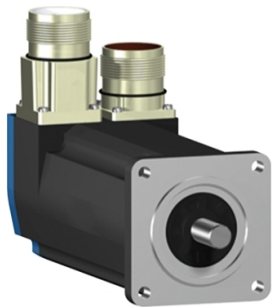


Product data sheet

Specifications



servo motor BSH, Lexium 05,
1.3N.m, 3000rpm, 55mm, untapped
shaft, Sincos single turn, with brake,
3 phases, IP65, straight

BSH0553P21F1A

⚠ 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	9.29 lbf.in (1.05 N.m) LXM32.U60N4 1.5 A, 480 V, three phase 9.29 lbf.in (1.05 N.m) LXM32.U60N4 1.5 A, 400 V, three phase 11.5 lbf.in (1.3 N.m) LXM05AD10M2, 200...240 V, single phase 11.5 lbf.in (1.3 N.m) LXM05BD10M2, 200...240 V, single phase 11.5 lbf.in (1.3 N.m) LXM05CD10M2, 200...240 V, single phase 11.5 lbf.in (1.3 N.m) LXM05AD10M3X, 200...240 V, three phase 11.5 lbf.in (1.3 N.m) LXM05BD10M3X 1.5 A, 200...240 V, three phase 11.5 lbf.in (1.3 N.m) LXM05CD10M3X, 200...240 V, three phase 11.5 lbf.in (1.3 N.m) LXM15LD13M3, 230 V, single phase 11.5 lbf.in (1.3 N.m) LXM15LD13M3, 230 V, three phase 11.5 lbf.in (1.3 N.m) LXM15LD10N4, 400 V, three phase 11.5 lbf.in (1.3 N.m) LXM05AD14N4, 380...480 V, three phase 11.5 lbf.in (1.3 N.m) LXM05BD14N4, 380...480 V, three phase 11.5 lbf.in (1.3 N.m) LXM05CD14N4, 380...480 V, three phase
Peak stall torque	31.0 lbf.in (3.5 N.m) LXM32.U60N4 1.5 A, 480 V, three phase 31.0 lbf.in (3.5 N.m) LXM32.U60N4 1.5 A, 400 V, three phase 23.9 lbf.in (2.7 N.m) LXM15LD13M3, 230 V, single phase 28.15 lbf.in (3.18 N.m) LXM05AD10M2, 200...240 V, single phase 28.15 lbf.in (3.18 N.m) LXM05BD10M2, 200...240 V, single phase 28.15 lbf.in (3.18 N.m) LXM05CD10M2, 200...240 V, single phase 23.9 lbf.in (2.7 N.m) LXM15LD13M3 1.5 A, 230 V, three phase 34.25 lbf.in (3.87 N.m) LXM15LD10N4, 400 V, three phase 28.15 lbf.in (3.18 N.m) LXM05AD10M3X, 200...240 V, three phase 34.25 lbf.in (3.87 N.m) LXM05AD14N4, 380...480 V, three phase 28.15 lbf.in (3.18 N.m) LXM05BD10M3X, 200...240 V, three phase 34.25 lbf.in (3.87 N.m) LXM05BD14N4, 380...480 V, three phase 28.15 lbf.in (3.18 N.m) LXM05CD10M3X, 200...240 V, three phase 34.25 lbf.in (3.87 N.m) LXM05CD14N4, 380...480 V, three phase
Nominal output power	400 W LXM32.U60N4 1.5 A, 400 V, three phase 400 W LXM32.U60N4 1.5 A, 480 V, three phase 340 W LXM15LD13M3, 230 V, three phase 340 W LXM15LD13M3, 230 V, single phase 350 W LXM05AD10M2, 200...240 V, single phase 350 W LXM05BD10M2, 200...240 V, single phase 350 W LXM05CD10M2 1.5 A, 200...240 V, single phase 350 W LXM05AD10M3X, 200...240 V, three phase 350 W LXM05AD14N4, 380...480 V, three phase 350 W LXM05BD10M3X, 200...240 V, three phase 350 W LXM05BD14N4, 380...480 V, three phase 350 W LXM05CD10M3X, 200...240 V, three phase 350 W LXM05CD14N4, 380...480 V, three phase 670 W LXM15LD10N4, 400 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.

Nominal torque	<p>5.75 lbf.in (0.65 N.m) LXM32.U60N4 1.5 A, 400 V, three phase 5.75 lbf.in (0.65 N.m) LXM32.U60N4 1.5 A, 480 V, three phase 9.56 lbf.in (1.08 N.m) LXM15LD13M3, 230 V, single phase 9.7 lbf.in (1.1 N.m) LXM05AD10M2, 200...240 V, single phase 9.7 lbf.in (1.1 N.m) LXM05BD10M2, 200...240 V, single phase 9.7 lbf.in (1.1 N.m) LXM05CD10M2, 200...240 V, single phase 7.08 lbf.in (0.8 N.m) LXM15LD10N4 1.5 A, 400 V, three phase 9.56 lbf.in (1.08 N.m) LXM15LD13M3, 230 V, three phase 9.7 lbf.in (1.1 N.m) LXM05AD10M3X, 200...240 V, three phase 9.7 lbf.in (1.1 N.m) LXM05AD14N4, 380...480 V, three phase 9.7 lbf.in (1.1 N.m) LXM05BD10M3X, 200...240 V, three phase 9.7 lbf.in (1.1 N.m) LXM05BD14N4, 380...480 V, three phase 9.7 lbf.in (1.1 N.m) LXM05CD10M3X, 200...240 V, three phase 9.7 lbf.in (1.1 N.m) LXM05CD14N4, 380...480 V, three phase</p>
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Nominal speed	<p>6000 rpm LXM32.U60N4 1.5 A, 400 V, three phase 6000 rpm LXM32.U60N4 1.5 A, 480 V, three phase 3000 rpm LXM05AD10M2, 200...240 V, single phase 3000 rpm LXM05BD10M2, 200...240 V, single phase 3000 rpm LXM05CD10M2, 200...240 V, single phase 3000 rpm LXM05AD10M3X, 200...240 V, three phase 3000 rpm LXM05AD14N4 1.5 A, 380...480 V, three phase 3000 rpm LXM05BD10M3X, 200...240 V, three phase 3000 rpm LXM05BD14N4, 380...480 V, three phase 3000 rpm LXM05CD10M3X, 200...240 V, three phase 3000 rpm LXM05CD14N4, 380...480 V, three phase 3000 rpm LXM15LD13M3, 230 V, single phase 3000 rpm LXM15LD13M3, 230 V, three phase 8000 rpm LXM15LD10N4, 400 V, three phase</p>
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Product compatibility	<p>LXM05AD10M2 200...240 V single phase LXM05BD10M2 200...240 V single phase LXM05CD10M2 200...240 V single phase LXM15LD13M3 230 V single phase LXM32.U60N4 400 V three phase LXM32.U60N4 480 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 LXM05AD14N4 380...480 V three phase LXM05BD14N4 380...480 V three phase LXM05CD14N4 380...480 V three phase LXM15LD10N4 400 V three phase</p>
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Shaft end	Untapped
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IP Degree of Protection	<p>IP65 standard IP67 with IP67 kit</p>
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Speed feedback resolution	131072 points/turn
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Holding brake	With
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Mounting Support	International standard flange
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Electrical Connection	Straight connectors
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Complementary

Range Compatibility	<p>Lexium 32 Lexium 05 Lexium 15</p>
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supply voltage max	480 V
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Phase	Three phase
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Continuous stall current	1.7 A
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maximum continuous power	0.97 W
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Maximum current Irms	8.7 A LXM15LD13M3 8.7 A LXM15LD10N4 6.5 A LXM05AD10M2 6.5 A LXM05AD10M3X 6.5 A LXM05AD14N4 6.5 A LXM05BD10M2 6.5 A LXM05BD10M3X 6.5 A LXM05BD14N4 6.5 A LXM05CD10M2 6.5 A LXM05CD10M3X 6.5 A LXM05CD14N4 6 A LXM32.U60N4
Maximum permanent current	6.5 A
Switching frequency	8 kHz
Second shaft	Without second shaft end
Shaft diameter	0.4 in (9 mm)
Shaft length	0.8 in (20 mm)
Feedback type	Single turn SinCos Hiperface
Holding torque	7.08 lbf.in (0.8 N.m) holding brake
Motor flange size	2.2 in (55 mm)
Number of motor stacks	3
Torque constant	0.7 N.m/A 248 °F (120 °C)
Back emf constant	41 V/krpm 248 °F (120 °C)
Rotor inertia	0.1553 kg.cm ²
Stator resistance	10.4 Ohm 68 °F (20 °C)
Stator inductance	25 mH 68 °F (20 °C)
Stator electrical time constant	2.4 ms 68 °F (20 °C)
Maximum radial force Fr	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
Maximum axial force Fa	0.2 x Fr
Brake pull-in power	10 W
Type of cooling	Natural convection
Length	8.0 in (203 mm)
Centring collar diameter	1.6 in (40 mm)
Centring collar depth	0.08 in (2 mm)
Number of mounting holes	4
Mounting holes diameter	0.2 in (5.5 mm)
Circle diameter of the mounting holes	2.5 in (63 mm)
Net Weight	4.2 lb(US) (1.9 kg)
Sizing reference	BSH0553P
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	3389118159471
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)	3.42 lb(US) (1.55 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

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.

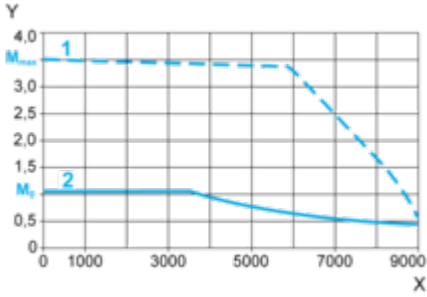
Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)
b	b1	b	b1		
1.55	1.00	1.55	1.55	6.94	7.99

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32-U60N4 servo drive



X Speed in rpm

Y Torque in Nm

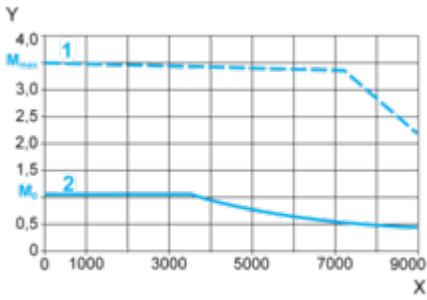
1 Peak torque

2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•U60N4 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque