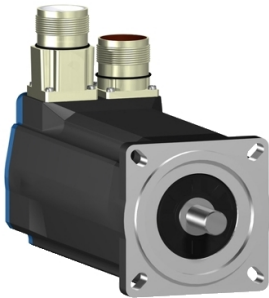


Product data sheet

Specifications



servo motor BSH, Lexium 05,
2.2N.m, 3000rpm, 70mm, keyed
shaft, Sincos single turn, with
brake, IP65

BSH0702P31F2A

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

Price*: 2,107.50 USD

Main

Product Or Component Type	Servo motor
Device Short Name	BSH
Maximum Mechanical Speed	8000 rpm
Continuous Stall Torque	19.47 lbf.in (2.2 N.m) LXM32.D12N4 3 A, 400 V, three phase 19.47 lbf.in (2.2 N.m) LXM32.D12N4 3 A, 480 V, three phase 18.76 lbf.in (2.12 N.m) LXM05AD10M2, 200...240 V, single phase 18.76 lbf.in (2.12 N.m) LXM05AD10M3X, 200...240 V, three phase 18.76 lbf.in (2.12 N.m) LXM05BD10M2, 200...240 V, single phase 18.76 lbf.in (2.12 N.m) LXM05BD10M3X, 200...240 V, three phase 18.76 lbf.in (2.12 N.m) LXM05CD10M2, 200...240 V, single phase 18.76 lbf.in (2.12 N.m) LXM05CD10M3X, 200...240 V, three phase 19.47 lbf.in (2.2 N.m) LXM15LD13M3, 230 V, single phase 18.76 lbf.in (2.12 N.m) LXM05AD17M2, 200...240 V, single phase 18.76 lbf.in (2.12 N.m) LXM05BD17M2, 200...240 V, single phase 18.76 lbf.in (2.12 N.m) LXM05CD17M2, 200...240 V, single phase 19.47 lbf.in (2.2 N.m) LXM15LD10N4, 480 V, three phase 18.76 lbf.in (2.12 N.m) LXM05AD17M3X, 200...240 V, three phase 18.76 lbf.in (2.12 N.m) LXM05AD14N4, 380...480 V, three phase 18.76 lbf.in (2.12 N.m) LXM05BD17M3X, 200...240 V, three phase 18.76 lbf.in (2.12 N.m) LXM05BD14N4, 380...480 V, three phase 18.76 lbf.in (2.12 N.m) LXM05CD17M3X, 200...240 V, three phase 18.76 lbf.in (2.12 N.m) LXM05CD14N4, 380...480 V, three phase 19.47 lbf.in (2.2 N.m) LXM15LD10N4, 230 V, three phase 19.47 lbf.in (2.2 N.m) LXM15LD10N4, 400 V, three phase
Peak Stall Torque	67.27 lbf.in (7.6 N.m) LXM32.D12N4 3 A, 400 V, three phase 67.27 lbf.in (7.6 N.m) LXM32.D12N4 3 A, 480 V, three phase 49.83 lbf.in (5.63 N.m) LXM15LD13M3, 230 V, single phase 40.45 lbf.in (4.57 N.m) LXM05AD10M2, 200...240 V, single phase 49.83 lbf.in (5.63 N.m) LXM05AD17M2, 200...240 V, single phase 40.45 lbf.in (4.57 N.m) LXM05BD10M2, 200...240 V, single phase 49.83 lbf.in (5.63 N.m) LXM05BD17M2, 200...240 V, single phase 40.45 lbf.in (4.57 N.m) LXM05CD10M2, 200...240 V, single phase 49.83 lbf.in (5.63 N.m) LXM05CD17M2, 200...240 V, single phase 42.93 lbf.in (4.85 N.m) LXM15LD10N4, 230 V, three phase 42.93 lbf.in (4.85 N.m) LXM15LD10N4, 400 V, three phase 42.93 lbf.in (4.85 N.m) LXM15LD10N4, 480 V, three phase 40.45 lbf.in (4.57 N.m) LXM05AD10M3X, 200...240 V, three phase 49.83 lbf.in (5.63 N.m) LXM05AD17M3X, 200...240 V, three phase 49.83 lbf.in (5.63 N.m) LXM05AD14N4, 380...480 V, three phase 40.45 lbf.in (4.57 N.m) LXM05BD10M3X, 200...240 V, three phase 49.83 lbf.in (5.63 N.m) LXM05BD17M3X, 200...240 V, three phase 49.83 lbf.in (5.63 N.m) LXM05BD14N4, 380...480 V, three phase 40.45 lbf.in (4.57 N.m) LXM05CD10M3X, 200...240 V, three phase 49.83 lbf.in (5.63 N.m) LXM05CD17M3X, 200...240 V, three phase 49.83 lbf.in (5.63 N.m) LXM05CD14N4, 380...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.

