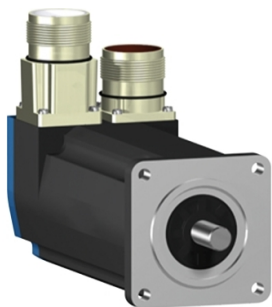


# Product data sheet

Specifications



servo motor BSH, Lexium 05,  
1.3N.m, 3000rpm, 55mm, keyed  
shaft, Sincos multi turn, without  
brake, IP65, straight

BSH0553T32A1A

⚠ Discontinued

⚠ Discontinued on: Jun 30, 2023

**Product availability: Non-Stock - Not normally stocked in distribution facility**

## Main

Device short name	BSH
Product or Component Type	Servo motor
Maximum mechanical speed	9000 rpm
Continuous stall torque	10.6 lbf.in (1.2 N.m) LXM32.U90M2 3 A, 230 V, single phase 11.5 lbf.in (1.3 N.m) LXM05AD17F1, 110...120 V, single phase 11.5 lbf.in (1.3 N.m) LXM05AD17M2, 200...240 V, single phase 11.5 lbf.in (1.3 N.m) LXM05BD17F1, 110...120 V, single phase 11.5 lbf.in (1.3 N.m) LXM05BD17M2, 200...240 V, single phase 11.5 lbf.in (1.3 N.m) LXM05CD17F1, 110...120 V, single phase 11.5 lbf.in (1.3 N.m) LXM05CD17M2, 200...240 V, single phase 10.6 lbf.in (1.2 N.m) LXM32.D18M2 6 A, 115 V, single phase 11.5 lbf.in (1.3 N.m) LXM05AD17M3X, 200...240 V, three phase 11.5 lbf.in (1.3 N.m) LXM05BD17M3X 6 A, 200...240 V, three phase 11.5 lbf.in (1.3 N.m) LXM05CD17M3X, 200...240 V, three phase
Peak stall torque	26.6 lbf.in (3 N.m) LXM32.U90M2 3 A, 230 V, single phase 29.30 lbf.in (3.31 N.m) LXM05AD17F1, 110...120 V, single phase 29.30 lbf.in (3.31 N.m) LXM05AD17M2, 200...240 V, single phase 29.30 lbf.in (3.31 N.m) LXM05BD17F1, 110...120 V, single phase 29.30 lbf.in (3.31 N.m) LXM05BD17M2, 200...240 V, single phase 29.30 lbf.in (3.31 N.m) LXM05CD17F1, 110...120 V, single phase 29.30 lbf.in (3.31 N.m) LXM05CD17M2, 200...240 V, single phase 29.2 lbf.in (3.3 N.m) LXM32.D18M2 6 A, 115 V, single phase 29.30 lbf.in (3.31 N.m) LXM05AD17M3X, 200...240 V, three phase 29.30 lbf.in (3.31 N.m) LXM05BD17M3X 6 A, 200...240 V, three phase 29.30 lbf.in (3.31 N.m) LXM05CD17M3X, 200...240 V, three phase
Nominal output power	550 W LXM32.U90M2 3 A, 230 V, single phase 350 W LXM05AD17F1, 110...120 V, single phase 350 W LXM05AD17M2, 200...240 V, single phase 350 W LXM05BD17F1, 110...120 V, single phase 350 W LXM05BD17M2, 200...240 V, single phase 350 W LXM05CD17F1, 110...120 V, single phase 350 W LXM05CD17M2, 200...240 V, single phase 350 W LXM32.D18M2 6 A, 115 V, single phase 350 W LXM05AD17M3X, 200...240 V, three phase 350 W LXM05BD17M3X 6 A, 200...240 V, three phase 350 W LXM05CD17M3X, 200...240 V, three phase
Nominal torque	7.43 lbf.in (0.84 N.m) LXM32.U90M2 3 A, 230 V, single phase 9.7 lbf.in (1.1 N.m) LXM05AD17F1, 110...120 V, single phase 9.7 lbf.in (1.1 N.m) LXM05AD17M2, 200...240 V, single phase 9.7 lbf.in (1.1 N.m) LXM05BD17F1, 110...120 V, single phase 9.7 lbf.in (1.1 N.m) LXM05BD17M2, 200...240 V, single phase 9.7 lbf.in (1.1 N.m) LXM05CD17F1, 110...120 V, single phase 9.7 lbf.in (1.1 N.m) LXM05CD17M2, 200...240 V, single phase 10.09 lbf.in (1.14 N.m) LXM32.D18M2 6 A, 115 V, single phase 9.7 lbf.in (1.1 N.m) LXM05AD17M3X, 200...240 V, three phase 9.7 lbf.in (1.1 N.m) LXM05BD17M3X 6 A, 200...240 V, three phase 9.7 lbf.in (1.1 N.m) LXM05CD17M3X, 200...240 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 speed</b>	6000 rpm LXM32.U90M2 3 A, 230 V, single phase 3000 rpm LXM05AD17F1, 110...120 V, single phase 3000 rpm LXM05BD17F1, 110...120 V, single phase 3000 rpm LXM05CD17F1, 110...120 V, single phase 3000 rpm LXM05AD17M2, 200...240 V, single phase 3000 rpm LXM05BD17M2, 200...240 V, single phase 3000 rpm LXM05CD17M2, 200...240 V, single phase 3000 rpm LXM32.D18M2 6 A, 115 V, single phase 3000 rpm LXM05AD17M3X, 200...240 V, three phase 3000 rpm LXM05BD17M3X 6 A, 200...240 V, three phase 3000 rpm LXM05CD17M3X, 200...240 V, three phase
<b>Product compatibility</b>	LXM05AD17F1 110...120 V single phase LXM05AD17M2 200...240 V single phase LXM05BD17F1 110...120 V single phase LXM05BD17M2 200...240 V single phase LXM05CD17F1 110...120 V single phase LXM05CD17M2 200...240 V single phase LXM32.U90M2 230 V single phase LXM32.D18M2 115 V single phase LXM05AD17M3X 200...240 V three phase LXM05BD17M3X 200...240 V three phase LXM05CD17M3X 200...240 V three phase
<b>Shaft end</b>	Keyed
<b>IP Degree of Protection</b>	IP65 standard IP67 with IP67 kit
<b>Speed feedback resolution</b>	131072 points/turn x 4096 turns
<b>Holding brake</b>	Without
<b>Mounting Support</b>	International standard flange
<b>Electrical Connection</b>	Straight connectors

## Complementary

<b>Range Compatibility</b>	Lexium 05 Lexium 32
<b>supply voltage max</b>	480 V
<b>Phase</b>	Three phase
<b>Continuous stall current</b>	3.1 A
<b>maximum continuous power</b>	0.97 W
<b>Maximum current Irms</b>	11.9 A LXM05AD17F1 11.9 A LXM05AD17M2 11.9 A LXM05AD17M3X 11.9 A LXM05BD17F1 11.9 A LXM05BD17M2 11.9 A LXM05BD17M3X 11.9 A LXM05CD17F1 11.9 A LXM05CD17M2 11.9 A LXM05CD17M3X 10 A LXM32.D18M2 9 A LXM32.U90M2
<b>Maximum permanent current</b>	11.9 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>Key width</b>	0.5 in (12 mm)
<b>Feedback type</b>	Multiturn SinCos Hiperface
<b>Motor flange size</b>	2.2 in (55 mm)
<b>Number of motor stacks</b>	3

<b>Torque constant</b>	0.39 N.m/A 248 °F (120 °C)
<b>Back emf constant</b>	22 V/krpm 248 °F (120 °C)
<b>Rotor inertia</b>	0.134 kg.cm <sup>2</sup>
<b>Stator resistance</b>	3.1 Ohm 68 °F (20 °C)
<b>Stator inductance</b>	7.4 mH 68 °F (20 °C)
<b>Stator electrical time constant</b>	2.39 ms 68 °F (20 °C)
<b>Maximum radial force Fr</b>	190 N 8000 rpm 200 N 7000 rpm 210 N 6000 rpm 230 N 5000 rpm 240 N 4000 rpm 270 N 3000 rpm 310 N 2000 rpm 390 N 1000 rpm
<b>Maximum axial force Fa</b>	0.2 x Fr
<b>Type of cooling</b>	Natural convection
<b>Length</b>	6.9 in (176.5 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>	3.88 lb(US) (1.76 kg)
<b>Sizing reference</b>	BSH0553T
<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)
<b>Temperature magnet rt</b>	68 °F (20 °C)

## Ordering and shipping details

<b>Category</b>	US1PC5318282
<b>Discount Schedule</b>	PC53
<b>GTIN</b>	3389118159822
<b>Returnability</b>	No

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Nbr. of units in pkg.</b>	1
<b>Package 1 Height</b>	4.8 in (12.3 cm)
<b>Package 1 Width</b>	5.04 in (12.8 cm)
<b>Package 1 Length</b>	14.8 in (37.7 cm)
<b>Package weight(Lbs)</b>	3.09 lb(US) (1.4 kg)

## Contractual warranty





## 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 Better

#### Materials and Substances

[EU RoHS Directive](#)

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

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)

### Use Longer

#### Lifetime extension

Repair

No

### Use Again

#### Repack and remanufacture

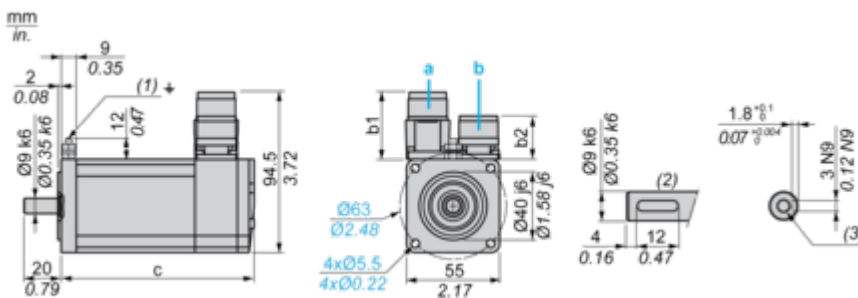
Circularity Profile

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

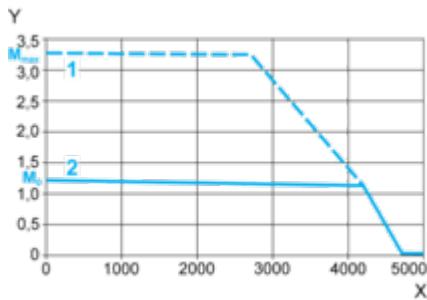
Performance Curves

115 V Single-Phase Supply Voltage

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Torque/Speed Curves

Servo motor with LXM32•D18M2 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

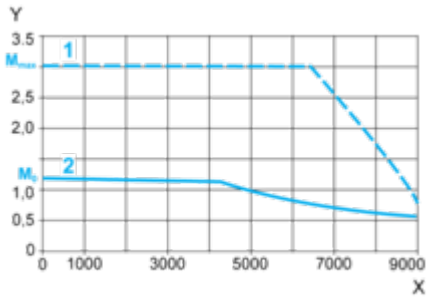
2 Continuous torque

230 V Single-Phase Supply Voltage

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Torque/Speed Curves

Servo motor with LXM32•U90M2 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque