

Product datasheet

Specifications



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

BMH0702P27A1A

! Discontinued

! Discontinued on: May 4, 2023

Main

| | |
|---------------------------|--|
| Device short name | BMH |
| 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 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 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 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 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 3000 rpm for LXM32.D12N4 at 3 A, 480 V, three phase |
| Product compatibility | LXM32.D12N4 at 400...480 V three phase |
| Shaft end | Smooth shaft |
| IP degree of protection | IP65 standard IP67 with IP67 kit |
| Speed feedback resolution | 32768 points/turn x 4096 turns |
| 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 |

| | |
|---------------------------------------|--|
| Feedback type | Multiturn 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 ² |
| 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 560 N at 2000 rpm 490 N at 3000 rpm 450 N at 4000 rpm 410 N at 5000 rpm 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 |
| Product weight | 2.3 kg |
| Sizing reference | BMH0702P |
| Network number of phases | 3 |
| Accuracy error [angular] | 4.8 ° |
| Temperature copper hot | 135 °C |
| Temperature magnet hot | 100 °C |
| Temperature magnet rt | 20 °C |

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 |
| Unit Type of Package 2 | P06 |
| Number of Units in Package 2 | 36 |
| Package 2 Height | 105.0 cm |
| Package 2 Width | 80.0 cm |

| | |
|------------------|---------|
| Package 2 Length | 60.0 cm |
|------------------|---------|

| | |
|------------------|-------|
| Package 2 Weight | 79 kg |
|------------------|-------|

Contractual warranty

| | |
|----------------------|----|
| Warranty (in months) | 18 |
|----------------------|----|



Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

Use Better



Materials and Substances

EU RoHS Directive

[Compliant By Exemption](#)

PVC free

Yes

Use Longer



Lifetime extension

Repair

No

Use Again



Repack and remanufacture

End of life manual availability

No need of specific recycling operations

WEEE Label

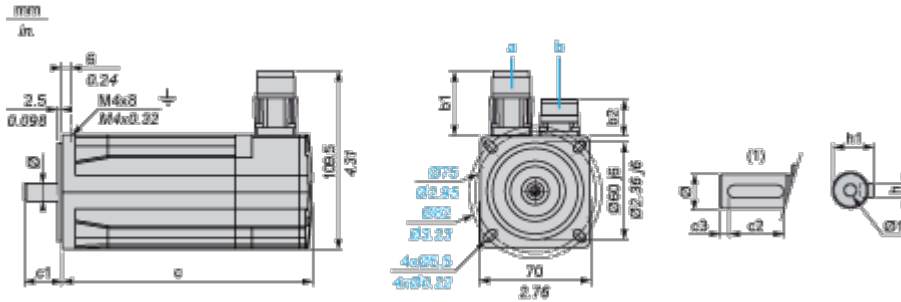


The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

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 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 | 154 | 193 | 23 | 18 | 2.5 | 4 h9 | 12.5 ⁺⁰ _{-0.13} | 11 k6 | M4 x 14 |

Dimensions in in.

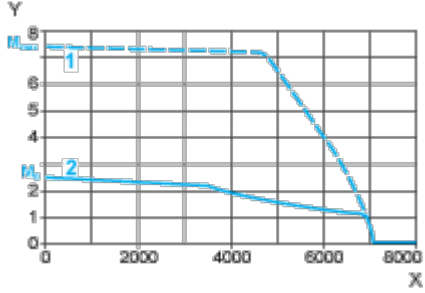
| Straight connectors | | Rotatable angled connectors | | c (without brake) | c (with brake) | c1 | c2 | c3 | h | h1 | Ø | Ø1 for screws |
|---------------------|----|-----------------------------|------|-------------------|----------------|------|------|------|---------|---------------------------------------|---------|---------------|
| b1 | b2 | b1 | b2 | | | | | | | | | |
| 1.55 | 1 | 1.55 | 1.55 | 6.06 | 7.59 | 0.90 | 0.70 | 0.09 | 0.16 h9 | 0.49 ⁺⁰ _{-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



X Speed in rpm

Y Torque in Nm

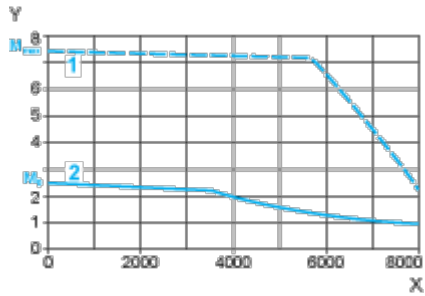
1 Peak torque

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