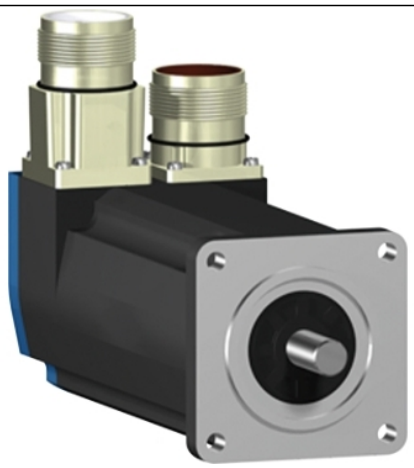
Product data sheet
Characteristics

BSH0552T31F1A
AC servo motor BSH - 0.9 N.m - 6000 rpm - keyed shaft - with brake - IP65



Main

Product or component type	Servo motor
Device short name	BSH
Maximum mechanical speed	9000 rpm
Continuous stall torque	7.08 Lbf.In (0.8 N.m) LXM32.U90M2 3 A, 115 V, single phase 7.08 Lbf.In (0.8 N.m) LXM32.U90M2 3 A, 230 V, single phase 7.97 Lbf.In (0.9 N.m) LXM05AD10M2, 200...240 V, single phase 7.97 Lbf.In (0.9 N.m) LXM05BD10M2, 200...240 V, single phase 7.97 Lbf.In (0.9 N.m) LXM05CD10M2, 200...240 V, single phase 7.97 Lbf.In (0.9 N.m) LXM05AD10M3X, 200...240 V, three phase 7.97 Lbf.In (0.9 N.m) LXM05BD10M3X, 200...240 V, three phase 7.97 Lbf.In (0.9 N.m) LXM05CD10M3X, 200...240 V, three phase 7.97 Lbf.In (0.9 N.m) LXM15LD13M3, 230 V, single phase 7.97 Lbf.In (0.9 N.m) LXM15LD13M3, 230 V, three phase 6.82 Lbf.In (0.77 N.m) LXM05CU70M2, 200...240 V, single phase 7.97 Lbf.In (0.9 N.m) LXM05AD10F1, 110...120 V, single phase 7.97 Lbf.In (0.9 N.m) LXM05AD17F1, 110...120 V, single phase 7.97 Lbf.In (0.9 N.m) LXM05BD10F1, 110...120 V, single phase 7.97 Lbf.In (0.9 N.m) LXM05BD17F1, 110...120 V, single phase 7.97 Lbf.In (0.9 N.m) LXM05CD10F1, 110...120 V, single phase 7.97 lbf.in (0.9 N.m) LXM05CD17F1, 110...120 V, single phase
Peak stall torque	16.82 Lbf.In (1.9 N.m) LXM32.U90M2 3 A, 115 V, single phase 22.13 Lbf.In (2.5 N.m) LXM32.U90M2 3 A, 230 V, single phase 13.28 Lbf.In (1.5 N.m) LXM15LD13M3, 230 V, single phase 11.59 Lbf.In (1.31 N.m) LXM05CU70M2, 200...240 V, single phase 15.67 Lbf.In (1.77 N.m) LXM05AD10F1, 110...120 V, single phase 15.67 Lbf.In (1.77 N.m) LXM05AD10M2, 200...240 V, single phase 23.90 Lbf.In (2.7 N.m) LXM05AD17F1, 110...120 V, single phase 15.67 Lbf.In (1.77 N.m) LXM05BD10F1, 110...120 V, single phase 15.67 Lbf.In (1.77 N.m) LXM05BD10M2, 200...240 V, single phase 23.90 Lbf.In (2.7 N.m) LXM05BD17F1, 110...120 V, single phase 15.67 Lbf.In (1.77 N.m) LXM05CD10F1, 110...120 V, single phase 15.67 Lbf.In (1.77 N.m) LXM05CD10M2, 200...240 V, single phase 23.90 Lbf.In (2.7 N.m) LXM05CD17F1, 110...120 V, single phase 13.28 Lbf.In (1.5 N.m) LXM15LD13M3, 230 V, three phase 15.67 Lbf.In (1.77 N.m) LXM05AD10M3X, 200...240 V, three phase 15.67 Lbf.In (1.77 N.m) LXM05BD10M3X, 200...240 V, three phase 15.67 lbf.in (1.77 N.m) LXM05CD10M3X, 200...240 V, three phase

