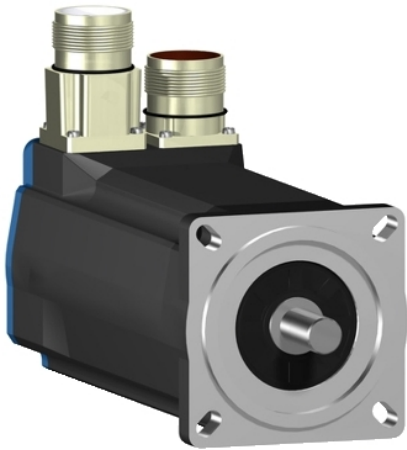


# BSH0702T02A1A

AC servo motor BSH - 2.12 N.m - 6000 rpm -  
untapped shaft - without brake - IP50





## Main

Product or component type	Servo motor
Device short name	BSH
Maximum mechanical speed	8000 rpm
Continuous stall torque	<p>19.47 Lbf.In (2.2 N.m) LXM32.D30M2 10 A, 115 V, single phase</p> <p>18.76 Lbf.In (2.12 N.m) LXM05AD17M2, 200...240 V, single phase</p> <p>18.76 Lbf.In (2.12 N.m) LXM05BD17M2, 200...240 V, single phase</p> <p>18.76 Lbf.In (2.12 N.m) LXM05CD17M2, 200...240 V, single phase</p> <p>19.47 Lbf.In (2.2 N.m) LXM32.D18M2 6 A, 230 V, single phase</p> <p>18.76 Lbf.In (2.12 N.m) LXM05AD17F1, 110...120 V, single phase</p> <p>18.76 Lbf.In (2.12 N.m) LXM05AD28M2, 200...240 V, single phase</p> <p>18.76 Lbf.In (2.12 N.m) LXM05BD17F1, 110...120 V, single phase</p> <p>18.76 Lbf.In (2.12 N.m) LXM05BD28M2, 200...240 V, single phase</p> <p>18.76 Lbf.In (2.12 N.m) LXM05CD17F1, 110...120 V, single phase</p> <p>18.76 Lbf.In (2.12 N.m) LXM05CD28M2, 200...240 V, single phase</p> <p>18.76 Lbf.In (2.12 N.m) LXM15LD17N4, 230 V, three phase</p> <p>18.76 Lbf.In (2.12 N.m) LXM15LD21M3, 230 V, three phase</p> <p>18.76 Lbf.In (2.12 N.m) LXM05AD42M3X, 200...240 V, three phase</p> <p>18.76 Lbf.In (2.12 N.m) LXM05BD42M3X, 200...240 V, three phase</p> <p>18.76 lbf.in (2.12 N.m) LXM05CD42M3X, 200...240 V, three phase</p>
Peak stall torque	<p>53.99 Lbf.In (6.1 N.m) LXM32.D30M2 10 A, 115 V, single phase</p> <p>63.73 Lbf.In (7.2 N.m) LXM32.D18M2 6 A, 230 V, single phase</p> <p>36.64 Lbf.In (4.14 N.m) LXM05AD17F1, 110...120 V, single phase</p> <p>36.64 Lbf.In (4.14 N.m) LXM05AD17M2, 200...240 V, single phase</p> <p>36.64 Lbf.In (4.14 N.m) LXM05BD17F1, 110...120 V, single phase</p> <p>36.64 Lbf.In (4.14 N.m) LXM05BD17M2, 200...240 V, single phase</p> <p>36.64 Lbf.In (4.14 N.m) LXM05CD17F1, 110...120 V, single phase</p> <p>36.64 Lbf.In (4.14 N.m) LXM05CD17M2, 200...240 V, single phase</p> <p>60.18 Lbf.In (6.8 N.m) LXM05AD28M2, 200...240 V, single phase</p> <p>60.18 Lbf.In (6.8 N.m) LXM05BD28M2, 200...240 V, single phase</p> <p>60.18 Lbf.In (6.8 N.m) LXM05CD28M2, 200...240 V, single phase</p> <p>39.56 Lbf.In (4.47 N.m) LXM15LD17N4, 230 V, three phase</p> <p>48.24 Lbf.In (5.45 N.m) LXM15LD21M3, 230 V, three phase</p> <p>60.18 Lbf.In (6.8 N.m) LXM05AD42M3X, 200...240 V, three phase</p> <p>60.18 Lbf.In (6.8 N.m) LXM05BD42M3X, 200...240 V, three phase</p> <p>60.18 lbf.in (6.8 N.m) LXM05CD42M3X, 200...240 V, three phase</p>

Nominal output power	<p>550 W LXM32.D30M2 10 A, 115 V, single phase</p> <p>600 W LXM05AD17M2, 200...240 V, single phase</p> <p>600 W LXM05BD17M2, 200...240 V, single phase</p> <p>600 W LXM05CD17M2, 200...240 V, single phase</p> <p>570 W LXM05AD17F1, 110...120 V, single phase</p> <p>570 W LXM05BD17F1, 110...120 V, single phase</p> <p>570 W LXM05CD17F1, 110...120 V, single phase</p> <p>600 W LXM05AD28M2, 200...240 V, single phase</p> <p>600 W LXM05BD28M2, 200...240 V, single phase</p> <p>600 W LXM05CD28M2, 200...240 V, single phase</p> <p>950 W LXM32.D18M2 6 A, 230 V, single phase</p> <p>1000 W LXM15LD17N4, 230 V, three phase</p> <p>1000 W LXM15LD21M3, 230 V, three phase</p> <p>600 W LXM05AD42M3X, 200...240 V, three phase</p> <p>600 W LXM05BD42M3X, 200...240 V, three phase</p> <p>600 W LXM05CD42M3X, 200...240 V, three phase</p>
Nominal torque	<p>18.32 Lbf.In (2.07 N.m) LXM32.D30M2 10 A, 115 V, single phase</p> <p>16.82 Lbf.In (1.9 N.m) LXM05AD17M2, 200...240 V, single phase</p> <p>16.82 Lbf.In (1.9 N.m) LXM05BD17M2, 200...240 V, single phase</p> <p>16.82 Lbf.In (1.9 N.m) LXM05CD17M2, 200...240 V, single phase</p> <p>16.20 Lbf.In (1.83 N.m) LXM05AD17F1, 110...120 V, single phase</p> <p>16.20 Lbf.In (1.83 N.m) LXM05BD17F1, 110...120 V, single phase</p> <p>16.20 Lbf.In (1.83 N.m) LXM05CD17F1, 110...120 V, single phase</p> <p>16.82 Lbf.In (1.9 N.m) LXM05AD28M2, 200...240 V, single phase</p> <p>16.82 Lbf.In (1.9 N.m) LXM05BD28M2, 200...240 V, single phase</p> <p>16.82 Lbf.In (1.9 N.m) LXM05CD28M2, 200...240 V, single phase</p> <p>15.93 Lbf.In (1.8 N.m) LXM32.D18M2 6 A, 230 V, single phase</p> <p>14.69 Lbf.In (1.66 N.m) LXM15LD17N4, 230 V, three phase</p> <p>14.69 Lbf.In (1.66 N.m) LXM15LD21M3, 230 V, three phase</p> <p>16.82 Lbf.In (1.9 N.m) LXM05AD42M3X, 200...240 V, three phase</p> <p>16.82 Lbf.In (1.9 N.m) LXM05BD42M3X, 200...240 V, three phase</p> <p>16.82 lbf.in (1.9 N.m) LXM05CD42M3X, 200...240 V, three phase</p>
Nominal speed	<p>2500 rpm LXM32.D30M2 10 A, 115 V, single phase</p> <p>3000 rpm LXM05AD17F1, 110...120 V, single phase</p> <p>3000 rpm LXM05BD17F1, 110...120 V, single phase</p> <p>3000 rpm LXM05CD17F1, 110...120 V, single phase</p> <p>3000 rpm LXM05AD17M2, 200...240 V, single phase</p> <p>3000 rpm LXM05BD17M2, 200...240 V, single phase</p> <p>3000 rpm LXM05CD17M2, 200...240 V, single phase</p> <p>3000 rpm LXM05AD28M2, 200...240 V, single phase</p> <p>3000 rpm LXM05BD28M2, 200...240 V, single phase</p> <p>3000 rpm LXM05CD28M2, 200...240 V, single phase</p> <p>5000 rpm LXM32.D18M2 6 A, 230 V, single phase</p> <p>3000 rpm LXM05AD42M3X, 200...240 V, three phase</p> <p>3000 rpm LXM05BD42M3X, 200...240 V, three phase</p> <p>3000 rpm LXM05CD42M3X, 200...240 V, three phase</p> <p>6000 rpm LXM15LD17N4, 230 V, three phase</p> <p>6000 rpm LXM15LD21M3, 230 V, three phase</p>

Product compatibility	LXM05AD17F1 110...120 V single phase LXM05AD17M2 200...240 V single phase LXM05AD28M2 200...240 V single phase LXM05BD17F1 110...120 V single phase LXM05BD17M2 200...240 V single phase LXM05BD28M2 200...240 V single phase LXM05CD17F1 110...120 V single phase LXM05CD17M2 200...240 V single phase LXM05CD28M2 200...240 V single phase LXM32.D30M2 115 V single phase LXM32.D18M2 230 V single phase LXM15LD21M3 230 V three phase LXM05AD42M3X 200...240 V three phase LXM05BD42M3X 200...240 V three phase LXM05CD42M3X 200...240 V three phase LXM15LD17N4 230 V three phase
Shaft end	Untapped
IP degree of protection	IP50 standard
Speed feedback resolution	131072 points/turn x 4096 turns
Holding brake	Without
Mounting support	International standard flange
Electrical connection	Straight connectors

## Complementary

Range compatibility	Lexium 05 Lexium 15 Lexium 32
Supply voltage max	480 V
Phase	Three phase
Continuous stall current	4.9 A
Maximum continuous power	1.51 W
Maximum current Irms	20.6 A LXM15LD21M3 20.6 A LXM15LD17N4 19.9 A LXM05AD17F1 19.9 A LXM05AD17M2 19.9 A LXM05AD28M2 19.9 A LXM05AD42M3X 19.9 A LXM05BD17F1 19.9 A LXM05BD17M2 19.9 A LXM05BD28M2 19.9 A LXM05BD42M3X 19.9 A LXM05CD17F1 19.9 A LXM05CD17M2 19.9 A LXM05CD28M2 19.9 A LXM05CD42M3X 15 A LXM32.D30M2 18 A LXM32.D18M2
Maximum permanent current	19.9 A
Switching frequency	8 kHz
Second shaft	Without second shaft end
Shaft diameter	0.43 in (11 mm)
Shaft length	0.91 in (23 mm)
Feedback type	Multiturn SinCos Hiperface
Motor flange size	2.76 in (70 mm)
Number of motor stacks	2
Torque constant	0.45 N.m/A 248 °F (120 °C)
Back emf constant	28 V/krpm 248 °F (120 °C)
Number of motor poles	6
Rotor inertia	0.41 kg.cm <sup>2</sup>
Stator resistance	1.5 Ohm 68 °F (20 °C)
Stator inductance	6.7 mH 68 °F (20 °C)
Stator electrical time constant	4.47 ms 68 °F (20 °C)

Maximum radial force Fr	390 N 6000 rpm 410 N 5000 rpm 450 N 4000 rpm 490 N 3000 rpm 560 N 2000 rpm 710 N 1000 rpm
Maximum axial force Fa	0.2 x Fr
Type of cooling	Natural convection
Length	7.36 in (187 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	6.37 lb(US) (2.89 kg)

### Ordering and shipping details

Category	18282 - LEXIUM 32 MOTORS
Discount Schedule	PC53
GTIN	03389118134720
Nbr. of units in pkg.	1
Package weight(Lbs)	1 lb(US) (0.45 kg)
Returnability	No
Country of origin	DE

### Packing Units

Unit Type of Package 1	PCE
Package 1 Height	4.84 in (12.3 cm)
Package 1 width	5.04 in (12.8 cm)
Package 1 Length	14.84 in (37.7 cm)

### Offer Sustainability

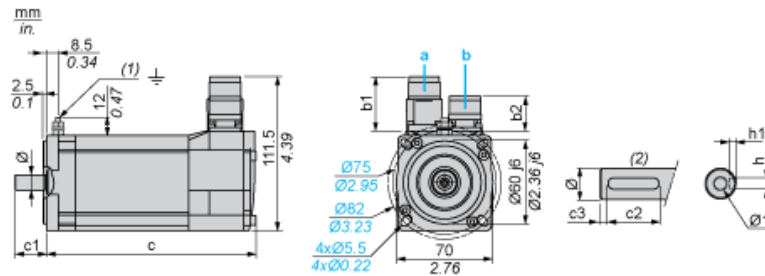
Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS Declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
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) M4 screw
- (2) 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	187	213	23	18	2.5	4 N9	2.5 <sup>+0.1</sup> <sub>0</sub>	11 k6	M4 x 10

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	1.00	1.55	1.55	7.36	8.38	0.90	0.70	0.09	0.16 N9	0.01 <sup>+0.004</sup> <sub>0</sub>	0.43 k6	M4 x 0.39

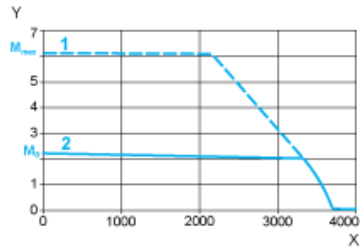
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115 V Single-Phase Supply Voltage

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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

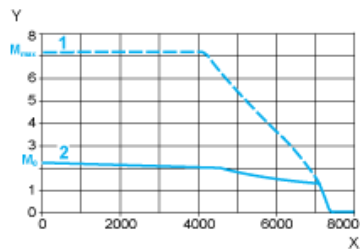
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230 V Single-Phase Supply Voltage

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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