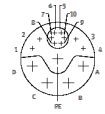
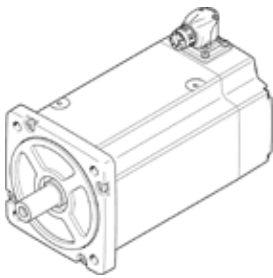


# Servomotor

## EMMT-AS-150-LR-HT-R2MY

Part number: 8148344

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 acc. to EN 60034-7                                       | IM B5<br>IM V1<br>IM V3   |
| Assembly position   | Any   |
| Protection class  | IP21  |
| Note on degree of protection  | IP21 for motor shaft without rotary shaft seal<br>IP65 motor shaft with RWDR<br>IP67 for motor housing with connection technology |
| Concentricity, coaxiality, axial runout according 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<br>15 g/11 ms to EN 60068-2-27   |
| Authorization   | RCM Mark<br>c UL us - Recognized (OL)   |
| CE symbol (see declaration of conformity)                           | according to EU-EMV guideline<br>according to EU low voltage guideline<br>in accordance with EU RoHS directive                    |
| UKCA marking (see declaration of conformity)                        | To UK instructions for electrical equipment<br>To UK instructions for EMC<br>To UK RoHS instructions                              |
| Certificate issuing department                                      | TÜV 968/FSP 2317.00/21<br>UL E342973  |
| Nominal operating voltage DC  | 680 V   |
| Type of winding switch  | Star inside   |

| Feature   | Value                                    |
|---|--|
| Number of pole pairs  | 5  |
| Standstill torque   | 44 Nm                                    |
| Nominal torque  | 39.7 Nm                                  |
| Peak torque   | 86 Nm                                    |
| Nominal rotary speed  | 1,000 1/min                              |
| Max. speed  | 1,812 1/min                              |
| Max. mechanical speed                                       | 8,000 1/min                              |
| Nominal motor power   | 4,157 W                                  |
| Continuous open-circuit current                             | 11.4 A                                   |
| Nominal motor current                                       | 10.3 A                                   |
| Peak current  | 24 A                                     |
| Motor constant  | 3.85 Nm/A                                |
| Standstill torque constant                                  | 4.38 Nm/A                                |
| Voltage constant, phase-to-phase                            | 264.9 mVmin                              |
| Phase-phase winding resistance                              | 1.016 Ohm                                |
| Phase-phase winding inductance                              | 15.7 mH                                  |
| Winding longitudinal inductivity Ld (phase)                 | 7.95 mH                                  |
| Winding cross inductivity Lq (phase)                        | 7.85 mH                                  |
| Electric time constant                                      | 15.6 ms                                  |
| Thermal time constant                                       | 55 min                                   |
| Thermal resistance  | 0.42 K/W                                 |
| Measuring flange  | 450 x 450 x 30, steel                    |
| Overall mass moment of inertia at power take-off            | 57.6 kgcm <sup>2</sup>                   |
| Product weight  | 25,400 g                                 |
| Permissible axial shaft load                                | 346 N                                    |
| Permissible radial shaft load                               | 1,730 N                                  |
| Rotor position sensor                                       | Safety Enc. absolut multi turn           |
| Rotor position sensor, manufacturer designation             | EQI 1331                                 |
| Rotor position sensor, absolute detectable revolutions      | 4,096                                    |
| 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                        |
| Safety Integrity Level (SIL), component parts               | SIL 2, encoder                           |
| Performance Level (PL), component parts                     | Category 3, Performance Level d, encoder |
| PFHd, component parts                                       | 15 x 10E-9, encoder                      |
| Duration of use Tm, component parts                         | 20 years, rotor position encoder         |
| MTTF, subcomponent  | 190 years, rotor position sensor         |
| Energy efficiency   | ENEFF (CN) / Class 1                     |