# **Product datasheet**





servo motor BMH, Lexium 32, 24Nm, 4000rpm, untapped shaft, with brake, IP54, 128 multiturn encoder, straight, 3 phases

BMH1403P02F1A



! Discontinued on: 30 Jun 2023

## Main

| Device short name         | ВМН  |  |
|---------------------------|--|--|
| Product or component type | Servo motor  |  |
| Maximum mechanical speed  | 4000 rpm   |  |
| Continuous stall torque   | 24 N.m for LXM32.D72N4 at 24 A, 400 V, three phase 24 N.m for LXM32.D72N4 at 24 A, 480 V, three phase          |  |
| Peak stall torque         | 71.8 N.m for LXM32.D72N4 at 24 A, 400 V, three phase 71.8 N.m for LXM32.D72N4 at 24 A, 480 V, three phase      |  |
| Nominal output power      | 4700 W for LXM32.D72N4 at 24 A, 400 V, three phase 4700 W for LXM32.D72N4 at 24 A, 480 V, three phase          |  |
| Nominal torque            | 13.92 N.m for LXM32.D72N4 at 24 A, 400 V, three phase<br>13.92 N.m for LXM32.D72N4 at 24 A, 480 V, three phase |  |
| Nominal speed             | 3000 rpm for LXM32.D72N4 at 24 A, 400 V, three phase 3000 rpm for LXM32.D72N4 at 24 A, 480 V, three phase      |  |
| Product compatibility     | LXM32.D72N4 at 400480 V three 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     | Straight connectors  |  |

### Complementary

| Range compatibility       | Lexium 32                |
|---------------------------|--------------------------|
| [Us] rated supply voltage | 480 V                    |
| Network number of phases  | Three phase              |
| Continuous stall current  | 18 A                     |
| Continuous power          | 4.8 W                    |
| Maximum current Irms      | 62.3 A for LXM32.D72N4   |
| Maximum permanent current | 62.3 A                   |
| Second shaft              | Without second shaft end |
| Shaft diameter            | 24 mm                    |
| Shaft length              | 50 mm                    |

| Feedback type                         | Multiturn SinCos Hiperface                                     |  |
|---------------------------------------|--|--|
| Holding torque                        | 23 N.m holding brake   |  |
| Motor flange size                     | 140 mm   |  |
| Number of motor stacks                | 3  |  |
| Torque constant                       | 1.34 N.m/A at 120 °C   |  |
| Back emf constant                     | 85.9 V/krpm at 120 °C  |  |
| Number of motor poles                 | 10   |  |
| Rotor inertia                         | 50.27 kg.cm²   |  |
| Stator resistance                     | 0.22 Ohm at 20 °C  |  |
| Stator inductance                     | 3 mH at 20 °C  |  |
| Stator electrical time constant       | 13.6 ms at 20 °C   |  |
| Maximum radial force Fr               | 2420 N at 1000 rpm<br>1920 N at 2000 rpm<br>1680 N at 3000 rpm |  |
| Maximum axial force Fa                | 0.2 x Fr   |  |
| Brake pull-in power                   | 19 W   |  |
| Type of cooling                       | Natural convection   |  |
| Length                                | 267 mm   |  |
| Centring collar diameter              | 130 mm   |  |
| Centring collar depth                 | 3.5 mm   |  |
| Number of mounting holes              | 4  |  |
| Mounting holes diameter               | 11 mm  |  |
| Circle diameter of the mounting holes | 165 mm   |  |
| Net weight                            | 18.5 kg  |  |

## **Packing Units**

| Unit Type of Package 1       | PCE      |
|------------------------------|----------|
| Number of Units in Package 1 | 1        |
| Package 1 Height             | 26.0 cm  |
| Package 1 Width              | 20.0 cm  |
| Package 1 Length             | 60.0 cm  |
| Package 1 Weight             | 18.83 kg |

## **Contractual warranty**

Warranty 18 months



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Transparency RoHS/REACh

#### Well-being performance

|          | Mercury Free               |     |
|----------|----------------------------|-----|
| <b>⊘</b> | Rohs Exemption Information | Yes |
| <b>②</b> | Pvc Free                   |     |

#### **Certifications & Standards**

| Eu Rohs Directive               | Pro-active compliance (Product out of EU RoHS legal scope)  |
|---------------------------------|---|
| China Rohs Regulation           | China RoHS declaration  |
| <b>Environmental Disclosure</b> | 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  |