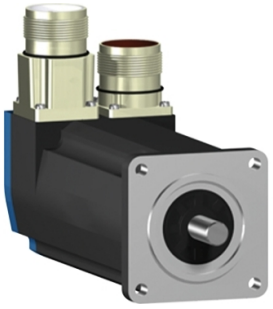
Product data sheet

Specifications



AC servo motor BSH, Lexium 05, 1.3N.m, 3000rpm, keyed shaft, with brake, IP50

BSH0553P11F1A

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, 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, 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, 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

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

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

Nominal torque	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, 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
Nominal speed	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, 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
Product compatibility	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
Shaft end	Keyed
IP Degree of Protection	IP50 standard
Speed feedback resolution	131072 points/turn
Holding brake	With
Mounting Support	International standard flange
Electrical Connection	Straight connectors

Complementary

Range Compatibility	Lexium 32 Lexium 15 Lexium 05
supply voltage max	480 V
Phase	Three phase
Continuous stall current	1.7 A
maximum continuous power	0.97 W

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)
key width	0.5 in (12 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)
Number of motor poles	6
Rotor inertia	0.1553 kg.cm²
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)

Ordering and shipping details

Category	US1PC5318282
Discount Schedule	PC53
GTIN	3389118159310
Returnability	No
Country of origin	DE

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.84 in (12.3 cm)
Package 1 Width	5.04 in (12.8 cm)
Package 1 Length	14.84 in (37.7 cm)
Package 1 Weight	3.42 lb(US) (1.55 kg)

Contractual warranty

Warranty	18 months

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 >

Environmental footprint

Carbon footprint (kg CO2 eq, Total Life cycle)	743
Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
China RoHS Regulation	China RoHS declaration
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 Again

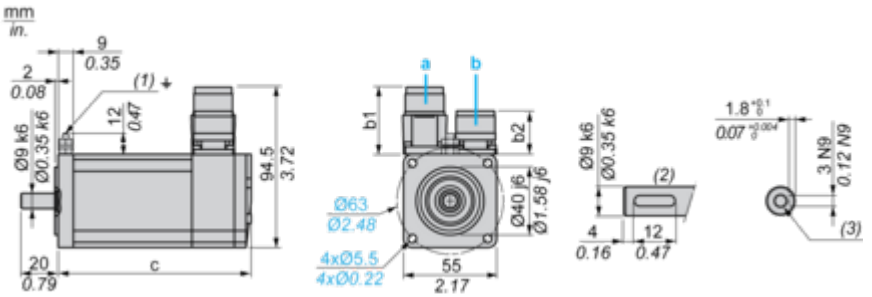
Repack and remanufacture

Circularity Profile	No need of specific recycling operations
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
Take-back	No

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.

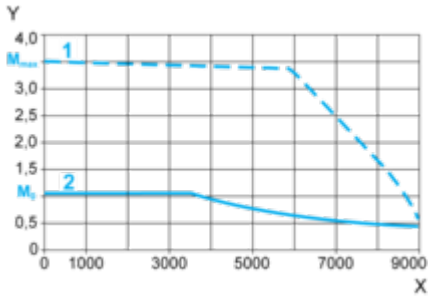
Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)
b	b1	b	b1		
1.55	1.00	1.55	1.55	6.94	7.99

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•U60N4 servo drive

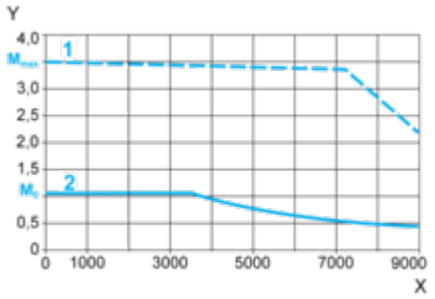


X Speed in rpm
Y Torque in Nm
1 Peak torque
2 Continuous torque

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