



## 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 34 V AC
Mounting support	Flange
Motor flange size	85 mm
Length	98 mm
Centring collar diameter	73 mm

## Complementary

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	Wires
Holding brake	Without
Shaft end	Smooth shaft
Second shaft	Without second shaft end
Shaft diameter	12 mm
Shaft length	30 mm
Nominal torque	4 N.m
Holding torque	4.8 N.m
Rotor inertia	2.2 kg.cm <sup>2</sup>
Resolution	200, 400, 500, 1000, 2000, 4000, 5000, 10000 steps number of full steps per revolution 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	5.3 kHz
[In] rated current	5.8 A
Resistance	0.55 Ohm (winding)
Time constant	9 ms
Maximum radial force Fr	75 N (second shaft end) 110 N (first shaft end)
Maximum axial force Fa	30 N (force pressure) 175 N (tensile force)
Service life in hours	20000 h (bearing)
Angular acceleration	200000 rad/s <sup>2</sup>
Product weight	3.2 kg

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## Environment

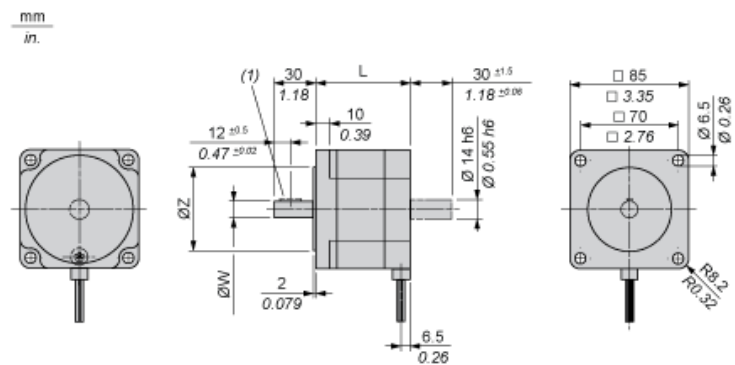
Standards	EN 50347 IEC 60072-1
Type of cooling	Natural convection
Ambient air temperature for operation	-25...40 °C
Ambient air temperature for storage	-25...70 °C
Operating altitude	<= 1000 m without power derating
Relative humidity	15...85 % without condensation
Vibration resistance	A conforming to EN/IEC 60034-14 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 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 Wires Version



Dimensions in mm

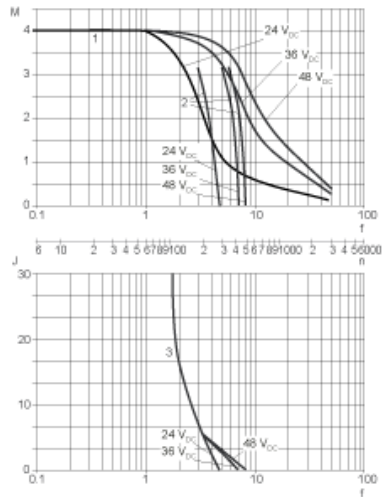
L	Shaft diameter ØW	Centring collar ØZ	Woodruff key DIN 6888 (1)
97.5 (+0.6) (-0.8)	12 h6	73 h8	4 x 6.5

Dimensions in in.

L	Shaft diameter ØW	Centring collar ØZ	Woodruff key DIN 6888 (1)
3.84 (+0.023) (-0.031)	0.47 h6	2.87 h8	0.16 x 0.25

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  $\text{kg}\cdot\text{cm}^2$
- 1 : Pull-out torque
- 2 : Pull-in torque
- 3 : Maximum load inertia