

BMH1002T16F1A

servo motor BMH, Lexium 32, 6Nm, 6000rpm, keyed shaft, with brake, IP54, 16bit encoder, straight



Main

Device short name	BMH
Product or Component Type	Servo motor
Maximum mechanical speed	6000 rpm
Continuous stall torque	53.1 Lbf.in (6 N.m) LXM32.D30M2 10 A, 115 V, single phase 53.1 lbf.in (6 N.m) LXM32.D30M2 10 A, 230 V, single phase
Peak stall torque	91.2 Lbf.in (10.3 N.m) LXM32.D30M2 10 A, 115 V, single phase 162.9 lbf.in (18.4 N.m) LXM32.D30M2 10 A, 230 V, single phase
Nominal output power	750 W LXM32.D30M2 10 A, 115 V, single phase 1450 W LXM32.D30M2 10 A, 230 V, single phase
Nominal torque	31.0 Lbf.in (3.5 N.m) LXM32.D30M2 10 A, 115 V, single phase 40.7 lbf.in (4.6 N.m) LXM32.D30M2 10 A, 230 V, single phase
Nominal speed	2000 rpm LXM32.D30M2 10 A, 115 V, single phase 3000 rpm LXM32.D30M2 10 A, 230 V, single phase
Product compatibility	LXM32.D30M2 115 V single phase LXM32.D30M2 230 V single phase
Shaft end	Keyed
IP Degree of Protection	IP54 standard
Speed feedback resolution	32768 points/turn
Holding brake	With
Mounting Support	International standard flange
Electrical Connection	Straight connectors

Complementary

Range Compatibility	Lexium 32
[Us] rated supply voltage	240 V
Phase	Three phase
Continuous stall current	8.65 A
Continuous power	2.39 W
Maximum current Irms	15 A LXM32.D30M2 115 V 30 A LXM32.D30M2 230 V
Maximum permanent current	30.24 A
Second shaft	Without second shaft end
Shaft diameter	0.7 in (19 mm)
Shaft length	1.6 in (40 mm)
Key width	1.2 in (30 mm)
Feedback type	Single turn SinCos Hiperface
Holding torque	48.7 lbf.in (5.5 N.m) holding brake
Motor flange size	3.9 in (100 mm)
Number of motor stacks	2
Torque constant	0.72 N.m/A 248.0000000000 °F (120 °C)

Back emf constant	46.2 V/krpm 248.0000000000 °F (120 °C)
Number of motor poles	10
Rotor inertia	6.77 kg.cm ²
Stator resistance	0.54 Ohm 68.0000000000 °F (20 °C)
Stator inductance	2.7 mH 68.0000000000 °F (20 °C)
Stator electrical time constant	5 ms 68.0000000000 °F (20 °C)
Maximum radial force Fr	990 N 1000 rpm 790 N 2000 rpm 690 N 3000 rpm 620 N 4000 rpm 580 N 5000 rpm
Maximum axial force Fa	0.2 x Fr
Brake pull-in power	12 W
Type of cooling	Natural convection
Length	8.0 in (202.3 mm)
Centring collar diameter	3.7 in (95 mm)
Centring collar depth	0.1 in (3.5 mm)
Number of mounting holes	4
Mounting holes diameter	0.4 in (9 mm)
Circle diameter of the mounting holes	4.5 in (115 mm)
Net Weight	14.1 lb(US) (6.4 kg)

Ordering and shipping details

Category	US1PC5318282
Discount Schedule	PC53
GTIN	3606485197500
Returnability	No
Country of origin	DE

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	7.874 in (20.000 cm)
Package 1 Width	8.661 in (22.000 cm)
Package 1 Length	15.748 in (40.000 cm)
Package 1 Weight	14.727 lb(US) (6.680 kg)

Offer Sustainability

Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
China RoHS Regulation	 China RoHS Declaration
RoHS exemption information	 Yes
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.
PVC free	Yes

Contractual warranty

Warranty	18 months
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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 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	160	202

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	6.29	7.95

115 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D30M2 servo drive



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

230 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D30M2 servo drive



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