

AC servo motor BSH - 1.1 N.m - 3000 rpm - untapped shaft - without brake - IP65

BSH0703P21A2A

! Discontinued on: 9 Feb 2023

① Discontinued

EAN Code: 3389118137295

Main

Device short name	BSH
Product or component type	Servo motor
Maximum mechanical speed	8000 rpm
Continuous stall torque	2.83 N.m for LXM15LD21M3, 230 V, single phase
	1.1 N.m for LXM15LU60N4, 480 V, three phase
	1.1 N.m for LXM15LU60N4, 400 V, three phase
	1.5 N.m for LXM15LU60N4, 230 V, three phase
	2.23 N.m for LXM15LD13M3, 230 V, three phase
	2.4 N.m for LXM15LD10N4, 230 V, three phase
	2.4 N.m for LXM15LD10N4, 400 V, three phase
	2.4 N.m for LXM15LD10N4, 480 V, three phase
	2.83 N.m for LXM15LD17N4, 230 V, three phase
	2.83 N.m for LXM15LD17N4, 400 V, three phase
	2.83 N.m for LXM15LD17N4, 480 V, three phase
	2.83 N.m for LXM15LD21M3, 230 V, three phase
	2.8 N.m for LXM05AD17M2, 200240 V, single phase
	2.8 N.m for LXM05AD17M3X, 200240 V, three phase
	2.8 N.m for LXM05AD22N4, 380480 V, three phase
	2.8 N.m for LXM05AD28M2, 200240 V, single phase
	2.8 N.m for LXM05BD17M2, 200240 V, single phase
	2.8 N.m for LXM05BD17M3X at 6 A, 200240 V, three phase
	2.8 N.m for LXM05BD22N4 at 6 A, 380480 V, three phase
	2.8 N.m for LXM05BD28M2, 200240 V, single phase
	2.8 N.m for LXM05CD17M2, 200240 V, single phase
	2.8 N.m for LXM05CD17M3X, 200240 V, three phase
	2.8 N.m for LXM05CD22N4, 380480 V, three phase
	2.8 N.m for LXM05CD28M2, 200240 V, single phase
	3.1 N.m for LXM32.D18N4 at 6 A, 400 V, three phase

3.1 N.m for LXM32.D18N4 at 6 A, 480 V, three phase

Peak stall torque

5.99 N.m for LXM15LD21M3, 230 V, single phase 7.16 N.m for LXM05AD17M2, 200...240 V, single phase 10.3 N.m for LXM05AD28M2, 200...240 V, single phase 7.16 N.m for LXM05BD17M2, 200...240 V, single phase 10.3 N.m for LXM05BD28M2, 200...240 V, single phase 7.16 N.m for LXM05CD17M2, 200...240 V, single phase 10.3 N.m for LXM05CD28M2, 200...240 V, single phase 3.3 N.m for LXM15LU60N4, 480 V, three phase 3.3 N.m for LXM15LU60N4, 400 V, three phase 3.3 N.m for LXM15LU60N4, 230 V, three phase 6 N.m for LXM15LD13M3, 230 V, three phase 5.3 N m for LXM15LD10N4 230 V three phase 5.3 N.m for LXM15LD10N4, 400 V, three phase 5.3 N.m for LXM15LD10N4, 480 V, three phase 7.71 N.m for LXM15LD17N4, 230 V, three phase 7.71 N.m for LXM15LD17N4, 400 V, three phase 7.71 N.m for LXM15LD17N4, 480 V, three phase 9.28 N.m for LXM15LD21M3 at 6 A, 230 V, three phase 7.16 N.m for LXM05AD17M3X at 6 A, 200...240 V, three phase 8.75 N.m for LXM05AD22N4, 380...480 V, three phase 7.16 N.m for LXM05BD17M3X, 200...240 V, three phase 8.75 N.m for LXM05BD22N4, 380...480 V, three phase 7.16 N.m for LXM05CD17M3X, 200...240 V, three phase 8.75 N.m for LXM05CD22N4, 380...480 V, three phase 11.3 N.m for LXM32.D18N4 at 6 A, 400 V, three phase 11.3 N.m for LXM32.D18N4 at 6 A, 480 V, three phase

