

Product datasheet

Specifications



servo motor BMH - 8.4 Nm - 6000 rpm - keyed shaft - without brake - IP54

BMH1003P12A2A

EAN Code: 3606485196435

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	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
Network number of phases	Three phase
Continuous stall current	7.69 A
Continuous power	3.3 W
Maximum current Irms	29.1 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	Multiturn SinCos Hiperface

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Motor flange size	100 mm
Number of motor stacks	3
Torque constant	1 N.m/A at 120 °C
Back emf constant	63.5 V/krpm at 120 °C
Number of motor poles	10
Rotor inertia	9.37 kg.cm²
Stator resistance	0.63 Ohm at 20 °C
Stator inductance	4 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
type of cooling	Natural convection
Length	192.6 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	6.5 kg
Sizing reference	BMH1003P
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	22.000 cm
Package 1 Width	20.000 cm
Package 1 Length	40.000 cm
Package 1 Weight	6.800 kg
Unit Type of Package 2	P06
Number of Units in Package 2	6
Package 2 Height	75.000 cm
Package 2 Width	80.000 cm
Package 2 Length	60.000 cm
Package 2 Weight	54.345 kg

Logistical informations

Country of origin	DE
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Contractual warranty

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.eq.CO2 per CR, Total Life cycle)	2961
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
PVC free	Yes

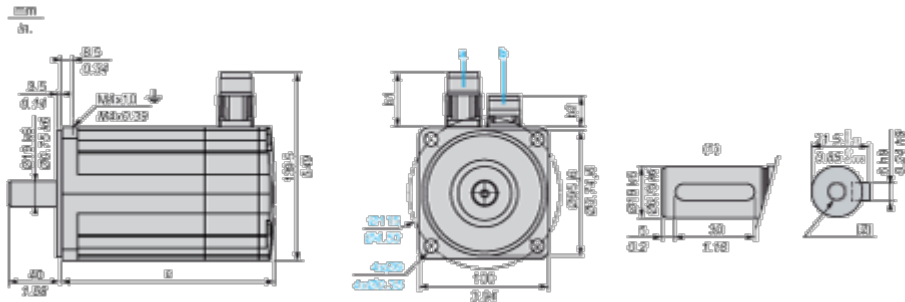
Use Again

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	192	234

Dimensions in in.

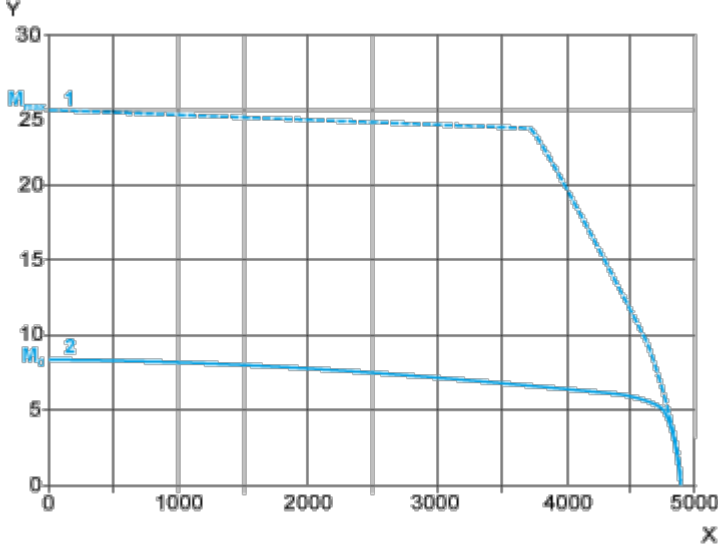
Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)
b1	b2	b1	b2		
1.55	1.00	1.55	1.55	7.55	9.21

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32-D30N4 servo drive

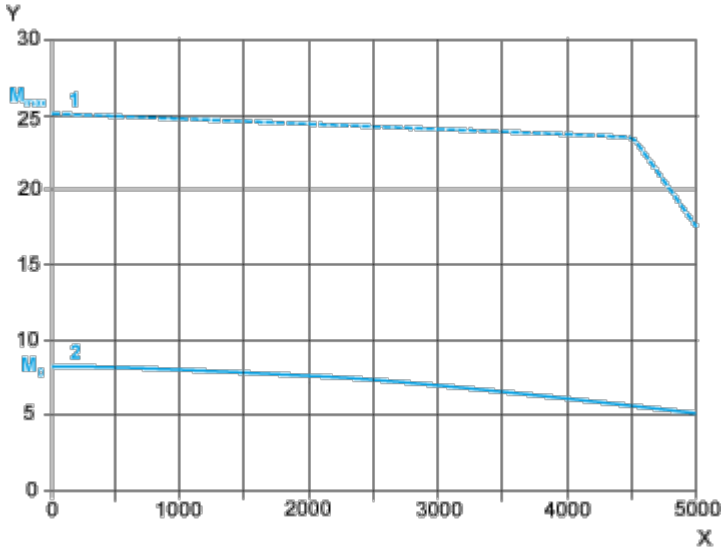


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

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