

# Product datasheet

Specifications



servo motor BMH, Lexium 32,  
1.4Nm, 8000rpm, keyed shaft,  
without brake, IP54, 128bit  
encoder

BMH0701T11A2A

! Discontinued

## Main

|                           |                                                                                                              |
|---------------------------|--------------------------------------------------------------------------------------------------------------|
| Device short name         | BMH                                                                                                          |
| Product or component type | Servo motor                                                                                                  |
| Maximum mechanical speed  | 8000 rpm                                                                                                     |
| Continuous stall torque   | 1.4 N.m for LXM32.U90M2 at 3 A, 230 V, single phase<br>1.4 N.m for LXM32.D18M2 at 6 A, 115 V, single phase   |
| Peak stall torque         | 4 N.m for LXM32.U90M2 at 3 A, 230 V, single phase<br>4.2 N.m for LXM32.D18M2 at 6 A, 115 V, single phase     |
| Nominal output power      | 450 W for LXM32.U90M2 at 3 A, 230 V, single phase<br>350 W for LXM32.D18M2 at 6 A, 115 V, single phase       |
| Nominal torque            | 1.1 N.m for LXM32.U90M2 at 3 A, 230 V, single phase<br>1.35 N.m for LXM32.D18M2 at 6 A, 115 V, single phase  |
| Nominal speed             | 4000 rpm for LXM32.U90M2 at 3 A, 230 V, single phase<br>2500 rpm for LXM32.D18M2 at 6 A, 115 V, single phase |
| Product compatibility     | LXM32.D18M2 at 115 V single phase<br>LXM32.U90M2 at 230 V single phase                                       |
| Shaft end                 | Keyed                                                                                                        |
| IP degree of protection   | IP54 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                                      |
| [Us] rated supply voltage | 240 V                                          |
| Network number of phases  | Three phase                                    |
| Continuous stall current  | 2.85 A                                         |
| Continuous power          | 1.05 W                                         |
| Maximum current Irms      | 9.6 A for LXM32.D18M2<br>9.6 A for LXM32.U90M2 |
| Maximum permanent current | 9.56 A                                         |
| Second shaft              | Without second shaft end                       |
| Shaft diameter            | 11 mm                                          |
| Shaft length              | 23 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                             | 18 mm                                                                                                                      |
| Feedback type                         | Single turn SinCos Hiperface                                                                                               |
| Motor flange size                     | 70 mm                                                                                                                      |
| Number of motor stacks                | 1                                                                                                                          |
| Torque constant                       | 0.49 N.m/A at 120 °C                                                                                                       |
| Back emf constant                     | 31.17 V/krpm at 120 °C                                                                                                     |
| Number of motor poles                 | 10                                                                                                                         |
| Rotor inertia                         | 0.59 kg.cm²                                                                                                                |
| Stator resistance                     | 3.2 Ohm at 20 °C                                                                                                           |
| Stator inductance                     | 9.1 mH at 20 °C                                                                                                            |
| Stator electrical time constant       | 2.8 ms at 20 °C                                                                                                            |
| Maximum radial force Fr               | 660 N at 1000 rpm<br>520 N at 2000 rpm<br>460 N at 3000 rpm<br>410 N at 4000 rpm<br>380 N at 5000 rpm<br>360 N at 6000 rpm |
| Maximum axial force Fa                | 0.2 x Fr                                                                                                                   |
| Type of cooling                       | Natural convection                                                                                                         |
| Length                                | 122 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                            | 1.6 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             | 1.8 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   [REACH Declaration](#)

Eu Rohs Directive   Pro-active compliance (Product out of EU RoHS legal scope)

China Rohs Regulation   [China RoHS declaration](#)

Environmental Disclosure   [Product Environmental Profile](#)

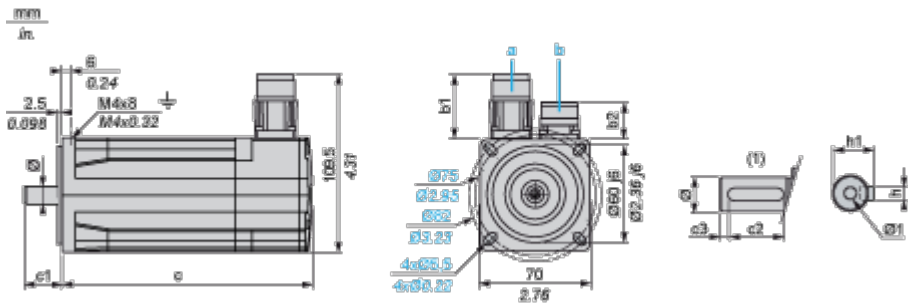
Weee   The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

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

| 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 | 122               | 161            | 23 | 18 | 2.5 | 4 h9 | 12.5 <sup>+0</sup> <sub>-0.13</sub> | 11 k6 | M4 x 14       |

Dimensions in in.

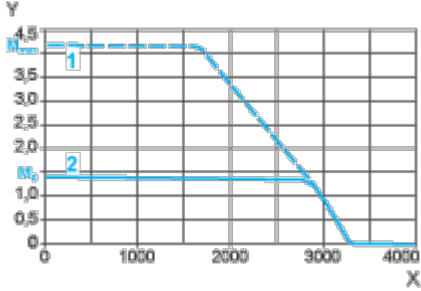
| Straight connectors |    | Rotatable angled connectors |      | c (without brake) | c (with brake) | c1   | c2   | c3   | h       | h1                                    | Ø       | Ø1 for screws |
|---------------------|----|-----------------------------|------|-------------------|----------------|------|------|------|---------|---------------------------------------|---------|---------------|
| b1                  | b2 | b1                          | b2   |                   |                |      |      |      |         |                                       |         |               |
| 1.55                | 1  | 1.55                        | 1.55 | 4.80              | 6.33           | 0.90 | 0.70 | 0.09 | 0.16 h9 | 0.49 <sup>+0</sup> <sub>-0.0051</sub> | 0.43 k6 | M4 x 0.55     |

Performance Curves

115 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32-D18M2 servo drive

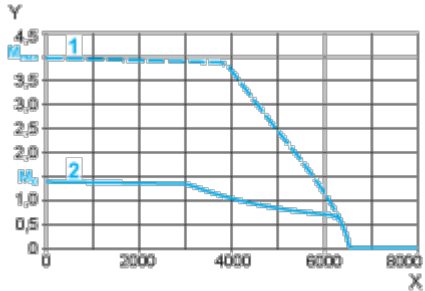


- X    Speed in rpm
- Y    Torque in Nm
- 1    Peak torque
- 2    Continuous torque

230 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•U90M2 servo drive



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