Product data sheet

Specifications





() Discontinued

AC servo motor BSH, Lexium 05, 2.7N.m, 3000rpm, untapped shaft, with brake, IP50

BSH1001P01F1A

() 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	6000 rpm						
Continuous Stall Torque	30.00 lbf.in (3.39 N.m) LXM15LD21M3, 230 V, single phase						
	23.90 lbf.in (2.7 N.m) LXM15LD10N4, 230 V, three phase						
	30.00 lbf.in (3.39 N.m) LXM15LD10N4, 400 V, three phase						
	30.00 lbf.in (3.39 N.m) LXM15LD10N4, 480 V, three phase						
	30.00 lbf.in (3.39 N.m) LXM15LD21M3, 230 V, three phase						
	30.00 lbf.in (3.39 N.m) LXM15LD17N4, 230 V, three phase						
	30.00 lbf.in (3.39 N.m) LXM15LD17N4, 400 V, three phase						
	30.00 lbf.in (3.39 N.m) LXM15LD17N4, 480 V, three phase						
	30.09 lbf.in (3.4 N.m) LXM05AD17M3X, 200240 V, three phase						
	30.09 lbf.in (3.4 N.m) LXM05AD22N4, 380480 V, three phase						
	30.09 lbf.in (3.4 N.m) LXM05BD17M3X, 200240 V, three phase						
	30.09 lbf.in (3.4 N.m) LXM05BD22N4, 380480 V, three phase						
	30.09 lbf.in (3.4 N.m) LXM05CD17M3X, 200240 V, three phase						
	30.09 lbf.in (3.4 N.m) LXM05CD22N4, 380480 V, three phase						
	29.21 lbf.in (3.3 N.m) LXM32.D18N4 6 A, 400 V, three phase						
	29.21 lbf.in (3.3 N.m) LXM32.D18N4 6 A, 480 V, three phase						
Peak Stall Torque	62.66 lbf.in (7.08 N.m) LXM15LD21M3, 230 V, single phase						
	54.79 lbf.in (6.19 N.m) LXM15LD10N4, 230 V, three phase						
	54.79 lbf.in (6.19 N.m) LXM15LD10N4, 400 V, three phase						
	54.79 lbf.in (6.19 N.m) LXM15LD10N4, 480 V, three phase						
	62.66 lbf.in (7.08 N.m) LXM15LD21M3, 230 V, three phase						
	62.66 lbf.in (7.08 N.m) LXM15LD17N4, 230 V, three phase						
	62.66 lbf.in (7.08 N.m) LXM15LD17N4, 400 V, three phase						
	62.66 lbf.in (7.08 N.m) LXM15LD17N4, 480 V, three phase						
	62.84 lbf.in (7.1 N.m) LXM05AD17M3X, 200240 V, three phase						
	62.84 lbf.in (7.1 N.m) LXM05AD22N4, 380480 V, three phase						
	62.84 lbf.in (7.1 N.m) LXM05BD17M3X, 200240 V, three phase						
	62.84 lbf.in (7.1 N.m) LXM05BD22N4, 380480 V, three phase						
	62.84 lbf.in (7.1 N.m) LXM05CD17M3X, 200240 V, three phase						
	62.84 lbf.in (7.1 N.m) LXM05CD22N4, 380480 V, three phase						
	84.97 lbf.in (9.6 N.m) LXM32.D18N4 6 A, 400 V, three phase						
	84.97 lbf.in (9.6 N.m) LXM32.D18N4 6 A, 480 V, three phase						
Iominal Output Power	1300 W LXM15LD17N4, 400 V, three phase						
	1500 W LXM15LD10N4, 480 V, three phase						
	950 W LXM15LD21M3, 230 V, single phase						
	1300 W LXM15LD10N4, 400 V, three phase						
	1500 W LXM15LD17N4, 480 V, three phase						
	500 W LXM05AD17M3X, 200240 V, three phase						
	500 W LXM05BD17M3X, 200240 V, three phase						
	500 W LXM05CD17M3X, 200240 V, three phase						
	850 W LXM15LD10N4, 230 V, three phase						
	900 W LXM05AD22N4, 380480 V, three phase						
	900 W LXM05BD22N4, 380480 V, three phase						
	900 W LXM05CD22N4, 380480 V, three phase						
	950 W LXM15LD17N4, 230 V, three phase						
	950 W LXM15LD21M3, 230 V, three phase						
	1100 W LXM32.D18N4 6 A, 400 V, three phase						
	1100 W LXM32.D18N4 6 A, 480 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	26.55 lbf.in (3 N.m) LXM15LD21M3, 230 V, single phase
	22.13 lbf.in (2.5 N.m) LXM15LD10N4, 480 V, three phase
	22.13 lbf.in (2.5 N.m) LXM15LD17N4, 480 V, three phase
	23.90 lbf.in (2.7 N.m) LXM15LD10N4, 230 V, three phase
	23.90 lbf.in (2.7 N.m) LXM15LD10N4, 400 V, three phase
	23.90 lbf.in (2.7 N.m) LXM15LD17N4, 400 V, three phase 25.84 lbf.in (2.92 N.m) LXM05AD22N4, 380480 V, three phase
	25.84 lbf.in (2.92 N.m) LXM05BD22N4, 380480 V, three phase
	25.84 lbf.in (2.92 N.m) LXM05CD22N4, 380480 V, three phase
	26.55 lbf.in (3 N.m) LXM15LD17N4, 230 V, three phase
	26.55 lbf.in (3 N.m) LXM15LD21M3, 230 V, three phase
	27.97 lbf.in (3.16 N.m) LXM05AD17M3X, 200240 V, three phase
	27.97 lbf.in (3.16 N.m) LXM05BD17M3X, 200240 V, three phase
	27.97 lbf.in (3.16 N.m) LXM05CD17M3X, 200240 V, three phase
	23.90 lbf.in (2.7 N.m) LXM32.D18N4 6 A, 400 V, three phase
	23.90 lbf.in (2.7 N.m) LXM32.D18N4 6 A, 480 V, three phase
Nominal Speed	3000 rpm LXM15LD10N4, 230 V, three phase
	3000 rpm LXM15LD21M3, 230 V, single phase
	3000 rpm LXM05AD22N4, 380480 V, three phase
	3000 rpm LXM05BD22N4, 380480 V, three phase
	3000 rpm LXM05CD22N4, 380480 V, three phase
	3000 rpm LXM15LD17N4, 230 V, three phase
	3000 rpm LXM15LD21M3, 230 V, three phase
	1500 rpm LXM05AD17M3X, 200240 V, three phase
	1500 rpm LXM05BD17M3X, 200240 V, three phase
	1500 rpm LXM05CD17M3X, 200240 V, three phase
	4500 rpm LXM15LD10N4, 400 V, three phase
	4500 rpm LXM15LD17N4, 400 V, three phase
	6000 rpm LXM15LD10N4, 480 V, three phase
	6000 rpm LXM15LD17N4, 480 V, three phase 4000 rpm LXM32.D18N4 6 A, 400 V, three phase
	4000 rpm LXM32.D18N4 6 A, 480 V, three phase
Product Compatibility	LXM15LD21M3 230 V single phase
	LXM15LD10N4 400 V three phase
	LXM05AD17M3X 200240 V three phase
	LXM05BD17M3X 200240 V three phase
	LXM05CD17M3X 200240 V three phase
	LXM15LD10N4 230 V three phase
	LXM15LD10N4 480 V three phase
	LXM15LD21M3 230 V three phase
	LXM15LD17N4 230 V three phase
	LXM05AD22N4 380480 V three phase
	LXM05BD22N4 380480 V three phase
	LXM05CD22N4 380480 V three phase
	LXM15LD17N4 400 V three phase
	LXM15LD17N4 480 V three phase
	LXM32.D18N4 400 V three phase
	LXM32.D18N4 480 V three phase
Shaft End	Untapped
p Degree Of Protection	IP50 standard
Speed Feedback Resolution	131072 points/turn
Holding Brake	With
Mounting Support	International standard flange

Complementary

Range Compatibility	Lexium 32					
	Lexium 05					
	Lexium 15					
Supply Voltage Max	480 V					
Phase	Three phase					
Continuous Stall Current	3.5 A					
Maximum Continuous Power	1.6 W					

