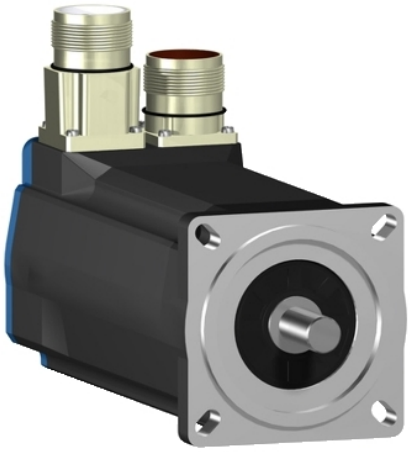
Product data sheet
Characteristics

BSH0701T01F1A
AC servo motor BSH - 0.7 N.m - 8000 rpm - untapped shaft - with brake - IP50



The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein.
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.
It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof.
Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

Main

Product or component type	Servo motor
Device short name	BSH
Maximum mechanical speed	8000 rpm
Continuous stall torque	11.51 Lbf.In (1.3 N.m) LXM32.U90M2 3 A, 230 V, single phase 12.39 Lbf.In (1.4 N.m) LXM05AD10M3X, 200...240 V, three phase 12.39 Lbf.In (1.4 N.m) LXM05BD10M3X, 200...240 V, three phase 12.39 Lbf.In (1.4 N.m) LXM05CD10M3X, 200...240 V, three phase 12.39 Lbf.In (1.4 N.m) LXM15LD13M3, 230 V, single phase 12.39 Lbf.In (1.4 N.m) LXM05AD10F1, 110...120 V, single phase 12.39 Lbf.In (1.4 N.m) LXM05AD17M2, 200...240 V, single phase 12.39 Lbf.In (1.4 N.m) LXM05BD10F1, 110...120 V, single phase 12.39 Lbf.In (1.4 N.m) LXM05BD17M2, 200...240 V, single phase 12.39 Lbf.In (1.4 N.m) LXM05CD10F1, 110...120 V, single phase 12.39 Lbf.In (1.4 N.m) LXM05CD17M2, 200...240 V, single phase 12.39 Lbf.In (1.4 N.m) LXM32.D18M2 6 A, 115 V, single phase 6.20 Lbf.In (0.7 N.m) LXM15LU60N4, 400 V, three phase 6.20 Lbf.In (0.7 N.m) LXM15LU60N4, 480 V, three phase 8.05 Lbf.In (0.91 N.m) LXM15LU60N4, 230 V, three phase 12.39 Lbf.In (1.4 N.m) LXM15LD10N4, 230 V, three phase 12.39 Lbf.In (1.4 N.m) LXM15LD10N4, 400 V, three phase 12.39 Lbf.In (1.4 N.m) LXM15LD10N4, 480 V, three phase 12.39 Lbf.In (1.4 N.m) LXM15LD13M3, 230 V, three phase 12.39 Lbf.In (1.4 N.m) LXM15LD21M3, 230 V, three phase 12.39 Lbf.In (1.4 N.m) LXM05AD17M3X, 200...240 V, three phase 12.39 Lbf.In (1.4 N.m) LXM05BD17M3X, 200...240 V, three phase 12.39 lbf.in (1.4 N.m) LXM05CD17M3X, 200...240 V, three phase

