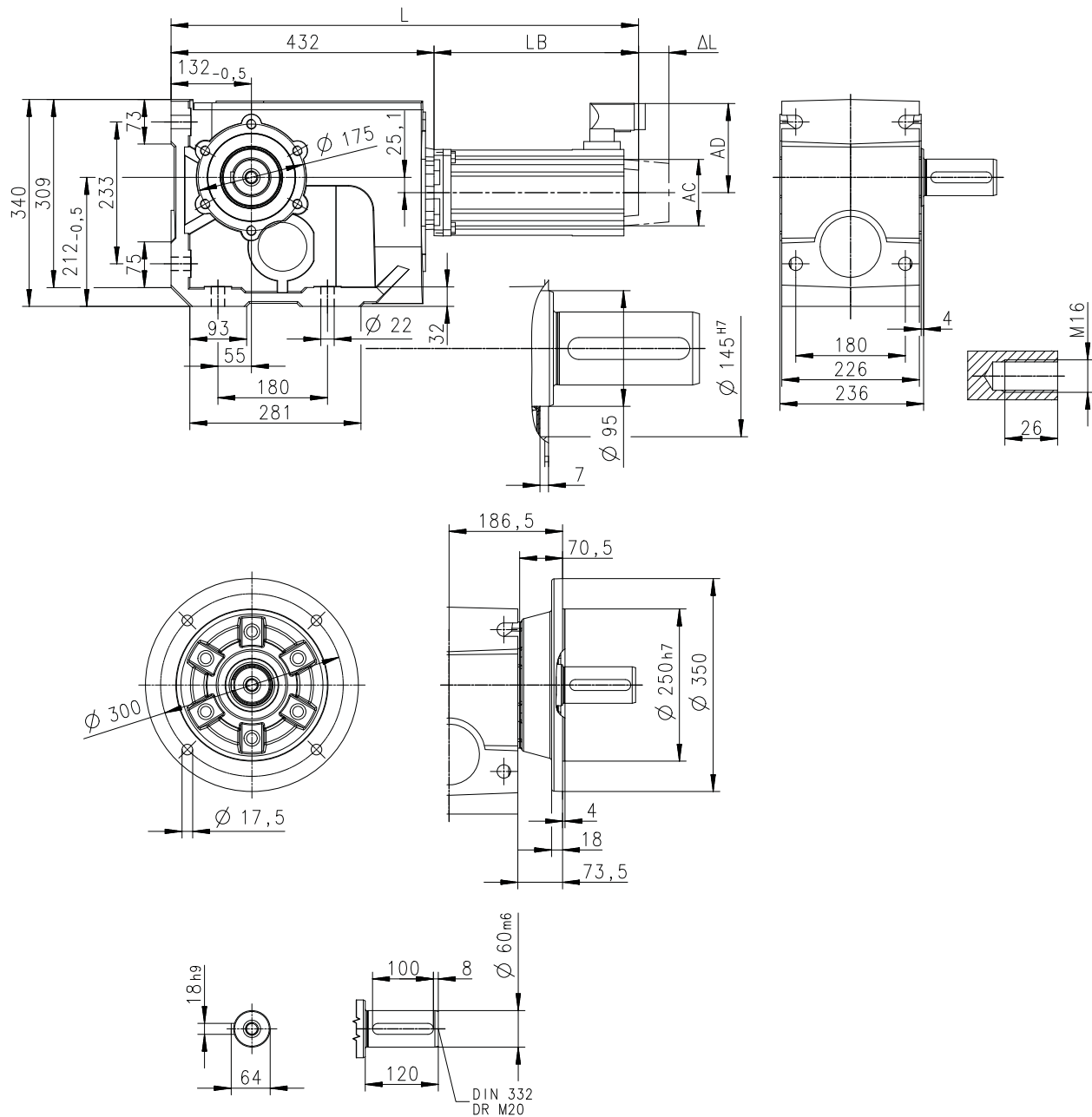
8800580-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	746	673	786	713	786	713
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



g500-B2700, 3-stage with MCS12

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



8800579-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	746	673	786	713	786	713
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

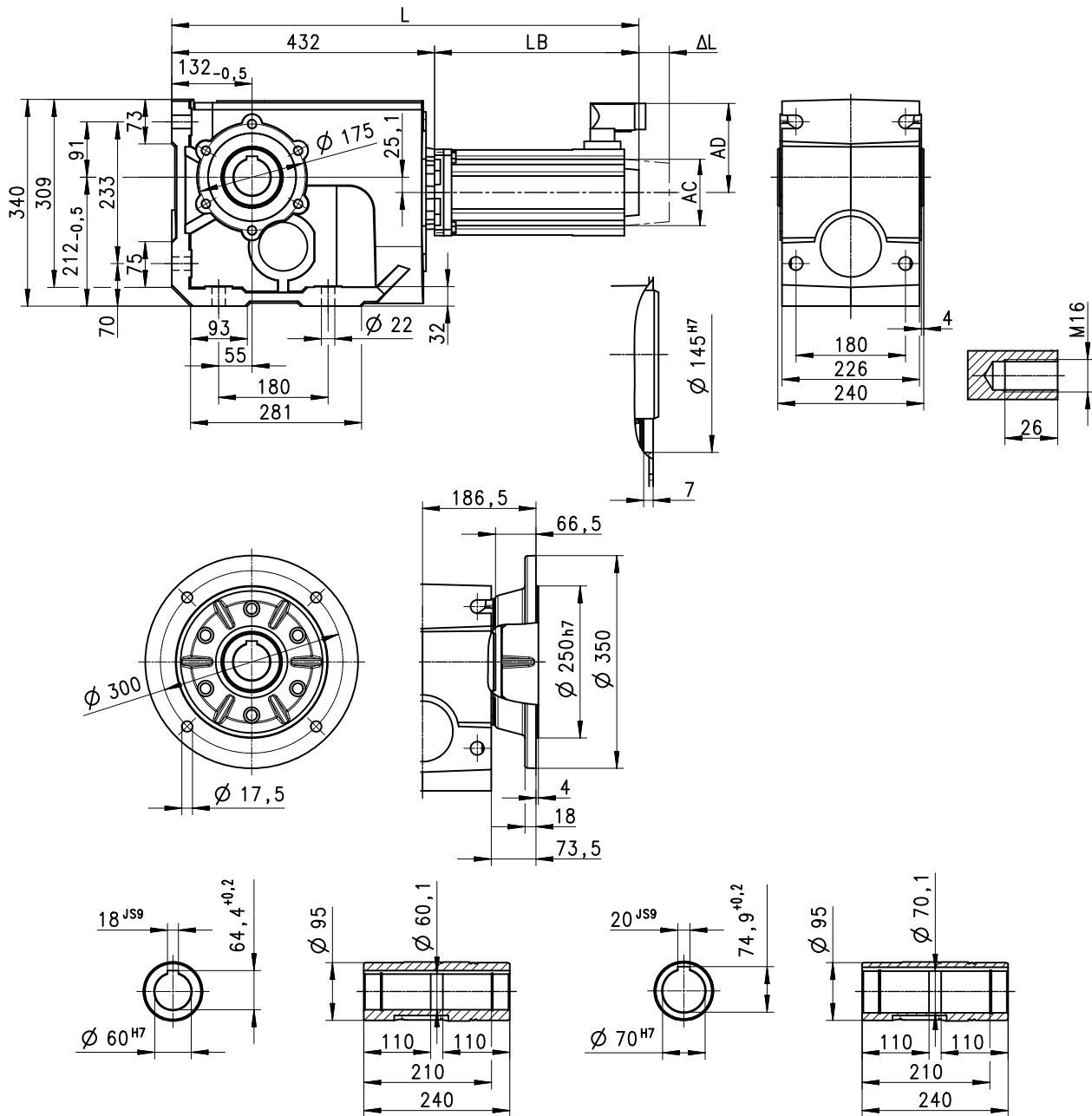
Technical data

Dimensions
Basic dimensions



g500-B2700, 3-stage with MCS14

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



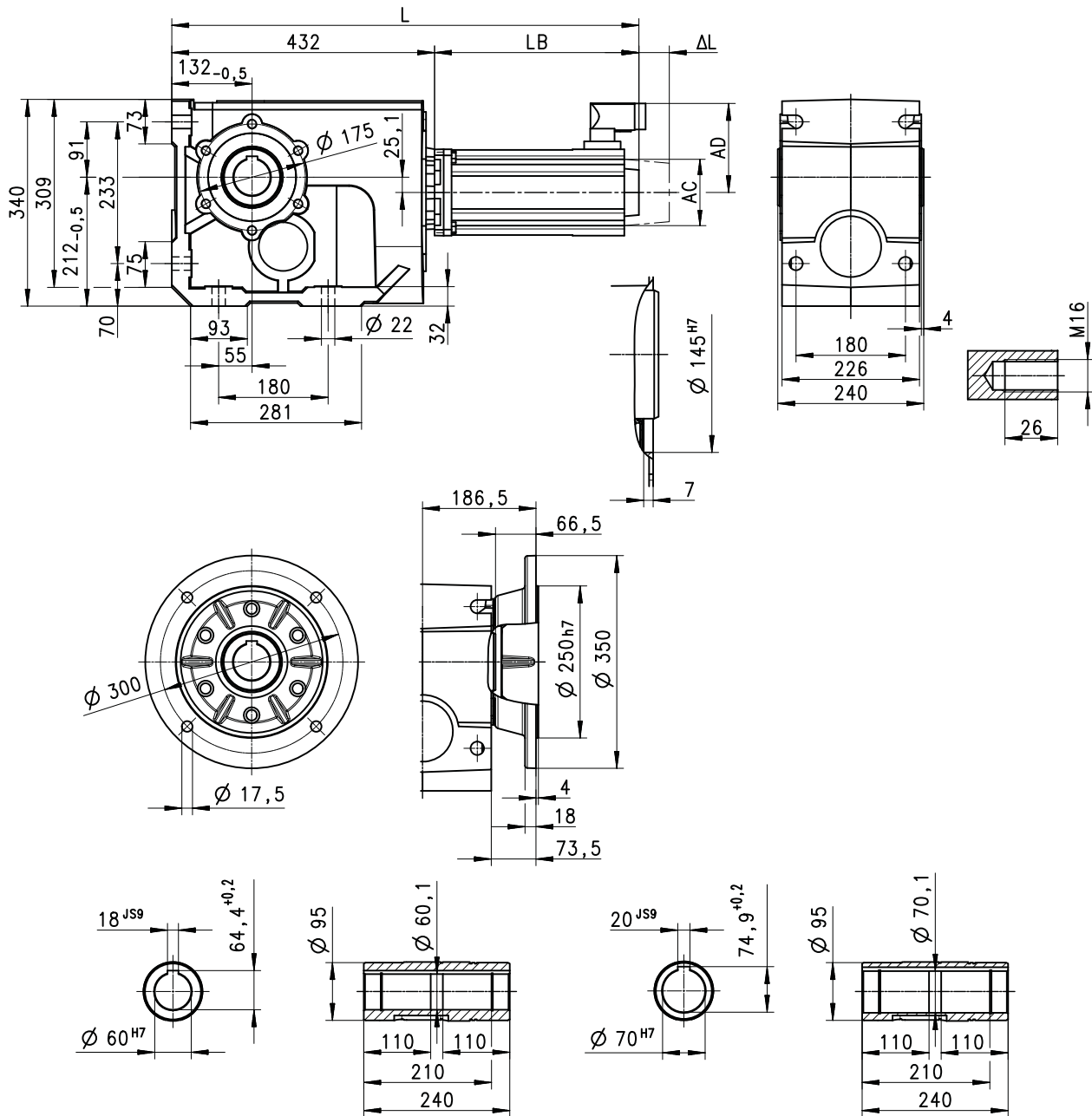
8800578-02

Motor			MCS							
			14D14-Blower	14D15-natural	14D30-Blower	14D36-natural	14H12-Blower	14H15-natural	14H28-Blower	14H32-natural
Total length	L	mm	736	648	736	648	776	688	776	688
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-B2700, 3-stage with MCS14

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



8800578-02

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	816	728	816	728	856	768	856	768
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

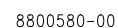
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8800580-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	736	648	736	648	776	688	776	688
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



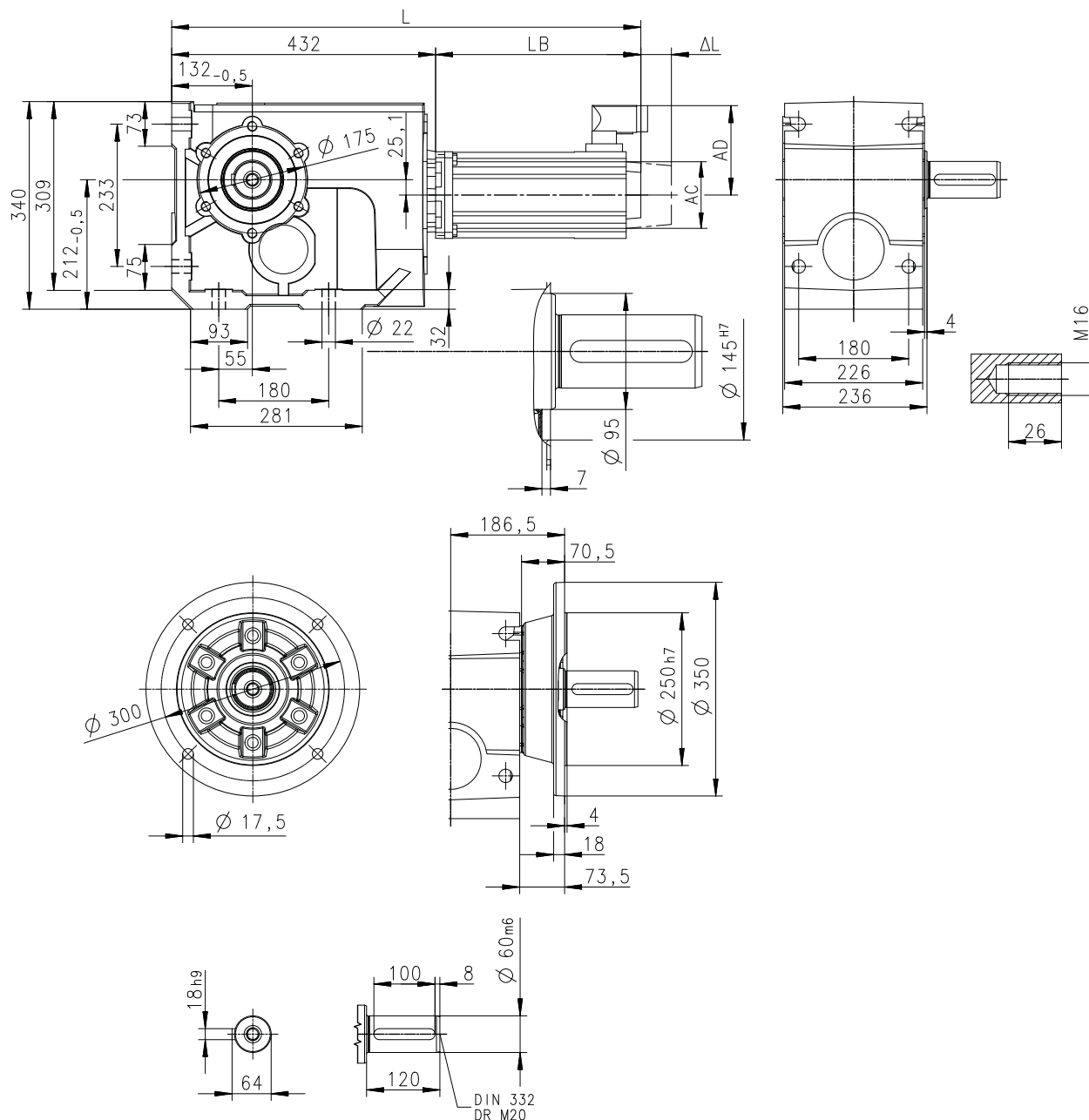
Gearbox version: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)

249



g500-B2700, 3-stage with MCS14

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



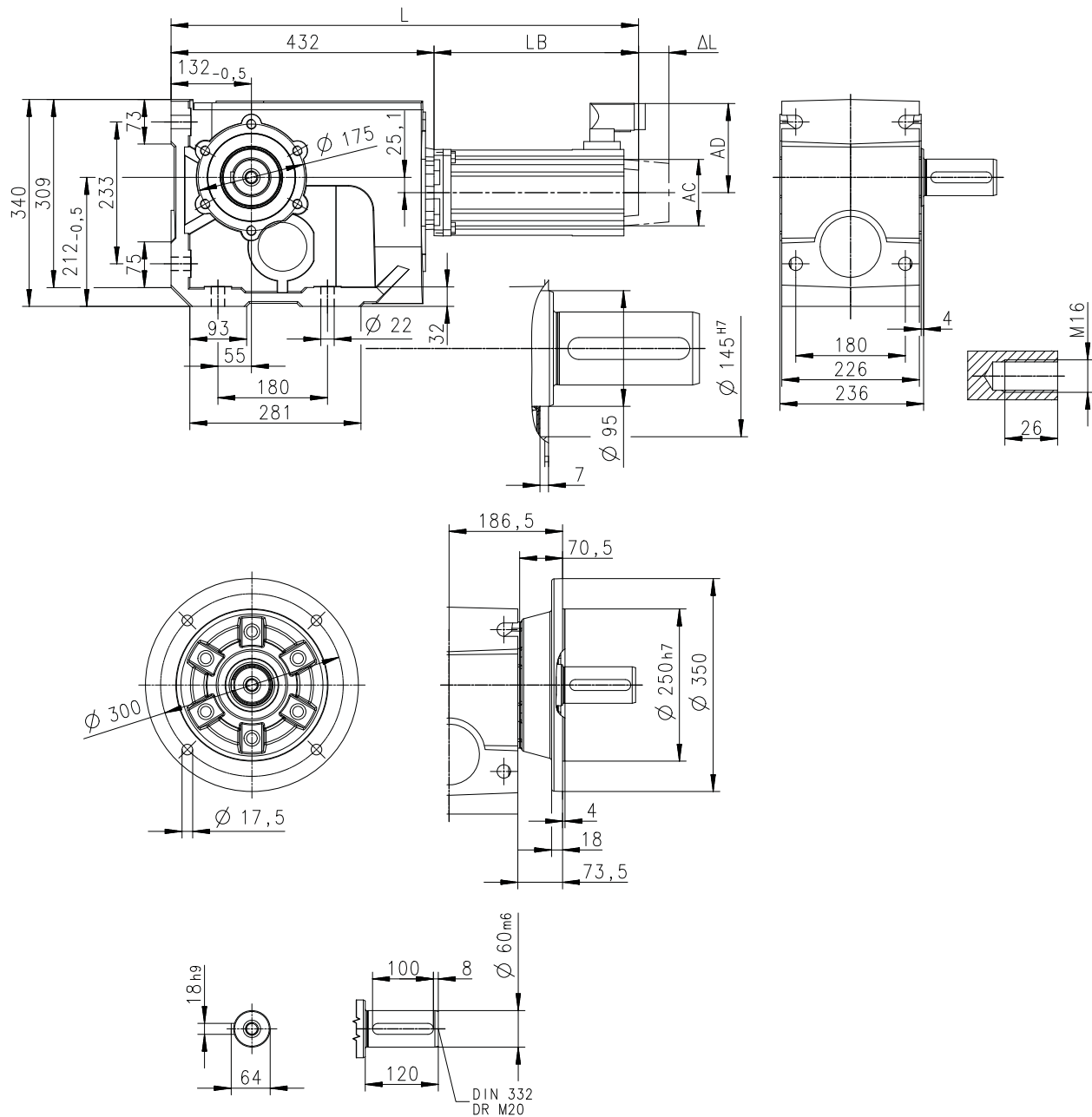
8800579-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	736	648	736	648	776	688	776	688
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



g500-B2700, 3-stage with MCS14

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



8800579-00

Motor			MCS							
			14L14-Blower	14L15-natural	14L30-Blower	14L32-natural	14P11-Blower	14P14-natural	14P26-Blower	14P32-natural
Total length	L	mm	816	728	816	728	856	768	856	768
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

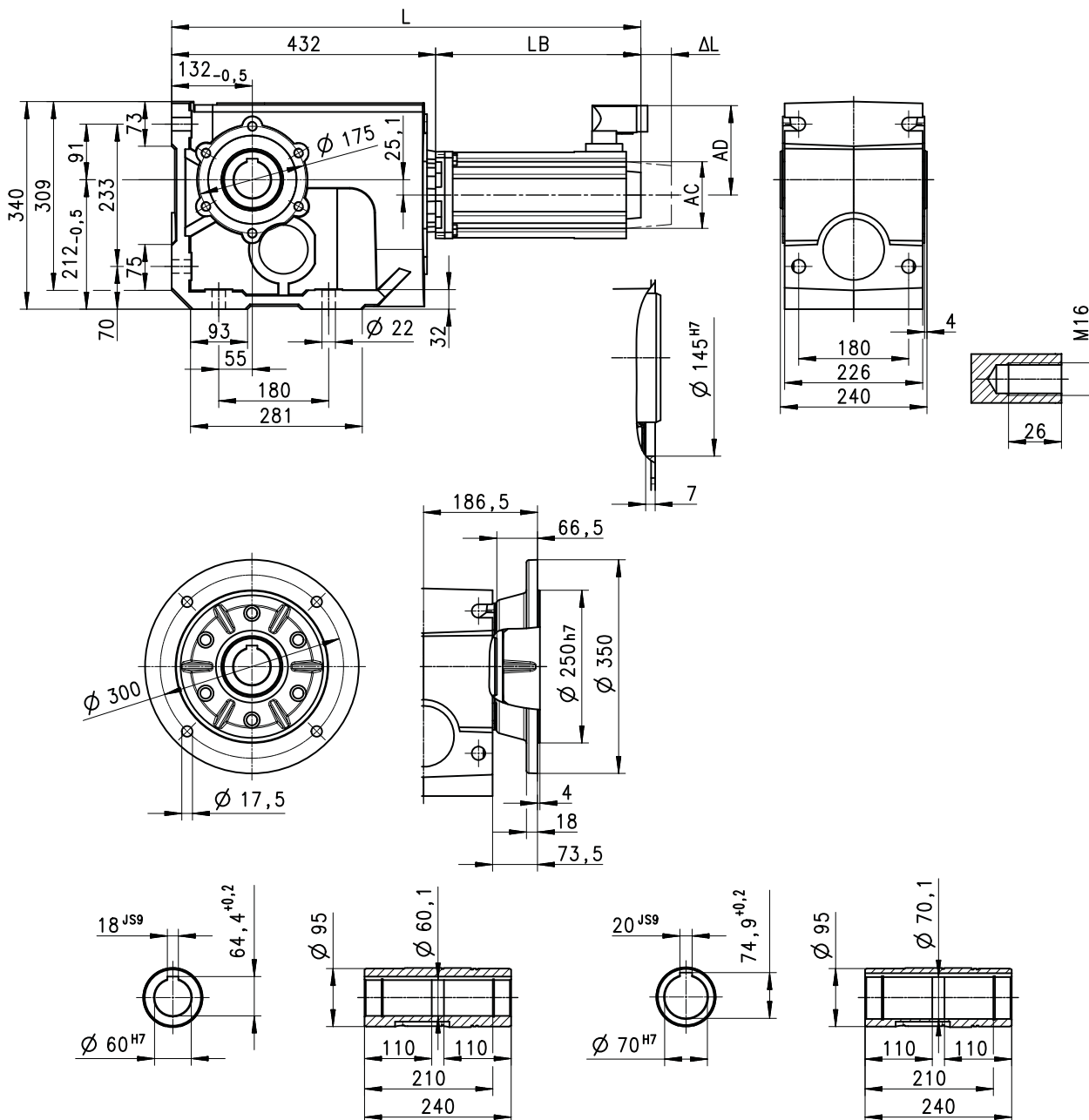
Technical data

Dimensions
Basic dimensions



g500-B2700, 3-stage with MCS19

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



8800578-02

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	794	687	794	687	834	727	727	834	787	787
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



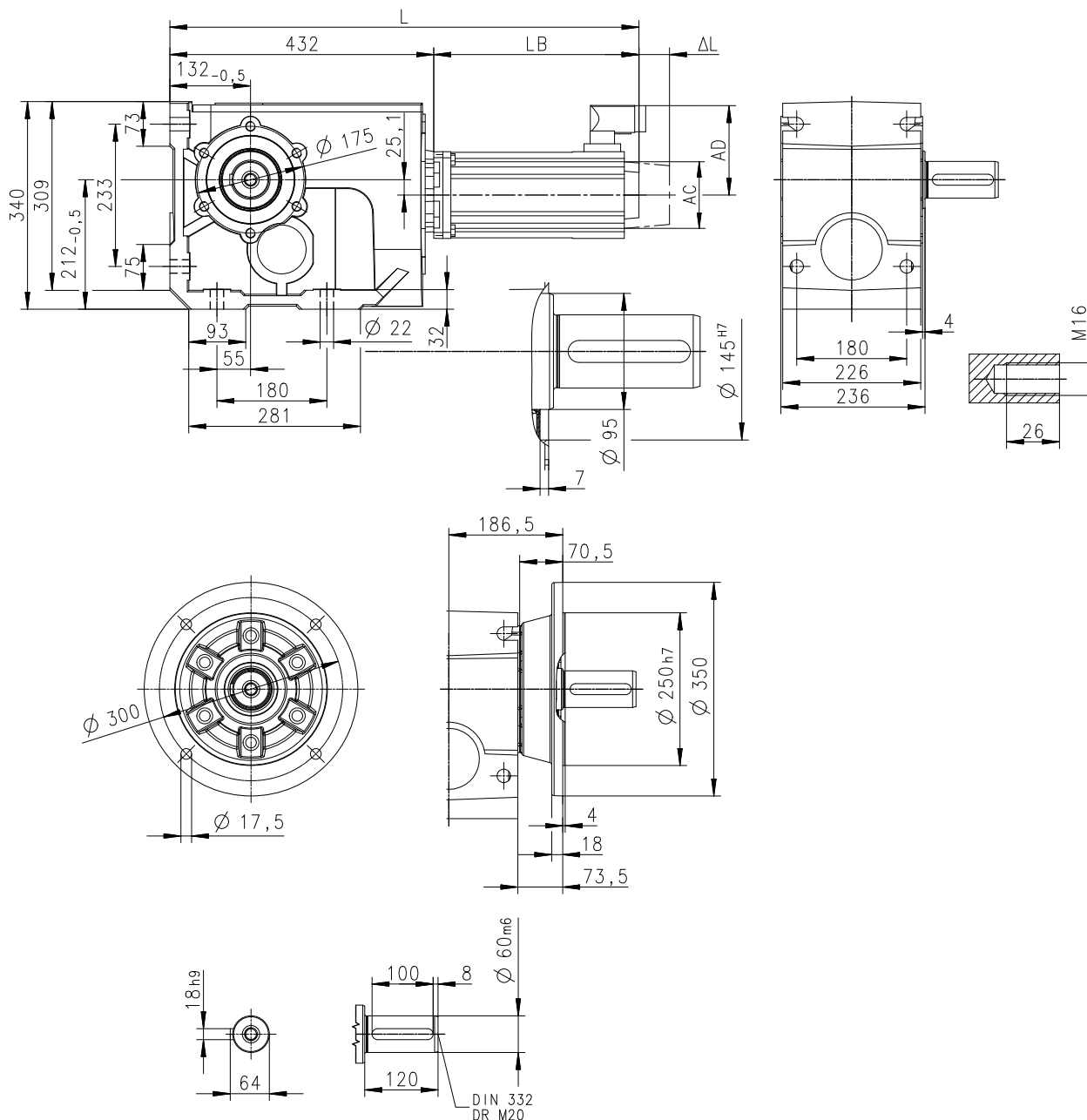
Technical data

Dimensions
Basic dimensions



g500-B2700, 3-stage with MCS19

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



8800579-00

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	794	687	794	687	834	727	727	834	787	787
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

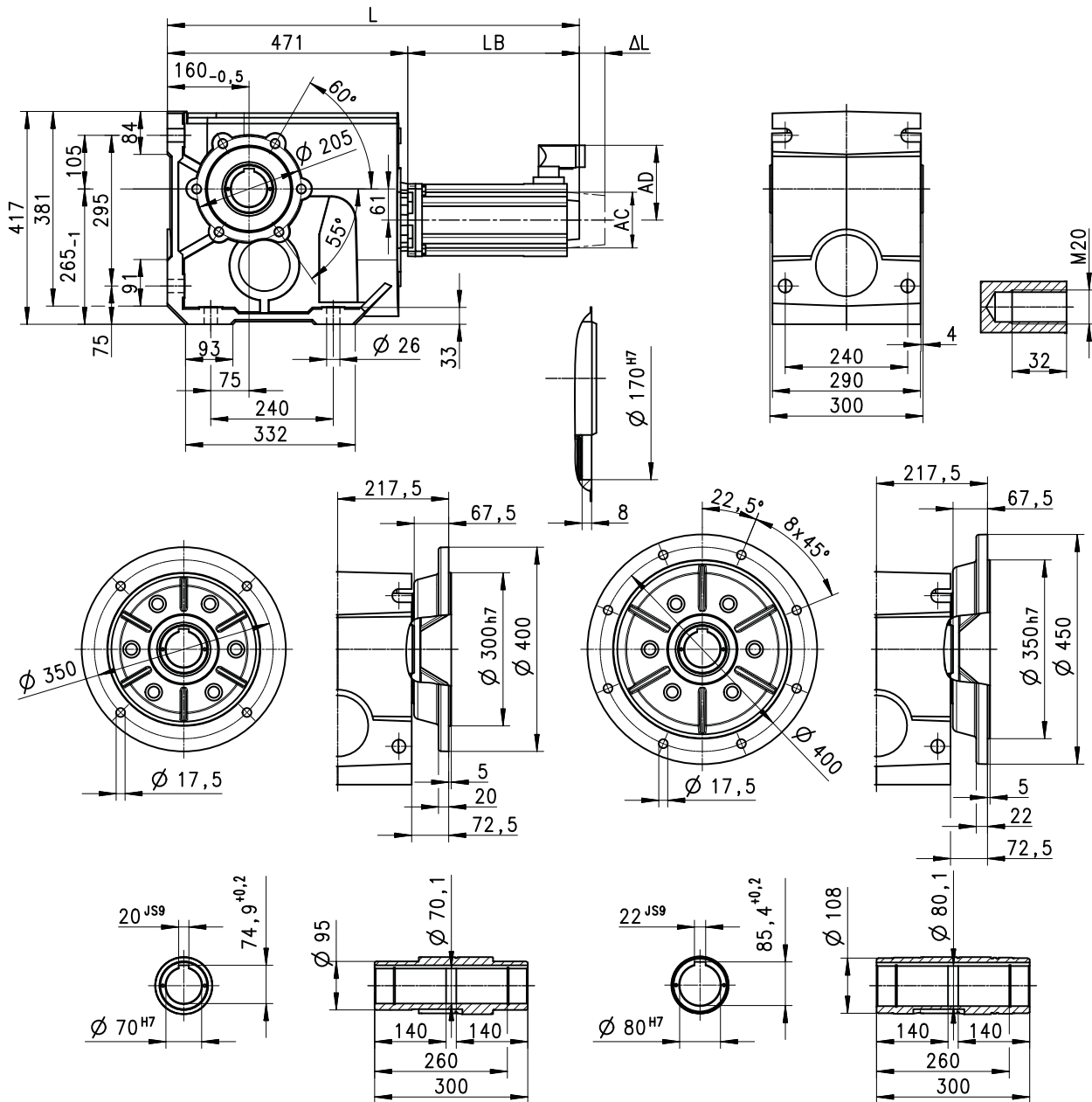


Technical data

Dimensions
Basic dimensions

g500-B4300, 3-stage with MCS06

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



8800581-02

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	602	632	662
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	

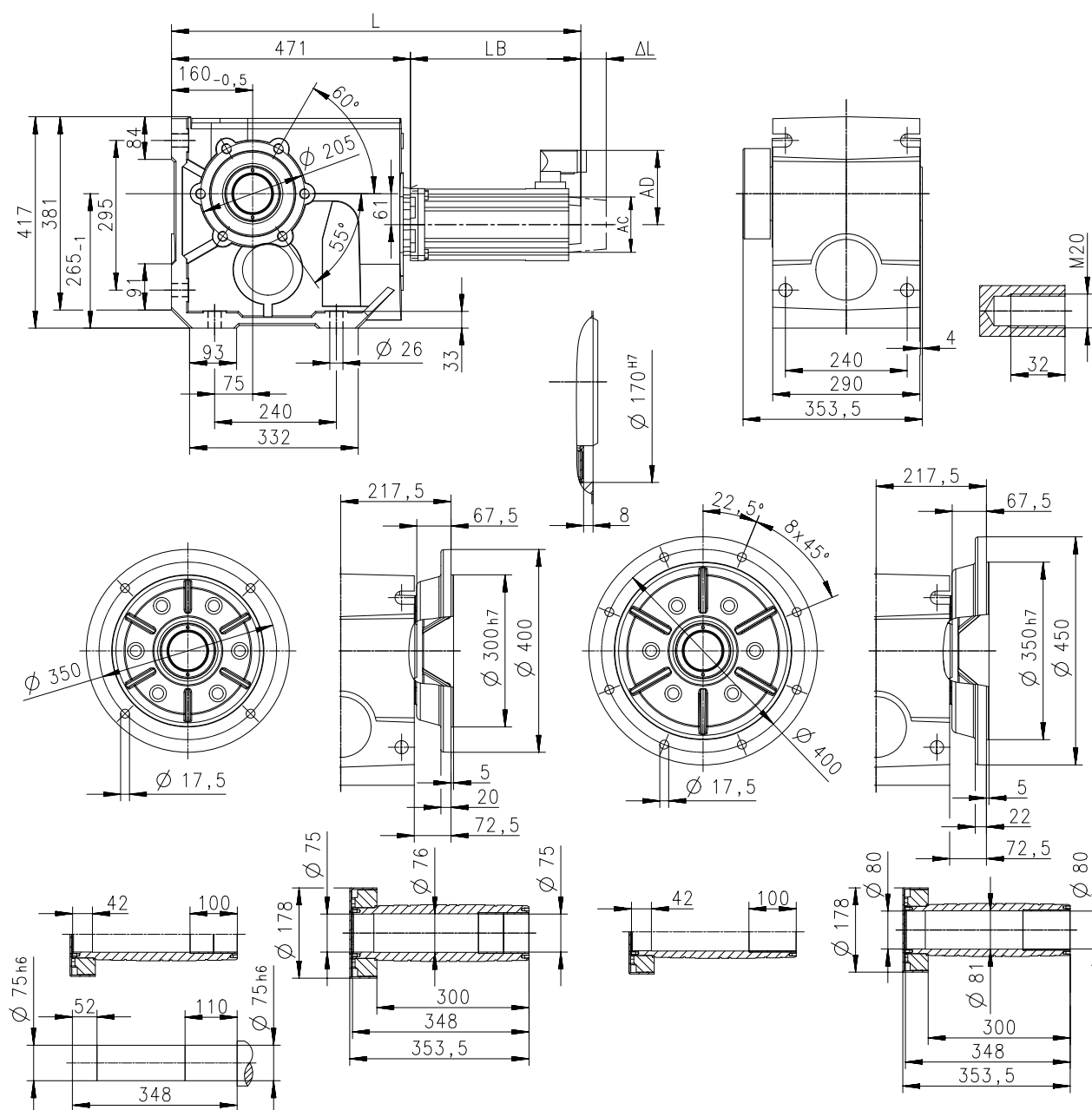
Technical data

Dimensions
Basic dimensions



g500-B4300, 3-stage with MCS06

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



8800583-00

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	602	632	662
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	

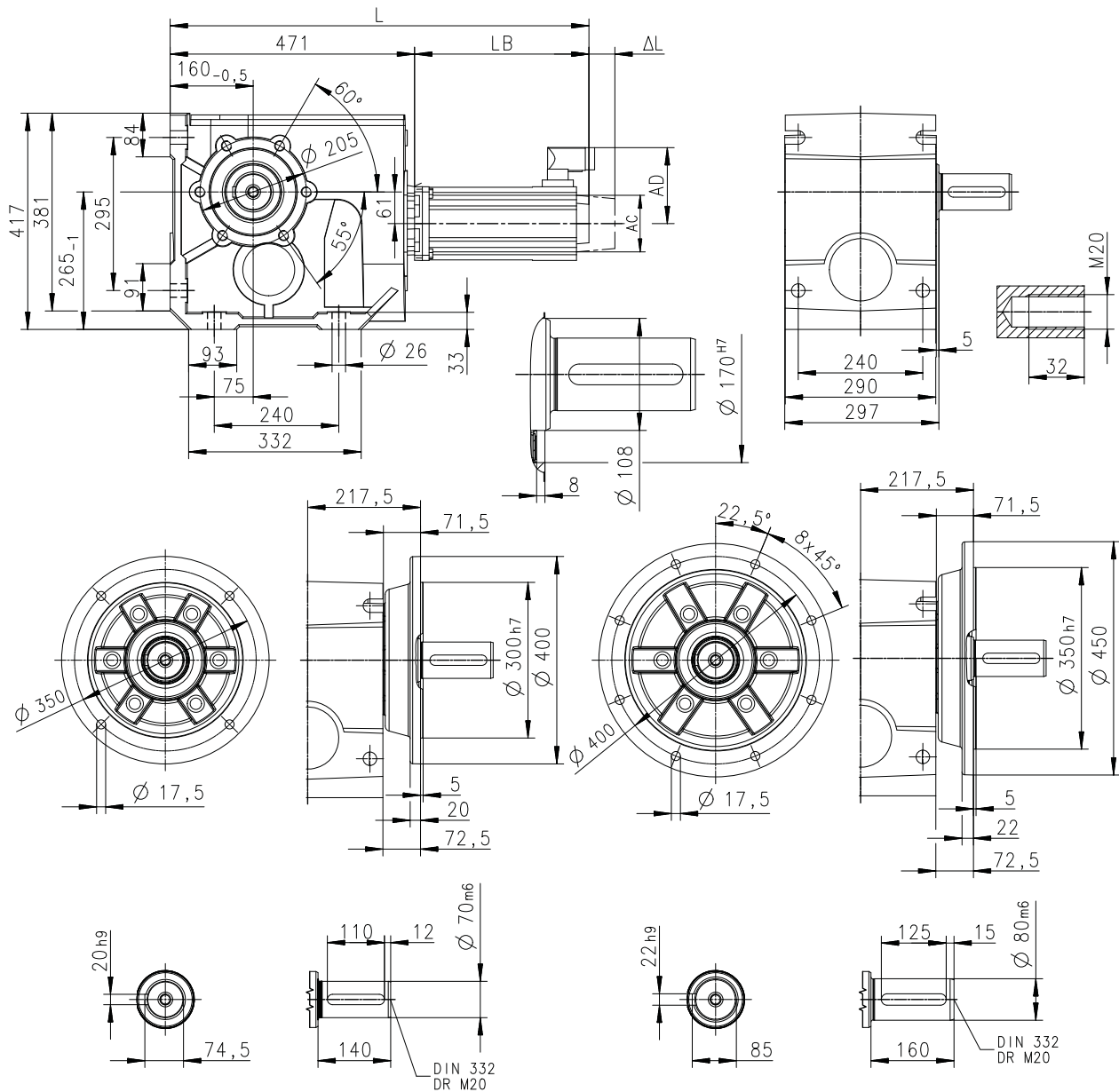


Technical data

Dimensions
Basic dimensions

g500-B4300, 3-stage with MCS06

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



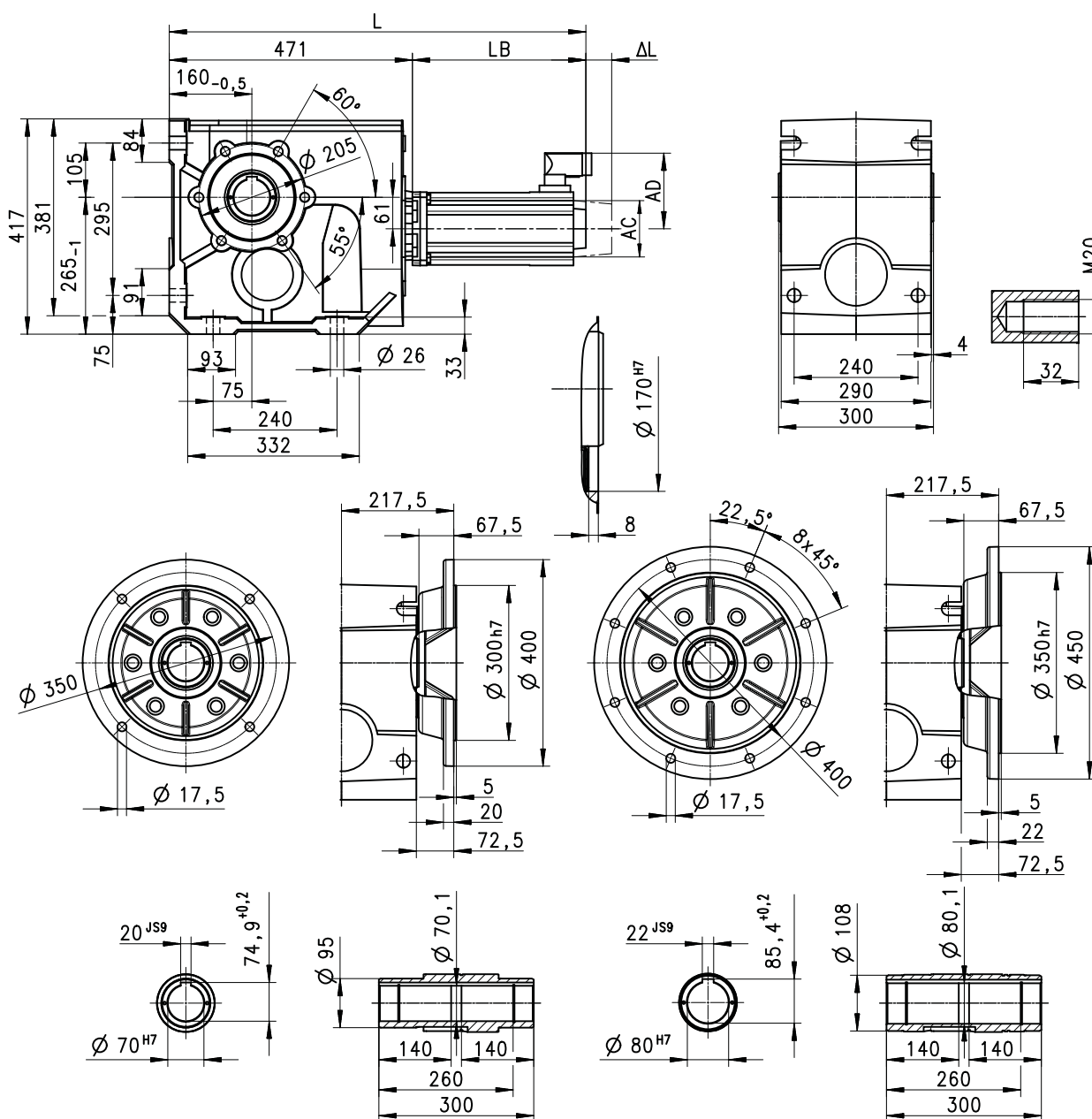
8800582-00

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	602	632	662
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-B4300, 3-stage with MCS09

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



8800581-02

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	655	675	695	735
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			

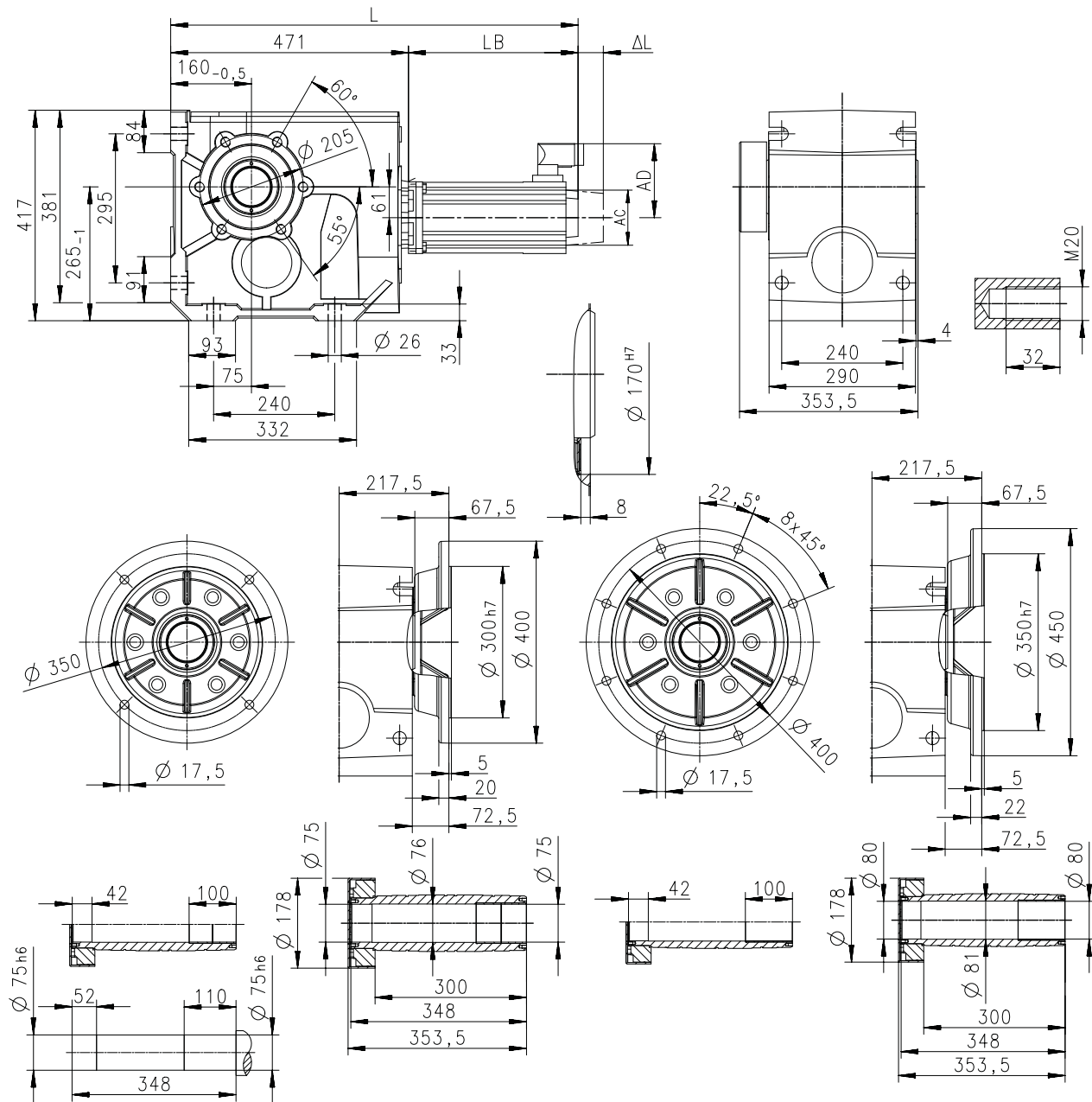


Technical data

Dimensions
Basic dimensions

g500-B4300, 3-stage with MCS09

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



8800583-00

Motor			MCS			
			09D41-09D41L	09F38-09F38L	09H41-09H41L	09L41-09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	655	675	695	735
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			

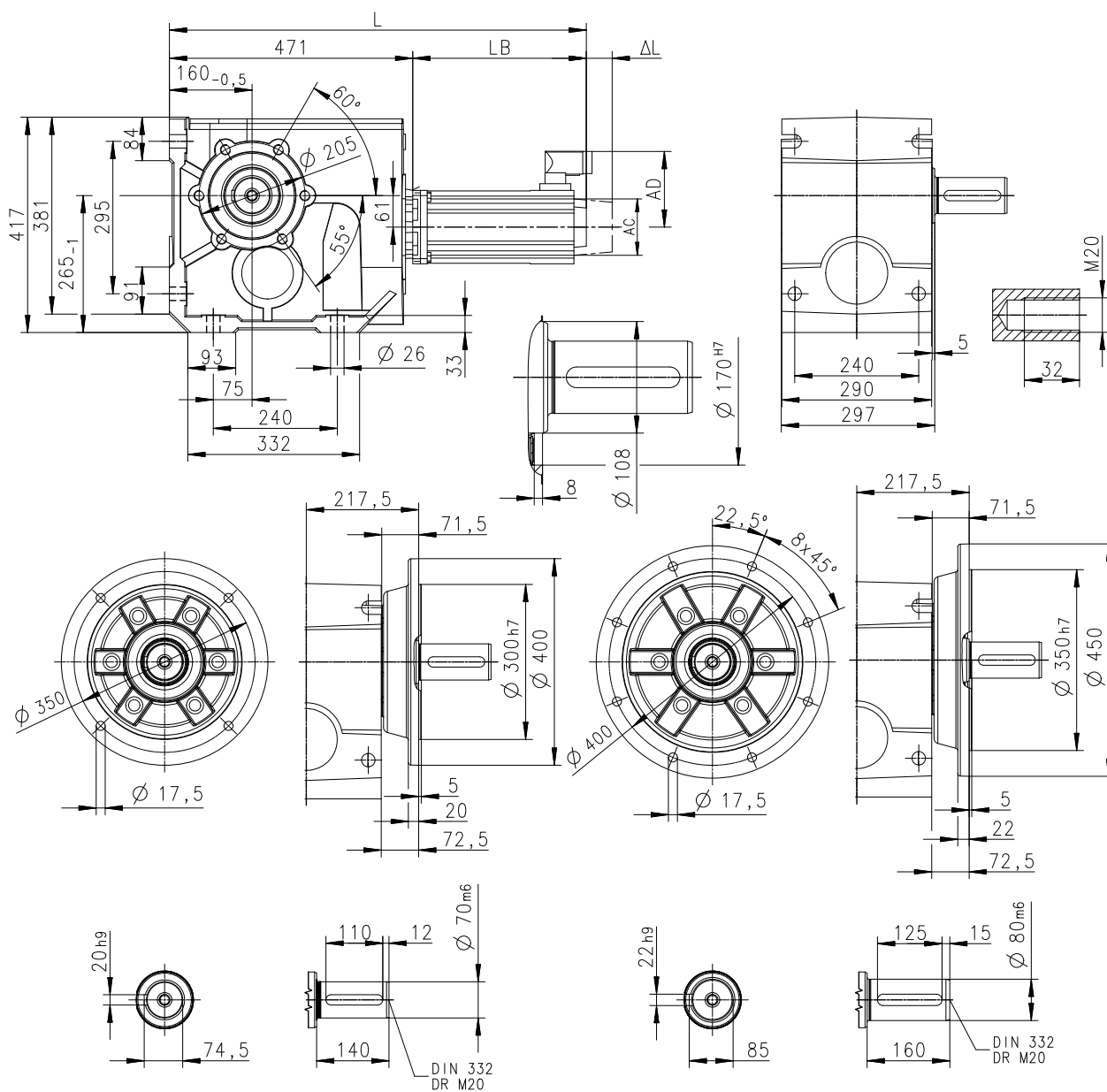
Technical data

Dimensions
Basic dimensions



g500-B4300, 3-stage with MCS09

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



8800582-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	655	675	695	735
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			

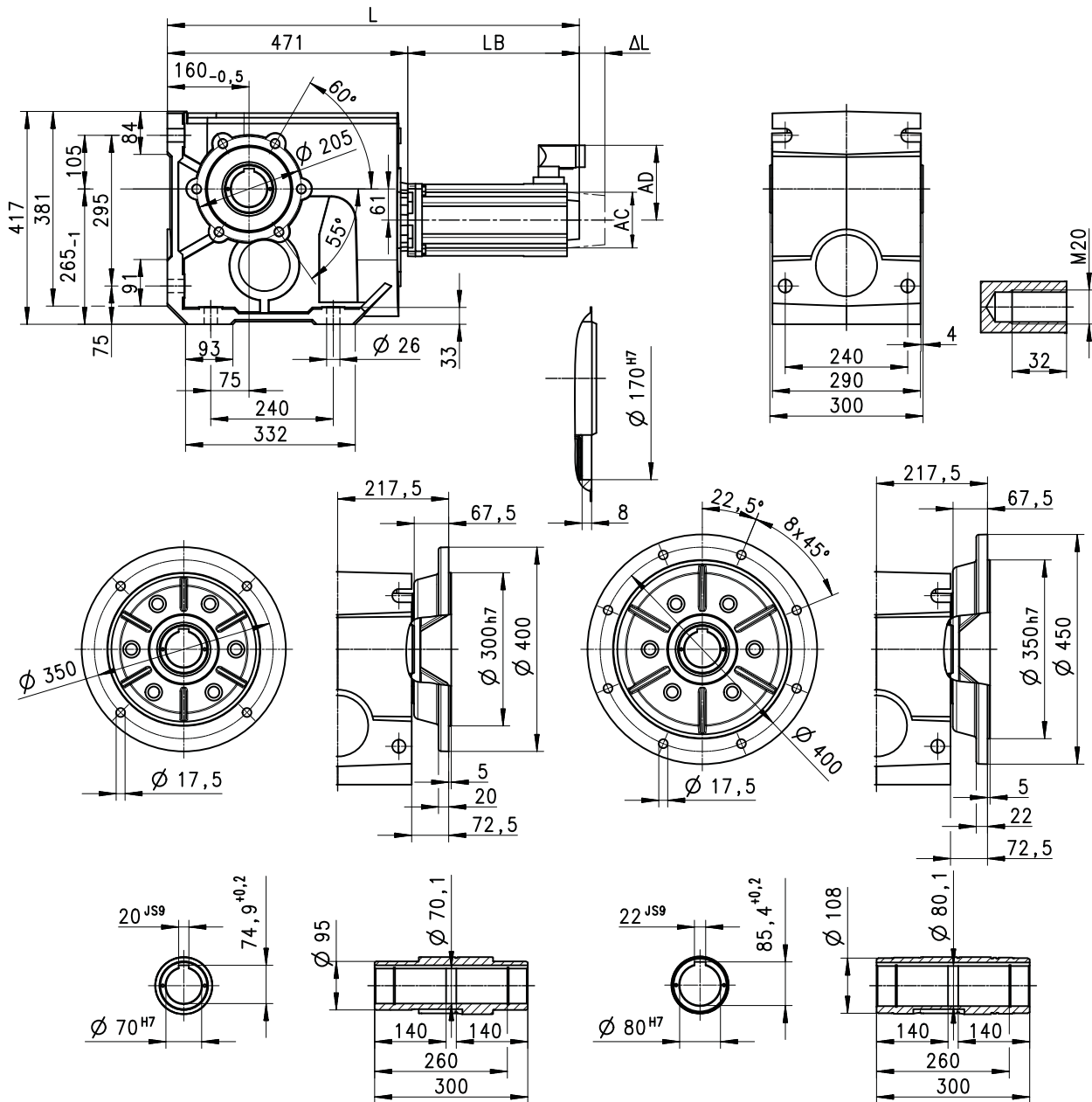


Technical data

Dimensions
Basic dimensions

g500-B4300, 3-stage with MCS12

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



8800581-02

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	745	672	745	672	785	712
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

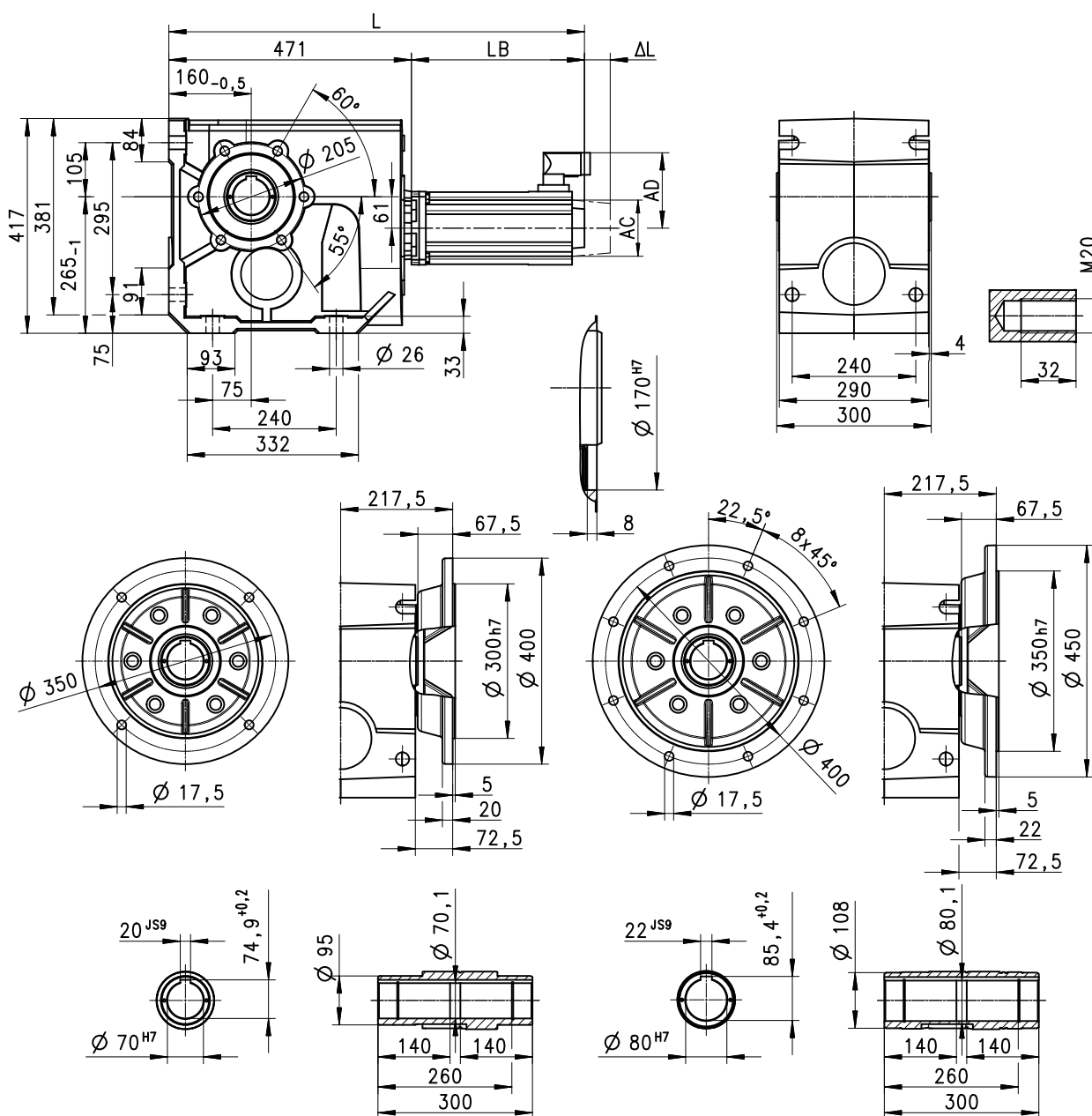
Technical data

Dimensions
Basic dimensions



g500-B4300, 3-stage with MCS12

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



8800581-02

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	785	712	825	752	825	752
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: Hollow shaft with shrink disc, with foot (SAR/SBR/SAK)

8800583-00

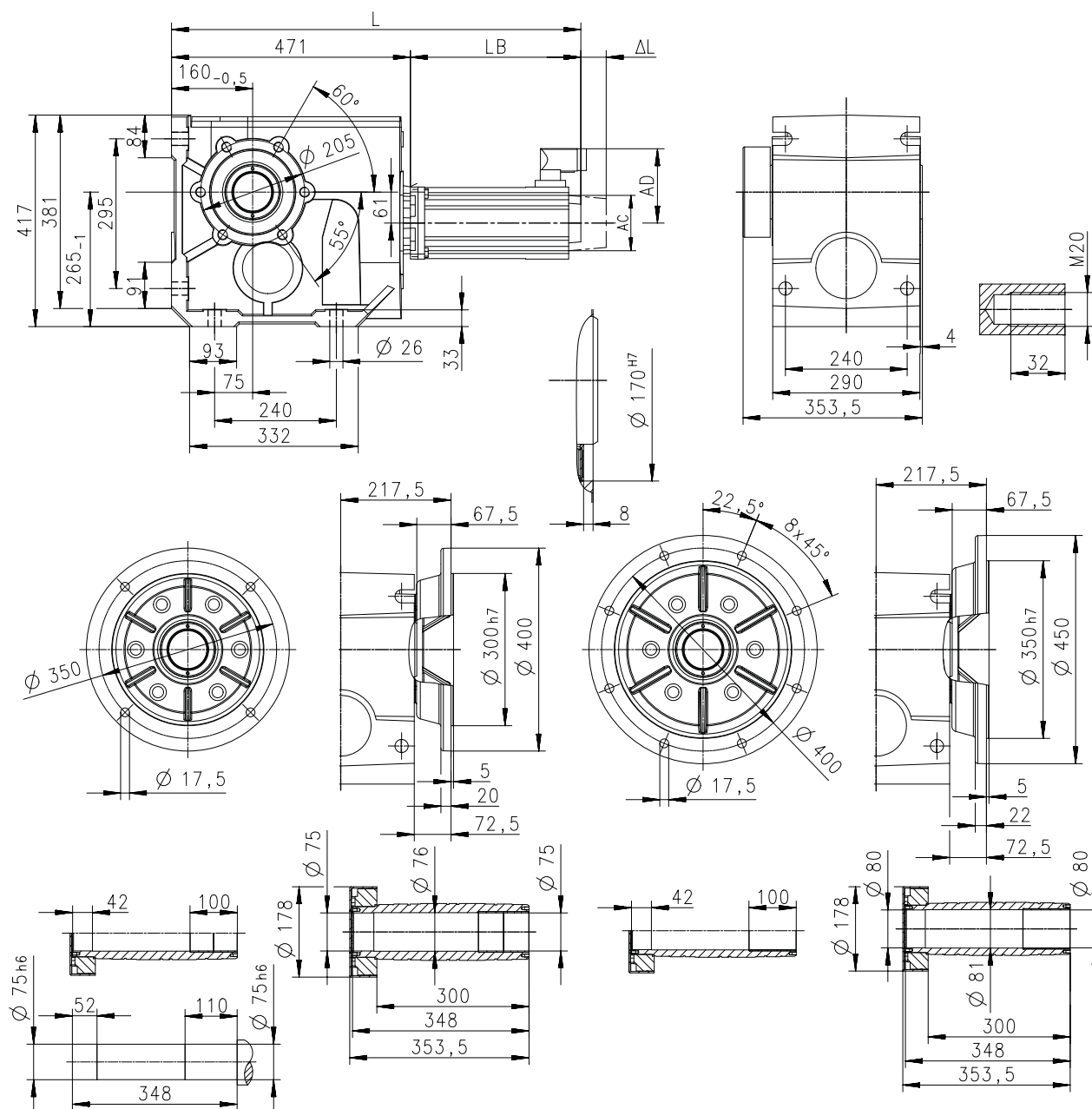
Technical data

Dimensions
Basic dimensions



g500-B4300, 3-stage with MCS12

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



8800583-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	785	712	825	752	825	752
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



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

8800582-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	745	672	745	672	785	712
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

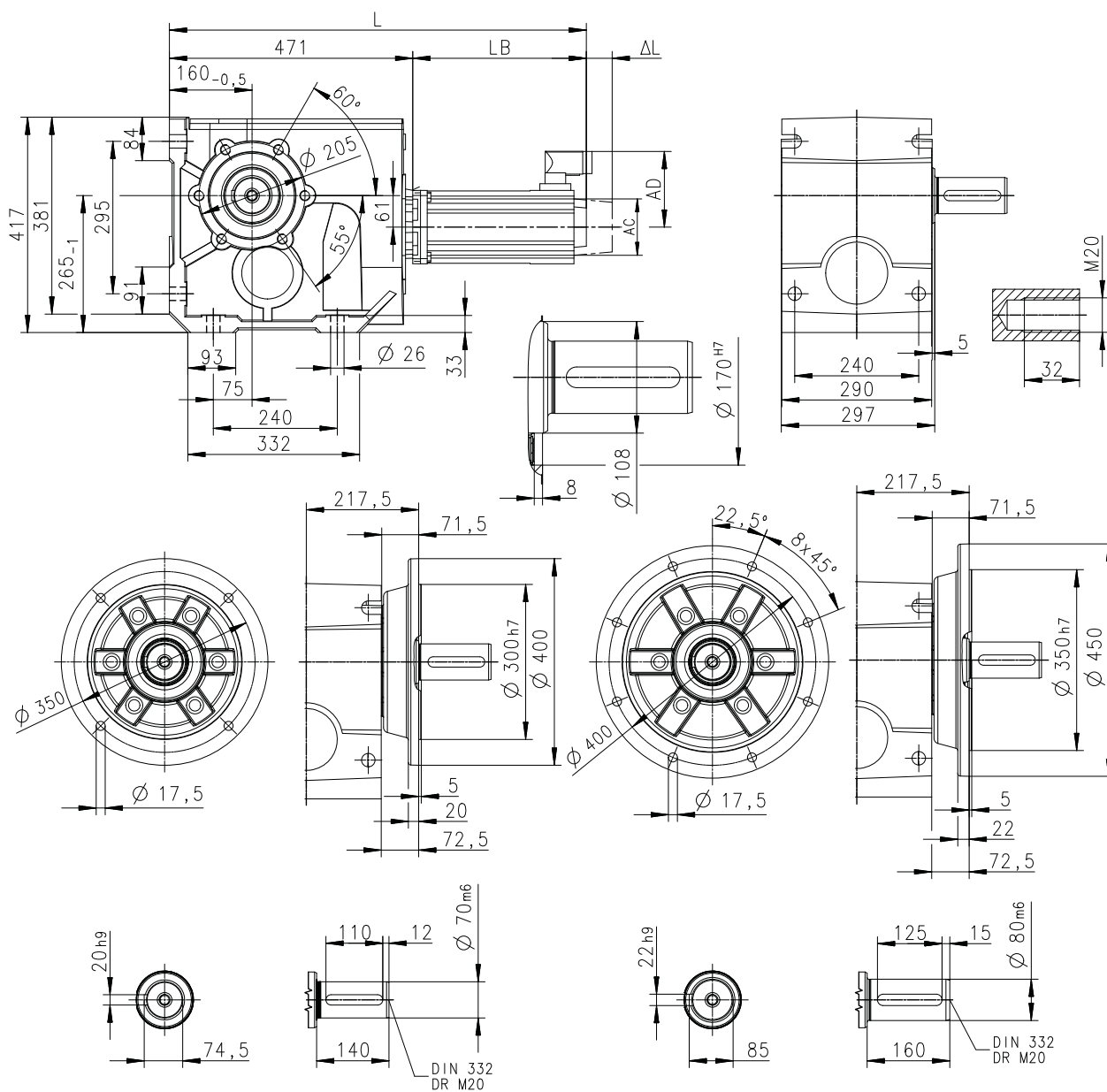
Technical data

Dimensions
Basic dimensions



g500-B4300, 3-stage with MCS12

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



8800582-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	785	712	825	752	825	752
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

