

# BSH0552T21A2A

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



## Main

Product or component type	Servo motor
Device short name	BSH
Maximum mechanical speed	9000 rpm
Continuous stall torque	<p>0.8 N.m for LXM32.U90M2 3 A at 115 V single phase</p> <p>0.8 N.m for LXM32.U90M2 3 A at 230 V single phase</p> <p>0.9 N.m for LXM05AD10M2 at 200...240 V single phase</p> <p>0.9 N.m for LXM05BD10M2 at 200...240 V single phase</p> <p>0.9 N.m for LXM05CD10M2 at 200...240 V single phase</p> <p>0.9 N.m for LXM15LD13M3 at 230 V single phase</p> <p>0.77 N.m for LXM05CU70M2 at 200...240 V single phase</p> <p>0.9 N.m for LXM05AD10F1 at 110...120 V single phase</p> <p>0.9 N.m for LXM05AD17F1 at 110...120 V single phase</p> <p>0.9 N.m for LXM05BD10F1 at 110...120 V single phase</p> <p>0.9 N.m for LXM05BD17F1 at 110...120 V single phase</p> <p>0.9 N.m for LXM05CD10F1 at 110...120 V single phase</p> <p>0.9 N.m for LXM05CD17F1 at 110...120 V single phase</p> <p>0.9 N.m for LXM05AD10M3X at 200...240 V three phase</p> <p>0.9 N.m for LXM05BD10M3X at 200...240 V three phase</p> <p>0.9 N.m for LXM05CD10M3X at 200...240 V three phase</p> <p>0.9 N.m for LXM15LD13M3 at 230 V three phase</p>
Peak stall torque	<p>1.9 N.m for LXM32.U90M2 3 A at 115 V single phase</p> <p>2.5 N.m for LXM32.U90M2 3 A at 230 V single phase</p> <p>1.5 N.m for LXM15LD13M3 at 230 V single phase</p> <p>1.31 N.m for LXM05CU70M2 at 200...240 V single phase</p> <p>1.77 N.m for LXM05AD10F1 at 110...120 V single phase</p> <p>1.77 N.m for LXM05AD10M2 at 200...240 V single phase</p> <p>2.7 N.m for LXM05AD17F1 at 110...120 V single phase</p> <p>1.77 N.m for LXM05BD10F1 at 110...120 V single phase</p> <p>1.77 N.m for LXM05BD10M2 at 200...240 V single phase</p> <p>2.7 N.m for LXM05BD17F1 at 110...120 V single phase</p> <p>1.77 N.m for LXM05CD10F1 at 110...120 V single phase</p> <p>1.77 N.m for LXM05CD10M2 at 200...240 V single phase</p> <p>2.7 N.m for LXM05CD17F1 at 110...120 V single phase</p> <p>1.5 N.m for LXM15LD13M3 at 230 V three phase</p> <p>1.77 N.m for LXM05AD10M3X at 200...240 V three phase</p> <p>1.77 N.m for LXM05BD10M3X at 200...240 V three phase</p> <p>1.77 N.m for LXM05CD10M3X at 200...240 V three phase</p>

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Nominal output power	<p>250 W for LXM32.U90M2 3 A at 115 V single phase  450 W for LXM32.U90M2 3 A at 230 V single phase  240 W for LXM05CU70M2 at 200...240 V single phase  250 W for LXM05AD10F1 at 110...120 V single phase  250 W for LXM05AD17F1 at 110...120 V single phase  250 W for LXM05BD10F1 at 110...120 V single phase  250 W for LXM05BD17F1 at 110...120 V single phase  250 W for LXM05CD10F1 at 110...120 V single phase  250 W for LXM05CD17F1 at 110...120 V single phase  450 W for LXM05AD10M2 at 200...240 V single phase  450 W for LXM05BD10M2 at 200...240 V single phase  450 W for LXM05CD10M2 at 200...240 V single phase  450 W for LXM15LD13M3 at 230 V single phase  450 W for LXM05AD10M3X at 200...240 V three phase  450 W for LXM05BD10M3X at 200...240 V three phase  450 W for LXM05CD10M3X at 200...240 V three phase  570 W for LXM15LD13M3 at 230 V three phase</p>
Nominal torque	<p>0.77 N.m for LXM05CU70M2 at 200...240 V single phase  0.9 N.m for LXM05AD10F1 at 110...120 V single phase  0.9 N.m for LXM05AD10M2 at 200...240 V single phase  0.9 N.m for LXM05AD17F1 at 110...120 V single phase  0.9 N.m for LXM05BD10F1 at 110...120 V single phase  0.9 N.m for LXM05BD10M2 at 200...240 V single phase  0.9 N.m for LXM05BD17F1 at 110...120 V single phase  0.9 N.m for LXM05CD10F1 at 110...120 V single phase  0.9 N.m for LXM05CD10M2 at 200...240 V single phase  0.9 N.m for LXM05CD17F1 at 110...120 V single phase  0.9 N.m for LXM05AD10M3X at 200...240 V three phase  0.9 N.m for LXM05BD10M3X at 200...240 V three phase  0.9 N.m for LXM05CD10M3X at 200...240 V three phase  0.77 N.m for LXM32.U90M2 3 A at 115 V single phase  0.74 N.m for LXM32.U90M2 3 A at 230 V single phase  0.72 N.m for LXM15LD13M3 at 230 V single phase  0.68 N.m for LXM15LD13M3 at 230 V three phase</p>
Nominal speed	<p>3000 rpm for LXM32.U90M2 3 A at 115 V single phase  6000 rpm for LXM32.U90M2 3 A at 230 V single phase  3000 rpm for LXM05AD10F1 at 110...120 V single phase  3000 rpm for LXM05AD17F1 at 110...120 V single phase  3000 rpm for LXM05BD10F1 at 110...120 V single phase  3000 rpm for LXM05BD17F1 at 110...120 V single phase  3000 rpm for LXM05CD10F1 at 110...120 V single phase  3000 rpm for LXM05CD17F1 at 110...120 V single phase  3000 rpm for LXM05CU70M2 at 200...240 V single phase  6000 rpm for LXM05AD10M2 at 200...240 V single phase  6000 rpm for LXM05BD10M2 at 200...240 V single phase  6000 rpm for LXM05CD10M2 at 200...240 V single phase  6000 rpm for LXM15LD13M3 at 230 V single phase  6000 rpm for LXM05AD10M3X at 200...240 V three phase  6000 rpm for LXM05BD10M3X at 200...240 V three phase  6000 rpm for LXM05CD10M3X at 200...240 V three phase  8000 rpm for LXM15LD13M3 at 230 V three phase</p>
Product compatibility	<p>LXM05AD10F1 at 110...120 V single phase  LXM05AD10M2 at 200...240 V single phase  LXM05AD17F1 at 110...120 V single phase  LXM05BD10F1 at 110...120 V single phase  LXM05BD10M2 at 200...240 V single phase  LXM05BD17F1 at 110...120 V single phase  LXM05CD10F1 at 110...120 V single phase  LXM05CD10M2 at 200...240 V single phase  LXM05CD17F1 at 110...120 V single phase  LXM05CU70M2 at 200...240 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 200...240 V three phase  LXM05BD10M3X at 200...240 V three phase  LXM05CD10M3X at 200...240 V three phase  LXM15LD13M3 at 230 V three phase</p>
Shaft end	Untapped
IP degree of protection	<p>IP65 (standard)  IP67 (with IP67 kit)</p>
Speed feedback resolution	131072 points/turn
Holding brake	Without

Mounting support	International standard flange
Electrical connection	Rotatable right-angled connectors

## Complementary

Range compatibility	Lexium 05 Lexium 32 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	10.3 A for LXM15LD13M3 8.8 A for LXM05AD10F1 8.8 A for LXM05AD10M2 8.8 A for LXM05AD10M3X 8.8 A for LXM05AD17F1 8.8 A for LXM05BD10F1 8.8 A for LXM05BD10M2 8.8 A for LXM05BD10M3X 8.8 A for LXM05BD17F1 8.8 A for LXM05CD10F1 8.8 A for LXM05CD10M2 8.8 A for LXM05CD10M3X 8.8 A for LXM05CD17F1 8.8 A for LXM05CU70M2 6 A for LXM32.U90M2 at 115 V 8.8 A for LXM32.U90M2 at 230 V
Maximum permanent current	8.8 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	0.36 N.m/A at 120 °C
Back emf constant	22 V/krpm at 120 °C
Number of motor poles	6
Rotor inertia	0.096 kg.cm <sup>2</sup>
Stator resistance	5.2 Ohm at 20 °C
Stator inductance	10.6 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
Product weight	1.5 kg

## Offer Sustainability

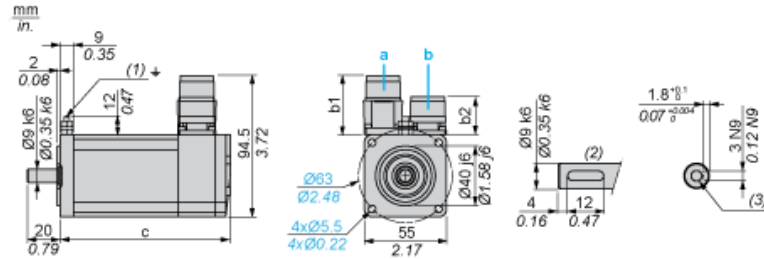
Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0850 - Schneider Electric declaration of conformity <a href="#">Schneider Electric declaration of conformity</a>
REACH	Reference not containing SVHC above the threshold <a href="#">Reference not containing SVHC above the threshold</a>
Product environmental profile	Available
Product end of life instructions	Need no specific recycling operations

## Contractual warranty

Warranty period	18 months
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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		c (without brake)	c (with brake)
b	b1	b	b1		
39.5	25.5	39.5	39.5	154.5	181

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	6.08	7.12

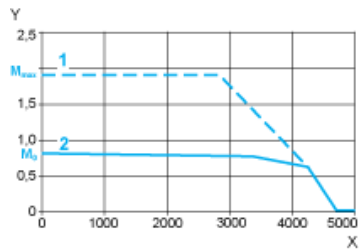
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115 V Single-Phase Supply Voltage

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Torque/Speed Curves

Servo motor with LXM32-U90M2 servo drive



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

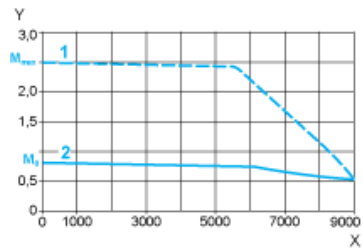
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230 V Single-Phase Supply Voltage

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Torque/Speed Curves

Servo motor with LXM32-U90M2 servo drive



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