Product data sheet

Specifications



servo motor BSH, Lexium 05, 1.3N.m, 3000rpm, 55mm, keyed shaft, Sincos single turn, without brake, 3 phases, IP50

BSH0553P11A2A

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.

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

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 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
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 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
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	Without
Mounting Support	International standard flange
Electrical Connection	Rotatable right-angled connectors

Complementary

Range Compatibility	Lexium 05 Lexium 15 Lexium 32
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
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	3.0
Rotor inertia	0.134 kg.cm²
Stator resistance	10.4 Ohm 68 °F (20 °C)
Stator inductance	13.02 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
Type of cooling	Natural convection
Length	6.9 in (176.5 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)
Product Weight	3.88 lb(US) (1.76 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)
Output current 3s peak	6.5 A
Inertia	0.0 kg.cm² of brake 0.134 kg.cm² of motor

Ordering and shipping details

Category	US1PC5318282
Discount Schedule	PC53
GTIN	3389118159402
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)	3.09 lb(US) (1.4 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 >

Environmental footprint

Total lifecycle Carbon footprint	**743 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**6 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0.2 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**736 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**0.1 kg CO2 eq.**

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**No**
SCIP Number	**8c11b0c9-e501-4810-83eb-05fc6605ede4**
EU RoHS Directive	**Compliant By Exemption**
REACh Regulation	**Reference contains Substances of Very High Concern above the threshold**
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

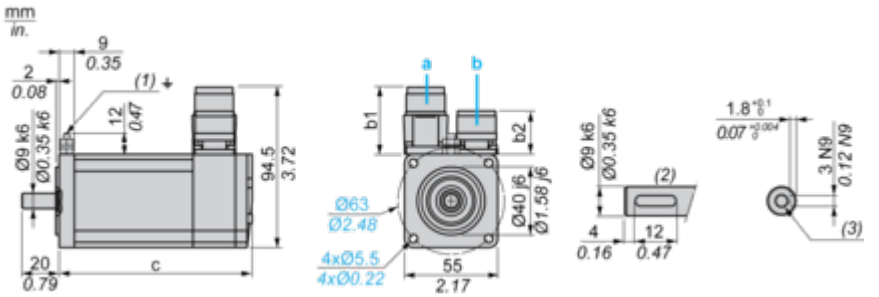
Repack and remanufacture

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

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.

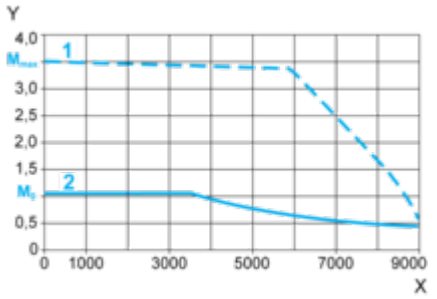
Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)
b	b1	b	b1		
1.55	1.00	1.55	1.55	6.94	7.99

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•U60N4 servo drive

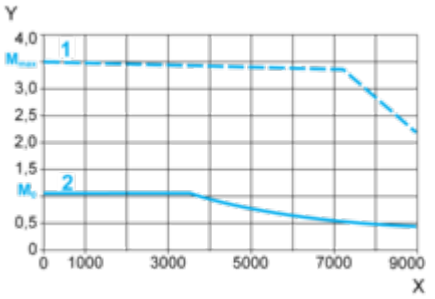


X Speed in rpm
Y Torque in Nm
1 Peak torque
2 Continuous torque

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