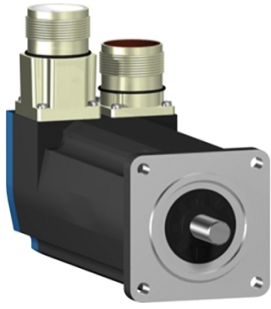


# Product datasheet

Specifications



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

BSH0553T22A1A

! Discontinued

! Discontinued on: 18 Apr 2024

! To be end-of-service on: 18 Apr 2026

## Main

Device short name	BSH
Product or component type	Servo motor
Maximum mechanical speed	9000 rpm
Continuous stall torque	1.2 N.m for LXM32.U90M2 at 3 A, 230 V, single phase 1.3 N.m for LXM05AD17F1, 110...120 V, single phase 1.3 N.m for LXM05AD17M2, 200...240 V, single phase 1.3 N.m for LXM05BD17F1, 110...120 V, single phase 1.3 N.m for LXM05BD17M2, 200...240 V, single phase 1.3 N.m for LXM05CD17F1, 110...120 V, single phase 1.3 N.m for LXM05CD17M2, 200...240 V, single phase 1.2 N.m for LXM32.D18M2 at 6 A, 115 V, single phase 1.3 N.m for LXM05AD17M3X, 200...240 V, three phase 1.3 N.m for LXM05BD17M3X at 6 A, 200...240 V, three phase 1.3 N.m for LXM05CD17M3X, 200...240 V, three phase
Peak stall torque	3 N.m for LXM32.U90M2 at 3 A, 230 V, single phase 3.31 N.m for LXM05AD17F1, 110...120 V, single phase 3.31 N.m for LXM05AD17M2, 200...240 V, single phase 3.31 N.m for LXM05BD17F1, 110...120 V, single phase 3.31 N.m for LXM05BD17M2, 200...240 V, single phase 3.31 N.m for LXM05CD17F1, 110...120 V, single phase 3.31 N.m for LXM05CD17M2, 200...240 V, single phase 3.3 N.m for LXM32.D18M2 at 6 A, 115 V, single phase 3.31 N.m for LXM05AD17M3X, 200...240 V, three phase 3.31 N.m for LXM05BD17M3X at 6 A, 200...240 V, three phase 3.31 N.m for LXM05CD17M3X, 200...240 V, three phase
Nominal output power	550 W for LXM32.U90M2 at 3 A, 230 V, single phase 350 W for LXM05AD17F1, 110...120 V, single phase 350 W for LXM05AD17M2, 200...240 V, single phase 350 W for LXM05BD17F1, 110...120 V, single phase 350 W for LXM05BD17M2, 200...240 V, single phase 350 W for LXM05CD17F1, 110...120 V, single phase 350 W for LXM05CD17M2, 200...240 V, single phase 350 W for LXM32.D18M2 at 6 A, 115 V, single phase 350 W for LXM05AD17M3X, 200...240 V, three phase 350 W for LXM05BD17M3X at 6 A, 200...240 V, three phase 350 W for LXM05CD17M3X, 200...240 V, three phase
Nominal torque	0.84 N.m for LXM32.U90M2 at 3 A, 230 V, single phase 1.1 N.m for LXM05AD17F1, 110...120 V, single phase 1.1 N.m for LXM05AD17M2, 200...240 V, single phase 1.1 N.m for LXM05BD17F1, 110...120 V, single phase 1.1 N.m for LXM05BD17M2, 200...240 V, single phase 1.1 N.m for LXM05CD17F1, 110...120 V, single phase 1.1 N.m for LXM05CD17M2, 200...240 V, single phase 1.14 N.m for LXM32.D18M2 at 6 A, 115 V, single phase 1.1 N.m for LXM05AD17M3X, 200...240 V, three phase 1.1 N.m for LXM05BD17M3X at 6 A, 200...240 V, three phase 1.1 N.m for LXM05CD17M3X, 200...240 V, three phase

