

## 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	34 V DC 48 V DC
Mounting support	Flange
Motor flange size	2.25 in (57.2 mm)
Length	3.11 in (79 mm)
Centring collar diameter	1.50 in (38 mm)

## Complementary

Centring collar depth	0.06 in (1.6 mm)
Number of mounting holes	4
Mounting holes diameter	0.20 in (5.2 mm)
Circle diameter of the mounting holes	2.62 in (66.6 mm)
Electrical connection	Connector
Holding brake	Without
Shaft end	Smooth shaft
Second shaft	Without second shaft end
Shaft diameter	0.25 in (6.35 mm)
Shaft length	0.83 in (21 mm)
Nominal torque	3.98 lbf.in (0.45 N.m)
Holding torque	4.51 lbf.in (0.51 N.m)
Rotor inertia	0.1 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	8.5 kHz
Line Rated Current	5.2 A
Resistance	0.42 Ohm (winding)
Time constant	2.1 ms
Maximum radial force Fr	25 N second shaft end) 24 N (first shaft end)
Maximum axial force Fa	100 N tensile force) 8.4 N force pressure)
Service life in hours	20000 h bearing)
Angular acceleration	200000 rad/s <sup>2</sup>
Net weight	2.87 lb(US) (1.3 kg)

## Environment

Standards	IEC 60072-1 EN 50347
Type of cooling	Natural convection
Ambient air temperature for operation	-13...104 °F (-25...40 °C)
Ambient air temperature for storage	-13...158 °F (-25...70 °C)
Operating altitude	<= 3280.84 ft (1000 m) without power derating
Relative humidity	15...85 % without condensation
Vibration resistance	20 m/s <sup>2</sup> maximum A EN/IEC 60034-14
IP degree of protection	Total except shaft bushing IP56 EN/IEC 60034-5 IP41 shaft bushing without shaft seal ring: conforming to EN/IEC 60034-5
Temperature class	F winding IEC/EN 60034-1

## Ordering and shipping details

Category	18284 - STEPPER MOTORS
Discount Schedule	PC55
GTIN	03606485150550
Nbr. of units in pkg.	1
Package weight(Lbs)	1 lb(US) (0.45 kg)
Returnability	No
Country of origin	DE

## Packing Units

Unit Type of Package 1	PCE
Package 1 Height	3.94 in (10 cm)
Package 1 width	6.30 in (16 cm)
Package 1 Length	8.46 in (21.5 cm)

## Offer Sustainability

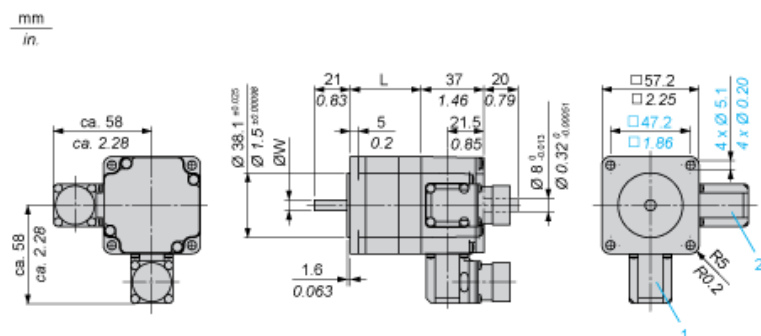
Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS Declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
PVC free	Yes

## Contractual warranty

Warranty	18 months
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Dimensions

3-Phase Stepper Motor in Connector Version



- 1 : Plug connection encoder (optional) 12 poles
- 2 : Plug connection motor 6 poles

Dimensions in mm

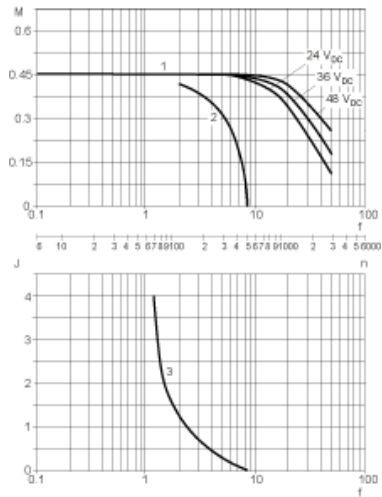
L	Shaft diameter ØW
42 ±0.5	6.35 ±0.013

Dimensions in in.

L	Shaft diameter ØW
1.65 ±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