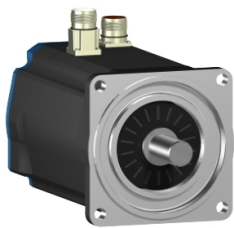


# Product data sheet

Specifications



## AC servo motor BSH, Lexium 05, 11.1N.m, 1500rpm, untapped shaft, without brake, IP50

BSH1401P01A1A

### Main

|                           |  |
|---------------------------|--|
| Product Or Component Type | Servo motor  |
| Device Short Name         | BSH  |
| Maximum Mechanical Speed  | 4000 rpm   |
| Continuous Stall Torque   | 11.1 N.m for LXM32.D30N4 at 10 A, 400 V, three phase<br>11.1 N.m for LXM32.D30N4 at 10 A, 480 V, three phase<br>11.1 N.m for LXM15MD28N4, 400 V, three phase<br>11.1 N.m for LXM15MD28N4, 480 V, three phase<br>11.1 N.m for LXM15MD28N4, 230 V, three phase<br>11.1 N.m for LXM15MD40N4, 400 V, three phase<br>11.1 N.m for LXM15MD40N4, 480 V, three phase<br>11.1 N.m for LXM15LD28M3, 230 V, three phase<br>11.4 N.m for LXM05AD34N4, 380...480 V, three phase<br>11.4 N.m for LXM05BD34N4, 380...480 V, three phase<br>11.4 N.m for LXM05CD34N4, 380...480 V, three phase     |
| Peak Stall Torque         | 27 N.m for LXM32.D30N4 at 10 A, 400 V, three phase<br>27 N.m for LXM32.D30N4 at 10 A, 480 V, three phase<br>23.33 N.m for LXM15MD28N4, 230 V, three phase<br>23.33 N.m for LXM15MD28N4, 400 V, three phase<br>23.33 N.m for LXM15MD28N4, 480 V, three phase<br>23.33 N.m for LXM15MD40N4, 400 V, three phase<br>23.33 N.m for LXM15MD40N4, 480 V, three phase<br>23.8 N.m for LXM15LD28M3, 230 V, three phase<br>23.33 N.m for LXM05AD34N4, 380...480 V, three phase<br>23.33 N.m for LXM05BD34N4, 380...480 V, three phase<br>23.33 N.m for LXM05CD34N4, 380...480 V, three phase |
| Nominal Output Power      | 2500 W for LXM32.D30N4 at 10 A, 400 V, three phase<br>3000 W for LXM32.D30N4 at 10 A, 480 V, three phase<br>2000 W for LXM15MD28N4, 400 V, three phase<br>2000 W for LXM15MD40N4, 400 V, three phase<br>2200 W for LXM05AD34N4, 380...480 V, three phase<br>2200 W for LXM05BD34N4, 380...480 V, three phase<br>2200 W for LXM05CD34N4, 380...480 V, three phase<br>1400 W for LXM15LD28M3, 230 V, three phase<br>1400 W for LXM15MD28N4, 230 V, three phase<br>2150 W for LXM15MD28N4, 480 V, three phase<br>2150 W for LXM15MD40N4, 480 V, three phase                           |
| Nominal Torque            | 9.5 N.m for LXM32.D30N4 at 10 A, 400 V, three phase<br>9.5 N.m for LXM32.D30N4 at 10 A, 480 V, three phase<br>6.8 N.m for LXM15MD28N4, 480 V, three phase<br>6.8 N.m for LXM15MD40N4, 480 V, three phase<br>6.9 N.m for LXM05AD34N4, 380...480 V, three phase<br>6.9 N.m for LXM05BD34N4, 380...480 V, three phase<br>6.9 N.m for LXM05CD34N4, 380...480 V, three phase<br>7.63 N.m for LXM15MD28N4, 400 V, three phase<br>7.63 N.m for LXM15MD40N4, 400 V, three phase<br>9.1 N.m for LXM15LD28M3, 230 V, three phase<br>9.1 N.m for LXM15MD28N4, 230 V, three phase              |

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

|                           |  |
|---------------------------|--|
| Nominal Speed             | 2500 rpm for LXM32.D30N4 at 10 A, 400 V, three phase<br>3000 rpm for LXM32.D30N4 at 10 A, 480 V, three phase<br>3000 rpm for LXM05AD34N4, 380...480 V, three phase<br>3000 rpm for LXM05BD34N4, 380...480 V, three phase<br>3000 rpm for LXM05CD34N4, 380...480 V, three phase<br>1500 rpm for LXM15MD28N4, 230 V, three phase<br>1500 rpm for LXM15LD28M3, 230 V, three phase<br>2500 rpm for LXM15MD28N4, 400 V, three phase<br>2500 rpm for LXM15MD40N4, 400 V, three phase<br>3000 rpm for LXM15MD28N4, 480 V, three phase<br>3000 rpm for LXM15MD40N4, 480 V, three phase |
| Product Compatibility     | LXM15LD28M3 at 230 V three phase<br>LXM05AD34N4 at 380...480 V three phase<br>LXM05BD34N4 at 380...480 V three phase<br>LXM05CD34N4 at 380...480 V three phase<br>LXM15MD28N4 at 400 V three phase<br>LXM15MD28N4 at 480 V three phase<br>LXM15MD40N4 at 400 V three phase<br>LXM15MD40N4 at 480 V three phase<br>LXM15MD28N4 at 230 V three phase   |
| Shaft End                 | Untapped   |
| Ip Degree Of Protection   | IP50 standard  |
| Speed Feedback Resolution | 131072 points/turn   |
| Holding Brake             | Without  |
| Mounting Support          | International standard flange  |
| Electrical Connection     | Straight connectors  |

## Complementary

|                           |  |
|---------------------------|--|
| Range Compatibility       | Lexium 15<br>Lexium 32<br>Lexium 05  |
| Supply Voltage Max        | 480 V  |
| Network Number Of Phases  | Three phase  |
| Continuous Stall Current  | 7.8 A  |
| Maximum Continuous Power  | 3.6 W  |
| Maximum Current Irms      | 20.8 A for LXM15LD28M3<br>20.8 A for LXM15MD28N4<br>20.8 A for LXM15MD40N4<br>20.8 A for LXM05AD34N4<br>20.8 A for LXM05BD34N4<br>20.8 A for LXM05CD34N4<br>20.8 A for LXM32.D30N4 |
| Maximum Permanent Current | 20.8 A   |
| Switching Frequency       | 8 kHz  |
| Second Shaft              | Without second shaft end   |
| Shaft Diameter            | 24 mm  |
| Shaft Length              | 50 mm  |
| Feedback Type             | Single turn SinCos Hiperface   |
| Motor Flange Size         | 140 mm   |
| Number Of Motor Stacks    | 1  |
| Torque Constant           | 1.43 N.m/A at 120 °C   |
| Back Emf Constant         | 100 V/krpm at 120 °C   |
| Number Of Motor Poles     | 10   |
| Rotor Inertia             | 7.41 kg.cm²  |

|                                       |  |
|---------------------------------------|--|
| Stator Resistance                     | 1.41 Ohm at 20 °C  |
| Stator Inductance                     | 15.6 mH at 20 °C   |
| Stator Electrical Time Constant       | 11.06 ms at 20 °C  |
| Maximum Radial Force Fr               | 1530 N at 3000 rpm<br>1760 N at 2000 rpm<br>2210 N at 1000 rpm |
| Maximum Axial Force Fa                | 0.2 x Fr   |
| Type Of Cooling                       | Natural convection   |
| Length                                | 217.5 mm   |
| Centring Collar Diameter              | 130 mm   |
| Centring Collar Depth                 | 3.5 mm   |
| Number Of Mounting Holes              | 4  |
| Mounting Holes Diameter               | 11 mm  |
| Circle Diameter Of The Mounting Holes | 165 mm   |
| Net Weight                            | 11.9 kg  |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type Of Package 1       | PCE     |
| Number Of Units In Package 1 | 1       |
| Package 1 Height             | 27.0 cm |
| Package 1 Width              | 27.0 cm |
| Package 1 Length             | 48.2 cm |
| Package 1 Weight             | 12.5 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

✓ Mercury Free

✓ Rohs Exemption Information   [Yes](#)

✓ Pvc Free

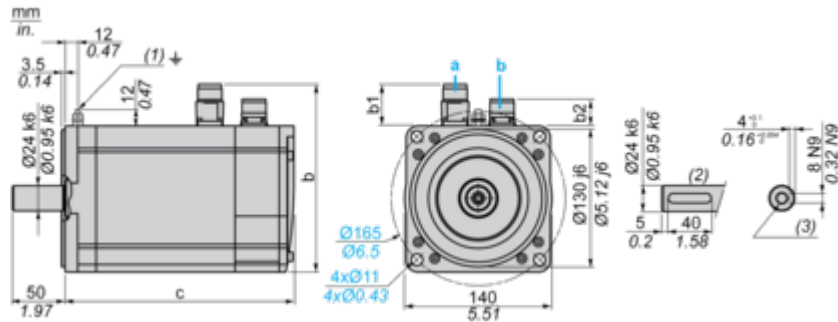
## Certifications & Standards

|                           |   |
|---------------------------|---|
| Reach Regulation          | <a href="#">REACH Declaration</a>   |
| 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 screws M8 x 19 mm/M8 x 0.75 in.

| Straight connectors |      |      | Rotatable angled connectors |      |      | c (without brake) | c (with brake) |
|---------------------|------|------|-----------------------------|------|------|-------------------|----------------|
| b                   | b1   | b2   | b                           | b1   | b2   |                   |                |
| 178                 | 39.5 | 25.5 | 178                         | 39.5 | 39.5 | 218               | 256            |

Dimensions in in.

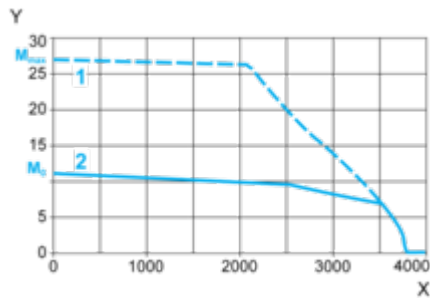
| Straight connectors |      |      | Rotatable angled connectors |      |      | c (without brake) | c (with brake) |
|---------------------|------|------|-----------------------------|------|------|-------------------|----------------|
| b                   | b1   | b2   | b                           | b1   | b2   |                   |                |
| 7.00                | 1.55 | 1.00 | 7.00                        | 1.55 | 1.55 | 8.58              | 10.07          |

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D30N4 servo drive

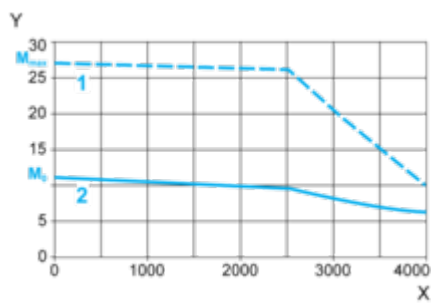


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D30N4 servo drive



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