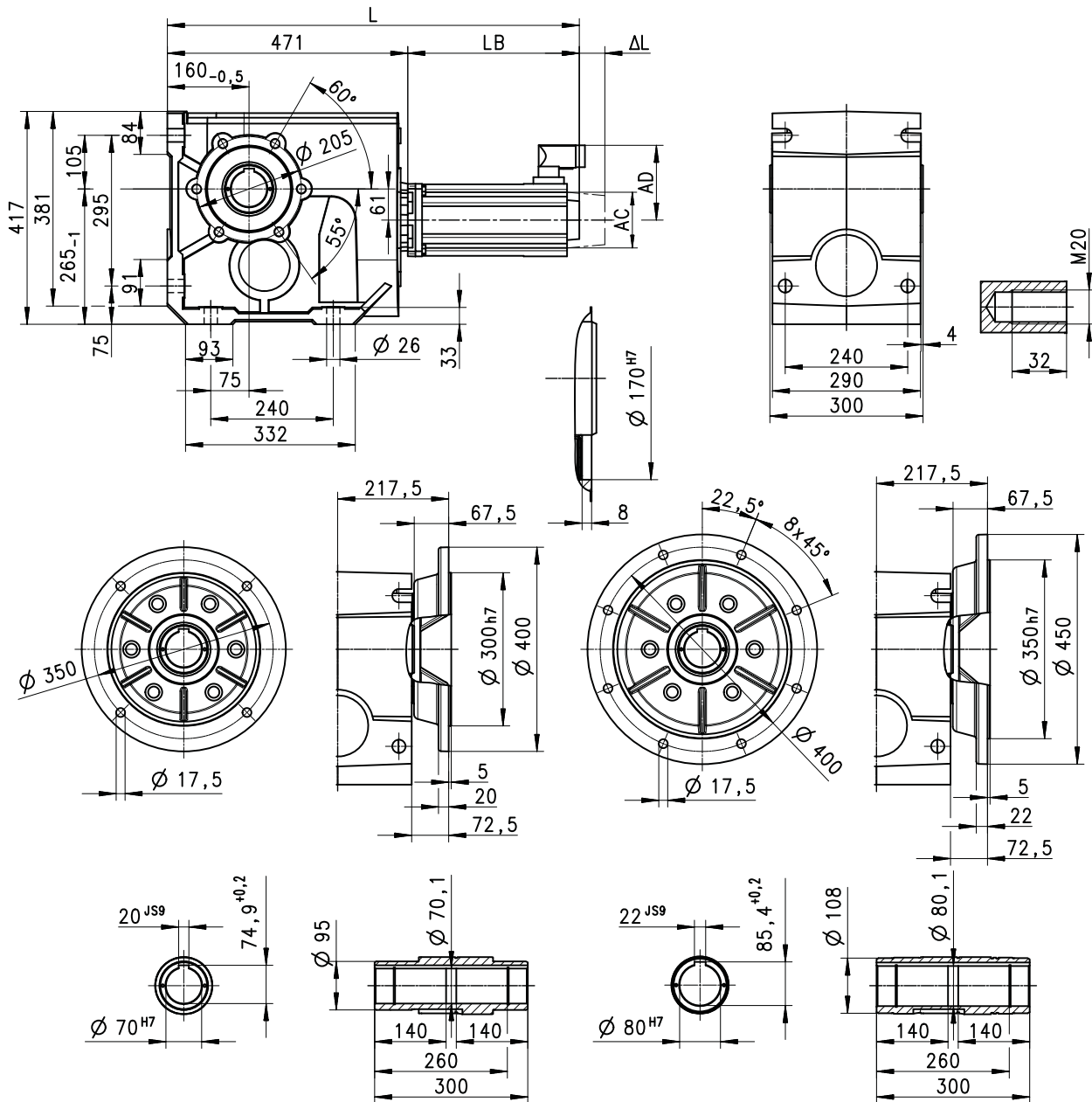


Technical data

Dimensions
Basic dimensions

g500-B4300, 3-stage with MCS14

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



8800581-02

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	775	687	775	687	815	727	815	727
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

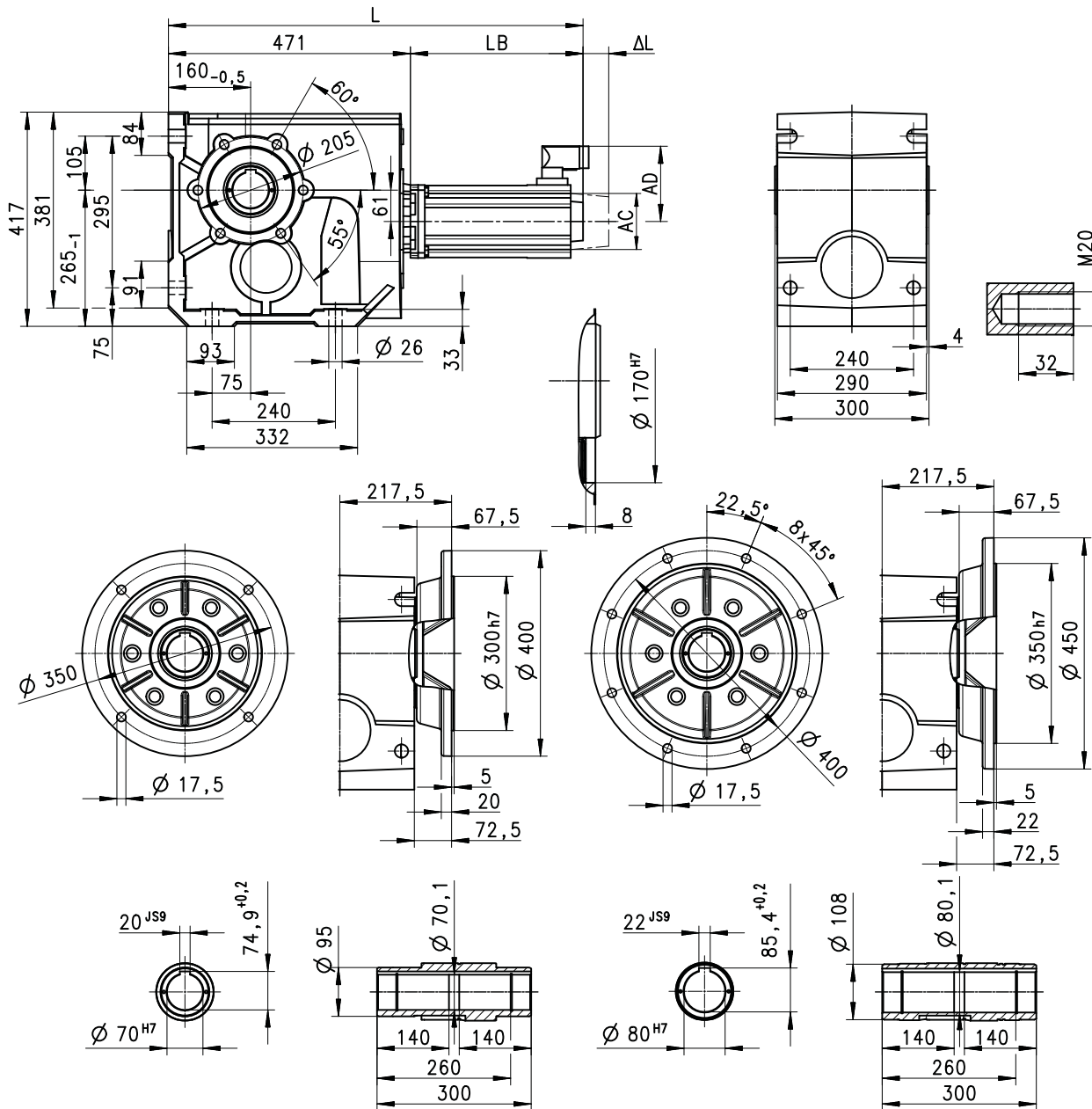
Technical data

Dimensions
Basic dimensions



g500-B4300, 3-stage with MCS14

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

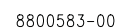


8800581-02

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	855	767	855	767	895	807	895	807
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)

269

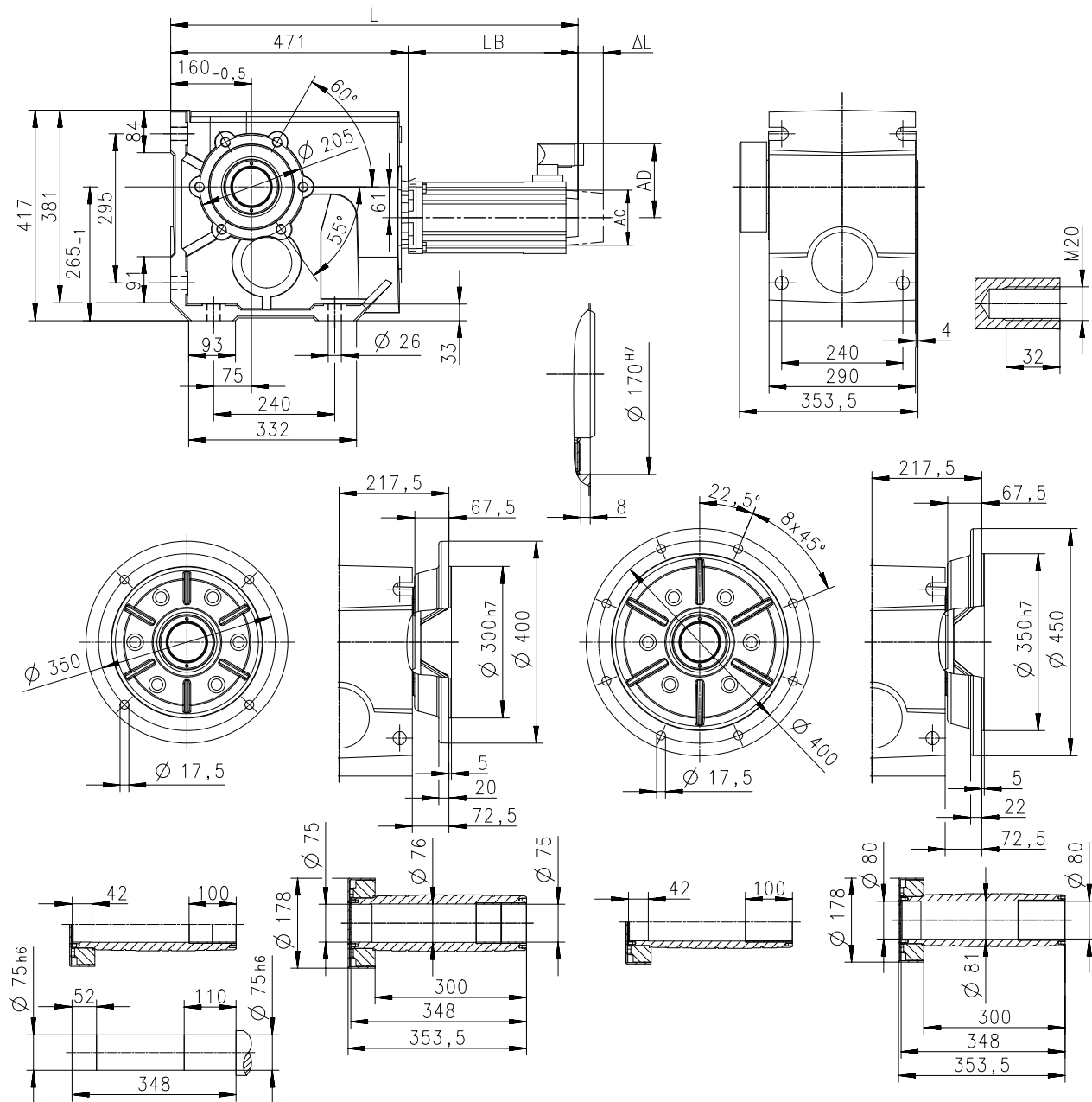
Technical data

Dimensions
Basic dimensions



g500-B4300, 3-stage with MCS14

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



8800583-00

Motor			MCS							
			14L14-Blower	14L15-natural	14L30-Blower	14L32-natural	14P11-Blower	14P14-natural	14P26-Blower	14P32-natural
Total length	L	mm	855	767	855	767	895	807	895	807
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

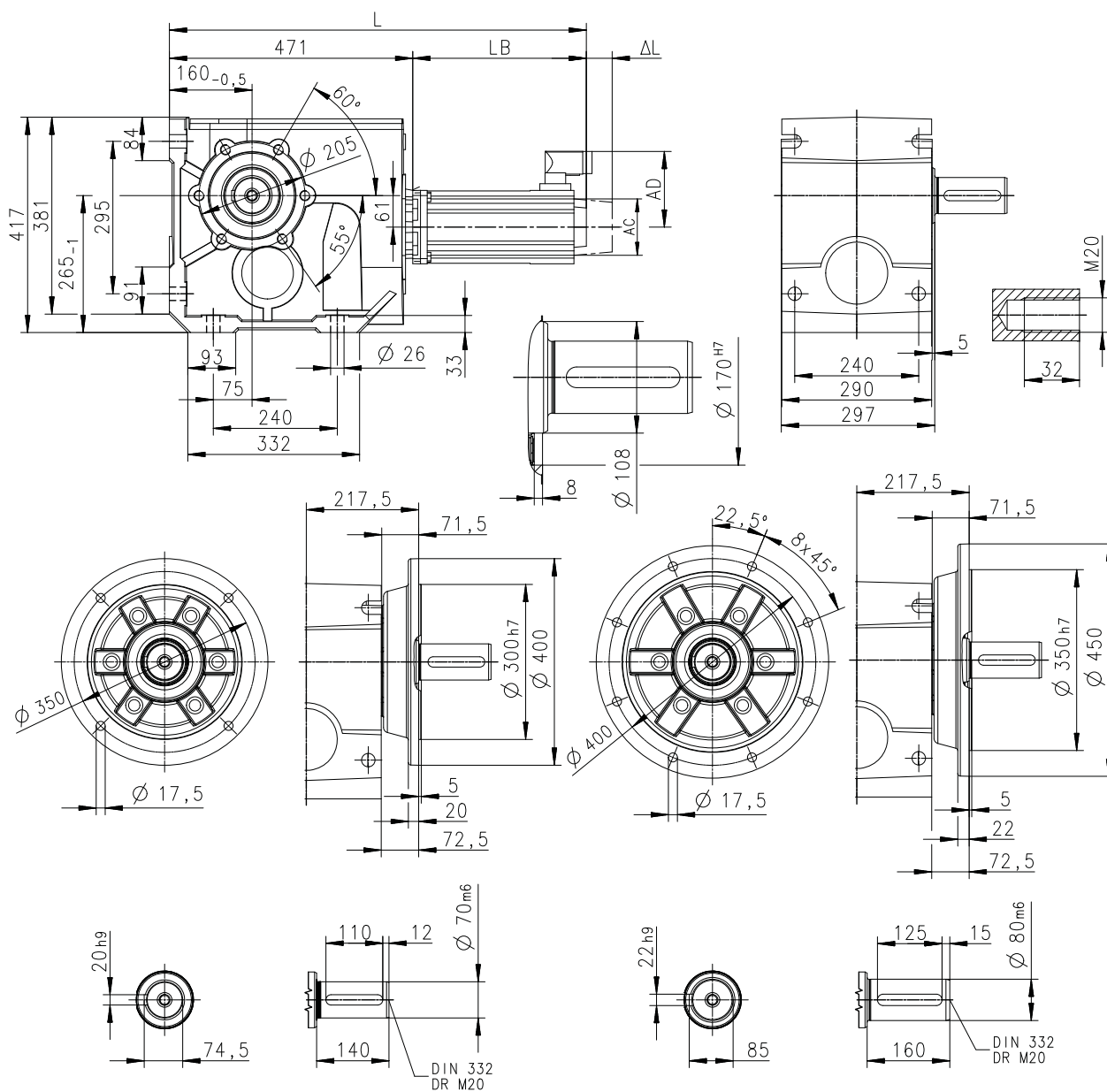
Technical data

Dimensions
Basic dimensions



g500-B4300, 3-stage with MCS14

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



8800582-00

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	855	767	855	767	895	807	895	807
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

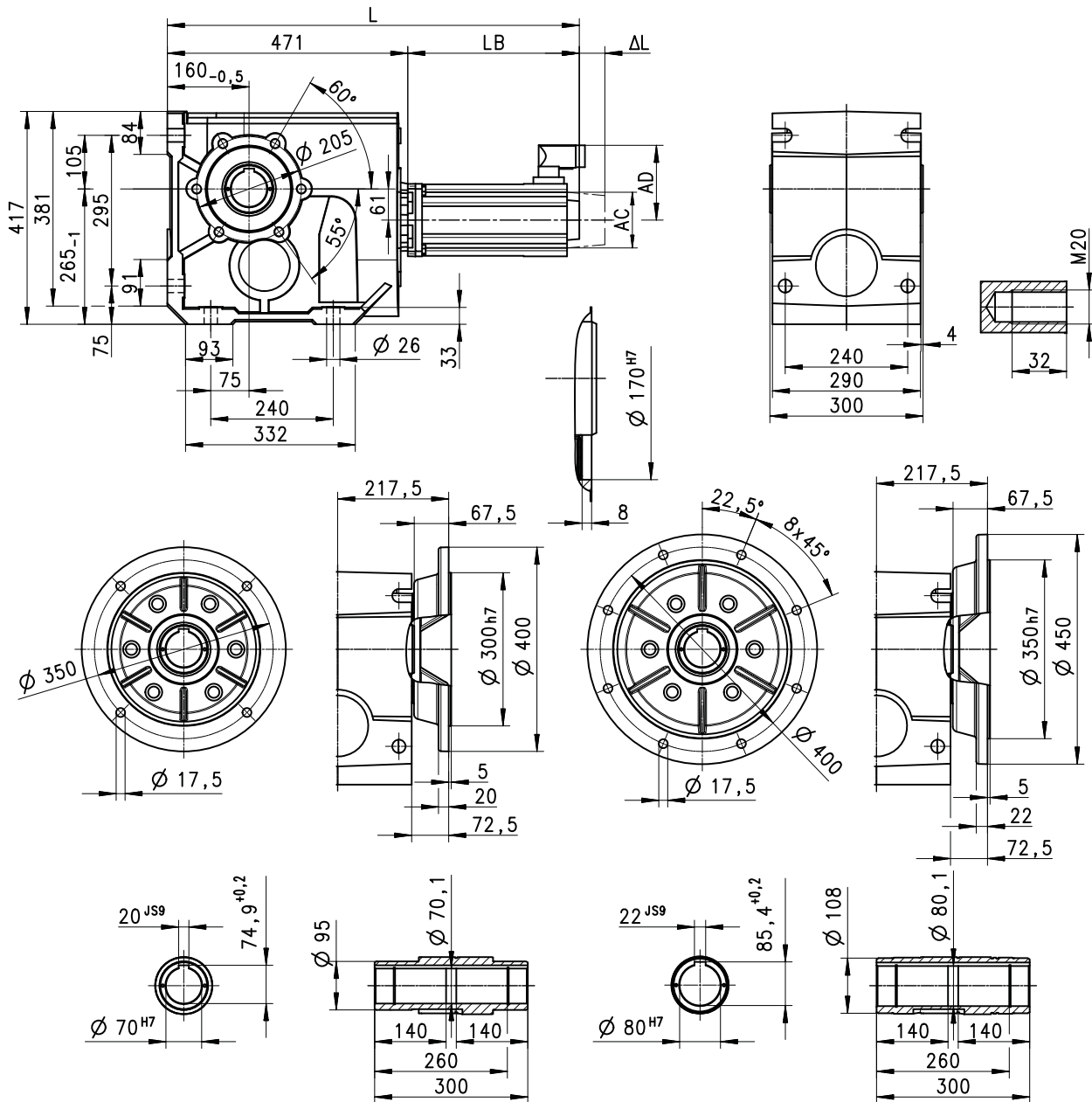


Technical data

Dimensions
Basic dimensions

g500-B4300, 3-stage with MCS19

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



8800581-02

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	833	726	833	726	873	766	766	873	826	826
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

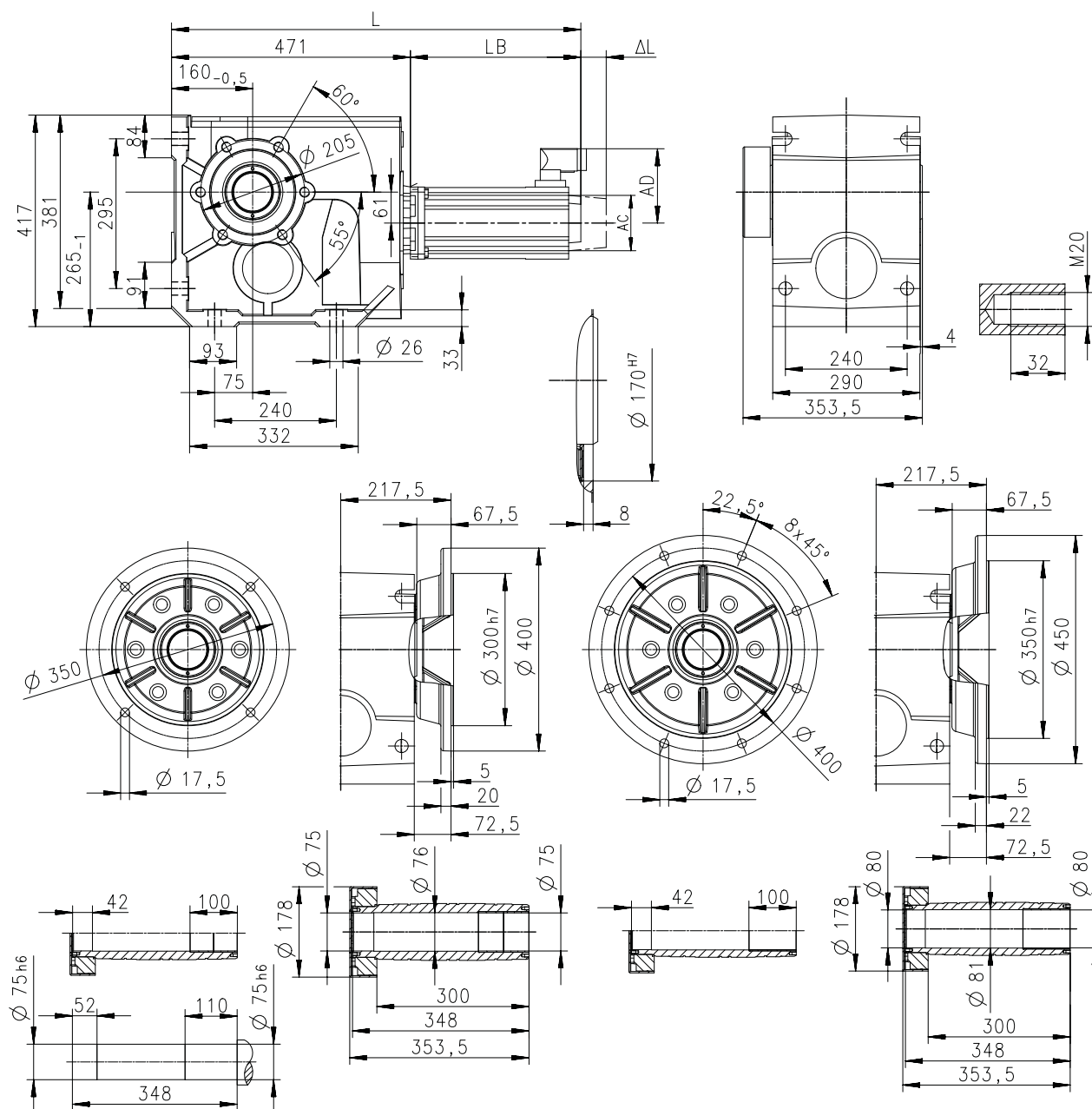
Technical data

Dimensions
Basic dimensions



g500-B4300, 3-stage with MCS19

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



8800583-00

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	833	726	833	726	873	766	766	873	826
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

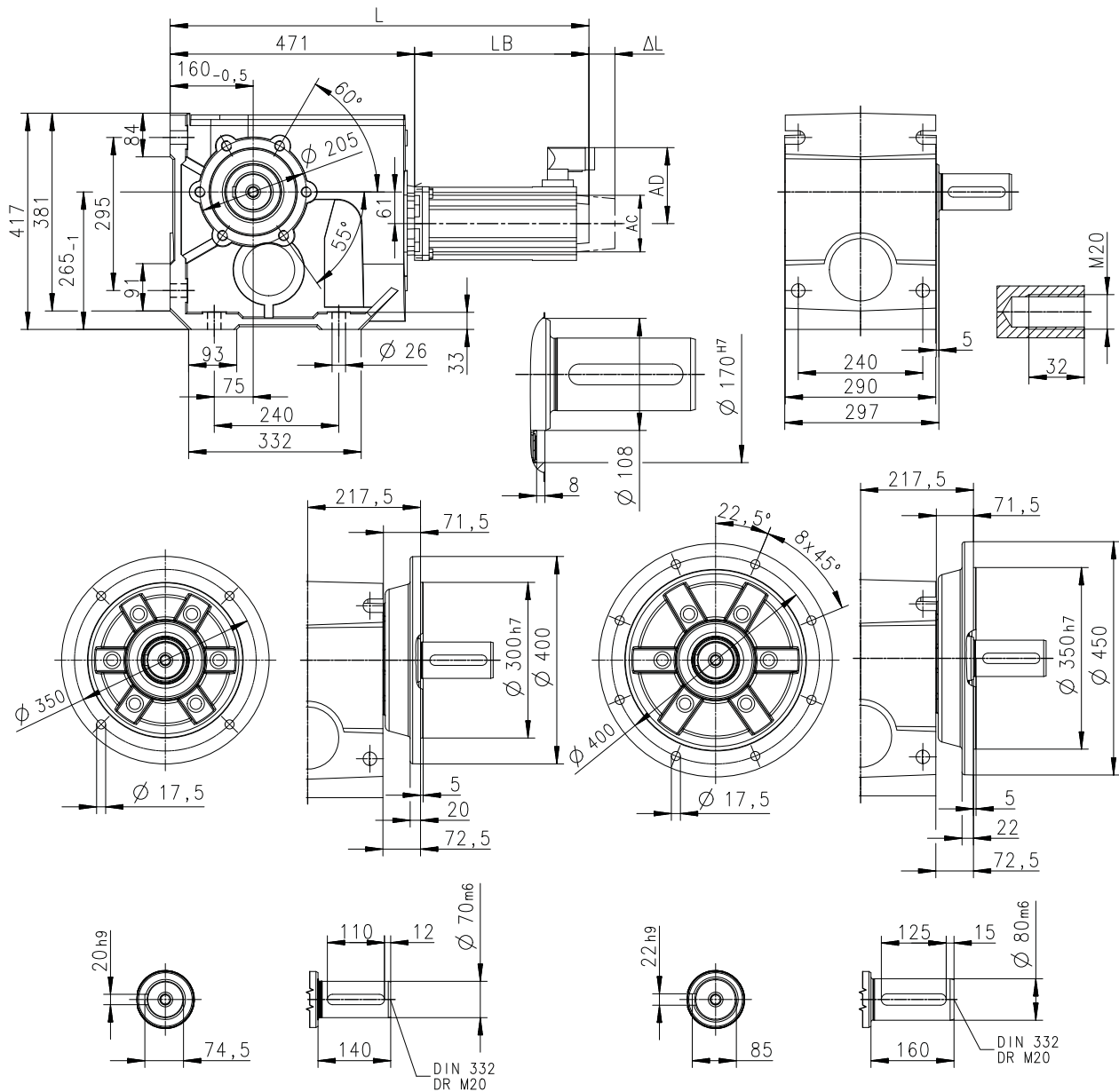


Technical data

Dimensions
Basic dimensions

g500-B4300, 3-stage with MCS19

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



8800582-00

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	833	726	833	726	873	766	766	873	826	826
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-B110, 3-stage

g500-B240 ... B4300, 4-stage

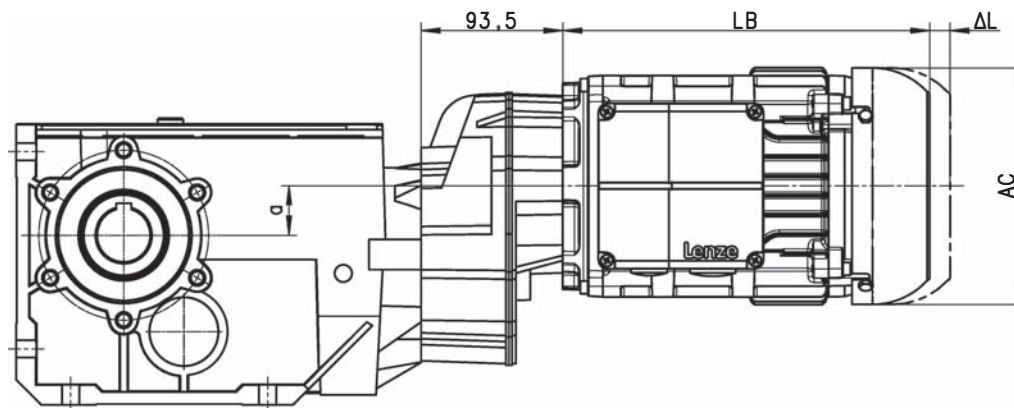


The geared motor dimensions can be found in the basic dimensions, except the total length "L" and the center distance "a".

► [Basic dimensions](#) 138

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.



8801277-00

Gearboxes			g500-B110	g500-B240	g500-B450	g500-B600	g500-B820	g500-B1500	g500-B2700	g500-B4300
			3-stage	4-stage						
Center distance	a	mm	81	85	32.4	43	35	23	19.9	16



Additional lengths



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

► [Product codes](#) 317

► [Brakes](#) 303

► [Feedback](#) 308

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		

Technical data

Dimensions
Additional lengths



MCS12

Motor			MCS									
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L 12H30L	12H34-	12H35-	12L17- 12L39-	12L20- 12L20L 12L41- 12L41L
Cooling type			Blower	natural	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	0	0
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L	mm	43	49	43	49	43	49	43	49	43	49
S□M (AM128...) / EKM / EVM	Δ L	mm		20		20		20		20		20
Brake (P1/P2) and feedback												
R□0	Δ L	mm	20	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	69
S□M (AM128...) / EKM / EVM	Δ L	mm		40		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



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](#)  280!

