Product data sheet
Characteristics

BSH0551P02A2A
AC servo motor BSH - 0.5 N.m - 4000 rpm - untapped shaft - without brake - IP50

Main

Product or component type	Servo motor
Device short name	BSH
Maximum mechanical speed	9000 rpm
Continuous stall torque	0.5 N.m for LXM15LD13M3 at 230 V single phase 0.5 N.m for LXM15LU60N4 at 230 V three phase 0.5 N.m for LXM32.U60N4 1.5 A at 400 V three phase 0.5 N.m for LXM32.U60N4 1.5 A at 480 V three phase
Peak stall torque	1.4 N.m for LXM15LD13M3 at 230 V single phase 1.4 N.m for LXM15LU60N4 at 230 V three phase 1.5 N.m for LXM32.U60N4 1.5 A at 400 V three phase 1.5 N.m for LXM32.U60N4 1.5 A at 480 V three phase
Nominal output power	170 W for LXM15LD13M3 at 230 V single phase 170 W for LXM15LU60N4 at 230 V three phase 300 W for LXM32.U60N4 1.5 A at 400 V three phase 300 W for LXM32.U60N4 1.5 A at 480 V three phase
Nominal torque	0.46 N.m for LXM15LD13M3 at 230 V single phase 0.46 N.m for LXM15LU60N4 at 230 V three phase 0.48 N.m for LXM32.U60N4 1.5 A at 400 V three phase 0.48 N.m for LXM32.U60N4 1.5 A at 480 V three phase
Nominal speed	4000 rpm for LXM15LD13M3 at 230 V single phase 4000 rpm for LXM15LU60N4 at 230 V three phase 6000 rpm for LXM32.U60N4 1.5 A at 400 V three phase 6000 rpm for LXM32.U60N4 1.5 A at 480 V three phase
Product compatibility	LXM15LD13M3 at 230 V single phase LXM15LU60N4 at 230 V three phase LXM32.U60N4 at 400 V three phase LXM32.U60N4 at 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
Network number of phases	Three phase
Continuous stall current	0.73 A
Maximum continuous power	0.45 W

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein.
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.
It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof.
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Maximum current Irms	3.5 A for LXM15LD13M3 3.5 A for LXM15LU60N4 2.9 A for LXM32.U60N4
Maximum permanent current	2.9 A
Switching frequency	8 kHz
Second shaft	Without second shaft end
Shaft diameter	9 mm
Shaft length	20 mm
Feedback type	Multiturn SinCos Hiperface
Motor flange size	55 mm
Number of motor stacks	1
Torque constant	0.7 N.m/A at 120 °C
Back emf constant	40 V/krpm at 120 °C
Number of motor poles	6
Rotor inertia	0.059 kg.cm²
Stator resistance	41.8 Ohm at 20 °C
Stator inductance	71.5 mH at 20 °C
Stator electrical time constant	1.09 ms at 20 °C
Maximum radial force Fr	170 N at 8000 rpm 180 N at 7000 rpm 190 N at 6000 rpm 200 N at 5000 rpm 220 N at 4000 rpm 240 N at 3000 rpm 270 N at 2000 rpm 340 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
Type of cooling	Natural convection
Length	132.5 mm
Centring collar diameter	40 mm
Centring collar depth	2 mm
Number of mounting holes	4
Mounting holes diameter	5.5 mm
Circle diameter of the mounting holes	63 mm
Product weight	1.2 kg

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 1018 - Schneider Electric declaration of conformity
REACh	Reference not containing SVHC above the threshold
Product environmental profile	Available Download Product Environmental
Product end of life instructions	Need no specific recycling operations

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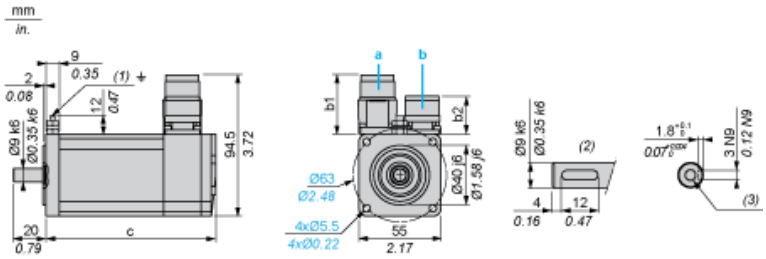
Servo Motors Dimensions

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

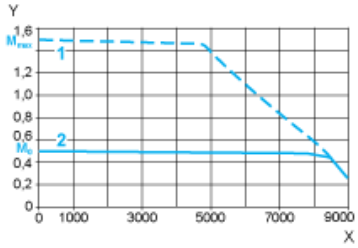
Dimensions in in.

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

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•U60N4 servo drive

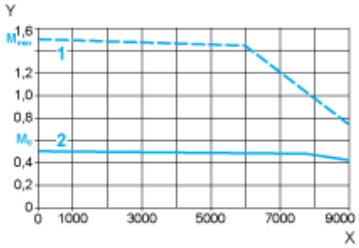


X Speed in rpm
Y Torque in Nm
1 Peak torque
2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•U60N4 servo drive



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Y Torque in Nm
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