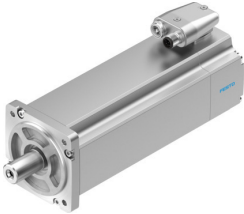


# Servo motor

## EMME-AS-80-MK-HS-AMXB

Part number: 4267595

FESTO



## Data sheet

| Feature                                      | Value                                                                                                |
|----------------------------------------------|------------------------------------------------------------------------------------------------------|
| Ambient temperature                          | -10 °C...40 °C                                                                                       |
| Storage temperature                          | -20 °C...70 °C                                                                                       |
| Relative air humidity                        | 0 - 90 %                                                                                             |
| Conforms to standard                         | IEC 60034                                                                                            |
| Insulation protection class                  | F                                                                                                    |
| Rating class according to EN 60034-1         | S1                                                                                                   |
| Degree of protection                         | IP21                                                                                                 |
| Featherkey shaft design                      | DIN 6885<br>A 6 x 6 x 22                                                                             |
| Electrical connection technology             | Plug                                                                                                 |
| Note on materials                            | RoHS-compliant                                                                                       |
| Corrosion resistance class (CRC)             | 0 - No corrosion stress                                                                              |
| LABS (PWIS) conformity                       | VDMA24364 zone III                                                                                   |
| Certification                                | RCM compliance mark<br>c UL us - Recognized (OL)                                                     |
| CE marking (see declaration of conformity)   | As per EU EMC directive<br>As per EU low voltage directive<br>As per EU RoHS directive               |
| UKCA marking (see declaration of conformity) | To UK instructions for EMC<br>To UK RoHS instructions<br>To UK instructions for electrical equipment |
| Nominal operating voltage DC                 | 565 V                                                                                                |
| DC nominal voltage                           | 565 V                                                                                                |
| Type of winding switch                       | Star inside                                                                                          |
| Number of pole pairs                         | 3                                                                                                    |
| Stall torque                                 | 3.5 Nm                                                                                               |
| Nominal torque                               | 3.2 Nm                                                                                               |
| Peak torque                                  | 14 Nm                                                                                                |
| Nominal rotary speed                         | 3000 rpm                                                                                             |
| Max. rotational speed                        | 4097 rpm                                                                                             |
| Motor nominal power                          | 1000 W                                                                                               |
| Continuous stall current                     | 2.2 A                                                                                                |
| Motor nominal current                        | 2.1 A                                                                                                |

| Feature                                                                | Value                                                          |
|------------------------------------------------------------------------|----------------------------------------------------------------|
| Peak current                                                           | 8.8 A                                                          |
| Motor constants                                                        | 1.524 Nm/A                                                     |
| Voltage constant, phase-to-phase                                       | 97.5 mV/min                                                    |
| Phase-phase winding resistance                                         | 9 Ohm                                                          |
| Winding inductance phase-phase                                         | 22.8 mH                                                        |
| Total output inertia moment                                            | 2.2 kgcm <sup>2</sup>                                          |
| Product weight                                                         | 4350 g                                                         |
| Permissible axial shaft load                                           | 72 N                                                           |
| Permissible radial shaft load                                          | 360 N                                                          |
| Rotor position sensor                                                  | Safety encoder, absolute multi-turn                            |
| Rotor position sensor interface                                        | HIPERFACE®                                                     |
| Rotor position sensor measuring principle                              | Optical                                                        |
| Rotor position encoder, sinusoidal/cosinusoidal periods per revolution | 128                                                            |
| Typical rotor position sensor resolution                               | 15 bit                                                         |
| Rotor position encoder, typical angular accuracy                       | 20 arcmin                                                      |
| Brake holding torque                                                   | 4.5 Nm                                                         |
| Brake DC operating voltage                                             | 24 V                                                           |
| Brake power consumption                                                | 12 W                                                           |
| Brake mass moment of inertia                                           | 0.222 kgcm <sup>2</sup>                                        |
| Switching cycles, holding brake                                        | 5 million idle actuations (without friction work!)             |
| Safety Integrity Level (SIL), subcomponent                             | SIL 2, rotor position sensor<br>SILCL 2, rotor position sensor |
| Performance Level (PL), subcomponent                                   | Category 3, performance level d, rotor position encoder        |
| PFHd, subcomponent                                                     | 1.3 x 10E-8, rotor position sensor                             |
| Duration of use Tm, subcomponent                                       | 20 years, rotor position sensor                                |
| MTTF, subcomponent                                                     | 797 years, holding brake                                       |
| MTTFd, subcomponent                                                    | 874 years, rotor position sensor                               |
| Energy efficiency                                                      | ENEFF (CN) / Class 2                                           |