

# Product data sheet

Specifications



AC servo motor BSH, Lexium 32,  
27.8N.m, 3000rpm, keyed shaft,  
with brake, IP65

BSH1403T32F2P

## Main

Product Or Component Type	Servo motor
Device Short Name	BSH
Maximum Mechanical Speed	4800 rpm
Continuous Stall Torque	27.8 N.m for LXM32.D72N4 at 24 A, 400 V, three phase 27.8 N.m for LXM32.D72N4 at 24 A, 480 V, three phase
Peak Stall Torque	90.2 N.m for LXM32.D72N4 at 24 A, 400 V, three phase 90.2 N.m for LXM32.D72N4 at 24 A, 480 V, three phase
Nominal Output Power	4100 W for LXM32.D72N4 at 24 A, 400 V, three phase 4100 W for LXM32.D72N4 at 24 A, 480 V, three phase
Nominal Torque	12.9 N.m for LXM32.D72N4 at 24 A, 400 V, three phase 12.9 N.m for LXM32.D72N4 at 24 A, 480 V, three phase
Nominal Speed	3000 rpm for LXM32.D72N4 at 24 A, 400 V, three phase 3000 rpm for LXM32.D72N4 at 24 A, 480 V, three phase
Product Compatibility	LXM32.D72N4 at 400 V three phase LXM32.D72N4 at 480 V three phase
Shaft End	Keyed
Ip Degree Of Protection	IP65 standard IP67 with IP67 kit
Speed Feedback Resolution	131072 points/turn x 4096 turns
Holding Brake	With
Mounting Support	International standard
Electrical Connection	Rotatable right-angled connectors

## Complementary

Range Compatibility	Lexium 32
Supply Voltage Max	480 V
Network Number Of Phases	Three phase
Continuous Stall Current	22.3 A
Maximum Continuous Power	3.3 W
Maximum Current Irms	72 A for LXM32.D72N4
Maximum Permanent Current	81.3 A
Switching Frequency	8 kHz
Second Shaft	Without second shaft end
Shaft Diameter	24 mm
Shaft Length	50 mm

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Key Width	40 mm
Feedback Type	Multiturn SinCos Hiperface
Holding Torque	36 N.m holding brake
Motor Flange Size	140 mm
Number Of Motor Stacks	3
Torque Constant	1.58 N.m/A at 120 °C
Back Emf Constant	105 V/krpm at 120 °C
Number Of Motor Poles	10
Rotor Inertia	14.48 kg.cm <sup>2</sup>
Stator Resistance	0.4 Ohm at 20 °C
Stator Inductance	5.1 mH at 20 °C
Stator Electrical Time Constant	12.75 ms at 20 °C
Maximum Radial Force Fr	1780 N at 3000 rpm 2030 N at 2000 rpm 2560 N at 1000 rpm
Maximum Axial Force Fa	0.2 x Fr
Brake Pull-In Power	26 W
Type Of Cooling	Natural convection
Length	365.5 mm
Centring Collar Diameter	130 mm
Centring Collar Depth	3.5 mm
Number Of Mounting Holes	4
Mounting Holes Diameter	11 mm
Circle Diameter Of The Mounting Holes	165 mm
Net Weight	23 kg

## Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	30.0 cm
Package 1 Width	22.0 cm
Package 1 Length	71.5 cm
Package 1 Weight	25.0 kg
Unit Type Of Package 2	S06
Number Of Units In Package 2	4
Package 2 Height	73.5 cm
Package 2 Width	60.0 cm
Package 2 Length	80.0 cm
Package 2 Weight	108.5 kg

## Contractual warranty

Warranty	18 months
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## Sustainability

**Green Premium™** label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency   RoHS/REACH

## Well-being performance

✓ Mercury Free

✓ Rohs Exemption Information   [Yes](#)

✓ Pvc Free

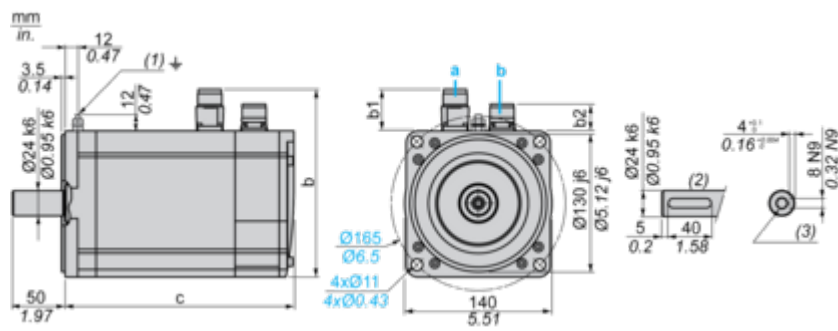
## Certifications & Standards

Reach Regulation	<a href="#">REACH Declaration</a>
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	<a href="#">China RoHS declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	No need of specific recycling operations
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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

Dimensions Drawings

Servo Motors Dimensions

Example with Straight Connectors



- a: Power supply for servo motor brake  
b: Power supply for servo motor encoder  
(1) M4 screw  
(2) Shaft end, keyed slot (optional)  
(3) For screws M8 x 19 mm/M8 x 0.75 in.

Dimensions in mm

Straight connectors			Rotatable angled connectors			c (without brake)	c (with brake)
b	b1	b2	b	b1	b2		
192.5	54	25.5	198.5	60	39.5	328	366

Dimensions in in.

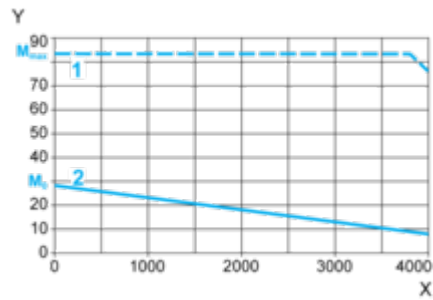
Straight connectors			Rotatable angled connectors			c (without brake)	c (with brake)
b	b1	b2	b	b1	b2		
7.57	2.12	1.00	7.81	2.36	1.55	12.91	14.40

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D72N4 servo drive

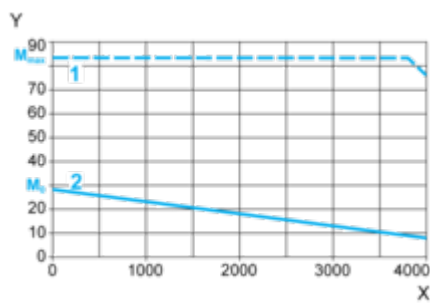


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D72N4 servo drive



- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque