# **Product datasheet**

Specifications





servo motor BMH, Lexium 32, 2.5Nm, 8000rpm, keyed shaft, without brake, IP65, IP67, 16bit encoder, straight, 3 phases

BMH0702P36A1A

## Main

| Device short name         | ВМН  |  |  |  |  |  |  |  |
|---------------------------|--|--|--|--|--|--|--|--|
| Product or component type | Servo motor  |  |  |  |  |  |  |  |
| Maximum mechanical speed  | 8000 rpm   |  |  |  |  |  |  |  |
| Continuous stall torque   | 2.5 N.m for LXM32.D12N4 at 3 A, 400 V, three phase<br>2.5 N.m for LXM32.D12N4 at 3 A, 480 V, three phase   |  |  |  |  |  |  |  |
| Peak stall torque         | 7.4 N.m for LXM32.D12N4 at 3 A, 400 V, three phase<br>7.4 N.m for LXM32.D12N4 at 3 A, 480 V, three phase   |  |  |  |  |  |  |  |
| Nominal output power      | 700 W for LXM32.D12N4 at 3 A, 400 V, three phase<br>700 W for LXM32.D12N4 at 3 A, 480 V, three phase       |  |  |  |  |  |  |  |
| Nominal torque            | 2.2 N.m for LXM32.D12N4 at 3 A, 400 V, three phase<br>2.2 N.m for LXM32.D12N4 at 3 A, 480 V, three phase   |  |  |  |  |  |  |  |
| Nominal speed             | 3000 rpm for LXM32.D12N4 at 3 A, 400 V, three phase<br>3000 rpm for LXM32.D12N4 at 3 A, 480 V, three phase |  |  |  |  |  |  |  |
| Product compatibility     | LXM32.D12N4 at 400480 V three phase  |  |  |  |  |  |  |  |
| Shaft end                 | Keyed  |  |  |  |  |  |  |  |
| IP degree of protection   | IP65 standard<br>IP67 with IP67 kit  |  |  |  |  |  |  |  |
| 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 | 480 V                    |
| Network number of phases  | Three phase              |
| Continuous stall current  | 2.94 A                   |
| Continuous power          | 1.51 W                   |
| Maximum current Irms      | 9.7 A for LXM32.D12N4    |
| Maximum permanent current | 9.68 A                   |
| Second shaft              | Without second shaft end |
| Shaft diameter            | 11 mm                    |
| Shaft length              | 23 mm                    |
| Key width                 | 18 mm                    |

| Feedback type                         | Single turn SinCos Hiperface   |
|---------------------------------------|--|
| Motor flange size                     | 70 mm  |
| Number of motor stacks                | 2  |
| Torque constant                       | 0.84 N.m/A at 120 °C   |
| Back emf constant                     | 54.08 V/krpm at 120 °C   |
| Number of motor poles                 | 10   |
| Rotor inertia                         | 1.13 kg.cm <sup>2</sup>  |
| Stator resistance                     | 3.8 Ohm at 20 °C   |
| Stator inductance                     | 12.2 mH at 20 °C   |
| Stator electrical time constant       | 3.2 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   |
| Type of cooling                       | Natural convection   |
| Length                                | 154 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  |
| Net weight                            | 2.3 kg   |
|                                       |  |

# **Packing Units**

| Unit Type of Package 1       | PCE     |
|------------------------------|---------|
| Number of Units in Package 1 | 1       |
| Package 1 Height             | 11.0 cm |
| Package 1 Width              | 20.0 cm |
| Package 1 Length             | 40.0 cm |
| Package 1 Weight             | 2.0 kg  |

# **Contractual warranty**

Warranty

18 months

# Sustainability Screen Premium

**Green Premium<sup>TM</sup> label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >



Transparency RoHS/REACh

### Well-being performance

Mercury Free
Rohs Exemption Information Yes
Pvc Free

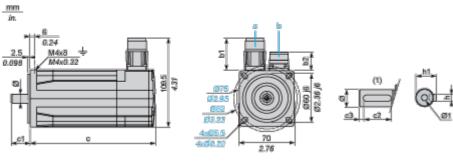
### **Certifications & Standards**

| Reach Regulation         | REACh Declaration   |  |  |  |  |  |  |
|--------------------------|---|--|--|--|--|--|--|
| Eu Rohs Directive        | Pro-active compliance (Product out of EU RoHS legal scope)  |  |  |  |  |  |  |
| China Rohs Regulation    | China RoHS declaration  |  |  |  |  |  |  |
| Environmental Disclosure | Product Environmental Profile   |  |  |  |  |  |  |
| Weee                     | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |  |  |  |  |  |  |
| Circularity Profile      | No need of specific recycling operations  |  |  |  |  |  |  |

### **Dimensions Drawings**

#### 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 Rotatable ang connectors connectors |      | •    | c (without | c (with | c1     | c2 | c3 | h   | h1   | ø                            | Ø1 for |         |
|--|------|------|------------|---------|--------|----|----|-----|------|------------------------------|--------|---------|
| b1   | b2   | b1   | b2         | brake)  | brake) |    |    |     |      |                              |        | screws  |
| 39.5   | 25.5 | 39.5 | 39.5       | 154     | 193    | 23 | 18 | 2.5 | 4 h9 | 12.5 <sup>+0</sup> _<br>0.13 | 11 k6  | M4 x 14 |

#### Dimensions in in.

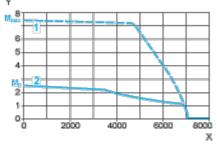
| Straigh<br>conneo | angled |      | c<br>(without<br>brake) | c (with<br>brake) | c1   | c2   | c3   | h    | h1      | Ø                              | Ø1 for<br>screws |           |
|-------------------|--------|------|-------------------------|-------------------|------|------|------|------|---------|--------------------------------|------------------|-----------|
| b1                | b2     | b1   | b2                      | Diake)            |      |      |      |      |         |                                |                  |           |
| 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> _<br>0.0051 | 0.43 k6          | M4 x 0.55 |

#### Performance Curves

### 400 V 3-Phase Supply Voltage

#### **Torque/Speed Curves**

Servo motor with LXM32•D12N4 servo drive  $\Psi$ 

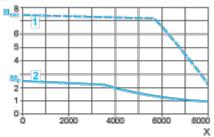


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

#### 480 V 3-Phase Supply Voltage

#### **Torque/Speed Curves**

Servo motor with LXM32•D12N4 servo drive



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