Product datasheet

Specification





servo motor BMH, Lexium 32, 2.5Nm, 8000rpm, untapped shaft, with brake, IP65, IP67, 128bit encoder, 3 phases

BMH0702P21F2A

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 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 400480 V three phase |
| Shaft end | Smooth shaft |
| IP degree of protection | IP65 standard IP67 with IP67 kit |
| Speed feedback resolution | 131072 points/turn |
| Holding brake | With |
| mounting support | International standard flange |
| Electrical connection | Rotatable right-angled 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 | Single turn SinCos Hiperface |

| Holding torque | 3 N.m holding brake | | | | | | |
|---------------------------------------|--|--|--|--|--|--|--|
| 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 | 1.24 kg.cm² | | | | | | |
| 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 | | | | | | |
| 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 | | | | | | |
| Net weight | 3.3 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



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Transparency RoHS/REACh

Well-being performance

| | Mercury Free | |
|----------|----------------------------|-----|
| ⊘ | Rohs Exemption Information | Yes |
| | Pvc Free | |

Certifications & Standards

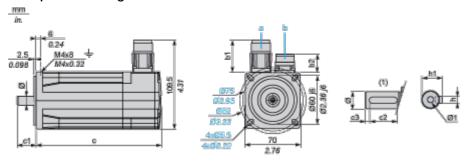
| Weee | The product must be disposed on European Union markets following specific waste |
|--------------------------|---|
| Environmental Disclosure | Product Environmental Profile |
| China Rohs Regulation | China RoHS declaration |
| Eu Rohs Directive | Pro-active compliance (Product out of EU RoHS legal scope) |
| Reach Regulation | REACh Declaration |

BMH0702P21F2A

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

| | | Rotatabl | e angled ors | c (without | c (with | c1 | c2 | сЗ | 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 ⁺⁰ _ 0.13 | 11 k6 | M4 x 14 |

Dimensions in in.

| Straigh | | Rotata angled connec | | c (without | c (with brake) | c1 | c2 | с3 | h | h1 | Ø | Ø1 for screws |
|---------|----|----------------------------|------|---------------|-------------------|------|------|------|---------|--------------------------------|---------|------------------|
| b1 | b2 | b1 | b2 | brake) | | | | | | | | |
| 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 |

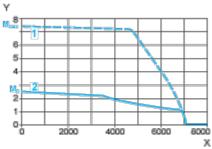
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Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D12N4 servo drive

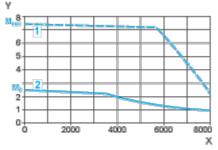


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

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