

# Product datasheet

Specifications



3-phase stepper motor - 2.26 Nm -  
shaft  $\tilde{\sim}$  9.5mm - L=68mm - w/o  
brake - wire

BRS397H260AAA

## 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	34 V AC 48 V DC
Mounting support	Flange
Motor flange size	85 mm
Length	68 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	Wires
Holding brake	Without
Shaft end	Smooth shaft
Second shaft	Without second shaft end
Shaft diameter	9.5 mm
Shaft length	30 mm
Nominal torque	2 N.m
Holding torque	2.26 N.m
Rotor inertia	1.1 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 kHz
[In] rated current	5.8 A

<b>Resistance</b>	0.35 Ohm (winding)
<b>Time constant</b>	7 ms
<b>Maximum radial force Fr</b>	100 N (first shaft end) 75 N (second shaft end)
<b>Maximum axial force Fa</b>	175 N (tensile force) 30 N (force pressure)
<b>Service life in hours</b>	20000 h (bearing)
<b>Angular acceleration</b>	200000 rad/s <sup>2</sup>
<b>Net weight</b>	2.1 kg

## Environment

<b>Standards</b>	IEC 50347 IEC 60072-1
<b>Type of cooling</b>	Natural convection
<b>Ambient air temperature for operation</b>	-25...40 °C
<b>Ambient air temperature for storage</b>	-25...70 °C
<b>Operating altitude</b>	<= 1000 m without power derating
<b>Relative humidity</b>	15...85 % without condensation
<b>Vibration resistance</b>	20 m/s <sup>2</sup> maximum A conforming to IEC 60034-14
<b>IP degree of protection</b>	IP56 total except shaft bushing: conforming to IEC 60034-5 IP41 shaft bushing without shaft seal ring: conforming to IEC 60034-5
<b>Temperature class</b>	F winding conforming to IEC 60034-1

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	10.4 cm
<b>Package 1 Width</b>	18.0 cm
<b>Package 1 Length</b>	36.5 cm
<b>Package 1 Weight</b>	1.9 kg

## Contractual warranty

<b>Warranty (in months)</b>	18
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## 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

Total lifecycle Carbon footprint	1 819 kg CO2 eq.
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Carbon footprint of the manufacturing phase [A1 to A3]	8 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.3 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	1 811 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0.2 kg CO2 eq.

## Use Better



### Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
EU RoHS Directive	<a href="#">Compliant By Exemption</a>
REACH Regulation	<a href="#">Reference contains Substances of Very High Concern above the threshold</a>
PVC free	Yes

## Use Longer



### Lifetime extension

Repair	No
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## Use Again



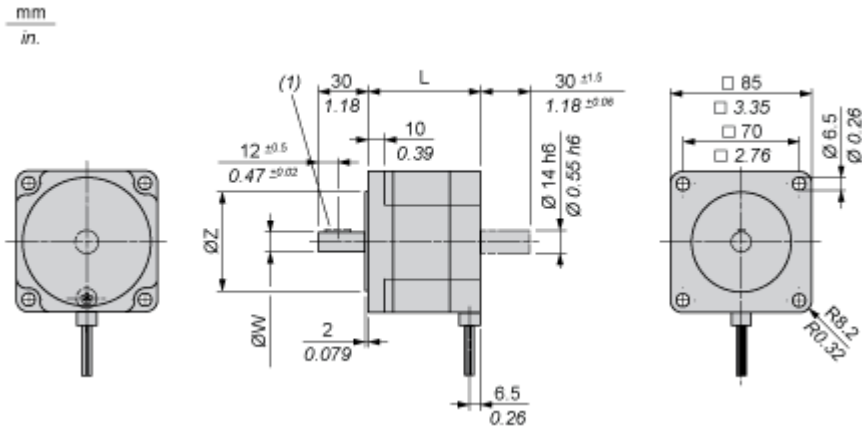
### Repack and remanufacture

End of life manual availability	<a href="#">No need of specific recycling operations</a>
Take-back	Yes

Dimensions Drawings

Dimensions

3-Phase Stepper Motor in Wires Version



Dimensions in mm

L	Shaft diameter ØW	Centring collar ØZ	Woodruff key DIN 6888 (1)
67.5 (+0.6) (-0.8)	9.5 h6	60 h8	3 x 5

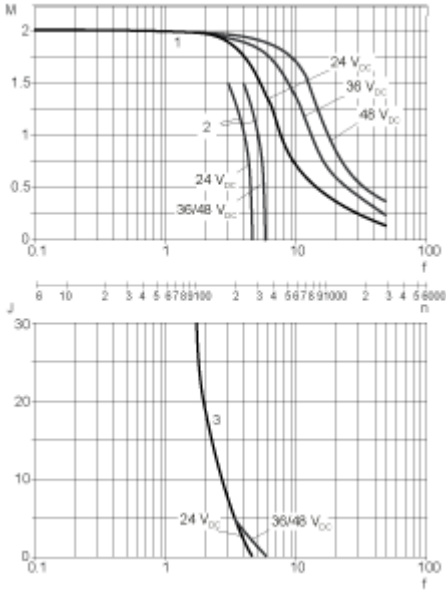
Dimensions in in.

L	Shaft diameter ØW	Centring collar ØZ	Woodruff key DIN 6888 (1)
2.66 (+0.023) (-0.031)	0.37 h6	2.36 h8	0.12 x 0.20

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.cm<sup>2</sup>

1 : Pull-out torque

2 : Pull-in torque

3 : Maximum load inertia