

BMH0703P31A1A

servo motor BMH - 3.4 Nm - 8000 rpm - keyed shaft - without brake - IP65/IP67



Main

| | |
|---------------------------|--|
| Product or component type | Servo motor |
| Device short name | BMH |
| Maximum mechanical speed | 8000 rpm |
| Continuous stall torque | 30.09 Lbf.in (3.4 N.m) LXM32.D18N4 6 A, 400 V, three phase 30.09 lbf.in (3.4 N.m) LXM32.D18N4 6 A, 480 V, three phase |
| Peak stall torque | 90.28 Lbf.in (10.2 N.m) LXM32.D18N4 6 A, 400 V, three phase 90.28 lbf.in (10.2 N.m) LXM32.D18N4 6 A, 480 V, three phase |
| Nominal output power | 1300 W LXM32.D18N4 6 A, 400 V, three phase 1300 W LXM32.D18N4 6 A, 480 V, three phase |
| Nominal torque | 21.24 Lbf.in (2.4 N.m) LXM32.D18N4 6 A, 400 V, three phase 21.24 lbf.in (2.4 N.m) LXM32.D18N4 6 A, 480 V, three phase |
| Nominal speed | 5000 rpm LXM32.D18N4 6 A, 400 V, three phase 5000 rpm LXM32.D18N4 6 A, 480 V, three phase |
| Product compatibility | LXM32.D18N4 400...480 V three phase |
| Shaft end | Keyed |
| IP degree of protection | IP65 standard IP67 with IP67 kit |
| Speed feedback resolution | 131072 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 |
| Phase | Three phase |
| Continuous stall current | 3.91 A |
| Continuous power | 1.68 W |
| Maximum current Irms | 12.6 A LXM32.D18N4 |
| Maximum permanent current | 12.57 A |
| Second shaft | Without second shaft end |
| Shaft diameter | 0.55 in (14 mm) |
| Shaft length | 1.18 in (30 mm) |
| Key width | 0.79 in (20 mm) |
| Feedback type | Single turn SinCos Hiperface |
| Motor flange size | 2.76 in (70 mm) |
| Number of motor stacks | 3 |
| Torque constant | 0.87 N.m/A 248 °F (120 °C) |
| Back emf constant | 55.8 V/krpm 248 °F (120 °C) |
| Number of motor poles | 10 |
| Rotor inertia | 1.67 kg.cm ² |
| Stator resistance | 2.65 Ohm 68 °F (20 °C) |

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|---------------------------------------|--|
| Stator inductance | 8.6 mH 68 °F (20 °C) |
| Stator electrical time constant | 3.2 ms 68 °F (20 °C) |
| Maximum radial force Fr | 730 N 1000 rpm 580 N 2000 rpm 510 N 3000 rpm 460 N 4000 rpm 430 N 5000 rpm 400 N 6000 rpm |
| Maximum axial force Fa | 0.2 x Fr |
| Type of cooling | Natural convection |
| Length | 7.32 in (186 mm) |
| Centring collar diameter | 2.36 in (60 mm) |
| Centring collar depth | 0.10 in (2.5 mm) |
| Number of mounting holes | 4 |
| Mounting holes diameter | 0.22 in (5.5 mm) |
| Circle diameter of the mounting holes | 3.23 in (82 mm) |
| Net weight | 6.61 lb(US) (3 kg) |

Ordering and shipping details

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|-----------------------|--------------------------|
| Category | 18282 - LEXIUM 32 MOTORS |
| Discount Schedule | PC53 |
| GTIN | 03606485199061 |
| Nbr. of units in pkg. | 1 |
| Package weight(Lbs) | 4.3 lb(US) (1.95 kg) |
| Returnability | No |
| Country of origin | DE |

Packing Units

| | |
|------------------------|------------------|
| Unit Type of Package 1 | PCE |
| Package 1 Height | 4.33 in (11 cm) |
| Package 1 width | 7.87 in (20 cm) |
| Package 1 Length | 15.75 in (40 cm) |

Offer Sustainability

| | |
|----------------------------|---|
| Sustainable offer status | Green Premium product |
| California proposition 65 | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov |
| 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 |
| WEEE | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins. |
| PVC free | Yes |

Contractual warranty

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| Warranty | 18 months |
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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 ⁺⁰ _{-0.13} | 14 k6 | M5 x 17 |

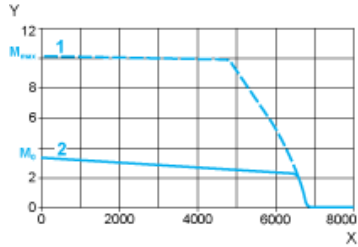
Dimensions in in.

| 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 ⁺⁰ _{-0.0051} | 0.55 k6 | M5 x 0.67 |

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32-D18N4 servo drive

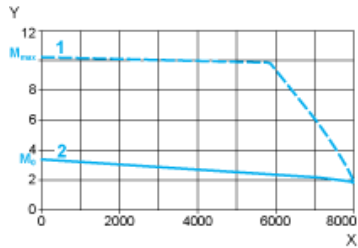


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32-D18N4 servo drive



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