

Product datasheet

Specifications



servo motor BMH, Lexium 32,
8.4Nm, 6000rpm, keyed shaft, with
brake, IP65, IP67, 16bit encoder,
straight

BMH1003P36F1A

Main

Device short name	BMH
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 400...480 V three phase
Shaft end	Keyed
IP degree of protection	IP65 standard IP67 with IP67 kit
Speed feedback resolution	32768 points/turn
Holding brake	With
Mounting support	International standard flange
Electrical connection	Straight connectors

Complementary

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	26.71 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	Single turn SinCos Hiperface
Holding torque	9 N.m holding brake
Motor flange size	100 mm
Number of motor stacks	3
Torque constant	1.17 N.m/A at 120 °C
Back emf constant	63.5 V/krpm at 120 °C
Number of motor poles	5.0
Rotor inertia	10.3 kg.cm ²
Stator resistance	0.63 Ohm at 20 °C
Stator inductance	2.615 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]	4.8 °
Temperature copper hot	135 °C
Temperature magnet hot	100 °C
Temperature magnet rt	20 °C
Output current 3s peak	26.71 A
Inertia	0.93 kg.cm ² of brake 9.371 kg.cm ² of motor

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	8.45 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	39.45 kg

Contractual warranty

Warranty (in months)	18
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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

Total lifecycle Carbon footprint	2 973 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	61 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.1 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	2 910 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0.7 kg CO2 eq.

Use Better



Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
SCIP Number	A7df881f-135f-4256-b8c2-ea55d4c9a151
EU RoHS Directive	Compliant By Exemption
REACH Regulation	Reference contains Substances of Very High Concern above the threshold
PVC free	Yes

Use Longer



Lifetime extension

Repair	No
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Use Again



Repack and remanufacture

End of life manual availability	No need of specific recycling operations
Take-back	Yes
WEEE Label	 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	192	234

Dimensions in in.

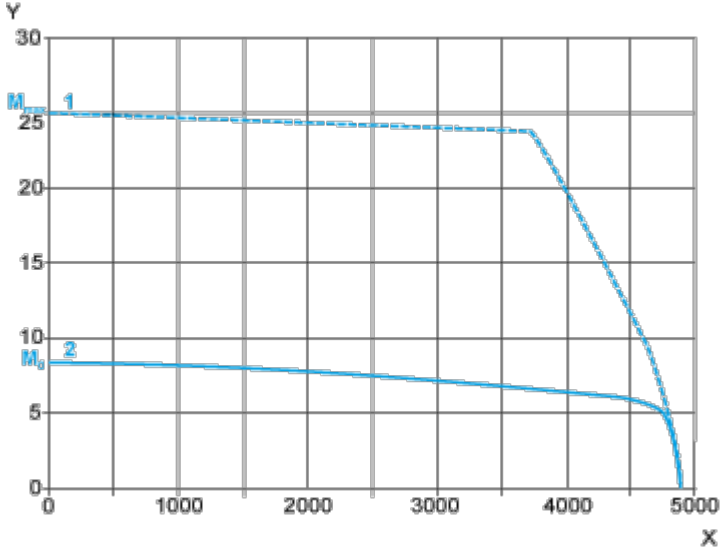
Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)
b1	b2	b1	b2		
1.55	1.00	1.55	1.55	7.55	9.21

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

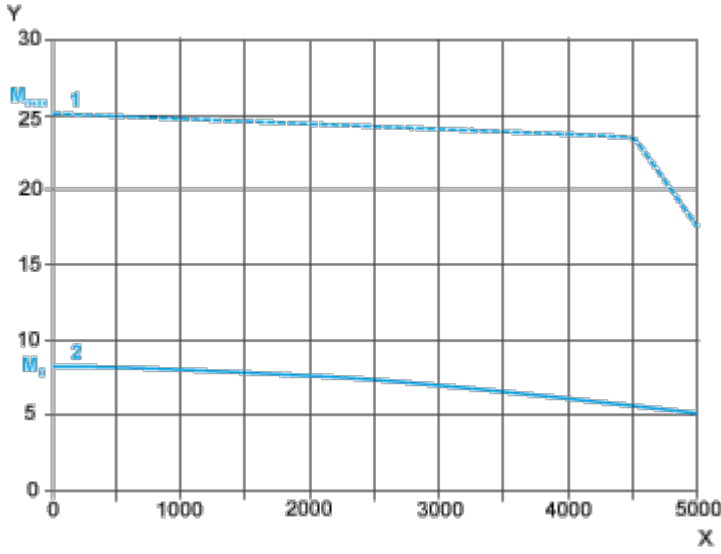
1 Peak torque

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