

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

Part number: 1451383

FESTO



 General operating condition

## 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 |
| CE 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 mVmin                                                     |
| 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                                                        |
| 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>                                     |