

# BMH1403P12A2A

servo motor BMH - 24 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   | 24 N.m for LXM32.D72N4 24 A at 400 V three phase<br>24 N.m for LXM32.D72N4 24 A at 480 V three phase     |
| Peak stall torque         | 71.8 N.m for LXM32.D72N4 24 A at 400 V three phase<br>71.8 N.m for LXM32.D72N4 24 A at 480 V three phase |
| Nominal output power      | 4700 W for LXM32.D72N4 24 A at 400 V three phase<br>4700 W for LXM32.D72N4 24 A at 480 V three phase     |
| Nominal torque            | 14.3 N.m for LXM32.D72N4 24 A at 400 V three phase<br>14.3 N.m for LXM32.D72N4 24 A at 480 V three phase |
| Nominal speed             | 3000 rpm for LXM32.D72N4 24 A at 400 V three phase<br>3000 rpm for LXM32.D72N4 24 A at 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     | Rotatable right-angled 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                      |
| Key width                 | 40 mm                      |
| Feedback type             | Multiturn SinCos Hiperface |
| 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                         | 47.5 kg.cm <sup>2</sup>                                        |
| 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                                                       |
| Type of cooling                       | Natural convection                                             |
| Length                                | 232 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                        | 16 kg                                                          |

### Offer Sustainability

|                                  |                                                                                       |
|----------------------------------|---------------------------------------------------------------------------------------|
| Sustainable offer status         | Green Premium product                                                                 |
| RoHS (date code: YYWW)           | Compliant - since 0936 - <a href="#">Schneider Electric declaration of conformity</a> |
| REACH                            | Reference not containing SVHC above the threshold                                     |
| Product environmental profile    | Available <a href="#">Download Product Environmental</a>                              |
| Product end of life instructions | Need no specific recycling operations                                                 |

## 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 | 232               | 267            |

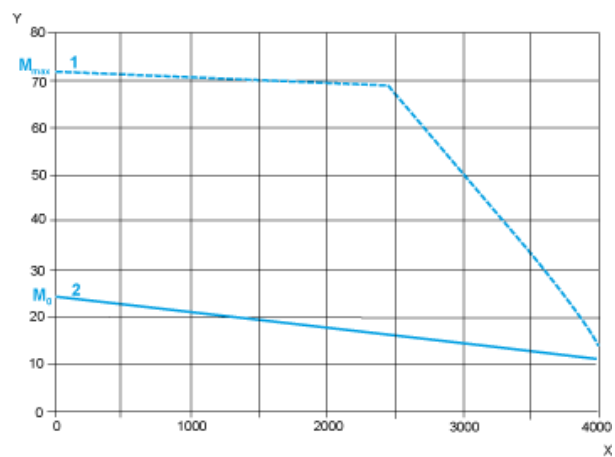
Dimensions in in.

| Straight connectors |      | Rotatable angled connectors |      | c (without brake) | c (with brake) |
|---------------------|------|-----------------------------|------|-------------------|----------------|
| b                   | b1   | b                           | b1   |                   |                |
| 1.55                | 1.00 | 1.55                        | 1.55 | 9.13              | 10.51          |

## 400 V 3-Phase Supply Voltage

### Torque/Speed Curves

Servo motor with LXM32•D72N4 servo drive

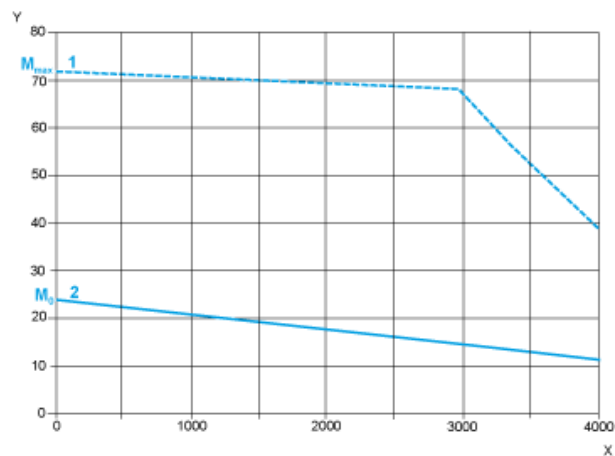


- X Speed in rpm  
Y Torque in Nm  
1 Peak torque  
2 Continuous torque

## 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