

# BMH0703T11F1A

servo motor BMH - 3.4 Nm - 8000 rpm - keyed  
shaft - with brake - IP54



## Main

|                           |                                                                                                                              |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Product or component type | Servo motor                                                                                                                  |
| Device short name         | BMH                                                                                                                          |
| Maximum mechanical speed  | 8000 rpm                                                                                                                     |
| Continuous stall torque   | 30.09 Lbf.in (3.4 N.m) LXM32.D30M2 10 A, 115 V, single phase<br>30.09 lbf.in (3.4 N.m) LXM32.D18M2 6 A, 230 V, single phase  |
| Peak stall torque         | 77.00 Lbf.in (8.7 N.m) LXM32.D30M2 10 A, 115 V, single phase<br>90.28 lbf.in (10.2 N.m) LXM32.D18M2 6 A, 230 V, single phase |
| Nominal output power      | 650 W LXM32.D30M2 10 A, 115 V, single phase<br>900 W LXM32.D18M2 6 A, 230 V, single phase                                    |
| Nominal torque            | 27.44 Lbf.in (3.1 N.m) LXM32.D30M2 10 A, 115 V, single phase<br>25.67 lbf.in (2.9 N.m) LXM32.D18M2 6 A, 230 V, single phase  |
| Nominal speed             | 2000 rpm LXM32.D30M2 10 A, 115 V, single phase<br>3000 rpm LXM32.D18M2 6 A, 230 V, single phase                              |
| Product compatibility     | LXM32.D30M2 115 V single phase<br>LXM32.D18M2 230 V single phase                                                             |
| Shaft end                 | Keyed                                                                                                                        |
| IP degree of protection   | IP54 standard                                                                                                                |
| Speed feedback resolution | 131072 points/turn                                                                                                           |
| Holding brake             | With                                                                                                                         |
| Mounting support          | International standard flange                                                                                                |
| Electrical connection     | Straight connectors                                                                                                          |

## Complementary

|                           |                                        |
|---------------------------|----------------------------------------|
| Range compatibility       | Lexium 32                              |
| [Us] rated supply voltage | 240 V                                  |
| Phase                     | Three phase                            |
| Continuous stall current  | 5.55 A                                 |
| Continuous power          | 1.68 W                                 |
| Maximum current Irms      | 15 A LXM32.D30M2<br>17.8 A LXM32.D18M2 |
| Maximum permanent current | 17.84 A                                |
| Second shaft              | Without second shaft end               |
| Shaft diameter            | 0.55 in (14 mm)                        |
| Shaft length              | 1.18 in (30 mm)                        |
| Key width                 | 0.79 in (20 mm)                        |
| Feedback type             | Single turn 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    | 3                                      |
| Torque constant           | 0.61 N.m/A 248 °F (120 °C)             |
| Back emf constant         | 39.3 V/krpm 248 °F (120 °C)            |
| Number of motor poles     | 10                                     |

|                                       |                                                                                                          |
|---------------------------------------|----------------------------------------------------------------------------------------------------------|
| Rotor inertia                         | 1.78 kg.cm <sup>2</sup>                                                                                  |
| Stator resistance                     | 1.32 Ohm 68 °F (20 °C)                                                                                   |
| Stator inductance                     | 4.3 mH 68 °F (20 °C)                                                                                     |
| Stator electrical time constant       | 3.3 ms 68 °F (20 °C)                                                                                     |
| Maximum radial force Fr               | 730 N 1000 rpm<br>580 N 2000 rpm<br>510 N 3000 rpm<br>460 N 4000 rpm<br>430 N 5000 rpm<br>400 N 6000 rpm |
| Maximum axial force Fa                | 0.2 x Fr                                                                                                 |
| Brake pull-in power                   | 7 W                                                                                                      |
| Type of cooling                       | Natural convection                                                                                       |
| Length                                | 8.86 in (225 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                            | 8.82 lb(US) (4 kg)                                                                                       |

## Ordering and shipping details

|                       |                          |
|-----------------------|--------------------------|
| Category              | 18282 - LEXIUM 32 MOTORS |
| Discount Schedule     | PC53                     |
| GTIN                  | 03606485200040           |
| Nbr. of units in pkg. | 1                        |
| Package weight(Lbs)   | 7.04 lb(US) (3.19 kg)    |
| Returnability         | No                       |
| Country of origin     | DE                       |

## Packing Units

|                        |                  |
|------------------------|------------------|
| Unit Type of Package 1 | PCE              |
| Package 1 Height       | 4.33 in (11 cm)  |
| Package 1 width        | 7.87 in (20 cm)  |
| Package 1 Length       | 15.75 in (40 cm) |

## Offer Sustainability

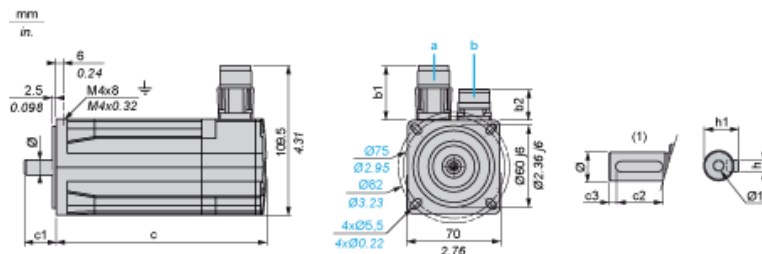
|                            |                                                                                                                                                                                                                                                                                             |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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                                                                                                                                                                                                                                                                                         |
| RoHS exemption information | <a href="#">Yes</a>                                                                                                                                                                                                                                                                         |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</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                                                                                                                                                                                                                                                                                         |

## 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)

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 | 186               | 225            | 30 | 20 | 5  | 5 h9 | 16 <sup>+0</sup> <sub>-0.13</sub> | 14 k6 | M5 x 17       |

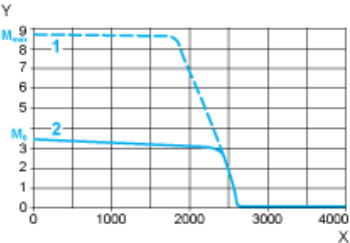
Dimensions in in.

| 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 | 7.32              | 8.85           | 1.18 | 0.78 | 0.19 | 0.20 h9 | 0.63 <sup>+0</sup> <sub>-0.0051</sub> | 0.55 k6 | M5 x 0.67     |

115 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D30M2 servo drive

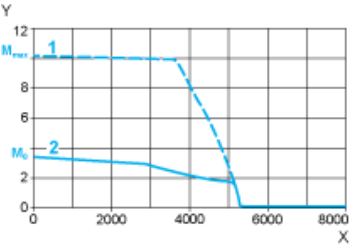


- X Speed in rpm  
Y Torque in Nm  
1 Peak torque  
2 Continuous torque

230 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D18M2 servo drive



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