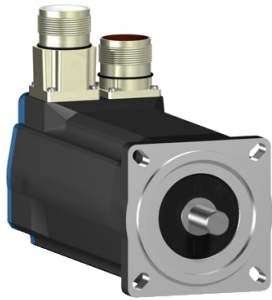


# Product data sheet

Specifications



servo motor BSH, Lexium 05,  
0.7N.m, 8000rpm, 70mm, untapped  
shaft, Sincos multi turn, without  
brake, IP65, straight

BSH0701T22A1A

⚠ Discontinued

⚠ Discontinued on: Jun 30, 2023

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

## Main

Device short name	BSH
Product or Component Type	Servo motor
Maximum mechanical speed	8000 rpm
Continuous stall torque	<p>11.5 lbf.in (1.3 N.m) LXM32.U90M2 3 A, 230 V, single phase</p> <p>12.4 lbf.in (1.4 N.m) LXM05AD10M3X, 200...240 V, three phase</p> <p>12.4 lbf.in (1.4 N.m) LXM05BD10M3X, 200...240 V, three phase</p> <p>12.4 lbf.in (1.4 N.m) LXM05CD10M3X 6 A, 200...240 V, three phase</p> <p>12.4 lbf.in (1.4 N.m) LXM15LD13M3, 230 V, single phase</p> <p>12.4 lbf.in (1.4 N.m) LXM05AD10F1, 110...120 V, single phase</p> <p>12.4 lbf.in (1.4 N.m) LXM05AD17M2, 200...240 V, single phase</p> <p>12.4 lbf.in (1.4 N.m) LXM05BD10F1, 110...120 V, single phase</p> <p>12.4 lbf.in (1.4 N.m) LXM05BD17M2, 200...240 V, single phase</p> <p>12.4 lbf.in (1.4 N.m) LXM05CD10F1, 110...120 V, single phase</p> <p>12.4 lbf.in (1.4 N.m) LXM05CD17M2, 200...240 V, single phase</p> <p>12.4 lbf.in (1.4 N.m) LXM32.D18M2 6 A, 115 V, single phase</p> <p>6.2 lbf.in (0.7 N.m) LXM15LU60N4, 400 V, three phase</p> <p>6.2 lbf.in (0.7 N.m) LXM15LU60N4, 480 V, three phase</p> <p>8.05 lbf.in (0.91 N.m) LXM15LU60N4, 230 V, three phase</p> <p>12.4 lbf.in (1.4 N.m) LXM15LD10N4, 230 V, three phase</p> <p>12.4 lbf.in (1.4 N.m) LXM15LD10N4, 400 V, three phase</p> <p>12.4 lbf.in (1.4 N.m) LXM15LD10N4, 480 V, three phase</p> <p>12.4 lbf.in (1.4 N.m) LXM15LD13M3, 230 V, three phase</p> <p>12.4 lbf.in (1.4 N.m) LXM15LD21M3, 230 V, three phase</p> <p>12.4 lbf.in (1.4 N.m) LXM05AD17M3X, 200...240 V, three phase</p> <p>12.4 lbf.in (1.4 N.m) LXM05BD17M3X, 200...240 V, three phase</p> <p>12.4 lbf.in (1.4 N.m) LXM05CD17M3X, 200...240 V, three phase</p>

