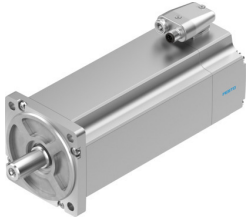


# Servo motor EMME-AS-100-S-HS-AMB

Part number: 2103470

FESTO



## Data sheet

| Feature                                      | Value                                                                                               |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Ambient temperature                          | -10 °C...40 °C                                                                                      |
| Storage temperature                          | -20 °C...70 °C                                                                                      |
| Relative air humidity                        | 0 - 90%                                                                                             |
| Conforms to standard                         | IEC 60034                                                                                           |
| Insulation protection class                  | F                                                                                                   |
| Rating class as per EN 60034-1               | S1                                                                                                  |
| Degree of protection                         | IP21                                                                                                |
| Electrical connector system                  | Plug                                                                                                |
| Note on materials                            | RoHS-compliant                                                                                      |
| Corrosion resistance class CRC               | 0 - No corrosion stress                                                                             |
| LABS (PWIS) conformity                       | VDMA24364 zone III                                                                                  |
| Approval                                     | RCM trademark<br>c UL us - Recognized (OL)                                                          |
| CE mark (see declaration of conformity)      | To EU EMC Directive<br>To EU Low Voltage Directive<br>In accordance with EU RoHS Directive          |
| UKCA marking (see declaration of conformity) | To UK instructions for EMC<br>To UK RoHS instructions<br>To UK regulations for electrical equipment |
| Nominal operating voltage DC                 | 565 V                                                                                               |
| Nominal voltage DC                           | 565 V                                                                                               |
| Type of winding switch                       | Star inside                                                                                         |
| Number of pole pairs                         | 3                                                                                                   |
| Standstill torque                            | 5.6 Nm                                                                                              |
| Nominal torque                               | 4.8 Nm                                                                                              |
| Peak torque                                  | 22.4 Nm                                                                                             |
| Nominal rotary speed                         | 3000 rpm                                                                                            |
| Max. rotational speed                        | 3910 rpm                                                                                            |
| Nominal power rating of motor                | 1500 W                                                                                              |
| Continuous stall current                     | 3.4 A                                                                                               |
| Nominal motor current                        | 3 A                                                                                                 |
| Peak current                                 | 13.6 A                                                                                              |
| Motor constant                               | 1.6 Nm/A                                                                                            |

| Feature                                              | Value                                              |
|------------------------------------------------------|----------------------------------------------------|
| Voltage constant, phase-to-phase                     | 102.2 mVmin                                        |
| Phase-phase winding resistance                       | 4.6 Ohm                                            |
| Phase-phase winding inductance                       | 15.5 mH                                            |
| Total mass moment of inertia of output               | 5.63 kgcm <sup>2</sup>                             |
| Product weight                                       | 7250 g                                             |
| Permissible axial shaft load                         | 130 N                                              |
| Permissible radial shaft load                        | 650 N                                              |
| Rotor position sensor                                | Absolute multi-turn encoder                        |
| Rotor position encoder interface                     | HIPERFACE®                                         |
| Rotor position sensor, encoder measuring principle   | Capacitive                                         |
| Rotor pos. enc., sin/cosin p/r                       | 16                                                 |
| Rotor pos. encoder, typ. res.                        | 12 bit                                             |
| Rot. pos. enc., typ. ang. acc.                       | 20 arcmin                                          |
| Brake holding torque                                 | 9 Nm                                               |
| Operating voltage DC for brake                       | 24 V                                               |
| Power consumption, brake                             | 18 W                                               |
| Mass moment of inertia of brake                      | 0.654 kgcm <sup>2</sup>                            |
| Switching cycles holding brake                       | 5 million idle actuations (without friction work!) |
| Mean time to failure (MTTF), subcomponent            | 1037 years, holding brake                          |
| Mean time to dangerous failure (MTTFd), subcomponent | 271 years, rotor position sensor                   |
| Energy efficiency                                    | ENEFF (CN) / Class 2                               |