

# BMH1002P02F2A

servo motor BMH, Lexium 32, 6.2Nm,  
6000rpm, untapped shaft, with brake, IP54, 128  
multiturn encoder



## Main

|                           |                                                                                                                              |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Product or Component Type | Servo motor                                                                                                                  |
| Device short name         | BMH                                                                                                                          |
| Maximum mechanical speed  | 6000 rpm                                                                                                                     |
| Continuous stall torque   | 54.87 Lbf.in (6.2 N.m) LXM32.D18N4 6 A, 400 V, three phase<br>54.87 lbf.in (6.2 N.m) LXM32.D18N4 6 A, 480 V, three phase     |
| Peak stall torque         | 162.85 Lbf.in (18.4 N.m) LXM32.D18N4 6 A, 400 V, three phase<br>162.85 lbf.in (18.4 N.m) LXM32.D18N4 6 A, 480 V, three phase |
| Nominal output power      | 1600 W LXM32.D18N4 6 A, 400 V, three phase<br>1600 W LXM32.D18N4 6 A, 480 V, three phase                                     |
| Nominal torque            | 34.52 Lbf.in (3.9 N.m) LXM32.D18N4 6 A, 400 V, three phase<br>34.52 lbf.in (3.9 N.m) LXM32.D18N4 6 A, 480 V, three phase     |
| Nominal speed             | 4000 rpm LXM32.D18N4 6 A, 400 V, three phase<br>4000 rpm LXM32.D18N4 6 A, 480 V, three phase                                 |
| Product compatibility     | LXM32.D18N4 400...480 V three phase                                                                                          |
| Shaft end                 | Smooth shaft                                                                                                                 |
| IP Degree of Protection   | IP54 standard                                                                                                                |
| Speed feedback resolution | 131072 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  | 5.04 A                               |
| Continuous power          | 2.36 W                               |
| Maximum current Irms      | 18 A LXM32.D18N4                     |
| Maximum permanent current | 18.23 A                              |
| Second shaft              | Without second shaft end             |
| Shaft diameter            | 0.75 in (19 mm)                      |
| Shaft length              | 1.57 in (40 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    | 2                                    |
| Torque constant           | 1.2 N.m/A 248 °F (120 °C)            |
| Back emf constant         | 77 V/krpm 248 °F (120 °C)            |
| Number of motor poles     | 10                                   |
| Rotor inertia             | 6.77 kg.cm <sup>2</sup>              |

|                                       |                                                                                        |
|---------------------------------------|----------------------------------------------------------------------------------------|
| Stator resistance                     | 1.51 Ohm 68 °F (20 °C)                                                                 |
| Stator inductance                     | 7.5 mH 68 °F (20 °C)                                                                   |
| Stator electrical time constant       | 5 ms 68 °F (20 °C)                                                                     |
| Maximum radial force Fr               | 990 N 1000 rpm<br>790 N 2000 rpm<br>690 N 3000 rpm<br>620 N 4000 rpm<br>580 N 5000 rpm |
| Maximum axial force Fa                | 0.2 x Fr                                                                               |
| Brake pull-in power                   | 12 W                                                                                   |
| Type of cooling                       | Natural convection                                                                     |
| Length                                | 7.96 in (202.3 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                            | 14.11 lb(US) (6.4 kg)                                                                  |

### Ordering and shipping details

|                   |                        |
|-------------------|------------------------|
| Category          | 18282-LEXIUM 32 MOTORS |
| Discount Schedule | PC53                   |
| GTIN              | 3606485195995          |
| Returnability     | No                     |
| Country of origin | DE                     |

### Packing Units

|                              |                           |
|------------------------------|---------------------------|
| Unit Type of Package 1       | PCE                       |
| Number of Units in Package 1 | 1                         |
| Package 1 Height             | 7.68 in (19.500 cm)       |
| Package 1 Width              | 8.66 in (22.000 cm)       |
| Package 1 Length             | 15.55 in (39.500 cm)      |
| Package 1 Weight             | 15.17 lb(US) (6.883 kg)   |
| Unit Type of Package 2       | S04                       |
| Number of Units in Package 2 | 2                         |
| Package 2 Height             | 11.81 in (30 cm)          |
| Package 2 Width              | 15.75 in (40 cm)          |
| Package 2 Length             | 23.62 in (60 cm)          |
| Package 2 Weight             | 31.78 lb(US) (14.416 kg)  |
| Unit Type of Package 3       | P06                       |
| Number of Units in Package 3 | 8                         |
| Package 3 Height             | 29.53 in (75.000 cm)      |
| Package 3 Width              | 31.50 in (80.000 cm)      |
| Package 3 Length             | 23.62 in (60.000 cm)      |
| Package 3 Weight             | 144.76 lb(US) (65.664 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  |  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                                                                                                                             |
| <b>Contractual warranty</b> |                                                                                                                                 |
| 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 | 160               | 202            |

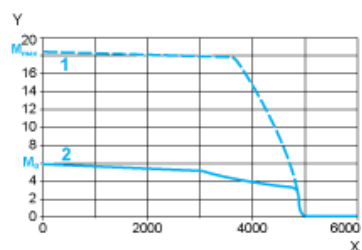
Dimensions in in.

| Straight connectors |      | Rotatable angled connectors |      | c (without brake) | c (with brake) |
|---------------------|------|-----------------------------|------|-------------------|----------------|
| b1                  | b2   | b1                          | b2   |                   |                |
| 1.55                | 1.00 | 1.55                        | 1.55 | 6.29              | 7.95           |

## 400 V 3-Phase Supply Voltage

### Torque/Speed Curves

Servo motor with LXM32-D18N4 servo drive

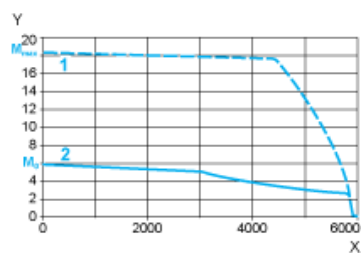


- X Speed in rpm  
Y Torque in Nm  
1 Peak torque  
2 Continuous torque

## 480 V 3-Phase Supply Voltage

### Torque/Speed Curves

Servo motor with LXM32-D18N4 servo drive



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