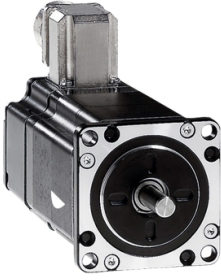


Product data sheet

Specifications



3-phase stepper motor - 1.02 Nm -
shaft Ø 6.35 mm - L = 56 mm -
with brake - con.

BRS366H031FCA

! Discontinued

! Discontinued on: Jul 12, 2021

! End-of-service on: Aug 2, 2021

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	34 V DC 48 V DC
Mounting support	Flange
Motor flange size	2.3 in (57.2 mm)
Length	5.3 in (134 mm)
Centring collar diameter	1.5 in (38 mm)

Complementary

Centring collar depth	0.06 in (1.6 mm)
Number of mounting holes	4
Mounting holes diameter	0.2 in (5.2 mm)
Circle diameter of the mounting holes	2.6 in (66.6 mm)
Electrical connection	Connector
Feedback type	Single turn encoder
Speed feedback resolution	10000 points/turn
Holding brake	With
Shaft end	Smooth shaft
Second shaft	Without second shaft end
Shaft diameter	0.25 in (6.35 mm)
Shaft length	0.8 in (21 mm)
Nominal torque	8.0 lbf.in (0.9 N.m)
Holding torque	9.03 lbf.in (1.02 N.m)
Rotor inertia	0.22 kg.cm ²

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	8 kHz
[In] rated current	5.8 A
Resistance	0.5 Ohm winding)
Time constant	3.3 ms
Maximum radial force Fr	40 N second shaft end) 24 N first shaft end)
Maximum axial force Fa	100 N tensile force) 8.4 N force pressure)
Service life in hours	20000 h bearing)
Brake pull-in power	8 W
Angular acceleration	200000 rad/s ²
Net weight	3.5 lb(US) (1.6 kg)

Environment

Standards	IEC 60072-1 EN 50347
Type of cooling	Natural convection
Ambient air temperature for operation	-13...104 °F (-25...40 °C)
Ambient air temperature for storage	-13...158 °F (-25...70 °C)
Operating altitude	<= 1000 m without power derating
Relative humidity	15...85 % without condensation
Vibration resistance	20 m/s ² maximum A EN/IEC 60034-14
IP degree of protection	IP56 total except shaft bushing: conforming to EN/IEC 60034-5 IP41 shaft bushing without shaft seal ring: conforming to EN/IEC 60034-5
Temperature class	F winding IEC/EN 60034-1

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.9 in (10 cm)
Package 1 Width	6.3 in (16 cm)
Package 1 Length	8.5 in (21.5 cm)
Package 1 Weight	3.57 lb(US) (1.62 kg)

