

Servo motor EMMB-AS-40-01-K-S30M

Part number: 8097169

FESTO



 General operating condition

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 IM V1 IM V3 |
| Mounting position | Any |
| Degree of protection | IP65 |
| Note on degree of protection | IP40 for motor shaft without rotary shaft seal IP54 for motor shaft with rotary shaft seal 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 A 3 x 3 x 12 |
| Electrical connection 1, connection type | Plug |
| Electrical connection 1, connection technology | Connection diagram RE |
| Electrical connection 1, number of pins/wires | 6 |
| Electrical connection for input 1, connection pattern | 00995792 |
| Contamination level | 2 |
| Note on materials | RoHS-compliant |
| 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) |

| Feature | Value |
|--|--|
| CE marking (see declaration of conformity) | As per EU EMC directive As per EU low voltage directive As per EU RoHS directive |
| UKCA marking (see declaration of conformity) | To UK instructions for EMC To UK RoHS instructions 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 | 5 |
| Stall torque | 0.352 Nm |
| Nominal torque | 0.32 Nm |
| Peak torque | 0.96 Nm |
| Nominal rotary speed | 3000 rpm |
| Max. rotational speed | 6000 rpm |
| Max. mechanical speed | 10000 rpm |
| Motor nominal power | 100 W |
| Continuous stall current | 1.43 A |
| Motor nominal current | 1.3 A |
| Peak current | 3.9 A |
| Motor constants | 0.268 Nm/A |
| Voltage constant, phase-to-phase | 16.2 mVmin |
| Phase-phase winding resistance | 7.9 Ohm |
| Winding inductance phase-phase | 10.5 mH |
| Electric time constant | 1.33 ms |
| Measuring flange | 175 x 200 x 10 mm, aluminum |
| Total output inertia moment | 0.059 kgcm ² |
| Product weight | 570 g |
| Permissible axial shaft load | 60 N |
| Permissible radial shaft load | 120 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 |