

# servo motor EMMS-AS-70-MK-HV-RSB-S1

Part number: 1704827

FESTO

Without gear unit.



## Data sheet

| Feature  | Value  |
|--|--|
| Ambient temperature                              | -10 ... 40 °C  |
| Storage temperature                              | -20 ... 60 °C  |
| Relative air humidity                            | 0 - 90 %   |
| Conforms to standard                             | IEC 60034  |
| Insulation protection class                      | F  |
| Rating class according to EN 60034-1             | S1   |
| Temperature monitoring                           | PTC resistor   |
| Protection class                                 | IP65   |
| Shaft design Featherkey                          | DIN 6885<br>A 4 x 4 x 16                                       |
| Electrical connector system                      | Plug   |
| Materials note                                   | Conforms to RoHS   |
| Corrosion resistance classification CRC          | 2 - Moderate corrosion stress                                  |
| Authorisation                                    | RCM Mark<br>c UL us - Recognized (OL)                          |
| CE mark (see declaration of conformity)          | to EU directive for EMC<br>to EU directive low-voltage devices |
| Nominal operating voltage DC                     | 565 V  |
| Nominal voltage DC                               | 565 V  |
| Type of winding switch                           | Star inside  |
| Number of pole pairs                             | 4  |
| Standstill torque                                | 2.52 Nm  |
| Nominal torque                                   | 2.19 Nm  |
| Peak torque                                      | 8.55 Nm  |
| Nominal rotary speed                             | 5,000 1/min  |
| Max. speed                                       | 5,560 1/min  |
| Nominal motor power                              | 1,146 W  |
| Nominal motor current                            | 1.84 A   |
| Peak current                                     | 8.3 A  |
| Motor constant                                   | 1.189 Nm/A   |
| Voltage constant, phase-to-phase                 | 71.83 mVmin  |
| Phase-phase winding resistance                   | 13.007 Ohm   |
| Phase-phase winding inductance                   | 24.523 mH  |
| Overall mass moment of inertia at power take-off | 0.68 kgcm <sup>2</sup>   |
| Product weight                                   | 2,900 g  |
| Permissible axial shaft load                     | 75 N   |
| Permissible radial shaft load                    | 200 N  |
| Rotor position sensor                            | Absolute single turn encoder                                   |
| Rotary position encoder interface                | EnDat 22   |
| Rotary position encoder measuring principle      | Inductive  |
| Rotor position encoder resolution                | 18 Bit   |
| Brake holding torque                             | 2 Nm   |
| Operating voltage DC for brake                   | 24 V   |
| Power consumption, brake                         | 11 W   |

| <b>Feature</b>                  | <b>Value</b>   |
|---------------------------------|--|
| Mass moment of inertia of brake | 0.07 kgcm <sup>2</sup>   |
| Switching cycles, holding brake | 10 million idle actuations (without friction work)             |
| MTTF, subcomponent              | 76 years, rotary position encoder<br>1769 years, holding brake |
| MTTFd, subcomponent             | 152 years, rotary position encoder                             |