Product data sheet Characteristics

BRS3ADW850ACA

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



Product availability: Non-Stock - Not normally stocked in distribution facility



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	8.98 in (228 mm)
Centring collar diameter	2.20 in (56 mm)

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	Connector
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	146.04 lbf.in (16.5 N.m)
Peak stall torque	145.59 lbf.in (16.45 N.m)
Continuous stall torque	145.59 lbf.in (16.45 N.m)
Holding torque	174.36 lbf.in (19.7 N.m)
Rotor inertia	16 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	4.75 A
Resistance	1.9 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	24.69 lb(US) (11.2 kg)

Environment

Standards	EN 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 EN/IEC 60034-14	
IP degree of protection	Shaft bushing IP41 EN/IEC 60034-5	
	Total except shaft bushing IP56 EN/IEC 60034-5	
Temperature class	F winding IEC/EN 60034-1	

Ordering and shipping details

Category	18284 - STEPPER MOTORS	
Discount Schedule	PC55	
GTIN	03389119224260	
Package weight(Lbs)	11.58 kg (25.52 lb(US))	
Returnability	No	
Country of origin	DE	

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 Carcinogen & Reproductive harm. For more information go to www.p65warnings.ca.gov
REACh Regulation	☑ REACh Declaration
REACh free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) [☑] EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	₽¥Yes
China RoHS Regulation	☑ China RoHS Declaration
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.

Contractual warranty

Warranty	18 months

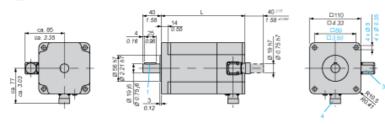
Product data sheet Dimensions Drawings

BRS3ADW850ACA

Dimensions

3-Phase Stepper Motor in Connector Version





- 3: Plug connection encoder (optional) 12 poles
- 4: Plug connection motor 6 poles

Dimensions in mm

L	Parallel key DIN 6885 (1)
228 ±1	6 x 6 x 25

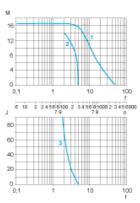
Dimensions in in.

L	Parallel key DIN 6885 (1)
8.98 ±0.039	0.24 x 0.24 x 0.98

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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