Contractual warranty

Warranty (in months)	18
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

Use Longer



Lifetime extension

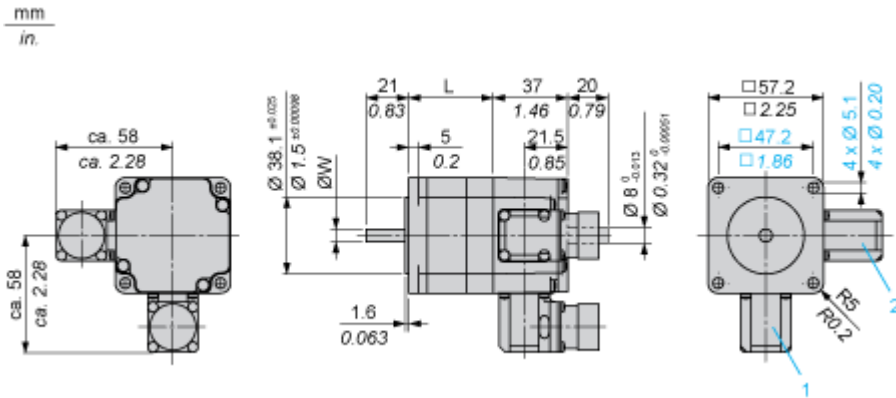
Repair

No

Dimensions Drawings

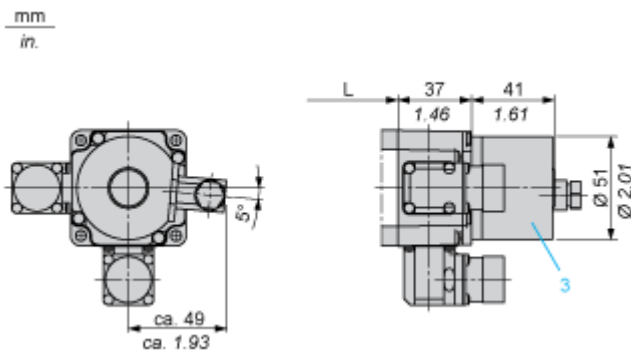
Dimensions

3-Phase Stepper Motor in Connector Version



- 1 : Plug connection encoder (optional) 12 poles
- 2 : Plug connection motor 6 poles

Holding Brake



- 3 : Holding brake (optional)

Dimensions in mm

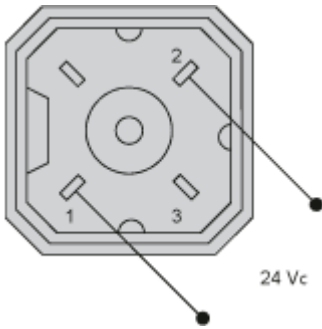
L	Shaft diameter ØW
56 ±0.5	6.35 ±0.013

Dimensions in in.

L	Shaft diameter ØW
2.20 ±0.020	0.25 ±0.00051

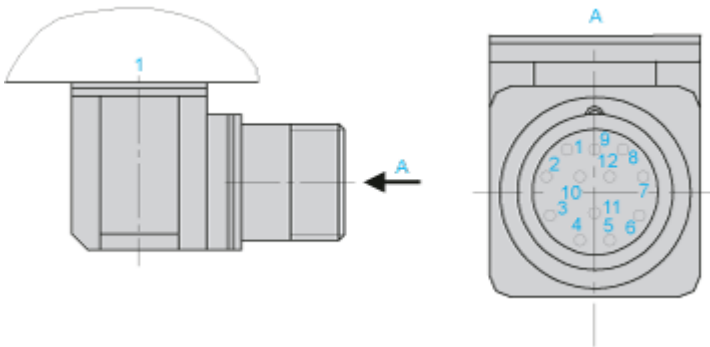
Connections and Schema

Wiring Diagram of Holding Brake



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

Wiring Diagram of Encoder Plug on BRS3••



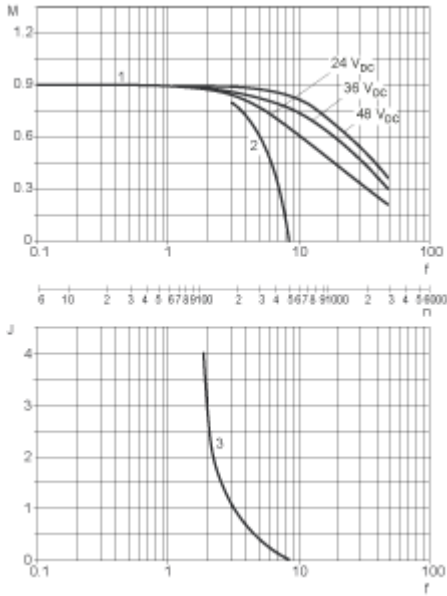
1 : Motor housing

Pin	Designation
1	A
2	A negated
3	B
4	B negated
5	C, I
6	C negated, I negated
7	5 V _{GND}
8	+ 5
9	-SENSE
10	+SENSE
11	Temperature sensor
12	Not connected

Performance Curves

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