

# Product data sheet

Specifications



servo motor BSH, Lexium 32,  
32.1N.m, 3000rpm, 140mm,  
untapped shaft, Sincos single turn,  
without brake, IP50

BSH1404P01A2P

## Main

Product Or Component Type	Servo motor
Device Short Name	BSH
Maximum Mechanical Speed	4000 rpm
Continuous Stall Torque	33.4 N.m for LXM32.D72N4 at 24 A, 400 V, three phase 33.4 N.m for LXM32.D72N4 at 24 A, 480 V, three phase 32.1 N.m for LXM05AD57N4, 380...480 V, three phase 32.1 N.m for LXM05BD57N4, 380...480 V, three phase 32.1 N.m for LXM05CD57N4, 380...480 V, three phase
Peak Stall Torque	103.6 N.m for LXM32.D72N4 at 24 A, 400 V, three phase 103.6 N.m for LXM32.D72N4 at 24 A, 480 V, three phase 63.09 N.m for LXM05AD57N4, 380...480 V, three phase 63.09 N.m for LXM05BD57N4, 380...480 V, three phase 63.09 N.m for LXM05CD57N4, 380...480 V, three phase
Nominal Output Power	5000 W for LXM32.D72N4 at 24 A, 400 V, three phase 5000 W for LXM32.D72N4 at 24 A, 480 V, three phase 3400 W for LXM05AD57N4, 380...480 V, three phase 3400 W for LXM05BD57N4, 380...480 V, three phase 3400 W for LXM05CD57N4, 380...480 V, three phase
Nominal Torque	19 N.m for LXM32.D72N4 at 24 A, 400 V, three phase 19 N.m for LXM32.D72N4 at 24 A, 480 V, three phase 10.8 N.m for LXM05AD57N4, 380...480 V, three phase 10.8 N.m for LXM05BD57N4, 380...480 V, three phase 10.8 N.m for LXM05CD57N4, 380...480 V, three phase
Nominal Speed	2500 rpm for LXM32.D72N4 at 24 A, 400 V, three phase 2500 rpm for LXM32.D72N4 at 24 A, 480 V, three phase 3000 rpm for LXM05AD57N4, 380...480 V, three phase 3000 rpm for LXM05BD57N4, 380...480 V, three phase 3000 rpm for LXM05CD57N4, 380...480 V, three phase
Product Compatibility	LXM05AD57N4 at 380...480 V three phase LXM05BD57N4 at 380...480 V three phase LXM05CD57N4 at 380...480 V three phase LXM32.D72N4 at 400 V three phase LXM32.D72N4 at 480 V three phase
Shaft End	Untapped
Ip Degree Of Protection	IP50 standard
Speed Feedback Resolution	131072 points/turn
Holding Brake	Without
Mounting Support	International standard flange
Electrical Connection	Rotatable right-angled connectors

## Complementary

Range Compatibility	Lexium 05 Lexium 32
Supply Voltage Max	480 V

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

Network Number Of Phases	Three phase
Continuous Stall Current	21.3 A
Maximum Continuous Power	4.33 W
Maximum Current Irms	72 A for LXM32.D72N4 95.6 A for LXM05AD57N4 95.6 A for LXM05BD57N4 95.6 A for LXM05CD57N4
Maximum Permanent Current	95.6 A
Switching Frequency	8 kHz
Second Shaft	Without second shaft end
Shaft Diameter	24 mm
Shaft Length	50 mm
Feedback Type	Single turn SinCos Hiperface
Motor Flange Size	140 mm
Number Of Motor Stacks	4
Torque Constant	1.57 N.m/A at 120 °C
Back Emf Constant	104 V/krpm at 120 °C
Number Of Motor Poles	10
Rotor Inertia	23.7 kg.cm²
Stator Resistance	0.28 Ohm at 20 °C
Stator Inductance	3.9 mH at 20 °C
Stator Electrical Time Constant	13.93 ms at 20 °C
Maximum Radial Force Fr	1840 N at 3000 rpm 2110 N at 2000 rpm 2660 N at 1000 rpm
Maximum Axial Force Fa	0.2 x Fr
Type Of Cooling	Natural convection
Length	382.5 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	26 kg

## Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	27.0 cm
Package 1 Width	27.0 cm
Package 1 Length	60.6 cm
Package 1 Weight	18.5 kg
Unit Type Of Package 2	P06

Number Of Units In Package 2	6
Package 2 Height	77.0 cm
Package 2 Width	80.0 cm
Package 2 Length	60.0 cm
Package 2 Weight	119.5 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

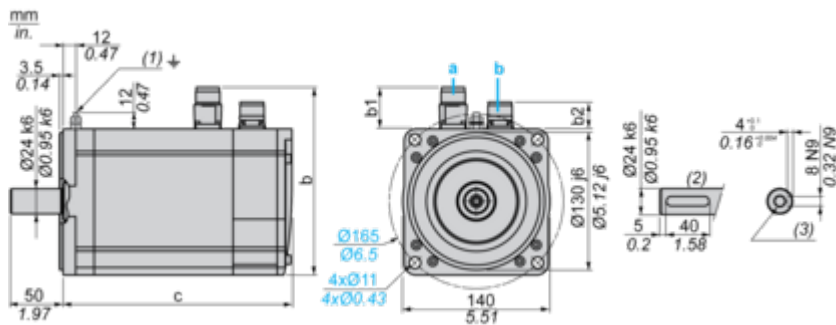
## Certifications & Standards

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	383	421

Dimensions in in.

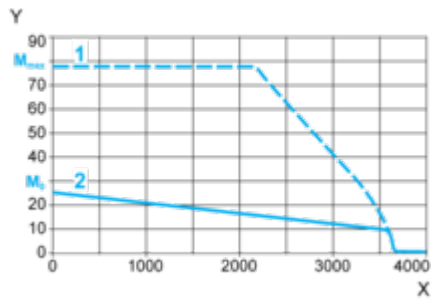
Straight connectors			Rotatable angled connectors			c (without brake)	c (with brake)
b	b1	b2	b	b1	b2		
7.57	2.12	1.00	7.81	2.36	1.55	15.07	16.57

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D72N4 servo drive

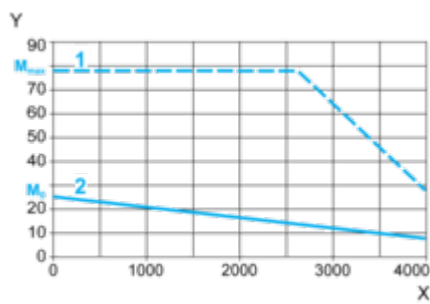


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

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