Maximum Current Irms	12 A LXM15LD21M3 12 A LXM15LD10N4 12 A LXM15LD17N4 12 A LXM05AD17M3X 12 A LXM05BD22N4 12 A LXM05BD22N4 12 A LXM05CD17M3X 12 A LXM05CD17M3X 12 A LXM05CD22N4 12 A LXM05CD22N4 12 A LXM32.D18N4
Maximum Permanent Current	12 A
Switching Frequency	8 kHz
Second Shaft	Without second shaft end
Shaft Diameter	0.75 in (19 mm)
Shaft Length	1.57 in (40 mm)
Feedback Type	Single turn SinCos Hiperface
Holding Torque	79.66 lbf.in (9 N.m) holding brake
Motor Flange Size	3.94 in (100 mm)
Number Of Motor Stacks	1
Torque Constant	0.89 N.m/A 248 °F (120 °C)
Back Emf Constant	60 V/krpm 248 °F (120 °C)
Number Of Motor Poles	8
Rotor Inertia	2.018 kg.cm ²
Stator Resistance	3.8 Ohm 68 °F (20 °C)
Stator Inductance	17.6 mH 68 °F (20 °C)
Stator Electrical Time Constant	4.63 ms 68 °F (20 °C)
Maximum Radial Force Fr	530 N 5000 rpm 570 N 4000 rpm 630 N 3000 rpm 720 N 2000 rpm 900 N 1000 rpm
Maximum Axial Force Fa	0.2 x Fr
Brake Pull-In Power	18 W
Type Of Cooling	Natural convection
Length	7.85 in (199.5 mm)
Centring Collar Diameter	3.74 in (95 mm)
Centring Collar Depth	0.14 in (3.5 mm)
Number Of Mounting Holes	4
Mounting Holes Diameter	0.35 in (9 mm)
Circle Diameter Of The Mounting Holes	4.53 in (115 mm)
Net Weight	10.58 lb(US) (4.8 kg)

Ordering and shipping details

Category	US1PC5318282
Discount Schedule	PC53
Gtin	3389118138162
Returnability	No

Country Of	Origin	[DE
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Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	6.06 in (15.4 cm)
Package 1 Width	6.42 in (16.3 cm)
Package 1 Length	16.02 in (40.7 cm)
Package 1 Weight	10.91 lb(US) (4.95 kg)

Contractual warranty

Warranty

18 months

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Sustainability Screen Premium

Green PremiumTM label is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ products.

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

Learn more about Green Premium >

Guide to assess a product's sustainability >



Transparency RoHS/REACh

Well-being performance

Mercury Free
Rohs Exemption Information Yes
Pvc Free

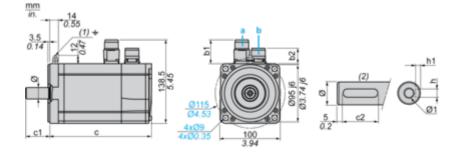
Certifications & Standards

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

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 connectors	•	c (without	c (with	c1	c2	h	h1	ø	Ø1 for
b1	b2	b1	b2	brake) b	brake)						screws
39.5	25.5	39.5	39.5	169	200	40	30	6 N9	3.5 ^{+0.1} 0	19 k6	M6 x 16

Dimensions in in.

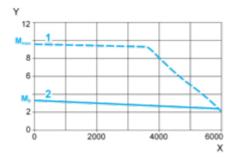
Straigh connec				c (without	c (with	c1	c2	h	h1	ø	Ø1 for
b1	b2	b1	b2	brake)	brake)						screws
1.55	1.00	1.55	1.55	6.65	7.87	1.57	1.18	0.24 N9	0.14 ^{+0.1} 0	0.75 k6	M6 x 0.63

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D18N4 servo drive



 \boldsymbol{X} Speed in rpm

Y Torque in Nm

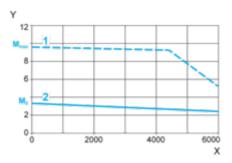
1 Peak torque

2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D18N4 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque