Definitions

Characteristic torque and speed curves
Detailed information on characteristic curves can be found under:
TE5910 | TwinCAT 3 Motion Designer

Performance data external fan
Detailed information on the performance data of the external fan can be found in chapter:
"Performance data of the external fan", [Page 94]

All data, with the exception of the voltage constant, are based on 40 °C ambient temperature and 100 K overtemperature of the winding. The data can have a tolerance of +/- 10 %.

By default, a large part of the heat generated in the motor is dissipated into the machine bed via the A-flange. With an attached gear unit, this direct heat dissipation is interrupted and reduces the amount of heat that the motor can dissipate via the flange. This effect can be further enhanced by the gear unit's self-heating. This means that a power reduction of up to 20% can occur when a gear unit is mounted. This configuration leads to a reduction of the nominal output.

Technical terms

This chapter provides information on various technical terms and their meaning.

Standstill torque M_0 [Nm]
Torque, also referred to as starting torque, that the motor can generate at standstill. It can be maintained indefinitely at a speed n < 100 min^{-1} and rated ambient conditions.

Rated torque M_n [Nm]
The torque that the motor delivers when it is operated at nominal speed and nominal current. Can be output in continuous operation S1 for an unlimited period of time.

Standstill current I_{0rms} [A]
Sinusoidal current RMS value. This is consumed at a speed of n < 100 min^{-1} in order to generate the standstill torque.

Peak current/pulse current I_{0max} [A]
Sinusoidal peak current RMS value. Corresponds to approx. five times the standstill current and three times for AM806x, AM856x and AM807x. The configured peak current of the servo drive used must be less or equal.

Torque constant K_{Trms} [Nm/A]
Indication of the torque in Nm generated by the motor per ampere of standstill current. $M_0 = I_0 \times K_T$ applies

Voltage constant K_{Erms} [mVmin]
Indication of the induced motor EMF at 20 °C, based on 1000 rpm. This is specified as the sine RMS value between two terminals.

Rotor moment of inertia J [kgcm²]
Measure of the acceleration capacity of the motor. For example, at J_0 the acceleration time t_b from 0 to 3000 min-1 can be calculated based on the following formula:

$$t_b[S] = \frac{3000 \cdot 2\,\pi}{M_0 \cdot 60\,s} \cdot \frac{m^2}{10^4\,cm^2} \cdot J$$

with M_0 in Nm and J in kgcm²

Thermal time constant t_{TH} [min]
Specification of the heating time of the cold motor under load with I_0 until an overtemperature of 0.63 x 100 Kelvin is reached. This temperature rise happens in a much shorter time when the motor is loaded with the peak current.

Release delay time/application delay time of the brake t_{BRH} [ms]/ t_{BRL} [ms]
Specification of the response times of the holding brake [+] when operated with the nominal voltage

Winding inductance L [mH]
Indication of the motor inductance. It is the average value for one motor revolution, with two energized phases, at 1 kHz. Saturation of the motor must be taken into account.

Data for operation and environment

Beckhoff products are designed for operation under certain environmental conditions, which vary according to the product. The following specifications must be observed for operation and environment in order to achieve the optimum service life of the products.

Operate the motor only under the specified conditions
Operate motors only under the operating and environmental conditions specified in this chapter. This ensures a long service life and proper operation.
Temperatures above 40 °C and encapsulated installation can shorten the service life of the servomotor.

Environmental requirements	
Climate category - operation	2K3 according to EN 60721
Ambient temperature during operation	+5 °C to +40 °C, extended temperature range
Ambient temperature during transport	-25 °C to +70 °C, maximum fluctuation 20 K/hour
Ambient temperature during storage	-25 °C to +55 °C, maximum fluctuation 20 K/hour
Power derating	No derating at installation altitudes higher than 1000 m above sea level and a temperature reduction of 10 K/1000 m.
Derating according to installation altitude	At installation heights higher than 1000 m above sea level and 40 °C: 6 % at 2000 m above sea level 17 % at 3000 m above sea level 30 % at 4000 m above sea level 55 % at 5000 m above sea level
Permissible humidity in operation	95 % relative humidity, no condensation
Permissible humidity during transport and storage	5 % to 95 % relative humidity, no condensation

Specifications for intended use	
Cooling	Convection
Insulation material class	F according to IEC 60085, UL1446 class F
Protection rating	Housing: IP 65; IP54 for AM801x Shaft feedthrough: IP54 Shaft feedthrough with double-lipped PTFE shaft sealing ring with FDA approval: IP65
Feedback system	absolute encoder, single-turn and multi-turn OCT, resolver
Vibration resistance	50 g, 10...2000 Hz according to EN 60068-2-6
Shock resistance	100 g, 6 ms according to EN 60068-2-27
EMC requirements	conforms to EN 61800-3:2004 + A1:2012
Approvals	CE, cURus EAC See chapter: Guidelines and Standards
Vibration class <= 1800 [rpm]	
Maximum relative vibration displacement	90 µm
Maximum run-out	23 µm
Vibration class > 1800 [rpm]	
Maximum relative vibration displacement	65 µm
Maximum run-out	16 µm

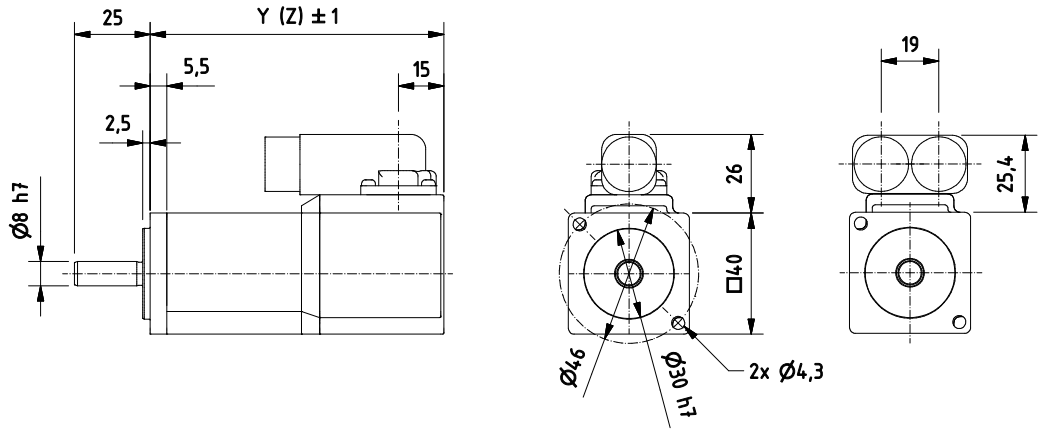
AM801x

Electrical data	AM80xx		
	11B	12C	13D
Standstill torque M_0 [Nm]	0.20	0.38	0.52
Standstill current I_{orms} [A]	0.76	1.30	1.65
Maximum mechanical speed N_{max} [min^{-1}]	10,000		
Maximum nominal mains voltage UN [VAC]	250		
Peak current I_{0max} [A]	2.30	4.55	5.90
Peak torque M_{0max} [Nm]	0.68	1.37	2.04
Torque constant K_{Trms} [Nm/A]	0.26	0.29	0.32
Voltage constant K_{Erms} [mVmin]	19	19.20	22.70
Winding resistance Ph-Ph R_{20} [Ω]	34.50	15	11.50
Winding inductance Ph-Ph, measured at 1 kHz L [mH]	21	10.50	9
Power supply U_N= 115 V			
Nominal speed N_n [min-1]	3500	4000	3500
Nominal torque M_n [Nm]	0.19	0.35	0.49
Nominal output P_n [kW]	0.07	0.15	0.18
Power supply U_N= 230 V			
Nominal speed Nn [min-1]	8000		
Nominal torque M_n [Nm]	0.18	0.33	0.45
Nominal output P_n [kW]	0.15	0.28	0.38
Nominal current I_n [A]	0.73	1.20	1.30
Connection technology	iTec		
Reference flange aluminum 230 mm x 130 mm x 10 mm			
Mechanical data	AM80xx		
	11	12	13
Rotor moment of inertia J [$kgcm^2$]	0.03	0.05	0.07
Rotor moment of inertia with brake J [$kgcm^2$]	0.06	0.08	0.09
Number of poles	6		
Static friction torque M_R [Nm]	0.0009	0.0018	0.0027
Thermal time constant t_{TH} [min]	9	9	10
Weight [kg]	0.55	0.64	0.79
Weight with brake [kg]	0.74	0.86	0.98
Flange	**IEC standard/DIN 42955**		
Fit	h7		
Tolerance class	N		
Protection rating			
Standard housing version	IP54		
Standard shaft feedthrough version	IP54		
Paint finishes			
Properties	acrylic powder-coated		
Color	Anthracite gray; RAL 7016		

Optional holding brake [+]	AM801x
Holding torque at 120 °C M_{BR} [Nm]	0.60
Supply voltage U_{BR} [V_{DC}]	24; +6 % to -10 %
Electrical power P_{BR} [W]	10
Current I_{on} [A]	0.30
Release delay time t_{BRH} [ms]	14
Application delay time t_{BRL} [ms]	8

Dimensional drawing

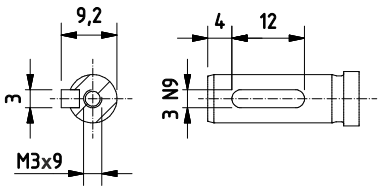
- All figures in millimeters



Motor	Y	Z-brake
AM8011	97	129
AM8012	117	149
AM8013	137	169

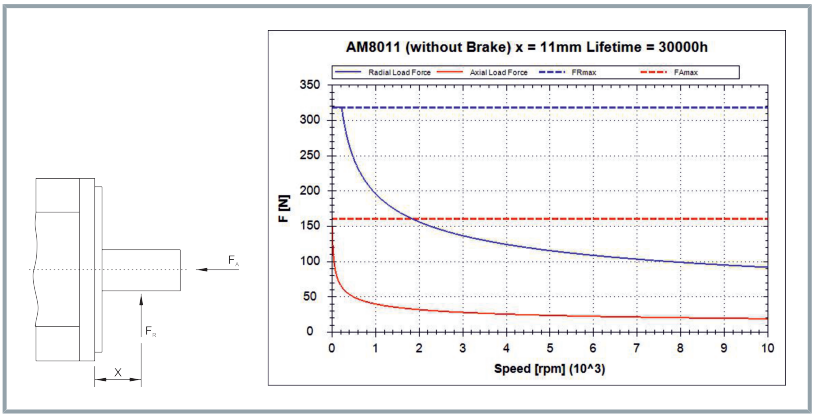
Feather key [+]

- Center bore according to DIN 332-D



Force diagram

Beckhoff load/force calculator
The software represents axial and radial forces on the motor shaft. The following example shows an AM8011 without a holding brake.
• Download load/force calculator



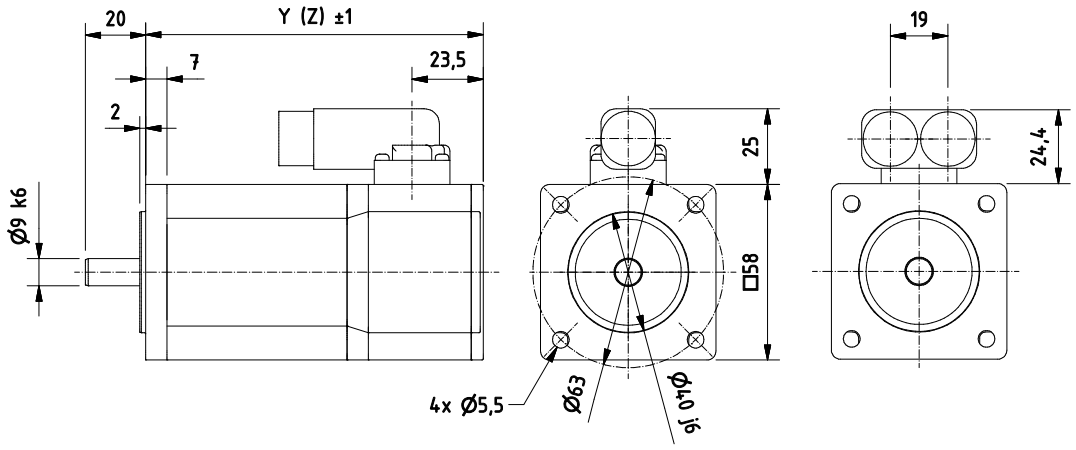
AM802x

Electrical data	AM80xx					
	21B	21D	22D	22E	23E	23F
Standstill torque M_0 [Nm]	0.50	0.50	0.80	0.80	1.20	1.20
Standstill current I_{orms} [A]	0.85	1.60	1.50	2.44	2.20	3.40
Maximum mechanical speed N_{max} [min^{-1}]	12000					
Maximum nominal mains voltage U_N [V_{AC}]	480					
Peak current I_{0max} [A]	4.90	8.60	7.70	12.60	11.40	17.70
Peak torque M_{0max} [Nm]	2.68	2.67	4.18	4.18	6.36	6.37
Torque constant K_{Trms} [Nm/A]	0.59	0.31	0.53	0.33	0.55	0.35
Voltage constant K_{Erms} [mVmin]	42	23	41	25	43	25
Winding resistance Ph-Ph R_{20} [Ω]	39.40	12.80	13.20	5.10	8.50	3.60
Winding inductance Ph-Ph, measured at 1 kHz L [mH]	67	21.60	30.10	11.20	20.80	8.70
Power supply U_N= 115 V						
Nominal speed Nn [min-1]	1500	3500	2000	4000	2000	3500
Nominal torque M_n [Nm]	0.50	0.50	0.78	0.76	1.15	1.16
Nominal output P_n [kW]	0.08	0.18	0.16	0.32	0.24	0.43
Power supply U_N= 230 V						
Nominal speed Nn [min-1]	4000	8000	4500	8000	4500	8000
Nominal torque M_n [Nm]	0.50	0.50	0.75	0.70	1.10	1.00
Nominal output P_n [kW]	0.21	0.42	0.35	0.59	0.52	0.84
Power supply U_N= 400 V						
Nominal speed Nn [min-1]	8000	9000	8000	9000	8000	9000
Nominal torque M_n [Nm]	0.50	0.50	0.70	0.65	1	0.90
Nominal output P_n [kW]	0.42	0.47	0.59	0.61	0.84	0.85
Nominal current I_n [A]	0.85	1.60	1.30	1.95	1.85	2.85
Power supply U_N= 480 V						
Nominal speed Nn [min-1]	9000					
Nominal torque M_n [Nm]	0.50	0.50	0.65	0.65	0.90	0.90
Nominal output P_n [kW]	0.47	0.47	0.61	0.61	0.85	0.85
Connection technology	iTec					
Reference flange aluminum 230 mm x 130 mm x 10 mm						

Mechanical data	AM80xx		
	21	22	23
Rotor moment of inertia J [kgcm^2]	0.14	0.26	0.38
Rotor moment of inertia with brake J [kgcm^2]	0.21	0.33	0.45
Number of poles	6		
Static friction torque M_R [Nm]	0.002	0.004	0.006
Thermal time constant t_{TH} [min]	10	13	16
Weight [kg]	1	1.30	1.70
Weight with brake [kg]	1.16	1.66	1.96
Flange	**IEC standard/DIN 42955**		
Fit	j6		
Tolerance class	N		
Protection rating			
Standard housing version	IP65		
Standard shaft feedthrough version	IP54		
Shaft feedthrough with shaft sealing ring	IP65		
Paint finishes			
Properties	acrylic powder-coated		
Color	Anthracite gray; RAL 7016		
Optional holding brake [+]	**AM802x**		
Holding torque at 120 °C M_{BR} [Nm]	2		
Supply voltage U_{BR} [V_{DC}]	24; +6 % to -10 %		
Electrical power P_{BR} [W]	10		
Current I_{on} [A]	0.3		
Release delay time t_{BRH} [ms]	25		
Application delay time t_{BRL} [ms]	8		

Dimensional drawing

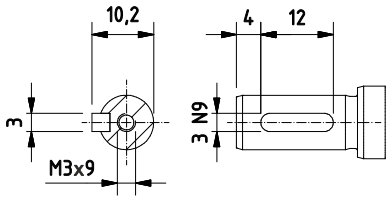
- All figures in millimeters



Motor	Y	Z–brake
AM8021	111.5	146
AM8022	133.5	168
AM8023	155.5	190

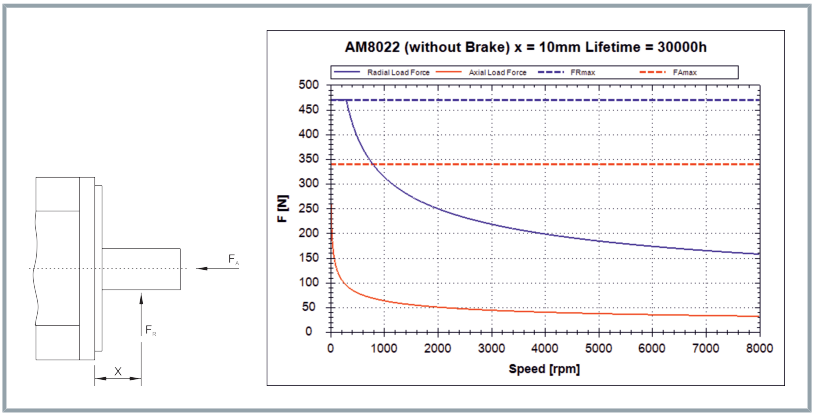
Feather key [+]

- Center bore according to DIN 332-D



Force diagram

Beckhoff load/force calculator
The software represents axial and radial forces on the motor shaft. The following example shows an AM8022 without a holding brake.
• Download load/force calculator



AM803x & AM853x

Electrical data	AM80xx and AM85xx				
	31C	31D	31F	32D	32E
Standstill torque M_0 [Nm]	1.37	1.38	1.40	2.38	2.37
Standstill current I_{orms} [A]	1	1.95	3.20	1.70	2.95
Maximum mechanical speed N_{max} [min^{-1}]	10000				
Maximum nominal mains voltage U_N [V_{AC}]	480				
Peak current I_{0max} [A]	5.50	10.70	17.60	9.60	17.20
Peak torque M_{0max} [Nm]	6.10	6.07	6.07	11.66	11.66
Torque constant K_{Trms} [Nm/A]	1.37	0.71	0.44	1.40	0.80
Voltage constant K_{Erms} [mVmin]	99	50	30	100	56
Winding resistance Ph-Ph R_{20} [Ω]	51	12.60	5	21	6.50
Winding inductance Ph-Ph, measured at 1 kHz L [mH]	134	36	13.30	71.90	22.60
Power supply U_N= 115 V					
Nominal speed Nn [min-1]	400	1400	2700	600	1400
Nominal torque M_n [Nm]	1.36	1.38	1.37	2.37	2.34
Nominal output P_n [kW]	0.06	0.20	0.39	0.15	0.34
Power supply U_N= 230 V					
Nominal speed Nn [min-1]	1400	3300	6000	1500	3000
Nominal torque M_n [Nm]	1.35	1.36	1.34	2.34	2.30
Nominal output P_n [kW]	0.20	0.47	0.84	0.37	0.76
Power supply U_N= 400 V					
Nominal speed Nn [min-1]	3000	6000	9000	3000	6000
Nominal torque M_n [Nm]	1.34	1.33	1.30	2.30	2.20
Nominal output P_n [kW]	0.42	0.84	1.23	0.72	1.38
Nominal current I_n [A]	0.95	1.90	3	1.60	2.75
Power supply U_N= 480 V					
Nominal speed Nn [min-1]	3400	6800	9000	3400	6800
Nominal torque M_n [Nm]	1.33	1.32	1.30	2.26	2.10
Nominal output P_n [kW]	0.47	0.94	1.23	0.80	1.50
Connection technology	iTec				
Reference flange aluminum 230 mm x 130 mm x 10 mm					

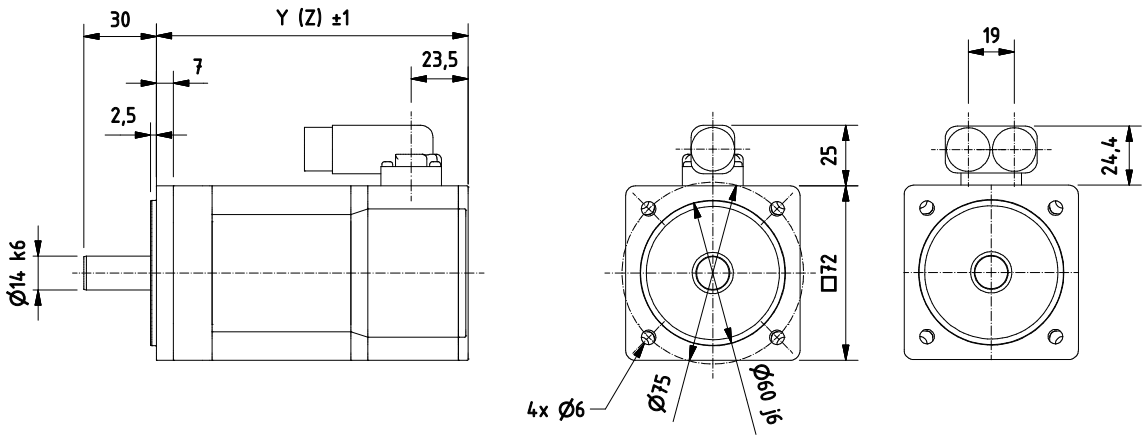
Electrical data	AM80xx and AM85xx			
	32H	33E	33F	33J
Standstill torque M_0 [Nm]	2.37	3.20	3.22	3.22
Standstill current I_{orms} [A]	5.10	2.10	4.10	6.80
Maximum mechanical speed N_{max} [min^{-1}]	10000			
Maximum nominal mains voltage U_N [V_{AC}]	480			
Peak current I_{0max} [A]	29.50	12.90	24.60	39.80
Peak torque M_{0max} [Nm]	11.65	17.19	17.71	17.22
Torque constant K_{Trms} [Nm/A]	0.46	1.52	0.78	0.47
Voltage constant K_{Erms} [mVmin]	32	106	57	34
Winding resistance Ph-Ph R_{20} [Ω]	2.20	13.20	3.90	1.35
Winding inductance Ph-Ph, measured at 1 kHz L [mH]	7.70	46.30	14	4.90
Power supply U_N= 115 V				
Nominal speed Nn [min-1]	2700	600	1400	2700
Nominal torque M_n [Nm]	2.29	3.15	3.10	3.05
Nominal output P_n [kW]	0.65	0.20	0.45	0.86
Power supply U_N= 230 V				
Nominal speed Nn [min-1]	6000	1500	3000	5900
Nominal torque M_n [Nm]	2.10	3.10	3	2.70
Nominal output P_n [kW]	1.32	0.49	1	1.67
Power supply U_N= 400 V				
Nominal speed Nn [min-1]	9000	3000	6000	9000
Nominal torque M_n [Nm]	1.85	2.98	2.70	2.30
Nominal output P_n [kW]	1.74	0.94	1.70	2.17
Nominal current I_n [A]	4.10	2	3.60	5.10
Power supply U_N= 480 V				
Nominal speed Nn [min-1]	9000	3400	6800	9000
Nominal torque M_n [Nm]	1.85	2.95	2.60	2.30
Nominal output P_n [kW]	1.74	1.05	1.85	2.17
Connection technology	iTec			
Reference flange aluminum 230 mm x 130 mm x 10 mm				

Mechanical data	AM8031	AM8531	AM8032	AM8532	AM8033	AM8533
Rotor moment of inertia J [kgcm^2]	0.47	1.67	0.85	2.05	1.23	2.44
Rotor moment of inertia with brake J [kgcm^2]	0.55	1.76	0.93	2.15	1.46	---
Number of poles	8					
Static friction torque M_R [Nm]	0.01	0.01	0.02	0.02	0.02	0.02
Thermal time constant t_{TH} [min]	24	24	26	26	28	28
Weight [kg]	1.80	2.40	2.40	3	3	3.60
Weight with brake [kg]	2.20	2.60	2.80	3.30	3.60	---
Flange	**IEC standard/DIN 42955**					
Fit	j6					
Tolerance class	N					
Protection rating						
Standard housing version	IP65					
Standard shaft feedthrough version	IP54					
Shaft feedthrough with shaft sealing ring	IP65					
Paint finishes						
Properties	acrylic powder-coated					
Color	Anthracite gray; RAL 7016					

Optional holding brake [+]	AM8031	AM8531	AM8032	AM8532	AM8033
Holding torque at 120 °C M_{BR} [Nm]	2				3.5
Supply voltage U_{BR} [V_{DC}]	24; +6 % to -10 %				
Electrical power P_{BR} [W]	11				12
Current I_{on} [A]	0.33				0.36
Release delay time t_{BRH} [ms]	25				35
Application delay time t_{BRL} [ms]	8				15

Dimensional drawing

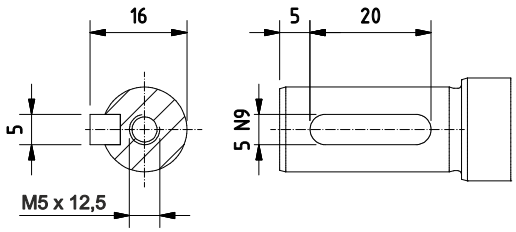
- All figures in millimeters



Motor	Y	Z-brake
AM8031	129	168
AM8032	154	194
AM8033	180	229
AM8531	168	194
AM8532	194	229
AM8533	229	--

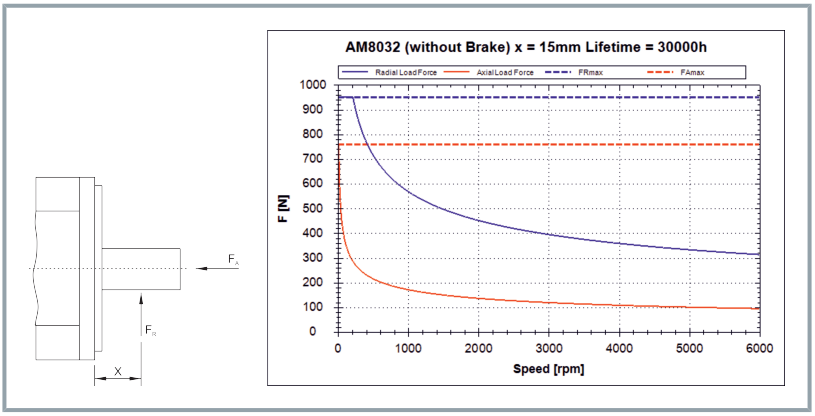
Feather key [+]

- Center bore according to DIN 332-D



Force diagram

Beckhoff load/force calculator
The software represents axial and radial forces on the motor shaft. The following example shows an AM8032 without a holding brake.
• Download load/force calculator



AM804x & AM854x

Electrical data	AM80xx and AM85xx				
	41D	41E	41H	42E	42F
Standstill torque M_0 [Nm]	2.37	2.45	2.40	4.10	4.10
Standstill current I_{orms} [A]	1.65	3	5.25	2.15	4.10
Maximum mechanical speed N_{max} [min^{-1}]	9000				
Maximum nominal mains voltage U_N [V_{AC}]	480				
Peak current I_{0max} [A]	8.30	13.60	23.30	11.80	22.70
Peak torque M_{0max} [Nm]	9.67	9.14	9.14	18.94	18.90
Torque constant K_{Trms} [Nm/A]	1.43	0.81	0.45	1.90	1
Voltage constant K_{Erms} [mVmin]	101.0	56.00	33	128	68
Winding resistance Ph-Ph R_{20} [Ω]	22.50	6.10	2.21	14.20	3.70
Winding inductance Ph-Ph (measured at 1 kHz) L [mH]	83.10	25.00	8.50	64.90	17.40
Power supply U_N= 115 V					
Nominal speed Nn [min-1]	600	1300	2600	500	1200
Nominal torque M_n [Nm]	2.35	2.43	2.34	4.05	3.97
Nominal output P_n [kW]	0.15	0.33	0.64	0.21	0.50
Power supply U_N= 230 V					
Nominal speed Nn [min-1]	1500	3000	6000	1200	2800
Nominal torque M_n [Nm]	2.33	2.39	2.27	3.97	3.90
Nominal output P_n [kW]	0.37	0.75	1.43	0.50	1.14
Power supply U_N= 400 V					
Nominal speed Nn [min-1]	3000	6000	8000	2500	5000
Nominal torque M_n [Nm]	2.30	2.31	2.10	3.90	3.70
Nominal output P_n [kW]	0.72	1.45	1.76	1.02	1.94
Nominal current I_n [A]	1.60	2.90	4.60	2.05	3.80
Power supply U_N= 480 V					
Nominal speed Nn [min-1]	3400	6800	8000	2800	5700
Nominal torque M_n [Nm]	2.29	2.27	2.10	3.87	3.64
Nominal output P_n [kW]	0.82	1.62	1.76	1.13	2.17
Connection technology	M23-Speedtec				
Reference flange aluminum 230 mm x 130 mm x 10 mm					

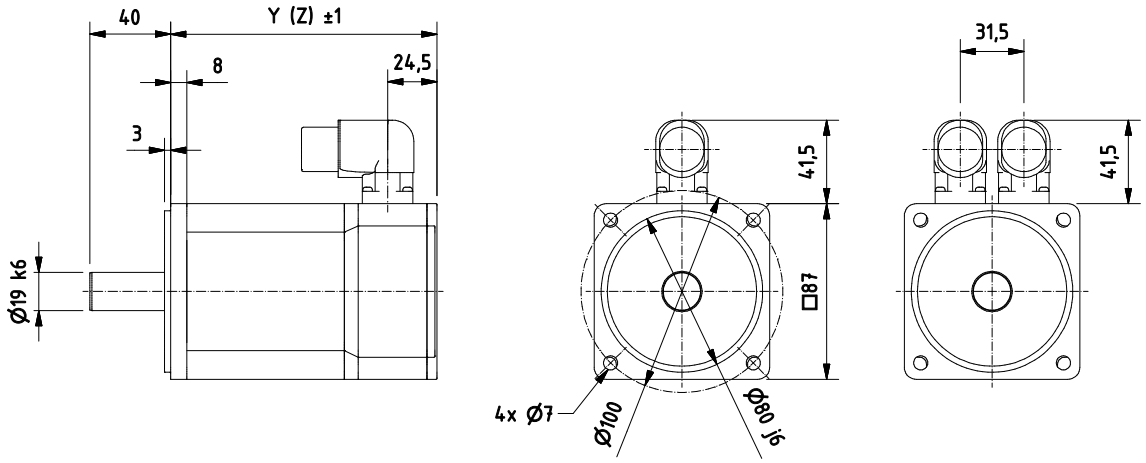
Electrical data	AM80xx and AM85xx					
	J42	43E	43H	43K	44F	J44
Standstill torque M_0 [Nm]	4.10	5.65	5.65	5.60	7.10	7.10
Standstill current I_{orms} [A]	6.90	2.90	5.40	9.30	3.60	6.80
Maximum mechanical speed N_{max} [min^{-1}]	9000					
Maximum nominal mains voltage U_N [V_{AC}]	480					
Peak current I_{0max} [A]	37.60	16.60	31	53.90	21.80	40
Peak torque M_{0max} [Nm]	18.89	29.33	29.25	29.25	39.10	37.80
Torque constant K_{Trms} [Nm/A]	0.59	1.94	1.04	0.60	1.97	1.04
Voltage constant K_{Erms} [mVmin]	41	131	73	42	137	70
Winding resistance Ph-Ph R_{20} [Ω]	1.40	8.90	2.40	0.83	7.2	1.5
Winding inductance Ph-Ph (measured at 1 kHz) L [mH]	6.30	42	11.70	3.90	22.4	8
Power supply U_N= 115 V						
Nominal speed Nn [min-1]	2200	500	1200	2200	500	1200
Nominal torque M_n [Nm]	3.90	5.58	5.50	5.27	7.00	6.8
Nominal output P_n [kW]	0.90	0.29	0.69	1.21	0.367	0.855
Power supply U_N= 230 V						
Nominal speed Nn [min-1]	5000	1200	2700	5000	1200	2700
Nominal torque M_n [Nm]	3.70	5.50	5.30	4.90	6.8	6.4
Nominal output P_n [kW]	1.94	0.70	1.50	2.57	0.855	1.81
Power supply U_N= 400 V						
Nominal speed Nn [min-1]	8000	2500	5000	8000	2500	5000
Nominal torque M_n [Nm]	3.10	5.30	4.90	4.10	6.50	6.00
Nominal output P_n [kW]	2.60	1.39	2.57	3.43	1.70	3.14
Nominal current I_n [A]	5.20	2.70	4.75	6.90	3.30	5.90
Power supply U_N= 480 V						
Nominal speed Nn [min-1]	8000	2800	5700	8000	2800	5700
Nominal torque M_n [Nm]	3.10	5.30	4.88	4.10	6.40	5.70
Nominal output P_n [kW]	2.60	1.55	2.91	3.43	1.88	3.40
Connection technology	M23-Speedtec					
Reference flange aluminum 230 mm x 130 mm x 10 mm						

Mechanical data	AM8041	AM8541	AM8042	AM8542	AM8043	AM8543	AM8044
Rotor moment of inertia J [kgcm^2]	1.09	4.62	1.98	5.51	2.87	6.41	3.76
Rotor moment of inertia with brake J [kgcm^2]	1.73	5.27	2.63	6.17	3.52	7.06	4.42
Number of poles	8						
Static friction torque M_R [Nm]	0.02	0.02	0.02	0.02	0.03	0.03	0.04
Thermal time constant t_{TH} [min]	30	30	33	33	36	36	38
Weight [kg]	2.80	3.80	3.80	4.90	4.90	6	5.90
Weight with brake [kg]	3.60	4.50	4.70	5.70	5.80	6.90	6.80
Flange	**IEC standard/DIN 42955**						
Fit	j6						
Tolerance class	N						
Protection rating							
Standard housing version	IP65						
Standard shaft feedthrough version	IP54						
Shaft feedthrough with shaft sealing ring	IP65						
Paint finishes							
Properties	acrylic powder-coated						
Color	Anthracite gray; RAL 7016						

Optional holding brake [+]	AM804x	AM854x
Holding torque at 120 °C M_{BR} [Nm]	9	9
Supply voltage U_{BR} [V_{DC}]	24; +6 % to -10 %	
Electrical power P_{BR} [W]	18	18
Current I_{on} [A]	0.54	0.54
Release delay time t_{BRH} [ms]	40	40
Application delay time t_{BRL} [ms]	20	20

Dimensional drawing

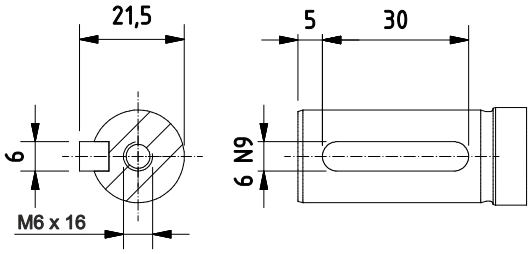
- All figures in millimeters



Motor	Y	Z - brake
AM8041	132	179.5
AM8042	162	209.5
AM8043	192	239.5
AM8044	222	269.5
AM8541	179.5	209.5
AM8542	209.5	239.5
AM8543	239.5	269.5