Nominal output power	250 W LXM32.U90M2 3 A, 115 V, single phase 450 W LXM32.U90M2 3 A, 230 V, single phase 240 W LXM05CU70M2, 200...240 V, single phase 250 W LXM05AD10F1, 110...120 V, single phase 250 W LXM05AD17F1, 110...120 V, single phase 250 W LXM05BD10F1, 110...120 V, single phase 250 W LXM05BD17F1, 110...120 V, single phase 250 W LXM05CD10F1, 110...120 V, single phase 250 W LXM05CD17F1, 110...120 V, single phase 450 W LXM05AD10M2, 200...240 V, single phase 450 W LXM05BD10M2, 200...240 V, single phase 450 W LXM05CD10M2, 200...240 V, single phase 450 W LXM15LD13M3, 230 V, single phase 450 W LXM05AD10M3X, 200...240 V, three phase 450 W LXM05BD10M3X, 200...240 V, three phase 450 W LXM05CD10M3X, 200...240 V, three phase 570 W LXM15LD13M3, 230 V, three phase
Nominal torque	6.82 Lbf.In (0.77 N.m) LXM32.U90M2 3 A, 115 V, single phase 6.55 Lbf.In (0.74 N.m) LXM32.U90M2 3 A, 230 V, single phase 6.37 Lbf.In (0.72 N.m) LXM15LD13M3, 230 V, single phase 6.82 Lbf.In (0.77 N.m) LXM05CU70M2, 200...240 V, single phase 7.97 Lbf.In (0.9 N.m) LXM05AD10F1, 110...120 V, single phase 7.97 Lbf.In (0.9 N.m) LXM05AD10M2, 200...240 V, single phase 7.97 Lbf.In (0.9 N.m) LXM05AD17F1, 110...120 V, single phase 7.97 Lbf.In (0.9 N.m) LXM05BD10F1, 110...120 V, single phase 7.97 Lbf.In (0.9 N.m) LXM05BD10M2, 200...240 V, single phase 7.97 Lbf.In (0.9 N.m) LXM05BD17F1, 110...120 V, single phase 7.97 Lbf.In (0.9 N.m) LXM05CD10F1, 110...120 V, single phase 7.97 Lbf.In (0.9 N.m) LXM05CD10M2, 200...240 V, single phase 7.97 Lbf.In (0.9 N.m) LXM05CD17F1, 110...120 V, single phase 6.02 Lbf.In (0.68 N.m) LXM15LD13M3, 230 V, three phase 7.97 Lbf.In (0.9 N.m) LXM05AD10M3X, 200...240 V, three phase 7.97 Lbf.In (0.9 N.m) LXM05BD10M3X, 200...240 V, three phase 7.97 lbf.in (0.9 N.m) LXM05CD10M3X, 200...240 V, three phase
Nominal speed	3000 rpm LXM32.U90M2 3 A, 115 V, single phase 6000 rpm LXM32.U90M2 3 A, 230 V, single phase 3000 rpm LXM05AD10F1, 110...120 V, single phase 3000 rpm LXM05BD10F1, 110...120 V, single phase 3000 rpm LXM05CD10F1, 110...120 V, single phase 3000 rpm LXM05CU70M2, 200...240 V, single phase 6000 rpm LXM05AD10M2, 200...240 V, single phase 6000 rpm LXM05BD10M2, 200...240 V, single phase 6000 rpm LXM05CD10M2, 200...240 V, single phase 6000 rpm LXM05AD10M3X, 200...240 V, three phase 6000 rpm LXM05BD10M3X, 200...240 V, three phase 6000 rpm LXM05CD10M3X, 200...240 V, three phase 8000 rpm LXM15LD13M3, 230 V, three phase 3000 rpm LXM05AD17F1, 110...120 V, single phase 3000 rpm LXM05BD17F1, 110...120 V, single phase 3000 rpm LXM05CD17F1, 110...120 V, single phase 6000 rpm LXM15LD13M3, 230 V, single phase

Product compatibility	LXM05AD10F1 110...120 V single phase LXM05AD10M2 200...240 V single phase LXM05AD17F1 110...120 V single phase LXM05BD10F1 110...120 V single phase LXM05BD10M2 200...240 V single phase LXM05BD17F1 110...120 V single phase LXM05CD10F1 110...120 V single phase LXM05CD10M2 200...240 V single phase LXM05CD17F1 110...120 V single phase LXM05CU70M2 200...240 V single phase LXM15LD13M3 230 V single phase LXM32.U90M2 115 V single phase LXM32.U90M2 230 V single phase LXM05AD10M3X 200...240 V three phase LXM05BD10M3X 200...240 V three phase LXM05CD10M3X 200...240 V three phase LXM15LD13M3 230 V three phase
Shaft end	Keyed
IP degree of protection	IP65 standard IP67 with IP67 kit
Speed feedback resolution	131072 points/turn
Holding brake	With
Mounting support	International standard flange
Electrical connection	Straight connectors

Complementary

Range compatibility	Lexium 32 Lexium 05 Lexium 15
Supply voltage max	480 V
Phase	Three phase
Continuous stall current	2.2 A
Maximum continuous power	0.67 W
Maximum current Irms	6 A LXM32.U90M2 115 V 8.8 A LXM32.U90M2 230 V 10.3 A LXM15LD13M3 8.8 A LXM05AD10F1 8.8 A LXM05AD17F1 8.8 A LXM05CU70M2 8.8 A LXM05AD10M2 8.8 A LXM05AD10M3X 8.8 A LXM05BD10F1 8.8 A LXM05BD17F1 8.8 A LXM05BD10M2 8.8 A LXM05BD10M3X 8.8 A LXM05CD10F1 8.8 A LXM05CD17F1 8.8 A LXM05CD10M2 8.8 A LXM05CD10M3X
Maximum permanent current	8.8 A
Switching frequency	8 kHz
Second shaft	Without second shaft end
Shaft diameter	0.35 in (9 mm)
Shaft length	0.79 in (20 mm)
Key width	0.47 in (12 mm)
Feedback type	Single turn SinCos Hiperface
Holding torque	7.08 lbf.in (0.8 N.m) holding brake
Motor flange size	2.17 in (55 mm)
Number of motor stacks	2
Torque constant	0.36 N.m/A 248 °F (120 °C)
Back emf constant	22 V/krpm 248 °F (120 °C)
Number of motor poles	6
Rotor inertia	0.1173 kg.cm²
Stator resistance	5.2 Ohm 68 °F (20 °C)
Stator inductance	10.6 mH 68 °F (20 °C)

Stator electrical time constant	2.04 ms 68 °F (20 °C)
Maximum radial force Fr	190 N 7000 rpm 190 N 8000 rpm 200 N 6000 rpm 220 N 5000 rpm 230 N 4000 rpm 260 N 3000 rpm 290 N 2000 rpm 370 N 1000 rpm
Maximum axial force Fa	0.2 x Fr
Brake pull-in power	10 W
Type of cooling	Natural convection
Length	7.13 in (181 mm)
Centring collar diameter	1.57 in (40 mm)
Centring collar depth	0.08 in (2 mm)
Number of mounting holes	4
Mounting holes diameter	0.22 in (5.5 mm)
Circle diameter of the mounting holes	2.48 in (63 mm)
Net weight	3.53 lb(US) (1.6 kg)

Ordering and shipping details

Category	18282 - LEXIUM 32 MOTORS
Discount Schedule	PC53
GTIN	03389118159198
Nbr. of units in pkg.	1
Package weight(Lbs)	2.8 lb(US) (1.27 kg)
Returnability	No
Country of origin	DE

Packing Units

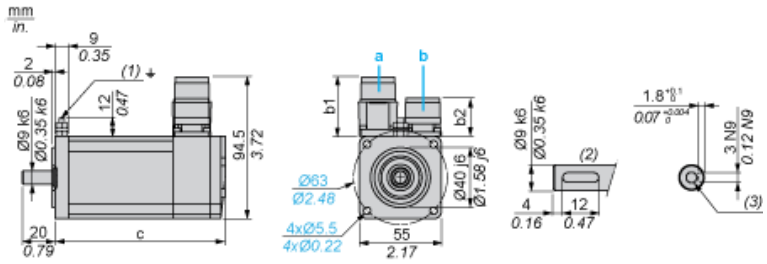
Unit Type of Package 1	PCE
Package 1 Height	4.84 in (12.3 cm)
Package 1 width	5.04 in (12.8 cm)
Package 1 Length	14.84 in (37.7 cm)

Contractual warranty

Warranty	18 months

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

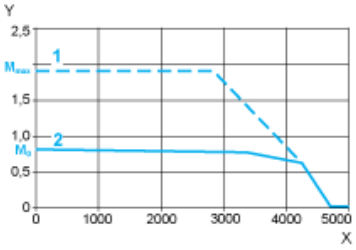
Dimensions in in.

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

115 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•U90M2 servo drive

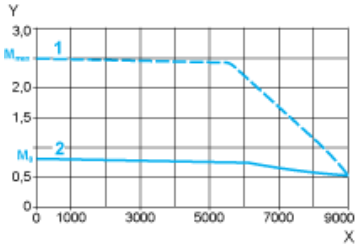


X Speed in rpm
Y Torque in Nm
1 Peak torque
2 Continuous torque

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