# Product datasheet Characteristics

# BMH1003P32A1A

servo motor BMH - 8.4 Nm - 6000 rpm - keyed shaft - without brake - IP65/IP67





#### Main

Mani			
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 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	Keyed		
IP degree of protection	IP65 standard IP67 with IP67 kit		
Speed feedback resolution	131072 points/turn x 4096 turns		
Holding brake	Without		
Mounting support	International standard flange		
Electrical connection	Straight connectors		

#### Complementary

Range compatibility	Lexium 32	
[Us] rated supply voltage	480 V	<u>.</u>
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
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
Product weight	6.5 kg

## Offer Sustainability

Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	No need of specific recycling operations
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

## Contractual warranty

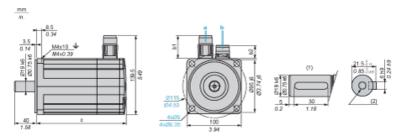
Warranty	18 months
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## **Product datasheet Dimensions Drawings**

# BMH1003P32A1A

#### Servo Motors Dimensions

#### **Example with Straight Connectors**



Power supply for servo motor brake a: Power supply for servo motor encoder b:

(1) (2) Shaft end, keyed slot (optional) 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

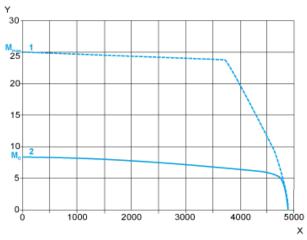
# Product datasheet Performance Curves

# BMH1003P32A1A

## 400 V 3-Phase Supply Voltage

### Torque/Speed Curves

Servo motor with LXM32•D30N4 servo drive



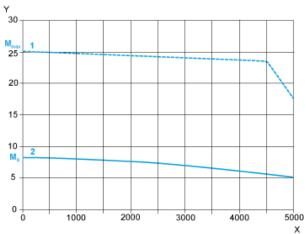
- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

# BMH1003P32A1A

## 480 V 3-Phase Supply Voltage

### Torque/Speed Curves

Servo motor with LXM32•D30N4 servo drive



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