

BSH1002P31A2A

AC servo motor BSH - 3.4 N.m - 2500 rpm -
keyed shaft - without brake - IP65





Main

Commercial Status	Commercialised
Product or component type	Servo motor
Device short name	BSH
Maximum mechanical speed	6000 rpm
Continuous stall torque	5.8 N.m for LXM32.D18N4 6 A at 480 V three phase 5.8 N.m for LXM32.D18N4 6 A at 400 V three phase 5.5 N.m for LXM05CD28M2 at 200...240 V single phase 5.5 N.m for LXM05CD22N4 at 380...480 V three phase 5.5 N.m for LXM05CD17M3X at 200...240 V three phase 5.5 N.m for LXM05BD28M2 at 200...240 V single phase 5.5 N.m for LXM05BD22N4 at 380...480 V three phase 5.5 N.m for LXM05BD17M3X at 200...240 V three phase 5.5 N.m for LXM05AD28M2 at 200...240 V single phase 5.5 N.m for LXM05AD22N4 at 380...480 V three phase 5.5 N.m for LXM05AD17M3X at 200...240 V three phase 5.8 N.m for LXM15LD21M3 at 230 V three phase 5.8 N.m for LXM15LD17N4 at 480 V three phase 5.8 N.m for LXM15LD17N4 at 400 V three phase 3.4 N.m for LXM15LD10N4 at 480 V three phase 3.4 N.m for LXM15LD10N4 at 400 V three phase 3.4 N.m for LXM15LD10N4 at 230 V three phase 3.4 N.m for LXM15LD13M3 at 230 V three phase 4.5 N.m for LXM15LD21M3 at 230 V single phase
Peak stall torque	18.3 N.m for LXM32.D18N4 6 A at 480 V three phase 18.3 N.m for LXM32.D18N4 6 A at 400 V three phase 16 N.m for LXM05CD28M2 at 200...240 V single phase 13.92 N.m for LXM05CD22N4 at 380...480 V three phase 11.23 N.m for LXM05CD17M3X at 200...240 V three phase 16 N.m for LXM05BD28M2 at 200...240 V single phase 13.92 N.m for LXM05BD22N4 at 380...480 V three phase 11.23 N.m for LXM05BD17M3X at 200...240 V three phase 16 N.m for LXM05AD28M2 at 200...240 V single phase 13.92 N.m for LXM05AD22N4 at 380...480 V three phase 11.23 N.m for LXM05AD17M3X at 200...240 V three phase 14.79 N.m for LXM15LD21M3 at 230 V three phase 12.13 N.m for LXM15LD17N4 at 480 V three phase 12.13 N.m for LXM15LD17N4 at 400 V three phase 8 N.m for LXM15LD10N4 at 480 V three phase 8 N.m for LXM15LD10N4 at 400 V three phase 8 N.m for LXM15LD10N4 at 230 V three phase 5.6 N.m for LXM15LD13M3 at 230 V three phase 9.39 N.m for LXM15LD21M3 at 230 V single phase

