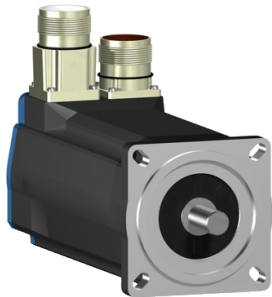


Product data sheet

Specifications



servo motor BSH, Lexium 05,
2.2N.m, 3000rpm, 70mm, keyed
shaft, Sincos single turn, without
brake, IP50

BSH0702P11A2A

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

Main

Device short name	BSH
Product or Component Type	Servo motor
Maximum mechanical speed	8000 rpm
Continuous stall torque	19.5 lbf.in (2.2 N.m) LXM32.D12N4 3 A, 400 V, three phase 19.5 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 19.5 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 3 A, 200...240 V, single phase 19.5 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 19.5 lbf.in (2.2 N.m) LXM15LD10N4, 230 V, three phase 19.5 lbf.in (2.2 N.m) LXM15LD10N4, 400 V, three phase
Peak stall torque	67.3 lbf.in (7.6 N.m) LXM32.D12N4 3 A, 400 V, three phase 67.3 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 3 A, 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 3 A, 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 16.8 lbf.in (1.9 N.m) LXM05AD10M2, 200...240 V, single phase 16.8 lbf.in (1.9 N.m) LXM05AD17M2, 200...240 V, single phase 16.8 lbf.in (1.9 N.m) LXM05BD10M2, 200...240 V, single phase 16.8 lbf.in (1.9 N.m) LXM05BD17M2, 200...240 V, single phase 16.8 lbf.in (1.9 N.m) LXM05CD10M2, 200...240 V, single phase 16.8 lbf.in (1.9 N.m) LXM05CD17M2, 200...240 V, single phase 16.8 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 16.8 lbf.in (1.9 N.m) LXM05AD10M3X 3 A, 200...240 V, three phase 16.8 lbf.in (1.9 N.m) LXM05AD14N4, 380...480 V, three phase 16.8 lbf.in (1.9 N.m) LXM05AD17M3X, 200...240 V, three phase 16.8 lbf.in (1.9 N.m) LXM05BD10M3X, 200...240 V, three phase 16.8 lbf.in (1.9 N.m) LXM05BD14N4, 380...480 V, three phase 16.8 lbf.in (1.9 N.m) LXM05BD17M3X, 200...240 V, three phase 16.8 lbf.in (1.9 N.m) LXM05CD10M3X, 200...240 V, three phase 16.8 lbf.in (1.9 N.m) LXM05CD14N4, 380...480 V, three phase 16.8 lbf.in (1.9 N.m) LXM05CD17M3X, 200...240 V, three phase 16.8 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 3 A, 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	IP50 standard
Speed feedback resolution	131072 points/turn
Holding brake	Without
Mounting Support	International standard flange
Electrical Connection	Rotatable right-angled connectors

Complementary

Range Compatibility	Lexium 32 Lexium 05 Lexium 15
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	0.4 in (11 mm)
Shaft length	0.9 in (23 mm)
Key width	0.7 in (18 mm)

Feedback type	Single turn SinCos Hiperface
Motor flange size	2.8 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	3.0
Rotor inertia	0.41 kg.cm²
Stator resistance	4.2 Ohm 68 °F (20 °C)
Stator inductance	10.65 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
Type of cooling	Natural convection
Length	7.4 in (187 mm)
Centring collar diameter	2.4 in (60 mm)
Centring collar depth	0.10 in (2.5 mm)
Number of mounting holes	4
Mounting holes diameter	0.2 in (5.5 mm)
Circle diameter of the mounting holes	3.2 in (82 mm)
Product Weight	6.37 lb(US) (2.89 kg)
Sizing reference	BSH0702P
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)
Output current 3s peak	11.8 A
Inertia	0.0 kg.cm² of brake 0.41 kg.cm² of motor

