Product data sheet

Specifications





() Discontinued

AC servo motor BSH, Lexium 32, 14.4N.m, 3000rpm, keyed shaft, without brake, IP50

BSH1402T12A1P

() Discontinued on: Jun 30, 2023

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

Main

Device short name	BSH					
Product or Component Type	Servo motor					
Maximum mechanical speed	4000 rpm					
Continuous stall torque	172.6 lbf.in (19.5 N.m) LXM32.D72N4 24 A, 400 V, three phase 172.6 lbf.in (19.5 N.m) LXM32.D72N4 24 A, 480 V, three phase 127.5 lbf.in (14.4 N.m) LXM05AD42M3X, 200240 V, three phase 127.5 lbf.in (14.4 N.m) LXM05BD42M3X, 200240 V, three phase 127.5 lbf.in (14.4 N.m) LXM05DD42M3X, 200240 V, three phase					
Peak stall torque	524.8 lbf.in (59.3 N.m) LXM32.D72N4 24 A, 400 V, three phase 524.8 lbf.in (59.3 N.m) LXM32.D72N4 24 A, 480 V, three phase 217.37 lbf.in (24.56 N.m) LXM05AD42M3X, 200240 V, three phase 217.37 lbf.in (24.56 N.m) LXM05BD42M3X, 200240 V, three phase					
Nominal output power	3900 W LXM32.D72N4 24 A, 400 V, three phase 3900 W LXM32.D72N4 24 A, 480 V, three phase 2900 W LXM05AD42M3X, 200240 V, three phase 2900 W LXM05BD42M3X, 200240 V, three phase 2900 W LXM05CD42M3X, 200240 V, three phase					
Nominal torque	108.9 lbf.in (12.3 N.m) LXM32.D72N4 24 A, 400 V, three phase 108.9 lbf.in (12.3 N.m) LXM32.D72N4 24 A, 480 V, three phase 81.4 lbf.in (9.2 N.m) LXM05AD42M3X, 200240 V, three phase 81.4 lbf.in (9.2 N.m) LXM05BD42M3X, 200240 V, three phase 81.4 lbf.in (9.2 N.m) LXM05CD42M3X, 200240 V, three phase					
Nominal speed	3000 rpm LXM32.D72N4 24 A, 400 V, three phase 3000 rpm LXM32.D72N4 24 A, 480 V, three phase 3000 rpm LXM05AD42M3X, 200240 V, three phase 3000 rpm LXM05BD42M3X, 200240 V, three phase 3000 rpm LXM05CD42M3X, 200240 V, three phase					
Product compatibility	LXM05AD42M3X 200240 V three phase LXM05BD42M3X 200240 V three phase LXM05CD42M3X 200240 V three phase					
Shaft end	Keyed					
IP Degree of Protection	IP50 standard					
Speed feedback resolution	131072 points/turn x 4096 turns					
Holding brake	Without					
Mounting Support	International standard flange					
Electrical Connection	Straight connectors					

Complementary

Range Compatibility

Lexium 05 Lexium 32

Price is "List Price" and may be subject to a trade discount - check with your local distributor or retailer for actual price.

supply voltage max	480 V				
Phase	Three phase				
Continuous stall current	22.5 A				
maximum continuous power	4.2 W				
Maximum current Irms	72 A LXM32.D72N4 75.2 A LXM05AD42M3X 75.2 A LXM05BD42M3X 75.2 A LXM05CD42M3X				
Maximum permanent current	75.2 A				
Switching frequency	8 kHz				
Second shaft	Without second shaft end				
Shaft diameter	0.9 in (24 mm)				
Shaft length	2.0 in (50 mm)				
Key width	1.6 in (40 mm)				
Feedback type	Multiturn SinCos Hiperface				
Motor flange size	5.5 in (140 mm)				
Number of motor stacks	2				
Torque constant	1.47 N.m/A 248.0000000000 °F (120 °C)				
Back emf constant	101 V/krpm 248.000000000 °F (120 °C)				
Number of motor poles	10				
Rotor inertia	12.68 kg.cm ²				
Stator resistance	0.6 Ohm 68.000000000 °F (20 °C)				
Stator inductance	7.4 mH 68.000000000 °F (20 °C)				
Stator electrical time constant	12.1 ms 68.000000000 °F (20 °C)				
Maximum radial force Fr	1680 N 3000 rpm 1930 N 2000 rpm 2430 N 1000 rpm				
Maximum axial force Fa	0.2 x Fr				
Type of cooling	Natural convection				
Length	10.7 in (272.5 mm)				
Centring collar diameter	5.1 in (130 mm)				
Centring collar depth	0.1 in (3.5 mm)				
Number of mounting holes	4				
Mounting holes diameter	0.4 in (11 mm)				
Circle diameter of the mounting holes	6.5 in (165 mm)				
Net Weight	36.6 lb(US) (16.6 kg)				

Ordering and shipping details

Category	US1PC5318282			
Discount Schedule	PC53			
GTIN	3389118361195			
Returnability	No			
Country of origin	DE			

Packing Units

Unit Type of Package 1	PCE		
Number of Units in Package 1	1		
Package 1 Height	10.6 in (27.0 cm)		
Package 1 Width	10.6 in (27.0 cm)		
Package 1 Length	19.0 in (48.2 cm)		
Package 1 Weight	25.4 lb(US) (11.5 kg)		

Contractual warranty

Warranty

18 months

Sustainability Screen

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

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)

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

Dimensions in mm

Straight connectors		nt connectors Rotatable angled connectors				a (with heales)	
b	b1	b2	b	b1	b2	c (without brake)	c (with brake)
192.5	54	25.5	198.5	60	39.5	273	311

Dimensions in in.

Straig	raight connectors Rotatable angled connectors			Straight connectors			a (with healta)
b	b1	b2	b	b1	b2	c (without brake)	c (with brake)
7.57	2.12	1.00	7.81	2.36	1.55	10.74	12.24

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D72N4 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•D72N4 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque