

servo motor BMH - 3.3 Nm - 6000 rpm - untapped shaft - with brake - IP54

BMH1001P01F2A

① Discontinued on: 9 Feb 2023

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EAN Code: 3606485200286

### Main

Device short name	ВМН			
Product or component type	Servo motor			
Maximum mechanical speed	6000 rpm			
Continuous stall torque	3.3 N.m for LXM32.D12N4 at 3 A, 400 V, three phase 3.3 N.m for LXM32.D12N4 at 3 A, 480 V, three phase 3.4 N.m for LXM32.D18N4 at 6 A, 400 V, three phase 3.4 N.m for LXM32.D18N4 at 6 A, 480 V, three phase			
Peak stall torque	10.8 N.m for LXM32.D12N4 at 3 A, 400 V, three phase 10.8 N.m for LXM32.D12N4 at 3 A, 480 V, three phase 10.8 N.m for LXM32.D18N4 at 6 A, 400 V, three phase 10.8 N.m for LXM32.D18N4 at 6 A, 480 V, three phase			
Nominal output power	800 W for LXM32.D12N4 at 3 A, 400 V, three phase 800 W for LXM32.D12N4 at 3 A, 480 V, three phase 1300 W for LXM32.D18N4 at 6 A, 400 V, three phase 1300 W for LXM32.D18N4 at 6 A, 480 V, three phase			
Nominal torque	1.9 N.m for LXM32.D12N4 at 3 A, 400 V, three phase 1.9 N.m for LXM32.D12N4 at 3 A, 480 V, three phase 3.1 N.m for LXM32.D18N4 at 6 A, 400 V, three phase 3.1 N.m for LXM32.D18N4 at 6 A, 480 V, three phase			
Nominal speed	4000 rpm for LXM32.D12N4 at 3 A, 400 V, three phase 4000 rpm for LXM32.D12N4 at 3 A, 480 V, three phase 4000 rpm for LXM32.D18N4 at 6 A, 400 V, three phase 4000 rpm for LXM32.D18N4 at 6 A, 480 V, three phase			
Product compatibility	LXM32.D12N4 at 400480 V three phase LXM32.D18N4 at 400480 V three phase			
Shaft end	Smooth shaft			
IP degree of protection	IP54 standard			
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	3.15 A
Continuous power	1.76 W

Maximum current Irms	11.2 A for LXM32.D12N4 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			
Feedback type	Single turn SinCos Hiperface			
Holding torque	5.5 N.m holding brake			
Motor flange size	100 mm			
Number of motor stacks	1			
Torque constant	1.08 N.m/A at 120 °C			
Back emf constant	70.3 V/krpm at 120 °C			
Number of motor poles	5.0			
Rotor inertia	3.68 kg.cm²			
Stator resistance	3.1 Ohm at 20 °C			
Stator inductance	7.45 mH at 20 °C			
Stator electrical time constant	4.5 ms at 20 °C			
Maximum radial force Fr	900 N at 1000 rpm 720 N at 2000 rpm 630 N at 3000 rpm 570 N at 4000 rpm 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			
Net weight	4.8 kg			
Sizing reference	BMH1001P			
Network number of phases	3			
Accuracy error [angular]	1.4 °			
Temperature copper hot	135 °C			
Temperature magnet hot	100 °C			

# **Packing Units**

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	20.0 cm

Package 1 Width	22.0 cm
Package 1 Length	40.0 cm
Package 1 Weight	5.1 kg
Unit Type of Package 2	P06
Number of Units in Package 2	24
Package 2 Height	105.0 cm
Package 2 Width	80.000 cm
Package 2 Length	60.000 cm
Package 2 Weight	36.1 kg

# **Contractual warranty**

Warranty 18 months



Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing "Use Better, Use Longer, Use Again" campaign to extend product lifetimes and recyclability.

#### Environmental Data explained >

How we assess product sustainability >

∇ Environmental footprint	
Carbon footprint (kg.eq.CO2 per CR, Total Life cycle)	1446
Environmental Disclosure	Product Environmental Profile

#### **Use Better**

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	A7df881f-135f-4256-b8c2-ea55d4c9a151
REACh Regulation	REACh Declaration
PVC free	Yes

### Use Again

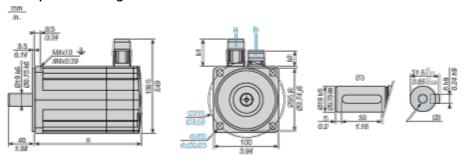
○ Repack and remanufacture						
Circularity Profile	No need of specific recycling operations					
Take-back	No					
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins					

## BMH1001P01F2A

### **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)
- (2) For screw M6 x 21 mm/M6 x 0.83 in.

#### Dimensions in mm

Straight o	Straight connectors Rotatable angled connectors		- (i4b4 bl)	a (with handes)	
b1	b2	b1	b2	c (without brake)	c (with brake)
39.5	25.5	39.5	39.5	128	170

#### Dimensions in in.

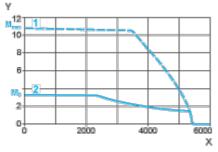
Straight c	onnectors	Rotatable angled connectors		c (without brake)	a (with brake)	
b1	b2	b1	b2	c (without brake)	c (with brake)	
1.55	1.00	1.55	1.55	5.03	6.69	

### Performance Curves

### 400 V 3-Phase Supply Voltage

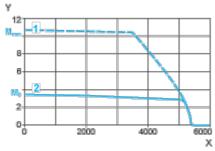
### **Torque/Speed Curves**

Servo motor with LXM32•D12N4 servo drive



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

## Servo motor with LXM32•D18N4 servo drive

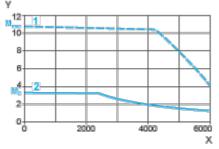


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

### 480 V 3-Phase Supply Voltage

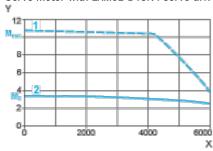
### **Torque/Speed Curves**

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