

# Product data sheet

## Characteristics

# BMH1403P12F2A

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



### Main

Product or component type	Servo motor
Device short name	BMH
Maximum mechanical speed	4000 rpm
Continuous stall torque	24 N.m for LXM32.D72N4 24 A at 400 V three phase 24 N.m for LXM32.D72N4 24 A at 480 V three phase
Peak stall torque	71.8 N.m for LXM32.D72N4 24 A at 400 V three phase 71.8 N.m for LXM32.D72N4 24 A at 480 V three phase
Nominal output power	4700 W for LXM32.D72N4 24 A at 400 V three phase 4700 W for LXM32.D72N4 24 A at 480 V three phase
Nominal torque	14.3 N.m for LXM32.D72N4 24 A at 400 V three phase 14.3 N.m for LXM32.D72N4 24 A at 480 V three phase
Nominal speed	3000 rpm for LXM32.D72N4 24 A at 400 V three phase 3000 rpm for LXM32.D72N4 24 A at 480 V three phase
Product compatibility	LXM32.D72N4 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	With
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	18 A
Continuous power	4.8 W
Maximum current Irms	62.3 A for LXM32.D72N4
Maximum permanent current	62.3 A
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

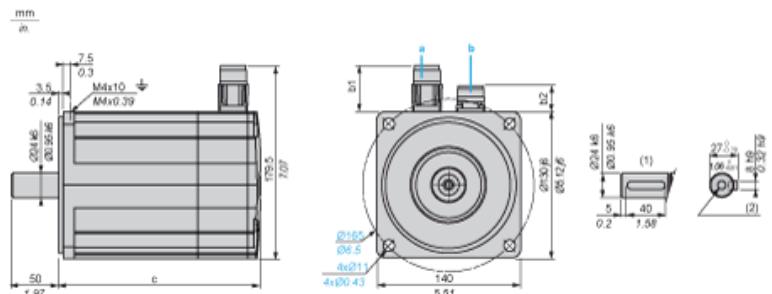
Torque constant	1.34 N.m/A at 120 °C
Back emf constant	85.9 V/krpm at 120 °C
Number of motor poles	10
Rotor inertia	50.27 kg.cm <sup>2</sup>
Stator resistance	0.22 Ohm at 20 °C
Stator inductance	3 mH at 20 °C
Stator electrical time constant	13.6 ms at 20 °C
Maximum radial force Fr	2420 N at 1000 rpm 1920 N at 2000 rpm 1680 N at 3000 rpm
Maximum axial force Fa	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
Product weight	18.5 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

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		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

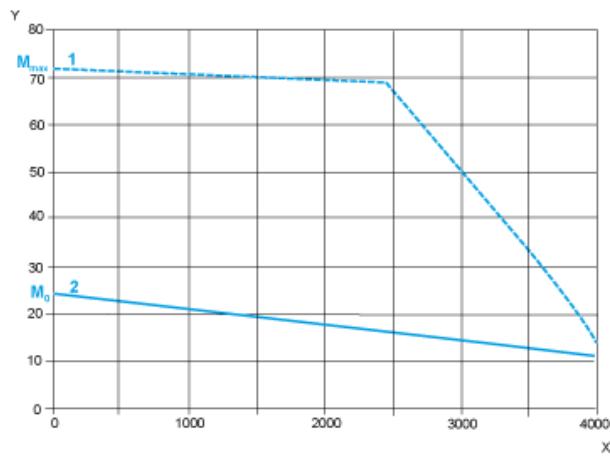
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## 400 V 3-Phase Supply Voltage

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### Torque/Speed Curves

Servo motor with LXM32•D72N4 servo drive



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

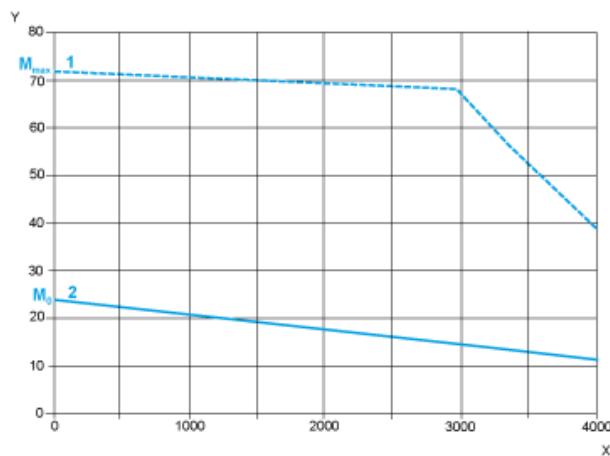
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## 480 V 3-Phase Supply Voltage

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### Torque/Speed Curves

Servo motor with LXM32•D72N4 servo drive



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