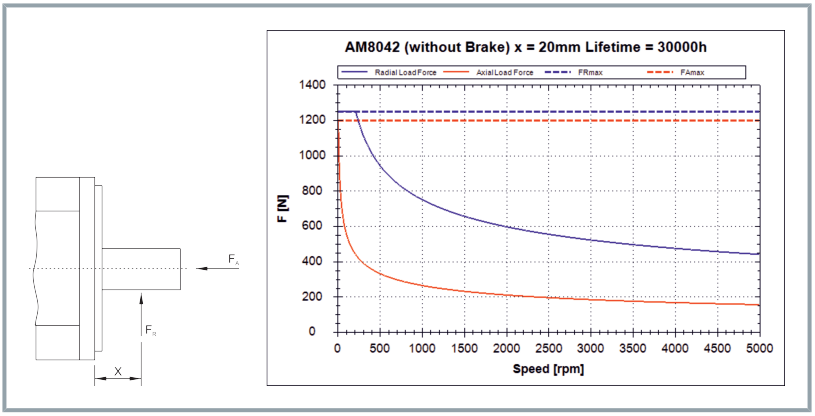
Feather key [+]

- Center bore according to DIN 332-D



Force diagram

Beckhoff load/force calculator
The software represents axial and radial forces on the motor shaft. The following example shows an AM8042 without a holding brake.
• Download load/force calculator



AM805x & AM855x

Electrical data	AM80xx and AM85xx					
	51E	51G	51K	52F	J52	52L
Standstill torque M_0 [Nm]	4.80	4.90	4.90	8.20	8.20	8.20
Standstill current I_{orms} [A]	2.70	4.75	8.50	3.30	6.30	11.30
Maximum mechanical speed N_{max} [min^{-1}]	9000					
Maximum nominal mains voltage U_N [V_{AC}]	480					
Peak current I_{0max} [A]	12.10	20.90	37.70	17.90	33.60	60.70
Peak torque M_{0max} [Nm]	17.74	17.76	17.78	35.32	35.34	35.34
Torque constant K_{Trms} [Nm/A]	1.77	1.03	0.57	2.48	1.30	0.72
Voltage constant K_{Erms} [mVmin]	125	73	40	167	89	49
Winding resistance Ph-Ph R_{20} [Ω]	11.40	3.60	1.14	8.50	2.30	0.70
Winding inductance Ph-Ph (measured at 1 kHz) L [mH]	42.70	14.40	4.60	36.90	10.50	3.20
Power supply U_N= 115 V						
Nominal speed Nn [min-1]	500	1200	2300	400	1000	1900
Nominal torque M_n [Nm]	4.80	4.80	4.65	8	7.90	7.55
Nominal output P_n [kW]	0.25	0.60	1.12	0.34	0.83	1.50
Power supply U_N= 230 V						
Nominal speed Nn [min-1]	1400	2700	5000	1100	2200	4000
Nominal torque M_n [Nm]	4.70	4.65	4.40	7.80	7.50	6.90
Nominal output P_n [kW]	0.69	1.31	2.30	0.90	1.73	2.89
Power supply U_N= 400 V						
Nominal speed Nn [min-1]	2500	5000	8000	2000	4000	7300
Nominal torque M_n [Nm]	4.60	4.40	3.90	7.50	6.90	5.40
Nominal output P_n [kW]	1.20	2.30	3.27	1.57	2.89	4.13
Nominal current I_n [A]	2.55	4.20	6.70	3.10	5.20	7.50
Power supply U_N= 480 V						
Nominal speed Nn [min-1]	3000	5700	8000	2300	4500	7500
Nominal torque M_n [Nm]	4.50	4.30	3.90	7.40	6.70	5.40
Nominal output P_n [kW]	1.41	2.57	3.27	1.78	3.16	4.24
Connection technology	M23-Speedtec					
Reference flange aluminum 305 mm x 305 mm x 10 mm						

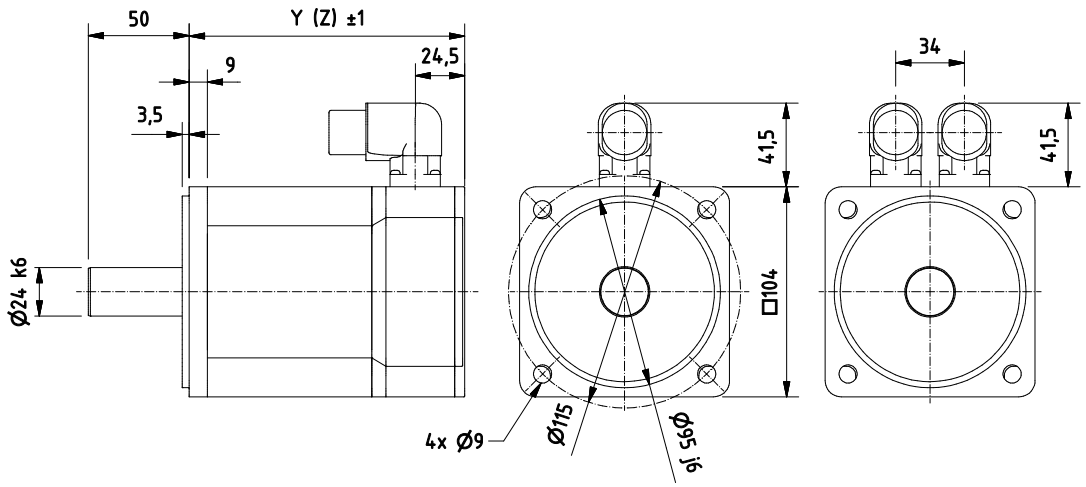
Electrical data	AM80xx and AM85xx				
	53G	53K	53N	J54	54M
Standstill torque M_0 [Nm]	11.40	11.40	11.40	13.80	13.80
Standstill current I_{orms} [A]	4.70	8.80	15.60	6.50	12.40
Maximum mechanical speed N_{max} [min^{-1}]	9000				
Maximum nominal mains voltage U_N [V_{AC}]	480				
Peak current I_{0max} [A]	26.90	50.90	89.70	39.90	75.30
Peak torque M_{0max} [Nm]	53.13	53.13	53.14	70.70	70.70
Torque constant K_{Trms} [Nm/A]	2.42	1.29	0.73	2.12	1.11
Voltage constant K_{Erms} [mVmin]	168	89	51	151	80
Winding resistance Ph-Ph R_{20} [Ω]	5.10	1.40	0.45	3.44	0.86
Winding inductance Ph-Ph (measured at 1 kHz) L [mH]	23.70	6.60	2.10	16	4
Power supply U_N= 115 V					
Nominal speed Nn [min-1]	400	1000	1900	500	1100
Nominal torque M_n [Nm]	11.10	10.80	10	12.80	11.70
Nominal output P_n [kW]	0.46	1.13	2	0.67	1.35
Power supply U_N= 230 V					
Nominal speed Nn [min-1]	1100	2200	4000	1000	2500
Nominal torque M_n [Nm]	10.70	9.90	8.35	11.80	9.60
Nominal output P_n [kW]	1.23	2.28	3.50	1.24	2.51
Power supply U_N= 400 V					
Nominal speed Nn [min-1]	2000	4000	7000	2000	4000
Nominal torque M_n [Nm]	10	8.35	2.70	10.30	7.30
Nominal output P_n [kW]	2.09	3.50	1.98	2.16	3.06
Nominal current I_n [A]	4.10	6.30	4.50	4.80	7.30
Power supply U_N= 480 V					
Nominal speed Nn [min-1]	2400	4500	7000	2200	4600
Nominal torque M_n [Nm]	9.70	7.85	2.70	10	6.40
Nominal output P_n [kW]	2.44	3.70	1.98	2.30	3.08
Connection technology	M23-Speedtec				
Reference flange aluminum 305 mm x 305 mm x 10 mm					

Mechanical data	AM8051	AM8551	AM8052	AM8552	AM8053	AM8553	AM8054
Rotor moment of inertia J [kgcm^2]	2.25	8.75	4.09	10.60	5.93	12.40	7.90
Rotor moment of inertia with brake J [kgcm^2]	2.91	9.41	4.75	11.30	7.04	13.51	9.66
Number of poles	8						
Static friction torque M_R [Nm]	0.02	0.02	0.03	0.03	0.05	0.05	0.06
Thermal time constant t_{TH} [min]	31	31	38	38	40	40	42
Weight [kg]	4.10	5.50	5.70	7.10	7.40	8.80	9.10
Weight with brake [kg]	4.90	6.30	6.60	7.90	8.40	9.80	10.10
Flange	**IEC standard/DIN 42955**						
Fit	j6						
Tolerance class	N						
Protection rating							
Standard housing version	IP65						
Standard shaft feedthrough version	IP54						
Shaft feedthrough with shaft sealing ring	IP65						
Paint finishes							
Properties	acrylic powder-coated						
Color	Anthracite gray; RAL 7016						

Optional holding brake [+]	AM8051	AM8551	AM8052	AM8552	AM8053	AM8054
Holding torque at 120 °C M_{BR} [Nm]	9	9	9	9	13	20
Supply voltage U_{BR} [V_{DC}]	24; +6 % to -10 %					
Electrical power P_{BR} [W]	18	18	18	18	17	24
Current I_{on} [A]	0.54	0.54	0.54	0.54	0.51	1
Release delay time t_{BRH} [ms]	40	40	40	40	45	110
Application delay time t_{BRL} [ms]	20	20	20	20	20	40

Dimensional drawing

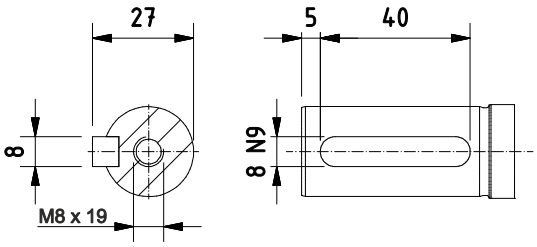
- All figures in millimeters



Motor	Y	Z-brake
AM8051	136.5	183.5
AM8052	169.5	216.5
AM8053	202.5	251.5
AM8054	251.5	284.5
AM8551	183.5	216.5
AM8552	216.5	251.5
AM8553	251.5	284.5

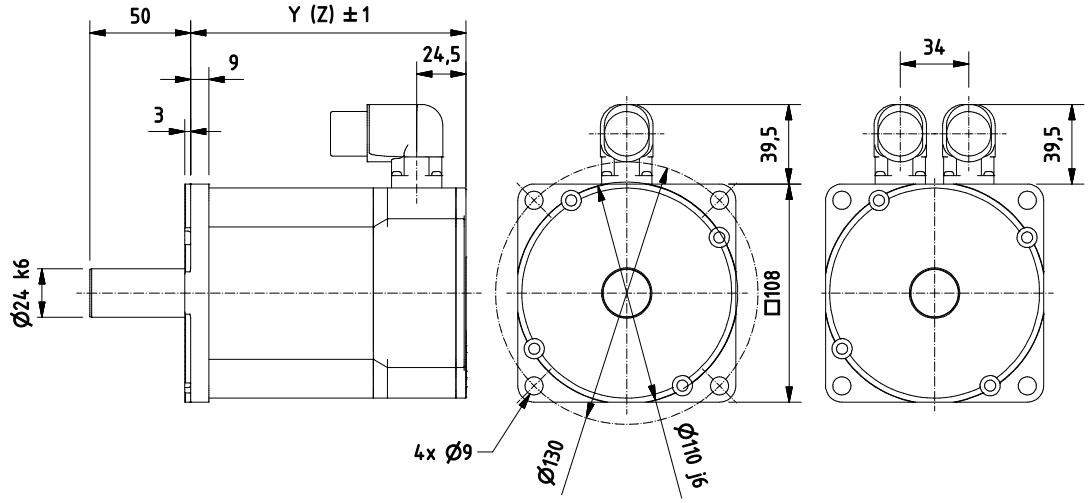
Feather key [+]

