Product datasheet

Specifications





servo motor BMH, Lexium 32, 8.4Nm, 6000rpm, untapped shaft, without brake, IP54, 16bit encoder, straight

BMH1003P06A1A

Main

Device short name	ВМН				
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 400480 V three phase				
Shaft end	Smooth shaft				
IP degree of protection	IP54 standard				
Speed feedback resolution	32768 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			
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 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 630 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				
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 115 mm	Number of motor stacks	3		
Number of motor poles10Rotor inertia9.37 kg.cm²Stator resistance0.63 Ohm at 20 °CStator resistance4 mH at 20 °CStator electrical time constant6.3 ms at 20 °CMaximum radial force Fr1050 N at 1000 rpm 830 N at 2000 rpm 730 N at 3000 rpm 660 N at 4000 rpm 610 N at 5000 rpmMaximum axial force Fa0.2 x FrType of coolingNatural convectionLength192.6 mmCentring collar diameter95 mmQuarter of mounting holes4Mounting holes diameter9 mmCircle diameter of the mounting holes115 mm	Torque constant	1 N.m/A at 120 °C		
Rotor inertia9.37 kg.cm²Stator resistance0.63 Ohm at 20 °CStator inductance4 mH at 20 °CStator electrical time constant6.3 ms at 20 °CMaximum radial force Fr1050 N at 1000 rpm 830 N at 2000 rpm 730 N at 3000 rpm 660 N at 4000 rpm 660 N at 4000 rpm 610 N at 5000 rpmMaximum axial force Fa0.2 x FrType of coolingNatural convectionLength192.6 mmCentring collar diameter95 mmCentring collar depth3.5 mmNumber of mounting holes4Mounting holes diameter9 mmCircle diameter of the mounting holes115 mm	Back emf constant	63.5 V/krpm at 120 °C		
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	Number of motor poles	10		
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 9 mm	Rotor inertia	9.37 kg.cm ²		
Stator electrical time constant 6.3 ms at 20 °C Maximum radial force Fr 1050 N at 1000 rpm 830 N at 2000 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 Quarter of mounting holes 4 Mounting holes diameter 9 mm Circle diameter of the mounting holes 115 mm	Stator resistance	0.63 Ohm at 20 °C		
Maximum radial force Fr1050 N at 1000 rpm 830 N at 2000 rpm 730 N at 3000 rpm 660 N at 4000 rpm 610 N at 5000 rpmMaximum axial force Fa0.2 x FrType of coolingNatural convectionLength192.6 mmCentring collar diameter95 mmCentring collar depth3.5 mmNumber of mounting holes4Mounting holes diameter9 mmCircle diameter of the mounting holes115 mm	Stator inductance	4 mH at 20 °C		
830 N at 2000 rpm 730 N at 3000 rpm 660 N at 4000 rpm 610 N at 5000 rpmMaximum axial force Fa0.2 x FrType of coolingNatural convectionLength192.6 mmCentring collar diameter95 mmCentring collar depth3.5 mmNumber of mounting holes4Mounting holes diameter9 mmCircle diameter of the mounting115 mm	Stator electrical time constant	6.3 ms at 20 °C		
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 115 mm	Maximum radial force Fr	830 N at 2000 rpm 730 N at 3000 rpm 660 N at 4000 rpm		
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	Maximum axial force Fa	0.2 x Fr		
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	Type of cooling	Natural convection		
Centring collar depth 3.5 mm Number of mounting holes 4 Mounting holes diameter 9 mm Circle diameter of the mounting holes 115 mm	Length	192.6 mm		
Number of mounting holes 4 Mounting holes diameter 9 mm Circle diameter of the mounting holes 115 mm	Centring collar diameter	95 mm		
Mounting holes diameter 9 mm Circle diameter of the mounting holes 115 mm	Centring collar depth	3.5 mm		
Circle diameter of the mounting 115 mm holes	Number of mounting holes	4		
holes	Mounting holes diameter	9 mm		
net weight 6.5 kg		115 mm		
	net weight	6.5 kg		

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	21.0 cm
Package 1 Width	19.0 cm
Package 1 Length	40.0 cm
Package 1 Weight	7.484 kg
Unit Type of Package 2	P06
Number of Units in Package 2	6
Package 2 Height	77.0 cm
Package 2 Width	80.0 cm
Package 2 Length	60.0 cm
Package 2 Weight	53.404 kg

Contractual warranty

Warranty

18 months

Sustainability Screen Premium

Green PremiumTM label is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >



Transparency RoHS/REACh

Well-being performance

Mercury Free
Rohs Exemption Information Yes
Pvc Free

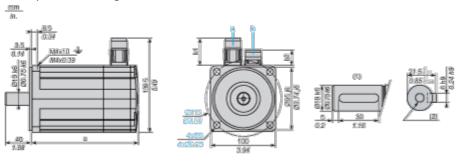
Certifications & Standards

Reach Regulation	REACh Declaration		
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)		
China Rohs Regulation	China RoHS declaration		
Environmental Disclosure	Product Environmental Profile		
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins		
Circularity Profile	No need of specific recycling operations		

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 c	traight connectors Rotatable angled connectors				
b1	b2	b1	b2	c (without brake)	c (with brake)
39.5	25.5	39.5	39.5	192	234

Dimensions in in.

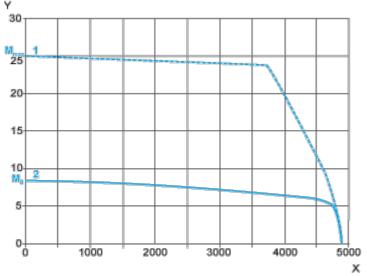
Straight c	traight connectors Rotatable angled connectors		a (without brake)	a (with brake)	
b1	b2	b1	b2	c (without brake)	c (with brake)
1.55	1.00	1.55	1.55	7.55	9.21

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

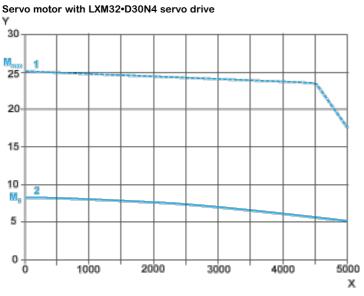
Servo motor with LXM32•D30N4 servo drive



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

480 V 3-Phase Supply Voltage

Torque/Speed Curves



X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque