

# servo motor BMH - 8.4 Nm - 6000 rpm - keyed shaft - with brake - IP54

BMH1003P12F2A

! Discontinued on: 9 Feb 2023

EAN Code: 3606485196473

#### Main

Device short name	вмн			
Product or component type	Servo motor			
Maximum mechanical speed	6000 rpm			
Continuous stall torque	8.4 N.m for LXM32.D30N4 at 10 A, 400 V, three phase 8.4 N.m for LXM32.D30N4 at 10 A, 480 V, three phase			
Peak stall torque	25.1 N.m for LXM32.D30N4 at 10 A, 400 V, three phase 25.1 N.m for LXM32.D30N4 at 10 A, 480 V, three phase			
Nominal output power	2700 W for LXM32.D30N4 at 10 A, 400 V, three phase 2700 W for LXM32.D30N4 at 10 A, 480 V, three phase			
Nominal torque	6.2 N.m for LXM32.D30N4 at 10 A, 400 V, three phase 6.2 N.m for LXM32.D30N4 at 10 A, 480 V, three phase			
Nominal speed	4000 rpm for LXM32.D30N4 at 10 A, 400 V, three phase 4000 rpm for LXM32.D30N4 at 10 A, 480 V, three phase			
Product compatibility	LXM32.D30N4 at 400480 V three phase			
Shaft end	Keyed			
IP degree of protection	IP54 standard			
Speed feedback resolution	131072 points/turn x 4096 turns			
Holding brake	With			
Mounting support	International standard flange			
Electrical connection	Rotatable right-angled connectors			

# Complementary

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Range compatibility	Lexium 32
[Us] rated supply voltage	480 V
Network number of phases	Three phase
Continuous stall current	7.69 A
Continuous power	3.3 W
Maximum current Irms	29.1 A for LXM32.D30N4
Maximum permanent current	29.1 A
Second shaft	Without second shaft end
Shaft diameter	19 mm
Shaft length	40 mm
key width	30 mm

Feedback type	Multiturn SinCos Hiperface				
Holding torque	9 N.m holding brake				
Motor flange size	100 mm				
Number of motor stacks	3				
Torque constant	1 N.m/A at 120 °C				
Back emf constant	63.5 V/krpm at 120 °C				
Number of motor poles	10				
Rotor inertia	10.3 kg.cm²				
Stator resistance	0.63 Ohm at 20 °C				
Stator inductance	4 mH at 20 °C				
Stator electrical time constant	6.3 ms at 20 °C				
Maximum radial force Fr	1050 N at 1000 rpm 830 N at 2000 rpm 730 N at 3000 rpm 660 N at 4000 rpm 610 N at 5000 rpm				
Maximum axial force Fa	0.2 x Fr				
Brake pull-in power	18 W				
type of cooling	Natural convection				
Length	234.3 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	8.15 kg				
Sizing reference	BMH1003P				
Network number of phases	3				
Accuracy error [angular]	1.4 °				
Temperature copper hot	135 °C				
Temperature magnet hot	100 °C				
Temperature magnet rt	20 °C				

# **Packing Units**

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	22.0 cm
Package 1 Width	20.0 cm
Package 1 Length	40.0 cm
Package 1 Weight	8.616 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	39 616 kg

# **Logistical informations**

Country of origin

DE

# **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)	2974	
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

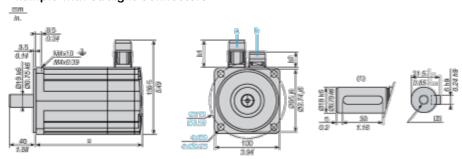
○ Repack and remanufacture					
Circularity Profile	No need of specific recycling operations				
Take-back	No				
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins				

## BMH1003P12F2A

#### **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	raight connectors Rotatable angled connectors		- (i4b4 bl)	a (with harden)	
b1	b2	b1	b2	c (without brake)	c (with brake)
39.5	25.5	39.5	39.5	192	234

#### Dimensions in in

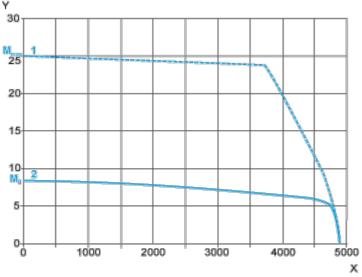
Straight c	onnectors	Rotatable angled connectors		c (without brake)	(مالمسط طلاندر)	
b1	b2	b1	b2	c (without brake)	c (with brake)	
1.55	1.00	1.55	1.55	7.55	9.21	

#### Performance Curves

## 400 V 3-Phase Supply Voltage

#### **Torque/Speed Curves**

Servo motor with LXM32•D30N4 servo drive

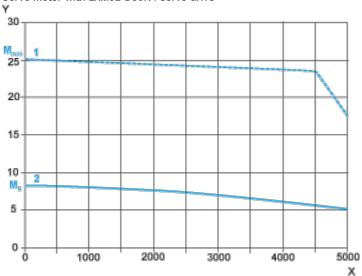


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

#### 480 V 3-Phase Supply Voltage

#### **Torque/Speed Curves**

Servo motor with LXM32•D30N4 servo drive



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