Product datasheet

Specifications





AC servo motor BSH - 0.9 N.m - 4000 rpm - keyed shaft - without brake - IP50

BSH0552P11A2A

EAN Code: 3389118158733

Main

product or component type	Servo motor			
Device short name	BSH			
Maximum mechanical speed	9000 rpm			
Continuous stall torque	0.8 N.m for LXM32.U60N4 at 1.5 A, 400 V, three phase			
	0.8 N.m for LXM32.U60N4 at 1.5 A, 480 V, three phase			
	0.9 N.m for LXM05CU70M2, 200240 V, single phase			
	0.9 N.m for LXM05AD10M2, 200240 V, single phase			
	0.9 N.m for LXM05BD10M2, 200240 V, single phase			
	0.9 N.m for LXM05CD10M2, 200240 V, single phase			
	0.9 N.m for LXM05AD10M3X, 200240 V, three phase			
	0.9 N.m for LXM05BD10M3X, 200240 V, three phase			
	0.9 N.m for LXM05CD10M3X, 200240 V, three phase			
	0.9 N.m for LXM15LD13M3, 230 V, single phase			
	0.9 N.m for LXM15LD13M3, 230 V, three phase			
	0.9 N.m for LXM15LU60N4, 230 V, three phase			
	0.9 N.m for LXM05AD14N4, 380480 V, three phase			
	0.9 N.m for LXM05BD14N4, 380480 V, three phase			
	0.9 N.m for LXM05CD14N4, 380480 V, three phase			
Peak stall torque	2.5 N.m for LXM32.U60N4 at 1.5 A, 400 V, three phase			
	2.5 N.m for LXM32.U60N4 at 1.5 A, 480 V, three phase			
	2.5 N.m for LXM15LD13M3, 230 V, single phase			
	2.17 N.m for LXM05CU70M2, 200240 V, single phase			
	2.7 N.m for LXM05AD10M2, 200240 V, single phase			
	2.7 N.m for LXM05BD10M2, 200240 V, single phase			
	2.7 N.m for LXM05CD10M2, 200240 V, single phase			
	2.5 N.m for LXM15LD13M3, 230 V, three phase			
	2.26 N.m for LXM15LU60N4, 230 V, three phase			
	2.7 N.m for LXM05AD10M3X, 200240 V, three phase			
	2.7 N.m for LXM05AD14N4, 380480 V, three phase			
	2.7 N.m for LXM05BD10M3X, 200240 V, three phase			
	2.7 N.m for LXM05BD14N4, 380480 V, three phase			
	2.7 N.m for LXM05CD10M3X, 200240 V, three phase			
	2.7 N.m for LXM05CD14N4, 380480 V, three phase			
Nominal output power	400 W for LXM32.U60N4 at 1.5 A, 400 V, three phase			
	400 W for LXM32.U60N4 at 1.5 A, 480 V, three phase			
	250 W for LXM05AD10M2, 200240 V, single phase			
	250 W for LXM05BD10M2, 200240 V, single phase			
	250 W for LXM05CD10M2, 200240 V, single phase			
	250 W for LXM05CU70M2, 200240 V, single phase			
	310 W for LXM15LD13M3, 230 V, single phase			
	250 W for LXM05AD10M3X, 200240 V, three phase			
	250 W for LXM05AD14N4, 380480 V, three phase			
	250 W for LXM05BD10M3X, 200240 V, three phase			
	250 W for LXM05BD14N4, 380480 V, three phase			
	250 W for LXM05CD10M3X, 200240 V, three phase			
	250 W for LXM05CD14N4, 380480 V, three phase			
	310 W for LXM15LD13M3, 230 V, three phase			
	310 W for LXM15LU60N4, 230 V, three phase			

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Nominal torque	0.65 N.m for LXM32.U60N4 at 1.5 A, 400 V, three phase
	0.65 N.m for LXM32.U60N4 at 1.5 A, 480 V, three phase
	0.75 N.m for LXM15LD13M3, 230 V, single phase
	2.17 N.m for LXM05CU70M2, 200240 V, single phase 2.7 N.m for LXM05AD10M2, 200240 V, single phase
	2.7 N.m for LXM05BD10M2, 200240 V, single phase
	2.7 N.m for LXM05CD10M2, 200240 V, single phase
	0.75 N.m for LXM15LD13M3, 230 V, three phase
	0.75 N.m for LXM15LU60N4, 230 V, three phase
	2.7 N.m for LXM05AD10M3X, 200240 V, three phase
	2.7 N.m for LXM05AD14N4, 380480 V, three phase 2.7 N.m for LXM05BD10M3X, 200240 V, three phase
	2.7 N.m for LXM05BD14N4, 380480 V, three phase
	2.7 N.m for LXM05CD10M3X, 200240 V, three phase
	2.7 N.m for LXM05CD14N4, 380480 V, three phase
Nominal speed	6000 rpm for LXM32.U60N4 at 1.5 A, 400 V, three phase
	6000 rpm for LXM32.U60N4 at 1.5 A, 480 V, three phase
	4000 rpm for LXM15LD13M3, 230 V, single phase
	4000 rpm for LXM15LU60N4, 230 V, three phase
	3000 rpm for LXM05CU70M2, 200240 V, single phase 3000 rpm for LXM05AD10M2, 200240 V, single phase
	3000 rpm for LXM05BD10M2, 200240 V, single phase
	3000 rpm for LXM05CD10M2, 200240 V, single phase
	3000 rpm for LXM05AD10M3X, 200240 V, three phase
	3000 rpm for LXM05AD14N4, 380480 V, three phase
	3000 rpm for LXM05BD10M3X, 200240 V, three phase
	3000 rpm for LXM05BD14N4, 380480 V, three phase
	3000 rpm for LXM05CD10M3X, 200240 V, three phase 3000 rpm for LXM05CD14N4, 380480 V, three phase
	4000 rpm for LXM15LD13M3, 230 V, three phase
Product compatibility	LXM05AD10M2 at 200240 V single phase
	LXM05BD10M2 at 200240 V single phase
	LXM05CD10M2 at 200240 V single phase
	LXM05CU70M2 at 200240 V single phase
	LXM15LD13M3 at 230 V single phase LXM15LU60N4 at 230 V three phase
	LXM32.U60N4 at 400 V three phase
	LXM32.U60N4 at 480 V three phase
	LXM05AD10M3X at 200240 V three phase
	LXM05BD10M3X at 200240 V three phase
	LXM05CD10M3X at 200240 V three phase
	LXM15LD13M3 at 230 V three phase
	LXM05AD14N4 at 380480 V three phase LXM05BD14N4 at 380480 V three phase
	LXM05CD14N4 at 380480 V three phase
Shaft end	Keyed
IP degree of protection	IP50 standard
Speed feedback resolution	131072 points/turn
Holding brake	Without
mounting support	International standard flange
Electrical connection	Rotatable right-angled connectors
Complementary	
Range compatibility	Lexium 05
	Lexium 15
	Lexium 32
supply voltage max	480 V
Network number of phases	Three phase
Continuous stall current	1.2 A
maximum continuous power	0.67 W

Maximum current Irms	5.9 A for LXM15LD13M3 5.9 A for LXM05CU70M2 4.8 A for LXM05AD10M2 4.8 A for LXM05AD10M3X 4.8 A for LXM05AD14N4 4.8 A for LXM05BD10M2 4.8 A for LXM05BD10M3 4.8 A for LXM05BD10M3 4.8 A for LXM05BD10M3 4.8 A for LXM05BD10M3 4.8 A for LXM05CD10M3 4.8 A for LXM05CD10M2 4.8 A for LXM05CD10M2 4.8 A for LXM05CD10M3 4.8 A for LXM05CD10M3 4.8 A for LXM05CD14N4 4.8 A for LXM05CD14N4		
Maximum permanent current	4.8 A		
Switching frequency	8 kHz		
Second shaft	Without second shaft end		
Shaft diameter	9 mm		
Shaft length	20 mm		
Key width	12 mm		
Feedback type	Single turn SinCos Hiperface		
Motor flange size	55 mm		
Number of motor stacks 2			
Torque constant	0.7 N.m/A at 120 °C		
Back emf constant	40 V/krpm at 120 °C		
Number of motor poles	6		
Rotor inertia	0.096 kg.cm²		
Stator resistance	17.4 Ohm at 20 °C		
Stator inductance 35.3 mH at 20 °C			
Stator electrical time constant	2.03 ms at 20 °C		
Maximum radial force Fr	190 N at 7000 rpm 190 N at 8000 rpm 200 N at 6000 rpm 220 N at 5000 rpm 230 N at 4000 rpm 260 N at 3000 rpm 290 N at 2000 rpm 370 N at 1000 rpm		
Maximum axial force Fa	0.2 x Fr		
Type of cooling	Natural convection		
Length	154.4 mm		
Centring collar diameter	40 mm		
Centring collar depth	2 mm		
Number of mounting holes	4		
Mounting holes diameter	5.5 mm		
Circle diameter of the mounting holes	ounting 63 mm		
net weight 1.5 kg			
De alice e Heita			

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1

5		
Package 1 Height	12.3 cm	
Package 1 Width	12.8 cm	
Package 1 Length	37.7 cm	
Package 1 Weight	1.1 kg	

Contractual warranty

Warranty 18 months



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Transparency RoHS/REACh

Well-being performance

	Mercury Free	
⊘	Rohs Exemption Information	Yes
⊘	Pvc Free	

Certifications & Standards

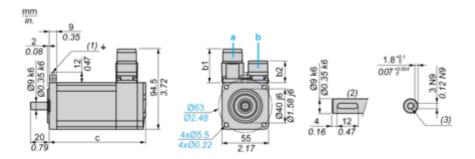
Circularity Profile	No need of specific recycling operations		
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins		
Environmental Disclosure	Product Environmental Profile		
China Rohs Regulation	China RoHS declaration		
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)		
Reach Regulation	REACh Declaration		

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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

Straight connectors		Rotatable angled connectors		- (itht hl)	a (with harden)
b	b1	b	b1	c (without brake)	c (with brake)
39.5	25.5	39.5	39.5	154.5	181

Dimensions in in.

Straight o	onnectors	Rotatable ang	e angled connectors c (without brake) c (with		a (with brake)
b	b1	b	b1	c (without brake)	c (with brake)
1.55	1.00	1.55	1.55	6.08	7.12

Product datasheet

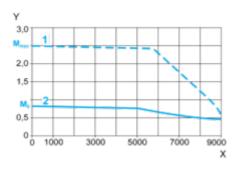
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Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•U60N4 servo drive

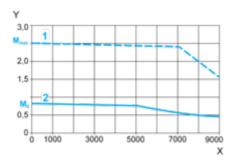


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•U60N4 servo drive



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