# **Product data sheet**





servo motor BSH, Lexium 05, 7.8N.m, 2500rpm, 100mm, untapped shaft, Sincos single turn, without brake, IP50

BSH1003P01A2A

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

Price\*: 1,680.00 USD

### Main

Product Or Component Type	Servo motor
Device Short Name	BSH
Maximum Mechanical Speed	6000 rpm
Continuous Stall Torque	70.81 lbf.in (8 N.m) LXM32.D30N4 10 A, 400 V, three phase 70.81 lbf.in (8 N.m) LXM32.D30N4 10 A, 480 V, three phase 69.04 lbf.in (7.8 N.m) LXM05CD28M2, 200240 V, single phase 69.04 lbf.in (7.8 N.m) LXM05AD28M2, 200240 V, single phase 69.04 lbf.in (7.8 N.m) LXM05BD28M2, 200240 V, single phase 69.04 lbf.in (7.8 N.m) LXM05BD28M2, 200240 V, single phase 69.04 lbf.in (7.8 N.m) LXM05BD34N4, 380480 V, three phase 69.04 lbf.in (7.8 N.m) LXM05BD42M3X, 200240 V, three phase 69.04 lbf.in (7.8 N.m) LXM05CD34N4, 380480 V, three phase 69.04 lbf.in (7.8 N.m) LXM05CD42M3X, 200240 V, three phase 69.03 lbf.in (6.7 N.m) LXM15LD21M3, 230 V, three phase 59.30 lbf.in (6.7 N.m) LXM15LD17N4, 230 V, three phase 59.30 lbf.in (6.7 N.m) LXM15LD17N4, 400 V, three phase 69.04 lbf.in (7.8 N.m) LXM15LD28M3, 230 V, three phase 69.04 lbf.in (7.8 N.m) LXM15MD28N4, 400 V, three phase 69.04 lbf.in (7.8 N.m) LXM15MD28N4, 480 V, three phase 69.04 lbf.in (7.8 N.m) LXM15MD28N4, 480 V, three phase 69.04 lbf.in (7.8 N.m) LXM15MD28N4, 480 V, three phase 69.04 lbf.in (7.8 N.m) LXM15MD40N4, 480 V, three phase 69.04 lbf.in (7.8 N.m) LXM15MD40N4, 480 V, three phase 69.04 lbf.in (7.8 N.m) LXM15MD40N4, 480 V, three phase 69.04 lbf.in (7.8 N.m) LXM15MD40N4, 480 V, three phase 69.04 lbf.in (7.8 N.m) LXM15MD40N4, 480 V, three phase
Peak Stall Torque	250.48 lbf.in (28.3 N.m) LXM32.D30N4 10 A, 400 V, three phase 250.48 lbf.in (28.3 N.m) LXM32.D30N4 10 A, 480 V, three phase 174.27 lbf.in (19.69 N.m) LXM05AD28M2, 200240 V, single phase 174.27 lbf.in (19.69 N.m) LXM05BD28M2, 200240 V, single phase 174.27 lbf.in (19.69 N.m) LXM05BD28M2, 200240 V, single phase 137.19 lbf.in (15.5 N.m) LXM15LD21M3, 230 V, three phase 110.63 lbf.in (12.5 N.m) LXM15LD17N4, 230 V, three phase 110.63 lbf.in (12.5 N.m) LXM15LD17N4, 400 V, three phase 110.63 lbf.in (12.5 N.m) LXM15LD17N4, 480 V, three phase 174.27 lbf.in (19.69 N.m) LXM15LD28M3, 230 V, three phase 174.27 lbf.in (19.69 N.m) LXM15MD28N4, 480 V, three phase 174.27 lbf.in (19.69 N.m) LXM15MD28N4, 480 V, three phase 205.07 lbf.in (23.17 N.m) LXM15MD40N4, 480 V, three phase 205.07 lbf.in (23.17 N.m) LXM15MD40N4, 480 V, three phase 205.07 lbf.in (23.17 N.m) LXM05AD34N4, 380480 V, three phase 205.07 lbf.in (23.01 N.m) LXM05AD34N4, 380480 V, three phase 205.07 lbf.in (23.17 N.m) LXM05BD34N4, 380480 V, three phase 205.07 lbf.in (23.17 N.m) LXM05BD34N4, 380480 V, three phase 205.07 lbf.in (23.17 N.m) LXM05BD34N4, 380480 V, three phase 205.07 lbf.in (23.17 N.m) LXM05BD34N4, 380480 V, three phase 205.07 lbf.in (23.17 N.m) LXM05BD34N4, 380480 V, three phase 205.07 lbf.in (23.17 N.m) LXM05BD34N4, 380480 V, three phase 205.07 lbf.in (23.17 N.m) LXM05BD34N4, 380480 V, three phase 205.07 lbf.in (23.17 N.m) LXM05BD34N4, 380480 V, three phase 205.07 lbf.in (23.17 N.m) LXM05BD34N4, 380480 V, three phase 205.07 lbf.in (23.17 N.m) LXM05BD34N4, 380480 V, three phase 205.07 lbf.in (23.17 N.m) LXM05BD34N4, 380480 V, three phase 205.07 lbf.in (23.17 N.m) LXM05BD34N4, 380480 V, three phase 205.07 lbf.in (23.17 N.m) LXM05BD34N4, 380240 V, three phase 205.07 lbf.in (23.17 N.m) LXM05CD34N4, 380240 V, three phase 205.07 lbf.in (23.17 N.m) LXM05CD34N4, 380240 V, three phase 205.07 lbf.in (23.17 N.m) LXM05CD34N4, 380240 V, three phase 205.07 lbf.in (23.17 N.m) LXM05CD34N4, 380240 V, three

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**

2000 W LXM32.D30N4 10 A, 400 V, three phase 2600 W LXM32.D30N4 10 A, 480 V, three phase 1100 W LXM05AD28M2, 200...240 V, single phase 1100 W LXM05BD28M2, 200...240 V, single phase 1100 W LXM05CD28M2, 200...240 V, single phase 1100 W LXM05AD42M3X, 200...240 V, three phase 1100 W LXM05BD42M3X, 200...240 V, three phase 1100 W LXM05CD42M3X, 200...240 V, three phase 1300 W LXM15LD28M3, 230 V, three phase 1700 W LXM15LD17N4, 230 V, three phase 1700 W LXM15LD21M3, 230 V, three phase 1800 W LXM05AD34N4, 380...480 V, three phase 1800 W LXM05BD34N4, 380...480 V, three phase 1800 W LXM05CD34N4, 380...480 V, three phase 2000 W LXM15MD28N4, 400 V, three phase 2000 W LXM15MD40N4, 400 V, three phase 2200 W LXM15LD17N4, 400 V, three phase 2200 W LXM15MD28N4, 480 V, three phase 2200 W LXM15MD40N4, 480 V, three phase 2300 W LXM15LD17N4, 480 V, three phase

#### **Nominal Torque**

55.76 lbf.in (6.3 N.m) LXM32.D30N4 10 A, 400 V, three phase 55.76 lbf.in (6.3 N.m) LXM32.D30N4 10 A, 480 V, three phase 32.75 lbf.in (3.7 N.m) LXM15LD17N4, 480 V, three phase 59.57 lbf.in (6.73 N.m) LXM05AD28M2, 200...240 V, single phase 59.57 lbf.in (6.73 N.m) LXM05BD28M2, 200...240 V, single phase 59.57 lbf.in (6.73 N.m) LXM05CD28M2, 200...240 V, single phase 40.71 lbf.in (4.6 N.m) LXM15MD28N4, 480 V, three phase 40.71 lbf.in (4.6 N.m) LXM15MD40N4, 480 V, three phase 41.60 lbf.in (4.7 N.m) LXM15LD17N4, 400 V, three phase 44.25 lbf.in (5 N.m) LXM15MD28N4, 400 V, three phase 44.25 lbf.in (5 N.m) LXM15MD40N4, 400 V, three phase 50.45 lbf.in (5.7 N.m) LXM05AD34N4, 380...480 V, three phase 50.45 lbf.in (5.7 N.m) LXM05BD34N4, 380...480 V, three phase 50.45 lbf.in (5.7 N.m) LXM05CD34N4, 380...480 V, three phase 53.10 lbf.in (6 N.m) LXM15LD17N4, 230 V, three phase 53.10 lbf.in (6 N.m) LXM15LD21M3, 230 V, three phase 55.76 lbf.in (6.3 N.m) LXM15LD28M3, 230 V, three phase 59.57 lbf.in (6.73 N.m) LXM05AD42M3X, 200...240 V, three phase 59.57 lbf.in (6.73 N.m) LXM05BD42M3X, 200...240 V, three phase 59.57 lbf.in (6.73 N.m) LXM05CD42M3X, 200...240 V, three phase

