

# Product datasheet

Specifications



## AC servo motor BSH - 1.3 N.m - 3000 rpm - keyed shaft - without brake - IP50

BSH0553P11A2A

EAN Code: 3389118159402

### Main

<b>Device short name</b>	BSH
<b>Product or component type</b>	Servo motor
<b>Maximum mechanical speed</b>	9000 rpm
<b>Continuous stall torque</b>	1.05 N.m for LXM32.U60N4 at 1.5 A, 480 V, three phase 1.05 N.m for LXM32.U60N4 at 1.5 A, 400 V, three phase 1.3 N.m for LXM05AD10M2, 200...240 V, single phase 1.3 N.m for LXM05BD10M2, 200...240 V, single phase 1.3 N.m for LXM05CD10M2, 200...240 V, single phase 1.3 N.m for LXM05AD10M3X, 200...240 V, three phase 1.3 N.m for LXM05BD10M3X, 200...240 V, three phase 1.3 N.m for LXM05CD10M3X, 200...240 V, three phase 1.3 N.m for LXM15LD13M3, 230 V, single phase 1.3 N.m for LXM15LD13M3, 230 V, three phase 1.3 N.m for LXM15LD10N4, 400 V, three phase 1.3 N.m for LXM05AD14N4, 380...480 V, three phase 1.3 N.m for LXM05BD14N4, 380...480 V, three phase 1.3 N.m for LXM05CD14N4, 380...480 V, three phase
<b>Peak stall torque</b>	3.5 N.m for LXM32.U60N4 at 1.5 A, 480 V, three phase 3.5 N.m for LXM32.U60N4 at 1.5 A, 400 V, three phase 2.7 N.m for LXM15LD13M3, 230 V, single phase 3.18 N.m for LXM05AD10M2, 200...240 V, single phase 3.18 N.m for LXM05BD10M2, 200...240 V, single phase 3.18 N.m for LXM05CD10M2, 200...240 V, single phase 2.7 N.m for LXM15LD13M3, 230 V, three phase 3.87 N.m for LXM15LD10N4, 400 V, three phase 3.18 N.m for LXM05AD10M3X, 200...240 V, three phase 3.87 N.m for LXM05AD14N4, 380...480 V, three phase 3.18 N.m for LXM05BD10M3X, 200...240 V, three phase 3.87 N.m for LXM05BD14N4, 380...480 V, three phase 3.18 N.m for LXM05CD10M3X, 200...240 V, three phase 3.87 N.m for LXM05CD14N4, 380...480 V, three phase
<b>Nominal output power</b>	400 W for LXM32.U60N4 at 1.5 A, 400 V, three phase 400 W for LXM32.U60N4 at 1.5 A, 480 V, three phase 340 W for LXM15LD13M3, 230 V, three phase 340 W for LXM15LD13M3, 230 V, single phase 350 W for LXM05AD10M2, 200...240 V, single phase 350 W for LXM05BD10M2, 200...240 V, single phase 350 W for LXM05CD10M2, 200...240 V, single phase 350 W for LXM05AD10M3X, 200...240 V, three phase 350 W for LXM05AD14N4, 380...480 V, three phase 350 W for LXM05BD10M3X, 200...240 V, three phase 350 W for LXM05BD14N4, 380...480 V, three phase 350 W for LXM05CD10M3X, 200...240 V, three phase 350 W for LXM05CD14N4, 380...480 V, three phase 670 W for LXM15LD10N4, 400 V, three phase

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

<b>Nominal torque</b>	0.65 N.m for LXM32.U60N4 at 1.5 A, 400 V, three phase 0.65 N.m for LXM32.U60N4 at 1.5 A, 480 V, three phase 1.08 N.m for LXM15LD13M3, 230 V, single phase 1.1 N.m for LXM05AD10M2, 200...240 V, single phase 1.1 N.m for LXM05BD10M2, 200...240 V, single phase 1.1 N.m for LXM05CD10M2, 200...240 V, single phase 0.8 N.m for LXM15LD10N4, 400 V, three phase 1.08 N.m for LXM15LD13M3, 230 V, three phase 1.1 N.m for LXM05AD10M3X, 200...240 V, three phase 1.1 N.m for LXM05AD14N4, 380...480 V, three phase 1.1 N.m for LXM05BD10M3X, 200...240 V, three phase 1.1 N.m for LXM05BD14N4, 380...480 V, three phase 1.1 N.m for LXM05CD10M3X, 200...240 V, three phase 1.1 N.m for LXM05CD14N4, 380...480 V, three phase
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<b>Nominal speed</b>	6000 rpm for LXM32.U60N4 at 1.5 A, 400 V, three phase 6000 rpm for LXM32.U60N4 at 1.5 A, 480 V, three phase 3000 rpm for LXM05AD10M2, 200...240 V, single phase 3000 rpm for LXM05BD10M2, 200...240 V, single phase 3000 rpm for LXM05CD10M2, 200...240 V, single phase 3000 rpm for LXM05AD10M3X, 200...240 V, three phase 3000 rpm for LXM05AD14N4, 380...480 V, three phase 3000 rpm for LXM05BD10M3X, 200...240 V, three phase 3000 rpm for LXM05BD14N4, 380...480 V, three phase 3000 rpm for LXM05CD10M3X, 200...240 V, three phase 3000 rpm for LXM05CD14N4, 380...480 V, three phase 3000 rpm for LXM15LD13M3, 230 V, single phase 3000 rpm for LXM15LD13M3, 230 V, three phase 8000 rpm for LXM15LD10N4, 400 V, three phase
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<b>Product compatibility</b>	LXM05AD10M2 at 200...240 V single phase LXM05BD10M2 at 200...240 V single phase LXM05CD10M2 at 200...240 V single phase LXM15LD13M3 at 230 V single phase LXM32.U60N4 at 400 V three phase LXM32.U60N4 at 480 V three phase LXM05AD10M3X at 200...240 V three phase LXM05BD10M3X at 200...240 V three phase LXM05CD10M3X at 200...240 V three phase LXM15LD13M3 at 230 V three phase LXM05AD14N4 at 380...480 V three phase LXM05BD14N4 at 380...480 V three phase LXM05CD14N4 at 380...480 V three phase LXM15LD10N4 at 400 V three phase
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<b>Shaft end</b>	Keyed
<b>IP degree of protection</b>	IP50 standard
<b>Speed feedback resolution</b>	131072 points/turn
<b>Holding brake</b>	Without
<b>Mounting support</b>	International standard flange
<b>Electrical connection</b>	Rotatable right-angled connectors

## Complementary

<b>Range compatibility</b>	Lexium 05 Lexium 15 Lexium 32
<b>supply voltage max</b>	480 V
<b>Network number of phases</b>	Three phase
<b>Continuous stall current</b>	1.7 A
<b>maximum continuous power</b>	0.97 W

<b>Maximum current Irms</b>	8.7 A for LXM15LD13M3 8.7 A for LXM15LD10N4 6.5 A for LXM05AD10M2 6.5 A for LXM05AD10M3X 6.5 A for LXM05AD14N4 6.5 A for LXM05BD10M2 6.5 A for LXM05BD10M3X 6.5 A for LXM05BD14N4 6.5 A for LXM05CD10M2 6.5 A for LXM05CD10M3X 6.5 A for LXM05CD14N4 6 A for LXM32.U60N4
<b>Maximum permanent current</b>	6.5 A
<b>Switching frequency</b>	8 kHz
<b>Second shaft</b>	Without second shaft end
<b>Shaft diameter</b>	9 mm
<b>Shaft length</b>	20 mm
<b>Key width</b>	12 mm
<b>Feedback type</b>	Single turn SinCos Hiperface
<b>Motor flange size</b>	55 mm
<b>Number of motor stacks</b>	3
<b>Torque constant</b>	0.7 N.m/A at 120 °C
<b>Back emf constant</b>	41 V/krpm at 120 °C
<b>Number of motor poles</b>	6
<b>Rotor inertia</b>	0.134 kg.cm <sup>2</sup>
<b>Stator resistance</b>	10.4 Ohm at 20 °C
<b>Stator inductance</b>	25 mH at 20 °C
<b>Stator electrical time constant</b>	2.4 ms at 20 °C
<b>Maximum radial force Fr</b>	190 N at 8000 rpm 200 N at 7000 rpm 210 N at 6000 rpm 230 N at 5000 rpm 240 N at 4000 rpm 270 N at 3000 rpm 310 N at 2000 rpm 390 N at 1000 rpm
<b>Maximum axial force Fa</b>	0.2 x Fr
<b>Type of cooling</b>	Natural convection
<b>Length</b>	176.5 mm
<b>Centring collar diameter</b>	40 mm
<b>Centring collar depth</b>	2 mm
<b>Number of mounting holes</b>	4
<b>Mounting holes diameter</b>	5.5 mm
<b>Circle diameter of the mounting holes</b>	63 mm
<b>Net weight</b>	1.76 kg

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1

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<b>Package 1 Height</b>	12.3 cm
<b>Package 1 Width</b>	12.8 cm
<b>Package 1 Length</b>	37.7 cm
<b>Package 1 Weight</b>	1.4 kg

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## **Contractual warranty**

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<b>Warranty</b>	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 [REACH Declaration](#)

Eu RoHS Directive Pro-active compliance (Product out of EU RoHS legal scope)

China RoHS Regulation [China RoHS declaration](#)

Environmental Disclosure [Product Environmental Profile](#)

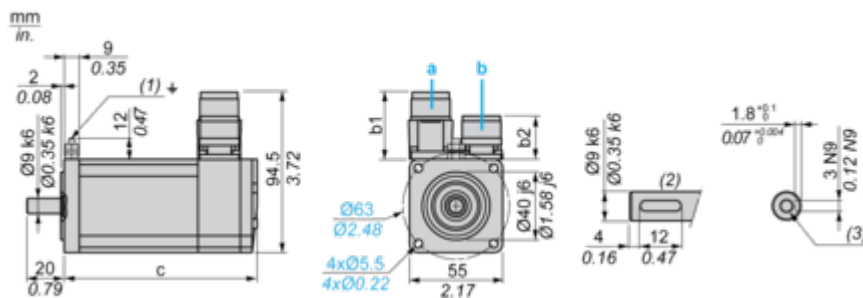
Weee The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Circularity Profile No need of specific recycling operations

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 screw M3 x 9 mm/M3 x 0.35 in.

Dimensions in mm

Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)
b	b1	b	b1		
39.5	25.5	39.5	39.5	176.5	203

Dimensions in in.

Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)
b	b1	b	b1		
1.55	1.00	1.55	1.55	6.94	7.99

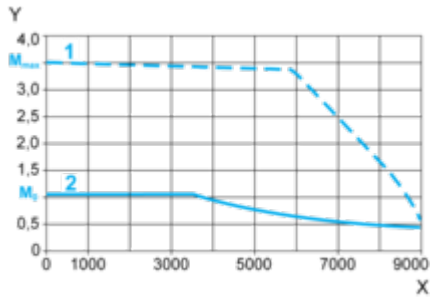
Performance Curves

400 V 3-Phase Supply Voltage

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Torque/Speed Curves

Servo motor with LXM32-U60N4 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

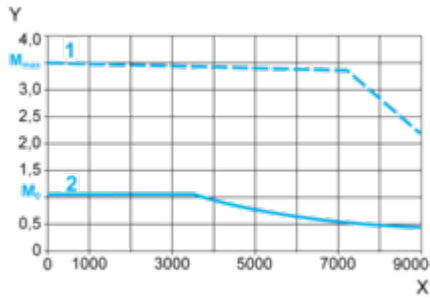
2 Continuous torque

480 V 3-Phase Supply Voltage

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Torque/Speed Curves

Servo motor with LXM32•U60N4 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque