

# Product data sheet

Specifications



servo motor BSH, Lexium 05,  
0.9N.m, 4000rpm, 55mm, untapped  
shaft, Sincos single turn, without  
brake, IP50

BSH0552P01A2A

**Product availability: Stock - Normally stocked in distribution facility**

## 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>	7.08 lbf.in (0.8 N.m) LXM32.U60N4 1.5 A, 400 V, three phase 7.08 lbf.in (0.8 N.m) LXM32.U60N4 1.5 A, 480 V, three phase 8.0 lbf.in (0.9 N.m) LXM05CU70M2, 200...240 V, single phase 8.0 lbf.in (0.9 N.m) LXM05AD10M2, 200...240 V, single phase 8.0 lbf.in (0.9 N.m) LXM05BD10M2, 200...240 V, single phase 8.0 lbf.in (0.9 N.m) LXM05CD10M2, 200...240 V, single phase 8.0 lbf.in (0.9 N.m) LXM05AD10M3X, 200...240 V, three phase 8.0 lbf.in (0.9 N.m) LXM05BD10M3X 1.5 A, 200...240 V, three phase 8.0 lbf.in (0.9 N.m) LXM05CD10M3X, 200...240 V, three phase 8.0 lbf.in (0.9 N.m) LXM15LD13M3, 230 V, single phase 8.0 lbf.in (0.9 N.m) LXM15LD13M3, 230 V, three phase 8.0 lbf.in (0.9 N.m) LXM15LU60N4, 230 V, three phase 8.0 lbf.in (0.9 N.m) LXM05AD14N4, 380...480 V, three phase 8.0 lbf.in (0.9 N.m) LXM05BD14N4, 380...480 V, three phase 8.0 lbf.in (0.9 N.m) LXM05CD14N4, 380...480 V, three phase
<b>Peak stall torque</b>	22.1 lbf.in (2.5 N.m) LXM32.U60N4 1.5 A, 400 V, three phase 22.1 lbf.in (2.5 N.m) LXM32.U60N4 1.5 A, 480 V, three phase 22.1 lbf.in (2.5 N.m) LXM15LD13M3, 230 V, single phase 19.21 lbf.in (2.17 N.m) LXM05CU70M2, 200...240 V, single phase 23.9 lbf.in (2.7 N.m) LXM05AD10M2, 200...240 V, single phase 23.9 lbf.in (2.7 N.m) LXM05BD10M2, 200...240 V, single phase 23.9 lbf.in (2.7 N.m) LXM05CD10M2, 200...240 V, single phase 22.1 lbf.in (2.5 N.m) LXM15LD13M3 1.5 A, 230 V, three phase 20.003 lbf.in (2.26 N.m) LXM15LU60N4, 230 V, three phase 23.9 lbf.in (2.7 N.m) LXM05AD10M3X, 200...240 V, three phase 23.9 lbf.in (2.7 N.m) LXM05AD14N4, 380...480 V, three phase 23.9 lbf.in (2.7 N.m) LXM05BD10M3X, 200...240 V, three phase 23.9 lbf.in (2.7 N.m) LXM05BD14N4, 380...480 V, three phase 23.9 lbf.in (2.7 N.m) LXM05CD10M3X, 200...240 V, three phase 23.9 lbf.in (2.7 N.m) LXM05CD14N4, 380...480 V, three phase
<b>Nominal output power</b>	400 W LXM32.U60N4 1.5 A, 400 V, three phase 400 W LXM32.U60N4 1.5 A, 480 V, three phase 250 W LXM05AD10M2, 200...240 V, single phase 250 W LXM05BD10M2, 200...240 V, single phase 250 W LXM05CD10M2, 200...240 V, single phase 250 W LXM05CU70M2, 200...240 V, single phase 310 W LXM15LD13M3, 230 V, single phase 250 W LXM05AD10M3X 1.5 A, 200...240 V, three phase 250 W LXM05AD14N4, 380...480 V, three phase 250 W LXM05BD10M3X, 200...240 V, three phase 250 W LXM05BD14N4, 380...480 V, three phase 250 W LXM05CD10M3X, 200...240 V, three phase 250 W LXM05CD14N4, 380...480 V, three phase 310 W LXM15LD13M3, 230 V, three phase 310 W LXM15LU60N4, 230 V, three phase

