EM3G-09

AC SERVO MOTOR

EM3G-09 is a smallest AC brushless servo motor in the standard medium speed and medium inertia series. This model delivers enough high torque with a small frame size. This servo motor is supplied with high resolution absolute 23-bit optical or 17-bit magnetic encoder. Optional 24VDC brake is available.

EM3G servo motor series is designed to provide increased operating speed range without reducing output power. This feature significantly expands the range of possible usage applications and in many cases allows excluding a gearbox, improving reliability and reducing overall cost.

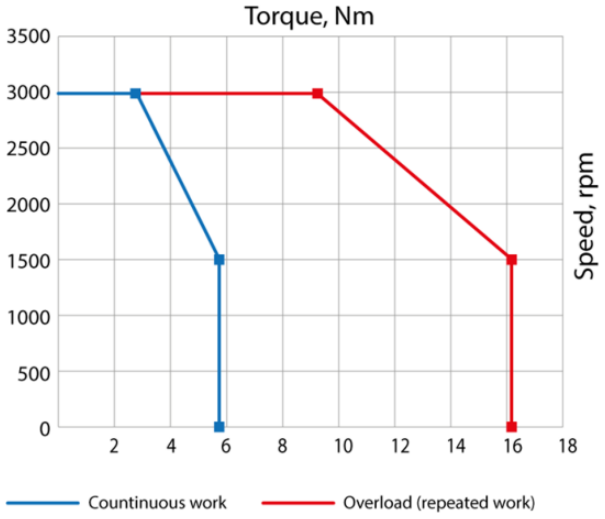
Technical data

Output power	850 W
Rated speed	1500 rpm
Maximum speed	3000 rpm
Rated torque	5.41 Nm
Maximum torque	16.2 Nm
Rated current (200 V models EM3G-09A)	6.8 A
Maximum current (200 V models EM3G-09A)	22.6 A
Rated current (400 V models EM3G-09D)	3.4 A
Maximum current (400 V models EM3G-09D)	10.9 A

Technical data

Motor inertia (motor without brake)	11.9 kg*cm^2
Motor inertia (motor with brake)	12.5 kg*cm^2
Allowable radial shaft load	490 N
Allowable axial shaft load	98 N
Optional brake holding torque	≥20 Nm
Optional brake voltage	24 VDC
Weight (motor without brake)	5.6 kg
Weight (motor with brake)	7.3 kg
Flange	130 mm

Speed-torque curves



Tallinn Science Park Tehnopol,
Akadeemia tee 21/6, 12618, Tallinn, Estonia

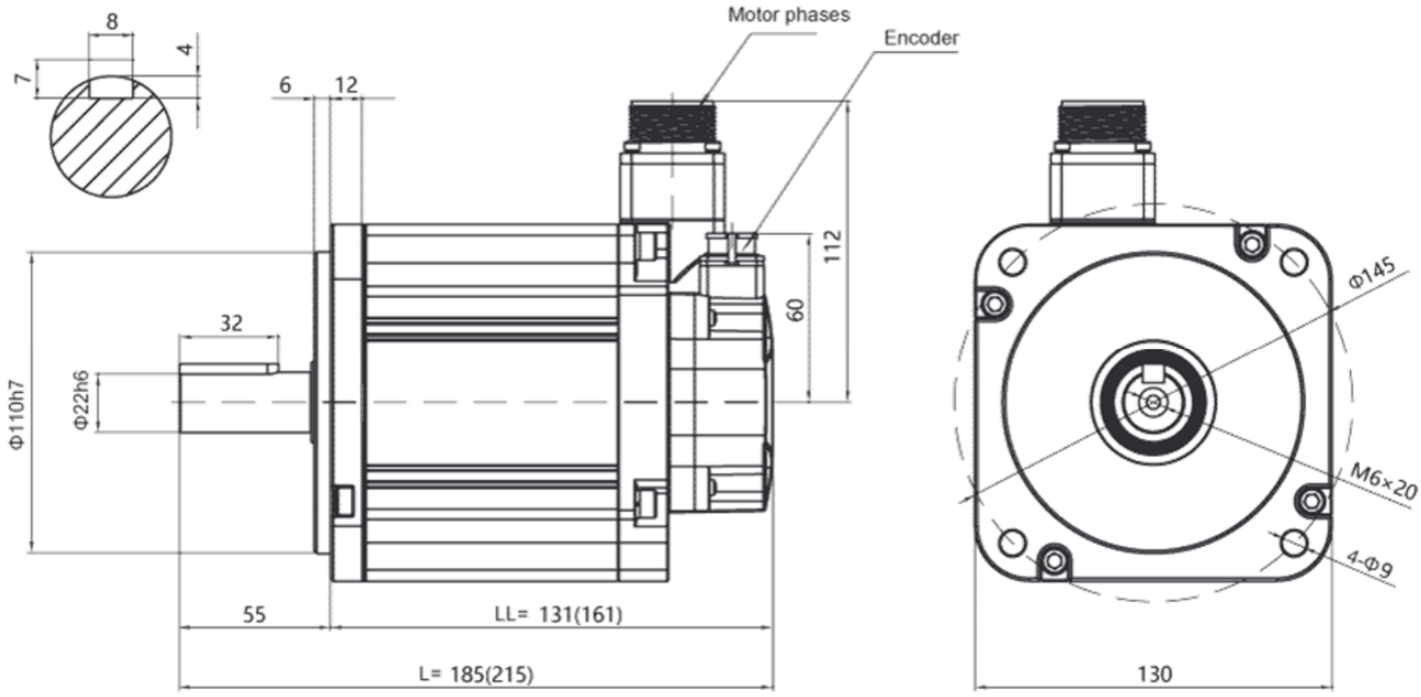
Phone: +372 655 9914
E-mail: sales@smd.ee

SMART MOTOR DEVICES
www.smd.ee

Available motor models

Motor model	Encoder	Brake	Servo drive	Input drive supply voltage
EM3G-09ALA224	absolute optic encoder, resolution 23-bit (8 388 608 ppr)	-	ED3L-10AMA ED3L-10AEA ED3L-10APA	Single phase AC 200V…240V
EM3G-09ALA244		✓		
EM3G-09ATA224	absolute magnetic encoder, resolution 17-bit (131 072 ppr)	-		
EM3G-09ATA244		✓		
EM3G-09DLA224	absolute optic encoder, resolution 23-bit (8 388 608 ppr)	-	ED3L-10DMA ED3L-10DEA ED3L-10DPA	Three phase AC 380V…440V
EM3G-09DLA244		✓		
EM3G-09DTA224	absolute magnetic encoder, resolution 17-bit (131 072 ppr)	-		
EM3G-09DTA244		✓		

Dimensions of AC servo motor EM3G-09



Note: The values in parentheses represent the values of motors with brakes

Tallinn Science Park Tehnopol,
Akadeemia tee 21/6, 12618, Tallinn, Estonia

Phone: +372 655 9914
E-mail: sales@smd.ee

SMART MOTOR DEVICES
www.smd.ee