

# Product datasheet

Specifications



servo motor BMH, Lexium 32,  
2.5Nm, 8000rpm, untapped shaft,  
with brake, IP54, 128 multiturn  
encoder

BMH0702T02F2A

## Main

|                           |                                                                                                               |
|---------------------------|---------------------------------------------------------------------------------------------------------------|
| Product or component type | Servo motor                                                                                                   |
| Device short name         | BMH                                                                                                           |
| Maximum mechanical speed  | 8000 rpm                                                                                                      |
| Continuous stall torque   | 2.5 N.m for LXM32.D30M2 at 10 A, 115 V, single phase<br>2.5 N.m for LXM32.D18M2 at 6 A, 230 V, single phase   |
| Peak stall torque         | 6.4 N.m for LXM32.D30M2 at 10 A, 115 V, single phase<br>7.4 N.m for LXM32.D18M2 at 6 A, 230 V, single phase   |
| Nominal output power      | 600 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            | 2.3 N.m for LXM32.D30M2 at 10 A, 115 V, single phase<br>2.1 N.m for LXM32.D18M2 at 6 A, 230 V, single phase   |
| Nominal speed             | 2500 rpm for LXM32.D30M2 at 10 A, 115 V, single phase<br>4000 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   | IP54 standard                                                                                                 |
| Speed feedback resolution | 131072 points/turn x 4096 turns                                                                               |
| 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  | 5.38 A                                         |
| Continuous power          | 1.51 W                                         |
| Maximum current Irms      | 15 A for LXM32.D30M2<br>17.5 A for LXM32.D18M2 |
| Maximum permanent current | 17.71 A                                        |
| Second shaft              | Without second shaft end                       |
| Shaft diameter            | 11 mm                                          |

|                                       |                                                                                                                            |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Shaft length                          | 23 mm                                                                                                                      |
| Feedback type                         | Multiturn SinCos Hiperface                                                                                                 |
| Holding torque                        | 3 N.m holding brake                                                                                                        |
| Motor flange size                     | 70 mm                                                                                                                      |
| Number of motor stacks                | 2                                                                                                                          |
| Torque constant                       | 0.46 N.m/A at 120 °C                                                                                                       |
| Back emf constant                     | 29.6 V/krpm at 120 °C                                                                                                      |
| Number of motor poles                 | 10                                                                                                                         |
| Rotor inertia                         | 1.24 kg.cm²                                                                                                                |
| Stator resistance                     | 1.15 Ohm at 20 °C                                                                                                          |
| Stator inductance                     | 3.6 mH at 20 °C                                                                                                            |
| Stator electrical time constant       | 3.1 ms at 20 °C                                                                                                            |
| Maximum radial force Fr               | 710 N at 1000 rpm<br>560 N at 2000 rpm<br>490 N at 3000 rpm<br>450 N at 4000 rpm<br>410 N at 5000 rpm<br>390 N at 6000 rpm |
| Maximum axial force Fa                | 0.2 x Fr                                                                                                                   |
| Brake pull-in power                   | 7 W                                                                                                                        |
| Type of cooling                       | Natural convection                                                                                                         |
| Length                                | 193 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                        | 3.3 kg                                                                                                                     |

Packing Units

|                              |        |
|------------------------------|--------|
| Unit Type of Package 1       | PCE    |
| Number of Units in Package 1 | 1      |
| Package 1 Height             | 11 cm  |
| Package 1 Width              | 20 cm  |
| Package 1 Length             | 40 cm  |
| Package 1 Weight             | 2.8 kg |

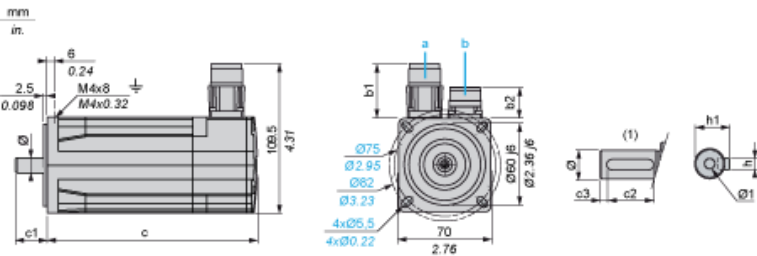
Offer Sustainability

|                            |                                                                                                   |
|----------------------------|---------------------------------------------------------------------------------------------------|
| 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                                                                                               |
| 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 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 | 154               | 193            | 23 | 18 | 2.5 | 4 h9 | 12.5 <sup>+0</sup> <sub>-0.13</sub> | 11 k6 | M4 x 14       |

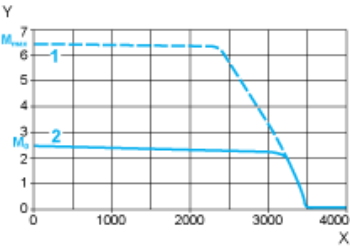
Dimensions in in.

| 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 | 6.06              | 7.59           | 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     |

115 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D30M2 servo drive

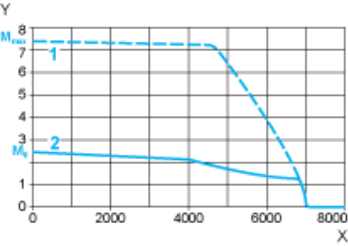


- XSpeed in rpm
- YTorque in Nm
- 1Peak torque
- 2Continuous torque

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

Recommended replacement(s)