

AC servo motor BSH - 0.9 N.m - 4000 rpm - keyed shaft - without brake - IP65

BSH0552P31A2A

! Discontinued on: 9 Feb 2023

① Discontinued

EAN Code: 3389118158658

Main

Device short name	BSH				
Product or component type	Servo motor				
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 at 1.5 A, 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 at 1.5 A, 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 at 1.5 A, 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				

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 at 1.5 A, 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 at 1.5 A, 200240 V, single phase 3000 rpm for LXM05AD10M3X, 200240 V, three phase				
	3000 rpm for LXM05AD10M5A, 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				
	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	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 15				
	Lexium 05				
supply voltage max	480 V				
Network number of phases	Three phase				
Continuous stall current	1.2 A				
maximum continuous power	0.67 W				
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Maximum current Irms	5.9 A for LXM15LD13M3 5.9 A for LXM15LU60N4 4.8 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 LXM05BD10M3X				
	4.8 A for LXM05BD14N4				
	4.8 A for LXM05CD10M2				
	4.8 A for LXM05CD10M3X				
	4.8 A for LXM05CD14N4				
	4.8 A for LXM32.U60N4				
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	3.0				
Rotor inertia	0.096 kg.cm ²				
Stator resistance	17.4 Ohm at 20 °C				
Stator inductance	18.2 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				
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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	63 mm				
Net weight	1.5 kg				
Sizing reference	BSH0552P				
Network number of phases	3				
Accuracy error [angular]	1.4 °				
Temperature copper hot	120 °C				

Temperature magnet hot	100 °C
Temperature magnet rt	20 °C

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	11.000 cm
Package 1 Width	19.000 cm
Package 1 Length	39.000 cm
Package 1 Weight	1.960 kg
Unit Type of Package 2	S04
Number of Units in Package 2	3
Package 2 Height	30 cm
Package 2 Width	40 cm
Package 2 Length	60 cm
Package 2 Weight	6.530 kg
Unit Type of Package 3	P12
Number of Units in Package 3	12
Package 3 Height	45.000 cm
Package 3 Width	80.000 cm
Package 3 Length	120.000 cm
Package 3 Weight	38.120 kg

Contractual warranty

Warranty 18 months



Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing "Use Better, Use Longer, Use Again" campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

☑ Environmental footprint	
Carbon footprint (kg.eq.CO2 per CR, Total Life cycle)	455
Environmental Disclosure	Product Environmental Profile

Use Better

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	8c11b0c9-e501-4810-83eb-05fc6605ede4
REACh Regulation	REACh Declaration
PVC free	Yes

Use Again

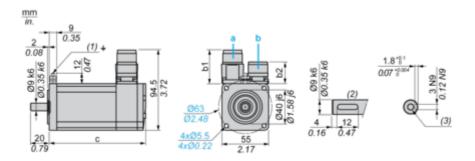
○ Repack and remanufacture	
Circularity Profile	No need of specific recycling operations
Take-back	No
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

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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	raight connectors Rotatable angled connectors		c (without brake)	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

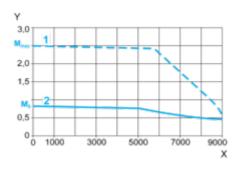
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Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•U60N4 servo drive

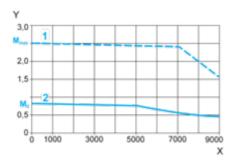


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

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