Nominal output power

750 W for LXM05AD17M2, 200...240 V, single phase 750 W for LXM05AD28M2, 200...240 V, single phase 750 W for LXM05BD17M2, 200...240 V, single phase 750 W for LXM05BD28M2, 200...240 V, single phase 750 W for LXM05CD17M2, 200...240 V, single phase 750 W for LXM05CD28M2, 200...240 V, single phase 750 W for LXM15LD21M3, 230 V, single phase 1250 W for LXM15LD10N4, 400 V, three phase 1300 W for LXM15LD17N4, 400 V, three phase 1400 W for LXM15LD17N4, 480 V, three phase 1500 W for LXM15LD10N4, 480 V, three phase 350 W for LXM15LU60N4, 230 V, three phase 700 W for LXM15LD13M3, 230 V, three phase 700 W for LXM15LU60N4, 400 V, three phase 750 W for LXM05AD17M3X, 200...240 V, three phase 750 W for LXM05AD22N4, 380...480 V, three phase 750 W for LXM05BD17M3X, 200...240 V, three phase 750 W for LXM05BD22N4 at 6 A, 380...480 V, three phase 750 W for LXM05CD17M3X at 6 A, 200...240 V, three phase 750 W for LXM05CD22N4, 380...480 V, three phase 750 W for LXM15LD10N4, 230 V, three phase 750 W for LXM15LD17N4, 230 V, three phase 750 W for LXM15LD21M3, 230 V, three phase 950 W for LXM15LU60N4, 480 V, three phase 1300 W for LXM32.D18N4 at 6 A, 400 V, three phase 1300 W for LXM32.D18N4 at 6 A, 480 V, three phase

Nominal torque

2.4 N.m for LXM05AD17M2, 200...240 V, single phase 2.4 N.m for LXM05AD28M2, 200...240 V, single phase 2.4 N.m for LXM05BD17M2, 200...240 V, single phase 2.4 N.m for LXM05BD28M2, 200...240 V, single phase 2.4 N.m for LXM05CD17M2, 200...240 V, single phase 2.4 N.m for LXM05CD28M2, 200...240 V, single phase 2.4 N.m for LXM15LD21M3, 230 V, single phase 1.12 N.m for LXM15LU60N4, 230 V, three phase 1.12 N.m for LXM15LU60N4, 400 V, three phase 1.12 N.m for LXM15LU60N4, 480 V, three phase 1.8 N.m for LXM15LD10N4, 480 V, three phase 1.96 N.m for LXM15LD17N4, 480 V, three phase 2 N.m for LXM15LD10N4, 400 V, three phase 2 N.m for LXM15LD17N4, 400 V, three phase 2.23 N.m for LXM15LD13M3, 230 V, three phase 2.4 N.m for LXM05AD17M3X, 200...240 V, three phase 2.4 N m for LXM05AD22N4 380 480 V three phase 2.4 N.m for LXM05BD17M3X at 6 A, 200...240 V, three phase 2.4 N.m for LXM05BD22N4 at 6 A, 380...480 V, three phase 2.4 N.m for LXM05CD17M3X, 200...240 V, three phase 2.4 N.m for LXM05CD22N4, 380...480 V, three phase 2.4 N.m for LXM15LD10N4, 230 V, three phase 2.4 N.m for LXM15LD17N4, 230 V, three phase 2.4 N.m for LXM15LD21M3, 230 V, three phase 2.44 N.m for LXM32.D18N4 at 6 A, 400 V, three phase 2.44 N.m for LXM32.D18N4 at 6 A, 480 V, three phase

