

# AC servo motor BSH - 0.9 N.m - 6000 rpm - keyed shaft - without brake - IP50

BSH0552T12A2A

EAN Code: 3389118159044

## 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.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 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 LXM05CD10M3X, 230 V, single phase 0.9 N.m for LXM15LD13M3, 230 V, single phase 0.9 N.m for LXM05CU70M2, 200240 V, single phase 0.9 N.m for LXM05AD10F1, 110120 V, single phase 0.9 N.m for LXM05BD10F1, 110120 V, single phase 0.9 N.m for LXM05BD17F1, 110120 V, single phase				
Peak stall torque	0.9 N.m for LXM05CD17F1, 110120 V, single phase  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 LXM5LD13M3, 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 LXM05AD10F1, 110120 V, single phase 2.7 N.m for LXM05AD17F1, 110120 V, single phase 1.77 N.m for LXM05BD10F1, 110120 V, single phase 1.77 N.m for LXM05BD10F1, 110120 V, single phase 2.7 N.m for LXM05BD10F1, 13 A, 110120 V, single phase 2.7 N.m for LXM05BD17F1 at 3 A, 110120 V, single phase 1.77 N.m for LXM05CD10F1, 110120 V, single phase 1.77 N.m for LXM05CD10M2, 200240 V, single phase 1.5 N.m for LXM05CD17F1, 110120 V, single phase 1.5 N.m for LXM15LD13M3, 230 V, three phase 1.77 N.m for LXM05AD10M3X, 200240 V, three phase 1.77 N.m for LXM05BD10M3X, 200240 V, three phase 1.77 N.m for LXM05BD10M3X, 200240 V, three phase				
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 LXM05BD10F1, 110120 V, single phase 250 W for LXM05BD10F1, 110120 V, single phase 250 W for LXM05CD10F1, 110120 V, single phase 250 W for LXM05CD17F1, 110120 V, single phase 250 W for LXM05CD17F1, 110120 V, single phase 450 W for LXM05BD10M2 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 LXM05AD10M3X, 230 V, single phase 450 W for LXM05AD10M3X, 200240 V, three phase 450 W for LXM05BD10M3X, 200240 V, three phase 450 W for LXM05BD10M3X, 200240 V, three phase 450 W for LXM05BD10M3X, 200240 V, three phase 450 W for LXM05CD10M3X, 200240 V, three phase				

Nominal torque	0.77 N.m for LXM32.U90M2 at 3 A, 115 V, single phase				
	0.74 N.m for LXM32.U90M2 at 3 A, 230 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 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	2000 rpm for LVM22 LI00M2 at 2 A 115 V cingle 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				
	Extrace Production Confidence				
	LXM05BD17F1 at 110120 V single phase				
	LXM05CD10F1 at 110120 V single phase				
	LXM05CD10F1 at 110120 V single phase LXM05CD10M2 at 200240 V single phase				
	LXM05CD10F1 at 110120 V single phase LXM05CD10M2 at 200240 V single phase LXM05CD17F1 at 110120 V single phase				
	LXM05CD10F1 at 110120 V single phase LXM05CD10M2 at 200240 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				
	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				
	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 LXM32.U90M2 at 230 V single phase LXM05AD10M3X at 200240 V three 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				
	LXM05CD10F1 at 110120 V single phase LXM05CD10M2 at 200240 V single phase LXM05CD17F1 at 110120 V single phase LXM05CD17F0 at 200240 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				
Shaft end	LXM05CD10F1 at 110120 V single phase LXM05CD10M2 at 200240 V single phase LXM05CD17F1 at 110120 V single phase LXM05CD17F1 at 200240 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				
Shaft end IP degree of protection	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 2130 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				
	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 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				
IP degree of protection	LXM05CD10F1 at 110120 V single phase LXM05CD10M2 at 200240 V single phase LXM05CD17F1 at 110120 V single phase LXM05CD17F1 at 200240 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 Keyed  IP50 standard				
IP degree of protection  Speed feedback resolution	LXM05CD10F1 at 110120 V single phase LXM05CD10M2 at 200240 V single phase LXM05CD17F1 at 110120 V single phase LXM05CU70M2 at 200240 V single phase LXM05LD13M3 at 230 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 LXM05CD10M3X at 200240 V three phase LXM15LD13M3 at 230 V three phase Keyed  IP50 standard				
IP degree of protection  Speed feedback resolution  Holding brake	LXM05CD10F1 at 110120 V single phase LXM05CD10M2 at 200240 V single phase LXM05CD17F1 at 110120 V single phase LXM05CU70M2 at 200240 V single phase LXM05CU70M2 at 230 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 Keyed  IP50 standard  131072 points/turn x 4096 turns  Without				
IP degree of protection  Speed feedback resolution  Holding brake  Mounting support	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 LXM15LD13M3 at 230 V three phase Weyed  IP50 standard  131072 points/turn x 4096 turns  Without  International standard flange				
IP degree of protection  Speed feedback resolution  Holding brake  Mounting support	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 LXM15LD13M3 at 230 V three phase Weyed  IP50 standard  131072 points/turn x 4096 turns  Without  International standard flange				
IP degree of protection  Speed feedback resolution  Holding brake  Mounting support  Electrical connection	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 LXM15LD13M3 at 230 V three phase Weyed  IP50 standard  131072 points/turn x 4096 turns  Without  International standard flange				
IP degree of protection Speed feedback resolution Holding brake Mounting support Electrical connection  Complementary	LXM05CD10F1 at 110120 V single phase LXM05CD10M2 at 200240 V single phase LXM05CD17F1 at 1110120 V single phase LXM05CU70M2 at 200240 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 Keyed  IP50 standard  131072 points/turn x 4096 turns  Without  International standard flange  Rotatable right-angled connectors				
IP degree of protection Speed feedback resolution Holding brake Mounting support Electrical connection  Complementary	LXM05CD10F1 at 110120 V single phase LXM05CD10M2 at 200240 V single phase LXM05CD17F1 at 110120 V single phase LXM05CU70M2 at 200240 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 LXM05AD10M3X at 200240 V three phase LXM05CD10M3X at 200240 V three phase LXM15LD13M3 at 230 V three phase Keyed  IP50 standard  131072 points/turn x 4096 turns  Without  International standard flange  Rotatable right-angled connectors				
IP degree of protection Speed feedback resolution Holding brake Mounting support Electrical connection  Complementary	LXM05CD10F1 at 110120 V single phase LXM05CD10M2 at 200240 V single phase LXM05CD17F1 at 110120 V single phase LXM05CU70M2 at 200240 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 Keyed  IP50 standard  131072 points/turn x 4096 turns  Without  International standard flange  Rotatable right-angled connectors  Lexium 05 Lexium 32				
IP degree of protection  Speed feedback resolution  Holding brake  Mounting support  Electrical connection  Complementary  Range compatibility	LXM05CD10F1 at 110120 V single phase LXM05CD10M2 at 200240 V single phase LXM05CD17F1 at 110120 V single phase LXM05CU70M2 at 200240 V single phase LXM05CU70M2 at 230. V single phase LXM32.U90M2 at 115 V single phase LXM32.U90M2 at 230 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 LXM05CD10M3X at 230 V three phase LXM15LD13M3 at 230 V three phase Weyed  IP50 standard  131072 points/turn x 4096 turns  Without  International standard flange  Rotatable right-angled connectors  Lexium 05 Lexium 32 Lexium 15				
IP degree of protection  Speed feedback resolution  Holding brake  Mounting support  Electrical connection  Complementary  Range compatibility  supply voltage max	LXM05CD10F1 at 110120 V single phase LXM05CD17F1 at 110120 V single phase LXM05CU70M2 at 200240 V single phase LXM05CU70M2 at 200240 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 LXM05BD10M3X at 200240 V three phase LXM05CD10M3X at 200240 V three phase LXM15LD13M3 at 230 V three phase Weyed  IP50 standard  131072 points/turn x 4096 turns  Without  International standard flange  Rotatable right-angled connectors  Lexium 05 Lexium 32 Lexium 15				

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 LXM05AD17F1 8.8 A for LXM05AD10M2 8.8 A for LXM05AD10M2 8.8 A for LXM05AD10M3X 8.8 A for LXM05BD10F1 at 230 V 8.8 A for LXM05BD10F1 8.8 A for LXM05BD10M2 8.8 A for LXM05BD10M2 8.8 A for LXM05BD10F1 8.8 A for LXM05BD10M2 8.8 A for LXM05BD10M2 8.8 A for LXM05BD10M2 8.8 A for LXM05CD10F1 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	Multiturn 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

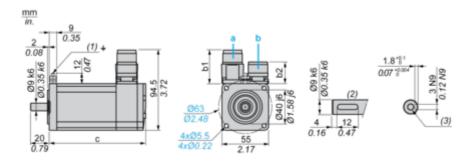
○ Repack and remanufacture					
Circularity Profile	No need of specific recycling operations				
Take-back	No				
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins				

## **BSH0552T12A2A**

#### **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 c	onnectors	Rotatable angled connectors		- (itht hl)	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

Dimonololic in in.						
Straight c	onnectors	Rotatable angled connectors		a (with and bundles)	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**

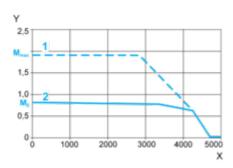
## BSH0552T12A2A

#### Performance Curves

## 115 V Single-Phase Supply Voltage

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

Servo motor with LXM32•U90M2 servo drive

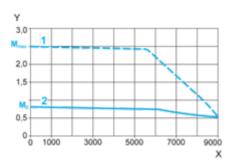


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

#### 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