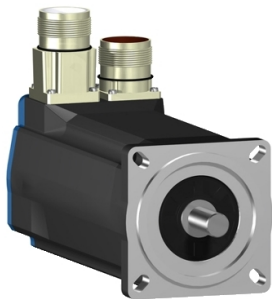


Product data sheet

Specifications



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

BSH0701T31A1A

⚠ Discontinued

⚠ Discontinued on: Oct 9, 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	11.5 lbf.in (1.3 N.m) LXM32.U90M2 3 A, 230 V, single phase 12.4 lbf.in (1.4 N.m) LXM05AD10M3X, 200...240 V, three phase 12.4 lbf.in (1.4 N.m) LXM05BD10M3X, 200...240 V, three phase 12.4 lbf.in (1.4 N.m) LXM05CD10M3X 6 A, 200...240 V, three phase 12.4 lbf.in (1.4 N.m) LXM15LD13M3, 230 V, single phase 12.4 lbf.in (1.4 N.m) LXM05AD10F1, 110...120 V, single phase 12.4 lbf.in (1.4 N.m) LXM05AD17M2, 200...240 V, single phase 12.4 lbf.in (1.4 N.m) LXM05BD10F1, 110...120 V, single phase 12.4 lbf.in (1.4 N.m) LXM05BD17M2, 200...240 V, single phase 12.4 lbf.in (1.4 N.m) LXM05CD10F1, 110...120 V, single phase 12.4 lbf.in (1.4 N.m) LXM05CD17M2, 200...240 V, single phase 12.4 lbf.in (1.4 N.m) LXM32.D18M2 6 A, 115 V, single phase 6.2 lbf.in (0.7 N.m) LXM15LU60N4, 400 V, three phase 6.2 lbf.in (0.7 N.m) LXM15LU60N4, 480 V, three phase 8.05 lbf.in (0.91 N.m) LXM15LU60N4, 230 V, three phase 12.4 lbf.in (1.4 N.m) LXM15LD10N4, 230 V, three phase 12.4 lbf.in (1.4 N.m) LXM15LD10N4, 400 V, three phase 12.4 lbf.in (1.4 N.m) LXM15LD10N4, 480 V, three phase 12.4 lbf.in (1.4 N.m) LXM15LD13M3, 230 V, three phase 12.4 lbf.in (1.4 N.m) LXM15LD21M3, 230 V, three phase 12.4 lbf.in (1.4 N.m) LXM05AD17M3X, 200...240 V, three phase 12.4 lbf.in (1.4 N.m) LXM05BD17M3X, 200...240 V, three phase 12.4 lbf.in (1.4 N.m) LXM05CD17M3X, 200...240 V, three phase

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

Product compatibility	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
Shaft end	Keyed
IP Degree of Protection	IP65 standard IP67 with IP67 kit
Speed feedback resolution	131072 points/turn
Holding brake	Without
Mounting Support	International standard flange
Electrical Connection	Straight connectors

Complementary

Range Compatibility	Lexium 15 Lexium 05 Lexium 32
supply voltage max	480 V
Phase	Three phase
Continuous stall current	3.2 A
maximum continuous power	1.06 W
Maximum current Irms	10 A LXM32.D18M2 9 A LXM32.U90M2 9.9 A LXM15LD13M3 9.9 A LXM15LD21M3 9.9 A LXM15LU60N4 9.9 A LXM15LD10N4
Maximum permanent current	10.1 A
Switching frequency	8 kHz
Second shaft	Without second shaft end
Shaft diameter	0.4 in (11 mm)
Shaft length	0.9 in (23 mm)
Key width	0.7 in (18 mm)
Feedback type	Single turn SinCos Hiperface
Motor flange size	2.8 in (70 mm)
Number of motor stacks	1
Torque constant	0.44 N.m/A 248 °F (120 °C)
Back emf constant	26 V/krpm 248 °F (120 °C)

Rotor inertia	0.25 kg.cm ²
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	US1PC5318282
Discount Schedule	PC53
GTIN	3389118136106
Returnability	No

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
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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 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

PVC free

Yes

Use Longer



Lifetime extension

Repair

No

Use Again



Repack and remanufacture

Circularity Profile

No need of specific recycling operations

WEEE Label



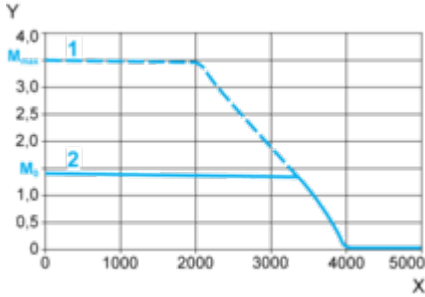
The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

Performance Curves

115 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32-D18M2 servo drive



X Speed in rpm

Y Torque in Nm

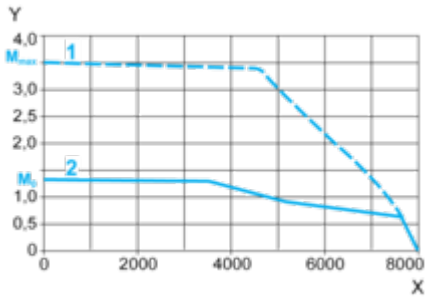
1 Peak torque

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