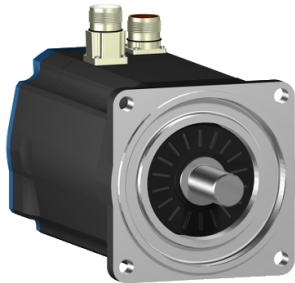


# Product data sheet

Specifications



servo motor BSH, Lexium 05,  
9.31N.m, 1500rpm, 100mm, keyed  
shaft, Sincos multi turn, with brake,  
IP65, straight

BSH1004P32F1A

**Discontinued**

**Discontinued on:** Jun 30, 2023

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

## Main

Device short name	BSH
Product or Component Type	Servo motor
Maximum mechanical speed	6000 rpm
Continuous stall torque	70.8 lbf.in (8 N.m) LXM32.D30N4 10 A, 400 V, three phase 70.8 lbf.in (8 N.m) LXM32.D30N4 10 A, 480 V, three phase 82.40 lbf.in (9.31 N.m) LXM15MD40N4, 400 V, three phase 82.40 lbf.in (9.31 N.m) LXM15MD40N4, 480 V, three phase 82.40 lbf.in (9.31 N.m) LXM15MD28M3, 230 V, three phase 82.40 lbf.in (9.31 N.m) LXM15MD28N4, 230 V, three phase 82.40 lbf.in (9.31 N.m) LXM15MD28N4, 400 V, three phase 82.40 lbf.in (9.31 N.m) LXM15MD28N4, 480 V, three phase 82.40 lbf.in (9.31 N.m) LXM15MD40N4, 230 V, three phase 82.40 lbf.in (9.31 N.m) LXM05AD34N4, 380...480 V, three phase 82.40 lbf.in (9.31 N.m) LXM05AD42M3X 10 A, 200...240 V, three phase 82.40 lbf.in (9.31 N.m) LXM05AD57N4, 380...480 V, three phase 82.40 lbf.in (9.31 N.m) LXM05BD34N4, 380...480 V, three phase 82.40 lbf.in (9.31 N.m) LXM05BD42M3X, 200...240 V, three phase 82.40 lbf.in (9.31 N.m) LXM05BD57N4, 380...480 V, three phase 82.40 lbf.in (9.31 N.m) LXM05CD34N4, 380...480 V, three phase 82.40 lbf.in (9.31 N.m) LXM05CD42M3X, 200...240 V, three phase 82.40 lbf.in (9.31 N.m) LXM05CD57N4, 380...480 V, three phase
Peak stall torque	335.4 lbf.in (37.9 N.m) LXM32.D30N4 10 A, 400 V, three phase 335.4 lbf.in (37.9 N.m) LXM32.D30N4 10 A, 480 V, three phase 227.5 lbf.in (25.7 N.m) LXM15MD28M3, 230 V, three phase 227.5 lbf.in (25.7 N.m) LXM15MD28N4, 230 V, three phase 227.5 lbf.in (25.7 N.m) LXM15MD28N4, 400 V, three phase 227.5 lbf.in (25.7 N.m) LXM15MD28N4, 480 V, three phase 299.42 lbf.in (33.83 N.m) LXM15MD40N4, 230 V, three phase 299.42 lbf.in (33.83 N.m) LXM15MD40N4, 400 V, three phase 299.42 lbf.in (33.83 N.m) LXM15MD40N4, 480 V, three phase 207.73 lbf.in (23.47 N.m) LXM05AD34N4, 380...480 V, three phase 316.0 lbf.in (35.7 N.m) LXM05AD42M3X 10 A, 200...240 V, three phase 316.0 lbf.in (35.7 N.m) LXM05AD57N4, 380...480 V, three phase 207.73 lbf.in (23.47 N.m) LXM05BD34N4, 380...480 V, three phase 316.0 lbf.in (35.7 N.m) LXM05BD42M3X, 200...240 V, three phase 316.0 lbf.in (35.7 N.m) LXM05BD57N4, 380...480 V, three phase 207.73 lbf.in (23.47 N.m) LXM05CD34N4, 380...480 V, three phase 316.0 lbf.in (35.7 N.m) LXM05CD42M3X, 200...240 V, three phase 316.0 lbf.in (35.7 N.m) LXM05CD57N4, 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

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**Nominal output power**

2600 W LXM32.D30N4 10 A, 480 V, three phase  
2100 W LXM32.D30N4 10 A, 400 V, three phase  
1300 W LXM05AD42M3X, 200...240 V, three phase  
1300 W LXM05BD42M3X, 200...240 V, three phase  
1300 W LXM05CD42M3X, 200...240 V, three phase  
1300 W LXM15MD28M3, 230 V, three phase  
1300 W LXM15MD28N4, 230 V, three phase  
1300 W LXM15MD40N4, 230 V, three phase  
2200 W LXM05AD34N4, 380...480 V, three phase  
2200 W LXM05AD57N4, 380...480 V, three phase  
2200 W LXM05BD34N4 10 A, 380...480 V, three phase  
2200 W LXM05BD57N4, 380...480 V, three phase  
2200 W LXM05CD34N4, 380...480 V, three phase  
2200 W LXM05CD57N4, 380...480 V, three phase  
2200 W LXM15MD28N4, 400 V, three phase  
2300 W LXM15MD40N4, 400 V, three phase  
2400 W LXM15MD40N4, 480 V, three phase  
2700 W LXM15MD28N4, 480 V, three phase

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**Nominal torque**

73.5 lbf.in (8.3 N.m) LXM32.D30N4 10 A, 400 V, three phase  
73.5 lbf.in (8.3 N.m) LXM32.D30N4 10 A, 480 V, three phase  
57.5 lbf.in (6.5 N.m) LXM15MD28N4, 480 V, three phase  
59.21 lbf.in (6.69 N.m) LXM15MD40N4, 480 V, three phase  
62.0 lbf.in (7 N.m) LXM15MD28N4, 400 V, three phase  
62.8 lbf.in (7.1 N.m) LXM05AD34N4, 380...480 V, three phase  
62.8 lbf.in (7.1 N.m) LXM05AD57N4, 380...480 V, three phase  
62.8 lbf.in (7.1 N.m) LXM05BD34N4, 380...480 V, three phase  
62.8 lbf.in (7.1 N.m) LXM05BD57N4, 380...480 V, three phase  
62.8 lbf.in (7.1 N.m) LXM05CD34N4, 380...480 V, three phase  
62.8 lbf.in (7.1 N.m) LXM05CD57N4 10 A, 380...480 V, three phase  
63.46 lbf.in (7.17 N.m) LXM15MD40N4, 400 V, three phase  
72.40 lbf.in (8.18 N.m) LXM15MD40N4, 230 V, three phase  
72.75 lbf.in (8.22 N.m) LXM05AD42M3X, 200...240 V, three phase  
72.75 lbf.in (8.22 N.m) LXM05BD42M3X, 200...240 V, three phase  
72.75 lbf.in (8.22 N.m) LXM05CD42M3X, 200...240 V, three phase  
72.75 lbf.in (8.22 N.m) LXM15LD28M3, 230 V, three phase  
72.75 lbf.in (8.22 N.m) LXM15MD28N4, 230 V, three phase

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**Nominal speed**

2500 rpm LXM32.D30N4 10 A, 400 V, three phase  
3000 rpm LXM32.D30N4 10 A, 480 V, three 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  
3000 rpm LXM05AD34N4, 380...480 V, three phase  
3000 rpm LXM05BD34N4, 380...480 V, three phase  
3000 rpm LXM05CD34N4, 380...480 V, three phase  
1500 rpm LXM15MD28M3, 230 V, three phase  
1500 rpm LXM15MD28N4, 230 V, three phase  
1500 rpm LXM15MD40N4 10 A, 230 V, three phase  
3000 rpm LXM05AD57N4, 380...480 V, three phase  
3000 rpm LXM05BD57N4, 380...480 V, three phase  
3000 rpm LXM05CD57N4, 380...480 V, three phase  
3000 rpm LXM15MD28N4, 400 V, three phase  
3000 rpm LXM15MD40N4, 400 V, three phase  
3500 rpm LXM15MD40N4, 480 V, three phase  
4000 rpm LXM15MD28N4, 480 V, three phase

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**Product compatibility**

LXM05AD42M3X 200...240 V three phase  
LXM05BD42M3X 200...240 V three phase  
LXM05CD42M3X 200...240 V three phase  
LXM05AD34N4 380...480 V three phase  
LXM05BD34N4 380...480 V three phase  
LXM05CD34N4 380...480 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  
LXM05AD57N4 380...480 V three phase  
LXM05BD57N4 380...480 V three phase  
LXM05CD57N4 380...480 V three phase  
LXM15MD28M3 230 V three phase  
LXM15MD28N4 230 V three phase  
LXM15MD40N4 230 V three phase

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**Shaft end** Keyed

<b>IP Degree of Protection</b>	IP65 standard IP67 with IP67 kit
<b>Speed feedback resolution</b>	131072 points/turn x 4096 turns
<b>Holding brake</b>	With
<b>Mounting Support</b>	International standard flange
<b>Electrical Connection</b>	Straight connectors

