

# Product datasheet

Specifications



servo motor BMH, Lexium 32,  
8.4Nm, 6000rpm, keyed shaft, with  
brake, IP54, 16bit encoder,  
straight

BMH1003P16F1A

! Discontinued

! Discontinued on: 01-Nov-2020

## Main

|                           |                                                                                                              |
|---------------------------|--------------------------------------------------------------------------------------------------------------|
| Device short name         | BMH                                                                                                          |
| product or component type | Servo motor                                                                                                  |
| Maximum mechanical speed  | 6000 rpm                                                                                                     |
| Continuous stall torque   | 8.4 N.m for LXM32.D30N4 at 10 A, 400 V, three phase<br>8.4 N.m for LXM32.D30N4 at 10 A, 480 V, three phase   |
| Peak stall torque         | 25.1 N.m for LXM32.D30N4 at 10 A, 400 V, three phase<br>25.1 N.m for LXM32.D30N4 at 10 A, 480 V, three phase |
| Nominal output power      | 2700 W for LXM32.D30N4 at 10 A, 400 V, three phase<br>2700 W for LXM32.D30N4 at 10 A, 480 V, three phase     |
| Nominal torque            | 6.2 N.m for LXM32.D30N4 at 10 A, 400 V, three phase<br>6.2 N.m for LXM32.D30N4 at 10 A, 480 V, three phase   |
| Nominal speed             | 4000 rpm for LXM32.D30N4 at 10 A, 400 V, three phase<br>4000 rpm for LXM32.D30N4 at 10 A, 480 V, three phase |
| Product compatibility     | LXM32.D30N4 at 400...480 V three phase                                                                       |
| Shaft end                 | Keyed                                                                                                        |
| IP degree of protection   | IP54 standard                                                                                                |
| Speed feedback resolution | 32768 points/turn                                                                                            |
| Holding brake             | With                                                                                                         |
| mounting support          | International standard flange                                                                                |
| Electrical connection     | Straight connectors                                                                                          |

## Complementary

|                           |                          |
|---------------------------|--------------------------|
| Range compatibility       | Lexium 32                |
| [Us] rated supply voltage | 480 V                    |
| Network number of phases  | Three phase              |
| Continuous stall current  | 7.69 A                   |
| Continuous power          | 3.3 W                    |
| Maximum current Irms      | 29.1 A for LXM32.D30N4   |
| Maximum permanent current | 29.1 A                   |
| Second shaft              | Without second shaft end |
| Shaft diameter            | 19 mm                    |
| Shaft length              | 40 mm                    |

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

|                                       |                                                                                                        |
|---------------------------------------|--------------------------------------------------------------------------------------------------------|
| Key width                             | 30 mm                                                                                                  |
| Feedback type                         | Single turn SinCos Hiperface                                                                           |
| Holding torque                        | 9 N.m holding brake                                                                                    |
| Motor flange size                     | 100 mm                                                                                                 |
| Number of motor stacks                | 3                                                                                                      |
| Torque constant                       | 1 N.m/A at 120 °C                                                                                      |
| Back emf constant                     | 63.5 V/krpm at 120 °C                                                                                  |
| Number of motor poles                 | 10                                                                                                     |
| Rotor inertia                         | 10.3 kg.cm²                                                                                            |
| Stator resistance                     | 0.63 Ohm at 20 °C                                                                                      |
| Stator inductance                     | 4 mH at 20 °C                                                                                          |
| Stator electrical time constant       | 6.3 ms at 20 °C                                                                                        |
| Maximum radial force Fr               | 1050 N at 1000 rpm<br>830 N at 2000 rpm<br>730 N at 3000 rpm<br>660 N at 4000 rpm<br>610 N at 5000 rpm |
| Maximum axial force Fa                | 0.2 x Fr                                                                                               |
| Brake pull-in power                   | 18 W                                                                                                   |
| Type of cooling                       | Natural convection                                                                                     |
| Length                                | 234.3 mm                                                                                               |
| Centring collar diameter              | 95 mm                                                                                                  |
| Centring collar depth                 | 3.5 mm                                                                                                 |
| Number of mounting holes              | 4                                                                                                      |
| Mounting holes diameter               | 9 mm                                                                                                   |
| Circle diameter of the mounting holes | 115 mm                                                                                                 |
| net weight                            | 8.15 kg                                                                                                |

## Packing Units

|                              |           |
|------------------------------|-----------|
| Unit Type of Package 1       | PCE       |
| Number of Units in Package 1 | 1         |
| Package 1 Height             | 19.500 cm |
| Package 1 Width              | 22.500 cm |
| Package 1 Length             | 39.500 cm |
| Package 1 Weight             | 8.420 kg  |
| Unit Type of Package 2       | P06       |
| Number of Units in Package 2 | 4         |
| Package 2 Height             | 75.000 cm |
| Package 2 Width              | 80.000 cm |
| Package 2 Length             | 60.000 cm |
| Package 2 Weight             | 44.280 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.

