

3-phase stepper motor - 4.8 Nm - shaft  $\tilde{A}^{\sim}$  12mm - L=98mm - w/o brake - term box

BRS39AW660ABA

# 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

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	Terminal box	
Holding brake	Without	
Shaft end	Woodruff key	
Second shaft	Without second shaft end	
Shaft diameter	12 mm	
Shaft length	30 mm	
nominal torque	4 N.m	
Holding torque	4.8 N.m	
Rotor inertia	2.2 kg.cm <sup>2</sup>	
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	5.8 A	
Resistance	0.55 Ohm (winding)	
Time constant	9 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/s²	
Net weight	3.2 kg	

# **Environment**

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

# **Packing Units**

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	22.000 cm
Package 1 Width	19.000 cm
Package 1 Length	40.000 cm
Package 1 Weight	4.020 kg
Unit Type of Package 2	P06
Number of Units in Package 2	12
Package 2 Height	75.000 cm
Package 2 Width	60.000 cm
Package 2 Length	80.000 cm
Package 2 Weight	58.084 kg

# **Contractual warranty**

Warranty 18 months



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 >

<b>⊘</b> Environmental footprint	Environmental footprint		
Total lifecycle Carbon footprint	1288		
Environmental Disclosure	Product Environmental Profile		

### **Use Better**

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
PVC free	Yes

### **Use Again**

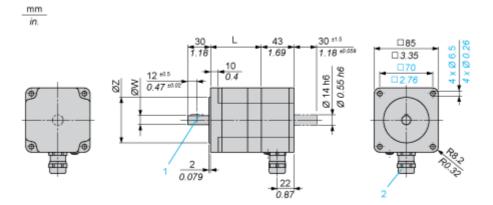
○ Repack and remanufacture			
End of life manual availability	No need of specific recycling operations		
Take-back	No		

# BRS39AW660ABA

## **Dimensions Drawings**

## **Dimensions**

## 3-Phase Stepper Motor in Terminal Box Version



#### Dimensions in mm

L	Shaft diameter ØW	Centring collar ØZ	Woodruff key DIN 6888 (1)	Cable gland (2)
97.5 (+0.6) (-0.8)	12 h6	60 h8	4 x 6.5	ISO M20 x 1.5

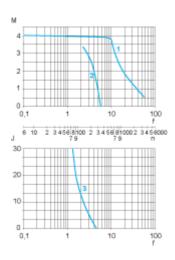
#### Dimensions in in.

	L	Shaft diameter ØW	Centring collar ØZ	Woodruff key DIN 6888 (1)	Cable gland (2)
	3.84 (+0.023) (-0.031)	0.47 h6	2.36 h8	0.16 x 0.25	ISO M20 x 1.5

### Performance Curves

# **Torque Characteristics**

Measurement at 1000 Steps/Revolution, Nominal Voltage DC Bus  $\mathbf{U_N}$  and Phase Current  $\mathbf{I_N}$ 



M: Torque in Nm

n: Speed in rpm

f: Frequency in kHz

J: Rotor inertia in kg.cm<sup>2</sup>

1: Pull-out torque

2: Pull-in torque

3: Maximum load inertia