Ordering and shipping details

Category	US1PC5318282
Discount Schedule	PC53
GTIN	3389118136274
Returnability	No
Country of origin	DE

Packing Units

Unit Type of Package 1	PCE
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Nbr. of units in pkg.	1
Package 1 Height	4.331 in (11.000 cm)
Package 1 Width	7.480 in (19.000 cm)
Package 1 Length	15.551 in (39.500 cm)
Package weight(Lbs)	7.194 lb(US) (3.263 kg)
Unit Type of Package 2	S04
Number of Units in Package 2	2
Package 2 Height	11.811 in (30.000 cm)
Package 2 Width	15.748 in (40.000 cm)
Package 2 Length	23.622 in (60.000 cm)
Package 2 Weight	15.820 lb(US) (7.176 kg)
Unit Type of Package 3	P12
Number of Units in Package 3	8
Package 3 Height	17.717 in (45.000 cm)
Package 3 Width	31.496 in (80.000 cm)
Package 3 Length	47.244 in (120.000 cm)
Package 3 Weight	92.047 lb(US) (41.752 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 >](#)



Environmental footprint

Total lifecycle Carbon footprint	1 428 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	15 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.4 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	1 412 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0.3 kg CO2 eq.

Use Better



Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
SCIP Number	8c11b0c9-e501-4810-83eb-05fc6605ede4
EU RoHS Directive	Compliant By Exemption
REACH Regulation	Reference contains Substances of Very High Concern above the threshold
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
PVC free	Yes

Use Longer



Lifetime extension

Repair	No
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Use Again



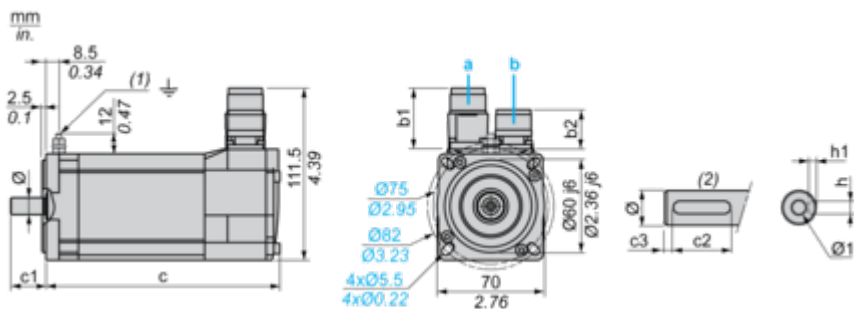
Repack and remanufacture

Circularity Profile	No need of specific recycling operations
Take-back	No
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

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	c3	h	h1	Ø	Ø1 for screws
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.

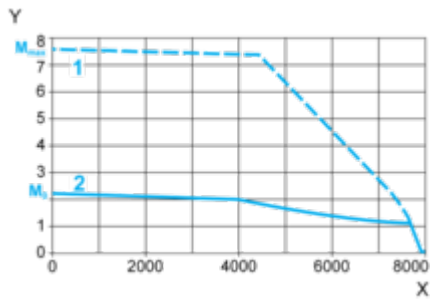
Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)	c1	c2	c3	h	h1	Ø	Ø1 for screws
b1	b2	b1	b2									
1.55	1.00	1.55	1.55	7.36	8.38	0.90	0.70	0.09	0.16 N9	0.01 ^{+0.004} ₀	0.43 k6	M4 x 0.39

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D12N4 servo drive

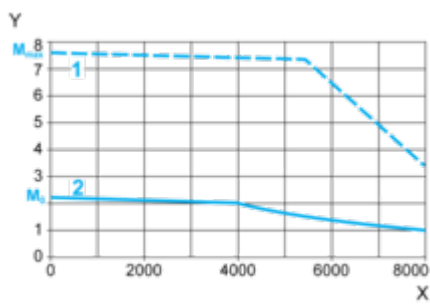


X Speed in rpm
Y Torque in Nm
1 Peak torque
2 Continuous torque

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