# Product datasheet Characteristics

# BMH0703T26F1A

servo motor BMH - 3.4 Nm - 8000 rpm - untapped 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 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 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 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 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                 | Smooth shaft  |   |  |  |  |  |  |
| IP degree of protection   | IP65 standard<br>IP67 with IP67 kit   | : |  |  |  |  |  |
| Speed feedback resolution | 32768 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       |   |
| Network number of phases  | Three phase | - |
| Continuous stall current  | 5.55 A      | F |
| Continuous power          | 1.68 W      |   |
|                           |             | 7 |

| 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  |  |  |  |  |  |  |
| 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.cm²  |  |  |  |  |  |  |
| 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           | REACh Declaration   |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration  |
| Mercury free               | Yes   |
| RoHS exemption information | Yes   |
| China RoHS Regulation      | China RoHS declaration  |
| Environmental Disclosure   | Product Environmental Profile   |
| 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

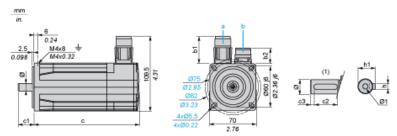
| Warranty 18 months |
|--------------------|
|--------------------|

# Product datasheet Dimensions Drawings

# BMH0703T26F1A

#### Servo Motors Dimensions

### **Example with Straight Connectors**



a: Power supply for servo motor brakeb: Power supply for servo motor encoder

(1) Shaft end, keyed slot (optional)

#### Dimensions in mm

| Straight connecte Rotatable angled |      |      | c (without brake) | c (with brake | с1  | c2 | с3 | 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 | conne | Rotatab | le angled | c (without br | c (with bra | c1   | c2   | с3   | 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> _0.0051 | 0.55 k6 | M5 x 0.67     |

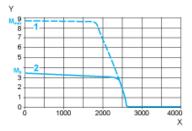
# Product datasheet Performance Curves

# BMH0703T26F1A

## 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
- Continuous torque

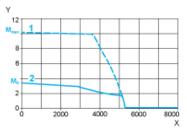
# **Product datasheet** Performance Curves

# BMH0703T26F1A

## 230 V Single-Phase Supply Voltage

## Torque/Speed Curves

Servo motor with LXM32•D18M2 servo drive



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