Product datasheet Characteristics

BMH1403P12F1A

servo motor BMH - 24 Nm - 4000 rpm - keyed shaft - with brake - IP54





Main

Product or component type Servo motor		
Device short name	вмн	
Maximum mechanical speed	4000 rpm	
Continuous stall torque	24 N.m for LXM32.D72N4 at 24 A, 400 V, three phase 24 N.m for LXM32.D72N4 at 24 A, 480 V, three phase	
Peak stall torque	71.8 N.m for LXM32.D72N4 at 24 A, 400 V, three phase 71.8 N.m for LXM32.D72N4 at 24 A, 480 V, three phase	:
Nominal output power	4700 W for LXM32.D72N4 at 24 A, 400 V, three phase 4700 W for LXM32.D72N4 at 24 A, 480 V, three phase	
Nominal torque	14.3 N.m for LXM32.D72N4 at 24 A, 400 V, three phase 14.3 N.m for LXM32.D72N4 at 24 A, 480 V, three phase	:
Nominal speed	3000 rpm for LXM32.D72N4 at 24 A, 400 V, three phase 3000 rpm for LXM32.D72N4 at 24 A, 480 V, three phase	
Product compatibility	LXM32.D72N4 at 400480 V three phase	
Shaft end	Keyed	
IP degree of protection	IP54 standard	
Speed feedback resolution	131072 points/turn x 4096 turns	
Holding brake	With	
Mounting support	International standard flange	
Electrical connection	Straight connectors	

Complementary

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Range compatibility	Lexium 32	s not
[Us] rated supply voltage	480 V	ition———————————————————————————————————
Network number of phases	Three phase	
Continuous stall current	18 A	n
Continuous power	4.8 W	Fig. 2. See See See See See See See See See Se
Maximum current Irms	62.3 A for LXM32.D72N4	.:.
Maximum permanent current	62.3 A	SO SO SO

Jan 24, 2020



Second shaft	Without second shaft end
Shaft diameter	24 mm
Shaft length	50 mm
Key width	40 mm
Feedback type	Multiturn SinCos Hiperface
Holding torque	23 N.m holding brake
Motor flange size	140 mm
Number of motor stacks	3
Torque constant	1.34 N.m/A at 120 °C
Back emf constant	85.9 V/krpm at 120 °C
Number of motor poles	10
Rotor inertia	50.27 kg.cm²
Stator resistance	0.22 Ohm at 20 °C
Stator inductance	3 mH at 20 °C
Stator electrical time constant	13.6 ms at 20 °C
Maximum radial force Fr	2420 N at 1000 rpm 1920 N at 2000 rpm
Maximum axial force Fa	1680 N at 3000 rpm
	0.2 x Fr
Brake pull-in power	19 W
Type of cooling	Natural convection
Length	267 mm
Centring collar diameter	130 mm
Centring collar depth	3.5 mm
Number of mounting holes	4
Mounting holes diameter	11 mm
Circle diameter of the mounting holes	165 mm

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	

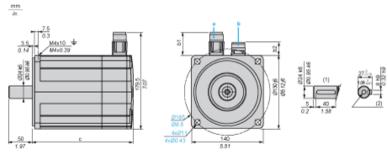
Contractual warranty

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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 M8 x 25 mm/M8 x 0.98 in.

Dimensions in mm

Straight connectors	Straight connectors Rotatable angled connectors		c (without brake)	c (with brake)	
b	b1	b	b1		
39.5	25.5	39.5	39.5	232	267

Dimensions in in.

Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)
b	b1	b	b1		
1.55	1.00	1.55	1.55	9.13	10.51

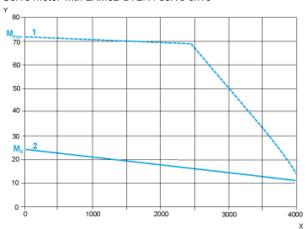
Product datasheet Performance Curves

BMH1403P12F1A

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D72N4 servo drive



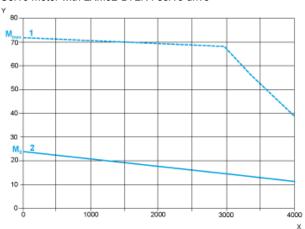
- X Speed in rpm Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

BMH1403P12F1A

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D72N4 servo drive



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