

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

BSH0552P01A2A

! Discontinued on: 9 Feb 2023

① Discontinued

EAN Code: 3389118158603

#### Main

BSH				
Servo motor				
9000 rpm				
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				
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				
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 M for I VM05BD10M3V 200 240 V three shace				
250 W for LXM05BD10M3X, 200240 V, three phase				
250 W for LXM05BD14N4, 380480 V, three phase				
250 W for LXM05BD14N4, 380480 V, three phase 250 W for LXM05CD10M3X, 200240 V, three phase				
250 W for LXM05BD14N4, 380480 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 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	Untapped				
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 15				
	Lexium 05				
	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 LXM05BD10M3X 4.8 A for LXM05BD10M3 4.8 A for LXM05BD10M3X 4.8 A for LXM05BD10M3X 4.8 A for LXM05CD10M2 4.8 A for LXM05CD10M2 4.8 A for LXM05CD10M3X 4.8 A for LXM05CD10M3X 4.8 A for LXM05CD10M3X 4.8 A for LXM05CD10M3X 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				
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	63 mm				
Net weight	1.5 kg				
Sizing reference	BSH0552P				
Network number of phases	3				
Accuracy error [angular]	1.4°				
Coefficient 1_1	-0.000010000000000595 N.m/rpm				
Coefficient 1_2	0.00000000000000000082332512708 N.m/rpm²				

Coefficient 1_3	-0.000000000000000000000040798742 N.m/rpm3
Coefficient 1_4	0.000000000000000000000000000000000000
Coefficient 1_5	0 N.m/rpm5
Coefficient 1_6	0 N.m/rpm6
Saturation coefficient 1	0.0000000000000003853143882407
Saturation coefficient 2	-0.011712631937351
Saturation coefficient 3	-0.00000000000000000273170648379
Temperature copper hot	120 °C
Temperature magnet hot	100 °C
Temperature magnet rt	20 °C
Motor voltage drop coefficient	1

# **Packing Units**

_	
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	11.700 cm
Package 1 Width	19.100 cm
Package 1 Length	39.700 cm
Package 1 Weight	1.882 kg
Unit Type of Package 2	P06
Number of Units in Package 2	10
Package 2 Height	73.500 cm
Package 2 Width	60.000 cm
Package 2 Length	80.000 cm
Package 2 Weight	32.450 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)	456
Environmental Disclosure	Product Environmental Profile

#### **Use Better**

Materials and Substances				
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)			
REACh Regulation	REACh Declaration			
PVC free	Yes			

#### **Use Again**

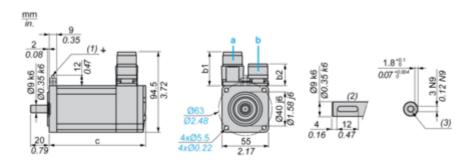
○ Repack and remanufacture					
Circularity Profile	No need of specific recycling operations				
Take-back	No				
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins				

#### **BSH0552P01A2A**

#### **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 handsa)		
b	b1	b b1	c (without brake)	c (with brake)	
39.5	25.5	39.5	39.5	154.5	181

#### Dimensions in in

Dimonololic in in.						
Straight connectors		Rotatable angled connectors		a (with a st banks)	- (ith hardes)	
b	b1	b	b1	c (without brake)	c (with brake)	
1.55	1.00	1.55	1.55	6.08	7.12	

## **Product datasheet**

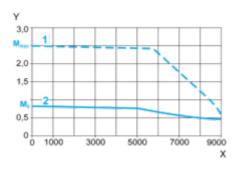
## BSH0552P01A2A

#### Performance Curves

## 400 V 3-Phase Supply Voltage

#### **Torque/Speed Curves**

Servo motor with LXM32•U60N4 servo drive

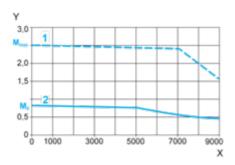


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

#### 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