Product data sheet

Specifications





servo motor BSH, Lexium 05, 1.3N.m, 3000rpm, 55mm, untapped shaft, Sincos single turn, without brake, IP65

BSH0553T21A2A

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

Price*: 822.20 USD

Main

Device short name	BSH			
Product or Component Type	Servo motor			
Maximum mechanical speed	9000 rpm			
Continuous stall torque	10.6 lbf.in (1.2 N.m) LXM32.U90M2 3 A, 230 V, single phase 11.5 lbf.in (1.3 N.m) LXM05AD17F1, 110120 V, single phase 11.5 lbf.in (1.3 N.m) LXM05AD17F1, 110120 V, single phase 11.5 lbf.in (1.3 N.m) LXM05BD17F1, 110120 V, single phase 11.5 lbf.in (1.3 N.m) LXM05BD17F1, 110120 V, single phase 11.5 lbf.in (1.3 N.m) LXM05BD17M2, 200240 V, single phase 11.5 lbf.in (1.3 N.m) LXM05CD17F1, 110120 V, single phase 11.5 lbf.in (1.3 N.m) LXM05CD17M2, 200240 V, single phase 10.6 lbf.in (1.2 N.m) LXM05CD17M2, 200240 V, single phase 11.5 lbf.in (1.3 N.m) LXM05AD17M3X, 200240 V, three phase 11.5 lbf.in (1.3 N.m) LXM05BD17M3X, 200240 V, three phase 11.5 lbf.in (1.3 N.m) LXM05CD17M3X, 200240 V, three phase			
Peak stall torque	26.6 lbf.in (3 N.m) LXM32.U90M2 3 A, 230 V, single phase 29.30 lbf.in (3.31 N.m) LXM05AD17F1, 110120 V, single phase 29.30 lbf.in (3.31 N.m) LXM05AD17M2, 200240 V, single phase 29.30 lbf.in (3.31 N.m) LXM05BD17F1, 110120 V, single phase 29.30 lbf.in (3.31 N.m) LXM05BD17M2, 200240 V, single phase 29.30 lbf.in (3.31 N.m) LXM05CD17F1, 110120 V, single phase 29.30 lbf.in (3.31 N.m) LXM05CD17M2, 200240 V, single phase 29.30 lbf.in (3.31 N.m) LXM05CD17M2, 200240 V, single phase 29.30 lbf.in (3.31 N.m) LXM05AD17M3X, 200240 V, three phase 29.30 lbf.in (3.31 N.m) LXM05BD17M3X, 200240 V, three phase 29.30 lbf.in (3.31 N.m) LXM05BD17M3X, 200240 V, three phase			
Nominal output power	550 W LXM32.U90M2 3 A, 230 V, single phase 350 W LXM05AD17F1, 110120 V, single phase 350 W LXM05AD17M2, 200240 V, single phase 350 W LXM05BD17F1, 110120 V, single phase 350 W LXM05BD17M2, 200240 V, single phase 350 W LXM05CD17F1, 110120 V, single phase 350 W LXM05CD17F1, 110120 V, single phase 350 W LXM05CD17M2, 200240 V, single phase 350 W LXM32.D18M2 6 A, 115 V, single phase 350 W LXM05AD17M3X, 200240 V, three phase 350 W LXM05BD17M3X, 200240 V, three phase 350 W LXM05BD17M3X, 200240 V, three phase			
Nominal torque	7.43 lbf.in (0.84 N.m) LXM32.U90M2 3 A, 230 V, single phase 9.7 lbf.in (1.1 N.m) LXM05AD17F1, 110120 V, single phase 9.7 lbf.in (1.1 N.m) LXM05AD17M2, 200240 V, single phase 9.7 lbf.in (1.1 N.m) LXM05BD17F1, 110120 V, single phase 9.7 lbf.in (1.1 N.m) LXM05BD17M2, 200240 V, single phase 9.7 lbf.in (1.1 N.m) LXM05CD17F1, 110120 V, single phase 9.7 lbf.in (1.1 N.m) LXM05CD17M2, 200240 V, single phase 10.09 lbf.in (1.14 N.m) LXM32.D18M2 6 A, 115 V, single phase 9.7 lbf.in (1.1 N.m) LXM05AD17M3X, 200240 V, three phase 9.7 lbf.in (1.1 N.m) LXM05BD17M3X, 200240 V, three phase 9.7 lbf.in (1.1 N.m) LXM05CD17M3X, 200240 V, three phase 9.7 lbf.in (1.1 N.m) LXM05CD17M3X, 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	6000 rpm LXM32.U90M2 3 A, 230 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 LXM05CD17M2, 200240 V, single phase 3000 rpm LXM05AD17M3, 200240 V, three phase 3000 rpm LXM05BD17M3X, 200240 V, three phase 3000 rpm LXM05BD17M3X, 200240 V, three phase				
Product compatibility	LXM05AD17F1 110120 V single phase LXM05AD17M2 200240 V single phase LXM05BD17F1 110120 V single phase LXM05BD17M2 200240 V single phase LXM05CD17F1 110120 V single phase				
	LXM05CD17M2 200240 V single phase LXM32.U90M2 230 V single phase LXM32.D18M2 115 V single phase LXM05AD17M3X 200240 V three phase LXM05BD17M3X 200240 V three phase LXM05CD17M3X 200240 V three phase				
Shaft end	Untapped				
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	Rotatable right-angled connectors				
Complementary					
Range Compatibility	Lexium 32 Lexium 05				
supply voltage max	480 V				
Phase	Three phase				
Continuous stall current	3.1 A				
maximum continuous power	0.97 W				
Maximum current Irms	11.9 A LXM05AD17F1 11.9 A LXM05AD17M2 11.9 A LXM05AD17M3X 11.9 A LXM05BD17F1 11.9 A LXM05BD17M2 11.9 A LXM05BD17M3X 11.9 A LXM05CD17F1 11.9 A LXM05CD17F1				

