### BRS39AW360ACA

3-phase stepper motor - 4.52Nm - shaft  $\tilde{A}^{\sim}$  12mm - L=98 mm - w/o brake - conn





### 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	141 mm
Centring collar diameter	60 mm

### Complementary

o implementary	
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
Holding brake	Without
Shaft end	Untapped
Second shaft	Without second shaft end
Shaft diameter	12 mm
Shaft length	30 mm
Nominal torque	4 N.m
Peak stall torque	3.82 N.m
Continuous stall torque	3.82 N.m
Holding torque	4.52 N.m
Rotor inertia	2.2 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	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/s²
Net weight	3.2 kg

### **Environment**

IEC 50347	
IEC 60072-1	
Natural convection	
-2540 °C	
-2570 °C	
<= 1000 m without power derating	
1585 % without condensation	
20 m/s² maximum	
A conforming to IEC 60034-14	
IP41 shaft bushing: conforming to IEC 60034-5	
IP56 total except shaft bushing: conforming to IEC 60034-5	
F winding conforming to IEC 60034-1	

### Packing Units

PCE	
1	
11.0 cm	
19.0 cm	
39.5 cm	
3.5 kg	
	1 11.0 cm 19.0 cm 39.5 cm

### Offer Sustainability

Sustainable offer status	Green Premium product	
REACh Regulation	☑ REACh Declaration	
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)	
Mercury free	Yes	
China RoHS Regulation	☑ China RoHS Declaration	
RoHS exemption information	₫Yes	
Environmental Disclosure	Product Environmental Profile	
Circularity Profile	No need of specific recycling operations	
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins	
PVC free	Yes	

### Contractual warranty

Warranty	18 months

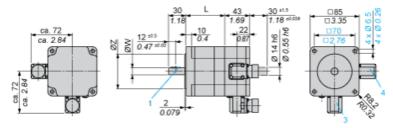
# Product data sheet Dimensions Drawings

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### **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

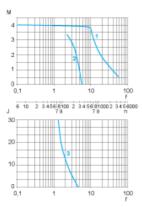
#### Dimensions in in.

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

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### **Torque Characteristics**

Measurement at 1000 Steps/Revolution, Nominal Voltage DC Bus  $U_{N}$  and Phase Current  $I_{N}$ 



M: Torque in Nmn: Speed in rpmf: Frequency in kHz

J: Rotor inertia in kg.cm<sup>2</sup>
1: Pull-out torque

1: Pull-out torque 2: Pull-in torque

3: Maximum load inertia