

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

Part number: 1430663

**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                                                     |
| Thermal class according to EN 60034-1        | B                                                     |
| Rating class according to EN 60034-1         | S1                                                    |
| Degree of protection                         | IP65                                                  |
| Electrical connection technology             | Plug                                                  |
| Note on materials                            | RoHS compliant                                        |
| Corrosion resistance class (CRC)             | 1 - Low corrosion stress                              |
| LABS (PWIS) 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 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                                              |
| Step angle with full step                    | 1.8 deg                                               |
| Step angle tolerance                         | ±5%                                                   |
| Motor nominal current                        | 1.4 A                                                 |
| Voltage constant, phase                      | 6 mV/min                                              |
| Phase winding resistance                     | 2.3 Ohm                                               |
| Winding inductance phase                     | 1.4 mH                                                |
| Rotor mass moment of inertia                 | 0.018 kgcm <sup>2</sup>                               |
| Total output inertia moment                  | 0.018 kgcm <sup>2</sup>                               |
| Product weight                               | 295 g                                                 |
| Permissible axial shaft load                 | 7 N                                                   |
| Permissible radial shaft load                | 20 N                                                  |

| Feature                                   | Value                               |
|-------------------------------------------|-------------------------------------|
| Rotor position sensor                     | Incremental encoder                 |
| Rotor position sensor interface           | RS422 TTL A/B channels + zero index |
| Rotor position sensor measuring principle | Optical                             |