#### Nominal Speed

4000 rpm LXM32.D30N4 10 A, 480 V, three phase 4500 rpm LXM15LD17N4, 400 V, three phase 6000 rpm LXM15LD17N4, 480 V, three phase 1500 rpm LXM05AD28M2, 200...240 V, single phase 1500 rpm LXM05BD28M2, 200...240 V, single phase 1500 rpm LXM05CD28M2, 200...240 V, single phase 1500 rpm LXM05AD42M3X, 200...240 V, three phase 1500 rpm LXM05BD42M3X, 200...240 V, three phase 1500 rpm LXM05CD42M3X, 200...240 V, three phase 2000 rpm LXM15LD28M3, 230 V, three phase 2500 rpm LXM15LD17N4, 230 V, three phase 2500 rpm LXM15LD21M3, 230 V, three phase 3000 rpm LXM05AD34N4, 380...480 V, three phase 3000 rpm LXM05BD34N4, 380...480 V, three phase 3000 rpm LXM05CD34N4, 380...480 V, three phase 4000 rpm LXM15MD28N4, 400 V, three phase 4000 rpm LXM15MD40N4, 400 V, three phase 4500 rpm LXM15MD28N4, 480 V, three phase 4500 rpm LXM15MD40N4, 480 V, three phase

3000 rpm LXM32.D30N4 10 A, 400 V, three phase

Product Compatibility	LXM05AD28M2 200240 V single phase
, ,	LXM05BD28M2 200240 V single phase
	LXM05CD28M2 200240 V single phase
	LXM15LD21M3 230 V three phase
	LXM05AD42M3X 200240 V three phase
	LXM05BD42M3X 200240 V three phase
	LXM05CD42M3X 200240 V three phase
	LXM15LD17N4 230 V three phase
	LXM15LD17N4 400 V three phase
	LXM15LD17N4 480 V three phase
	LXM15LD28M3 230 V three phase
	LXM05AD34N4 380480 V three phase
	LXM05BD34N4 380480 V three phase
	LXM05CD34N4 380480 V three phase
	LXM15MD28N4 400 V three phase
	LXM15MD28N4 480 V three phase
	LXM15MD40N4 400 V three phase
	LXM15MD40N4 480 V three phase
	LXM32.D30N4 400 V three phase
	LXM32.D30N4 480 V three phase
Shaft End	Untapped
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Ip Degree Of Protection	IP50 standard
Speed Feedback Resolution	131072 points/turn
Holding Brake	Without
Mounting Support	International standard flange
Electrical Connection	Rotatable right-angled connectors
Complementen	
Complementary	
Range Compatibility	Lexium 05
	Lexium 32
	Lexium 15
Supply Voltage Max	480 V
Phase	Three phase
Continuous Stall Current	6.6 A
Maximum Continuous Power	3.14 W
Maximum Current Irms	28.3 A LXM15LD21M3
	28.3 A LXM15LD28M3
	28.3 A LXM15LD17N4
	28.3 A LXM15MD28N4
	28.3 A LXM15MD40N4
	28.3 A LXM05AD28M2
	28.3 A LXM05AD42M3X
	28.3 A LXM05AD34N4
	28.3 A LXM05BD28M2
	28.3 A LXM05BD42M3X
	28.3 A LXM05BD34N4
	28.3 A LXM05CD28M2
	28.3 A LXM05CD42M3X
	28.3 A LXM05CD34N4
	28.3 A LXM32.D30N4
Maximum Permanent Current	28.3 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	3

Torque Constant	1.22 N.m/A 248 °F (120 °C)
Back Emf Constant	77 V/krpm 248 °F (120 °C)
Number Of Motor Poles	8
Rotor Inertia	3.22 kg.cm²
Stator Resistance	1.43 Ohm 68 °F (20 °C)
Stator Inductance	8.8 mH 68 °F (20 °C)
Stator Electrical Time Constant	6.15 ms 68 °F (20 °C)
Maximum Radial Force Fr	1050 N 1000 rpm 660 N 4000 rpm 730 N 3000 rpm 830 N 2000 rpm
Maximum Axial Force Fa	0.2 x Fr
Type Of Cooling	Natural convection
Length	9.47 in (240.5 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	16.31 lb(US) (7.4 kg)

# Ordering and shipping details

Category	US1PC5318282
Discount Schedule	PC53
Gtin	3389118140066
Returnability	No
Country Of Origin	DE

# **Packing Units**

_	
Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	8.27 in (21 cm)
Package 1 Width	7.17 in (18.2 cm)
Package 1 Length	22.44 in (57 cm)
Package 1 Weight	18.68 lb(US) (8.471 kg)
Unit Type Of Package 2	P06
Number Of Units In Package 2	6
Package 2 Height	30.31 in (77 cm)
Package 2 Width	31.50 in (80 cm)
Package 2 Length	23.62 in (60 cm)
Package 2 Weight	130.79 lb(US) (59.326 kg)

## **Contractual warranty**

Warranty

Apr 25, 2024

18 months

# Sustainability Screen Premium

**Green Premium**<sup>TM</sup> **label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> 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



### **Certifications & Standards**

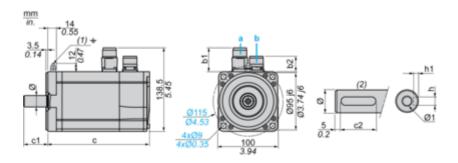
Reach Regulation	REACh Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection 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

## BSH1003P01A2A

### **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 Rotatable angled connectors connectors		c (without brake)	c (with	c1	c2	h	h1	Ø	Ø1 for		
b1	b2	b1	b2	Diake)	brake)						screws
39.5	25.5	39.5	39.5	241	272	40	30	6 N9	3.5 <sup>+0.1</sup> <sub>0</sub>	19 k6	M6 x 16

Dimensions in in.

Straight Rotatable angled connectors connectors		c (without c (with brake)	c (with brake)	c1	c2	h	h1	Ø	Ø1 for		
b1	b2	b1	b2	brake)	brake)						screws
1.55	1.00	1.55	1.55	9.48	10.70	1.57	1.18	0.24 N9	0.14 <sup>+0.1</sup> 0	0.75 k6	M6 x 0.63

## **Product data sheet**

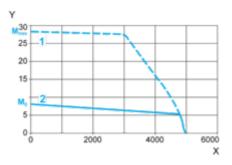
### BSH1003P01A2A

#### Performance Curves

### 400 V 3-Phase Supply Voltage

### **Torque/Speed Curves**

Servo motor with LXM32•D30N4 servo drive

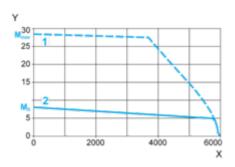


- **X** Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

### 480 V 3-Phase Supply Voltage

#### **Torque/Speed Curves**

Servo motor with LXM32•D30N4 servo drive



- X Speed in rpm
- ${\bf Y}$  Torque in Nm
- 1 Peak torque
- 2 Continuous torque