

Product data sheet

Specifications



3-phase stepper motor - 19.7 Nm - shaft $\tilde{\sim}$ 19mm - L=230mm - w/o brake - term box

BRS3ADW850ABA

Product availability: Non-Stock - Not normally stocked in distribution facility

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 | 4.3 in (110 mm) |
| Length | 9.0 in (228 mm) |
| Centring collar diameter | 2.2 in (56 mm) |

Complementary

| | |
|---------------------------------------|---|
| Centring collar depth | 0.1 in (3 mm) |
| Number of mounting holes | 4 |
| Mounting holes diameter | 0.4 in (9 mm) |
| Circle diameter of the mounting holes | 4.96 in (125.86 mm) |
| Electrical Connection | Terminal box |
| Holding brake | Without |
| Shaft end | Parallel key |
| Second shaft | Without second shaft end |
| Shaft diameter | 0.7 in (19 mm) |
| Shaft length | 1.6 in (40 mm) |
| nominal torque | 146.04 lbf.in (16.5 N.m) |
| Peak stall torque | 145.59 lbf.in (16.45 N.m) |
| Continuous stall torque | 145.59 lbf.in (16.45 N.m) |
| Holding torque | 174.4 lbf.in (19.7 N.m) |
| Rotor inertia | 16 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 |

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

| | |
|----------------------------|---|
| Accuracy error | +/- 6 arc min |
| Maximum starting frequency | 4.7 kHz |
| Line Rated Current | 4.75 A |
| Resistance | 1.9 Ohm winding) |
| Time constant | 22 ms |
| Maximum radial force Fr | 150 N second shaft end) 300 N first shaft end) |
| Maximum axial force Fa | 330 N tensile force) 60 N force pressure) |
| Service life in hours | 20000 h bearing) |
| Angular acceleration | 200000 rad/s ² |
| Net Weight | 24.7 lb(US) (11.2 kg) |

Environment

| | |
|---------------------------------------|---|
| Standards | IEC 60072-1 IEC 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 | <= 3280.84 ft (1000 m) without power derating |
| Relative humidity | 15...85 % without condensation |
| Vibration resistance | 20 m/s ² maximum A IEC 60034-14 |
| IP degree of protection | IP41 shaft bushing: conforming to IEC 60034-5 IP56 total except shaft bushing: conforming to IEC 60034-5 |
| Temperature class | F winding IEC 60034-1 |

Ordering and shipping details

| | |
|-------------------|---------------|
| Category | US1PC5518284 |
| Discount Schedule | PC55 |
| GTIN | 3389119224239 |
| Returnability | No |
| Country of origin | DE |

Packing Units

| | |
|------------------------------|---------------------------|
| Unit Type of Package 1 | PCE |
| Nbr. of units in pkg. | 1 |
| Package 1 Height | 7.480 in (19.000 cm) |
| Package 1 Width | 15.748 in (40.000 cm) |
| Package 1 Length | 8.858 in (22.500 cm) |
| Package weight(Lbs) | 26.813 lb(US) (12.162 kg) |
| Unit Type of Package 2 | P06 |
| Number of Units in Package 2 | 12 |
| Package 2 Height | 29.528 in (75.000 cm) |

| | |
|-------------------------|-----------------------------|
| Package 2 Width | 23.622 in (60.000 cm) |
| Package 2 Length | 31.496 in (80.000 cm) |
| Package 2 Weight | 340.491 lb(US) (154.444 kg) |

Contractual warranty

| | |
|-----------------|-----------|
| Warranty | 18 months |
|-----------------|-----------|



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 >](#)

Environmental footprint

Carbon footprint (kg CO2 eq, Total Life cycle) **1614**

Environmental Disclosure [Product Environmental Profile](#)

Use Better

Materials and Substances

Packaging made with recycled cardboard **Yes**

Packaging without single use plastic **No**

[EU RoHS Directive](#) **Pro-active compliance (Product out of EU RoHS legal scope)**

REACH Regulation [REACH Declaration](#)

California proposition 65 **WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov**

PVC free **Yes**

Use Again

Repack and remanufacture

Circularity Profile **No need of specific recycling operations**

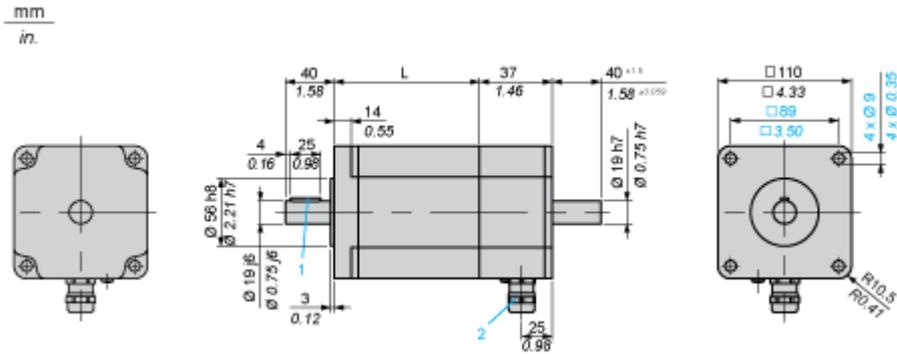
Take-back **No**

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



Dimensions in mm

| L | Parallel key DIN 6885 (1) | Cable gland (2) |
|--------|---------------------------|-----------------|
| 228 ±1 | 6 x 6 x 25 | ISO M20 x 1.5 |

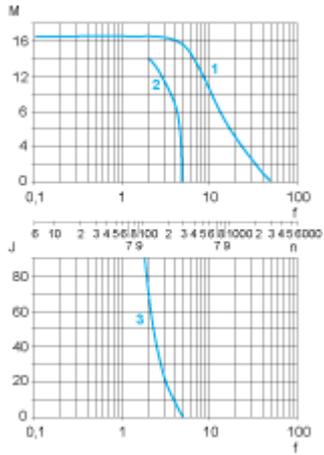
Dimensions in in.

| L | Parallel key DIN 6885 (1) | Cable gland (2) |
|-------------|---------------------------|-----------------|
| 8.98 ±0.039 | 0.24 x 0.24 x 0.98 | ISO M20 x 1.5 |

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