

# BMH1001P17F1A

servo motor BMH, Lexium 32, 3.3Nm,  
6000rpm, keyed shaft, with brake, IP54, 16  
multiturn encoder, straight



## Main

|                           |                                                                                                                                                                                                                                                          |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product or Component Type | Servo motor                                                                                                                                                                                                                                              |
| Device short name         | BMH                                                                                                                                                                                                                                                      |
| Maximum mechanical speed  | 6000 rpm                                                                                                                                                                                                                                                 |
| Continuous stall torque   | 29.21 Lbf.In (3.3 N.m) LXM32.D12N4 3 A, 400 V, three phase<br>29.21 Lbf.In (3.3 N.m) LXM32.D12N4 3 A, 480 V, three phase<br>30.09 Lbf.In (3.4 N.m) LXM32.D18N4 6 A, 400 V, three phase<br>30.09 lbf.in (3.4 N.m) LXM32.D18N4 6 A, 480 V, three phase     |
| Peak stall torque         | 95.59 Lbf.In (10.8 N.m) LXM32.D12N4 3 A, 400 V, three phase<br>95.59 Lbf.In (10.8 N.m) LXM32.D12N4 3 A, 480 V, three phase<br>95.59 Lbf.In (10.8 N.m) LXM32.D18N4 6 A, 400 V, three phase<br>95.59 lbf.in (10.8 N.m) LXM32.D18N4 6 A, 480 V, three phase |
| Nominal output power      | 800 W LXM32.D12N4 3 A, 400 V, three phase<br>800 W LXM32.D12N4 3 A, 480 V, three phase<br>1300 W LXM32.D18N4 6 A, 400 V, three phase<br>1300 W LXM32.D18N4 6 A, 480 V, three phase                                                                       |
| Nominal torque            | 16.82 Lbf.In (1.9 N.m) LXM32.D12N4 3 A, 400 V, three phase<br>16.82 Lbf.In (1.9 N.m) LXM32.D12N4 3 A, 480 V, three phase<br>27.44 Lbf.In (3.1 N.m) LXM32.D18N4 6 A, 400 V, three phase<br>27.44 lbf.in (3.1 N.m) LXM32.D18N4 6 A, 480 V, three phase     |
| Nominal speed             | 4000 rpm LXM32.D12N4 3 A, 400 V, three phase<br>4000 rpm LXM32.D12N4 3 A, 480 V, three phase<br>4000 rpm LXM32.D18N4 6 A, 400 V, three phase<br>4000 rpm LXM32.D18N4 6 A, 480 V, three phase                                                             |
| Product compatibility     | LXM32.D12N4 400...480 V three phase<br>LXM32.D18N4 400...480 V three phase                                                                                                                                                                               |
| Shaft end                 | Keyed                                                                                                                                                                                                                                                    |
| 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     | Straight connectors                                                                                                                                                                                                                                      |

## Complementary

|                           |                                          |
|---------------------------|------------------------------------------|
| Range Compatibility       | Lexium 32                                |
| [Us] rated supply voltage | 480 V                                    |
| Phase                     | Three phase                              |
| Continuous stall current  | 3.15 A                                   |
| Continuous power          | 1.76 W                                   |
| Maximum current Irms      | 11.9 A LXM32.D12N4<br>11.9 A LXM32.D18N4 |

