



1000 W synchronous brushless AC servo motors are used in robot hands, loading and unloading equipment, textile machines. It is a low inertia and high speed model, suitable for applications with a maximum speed of 6000 rpm. Available feedback systems are 17-bit, 20-bit or 23-bit absolute or incremental, optical or magnetic encoder. The motors are. Products can be provided with a 24VDC holding brake option.

The EM3A series boasts a low inertia design for extremely-fast response times. These motors are highlighted with the perfect combination of compact size and high torque performance, ensuring unparalleled dynamic response and precision positioning when used together with servo drivers ED3L series. Versatile and powerful, the these servo drive systems has a wide range of applications, thanks to its top-tier performance, varied power range, and compact form factor. Elevate your technical operations with the EM3A series servo motors and ED3L servo drive system.

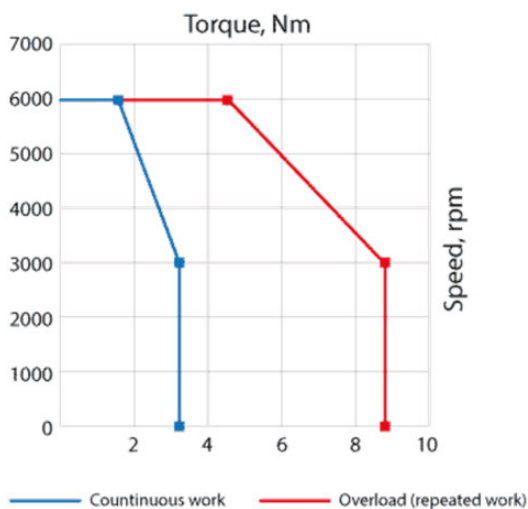
Technical data

Output power	1000 W
Rated speed	3000 rpm
Maximum speed	6000 rpm
Rated torque	3.18 Nm
Maximum torque	9.54 Nm
Rated current	6.9 A
Maximum current	21 A
Motor inertia (motor without brake)	1.14 kg*cm ²

Technical data

Motor inertia (motor with brake)	1.3 kg*cm ²
Allowable radial shaft load	392 N
Allowable axial shaft load	147 N
Optional brake holding torque	≥3.2 Nm
Optional brake voltage	24 VDC
Weight (motor without brake)	3.1 kg
Weight (motor with brake)	3.8 kg
Flange	80 mm

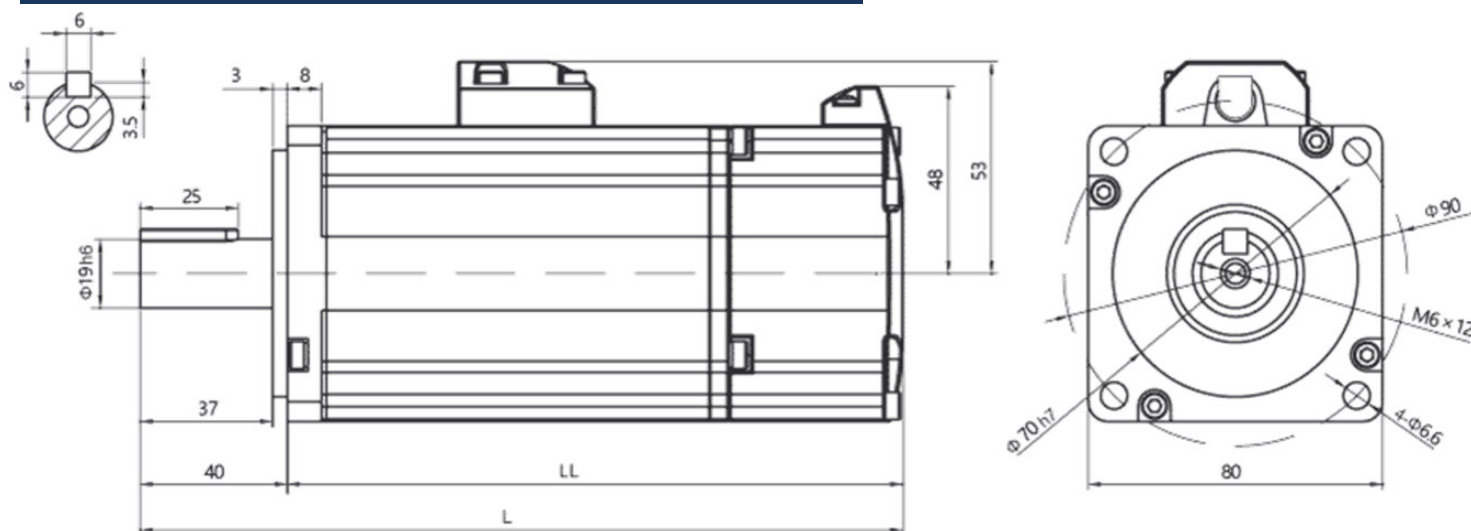
Speed-torque curves



Available motor models

Motor model	Encoder	Brake	Waterproof connector	Servo drive	Input drive supply voltage	Note
EM3A-10ALA221	absolute optic encoder, resolution 23-bit (8 388 608 ppr)	-	-	ED3L-08AMA ED3L-08AEA ED3L-08APA	Single phase AC 200V...240V	
EM3A-10ALA241		✓	-			
EM3A-10ALA222		-	✓			
EM3A-10ALA242		✓	✓			
EM3A-10ATA221	absolute magnetic encoder, resolution 17-bit (131 072 ppr)	-	-			
EM3A-10ATA241		✓	-			
EM3A-10ATA222		-	✓			
EM3A-10ATA242		✓	✓			
EM3A-10AFA221	Incremental optic encoder, resolution 20-bit (1 048 576 ppr)	-	-			
EM3A-10AFA241		✓	-			
EM3A-10AFA222		-	✓			
EM3A-10AFA242		✓	✓			

Dimensions of AC servo motor EM3A-10



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

Motor model	L, mm	LL, mm
EM3A-10ALA22x	165	125
EM3A-10ALA24x	198	158
EM3A-10ATA22x EM3A-10AFA22x	182	142
EM3A-10ATA24x EM3A-10AFA24x	215	175

