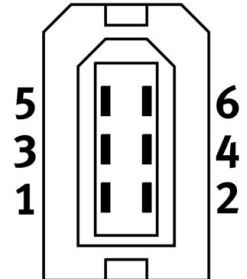


# Servo motor EMMB-AS-60-02-S30S

Part number: 8097171

**FESTO**



## Data sheet

| Feature                                                             | Value                                                                                                                                                 |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Electrical connection 1, connection technology                      | Connection diagram RE                                                                                                                                 |
| Electrical connection 1, connection type                            | Plug                                                                                                                                                  |
| Electrical connection for input 1, connection pattern               | 00995792                                                                                                                                              |
| Concentricity, coaxiality, axial runout according to DIN SPEC 42955 | N                                                                                                                                                     |
| Rotor position sensor for manufacturer designation                  | SAR-ML50AJC00                                                                                                                                         |
| Mounting position                                                   | Any                                                                                                                                                   |
| Shock resistance                                                    | Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27                                                                                 |
| Information on max. installation height                             | with 1,000 m and longer only with derating of -1.0% per 100 m                                                                                         |
| Note on degree of protection                                        | IP40 for motor shaft without rotary shaft seal<br>IP54 for motor shaft with rotary shaft seal<br>IP65 for motor housing without connection technology |
| Contamination level                                                 | 2                                                                                                                                                     |
| Note on ambient temperature                                         | Up to 60 °C with derating of -1.5% per degree Celsius                                                                                                 |
| Vibration resistance                                                | Transport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6                                                                  |
| Measuring flange                                                    | 255 x 255 x 8 mm, aluminum                                                                                                                            |
| Motor type as per EN 60034-7                                        | IM B5<br>IM V1<br>IM V3                                                                                                                               |
| Balancing quality                                                   | G 2.5                                                                                                                                                 |
| Certificate issuing authority                                       | UL E342973                                                                                                                                            |
| Electrical connection 1, number of pins/wires                       | 6                                                                                                                                                     |
| Max. winding temperature                                            | 155 °C                                                                                                                                                |
| Max. installation height                                            | 4000 m                                                                                                                                                |
| Rotor position encoder for DC operating voltage                     | 5 V                                                                                                                                                   |
| Max. mechanical speed                                               | 10000 1/min                                                                                                                                           |
| Number of pole pairs                                                | 3                                                                                                                                                     |
| Storage lifetime, under nominal conditions                          | 20000 h                                                                                                                                               |
| Electric time constant                                              | 1.87 ms                                                                                                                                               |
| Rotor position encoder for DC operating voltage range               | 4.75 V ... 5.25 V                                                                                                                                     |
| Rotor position encoder for absolutely detectable revolutions        | 1                                                                                                                                                     |
| Rotor position encoder system accuracy angle measurement            | -120 arcsec ... 120 arcsec                                                                                                                            |
| Rotor position encoder for positional values per revolution         | 1048576                                                                                                                                               |
| Type code                                                           | EMMB-AS                                                                                                                                               |

| Feature                                    | Value                                                                                  |
|--------------------------------------------|----------------------------------------------------------------------------------------|
| Rotor position sensor                      | Absolute encoder, single-turn                                                          |
| Rotor position sensor interface            | Nikon A-format                                                                         |
| Rotor position sensor measuring principle  | Optical                                                                                |
| Temperature monitoring                     | Digital motor temperature transmission via Nikon A format                              |
| Max. rotational speed                      | 6000 1/min                                                                             |
| Nominal rotary speed                       | 3000 1/min                                                                             |
| Continuous stall current                   | 1.5 A                                                                                  |
| Motor constants                            | 0.48 Nm/A                                                                              |
| Nominal operating voltage DC               | 300 V                                                                                  |
| Motor nominal power                        | 200 W                                                                                  |
| DC nominal voltage                         | 300 V                                                                                  |
| Motor nominal current                      | 1.4 A                                                                                  |
| Rotor position sensor resolution           | 20 bit                                                                                 |
| Phase-phase winding resistance             | 11.2 Ohm                                                                               |
| Winding inductance phase-phase             | 20.9 mH                                                                                |
| Type of winding switch                     | Star inside                                                                            |
| Peak current                               | 4.2 A                                                                                  |
| Voltage constant, phase-to-phase           | 29 mVmin                                                                               |
| Rating class according to EN 60034-1       | S1                                                                                     |
| CE marking (see declaration of conformity) | As per EU EMC directive<br>As per EU low voltage directive<br>As per EU RoHS directive |
| Corrosion resistance class (CRC)           | 0 - No corrosion stress                                                                |
| Storage temperature                        | -20 °C ... 55 °C                                                                       |
| Relative air humidity                      | 0 - 90 %                                                                               |
| Degree of protection                       | IP65                                                                                   |
| Ambient temperature                        | -15 °C ... 40 °C                                                                       |
| Thermal class according to EN 60034-1      | F                                                                                      |
| Certification                              | c UL us - Recognized (OL)                                                              |
| Total output inertia moment                | 0.214 kgcm <sup>2</sup>                                                                |
| Nominal torque                             | 0.64 Nm                                                                                |
| Peak torque                                | 1.92 Nm                                                                                |
| Stall torque                               | 0.7 Nm                                                                                 |
| Permissible axial shaft load               | 90 N                                                                                   |
| Permissible radial shaft load              | 180 N                                                                                  |
| Product weight                             | 1100 g                                                                                 |
| Note on materials                          | Contains paint-wetting impairment substances<br>RoHS-compliant                         |
| Conforms to standard                       | IEC 60034                                                                              |