|                                       |                                                                                        |
|---------------------------------------|----------------------------------------------------------------------------------------|
| Maximum permanent current             | 11.93 A                                                                                |
| Second shaft                          | Without second shaft end                                                               |
| Shaft diameter                        | 0.75 in (19 mm)                                                                        |
| Shaft length                          | 1.57 in (40 mm)                                                                        |
| Key width                             | 1.18 in (30 mm)                                                                        |
| Feedback type                         | Multiturn SinCos Hiperface                                                             |
| Holding torque                        | 48.68 lbf.in (5.5 N.m) holding brake                                                   |
| Motor flange size                     | 3.94 in (100 mm)                                                                       |
| Number of motor stacks                | 1                                                                                      |
| Torque constant                       | 1.1 N.m/A 248 °F (120 °C)                                                              |
| Back emf constant                     | 70.3 V/krpm 248 °F (120 °C)                                                            |
| Number of motor poles                 | 10                                                                                     |
| Rotor inertia                         | 3.68 kg.cm <sup>2</sup>                                                                |
| Stator resistance                     | 3.1 Ohm 68 °F (20 °C)                                                                  |
| Stator inductance                     | 13.9 mH 68 °F (20 °C)                                                                  |
| Stator electrical time constant       | 4.5 ms 68 °F (20 °C)                                                                   |
| Maximum radial force Fr               | 900 N 1000 rpm<br>720 N 2000 rpm<br>630 N 3000 rpm<br>570 N 4000 rpm<br>530 N 5000 rpm |
| Maximum axial force Fa                | 0.2 x Fr                                                                               |
| Brake pull-in power                   | 12 W                                                                                   |
| Type of cooling                       | Natural convection                                                                     |
| Length                                | 6.70 in (170.3 mm)                                                                     |
| Centring collar diameter              | 3.74 in (95 mm)                                                                        |
| Centring collar depth                 | 0.14 in (3.5 mm)                                                                       |
| Number of mounting holes              | 4                                                                                      |
| Mounting holes diameter               | 0.35 in (9 mm)                                                                         |
| Circle diameter of the mounting holes | 4.53 in (115 mm)                                                                       |
| Net Weight                            | 10.58 lb(US) (4.8 kg)                                                                  |

### Ordering and shipping details

|                   |                        |
|-------------------|------------------------|
| Category          | 18282-LEXIUM 32 MOTORS |
| Discount Schedule | PC53                   |
| GTIN              | 3606485195766          |
| Returnability     | No                     |
| Country of origin | DE                     |

### Packing Units

|                              |                       |
|------------------------------|-----------------------|
| Unit Type of Package 1       | PCE                   |
| Number of Units in Package 1 | 1                     |
| Package 1 Height             | 8.66 in (22.0 cm)     |
| Package 1 Width              | 7.87 in (20.0 cm)     |
| Package 1 Length             | 15.75 in (40.0 cm)    |
| Package 1 Weight             | 11.24 lb(US) (5.1 kg) |

### Offer Sustainability

|                           |                                                                                                                                                                                                                                                                                             |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status  | Green Premium product                                                                                                                                                                                                                                                                       |
| 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> |
| REACH Regulation          |  <a href="#">REACH Declaration</a>                                                                                                                                                                       |
| EU RoHS Directive         | Pro-active compliance (Product out of EU RoHS legal scope)                                                                                                                                                                                                                                  |
| Mercury free              | Yes                                                                                                                                                                                                                                                                                         |

|                            |                                                                                                                                 |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| China RoHS Regulation      |  <a href="#">China RoHS Declaration</a>         |
| RoHS exemption information |  <a href="#">Yes</a>                           |
| Environmental Disclosure   |  <a href="#">Product Environmental Profile</a> |
| Circularity Profile        | No need of specific recycling operations                                                                                        |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.    |
| PVC free                   | Yes                                                                                                                             |

### Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 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)  
(2) For screw M6 x 21 mm/M6 x 0.83 in.

Dimensions in mm

| Straight connectors |      | Rotatable angled connectors |      | c (without brake) | c (with brake) |
|---------------------|------|-----------------------------|------|-------------------|----------------|
| b1                  | b2   | b1                          | b2   |                   |                |
| 39.5                | 25.5 | 39.5                        | 39.5 | 128               | 170            |

Dimensions in in.

| Straight connectors |      | Rotatable angled connectors |      | c (without brake) | c (with brake) |
|---------------------|------|-----------------------------|------|-------------------|----------------|
| b1                  | b2   | b1                          | b2   |                   |                |
| 1.55                | 1.00 | 1.55                        | 1.55 | 5.03              | 6.69           |

## 400 V 3-Phase Supply Voltage

### Torque/Speed Curves

Servo motor with LXM32•D12N4 servo drive



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

Servo motor with LXM32•D18N4 servo drive

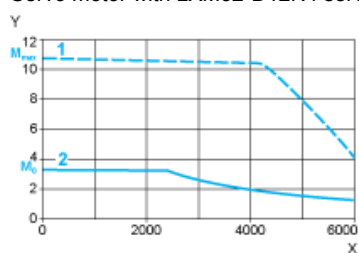


- X Speed in rpm  
Y Torque in Nm  
1 Peak torque  
2 Continuous torque

## 480 V 3-Phase Supply Voltage

### Torque/Speed Curves

Servo motor with LXM32•D12N4 servo drive



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

# Servo motor with LXM32•D18N4 servo drive



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