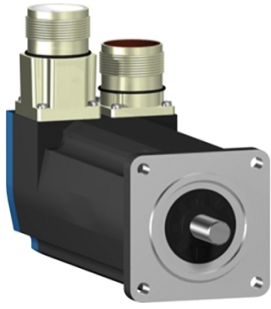


Product datasheet

Specifications



servo motor BSH, Lexium 15,
0.5N.m, 4000rpm, 55mm, keyed
shaft, Sincos multi turn, with brake,
IP65, straight

BSH0551P32F1A

! Discontinued

! Discontinued on: 18 Nov 2020

Main

| | |
|---------------------------|---|
| Device short name | BSH |
| Product or component type | Servo motor |
| Maximum mechanical speed | 9000 rpm |
| Continuous stall torque | 0.5 N.m for LXM32.U60N4 at 1.5 A, 400 V, three phase 0.5 N.m for LXM32.U60N4 at 1.5 A, 480 V, three phase 0.5 N.m for LXM15LD13M3, 230 V, single phase 0.5 N.m for LXM15LU60N4, 230 V, three phase |
| Peak stall torque | 1.5 N.m for LXM32.U60N4 at 1.5 A, 400 V, three phase 1.5 N.m for LXM32.U60N4 at 1.5 A, 480 V, three phase 1.4 N.m for LXM15LD13M3, 230 V, single phase 1.4 N.m for LXM15LU60N4, 230 V, three phase |
| Nominal output power | 300 W for LXM32.U60N4 at 1.5 A, 400 V, three phase 300 W for LXM32.U60N4 at 1.5 A, 480 V, three phase 170 W for LXM15LD13M3, 230 V, single phase 170 W for LXM15LU60N4, 230 V, three phase |
| Nominal torque | 0.48 N.m for LXM32.U60N4 at 1.5 A, 400 V, three phase 0.48 N.m for LXM32.U60N4 at 1.5 A, 480 V, three phase 0.46 N.m for LXM15LD13M3, 230 V, single phase 0.46 N.m for LXM15LU60N4, 230 V, three phase |
| Nominal speed | 6000 rpm for LXM32.U60N4 at 1.5 A, 400 V, three phase 6000 rpm for LXM32.U60N4 at 1.5 A, 480 V, three phase 4000 rpm for LXM15LD13M3, 230 V, single phase 4000 rpm for LXM15LU60N4, 230 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 | Keyed |
| IP degree of protection | IP65 standard IP67 with IP67 kit |
| Speed feedback resolution | 131072 points/turn x 4096 turns |
| Holding brake | With |
| Mounting support | International standard flange |
| Electrical connection | Straight connectors |

Complementary

| | |
|--------------------------|------------------------|
| Range compatibility | Lexium 32 Lexium 15 |
| supply voltage max | 480 V |
| Network number of phases | Three phase |

| | |
|---------------------------------------|--|
| Continuous stall current | 0.73 A |
| maximum continuous power | 0.45 W |
| 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 |
| Key width | 12 mm |
| Feedback type | Multiturn SinCos Hiperface |
| Holding torque | 0.8 N.m holding brake |
| Motor flange size | 55 mm |
| Number of motor stacks | 1 |
| Torque constant | 0.68 N.m/A at 120 °C |
| Back emf constant | 40 V/krpm at 120 °C |
| Number of motor poles | 6 |
| Rotor inertia | 0.083 kg.cm ² |
| 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 |
| Brake pull-in power | 10 W |
| Type of cooling | Natural convection |
| Length | 159 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 |
| Net weight | 1.3 kg |
| Sizing reference | BSH0551P |
| Network number of phases | 3 |
| Accuracy error [angular] | 1.4 ° |
| Temperature copper hot | 120 °C |
| Temperature magnet hot | 100 °C |

Temperature magnet rt 20 °C

Packing Units

Unit Type of Package 1 PCE

Number of Units in Package 1 1

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 >](#)

Use Longer



Lifetime extension

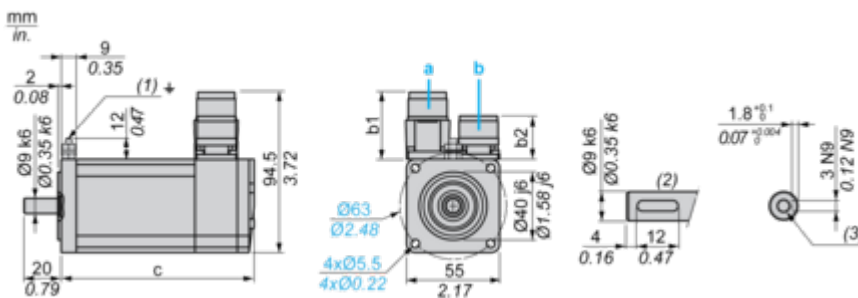
Repair

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 | 132.5 | 159 |

Dimensions in in.

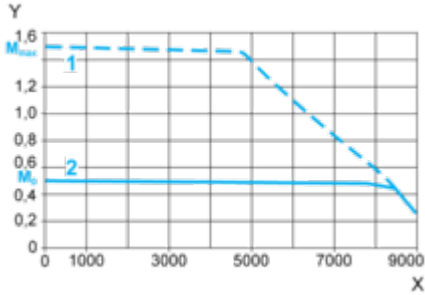
| Straight connectors | | Rotatable angled connectors | | c (without brake) | c (with brake) |
|---------------------|------|-----------------------------|------|-------------------|----------------|
| b | b1 | b | b1 | | |
| 1.55 | 1.00 | 1.55 | 1.55 | 5.21 | 6.25 |

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

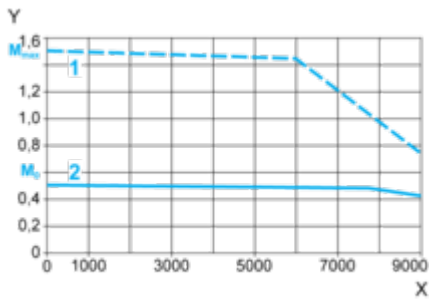
1 Peak torque

2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•U60N4 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque