Product data sheet

Specifications

servo motor BSH, Lexium 15, 0.5N.m, 4000rpm, 55mm, untapped shaft, Sincos multi turn, without brake, IP50

BSH0551P02A2A

Product availability: Non-Stock - Not normally stocked in distribution facility

Price*: 1,230.00 USD

Main

Device short name	BSH
Product or Component Type	Servo motor
Maximum mechanical speed	9000 rpm
Continuous stall torque	4.4 lbf.in (0.5 N.m) LXM32.U60N4 1.5 A, 400 V, three phase 4.4 lbf.in (0.5 N.m) LXM32.U60N4 1.5 A, 480 V, three phase 4.4 lbf.in (0.5 N.m) LXM15LD13M3, 230 V, single phase 4.4 lbf.in (0.5 N.m) LXM15LU60N4, 230 V, three phase
Peak stall torque	13.3 lbf.in (1.5 N.m) LXM32.U60N4 1.5 A, 400 V, three phase 13.3 lbf.in (1.5 N.m) LXM32.U60N4 1.5 A, 480 V, three phase 12.4 lbf.in (1.4 N.m) LXM15LD13M3, 230 V, single phase 12.4 lbf.in (1.4 N.m) LXM15LU60N4, 230 V, three phase
Nominal output power	300 W LXM32.U60N4 1.5 A, 400 V, three phase 300 W LXM32.U60N4 1.5 A, 480 V, three phase 170 W LXM15LD13M3, 230 V, single phase 170 W LXM15LU60N4, 230 V, three phase
Nominal torque	4.25 lbf.in (0.48 N.m) LXM32.U60N4 1.5 A, 400 V, three phase 4.25 lbf.in (0.48 N.m) LXM32.U60N4 1.5 A, 480 V, three phase 4.07 lbf.in (0.46 N.m) LXM15LD13M3, 230 V, single phase 4.07 lbf.in (0.46 N.m) LXM15LU60N4, 230 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 4000 rpm LXM15LD13M3, 230 V, single phase 4000 rpm LXM15LU60N4, 230 V, three phase
Product compatibility	LXM15LD13M3 230 V single phase LXM15LU60N4 230 V three phase LXM32.U60N4 400 V three phase LXM32.U60N4 480 V three phase
Shaft end	Untapped
IP Degree of Protection	IP50 standard
Speed feedback resolution	131072 points/turn x 4096 turns
Holding brake	Without
Mounting Support	International standard flange
Electrical Connection	Rotatable right-angled connectors

Complementary

Range Compatibility	Lexium 15 Lexium 32
supply voltage max	480 V

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

Phase	Three phase
Continuous stall current	0.73 A
maximum continuous power	0.45 W
Maximum current Irms	3.5 A LXM15LD13M3 3.5 A LXM15LU60N4 2.9 A LXM32.U60N4
Maximum permanent current	2.9 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	Multiturn SinCos Hiperface
Motor flange size	2.2 in (55 mm)
Number of motor stacks	1
Torque constant	0.7 N.m/A 248.0000000000 °F (120 °C)
Back emf constant	40 V/krpm 248.0000000000 °F (120 °C)
Number of motor poles	6
Rotor inertia	0.059 kg.cm²
Stator resistance	41.8 Ohm 68.0000000000 °F (20 °C)
Stator inductance	71.5 mH 68.0000000000 °F (20 °C)
Stator electrical time constant	1.09 ms 68.0000000000 °F (20 °C)
Maximum radial force Fr	170 N 8000 rpm 180 N 7000 rpm 190 N 6000 rpm 200 N 5000 rpm 220 N 4000 rpm 240 N 3000 rpm 270 N 2000 rpm 340 N 1000 rpm
Maximum axial force Fa	0.2 x Fr
Type of cooling	Natural convection
Length	5.2 in (132.5 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)
Net Weight	2.6 lb(US) (1.2 kg)

Ordering and shipping details

Category	US1PC5318282
Discount Schedule	PC53
GTIN	3389118198555
Returnability	No
Country of origin	DE

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.5 in (11.5 cm)
Package 1 Width	7.5 in (19.0 cm)
Package 1 Length	15.6 in (39.5 cm)
Package 1 Weight	3.5 lb(US) (1.6 kg)

Contractual warranty

Warranty	18 months

Sustainability

Green Premium^{TM} label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO_2 products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >

Transparency

RoHS/REACh

Well-being performance

Mercury Free	
Rohs Exemption Information	Yes
Pvc Free	

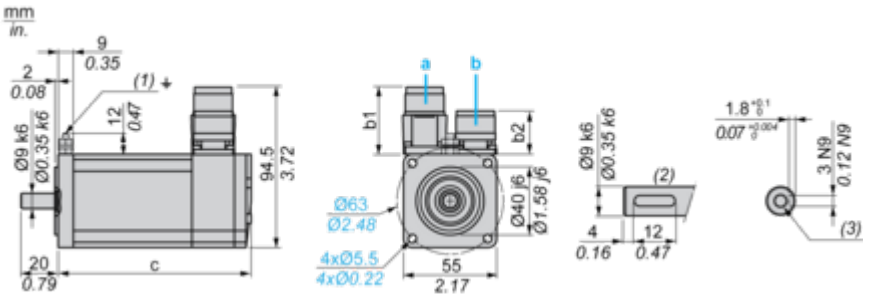
Certifications & Standards

Reach Regulation	REACh Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
Circularity Profile	No need of specific recycling operations
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

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	132.5	159

Dimensions in in.

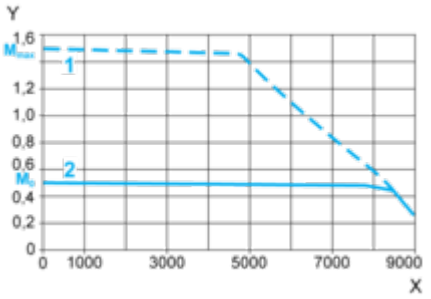
Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)
b	b1	b	b1		
1.55	1.00	1.55	1.55	5.21	6.25

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•U60N4 servo drive

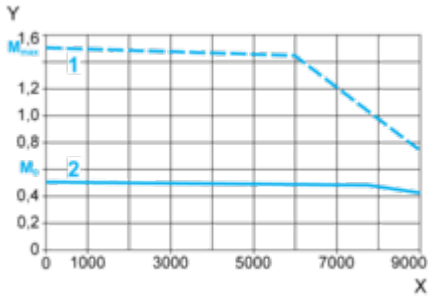


X Speed in rpm
Y Torque in Nm
1 Peak torque
2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•U60N4 servo drive



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