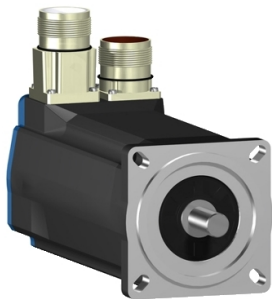


Product data sheet

Specifications



servo motor BSH, Lexium 05,
2.12N.m, 6000rpm, 70mm,
untapped shaft, Sincos single turn,
with brake, IP65, straight

BSH0702T21F1A

⚠ Discontinued

⚠ Discontinued on: Jun 30, 2023

Product availability: Stock - Normally stocked in distribution facility

Main

Device short name	BSH
Product or Component Type	Servo motor
Maximum mechanical speed	8000 rpm
Continuous stall torque	19.5 lbf.in (2.2 N.m) LXM32.D30M2 10 A, 115 V, single phase 18.76 lbf.in (2.12 N.m) LXM05AD17M2, 200...240 V, single phase 18.76 lbf.in (2.12 N.m) LXM05BD17M2, 200...240 V, single phase 18.76 lbf.in (2.12 N.m) LXM05CD17M2, 200...240 V, single phase 19.5 lbf.in (2.2 N.m) LXM32.D18M2 6 A, 230 V, single phase 18.76 lbf.in (2.12 N.m) LXM05AD17F1, 110...120 V, single phase 18.76 lbf.in (2.12 N.m) LXM05AD28M2, 200...240 V, single phase 18.76 lbf.in (2.12 N.m) LXM05BD17F1, 110...120 V, single phase 18.76 lbf.in (2.12 N.m) LXM05BD28M2, 200...240 V, single phase 18.76 lbf.in (2.12 N.m) LXM05CD17F1, 110...120 V, single phase 18.76 lbf.in (2.12 N.m) LXM05CD28M2, 200...240 V, single phase 18.76 lbf.in (2.12 N.m) LXM15LD17N4 6 A, 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, 200...240 V, three phase 18.76 lbf.in (2.12 N.m) LXM05BD42M3X, 200...240 V, three phase 18.76 lbf.in (2.12 N.m) LXM05CD42M3X, 200...240 V, three phase
Peak stall torque	54.0 lbf.in (6.1 N.m) LXM32.D30M2 10 A, 115 V, single phase 63.7 lbf.in (7.2 N.m) LXM32.D18M2 6 A, 230 V, single phase 36.64 lbf.in (4.14 N.m) LXM05AD17F1, 110...120 V, single phase 36.64 lbf.in (4.14 N.m) LXM05AD17M2, 200...240 V, single phase 36.64 lbf.in (4.14 N.m) LXM05BD17F1, 110...120 V, single phase 36.64 lbf.in (4.14 N.m) LXM05BD17M2, 200...240 V, single phase 36.64 lbf.in (4.14 N.m) LXM05CD17F1, 110...120 V, single phase 36.64 lbf.in (4.14 N.m) LXM05CD17M2, 200...240 V, single phase 60.2 lbf.in (6.8 N.m) LXM05AD28M2 6 A, 200...240 V, single phase 60.2 lbf.in (6.8 N.m) LXM05BD28M2, 200...240 V, single phase 60.2 lbf.in (6.8 N.m) LXM05CD28M2, 200...240 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 60.2 lbf.in (6.8 N.m) LXM05AD42M3X, 200...240 V, three phase 60.2 lbf.in (6.8 N.m) LXM05BD42M3X, 200...240 V, three phase 60.2 lbf.in (6.8 N.m) LXM05CD42M3X, 200...240 V, three phase
Nominal output power	550 W LXM32.D30M2 10 A, 115 V, single phase 600 W LXM05AD17M2, 200...240 V, single phase 600 W LXM05BD17M2 6 A, 200...240 V, single phase 600 W LXM05CD17M2, 200...240 V, single phase 570 W LXM05AD17F1, 110...120 V, single phase 570 W LXM05BD17F1, 110...120 V, single phase 570 W LXM05CD17F1, 110...120 V, single phase 600 W LXM05AD28M2, 200...240 V, single phase 600 W LXM05BD28M2, 200...240 V, single phase 600 W LXM05CD28M2, 200...240 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, 200...240 V, three phase 600 W LXM05BD42M3X, 200...240 V, three phase 600 W LXM05CD42M3X, 200...240 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 torque	<p>18.32 lbf.in (2.07 N.m) LXM32.D30M2 10 A, 115 V, single phase</p> <p>16.8 lbf.in (1.9 N.m) LXM05AD17M2, 200...240 V, single phase</p> <p>16.8 lbf.in (1.9 N.m) LXM05BD17M2 6 A, 200...240 V, single phase</p> <p>16.8 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>16.8 lbf.in (1.9 N.m) LXM05AD28M2, 200...240 V, single phase</p> <p>16.8 lbf.in (1.9 N.m) LXM05BD28M2, 200...240 V, single phase</p> <p>16.8 lbf.in (1.9 N.m) LXM05CD28M2, 200...240 V, single phase</p> <p>15.9 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>16.8 lbf.in (1.9 N.m) LXM05AD42M3X, 200...240 V, three phase</p> <p>16.8 lbf.in (1.9 N.m) LXM05BD42M3X, 200...240 V, three phase</p> <p>16.8 lbf.in (1.9 N.m) LXM05CD42M3X, 200...240 V, three phase</p>
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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 6 A, 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>
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Product compatibility	<p>LXM05AD17F1 110...120 V single phase</p> <p>LXM05AD17M2 200...240 V single phase</p> <p>LXM05AD28M2 200...240 V single phase</p> <p>LXM05BD17F1 110...120 V single phase</p> <p>LXM05BD17M2 200...240 V single phase</p> <p>LXM05BD28M2 200...240 V single phase</p> <p>LXM05CD17F1 110...120 V single phase</p> <p>LXM05CD17M2 200...240 V single phase</p> <p>LXM05CD28M2 200...240 V single phase</p> <p>LXM32.D30M2 115 V single phase</p> <p>LXM32.D18M2 230 V single phase</p> <p>LXM15LD21M3 230 V three phase</p> <p>LXM05AD42M3X 200...240 V three phase</p> <p>LXM05BD42M3X 200...240 V three phase</p> <p>LXM05CD42M3X 200...240 V three phase</p> <p>LXM15LD17N4 230 V three phase</p>
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Shaft end	Untapped
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IP Degree of Protection	<p>IP65 standard</p> <p>IP67 with IP67 kit</p>
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Speed feedback resolution	131072 points/turn
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Holding brake	With
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Mounting Support	International standard flange
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Electrical Connection	Straight connectors
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Complementary

Range Compatibility	<p>Lexium 05</p> <p>Lexium 32</p> <p>Lexium 15</p>
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supply voltage max	480 V
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Phase	Three phase
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Continuous stall current	4.9 A
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maximum continuous power	1.51 W
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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	0.4 in (11 mm)
Shaft length	0.9 in (23 mm)
Feedback type	Single turn SinCos Hiperface
Holding torque	17.7 lbf.in (2 N.m) holding brake
Motor flange size	2.8 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)
Rotor inertia	0.482 kg.cm ²
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
Brake pull-in power	10 W
Type of cooling	Natural convection
Length	8.4 in (212.5 mm)
Centring collar diameter	2.4 in (60 mm)
Centring collar depth	0.10 in (2.5 mm)
Number of mounting holes	4
Mounting holes diameter	0.2 in (5.5 mm)
Circle diameter of the mounting holes	3.2 in (82 mm)
Net Weight	6.6 lb(US) (3 kg)
Sizing reference	BSH0702T
Network number of phases	3
Accuracy error [angular]	1.4 °

Temperature copper hot	248 °F (120 °C)
Temperature magnet hot	212 °F (100 °C)
Temperature magnet rt	68 °F (20 °C)

Ordering and shipping details

Category	18282-LEXIUM 32 MOTORS
Discount Schedule	PC53
GTIN	3389118136663
Returnability	No
Country of origin	DE

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	4.8 in (12.3 cm)
Package 1 Width	5.04 in (12.8 cm)
Package 1 Length	14.8 in (37.7 cm)
Package weight(Lbs)	7.17 lb(US) (3.25 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](#)

Pro-active compliance (Product out of EU RoHS legal scope)

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

PVC free

Yes

Use Longer



Lifetime extension

Repair

No

Use Again



Repack and remanufacture

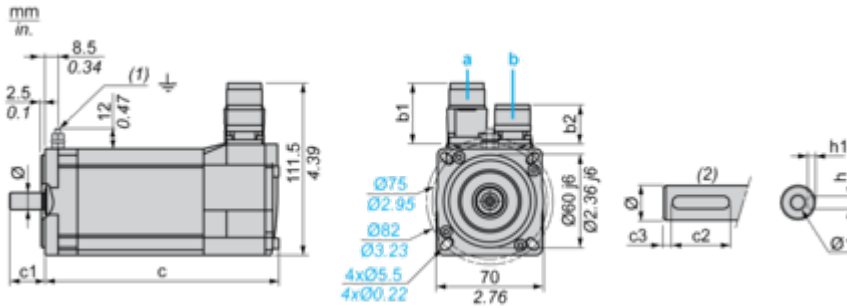
Circularity Profile

No need of specific recycling operations

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 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 ^{+0.1} ₀	11 k6	M4 x 10

Dimensions in in.

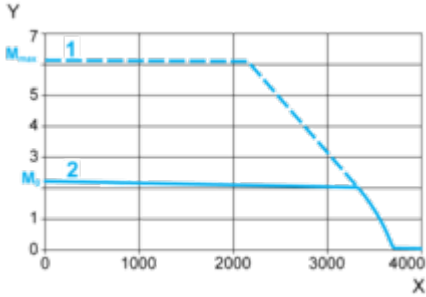
Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)	c1	c2	c3	h	h1	Ø	Ø1 for screws
b1	b2	b1	b2									
1.55	1.00	1.55	1.55	7.36	8.38	0.90	0.70	0.09	0.16 N9	0.01 ^{+0.004} ₀	0.43 k6	M4 x 0.39

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

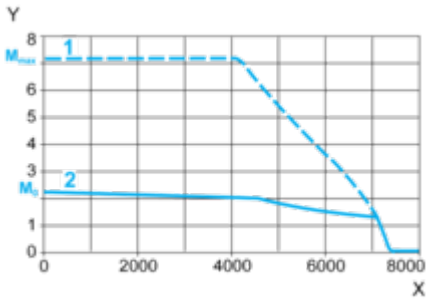
1 Peak torque

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