

Servo motor EMMB-AS-40-01-S30M

Part number: 8097167

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 |
| Note on max. installation height | As of 1,000 m: 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 |
| Temperature class as per EN 60034-1 | F |
| Max. winding temperature | 155 °C |
| Rating class as per EN 60034-1 | S1 |
| Temperature monitoring | Digital motor temperature transmission via Nikon A format |
| Motor type to EN 60034-7 | 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 to DIN SPEC 42955 | N |
| Balance quality | G 2.5 |
| Bearing lifetime under nominal conditions | 20000 h |
| Electrical connection 1, connection type | Plug |
| Electrical connection 1, connector system | Connection pattern RE |
| Electrical connection 1, number of connections/cores | 6 |
| Electrical connection 1, connection pattern | 00995792 |
| Pollution degree | 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 to FN 942017-4 and EN 60068-2-6 |
| Shock resistance | Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27 |
| Approval | c UL us - Recognised (Oil) |
| CE mark (see declaration of conformity) | To EU EMC Directive To EU Low Voltage Directive In accordance with EU RoHS Directive |
| UKCA marking (see declaration of conformity) | To UK RoHS instructions To UK regulations for electrical equipment |

| Feature | Value |
|---|------------------------------|
| Certificate issuing authority | UL E342973 |
| Nominal operating voltage DC | 300 V |
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| Type of winding switch | Star inside |
| Number of pole pairs | 5 |
| Standstill 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 |
| Nominal power rating of motor | 100 W |
| Continuous stall 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 mV/min |
| 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 mm, aluminium |
| Total mass moment of inertia of output | 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, manufacturer designation | MAR-MX50AHN00 |
| rotor position sensor, absolute detectable revolutions | 65536 |
| Rotor position encoder interface | Nikon A-format |
| Rotor position sensor, encoder measuring principle | Optical |
| rotor position sensor, DC operating voltage | 5 V |
| rotor position sensor, DC operating voltage range | 4.75 V ... 5.25 V |
| rotor position sensor, position values per revolution | 1048576 |
| Rotor position transducer resolution | 20 bit |
| rotor position sensor, system accuracy of angle measurement | -120 arcsec ... 120 arcsec |