

# Product data sheet

Specifications



servo motor BMH, Lexium 32,  
1.4Nm, 8000rpm, untapped shaft,  
with brake, IP54, 16bit encoder,  
straight

BMH0701T06F1A

⚠ Discontinued

⚠ Discontinued on: Jun 30, 2023

## Main

|                           |  |
|---------------------------|--|
| Product Or Component Type | Servo motor  |
| Device Short Name         | BMH  |
| 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                 | Smooth shaft   |
| 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 | 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  |

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

|                                       |  |
|---------------------------------------|--|
| Shaft Length                          | 23 mm  |
| Feedback Type                         | Single turn SinCos Hiperface   |
| Holding Torque                        | 3 N.m holding brake  |
| 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                         | 0.7 kg.cm <sup>2</sup>   |
| 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   |
| Brake Pull-In Power                   | 7 W  |
| Type Of Cooling                       | Natural convection   |
| Length                                | 161 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                            | 2.6 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             | 2.8 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          | <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) 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 | $12.5^{+0}_{-0.13}$ | 11 k6 | M4 x 14       |

Dimensions in in.

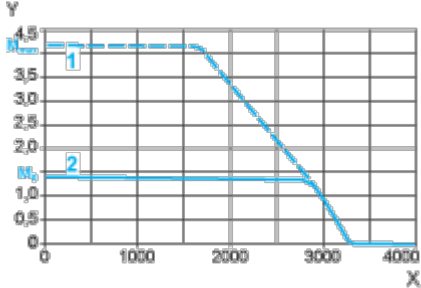
| Straight connectors |    | Rotatable angled connectors |      | c (without brake) | c (with brake) | c1   | c2   | c3   | h       | h1                    | Ø       | Ø1 for screws |
|---------------------|----|-----------------------------|------|-------------------|----------------|------|------|------|---------|-----------------------|---------|---------------|
| b1                  | b2 | b1                          | b2   |                   |                |      |      |      |         |                       |         |               |
| 1.55                | 1  | 1.55                        | 1.55 | 4.80              | 6.33           | 0.90 | 0.70 | 0.09 | 0.16 h9 | $0.49^{+0}_{-0.0051}$ | 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

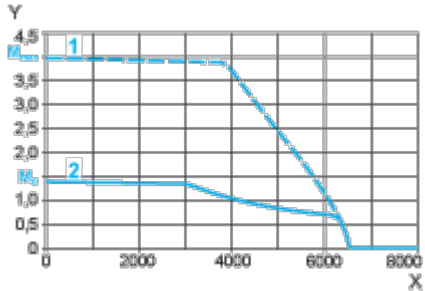
1 Peak torque

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