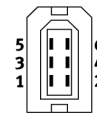
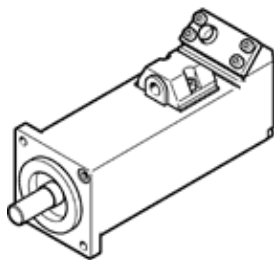


# Servomotor EMMB-AS-40-01-S30M

Part number: 8097167

FESTO



## Data sheet

| Feature   | Value   |
|---|---|
| Ambient temperature   | -15 ... 40 °C   |
| Note on ambient temperature   | Up to 60° C with derating of -1.5% per degree Celsius   |
| Max. installation height  | 4,000 m   |
| Note on max. installation height                                    | As of 1,000 m, only with derating of -1.0% per 100 m  |
| Storage temperature   | -20 ... 55 °C   |
| Relative air humidity   | 0 - 90 %  |
| Conforms to standard  | IEC 60034   |
| Thermal class according to EN 60034-1                               | F   |
| Max. winding temperature  | 155 °C  |
| Rating class according to EN 60034-1                                | S1  |
| Temperature monitoring  | Digital motor temperature transmission via Nikon A format   |
| Motor type acc. to EN 60034-7                                       | IM B5<br>IM V1<br>IM V3   |
| Assembly position   | Any   |
| Protection class  | IP65  |
| Note on degree of protection  | IP40 motor shaft without RWDR<br>IP54 motor shaft with rotary shaft seal<br>IP65 motor housing without connection |
| Concentricity, coaxiality, axial runout according to DIN SPEC 42955 | N   |
| Balance quality   | G 2,5   |
| Storage lifetime under nominal conditions                           | 20,000 h  |
| Electrical connection 1, connection type                            | Plug  |
| Electrical connection 1, connection technology                      | Connection pattern RE   |
| Electrical connection 1, number of pins/wires                       | 6   |
| Degree of contamination   | 2   |
| Materials note  | Conforms to RoHS  |
| Corrosion resistance classification CRC                             | 0 - No corrosion stress   |
| PWIS conformity   | VDMA24364 zone III  |
| Vibration resistance  | Transport application test at severity level 2 in accordance with FN 942017-4 and EN 60068-2-6                    |
| Shock resistance  | Shock test with severity level 2 in accordance with FN 942017-5 and EN 60068-2-27                                 |
| Authorization   | c UL us - Recognized (OL)   |
| CE symbol (see declaration of conformity)                           | according to EU-EMV guideline<br>according to EU low voltage guideline<br>in accordance with EU RoHS directive    |
| UKCA marking (see declaration of conformity)                        | To UK instructions for electrical equipment<br>To UK instructions for EMC<br>To UK RoHS instructions              |
| Certificate issuing department                                      | UL E342973  |
| Nominal operating voltage DC  | 300 V   |
| Nominal voltage DC  | 300 V   |
| Type of winding switch  | Star inside   |
| Number of pole pairs  | 5   |
| Standstill torque   | 0.352 Nm  |

| Feature   | Value                       |
|---|-----------------------------|
| Nominal torque  | 0.32 Nm                     |
| Peak torque   | 0.96 Nm                     |
| Nominal rotary speed  | 3,000 1/min                 |
| Max. speed  | 6,000 1/min                 |
| Max. mechanical speed                                       | 10,000 1/min                |
| Nominal motor power   | 100 W                       |
| Continuous open-circuit current                             | 1.43 A                      |
| Nominal motor current                                       | 1.3 A                       |
| Peak current  | 3.9 A                       |
| Motor constant  | 0.268 Nm/A                  |
| Voltage constant, phase-to-phase                            | 16.2 mVmin                  |
| Phase-phase winding resistance                              | 7.9 Ohm                     |
| Phase-phase winding inductance                              | 10.5 mH                     |
| Electric time constant                                      | 1.33 ms                     |
| Measuring flange  | 175 x 200 x 10, aluminium   |
| Overall mass moment of inertia at power take-off            | 0.059 kgcm <sup>2</sup>     |
| Product weight  | 570 g                       |
| Permissible axial shaft load                                | 60 N                        |
| Permissible radial shaft load                               | 120 N                       |
| Rotor position sensor                                       | Absolute multi-turn encoder |
| Rotor position sensor, manufacturer designation             | MAR-MX50AHN00               |
| Rotor position sensor, absolute detectable revolutions      | 65,536                      |
| Rotary position encoder interface                           | Nikon A format              |
| Rotary position encoder measuring principle                 | Optical                     |
| Rotor position sensor, DC operating voltage                 | 5 V                         |
| Rotor position sensor, DC operating voltage range           | 4.75 ... 5.25 V             |
| Rotor position sensor, position values per revolution       | 1,048,576                   |
| Rotor position encoder resolution                           | 20 Bit                      |
| Rotor position sensor, system accuracy of angle measurement | -120 ... 120 arcsec         |