## Complementary

<b>Range Compatibility</b>	Lexium 15 Lexium 32 Lexium 05
<b>supply voltage max</b>	480 V
<b>Phase</b>	Three phase
<b>Continuous stall current</b>	6.2 A
<b>maximum continuous power</b>	3.64 W
<b>Maximum current Irms</b>	34.8 A LXM15LD28M3 34.8 A LXM15MD28N4 34.8 A LXM15MD40N4 32.3 A LXM05AD42M3X 32.3 A LXM05AD34N4 32.3 A LXM05AD57N4 32.3 A LXM05BD42M3X 32.3 A LXM05BD34N4 32.3 A LXM05BD57N4 32.3 A LXM05CD42M3X 32.3 A LXM05CD34N4 32.3 A LXM05CD57N4 30 A LXM32.D30N4
<b>Maximum permanent current</b>	32.3 A
<b>Switching frequency</b>	8 kHz
<b>Second shaft</b>	Without second shaft end
<b>Shaft diameter</b>	0.9 in (24 mm)
<b>Shaft length</b>	2.0 in (50 mm)
<b>Key width</b>	1.6 in (40 mm)
<b>Feedback type</b>	Multiturn SinCos Hiperface
<b>Holding torque</b>	106.2 lbf.in (12 N.m) holding brake
<b>Motor flange size</b>	3.9 in (100 mm)
<b>Number of motor stacks</b>	4
<b>Torque constant</b>	1.62 N.m/A 248 °F (120 °C)
<b>Back emf constant</b>	103 V/krpm 248 °F (120 °C)
<b>Number of motor poles</b>	8
<b>Rotor inertia</b>	5.245 kg.cm <sup>2</sup>
<b>Stator resistance</b>	1.81 Ohm 68 °F (20 °C)
<b>Stator inductance</b>	11.8 mH 68 °F (20 °C)
<b>Stator electrical time constant</b>	6.52 ms 68 °F (20 °C)
<b>Maximum radial force Fr</b>	1070 N 1000 rpm 740 N 3000 rpm 850 N 2000 rpm
<b>Maximum axial force Fa</b>	0.2 x Fr

Brake pull-in power	17 W
Type of cooling	Natural convection
Length	12.1 in (307.5 mm)
Centring collar diameter	3.7 in (95 mm)
Centring collar depth	0.1 in (3.5 mm)
Number of mounting holes	4
Mounting holes diameter	0.4 in (9 mm)
Circle diameter of the mounting holes	4.5 in (115 mm)
Net Weight	21.8 lb(US) (9.9 kg)
Sizing reference	BSH1004P
Network number of phases	3
Accuracy error [angular]	1.4 °
Temperature copper hot	248 °F (120 °C)
Temperature magnet hot	212 °F (100 °C)
Temperature magnet rt	68 °F (20 °C)

## Ordering and shipping details

Category	US1PC5318282
Discount Schedule	PC53
GTIN	3389118140721
Returnability	No

## Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	7.2 in (18.3 cm)
Package 1 Width	6.4 in (16.3 cm)
Package 1 Length	19.4 in (49.2 cm)
Package weight(Lbs)	17.97 lb(US) (8.15 kg)

## Contractual warranty

Warranty (in months)	18
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## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

### Use Better



#### Materials and Substances

[EU RoHS Directive](#)

Pro-active compliance (Product out of EU RoHS legal scope)

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](http://www.P65Warnings.ca.gov)

PVC free

Yes

### Use Longer



#### Lifetime extension

Repair

No

### Use Again



#### Repack and remanufacture

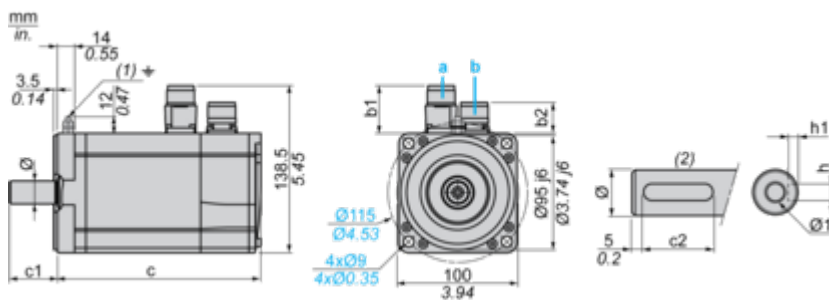
Circularity Profile

No need of specific recycling operations

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	277	308	50	40	8 N9	4 <sup>+0.1</sup> <sub>0</sub>	24 k6	M8 x 19

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	10.90	12.12	1.96	1.57	0.31 N9	0.16 <sup>+0.1</sup> <sub>0</sub>	0.94 k6	M8 x 0.75

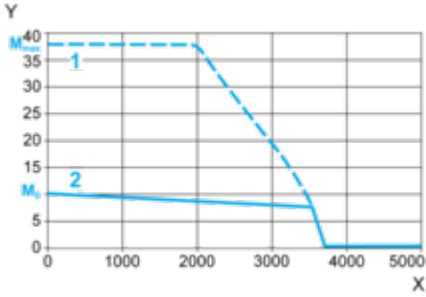
Performance Curves

400 V 3-Phase Supply Voltage

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Torque/Speed Curves

Servo motor with LXM32•D30N4 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

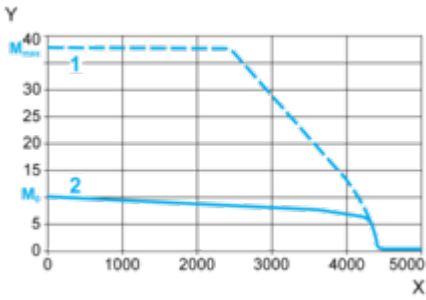
2 Continuous torque

480 V 3-Phase Supply Voltage

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Torque/Speed Curves

Servo motor with LXM32•D30N4 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque