

# Product data sheet

Specifications



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

BMH1002P16F2A

**Product availability: Stock - Normally stocked in distribution facility**

## Main

Device short name	BMH
Product or Component Type	Servo motor
Maximum mechanical speed	6000 rpm
Continuous stall torque	54.9 lbf.in (6.2 N.m) LXM32.D18N4 6 A, 400 V, three phase 54.9 lbf.in (6.2 N.m) LXM32.D18N4 6 A, 480 V, three phase
Peak stall torque	162.9 lbf.in (18.4 N.m) LXM32.D18N4 6 A, 400 V, three phase 162.9 lbf.in (18.4 N.m) LXM32.D18N4 6 A, 480 V, three phase
Nominal output power	1600 W LXM32.D18N4 6 A, 400 V, three phase 1600 W LXM32.D18N4 6 A, 480 V, three phase
Nominal torque	34.5 lbf.in (3.9 N.m) LXM32.D18N4 6 A, 400 V, three phase 34.5 lbf.in (3.9 N.m) LXM32.D18N4 6 A, 480 V, three phase
Nominal speed	4000 rpm LXM32.D18N4 6 A, 400 V, three phase 4000 rpm LXM32.D18N4 6 A, 480 V, three phase
Product compatibility	LXM32.D18N4 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
Phase	Three phase
Continuous stall current	5.04 A
Continuous power	2.36 W
Maximum current Irms	17.5 A LXM32.D18N4
Maximum permanent current	18.23 A
Second shaft	Without second shaft end
Shaft diameter	0.7 in (19 mm)
Shaft length	1.6 in (40 mm)
key width	1.2 in (30 mm)
Feedback type	Single turn SinCos Hiperface

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

<b>Holding torque</b>	48.7 lbf.in (5.5 N.m) holding brake
<b>Motor flange size</b>	3.9 in (100 mm)
<b>Number of motor stacks</b>	2
<b>Torque constant</b>	1.19 N.m/A 248 °F (120 °C)
<b>Back emf constant</b>	77 V/krpm 248 °F (120 °C)
<b>Number of motor poles</b>	5.0
<b>Rotor inertia</b>	6.77 kg.cm <sup>2</sup>
<b>Stator resistance</b>	1.51 Ohm 68 °F (20 °C)
<b>Stator inductance</b>	4.12 mH 68 °F (20 °C)
<b>Stator electrical time constant</b>	5 ms 68 °F (20 °C)
<b>Maximum radial force Fr</b>	990 N 1000 rpm 790 N 2000 rpm 690 N 3000 rpm 620 N 4000 rpm 580 N 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>	8.0 in (202.3 mm)
<b>Centring collar diameter</b>	3.7 in (95 mm)
<b>centring collar depth</b>	0.1 in (3.5 mm)
<b>Number of mounting holes</b>	4
<b>Mounting holes diameter</b>	0.4 in (9 mm)
<b>Circle diameter of the mounting holes</b>	4.5 in (115 mm)
<b>Net Weight</b>	14.1 lb(US) (6.4 kg)
<b>Sizing reference</b>	BMH1002P
<b>Network number of phases</b>	3
<b>Accuracy error [angular]</b>	4.8 °
<b>Temperature copper hot</b>	275 °F (135 °C)
<b>Temperature magnet hot</b>	212 °F (100 °C)
<b>Temperature magnet rt</b>	68 °F (20 °C)

## Ordering and shipping details

<b>Category</b>	US1PC5318282
<b>Discount Schedule</b>	PC53
<b>GTIN</b>	3606485196152
<b>Returnability</b>	Yes
<b>Country of origin</b>	DE

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Nbr. of units in pkg.</b>	1
<b>Package 1 Height</b>	8.66 in (22.000 cm)

<b>Package 1 Width</b>	7.87 in (20.000 cm)
<b>Package 1 Length</b>	15.75 in (40.000 cm)
<b>Package weight(Lbs)</b>	14.947 lb(US) (6.780 kg)
<b>Unit Type of Package 2</b>	P06
<b>Number of Units in Package 2</b>	18
<b>Package 2 Height</b>	41.34 in (105.000 cm)
<b>Package 2 Width</b>	23.62 in (60.000 cm)
<b>Package 2 Length</b>	31.50 in (80.000 cm)
<b>Package 2 Weight</b>	286.601 lb(US) (130.000 kg)

## Contractual warranty

<b>Warranty</b>	18 months
-----------------	-----------



## Environmental Data

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 CO2 eq, Total Life cycle) 1780

Environmental Disclosure [Product Environmental Profile](#)

## Use Better

### Materials and Substances

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](#)

California proposition 65 **WARNING:** This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

PVC free Yes

## Use Again

### Repack and remanufacture

Circularity Profile No need of specific recycling operations

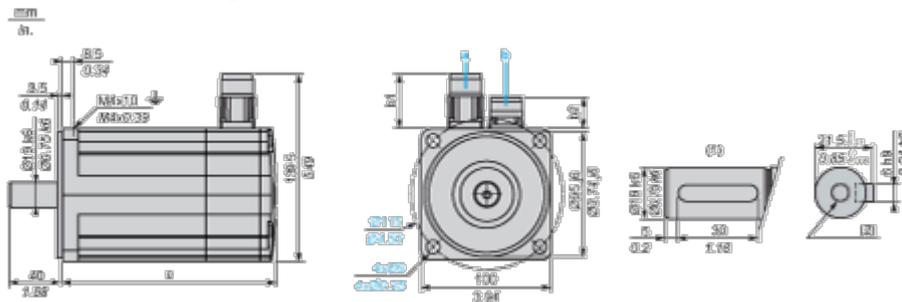
Take-back No

WEEE  The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

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 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

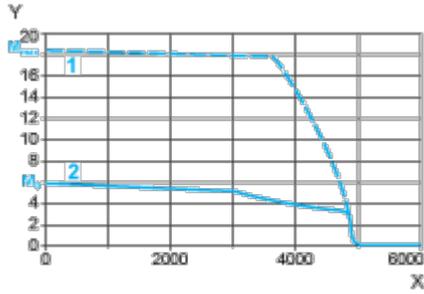
Performance Curves

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

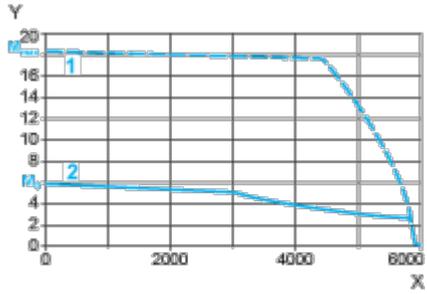
2 Continuous torque

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