



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	325 V DC 230 V AC
Mounting support	Flange
Motor flange size	85 mm
Length	217 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	Terminal box
Holding brake	With
Shaft end	Untapped
Second shaft	Without second shaft end
Shaft diameter	14 mm
Shaft length	30 mm
Nominal torque	6 N.m
Peak stall torque	5.78 N.m
Continuous stall torque	5.78 N.m
Holding torque	6.78 N.m
Rotor inertia	3.3 kg.cm ²
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	2.25 A
Resistance	6.5 Ohm (winding)
Time constant	10 ms
Maximum radial force Fr	50 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 ²
Product weight	4.3 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	A conforming to EN/IEC 60034-14 20 m/s ² maximum
IP degree of protection	IP56 for total except shaft bushing conforming to EN/IEC 60034-5 IP41 for 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
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available Download Product Environmental
Product end of life instructions	Need no specific recycling operations

3-Phase Stepper Motor in Terminal Box Version

Technical drawing of the 1000 series ball valve showing three views: front, side, and top. The front view shows a square body with a central bore and four mounting holes. The side view shows the valve's profile with dimensions for length (L), body thickness, and mounting hole positions. The top view shows the valve's top surface with dimensions for mounting hole diameter (ØZ), body width (ØW), and mounting hole spacing. Dimensions are given in millimeters.

The technical drawing shows two views of the 6000 series ball bearing unit. The left view is a front elevation showing a square housing with four mounting holes and a central circular opening. The right view is a side elevation showing the profile of the unit. Key dimensions are labeled:

- L**: Total length of the unit.
- 43**: Distance from the front face to the center of the bearing.
- 46.5**: Distance from the back face to the center of the bearing.
- 1.69**: Thickness of the front flange.
- 1.83**: Thickness of the rear flange.
- Ø 63.5**: Inner diameter of the bearing.
- Ø 3.29**: Diameter of the shaft hole in the rear flange.
- ca. Ø 66**: Outer diameter of the housing bore.
- ca. 2.60**: Total thickness of the housing.

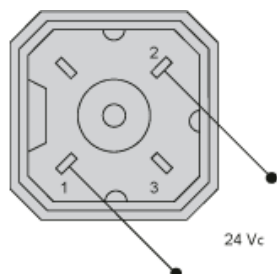
Dimensions in mm

L	Shaft diameter ØW	Centring collar ØZ	Woodruff key DIN 6888 (1)	Cable gland (2)
127.5 (+0.6) (-0.8)	14 h6	73 h8	5 x 6.5	ISO M20 x 1.5

L

5.02 (+0.023) (-0.031)	0.55 h6	2.87 h8	0.20 x 0.25	ISO M20 x 1.5
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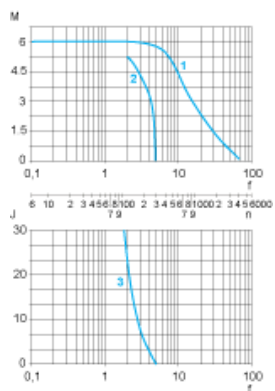
Wiring Diagram of Holding Brake



The connector is part of the scope of delivery. Connector designation: Hirschmann type G4 A 5M

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