

# Product datasheet

Specifications



servo motor BMH, Lexium 32,  
6.2Nm, 6000rpm, keyed shaft, with  
brake, IP54, 16bit encoder

BMH1002P16F2A

## Main

Product or component type	Servo motor
Device short name	BMH
Maximum mechanical speed	6000 rpm
Continuous stall torque	6.2 N.m for LXM32.D18N4 at 6 A, 400 V, three phase 6.2 N.m for LXM32.D18N4 at 6 A, 480 V, three phase
Peak stall torque	18.4 N.m for LXM32.D18N4 at 6 A, 400 V, three phase 18.4 N.m for LXM32.D18N4 at 6 A, 480 V, three phase
Nominal output power	1600 W for LXM32.D18N4 at 6 A, 400 V, three phase 1600 W for LXM32.D18N4 at 6 A, 480 V, three phase
Nominal torque	3.9 N.m for LXM32.D18N4 at 6 A, 400 V, three phase 3.9 N.m for LXM32.D18N4 at 6 A, 480 V, three phase
Nominal speed	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.D18N4 at 400...480 V three phase
Shaft end	Keyed
IP degree of protection	IP54 standard
Speed feedback resolution	32768 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	5.04 A
Continuous power	2.36 W
Maximum current Irms	18 A for LXM32.D18N4
Maximum permanent current	18.23 A
Second shaft	Without second shaft end
Shaft diameter	19 mm
Shaft length	40 mm

<b>Key width</b>	30 mm
<b>Feedback type</b>	Single turn SinCos Hiperface
<b>Holding torque</b>	5.5 N.m holding brake
<b>Motor flange size</b>	100 mm
<b>Number of motor stacks</b>	2
<b>Torque constant</b>	1.2 N.m/A at 120 °C
<b>Back emf constant</b>	77 V/krpm at 120 °C
<b>Number of motor poles</b>	10
<b>Rotor inertia</b>	6.77 kg.cm <sup>2</sup>
<b>Stator resistance</b>	1.51 Ohm at 20 °C
<b>Stator inductance</b>	7.5 mH at 20 °C
<b>Stator electrical time constant</b>	5 ms at 20 °C
<b>Maximum radial force Fr</b>	990 N at 1000 rpm 790 N at 2000 rpm 690 N at 3000 rpm 620 N at 4000 rpm 580 N at 5000 rpm
<b>Maximum axial force Fa</b>	0.2 x Fr
<b>Brake pull-in power</b>	12 W
<b>Type of cooling</b>	Natural convection
<b>Length</b>	202.3 mm
<b>Centring collar diameter</b>	95 mm
<b>Centring collar depth</b>	3.5 mm
<b>Number of mounting holes</b>	4
<b>Mounting holes diameter</b>	9 mm
<b>Circle diameter of the mounting holes</b>	115 mm
<b>Net weight</b>	6.4 kg

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	22.000 cm
<b>Package 1 Width</b>	20.000 cm
<b>Package 1 Length</b>	40.000 cm
<b>Package 1 Weight</b>	6.852 kg
<b>Unit Type of Package 2</b>	P06
<b>Number of Units in Package 2</b>	18
<b>Package 2 Height</b>	105.000 cm
<b>Package 2 Width</b>	80.000 cm
<b>Package 2 Length</b>	60.000 cm
<b>Package 2 Weight</b>	130.000 kg

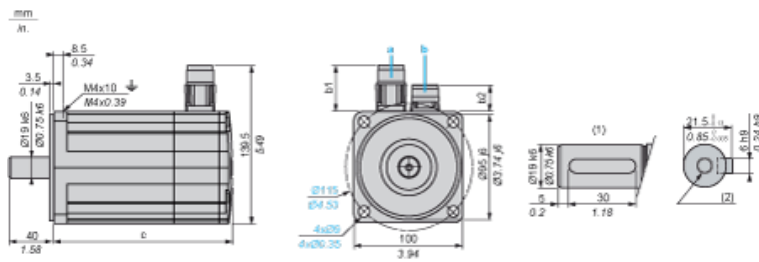
## Offer Sustainability

<b>Sustainable offer status</b>	Green Premium product
<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>

<b>EU RoHS Directive</b>	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
<b>Mercury free</b>	Yes
<b>China RoHS Regulation</b>	<a href="#">China RoHS declaration</a>
<b>RoHS exemption information</b>	Yes
<b>Environmental Disclosure</b>	<a href="#">Product Environmental Profile</a>
<b>Circularity Profile</b>	No need of specific recycling operations
<b>WEEE</b>	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
<b>PVC free</b>	Yes
<b>Contractual warranty</b>	
<b>Warranty</b>	18 months

**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	160	202

Dimensions in in.

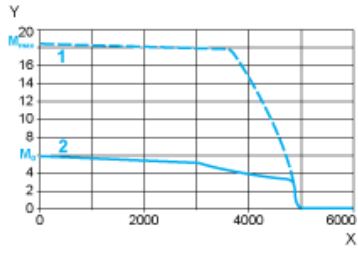
Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)
b1	b2	b1	b2		
1.55	1.00	1.55	1.55	6.29	7.95

400 V 3-Phase Supply Voltage

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Torque/Speed Curves

Servo motor with LXM32•D18N4 servo drive



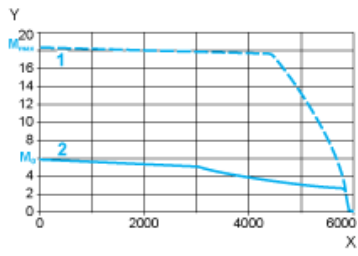
- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

**480 V 3-Phase Supply Voltage**

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**Torque/Speed Curves**

Servo motor with LXM32•D18N4 servo drive



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

**Recommended replacement(s)**