



## Main

|                           |                       |
|---------------------------|-----------------------|
| Range compatibility       | Lexium SD3            |
| Product or component type | Motion control motor  |
| Device short name         | BRS3                  |
| Maximum mechanical speed  | 3000                  |
| Motor type                | 3-phase stepper motor |
| Number of motor poles     | 6                     |
| Supply voltage limits     | 48 V DC<br>34 V DC    |
| Mounting support          | Flange                |
| Motor flange size         | 57.2 mm               |
| Length                    | 93 mm                 |
| Centring collar diameter  | 38 mm                 |

## Complementary

|                                       |   |
|---------------------------------------|---|
| Centring collar depth                 | 1.6 mm  |
| Number of mounting holes              | 4   |
| Mounting holes diameter               | 5.2 mm  |
| Circle diameter of the mounting holes | 66.6 mm   |
| Electrical connection                 | Terminal box  |
| Holding brake                         | Without   |
| Shaft end                             | Smooth shaft  |
| Second shaft                          | Without second shaft end  |
| Shaft diameter                        | 6.35 mm   |
| Shaft length                          | 21 mm   |
| Nominal torque                        | 0.9 N.m   |
| Holding torque                        | 1.02 N.m  |
| Rotor inertia                         | 0.22 kg.cm <sup>2</sup>   |
| Resolution                            | 200, 400, 500, 1000, 2000, 4000, 5000, 10000 steps number of full steps per revolution<br>1.8 °, 0.9 °, 0.72 °, 0.36 °, 0.18 °, 0.09 °, 0.072 °, 0.036 ° step angle |
| Accuracy error                        | +/- 6 arc min   |
| Maximum starting frequency            | 8 kHz   |
| [In] rated current                    | 5.8 A   |
| Resistance                            | 0.5 Ohm (winding)   |
| Time constant                         | 3.3 ms  |
| Maximum radial force Fr               | 24 N (first shaft end)<br>25 N (second shaft end)   |
| Maximum axial force Fa                | 8.4 N (force pressure)<br>100 N (tensile force)   |
| Service life in hours                 | 20000 h (bearing)   |
| Angular acceleration                  | 200000 rad/s <sup>2</sup>   |
| Product weight                        | 1.6 kg  |

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## Environment

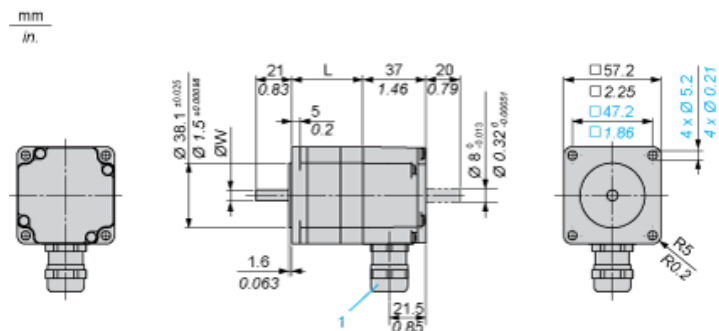
|                                       |   |
|---------------------------------------|---|
| Standards                             | EN 50347<br>IEC 60072-1   |
| Type of cooling                       | Natural convection  |
| Ambient air temperature for operation | -25...40 °C   |
| Ambient air temperature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

## Offer Sustainability

|                                  |   |
|----------------------------------|---|
| Sustainable offer status         | Green Premium product   |
| RoHS                             | Compliant - since 0623 - <a href="#">Schneider Electric declaration of conformity</a> |
| REACH                            | Reference not containing SVHC above the threshold                                     |
| Product environmental profile    | Available <a href="#">Download Product Environmental</a>                              |
| Product end of life instructions | Need no specific recycling operations   |

Dimensions

3-Phase Stepper Motor in Terminal Box Version



1 : Cable gland M20 x 1.5 for cable Ø 9 ... 13 mm / 0.35 ... 0.51 in.

Dimensions in mm

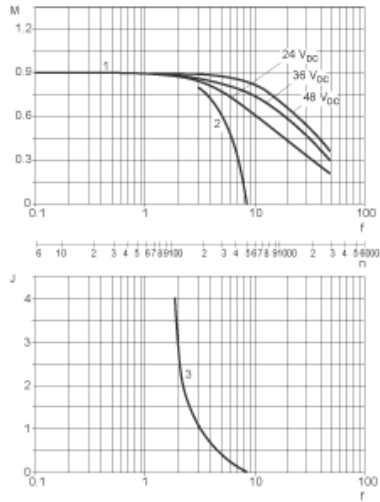
|         |                   |
|---------|-------------------|
| L       | Shaft diameter ØW |
| 56 ±0.5 | 6.35 ±0.013       |

Dimensions in in.

|             |                   |
|-------------|-------------------|
| L           | Shaft diameter ØW |
| 2.20 ±0.020 | 0.25 ±0.00051     |

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.cm<sup>2</sup>
- 1 : Pull-out torque
- 2 : Pull-in torque
- 3 : Maximum load inertia