

# Product data sheet

## Characteristics

# BMH0702T31F1A

servo motor BMH - 2.5 Nm - 8000 rpm - keyed shaft - with brake - IP65/IP67



### Main

Product or component type	Servo motor
Device short name	BMH
Maximum mechanical speed	8000 rpm
Continuous stall torque	22.13 Lbf.in (2.5 N.m) LXM32.D30M2 10 A, 115 V, single phase 22.13 lbf.in (2.5 N.m) LXM32.D18M2 6 A, 230 V, single phase
Peak stall torque	56.64 Lbf.in (6.4 N.m) LXM32.D30M2 10 A, 115 V, single phase 65.50 lbf.in (7.4 N.m) LXM32.D18M2 6 A, 230 V, single phase
Nominal output power	600 W LXM32.D30M2 10 A, 115 V, single phase 900 W LXM32.D18M2 6 A, 230 V, single phase
Nominal torque	20.36 Lbf.in (2.3 N.m) LXM32.D30M2 10 A, 115 V, single phase 18.59 lbf.in (2.1 N.m) LXM32.D18M2 6 A, 230 V, single phase
Nominal speed	2500 rpm LXM32.D30M2 10 A, 115 V, single phase 4000 rpm LXM32.D18M2 6 A, 230 V, single phase
Product compatibility	LXM32.D30M2 115 V single phase LXM32.D18M2 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
Phase	Three phase
Continuous stall current	5.38 A
Continuous power	1.51 W
Maximum current I <sub>rms</sub>	15 A LXM32.D30M2 17.5 A LXM32.D18M2
Maximum permanent current	17.71 A
Second shaft	Without second shaft end
Shaft diameter	0.43 in (11 mm)
Shaft length	0.91 in (23 mm)
Key width	0.71 in (18 mm)
Feedback type	Single turn SinCos Hiperface
Holding torque	26.55 lbf.in (3 N.m) holding brake
Motor flange size	2.76 in (70 mm)
Number of motor stacks	2
Torque constant	0.46 N.m/A 248 °F (120 °C)
Back emf constant	29.6 V/krpm 248 °F (120 °C)

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Number of motor poles	10
Rotor inertia	1.24 kg.cm <sup>2</sup>
Stator resistance	1.15 Ohm 68 °F (20 °C)
Stator inductance	3.6 mH 68 °F (20 °C)
Stator electrical time constant	3.1 ms 68 °F (20 °C)
Maximum radial force Fr	710 N 1000 rpm 560 N 2000 rpm 490 N 3000 rpm 450 N 4000 rpm 410 N 5000 rpm 390 N 6000 rpm
Maximum axial force Fa	0.2 x Fr
Brake pull-in power	7 W
Type of cooling	Natural convection
Length	7.60 in (193 mm)
Centring collar diameter	2.36 in (60 mm)
Centring collar depth	0.10 in (2.5 mm)
Number of mounting holes	4
Mounting holes diameter	0.22 in (5.5 mm)
Circle diameter of the mounting holes	3.23 in (82 mm)
Net Weight	7.28 lb(US) (3.3 kg)

### Ordering and shipping details

Category	18282 - LEXIUM 32 MOTORS
Discount Schedule	PC53
GTIN	03606485199900
Nbr. of units in pkg.	1
Package weight(Lbs)	4.3 lb(US) (1.95 kg)
Returnability	No
Country of origin	DE

### Packing Units

Unit Type of Package 1	PCE
Package 1 Height	4.33 in (11 cm)
Package 1 width	7.87 in (20 cm)
Package 1 Length	15.75 in (40 cm)

### Offer Sustainability

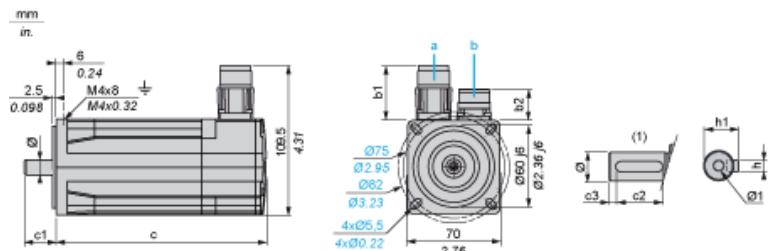
Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds which is known to the State of California to cause Carcinogen & Reproductive harm. For more information go to <a href="http://www.p65warnings.ca.gov">www.p65warnings.ca.gov</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) 
Mercury free	Yes
RoHS exemption information	 Yes
China RoHS Regulation	
Environmental Disclosure	
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

### 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)

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	154	193	23	18	2.5	4 h9	12.5 <sup>+0</sup> <sub>-0.13</sub>	11 k6	M4 x 14

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	6.06	7.59	0.90	0.70	0.09	0.16 h9	0.49 <sup>+0</sup> <sub>-0.0051</sub>	0.43 k6	M4 x 0.55

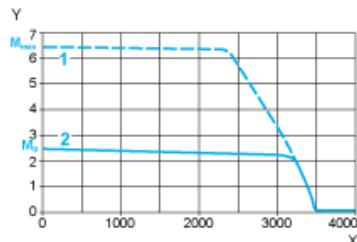
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## 115 V Single-Phase Supply Voltage

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### Torque/Speed Curves

Servo motor with LXM32•D30M2 servo drive



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

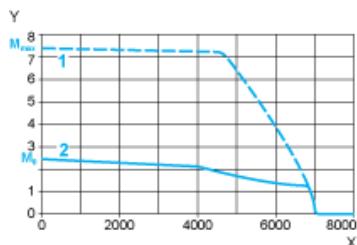
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## 230 V Single-Phase Supply Voltage

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### Torque/Speed Curves

Servo motor with LXM32•D18M2 servo drive



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