



# AC servo motor BSH - 0.9 N.m -6000 rpm - keyed shaft - without brake - IP65

BSH0552T31A2A

! Discontinued on: 9 Feb 2023

! Discontinued

EAN Code: 3389118159181

#### Main

Mairi					
Device short name	BSH				
Product or component type	Servo motor				
Maximum mechanical speed	9000 rpm				
Continuous stall torque	0.8 N.m for LXM32.U90M2 at 3 A, 115 V, single phase				
	0.8 N.m for LXM32.U90M2 at 3 A, 230 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 at 3 A, 230 V, three phase				
	0.77 N.m for LXM05CU70M2, 200240 V, single phase				
	0.9 N.m for LXM05AD10F1, 110120 V, single phase				
	0.9 N.m for LXM05AD17F1, 110120 V, single phase				
	0.9 N.m for LXM05BD10F1, 110120 V, single phase				
	0.9 N.m for LXM05BD17F1, 110120 V, single phase				
	0.9 N.m for LXM05CD10F1, 110120 V, single phase				
	0.9 N.m for LXM05CD17F1, 110120 V, single phase				
Peak stall torque	1.9 N.m for LXM32.U90M2 at 3 A, 115 V, single phase				
	2.5 N.m for LXM32.U90M2 at 3 A, 230 V, single phase				
	1.5 N.m for LXM15LD13M3, 230 V, single phase				
	1.31 N.m for LXM05CU70M2, 200240 V, single phase				
	1.77 N.m for LXM05AD10F1, 110120 V, single phase				
	1.77 N.m for LXM05AD10M2, 200240 V, single phase				

2.7 N.m for LXM05AD17F1, 110...120 V, single phase 1.77 N.m for LXM05BD10F1, 110...120 V, single phase 1.77 N.m for LXM05BD10M2, 200...240 V, single phase 2.7 N.m for LXM05BD17F1 at 3 A, 110...120 V, single phase 1.77 N.m for LXM05CD10F1, 110...120 V, single phase 1.77 N.m for LXM05CD10M2, 200...240 V, single phase 2.7 N.m for LXM05CD17F1, 110...120 V, single phase 1.5 N.m for LXM15LD13M3, 230 V, three phase 1.77 N.m for LXM05AD10M3X, 200...240 V, three phase 1.77 N.m for LXM05BD10M3X, 200...240 V, three phase 1.77 N.m for LXM05CD10M3X, 200...240 V, three phase

