

Main

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|---------------------------|-----------------------|
| Range compatibility | Lexium SD3 |
| Product or component type | Motion control motor |
| Device short name | BRS3 |
| Maximum mechanical speed | 3000 rpm |
| Motor type | 3-phase stepper motor |
| Number of motor poles | 6 |
| Supply voltage limits | 230 V AC 325 V DC |
| Mounting support | Flange |
| Motor flange size | 85 mm |
| Length | 141 mm |
| Centring collar diameter | 60 mm |

Complementary

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|---------------------------------------|---|
| Centring collar depth | 2 mm |
| Number of mounting holes | 4 |
| Mounting holes diameter | 6.5 mm |
| Circle diameter of the mounting holes | 98.99 mm |
| Electrical connection | Connector |
| Holding brake | Without |
| Shaft end | Woodruff key |
| Second shaft | With second shaft end |
| Shaft diameter | 9.5 mm |
| Shaft length | 30 mm |
| Nominal torque | 4 N.m |
| Peak stall torque | 3.82 N.m |
| Continuous stall torque | 3.82 N.m |
| Holding torque | 4.52 N.m |
| Rotor inertia | 2.2 kg.cm ² |
| Resolution | 1.8 °, 0.9 °, 0.72 °, 0.36 °, 0.18 °, 0.09 °, 0.072 °, 0.036 ° step angle 200, 400, 500, 1000, 2000, 4000, 5000, 10000 steps number of full steps per revolution |
| Accuracy error | +/- 6 arc min |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

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|----------------------------|--|
| Maximum starting frequency | 5.3 kHz |
| [In] rated current | 2 A |
| Resistance | 5.8 Ohm (winding) |
| Time constant | 9 ms |
| Maximum radial force Fr | 100 N (first shaft end) 50 N (second shaft end) |
| Maximum axial force Fa | 175 N (tensile force) 30 N (force pressure) |
| Service life in hours | 20000 h (bearing) |
| Angular acceleration | 200000 rad/s ² |
| Product weight | 3.2 kg |

Environment

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|---------------------------------------|---|
| Standards | IEC 60072-1 EN 50347 |
| Type of cooling | Natural convection |
| Ambient air temperature for operation | -25...40 °C |
| Ambient air temperature for storage | -25...70 °C |
| Operating altitude | <= 1000 m without power derating |
| Relative humidity | 15...85 % without condensation |
| Vibration resistance | 20 m/s ² maximum A conforming to EN/IEC 60034-14 |
| IP degree of protection | IP41 shaft bushing: conforming to EN/IEC 60034-5 IP56 total except shaft bushing: conforming to EN/IEC 60034-5 |
| Temperature class | F winding conforming to IEC/EN 60034-1 |

Offer Sustainability

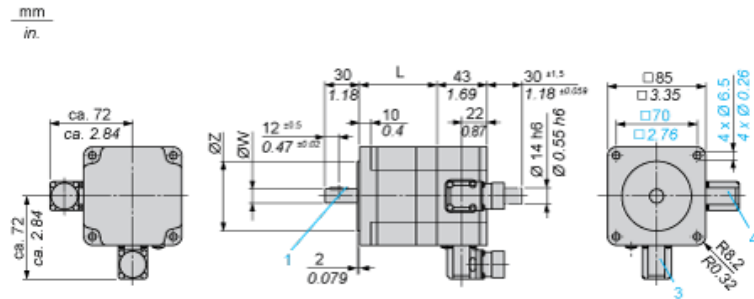
| | |
|----------------------------|---|
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |
| Mercury free | Yes |
| RoHS exemption information | Yes |
| China RoHS Regulation | China RoHS declaration |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | No need of specific recycling operations |
| WEEE | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

Contractual warranty

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| Warranty | 18 months |
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Dimensions

3-Phase Stepper Motor in Connector Version



- 3 : Motor connection 6 poles
- 4 : Motor connection (optional) 12 poles

Dimensions in mm

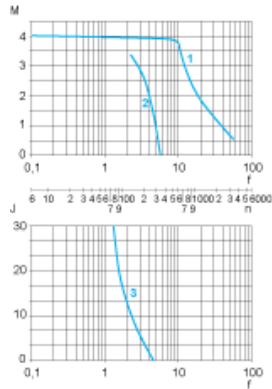
| L | Shaft diameter ØW | Centring collar ØZ | Woodruff key DIN 6888 (1) |
|--------------------|-------------------|--------------------|---------------------------|
| 97.5 (+0.6) (-0.8) | 9.5 h6 | 60 h8 | 3 x 5 |

Dimensions in in.

| L | Shaft diameter ØW | Centring collar ØZ | Woodruff key DIN 6888 (1) |
|------------------------|-------------------|--------------------|---------------------------|
| 3.84 (+0.023) (-0.031) | 0.37 h6 | 2.36 h8 | 0.12 x 0.20 |

Torque Characteristics

Measurement at 1000 Steps/Revolution, Nominal Voltage DC Bus U_N and Phase Current I_N



- M : Torque in Nm
- n : Speed in rpm
- f : Frequency in kHz
- J : Rotor inertia in kg.cm²
- 1 : Pull-out torque
- 2 : Pull-in torque
- 3 : Maximum load inertia