

BSH1001P12A2A

AC servo motor BSH - 2.7 N.m - 3000 rpm -
keyed shaft - without brake - IP50



Main

Product or component type	Servo motor
Device short name	BSH
Maximum mechanical speed	6000 rpm
Continuous stall torque	3.3 N.m for LXM32.D18N4 6 A at 400 V three phase 3.3 N.m for LXM32.D18N4 6 A at 480 V three phase 3.39 N.m for LXM15LD21M3 at 230 V single phase 2.7 N.m for LXM15LD10N4 at 230 V three phase 3.39 N.m for LXM15LD10N4 at 400 V three phase 3.39 N.m for LXM15LD10N4 at 480 V three phase 3.39 N.m for LXM15LD21M3 at 230 V three phase 3.39 N.m for LXM15LD17N4 at 230 V three phase 3.39 N.m for LXM15LD17N4 at 400 V three phase 3.39 N.m for LXM15LD17N4 at 480 V three phase 3.4 N.m for LXM05AD17M3X at 200...240 V three phase 3.4 N.m for LXM05AD22N4 at 380...480 V three phase 3.4 N.m for LXM05BD17M3X at 200...240 V three phase 3.4 N.m for LXM05BD22N4 at 380...480 V three phase 3.4 N.m for LXM05CD17M3X at 200...240 V three phase 3.4 N.m for LXM05CD22N4 at 380...480 V three phase
Peak stall torque	9.6 N.m for LXM32.D18N4 6 A at 480 V three phase 9.6 N.m for LXM32.D18N4 6 A at 400 V three phase 7.08 N.m for LXM15LD21M3 at 230 V single phase 6.19 N.m for LXM15LD10N4 at 230 V three phase 6.19 N.m for LXM15LD10N4 at 400 V three phase 6.19 N.m for LXM15LD10N4 at 480 V three phase 7.08 N.m for LXM15LD21M3 at 230 V three phase 7.08 N.m for LXM15LD17N4 at 230 V three phase 7.08 N.m for LXM15LD17N4 at 400 V three phase 7.08 N.m for LXM15LD17N4 at 480 V three phase 7.1 N.m for LXM05AD17M3X at 200...240 V three phase 7.1 N.m for LXM05AD22N4 at 380...480 V three phase 7.1 N.m for LXM05BD17M3X at 200...240 V three phase 7.1 N.m for LXM05BD22N4 at 380...480 V three phase 7.1 N.m for LXM05CD17M3X at 200...240 V three phase 7.1 N.m for LXM05CD22N4 at 380...480 V three phase
Nominal output power	1100 W for LXM32.D18N4 6 A at 400 V three phase 1100 W for LXM32.D18N4 6 A at 480 V three phase

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

	<p>950 W for LXM15LD21M3 at 230 V single phase 1300 W for LXM15LD17N4 at 400 V three phase 1500 W for LXM15LD10N4 at 480 V three phase 1300 W for LXM15LD10N4 at 400 V three phase 1500 W for LXM15LD17N4 at 480 V three phase 500 W for LXM05AD17M3X at 200...240 V three phase 500 W for LXM05BD17M3X at 200...240 V three phase 500 W for LXM05CD17M3X at 200...240 V three phase 850 W for LXM15LD10N4 at 230 V three phase 900 W for LXM05AD22N4 at 380...480 V three phase 900 W for LXM05BD22N4 at 380...480 V three phase 900 W for LXM05CD22N4 at 380...480 V three phase 950 W for LXM15LD17N4 at 230 V three phase 950 W for LXM15LD21M3 at 230 V three phase</p>
Nominal torque	<p>2.7 N.m for LXM15LD10N4 at 230 V three phase 2.7 N.m for LXM32.D18N4 6 A at 400 V three phase 2.7 N.m for LXM32.D18N4 6 A at 480 V three phase 3 N.m for LXM15LD21M3 at 230 V single phase 2.5 N.m for LXM15LD10N4 at 480 V three phase 2.5 N.m for LXM15LD17N4 at 480 V three phase 2.7 N.m for LXM15LD10N4 at 400 V three phase 2.7 N.m for LXM15LD17N4 at 400 V three phase 2.92 N.m for LXM05AD22N4 at 380...480 V three phase 2.92 N.m for LXM05BD22N4 at 380...480 V three phase 2.92 N.m for LXM05CD22N4 at 380...480 V three phase 3 N.m for LXM15LD17N4 at 230 V three phase 3 N.m for LXM15LD21M3 at 230 V three phase 3.16 N.m for LXM05AD17M3X at 200...240 V three phase 3.16 N.m for LXM05BD17M3X at 200...240 V three phase 3.16 N.m for LXM05CD17M3X at 200...240 V three phase</p>
Nominal speed	<p>4000 rpm for LXM32.D18N4 6 A at 400 V three phase 4000 rpm for LXM32.D18N4 6 A at 480 V three phase 3000 rpm for LXM15LD21M3 at 230 V single phase 3000 rpm for LXM15LD10N4 at 230 V three phase 3000 rpm for LXM05AD22N4 at 380...480 V three phase 3000 rpm for LXM05BD22N4 at 380...480 V three phase 3000 rpm for LXM05CD22N4 at 380...480 V three phase 3000 rpm for LXM15LD17N4 at 230 V three phase 3000 rpm for LXM15LD21M3 at 230 V three phase 1500 rpm for LXM05AD17M3X at 200...240 V three phase 1500 rpm for LXM05BD17M3X at 200...240 V three phase 1500 rpm for LXM05CD17M3X at 200...240 V three phase 4500 rpm for LXM15LD10N4 at 400 V three phase 4500 rpm for LXM15LD17N4 at 400 V three phase 6000 rpm for LXM15LD10N4 at 480 V three phase 6000 rpm for LXM15LD17N4 at 480 V three phase</p>
Product compatibility	<p>LXM15LD21M3 at 230 V single phase LXM15LD10N4 at 400 V three phase LXM05AD17M3X at 200...240 V three phase LXM05BD17M3X at 200...240 V three phase LXM05CD17M3X at 200...240 V three phase LXM15LD10N4 at 230 V three phase LXM15LD10N4 at 480 V three phase LXM15LD21M3 at 230 V three phase LXM15LD17N4 at 230 V three phase LXM05AD22N4 at 380...480 V three phase LXM05BD22N4 at 380...480 V three phase LXM05CD22N4 at 380...480 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</p>
Shaft end	Keyed
IP degree of protection	IP50 (standard)
Speed feedback resolution	131072 points/turn x 4096 turns
Holding brake	Without
Mounting support	International standard flange
Electrical connection	Rotatable right-angled connectors

Complementary

Range compatibility	Lexium 05 Lexium 15 Lexium 32
Supply voltage max	480 V
Network number of phases	Three phase
Continuous stall current	3.5 A
Maximum continuous power	1.6 W
Maximum current Irms	12 A for LXM05AD17M3X 12 A for LXM05AD22N4 12 A for LXM05BD17M3X 12 A for LXM05BD22N4 12 A for LXM05CD17M3X 12 A for LXM05CD22N4 12 A for LXM15LD10N4 12 A for LXM15LD17N4 12 A for LXM15LD21M3 12 A for LXM32.D18N4
Maximum permanent current	12 A
Switching frequency	8 kHz
Second shaft	Without second shaft end
Shaft diameter	19 mm
Shaft length	40 mm
Key width	30 mm
Feedback type	Multiturn SinCos Hiperface
Motor flange size	100 mm
Number of motor stacks	1
Torque constant	0.89 N.m/A at 120 °C
Back emf constant	60 V/krpm at 120 °C
Number of motor poles	8
Rotor inertia	1.4 kg.cm ²
Stator resistance	3.8 Ohm at 20 °C
Stator inductance	17.6 mH at 20 °C
Stator electrical time constant	4.63 ms at 20 °C
Maximum radial force Fr	530 N at 5000 rpm 570 N at 4000 rpm 630 N at 3000 rpm 720 N at 2000 rpm 900 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
Type of cooling	Natural convection
Length	168.5 mm
Centring collar diameter	95 mm
Centring collar depth	3.5 mm
Number of mounting holes	4
Mounting holes diameter	9 mm
Circle diameter of the mounting holes	115 mm
Product weight	4.2 kg

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0850 - Schneider Electric declaration of conformity Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold Reference not containing SVHC above the threshold

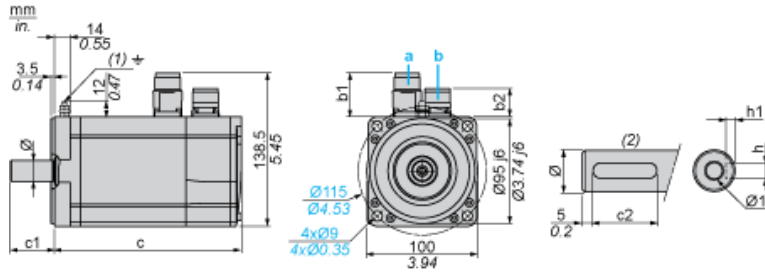
Product environmental profile	Available
Product end of life instructions	Need no specific recycling operations

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)

Dimensions in mm

Straight connectors		Rotatable angled		c (without brake)	c (with brake)	c1	c2	h	h1	Ø	Ø1 for screws
b1	b2	b1	b2								
39.5	25.5	39.5	39.5	169	200	40	30	6 N9	$3.5^{+0.1}_0$	19 k6	M6 x 16

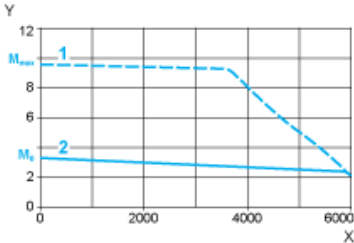
Dimensions in in.

Straight connector		Rotatable angled		c (without brake)	c (with brake)	c1	c2	h	h1	Ø	Ø1 for screws
b1	b2	b1	b2								
1.55	1.00	1.55	1.55	6.65	7.87	1.57	1.18	0.24 N9	$0.14^{+0.1}_0$	0.75 k6	M6 x 0.63

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32-D18N4 servo drive

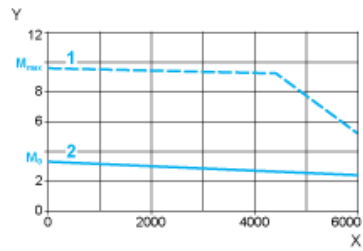


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D18N4 servo drive



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