Peak stall torque	30.98 Lbf.In (3.5 N.m) LXM32.U90M2 3 A, 230 V, single phase 28.23 Lbf.In (3.19 N.m) LXM15LD13M3, 230 V, single phase 21.42 Lbf.In (2.42 N.m) LXM05AD10F1, 110...120 V, single phase 28.23 Lbf.In (3.19 N.m) LXM05AD17M2, 200...240 V, single phase 21.42 Lbf.In (2.42 N.m) LXM05BD10F1, 110...120 V, single phase 28.23 Lbf.In (3.19 N.m) LXM05BD17M2, 200...240 V, single phase 21.42 Lbf.In (2.42 N.m) LXM05CD10F1, 110...120 V, single phase 28.23 Lbf.In (3.19 N.m) LXM05CD17M2, 200...240 V, single phase 30.98 Lbf.In (3.5 N.m) LXM32.D18M2 6 A, 115 V, single phase 16.82 Lbf.In (1.9 N.m) LXM15LU60N4, 400 V, three phase 16.82 Lbf.In (1.9 N.m) LXM15LU60N4, 480 V, three phase 16.82 Lbf.In (1.9 N.m) LXM15LU60N4, 230 V, three phase 25.76 Lbf.In (2.91 N.m) LXM15LD10N4, 230 V, three phase 25.76 Lbf.In (2.91 N.m) LXM15LD10N4, 400 V, three phase 25.76 Lbf.In (2.91 N.m) LXM15LD10N4, 480 V, three phase 28.23 Lbf.In (3.19 N.m) LXM15LD13M3, 230 V, three phase 28.23 Lbf.In (3.19 N.m) LXM15LD21M3, 230 V, three phase 21.42 Lbf.In (2.42 N.m) LXM05AD10M3X, 200...240 V, three phase 28.23 Lbf.In (3.19 N.m) LXM05AD17M3X, 200...240 V, three phase 21.42 Lbf.In (2.42 N.m) LXM05BD10M3X, 200...240 V, three phase 28.23 Lbf.In (3.19 N.m) LXM05BD17M3X, 200...240 V, three phase 21.42 Lbf.In (2.42 N.m) LXM05CD10M3X, 200...240 V, three phase 28.23 lbf.in (3.19 N.m) LXM05CD17M3X, 200...240 V, three phase
Nominal output power	500 W LXM32.U90M2 3 A, 230 V, single phase 350 W LXM32.D18M2 6 A, 115 V, single phase 400 W LXM05AD10M3X, 200...240 V, three phase 400 W LXM05BD10M3X, 200...240 V, three phase 400 W LXM05CD10M3X, 200...240 V, three phase 380 W LXM05AD10F1, 110...120 V, single phase 380 W LXM05BD10F1, 110...120 V, single phase 380 W LXM05CD10F1, 110...120 V, single phase 400 W LXM05AD17M2, 200...240 V, single phase 400 W LXM05BD17M2, 200...240 V, single phase 400 W LXM05CD17M2, 200...240 V, single phase 654 W LXM15LD13M3, 230 V, single phase 1000 W LXM15LD10N4, 400 V, three phase 1000 W LXM15LD10N4, 480 V, three phase 400 W LXM05AD17M3X, 200...240 V, three phase 400 W LXM05BD17M3X, 200...240 V, three phase 400 W LXM05CD17M3X, 200...240 V, three phase 440 W LXM15LU60N4, 230 V, three phase 564 W LXM15LD10N4, 230 V, three phase 586 W LXM15LU60N4, 400 V, three phase 586 W LXM15LU60N4, 480 V, three phase 654 W LXM15LD13M3, 230 V, three phase 654 W LXM15LD21M3, 230 V, three phase

Nominal torque	8.32 Lbf.In (0.94 N.m) LXM32.U90M2 3 A, 230 V, single phase 11.06 Lbf.In (1.25 N.m) LXM15LD13M3, 230 V, single phase 12.04 Lbf.In (1.36 N.m) LXM32.D18M2 6 A, 115 V, single phase 6.20 Lbf.In (0.7 N.m) LXM15LU60N4, 230 V, three phase 6.20 Lbf.In (0.7 N.m) LXM15LU60N4, 400 V, three phase 6.20 Lbf.In (0.7 N.m) LXM15LU60N4, 480 V, three phase 10.89 Lbf.In (1.23 N.m) LXM15LD10N4, 400 V, three phase 10.89 Lbf.In (1.23 N.m) LXM15LD10N4, 480 V, three phase 11.06 Lbf.In (1.25 N.m) LXM15LD10N4, 230 V, three phase 11.06 Lbf.In (1.25 N.m) LXM15LD13M3, 230 V, three phase 11.06 lbf.in (1.25 N.m) LXM15LD21M3, 230 V, three phase
Nominal speed	5000 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 LXM05AD10M3X, 200...240 V, three phase 3000 rpm LXM05BD10M3X, 200...240 V, three phase 3000 rpm LXM05CD10M3X, 200...240 V, three phase 8000 rpm LXM15LD10N4, 400 V, three phase 3000 rpm LXM05AD17M2, 200...240 V, single phase 3000 rpm LXM05BD17M2, 200...240 V, single phase 3000 rpm LXM05CD17M2, 200...240 V, single phase 3000 rpm LXM05AD17M3X, 200...240 V, three phase 3000 rpm LXM05BD17M3X, 200...240 V, three phase 3000 rpm LXM05CD17M3X, 200...240 V, three phase 5000 rpm LXM15LD13M3, 230 V, single phase 2500 rpm LXM32.D18M2 6 A, 115 V, single phase 5000 rpm LXM15LD10N4, 230 V, three phase 5000 rpm LXM15LD13M3, 230 V, three phase 5000 rpm LXM15LD21M3, 230 V, three phase 6000 rpm LXM15LU60N4, 230 V, three phase 8000 rpm LXM15LD10N4, 480 V, three phase 8000 rpm LXM15LU60N4, 400 V, three phase 8000 rpm LXM15LU60N4, 480 V, three phase
Product compatibility	LXM05AD10F1 110...120 V single phase LXM05AD17M2 200...240 V single phase LXM05BD10F1 110...120 V single phase LXM05BD17M2 200...240 V single phase LXM05CD10F1 110...120 V single phase LXM05CD17M2 200...240 V single phase LXM15LD13M3 230 V single phase LXM32.U90M2 230 V single phase LXM32.D18M2 115 V single phase LXM15LU60N4 230 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 LXM15LU60N4 400 V three phase LXM15LU60N4 480 V three phase LXM15LD10N4 400 V three phase LXM05AD17M3X 200...240 V three phase LXM05BD17M3X 200...240 V three phase LXM05CD17M3X 200...240 V three phase LXM15LD10N4 230 V three phase LXM15LD10N4 480 V three phase LXM15LD21M3 230 V three phase
Shaft end	Untapped
IP degree of protection	IP50 standard