- Center bore according to DIN 332-D



Dimensional drawing

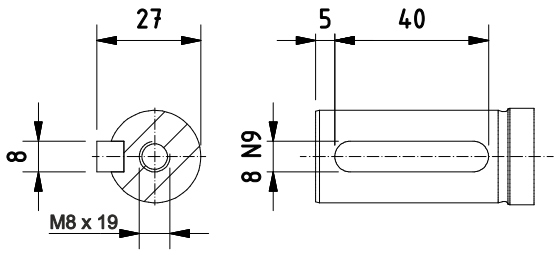
- Flange of the AM8x5x-9000 compatible with AM3x5x
- All figures in millimeters



Motor	Y	Z–brake
AM8051-xxxx-9000	136.5	183.5
AM8052-xxxx-9000	169.5	216.5
AM8053-xxxx-9000	202.5	251.5
AM8054-xxxx-9000	251.5	284.5
AM8551-xxxx-9000	183.5	216.5
AM8552-xxxx-9000	216.5	251.5
AM8553-xxxx-9000	251.5	284.5

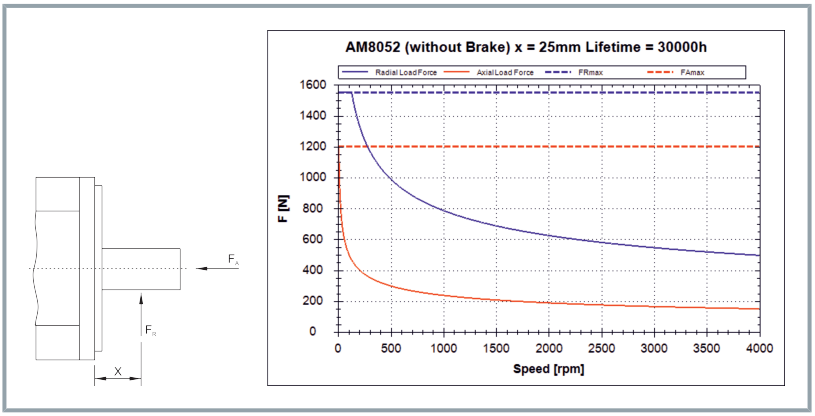
Feather key [+]

- Center bore according to DIN 332-D



Force diagram

Beckhoff load/force calculator
The software represents axial and radial forces on the motor shaft. The following example shows an AM8052 without a holding brake.
• Download load/force calculator



AM805x & AM855x with fan cover [+]

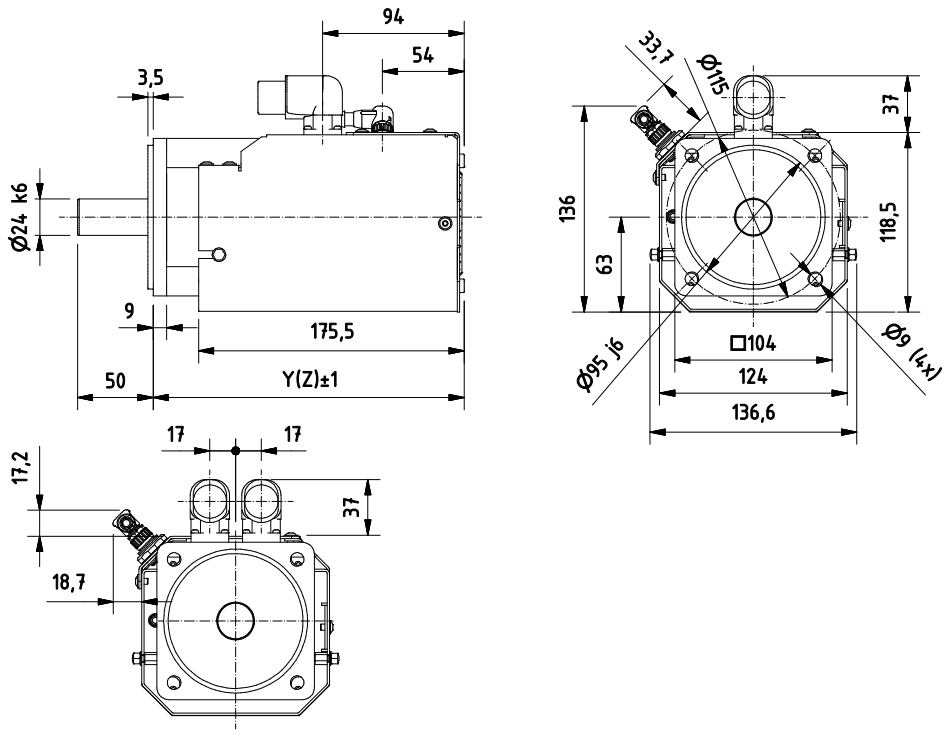
Electrical data	AM80xx and AM85xx					
	51F	J51	51L	52G	52K	52N
Standstill torque M_0 [Nm]	6.20	6.30	6.30	10.70	10.70	9.60
Standstill current I_{orms} [A]	3.50	5.80	11.10	4.30	8.50	13.60
Maximum mechanical speed N_{max} [min^{-1}]	9000					
Maximum nominal mains voltage U_N [V_{AC}]	480					
Peak current I_{0max} [A]	12.10	20.90	37.70	17.90	33.60	60.70
Peak torque M_{0max} [Nm]	17.74	17.76	17.78	35.32	35.34	35.34
Torque constant K_{Trms} [Nm/A]	1.77	1.09	0.57	2.48	1.30	0.72
Voltage constant K_{Erms} [mVmin]	125	73	40	167	89	49
Winding resistance Ph-Ph R_{20} [Ω]	11.40	3.60	1.14	8.50	2.30	0.70
Winding inductance Ph-Ph (measured at 1 kHz) L [mH]	42.70	14.40	4.60	36.90	10.50	3.20
Power supply U_N= 115 V						
Nominal speed Nn [min-1]	500	1100	2300	400	900	1900
Nominal torque M_n [Nm]	6.10	6.20	5.90	10.50	10.30	9.50
Nominal output P_n [kW]	0.32	0.71	1.42	0.44	0.97	1.90
Power supply U_N= 230 V						
Nominal speed Nn [min-1]	1400	2600	4900	1000	2100	4000
Nominal torque M_n [Nm]	6.00	5.80	5.30	10.30	9.60	8.10
Nominal output P_n [kW]	0.88	1.58	2.72	1.08	2.11	3.40
Power supply U_N= 400 V						
Nominal speed Nn [min-1]	2500	4750	8000	2000	4000	6000
Nominal torque M_n [Nm]	5.80	5.50	3.60	9.70	9.10	5.40
Nominal output P_n [kW]	1.52	2.74	3.02	2.03	3.77	4.08
Nominal current I_n [A]	3.20	5.20	6.30	4.00	7.10	9.00
Power supply U_N= 480 V						
Nominal speed Nn [min-1]	3000	5000	8000	2300	4500	7000
Nominal torque M_n [Nm]	5.70	5.40	3.60	9.20	8.80	4.50
Nominal output P_n [kW]	1.79	3.22	3.01	2.21	4.14	4.24
Connection technology	M23-Speedtec					
Reference flange aluminum 305 mm x 305 mm x 10 mm						

Electrical data	AM80xx and AM85xx				
	J53	53L	53P	54K	54N
Standstill torque M_0 [Nm]	15.40	15.40	13.30	17.20	17.20
Standstill current I_{orms} [A]	6.40	11.90	18.60	8.10	15.5
Maximum mechanical speed N_{max} [min^{-1}]	9000				
Maximum nominal mains voltage U_N [V_{AC}]	480				
Peak current I_{0max} [A]	26.90	50.90	89.70	39.90	75.30
Peak torque M_{0max} [Nm]	53.13	53.13	53.14	70.70	70.70
Torque constant K_{Trms} [Nm/A]	2.42	1.29	0.73	2.12	1.11
Voltage constant K_{Erms} [mVmin]	168	89	51	151	80
Winding resistance Ph-Ph R_{20} [Ω]	5.10	1.40	0.45	3.44	0.86
Winding inductance Ph-Ph (measured at 1 kHz) L [mH]	23.70	6.60	2.10	16	4
Power supply U_N= 115 V					
Nominal speed Nn [min-1]	400	1000	1900	500	1100
Nominal torque M_n [Nm]	15.30	15.10	12.30	16.80	15.50
Nominal output P_n [kW]	0.65	1.58	2.45	0.88	1.79
Power supply U_N= 230 V					
Nominal speed Nn [min-1]	1000	2200	4000	1000	2500
Nominal torque M_n [Nm]	15.10	14.80	8.40	16.40	13.30
Nominal output P_n [kW]	1.58	3.40	3.52	1.72	3.48
Power supply U_N= 400 V					
Nominal speed Nn [min-1]	2000	4000	5000	2000	4000
Nominal torque M_n [Nm]	14.90	12.90	7.10	15.5	10.95
Nominal output P_n [kW]	3.12	5.41	3.72	3.25	4.59
Nominal current I_n [A]	6.10	10	6	7.30	9.90
Power supply U_N= 480 V					
Nominal speed Nn [min-1]	2300	4500	7000	2200	4600
Nominal torque M_n [Nm]	14.70	12.10	4.10	15.30	10
Nominal output P_n [kW]	3.54	5.84	3	3.52	4.82
Connection technology	M23-Speedtec				
Reference flange aluminum 305 mm x 305 mm x 10 mm					

Mechanical data	AM8051	AM8551	AM8052	AM8552	AM8053	AM8553	AM8054
Rotor moment of inertia J [kgcm^2]	2.24	8.75	4.08	10.60	5.92	12.50	7.90
Rotor moment of inertia with brake J [kgcm^2]	2.90	9.41	4.74	11.20	7.04	13.51	9.66
Number of poles	8						
Static friction torque M_R [Nm]	0.02	0.02	0.03	0.03	0.05	0.05	0.06
Thermal time constant t_{TH} [min]	31	31	38	38	40	40	42
Weight [kg]	5.20	6.60	6.80	8.10	8.50	9.90	10.20
Weight with brake [kg]	6	7.40	7.70	9	9.50	10.90	11.20
Flange	**IEC standard/DIN 42955**						
Fit	j6						
Tolerance class	N						
Protection rating							
Standard housing version	Standard: IP20 Optional: IP65						
Standard shaft feedthrough version	IP54						
Shaft feedthrough with shaft sealing ring	IP65						
Paint finishes							
Properties	acrylic powder-coated						
Color	Anthracite gray; RAL 7016						
Optional holding brake [+]	**AM8051**	**AM8551**	**AM8052**	**AM8552**	**AM8053**	**AM8553**	**AM8054**
Holding torque at 120 °C M_{BR} [Nm]	9	9	9	9	13	13	20
Supply voltage U_{BR} [V_{DC}]	24; +6 % to -10 %						
Electrical power P_{BR} [W]	18	18	18	18	17	17	24
Current I_{on} [A]	0.54	0.54	0.54	0.54	0.51	0.51	1.0
Release delay time t_{BRH} [ms]	40	40	40	40	45	45	110
Application delay time t_{BRL} [ms]	20	20	20	20	20	20	40

Dimensional drawing

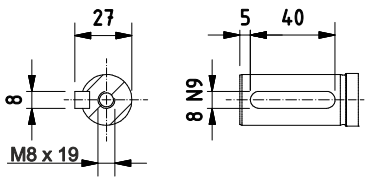
- Illustration with fan cover [+]
- All figures in millimeters



Motor	Y/Z
AM8051-xxxA-xxx0 and AM8051-xxxC-xxx0	205.5
AM8051-xxxB-xxx0 and AM8051-xxxD-xxx0	252.5
AM8052-xxxA-xxx0 and AM8052-xxxC-xxx0	238.5
AM8052-xxxB-xxx0 and AM8052-xxxD-xxx0	285.5
AM8053-xxxA-xxx0 and AM8053-xxxC-xxx0	271.5
AM8053-xxxB-xxx0 and AM8053-xxxD-xxx0	320.5
AM8054-xxxA-xxx0 and AM8054-xxxC-xxx0	320.5
AM8054-xxxB-xxx0 and AM8054-xxxD-xxx0	369
AM8551-xxxA-xxx0 and AM8551-xxxC-xxx0	252.5
AM8551-xxxB-xxx0 and AM8551-xxxD-xxx0	285.5
AM8552-xxxA-xxx0 and AM8552-xxxC-xxx0	285.5
AM8552-xxxB-xxx0 and AM8552-xxxD-xxx0	320.5
AM8553-xxxA-xxx0 and AM8553-xxxC-xxx0	320.5
AM8553-xxxB-xxx0 and AM8553-xxxD-xxx0	353.5