Peak stall torque	<p>31.0 lbf.in (3.5 N.m) LXM32.U90M2 3 A, 230 V, single phase</p> <p>28.23 lbf.in (3.19 N.m) LXM15LD13M3, 230 V, single phase</p> <p>21.42 lbf.in (2.42 N.m) LXM05AD10F1, 110...120 V, single phase</p> <p>28.23 lbf.in (3.19 N.m) LXM05AD17M2, 200...240 V, single phase</p> <p>21.42 lbf.in (2.42 N.m) LXM05BD10F1, 110...120 V, single phase</p> <p>28.23 lbf.in (3.19 N.m) LXM05BD17M2, 200...240 V, single phase</p> <p>21.42 lbf.in (2.42 N.m) LXM05CD10F1, 110...120 V, single phase</p> <p>28.23 lbf.in (3.19 N.m) LXM05CD17M2, 200...240 V, single phase</p> <p>31.0 lbf.in (3.5 N.m) LXM32.D18M2 6 A, 115 V, single phase</p> <p>16.8 lbf.in (1.9 N.m) LXM15LU60N4, 400 V, three phase</p> <p>16.8 lbf.in (1.9 N.m) LXM15LU60N4, 480 V, three phase</p> <p>16.8 lbf.in (1.9 N.m) LXM15LU60N4, 230 V, three phase</p> <p>25.76 lbf.in (2.91 N.m) LXM15LD10N4, 230 V, three phase</p> <p>25.76 lbf.in (2.91 N.m) LXM15LD10N4, 400 V, three phase</p> <p>25.76 lbf.in (2.91 N.m) LXM15LD10N4, 480 V, three phase</p> <p>28.23 lbf.in (3.19 N.m) LXM15LD13M3, 230 V, three phase</p> <p>28.23 lbf.in (3.19 N.m) LXM15LD21M3, 230 V, three phase</p> <p>21.42 lbf.in (2.42 N.m) LXM05AD10M3X, 200...240 V, three phase</p> <p>28.23 lbf.in (3.19 N.m) LXM05AD17M3X, 200...240 V, three phase</p> <p>21.42 lbf.in (2.42 N.m) LXM05BD10M3X, 200...240 V, three phase</p> <p>28.23 lbf.in (3.19 N.m) LXM05BD17M3X, 200...240 V, three phase</p> <p>21.42 lbf.in (2.42 N.m) LXM05CD10M3X, 200...240 V, three phase</p> <p>28.23 lbf.in (3.19 N.m) LXM05CD17M3X 6 A, 200...240 V, three phase</p>
-------------------	---

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

---

**Nominal output power**

500 W LXM32.U90M2 3 A, 230 V, single phase  
 350 W LXM32.D18M2 6 A, 115 V, single phase  
 400 W LXM05AD10M3X, 200...240 V, three phase  
 400 W LXM05BD10M3X, 200...240 V, three phase  
 400 W LXM05CD10M3X, 200...240 V, three phase  
 380 W LXM05AD10F1, 110...120 V, single phase  
 380 W LXM05BD10F1, 110...120 V, single phase  
 380 W LXM05CD10F1, 110...120 V, single phase  
 400 W LXM05AD17M2, 200...240 V, single phase  
 400 W LXM05BD17M2, 200...240 V, single phase  
 400 W LXM05CD17M2, 200...240 V, single phase  
 654 W LXM15LD13M3 6 A, 230 V, single phase  
 1000 W LXM15LD10N4, 400 V, three phase  
 1000 W LXM15LD10N4, 480 V, three phase  
 400 W LXM05AD17M3X, 200...240 V, three phase  
 400 W LXM05BD17M3X, 200...240 V, three phase  
 400 W LXM05CD17M3X, 200...240 V, three phase  
 440 W LXM15LU60N4, 230 V, three phase  
 564 W LXM15LD10N4, 230 V, three phase  
 586 W LXM15LU60N4, 400 V, three phase  
 586 W LXM15LU60N4, 480 V, three phase  
 654 W LXM15LD13M3, 230 V, three phase  
 654 W LXM15LD21M3, 230 V, three phase

---

**Nominal torque**

8.32 lbf.in (0.94 N.m) LXM32.U90M2 3 A, 230 V, single phase  
 11.06 lbf.in (1.25 N.m) LXM15LD13M3, 230 V, single phase  
 12.04 lbf.in (1.36 N.m) LXM32.D18M2 6 A, 115 V, single phase  
 6.2 lbf.in (0.7 N.m) LXM15LU60N4, 230 V, three phase  
 6.2 lbf.in (0.7 N.m) LXM15LU60N4 6 A, 400 V, three phase  
 6.2 lbf.in (0.7 N.m) LXM15LU60N4, 480 V, three phase  
 10.89 lbf.in (1.23 N.m) LXM15LD10N4, 400 V, three phase  
 10.89 lbf.in (1.23 N.m) LXM15LD10N4, 480 V, three phase  
 11.06 lbf.in (1.25 N.m) LXM15LD10N4, 230 V, three phase  
 11.06 lbf.in (1.25 N.m) LXM15LD13M3, 230 V, three phase  
 11.06 lbf.in (1.25 N.m) LXM15LD21M3, 230 V, three phase

