

# BMH1001P37A2A

servo motor BMH - 3.3 Nm - 6000 rpm - keyed  
shaft - without brake - IP65/IP67



## Main

|                           |                                                                                                                                                                                                                  |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product or component type | Servo motor                                                                                                                                                                                                      |
| Device short name         | BMH                                                                                                                                                                                                              |
| Maximum mechanical speed  | 6000 rpm                                                                                                                                                                                                         |
| Continuous stall torque   | 3.3 N.m for LXM32.D12N4 3 A at 400 V three phase<br>3.3 N.m for LXM32.D12N4 3 A at 480 V three phase<br>3.4 N.m for LXM32.D18N4 6 A at 400 V three phase<br>3.4 N.m for LXM32.D18N4 6 A at 480 V three phase     |
| Peak stall torque         | 10.8 N.m for LXM32.D12N4 3 A at 400 V three phase<br>10.8 N.m for LXM32.D12N4 3 A at 480 V three phase<br>10.8 N.m for LXM32.D18N4 6 A at 400 V three phase<br>10.8 N.m for LXM32.D18N4 6 A at 480 V three phase |
| Nominal output power      | 800 W for LXM32.D12N4 3 A at 400 V three phase<br>800 W for LXM32.D12N4 3 A at 480 V three phase<br>1300 W for LXM32.D18N4 6 A at 400 V three phase<br>1300 W for LXM32.D18N4 6 A at 480 V three phase           |
| Nominal torque            | 1.9 N.m for LXM32.D12N4 3 A at 400 V three phase<br>1.9 N.m for LXM32.D12N4 3 A at 480 V three phase<br>3.1 N.m for LXM32.D18N4 6 A at 400 V three phase<br>3.1 N.m for LXM32.D18N4 6 A at 480 V three phase     |
| Nominal speed             | 4000 rpm for LXM32.D12N4 3 A at 400 V three phase<br>4000 rpm for LXM32.D12N4 3 A at 480 V three phase<br>4000 rpm for LXM32.D18N4 6 A at 400 V three phase<br>4000 rpm for LXM32.D18N4 6 A at 480 V three phase |
| Product compatibility     | LXM32.D12N4 at 400...480 V three phase<br>LXM32.D18N4 at 400...480 V three phase                                                                                                                                 |
| Shaft end                 | Keyed                                                                                                                                                                                                            |
| IP degree of protection   | IP65 (standard)<br>IP67 (with IP67 kit)                                                                                                                                                                          |
| Speed feedback resolution | 32768 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  | 3.15 A                                           |
| Continuous power          | 1.76 W                                           |
| Maximum current Irms      | 11.9 A for LXM32.D12N4<br>11.9 A for LXM32.D18N4 |
| Maximum permanent current | 11.93 A                                          |
| Second shaft              | Without second shaft end                         |

|                                       |                                                                                                       |
|---------------------------------------|-------------------------------------------------------------------------------------------------------|
| Shaft diameter                        | 19 mm                                                                                                 |
| Shaft length                          | 40 mm                                                                                                 |
| Key width                             | 30 mm                                                                                                 |
| Feedback type                         | Multiturn SinCos Hiperface                                                                            |
| Motor flange size                     | 100 mm                                                                                                |
| Number of motor stacks                | 1                                                                                                     |
| Torque constant                       | 1.1 N.m/A at 120 °C                                                                                   |
| Back emf constant                     | 70.3 V/krpm at 120 °C                                                                                 |
| Number of motor poles                 | 10                                                                                                    |
| Rotor inertia                         | 3.19 kg.cm <sup>2</sup>                                                                               |
| Stator resistance                     | 3.1 Ohm at 20 °C                                                                                      |
| Stator inductance                     | 13.9 mH at 20 °C                                                                                      |
| Stator electrical time constant       | 4.5 ms at 20 °C                                                                                       |
| Maximum radial force Fr               | 900 N at 1000 rpm<br>720 N at 2000 rpm<br>630 N at 3000 rpm<br>570 N at 4000 rpm<br>530 N at 5000 rpm |
| Maximum axial force Fa                | 0.2 x Fr                                                                                              |
| Type of cooling                       | Natural convection                                                                                    |
| Length                                | 128.6 mm                                                                                              |
| Centring collar diameter              | 95 mm                                                                                                 |
| Centring collar depth                 | 3.5 mm                                                                                                |
| Number of mounting holes              | 4                                                                                                     |
| Mounting holes diameter               | 9 mm                                                                                                  |
| Circle diameter of the mounting holes | 115 mm                                                                                                |
| Product weight                        | 3.34 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 M6 x 21 mm/M6 x 0.83 in.

Dimensions in mm

| Straight connectors |      | Rotatable angled connectors |      | c (without brake) | c (with brake) |
|---------------------|------|-----------------------------|------|-------------------|----------------|
| b1                  | b2   | b1                          | b2   |                   |                |
| 39.5                | 25.5 | 39.5                        | 39.5 | 128               | 170            |

Dimensions in in.

| Straight connectors |      | Rotatable angled connectors |      | c (without brake) | c (with brake) |
|---------------------|------|-----------------------------|------|-------------------|----------------|
| b1                  | b2   | b1                          | b2   |                   |                |
| 1.55                | 1.00 | 1.55                        | 1.55 | 5.03              | 6.69           |

## 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

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•D12N4 servo drive



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

# Servo motor with LXM32•D18N4 servo drive



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