



EM3A-20 series is a medium power (2000 W) and compact flange size servomotor. This motor with low rotor inertia and high dynamics is suitable for high speed applications. Motors available with optical 23-bit or magnetic 17-bit absolute encoder. 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.

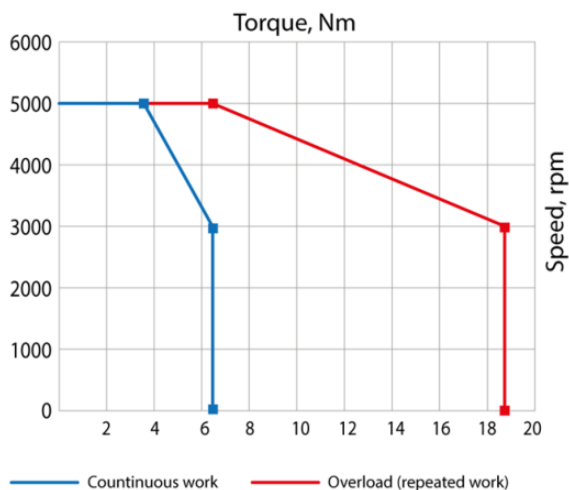
Technical data

Output power	2000 W
Rated speed	3000 rpm
Maximum speed	5000 rpm
Rated torque	6.37 Nm
Maximum torque	19.1 Nm
Rated current (200 V models EM3A-20A)	12.6A
Maximum current(200 V models EM3A-20A)	42 A
Rated current (400 V models EM3A-20D)	6.4 A
Maximum current(400 V models EM3A-20D)	20.5 A

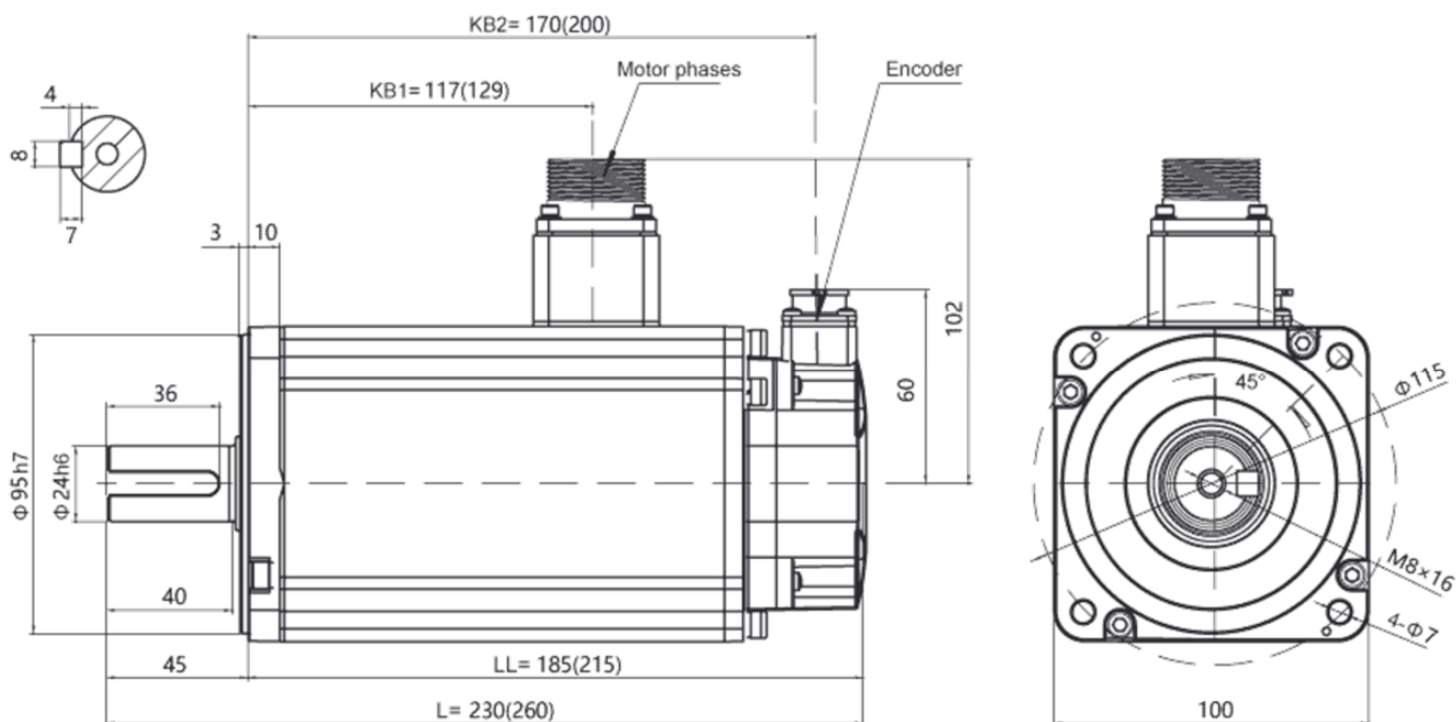
Technical data

Motor inertia (motor without brake)	2.95 kg*cm ²
Motor inertia (motor with brake)	3.72 kg*cm ²
Allowable radial shaft load	686 N
Allowable axial shaft load	196 N
Optional brake holding torque	≥8 Nm
Optional brake voltage	24 VDC
Weight (motor without brake)	6.1 kg
Weight (motor with brake)	7.5 kg
Flange	100 mm

Speed-torque curves



Motor model	Encoder	Brake	Servo drive	Input drive supply voltage
EM3A-20ALB224	absolute optic encoder, resolution 23-bit (8 388 608 ppr)	-	ED3L-20AMA ED3L-20AEA ED3L-20APA	Single phase AC 200V...240V
EM3A-20ALB244		✓		
EM3A-20ATB224	absolute magnetic encoder, resolution 17-bit (131 072 ppr)	-		
EM3A-20ATB244		✓		
EM3A-20DLB224	absolute optic encoder, resolution 23-bit (8 388 608 ppr)	-	ED3L-20DMA ED3L-20DEA ED3L-20DPA	Three phase AC 380V...440V
EM3A-20DLB244		✓		
EM3A-20DLB244	absolute magnetic encoder, resolution 17-bit (131 072 ppr)	-		
EM3A-20DTB244		✓		



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