Life Is On Schneider 1 Jul 2025

Nominal output power	250 W for LXM32.U90M2 at 3 A, 115 V, single phase 450 W for LXM32.U90M2 at 3 A, 230 V, single phase 240 W for LXM05CU70M2, 200240 V, single phase				
	250 W for LXM05AD10F1, 110120 V, single phase				
	250 W for LXM05AD17F1, 110120 V, single phase 250 W for LXM05BD10F1, 110120 V, single phase				
	250 W for LXM05BD17F1, 110120 V, single phase				
	250 W for LXM05CD10F1, 110120 V, single phase				
	250 W for LXM05CD17F1, 110120 V, single phase				
	450 W for LXM05AD10M2 at 3 A, 200240 V, single phase 450 W for LXM05BD10M2, 200240 V, single phase				
	450 W for LXM05CD10M2, 200240 V, single phase				
	450 W for LXM15LD13M3, 230 V, single phase				
	450 W for LXM05AD10M3X, 200240 V, three phase				
	450 W for LXM05BD10M3X, 200240 V, three phase				
	450 W for LXM05CD10M3X, 200240 V, three phase 570 W for LXM15LD13M3, 230 V, three phase				
Nominal torque	0.77 N.m for LXM32.U90M2 at 3 A, 115 V, single phase				
Nominal torque	0.74 N.m for LXM32.U90M2 at 3 A, 113 V, single phase				
	0.72 N.m for LXM15LD13M3, 230 V, single phase				
	0.77 N.m for LXM05CU70M2, 200240 V, single phase				
	0.9 N.m for LXM05AD10F1, 110120 V, single phase				
	0.9 N.m for LXM05AD10M2, 200240 V, single phase 0.9 N.m for LXM05AD17F1, 110120 V, single phase				
	0.9 N.m for LXM05BD10F1, 110120 V, single phase				
	0.9 N.m for LXM05BD10M2, 200240 V, single phase				
	0.9 N.m for LXM05BD17F1 at 3 A, 110120 V, single phase				
	0.9 N.m for LXM05CD10F1, 110120 V, single phase				
	0.9 N.m for LXM05CD10M2, 200240 V, single phase 0.9 N.m for LXM05CD17F1, 110120 V, single phase				
	0.68 N.m for LXM15LD13M3, 230 V, three 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				
Nominal speed	3000 rpm for LXM32.U90M2 at 3 A, 115 V, single phase				
	6000 rpm for LXM32.U90M2 at 3 A, 230 V, single phase 3000 rpm for LXM05AD10F1, 110120 V, single phase				
	3000 rpm for LXM05BD10F1, 110120 V, single phase				
	3000 rpm for LXM05CD10F1, 110120 V, single phase				
	3000 rpm for LXM05CU70M2, 200240 V, single phase				
	6000 rpm for LXM05AD10M2, 200240 V, single phase				
	6000 rpm for LXM05BD10M2, 200240 V, single phase				
	6000 rpm for LXM05CD10M2, 200240 V, single phase 6000 rpm for LXM05AD10M3X at 3 A, 200240 V, three phase				
	6000 rpm for LXM05BD10M3X, 200240 V, three phase				
	6000 rpm for LXM05CD10M3X, 200240 V, three phase				
	8000 rpm for LXM15LD13M3, 230 V, three phase				
	3000 rpm for LXM05AD17F1, 110120 V, single phase				
	3000 rpm for LXM05BD17F1, 110120 V, single phase 3000 rpm for LXM05CD17F1, 110120 V, single phase				
	6000 rpm for LXM15LD13M3, 230 V, single phase				
Product compatibility	LXM05AD10F1 at 110120 V single phase				
	LXM05AD10M2 at 200240 V single phase				
	LXM05AD17F1 at 110120 V single phase				
	LXM05BD10F1 at 110120 V single phase				
	LXM05BD10M2 at 200240 V single phase				
	LXM05BD17F1 at 110120 V single phase LXM05CD10F1 at 110120 V single phase				
	LXM05CD10F1 at 110120 v single phase  LXM05CD10M2 at 200240 V single phase				
	LXM05CD17F1 at 110120 V single phase				
	LXM05CU70M2 at 200240 V single phase				
	LXM15LD13M3 at 230 V single phase				
	LXM32.U90M2 at 115 V single phase				
	LXM32.U90M2 at 230 V single 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				
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 05 Lexium 15				
supply voltage max	480 V				
Network number of phases	Three phase				
Continuous stall current	2.2 A				
maximum continuous power	0.67 W				
Maximum current Irms	6 A for LXM32.U90M2 at 115 V 8.8 A for LXM32.U90M2 at 230 V 10.3 A for LXM05AD10F1 8.8 A for LXM05AD10F1 8.8 A for LXM05AD10F1 8.8 A for LXM05AD10M2 8.8 A for LXM05AD10M3X 8.8 A for LXM05BD10F1 at 230 V 8.8 A for LXM05BD10F1 at 230 V 8.8 A for LXM05BD10F1 8.8 A for LXM05BD10M3 8.8 A for LXM05BD10M3 8.8 A for LXM05BD10M1 8.8 A for LXM05CD10F1 8.8 A for LXM05CD10F1 8.8 A for LXM05CD10M2 8.8 A for LXM05CD10M2 8.8 A for LXM05CD10M2				
Maximum permanent current	8.8 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	0.36 N.m/A at 120 °C				
Back emf constant	22 V/krpm at 120 °C				
Number of motor poles	3.0				
Rotor inertia	0.096 kg.cm²				
Stator resistance	5.2 Ohm at 20 °C				
Stator inductance	5.45 mH at 20 °C				
Stator electrical time constant	2.04 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	63 mm
Net weight	1.5 kg
Sizing reference	BSH0552T
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	12.3 cm
Package 1 Width	12.8 cm
Package 1 Length	37.7 cm
Package 1 Weight	1.1 kg

## **Logistical informations**

Country of origin DE

## **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)	634
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

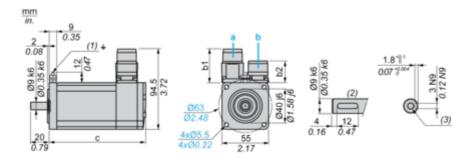
○ Repack and remanufacture					
Circularity Profile	No need of specific recycling operations				
Take-back	No				
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins				

### **BSH0552T31A2A**

### **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		led connectors	- (i4b4 bl)	a (with hardsa)	
b	b1	b	b1	c (without brake)	c (with brake)
39.5	25.5	39.5	39.5	154.5	181

#### Dimensions in in

Difficiolorio III III.						
Straight c	onnectors	Rotatable angled connectors		a (with a state and sa)	a (with hardsa)	
b	b1	b	b1	c (without brake)	c (with brake)	
1.55	1.00	1.55	1.55	6.08	7.12	

## **Product datasheet**

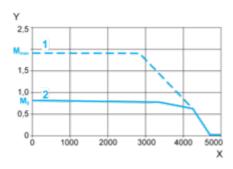
## BSH0552T31A2A

#### Performance Curves

### 115 V Single-Phase Supply Voltage

### **Torque/Speed Curves**

Servo motor with LXM32•U90M2 servo drive

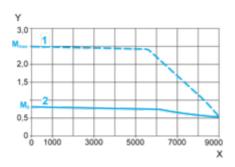


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

### 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