Additional weights

Gearboxes

Gearboxes			g500-B45	g500-B110	g500-B240	g500-B450
Solid shaft	m	kg	0.4	0.5	1.4	1.0
Shrink disc	m	kg	0.2	0.2	0.7	0.6
Flange	m	kg	0.3	0.4	0.7	0.9
Torque plate						
Threaded pitch circle	m	kg	0.3	0.5	1.3	2.5
Housing foot	m	kg	-	-	2.4	1.1
Housing foot, GKS compatible	m	kg	-	-	-	-
Shaft cover						
Shrink disc cover	m	kg	0.1	0.1	0.1	0.1
Hollow shaft cover, hoseproof	m	kg	0.1	0.1	0.1	0.2

Gearboxes			g500-B600	g500-B820	g500-B1500	g500-B2700	g500-B4300
Solid shaft	m	kg	1.5	1.9	3.7	6.0	15.5
Shrink disc	m	kg	0.6	1.2	1.7	2.3	4.3
Flange	m	kg	6.1	6.1	11.5	15.0	29.0
Torque plate							
Threaded pitch circle	m	kg	2.5	2.5	4.5	-	-
Housing foot	m	kg	2.8	3.0	4.3	10	13
Housing foot, GKS compatible	m	kg	5,0	5,0	8.2	16.5	30.5
Shaft cover							
Shrink disc cover	m	kg	0.1	0.1	0.2	0.3	0.4
Hollow shaft cover, hoseproof	m	kg	0.3	0.3	0.6	0.6	0.8

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

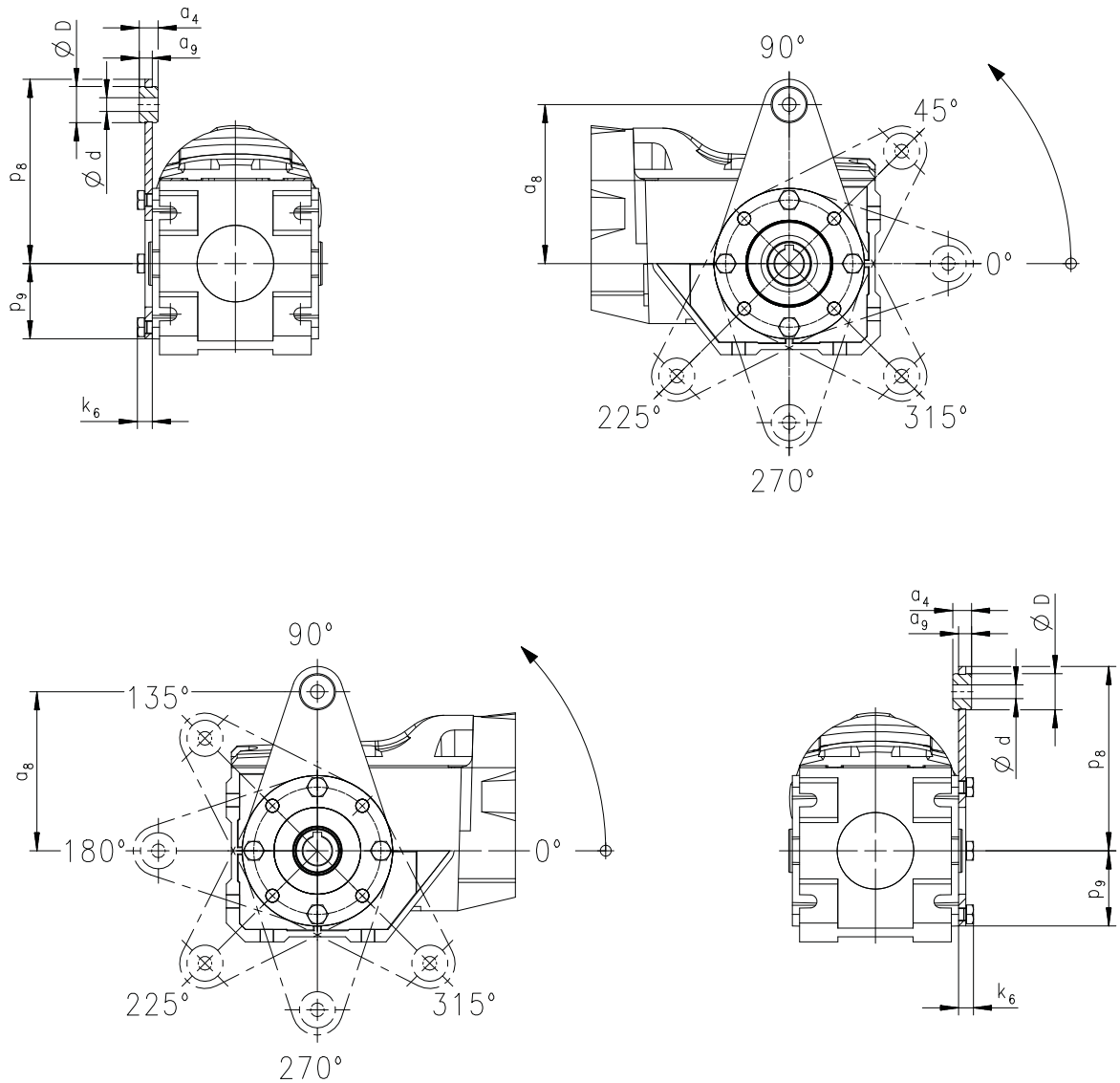
The torque support is usually effected by means of the foot or flange. The torque plates that can be fitted are another possibility. In this case, the torque support is provided only via one point and is suitable for shaft-mounted gearboxes, among other things. Supplied rubber buffers ensure a stress-free installation and absorb slight impacts.

The torque plates are available in two versions, for being installed at the existing threaded pitch circle or for the foot at the gearbox.

In addition, torque support for the g500-B45 gearbox can be effected via the holding fixture of the housing which is integrated on both sides.



Torque plate on threaded pitch circle
g500-B45 ... B110

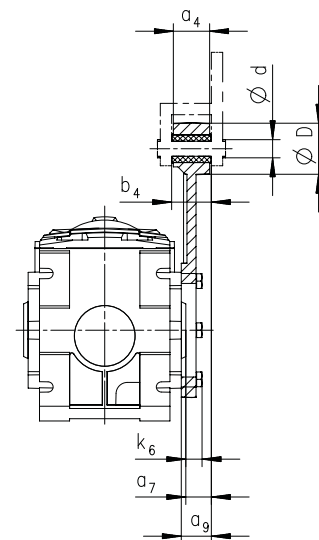
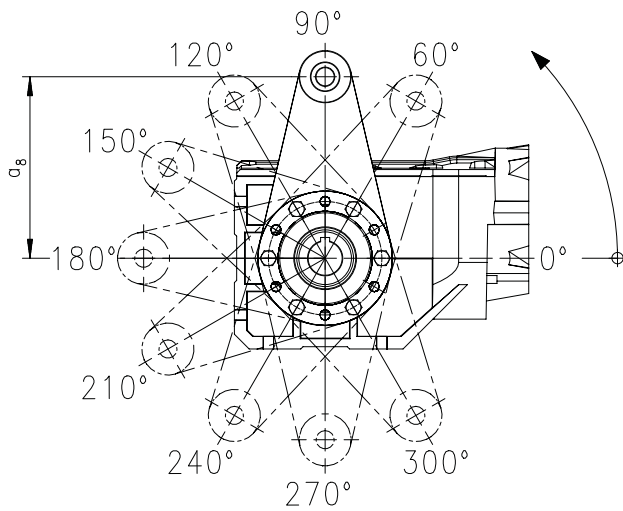
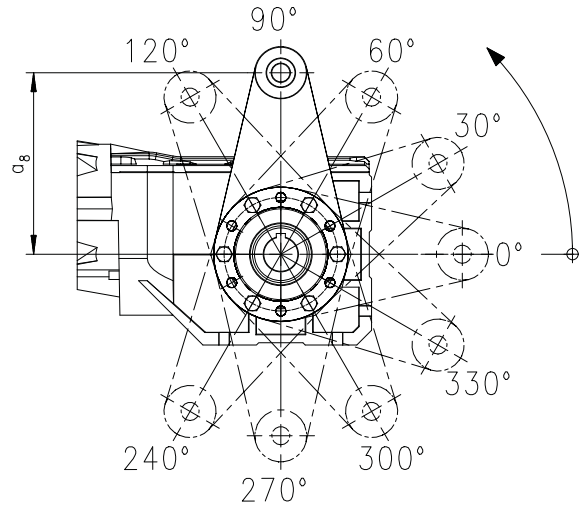
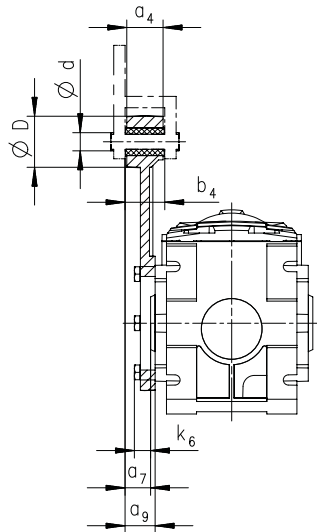


e4001537-00

Gearboxes	Dimensions							
	a_4	a_8	a_9	d	D	p_8	p_9	k_6
	mm	mm	mm	mm	mm	mm	mm	mm
g500-B45	12.0	100	8.0	8.0	20,0	115	42.0	9.0
g500-B110	13.0	110	9.0	10.0	25.0	128	54.0	11.0



g500-B240 ... B600

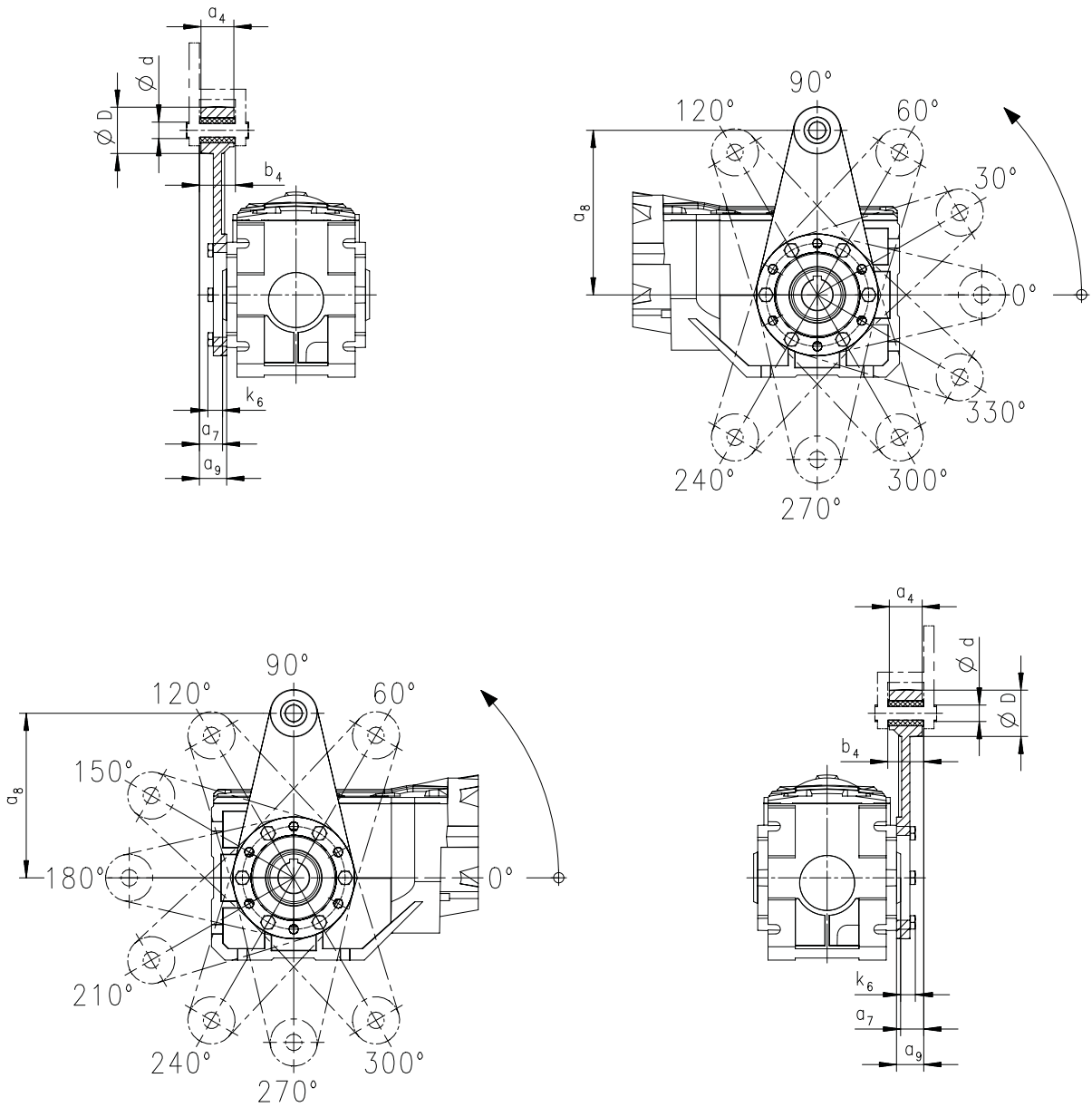


e4001538-00

Gearboxes	Dimensions							
	a ₄	a ₇	a ₈	a ₉	b ₄	d	D	k ₆
	mm	mm	mm	mm	mm	mm	mm	mm
g500-B240	34.0	23.5	160	27.5	38.5	16.0	45.0	15.0
g500-B450	40.0	29.0	200	32.0	44.5	20.0	50.0	18.0
g500-B600	38.0	26.5	200	31.5	40.0	20.0	50.0	19.0

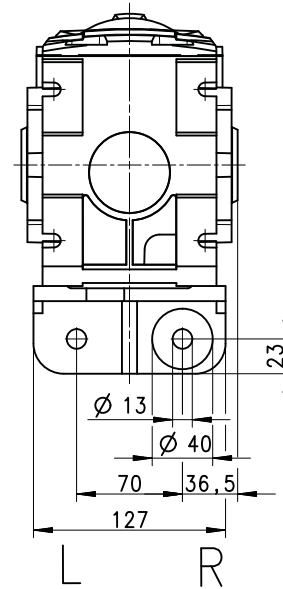


g500-B820 ... B1500



e4001538-00

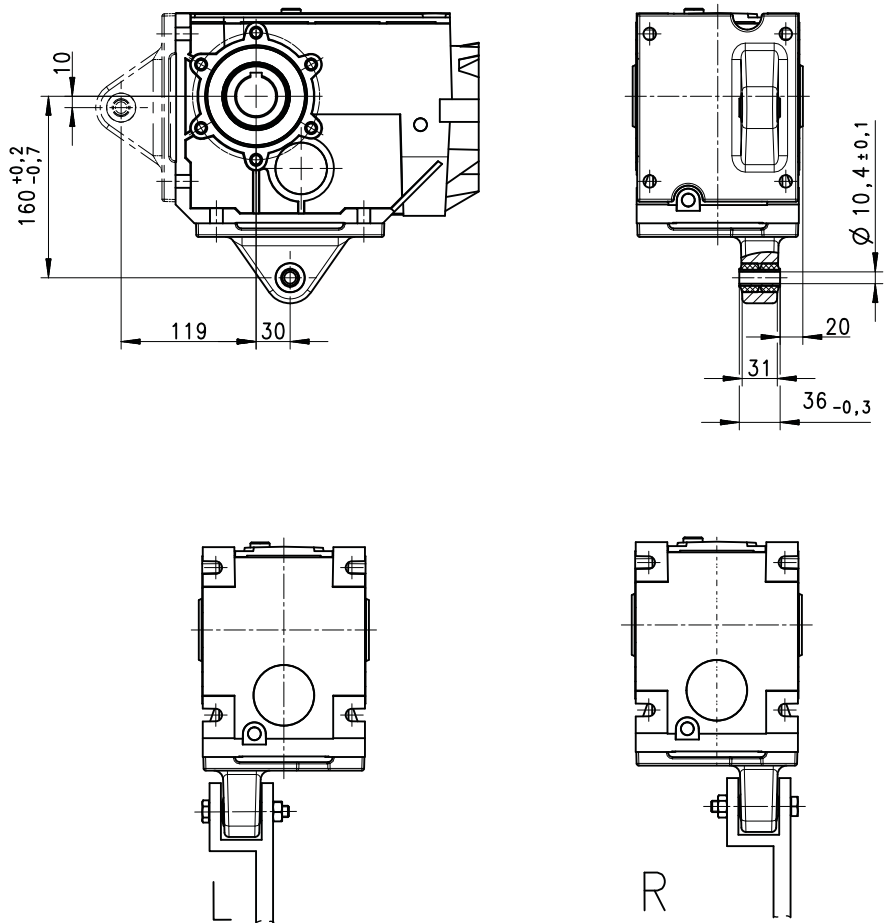
Gearboxes	Dimensions							
	a_4	a_7	a_8	a_9	b_4	d	D	k_6
	mm	mm	mm	mm	mm	mm	mm	mm
g500-B820	38.0	28.0	200	31.5	40.0	20.0	50.0	20.5
g500-B1500	44.0	32.0	250	36.0	46.0	25.0	65.0	24.0



285



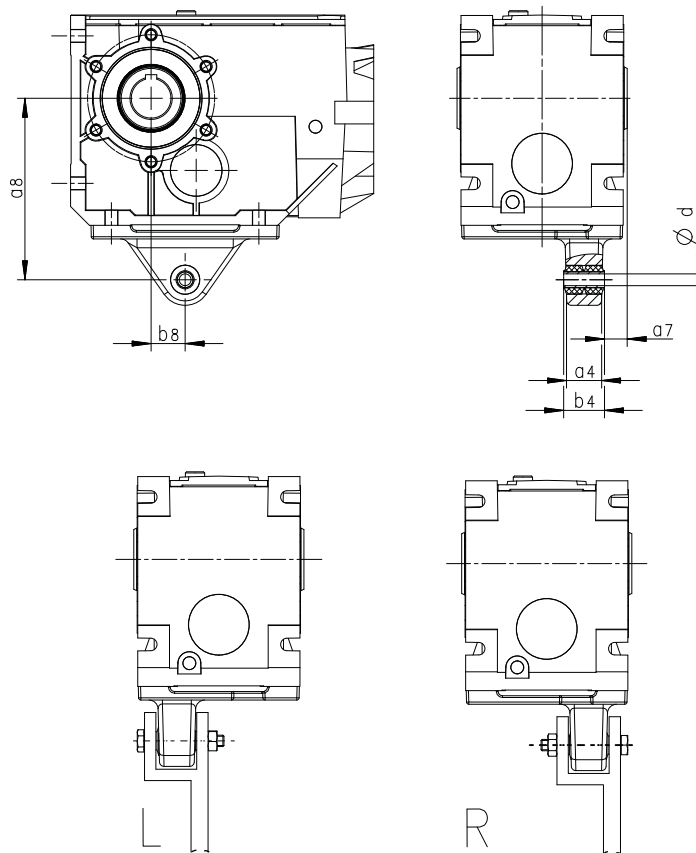
g500-B450



e4001554_01



g500-B600 ... B4300



e4002718-01

Gearboxes	Dimensions					
	d	a_8	b_8	a_4	b_4	a_7
	mm	mm	mm	mm	mm	mm
g500-B600	16.4	192	40,0	55.0	60.0	18.0
g500-B820	16.4	200	45.0	55.0	60.0	25.0
g500-B1500	16.4	250	52.5	55.0	60.0	25.0
g500-B2700	25.0	300	60.0	72.0	80.0	30.0
g500-B4300	25.0	350	70.0	92.0	100	40,0

Product extensions

Torque plates



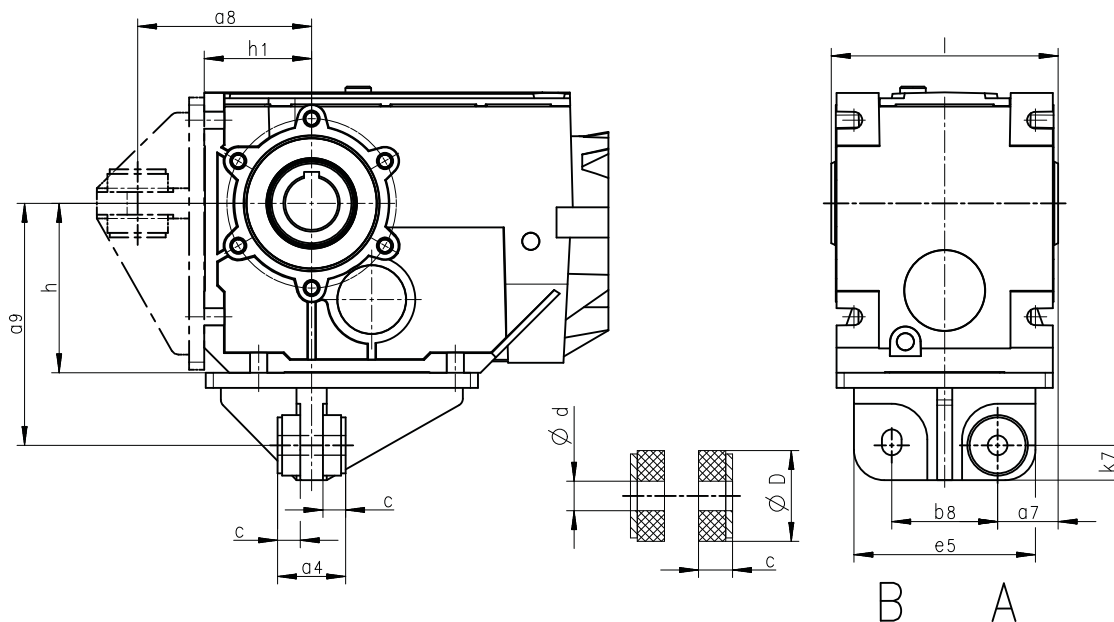
GKS compatible



The connection dimensions are identical to the previous product GKS for these torque plates.

The GKS gearbox can be replaced by the gearbox from the g500-B series.

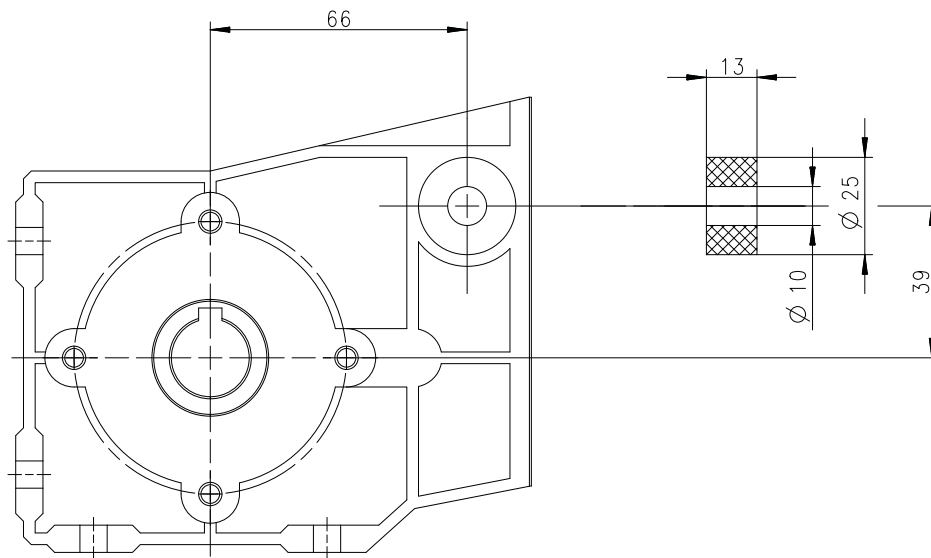
g500-B600 ... B4300



Gearboxes		Dimensions											
	Replacement for	a ₄	a ₇	a ₈	a ₉	b ₄	b ₈	c	Ø d	Ø D	e ₅	k ₇	k ₈
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
g500-B600	GKS06	72	45.0	145	195	72	80	27	17	50	135	28.0	26.0
g500-B820	GKS06	72	50.0	145	195	72	80	27	17	50	140	27.5	27.5
g500-B1500	GKS07	78	55.0	170	240	78	100	28	21	60	180	30.0	32.0
g500-B2700	GKS09	86	60.0	214	300	86	120	29	26	72	205	42.0	48.0
g500-B4300	GKS11	94	77.5	260	375	94	145	30	33	92	255	50.0	60.0



Rubber buffer for torque plate
g500-B45





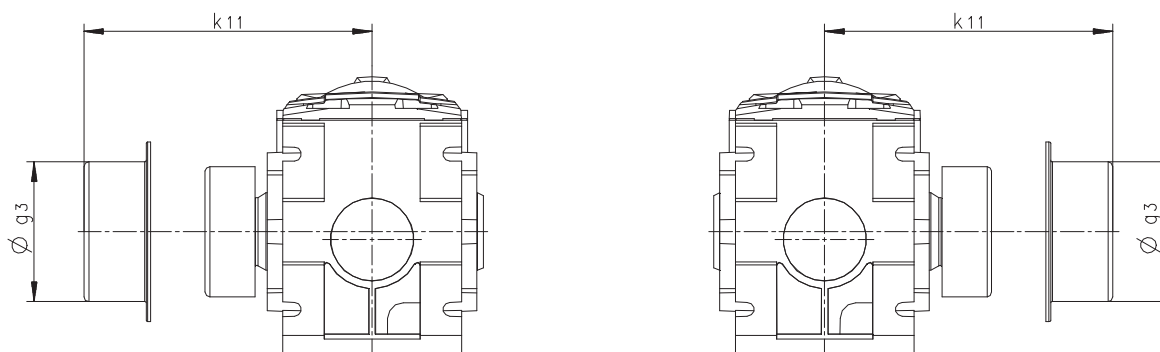
Shaft covers

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

The hoseproof hollow shaft cover protects the hollow shaft from objects falling in. It is sealed by a flat gasket between cover and housing. Thus, the hollow shaft is protected from dust and water jets on this side.

Shrink disc cover

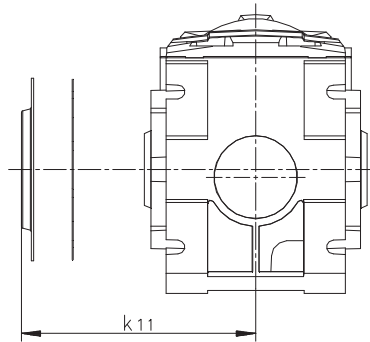
g500-B45 ... B4300



Product	Dimensions	
	g3	k11
	mm	mm
g500-B45	65.0	87.5
g500-B110	79.0	97.5
g500-B240	90.0	111
g500-B450	90.0	108
g500-B600	110	124
g500-B820	110	131
g500-B1500	128	148
g500-B2700	155	171
g500-B4300	188	205



Hollow shaft cover, hoseproof
g500-B45 B4300



Product	Dimensions
	k_{11}
	mm
g500-B45	55.0
g500-B110	65.0
g500-B240	75.0
g500-B450	79.5
g500-B600	90.0
g500-B820	97.0
g500-B1500	113
g500-B2700	131
g500-B4300	161



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.

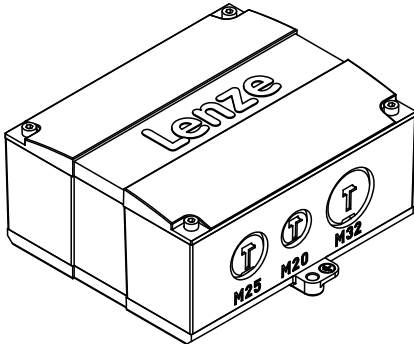




Cable glands

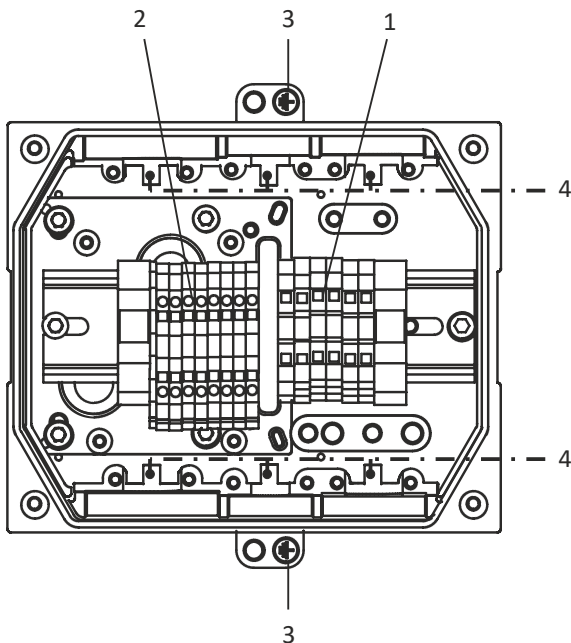


The bore holes for the cable glands M25, M20 and M32 are located on both sides and closed. They can be opened according to need.



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

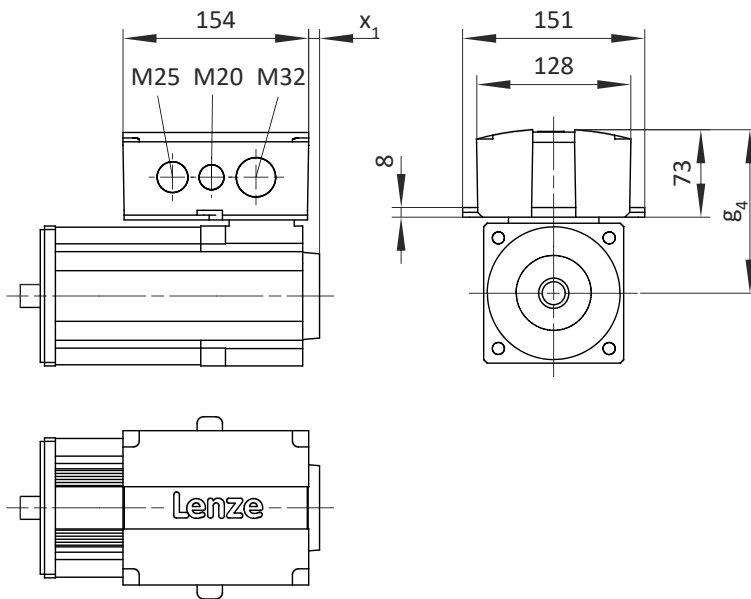
Terminal box with temperature monitoring R		
Contact	Name	Meaning
R1	+	Temperature sensor +
R2	-	Temperature sensor -



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.

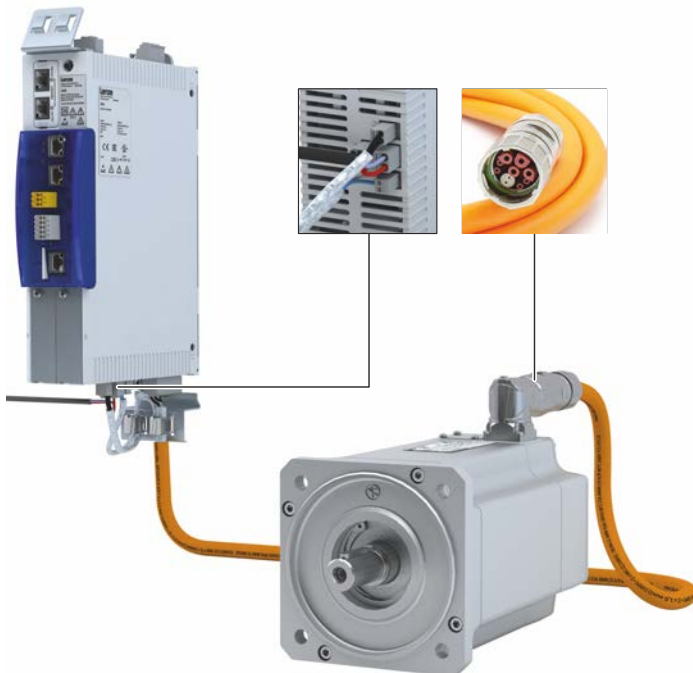


One Cable Technology (OCT)

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.

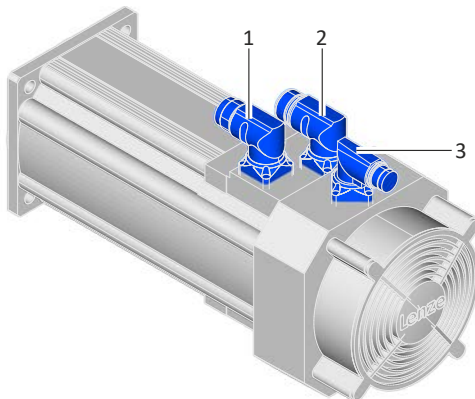
Product extensions

Motor connection
Connection via connector

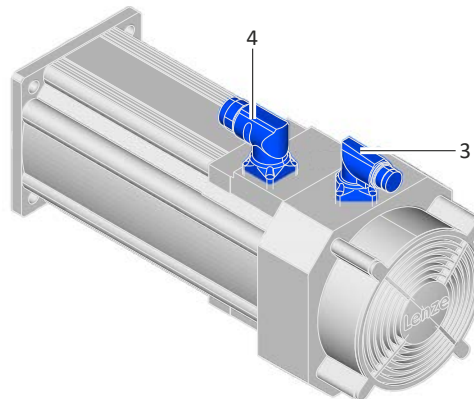


Position of the connections

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		

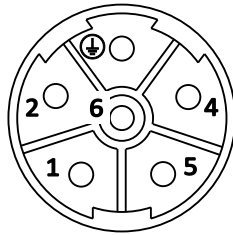
Motor/connector assignment

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		



ICN-M23 connector assignment

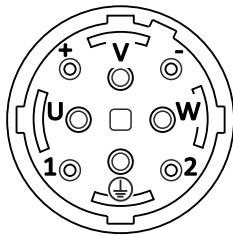
6-pole



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

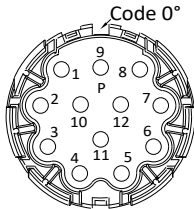
Motor connection
Connection via connector



Feedback and temperature monitoring connection

ICN-M23 connector assignment

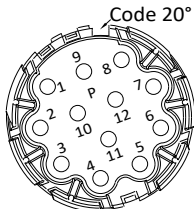
Resolver



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®



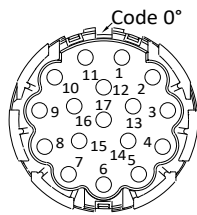
ICN M23 for encoders		
Contact	Name	Meaning
1	B	Track B / +SIN
2	A ⁻	Track A inverse / -COS
3	A	Track A / + COS
4	+UB	Supply +
5	GND	Mass
6	Z ⁻	Zero track inverse / -RS485
7	Z	Zero track / + RS485
8		Not assigned
9	B ⁻	Track B inverse/-SIN
10	Schirm	Encoder housing shield
11	+	Temperature monitoring: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



Product extensions

Motor connection
Connection via connector

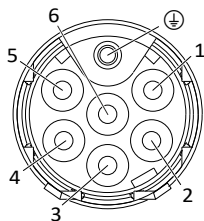
M23 connector assignment for EnDat cables



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)

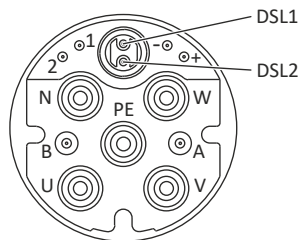
Power, brake, feedback and temperature monitoring connection

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.