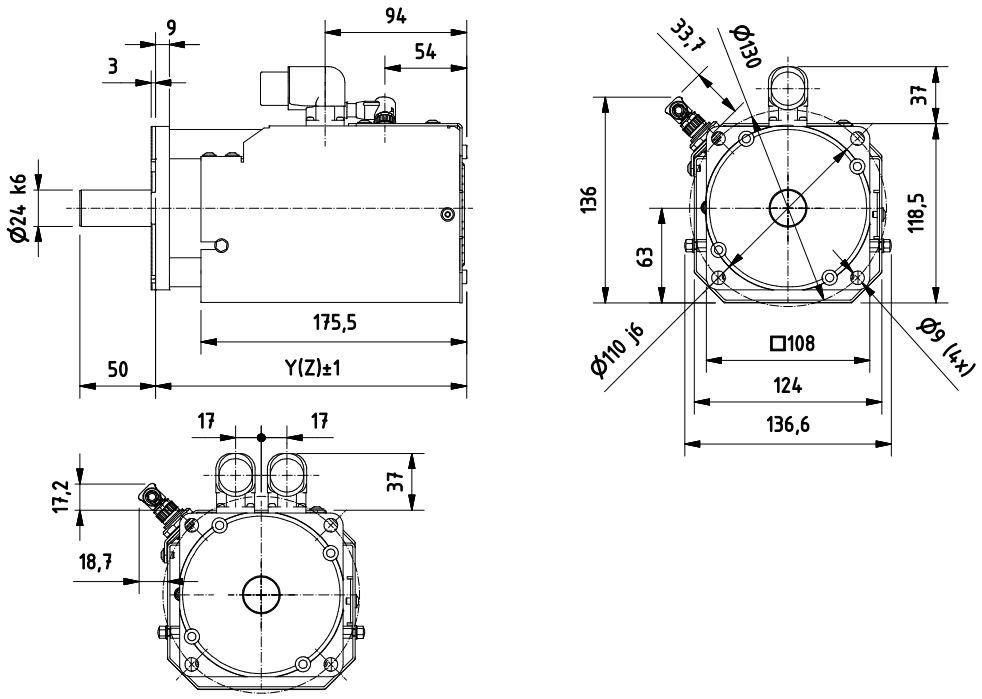
Feather key [+]

- Center bore according to DIN 332-D



Dimensional drawing

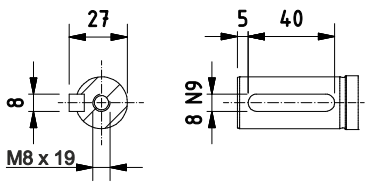
- Flange of the AM8x5x-9000 compatible with AM3x5x
- Illustration with fan cover [+]
- All figures in millimeters



Motor	Y/Z
AM8051-xxxA-9000 and AM8051-xxxC-9000	205.5
AM8051-xxxB-9000 and AM8051-xxxD-9000	252.5
AM8052-xxxA-9000 and AM8052-xxxC-9000	238.5
AM8052-xxxB-9000 and AM8052-xxxD-9000	285.5
AM8053-xxxA-9000 and AM8053-xxxC-9000	271.5
AM8053-xxxB-9000 and AM8053-xxxD-9000	320.5
AM8054-xxxA-9000 and AM8054-xxxC-9000	320.5
AM8054-xxxB-9000 and AM8054-xxxD-9000	369
AM8551-xxxA-9000 and AM8551-xxxC-9000	252.5
AM8551-xxxB-9000 and AM8551-xxxD-9000	285.5
AM8552-xxxA-9000 and AM8552-xxxC-9000	285.5
AM8552-xxxB-9000 and AM8552-xxxD-9000	320.5
AM8553-xxxA-9000 and AM8553-xxxC-9000	320.5
AM8553-xxxB-9000 and AM8553-xxxD-9000	353.5

Feather key [+]

- Center bore according to DIN 332-D



AM806x & AM856x

Electrical data	AM80xx and AM85xx					
	61G	J61	61M	J62	62L	62P
Standstill torque M_0 [Nm]	12.80	12.80	12.80	21.10	21.10	21.10
Standstill current I_{orms} [A]	4	7.80	13.10	6.20	12.40	20.30
Maximum mechanical speed N_{max} [min^{-1}]	6000					
Maximum nominal mains voltage U_N [V_{AC}]	480					
Peak current I_{0max} [A]	13.90	27	45.20	27	54	88.40
Peak torque M_{0max} [Nm]	37.10	37.08	37.07	74.16	74.16	74.17
Torque constant K_{Trms} [Nm/A]	3.20	1.64	0.97	3.40	1.70	1.03
Voltage constant K_{Erms} [mVmin]	223	115	69	234	117	71
Winding resistance Ph-Ph R_{20} [Ω]	7	1.85	0.66	2.95	0.75	0.28
Winding inductance Ph-Ph (measured at 1 kHz) L [mH]	53.70	14.20	5.10	27	6.80	2.50
Power supply U_N= 115 V						
Nominal speed Nn [min-1]	300	750	1300	300	800	1400
Nominal torque M_n [Nm]	12.60	12.40	12.20	20.70	20.10	18.60
Nominal output P_n [kW]	0.40	0.97	1.66	0.65	1.68	2.73
Power supply U_N= 230 V						
Nominal speed Nn [min-1]	800	1600	2800	800	1700	2800
Nominal torque M_n [Nm]	12.40	12.00	11.10	20.10	18.20	15.30
Nominal output P_n [kW]	1.04	2.01	3.25	1.68	3.24	4.49
Power supply U_N= 400 V						
Nominal speed Nn [min-1]	1500	3000	5000	1500	3000	5000
Nominal torque M_n [Nm]	12.10	11.00	9.00	18.50	15.20	6.50
Nominal output P_n [kW]	1.90	3.46	4.71	2.91	4.78	3.40
Nominal current I_n [A]	3.90	6.80	9.10	5.60	9.40	6.60
Power supply U_N= 480 V						
Nominal speed Nn [min-1]	1700	3400	5000	1700	3400	5000
Nominal torque M_n [Nm]	12	10.40	9	18.20	13.90	6.50
Nominal output P_n [kW]	2.14	3.70	4.71	3.24	4.95	3.40
Connection technology	M23-Speedtec					
Reference flange aluminum 380 mm x 170 mm x 10 mm						

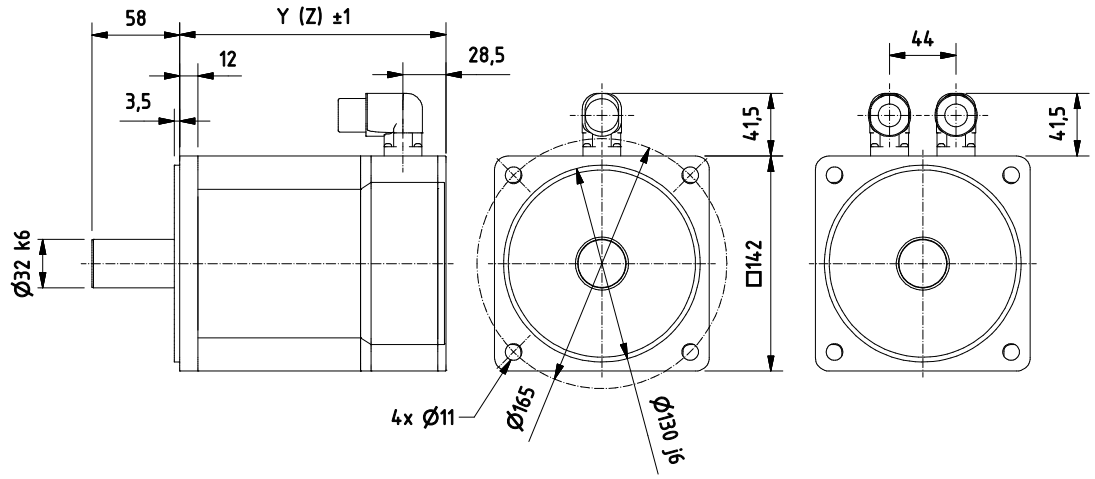
Electrical data	AM80xx and AM85xx					
	63K	63N	63R	64L	64Q	64T
Standstill torque M_0 [Nm]	29	29	29	35.30	35.30	35
Standstill current I_{orms} [A]	8.70	17.20	29.50	10.80	22.20	35
Maximum mechanical speed N_{max} [min^{-1}]	6000					
Maximum nominal mains voltage U_N [V_{AC}]	480					
Peak current I_{0max} [A]	38.90	80.90	130	52.50	108	177
Peak torque M_{0max} [Nm]	110.90	110.80	111.10	148	148	148
Torque constant K_{Trms} [Nm/A]	3.33	1.68	0.98	3.27	1.59	1
Voltage constant K_{Erms} [mVmin]	240	116	72	230	112	69
Winding resistance Ph-Ph R_{20} [Ω]	1.95	0.45	0.18	1.47	0.35	0.135
Winding inductance Ph-Ph (measured at 1 kHz) L [mH]	18	4.20	1.60	14.40	3.40	1.26
Power supply U_N= 115 V						
Nominal speed Nn [min-1]	300	800	1400	400	800	1000
Nominal torque M_n [Nm]	28.20	25.90	22.80	33.3	31	30
Nominal output P_n [kW]	0.89	2.17	3.34	1.39	2.60	3.14
Power supply U_N= 230 V						
Nominal speed Nn [min-1]	800	1700	3000	800	1700	2000
Nominal torque M_n [Nm]	25.90	21.10	13.20	31.40	27.60	24
Nominal output P_n [kW]	2.17	3.76	4.15	2.63	4.91	5.03
Power supply U_N= 400 V						
Nominal speed Nn [min-1]	1500	3000	4000	1500	3000	4000
Nominal torque M_n [Nm]	22.30	13.20	6.10	28	20.90	10
Nominal output P_n [kW]	3.50	4.15	2.56	4.40	6.57	4.19
Nominal current I_n [A]	6.70	8.10	6	8.50	14.10	11
Power supply U_N= 480 V						
Nominal speed Nn [min-1]	1700	3400	4000	1700	3200	4000
Nominal torque M_n [Nm]	21.10	11	6.10	27.20	19.90	10
Nominal output P_n [kW]	3.76	3.92	2.56	4.84	6.67	4.19
Connection technology	M23-Speedtec		M40-Speedtec	M23-Speedtec	M40-Speedtec	
Reference flange aluminum 380 mm x 170 mm x 10 mm						

Mechanical data	AM8061	AM8561	AM8062	AM8562	AM8063	AM8563	AM8064
Rotor moment of inertia J [kgcm²]	11.10	48.20	20	57.10	29	66.10	38.60
Rotor moment of inertia with brake J [kgcm²]	13.40	50.60	22.30	59.60	34.90	72	43.90
Number of poles	10						
Static friction torque M_R [Nm]	0.04	0.04	0.10	0.10	0.15	0.15	0.20
Thermal time constant t_{TH} [min]	35	35	38	38	41	41	44
Weight [kg]	9.80	13.20	13.60	17.00	17.40	20.90	21.20
Weight with brake [kg]	11.60	14.80	15.40	18.70	20.10	23.6	26.6
Flange	**IEC standard/DIN 42955**						
Fit	j6						
Tolerance class	N						
Protection rating							
Standard housing version	IP65						
Standard shaft feedthrough version	IP54						
Shaft feedthrough with shaft sealing ring	IP65						
Paint finishes							
Properties	acrylic powder-coated						
Color	Anthracite gray; RAL 7016						