Nominal output power	<p>1700 W for LXM32.D18N4 6 A at 480 V three phase</p> <p>1700 W for LXM32.D18N4 6 A at 400 V three phase</p> <p>890 W for LXM15LD10N4 at 230 V three phase</p> <p>840 W for LXM15LD13M3 at 230 V three phase</p> <p>780 W for LXM05CD17M3X at 200...240 V three phase</p> <p>780 W for LXM05BD17M3X at 200...240 V three phase</p> <p>780 W for LXM05AD17M3X at 200...240 V three phase</p> <p>2150 W for LXM15LD10N4 at 480 V three phase</p> <p>1950 W for LXM15LD17N4 at 480 V three phase</p> <p>1700 W for LXM15LD17N4 at 400 V three phase</p> <p>1600 W for LXM15LD10N4 at 400 V three phase</p> <p>1400 W for LXM05CD22N4 at 380...480 V three phase</p> <p>1400 W for LXM05BD22N4 at 380...480 V three phase</p> <p>1400 W for LXM05AD22N4 at 380...480 V three phase</p> <p>780 W for LXM05CD28M2 at 200...240 V single phase</p> <p>780 W for LXM05BD28M2 at 200...240 V single phase</p> <p>780 W for LXM05AD28M2 at 200...240 V single phase</p> <p>950 W for LXM15LD21M3 at 230 V three phase</p> <p>950 W for LXM15LD21M3 at 230 V single phase</p>
Nominal torque	<p>4 N.m for LXM32.D18N4 6 A at 480 V three phase</p> <p>4 N.m for LXM32.D18N4 6 A at 400 V three phase</p> <p>5.8 N.m for LXM15LD21M3 at 230 V three phase</p> <p>4.96 N.m for LXM05CD17M3X at 200...240 V three phase</p> <p>4.96 N.m for LXM05BD17M3X at 200...240 V three phase</p> <p>4.96 N.m for LXM05AD17M3X at 200...240 V three phase</p> <p>4.4 N.m for LXM05CD22N4 at 380...480 V three phase</p> <p>4.4 N.m for LXM05BD22N4 at 380...480 V three phase</p> <p>4.4 N.m for LXM05AD22N4 at 380...480 V three phase</p> <p>4 N.m for LXM15LD17N4 at 400 V three phase</p> <p>3.7 N.m for LXM15LD17N4 at 480 V three phase</p> <p>3.4 N.m for LXM15LD13M3 at 230 V three phase</p> <p>3.4 N.m for LXM15LD10N4 at 480 V three phase</p> <p>3.4 N.m for LXM15LD10N4 at 400 V three phase</p> <p>3.4 N.m for LXM15LD10N4 at 230 V three phase</p> <p>4.96 N.m for LXM05CD28M2 at 200...240 V single phase</p> <p>4.96 N.m for LXM05BD28M2 at 200...240 V single phase</p> <p>4.96 N.m for LXM05AD28M2 at 200...240 V single phase</p> <p>4.5 N.m for LXM15LD21M3 at 230 V single phase</p>

Nominal speed	5000 rpm for LXM15LD17N4 at 480 V three phase 4000 rpm for LXM15LD17N4 at 400 V three phase 2500 rpm for LXM15LD13M3 at 230 V three phase 2500 rpm for LXM15LD10N4 at 230 V three phase 2000 rpm for LXM15LD21M3 at 230 V three phase 2000 rpm for LXM15LD21M3 at 230 V single phase 1500 rpm for LXM05CD28M2 at 200...240 V single phase 1500 rpm for LXM05BD28M2 at 200...240 V single phase 1500 rpm for LXM05AD28M2 at 200...240 V single phase 4000 rpm for LXM32.D18N4 6 A at 480 V three phase 4000 rpm for LXM32.D18N4 6 A at 400 V three phase 6000 rpm for LXM15LD10N4 at 480 V three phase 4500 rpm for LXM15LD10N4 at 400 V three phase 1500 rpm for LXM05CD17M3X at 200...240 V three phase 1500 rpm for LXM05BD17M3X at 200...240 V three phase 1500 rpm for LXM05AD17M3X at 200...240 V three phase 3000 rpm for LXM05CD22N4 at 380...480 V three phase 3000 rpm for LXM05BD22N4 at 380...480 V three phase 3000 rpm for LXM05AD22N4 at 380...480 V three phase
Product compatibility	LXM32.D18N4 at 480 V three phase LXM32.D18N4 at 400 V three phase LXM15LD17N4 at 480 V three phase LXM15LD17N4 at 400 V three phase LXM05CD22N4 at 380...480 V three phase LXM05BD22N4 at 380...480 V three phase LXM05AD22N4 at 380...480 V three phase LXM15LD21M3 at 230 V three phase LXM15LD10N4 at 480 V three phase LXM15LD10N4 at 230 V three phase LXM05CD17M3X at 200...240 V three phase LXM05BD17M3X at 200...240 V three phase LXM05AD17M3X at 200...240 V three phase LXM15LD10N4 at 400 V three phase LXM15LD13M3 at 230 V three phase LXM15LD21M3 at 230 V single phase LXM05CD28M2 at 200...240 V single phase LXM05BD28M2 at 200...240 V single phase LXM05AD28M2 at 200...240 V single phase
Shaft end	Keyed
IP degree of protection	IP67 (with IP67 kit) IP65 (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 05 Lexium 15 Lexium 32
Supply voltage max	480 V
Network number of phases	Three phase
Continuous stall current	4.8 A
Maximum continuous power	2.51 W

