# Product data sheet
## Characteristics

# BMH1001P22F2A
## servo motor BMH - 3.3 Nm - 6000 rpm - untapped shaft - with 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 | Untapped |
| IP degree of protection | IP65 (standard)<br>IP67 (with IP67 kit) |
| Speed feedback resolution | 131072 points/turn x 4096 turns |
| 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 | 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 |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein.
This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications.
It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof.
Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

| | |
|---|---|
| Shaft diameter | 19 mm |
| Shaft length | 40 mm |
| Feedback type | Multiturn SinCos Hiperface |
| Holding torque | 5.5 N.m (holding brake) |
| 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 | 3.68 kg.cm² |
| 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 |
| Brake pull-in power | 12 W |
| Type of cooling | Natural convection |
| Length | 170.3 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 | 4.8 kg |

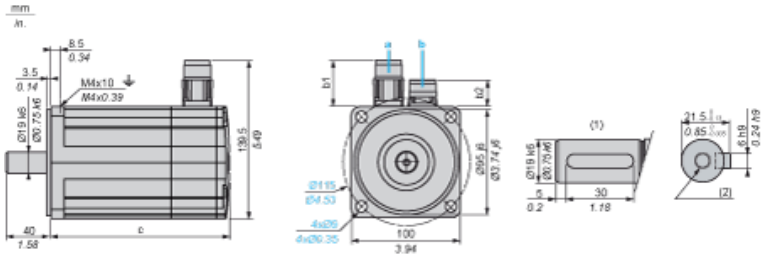
## Offer Sustainability

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

BMH1001P22F2A

## 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 |

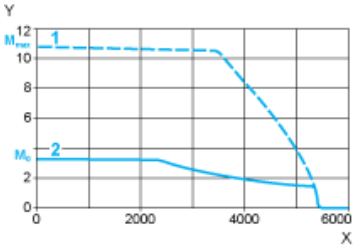
Dimensions in in.

| 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

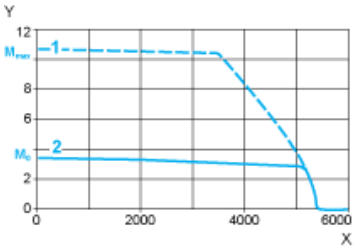
### Torque/Speed Curves

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

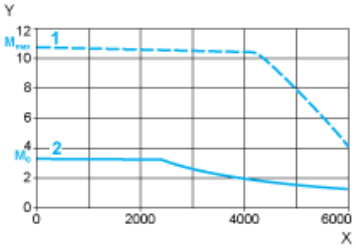



X Speed in rpm
Y Torque in Nm
1 Peak torque
2 Continuous torque

## 480 V 3-Phase Supply Voltage

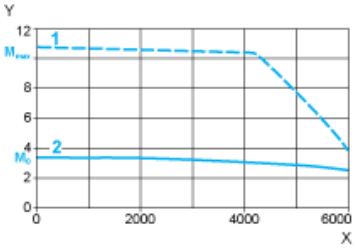
### Torque/Speed Curves

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