

## Main

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	110 mm
Length	180 mm
Centring collar diameter	56 mm

## Complementary

Centring collar depth	3 mm
Number of mounting holes	4
Mounting holes diameter	9 mm
Circle diameter of the mounting holes	125.86 mm
Electrical connection	Terminal box
Holding brake	Without
Shaft end	Parallel key
Second shaft	Without second shaft end
Shaft diameter	19 mm
Shaft length	40 mm
Nominal torque	12 N.m
Peak stall torque	11.42 N.m
Continuous stall torque	11.42 N.m

Holding torque	13.5 N.m
Rotor inertia	10.5 kg.cm <sup>2</sup>
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
Maximum starting frequency	4.7 kHz
[In] rated current	4.1 A
Resistance	1.8 Ohm (winding)
Time constant	22 ms
Maximum radial force Fr	150 N (second shaft end) 300 N (first shaft end)
Maximum axial force Fa	330 N (tensile force) 60 N (force pressure)
Service life in hours	20000 h (bearing)
Angular acceleration	200000 rad/s <sup>2</sup>
Product weight	8.2 kg

## Environment

Standards	EN 50347 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	20 m/s <sup>2</sup> maximum A conforming to EN/IEC 60034-14
IP degree of protection	IP41 for shaft bushing conforming to EN/IEC 60034-5 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 (date code: YYWW)	Compliant - since 0623 - Schneider Electric declaration of conformity <a href="#">Schneider Electric declaration of conformity</a>
REACH	Reference not containing SVHC above the threshold <a href="#">Reference not containing SVHC above the threshold</a>
Product environmental profile	Available
Product end of life instructions	Need no specific recycling operations

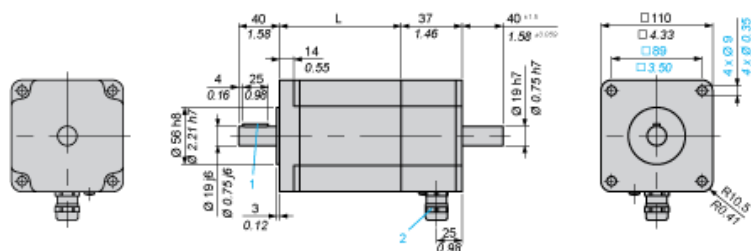
## Contractual warranty

Warranty period	18 months
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Dimensions

3-Phase Stepper Motor in Terminal Box Version

mm  
in.



Dimensions in mm

L	Parallel key DIN 6885 (1)	Cable gland (2)
180 ±1	6 x 6 x 25	ISO M20 x 1.5

Dimensions in in.

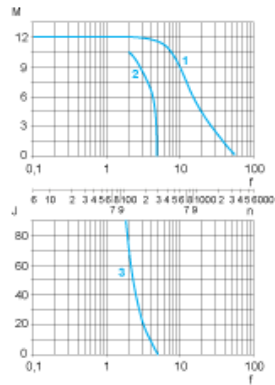
L	Parallel key DIN 6885 (1)	Cable gland (2)
7.09 ±0.039	0.24 x 0.24 x 0.98	ISO M20 x 1.5

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Torque Characteristics

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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