<b>Nominal speed</b>	6000 rpm for LXM32.U90M2 at 3 A, 230 V, single phase 3000 rpm for LXM05AD17F1, 110...120 V, single phase 3000 rpm for LXM05BD17F1, 110...120 V, single phase 3000 rpm for LXM05CD17F1, 110...120 V, single phase 3000 rpm for LXM05AD17M2, 200...240 V, single phase 3000 rpm for LXM05BD17M2, 200...240 V, single phase 3000 rpm for LXM05CD17M2, 200...240 V, single phase 3000 rpm for LXM32.D18M2 at 6 A, 115 V, single phase 3000 rpm for LXM05AD17M3X, 200...240 V, three phase 3000 rpm for LXM05BD17M3X at 6 A, 200...240 V, three phase 3000 rpm for LXM05CD17M3X, 200...240 V, three phase
<b>Product compatibility</b>	LXM05AD17F1 at 110...120 V single phase LXM05AD17M2 at 200...240 V single phase LXM05BD17F1 at 110...120 V single phase LXM05BD17M2 at 200...240 V single phase LXM05CD17F1 at 110...120 V single phase LXM05CD17M2 at 200...240 V single phase LXM32.U90M2 at 230 V single phase LXM32.D18M2 at 115 V single phase LXM05AD17M3X at 200...240 V three phase LXM05BD17M3X at 200...240 V three phase LXM05CD17M3X at 200...240 V three phase
<b>Shaft end</b>	Untapped
<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>Network number of phases</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 for LXM05AD17F1 11.9 A for LXM05AD17M2 11.9 A for LXM05AD17M3X 11.9 A for LXM05BD17F1 11.9 A for LXM05BD17M2 11.9 A for LXM05BD17M3X 11.9 A for LXM05CD17F1 11.9 A for LXM05CD17M2 11.9 A for LXM05CD17M3X 10 A for LXM32.D18M2 9 A for 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>	9 mm
<b>Shaft length</b>	20 mm
<b>Feedback type</b>	Multiturn SinCos Hiperface
<b>Motor flange size</b>	55 mm
<b>Number of motor stacks</b>	3
<b>Torque constant</b>	0.39 N.m/A at 120 °C

Back emf constant	22 V/krpm at 120 °C
Rotor inertia	0.134 kg.cm <sup>2</sup>
Stator resistance	3.1 Ohm at 20 °C
Stator inductance	7.4 mH at 20 °C
Stator electrical time constant	2.39 ms at 20 °C
Maximum radial force Fr	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
Maximum axial force Fa	0.2 x Fr
Type of cooling	Natural convection
Length	176.5 mm
Centring collar diameter	40 mm
Centring collar depth	2 mm
Number of mounting holes	4
Mounting holes diameter	5.5 mm
Circle diameter of the mounting holes	63 mm
Net weight	1.76 kg
Sizing reference	BSH0553T
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

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	12.3 cm
Package 1 Width	12.8 cm
Package 1 Length	37.7 cm
Package 1 Weight	1.4 kg

## Contractual warranty

Warranty (in months)	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

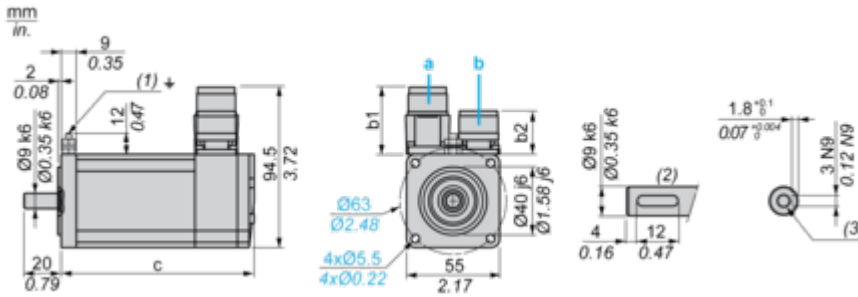
End of life manual availability

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 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

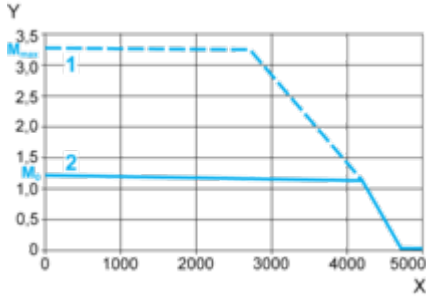
Performance Curves

115 V Single-Phase Supply Voltage

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Torque/Speed Curves

Servo motor with LXM32•D18M2 servo drive



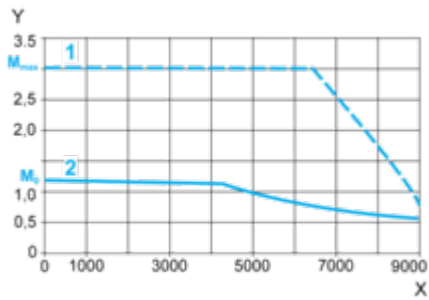
- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

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