



EM3A-A5 series are high speed and low inertia synchronous AC servo motors by Estun manufacturer. These small-sized servo motors with a power of 50 W are used in small automatic machines, instruments and machine tools. Motors are available with optical 23-bit or magnetic 17-bit absolute encoder. The motors are suitable for applications with a maximum speed of 6000 rpm. 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, these servo drive systems have 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.

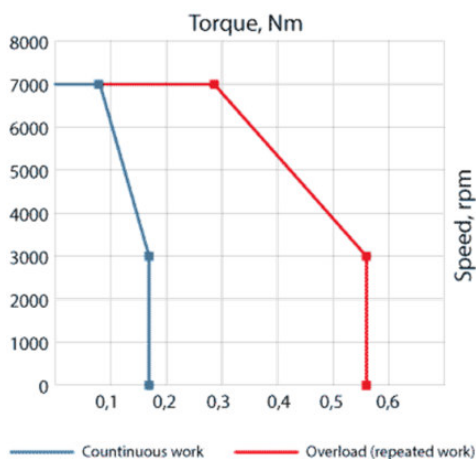
Technical data

| | |
|-------------------------------------|--------------------------|
| Output power | 50 W |
| Rated speed | 3000 rpm |
| Maximum speed | 6000 rpm |
| Rated torque | 0.16 Nm |
| Maximum torque | 0.55 Nm |
| Rated current | 0.9 A |
| Maximum current | 3.3 A |
| Motor inertia (motor without brake) | 0.023 kg*cm ² |

Technical data

| | |
|----------------------------------|--------------------------|
| Motor inertia (motor with brake) | 0.027 kg*cm ² |
| Allowable radial shaft load | 78 N |
| Allowable axial shaft load | 54 N |
| Optional brake holding torque | ≥0.32 Nm |
| Optional brake voltage | 24 VDC |
| Weight (motor without brake) | 0.4 kg |
| Weight (motor with brake) | 0.6 kg |
| Flange | 40 mm |

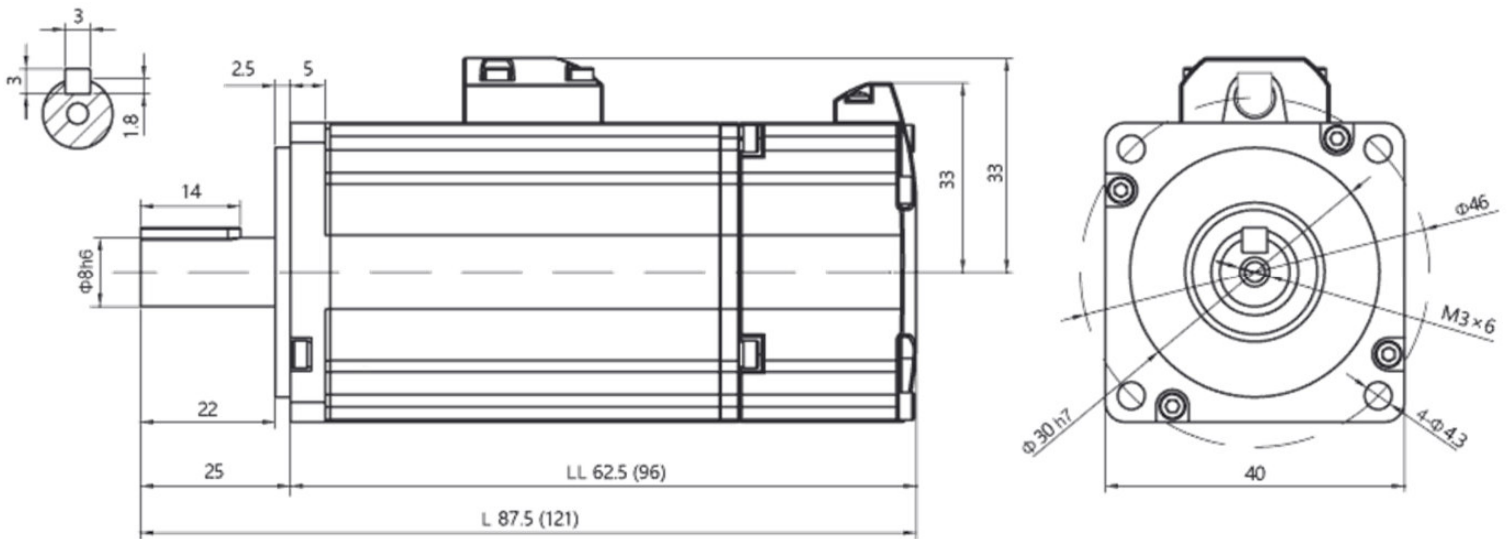
Speed-torque curves



Available motor models

| Motor model | Encoder | Brake | Waterproof connector | Servo drive | Input drive supply voltage |
|---------------|---|-------|----------------------|--|--------------------------------|
| EM3A-A5ALA221 | absolute optic encoder, resolution 23-bit (8 388 608 ppr) | - | - | ED3L-A5AMA ED3L-A5AEA ED3L-A5APA | Single phase AC 200V...240V |
| EM3A-A5ALA241 | | ✓ | - | | |
| EM3A-A5ALA222 | | - | ✓ | | |
| EM3A-A5ALA242 | | ✓ | - | | |
| EM3A-A5ATA221 | absolute magnetic encoder, resolution 17-bit (131 072 ppr) | - | - | | |
| EM3A-A5ATA241 | | ✓ | - | | |
| EM3A-A5ATA222 | | - | ✓ | | |
| EM3A-A5ATA242 | | ✓ | - | | |

Dimensions of AC servo motor EM3A-A5



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