Optional holding brake [+]	AM8061	AM8561	AM8062	AM8562	AM8063
Holding torque at 120 °C M_{BR} [Nm]	20	20	20	20	36
Supply voltage U_{BR} [V_{DC}]	24; +6 % to -10 %				
Electrical power P_{BR} [W]	24	24	24	24	26
Current I_{on} [A]	0.72	0.72	0.72	0.72	0.79
Release delay time t_{BRH} [ms]	60	60	60	60	120
Application delay time t_{BRL} [ms]	40	40	40	40	45

Dimensional drawing

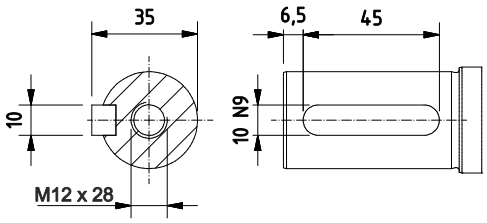
- All figures in millimeters



Motor	Y	Z - brake
AM8061	176	228
AM8062	216	268
AM8063	256	315
AM8064	296	355
AM8561	228	268
AM8562	268	315
AM8563	315	355

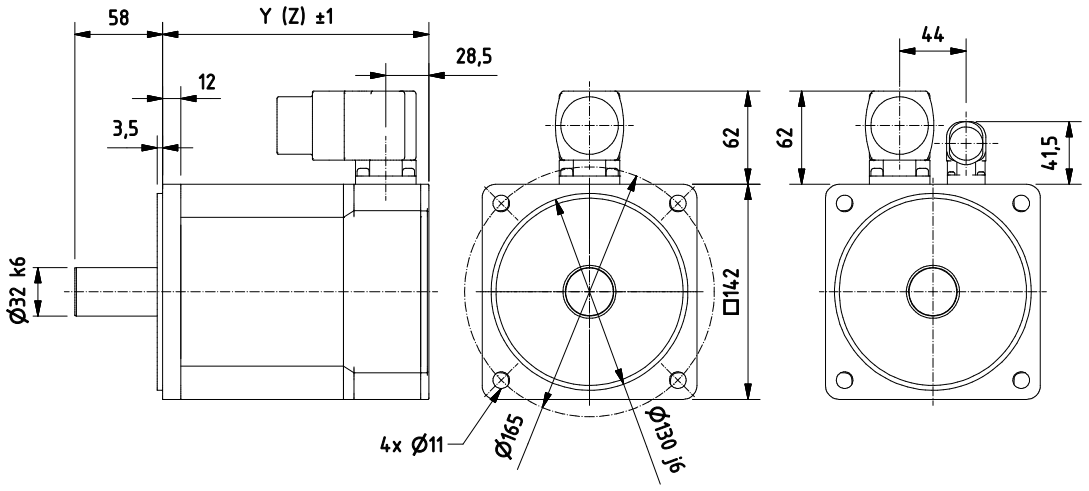
Feather key [+]

- Center bore according to DIN 332-D



Dimensional drawing

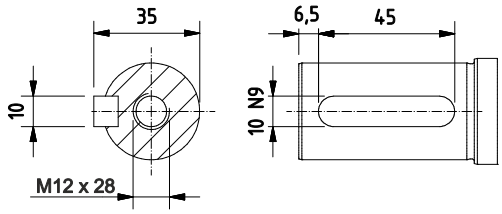
- Illustration with R-winding
- All figures in millimeters



Motor	Y	Z – brake
AM8063-xRxx	256	315
AM8563-xRxx	315	355

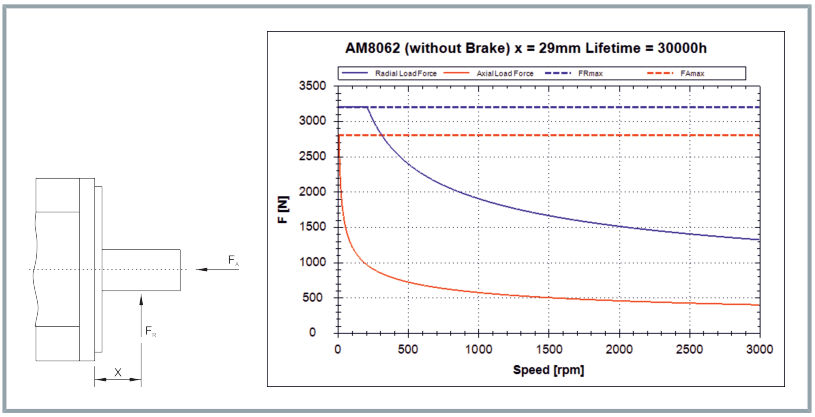
Feather key [+]

- Center bore according to DIN 332-D



Force diagram

Beckhoff load/force calculator
The software represents axial and radial forces on the motor shaft. The following example shows an AM8062 without a holding brake.
• Download load/force calculator



AM806x & AM856x with fan cover [+]

Electrical data	AM80xx and AM85xx					
	61H	61L	61N	62K	62N	62R
Standstill torque M_0 [Nm]	17.10	17.10	15.50	29.90	29.90	28.10
Standstill current I_{orms} [A]	5.20	10.10	15.80	8.70	17.40	28.70
Maximum mechanical speed N_{max} [min^{-1}]	6000					
Maximum nominal mains voltage U_N [V_{AC}]	480					
Peak current I_{0max} [A]	13.90	27	45.20	27	54	88.40
Peak torque M_{0max} [Nm]	37.10	37.08	37.07	74.16	74.16	74.17
Torque constant K_{Trms} [Nm/A]	3.20	1.64	0.97	3.40	1.70	1.03
Voltage constant K_{Erms} [mVmin]	223	115	69	234	117	71
Winding resistance Ph-Ph R_{20} [Ω]	7	1.85	0.66	2.95	0.75	0.28
Winding inductance Ph-Ph (measured at 1 kHz) L [mH]	53.70	14.20	5.10	27	6.80	2.50
Power supply U_N= 115 V						
Nominal speed Nn [min-1]	300	750	1300	300	800	1400
Nominal torque M_n [Nm]	17	16.80	14.40	29	28	24
Nominal output P_n [kW]	0.50	1	2	0.90	2.30	3.50
Power supply U_N= 230 V						
Nominal speed Nn [min-1]	700	1600	2800	750	1700	2800
Nominal torque M_n [Nm]	16.80	16	12.70	28.20	25.80	19.90
Nominal output P_n [kW]	1.40	2.70	3.70	2.40	4.60	5.80
Power supply U_N= 400 V						
Nominal speed Nn [min-1]	1400	3000	5000	1400	3000	5000
Nominal torque M_n [Nm]	16.10	14.70	10.70	26.40	22.20	13.40
Nominal output P_n [kW]	2.36	4.60	5.60	3.87	7	7
Nominal current I_n [A]	4.90	9	11.20	7.70	13.40	13.60
Power supply U_N= 480 V						
Nominal speed Nn [min-1]	1500	3400	5500	1600	3400	5500
Nominal torque M_n [Nm]	16.00	14.30	10.70	25.80	21.10	11.80
Nominal output P_n [kW]	2.50	5.10	6.20	4.30	7.50	6.80
Connection technology	M23-Speedtec					M40-speedtec
Reference flange aluminum 380 mm x 170 mm x 10 mm						

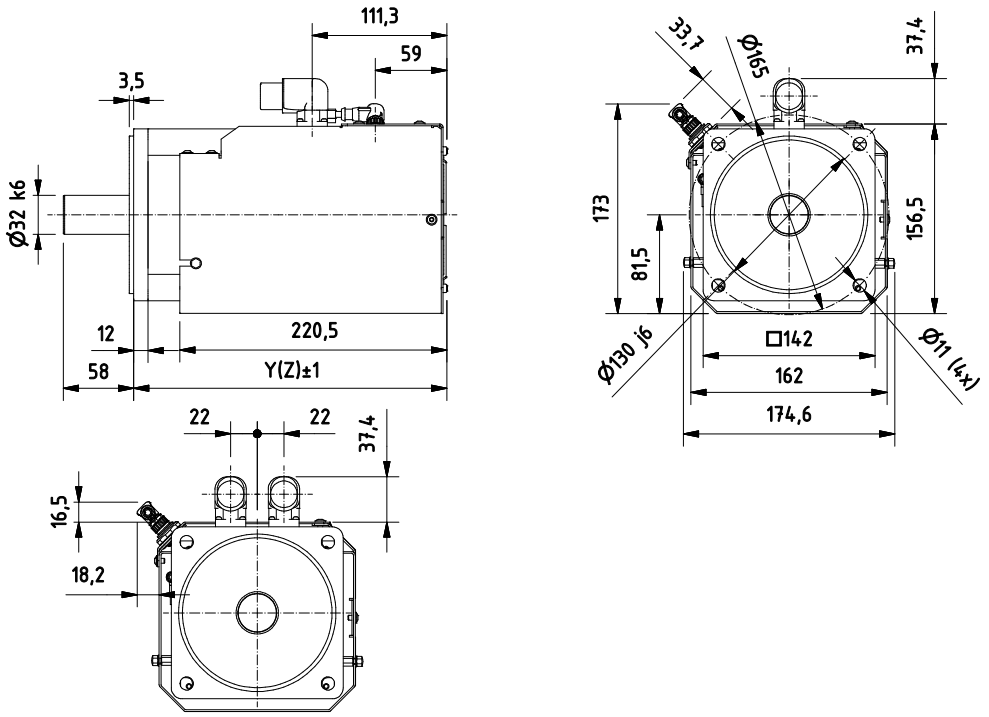
Electrical data	AM80xx and AM85xx					
	63L	63Q	63T	64N	64R	64T
Standstill torque M_0 [Nm]	41.40	41.40	40.10	49.70	49.60	47
Standstill current I_{orms} [A]	11.60	24	39.80	15.20	30.80	47
Maximum mechanical speed N_{max} [min^{-1}]	6000					
Maximum nominal mains voltage U_N [V_{AC}]	480					
Peak current I_{0max} [A]	38.90	80.90	130	52.50	108	177
Peak torque M_{0max} [Nm]	110.90	110.90	110.80	148	148	148
Torque constant K_{Trms} [Nm/A]	3.33	1.68	0.98	3.27	1.61	1
Voltage constant K_{Erms} [mVmin]	240	116	72	230	112	69
Winding resistance Ph-Ph R_{20} [Ω]	1.95	0.45	0.18	1.47	0.35	0.135
Winding inductance Ph-Ph (measured at 1 kHz) L [mH]	18	4.20	1.60	14.40	3.40	1.26
Power supply U_N= 115 V						
Nominal speed Nn [min-1]	300	800	1400	400	800	1000
Nominal torque M_n [Nm]	40.40	38.20	32.50	48	46.80	41.50
Nominal output P_n [kW]	1.30	3.20	4.80	2.01	3.93	4.35
Power supply U_N= 230 V						
Nominal speed Nn [min-1]	750	1700	2900	800	1700	2000
Nominal torque M_n [Nm]	38.50	32.30	23.70	46.80	42.50	36
Nominal output P_n [kW]	3	5.80	7.20	3.92	7.57	7.54
Power supply U_N= 400 V						
Nominal speed Nn [min-1]	1400	3000	4000	1500	3000	4000
Nominal torque M_n [Nm]	33.90	25.50	15.10	43	36.50	25
Nominal output P_n [kW]	4.97	8	6.30	6.75	11.50	10.50
Nominal current I_n [A]	9.50	15.60	16.20	13.10	24.40	27.50
Power supply U_N= 480 V						
Nominal speed Nn [min-1]	1600	3400	5000	1700	3200	4000
Nominal torque M_n [Nm]	33	23.20	6.80	42.50	35	25
Nominal output P_n [kW]	5.50	8.30	3.60	7.57	11.70	10.50
Connection technology	M23-Speedtec	M40-speedtec		M23-Speedtec	M40-speedtec	terminal box
Reference flange aluminum 380 mm x 170 mm x 10 mm						

Mechanical data	AM8061	AM8561	AM8062	AM8562	AM8063	AM8563	AM8064
Rotor moment of inertia J [kgcm^2]	11.10	48.20	20	57.10	29	66.10	38.60
Rotor moment of inertia with brake J [kgcm^2]	13.40	50.60	22.30	59.60	34.90	72	46.80
Number of poles	10						
Static friction torque M_R [Nm]	0.04	0.04	0.10	0.10	0.15	0.15	0.20
Thermal time constant t_{TH} [min]	35	35	38	38	41	41	44
Weight without brake [kg]	11.90	15.40	15.80	19.20	19.60	23.10	23.40
Weight with brake [kg]	13.50	17.00	17.60	20.90	22.30	25.8	26.6
Flange							
Fit	j6						
Tolerance class	N						
Standard housing version	Standard: IP20 Optional: IP65						
Standard shaft feedthrough version	IP54						
Shaft feedthrough with shaft sealing ring	IP65						
Properties	acrylic powder-coated						
Color	Anthracite gray; RAL 7016						

Optional holding brake [+]	AM8061	AM8561	AM8062	AM8562	AM8063
Holding torque at 120 °C M_{BR} [Nm]	20	20	20	20	36
Supply voltage U_{BR} [V_{DC}]	24; +6 % to -10 %				
Electrical power P_{BR} [W]	24	24	24	24	26
Current I_{on} [A]	0.72	0.72	0.72	0.72	0.79
Release delay time t_{BRH} [ms]	60	60	60	60	120
Application delay time t_{BRL} [ms]	40	40	40	40	45

Dimensional drawing

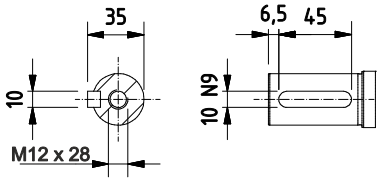
- Illustration with fan cover [+]
- All figures in millimeters



Motor	Y/Z
AM8061-xxxA-xxx0 and AM8061-xxxC-xxx0	259
AM8061-xxxB-xxx0 and AM8061-xxxD-xxx0	311
AM8561-xxxA-xxx0 and AM8561-xxxC-xxx0	311
AM8561-xxxB-xxx0 and AM8561-xxxD-xxx0	351

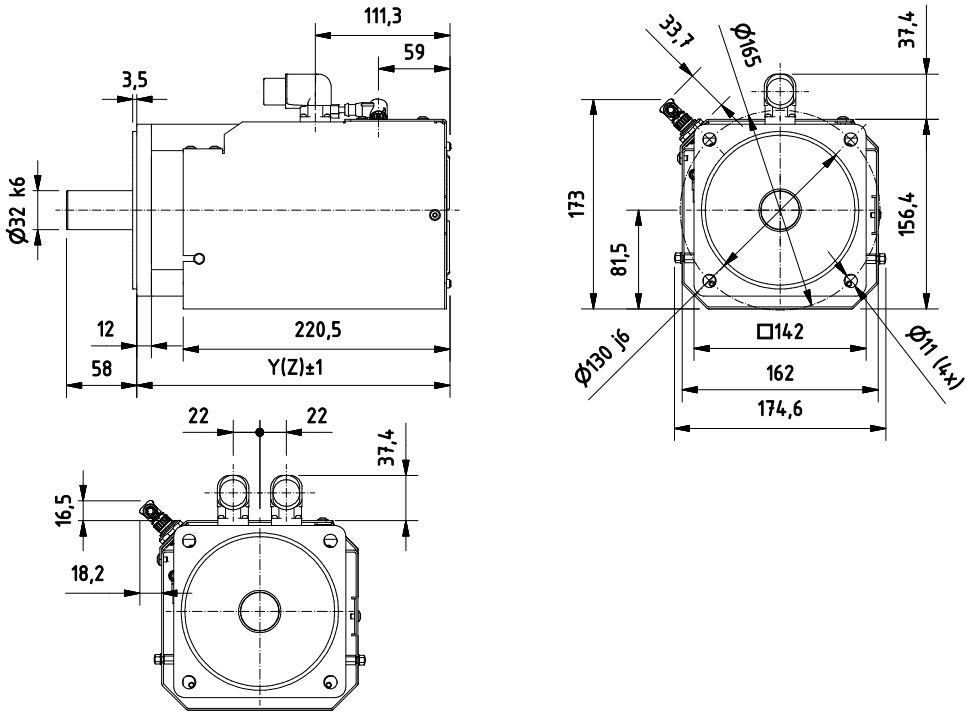
Feather key [+]

- Center bore according to DIN 332-D



Dimensional drawing

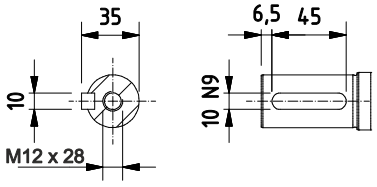
- Illustration with fan cover [+] and K-N-L winding
- All figures in millimeters



Motor	Y/Z
AM8062-xKxA-xxx0 and AM8062-xKxC-xxx0	299
AM8062-xKxB-xxx0 and AM8062-xKxD-xxx0	351
AM8062-xNxA-xxx0 and AM8062-xNxC-xxx0	299
AM8062-xNxB-xxx0 and AM8062-xNxD-xxx0	351
AM8063-xLxA-xxx0 and AM8063-xLxC-xxx0	339
AM8063-xLxB-xxx0 and AM8063-xLxD-xxx0	398
AM8064-xNxA-xxx0 and AM8064-xNxC-xxx0	398
AM8562-xKxA-xxx0 and AM8562-xKxC-xxx0	351
AM8562-xNxA-xxx0 and AM8562-xNxC-xxx0	351
AM8562-xKxB-xxx0 and AM8562-xKxD-xxx0	398
AM8562-xNxB-xxx0 and AM8562-xNxD-xxx0	398
AM8563-xLxA-xxx0 and AM8563-xLxC-xxx0	398

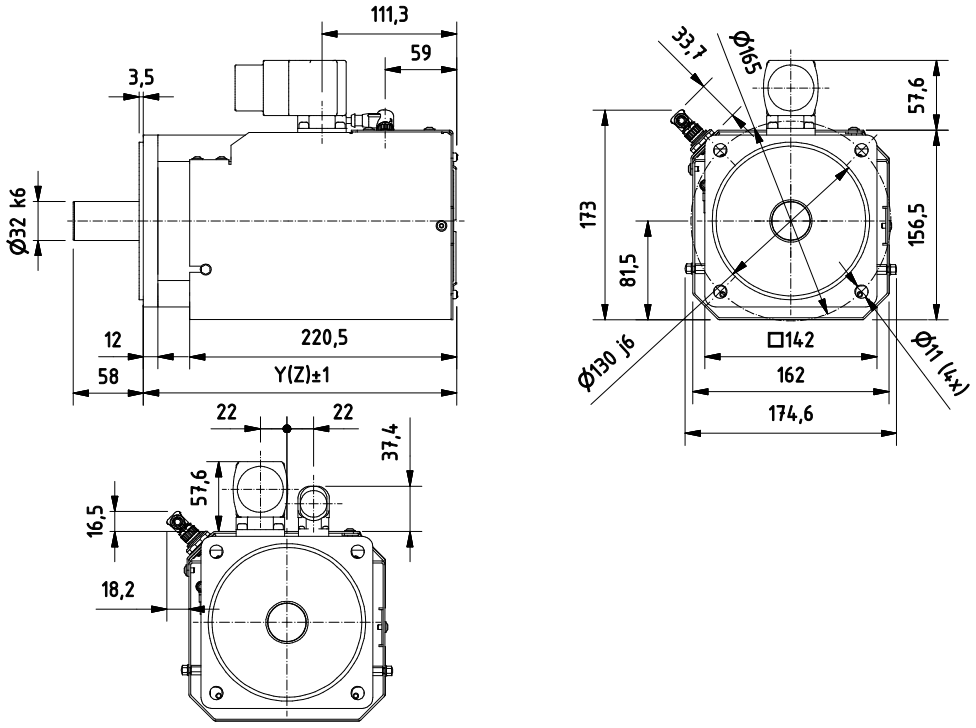
Feather key [+]

- Center bore according to DIN 332-D



Dimensional drawing

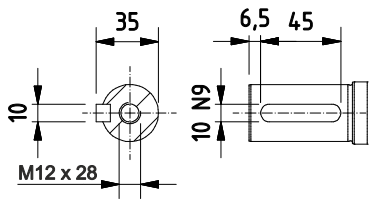
- Illustration with fan cover [+] and R-Q-T winding
- All figures in millimeters



Motor	Y/Z
AM8062-xRxA-xxx0 and AM8062-xRxC-xxx0	299
AM8062-xRxB-xxx0 and AM8062-xRxD-xxx0	351
AM8063-xQxA-xxx0 and AM8063-xQxC-xxx0	339
AM8063-xQxB-xxx0 and AM8063-xQxD-xxx0	398
AM8063-xTxA-xxx0 and AM8063-xTxC-xxx0	339
AM8063-xTxB-xxx0 and AM8063-xTxD-xxx0	398
AM8064-xQxA-xxx0 and AM8064-xQxC-xxx0	398
AM8064-xTxA-xxx0 and AM8064-xTxC-xxx0	398
AM8562-xRxA-xxx0 and AM8562-xRxC-xxx0	351
AM8562-xRxB-xxx0 and AM8562-xRxD-xxx0	398
AM8563-xQxA-xxx0 AM8563-xQxC-xxx0	398
AM8563-xTxA-xxx0 AM8563-xTxC-xxx0	398

Feather key [+]

- Center bore according to DIN 332-D



AM807x

Electrical data	AM80xx					
	71K	71N	71R	72L	72P	72T
Standstill torque M_0 [Nm]	31.80	31.80	29	54.60	54.60	50
Standstill current I_{orms} [A]	9.60	17.80	28.20	11.10	20.60	39
Maximum mechanical speed N_{max} [min^{-1}]	5000					
Maximum nominal mains voltage U_N [V_{AC}]	480					
Peak current I_{0max} [A]	25.90	49	81.80	36.30	66.10	120
Peak torque M_{0max} [Nm]	80	79.90	78	172.50	172.40	169
Torque constant K_{Trms} [Nm/A]	3.31	1.78	1.02	4.91	2.65	1.33
Voltage constant K_{Erms} [mVmin]	231	122	70	328	180	92
Winding resistance Ph-Ph R_{20} [Ω]	1.60	0.45	0.16	1.22	0.39	0.12
Winding inductance ph-ph measured at 1 kHz L [mH]	23.40	6.50	2.20	21.40	6.45	1.85
Power supply U_N= 115 V						
Nominal speed Nn [min-1]	350	700	1400	200	400	1000
Nominal torque M_n [Nm]	30.60	29.20	28.10	54.50	53.50	41
Nominal output P_n [kW]	1.12	2.14	4.12	1.14	2.24	4.29
Power supply U_N= 230 V						
Nominal speed Nn [min-1]	800	1500	3000	500	1000	2000
Nominal torque M_n [Nm]	29	26.40	22.10	53.10	48.90	28
Nominal output P_n [kW]	2.43	4.15	6.94	2.78	5.12	5.86
Power supply U_N= 400 V						
Nominal speed Nn [min-1]	1500	3000	4000	1000	2000	3000
Nominal torque M_n [Nm]	26.50	19.50	18	48.90	38.20	13
Nominal output P_n [kW]	4.16	6.13	7.54	5.12	8	4.08
Nominal current I_n [A]	7.90	11.60	17.60	10.30	15.30	10.70
Power supply U_N= 480 V						
Nominal speed Nn [min-1]	1700	3300	4500	1100	2200	3300
Nominal torque M_n [Nm]	25.70	18.20	13.40	47.60	35.90	8
Nominal output P_n [kW]	4.58	6.29	6.31	5.48	8.27	2.76
Connection technology	M40-speedtec					
Reference flange steel 375 mm x 601 mm x 10 mm						