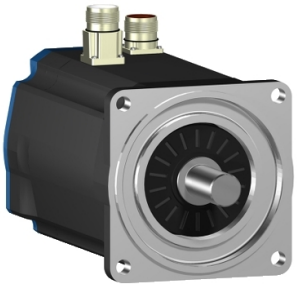
Product data sheet

Specifications



servo motor BSH, Lexium 05, 2.7N.m, 3000rpm, 100mm, untapped shaft, Sincos single turn, without brake, IP50, straight

BSH1001P01A1A

Discontinued

Discontinued on: Oct 9, 2023

Product availability: Non-Stock - Not normally stocked in distribution facility

Main

Product Or Component Type	Servo motor
Device Short Name	BSH
Maximum Mechanical Speed	6000 rpm
Continuous Stall Torque	30.00 lbf.in (3.39 N.m) LXM15LD21M3, 230 V, single phase 23.90 lbf.in (2.7 N.m) LXM15LD10N4, 230 V, three phase 30.00 lbf.in (3.39 N.m) LXM15LD10N4, 400 V, three phase 30.00 lbf.in (3.39 N.m) LXM15LD10N4, 480 V, three phase 30.00 lbf.in (3.39 N.m) LXM15LD21M3, 230 V, three phase 30.00 lbf.in (3.39 N.m) LXM15LD17N4, 230 V, three phase 30.00 lbf.in (3.39 N.m) LXM15LD17N4, 400 V, three phase 30.00 lbf.in (3.39 N.m) LXM15LD17N4, 480 V, three phase 30.09 lbf.in (3.4 N.m) LXM05AD17M3X, 200...240 V, three phase 30.09 lbf.in (3.4 N.m) LXM05AD22N4, 380...480 V, three phase 30.09 lbf.in (3.4 N.m) LXM05BD17M3X, 200...240 V, three phase 30.09 lbf.in (3.4 N.m) LXM05BD22N4, 380...480 V, three phase 30.09 lbf.in (3.4 N.m) LXM05CD17M3X, 200...240 V, three phase 30.09 lbf.in (3.4 N.m) LXM05CD22N4, 380...480 V, three phase 29.21 lbf.in (3.3 N.m) LXM32.D18N4 6 A, 400 V, three phase 29.21 lbf.in (3.3 N.m) LXM32.D18N4 6 A, 480 V, three phase
Peak Stall Torque	62.66 lbf.in (7.08 N.m) LXM15LD21M3, 230 V, single phase 54.79 lbf.in (6.19 N.m) LXM15LD10N4, 230 V, three phase 54.79 lbf.in (6.19 N.m) LXM15LD10N4, 400 V, three phase 54.79 lbf.in (6.19 N.m) LXM15LD10N4, 480 V, three phase 62.66 lbf.in (7.08 N.m) LXM15LD21M3, 230 V, three phase 62.66 lbf.in (7.08 N.m) LXM15LD17N4, 230 V, three phase 62.66 lbf.in (7.08 N.m) LXM15LD17N4, 400 V, three phase 62.66 lbf.in (7.08 N.m) LXM15LD17N4, 480 V, three phase 62.84 lbf.in (7.1 N.m) LXM05AD17M3X, 200...240 V, three phase 62.84 lbf.in (7.1 N.m) LXM05AD22N4, 380...480 V, three phase 62.84 lbf.in (7.1 N.m) LXM05BD17M3X, 200...240 V, three phase 62.84 lbf.in (7.1 N.m) LXM05BD22N4, 380...480 V, three phase 62.84 lbf.in (7.1 N.m) LXM05CD17M3X, 200...240 V, three phase 62.84 lbf.in (7.1 N.m) LXM05CD22N4, 380...480 V, three phase 84.97 lbf.in (9.6 N.m) LXM32.D18N4 6 A, 400 V, three phase 84.97 lbf.in (9.6 N.m) LXM32.D18N4 6 A, 480 V, three phase

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Nominal Output Power	1300 W LXM15LD17N4, 400 V, three phase 1500 W LXM15LD10N4, 480 V, three phase 950 W LXM15LD21M3, 230 V, single phase 1300 W LXM15LD10N4, 400 V, three phase 1500 W LXM15LD17N4, 480 V, three phase 500 W LXM05AD17M3X, 200...240 V, three phase 500 W LXM05BD17M3X, 200...240 V, three phase 500 W LXM05CD17M3X, 200...240 V, three phase 850 W LXM15LD10N4, 230 V, three phase 900 W LXM05AD22N4, 380...480 V, three phase 900 W LXM05BD22N4, 380...480 V, three phase 900 W LXM05CD22N4, 380...480 V, three phase 950 W LXM15LD17N4, 230 V, three phase 950 W LXM15LD21M3, 230 V, three phase 1100 W LXM32.D18N4 6 A, 400 V, three phase 1100 W LXM32.D18N4 6 A, 480 V, three phase
Nominal Torque	26.55 lbf.in (3 N.m) LXM15LD21M3, 230 V, single phase 22.13 lbf.in (2.5 N.m) LXM15LD10N4, 480 V, three phase 22.13 lbf.in (2.5 N.m) LXM15LD17N4, 480 V, three phase 23.90 lbf.in (2.7 N.m) LXM15LD10N4, 230 V, three phase 23.90 lbf.in (2.7 N.m) LXM15LD10N4, 400 V, three phase 23.90 lbf.in (2.7 N.m) LXM15LD17N4, 400 V, three phase 25.84 lbf.in (2.92 N.m) LXM05AD22N4, 380...480 V, three phase 25.84 lbf.in (2.92 N.m) LXM05BD22N4, 380...480 V, three phase 25.84 lbf.in (2.92 N.m) LXM05CD22N4, 380...480 V, three phase 26.55 lbf.in (3 N.m) LXM15LD17N4, 230 V, three phase 26.55 lbf.in (3 N.m) LXM15LD21M3, 230 V, three phase 27.97 lbf.in (3.16 N.m) LXM05AD17M3X, 200...240 V, three phase 27.97 lbf.in (3.16 N.m) LXM05BD17M3X, 200...240 V, three phase 27.97 lbf.in (3.16 N.m) LXM05CD17M3X, 200...240 V, three phase 23.90 lbf.in (2.7 N.m) LXM32.D18N4 6 A, 400 V, three phase 23.90 lbf.in (2.7 N.m) LXM32.D18N4 6 A, 480 V, three phase
Nominal Speed	3000 rpm LXM15LD10N4, 230 V, three phase 3000 rpm LXM15LD21M3, 230 V, single phase 3000 rpm LXM05AD22N4, 380...480 V, three phase 3000 rpm LXM05BD22N4, 380...480 V, three phase 3000 rpm LXM05CD22N4, 380...480 V, three phase 3000 rpm LXM15LD17N4, 230 V, three phase 3000 rpm LXM15LD21M3, 230 V, three phase 1500 rpm LXM05AD17M3X, 200...240 V, three phase 1500 rpm LXM05BD17M3X, 200...240 V, three phase 1500 rpm LXM05CD17M3X, 200...240 V, three phase 4500 rpm LXM15LD10N4, 400 V, three phase 4500 rpm LXM15LD17N4, 400 V, three phase 6000 rpm LXM15LD10N4, 480 V, three phase 6000 rpm LXM15LD17N4, 480 V, three phase 4000 rpm LXM32.D18N4 6 A, 400 V, three phase 4000 rpm LXM32.D18N4 6 A, 480 V, three phase
Product Compatibility	LXM15LD21M3 230 V single 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 LXM15LD17N4 230 V three phase LXM05AD22N4 380...480 V three phase LXM05BD22N4 380...480 V three phase LXM05CD22N4 380...480 V three phase LXM15LD17N4 400 V three phase LXM15LD17N4 480 V three phase LXM32.D18N4 400 V three phase LXM32.D18N4 480 V three phase
Shaft End	Untapped
Ip Degree Of Protection	IP50 standard
Speed Feedback Resolution	131072 points/turn
Holding Brake	Without
Mounting Support	International standard flange
Electrical Connection	Straight connectors

Complementary

Range Compatibility	Lexium 05 Lexium 32 Lexium 15
Supply Voltage Max	480 V
Phase	Three phase
Continuous Stall Current	3.5 A
Maximum Continuous Power	1.6 W
Maximum Current Irms	12 A LXM15LD21M3 12 A LXM15LD10N4 12 A LXM15LD17N4 12 A LXM05AD17M3X 12 A LXM05AD22N4 12 A LXM05BD17M3X 12 A LXM05BD22N4 12 A LXM05CD17M3X 12 A LXM05CD22N4 12 A LXM32.D18N4
Maximum Permanent Current	12 A
Switching Frequency	8 kHz
Second Shaft	Without second shaft end
Shaft Diameter	0.75 in (19 mm)
Shaft Length	1.57 in (40 mm)
Feedback Type	Single turn SinCos Hiperface
Motor Flange Size	3.94 in (100 mm)
Number Of Motor Stacks	1
Torque Constant	0.89 N.m/A 248 °F (120 °C)
Back Emf Constant	60 V/krpm 248 °F (120 °C)
Number Of Motor Poles	8
Rotor Inertia	1.4 kg.cm²
Stator Resistance	3.8 Ohm 68 °F (20 °C)
Stator Inductance	17.6 mH 68 °F (20 °C)
Stator Electrical Time Constant	4.63 ms 68 °F (20 °C)
Maximum Radial Force Fr	530 N 5000 rpm 570 N 4000 rpm 630 N 3000 rpm 720 N 2000 rpm 900 N 1000 rpm
Maximum Axial Force Fa	0.2 x Fr
Type Of Cooling	Natural convection
Length	6.63 in (168.5 mm)
Centring Collar Diameter	3.74 in (95 mm)
Centring Collar Depth	0.14 in (3.5 mm)
Number Of Mounting Holes	4
Mounting Holes Diameter	0.35 in (9 mm)
Circle Diameter Of The Mounting Holes	4.53 in (115 mm)
Net Weight	9.26 lb(US) (4.2 kg)

Ordering and shipping details

Category	US1PC5318282
Discount Schedule	PC53
Gtin	3389118138148
Returnability	No
Country Of Origin	DE

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	6.06 in (15.4 cm)
Package 1 Width	6.42 in (16.3 cm)
Package 1 Length	16.02 in (40.7 cm)
Package 1 Weight	9.48 lb(US) (4.3 kg)
Unit Type Of Package 2	P06
Number Of Units In Package 2	6
Package 2 Height	30.31 in (77.0 cm)
Package 2 Width	31.50 in (80.0 cm)
Package 2 Length	23.62 in (60.0 cm)
Package 2 Weight	85.88 lb(US) (38.956 kg)

Contractual warranty

Warranty	18 months

Sustainability

Green Premium^{TM} label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO_2 products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >

Transparency

RoHS/REACh

Well-being performance

Mercury Free	
Rohs Exemption Information	Yes
Pvc Free	

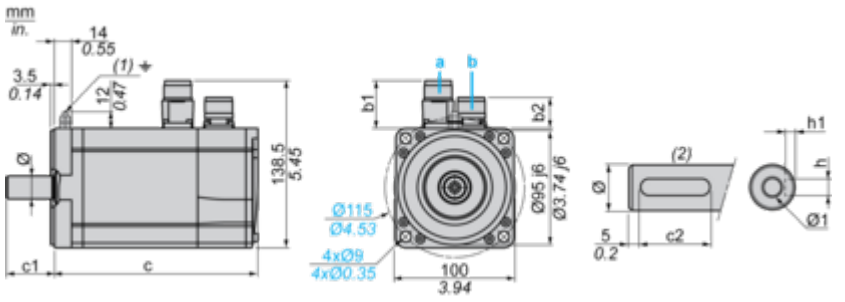
Certifications & Standards

Reach Regulation	REACh Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
Circularity Profile	No need of specific recycling operations
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 cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Dimensions Drawings

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	169	200	40	30	6 N9	$3.5^{+0.1}_{0}$	19 k6	M6 x 16

Dimensions in in.

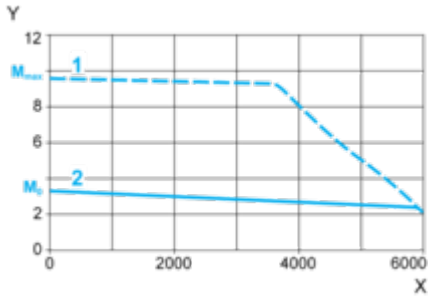
Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)	c1	c2	h	h1	Ø	Ø1 for screws
b1	b2	b1	b2								
1.55	1.00	1.55	1.55	6.65	7.87	1.57	1.18	0.24 N9	$0.14^{+0.1}_{0}$	0.75 k6	M6 x 0.63

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D18N4 servo drive

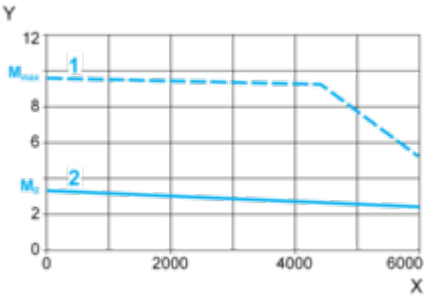


X Speed in rpm
Y Torque in Nm
1 Peak torque
2 Continuous torque

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