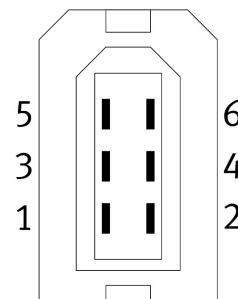


# Servo motor EMMB-AS-60-04-K-S30MB

Part number: 8097186

**FESTO**



## Data sheet

| Feature   | Value   |
|---|---|
| Ambient temperature   | -15 °C...40 °C  |
| Note on ambient temperature   | Up to 60 °C with derating of -1.5% per degree Celsius   |
| Max. installation height  | 4000 m  |
| Information on max. installation height                             | with 1,000 m and longer only with derating of -1.0% per 100 m   |
| Storage temperature   | -20 °C...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 as per EN 60034-7  | IM B5<br>IM V1<br>IM V3   |
| Mounting position   | Any   |
| Degree of protection  | IP65  |
| Note on degree of protection  | IP40 for motor shaft without rotary shaft seal<br>IP54 for motor shaft with rotary shaft seal<br>IP65 for motor housing without connection technology |
| Concentricity, coaxiality, axial runout according to DIN SPEC 42955 | N   |
| Balancing quality   | G 2.5   |
| Bearing lifetime, under nominal conditions                          | 20000 h   |
| Featherkey shaft design   | DIN 6885<br>A 5 x 5 x 16  |
| Electrical connection 1, connection type                            | Plug  |
| Electrical connection 1, connection technology                      | Connection diagram RE   |
| Electrical connection 1, number of pins/wires                       | 6   |
| Contamination level   | 2   |
| Note on materials   | RoHS-compliant  |

| Feature  | Value  |
|--|--|
| Corrosion resistance class (CRC)                             | 0 - No corrosion stress  |
| LABS (PWIS) conformity                                       | VDMA24364 zone III   |
| Vibration resistance   | Transport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6                 |
| Shock resistance   | Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27                                |
| Certification  | 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 |
| Certificate issuing authority                                | UL E342973   |
| Nominal operating voltage DC                                 | 300 V  |
| DC nominal voltage   | 300 V  |
| Type of winding switch                                       | Star inside  |
| Number of pole pairs   | 3  |
| Stall torque   | 1.4 Nm   |
| Nominal torque   | 1.27 Nm  |
| Peak torque  | 3.81 Nm  |
| Nominal rotary speed   | 3000 rpm   |
| Max. rotational speed  | 6000 rpm   |
| Max. mechanical speed  | 10000 rpm  |
| Motor nominal power  | 400 W  |
| Continuous stall current                                     | 2.6 A  |
| Motor nominal current  | 2.4 A  |
| Peak current   | 7.2 A  |
| Motor constants  | 0.562 Nm/A   |
| Voltage constant, phase-to-phase                             | 34 mVmin   |
| Phase-phase winding resistance                               | 5.8 Ohm  |
| Winding inductance phase-phase                               | 11.5 mH  |
| Electric time constant                                       | 1.98 ms  |
| Measuring flange   | 255 x 255 x 8 mm, aluminum   |
| Total output inertia moment                                  | 0.425 kgcm <sup>2</sup>  |
| Product weight   | 1900 g   |
| Permissible axial shaft load                                 | 90 N   |
| Permissible radial shaft load                                | 180 N  |
| Rotor position sensor  | Absolute encoder, multi-turn   |
| Rotor position sensor for manufacturer designation           | MAR-MX50AHN00  |
| Rotor position encoder for absolutely detectable revolutions | 65536  |
| Rotor position sensor interface                              | Nikon A-format   |
| Rotor position sensor measuring principle                    | Optical  |
| Rotor position encoder for DC operating voltage              | 5 V  |
| Rotor position encoder for DC operating voltage range        | 4.75 V...5.25 V  |
| Rotor position encoder for positional values per revolution  | 1048576  |
| Rotor position sensor resolution                             | 20 bit   |
| Rotor position encoder system accuracy angle measurement     | -120 arcsec...120 arcsec   |
| Brake holding torque   | 1.3 Nm   |
| Brake DC operating voltage                                   | 24 V   |
| Brake power consumption                                      | 7.2 W  |