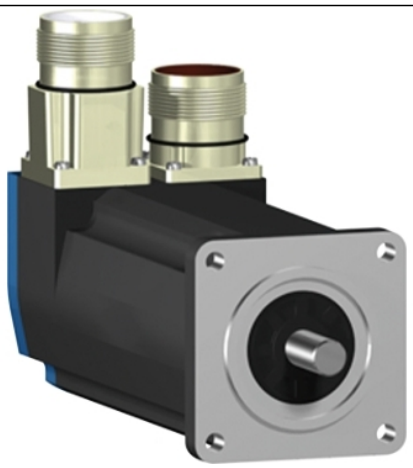
Product data sheet
Characteristics

BSH0552P31F1A
AC servo motor BSH - 0.9 N.m - 4000 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.U60N4 1.5 A, 400 V, three phase 7.08 Lbf.In (0.8 N.m) LXM32.U60N4 1.5 A, 480 V, three phase 7.97 Lbf.In (0.9 N.m) LXM05CU70M2, 200...240 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 7.97 Lbf.In (0.9 N.m) LXM15LU60N4, 230 V, three phase 7.97 Lbf.In (0.9 N.m) LXM05AD14N4, 380...480 V, three phase 7.97 Lbf.In (0.9 N.m) LXM05BD14N4, 380...480 V, three phase 7.97 lbf.in (0.9 N.m) LXM05CD14N4, 380...480 V, three phase
Peak stall torque	22.13 Lbf.In (2.5 N.m) LXM32.U60N4 1.5 A, 400 V, three phase 22.13 Lbf.In (2.5 N.m) LXM32.U60N4 1.5 A, 480 V, three phase 22.13 Lbf.In (2.5 N.m) LXM15LD13M3, 230 V, single phase 19.21 Lbf.In (2.17 N.m) LXM05CU70M2, 200...240 V, single phase 23.90 Lbf.In (2.7 N.m) LXM05AD10M2, 200...240 V, single phase 23.90 Lbf.In (2.7 N.m) LXM05BD10M2, 200...240 V, single phase 23.90 Lbf.In (2.7 N.m) LXM05CD10M2, 200...240 V, single phase 22.13 Lbf.In (2.5 N.m) LXM15LD13M3, 230 V, three phase 20.00 Lbf.In (2.26 N.m) LXM15LU60N4, 230 V, three phase 23.90 Lbf.In (2.7 N.m) LXM05AD10M3X, 200...240 V, three phase 23.90 Lbf.In (2.7 N.m) LXM05AD14N4, 380...480 V, three phase 23.90 Lbf.In (2.7 N.m) LXM05BD10M3X, 200...240 V, three phase 23.90 Lbf.In (2.7 N.m) LXM05BD14N4, 380...480 V, three phase 23.90 Lbf.In (2.7 N.m) LXM05CD10M3X, 200...240 V, three phase 23.90 lbf.in (2.7 N.m) LXM05CD14N4, 380...480 V, three phase

Nominal output power	400 W LXM32.U60N4 1.5 A, 400 V, three phase 400 W LXM32.U60N4 1.5 A, 480 V, three phase 250 W LXM05AD10M2, 200...240 V, single phase 250 W LXM05BD10M2, 200...240 V, single phase 250 W LXM05CD10M2, 200...240 V, single phase 250 W LXM05CU70M2, 200...240 V, single phase 310 W LXM15LD13M3, 230 V, single phase 250 W LXM05AD10M3X, 200...240 V, three phase 250 W LXM05AD14N4, 380...480 V, three phase 250 W LXM05BD10M3X, 200...240 V, three phase 250 W LXM05BD14N4, 380...480 V, three phase 250 W LXM05CD10M3X, 200...240 V, three phase 250 W LXM05CD14N4, 380...480 V, three phase 310 W LXM15LD13M3, 230 V, three phase 310 W LXM15LU60N4, 230 V, three phase
Nominal torque	5.75 Lbf.In (0.65 N.m) LXM32.U60N4 1.5 A, 400 V, three phase 5.75 Lbf.In (0.65 N.m) LXM32.U60N4 1.5 A, 480 V, three phase 6.64 Lbf.In (0.75 N.m) LXM15LD13M3, 230 V, single phase 19.21 Lbf.In (2.17 N.m) LXM05CU70M2, 200...240 V, single phase 23.90 Lbf.In (2.7 N.m) LXM05AD10M2, 200...240 V, single phase 23.90 Lbf.In (2.7 N.m) LXM05BD10M2, 200...240 V, single phase 23.90 Lbf.In (2.7 N.m) LXM05CD10M2, 200...240 V, single phase 6.64 Lbf.In (0.75 N.m) LXM15LD13M3, 230 V, three phase 6.64 Lbf.In (0.75 N.m) LXM15LU60N4, 230 V, three phase 23.90 Lbf.In (2.7 N.m) LXM05AD10M3X, 200...240 V, three phase 23.90 Lbf.In (2.7 N.m) LXM05AD14N4, 380...480 V, three phase 23.90 Lbf.In (2.7 N.m) LXM05BD10M3X, 200...240 V, three phase 23.90 Lbf.In (2.7 N.m) LXM05BD14N4, 380...480 V, three phase 23.90 Lbf.In (2.7 N.m) LXM05CD10M3X, 200...240 V, three phase 23.90 lbf.in (2.7 N.m) LXM05CD14N4, 380...480 V, three phase
Nominal speed	6000 rpm LXM32.U60N4 1.5 A, 400 V, three phase 6000 rpm LXM32.U60N4 1.5 A, 480 V, three phase 4000 rpm LXM15LD13M3, 230 V, single phase 4000 rpm LXM15LU60N4, 230 V, three phase 3000 rpm LXM05CU70M2, 200...240 V, single phase 3000 rpm LXM05AD10M2, 200...240 V, single phase 3000 rpm LXM05BD10M2, 200...240 V, single phase 3000 rpm LXM05CD10M2, 200...240 V, single phase 3000 rpm LXM05AD10M3X, 200...240 V, three phase 3000 rpm LXM05AD14N4, 380...480 V, three phase 3000 rpm LXM05BD10M3X, 200...240 V, three phase 3000 rpm LXM05BD14N4, 380...480 V, three phase 3000 rpm LXM05CD10M3X, 200...240 V, three phase 3000 rpm LXM05CD14N4, 380...480 V, three phase 4000 rpm LXM15LD13M3, 230 V, three phase

Product compatibility	LXM05AD10M2 200...240 V single phase LXM05BD10M2 200...240 V single phase LXM05CD10M2 200...240 V single phase LXM05CU70M2 200...240 V single phase LXM15LD13M3 230 V single phase LXM15LU60N4 230 V three phase LXM32.U60N4 400 V three phase LXM32.U60N4 480 V three phase LXM05AD10M3X 200...240 V three phase LXM05BD10M3X 200...240 V three phase LXM05CD10M3X 200...240 V three phase LXM15LD13M3 230 V three phase LXM05AD14N4 380...480 V three phase LXM05BD14N4 380...480 V three phase LXM05CD14N4 380...480 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 05 Lexium 15 Lexium 32
Supply voltage max	480 V
Phase	Three phase
Continuous stall current	1.2 A
Maximum continuous power	0.67 W
Maximum current Irms	5.9 A LXM15LD13M3 5.9 A LXM15LU60N4 4.8 A LXM05CU70M2 4.8 A LXM05AD10M2 4.8 A LXM05AD10M3X 4.8 A LXM05AD14N4 4.8 A LXM05BD10M2 4.8 A LXM05BD10M3X 4.8 A LXM05BD14N4 4.8 A LXM05CD10M2 4.8 A LXM05CD10M3X 4.8 A LXM05CD14N4 4.8 A LXM32.U60N4
Maximum permanent current	4.8 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	0.7 N.m/A 248 °F (120 °C)
Back emf constant	40 V/krpm 248 °F (120 °C)
Number of motor poles	6
Rotor inertia	0.1173 kg.cm²
Stator resistance	17.4 Ohm 68 °F (20 °C)
Stator inductance	35.3 mH 68 °F (20 °C)
Stator electrical time constant	2.03 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)
Product weight	3.53 lb(US) (1.6 kg)

Ordering and shipping details

Category	18282 - LEXIUM 32 MOTORS
Discount Schedule	PC53
GTIN	03389118158665
Package weight(Lbs)	1.27 kg (2.8 lb(US))
Returnability	No
Country of origin	DE

Offer Sustainability

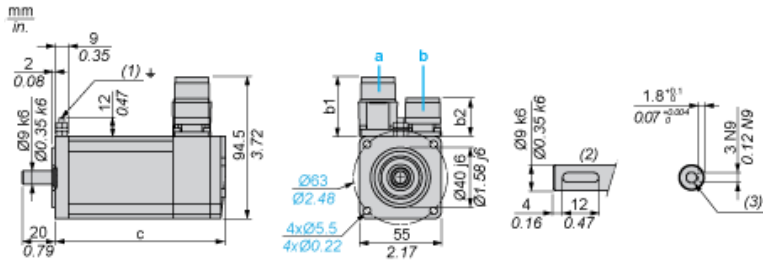
Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds which is known to the State of California to cause Carcinogen & Reproductive harm. For more information go to www.p65warnings.ca.gov
REACh Regulation	REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS Declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	No need of specific recycling operations
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

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

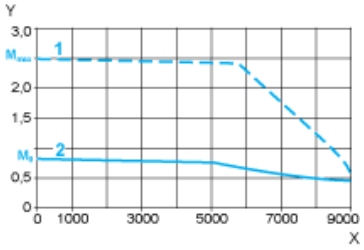
Dimensions in in.

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

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•U60N4 servo drive

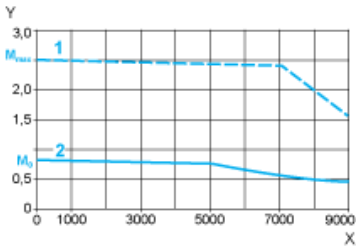


X Speed in rpm
Y Torque in Nm
1 Peak torque
2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•U60N4 servo drive



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