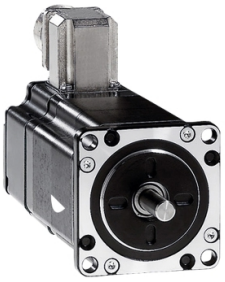
Product datasheet

Specifications



3-phase stepper motor - 0.51 Nm - shaft Ø 6.35 mm - L=42 mm - with brake

BRS364H030FBA

Discontinued on: 23 Oct 2020

Discontinued

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	57.2 mm
Length	120 mm
Centring collar diameter	38 mm

Complementary

Centring collar depth	1.6 mm
Number of mounting holes	4
Mounting holes diameter	5.2 mm
Circle diameter of the mounting holes	66.6 mm
Electrical connection	Terminal box
Holding brake	With
Shaft end	Smooth shaft
Second shaft	Without second shaft end
Shaft diameter	6.35 mm
Shaft length	21 mm
Nominal torque	0.45 N.m
Holding torque	0.51 N.m
Rotor inertia	0.1 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	8.5 kHz

[In] rated current	5.2 A
Resistance	0.42 Ohm (winding)
Time constant	2.1 ms
Maximum radial force Fr	25 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/s²
Product weight	1.3 kg

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	20 m/s² maximum A conforming to 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 conforming to IEC/EN 60034-1

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	10 cm
Package 1 Width	16 cm
Package 1 Length	21.5 cm
Package 1 Weight	1.19 kg

Contractual warranty

Warranty (in months)	18

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 Better

Materials and Substances

EU RoHS Directive	Compliant By Exemption
PVC free	Yes

Use Longer

Lifetime extension

Repair	No

Use Again

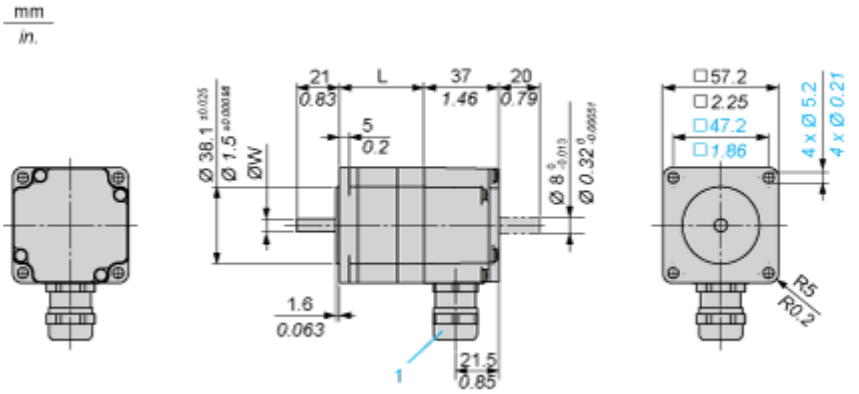
Repack and remanufacture

End of life manual availability	No need of specific recycling operations
WEEE Label	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Dimensions Drawings

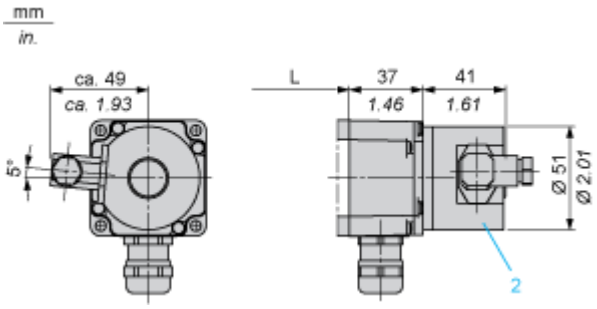
Dimensions

3-Phase Stepper Motor in Terminal Box Version



1 : Cable gland M20 x 1.5 for cable Ø 9 ... 13 mm / 0.35 ... 0.51 in.

Holding Brake



2 : Holding brake (optional)

Dimensions in mm

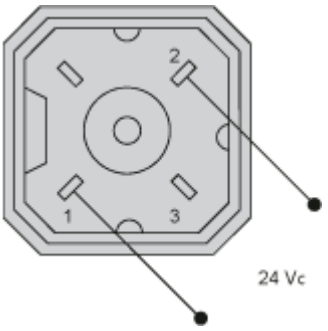
L	Shaft diameter ØW
42 ±0.5	6.35 ±0.013

Dimensions in in.

L	Shaft diameter ØW
1.65 ±0.020	0.25 ±0.00051

Connections and Schema

Wiring Diagram of Holding Brake

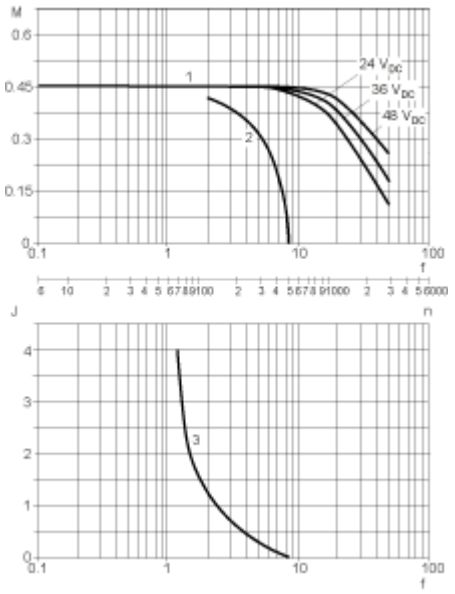


The connector is part of the scope of delivery. Connector designation: Hirschmann type G4 A 5M

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 $kg.cm^2$

1 : Pull-out torque

2 : Pull-in torque

3 : Maximum load inertia