	Lexium 05		
supply voltage max	480 V		
Phase	Three phase		
Continuous stall current	3.1 A		
maximum continuous power	0.97 W		
Maximum current Irms	11.9 A LXM05AD17F1		
	11.9 A LXM05AD17M2		
	11.9 A LXM05AD17M3X		
	11.9 A LXM05BD17F1		
	11.9 A LXM05BD17M2		
	11.9 A LXM05BD17M3X		
	11.9 A LXM05CD17F1		
	11.9 A LXM05CD17M2		
	11.9 A LXM05CD17M3X		
	10 A LXM32.D18M2		
	9 A LXM32.U90M2		
Maximum permanent current	11.9 A		
Switching frequency	8 kHz		
Second shaft	Without second shaft end		
Shaft diameter	0.4 in (9 mm)		
Shaft length	0.8 in (20 mm)		
Feedback type	Single turn SinCos Hiperface		
Motor flange size	2.2 in (55 mm)		
Number of motor stacks	3		
Torque constant	0.39 N.m/A 248 °F (120 °C)		

Back emf constant	22 V/krpm 248 °F (120 °C)		
Number of motor poles	6		
Rotor inertia	0.134 kg.cm ²		
Stator resistance	3.1 Ohm 68 °F (20 °C)		
Stator inductance	7.4 mH 68 °F (20 °C)		
Stator electrical time constant	2.39 ms 68 °F (20 °C)		
Maximum radial force Fr	190 N 8000 rpm 200 N 7000 rpm 210 N 6000 rpm 230 N 5000 rpm 240 N 4000 rpm 270 N 3000 rpm 310 N 2000 rpm 390 N 1000 rpm		
Maximum axial force Fa	0.2 x Fr		
Type of cooling	Natural convection		
Length	6.9 in (176.5 mm)		
Centring collar diameter	1.6 in (40 mm)		
Centring collar depth	0.08 in (2 mm)		
Number of mounting holes	4		
Mounting holes diameter	0.2 in (5.5 mm)		
Circle diameter of the mounting holes	2.5 in (63 mm)		
Net Weight	3.88 lb(US) (1.76 kg)		

Ordering and shipping details

Category	US1PC5318282
Discount Schedule	PC53
GTIN	3389118159754
Returnability	No
Country of origin	DE

Packing Units

Unit Type of Package 1	PCE	
Number of Units in Package 1	1	
Package 1 Height	4.8 in (12.3 cm)	
Package 1 Width	5.04 in (12.8 cm)	
Package 1 Length	14.8 in (37.7 cm)	
Package 1 Weight	3.09 lb(US) (1.4 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

Ø	Mercury Free	
	Rohs Exemption Information	Yes
②	Pvc Free	

Certifications & Standards

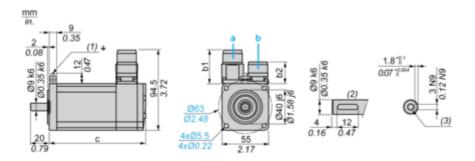
Reach Regulation	REACh Declaration		
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)		
China Rohs Regulation	China RoHS declaration		
Environmental Disclosure	Product Environmental Profile		
Weee	The product must be disposed on European Union markets following specific waste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

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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 screw M3 x 9 mm/M3 x 0.35 in.

Dimensions in mm

Zimonono in mini					
Straight connectors		Rotatable angled connectors		- (itht hl)	- (i4h h
b	b1	b	b1	c (without brake)	c (with brake)
39.5	25.5	39.5	39.5	176.5	203

Dimensions in in

Differisions in in.						
Straight connectors		Rotatable angled connectors		- (itht hl)	- (i4h h	
b	b1	b	b1	c (without brake)	c (with brake)	
1.55	1.00	1.55	1.55	6.94	7.99	

Product data sheet

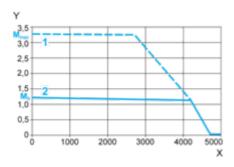
BSH0553T21A2A

Performance Curves

115 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D18M2 servo drive

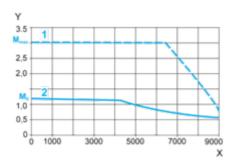


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

230 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•U90M2 servo drive



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