Disclaimer: 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

Nominal Output Power	850 W LXM32.D12N4 3 A, 400 V, three phase
	850 W LXM32.D12N4 3 A, 480 V, three phase
	1000 W LXM15LD10N4, 400 V, three phase
	597 W LXM15LD13M3, 230 V, single phase
	600 W LXM05AD10M2, 200...240 V, single phase
	600 W LXM05AD17M2, 200...240 V, single phase
	600 W LXM05BD10M2, 200...240 V, single phase
	600 W LXM05BD17M2, 200...240 V, single phase
	600 W LXM05CD10M2, 200...240 V, single phase
	600 W LXM05CD17M2, 200...240 V, single phase
	1300 W LXM15LD10N4, 480 V, three phase
	597 W LXM15LD10N4, 230 V, three phase
	600 W LXM05AD10M3X, 200...240 V, three phase
	600 W LXM05AD14N4, 380...480 V, three phase
	600 W LXM05AD17M3X, 200...240 V, three phase
	600 W LXM05BD10M3X, 200...240 V, three phase
	600 W LXM05BD14N4, 380...480 V, three phase
	600 W LXM05BD17M3X, 200...240 V, three phase
	600 W LXM05CD10M3X, 200...240 V, three phase
	600 W LXM05CD14N4, 380...480 V, three phase
	600 W LXM05CD17M3X, 200...240 V, three phase
Nominal Torque	14.52 lbf.in (1.64 N.m) LXM32.D12N4 3 A, 400 V, three phase
	14.52 lbf.in (1.64 N.m) LXM32.D12N4 3 A, 480 V, three phase
	16.82 lbf.in (1.9 N.m) LXM05AD10M2, 200...240 V, single phase
	16.82 lbf.in (1.9 N.m) LXM05AD17M2, 200...240 V, single phase
	16.82 lbf.in (1.9 N.m) LXM05BD10M2, 200...240 V, single phase
	16.82 lbf.in (1.9 N.m) LXM05BD17M2, 200...240 V, single phase
	16.82 lbf.in (1.9 N.m) LXM05CD10M2, 200...240 V, single phase
	16.82 lbf.in (1.9 N.m) LXM05CD17M2, 200...240 V, single phase
	16.82 lbf.in (1.9 N.m) LXM15LD13M3, 230 V, single phase
	13.72 lbf.in (1.55 N.m) LXM15LD10N4, 480 V, three phase
	14.60 lbf.in (1.65 N.m) LXM15LD10N4, 400 V, three phase
	16.82 lbf.in (1.9 N.m) LXM05AD10M3X, 200...240 V, three phase
	16.82 lbf.in (1.9 N.m) LXM05AD14N4, 380...480 V, three phase
	16.82 lbf.in (1.9 N.m) LXM05AD17M3X, 200...240 V, three phase
	16.82 lbf.in (1.9 N.m) LXM05BD10M3X, 200...240 V, three phase
	16.82 lbf.in (1.9 N.m) LXM05BD14N4, 380...480 V, three phase
	16.82 lbf.in (1.9 N.m) LXM05BD17M3X, 200...240 V, three phase
	16.82 lbf.in (1.9 N.m) LXM05CD10M3X, 200...240 V, three phase
	16.82 lbf.in (1.9 N.m) LXM05CD14N4, 380...480 V, three phase
	16.82 lbf.in (1.9 N.m) LXM05CD17M3X, 200...240 V, three phase
	16.82 lbf.in (1.9 N.m) LXM15LD10N4, 230 V, three phase
Nominal Speed	5000 rpm LXM32.D12N4 3 A, 400 V, three phase
	5000 rpm LXM32.D12N4 3 A, 480 V, three 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
	3000 rpm LXM15LD13M3, 230 V, single 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
	8000 rpm LXM15LD10N4, 480 V, three phase
	3000 rpm LXM15LD10N4, 230 V, three phase
	6000 rpm LXM15LD10N4, 400 V, three phase

Product Compatibility	LXM05AD10M2 200...240 V single phase LXM05AD17M2 200...240 V single phase LXM05BD10M2 200...240 V single phase LXM05BD17M2 200...240 V single phase LXM05CD10M2 200...240 V single phase LXM05CD17M2 200...240 V single phase LXM15LD13M3 230 V single phase LXM05AD10M3X 200...240 V three phase LXM05BD10M3X 200...240 V three phase LXM05CD10M3X 200...240 V three phase LXM05AD14N4 380...480 V three phase LXM05BD14N4 380...480 V three phase LXM05CD14N4 380...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 LXM32.D12N4 400 V three phase LXM32.D12N4 480 V three phase LXM15LD10N4 230 V three phase LXM15LD10N4 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	Rotatable right-angled connectors

