Product data sheet

Specifications





servo motor BSH, Lexium 05, 11.1N.m, 1500rpm, 140mm, keyed shaft, Sincos single turn, with brake, IP65, straight

BSH1401P31F1A

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

Price*: 5,388.75 USD

Main

Product Or Component Type	Servo motor				
Device Short Name	BSH				
Maximum Mechanical Speed	4000 rpm				
Continuous Stall Torque	98.24 lbf.in (11.1 N.m) LXM32.D30N4 10 A, 400 V, three phase				
	98.24 lbf.in (11.1 N.m) LXM32.D30N4 10 A, 480 V, three phase				
	98.24 lbf.in (11.1 N.m) LXM15MD28N4, 400 V, three phase				
	98.24 lbf.in (11.1 N.m) LXM15MD28N4, 480 V, three phase				
	98.24 lbf.in (11.1 N.m) LXM15MD28N4, 230 V, three phase				
	98.24 lbf.in (11.1 N.m) LXM15MD40N4, 400 V, three phase				
	98.24 lbf.in (11.1 N.m) LXM15MD40N4, 480 V, three phase				
	98.24 lbf.in (11.1 N.m) LXM15LD28M3, 230 V, three phase				
	100.90 lbf.in (11.4 N.m) LXM05AD34N4, 380480 V, three phase				
	100.90 lbf.in (11.4 N.m) LXM05BD34N4, 380480 V, three phase				
	100.90 lbf.in (11.4 N.m) LXM05CD34N4, 380480 V, three phase				
Peak Stall Torque	238.97 lbf.in (27 N.m) LXM32.D30N4 10 A, 400 V, three phase				
	238.97 lbf.in (27 N.m) LXM32.D30N4 10 A, 480 V, three phase				
	206.49 lbf.in (23.33 N.m) LXM15MD28N4, 230 V, three phase				
	206.49 lbf.in (23.33 N.m) LXM15MD28N4, 400 V, three phase				
	206.49 lbf.in (23.33 N.m) LXM15MD28N4, 480 V, three phase				
	206.49 lbf.in (23.33 N.m) LXM15MD40N4, 400 V, three phase				
	206.49 lbf.in (23.33 N.m) LXM15MD40N4, 480 V, three phase				
	210.65 lbf.in (23.8 N.m) LXM15LD28M3, 230 V, three phase				
	206.49 lbf.in (23.33 N.m) LXM05AD34N4, 380480 V, three phase				
	206.49 lbf.in (23.33 N.m) LXM05BD34N4, 380480 V, three phase				
	206.49 lbf.in (23.33 N.m) LXM05CD34N4, 380480 V, three phase				
Nominal Output Power	2500 W LXM32.D30N4 10 A, 400 V, three phase				
	3000 W LXM32.D30N4 10 A, 480 V, three phase				
	2000 W LXM15MD28N4, 400 V, three phase				
	2000 W LXM15MD40N4, 400 V, three phase				
	2200 W LXM05AD34N4, 380480 V, three phase				
	2200 W LXM05BD34N4, 380480 V, three phase				
	2200 W LXM05CD34N4, 380480 V, three phase				
	1400 W LXM15LD28M3, 230 V, three phase				
	1400 W LXM15MD28N4, 230 V, three phase				
	2150 W LXM15MD28N4, 480 V, three phase				
	2150 W LXM15MD40N4, 480 V, three phase				
Nominal Torque	84.08 lbf.in (9.5 N.m) LXM32.D30N4 10 A, 400 V, three phase				
	84.08 lbf.in (9.5 N.m) LXM32.D30N4 10 A, 480 V, three phase				
	60.18 lbf.in (6.8 N.m) LXM15MD28N4, 480 V, three phase				
	60.18 lbf.in (6.8 N.m) LXM15MD40N4, 480 V, three phase				
	61.07 lbf.in (6.9 N.m) LXM05AD34N4, 380480 V, three phase				
	61.07 lbf.in (6.9 N.m) LXM05BD34N4, 380480 V, three phase				
	61.07 lbf.in (6.9 N.m) LXM05CD34N4, 380480 V, three phase				
	67.53 lbf.in (7.63 N.m) LXM15MD28N4, 400 V, three phase				
	67.53 lbf.in (7.63 N.m) LXM15MD40N4, 400 V, three phase				
	80.54 lbf.in (9.1 N.m) LXM15LD28M3, 230 V, three phase				
	80.54 lbf.in (9.1 N.m) LXM15MD28N4, 230 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.D30N4 10 A, 400 V, three phase 3000 rpm LXM32.D30N4 10 A, 480 V, three phase 3000 rpm LXM05AD34N4, 380480 V, three phase 3000 rpm LXM05BD34N4, 380480 V, three phase 3000 rpm LXM05CD34N4, 380480 V, three phase 1500 rpm LXM15MD28N4, 230 V, three phase 1500 rpm LXM15LD28M3, 230 V, three phase 2500 rpm LXM15MD28N4, 400 V, three phase 2500 rpm LXM15MD40N4, 400 V, three phase 3000 rpm LXM15MD40N4, 400 V, three phase 3000 rpm LXM15MD28N4, 480 V, three phase 3000 rpm LXM15MD40N4, 480 V, three phase 3000 rpm LXM15MD40N4, 480 V, three phase					
Product Compatibility	LXM15LD28M3 230 V three phase LXM05AD34N4 380480 V three phase LXM05BD34N4 380480 V three phase LXM05CD34N4 380480 V three phase LXM15MD28N4 400 V three phase LXM15MD28N4 400 V three phase LXM15MD40N4 400 V three phase LXM15MD40N4 400 V three phase LXM15MD40N4 480 V three phase LXM15MD40N4 480 V three phase LXM15MD40N4 480 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	Straight connectors					
Complementary						
Range Compatibility	Lexium 32 Lexium 15 Lexium 05					
Supply Voltage Max	480 V					
Phase	Three phase					
Continuous Stall Current	7.8 A					
Maximum Continuous Power	3.6 W					
Maximum Current Irms	20.8 A LXM15LD28M3 20.8 A LXM15MD28N4 20.8 A LXM15MD40N4 20.8 A LXM05AD34N4 20.8 A LXM05BD34N4 20.8 A LXM05CD34N4 20.8 A LXM05CD34N4					
Maximum Permanent Current	20.8 A					
Switching Frequency	8 kHz					
Second Shaft	Without second shaft end					
Shaft Diameter	0.94 in (24 mm)					
Shaft Length	1.97 in (50 mm)					
Key Width	1.57 in (40 mm)					
Feedback Type	Single turn SinCos Hiperface					
Holding Torque	203.57 lbf.in (23 N.m) holding brake					
Motor Flange Size	5.51 in (140 mm)					
Number Of Motor Stacks	1					
Torque Constant	1.43 N.m/A 248 °F (120 °C)					