Nominal speed

3000 rpm for LXM15LD13M3, 230 V, three phase 3000 rpm for LXM05AD17M2, 200...240 V, single phase 3000 rpm for LXM05BD17M2, 200...240 V, single phase 3000 rpm for LXM05CD17M2, 200...240 V, single phase $3000\ rpm$ for LXM05AD17M3X, $200...240\ V,$ three phase 3000 rpm for LXM05BD17M3X, 200...240 V, three phase 3000 rpm for LXM05CD17M3X, 200...240 V, three phase 3000 rpm for LXM15LU60N4, 230 V, three phase 8000 rpm for LXM15LD10N4, 480 V, three phase 8000 rpm for LXM15LU60N4, 480 V, three phase 3000 rpm for LXM15LD10N4, 230 V, three phase 6000 rpm for LXM15LD10N4, 400 V, three phase 3000 rpm for LXM05AD28M2, 200...240 V, single phase 3000 rpm for LXM05BD28M2, 200...240 V, single phase 3000 rpm for LXM05CD28M2, 200...240 V, single phase 3000 rpm for LXM15LD21M3, 230 V, single phase 3000 rpm for LXM05AD22N4, 380...480 V, three phase 3000 rpm for LXM05BD22N4 at 6 A, 380...480 V, three phase 3000 rpm for LXM05CD22N4 at 6 A, 380...480 V, three phase 3000 rpm for LXM15LD17N4, 230 V, three phase 3000 rpm for LXM15LD21M3, 230 V, three phase 6000 rpm for LXM15LD17N4, 400 V, three phase 6000 rpm for LXM15LU60N4, 400 V, three phase 7000 rpm for LXM15LD17N4, 480 V, three phase 5000 rpm for LXM32.D18N4 at 6 A, 400 V, three phase 5000 rpm for LXM32.D18N4 at 6 A, 480 V, three phase

Product compatibility	LXM05AD17M2 at 200240 V single phase LXM05AD28M2 at 200240 V single phase LXM05BD17M2 at 200240 V single phase LXM05BD28M2 at 200240 V single phase LXM05CD17M2 at 200240 V single phase LXM05CD28M2 at 200240 V single phase LXM15LD21M3 at 230 V single phase LXM15LD21M3 at 230 V single phase LXM15LD41M3 at 230 V three phase LXM15LD41M3 at 230 V three phase LXM15LU60N4 at 400 V three phase LXM15LU60N4 at 400 V three phase LXM15LU60N4 at 480 V three phase LXM15LD10N4 at 400 V three phase LXM05AD17M3X at 200240 V three phase LXM05AD17M3X at 200240 V three phase LXM05CD17M3X at 200240 V three phase LXM05CD17M3X at 200240 V three phase LXM15LD10N4 at 480 V three phase						
	LXM15LD17N4 at 230 V three phase LXM05AD22N4 at 380480 V three phase LXM05BD22N4 at 380480 V three phase LXM05CD22N4 at 380480 V three phase LXM15LD17N4 at 400 V three phase LXM15LD17N4 at 480 V three phase LXM32.D18N4 at 400 V three phase LXM32.D18N4 at 480 V three phase						
Shaft end	Untapped						
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 05 Lexium 32 Lexium 15						
supply voltage max	480 V						
Network number of phases	Three phase						
Continuous stall current	4.1 A						
maximum continuous power	1.7 W						
Maximum current Irms	15.2 A for LXM15LD13M3 15.2 A for LXM15LD21M3 15.2 A for LXM15LD17N4 15.2 A for LXM15LD60N4 15.2 A for LXM15LD10N4 17 A for LXM05AD17M2 17 A for LXM05AD17M3X 17 A for LXM05AD17M3X 17 A for LXM05AD17M2 17 A for LXM05AD2N4 17 A for LXM05BD17M2 17 A for LXM05BD17M2 17 A for LXM05BD17M2 17 A for LXM05BD17M2 17 A for LXM05BD17M3X 17 A for LXM05BD17M3X 17 A for LXM05BD17M3X 17 A for LXM05CD17M2 17 A for LXM05CD17M2 17 A for LXM05CD17M3X 17 A for LXM05CD17M3X 17 A for LXM05CD17M3X 17 A for LXM05CD22N4 17 A for LXM05CD22N4						
Maximum permanent current	17 A						
Switching frequency	8 kHz						
Second shaft	Without second shaft end						

