Product data sheet
Characteristics

BMH1003P11A1A
servo motor BMH - 8.4 Nm - 6000 rpm - keyed shaft - without brake - IP54

Main

Product or component type	Servo motor
Device short name	BMH
Maximum mechanical speed	6000 rpm
Continuous stall torque	8.4 N.m for LXM32.D30N4 10 A at 400 V three phase 8.4 N.m for LXM32.D30N4 10 A at 480 V three phase
Peak stall torque	25.1 N.m for LXM32.D30N4 10 A at 400 V three phase 25.1 N.m for LXM32.D30N4 10 A at 480 V three phase
Nominal output power	2700 W for LXM32.D30N4 10 A at 400 V three phase 2700 W for LXM32.D30N4 10 A at 480 V three phase
Nominal torque	6.2 N.m for LXM32.D30N4 10 A at 400 V three phase 6.2 N.m for LXM32.D30N4 10 A at 480 V three phase
Nominal speed	4000 rpm for LXM32.D30N4 10 A at 400 V three phase 4000 rpm for LXM32.D30N4 10 A at 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
Holding brake	Without
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	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	Single turn SinCos Hiperface
Motor flange size	100 mm
Number of motor stacks	3
Torque constant	1 N.m/A at 120 °C

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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.
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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
Product weight	6.5 kg

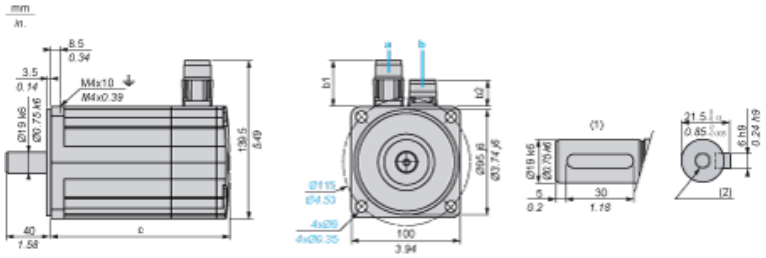
Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0936 - Schneider Electric declaration of conformity
REACh	Reference not containing SVHC above the threshold
Product environmental profile	Available Download Product Environmental
Product end of life instructions	Need no specific recycling operations

BMH1003P11A1A

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

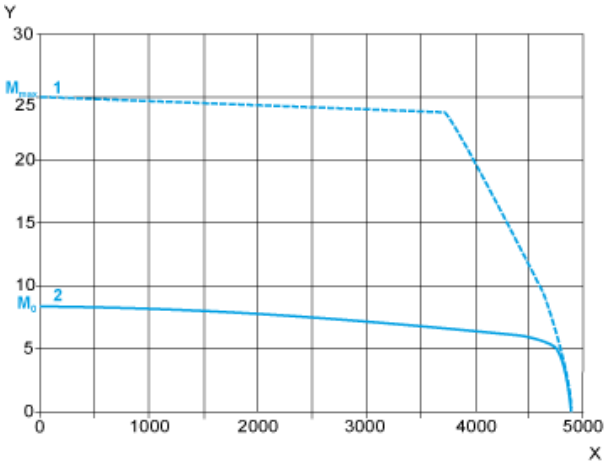
Dimensions in in.

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

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D30N4 servo drive

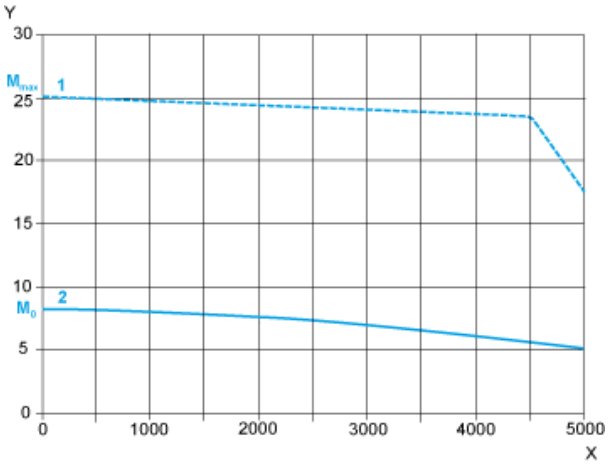


X Speed in rpm
Y Torque in Nm
1 Peak torque
2 Continuous torque

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