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[Guide to assess a product’s sustainability >](#)



Transparency   RoHS/REACH

Well-being performance

|                                                                                                              |     |
|--------------------------------------------------------------------------------------------------------------|-----|
|  Mercury Free               |     |
|  Rohs Exemption Information | Yes |
|  Pvc Free                   |     |

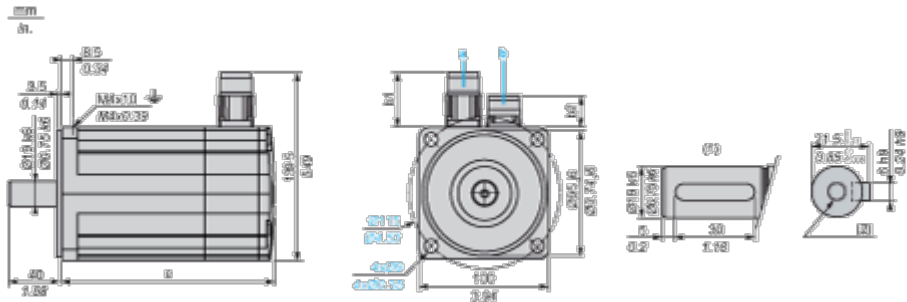
Certifications & Standards

|                          |                                                                                                                             |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 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                                                                                    |

Dimensions Drawings

Servo Motors Dimensions

Example with Straight Connectors



- a: Power supply for servo motor brake
- b: Power supply for servo motor encoder
- (1) Shaft end, keyed slot (optional)
- (2) For screw M6 x 21 mm/M6 x 0.83 in.

Dimensions in mm

| Straight connectors |      | Rotatable angled connectors |      | c (without brake) | c (with brake) |
|---------------------|------|-----------------------------|------|-------------------|----------------|
| b1                  | b2   | b1                          | b2   |                   |                |
| 39.5                | 25.5 | 39.5                        | 39.5 | 192               | 234            |

Dimensions in in.

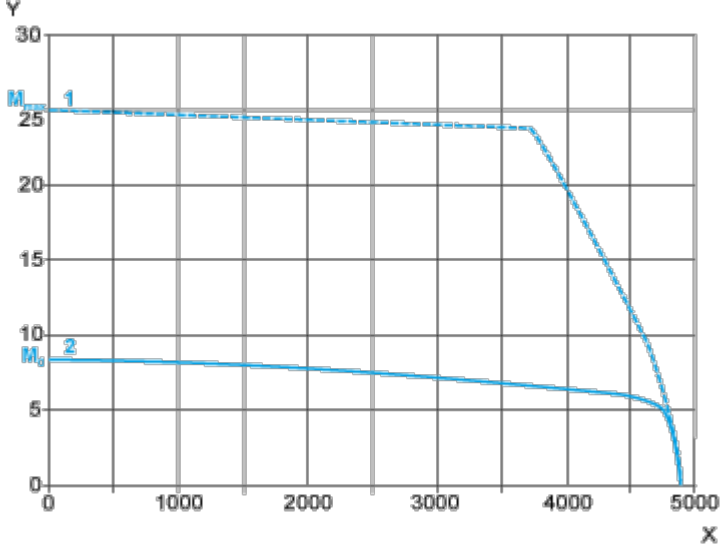
| Straight connectors |      | Rotatable angled connectors |      | c (without brake) | c (with brake) |
|---------------------|------|-----------------------------|------|-------------------|----------------|
| b1                  | b2   | b1                          | b2   |                   |                |
| 1.55                | 1.00 | 1.55                        | 1.55 | 7.55              | 9.21           |

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32-D30N4 servo drive

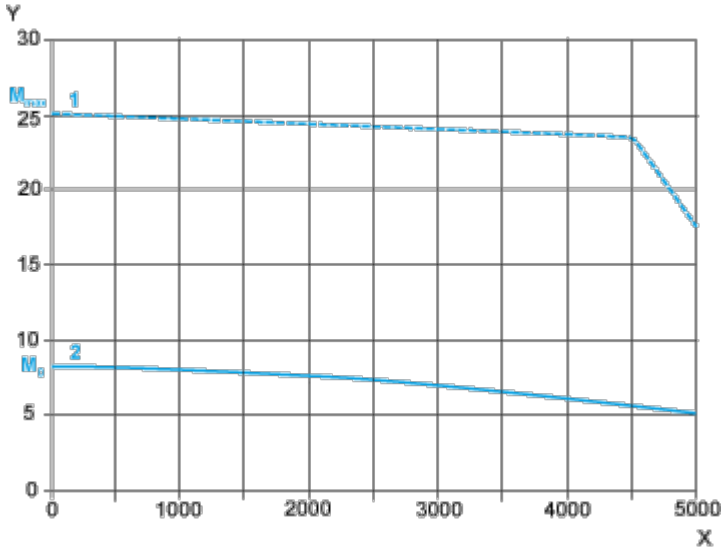


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

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