

Product data sheet

Specifications



3-phase stepper motor - 4.52 Nm -
shaft Ø 9.5mm - L=98mm - w/o
brake - conn

BRS39AWL60ACB

⚠ Discontinued on: Jul 12, 2021

⚠ End-of-service on: Aug 2, 2021

⚠ 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 | 3.3 in (85 mm) |
| Length | 5.6 in (141 mm) |
| Centring collar diameter | 2.4 in (60 mm) |

Complementary

| | |
|---------------------------------------|--------------------------|
| Centring collar depth | 0.08 in (2 mm) |
| Number of mounting holes | 4 |
| Mounting holes diameter | 0.3 in (6.5 mm) |
| Circle diameter of the mounting holes | 3.90 in (98.99 mm) |
| Electrical connection | Connector |
| Holding brake | Without |
| Shaft end | Woodruff key |
| Second shaft | With second shaft end |
| Shaft diameter | 0.5 in (12 mm) |
| Shaft length | 1.2 in (30 mm) |
| Nominal torque | 35.4 lbf.in (4 N.m) |
| Peak stall torque | 33.81 lbf.in (3.82 N.m) |
| Continuous stall torque | 33.81 lbf.in (3.82 N.m) |
| Holding torque | 40.005 lbf.in (4.52 N.m) |
| Rotor inertia | 2.2 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 | 5.3 kHz |
| [In] rated current | 2 A |
| Resistance | 5.8 Ohm winding) |
| Time constant | 9 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/s ² |
| Net weight | 7.05 lb(US) (3.2 kg) |

Environment

| | |
|--|---|
| Standards | EN 50347 IEC 60072-1 |
| 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 shaft bushing: conforming to EN/IEC 60034-5 IP56 total except shaft bushing: 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 | 4.09 in (10.4 cm) |
| Package 1 Width | 7.09 in (18 cm) |
| Package 1 Length | 14.4 in (36.5 cm) |
| Package 1 Weight | 7.61 lb(US) (3.45 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

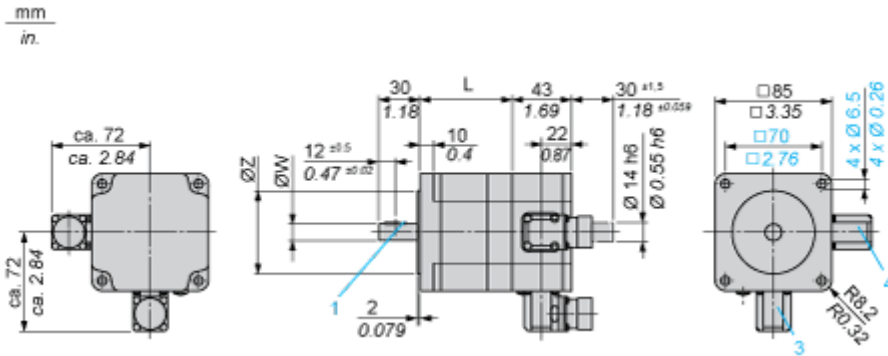
Repair

No

Dimensions Drawings

Dimensions

3-Phase Stepper Motor in Connector Version



- 3 : Motor connection 6 poles
- 4 : Motor connection (optional) 12 poles

Dimensions in mm

| L | Shaft diameter ØW | Centring collar ØZ | Woodruff key DIN 6888 (1) |
|--------------------|-------------------|--------------------|---------------------------|
| 97.5 (+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) |
|------------------------|-------------------|--------------------|---------------------------|
| 3.84 (+0.023) (-0.031) | 0.47 h6 | 2.36 h8 | 0.16 x 0.25 |

