Product data sheet Characteristics

BRS397W360FCA

3-phase stepper motor - 2.26 Nm - shaft Ø 12 mm - L=68 mm - with brake - conn





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	85 mm	
Length	157 mm	
Centring collar diameter	60 mm	

Complementary

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	Connector	
Holding brake	With	
Shaft end	Untapped	
Second shaft	Without second shaft end	
Shaft diameter	12 mm	
Shaft length	30 mm	
Nominal torque	2 N.m	
Peak stall torque	1.9 N.m	
Continuous stall torque	1.9 N.m	
Holding torque	2.26 N.m	
Rotor inertia	1.1 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	5.3 kHz	
[In] rated current	1.75 A	
Resistance	6.5 Ohm (winding)	
Time constant	7 ms	
Maximum radial force Fr	100 N (first shaft end) 50 N (second shaft end)	
Maximum axial force Fa	175 N (tensile force) 30 N (force pressure)	
Service life in hours	20000 h (bearing)	
Angular acceleration	200000 rad/s²	
Net weight	2.1 kg	

Environment

Standards	IEC 60072-1	
	EN 50347	
Type of cooling	Natural convection	
Ambient air temperature for operation	-2540 °C	
Ambient air temperature for storage	-2570 °C	
Operating altitude	<= 1000 m without power derating	
Relative humidity	1585 % without condensation	
Vibration resistance	20 m/s² maximum	
	A conforming to EN/IEC 60034-14	
IP degree of protection	IP41 shaft bushing: conforming to EN/IEC 60034-5	
	IP56 total except shaft bushing: conforming to EN/IEC 60034-5	
Temperature class	F winding conforming to IEC/EN 60034-1	

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	22.5 cm
Package 1 Width	19 cm
Package 1 Length	40 cm
Package 1 Weight	3.98 kg
Unit Type of Package 2	S06
Number of Units in Package 2	12
Package 2 Height	73.5 cm
Package 2 Width	60 cm
Package 2 Length	80 cm
Package 2 Weight	60.76 kg
Unit Type of Package 3	P06
Number of Units in Package 3	12
Package 3 Height	77 cm
Package 3 Width	80 cm
Package 3 Length	60 cm
Package 3 Weight	56.26 kg

Offer Sustainability

stainable offer status Green Premium product		
REACh Regulation	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration	
EU RoHS Directive		
Mercury free	Yes	
China RoHS Regulation	China RoHS Declaration	
RoHS exemption information	₫Yes	
Environmental Disclosure	Product Environmental Profile	
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

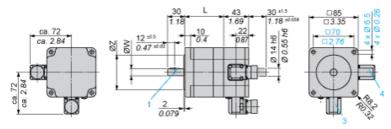
Outifactual warranty	
Warranty	18 months

BRS397W360FCA

Dimensions

3-Phase Stepper Motor in Connector Version

mm in

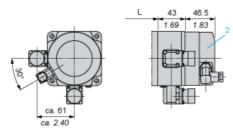


3: Motor connection 6 poles

4: Motor connection (optional) 12 poles

Holding Brake

mm



2: Holding brake (optional)

Dimensions in mm

L	Shaft diameter ØW	Centring collar ØZ	Woodruff key DIN 6888 (1)
67.5 (+0.6) (-0.8)	12 h6	60 h8	4 x 6.5

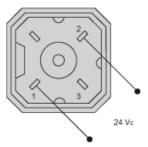
Dimensions in in.

L	Shaft diameter ØW	Centring collar ØZ	Woodruff key DIN 6888 (1)
2.66 (+0.023) (-0.031)	0.47 h6	2.36 h8	0.16 x 0.25

Product data sheet Connections and Schema

BRS397W360FCA

Wiring Diagram of Holding Brake

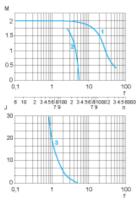


The connector is part of the scope of delivery. Connector designation: Hirschmann type G4 A 5M

BRS397W360FCA

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