# Product data sheet Characteristics

## BRS366H030ACB

3-phase stepper motor - 1.02 Nm - shaft Ø6.35 mm - L=56 mm - without brake -con.



#### Main Range compatibility Lexium SD3 Product or component Motion control motor Device short name BRS3 Maximum mechanical 3000 rpm speed Motor type 3-phase stepper motor Number of motor poles 48 V DC Supply voltage limits 34 V DC Mounting support Flange 57.2 mm Motor flange size Length 93 mm Centring collar diame-38 mm ter

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| 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                 | Connector  |
| Holding brake                         | Without  |
| Shaft end                             | Smooth shaft   |
| Second shaft                          | With second shaft end  |
| Shaft diameter                        | 6.35 mm  |
| Shaft length                          | 21 mm  |
| Nominal torque                        | 0.9 N.m  |
| Holding torque                        | 1.02 N.m   |
| Rotor inertia                         | 0.22 kg.cm²  |
| Resolution                            | 200, 400, 500, 1000, 2000, 4000, 5000, 10000 steps number of full steps per revolution 1.8 °, 0.9 °, 0.72 °, 0.36 °, 0.18 °, 0.09 °, 0.072 °, 0.036 ° step angle |
| 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               | 24 N (first shaft end)<br>25 N (second shaft end)  |
| Maximum axial force Fa                | 8.4 N (force pressure)<br>100 N (tensile force)  |
| Service life in hours                 | 20000 h (bearing)  |
| Angular acceleration                  | 200000 rad/s²  |
| Product weight                        | 1.6 kg   |
|                                       |  |

### Environment

| Standards                             | EN 50347<br>IEC 60072-1  |
|---------------------------------------|--|
| Type of cooling                       | Natural convection   |
| Ambient air temperature for operation | -2540 °C   |
| Ambient air temperature for storage   | -2570 °C   |
| Operating altitude                    | <= 1000 m without power derating   |
| Relative humidity                     | 1585 % without condensation  |
| Vibration resistance                  | A conforming to EN/IEC 60034-14<br>20 m/s² maximum   |
| IP degree of protection               | IP41 for shaft bushing without shaft seal ring conforming to EN/IEC 60034-5 IP56 for total except shaft bushing conforming to EN/IEC 60034-5 |
| Temperature class                     | F class winding conforming to IEC/EN 60034-1   |

## Offer Sustainability

| RoHS (date code: YYWW) | Compliant - since 0623 - Schneider Electric declaration of conformity |
|------------------------|---|
|------------------------|---|



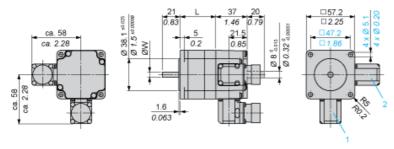
# Product data sheet Dimensions Drawings

## BRS366H030ACB

#### **Dimensions**

### 3-Phase Stepper Motor in Connector Version





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

Dimensions in mm

| L       | Shaft diameter ØW |
|---------|-------------------|
| 56 ±0.5 | 6.35 ±0.013       |

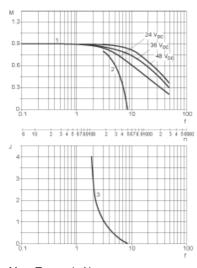
Dimensions in in.

| L           | Shaft diameter ØW |
|-------------|-------------------|
| 2.20 ±0.020 | 0.25 ±0.00051     |

## BRS366H030ACB

## **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

Rotor inertia in kg.cm²1: Pull-out torque2: Pull-in torque

3: Maximum load inertia