

BSH0551P11A2A

servo motor BSH, Lexium 15, 0.5N.m,
4000rpm, 55mm, keyed shaft, Sincos single
turn, 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 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 | 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 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 | Single turn 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.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 |
| 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 |
| Net weight | 1.2 kg |

Packing Units

| | |
|------------------------------|---------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 11.5 cm |
| Package 1 Width | 19.0 cm |
| Package 1 Length | 39.5 cm |
| Package 1 Weight | 1.6 kg |

Offer Sustainability

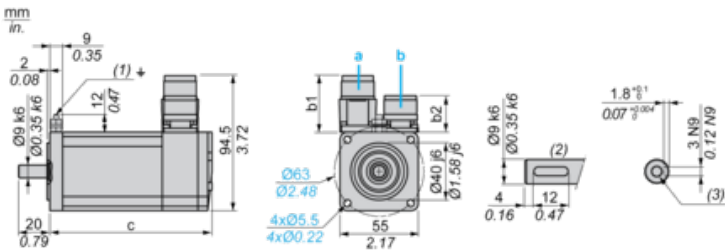
| | |
|----------------------------|---|
| Sustainable offer status | Green Premium product |
| REACH Regulation |  REACH Declaration |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) |
| Mercury free | Yes |
| China RoHS Regulation |  China RoHS Declaration |
| RoHS exemption information |  Yes |
| Environmental Disclosure |  Product Environmental Profile |
| 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 |
| PVC free | Yes |

Contractual warranty

| | |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

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 |

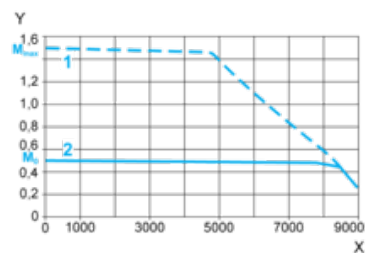
Dimensions in in.

| 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

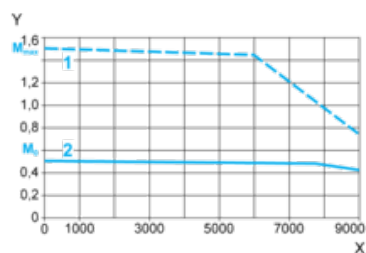
1 Peak torque

2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32-U60N4 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque