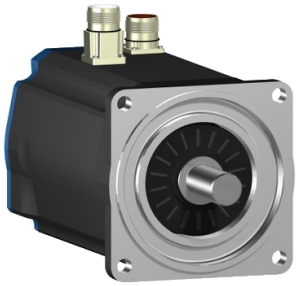
Product data sheet

Specifications



AC servo motor BSH, Lexium 05, 9.31N.m, 1500rpm, untapped shaft, without brake, IP50

BSH1004P01A1A

Discontinued on: Jun 30, 2023

Discontinued

Main

Product Or Component Type	Servo motor
Device Short Name	BSH
Maximum Mechanical Speed	6000 rpm
Continuous Stall Torque	8 N.m for LXM32.D30N4 at 10 A, 400 V, three phase 8 N.m for LXM32.D30N4 at 10 A, 480 V, three phase 9.31 N.m for LXM15MD40N4, 400 V, three phase 9.31 N.m for LXM15MD40N4, 480 V, three phase 9.31 N.m for LXM15MD28M3, 230 V, three phase 9.31 N.m for LXM15MD28N4, 230 V, three phase 9.31 N.m for LXM15MD28N4, 400 V, three phase 9.31 N.m for LXM15MD28N4, 480 V, three phase 9.31 N.m for LXM15MD40N4, 230 V, three phase 9.31 N.m for LXM05AD34N4, 380...480 V, three phase 9.31 N.m for LXM05AD42M3X, 200...240 V, three phase 9.31 N.m for LXM05AD57N4, 380...480 V, three phase 9.31 N.m for LXM05BD34N4, 380...480 V, three phase 9.31 N.m for LXM05BD42M3X, 200...240 V, three phase 9.31 N.m for LXM05BD57N4, 380...480 V, three phase 9.31 N.m for LXM05CD34N4, 380...480 V, three phase 9.31 N.m for LXM05CD42M3X, 200...240 V, three phase 9.31 N.m for LXM05CD57N4, 380...480 V, three phase
Peak Stall Torque	37.9 N.m for LXM32.D30N4 at 10 A, 400 V, three phase 37.9 N.m for LXM32.D30N4 at 10 A, 480 V, three phase 25.7 N.m for LXM15MD28M3, 230 V, three phase 25.7 N.m for LXM15MD28N4, 230 V, three phase 25.7 N.m for LXM15MD28N4, 400 V, three phase 25.7 N.m for LXM15MD28N4, 480 V, three phase 33.83 N.m for LXM15MD40N4, 230 V, three phase 33.83 N.m for LXM15MD40N4, 400 V, three phase 33.83 N.m for LXM15MD40N4, 480 V, three phase 23.47 N.m for LXM05AD34N4, 380...480 V, three phase 35.7 N.m for LXM05AD42M3X, 200...240 V, three phase 35.7 N.m for LXM05AD57N4, 380...480 V, three phase 23.47 N.m for LXM05BD34N4, 380...480 V, three phase 35.7 N.m for LXM05BD42M3X, 200...240 V, three phase 35.7 N.m for LXM05BD57N4, 380...480 V, three phase 23.47 N.m for LXM05CD34N4, 380...480 V, three phase 35.7 N.m for LXM05CD42M3X, 200...240 V, three phase 35.7 N.m for LXM05CD57N4, 380...480 V, three phase

Nominal Output Power	2600 W for LXM32.D30N4 at 10 A, 480 V, three phase 2100 W for LXM32.D30N4 at 10 A, 400 V, three phase 1300 W for LXM05AD42M3X, 200...240 V, three phase 1300 W for LXM05BD42M3X, 200...240 V, three phase 1300 W for LXM05CD42M3X, 200...240 V, three phase 1300 W for LXM15MD28M3, 230 V, three phase 1300 W for LXM15MD28N4, 230 V, three phase 1300 W for LXM15MD40N4, 230 V, three phase 2200 W for LXM05AD34N4, 380...480 V, three phase 2200 W for LXM05AD57N4, 380...480 V, three phase 2200 W for LXM05BD34N4, 380...480 V, three phase 2200 W for LXM05BD57N4, 380...480 V, three phase 2200 W for LXM05CD34N4, 380...480 V, three phase 2200 W for LXM05CD57N4, 380...480 V, three phase 2200 W for LXM15MD28N4, 400 V, three phase 2300 W for LXM15MD40N4, 400 V, three phase 2400 W for LXM15MD40N4, 480 V, three phase 2700 W for LXM15MD28N4, 480 V, three phase
Nominal Torque	8.3 N.m for LXM32.D30N4 at 10 A, 400 V, three phase 8.3 N.m for LXM32.D30N4 at 10 A, 480 V, three phase 6.5 N.m for LXM15MD28N4, 480 V, three phase 6.69 N.m for LXM15MD40N4, 480 V, three phase 7 N.m for LXM15MD28N4, 400 V, three phase 7.1 N.m for LXM05AD34N4, 380...480 V, three phase 7.1 N.m for LXM05AD57N4, 380...480 V, three phase 7.1 N.m for LXM05BD34N4, 380...480 V, three phase 7.1 N.m for LXM05BD57N4, 380...480 V, three phase 7.1 N.m for LXM05CD34N4, 380...480 V, three phase 7.1 N.m for LXM05CD57N4, 380...480 V, three phase 7.17 N.m for LXM15MD40N4, 400 V, three phase 8.18 N.m for LXM15MD40N4, 230 V, three phase 8.22 N.m for LXM05AD42M3X, 200...240 V, three phase 8.22 N.m for LXM05BD42M3X, 200...240 V, three phase 8.22 N.m for LXM05CD42M3X, 200...240 V, three phase 8.22 N.m for LXM15LD28M3, 230 V, three phase 8.22 N.m for LXM15MD28N4, 230 V, three phase
Nominal Speed	2500 rpm for LXM32.D30N4 at 10 A, 400 V, three phase 3000 rpm for LXM32.D30N4 at 10 A, 480 V, three phase 1500 rpm for LXM05AD42M3X, 200...240 V, three phase 1500 rpm for LXM05BD42M3X, 200...240 V, three phase 1500 rpm for LXM05CD42M3X, 200...240 V, three phase 3000 rpm for LXM05AD34N4, 380...480 V, three phase 3000 rpm for LXM05BD34N4, 380...480 V, three phase 3000 rpm for LXM05CD34N4, 380...480 V, three phase 1500 rpm for LXM15MD28M3, 230 V, three phase 1500 rpm for LXM15MD28N4, 230 V, three phase 1500 rpm for LXM15MD40N4, 230 V, three phase 3000 rpm for LXM05AD57N4, 380...480 V, three phase 3000 rpm for LXM05BD57N4, 380...480 V, three phase 3000 rpm for LXM05CD57N4, 380...480 V, three phase 3000 rpm for LXM15MD28N4, 400 V, three phase 3000 rpm for LXM15MD40N4, 400 V, three phase 3500 rpm for LXM15MD40N4, 480 V, three phase 4000 rpm for LXM15MD28N4, 480 V, three phase
Product Compatibility	LXM05AD42M3X at 200...240 V three phase LXM05BD42M3X at 200...240 V three phase LXM05CD42M3X at 200...240 V three phase LXM05AD34N4 at 380...480 V three phase LXM05BD34N4 at 380...480 V three phase LXM05CD34N4 at 380...480 V three phase LXM15MD28N4 at 400 V three phase LXM15MD28N4 at 480 V three phase LXM15MD40N4 at 400 V three phase LXM15MD40N4 at 480 V three phase LXM32.D30N4 at 400 V three phase LXM32.D30N4 at 480 V three phase LXM05AD57N4 at 380...480 V three phase LXM05BD57N4 at 380...480 V three phase LXM05CD57N4 at 380...480 V three phase LXM15MD28M3 at 230 V three phase LXM15MD28N4 at 230 V three phase LXM15MD40N4 at 230 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 15 Lexium 32 Lexium 05
Supply Voltage Max	480 V
Network Number Of Phases	Three phase
Continuous Stall Current	6.2 A
Maximum Continuous Power	3.64 W
Maximum Current Irms	34.8 A for LXM15LD28M3 34.8 A for LXM15MD28N4 34.8 A for LXM15MD40N4 32.3 A for LXM05AD42M3X 32.3 A for LXM05AD34N4 32.3 A for LXM05AD57N4 32.3 A for LXM05BD42M3X 32.3 A for LXM05BD34N4 32.3 A for LXM05BD57N4 32.3 A for LXM05CD42M3X 32.3 A for LXM05CD34N4 32.3 A for LXM05CD57N4 30 A for LXM32.D30N4
Maximum Permanent Current	32.3 A
Switching Frequency	8 kHz
Second Shaft	Without second shaft end
Shaft Diameter	24 mm
Shaft Length	50 mm
Feedback Type	Single turn SinCos Hiperface
Motor Flange Size	100 mm
Number Of Motor Stacks	4
Torque Constant	1.62 N.m/A at 120 °C
Back Emf Constant	103 V/krpm at 120 °C
Number Of Motor Poles	8
Rotor Inertia	4.22 kg.cm²
Stator Resistance	1.81 Ohm at 20 °C
Stator Inductance	11.8 mH at 20 °C
Stator Electrical Time Constant	6.52 ms at 20 °C
Maximum Radial Force Fr	1070 N at 1000 rpm 740 N at 3000 rpm 850 N at 2000 rpm
Maximum Axial Force Fa	0.2 x Fr
Type Of Cooling	Natural convection
Length	276.5 mm
Centring Collar Diameter	95 mm
Centring Collar Depth	3.5 mm

Number Of Mounting Holes	4
Mounting Holes Diameter	9 mm
Circle Diameter Of The Mounting Holes	115 mm
Net Weight	9.5 kg

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	18.3 cm
Package 1 Width	16.3 cm
Package 1 Length	49.2 cm
Package 1 Weight	7.5 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-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

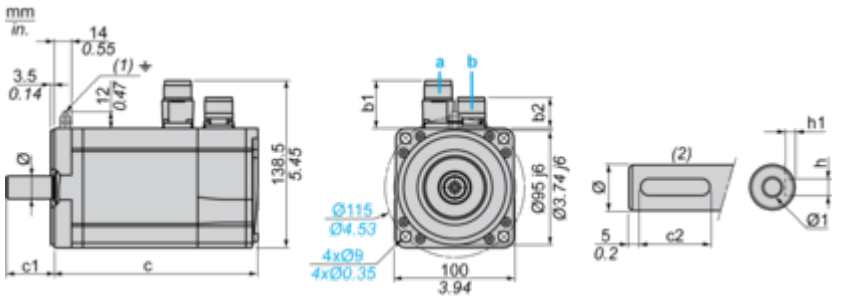
Certifications & Standards

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	277	308	50	40	8 N9	$4^{+0.1}_{0}$	24 k6	M8 x 19

Dimensions in in.

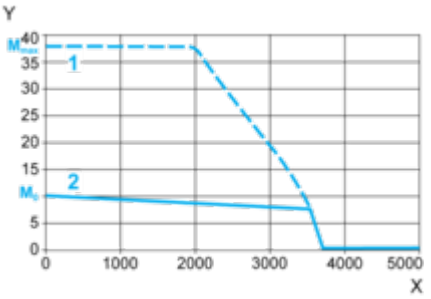
Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)	c1	c2	h	h1	Ø	Ø1 for screws
b1	b2	b1	b2								
1.55	1.00	1.55	1.55	10.90	12.12	1.96	1.57	0.31 N9	$0.16^{+0.1}_{0}$	0.94 k6	M8 x 0.75

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D30N4 servo drive

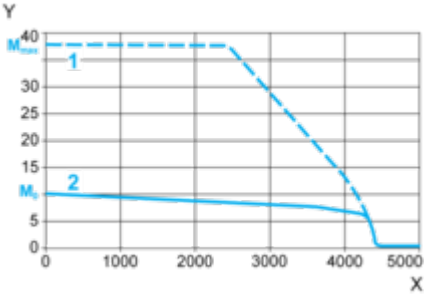


X Speed in rpm
Y Torque in Nm
1 Peak torque
2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D30N4 servo drive



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