

# Product data sheet

Specifications



servo motor BMH, Lexium 32,  
2.5Nm, 8000rpm, keyed shaft,  
without brake, IP54, 16bit encoder,  
straight, 3 phases

BMH0702P16A1A

**Product availability : Stock - Normally stocked in distribution facility**

**Price\* : 850.00 USD**

## Main

|                           |  |
|---------------------------|--|
| Product or Component Type | Servo motor  |
| Device short name         | BMH  |
| Maximum mechanical speed  | 8000 rpm   |
| Continuous stall torque   | 22.13 lbf.in (2.5 N.m) LXM32.D12N4 3 A, 400 V, three phase<br>22.13 lbf.in (2.5 N.m) LXM32.D12N4 3 A, 480 V, three phase |
| Peak stall torque         | 65.50 lbf.in (7.4 N.m) LXM32.D12N4 3 A, 400 V, three phase<br>65.50 lbf.in (7.4 N.m) LXM32.D12N4 3 A, 480 V, three phase |
| Nominal output power      | 700 W LXM32.D12N4 3 A, 400 V, three phase<br>700 W LXM32.D12N4 3 A, 480 V, three phase                                   |
| Nominal torque            | 19.47 lbf.in (2.2 N.m) LXM32.D12N4 3 A, 400 V, three phase<br>19.47 lbf.in (2.2 N.m) LXM32.D12N4 3 A, 480 V, three phase |
| Nominal speed             | 3000 rpm LXM32.D12N4 3 A, 400 V, three phase<br>3000 rpm LXM32.D12N4 3 A, 480 V, three phase                             |
| Product compatibility     | LXM32.D12N4 400...480 V three phase  |
| Shaft end                 | Keyed  |
| IP Degree of Protection   | IP54 standard  |
| Speed feedback resolution | 32768 points/turn  |
| Holding brake             | Without  |
| Mounting Support          | International standard flange  |
| Electrical Connection     | Straight connectors  |

## Complementary

|                           |                          |
|---------------------------|--------------------------|
| Range Compatibility       | Lexium 32                |
| [Us] rated supply voltage | 480 V                    |
| Phase                     | Three phase              |
| Continuous stall current  | 2.94 A                   |
| Continuous power          | 1.51 W                   |
| Maximum current Irms      | 9.7 A LXM32.D12N4        |
| Maximum permanent current | 9.68 A                   |
| Second shaft              | Without second shaft end |

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

|                                       |  |
|---------------------------------------|--|
| Shaft diameter                        | 0.43 in (11 mm)  |
| Shaft length                          | 0.91 in (23 mm)  |
| Key width                             | 0.71 in (18 mm)  |
| Feedback type                         | Single turn SinCos Hiperface   |
| Motor flange size                     | 2.76 in (70 mm)  |
| Number of motor stacks                | 2  |
| Torque constant                       | 0.84 N.m/A 248 °F (120 °C)   |
| Back emf constant                     | 54.08 V/krpm 248 °F (120 °C)   |
| Number of motor poles                 | 10   |
| Rotor inertia                         | 1.13 kg.cm <sup>2</sup>  |
| Stator resistance                     | 3.8 Ohm 68 °F (20 °C)  |
| Stator inductance                     | 12.2 mH 68 °F (20 °C)  |
| Stator electrical time constant       | 3.2 ms 68 °F (20 °C)   |
| Maximum radial force Fr               | 710 N 1000 rpm<br>560 N 2000 rpm<br>490 N 3000 rpm<br>450 N 4000 rpm<br>410 N 5000 rpm<br>390 N 6000 rpm |
| Maximum axial force Fa                | 0.2 x Fr   |
| Type of cooling                       | Natural convection   |
| Length                                | 6.06 in (154 mm)   |
| Centring collar diameter              | 2.36 in (60 mm)  |
| Centring collar depth                 | 0.10 in (2.5 mm)   |
| Number of mounting holes              | 4  |
| Mounting holes diameter               | 0.22 in (5.5 mm)   |
| Circle diameter of the mounting holes | 3.23 in (82 mm)  |
| Net Weight                            | 5.07 lb(US) (2.3 kg)   |

## Ordering and shipping details

|                   |                        |
|-------------------|------------------------|
| Category          | 18282-LEXIUM 32 MOTORS |
| Discount Schedule | PC53                   |
| GTIN              | 3606485193694          |
| Returnability     | No                     |
| Country of origin | DE                     |

## Packing Units

|                              |                      |
|------------------------------|----------------------|
| Unit Type of Package 1       | PCE                  |
| Number of Units in Package 1 | 1                    |
| Package 1 Height             | 4.33 in (11.0 cm)    |
| Package 1 Width              | 7.87 in (20.0 cm)    |
| Package 1 Length             | 15.75 in (40.0 cm)   |
| Package 1 Weight             | 4.41 lb(US) (2.0 kg) |

## Offer Sustainability

|                          |                       |
|--------------------------|-----------------------|
| Sustainable offer status | Green Premium product |
|--------------------------|-----------------------|

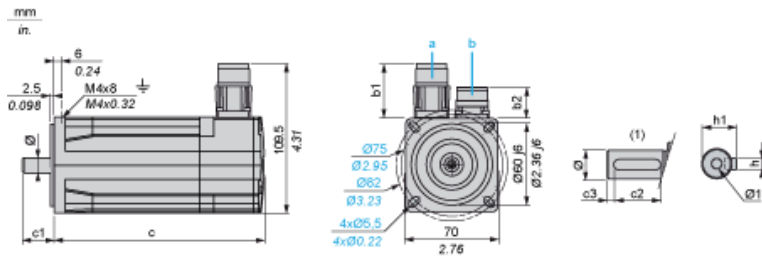
|                                   |   |
|-----------------------------------|---|
| <b>California proposition 65</b>  | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| <b>REACH Regulation</b>           | <a href="#">REACH Declaration</a>   |
| <b>EU RoHS Directive</b>          | Pro-active compliance (Product out of EU RoHS legal scope)<br><a href="#">EU RoHS Declaration</a>   |
| <b>Mercury free</b>               | Yes   |
| <b>China RoHS Regulation</b>      | <a href="#">China RoHS declaration</a>  |
| <b>RoHS exemption information</b> | Yes   |
| <b>Environmental Disclosure</b>   | <a href="#">Product Environmental Profile</a>   |
| <b>Circularity Profile</b>        | No need of specific recycling operations  |
| <b>WEEE</b>                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.  |
| <b>PVC free</b>                   | Yes   |

## Contractual warranty

|                 |           |
|-----------------|-----------|
| <b>Warranty</b> | 18 months |
|-----------------|-----------|

**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 connect |      | Rotatable angled |      | 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 | 154               | 193            | 23 | 18 | 2.5 | 4 h9 | 12.5 <sup>+0</sup> <sub>-0.13</sub> | 11 k6 | M4 x 14       |

Dimensions in in.

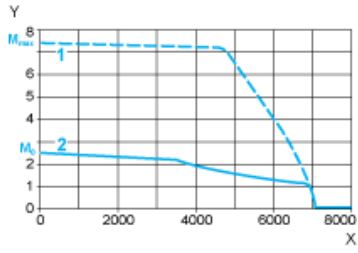
| Straight connect |    | Rotatable angled |      | c (without brake) | c (with brake) | c1   | c2   | c3   | h       | h1                                    | Ø       | Ø1 for screws |
|------------------|----|------------------|------|-------------------|----------------|------|------|------|---------|---------------------------------------|---------|---------------|
| b1               | b2 | b1               | b2   |                   |                |      |      |      |         |                                       |         |               |
| 1.55             | 1  | 1.55             | 1.55 | 6.06              | 7.59           | 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     |

400 V 3-Phase Supply Voltage

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Torque/Speed Curves

Servo motor with LXM32•D12N4 servo drive



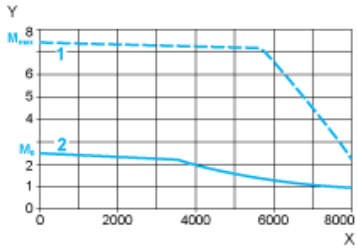
- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

**480 V 3-Phase Supply Voltage**

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**Torque/Speed Curves**

Servo motor with LXM32•D12N4 servo drive



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

**Recommended replacement(s)**