Product data sheet





(!) Discontinued

servo motor BSH, Lexium 05, 2.12N.m, 6000rpm, 70mm, keyed shaft, Sincos single turn, without brake, IP65, straight

BSH0702T31A1A

! Discontinued on: Oct 9, 2023

Product availability: Non-Stock - Not normally stocked in distribution facility

Main

Product Or Component Type	Servo motor						
Device Short Name	BSH						
Maximum Mechanical Speed	8000 rpm						
	<u> </u>						
Continuous Stall Torque	19.47 lbf.in (2.2 N.m) LXM32.D30M2 10 A, 115 V, single phase						
	18.76 lbf.in (2.12 N.m) LXM05AD17M2, 200240 V, single phase						
	18.76 lbf.in (2.12 N.m) LXM05BD17M2, 200240 V, single phase						
	18.76 lbf.in (2.12 N.m) LXM05CD17M2, 200240 V, single phase						
	19.47 lbf.in (2.2 N.m) LXM32.D18M2 6 A, 230 V, single phase						
	18.76 lbf.in (2.12 N.m) LXM05AD17F1, 110120 V, single phase						
	18.76 lbf.in (2.12 N.m) LXM05AD28M2, 200240 V, single phase						
	18.76 lbf.in (2.12 N.m) LXM05BD17F1, 110120 V, single phase						
	18.76 lbf.in (2.12 N.m) LXM05BD28M2, 200240 V, single phase						
	18.76 lbf.in (2.12 N.m) LXM05CD17F1, 110120 V, single phase						
	18.76 lbf.in (2.12 N.m) LXM05CD28M2, 200240 V, single phase						
	18.76 lbf.in (2.12 N.m) LXM15LD17N4, 230 V, three phase						
	18.76 lbf.in (2.12 N.m) LXM15LD21M3, 230 V, three phase						
	18.76 lbf.in (2.12 N.m) LXM05AD42M3X, 200240 V, three phase						
	18.76 lbf.in (2.12 N.m) LXM05BD42M3X, 200240 V, three phase						
	18.76 lbf.in (2.12 N.m) LXM05CD42M3X, 200240 V, three phase						
Peak Stall Torque	53.99 lbf.in (6.1 N.m) LXM32.D30M2 10 A, 115 V, single phase						
	63.73 lbf.in (7.2 N.m) LXM32.D18M2 6 A, 230 V, single phase						
	36.64 lbf.in (4.14 N.m) LXM05AD17F1, 110120 V, single phase						
	36.64 lbf.in (4.14 N.m) LXM05AD17M2, 200240 V, single phase						
	36.64 lbf.in (4.14 N.m) LXM05BD17F1, 110120 V, single phase						
	36.64 lbf.in (4.14 N.m) LXM05BD17M2, 200240 V, single phase						
	36.64 lbf.in (4.14 N.m) LXM05CD17F1, 110120 V, single phase						
	36.64 lbf.in (4.14 N.m) LXM05CD17M2, 200240 V, single phase						
	60.18 lbf.in (6.8 N.m) LXM05AD28M2, 200240 V, single phase						
	60.18 lbf.in (6.8 N.m) LXM05BD28M2, 200240 V, single phase						
	60.18 lbf.in (6.8 N.m) LXM05CD28M2, 200240 V, single phase						
	39.56 lbf.in (4.47 N.m) LXM15LD17N4, 230 V, three phase						
	48.24 lbf.in (5.45 N.m) LXM15LD21M3, 230 V, three phase						
	60.18 lbf.in (6.8 N.m) LXM05AD42M3X, 200240 V, three phase						
	60.18 lbf.in (6.8 N.m) LXM05BD42M3X, 200240 V, three phase						
	60.18 lbf.in (6.8 N.m) LXM05CD42M3X, 200240 V, three phase						

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Nominal Output Power	550 W LXM32.D30M2 10 A, 115 V, single phase
	600 W LXM05AD17M2, 200240 V, single phase
	600 W LXM05BD17M2, 200240 V, single phase
	600 W LXM05CD17M2, 200240 V, single phase
	570 W LXM05AD17F1, 110120 V, single phase
	570 W LXM05BD17F1, 110120 V, single phase
	570 W LXM05CD17F1, 110120 V, single phase
	600 W LXM05AD28M2, 200240 V, single phase 600 W LXM05BD28M2, 200240 V, single phase
	600 W LXM05CD28M2, 200240 V, single phase
	950 W LXM32.D18M2 6 A, 230 V, single phase
	1000 W LXM15LD17N4, 230 V, three phase
	1000 W LXM15LD21M3, 230 V, three phase
	600 W LXM05AD42M3X, 200240 V, three phase
	600 W LXM05BD42M3X, 200240 V, three phase
	600 W LXM05CD42M3X, 200240 V, three phase
Nominal Torque	18.32 lbf.in (2.07 N.m) LXM32.D30M2 10 A, 115 V, single phase
	16.82 lbf.in (1.9 N.m) LXM05AD17M2, 200240 V, single phase
	16.82 lbf.in (1.9 N.m) LXM05BD17M2, 200240 V, single phase
	16.82 lbf.in (1.9 N.m) LXM05CD17M2, 200240 V, single phase
	16.20 lbf.in (1.83 N.m) LXM05AD17F1, 110120 V, single phase
	16.20 lbf.in (1.83 N.m) LXM05BD17F1, 110120 V, single phase
	16.20 lbf.in (1.83 N.m) LXM05CD17F1, 110120 V, single phase
	16.82 lbf.in (1.9 N.m) LXM05AD28M2, 200240 V, single phase
	16.82 lbf.in (1.9 N.m) LXM05BD28M2, 200240 V, single phase
	16.82 lbf.in (1.9 N.m) LXM05CD28M2, 200240 V, single phase
	15.93 lbf.in (1.8 N.m) LXM32.D18M2 6 A, 230 V, single phase
	14.69 lbf.in (1.66 N.m) LXM15LD17N4, 230 V, three phase
	14.69 lbf.in (1.66 N.m) LXM15LD21M3, 230 V, three phase 16.82 lbf.in (1.9 N.m) LXM05AD42M3X, 200240 V, three phase
	16.82 lbf.in (1.9 N.m) LXM05AD42M3X, 200240 V, three phase
	16.82 lbf.in (1.9 N.m) LXM05CD42M3X, 200240 V, three phase
	10.02 18.11.1 (1.0 1.11.1), 2.1110033 12.1107, 200112 10 1, 11100 p.11000
Nominal Speed	2500 rpm LXM32.D30M2 10 A, 115 V, single phase
	3000 rpm LXM05AD17F1, 110120 V, single phase
	3000 rpm LXM05BD17F1, 110120 V, single phase
	3000 rpm LXM05CD17F1, 110120 V, single phase
	3000 rpm LXM05AD17M2, 200240 V, single phase
	3000 rpm LXM05BD17M2, 200240 V, single phase
	3000 rpm LXM05CD17M2, 200240 V, single phase
	3000 rpm LXM05AD28M2, 200240 V, single phase 3000 rpm LXM05BD28M2, 200240 V, single phase
	3000 rpm LXM05CD28M2, 200240 V, single phase
	5000 rpm LXM32.D18M2 6 A, 230 V, single phase
	3000 rpm LXM05AD42M3X, 200240 V, three phase
	3000 rpm LXM05BD42M3X, 200240 V, three phase
	3000 rpm LXM05CD42M3X, 200240 V, three phase
	6000 rpm LXM15LD17N4, 230 V, three phase
	6000 rpm LXM15LD21M3, 230 V, three phase
Product Compatibility	LXM05AD17F1 110120 V single phase
	LXM05AD17F1 110120 V single phase LXM05AD17M2 200240 V single phase
	LXM05AD17M2 200240 V single phase
	LXM05BD17F1 110120 V single phase
	LXM05BD17M2 200240 V single phase
	LXM05BD28M2 200240 V single phase
	LXM05CD17F1 110120 V single phase
	LXM05CD17M2 200240 V single phase
	LXM05CD28M2 200240 V single phase
	LXM32.D30M2 115 V single phase
	LXM32.D18M2 230 V single phase
	LXM15LD21M3 230 V three phase
	LXM05AD42M3X 200240 V three phase
	LXM05BD42M3X 200240 V three phase
	LXM05CD42M3X 200240 V three phase LXM15LD17N4 230 V three phase
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Shaft End	Keyed
Ip Degree Of Protection	IP65 standard IP67 with IP67 kit
Speed Feedback Resolution	131072 points/turn
Holding Brake	Without
Mounting Support	International standard flange
Electrical Connection	Straight connectors

Complementary

Complementary	
Range Compatibility	Lexium 32
	Lexium 15 Lexium 05
	Lexium 05
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)
Key Width	0.71 in (18 mm)
Feedback Type	Single turn 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.cm²
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	US1PC5318282					
Discount Schedule	PC53					
Gtin	3389118136724					
Returnability	No					
Country Of Origin	DE					

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
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)
Package 1 Weight	6.17 lb(US) (2.8 kg)

Contractual warranty

Warranty 18 months



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Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

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Guide to assess a product's sustainability >





Transparency RoHS/REACh

Well-being performance



Certifications & Standards

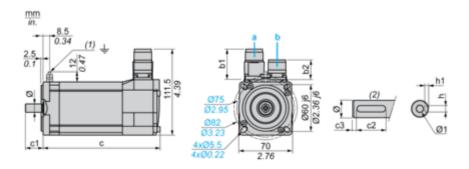
Reach Regulation	REACh Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
Circularity Profile	No need of specific recycling operations
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

BSH0702T31A1A

Dimensions Drawings

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 Rotatable angled connectors connectors		c (without c (with	c1	c2	сЗ	h	h1	Ø	Ø1 for			
b1	b2	b1	b2	brake)	ke) brake)							screws
39.5	25.5	39.5	39.5	187	213	23	18	2.5	4 N9	2.5 ^{+0.1} ₀	11 k6	M4 x 10

Dimensions in in.

_	Straight connectors Rotatable angled connectors			c (without brake)	without c (with	c1	c2	с3	h	h1	Ø	Ø1 for screws
b1	b2	b1	b2	Diake)								
1.55	1.00	1.55	1.55	7.36	8.38	0.90	0.70	0.09	0.16 N9	0.01 ^{+0.004} 0	0.43 k6	M4 x 0.39

Product data sheet

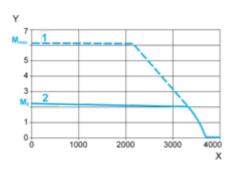
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Performance Curves

115 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D30M2 servo drive



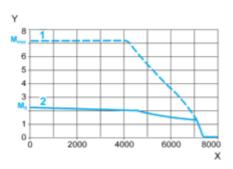
- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

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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