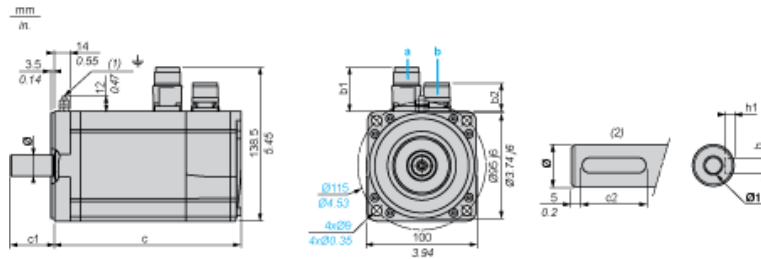
Maximum current Irms	17.1 A for LXM32.D18N4 17.1 A for LXM05CD22N4 17.1 A for LXM05CD17M3X 17.1 A for LXM05CD28M2 17.1 A for LXM05BD22N4 17.1 A for LXM05BD17M3X 17.1 A for LXM05BD28M2 17.1 A for LXM05AD22N4 17.1 A for LXM05AD17M3X 17.1 A for LXM05AD28M2 17.1 A for LXM15LD17N4 17.1 A for LXM15LD10N4 17.1 A for LXM15LD21M3 17.1 A for LXM15LD13M3
Maximum permanent current	17.1 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	Single turn SinCos Hiperface
Motor flange size	100 mm
Number of motor stacks	2
Torque constant	1.21 N.m/A at 120 °C
Back emf constant	77 V/krpm at 120 °C
Number of motor poles	8
Rotor inertia	2.31 kg.cm ²
Stator resistance	2.4 Ohm at 20 °C
Stator inductance	12.7 mH at 20 °C
Stator electrical time constant	5.29 ms at 20 °C
Maximum radial force Fr	990 N at 1000 rpm 790 N at 2000 rpm 690 N at 3000 rpm 620 N at 4000 rpm
Maximum axial force Fa	0.2 x Fr
Type of cooling	Natural convection
Length	204.5 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	5.9 kg

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS	Compliant - since 0850 - Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available Download Product Environmental
Product end of life instructions	Need no specific recycling operations

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 brake)	c (with brake)	c1	c2	h	h1	Ø	Ø1 for screws
b1	b2	b1	b2								
39.5	25.5	39.5	39.5	205	236	40	30	6 N9	$3.5^{+0.1}_0$	19 k6	M6 x 16

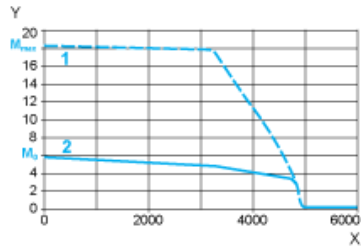
Dimensions in in.

Straight connectors		Rotatable angled connectors		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	8.07	9.29	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

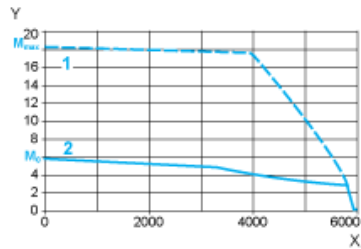


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

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