Back Emf Constant	100 V/krpm 248 °F (120 °C)			
Number Of Motor Poles	10			
Rotor Inertia	9.21 kg.cm ²			
Stator Resistance	1.41 Ohm 68 °F (20 °C)			
Stator Inductance	15.6 mH 68 °F (20 °C)			
Stator Electrical Time Constant	11.06 ms 68 °F (20 °C)			
Maximum Radial Force Fr	1530 N 3000 rpm 1760 N 2000 rpm 2210 N 1000 rpm			
Maximum Axial Force Fa	0.2 x Fr			
Brake Pull-In Power	24 W			
Type Of Cooling	Natural convection			
Length	10.06 in (255.5 mm)			
Centring Collar Diameter	5.12 in (130 mm)			
Centring Collar Depth	0.14 in (3.5 mm)			
Number Of Mounting Holes	4			
Mounting Holes Diameter	0.43 in (11 mm)			
Circle Diameter Of The Mounting Holes	6.50 in (165 mm)			
Net Weight	28.66 lb(US) (13 kg)			

Ordering and shipping details

Category	US1PC5318282
Discount Schedule	PC53
Gtin	3389118141001
Returnability	No
Country Of Origin	DE

Packing Units

Unit Type Of Package 1	PCE			
Number Of Units In Package 1	1			
Package 1 Height	10.63 in (27.0 cm)			
Package 1 Width	10.63 in (27.0 cm)			
Package 1 Length	18.98 in (48.2 cm)			
Package 1 Weight	21.58 lb(US) (9.79 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



Certifications & Standards

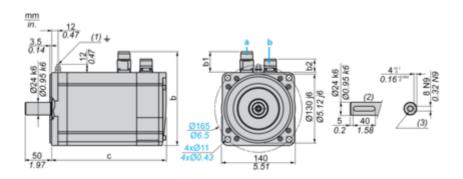
Reach Regulation	Pro-active compliance (Product out of EU RoHS legal scope)				
Eu Rohs Directive					
China Rohs Regulation	China RoHS declaration				
Environmental Disclosure	Product Environmental Profile				
Weee	The product must be disposed on European Union markets following specific waste collection 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				

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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)
- (3) For screws M8 x 19 mm/M8 x 0.75 in.

Dimensions in mm

Straig	Straight connectors Rotatable angled connectors			Straight connectors		a (itha atha aadaa)	- (ith hands-)
b	b1	b2	b	b1	b2	c (without brake)	c (with brake)
178	39.5	25.5	178	39.5	39.5	218	256

Dimensions in in.

Straig	Straight connectors Rotatable angled connectors			a (with a state and ca)	a (with harles)		
b	b1	b2	b	b1	b2	c (without brake)	c (with brake)
7.00	1.55	1.00	7.00	1.55	1.55	8.58	10.07

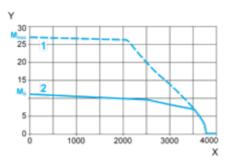
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Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D30N4 servo drive



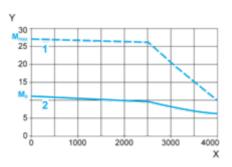
- **X** Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

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480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D30N4 servo drive



- X Speed in rpm
- ${\bf Y}$ Torque in Nm
- 1 Peak torque
- 2 Continuous torque