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 t1	t_1	ms	15			20	13	20	13	20
Disengagement time t2	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		MCS12H		MCS12D		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	12
At 120 °C	M_{rated}	Nm	10	6	10	19	10	19	10	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	13
Disengagement time t2	t_2	ms	43	40	43	90	43	90	43	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	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		8.4	10.4	5.07	7.1	11.7
Load/brake motor ratio	J_L/J_{MB}		26.3	19.9		8.7	16.3	15	24.3	5.9



Product extensions

Permanent magnet brakes

Motor			MCS12L	MCS14H		MCS14D		MCS14P		MCS14L
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	17.4	26.6	11.3	20.5	37.9	47.1	26.6
Load/brake motor ratio	J_L/J_{MB}		12.1	6.5	16.9	10.5	22.2	2.4	9.1	3.9

Motor			MCS14L	MCS19P	MCS19F	MCS19J
Motor code			P2	P2	P1	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	37	95
At 120 °C	M _{rated}	Nm	32	80	32	80
Rated current	I _{rated}	A	0.81	1.46	0.81	1.46
Engagement time t1	t ₁	ms	96	23	96	23
Disengagement time t2	t ₂	ms	113	140	113	140
Friction energy	Q _E	kJ	2.350	2.80	2.350	2.80
Weight	m	kg	3.1	3.9	3.1	3.9
Massenträgheitsmoment						
Brake	J	kgcm ²	12.4	31.8	12.4	31.8
Brake motor	J _{MB}	kgcm ²	35.8	190	77	135
Load/brake motor ratio	J _L /J _{MB}		12.3	1.2	5.2	2.2



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!**

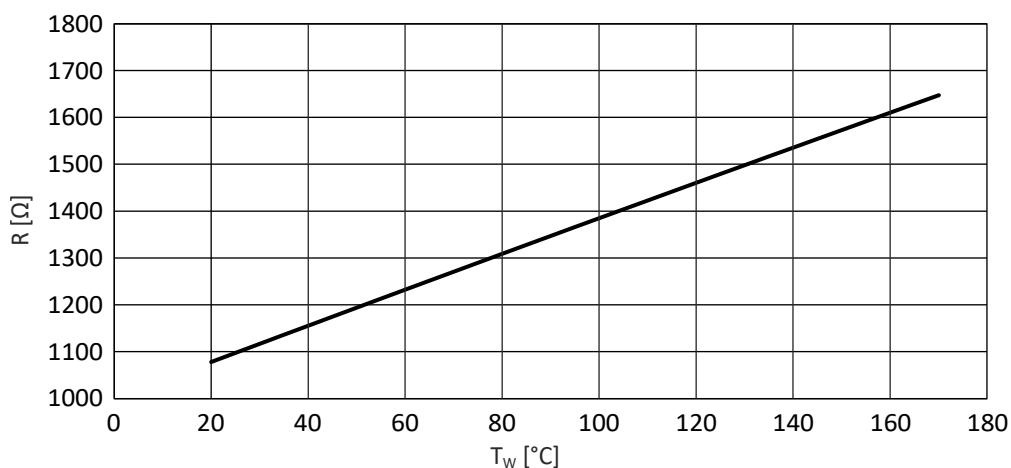
This makes it possible to determine the motor temperature in the permissible operating range with great accuracy.

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

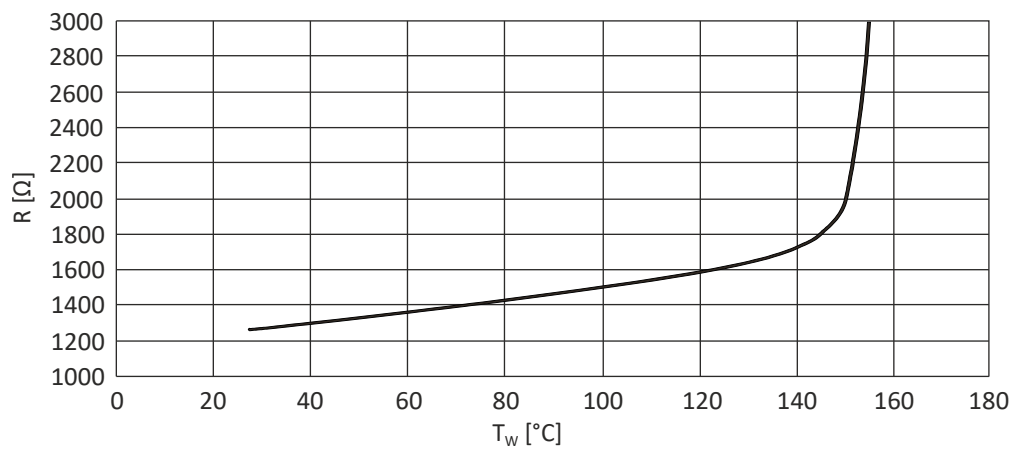
These motors are monitored via three thermal sensors connected in series (1x PT1000 + 2x PTC 150 °C). This makes it possible to determine the motor temperature in the permissible operating range and at the same time execute the overtemperature response configured in the controller in one of the winding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

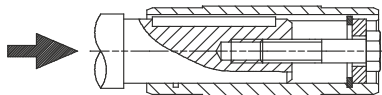


Accessories

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	B45		B110		B240		B450		B600		B820		B1500		B2700		B4300	
			18	20	20	25	30	35	35	40	40	45	40	45	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	A	B	045	M	H	B	R	2	C	1A
Product type	Gearboxes	G											
Product family			50										
Generation				A B									
Gearbox type	Bevel gearbox				B								
Output torque	45 Nm					045							
	110 Nm					111							
	240 Nm					124							
	450 Nm					145							
	600 Nm					160							
	820 Nm					182							
	1500 Nm					215							
	2700 Nm					227							
	4300 Nm					243							
	8000 Nm					280							
	13000 Nm					313							
	20000 Nm					320							
Type of construction	Geared motor						M						
	Gearboxes						N						
Shaft type	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	
	Servomotor adapter with plug-in hollow shaft											S	
	Servomotor 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	$K_{t_{0.150}}$ °C	Nm/A	1.28	1.21	1.16	2.37	1.39	2.78
Voltage constant	$K_{E_{LL 150}}$ °C	V/ (1000/ min)	74.02	70.1	67.07	133.95	84.58	169.15
Stator terminal resistance	$R_{UV 20}$ °C	Ω	3.2	1.8	2.2	8.7	1.4	5.8
Stator terminal resistance	$R_{UV 150}$ °C	Ω	4.822	2.713	3.315	13.111	2.11	8.741
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	$K_{t_{0.150}}$ °C	Nm/A	1.21	2.42	1.10	2.20	1.24	2.47
Voltage constant	$K_{E_{LL 150}}$ °C	V/ (1000/ min)	72.94	145.69	62.77	126.13	74.6	149.6
Stator terminal resistance	$R_{UV 20}$ °C	Ω	0.6	2.2	1	4	0.52	2.08
Stator terminal resistance	$R_{UV 150}$ °C	Ω	0.904	3.315	1.507	6.028	0.784	3.135
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	$K_{t_{0.150}}$ °C	Nm/A	1.10	2.19	1.39	2.74	1.29	2.57
Voltage constant	$K_{E_{LL 150}}$ °C	V/ (1000/ min)	62.77	126.13	74.6	149.6	74.5	148.62
Stator terminal resistance	$R_{UV 20}$ °C	Ω	1	4	0.52	2.08	0.4	1.2
Stator terminal resistance	$R_{UV 150}$ °C	Ω	1.507	6.028	0.784	3.135	0.603	1.808
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	$K_{t_{0.150}}$ °C	Nm/A	0.605	1.39	1.21	0.598	1.16	0.844
Voltage constant	$K_{E_{LL 150}}$ °C	V/ (1000/ min)	35.1	84.58	75.19	34.22	67.07	51.82
Stator terminal resistance	$R_{UV 20}$ °C	Ω	0.44	1.41	0.548	0.55	2.2	0.489
Stator terminal resistance	$R_{UV 150}$ °C	Ω	0.663	2.125	0.826	0.829	3.315	0.737
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



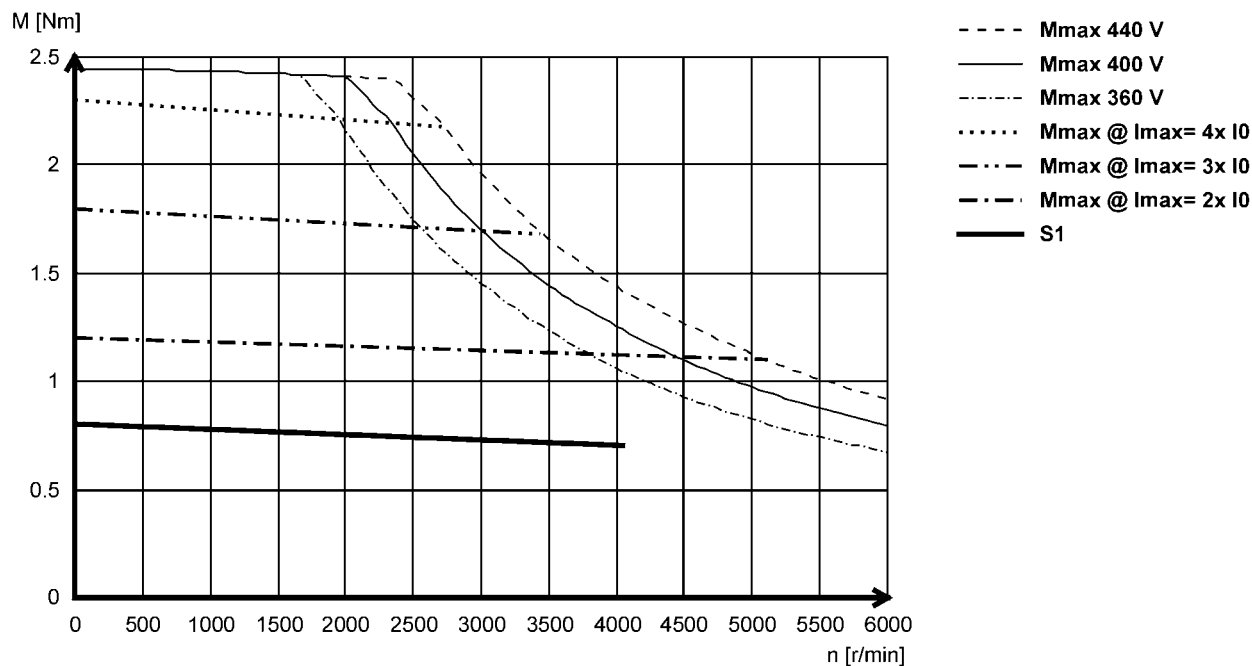
The torque/speed characteristic for your motor/inverter combination can be found on the Internet:

<http://www.lenze.com> → Product Finder → M-n characteristics

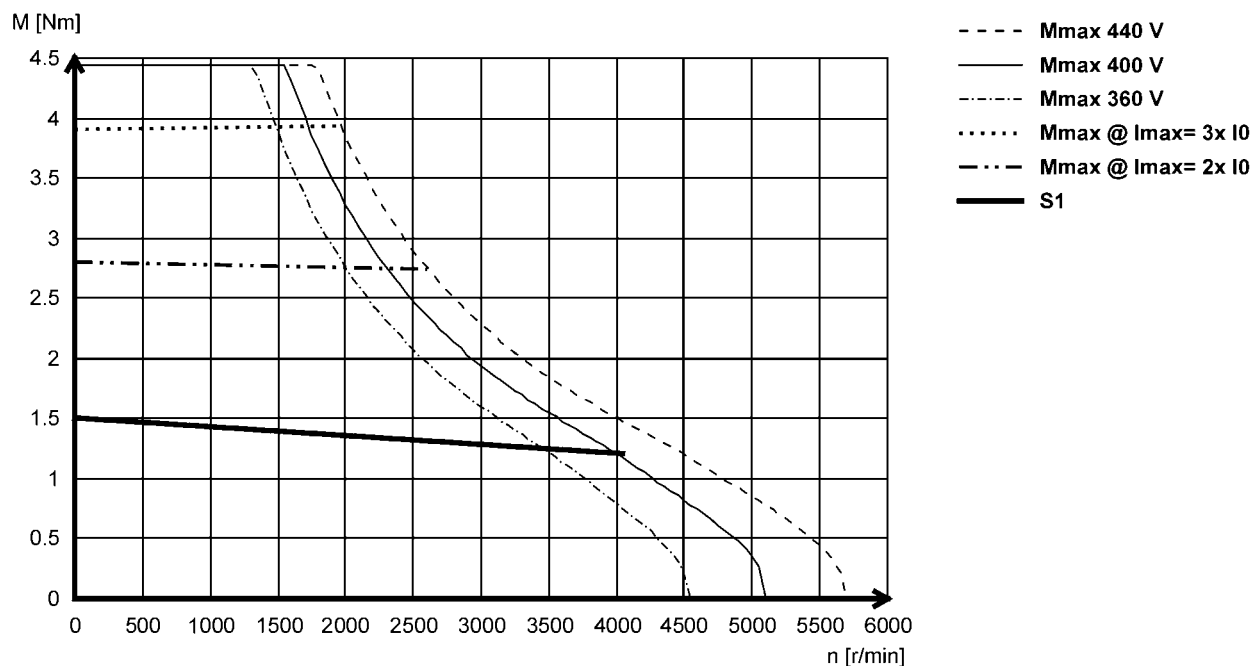


The following data apply to a mains voltage 3 x 400 V of the inverter.

MCS06C41- (self-ventilated)

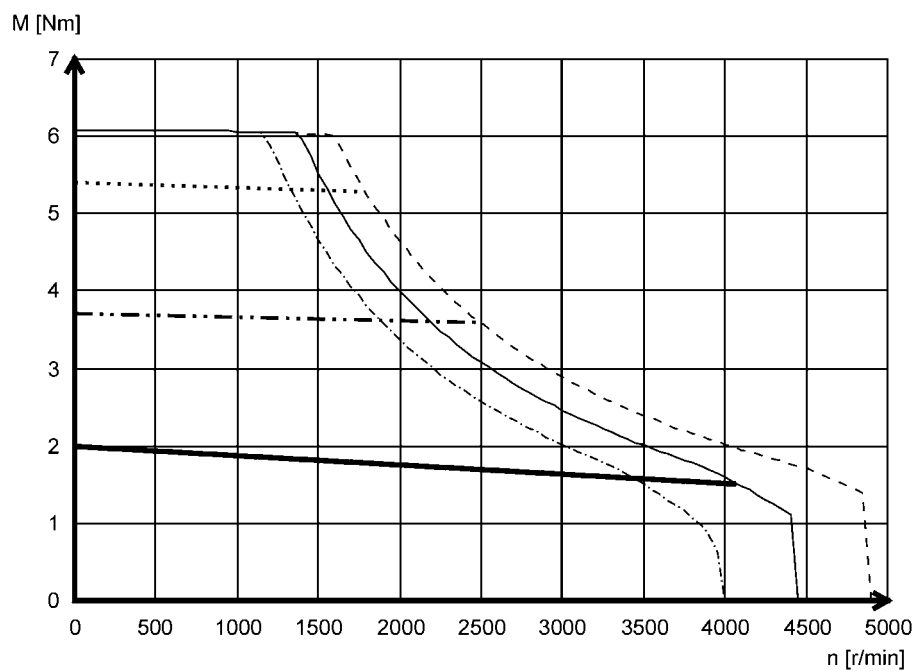


MCS06F41- (self-ventilated)



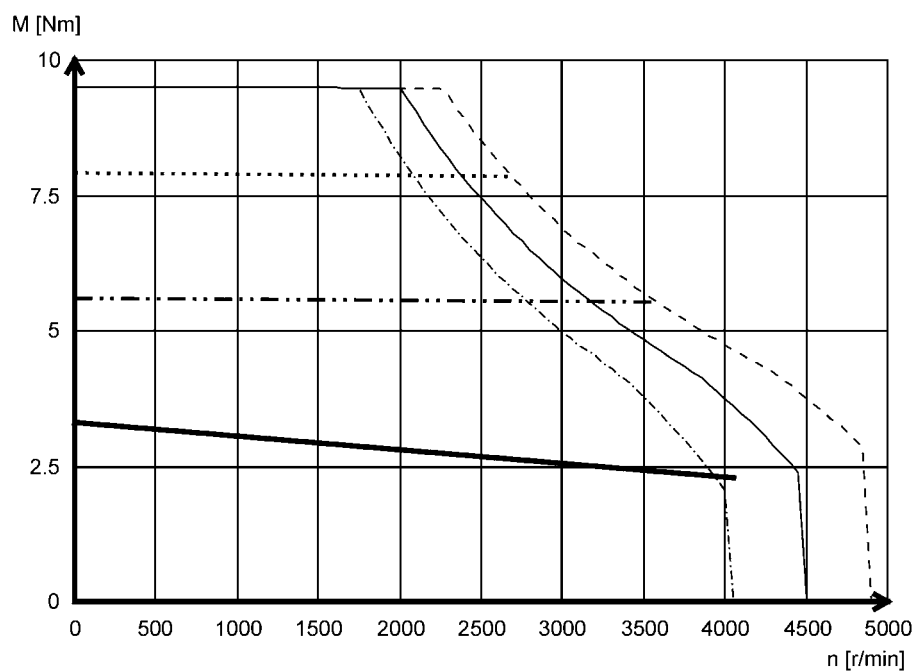


MCS06I41- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- Mmax 360 V
- Mmax @ Imax= 3x I₀
- · - · - Mmax @ Imax= 2x I₀
- S1

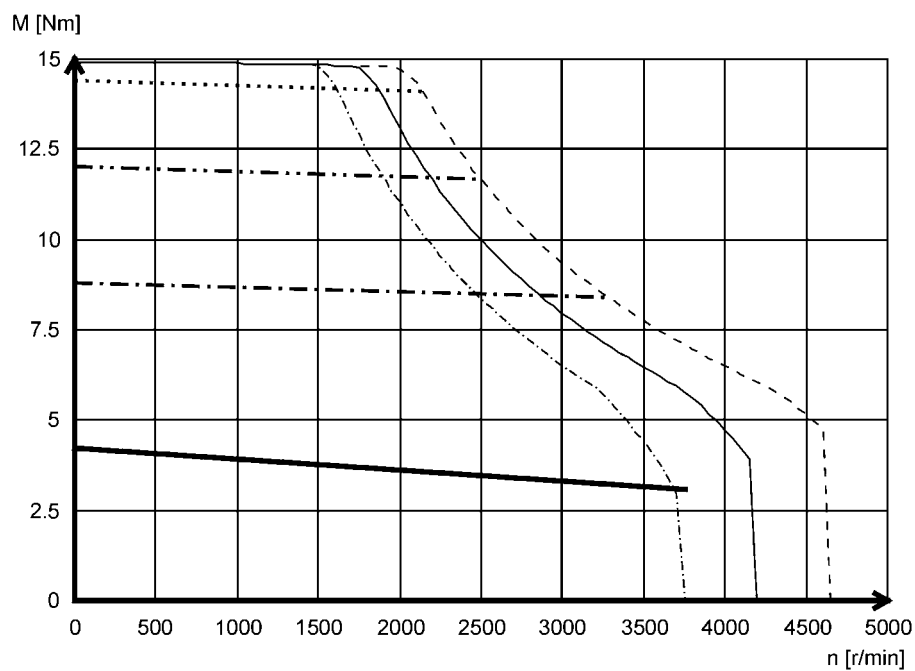
MCS09D41- (self-ventilated)



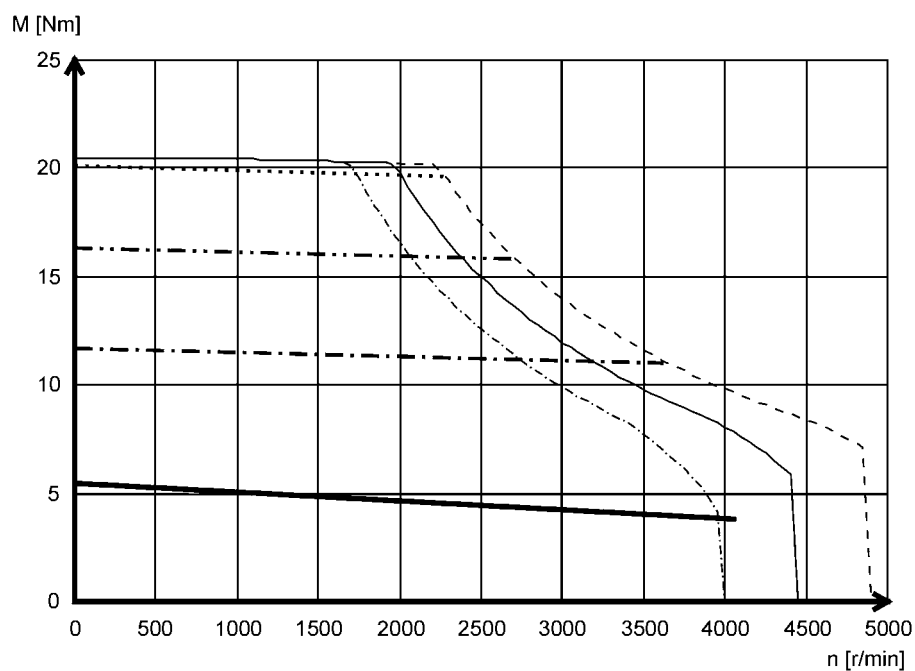
- Mmax 440 V
- Mmax 400 V
- Mmax 360 V
- Mmax @ Imax= 3x I₀
- · - · - Mmax @ Imax= 2x I₀
- S1



MCS09F38- (self-ventilated)

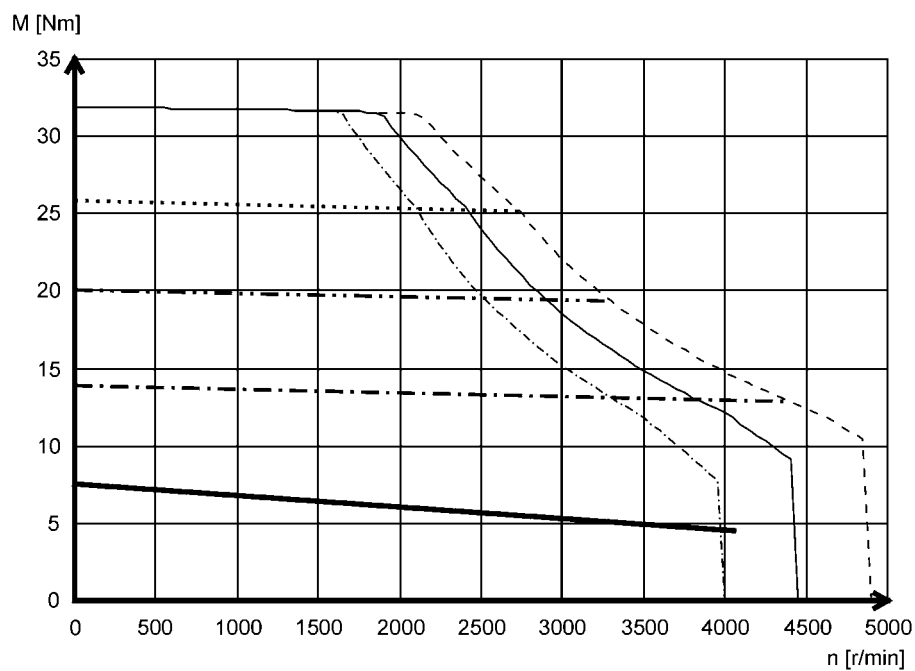


MCS09H41- (self-ventilated)

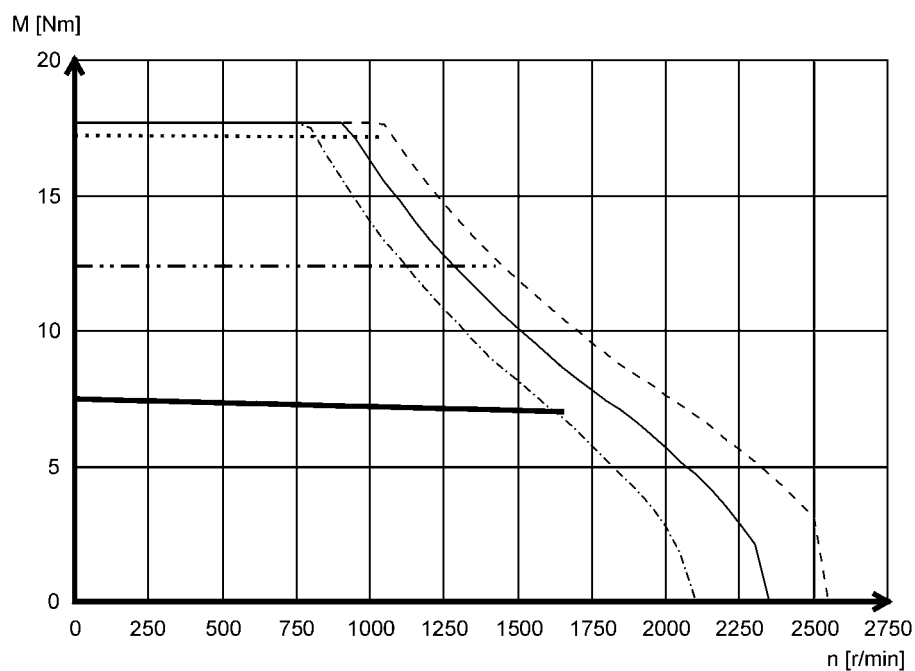




MCS09L41- (self-ventilated)

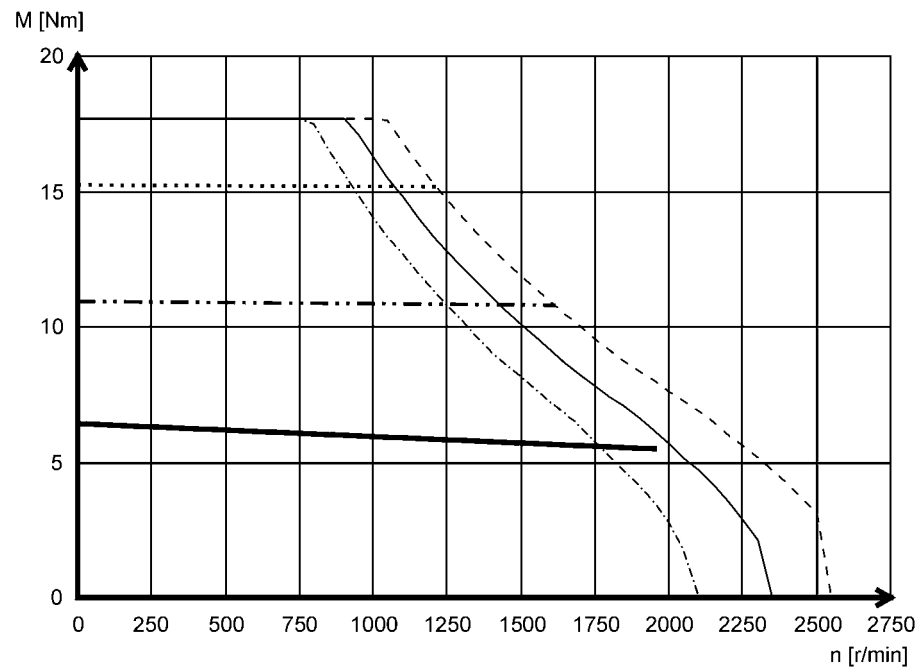


MCS12D17- (forced ventilated)



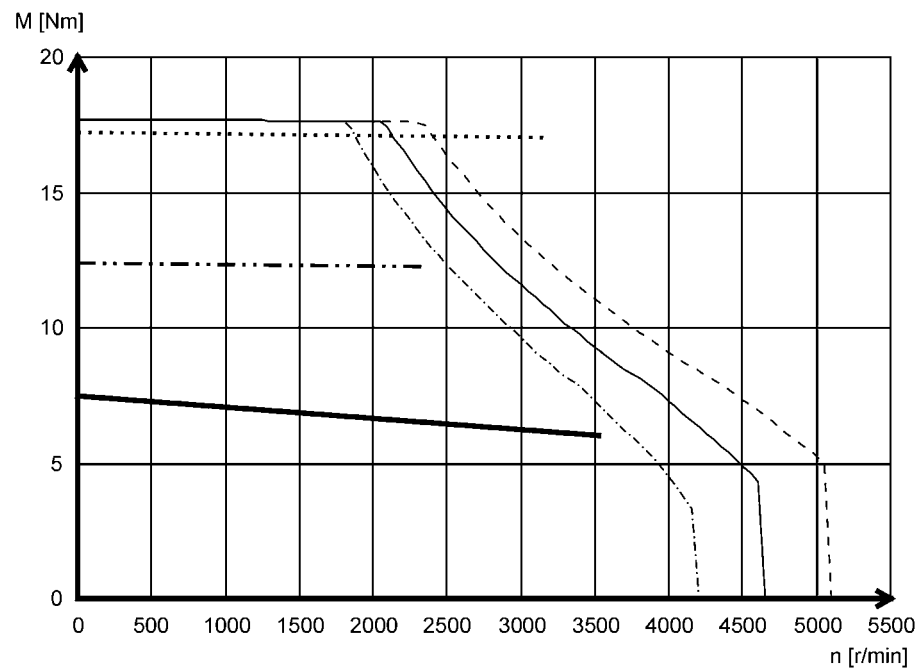


MCS12D20- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ Imax= 3x I₀
- · · - Mmax @ Imax= 2x I₀
- S1

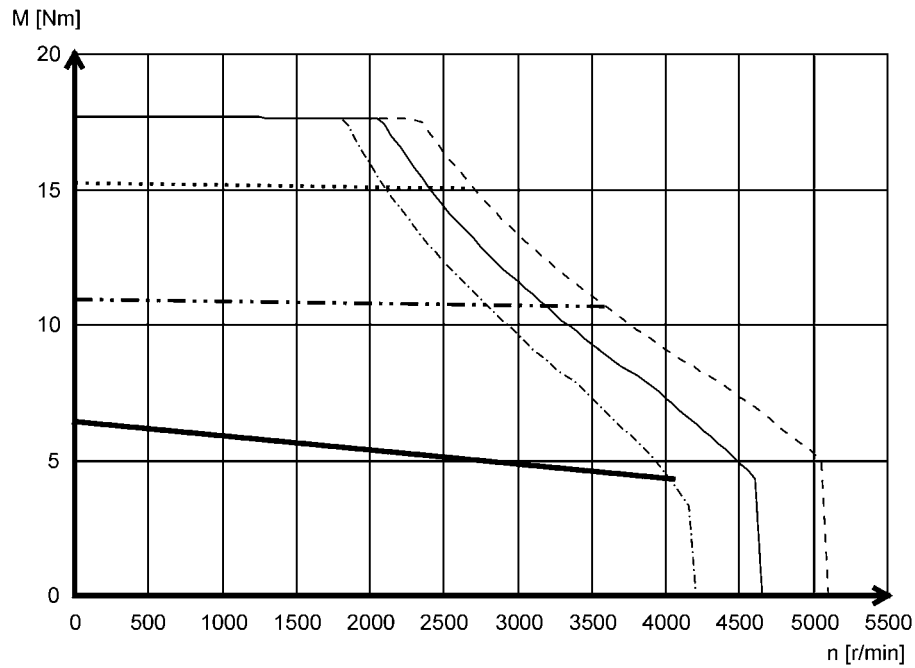
MCS12D35- (forced ventilated)



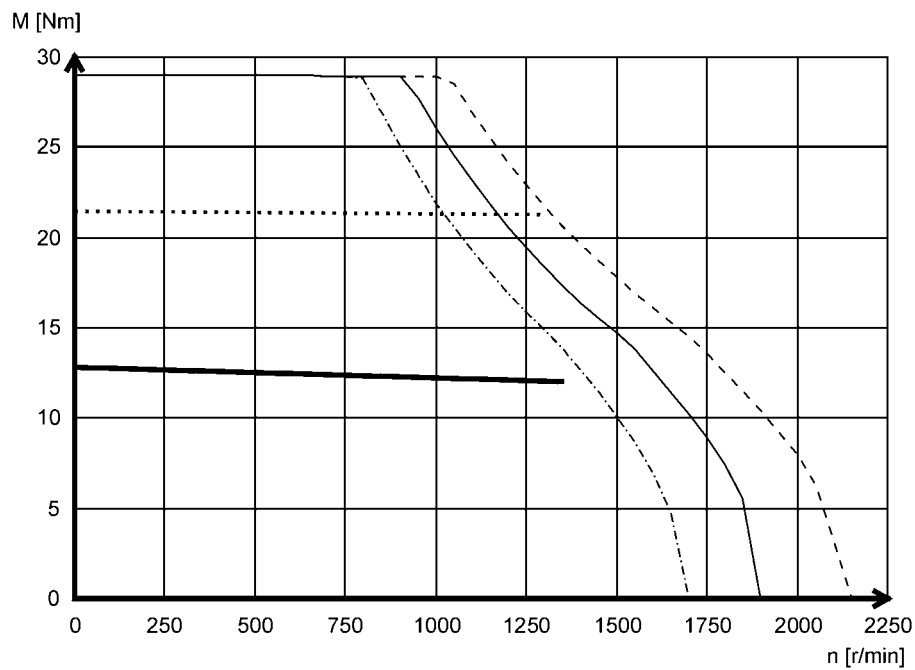
- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ Imax= 3x I₀
- · · - Mmax @ Imax= 2x I₀
- S1



MCS12D41- (self-ventilated)

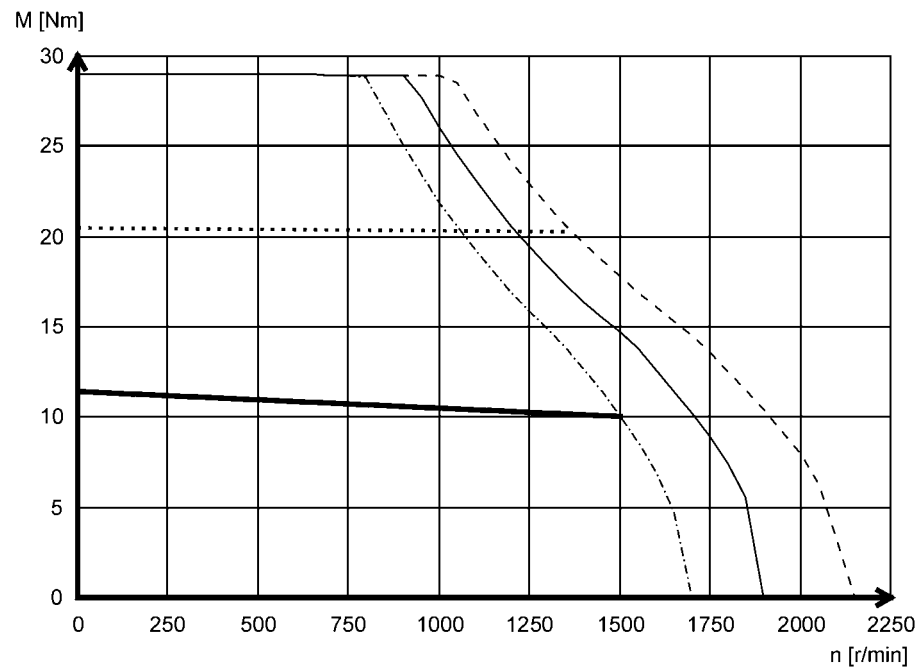


MCS12H14- (forced ventilated)



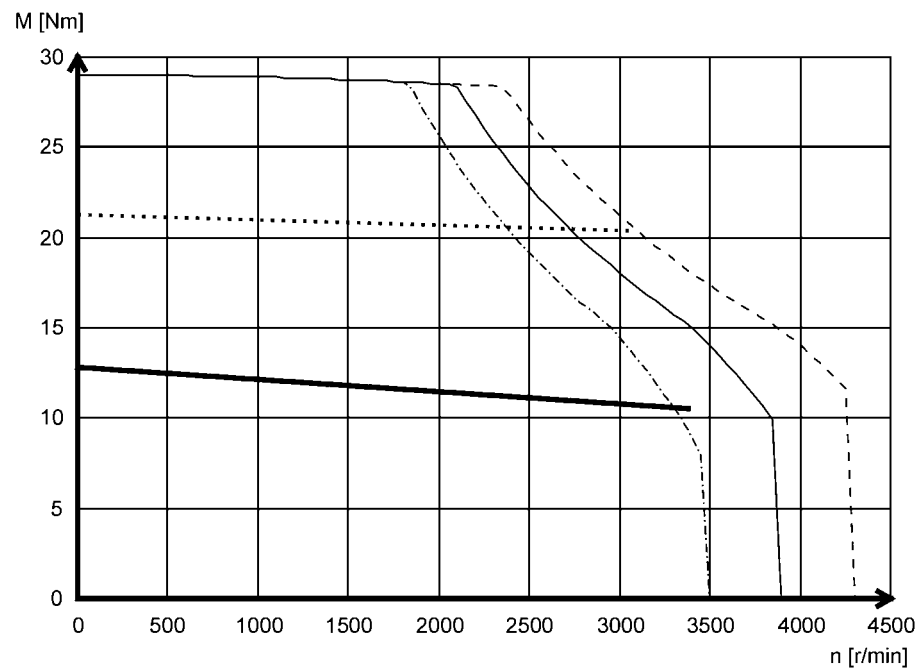


MCS12H15- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - Mmax 360 V
- Mmax @ I_{max}= 2x I₀
- S1

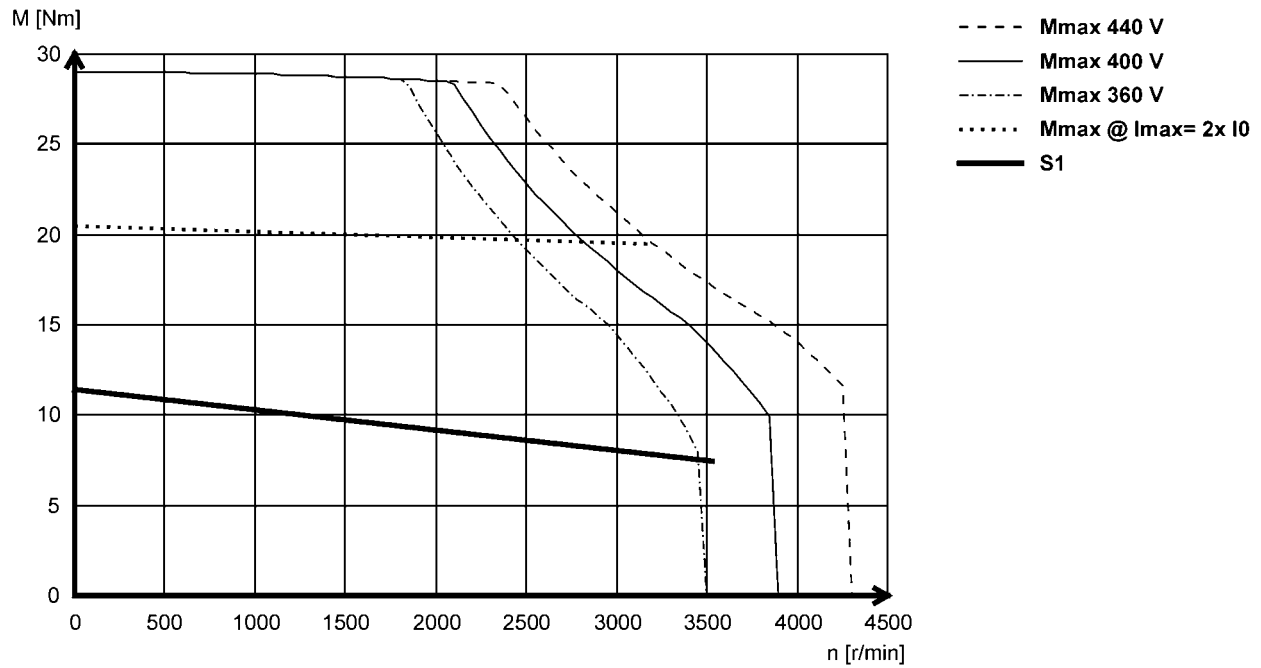
MCS12H34- (forced ventilated)



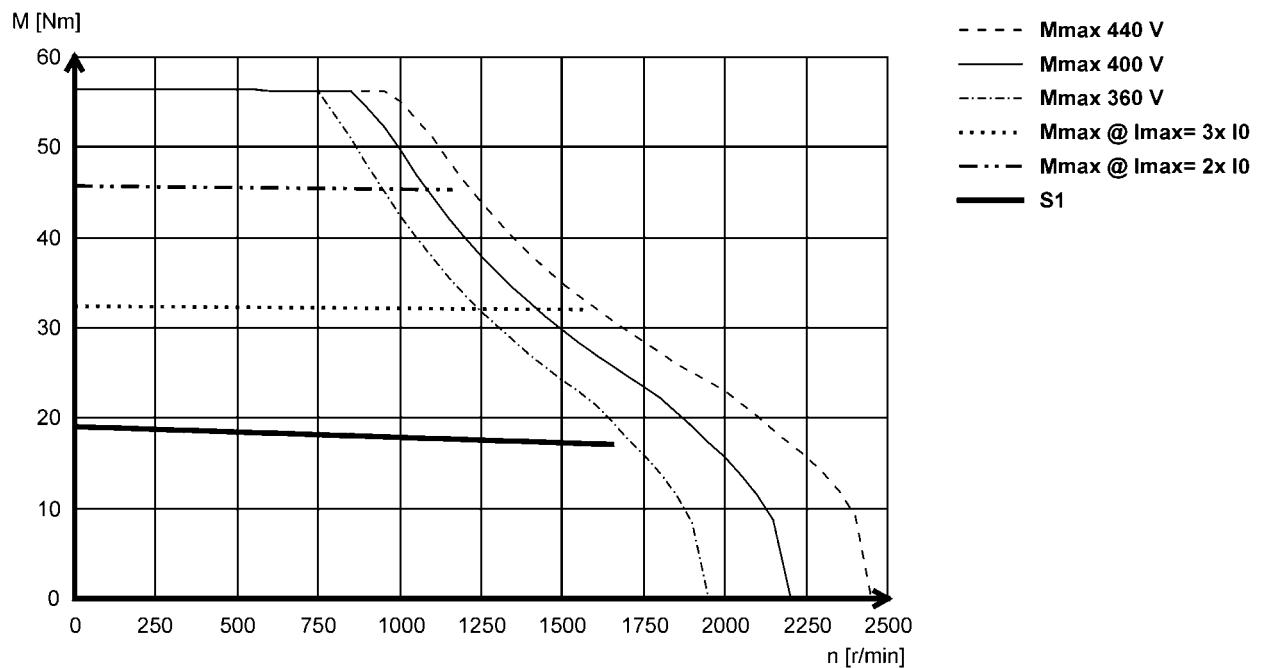
- Mmax 440 V
- Mmax 400 V
- · - Mmax 360 V
- Mmax @ I_{max}= 2x I₀
- S1



MCS12H35- (self-ventilated)

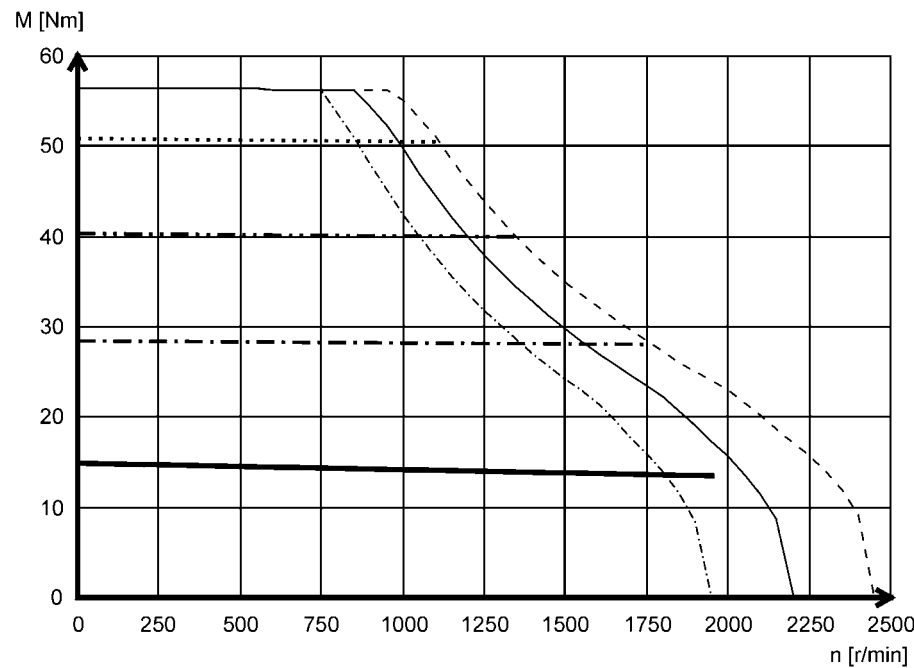


MCS12L17- (forced ventilated)



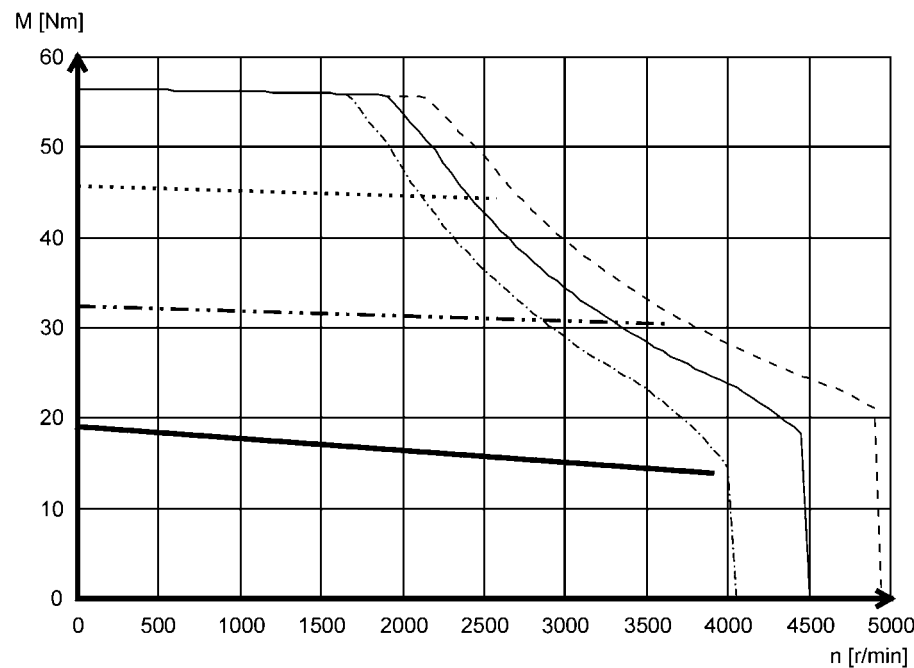


MCS12L20- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - Mmax 360 V
- Mmax @ Imax= 4x I₀
- · · - Mmax @ Imax= 3x I₀
- - - Mmax @ Imax= 2x I₀
- S1

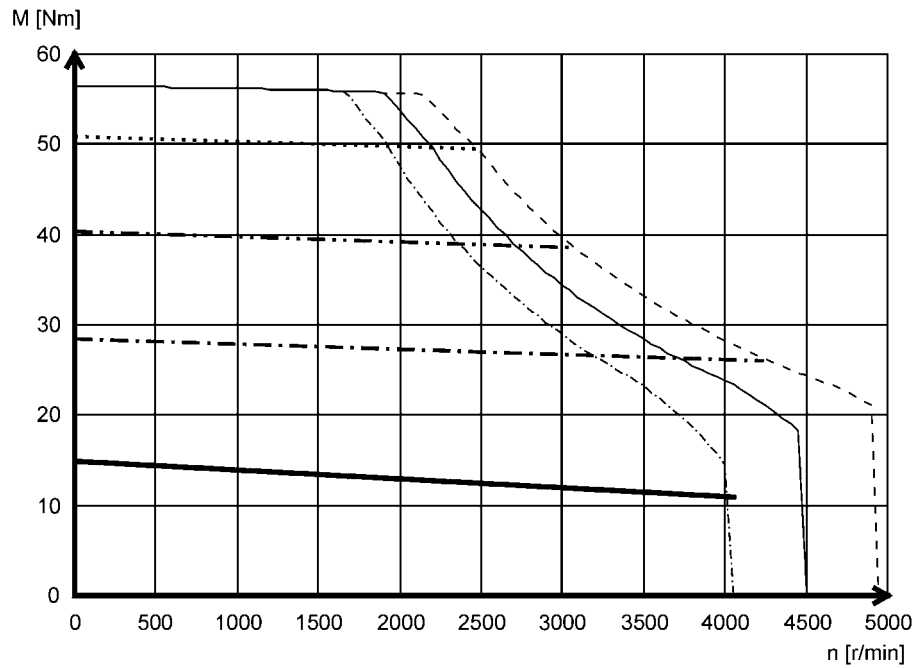
MCS12L39- (forced ventilated)



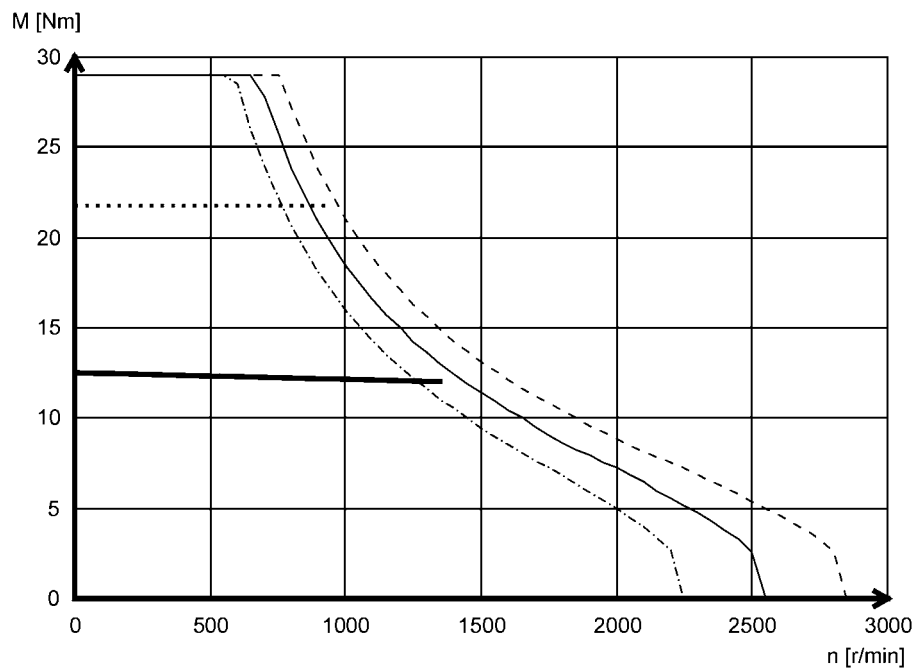
- Mmax 440 V
- Mmax 400 V
- · - Mmax 360 V
- Mmax @ Imax= 3x I₀
- · · - Mmax @ Imax= 2x I₀
- S1



MCS12L41- (self-ventilated)

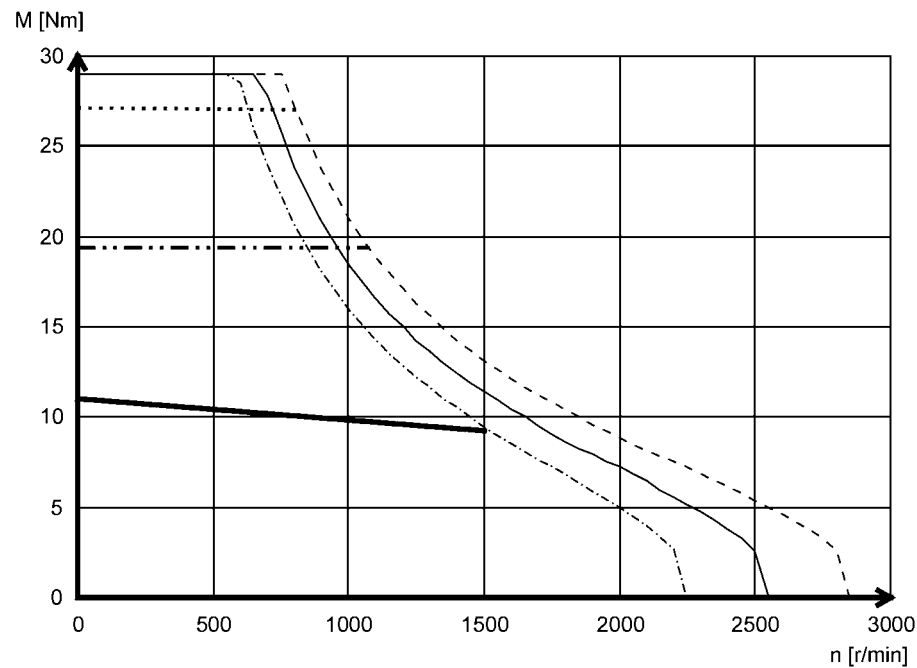


MCS14D14- (forced ventilated)



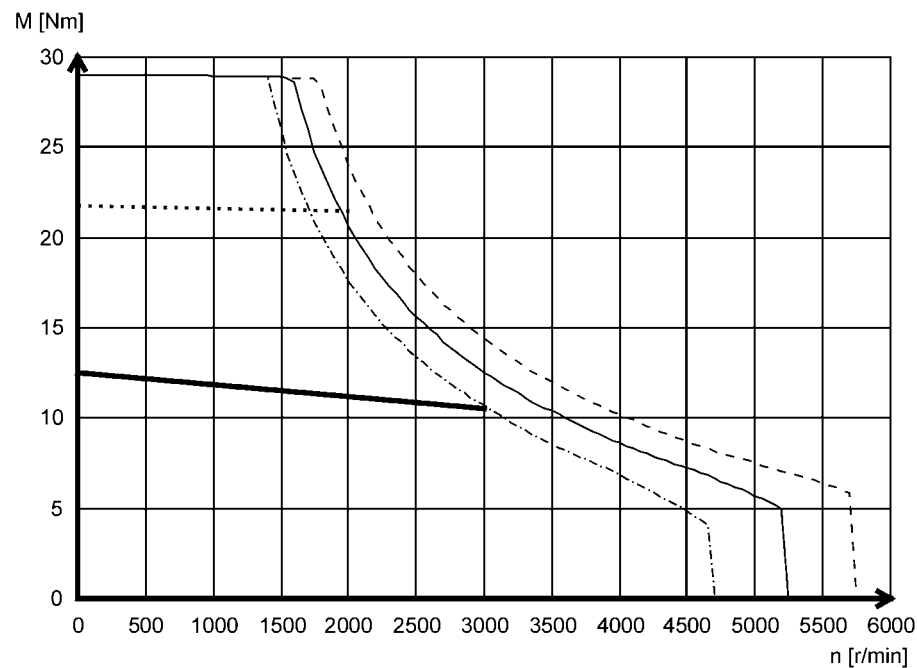


MCS14D15- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ I_{max}= 3x I₀
- · - · - Mmax @ I_{max}= 2x I₀
- S1

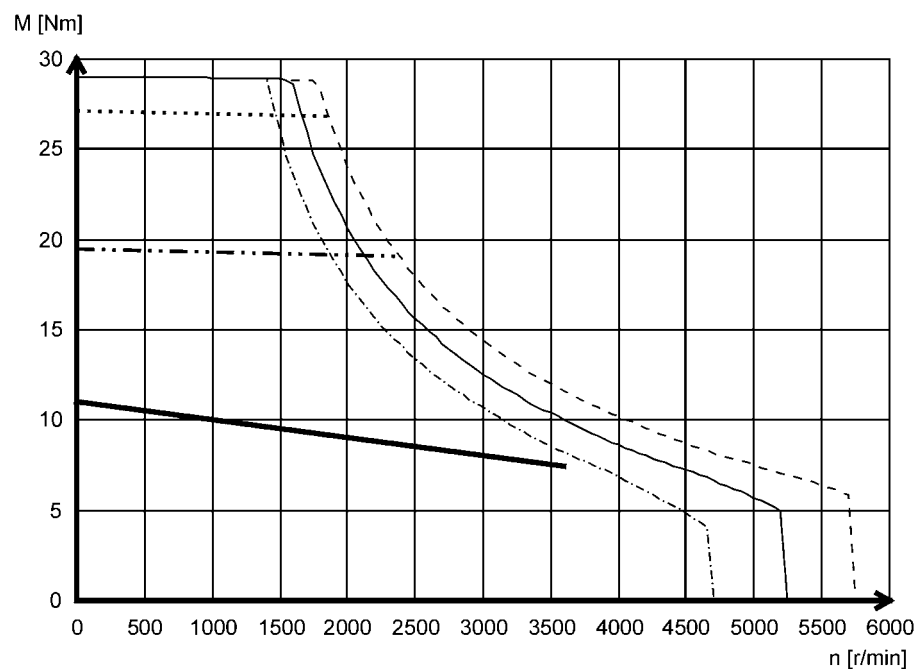
MCS14D30- (forced ventilated)



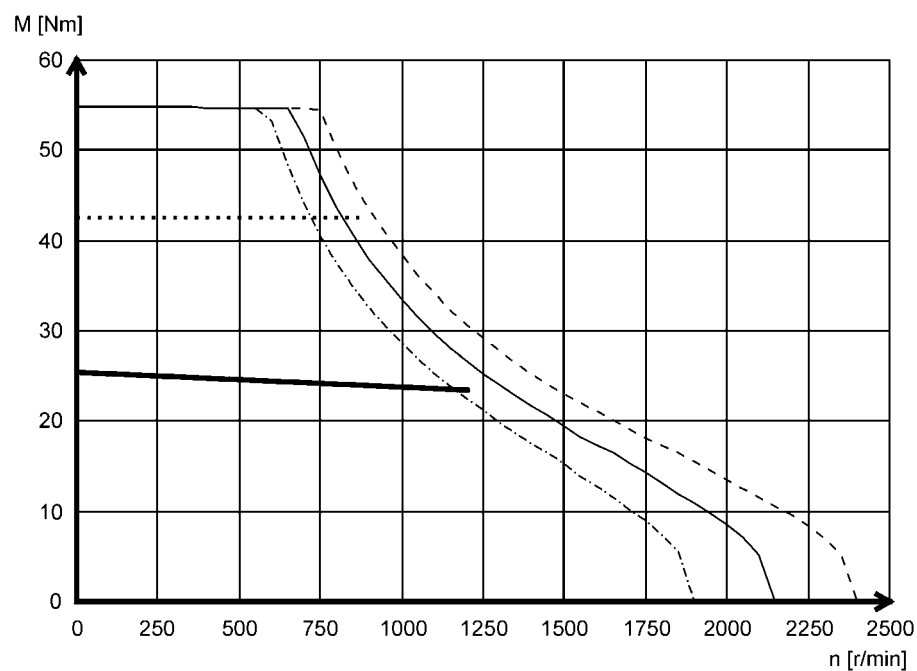
- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ I_{max}= 2x I₀
- · - · - Mmax @ I_{max}= 3x I₀
- S1



MCS14D36- (self-ventilated)

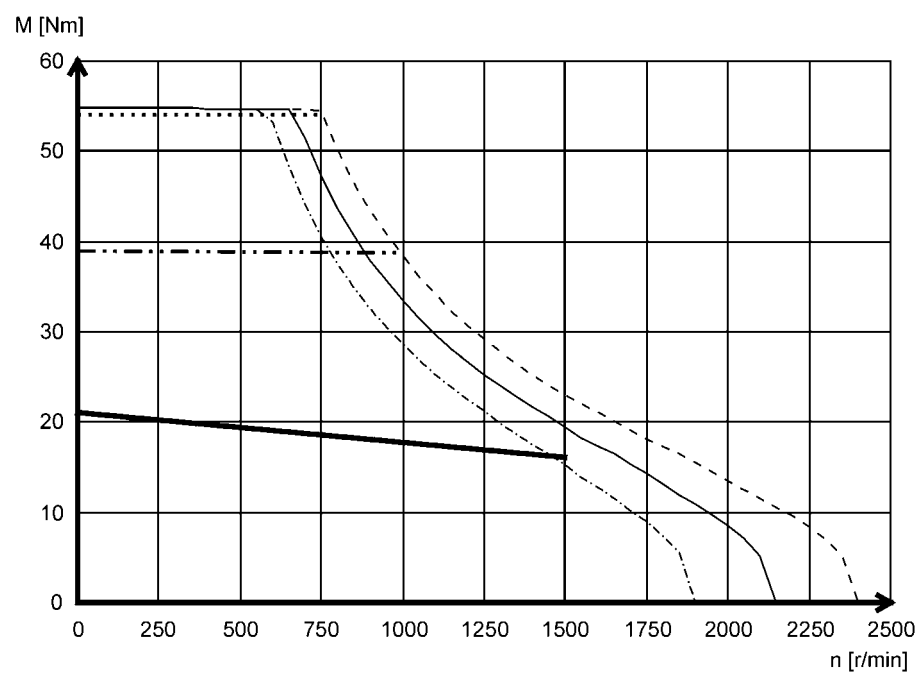


MCS14H12- (forced ventilated)



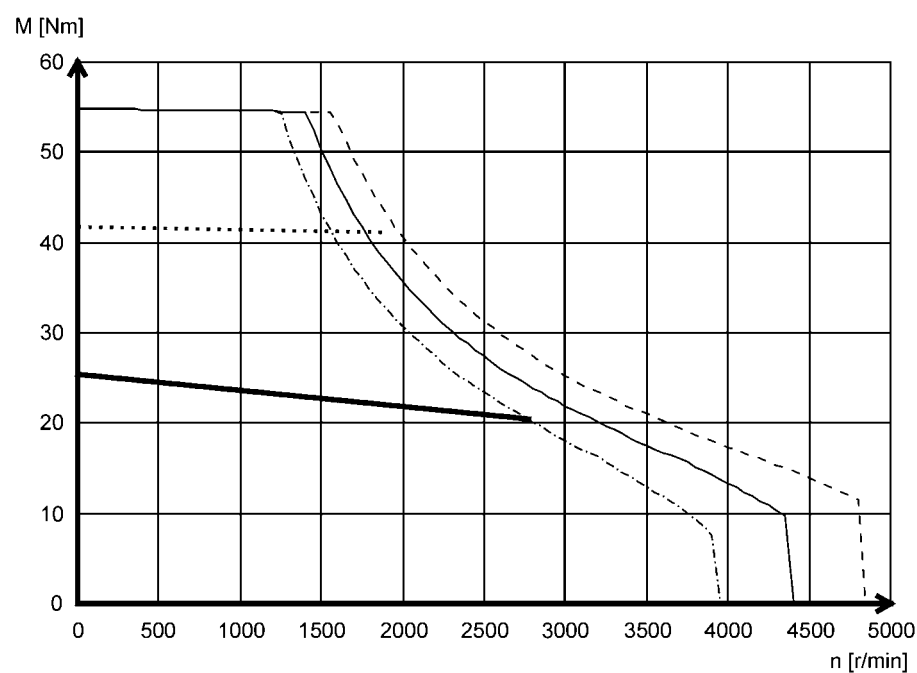


MCS14H15- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - Mmax 360 V
- Mmax @ I_{max}= 3x I₀
- · · - Mmax @ I_{max}= 2x I₀
- S1

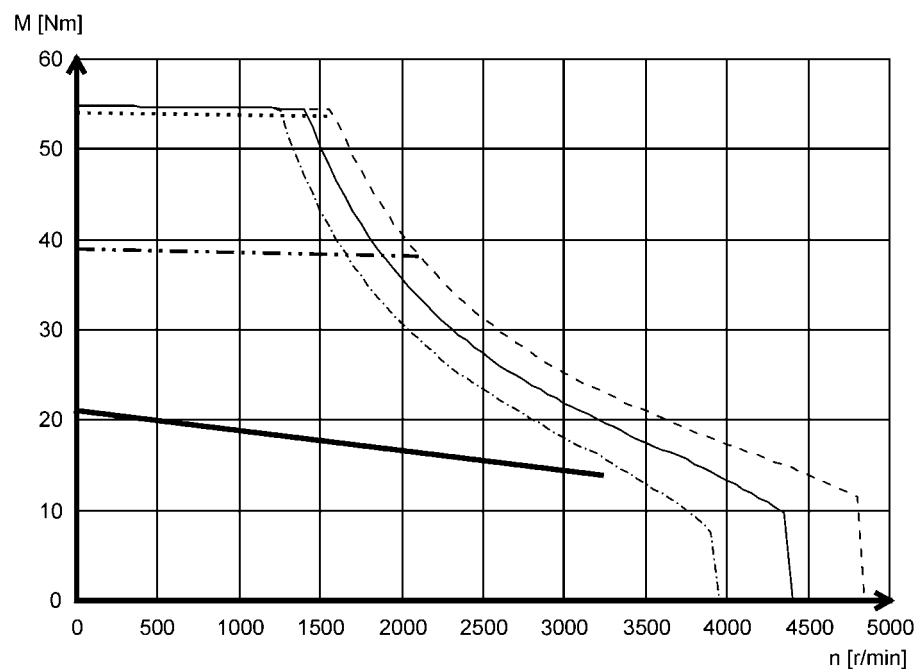
MCS14H28- (forced ventilated)



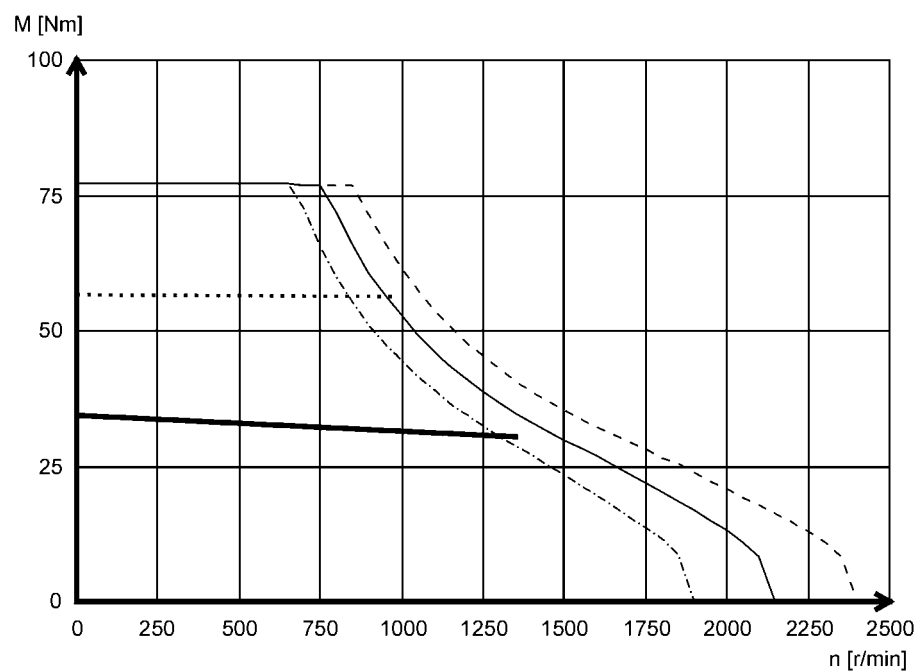
- Mmax 440 V
- Mmax 400 V
- · - Mmax 360 V
- Mmax @ I_{max}= 2x I₀
- · · - Mmax @ I_{max}= 3x I₀
- S1



MCS14H32- (self-ventilated)

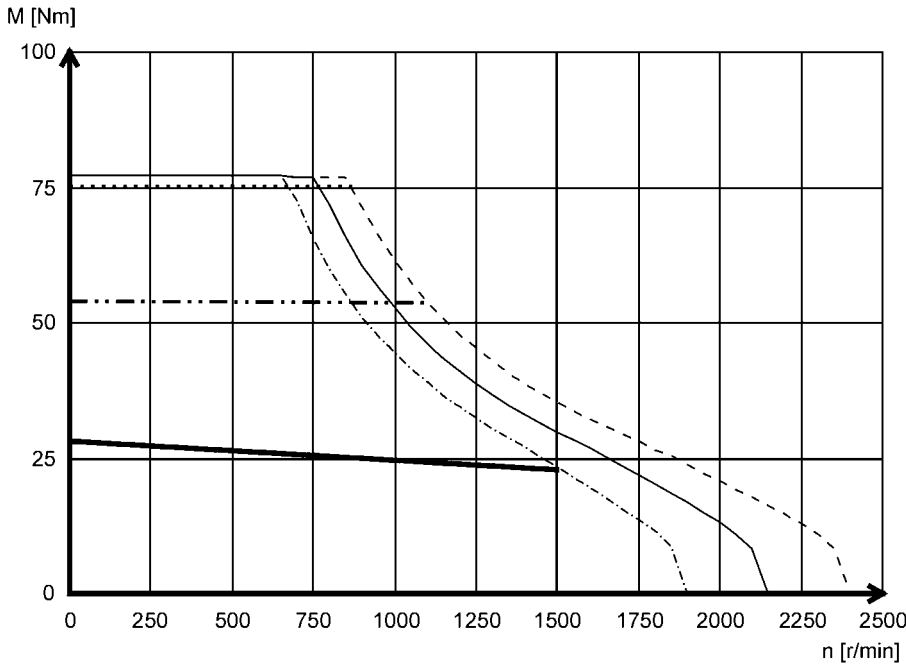


MCS14L14- (forced ventilated)



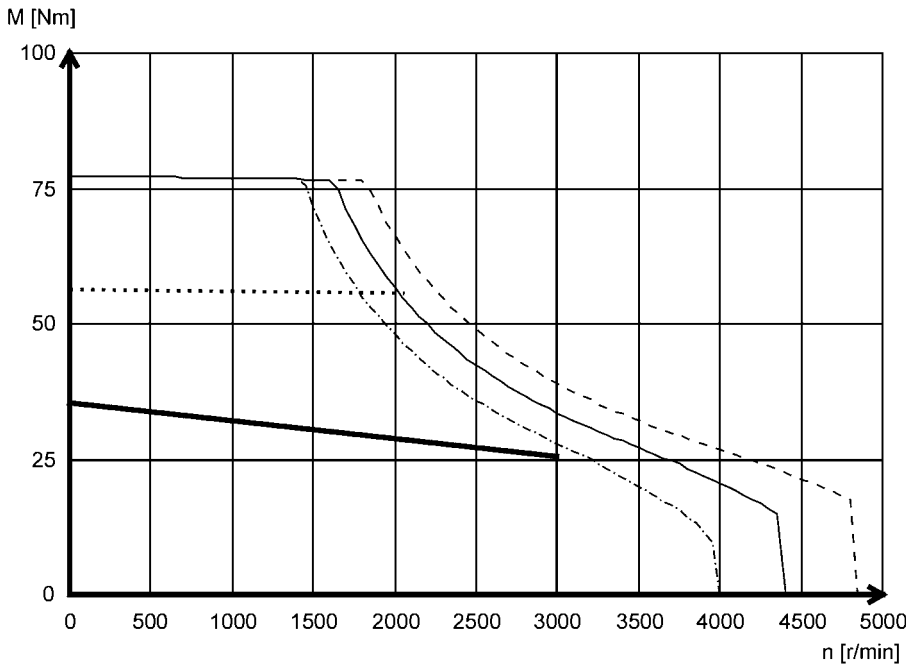


MCS14L15- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · Mmax 360 V
- Mmax @ I_{max}= 3x I₀
- Mmax @ I_{max}= 2x I₀
- S1

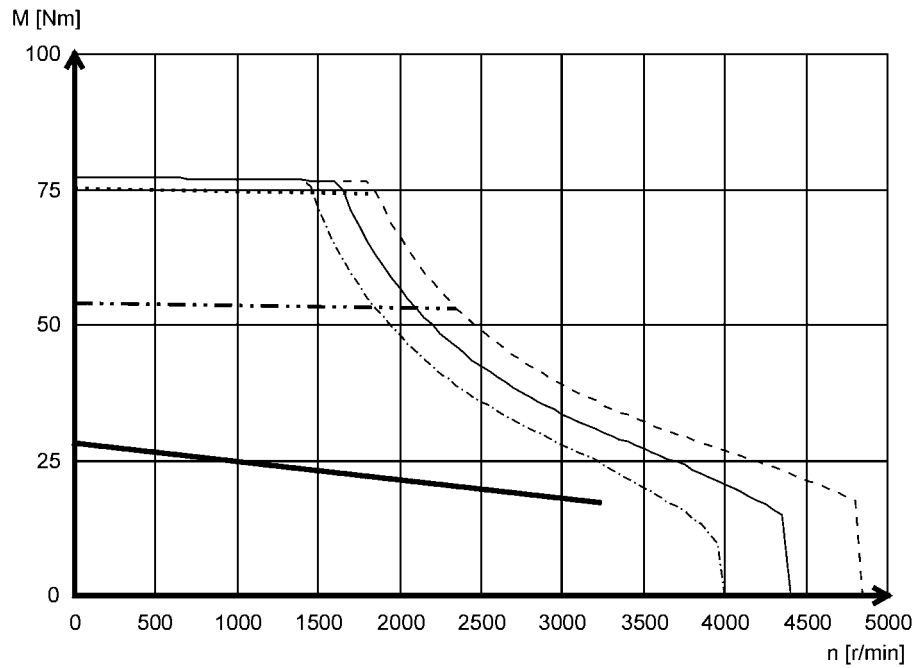
MCS14L30- (forced ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · Mmax 360 V
- Mmax @ I_{max}= 2x I₀
- S1

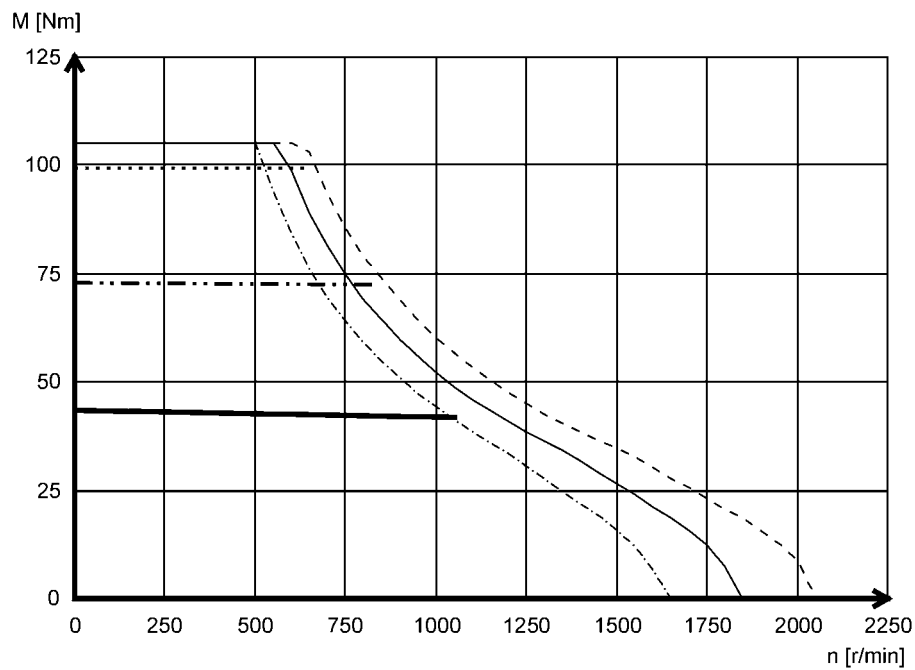


MCS14L32- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ Imax= 3x I₀
- - - - Mmax @ Imax= 2x I₀
- S1

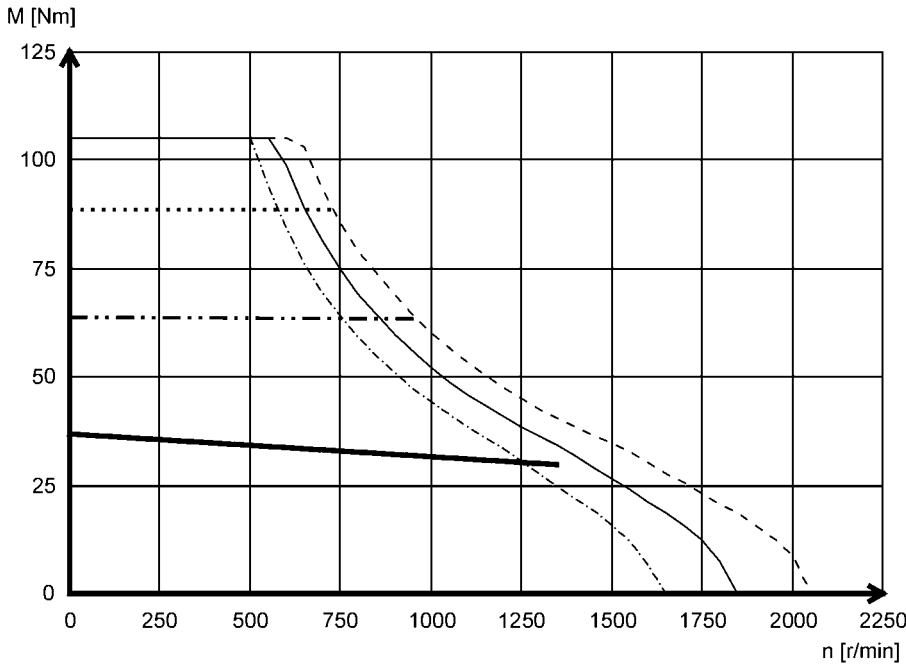
MCS14P11- (forced ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ Imax= 3x I₀
- - - - Mmax @ Imax= 2x I₀
- S1

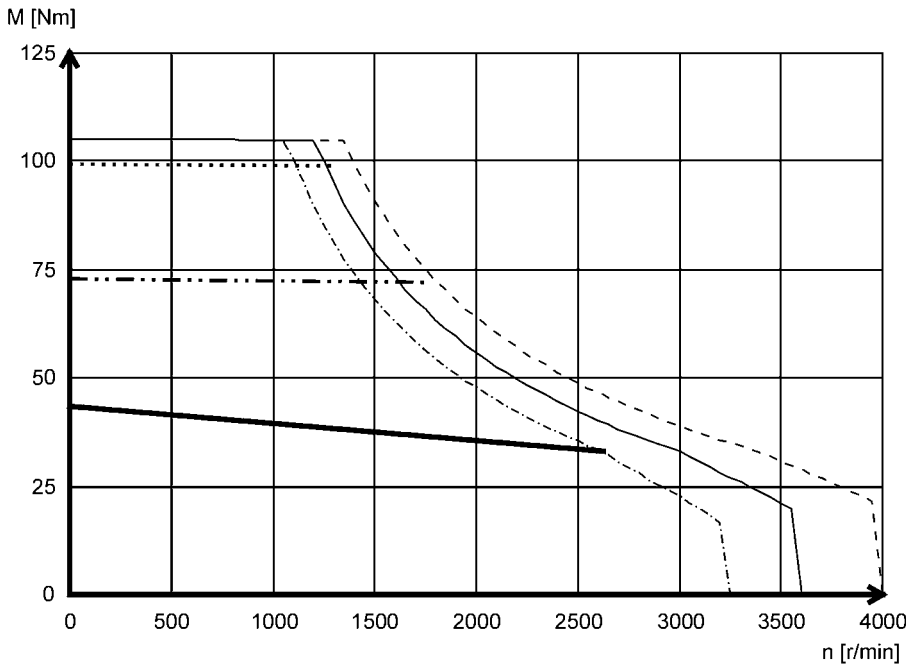


MCS14P14- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ Imax= 3x I₀
- · - · - Mmax @ Imax= 2x I₀
- S1

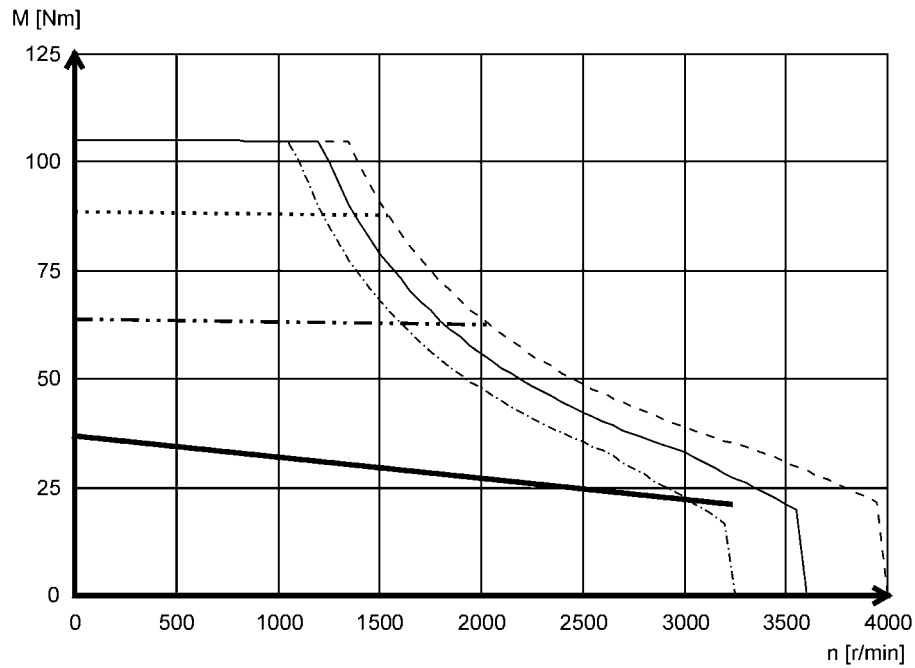
MCS14P26- (forced ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ Imax= 3x I₀
- · - · - Mmax @ Imax= 2x I₀
- S1

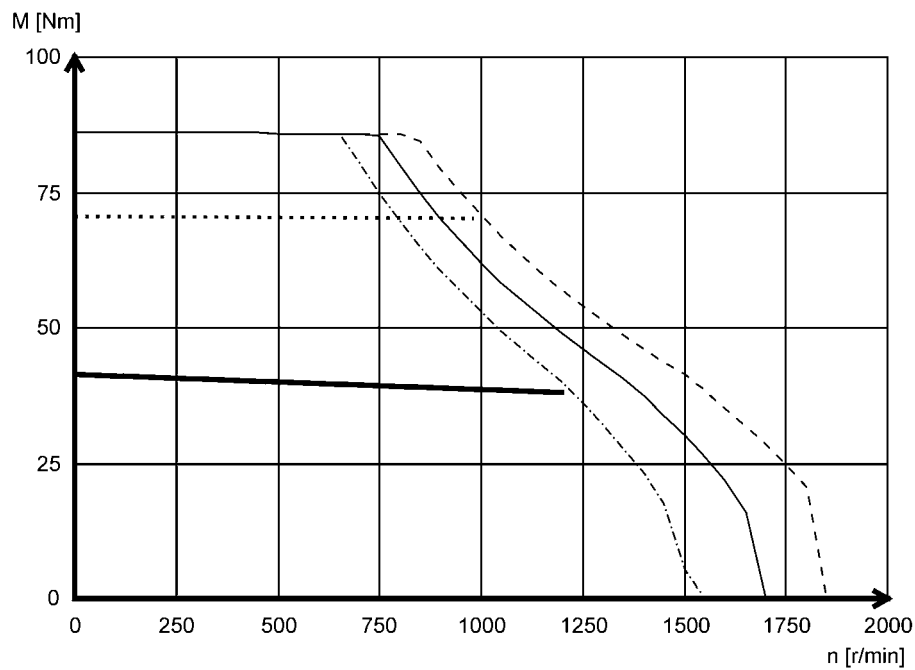


MCS14P32- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - Mmax 360 V
- Mmax @ I_{max}= 3x I₀
- - - Mmax @ I_{max}= 2x I₀
- S1

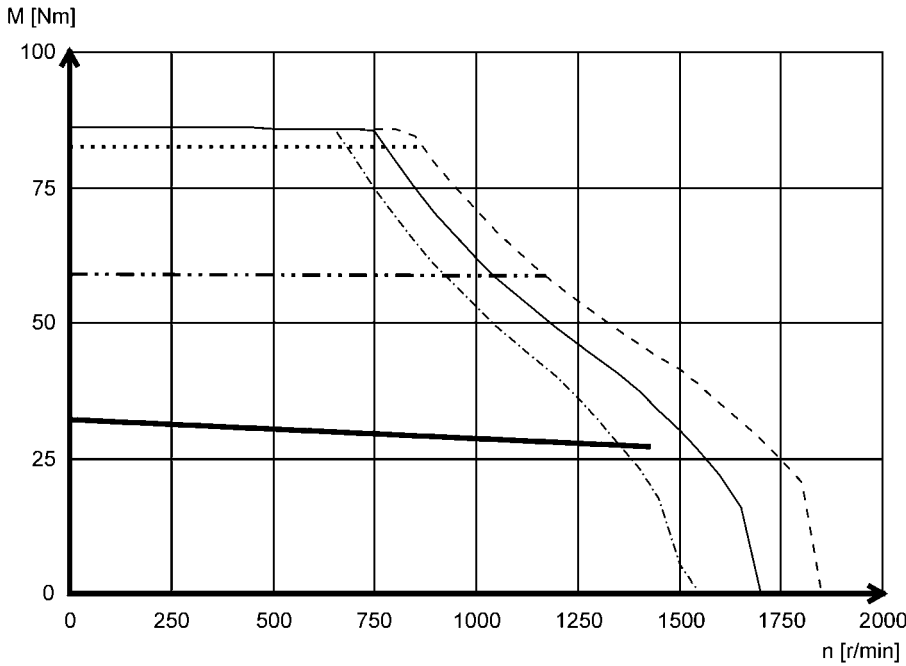
MCS19F12- (forced ventilated)



- Mmax 440 V
- Mmax 400 V
- · - Mmax 360 V
- Mmax @ I_{max}= 2x I₀
- S1

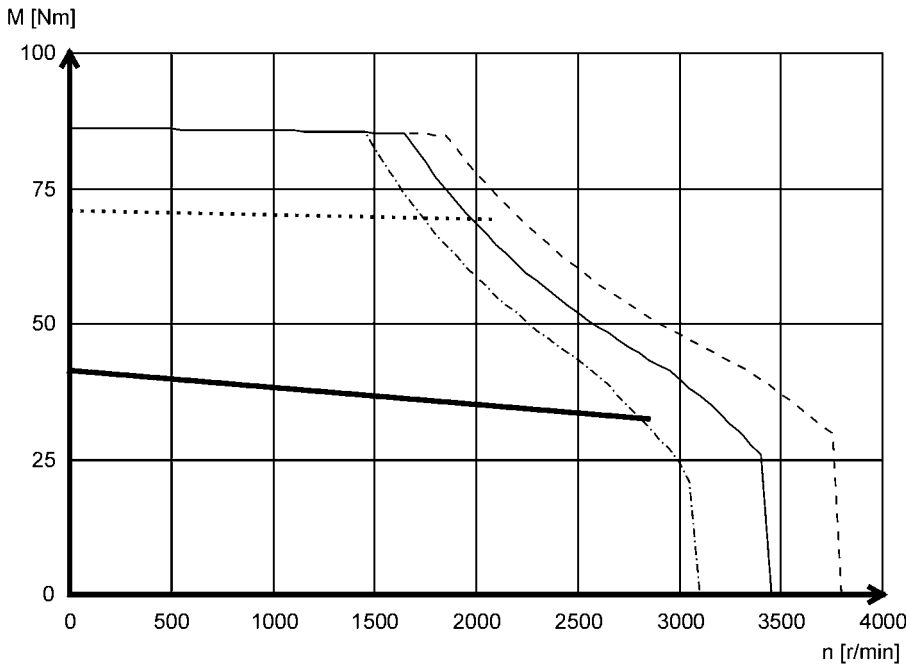


MCS19F14- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - Mmax 360 V
- Mmax @ Imax= 3x I₀
- · - · Mmax @ Imax= 2x I₀
- S1

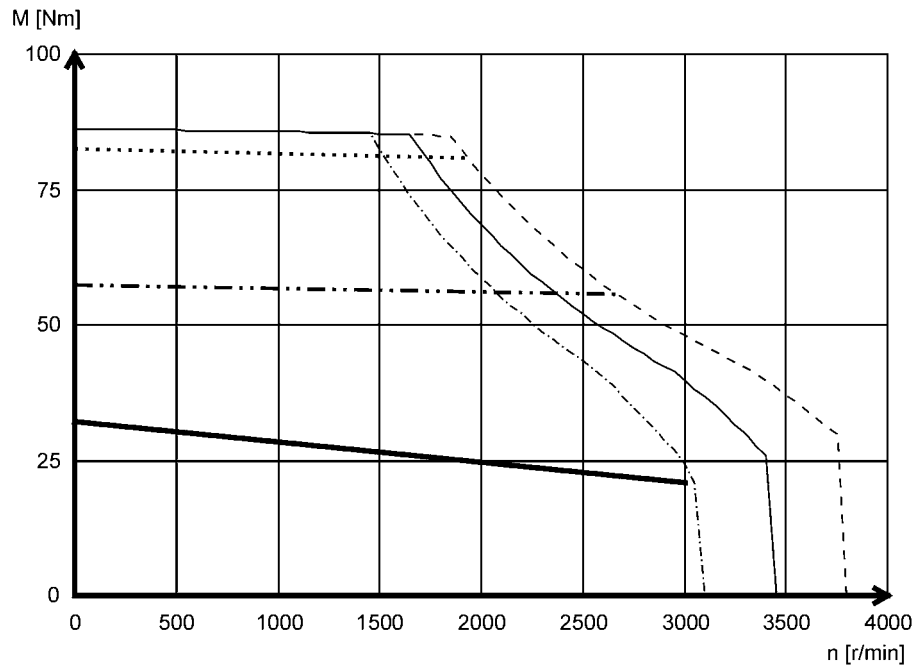
MCS19F29- (forced ventilated)



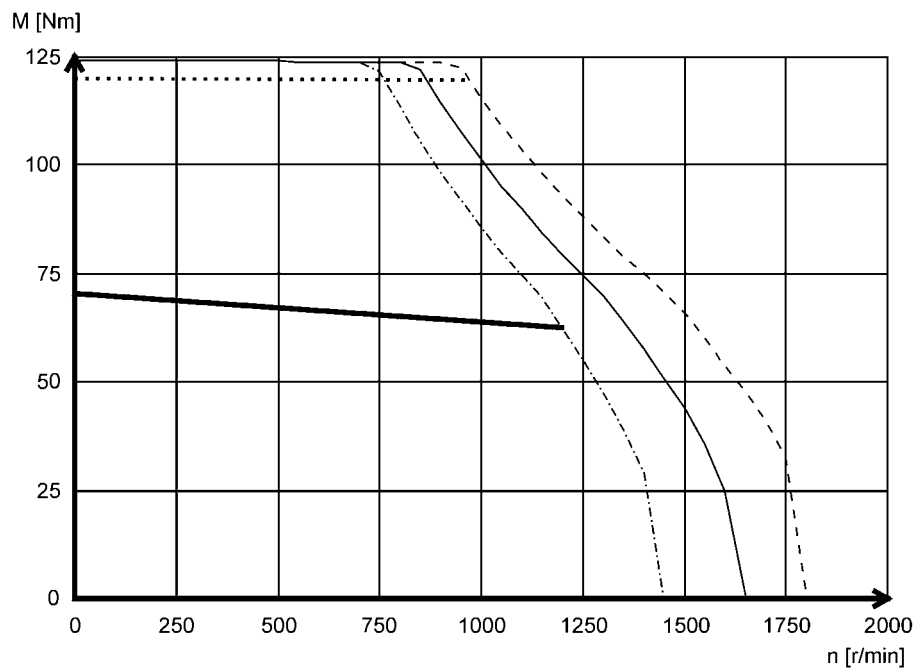
- Mmax 440 V
- Mmax 400 V
- · - Mmax 360 V
- Mmax @ Imax= 2x I₀
- S1



MCS19F30- (self-ventilated)

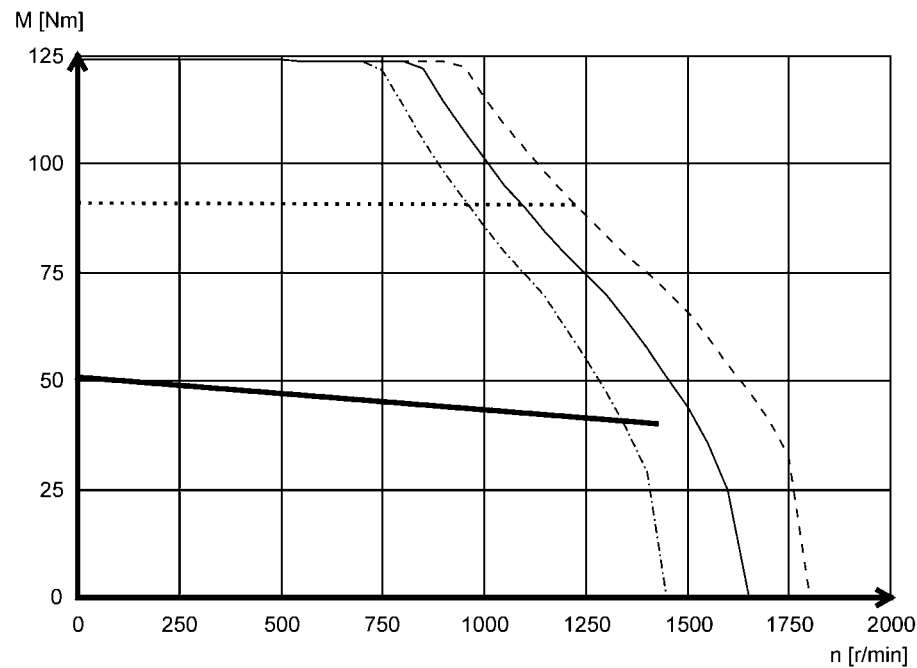


MCS19J12- (forced ventilated)



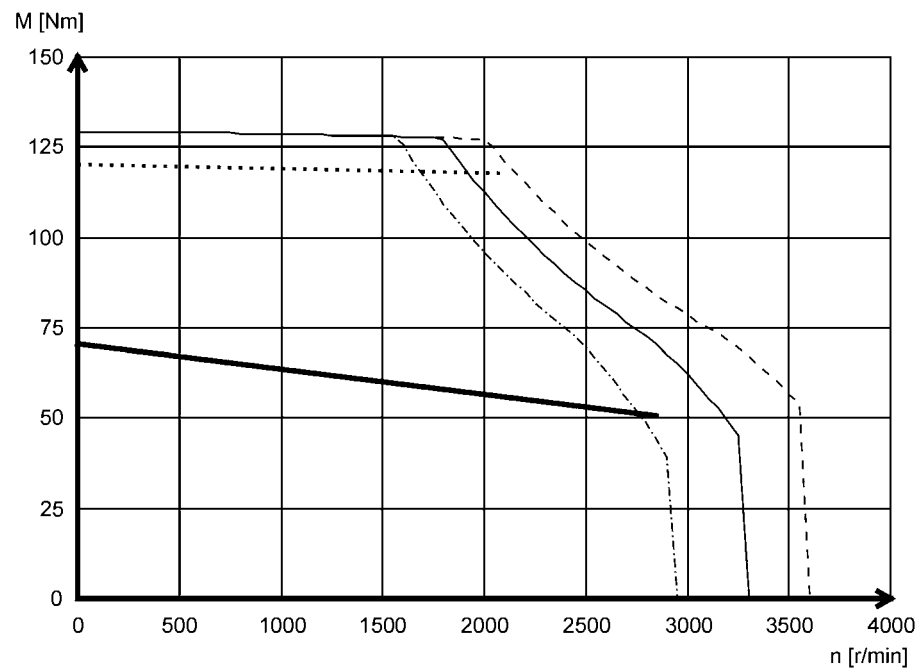


MCS19J14- (self-ventilated)



- M_{max} 440 V
- M_{max} 400 V
- · - M_{max} 360 V
- M_{max} @ $I_{max} = 2 \times I_0$
- S1

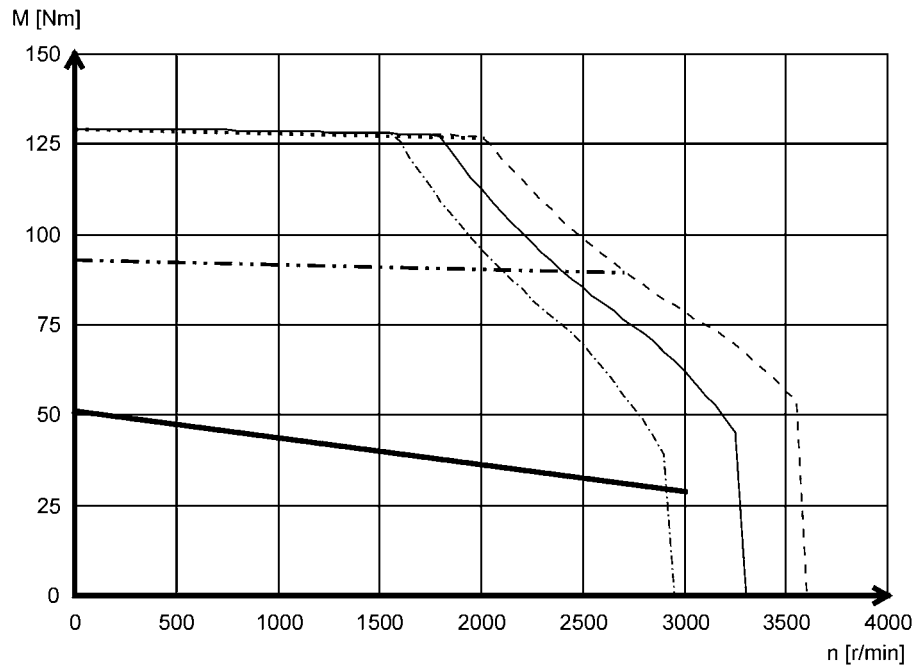
MCS19J29- (forced ventilated)



- M_{max} 440 V
- M_{max} 400 V
- · - M_{max} 360 V
- M_{max} @ $I_{max} = 2 \times I_0$
- S1

