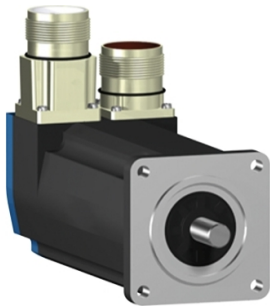


# Product data sheet

Specifications



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

BSH0551P02A1A

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

Price\*: 1,195.00 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<br>4.4 lbf.in (0.5 N.m) LXM32.U60N4 1.5 A, 480 V, three phase<br>4.4 lbf.in (0.5 N.m) LXM15LD13M3, 230 V, single phase<br>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<br>13.3 lbf.in (1.5 N.m) LXM32.U60N4 1.5 A, 480 V, three phase<br>12.4 lbf.in (1.4 N.m) LXM15LD13M3, 230 V, single phase<br>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<br>300 W LXM32.U60N4 1.5 A, 480 V, three phase<br>170 W LXM15LD13M3, 230 V, single phase<br>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<br>4.25 lbf.in (0.48 N.m) LXM32.U60N4 1.5 A, 480 V, three phase<br>4.07 lbf.in (0.46 N.m) LXM15LD13M3, 230 V, single phase<br>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<br>6000 rpm LXM32.U60N4 1.5 A, 480 V, three phase<br>4000 rpm LXM15LD13M3, 230 V, single phase<br>4000 rpm LXM15LU60N4, 230 V, three phase                                                         |
| Product compatibility     | LXM15LD13M3 230 V single phase<br>LXM15LU60N4 230 V three phase<br>LXM32.U60N4 400 V three phase<br>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     | Straight connectors                                                                                                                                                                                                                               |

## Complementary

|                     |                        |
|---------------------|------------------------|
| Range Compatibility | Lexium 32<br>Lexium 15 |
| 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.

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

|                                       |                                                                                                                                              |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Phase                                 | Three phase                                                                                                                                  |
| Continuous stall current              | 0.73 A                                                                                                                                       |
| maximum continuous power              | 0.45 W                                                                                                                                       |
| Maximum current Irms                  | 3.5 A LXM15LD13M3<br>3.5 A LXM15LU60N4<br>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<br>180 N 7000 rpm<br>190 N 6000 rpm<br>200 N 5000 rpm<br>220 N 4000 rpm<br>240 N 3000 rpm<br>270 N 2000 rpm<br>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              | 3389118198548 |
| Returnability     | No            |
| Country of origin | US            |

## 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™** 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<sub>2</sub> 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

|                                                                                                                                    |     |
|------------------------------------------------------------------------------------------------------------------------------------|-----|
| <div></div> <div>Mercury Free</div>               |     |
| <div></div> <div>Rohs Exemption Information</div> | Yes |
| <div></div> <div>Pvc Free</div>                   |     |

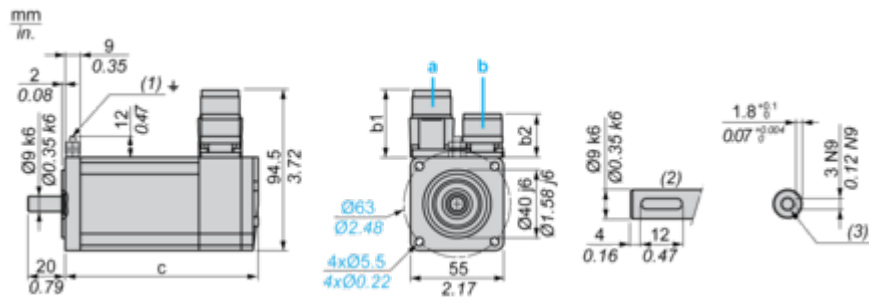
Certifications & Standards

|                           |                                                                                                                                                                                                                                                                                             |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eu Rohs Directive         | Pro-active compliance (Product out of EU RoHS legal scope)                                                                                                                                                                                                                                  |
| China Rohs Regulation     | <a href="#">China RoHS declaration</a>                                                                                                                                                                                                                                                      |
| Environmental Disclosure  | <a href="#">Product Environmental Profile</a>                                                                                                                                                                                                                                               |
| 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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |

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.

| 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.

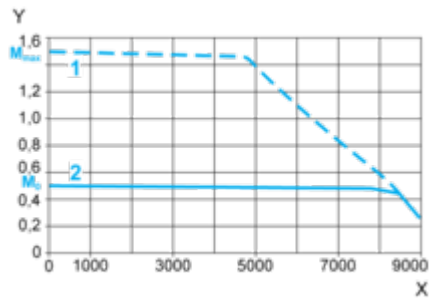
| Straight connectors |      | Rotatable angled connectors |      | c (without brake) | c (with brake) |
|---------------------|------|-----------------------------|------|-------------------|----------------|
| b                   | b1   | b                           | b1   |                   |                |
| 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

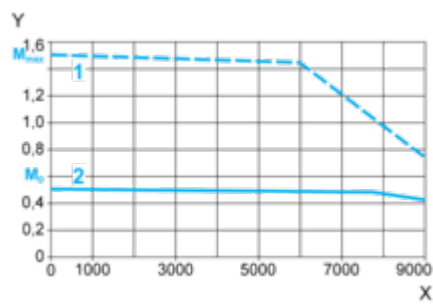


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

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