Product datasheet Characteristics

BSH0553P32A1A

AC servo motor BSH - 1.3 N.m - 3000 rpm - keyed shaft - without brake - IP65





Main

Product or component type	Servo motor			
Device short name	evice short name BSH			
Maximum mechanical speed	9000 rpm			
1.05 N.m for LXM32.U60N4 at 1.5 A, 480 V, three phase 1.05 N.m for LXM32.U60N4 at 1.5 A, 400 V, three phase 1.3 N.m for LXM05AD10M2, 200240 V, single phase 1.3 N.m for LXM05BD10M2, 200240 V, single phase 1.3 N.m for LXM05CD10M2, 200240 V, single phase 1.3 N.m for LXM05AD10M3X, 200240 V, three phase 1.3 N.m for LXM05BD10M3X, 200240 V, three phase 1.3 N.m for LXM05BD10M3X, 200240 V, three phase 1.3 N.m for LXM05CD10M3X, 200240 V, three phase 1.3 N.m for LXM05CD10M3X, 200240 V, three phase 1.3 N.m for LXM15LD13M3, 230 V, single phase 1.3 N.m for LXM15LD13M3, 230 V, three phase 1.3 N.m for LXM15LD10N4, 400 V, three phase 1.3 N.m for LXM05AD14N4, 380480 V, three phase 1.3 N.m for LXM05BD14N4, 380480 V, three phase				
Peak stall torque	1.3 N.m for LXM05CD14N4, 380480 V, three phase 3.5 N.m for LXM32.U60N4 at 1.5 A, 480 V, three phase 3.5 N.m for LXM32.U60N4 at 1.5 A, 400 V, three phase 2.7 N.m for LXM15LD13M3, 230 V, single phase 3.18 N.m for LXM05AD10M2, 200240 V, single phase 3.18 N.m for LXM05BD10M2, 200240 V, single phase 3.18 N.m for LXM05CD10M2, 200240 V, single phase 2.7 N.m for LXM15LD13M3, 230 V, three phase 3.87 N.m for LXM15LD10N4, 400 V, three phase 3.18 N.m for LXM05AD10M3X, 200240 V, three phase 3.87 N.m for LXM05AD14N4, 380480 V, three phase 3.87 N.m for LXM05BD10M3X, 200240 V, three phase 3.87 N.m for LXM05BD14N4, 380480 V, three phase 3.18 N.m for LXM05CD10M3X, 200240 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 340 W for LXM15LD13M3, 230 V, three phase 340 W for LXM15LD13M3, 230 V, single phase 350 W for LXM05AD10M2, 200240 V, single phase 350 W for LXM05BD10M2, 200240 V, single phase				

	350 W for LXM05CD10M2, 200240 V, single phase 350 W for LXM05AD10M3X, 200240 V, three phase 350 W for LXM05AD14N4, 380480 V, three phase 350 W for LXM05BD10M3X, 200240 V, three phase 350 W for LXM05BD14N4, 380480 V, three phase 350 W for LXM05CD10M3X, 200240 V, three phase 350 W for LXM05CD10M3X, 200240 V, three phase 350 W for LXM05CD14N4, 380480 V, three phase 670 W for LXM15LD10N4, 400 V, three phase			
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 1.08 N.m for LXM15LD13M3, 230 V, single phase 1.1 N.m for LXM05AD10M2, 200240 V, single phase 1.1 N.m for LXM05BD10M2, 200240 V, single phase 1.1 N.m for LXM05CD10M2, 200240 V, single phase 1.8 N.m for LXM05CD10M2, 200240 V, single phase 0.8 N.m for LXM15LD10N4, 400 V, three phase 1.08 N.m for LXM05AD10M3X, 230 V, three phase 1.1 N.m for LXM05AD10M3X, 200240 V, three phase 1.1 N.m for LXM05AD10M3X, 200240 V, three phase 1.1 N.m for LXM05BD10M3X, 200240 V, three phase 1.1 N.m for LXM05BD14N4, 380480 V, three phase 1.1 N.m for LXM05CD10M3X, 200240 V, three phase 1.1 N.m for LXM05CD10M3X, 200240 V, three phase 1.1 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 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 LXM05AD10M3X, 200240 V, three phase 3000 rpm for LXM05BD10M3X, 200240 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 3000 rpm for LXM05CD14N4, 380480 V, three phase 3000 rpm for LXM15LD13M3, 230 V, single phase 3000 rpm for LXM15LD13M3, 230 V, three phase 8000 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 LXM15LD13M3 at 230 V single 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 LXM05CD10M3X at 200240 V three phase LXM05CD10M3X at 200240 V three phase LXM05D10M3X at 200240 V three phase LXM05D14N4 at 380480 V three phase LXM05BD14N4 at 380480 V three phase LXM05CD14N4 at 380480 V three phase LXM05CD14N4 at 400 V three phase			
Shaft end	Keyed			
IP degree of protection	IP65 standard IP67 with IP67 kit			
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 15 Lexium 32 Lexium 05			
Supply voltage max	480 V			
Network number of phases	Three phase			
Continuous stall current	1.7 A			
Maximum continuous power	0.97 W			
Maximum current Irms	8.7 A for LXM15LD13M3 8.7 A for LXM15LD10N4			

	6.5 A for LXM05AD10M2
	6.5 A for LXM05AD10M3X
	6.5 A for LXM05AD14N4
	6.5 A for LXM05BD10M2
	6.5 A for LXM05BD10M3X
	6.5 A for LXM05BD14N4
	6.5 A for LXM05CD10M2
	6.5 A for LXM05CD10M3X
	6.5 A for LXM05CD14N4
	6 A for LXM32.U60N4
Maximum permanent current	6.5 A
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Maximum permanent current	6.5 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	Multiturn SinCos Hiperface
Motor flange size	55 mm
Number of motor stacks	3
Torque constant	0.7 N.m/A at 120 °C
Back emf constant	41 V/krpm at 120 °C
Number of motor poles	6
Rotor inertia	0.134 kg.cm²
Stator resistance	10.4 Ohm at 20 °C
Stator inductance	25 mH at 20 °C
Stator electrical time constant	2.4 ms at 20 °C
Maximum radial force Fr	190 N at 8000 rpm 200 N at 7000 rpm 210 N at 6000 rpm 230 N at 5000 rpm 240 N at 4000 rpm 270 N at 3000 rpm 310 N at 2000 rpm 390 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
Type of cooling	Natural convection
Length	176.5 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	63 mm
Product weight	1.76 kg

Offer Sustainability

Sustainable offer status	Green Premium product		
REACh Regulation	REACh Declaration		
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration		
Mercury free Yes			
RoHS exemption information	Yes		
China RoHS Regulation	China RoHS declaration		
Environmental Disclosure	Product Environmental Profile		
Circularity Profile	file 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		

Warranty

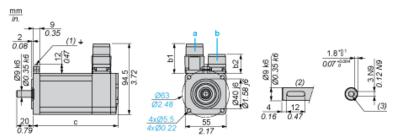
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Product datasheet Dimensions Drawings

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Servo Motors Dimensions

Example with Straight Connectors



a: Power supply for servo motor brakeb: 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 connector	rs .	Rotatable angled connectors		c (without brake)	c (with brake)
b	b1	b	b1		
39.5	25.5	39.5	39.5	176.5	203

Dimensions in in.

Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)
b	b1	b	b1		
1.55	1.00	1.55	1.55	6.94	7.99

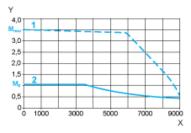
Product datasheet Performance Curves

BSH0553P32A1A

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

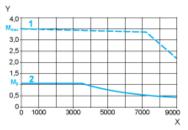
Product datasheet Performance Curves

BSH0553P32A1A

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•U60N4 servo drive



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