

BRS3ADW850ABA

3-phase stepper motor - 19.7 Nm - shaft
Ø19mm - L=230mm - w/o brake - term box



Main

Commercial Status	Commercialised
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	325 V DC 230 V AC
Mounting support	Flange
Motor flange size	110 mm
Length	228 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	16.5 N.m
Peak stall torque	16.45 N.m
Continuous stall torque	16.45 N.m
Holding torque	19.7 N.m
Rotor inertia	16 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	4.7 kHz
[In] rated current	4.75 A
Resistance	1.9 Ohm (winding)
Time constant	22 ms
Maximum radial force Fr	300 N (first shaft end) 150 N (second shaft end)
Maximum axial force Fa	60 N (force pressure) 330 N (tensile force)
Service life in hours	20000 h (bearing)
Angular acceleration	200000 rad/s ²
Product weight	11.2 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 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

RoHS compliance

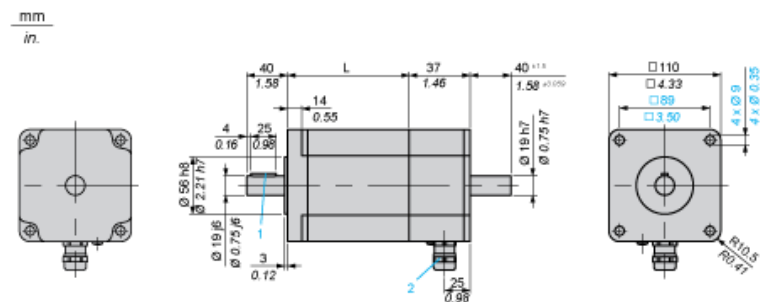
RoHS EUR status	Compliant
RoHS EUR conformity date(YWW)	0623

Contractual warranty

Period	18 months
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Dimensions

3-Phase Stepper Motor in Terminal Box Version



- 1 : Parallel key DIN 6885: A 6 x 6 x 25 mm / 0.98 in.
2 : Cable gland M20 x 1.5 for cable Ø 9 ... 13 mm / 0.35 ... 0.51 in.

Dimensions in mm

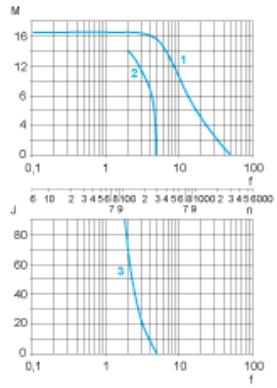
L
228 ±1

Dimensions in in.

L
8.98 ±0.039

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