

Product datasheet

Specifications



servo motor BMH, Lexium 32,
3.4Nm, 8000rpm, keyed shaft, with
brake, IP65, IP67, 128bit encoder,
straight

BMH0703T31F1A

! Discontinued

! Discontinued on: 9 Feb 2023

Main

Device short name	BMH
Product or component type	Servo motor
Maximum mechanical speed	8000 rpm
Continuous stall torque	3.4 N.m for LXM32.D30M2 at 10 A, 115 V, single phase 3.4 N.m for LXM32.D18M2 at 6 A, 230 V, single phase
Peak stall torque	8.7 N.m for LXM32.D30M2 at 10 A, 115 V, single phase 10.2 N.m for LXM32.D18M2 at 6 A, 230 V, single phase
Nominal output power	650 W for LXM32.D30M2 at 10 A, 115 V, single phase 900 W for LXM32.D18M2 at 6 A, 230 V, single phase
Nominal torque	3.1 N.m for LXM32.D30M2 at 10 A, 115 V, single phase 2.9 N.m for LXM32.D18M2 at 6 A, 230 V, single phase
Nominal speed	2000 rpm for LXM32.D30M2 at 10 A, 115 V, single phase 3000 rpm for LXM32.D18M2 at 6 A, 230 V, single phase
Product compatibility	LXM32.D30M2 at 115 V single phase LXM32.D18M2 at 230 V single phase
Shaft end	Keyed
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	Straight connectors

Complementary

Range compatibility	Lexium 32
[Us] rated supply voltage	240 V
Network number of phases	Three phase
Continuous stall current	5.55 A
Continuous power	1.68 W
Maximum current Irms	15 A for LXM32.D30M2 17.8 A for LXM32.D18M2
Maximum permanent current	17.84 A
Second shaft	Without second shaft end
Shaft diameter	14 mm

Shaft length	30 mm
Key width	20 mm
Feedback type	Single turn SinCos Hiperface
Holding torque	3 N.m holding brake
Motor flange size	70 mm
Number of motor stacks	3
Torque constant	0.61 N.m/A at 120 °C
Back emf constant	39.3 V/krpm at 120 °C
Number of motor poles	10
Rotor inertia	1.78 kg.cm ²
Stator resistance	1.32 Ohm at 20 °C
Stator inductance	4.3 mH at 20 °C
Stator electrical time constant	3.3 ms at 20 °C
Maximum radial force Fr	730 N at 1000 rpm 580 N at 2000 rpm 510 N at 3000 rpm 460 N at 4000 rpm 430 N at 5000 rpm 400 N at 6000 rpm
Maximum axial force Fa	0.2 x Fr
Brake pull-in power	7 W
Type of cooling	Natural convection
Length	225 mm
Centring collar diameter	60 mm
Centring collar depth	2.5 mm
Number of mounting holes	4
Mounting holes diameter	5.5 mm
Circle diameter of the mounting holes	82 mm
Net weight	4 kg
Sizing reference	BMH0703T
Network number of phases	3
Accuracy error [angular]	1.4 °
Temperature copper hot	135 °C
Temperature magnet hot	100 °C
Temperature magnet rt	20 °C

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	11.0 cm
Package 1 Width	20.0 cm
Package 1 Length	40.0 cm
Package 1 Weight	3.2 kg

Unit Type of Package 2	P06
Number of Units in Package 2	36
Package 2 Height	105.0 cm
Package 2 Width	80.0 cm
Package 2 Length	60.0 cm
Package 2 Weight	122.2 kg

Contractual warranty

Warranty (in months)	18
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

Use Better



Materials and Substances

EU RoHS Directive

[Compliant By Exemption](#)

PVC free

Yes

Use Longer



Lifetime extension

Repair

No

Use Again



Repack and remanufacture

End of life manual availability

No need of specific recycling operations

WEEE Label

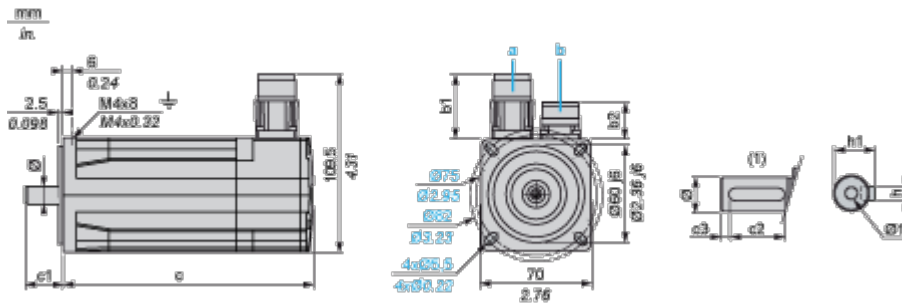


The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Dimensions Drawings

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)

Dimensions in mm

Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)	c1	c2	c3	h	h1	Ø	Ø1 for screws
b1	b2	b1	b2									
39.5	25.5	39.5	39.5	186	225	30	20	5	5 h9	16 ⁺⁰ _{-0.13}	14 k6	M5 x 17

Dimensions in in.

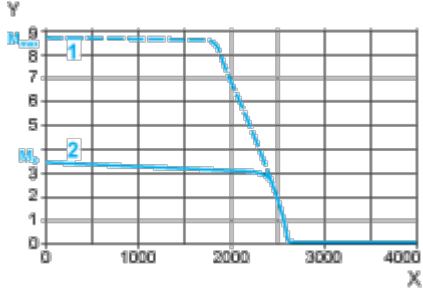
Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)	c1	c2	c3	h	h1	Ø	Ø1 for screws
b1	b2	b1	b2									
1.55	1	1.55	1.55	7.32	8.85	1.18	0.78	0.19	0.20 h9	0.63 ⁺⁰ _{-0.0051}	0.55 k6	M5 x 0.67

Performance Curves

115 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32-D30M2 servo drive



X Speed in rpm

Y Torque in Nm

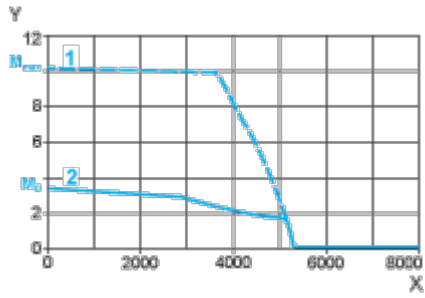
1 Peak torque

2 Continuous torque

230 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D18M2 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque