

# Servo motor EMME-AS-40-M-LV-AMB

Part number: 2082447

**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                                                                                                 |
| 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                 | 360 V                                                                                                |
| DC nominal voltage                           | 360 V                                                                                                |
| Type of winding switch                       | Star inside                                                                                          |
| Number of pole pairs                         | 2                                                                                                    |
| Stall torque                                 | 0.35 Nm                                                                                              |
| Nominal torque                               | 0.21 Nm                                                                                              |
| Peak torque                                  | 1.4 Nm                                                                                               |
| Nominal rotary speed                         | 9000 rpm                                                                                             |
| Max. rotational speed                        | 10000 rpm                                                                                            |
| Motor nominal power                          | 200 W                                                                                                |
| Continuous stall current                     | 1.6 A                                                                                                |
| Motor nominal current                        | 1.2 A                                                                                                |
| Peak current                                 | 6.4 A                                                                                                |
| Motor constants                              | 0.175 Nm/A                                                                                           |

| Feature                                                                | Value                                              |
|------------------------------------------------------------------------|----------------------------------------------------|
| Voltage constant, phase-to-phase                                       | 13.2 mVmin                                         |
| Phase-phase winding resistance                                         | 8.6 Ohm                                            |
| Winding inductance phase-phase                                         | 4.51 mH                                            |
| Total output inertia moment                                            | 0.079 kgcm <sup>2</sup>                            |
| Product weight                                                         | 850 g                                              |
| Permissible axial shaft load                                           | 12 N                                               |
| Permissible radial shaft load                                          | 115 N                                              |
| Rotor position sensor                                                  | Absolute encoder, multi-turn                       |
| Rotor position sensor interface                                        | HIPERFACE®                                         |
| Rotor position sensor measuring principle                              | Capacitive                                         |
| Rotor position encoder, sinusoidal/cosinusoidal periods per revolution | 16                                                 |
| Typical rotor position sensor resolution                               | 12 bit                                             |
| Rotor position encoder, typical angular accuracy                       | 20 arcmin                                          |
| Brake holding torque                                                   | 0.4 Nm                                             |
| Brake DC operating voltage                                             | 24 V                                               |
| Brake power consumption                                                | 8 W                                                |
| Brake mass moment of inertia                                           | 0.014 kgcm <sup>2</sup>                            |
| Switching cycles, holding brake                                        | 5 million idle actuations (without friction work!) |
| MTTF, subcomponent                                                     | 371 years, holding brake                           |
| MTTFd, subcomponent                                                    | 271 years, rotor position sensor                   |