Speed feedback resolution	131072 points/turn
Holding brake	With
Mounting support	International standard flange
Electrical connection	Straight connectors

Complementary

Range compatibility	Lexium 15 Lexium 05 Lexium 32
Supply voltage max	480 V
Phase	Three phase
Continuous stall current	3.2 A
Maximum continuous power	1.06 W
Maximum current Irms	10 A LXM32.D18M2 9 A LXM32.U90M2 9.9 A LXM15LD13M3 9.9 A LXM15LD21M3 9.9 A LXM15LU60N4 9.9 A LXM15LD10N4
Maximum permanent current	10.1 A
Switching frequency	8 kHz
Second shaft	Without second shaft end
Shaft diameter	0.43 in (11 mm)
Shaft length	0.91 in (23 mm)
Feedback type	Single turn SinCos Hiperface
Holding torque	17.70 lbf.in (2 N.m) holding brake
Motor flange size	2.76 in (70 mm)
Number of motor stacks	1
Torque constant	0.44 N.m/A 248 °F (120 °C)
Back emf constant	26 V/krpm 248 °F (120 °C)
Number of motor poles	6
Rotor inertia	0.322 kg.cm²
Stator resistance	3.3 Ohm 68 °F (20 °C)
Stator inductance	12.3 mH 68 °F (20 °C)
Stator electrical time constant	3.73 ms 68 °F (20 °C)
Maximum radial force Fr	360 N 6000 rpm 380 N 5000 rpm 410 N 4000 rpm 460 N 3000 rpm 520 N 2000 rpm 660 N 1000 rpm
Maximum axial force Fa	0.2 x Fr
Brake pull-in power	10 W
Type of cooling	Natural convection
Length	7.07 in (179.5 mm)
Centring collar diameter	2.36 in (60 mm)
Centring collar depth	0.10 in (2.5 mm)
Number of mounting holes	4
Mounting holes diameter	0.22 in (5.5 mm)
Circle diameter of the mounting holes	3.23 in (82 mm)
Net weight	5.07 lb(US) (2.3 kg)

Ordering and shipping details

Category	18282 - LEXIUM 32 MOTORS
Discount Schedule	PC53
GTIN	03389118135888
Nbr. of units in pkg.	1
Package weight(Lbs)	5.6 lb(US) (2.54 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)

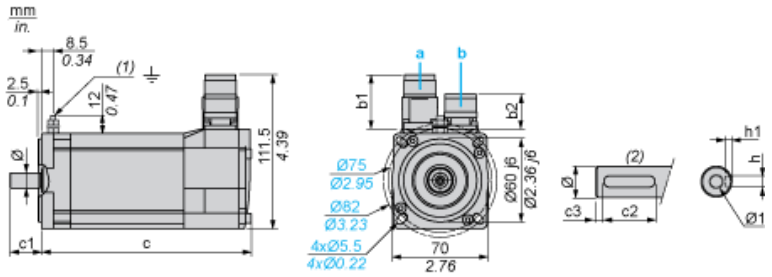
Contractual warranty

Warranty	18 months

BSH0701T01F1A

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	c3	h	h1	Ø	Ø1 for screws
b1	b2	b1	b2									
39.5	25.5	39.5	39.5	154	180	23	18	2.5	4 N9	$2.5^{+0.1}{}_{0}$	11 k6	M4 x 10

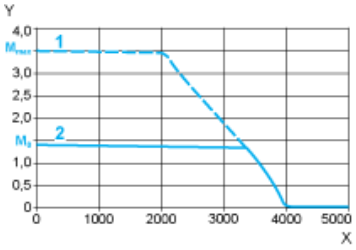
Dimensions in in.

Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)	c1	c2	c3	h	h1	Ø	Ø1 for screws
b1	b2	b1	b2									
1.55	1.00	1.55	1.55	6.06	7.08	0.90	0.70	0.09	0.16 N9	$0.01^{+0.004}{}_{0}$	0.43 k6	M4 x 0.39

115 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D18M2 servo drive

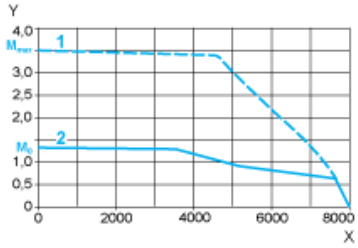


X Speed in rpm
Y Torque in Nm
1 Peak torque
2 Continuous torque

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