Product data sheet

Specifications





AC servo motor BSH, Lexium 05, 3.39N.m, 4000rpm, keyed shaft, with brake, IP65

BSH1001T31F2A

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

Price*: 2,475.00 USD

Main

Product Or Component Type	Servo motor						
Device Short Name	BSH						
Maximum Mechanical Speed	6000 rpm						
Continuous Stall Torque	29.21 lbf.in (3.3 N.m) LXM32.D30M2 10 A, 115 V, single phase 30.00 lbf.in (3.39 N.m) LXM15LD28M3, 230 V, three phase 30.09 lbf.in (3.4 N.m) LXM05AD28F1, 110120 V, single phase 30.09 lbf.in (3.4 N.m) LXM05AD28F1, 110120 V, single phase 30.09 lbf.in (3.4 N.m) LXM05AD42M3X, 200240 V, three phase 30.09 lbf.in (3.4 N.m) LXM05BD28F1, 110120 V, single phase 30.09 lbf.in (3.4 N.m) LXM05BD28F2, 200240 V, single phase 30.09 lbf.in (3.4 N.m) LXM05BD28M2, 200240 V, single phase 30.09 lbf.in (3.4 N.m) LXM05BD28M2, 200240 V, single phase 30.09 lbf.in (3.4 N.m) LXM05CD28F1, 110120 V, single phase 30.09 lbf.in (3.4 N.m) LXM05CD28F1, 110120 V, single phase 30.09 lbf.in (3.4 N.m) LXM05CD28M2, 200240 V, three phase 30.09 lbf.in (3.4 N.m) LXM05CD28M2, 200240 V, single phase 30.09 lbf.in (3.4 N.m) LXM05CD28M2, 200240 V, single phase 30.09 lbf.in (3.4 N.m) LXM05CD28M2, 200240 V, single phase 30.09 lbf.in (3.4 N.m) LXM05CD42M3X, 200240 V, single phase						
Peak Stall Torque	55.76 lbf.in (6.3 N.m) LXM32.D30M2 10 A, 115 V, single phase 75.23 lbf.in (8.5 N.m) LXM05AD28F1, 110120 V, single phase 75.23 lbf.in (8.5 N.m) LXM05AD28M2, 200240 V, single phase 75.23 lbf.in (8.5 N.m) LXM05BD28F1, 110120 V, single phase 75.23 lbf.in (8.5 N.m) LXM05BD28M2, 200240 V, single phase 75.23 lbf.in (8.5 N.m) LXM05CD28F1, 110120 V, single phase 75.23 lbf.in (8.5 N.m) LXM05CD28M2, 200240 V, single phase 66.38 lbf.in (7.5 N.m) LXM05CD28M2, 200240 V, single phase 75.23 lbf.in (8.5 N.m) LXM05CD28M3, 200 V, single phase 75.23 lbf.in (8.5 N.m) LXM15LD28M3, 230 V, three phase 75.23 lbf.in (8.5 N.m) LXM05AD42M3X, 200240 V, three phase 75.23 lbf.in (8.5 N.m) LXM05AD42M3X, 200240 V, three phase						
Nominal Output Power	700 W LXM32.D30M2 10 A, 115 V, single phase 900 W LXM32.D18M2 6 A, 230 V, single phase 500 W LXM05AD28F1, 110120 V, single phase 500 W LXM05BD28F1, 110120 V, single phase 500 W LXM05CD28F1, 110120 V, single phase 900 W LXM05AD28M2, 200240 V, single phase 900 W LXM05BD28M2, 200240 V, single phase 900 W LXM05CD28M2, 200240 V, single phase 1150 W LXM15LD28M3, 230 V, three phase 900 W LXM05AD42M3X, 200240 V, three phase 900 W LXM05BD24ZM3X, 200240 V, three phase 900 W LXM05BD42M3X, 200240 V, three phase 900 W LXM05BD42M3X, 200240 V, three phase 900 W LXM05CD42M3X, 200240 V, three phase						
Nominal Torque	24.34 lbf.in (2.75 N.m) LXM32.D30M2 10 A, 115 V, single phase 25.67 lbf.in (2.9 N.m) LXM05AD28M2, 200240 V, single phase 25.67 lbf.in (2.9 N.m) LXM05D28M2, 200240 V, single phase 25.67 lbf.in (2.9 N.m) LXM05CD28M2, 200240 V, single phase 27.97 lbf.in (3.16 N.m) LXM05AD28F1, 110120 V, single phase 27.97 lbf.in (3.16 N.m) LXM05D28F1, 110120 V, single phase 27.97 lbf.in (3.16 N.m) LXM05CD28F1, 110120 V, single phase 27.97 lbf.in (3.16 N.m) LXM05CD28F1, 110120 V, single phase 19.47 lbf.in (2.2 N.m) LXM05CD28F1, 110120 V, single phase 24.34 lbf.in (2.75 N.m) LXM15LD28M3, 230 V, three phase 25.67 lbf.in (2.9 N.m) LXM05AD42M3X, 200240 V, three phase 25.67 lbf.in (2.9 N.m) LXM05BD42M3X, 200240 V, three phase 25.67 lbf.in (2.9 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 Speed	2500 rpm LXM32.D30M2 10 A, 115 V, single phase 3000 rpm LXM05AD28M2, 200240 V, single phase 3000 rpm LXM05BD28M2, 200240 V, single phase 3000 rpm LXM05CD28M2, 200240 V, single phase 3000 rpm LXM05AD42M3X, 200240 V, three phase 3000 rpm LXM05BD42M3X, 200240 V, three phase 3000 rpm LXM05CD42M3X, 200240 V, three phase 3000 rpm LXM05CD42M3X, 200240 V, three phase 4000 rpm LXM05CD42M3X, 200240 V, single phase 1500 rpm LXM05AD28F1, 110120 V, single phase 1500 rpm LXM05CD28F1, 110120 V, single phase 1500 rpm LXM05CD28F1, 110120 V, single phase
Product Compatibility	LXM05AD28F1 110120 V single phase LXM05AD28M2 200240 V single phase LXM05BD28F1 110120 V single phase LXM05BD28M2 200240 V single phase LXM05CD28F1 110120 V single phase LXM05CD28M2 200240 V single phase LXM32.D30M2 115 V single phase LXM32.D18M2 230 V single phase LXM05AD42M3X 200240 V three phase LXM05BD42M3X 200240 V three phase
	LXM05CD42M3X 200240 V three phase LXM15LD28M3 230 V three 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	Rotatable right-angled connectors