Shaft diameter	14 mm
Shaft length	30 mm
Feedback type	Single turn SinCos Hiperface
Motor flange size	70 mm
Number of motor stacks	3
Torque constant	0.78 N.m/A at 120 °C
Back emf constant	49 V/krpm at 120 °C
Number of motor poles	3.0
Rotor inertia	0.58 kg.cm²
Stator resistance	2.7 Ohm at 20 °C
Stator inductance	7.3 mH at 20 °C
Stator electrical time constant	4.82 ms at 20 °C
Maximum radial force Fr	400 N at 6000 rpm 430 N at 5000 rpm 460 N at 4000 rpm 510 N at 3000 rpm 580 N at 2000 rpm 730 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
type of cooling	Natural convection
Length	220 mm
Centring collar diameter	60 mm
centring collar depth	2.5 mm
Number of mounting holes	4
Mounting holes diameter	5.5 mm
Circle diameter of the mounting holes	82 mm
Net weight	3.62 kg
Sizing reference	BSH0703P
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	12.300 cm
Package 1 Width	12.800 cm
Package 1 Length	37.700 cm
Package 1 Weight	3.600 kg
Unit Type of Package 2	S04
Number of Units in Package 2	2

Package 2 Height	30.000 cm
Package 2 Width	40.000 cm
Package 2 Length	60.000 cm
Package 2 Weight	7.850 kg
Unit Type of Package 3	P12
Number of Units in Package 3	8
Package 3 Height	45.000 cm
Package 3 Width	80.000 cm
Package 3 Length	120.000 cm
Package 3 Weight	43.400 kg

Contractual warranty

Warranty 18 months

1 Jul 2025



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)	1643
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

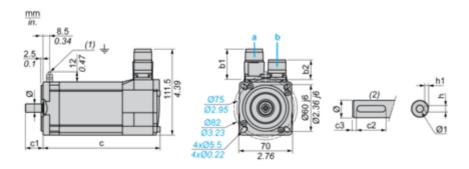
○ Repack and remanufacture	
Circularity Profile	No need of specific recycling operations
Take-back	No
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

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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)

Dimensions in mm

Straight connectors		Rotatable angled connectors		c (without	c (with	c1	c2	сЗ	h	h1	Ø	Ø1 for
b1	b2	b1	b2	brake)	brake)							screws
39.5	25.5	39.5	39.5	220	254	30	20	5	5 N9	3 ^{+0.1} ₀	14 k6	M5 x 12.5

Dimensions in in.

Straigh		Rotatal angled connec		c (without brake)	c (with brake)	c1	c2	c3	h	h1	Ø	Ø1 for screws
b1	b2	b1	b2	Diake)								
1.55	1.00	1.55	1.55	8.66	10.00	1.18	0.78	0.19	0.20 N9	0.12 ^{+0.004} 0	0.55 k6	M5 x 0.49

Product datasheet

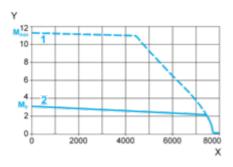
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Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D18N4 servo drive

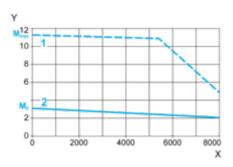


- **X** Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D18N4 servo drive



- X Speed in rpm
- ${\bf Y}$ Torque in Nm
- 1 Peak torque
- 2 Continuous torque