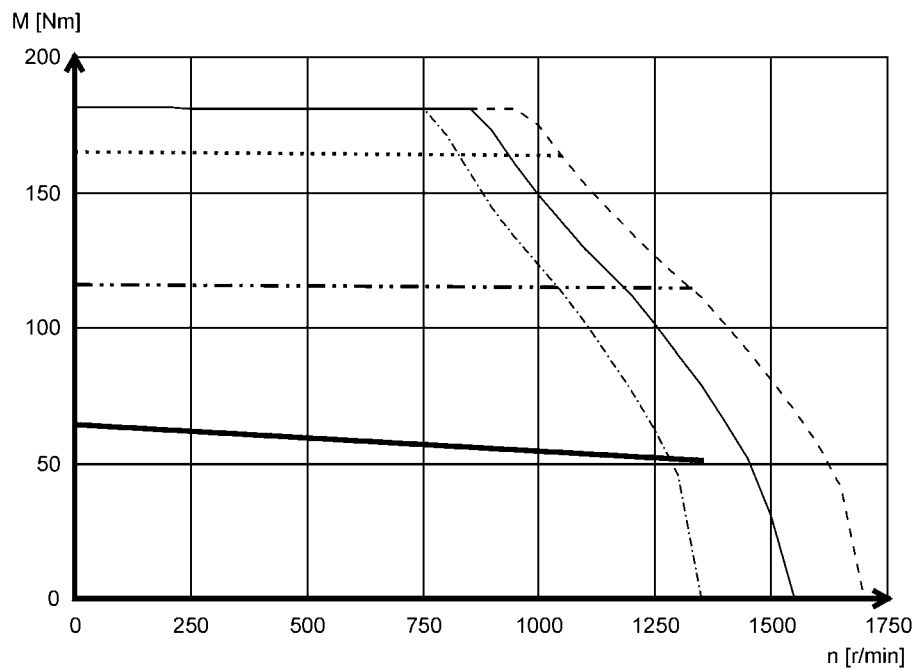


MCS19J30- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ Imax= 3x I₀
- · - · - Mmax @ Imax= 2x I₀
- S1

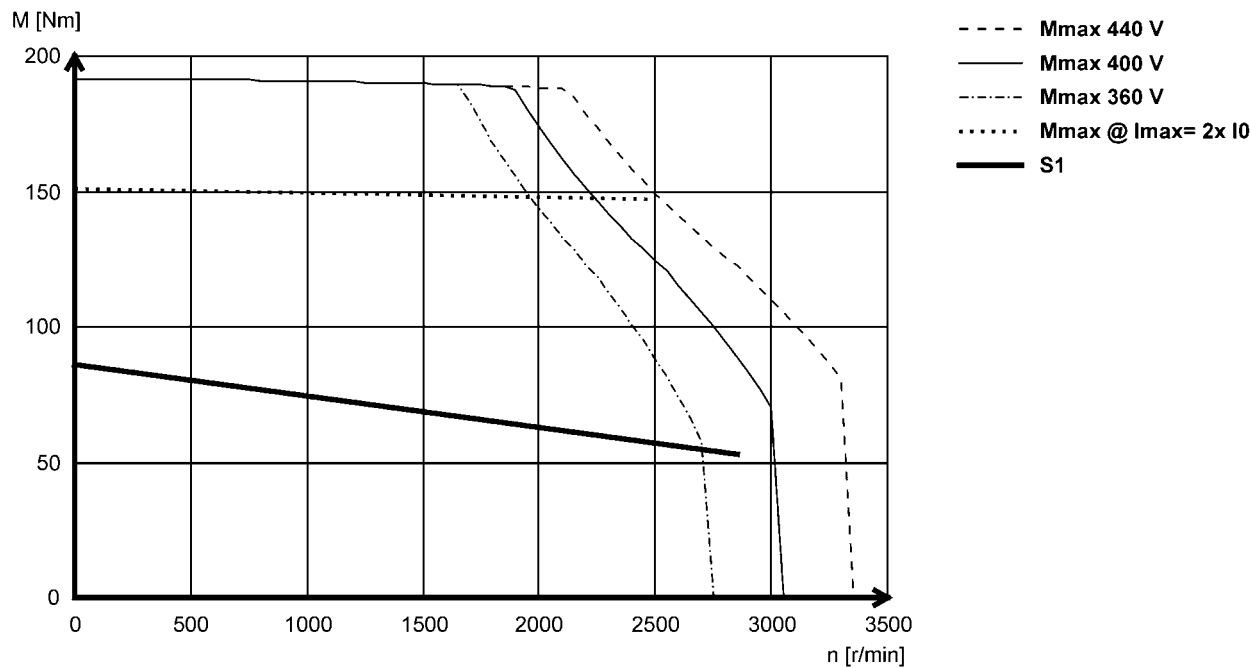
MCS19P14- (self-ventilated)



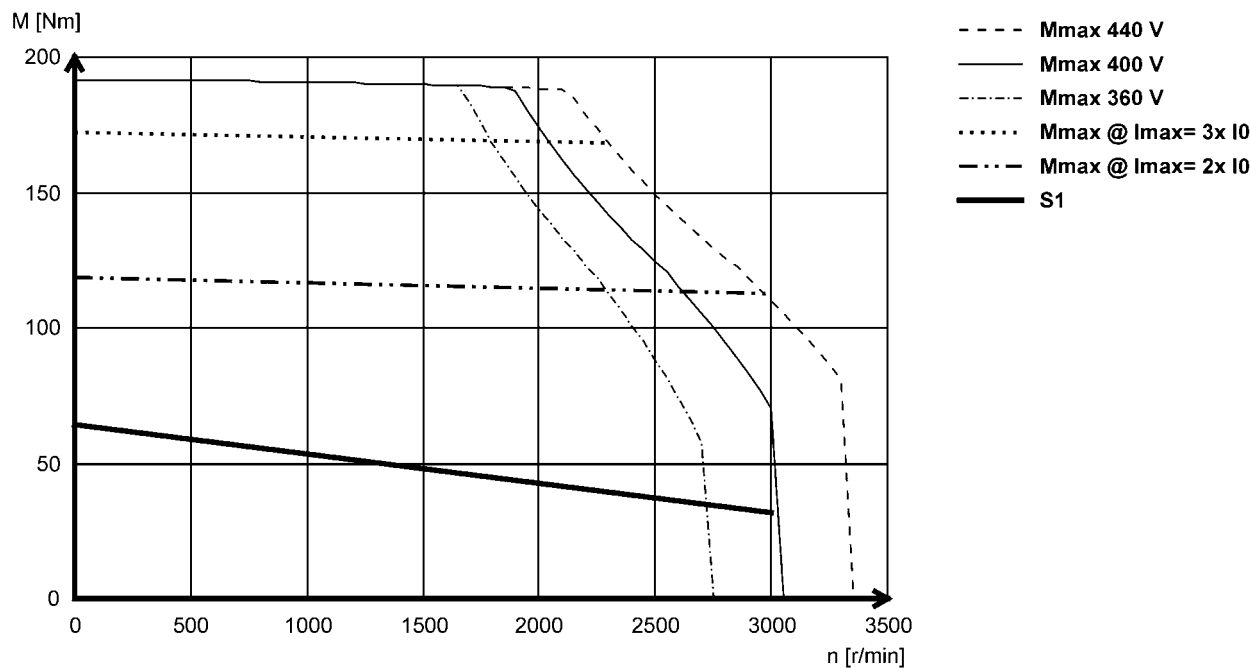
- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ Imax= 3x I₀
- · - · - Mmax @ Imax= 2x I₀
- S1



MCS19P29- (forced ventilated)



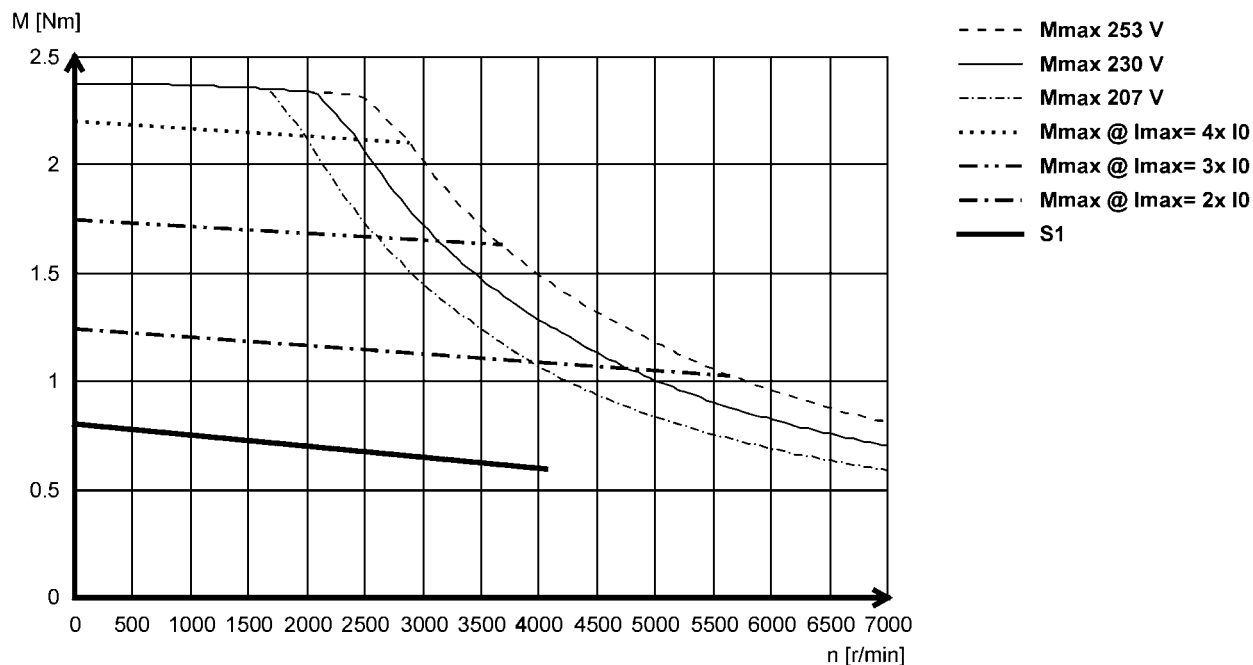
MCS19P30- (self-ventilated)



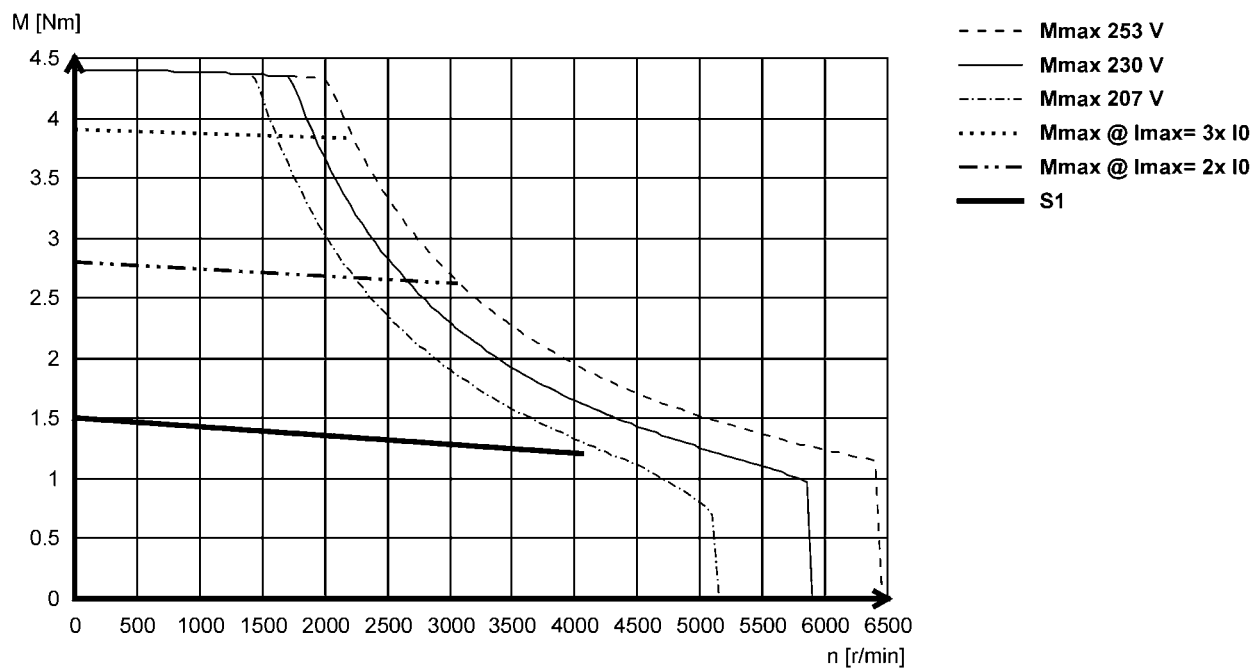


The following data apply to an inverter mains voltage 3 x 230 V.

MCS06C41L (self-ventilated)

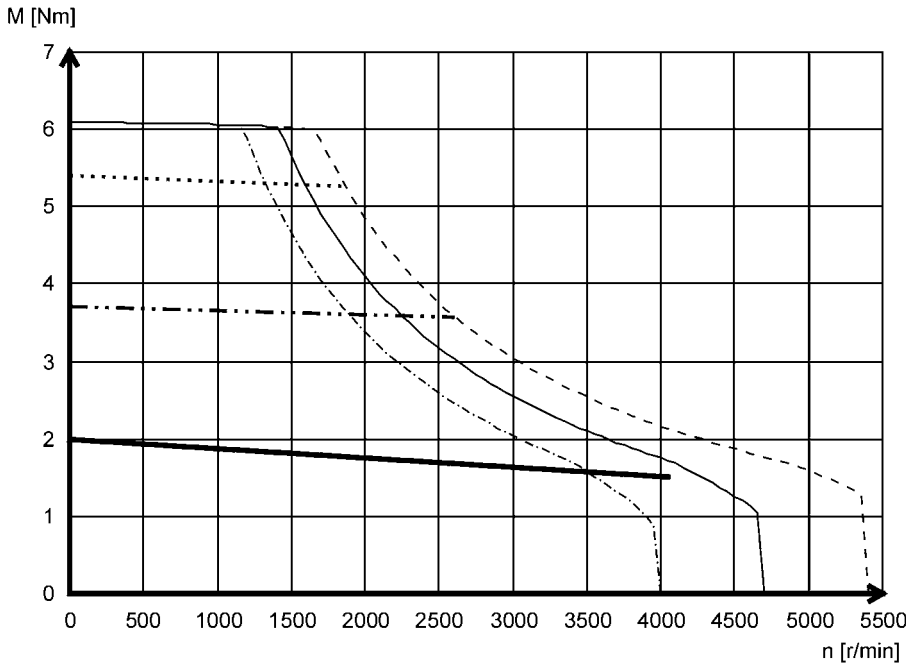


MCS06F41L (self-ventilated)



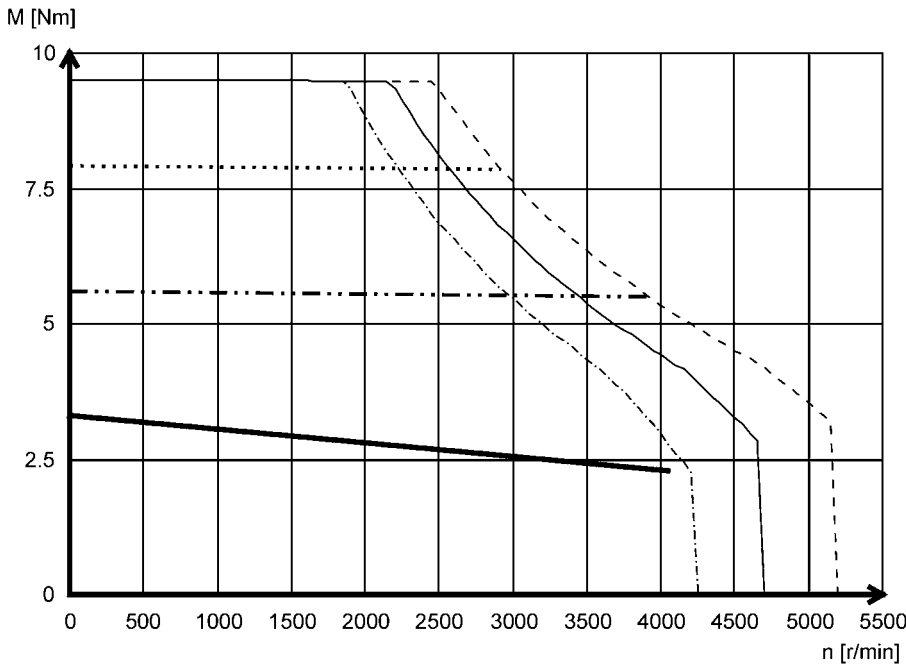


MCS06I41L (self-ventilated)



- Mmax 253 V
- Mmax 230 V
- · - · - Mmax 207 V
- Mmax @ Imax= 3x I₀
- · - · - Mmax @ Imax= 2x I₀
- S1

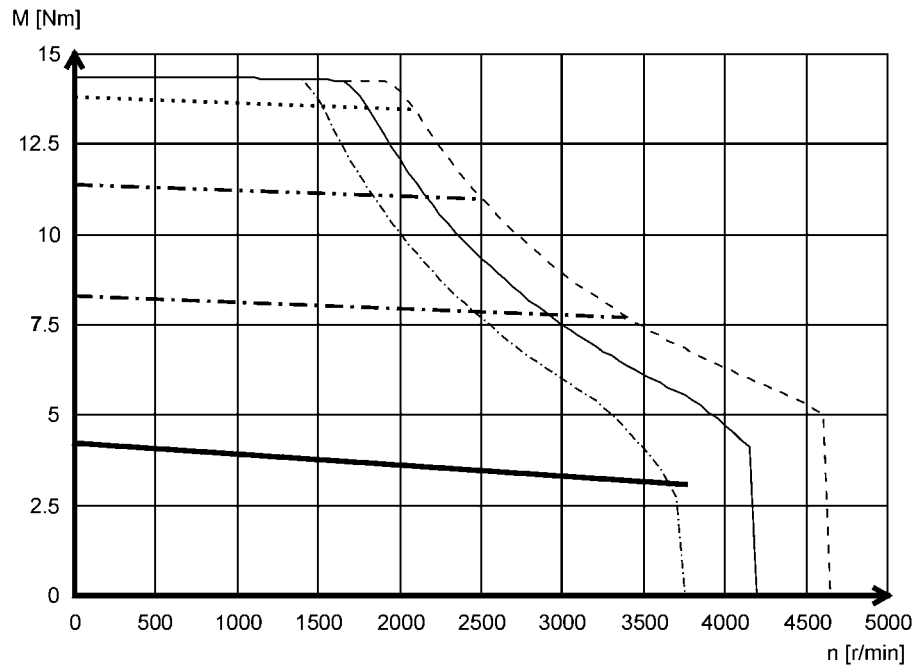
MCS09D41L (self-ventilated)



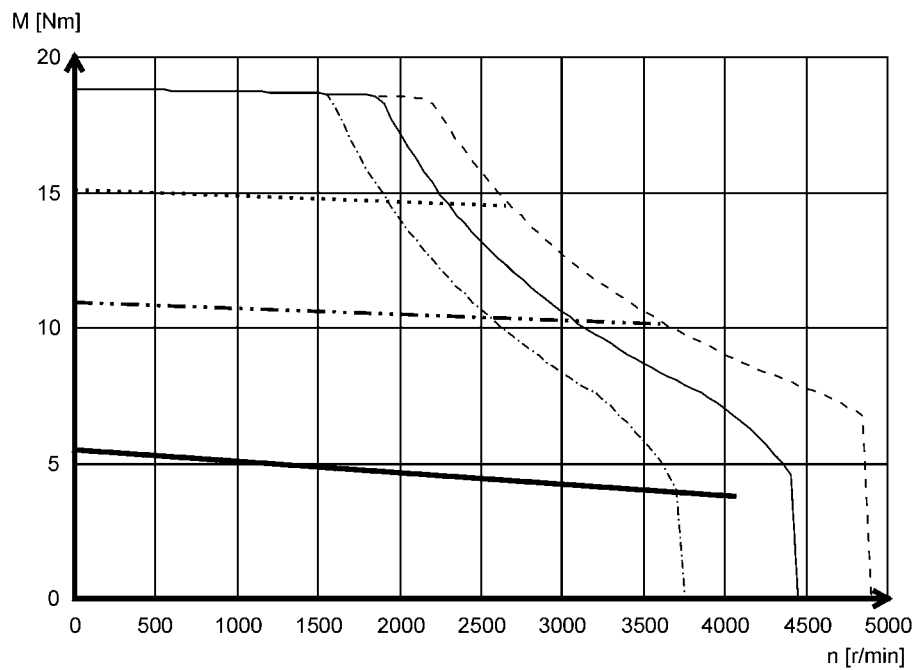
- Mmax 253 V
- Mmax 230 V
- · - · - Mmax 207 V
- Mmax @ Imax= 3x I₀
- · - · - Mmax @ Imax= 2x I₀
- S1



MCS09F38L (self-ventilated)

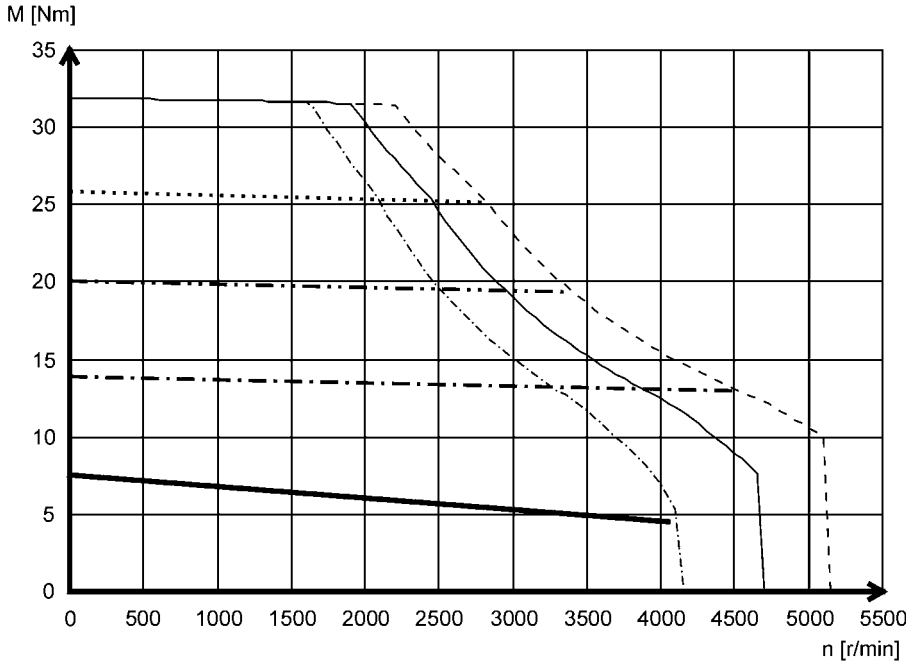


MCS09H41L (self-ventilated)



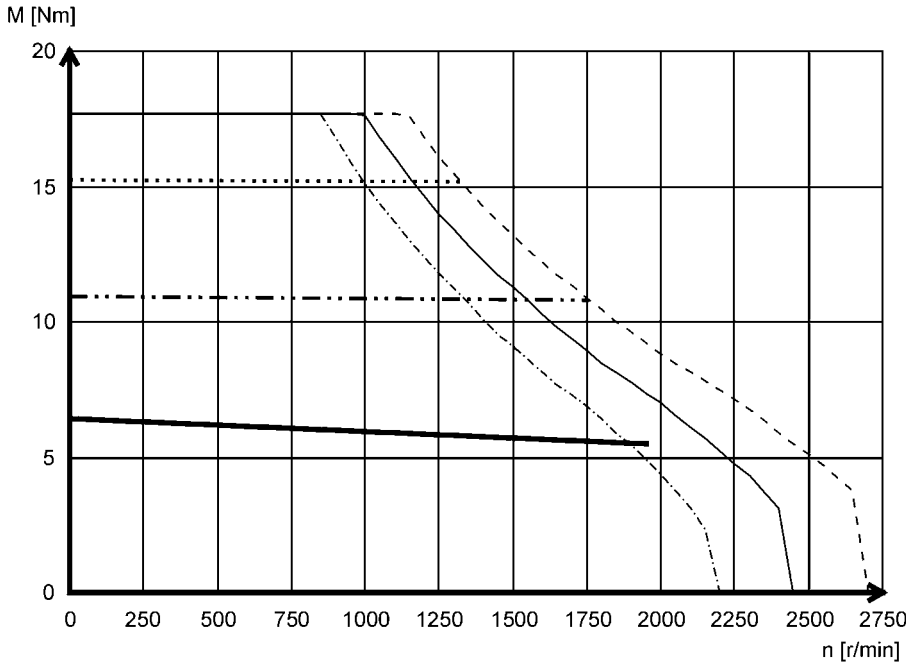


MCS09L41L (self-ventilated)



- Mmax 253 V
- Mmax 230 V
- · - Mmax 207 V
- Mmax @ Imax= 4x I0
- · · - Mmax @ Imax= 3x I0
- - - Mmax @ Imax= 2x I0
- S1

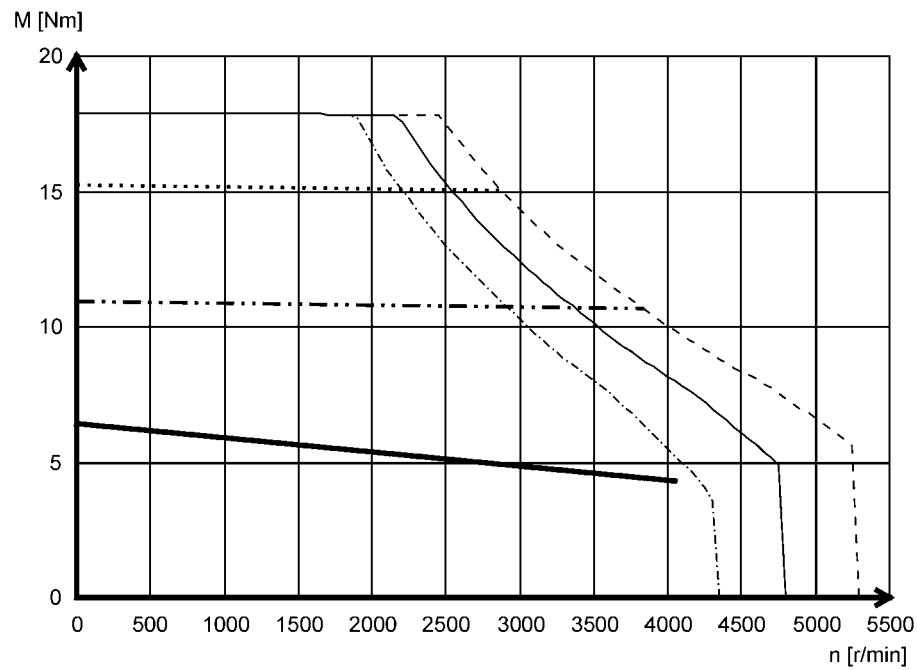
MCS12D20L (self-ventilated)



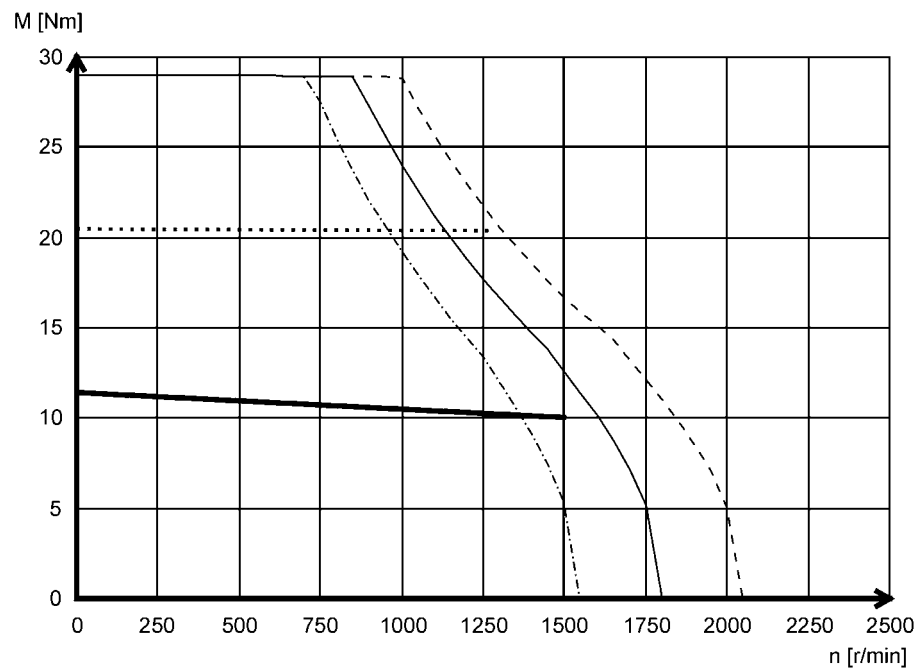
- Mmax 253 V
- Mmax 230 V
- · - Mmax 207 V
- Mmax @ Imax= 3x I0
- · · - Mmax @ Imax= 2x I0
- S1



MCS12D41L (self-ventilated)

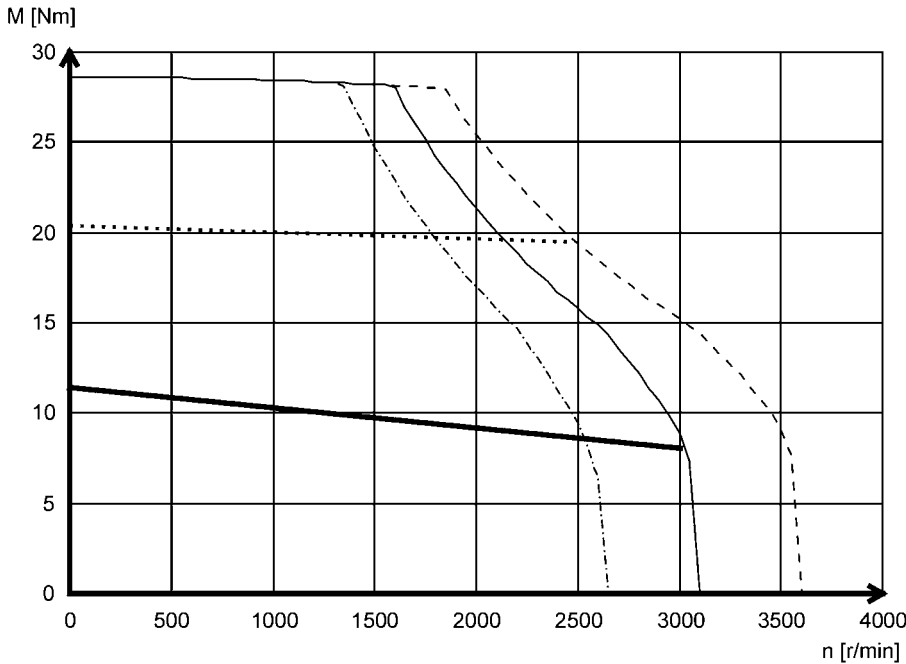


MCS12H15L (self-ventilated)



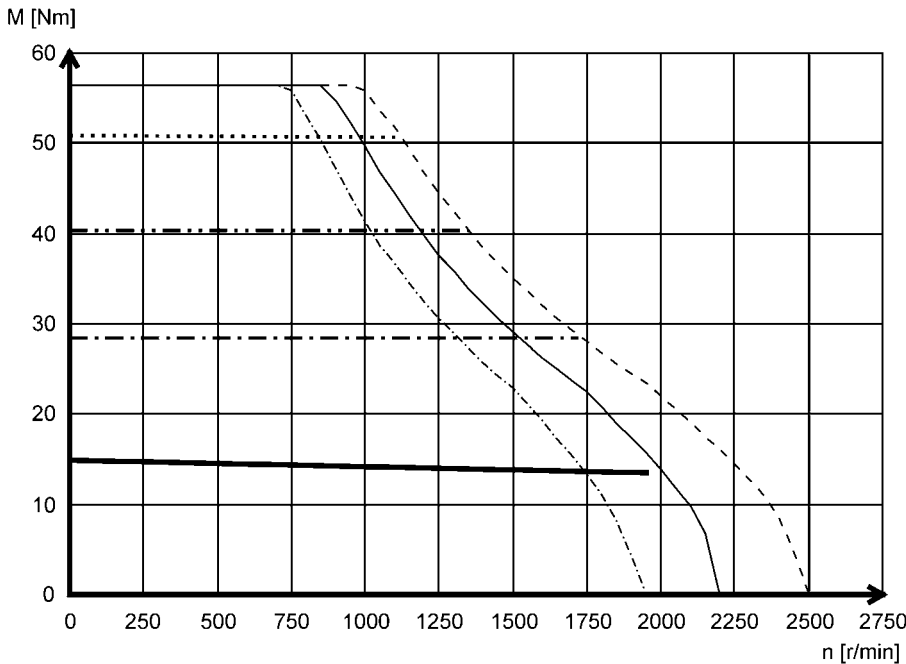


MCS12H30L- (self-ventilated)



- Mmax 253 V
- Mmax 230 V
- · - Mmax 207 V
- Mmax @ I_{max}= 2x I₀
- S1

MCS12L20L (self-ventilated)



- Mmax 253 V
- Mmax 230 V
- · - Mmax 207 V
- Mmax @ I_{max}= 4x I₀
- · · Mmax @ I_{max}= 3x I₀
- - - Mmax @ I_{max}= 2x I₀
- 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).

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