Complementary

e emprementar y							
Range Compatibility	Lexium 15						
	Lexium 05						
	Lexium 32						
Supply Voltage Max	480 V						
Phase	Three phase						
Continuous Stall Current	7.3 A						
Maximum Continuous Power	1.6 W						
Maximum Current Irms	18 A LXM32.D18M2 230 V						
	15 A LXM32.D30M2 115 V						
	23 A LXM15LD28M3						
	25.1 A LXM05AD28F1						
	25.1 A LXM05AD28M2						
	25.1 A LXM05AD42M3X						
	25.1 A LXM05BD28F1						
	25.1 A LXM05BD28M2						
	25.1 A LXM05BD42M3X						
	25.1 A LXM05CD28F1						
	25.1 A LXM05CD28M2						
	25.1 A LXM05CD42M3X						
Maximum Permanent Current	25.1 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)						
Key Width	1.18 in (30 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	0.45 N.m/A 248 °F (120 °C)						
Back Emf Constant	29 V/krpm 248 °F (120 °C)						
Number Of Motor Poles	8						
Rotor Inertia	2.018 kg.cm ²						
Stator Resistance	0.87 Ohm 68 °F (20 °C)						
Stator Inductance	4 mH 68 °F (20 °C)						
Stator Electrical Time Constant	4.6 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	3389118138681
Returnability	No
Country Of Origin	DE

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

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



Rohs Exemption Information
Yes

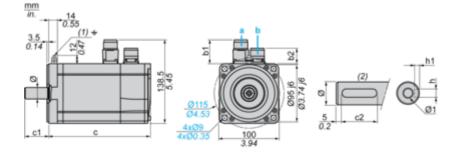
Certifications & Standards

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 angled connectors		c (without	c (with	c1	c2	h	h1	ø	Ø1 for
b1	b2	b1	b2	brake)	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.

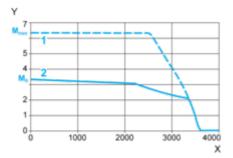
Straight Rotatable angled connectors connectors		c (without c (with	c1	c2	h	h1	ø	Ø1 for			
b1	b2	b1	b2	brake)	brake)						screws
1.55	1.00	1.55	1.55	6.65	7.87	1.57	1.18	0.24 N9	0.14 ^{+0.1} 0	0.75 k6	M6 x 0.63

Performance Curves

115 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D30M2 servo drive



 \boldsymbol{X} Speed in rpm

Y Torque in Nm

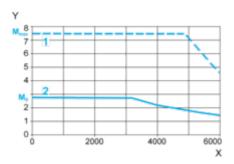
1 Peak torque

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