

# servo motor BMH - 3.4 Nm - 8000 rpm - keyed shaft - with brake - IP65/IP67

BMH0703P31F2A

EAN Code: 3606485199184

#### Main

Device short name	ВМН
Product or component type	Servo motor
Maximum mechanical speed	8000 rpm
Continuous stall torque	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	10.2 N.m for LXM32.D18N4 at 6 A, 400 V, three phase 10.2 N.m for LXM32.D18N4 at 6 A, 480 V, three phase
Nominal output power	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	2.4 N.m for LXM32.D18N4 at 6 A, 400 V, three phase 2.4 N.m for LXM32.D18N4 at 6 A, 480 V, three phase
Nominal speed	5000 rpm for LXM32.D18N4 at 6 A, 400 V, three phase 5000 rpm for LXM32.D18N4 at 6 A, 480 V, three phase
Product compatibility	LXM32.D18N4 at 400480 V three phase
Shaft end	Keyed
IP degree of protection	IP65 standard IP67 with IP67 kit
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	3.91 A
Continuous power	1.68 W
Maximum current Irms	12.57 A for LXM32.D18N4
Maximum permanent current	12.57 A
Second shaft	Without second shaft end
Shaft diameter	14 mm
Shaft length	30 mm
key width	20 mm

Feedback type	Single turn SinCos Hiperface
Holding torque	3 N.m holding brake
Motor flange size	70 mm
Number of motor stacks	3
Torque constant	0.87 N.m/A at 120 °C
Back emf constant	55.8 V/krpm at 120 °C
Number of motor poles	5.0
Rotor inertia	1.78 kg.cm <sup>2</sup>
Stator resistance	2.65 Ohm at 20 °C
Stator inductance	4.175 mH at 20 °C
Stator electrical time constant	3.2 ms at 20 °C
Maximum radial force Fr	730 N at 1000 rpm 580 N at 2000 rpm 510 N at 3000 rpm 460 N at 4000 rpm 430 N at 5000 rpm 400 N at 6000 rpm
Maximum axial force Fa	0.2 x Fr
Brake pull-in power	7 W
type of cooling	Natural convection
Length	225 mm
Centring collar diameter	60 mm
centring collar depth	2.5 mm
Number of mounting holes	4
Mounting holes diameter	5.5 mm
Circle diameter of the mounting holes	82 mm
Net weight	4 kg
Sizing reference	BMH0703P
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	11.0 cm
Package 1 Width	20.0 cm
Package 1 Length	40.0 cm
Package 1 Weight	3.2 kg
Unit Type of Package 2	P06
Number of Units in Package 2	36

Package 2 Height	105.0 cm	
Package 2 Width	80.0 cm	
Package 2 Length	60.0 cm	
Package 2 Weight	122 2 kg	

## **Logistical informations**

Country of origin DI

## **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)	1432							
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

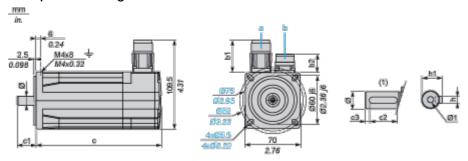
○ Repack and remanufacture	
Circularity Profile	No need of specific recycling operations
Take-back	No
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

## BMH0703P31F2A

#### **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)

#### Dimensions in mm

Straight Rotatable angle connectors		•	c (without	c (with	c1	c2	сЗ	h	h1	Ø	Ø1 for	
b1	b2	b1	b2	brake)	brake)							screws
39.5	25.5	39.5	39.5	186	225	30	20	5	5 h9	16 <sup>+0</sup> _	14 k6	M5 x 17

#### Dimensions in in.

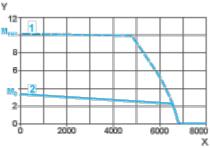
Straigh		Rotata angled connec		c (without	c (with brake)	c1	c2	с3	h	h1	Ø	Ø1 for screws
b1	b2	b1	b2	brake)								
1.55	1	1.55	1.55	7.32	8.85	1.18	0.78	0.19	0.20 h9	0.63 <sup>+0</sup> _ 0.0051	0.55 k6	M5 x 0.67

#### Performance Curves

## 400 V 3-Phase Supply Voltage

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

Servo motor with LXM32•D18N4 servo drive

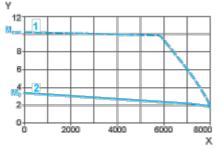


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

#### 480 V 3-Phase Supply Voltage

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

Servo motor with LXM32•D18N4 servo drive



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