

# Product datasheet

Specifications



servo motor BMH, Lexium 32,  
3.4Nm, 8000rpm, keyed shaft, with  
brake, IP65, IP67, 16 multturn  
encoder, straight, 3 phases

BMH0703P37F1A

! Discontinued

! Discontinued on: 30 Jun 2023

## Main

|                           |                                                                                                            |
|---------------------------|------------------------------------------------------------------------------------------------------------|
| Device short name         | BMH                                                                                                        |
| product or component type | Servo motor                                                                                                |
| Maximum mechanical speed  | 8000 rpm                                                                                                   |
| Continuous stall torque   | 3.4 N.m for LXM32.D18N4 at 6 A, 400 V, three phase<br>3.4 N.m for LXM32.D18N4 at 6 A, 480 V, three phase   |
| Peak stall torque         | 10.2 N.m for LXM32.D18N4 at 6 A, 400 V, three phase<br>10.2 N.m for LXM32.D18N4 at 6 A, 480 V, three phase |
| Nominal output power      | 1300 W for LXM32.D18N4 at 6 A, 400 V, three phase<br>1300 W for LXM32.D18N4 at 6 A, 480 V, three phase     |
| Nominal torque            | 2.4 N.m for LXM32.D18N4 at 6 A, 400 V, three phase<br>2.4 N.m for LXM32.D18N4 at 6 A, 480 V, three phase   |
| Nominal speed             | 5000 rpm for LXM32.D18N4 at 6 A, 400 V, three phase<br>5000 rpm for LXM32.D18N4 at 6 A, 480 V, three phase |
| Product compatibility     | LXM32.D18N4 at 400...480 V three phase                                                                     |
| Shaft end                 | Keyed                                                                                                      |
| IP degree of protection   | IP65 standard<br>IP67 with IP67 kit                                                                        |
| Speed feedback resolution | 32768 points/turn x 4096 turns                                                                             |
| 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  | 3.91 A                   |
| Continuous power          | 1.68 W                   |
| Maximum current Irms      | 12.6 A for LXM32.D18N4   |
| Maximum permanent current | 12.57 A                  |
| Second shaft              | Without second shaft end |
| Shaft diameter            | 14 mm                    |
| Shaft length              | 30 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                             | 20 mm                                                                                                                      |
| Feedback type                         | Multiturn SinCos Hiperface                                                                                                 |
| Holding torque                        | 3 N.m holding brake                                                                                                        |
| Motor flange size                     | 70 mm                                                                                                                      |
| Number of motor stacks                | 3                                                                                                                          |
| Torque constant                       | 0.87 N.m/A at 120 °C                                                                                                       |
| Back emf constant                     | 55.8 V/krpm at 120 °C                                                                                                      |
| Number of motor poles                 | 10                                                                                                                         |
| Rotor inertia                         | 1.78 kg.cm²                                                                                                                |
| Stator resistance                     | 2.65 Ohm at 20 °C                                                                                                          |
| Stator inductance                     | 8.6 mH at 20 °C                                                                                                            |
| Stator electrical time constant       | 3.2 ms at 20 °C                                                                                                            |
| Maximum radial force Fr               | 730 N at 1000 rpm<br>580 N at 2000 rpm<br>510 N at 3000 rpm<br>460 N at 4000 rpm<br>430 N at 5000 rpm<br>400 N at 6000 rpm |
| Maximum axial force Fa                | 0.2 x Fr                                                                                                                   |
| Brake pull-in power                   | 7 W                                                                                                                        |
| Type of cooling                       | Natural convection                                                                                                         |
| Length                                | 225 mm                                                                                                                     |
| Centring collar diameter              | 60 mm                                                                                                                      |
| Centring collar depth                 | 2.5 mm                                                                                                                     |
| Number of mounting holes              | 4                                                                                                                          |
| Mounting holes diameter               | 5.5 mm                                                                                                                     |
| Circle diameter of the mounting holes | 82 mm                                                                                                                      |
| net weight                            | 4 kg                                                                                                                       |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Height             | 11.0 cm |
| Package 1 Width              | 20.0 cm |
| Package 1 Length             | 40.0 cm |
| Package 1 Weight             | 3.2 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.

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Transparency   RoHS/REACH

Well-being performance

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

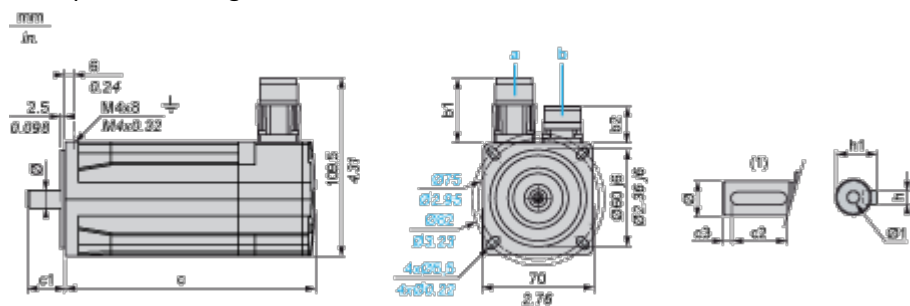
Certifications & Standards

|                          |                                                                                                                             |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 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)

Dimensions in mm

| Dimensions in mm    |      |                             |      |                   |                |    |    |    |      |                                   |       |               |
|---------------------|------|-----------------------------|------|-------------------|----------------|----|----|----|------|-----------------------------------|-------|---------------|
| Straight connectors |      | Rotatable angled connectors |      | c (without brake) | c (with brake) | c1 | c2 | c3 | h    | h1                                | Ø     | Ø1 for screws |
| b1                  | b2   | b1                          | b2   |                   |                |    |    |    |      |                                   |       |               |
| 39.5                | 25.5 | 39.5                        | 39.5 | 186               | 225            | 30 | 20 | 5  | 5 h9 | 16 <sup>+0</sup> <sub>-0.13</sub> | 14 k6 | M5 x 17       |

Dimensions in in.

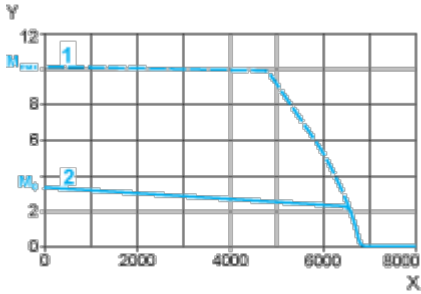
| Straight connectors |    | Rotatable angled connectors |      | c<br>(without brake) | c (with brake) | c1   | c2   | c3   | h       | h1                                | Ø       | Ø1 for screws |
|---------------------|----|-----------------------------|------|----------------------|----------------|------|------|------|---------|-----------------------------------|---------|---------------|
| b1                  | b2 | b1                          | b2   |                      |                |      |      |      |         |                                   |         |               |
| 1.55                | 1  | 1.55                        | 1.55 | 7.32                 | 8.85           | 1.18 | 0.78 | 0.19 | 0.20 h9 | 0.63 <sup>+0</sup><br>-<br>0.0051 | 0.55 k6 | M5 x 0.67     |

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32-D18N4 servo drive

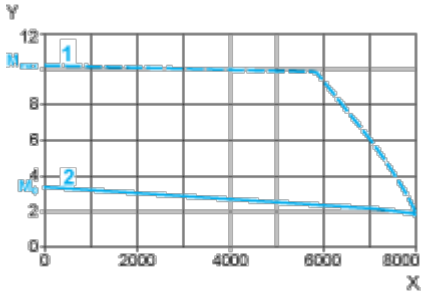


- X    Speed in rpm
- Y    Torque in Nm
- 1    Peak torque
- 2    Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D18N4 servo drive



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