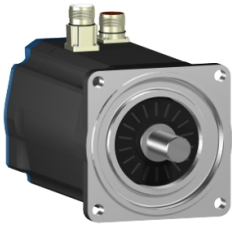


# Product datasheet

Specifications



## AC servo motor BSH - 14.4 N.m - 3000 rpm - untapped shaft - with brake - IP50

BSH1402T02F1P

⚠ Discontinued on: 7 Aug 2023

⚠ Discontinued

EAN Code: 3389118361133

### Main

Device short name	BSH
Product or component type	Servo motor
Maximum mechanical speed	4000 rpm
Continuous stall torque	19.5 N.m for LXM32.D72N4 at 24 A, 400 V, three phase 19.5 N.m for LXM32.D72N4 at 24 A, 480 V, three phase 14.4 N.m for LXM05AD42M3X, 200...240 V, three phase 14.4 N.m for LXM05BD42M3X, 200...240 V, three phase 14.4 N.m for LXM05CD42M3X, 200...240 V, three phase
Peak stall torque	59.3 N.m for LXM32.D72N4 at 24 A, 400 V, three phase 59.3 N.m for LXM32.D72N4 at 24 A, 480 V, three phase 24.56 N.m for LXM05AD42M3X, 200...240 V, three phase 24.56 N.m for LXM05BD42M3X, 200...240 V, three phase
Nominal output power	3900 W for LXM32.D72N4 at 24 A, 400 V, three phase 3900 W for LXM32.D72N4 at 24 A, 480 V, three phase 2900 W for LXM05AD42M3X, 200...240 V, three phase 2900 W for LXM05BD42M3X, 200...240 V, three phase 2900 W for LXM05CD42M3X, 200...240 V, three phase
Nominal torque	12.3 N.m for LXM32.D72N4 at 24 A, 400 V, three phase 12.3 N.m for LXM32.D72N4 at 24 A, 480 V, three phase 9.2 N.m for LXM05AD42M3X, 200...240 V, three phase 9.2 N.m for LXM05BD42M3X, 200...240 V, three phase 9.2 N.m for LXM05CD42M3X, 200...240 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 3000 rpm for LXM05AD42M3X, 200...240 V, three phase 3000 rpm for LXM05BD42M3X, 200...240 V, three phase 3000 rpm for LXM05CD42M3X, 200...240 V, three phase
Product compatibility	LXM05AD42M3X at 200...240 V three phase LXM05BD42M3X at 200...240 V three phase LXM05CD42M3X at 200...240 V three phase
Shaft end	Untapped
IP degree of protection	IP50 standard
Speed feedback resolution	131072 points/turn x 4096 turns
Holding brake	With
Mounting support	International standard flange
Electrical connection	Straight connectors

### Complementary

Range compatibility	Lexium 05 Lexium 32
supply voltage max	480 V

Network number of phases	Three phase
Continuous stall current	22.5 A
maximum continuous power	4.2 W
Maximum current Irms	72 A for LXM32.D72N4 75.2 A for LXM05AD42M3X 75.2 A for LXM05BD42M3X 75.2 A for LXM05CD42M3X
Maximum permanent current	75.2 A
Switching frequency	8 kHz
Second shaft	Without second shaft end
Shaft diameter	24 mm
Shaft length	50 mm
Feedback type	Multiturn SinCos Hiperface
Holding torque	23 N.m holding brake
Motor flange size	140 mm
Number of motor stacks	2
Torque constant	0.87 N.m/A at 120 °C
Back emf constant	101 V/krpm at 120 °C
Rotor inertia	14.48 kg.cm <sup>2</sup>
Stator resistance	0.6 Ohm at 20 °C
Stator inductance	7.4 mH at 20 °C
Stator electrical time constant	12.1 ms at 20 °C
Maximum radial force Fr	1680 N at 3000 rpm 1930 N at 2000 rpm 2430 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
Brake pull-in power	24 W
Type of cooling	Natural convection
Length	310.5 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	17.7 kg
Sizing reference	BSH1402T
Network number of phases	3
Accuracy error [angular]	1.4 °
Temperature copper hot	120 °C
Temperature magnet hot	100 °C
Temperature magnet rt	20 °C

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	27.0 cm
<b>Package 1 Width</b>	27.0 cm
<b>Package 1 Length</b>	48.2 cm
<b>Package 1 Weight</b>	13.29 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 >](#)

### Use Longer



#### Lifetime extension

Repair

No

### Use Again



#### Repack and remanufacture

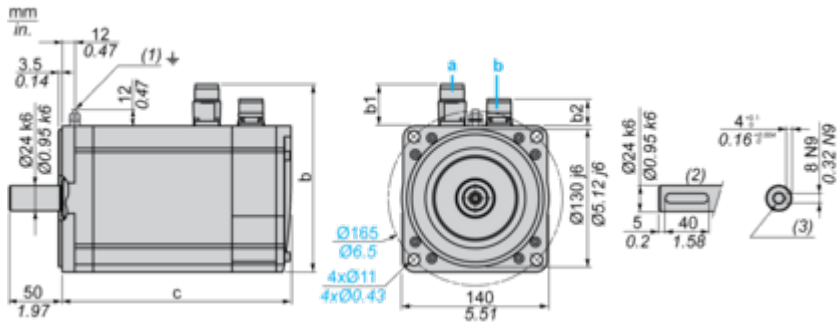
End of life manual availability

No need of specific recycling operations

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	273	311

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	10.74	12.24

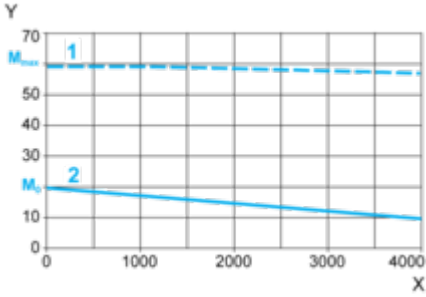
Performance Curves

400 V 3-Phase Supply Voltage

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Torque/Speed Curves

Servo motor with LXM32-D72N4 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

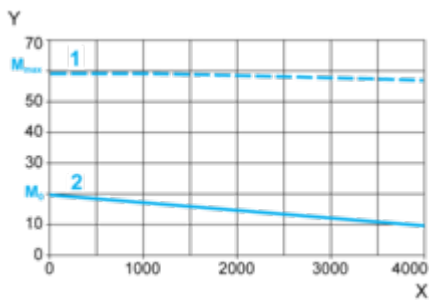
2 Continuous torque

480 V 3-Phase Supply Voltage

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Torque/Speed Curves

Servo motor with LXM32•D72N4 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque