

# Servo motor EMMS-AS-140-S-HS-RSB-S1

Part number: 1574618

**FESTO**



## Data sheet

| Feature                                    | Value                                                      |
|--------------------------------------------|------------------------------------------------------------|
| Type code                                  | EMMS-AS                                                    |
| Ambient temperature                        | -10 °C ... 40 °C                                           |
| Storage temperature                        | -20 °C ... 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                                               |
| Degree of protection                       | IP65                                                       |
| Electrical connection technology           | Plug                                                       |
| Note on materials                          | RoHS-compliant                                             |
| Corrosion resistance class (CRC)           | 2 - Moderate corrosion stress                              |
| LABS conformity                            | VDMA24364-B2-L                                             |
| Certification                              | RCM compliance mark<br>c UL us - Recognized (OL)           |
| CE marking (see declaration of conformity) | As per EU EMC directive<br>As per EU low voltage directive |
| DC nominal voltage                         | 565 V                                                      |
| Type of winding switch                     | Star inside                                                |
| Number of pole pairs                       | 6                                                          |
| Stall torque                               | 11.2 Nm                                                    |
| Nominal torque                             | 9.55 Nm                                                    |
| Peak torque                                | 25.6 Nm                                                    |
| Nominal rotary speed                       | 2600 1/min                                                 |
| Max. rotational speed                      | 3060 1/min                                                 |
| Motor nominal power                        | 2600 W                                                     |
| Motor nominal current                      | 4.4 A                                                      |
| Peak current                               | 15 A                                                       |
| Motor constants                            | 2.166 Nm/A                                                 |
| Voltage constant, phase-to-phase           | 130.69 mVmin                                               |
| Phase-phase winding resistance             | 3.39 Ohm                                                   |
| Winding inductance phase-phase             | 20.5 mH                                                    |
| Total output inertia moment                | 9.271 kgcm <sup>2</sup>                                    |
| Product weight                             | 10400 g                                                    |
| Permissible axial shaft load               | 200 N                                                      |
| Permissible radial shaft load              | 780 N                                                      |

| Feature                                   | Value                                                        |
|-------------------------------------------|--------------------------------------------------------------|
| Rotor position sensor                     | Absolute encoder, single-turn                                |
| Rotor position sensor interface           | EnDat® 22                                                    |
| Rotor position sensor measuring principle | Inductive                                                    |
| Rotor position sensor resolution          | 18 bit                                                       |
| Brake holding torque                      | 18 Nm                                                        |
| Brake DC operating voltage                | 24 V                                                         |
| Brake power consumption                   | 15.6 W                                                       |
| Brake mass moment of inertia              | 1.2 kgcm <sup>2</sup>                                        |
| Switching cycles, holding brake           | 5 million idle actuations (without friction work!)           |
| MTTF, subcomponent                        | 76 years, rotor position sensor<br>4469 years, holding brake |
| MTTFd, subcomponent                       | 152 years, rotor position sensor                             |
| Energy efficiency                         | ENEFF (CN) / Class 2                                         |