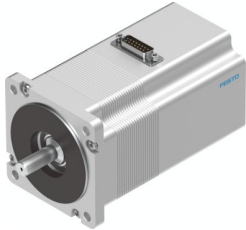


# Stepper motor EMMS-ST-87-S-SB-G2

Part number: 1370484

**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                         | IP54                                                        |
| 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                         | 2.5 Nm                                                      |
| Max. rotational speed                        | 2130 rpm                                                    |
| Stepper angle for complete step              | 1.8 deg                                                     |
| Stepping angle tolerance                     | ±5%                                                         |
| Nominal motor current                        | 9.5 A                                                       |
| Voltage constant, phase                      | 19 mVmin                                                    |
| Phase winding resistance                     | 0.1 Ohm                                                     |
| Phase winding inductance                     | 0.45 mH                                                     |
| Mass moment of inertia of rotor              | 1 kgcm <sup>2</sup>                                         |
| Total mass moment of inertia of output       | 1.07 kgcm <sup>2</sup>                                      |
| Product weight                               | 2350 g                                                      |
| Permissible axial shaft load                 | 65 N                                                        |
| Permissible radial shaft load                | 200 N                                                       |
| Brake holding torque                         | 2 Nm                                                        |
| Operating voltage DC for brake               | 24 V                                                        |
| Power consumption, brake                     | 11 W                                                        |
| Mass moment of inertia of brake              | 0.07 kgcm <sup>2</sup>                                      |