

# BMH0701P02F1A

servo motor BMH, Lexium 32, 1.2Nm,  
8000rpm, untapped shaft, with brake, IP54, 128  
multiturn encoder, straight



## Main

|                           |                                                                                                                                                                                                                                                          |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product or Component Type | Servo motor                                                                                                                                                                                                                                              |
| Device short name         | BMH                                                                                                                                                                                                                                                      |
| Maximum mechanical speed  | 8000 rpm                                                                                                                                                                                                                                                 |
| Continuous stall torque   | 10.62 Lbf.In (1.2 N.m) LXM32.U60N4 1.5 A, 400 V, three phase<br>10.62 Lbf.In (1.2 N.m) LXM32.U60N4 1.5 A, 480 V, three phase<br>12.39 Lbf.In (1.4 N.m) LXM32.D12N4 3 A, 400 V, three phase<br>12.39 lbf.in (1.4 N.m) LXM32.D12N4 3 A, 480 V, three phase |
| Peak stall torque         | 37.17 Lbf.In (4.2 N.m) LXM32.U60N4 1.5 A, 400 V, three phase<br>37.17 Lbf.In (4.2 N.m) LXM32.U60N4 1.5 A, 480 V, three phase<br>37.17 Lbf.In (4.2 N.m) LXM32.D12N4 3 A, 400 V, three phase<br>37.17 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            | 9.74 Lbf.In (1.1 N.m) LXM32.U60N4 1.5 A, 400 V, three phase<br>9.74 Lbf.In (1.1 N.m) LXM32.U60N4 1.5 A, 480 V, three phase<br>11.51 Lbf.In (1.3 N.m) LXM32.D12N4 3 A, 400 V, three phase<br>11.51 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 | 131072 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  | 1.78 A                             |
| 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                        | 0.43 in (11 mm)                                                                                          |
| Shaft length                          | 0.91 in (23 mm)                                                                                          |
| Feedback type                         | Multiturn SinCos Hiperface                                                                               |
| Holding torque                        | 26.55 lbf.in (3 N.m) holding brake                                                                       |
| Motor flange size                     | 2.76 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.cm²                                                                                               |
| 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                                | 6.34 in (161 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)                                                                                          |
| Product Weight                        | 5.73 lb(US) (2.6 kg)                                                                                     |

### Ordering and shipping details

|                   |                        |
|-------------------|------------------------|
| Category          | 18282-LEXIUM 32 MOTORS |
| Discount Schedule | PC53                   |
| GTIN              | 3606485193090          |
| 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             | 6.17 lb(US) (2.8 kg) |

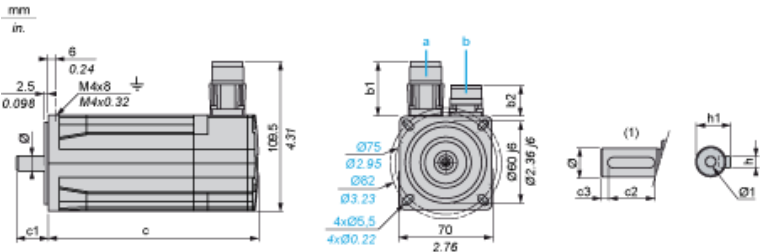
### Offer Sustainability

|                           |                                                                                                                                                                                                                                                                                             |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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)  <a href="#">EU RoHS Declaration</a>                                                                                                        |
| 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> |
| 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)

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     |

## 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

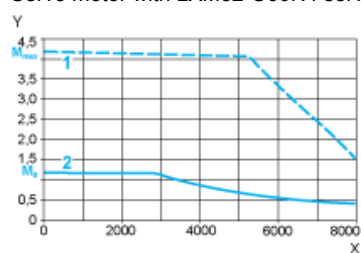


- X Speed in rpm  
Y Torque in Nm  
1 Peak torque  
2 Continuous torque

## 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