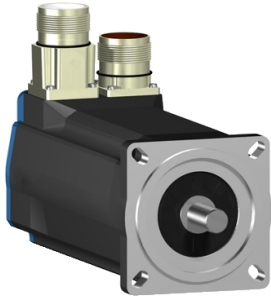


# Product data sheet

Specifications



servo motor BSH, Lexium 05,  
2.83N.m, 6000rpm, 70mm, keyed  
shaft, Sincos multi turn, without  
brake, IP50, straight

BSH0703T12A1A

⚠ 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	8000 rpm
Continuous stall torque	24.8 lbf.in (2.8 N.m) LXM05AD28M2, 200...240 V, single phase 24.8 lbf.in (2.8 N.m) LXM05BD28M2, 200...240 V, single phase 24.8 lbf.in (2.8 N.m) LXM05CD28M2, 200...240 V, single phase 23.01 lbf.in (2.6 N.m) LXM32.D18M2 6 A, 230 V, single phase 25.05 lbf.in (2.83 N.m) LXM15LD28M3, 230 V, three phase 24.8 lbf.in (2.8 N.m) LXM05AD28F1 6 A, 110...120 V, single phase 24.8 lbf.in (2.8 N.m) LXM05AD42M3X, 200...240 V, three phase 24.8 lbf.in (2.8 N.m) LXM05BD28F1, 110...120 V, single phase 24.8 lbf.in (2.8 N.m) LXM05BD42M3X, 200...240 V, three phase 24.8 lbf.in (2.8 N.m) LXM05CD28F1, 110...120 V, single phase 24.8 lbf.in (2.8 N.m) LXM05CD42M3X, 200...240 V, three phase
Peak stall torque	65.32 lbf.in (7.38 N.m) LXM05AD28F1, 110...120 V, single phase 65.32 lbf.in (7.38 N.m) LXM05AD28M2, 200...240 V, single phase 65.32 lbf.in (7.38 N.m) LXM05BD28F1, 110...120 V, single phase 65.32 lbf.in (7.38 N.m) LXM05BD28M2, 200...240 V, single phase 65.32 lbf.in (7.38 N.m) LXM05CD28F1, 110...120 V, single phase 65.32 lbf.in (7.38 N.m) LXM05CD28M2, 200...240 V, single phase 65.5 lbf.in (7.4 N.m) LXM32.D18M2 6 A, 230 V, single phase 65.32 lbf.in (7.38 N.m) LXM15LD28M3, 230 V, three phase 90.72 lbf.in (10.25 N.m) LXM05AD42M3X 6 A, 200...240 V, three phase 90.72 lbf.in (10.25 N.m) LXM05BD42M3X, 200...240 V, three phase 90.72 lbf.in (10.25 N.m) LXM05CD42M3X, 200...240 V, three phase
Nominal output power	750 W LXM05AD28M2, 200...240 V, single phase 750 W LXM05BD28M2, 200...240 V, single phase 750 W LXM05CD28M2, 200...240 V, single phase 750 W LXM05AD28F1, 110...120 V, single phase 750 W LXM05BD28F1, 110...120 V, single phase 750 W LXM05CD28F1, 110...120 V, single phase 900 W LXM32.D18M2 6 A, 230 V, single phase 1250 W LXM15LD28M3, 230 V, three phase 750 W LXM05AD42M3X 6 A, 200...240 V, three phase 750 W LXM05BD42M3X, 200...240 V, three phase 750 W LXM05CD42M3X, 200...240 V, three phase
Nominal torque	21.2 lbf.in (2.4 N.m) LXM05AD28M2, 200...240 V, single phase 21.2 lbf.in (2.4 N.m) LXM05BD28M2, 200...240 V, single phase 21.2 lbf.in (2.4 N.m) LXM05CD28M2, 200...240 V, single phase 21.2 lbf.in (2.4 N.m) LXM05AD28F1, 110...120 V, single phase 21.2 lbf.in (2.4 N.m) LXM05BD28F1, 110...120 V, single phase 21.2 lbf.in (2.4 N.m) LXM05CD28F1, 110...120 V, single phase 18.6 lbf.in (2.1 N.m) LXM32.D18M2 6 A, 230 V, single phase 17.7 lbf.in (2 N.m) LXM15LD28M3, 230 V, three phase 21.2 lbf.in (2.4 N.m) LXM05AD42M3X 6 A, 200...240 V, three phase 21.2 lbf.in (2.4 N.m) LXM05BD42M3X, 200...240 V, three phase 21.2 lbf.in (2.4 N.m) LXM05CD42M3X, 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>	3000 rpm LXM05AD28M2, 200...240 V, single phase 3000 rpm LXM05BD28M2 6 A, 200...240 V, single phase 3000 rpm LXM05CD28M2, 200...240 V, single phase 3000 rpm LXM05AD42M3X, 200...240 V, three phase 3000 rpm LXM05BD42M3X, 200...240 V, three phase 3000 rpm LXM05CD42M3X, 200...240 V, three phase 3000 rpm LXM05AD28F1, 110...120 V, single phase 3000 rpm LXM05BD28F1, 110...120 V, single phase 3000 rpm LXM05CD28F1, 110...120 V, single phase 4000 rpm LXM32.D18M2 6 A, 230 V, single phase 6000 rpm LXM15LD28M3, 230 V, three phase
<b>Product compatibility</b>	LXM05AD28F1 110...120 V single phase LXM05AD28M2 200...240 V single phase LXM05BD28F1 110...120 V single phase LXM05BD28M2 200...240 V single phase LXM05CD28F1 110...120 V single phase LXM05CD28M2 200...240 V single phase LXM32.D18M2 230 V single phase LXM05AD42M3X 200...240 V three phase LXM05BD42M3X 200...240 V three phase LXM05CD42M3X 200...240 V three phase LXM15LD28M3 230 V three phase
<b>Shaft end</b>	Keyed
<b>IP Degree of Protection</b>	IP50 standard
<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 15 Lexium 32 Lexium 05
<b>supply voltage max</b>	480 V
<b>Phase</b>	Three phase
<b>Continuous stall current</b>	7 A
<b>maximum continuous power</b>	1.7 W
<b>Maximum current Irms</b>	18 A LXM32.D18M2 30.9 A LXM15LD28M3 29.2 A LXM05AD28F1 29.2 A LXM05AD28M2 29.2 A LXM05AD42M3X 29.2 A LXM05BD28F1 29.2 A LXM05BD28M2 29.2 A LXM05BD42M3X 29.2 A LXM05CD28F1 29.2 A LXM05CD28M2 29.2 A LXM05CD42M3X
<b>Maximum permanent current</b>	29.2 A
<b>Switching frequency</b>	8 kHz
<b>Second shaft</b>	Without second shaft end
<b>Shaft diameter</b>	0.6 in (14 mm)
<b>Shaft length</b>	1.2 in (30 mm)
<b>Key width</b>	0.8 in (20 mm)
<b>Feedback type</b>	Multiturn SinCos Hiperface
<b>Motor flange size</b>	2.8 in (70 mm)
<b>Number of motor stacks</b>	3

