

servo motor EMMT-AS-150-M-HS-R2S

Part number: 8148270

FESTO



Data sheet

| Feature | Value |
|---|---|
| Ambient temperature | -15 ... 40 °C |
| Note on ambient temperature | up to 80°C with derating -1.5%/°C |
| 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 ... 70 °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 EnDat® 2.2 |
| Motor type to EN 60034-7 | IM B5 IM V1 IM V3 |
| Assembly position | Any |
| Protection class | IP21 |
| Note on degree of protection | IP21 for motor shaft without rotary shaft seal IP65 motor shaft with RWDR IP67 for motor housing with connection technology |
| Concentricity, coaxiality, axial runout to DIN SPEC 42955 | N |
| Balance quality | G 2,5 |
| Detent torque | <1.0% of peak torque |
| Storage lifetime under nominal conditions | 20,000 h |
| Interface code, motor out | 150A |
| Electrical connection 1, connection type | Hybrid plugs |
| Electrical connection 1, connection technology | M23x1 |
| Electrical connection 1, number of pins/wires | 15 |
| Degree of contamination | 2 |
| Materials note | Conforms to RoHS |
| Corrosion resistance classification CRC | 0 - No corrosion stress |
| PWIS conformity | VDMA24364 zone III |
| Vibration resistance | as per EN 60068-2-6 |
| Shock resistance | as per EN 60068-2-29 15 g/11 ms to EN 60068-2-27 |
| Authorisation | RCM Mark c UL us - Recognized (OL) |
| CE mark (see declaration of conformity) | to EU directive for EMC to EU directive low-voltage devices in accordance with EU RoHS directive |
| UKCA marking (see declaration of conformity) | To UK instructions for electrical equipment To UK instructions for EMC To UK RoHS instructions |
| Certificate issuing department | UL E342973 |
| Nominal operating voltage DC | 680 V |
| Type of winding switch | Star inside |
| Number of pole pairs | 5 |

| Feature | Value |
|---|----------------------------------|
| Standstill torque | 33 Nm |
| Nominal torque | 27.1 Nm |
| Peak torque | 64 Nm |
| Nominal rotary speed | 1,500 1/min |
| Max. speed | 2,368 1/min |
| Max. mechanical speed | 10,000 1/min |
| Nominal motor power | 4,257 W |
| Continuous open-circuit current | 11.4 A |
| Nominal motor current | 9.5 A |
| Peak current | 24 A |
| Motor constant | 2.85 Nm/A |
| Standstill torque constant | 3.3 Nm/A |
| Voltage constant, phase-to-phase | 199.4 mVmin |
| Phase-phase winding resistance | 0.935 Ohm |
| Phase-phase winding inductance | 14.6 mH |
| Winding longitudinal inductivity Ld (phase) | 7.2 mH |
| Winding cross inductivity Lq (phase) | 7.3 mH |
| Electric time constant | 15.4 ms |
| Thermal time constant | 45 min |
| Thermal resistance | 0.45 K/W |
| Measuring flange | 450 x 450 x 30, steel |
| Overall mass moment of inertia at power take-off | 38.7 kgcm ² |
| Product weight | 18,700 g |
| Permissible axial shaft load | 294 N |
| Permissible radial shaft load | 1,470 N |
| Rotor position sensor | Absolute single turn encoder |
| Rotor position sensor, manufacturer designation | ECl 1319 |
| Rotor position sensor, absolute detectable revolutions | 1 |
| Rotary position encoder interface | EnDat 22 |
| Rotary position encoder measuring principle | Inductive |
| Rotor position sensor, DC operating voltage | 5 V |
| Rotor position sensor, DC operating voltage range | 3.6 ... 14 V |
| Rotor position sensor, position values per revolution | 524,288 |
| Rotor position encoder resolution | 19 Bit |
| Rotor position sensor, system accuracy of angle measurement | -65 ... 65 arcsec |
| MTTF, subcomponent | 190 years, rotor position sensor |
| Energy efficiency | ENEFF (CN) / Class 1 |