

BMH1003P21F2A

servo motor BMH, Lexium 32, 8.4Nm,
6000rpm, untapped shaft, with brake, IP65,
IP67, 128bit encoder



Main

Device short name	BMH
Product or Component Type	Servo motor
Maximum mechanical speed	6000 rpm
Continuous stall torque	74.3 Lbf.in (8.4 N.m) LXM32.D30N4 10 A, 400 V, three phase 74.3 lbf.in (8.4 N.m) LXM32.D30N4 10 A, 480 V, three phase
Peak stall torque	222.2 Lbf.in (25.1 N.m) LXM32.D30N4 10 A, 400 V, three phase 222.2 lbf.in (25.1 N.m) LXM32.D30N4 10 A, 480 V, three phase
Nominal output power	2700 W LXM32.D30N4 10 A, 400 V, three phase 2700 W LXM32.D30N4 10 A, 480 V, three phase
Nominal torque	54.9 Lbf.in (6.2 N.m) LXM32.D30N4 10 A, 400 V, three phase 54.9 lbf.in (6.2 N.m) LXM32.D30N4 10 A, 480 V, three phase
Nominal speed	4000 rpm LXM32.D30N4 10 A, 400 V, three phase 4000 rpm LXM32.D30N4 10 A, 480 V, three phase
Product compatibility	LXM32.D30N4 400...480 V three phase
Shaft end	Smooth shaft
IP Degree of Protection	IP65 standard IP67 with IP67 kit
Speed feedback resolution	131072 points/turn
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
Phase	Three phase
Continuous stall current	7.69 A
Continuous power	3.3 W
Maximum current Irms	29.1 A LXM32.D30N4
Maximum permanent current	29.1 A
Second shaft	Without second shaft end
Shaft diameter	0.7 in (19 mm)
Shaft length	1.6 in (40 mm)
Feedback type	Single turn SinCos Hiperface
Holding torque	79.7 lbf.in (9 N.m) holding brake
Motor flange size	3.9 in (100 mm)
Number of motor stacks	3
Torque constant	1 N.m/A 248.0000000000 °F (120 °C)
Back emf constant	63.5 V/krpm 248.0000000000 °F (120 °C)
Number of motor poles	10

Rotor inertia	10.3 kg.cm ²
Stator resistance	0.63 Ohm 68.0000000000 °F (20 °C)
Stator inductance	4 mH 68.0000000000 °F (20 °C)
Stator electrical time constant	6.3 ms 68.0000000000 °F (20 °C)
Maximum radial force Fr	1050 N 1000 rpm 830 N 2000 rpm 730 N 3000 rpm 660 N 4000 rpm 610 N 5000 rpm
Maximum axial force Fa	0.2 x Fr
Brake pull-in power	18 W
Type of cooling	Natural convection
Length	9.2 in (234.3 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	17.97 lb(US) (8.15 kg)

Ordering and shipping details

Category	US1PC5318282
Discount Schedule	PC53
GTIN	3606485200620
Returnability	No
Country of origin	DE

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	8.7 in (22.0 cm)
Package 1 Width	7.9 in (20.0 cm)
Package 1 Length	15.7 in (40.0 cm)
Package 1 Weight	18.63 lb(US) (8.45 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	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

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

Servo motor with LXM32•D30N4 servo drive



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