---

**Nominal speed**

5000 rpm LXM32.U90M2 3 A, 230 V, single phase  
 3000 rpm LXM05AD10F1, 110...120 V, single phase  
 3000 rpm LXM05BD10F1, 110...120 V, single phase  
 3000 rpm LXM05CD10F1, 110...120 V, single phase  
 3000 rpm LXM05AD10M3X, 200...240 V, three phase  
 3000 rpm LXM05BD10M3X, 200...240 V, three phase  
 3000 rpm LXM05CD10M3X, 200...240 V, three phase  
 8000 rpm LXM15LD10N4 6 A, 400 V, three 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 LXM05AD17M3X, 200...240 V, three phase  
 3000 rpm LXM05BD17M3X, 200...240 V, three phase  
 3000 rpm LXM05CD17M3X, 200...240 V, three phase  
 5000 rpm LXM15LD13M3, 230 V, single phase  
 2500 rpm LXM32.D18M2 6 A, 115 V, single phase  
 5000 rpm LXM15LD10N4, 230 V, three phase  
 5000 rpm LXM15LD13M3, 230 V, three phase  
 5000 rpm LXM15LD21M3, 230 V, three phase  
 6000 rpm LXM15LU60N4, 230 V, three phase  
 8000 rpm LXM15LD10N4, 480 V, three phase  
 8000 rpm LXM15LU60N4, 400 V, three phase  
 8000 rpm LXM15LU60N4, 480 V, three phase

<b>Product compatibility</b>	LXM05AD10F1 110...120 V single phase LXM05AD17M2 200...240 V single phase LXM05BD10F1 110...120 V single phase LXM05BD17M2 200...240 V single phase LXM05CD10F1 110...120 V single phase LXM05CD17M2 200...240 V single phase LXM15LD13M3 230 V single phase LXM32.U90M2 230 V single phase LXM32.D18M2 115 V single phase LXM15LU60N4 230 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 LXM15LU60N4 400 V three phase LXM15LU60N4 480 V three phase LXM15LD10N4 400 V three phase LXM05AD17M3X 200...240 V three phase LXM05BD17M3X 200...240 V three phase LXM05CD17M3X 200...240 V three phase LXM15LD10N4 230 V three phase LXM15LD10N4 480 V three phase LXM15LD21M3 230 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 15 Lexium 32
<b>supply voltage max</b>	480 V
<b>Phase</b>	Three phase
<b>Continuous stall current</b>	3.2 A
<b>maximum continuous power</b>	1.06 W
<b>Maximum current Irms</b>	10 A LXM32.D18M2 9 A LXM32.U90M2 9.9 A LXM15LD13M3 9.9 A LXM15LD21M3 9.9 A LXM15LU60N4 9.9 A LXM15LD10N4
<b>Maximum permanent current</b>	10.1 A
<b>Switching frequency</b>	8 kHz
<b>Second shaft</b>	Without second shaft end
<b>Shaft diameter</b>	0.4 in (11 mm)
<b>Shaft length</b>	0.9 in (23 mm)
<b>Feedback type</b>	Multiturn SinCos Hiperface
<b>Motor flange size</b>	2.8 in (70 mm)
<b>Number of motor stacks</b>	1
<b>Torque constant</b>	0.44 N.m/A 248 °F (120 °C)
<b>Back emf constant</b>	26 V/krpm 248 °F (120 °C)
<b>Rotor inertia</b>	0.25 kg.cm <sup>2</sup>

Stator resistance	3.3 Ohm 68 °F (20 °C)
Stator inductance	12.3 mH 68 °F (20 °C)
Stator electrical time constant	3.73 ms 68 °F (20 °C)
Maximum radial force Fr	360 N 6000 rpm 380 N 5000 rpm 410 N 4000 rpm 460 N 3000 rpm 520 N 2000 rpm 660 N 1000 rpm
Maximum axial force Fa	0.2 x Fr
Type of cooling	Natural convection
Length	6.06 in (154 mm)
Centring collar diameter	2.4 in (60 mm)
Centring collar depth	0.10 in (2.5 mm)
Number of mounting holes	4
Mounting holes diameter	0.2 in (5.5 mm)
Circle diameter of the mounting holes	3.2 in (82 mm)
Net Weight	4.9 lb(US) (2.2 kg)
Sizing reference	BSH0701T
Network number of phases	3
Accuracy error [angular]	1.4 °
Temperature copper hot	248 °F (120 °C)
Temperature magnet hot	212 °F (100 °C)
Temperature magnet rt	68 °F (20 °C)

## Ordering and shipping details

Category	18282-LEXIUM 32 MOTORS
Discount Schedule	PC53
GTIN	3389118136069
Returnability	No
Country of origin	DE

## Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	4.8 in (12.3 cm)
Package 1 Width	5.04 in (12.8 cm)
Package 1 Length	14.8 in (37.7 cm)
Package weight(Lbs)	4.6 lb(US) (2.1 kg)

## Contractual warranty

Warranty (in months)	18
----------------------	----



## 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

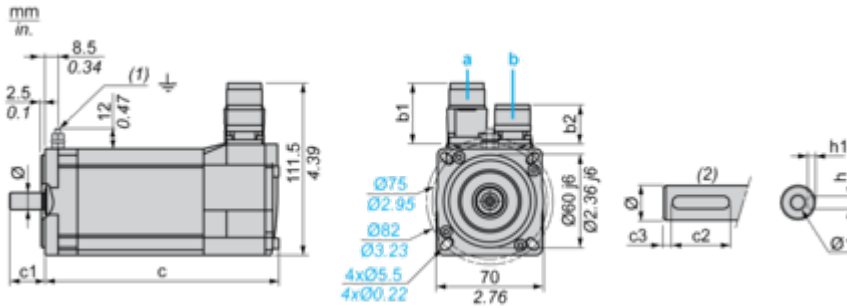
Circularity Profile

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)

Dimensions in mm

Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)	c1	c2	c3	h	h1	Ø	Ø1 for screws
b1	b2	b1	b2									
39.5	25.5	39.5	39.5	154	180	23	18	2.5	4 N9	2.5 <sup>+0.1</sup> <sub>0</sub>	11 k6	M4 x 10

Dimensions in in.

Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)	c1	c2	c3	h	h1	Ø	Ø1 for screws
b1	b2	b1	b2									
1.55	1.00	1.55	1.55	6.06	7.08	0.90	0.70	0.09	0.16 N9	0.01 <sup>+0.004</sup> <sub>0</sub>	0.43 k6	M4 x 0.39

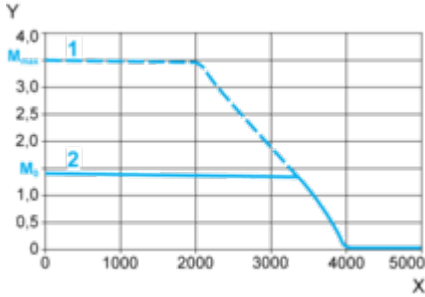
Performance Curves

115 V Single-Phase Supply Voltage

---

Torque/Speed Curves

Servo motor with LXM32-D18M2 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

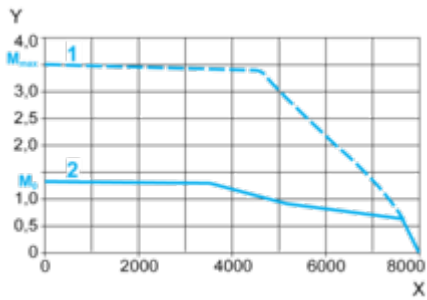
2 Continuous torque

230 V Single-Phase Supply Voltage

---

Torque/Speed Curves

Servo motor with LXM32-U90M2 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque