

Servo motor EMMT-AS-150-M-HS-R2MY

Part number: 8148272

FESTO



Data sheet

| Feature | Value |
|---|---|
| Ambient temperature | -15 °C...40 °C |
| Note on ambient temperature | Up to 80°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...70 °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 EnDat® 2.2 |
| Motor type to EN 60034-7 | IM B5 IM V1 IM V3 |
| Mounting position | optional |
| Degree of protection | IP21 |
| Note on degree of protection | IP21 for motor shaft without rotary shaft seal IP65 for motor shaft with rotary shaft seal IP67 for motor housing including connection components |
| Concentricity, coaxiality, axial runout to DIN SPEC 42955 | N |
| Balance quality | G 2.5 |
| Detent torque | <1.0% of the peak torque |
| Bearing lifetime under nominal conditions | 20000 h |
| Interface code, motor out | 150A |
| Electrical connection 1, connection type | Hybrid plug |
| Electrical connection 1, connector system | M23x1 |
| Electrical connection 1, number of connections/cores | 15 |
| Pollution degree | 2 |
| Note on materials | RoHS-compliant |
| Corrosion resistance class CRC | 0 - No corrosion stress |
| LABS (PWIS) conformity | VDMA24364 zone III |
| Vibration resistance | As per EN 60068-2-6 |

| Feature | Value |
|---|---|
| Shock resistance | As per EN 60068-2-29 15 g/11 ms to EN 60068-2-27 |
| Approval | RCM trademark c UL us - Recognized (OL) |
| CE mark (see declaration of conformity) | To EU EMC Directive To EU Low Voltage Directive In accordance with EU RoHS Directive |
| CE marking (see declaration of conformity) | To UK instructions for EMC To UK RoHS instructions To UK regulations for electrical equipment |
| Certificate issuing authority | TÜV 968/FSP 2317.00/21 UL E342973 |
| Nominal operating voltage DC | 680 V |
| Type of winding switch | Star inside |
| Number of pole pairs | 5 |
| Standstill torque | 33 Nm |
| Nominal torque | 27.1 Nm |
| Peak torque | 64 Nm |
| Nominal rotary speed | 1500 rpm |
| Max. rotational speed | 2368 rpm |
| Max. mechanical speed | 10000 rpm |
| Nominal power rating of motor | 4257 W |
| Continuous stall 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 mm, steel |
| Total mass moment of inertia of output | 38.7 kgcm ² |
| Product weight | 18700 g |
| Permissible axial shaft load | 294 N |
| Permissible radial shaft load | 1470 N |
| Rotor position sensor | Absolute multi-turn safety encoder |
| rotor position sensor, manufacturer designation | EQI 1331 |
| rotor position sensor, absolute detectable revolutions | 4096 |
| Rotor position encoder interface | EnDat® 22 |
| Rotor position sensor, encoder measuring principle | Inductive |
| rotor position sensor, DC operating voltage | 5 V |
| rotor position sensor, DC operating voltage range | 3.6 V...14 V |
| rotor position sensor, position values per revolution | 524288 |
| Rotor position transducer resolution | 19 bit |
| rotor position sensor, system accuracy of angle measurement | -65 arcsec...65 arcsec |
| Safety Integrity Level (SIL), subcomponent | SIL 2, Encoder |
| Performance Level, subcomponent | Cat. 3, PLd, encoder |
| PFHd, subcomponent | 15 x 10E-9, encoder |
| Duration of use Tm, subcomponent | 20 years, rotor position sensor |
| Mean time to failure (MTTF), subcomponent | 190 years, rotor position sensor |

| Feature | Value |
|-------------------|---------------------|
| Energy efficiency | ENEF (CN) / Class 1 |