

# Stepper motor EMMS-ST-28-L-SB

Part number: 1451383

**FESTO**



## Data sheet

| Feature                                      | Value                                                       |
|----------------------------------------------|-------------------------------------------------------------|
| Ambient temperature                          | -10 °C...50 °C                                              |
| Storage temperature                          | -20 °C...70 °C                                              |
| Relative air humidity                        | 0 - 85%                                                     |
| Conforms to standard                         | IEC 60034                                                   |
| Insulation protection class                  | B                                                           |
| Temperature class as per EN 60034-1          | B                                                           |
| Rating class as per EN 60034-1               | S1                                                          |
| Degree of protection                         | IP65                                                        |
| Electrical connector system                  | Plug                                                        |
| Note on materials                            | RoHS-compliant                                              |
| Corrosion resistance class CRC               | 1 - Low corrosion stress                                    |
| LABS (PWIS) conformity                       | VDMA24364-B2-L                                              |
| Approval                                     | RCM trademark<br>c UL us - Recognized (OL)                  |
| CE mark (see declaration of conformity)      | To EU EMC Directive<br>In accordance with EU RoHS Directive |
| UKCA marking (see declaration of conformity) | To UK instructions for EMC<br>To UK RoHS instructions       |
| Nominal operating voltage DC                 | 48 V                                                        |
| Motor holding torque                         | 0.09 Nm                                                     |
| Max. rotational speed                        | 6000 rpm                                                    |
| Stepper angle for complete step              | 1.8 deg                                                     |
| Stepping angle tolerance                     | ±5%                                                         |
| Nominal motor current                        | 1.4 A                                                       |
| Voltage constant, phase                      | 6 mV/min                                                    |
| Phase winding resistance                     | 2.3 Ohm                                                     |
| Phase winding inductance                     | 1.4 mH                                                      |
| Mass moment of inertia of rotor              | 0.018 kgcm <sup>2</sup>                                     |
| Total mass moment of inertia of output       | 0.025 kgcm <sup>2</sup>                                     |
| Product weight                               | 356 g                                                       |
| Permissible axial shaft load                 | 7 N                                                         |
| Permissible radial shaft load                | 20 N                                                        |

| Feature                         | Value                   |
|---------------------------------|-------------------------|
| Brake holding torque            | 0.2 Nm                  |
| Operating voltage DC for brake  | 24 V                    |
| Power consumption, brake        | 8 W                     |
| Mass moment of inertia of brake | 0.007 kgcm <sup>2</sup> |