<b>Torque constant</b>	0.44 N.m/A 248 °F (120 °C)
<b>Back emf constant</b>	29 V/krpm 248 °F (120 °C)
<b>Number of motor poles</b>	6
<b>Rotor inertia</b>	0.58 kg.cm <sup>2</sup>
<b>Stator resistance</b>	0.91 Ohm 68 °F (20 °C)
<b>Stator inductance</b>	4.4 mH 68 °F (20 °C)
<b>Stator electrical time constant</b>	4.84 ms 68 °F (20 °C)
<b>Maximum radial force Fr</b>	400 N 6000 rpm 430 N 5000 rpm 460 N 4000 rpm 510 N 3000 rpm 580 N 2000 rpm 730 N 1000 rpm
<b>Maximum axial force Fa</b>	0.2 x Fr
<b>Type of cooling</b>	Natural convection
<b>Length</b>	8.7 in (220 mm)
<b>Centring collar diameter</b>	2.4 in (60 mm)
<b>Centring collar depth</b>	0.10 in (2.5 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>	3.2 in (82 mm)
<b>Net Weight</b>	7.98 lb(US) (3.62 kg)
<b>Sizing reference</b>	BSH0703T
<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>	3389118137561
<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>	7.9 lb(US) (3.6 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)

PVC free

Yes

### Use Longer



#### Lifetime extension

Repair

No

### Use Again




#### Repack and remanufacture

Circularity Profile

No need of specific recycling operations

WEEE Label

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



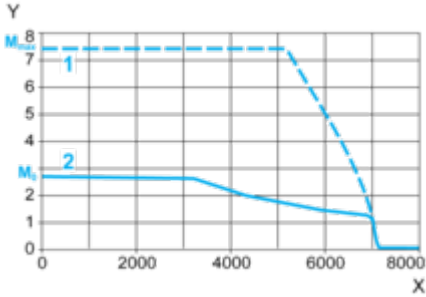
Performance Curves

230 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