

Product datasheet

Specifications



3-phase stepper motor - 6.78 Nm - shaft Ø 12mm - L=128mm - w/o brake - conn

BRS39BWM71ACA

⚠ 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 | 230 V AC 325 V DC |
| Mounting support | Flange |
| Motor flange size | 85 mm |
| Length | 171 mm |
| Centring collar diameter | 73 mm |

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 |
| Feedback type | Single turn encoder |
| Speed feedback resolution | 10000 points/turn |
| Holding brake | Without |
| Shaft end | Woodruff key |
| Second shaft | Without second shaft end |
| Shaft diameter | 14 mm |
| Shaft length | 30 mm |
| Nominal torque | 6 N.m |
| Peak stall torque | 5.78 N.m |
| Continuous stall torque | 5.78 N.m |
| Holding torque | 6.78 N.m |
| Rotor inertia | 3.3 kg.cm ² |

| | |
|-----------------------------------|---|
| Resolution | 1000 points/turn 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 | 2.25 A |
| Resistance | 6.5 Ohm (winding) |
| Time constant | 10 ms |
| Maximum radial force Fr | 110 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/s ² |
| Net weight | 4.3 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/s ² maximum A conforming to EN/IEC 60034-14 |
| IP degree of protection | IP56 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 | 12.5 cm |
| Package 1 Width | 18 cm |
| Package 1 Length | 36.5 cm |
| Package 1 Weight | 5.1 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 Longer



Lifetime extension

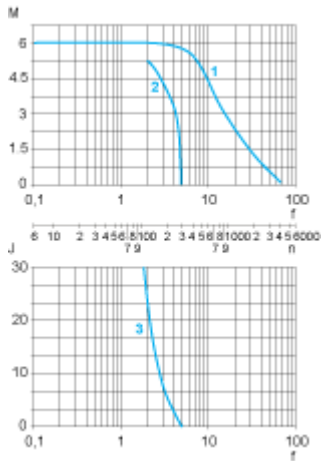
Repair

No

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