

# servo motor EMMS-AS-140-L-HV-RRB

Part number: 1574681

FESTO

Without gear unit.



## Data sheet

| Feature  | Value   |
|--|---|
| Ambient temperature                              | -40 ... 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                                 | IP54  |
| 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 voltage DC                               | 565 V   |
| Type of winding switch                           | Star inside   |
| Number of pole pairs                             | 6   |
| Standstill torque                                | 25.5 Nm   |
| Nominal torque                                   | 17.41 Nm  |
| Peak torque                                      | 67.5 Nm   |
| Nominal rotary speed                             | 2,800 1/min   |
| Max. speed                                       | 3,830 1/min   |
| Nominal motor power                              | 5,110 W   |
| Nominal motor current                            | 9.96 A  |
| Peak current                                     | 51.5 A  |
| Motor constant                                   | 1.75 Nm/A   |
| Voltage constant, phase-to-phase                 | 104.41 mVmin  |
| Phase-phase winding resistance                   | 0.586 Ohm   |
| Phase-phase winding inductance                   | 4.65 mH   |
| Overall mass moment of inertia at power take-off | 19.4 kgcm <sup>2</sup>  |
| Product weight                                   | 17,240 g  |
| Permissible axial shaft load                     | 200 N   |
| Permissible radial shaft load                    | 1,060 N   |
| Rotor position sensor                            | Resolver  |
| Rotary position encoder interface                | SIN/COS analogue signal   |
| Rotary position encoder measuring principle      | Inductive   |
| Brake holding torque                             | 18 Nm   |
| Operating voltage DC for brake                   | 24 V  |
| Power consumption, brake                         | 15.6 W  |
| Mass moment of inertia of brake                  | 1 kgcm <sup>2</sup>   |
| Switching cycles, holding brake                  | 5 million idle actuations (without work of friction!)           |
| MTTF, subcomponent                               | 114 years, rotary position encoder<br>4469 years, holding brake |
| MTTFd, subcomponent                              | 228 years, rotary position encoder                              |