Complementary

Range Compatibility	Lexium 32 Lexium 15 Lexium 05
Supply Voltage Max	480 V
Phase	Three phase
Continuous Stall Current	2.9 A
Maximum Continuous Power	1.51 W
Maximum Current Irms	11.8 A LXM15LD13M3 11.8 A LXM15LD10N4 11.8 A LXM05AD10M2 11.8 A LXM05AD17M2 11.8 A LXM05AD10M3X 11.8 A LXM05AD17M3X 11.8 A LXM05AD14N4 11.8 A LXM05BD10M2 11.8 A LXM05BD17M2 11.8 A LXM05BD10M3X 11.8 A LXM05BD17M3X 11.8 A LXM05BD14N4 11.8 A LXM05CD10M2 11.8 A LXM05CD17M2 11.8 A LXM05CD10M3X 11.8 A LXM05CD17M3X 11.8 A LXM05CD14N4 11.8 A LXM32.D12N4
Maximum Permanent Current	11.8 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)
Key Width	0.71 in (18 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	2
Torque Constant	0.77 N.m/A 248 °F (120 °C)
Back Emf Constant	48 V/krpm 248 °F (120 °C)
Number Of Motor Poles	6
Rotor Inertia	0.482 kg.cm²
Stator Resistance	4.2 Ohm 68 °F (20 °C)
Stator Inductance	19 mH 68 °F (20 °C)
Stator Electrical Time Constant	4.52 ms 68 °F (20 °C)
Maximum Radial Force Fr	390 N 6000 rpm 410 N 5000 rpm 450 N 4000 rpm 490 N 3000 rpm 560 N 2000 rpm 710 N 1000 rpm
Maximum Axial Force Fa	0.2 x Fr
Brake Pull-In Power	10 W
Type Of Cooling	Natural convection
Length	8.37 in (212.5 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	6.61 lb(US) (3 kg)

Ordering and shipping details

Category	US1PC5318282
Discount Schedule	PC53
Gtin	3389118136458
Returnability	No
Country Of Origin	DE

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
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)
Package 1 Weight	7.17 lb(US) (3.25 kg)

Contractual warranty

Warranty

18 months

Sustainability

Green Premium™ 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-CO₂ 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	

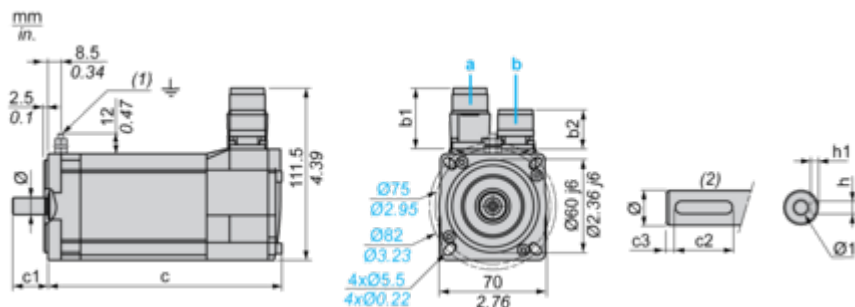
Certifications & Standards

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

Dimensions in mm				c (without brake)	c (with brake)	c1	c2	c3	h	h1	Ø	Ø1 for screws
Straight connectors		Rotatable angled connectors										
b1	b2	b1	b2									
39.5	25.5	39.5	39.5	187	213	23	18	2.5	4 N9	2.5 ^{+0.1} ₀	11 k6	M4 x 10

Dimensions in in.

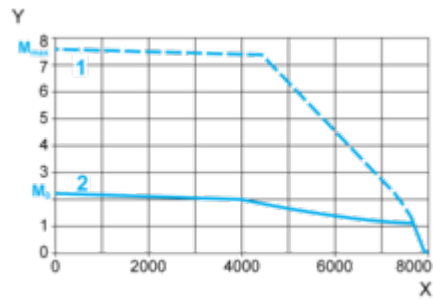
Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)	c1	c2	c3	h	h1	Ø	Ø1 for screws
b1	b2	b1	b2									
1.55	1.00	1.55	1.55	7.36	8.38	0.90	0.70	0.09	0.16 N9	0.01 ^{+0.004} ₀	0.43 k6	M4 x 0.39

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D12N4 servo drive

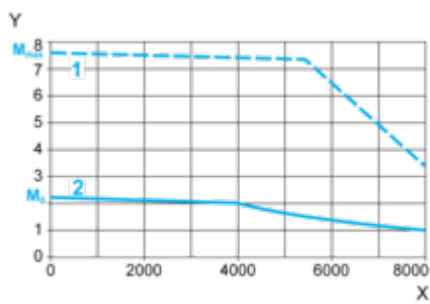


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D12N4 servo drive



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