

# BMH0703T16A1A

servo motor BMH - 3.4 Nm - 8000 rpm - keyed  
shaft - without brake - IP54



## 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 10 A at 115 V single phase<br>3.4 N.m for LXM32.D18M2 6 A at 230 V single phase   |
| Peak stall torque         | 8.7 N.m for LXM32.D30M2 10 A at 115 V single phase<br>10.2 N.m for LXM32.D18M2 6 A at 230 V single phase  |
| Nominal output power      | 650 W for LXM32.D30M2 10 A at 115 V single phase<br>900 W for LXM32.D18M2 6 A at 230 V single phase       |
| Nominal torque            | 3.1 N.m for LXM32.D30M2 10 A at 115 V single phase<br>2.9 N.m for LXM32.D18M2 6 A at 230 V single phase   |
| Nominal speed             | 2000 rpm for LXM32.D30M2 10 A at 115 V single phase<br>3000 rpm for LXM32.D18M2 6 A at 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   | IP54 (standard)                                                                                           |
| Speed feedback resolution | 32768 points/turn                                                                                         |
| Holding brake             | Without                                                                                                   |
| 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                                         |
| 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                   |
| Motor flange size         | 70 mm                                          |
| Number of motor stacks    | 3                                              |
| Torque constant           | 0.61 N.m/A at 120 °C                           |

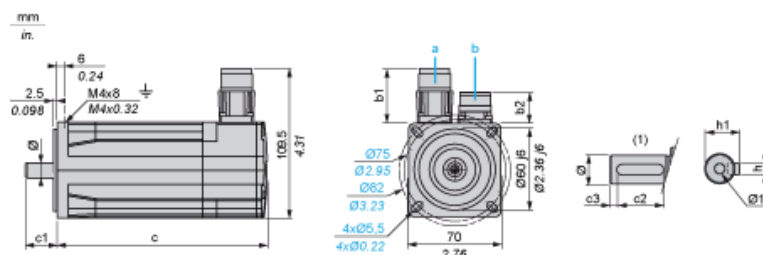
|                                       |                                                                                                                            |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Back emf constant                     | 39.3 V/krpm at 120 °C                                                                                                      |
| Number of motor poles                 | 10                                                                                                                         |
| Rotor inertia                         | 1.67 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                                                                                                                   |
| Type of cooling                       | Natural convection                                                                                                         |
| Length                                | 186 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                        | 3 kg                                                                                                                       |

### Offer Sustainability

|                                  |                                                                                       |
|----------------------------------|---------------------------------------------------------------------------------------|
| Sustainable offer status         | Green Premium product                                                                 |
| RoHS (date code: YYWW)           | Compliant - since 0936 - <a href="#">Schneider Electric declaration of conformity</a> |
| REACH                            | Reference not containing SVHC above the threshold                                     |
| Product environmental profile    | Available <a href="#">Download Product Environmental</a>                              |
| Product end of life instructions | Need no specific recycling operations                                                 |

## 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       |

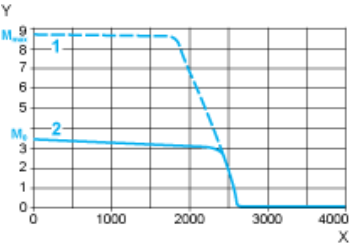
Dimensions in in.

| 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

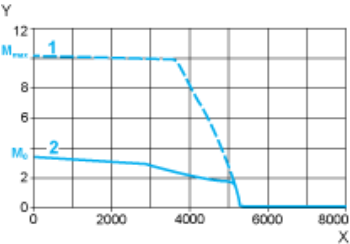


- X Speed in rpm  
Y Torque in Nm  
1 Peak torque  
2 Continuous torque

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