

# BMH1402P12A1A

servo motor BMH - 18.5 Nm - 4000 rpm - keyed  
shaft - without brake - IP54



## Main

|                           |                                                                                                              |
|---------------------------|--------------------------------------------------------------------------------------------------------------|
| Product or component type | Servo motor                                                                                                  |
| Device short name         | BMH                                                                                                          |
| Maximum mechanical speed  | 4000 rpm                                                                                                     |
| Continuous stall torque   | 18.5 N.m for LXM32.D72N4 at 24 A, 400 V, three phase<br>18.5 N.m for LXM32.D72N4 at 24 A, 480 V, three phase |
| Peak stall torque         | 50.3 N.m for LXM32.D72N4 at 24 A, 400 V, three phase<br>50.3 N.m for LXM32.D72N4 at 24 A, 480 V, three phase |
| Nominal output power      | 3500 W for LXM32.D72N4 at 24 A, 400 V, three phase<br>3500 W for LXM32.D72N4 at 24 A, 480 V, three phase     |
| Nominal torque            | 12.2 N.m for LXM32.D72N4 at 24 A, 400 V, three phase<br>12.2 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<br>3000 rpm for LXM32.D72N4 at 24 A, 480 V, three phase |
| Product compatibility     | LXM32.D72N4 at 400...480 V three phase                                                                       |
| Shaft end                 | Keyed                                                                                                        |
| IP degree of protection   | IP54 standard                                                                                                |
| Speed feedback resolution | 131072 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  | 16.83 A                |
| Continuous power          | 4.44 W                 |
| Maximum current Irms      | 57.4 A for LXM32.D72N4 |
| Maximum permanent current | 57.4 A                 |

|                                       |                                                                |
|---------------------------------------|----------------------------------------------------------------|
| Second shaft                          | Without second shaft end                                       |
| Shaft diameter                        | 24 mm                                                          |
| Shaft length                          | 50 mm                                                          |
| Key width                             | 40 mm                                                          |
| Feedback type                         | Multiturn SinCos Hiperface                                     |
| Motor flange size                     | 140 mm                                                         |
| Number of motor stacks                | 2                                                              |
| Torque constant                       | 1.1 N.m/A at 120 °C                                            |
| Back emf constant                     | 70.7 V/krpm at 120 °C                                          |
| Number of motor poles                 | 10                                                             |
| Rotor inertia                         | 32 kg.cm <sup>2</sup>                                          |
| Stator resistance                     | 0.23 Ohm at 20 °C                                              |
| Stator inductance                     | 3 mH at 20 °C                                                  |
| Stator electrical time constant       | 13 ms at 20 °C                                                 |
| Maximum radial force Fr               | 2240 N at 1000 rpm<br>1780 N at 2000 rpm<br>1550 N at 3000 rpm |
| Maximum axial force Fa                | 0.2 x Fr                                                       |
| Type of cooling                       | Natural convection                                             |
| Length                                | 192 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                                                         |
| Product weight                        | 12 kg                                                          |

## Offer Sustainability

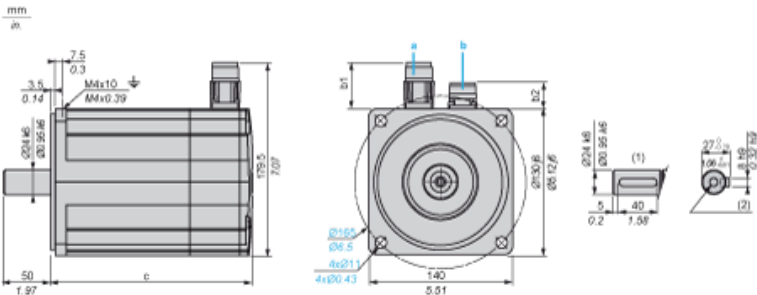
|                            |                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                       |
| REACH Regulation           | <a href="#">REACH Declaration</a>                                                                                           |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)<br><a href="#">EU RoHS Declaration</a>                           |
| Mercury free               | Yes                                                                                                                         |
| RoHS exemption information | <a href="#">Yes</a>                                                                                                         |
| China RoHS Regulation      | <a href="#">China RoHS declaration</a>                                                                                      |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>                                                                               |
| Circularity Profile        | No need of specific recycling operations                                                                                    |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

## Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

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)  
(2) For screw M8 x 25 mm/M8 x 0.98 in.

Dimensions in mm

| Straight connectors |      | Rotatable angled connectors |      | c (without brake) | c (with brake) |
|---------------------|------|-----------------------------|------|-------------------|----------------|
| b                   | b1   | b                           | b1   |                   |                |
| 39.5                | 25.5 | 39.5                        | 39.5 | 192               | 227            |

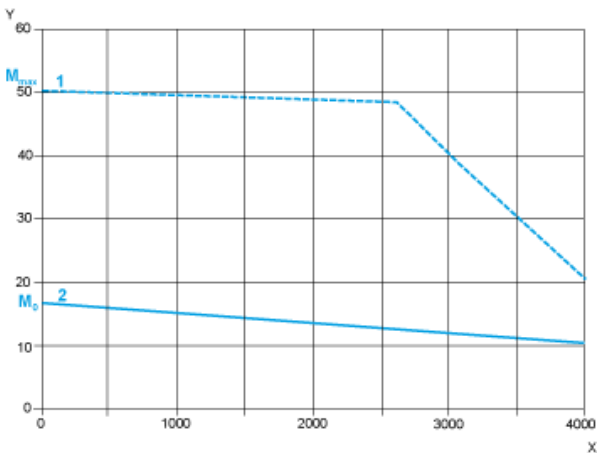
Dimensions in in.

| Straight connectors |      | Rotatable angled connectors |      | c (without brake) | c (with brake) |
|---------------------|------|-----------------------------|------|-------------------|----------------|
| b                   | b1   | b                           | b1   |                   |                |
| 1.55                | 1.00 | 1.55                        | 1.55 | 7.55              | 8.93           |

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D72N4 servo drive

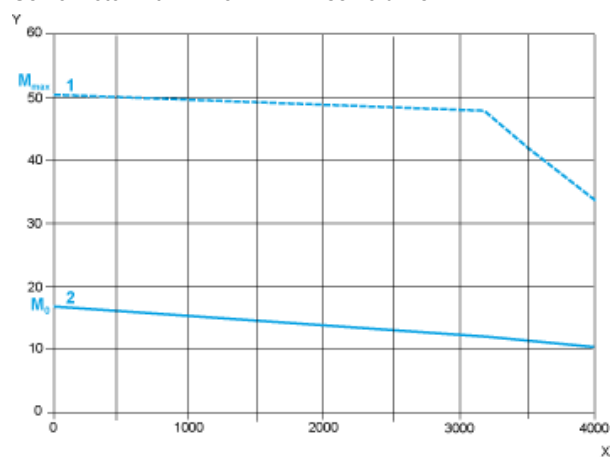


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D72N4 servo drive



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