

# BMH0703T31F2A

servo motor BMH - 3.4 Nm - 8000 rpm - keyed  
shaft - with brake - IP65/IP67



## Main

|                           |                                                                                                               |
|---------------------------|---------------------------------------------------------------------------------------------------------------|
| Product or component type | Servo motor                                                                                                   |
| Device short name         | BMH                                                                                                           |
| Maximum mechanical speed  | 8000 rpm                                                                                                      |
| Continuous stall torque   | 3.4 N.m for LXM32.D30M2 at 10 A, 115 V, single phase<br>3.4 N.m for LXM32.D18M2 at 6 A, 230 V, single phase   |
| Peak stall torque         | 8.7 N.m for LXM32.D30M2 at 10 A, 115 V, single phase<br>10.2 N.m for LXM32.D18M2 at 6 A, 230 V, single phase  |
| Nominal output power      | 650 W for LXM32.D30M2 at 10 A, 115 V, single phase<br>900 W for LXM32.D18M2 at 6 A, 230 V, single phase       |
| Nominal torque            | 3.1 N.m for LXM32.D30M2 at 10 A, 115 V, single phase<br>2.9 N.m for LXM32.D18M2 at 6 A, 230 V, single phase   |
| Nominal speed             | 2000 rpm for LXM32.D30M2 at 10 A, 115 V, single phase<br>3000 rpm for LXM32.D18M2 at 6 A, 230 V, single phase |
| Product compatibility     | LXM32.D30M2 at 115 V single phase<br>LXM32.D18M2 at 230 V single phase                                        |
| Shaft end                 | Keyed                                                                                                         |
| IP degree of protection   | IP65 standard<br>IP67 with IP67 kit                                                                           |
| Speed feedback resolution | 131072 points/turn                                                                                            |
| Holding brake             | With                                                                                                          |
| Mounting support          | International standard flange                                                                                 |
| Electrical connection     | Rotatable right-angled connectors                                                                             |

## Complementary

|                           |             |
|---------------------------|-------------|
| Range compatibility       | Lexium 32   |
| [Us] rated supply voltage | 240 V       |
| Network number of phases  | Three phase |
| Continuous stall current  | 5.55 A      |
| Continuous power          | 1.68 W      |

|                                       |                                                                                                                            |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Maximum current Irms                  | 15 A for LXM32.D30M2<br>17.8 A for LXM32.D18M2                                                                             |
| Maximum permanent current             | 17.84 A                                                                                                                    |
| Second shaft                          | Without second shaft end                                                                                                   |
| Shaft diameter                        | 14 mm                                                                                                                      |
| Shaft length                          | 30 mm                                                                                                                      |
| Key width                             | 20 mm                                                                                                                      |
| Feedback type                         | Single turn SinCos Hiperface                                                                                               |
| Holding torque                        | 3 N.m holding brake                                                                                                        |
| Motor flange size                     | 70 mm                                                                                                                      |
| Number of motor stacks                | 3                                                                                                                          |
| Torque constant                       | 0.61 N.m/A at 120 °C                                                                                                       |
| Back emf constant                     | 39.3 V/krpm at 120 °C                                                                                                      |
| Number of motor poles                 | 10                                                                                                                         |
| Rotor inertia                         | 1.78 kg.cm <sup>2</sup>                                                                                                    |
| Stator resistance                     | 1.32 Ohm at 20 °C                                                                                                          |
| Stator inductance                     | 4.3 mH at 20 °C                                                                                                            |
| Stator electrical time constant       | 3.3 ms at 20 °C                                                                                                            |
| Maximum radial force Fr               | 730 N at 1000 rpm<br>580 N at 2000 rpm<br>510 N at 3000 rpm<br>460 N at 4000 rpm<br>430 N at 5000 rpm<br>400 N at 6000 rpm |
| Maximum axial force Fa                | 0.2 x Fr                                                                                                                   |
| Brake pull-in power                   | 7 W                                                                                                                        |
| Type of cooling                       | Natural convection                                                                                                         |
| Length                                | 225 mm                                                                                                                     |
| Centring collar diameter              | 60 mm                                                                                                                      |
| Centring collar depth                 | 2.5 mm                                                                                                                     |
| Number of mounting holes              | 4                                                                                                                          |
| Mounting holes diameter               | 5.5 mm                                                                                                                     |
| Circle diameter of the mounting holes | 82 mm                                                                                                                      |
| Product weight                        | 4 kg                                                                                                                       |

## Offer Sustainability

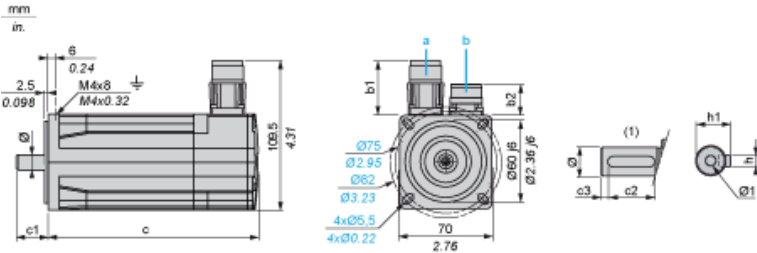
|                            |                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|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

## 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 connect |      | Rotatable angled |      | 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       |

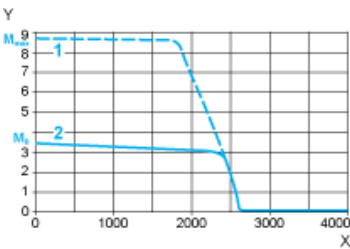
Dimensions in in.

| Straight connect |    | Rotatable angled |      | 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

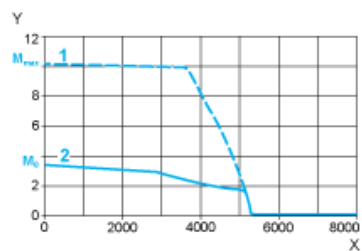
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230 V Single-Phase Supply Voltage

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Torque/Speed Curves

Servo motor with LXM32•D18M2 servo drive



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