

# Product data sheet

Specifications



**servo motor BMH, Lexium 32, 3.3Nm, 6000rpm, untapped shaft, without brake, IP54, 128 multturn encoder**

BMH1001P02A2A

**Product availability: Non-Stock - Not normally stocked in distribution facility**

## Main

Device short name	BMH
Product or Component Type	Servo motor
Maximum mechanical speed	6000 rpm
Continuous stall torque	29.2 lbf.in (3.3 N.m) LXM32.D12N4 3 A, 400 V, three phase 29.2 lbf.in (3.3 N.m) LXM32.D12N4 3 A, 480 V, three phase 30.09 lbf.in (3.4 N.m) LXM32.D18N4 6 A, 400 V, three phase 30.09 lbf.in (3.4 N.m) LXM32.D18N4 6 A, 480 V, three phase
Peak stall torque	95.6 lbf.in (10.8 N.m) LXM32.D12N4 3 A, 400 V, three phase 95.6 lbf.in (10.8 N.m) LXM32.D12N4 3 A, 480 V, three phase 95.6 lbf.in (10.8 N.m) LXM32.D18N4 6 A, 400 V, three phase 95.6 lbf.in (10.8 N.m) LXM32.D18N4 6 A, 480 V, three phase
Nominal output power	800 W LXM32.D12N4 3 A, 400 V, three phase 800 W LXM32.D12N4 3 A, 480 V, three phase 1300 W LXM32.D18N4 6 A, 400 V, three phase 1300 W LXM32.D18N4 6 A, 480 V, three phase
Nominal torque	16.8 lbf.in (1.9 N.m) LXM32.D12N4 3 A, 400 V, three phase 16.8 lbf.in (1.9 N.m) LXM32.D12N4 3 A, 480 V, three phase 27.4 lbf.in (3.1 N.m) LXM32.D18N4 6 A, 400 V, three phase 27.4 lbf.in (3.1 N.m) LXM32.D18N4 6 A, 480 V, three phase
Nominal speed	4000 rpm LXM32.D12N4 3 A, 400 V, three phase 4000 rpm LXM32.D12N4 3 A, 480 V, three phase 4000 rpm LXM32.D18N4 6 A, 400 V, three phase 4000 rpm LXM32.D18N4 6 A, 480 V, three phase
Product compatibility	LXM32.D12N4 400...480 V three phase LXM32.D18N4 400...480 V three phase
Shaft end	Smooth shaft
IP Degree of Protection	IP54 standard
Speed feedback resolution	131072 points/turn x 4096 turns
Holding brake	Without
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	3.15 A
Continuous power	1.76 W

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

<b>Maximum current Irms</b>	11.2 A LXM32.D12N4 11.9 A LXM32.D18N4
<b>Maximum permanent current</b>	11.93 A
<b>Second shaft</b>	Without second shaft end
<b>Shaft diameter</b>	0.7 in (19 mm)
<b>Shaft length</b>	1.6 in (40 mm)
<b>Feedback type</b>	Multiturn SinCos Hiperface
<b>Motor flange size</b>	3.9 in (100 mm)
<b>Number of motor stacks</b>	1
<b>Torque constant</b>	1.08 N.m/A 248 °F (120 °C)
<b>Back emf constant</b>	70.3 V/krpm 248 °F (120 °C)
<b>Number of motor poles</b>	5.0
<b>Rotor inertia</b>	3.19 kg.cm²
<b>Stator resistance</b>	3.1 Ohm 68 °F (20 °C)
<b>Stator inductance</b>	7.45 mH 68 °F (20 °C)
<b>Stator electrical time constant</b>	4.5 ms 68 °F (20 °C)
<b>Maximum radial force Fr</b>	900 N 1000 rpm 720 N 2000 rpm 630 N 3000 rpm 570 N 4000 rpm 530 N 5000 rpm
<b>Maximum axial force Fa</b>	0.2 x Fr
<b>type of cooling</b>	Natural convection
<b>Length</b>	5.06 in (128.6 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>	7.36 lb(US) (3.34 kg)
<b>Sizing reference</b>	BMH1001P
<b>Network number of phases</b>	3
<b>Accuracy error [angular]</b>	1.4 °
<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>	3606485195483
<b>Returnability</b>	No
<b>Country of origin</b>	DE

## Packing Units

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Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	8.66 in (22.0 cm)
Package 1 Width	7.87 in (20.0 cm)
Package 1 Length	15.75 in (40.0 cm)
Package weight(Lbs)	8.02 lb(US) (3.64 kg)
Unit Type of Package 2	P06
Number of Units in Package 2	24
Package 2 Height	41.34 in (105.0 cm)
Package 2 Width	31.50 in (80.000 cm)
Package 2 Length	23.62 in (60.000 cm)
Package 2 Weight	76.37 lb(US) (34.64 kg)

## Contractual warranty

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Warranty	18 months
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## 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)	1435
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Environmental Disclosure	<a href="#">Product Environmental Profile</a>
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## Use Better

### Materials and Substances

Packaging made with recycled cardboard	Yes
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Packaging without single use plastic	No
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<a href="#">EU RoHS Directive</a>	Pro-active compliance (Product out of EU RoHS legal scope)
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SCIP Number	A7df881f-135f-4256-b8c2-ea55d4c9a151
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REACH Regulation	<a href="#">REACH Declaration</a>
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California proposition 65	<b>WARNING:</b> 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 <a href="#">www.P65Warnings.ca.gov</a>
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PVC free	Yes
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## Use Again

### Repack and remanufacture

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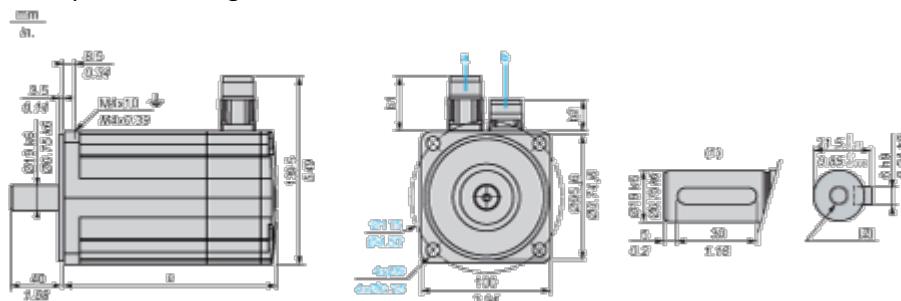
Take-back	No
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WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
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## Dimensions Drawings

## 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	128	170

Dimensions in in.

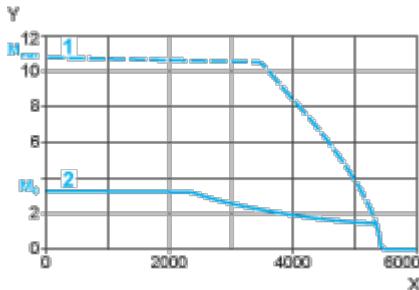
Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)
b1	b2	b1	b2		
1.55	1.00	1.55	1.55	5.03	6.69

## Performance Curves

400 V 3-Phase Supply Voltage

## Torque/Speed Curves

Servo motor with LXM32•D12N4 servo drive



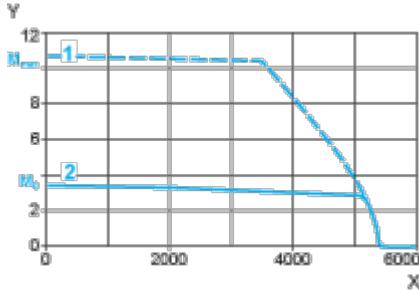
X Speed in rpm

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

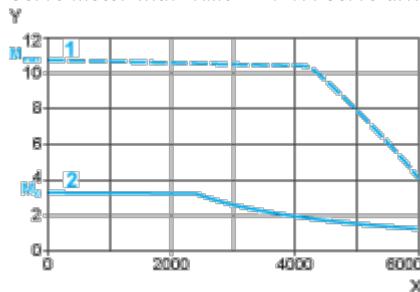
2 Continuous torque

**480 V 3-Phase Supply Voltage**

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**Torque/Speed Curves**

Servo motor with LXM32•D12N4 servo drive



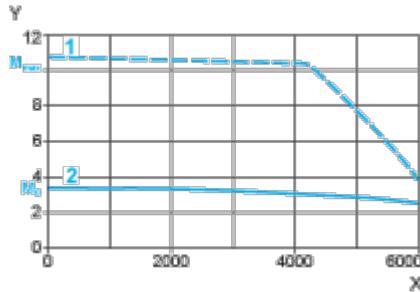
X Speed in rpm

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