

# Product data sheet

Specifications



servo motor BMH, Lexium 32,  
1.2Nm, 8000rpm, untapped shaft,  
with brake, IP54, 16 multiturn  
encoder

BMH0701P07F2A

Product availability: Stock - Normally stocked in distribution facility

Price\*: 1,295.00 USD

## Main

|                           |                                                                                                                                                                                                                                                      |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Device short name         | BMH                                                                                                                                                                                                                                                  |
| Product or Component Type | Servo motor                                                                                                                                                                                                                                          |
| Maximum mechanical speed  | 8000 rpm                                                                                                                                                                                                                                             |
| Continuous stall torque   | 10.6 lbf.in (1.2 N.m) LXM32.U60N4 1.5 A, 400 V, three phase<br>10.6 lbf.in (1.2 N.m) LXM32.U60N4 1.5 A, 480 V, three phase<br>12.4 lbf.in (1.4 N.m) LXM32.D12N4 3 A, 400 V, three phase<br>12.4 lbf.in (1.4 N.m) LXM32.D12N4 3 A, 480 V, three phase |
| Peak stall torque         | 37.2 lbf.in (4.2 N.m) LXM32.U60N4 1.5 A, 400 V, three phase<br>37.2 lbf.in (4.2 N.m) LXM32.U60N4 1.5 A, 480 V, three phase<br>37.2 lbf.in (4.2 N.m) LXM32.D12N4 3 A, 400 V, three phase<br>37.2 lbf.in (4.2 N.m) LXM32.D12N4 3 A, 480 V, three phase |
| Nominal output power      | 350 W LXM32.U60N4 1.5 A, 400 V, three phase<br>350 W LXM32.U60N4 1.5 A, 480 V, three phase<br>700 W LXM32.D12N4 3 A, 400 V, three phase<br>700 W LXM32.D12N4 3 A, 480 V, three phase                                                                 |
| Nominal torque            | 9.7 lbf.in (1.1 N.m) LXM32.U60N4 1.5 A, 400 V, three phase<br>9.7 lbf.in (1.1 N.m) LXM32.U60N4 1.5 A, 480 V, three phase<br>11.5 lbf.in (1.3 N.m) LXM32.D12N4 3 A, 400 V, three phase<br>11.5 lbf.in (1.3 N.m) LXM32.D12N4 3 A, 480 V, three phase   |
| Nominal speed             | 3000 rpm LXM32.U60N4 1.5 A, 400 V, three phase<br>3000 rpm LXM32.U60N4 1.5 A, 480 V, three phase<br>5000 rpm LXM32.D12N4 3 A, 400 V, three phase<br>5000 rpm LXM32.D12N4 3 A, 480 V, three phase                                                     |
| Product compatibility     | LXM32.U60N4 400...480 V three phase<br>LXM32.D12N4 400...480 V three phase                                                                                                                                                                           |
| Shaft end                 | Smooth shaft                                                                                                                                                                                                                                         |
| IP Degree of Protection   | IP54 standard                                                                                                                                                                                                                                        |
| Speed feedback resolution | 32768 points/turn x 4096 turns                                                                                                                                                                                                                       |
| Holding brake             | With                                                                                                                                                                                                                                                 |
| Mounting Support          | International standard flange                                                                                                                                                                                                                        |
| Electrical Connection     | Rotatable right-angled connectors                                                                                                                                                                                                                    |

## Complementary

|                           |             |
|---------------------------|-------------|
| Range Compatibility       | Lexium 32   |
| [Us] rated supply voltage | 480 V       |
| Phase                     | Three phase |
| Continuous stall current  | 1.78 A      |

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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

|                                       |                                                                                                          |
|---------------------------------------|----------------------------------------------------------------------------------------------------------|
| Continuous power                      | 1.05 W                                                                                                   |
| Maximum current Irms                  | 6 A LXM32.U60N4<br>6 A LXM32.D12N4                                                                       |
| Maximum permanent current             | 5.97 A                                                                                                   |
| Second shaft                          | Without second shaft end                                                                                 |
| Shaft diameter                        | 0.4 in (11 mm)                                                                                           |
| Shaft length                          | 0.9 in (23 mm)                                                                                           |
| Feedback type                         | Multiturn SinCos Hiperface                                                                               |
| Holding torque                        | 26.6 lbf.in (3 N.m) holding brake                                                                        |
| Motor flange size                     | 2.8 in (70 mm)                                                                                           |
| Number of motor stacks                | 1                                                                                                        |
| Torque constant                       | 0.79 N.m/A 248 °F (120 °C)                                                                               |
| Back emf constant                     | 50.72 V/krpm 248 °F (120 °C)                                                                             |
| Number of motor poles                 | 10                                                                                                       |
| Rotor inertia                         | 0.7 kg.cm <sup>2</sup>                                                                                   |
| Stator resistance                     | 8.3 Ohm 68 °F (20 °C)                                                                                    |
| Stator inductance                     | 23.4 mH 68 °F (20 °C)                                                                                    |
| Stator electrical time constant       | 2.8 ms 68 °F (20 °C)                                                                                     |
| Maximum radial force Fr               | 660 N 1000 rpm<br>520 N 2000 rpm<br>460 N 3000 rpm<br>410 N 4000 rpm<br>380 N 5000 rpm<br>360 N 6000 rpm |
| Maximum axial force Fa                | 0.2 x Fr                                                                                                 |
| Brake pull-in power                   | 7 W                                                                                                      |
| Type of cooling                       | Natural convection                                                                                       |
| Length                                | 6.3 in (161 mm)                                                                                          |
| Centring collar diameter              | 2.4 in (60 mm)                                                                                           |
| Centring collar depth                 | 0.10 in (2.5 mm)                                                                                         |
| Number of mounting holes              | 4                                                                                                        |
| Mounting holes diameter               | 0.2 in (5.5 mm)                                                                                          |
| Circle diameter of the mounting holes | 3.2 in (82 mm)                                                                                           |
| Net Weight                            | 5.7 lb(US) (2.6 kg)                                                                                      |

## Ordering and shipping details

|                   |               |
|-------------------|---------------|
| Category          | US1PC5318282  |
| Discount Schedule | PC53          |
| GTIN              | 3606485193489 |
| Returnability     | No            |
| Country of origin | DE            |

## Packing Units

|                        |     |
|------------------------|-----|
| Unit Type of Package 1 | PCE |
|------------------------|-----|

|                              |                           |
|------------------------------|---------------------------|
| Number of Units in Package 1 | 1                         |
| Package 1 Height             | 4.5 in (11.5 cm)          |
| Package 1 Width              | 7.5 in (19 cm)            |
| Package 1 Length             | 15.6 in (39.5 cm)         |
| Package 1 Weight             | 6.043 lb(US) (2.741 kg)   |
| Unit Type of Package 2       | S04                       |
| Number of Units in Package 2 | 2                         |
| Package 2 Height             | 11.8 in (30 cm)           |
| Package 2 Width              | 15.7 in (40 cm)           |
| Package 2 Length             | 23.6 in (60 cm)           |
| Package 2 Weight             | 14.568 lb(US) (6.608 kg)  |
| Unit Type of Package 3       | P06                       |
| Number of Units in Package 3 | 12                        |
| Package 3 Height             | 30.3 in (77 cm)           |
| Package 3 Width              | 31.5 in (80 cm)           |
| Package 3 Length             | 23.6 in (60 cm)           |
| Package 3 Weight             | 89.587 lb(US) (40.636 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 | <a href="#">Yes</a> |
|  Pvc Free                   |                     |

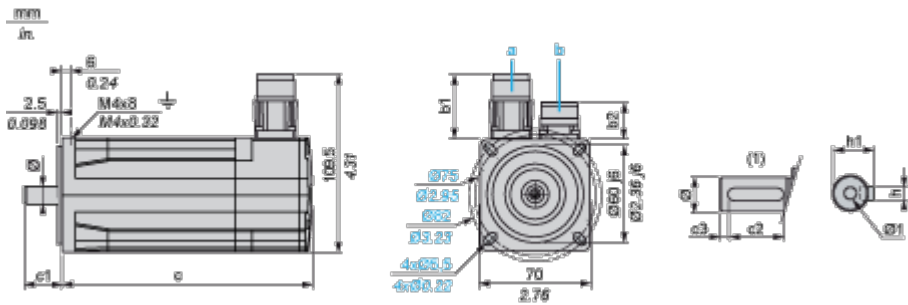
## Certifications & Standards

|                           |                                                                                                                                                                                                                                                                 |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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="#">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 <sup>+0</sup> <sub>-0.13</sub> | 11 k6 | M4 x 14       |

Dimensions in in.

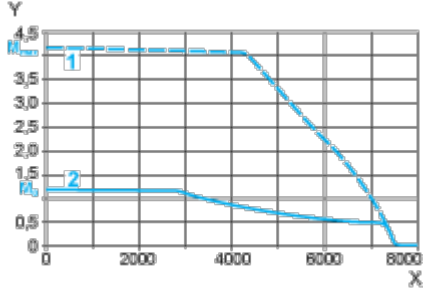
| Straight connectors |    | Rotatable angled connectors |      | c (without brake) | c (with brake) | c1   | c2   | c3   | h       | h1                                    | Ø       | Ø1 for screws |
|---------------------|----|-----------------------------|------|-------------------|----------------|------|------|------|---------|---------------------------------------|---------|---------------|
| 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

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•U60N4 servo drive



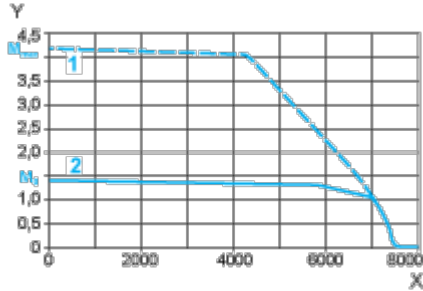
X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque

Servo motor with LXM32•D12N4 servo drive



X Speed in rpm

Y Torque in Nm

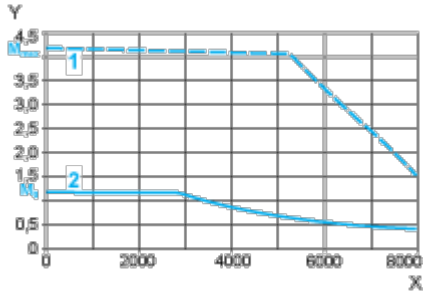
1 Peak torque

2 Continuous torque

480 V 3-Phase Supply Voltage

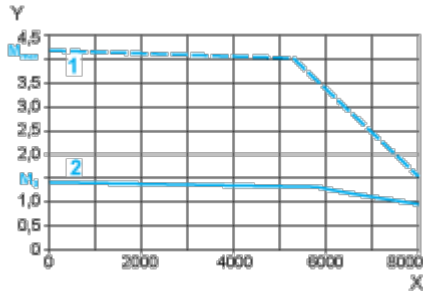
Torque/Speed Curves

Servo motor with LXM32•U60N4 servo drive



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

Servo motor with LXM32•D12N4 servo drive



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