Product data sheet Characteristics

BRS3ACW850ABA

3-phase stepper motor - 13.5 Nm - shaft \tilde{A} 19mm - L=180mm - w/o brake - term box





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	4.33 in (110 mm)
Length	7.09 in (180 mm)
Centring collar diameter	2.20 in (56 mm)

Complementary

Complementary	
Centring collar depth	0.12 in (3 mm)
Number of mounting holes	4
Mounting holes diameter	0.35 in (9 mm)
Circle diameter of the mounting holes	4.96 in (125.86 mm)
Electrical Connection	Terminal box
Holding brake	Without
Shaft end	Parallel key
Second shaft	Without second shaft end
Shaft diameter	0.75 in (19 mm)
Shaft length	1.57 in (40 mm)
Nominal torque	106.21 lbf.in (12 N.m)
Peak stall torque	101.08 lbf.in (11.42 N.m)
Continuous stall torque	101.08 lbf.in (11.42 N.m)
Holding torque	119.48 lbf.in (13.5 N.m)
Rotor inertia	10.5 kg.cm²
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
Line 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/s²
Net Weight	18.08 lb(US) (8.2 kg)

Environment

Standards	IEC 50347 IEC 60072-1	
Type of cooling	Natural convection	
Ambient Air Temperature for Operation	-13104 °F (-2540 °C)	
Ambient Air Temperature for Storage	-13158 °F (-2570 °C)	
Operating altitude	<= 3280.84 ft (1000 m) without power derating	
Relative humidity	1585 % without condensation	
Vibration resistance	20 m/s² maximum A IEC 60034-14	
IP degree of protection	Shaft bushing IP41 IEC 60034-5 Total except shaft bushing IP56 IEC 60034-5	
Temperature class	F winding IEC 60034-1	

Ordering and shipping details

Category	18284-STEPPER MOTORS
Discount Schedule	PC55
GTIN	3389119224147
Returnability	Yes
Country of origin	DE

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	8.66 in (22.000 cm)
Package 1 Width	7.68 in (19.500 cm)
Package 1 Length	15.75 in (40.000 cm)
Package 1 Weight	20.02 lb(US) (9.079 kg)
Unit Type of Package 2	P06
Number of Units in Package 2	12
Package 2 Height	29.53 in (75.000 cm)
Package 2 Width	23.62 in (60.000 cm)
Package 2 Length	31.50 in (80.000 cm)
Package 2 Weight	258.93 lb(US) (117.448 kg)

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 www.P65Warnings.ca.gov	
REACh Regulation	☑ REACh Declaration	
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)	
Mercury free	Yes	
China RoHS Regulation	☑ China RoHS Declaration	
RoHS exemption information	₫Yes	
Environmental Disclosure	Product Environmental Profile	
Circularity Profile	No need of specific recycling operations	
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

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Warranty	18 months

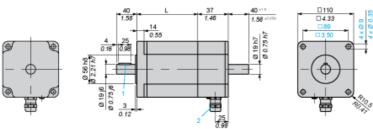
Product data sheet Dimensions Drawings

BRS3ACW850ABA

Dimensions

3-Phase Stepper Motor in Terminal Box Version





Dimensions in mm

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

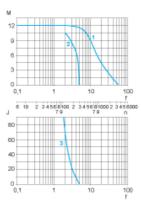
Dimensions in in.

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

BRS3ACW850ABA

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 torque2: Pull-in torque

3: Maximum load inertia