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

<b>Nominal torque</b>	5.75 lbf.in (0.65 N.m) LXM32.U60N4 1.5 A, 400 V, three phase 5.75 lbf.in (0.65 N.m) LXM32.U60N4 1.5 A, 480 V, three phase 6.64 lbf.in (0.75 N.m) LXM15LD13M3, 230 V, single phase 19.21 lbf.in (2.17 N.m) LXM05CU70M2, 200...240 V, single phase 23.9 lbf.in (2.7 N.m) LXM05AD10M2, 200...240 V, single phase 23.9 lbf.in (2.7 N.m) LXM05BD10M2, 200...240 V, single phase 23.9 lbf.in (2.7 N.m) LXM05CD10M2, 200...240 V, single phase 6.64 lbf.in (0.75 N.m) LXM15LD13M3 1.5 A, 230 V, three phase 6.64 lbf.in (0.75 N.m) LXM15LU60N4, 230 V, three phase 23.9 lbf.in (2.7 N.m) LXM05AD10M3X, 200...240 V, three phase 23.9 lbf.in (2.7 N.m) LXM05AD14N4, 380...480 V, three phase 23.9 lbf.in (2.7 N.m) LXM05BD10M3X, 200...240 V, three phase 23.9 lbf.in (2.7 N.m) LXM05BD14N4, 380...480 V, three phase 23.9 lbf.in (2.7 N.m) LXM05CD10M3X, 200...240 V, three phase 23.9 lbf.in (2.7 N.m) LXM05CD14N4, 380...480 V, three phase
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<b>Nominal speed</b>	6000 rpm LXM32.U60N4 1.5 A, 400 V, three phase 6000 rpm LXM32.U60N4 1.5 A, 480 V, three phase 4000 rpm LXM15LD13M3, 230 V, single phase 4000 rpm LXM15LU60N4, 230 V, three phase 3000 rpm LXM05CU70M2, 200...240 V, single phase 3000 rpm LXM05AD10M2, 200...240 V, single phase 3000 rpm LXM05BD10M2, 200...240 V, single phase 3000 rpm LXM05CD10M2 1.5 A, 200...240 V, single phase 3000 rpm LXM05AD10M3X, 200...240 V, three phase 3000 rpm LXM05AD14N4, 380...480 V, three phase 3000 rpm LXM05BD10M3X, 200...240 V, three phase 3000 rpm LXM05BD14N4, 380...480 V, three phase 3000 rpm LXM05CD10M3X, 200...240 V, three phase 3000 rpm LXM05CD14N4, 380...480 V, three phase 4000 rpm LXM15LD13M3, 230 V, three phase
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<b>Product compatibility</b>	LXM05AD10M2 200...240 V single phase LXM05BD10M2 200...240 V single phase LXM05CD10M2 200...240 V single phase LXM05CU70M2 200...240 V single phase LXM15LD13M3 230 V single phase LXM15LU60N4 230 V three phase LXM32.U60N4 400 V three phase LXM32.U60N4 480 V three phase LXM05AD10M3X 200...240 V three phase LXM05BD10M3X 200...240 V three phase LXM05CD10M3X 200...240 V three phase LXM15LD13M3 230 V three phase LXM05AD14N4 380...480 V three phase LXM05BD14N4 380...480 V three phase LXM05CD14N4 380...480 V three phase
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<b>Shaft end</b>	Untapped
<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 15 Lexium 05 Lexium 32
<b>supply voltage max</b>	480 V
<b>Phase</b>	Three phase
<b>Continuous stall current</b>	1.2 A
<b>maximum continuous power</b>	0.67 W

<b>Maximum current Irms</b>	5.9 A LXM15LD13M3 5.9 A LXM15LU60N4 4.8 A LXM05CU70M2 4.8 A LXM05AD10M2 4.8 A LXM05AD10M3X 4.8 A LXM05AD14N4 4.8 A LXM05BD10M2 4.8 A LXM05BD10M3X 4.8 A LXM05BD14N4 4.8 A LXM05CD10M2 4.8 A LXM05CD10M3X 4.8 A LXM05CD14N4 4.8 A LXM32.U60N4
<b>Maximum permanent current</b>	4.8 A
<b>Switching frequency</b>	8 kHz
<b>Second shaft</b>	Without second shaft end
<b>Shaft diameter</b>	0.4 in (9 mm)
<b>Shaft length</b>	0.8 in (20 mm)
<b>Feedback type</b>	Single turn SinCos Hiperface
<b>Motor flange size</b>	2.2 in (55 mm)
<b>Number of motor stacks</b>	2
<b>Torque constant</b>	0.7 N.m/A 248 °F (120 °C)
<b>Back emf constant</b>	40 V/krpm 248 °F (120 °C)
<b>Number of motor poles</b>	3.0
<b>Rotor inertia</b>	0.096 kg.cm <sup>2</sup>
<b>Stator resistance</b>	17.4 Ohm 68 °F (20 °C)
<b>Stator inductance</b>	18.2 mH 68 °F (20 °C)
<b>Stator electrical time constant</b>	2.03 ms 68 °F (20 °C)
<b>Maximum radial force Fr</b>	190 N 7000 rpm 190 N 8000 rpm 200 N 6000 rpm 220 N 5000 rpm 230 N 4000 rpm 260 N 3000 rpm 290 N 2000 rpm 370 N 1000 rpm
<b>Maximum axial force Fa</b>	0.2 x Fr
<b>type of cooling</b>	Natural convection
<b>Length</b>	6.08 in (154.4 mm)
<b>Centring collar diameter</b>	1.6 in (40 mm)
<b>centring collar depth</b>	0.08 in (2 mm)
<b>Number of mounting holes</b>	4
<b>Mounting holes diameter</b>	0.2 in (5.5 mm)
<b>Circle diameter of the mounting holes</b>	2.5 in (63 mm)
<b>Net Weight</b>	3.3 lb(US) (1.5 kg)
<b>Sizing reference</b>	BSH0552P
<b>Network number of phases</b>	3
<b>Accuracy error [angular]</b>	1.4 °
<b>Temperature copper hot</b>	248 °F (120 °C)
<b>Temperature magnet hot</b>	212 °F (100 °C)

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Temperature magnet rt	68 °F (20 °C)
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## Ordering and shipping details

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Category	US1PC5318282
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Discount Schedule	PC53
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GTIN	3389118158603
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Returnability	Yes
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Country of origin	DE
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## Packing Units

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Unit Type of Package 1	PCE
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Nbr. of units in pkg.	1
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Package 1 Height	4.61 in (11.700 cm)
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Package 1 Width	7.52 in (19.100 cm)
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Package 1 Length	15.63 in (39.700 cm)
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Package weight(Lbs)	4.149 lb(US) (1.882 kg)
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Unit Type of Package 2	P06
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Number of Units in Package 2	10
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Package 2 Height	28.94 in (73.500 cm)
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Package 2 Width	23.62 in (60.000 cm)
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Package 2 Length	31.50 in (80.000 cm)
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Package 2 Weight	71.540 lb(US) (32.450 kg)
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## Contractual warranty

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Warranty	18 months
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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

Carbon footprint (kg CO2 eq, Total Life cycle) **456**

Environmental Disclosure [Product Environmental Profile](#)

## Use Better

### Materials and Substances

Packaging made with recycled cardboard **Yes**

Packaging without single use plastic **No**

[EU RoHS Directive](#) **Pro-active compliance (Product out of EU RoHS legal scope)**

SCIP Number **8c11b0c9-e501-4810-83eb-05fc6605ede4**

REACH Regulation [REACH Declaration](#)

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 [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

PVC free **Yes**

## Use Again

### Repack and remanufacture

Circularity Profile **No need of specific recycling operations**

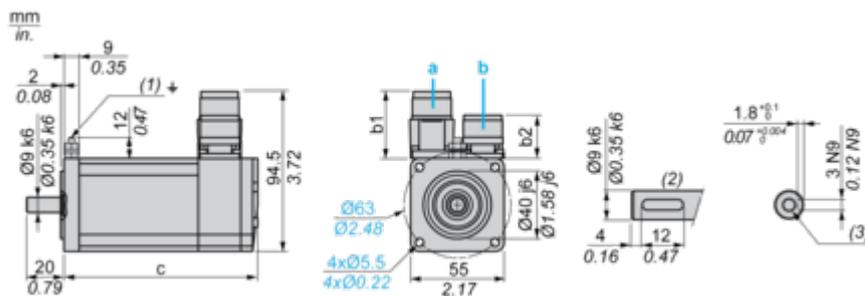
Take-back **No**

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

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	154.5	181

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	6.08	7.12

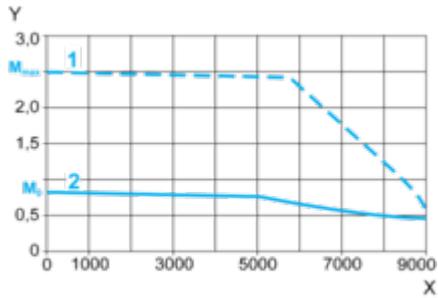
Performance Curves

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

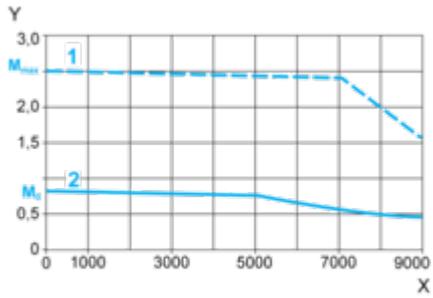
2 Continuous torque

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