

# BMH1001P36A1A

servo motor BMH, Lexium 32, 3.3Nm,  
6000rpm, keyed shaft, without brake, IP65,  
IP67, 16bit encoder, straight



## Main

|                           |                                                                                                                                                                                                                                                      |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Device short name         | BMH                                                                                                                                                                                                                                                  |
| Product or Component Type | Servo motor                                                                                                                                                                                                                                          |
| Maximum mechanical speed  | 6000 rpm                                                                                                                                                                                                                                             |
| Continuous stall torque   | 29.2 Lbf.In (3.3 N.m) LXM32.D12N4 3 A, 400 V, three phase<br>29.2 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         | 95.6 Lbf.In (10.8 N.m) LXM32.D12N4 3 A, 400 V, three phase<br>95.6 Lbf.In (10.8 N.m) LXM32.D12N4 3 A, 480 V, three phase<br>95.6 Lbf.In (10.8 N.m) LXM32.D18N4 6 A, 400 V, three phase<br>95.6 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            | 16.8 Lbf.In (1.9 N.m) LXM32.D12N4 3 A, 400 V, three phase<br>16.8 Lbf.In (1.9 N.m) LXM32.D12N4 3 A, 480 V, three phase<br>27.4 Lbf.In (3.1 N.m) LXM32.D18N4 6 A, 400 V, three phase<br>27.4 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   | IP65 standard<br>IP67 with IP67 kit                                                                                                                                                                                                                  |
| 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  | 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                        | 0.7 in (19 mm)                                                                         |
| Shaft length                          | 1.6 in (40 mm)                                                                         |
| Key width                             | 1.2 in (30 mm)                                                                         |
| Feedback type                         | Single turn SinCos Hiperface                                                           |
| Motor flange size                     | 3.9 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                         | 3.19 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                                                                               |
| Type of cooling                       | Natural convection                                                                     |
| Length                                | 5.06 in (128.6 mm)                                                                     |
| Centring collar diameter              | 3.7 in (95 mm)                                                                         |
| Centring collar depth                 | 0.1 in (3.5 mm)                                                                        |
| Number of mounting holes              | 4                                                                                      |
| Mounting holes diameter               | 0.4 in (9 mm)                                                                          |
| Circle diameter of the mounting holes | 4.5 in (115 mm)                                                                        |
| Net Weight                            | 7.36 lb(US) (3.34 kg)                                                                  |

### Ordering and shipping details

|                   |               |
|-------------------|---------------|
| Category          | US1PC5318282  |
| Discount Schedule | PC53          |
| GTIN              | 3606485195599 |
| Returnability     | No            |
| Country of origin | DE            |

### Packing Units

|                              |                       |
|------------------------------|-----------------------|
| Unit Type of Package 1       | PCE                   |
| Number of Units in Package 1 | 1                     |
| Package 1 Height             | 8.7 in (22.0 cm)      |
| Package 1 Width              | 7.9 in (20.0 cm)      |
| Package 1 Length             | 15.7 in (40.0 cm)     |
| Package 1 Weight             | 8.02 lb(US) (3.64 kg) |

### Offer Sustainability

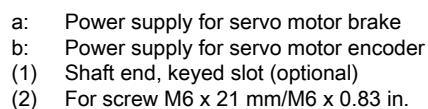
|                            |                                                                                                                                                                                                                                                                                             |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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> |
| 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 |  Yes                                                                                                                                                                                                     |

|                          |                                                                                                                                |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 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 |
|----------|-----------|

### Example with Straight Connectors



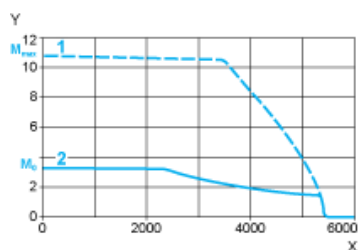
| Straight connectors |      | Rotatable angled connectors |      | c (without brake) | c (with brake) |
|---------------------|------|-----------------------------|------|-------------------|----------------|
| b1                  | b2   | b1                          | b2   |                   |   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

| 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

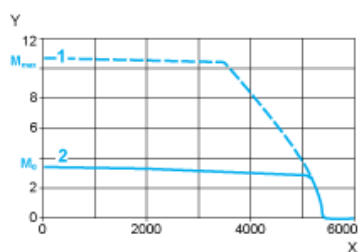
### Torque/Speed Curves

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

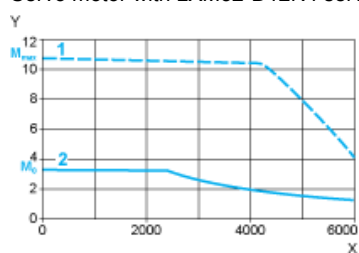


- X Speed in rpm  
Y Torque in Nm  
1 Peak torque  
2 Continuous torque

## 480 V 3-Phase Supply Voltage

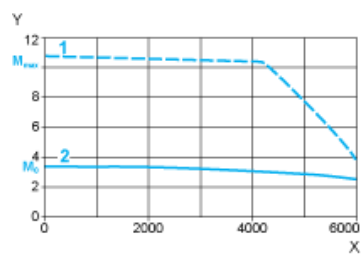
### Torque/Speed Curves

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