Product datasheet

Specifications

Green Premium™

AC servo motor BSH, Lexium 05, 3.39N.m, 4000rpm, keyed shaft, without brake, IP50

BSH1001T11A1A

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	3.3 N.m for LXM32.D30M2 at 10 A, 115 V, single phase 3.39 N.m for LXM15LD28M3, 230 V, three phase 3.4 N.m for LXM05AD28F1, 110...120 V, single phase 3.4 N.m for LXM05AD28M2, 200...240 V, single phase 3.4 N.m for LXM05AD42M3X, 200...240 V, three phase 3.4 N.m for LXM05BD28F1, 110...120 V, single phase 3.4 N.m for LXM05BD28M2, 200...240 V, single phase 3.4 N.m for LXM05BD42M3X, 200...240 V, three phase 3.4 N.m for LXM05CD28F1, 110...120 V, single phase 3.4 N.m for LXM05CD28M2, 200...240 V, single phase 3.4 N.m for LXM05CD42M3X, 200...240 V, three phase 2.7 N.m for LXM32.D18M2 at 6 A, 230 V, single phase
Peak Stall Torque	6.3 N.m for LXM32.D30M2 at 10 A, 115 V, single phase 8.5 N.m for LXM05AD28F1, 110...120 V, single phase 8.5 N.m for LXM05AD28M2, 200...240 V, single phase 8.5 N.m for LXM05BD28F1, 110...120 V, single phase 8.5 N.m for LXM05BD28M2, 200...240 V, single phase 8.5 N.m for LXM05CD28F1, 110...120 V, single phase 8.5 N.m for LXM05CD28M2, 200...240 V, single phase 7.5 N.m for LXM32.D18M2 at 6 A, 230 V, single phase 8.5 N.m for LXM15LD28M3, 230 V, three phase 8.5 N.m for LXM05AD42M3X, 200...240 V, three phase 8.5 N.m for LXM05BD42M3X, 200...240 V, three phase 8.5 N.m for LXM05CD42M3X, 200...240 V, three phase
Nominal Output Power	700 W for LXM32.D30M2 at 10 A, 115 V, single phase 900 W for LXM32.D18M2 at 6 A, 230 V, single phase 500 W for LXM05AD28F1, 110...120 V, single phase 500 W for LXM05BD28F1, 110...120 V, single phase 500 W for LXM05CD28F1, 110...120 V, single phase 900 W for LXM05AD28M2, 200...240 V, single phase 900 W for LXM05BD28M2, 200...240 V, single phase 900 W for LXM05CD28M2, 200...240 V, single phase 1150 W for LXM15LD28M3, 230 V, three phase 900 W for LXM05AD42M3X, 200...240 V, three phase 900 W for LXM05BD42M3X, 200...240 V, three phase 900 W for LXM05CD42M3X, 200...240 V, three phase
Nominal Torque	2.75 N.m for LXM32.D30M2 at 10 A, 115 V, single phase 2.9 N.m for LXM05AD28M2, 200...240 V, single phase 2.9 N.m for LXM05BD28M2, 200...240 V, single phase 2.9 N.m for LXM05CD28M2, 200...240 V, single phase 3.16 N.m for LXM05AD28F1, 110...120 V, single phase 3.16 N.m for LXM05BD28F1, 110...120 V, single phase 3.16 N.m for LXM05CD28F1, 110...120 V, single phase 2.2 N.m for LXM32.D18M2 at 6 A, 230 V, single phase 2.75 N.m for LXM15LD28M3, 230 V, three phase 2.9 N.m for LXM05AD42M3X, 200...240 V, three phase 2.9 N.m for LXM05BD42M3X, 200...240 V, three phase 2.9 N.m for LXM05CD42M3X, 200...240 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 Speed	2500 rpm for LXM32.D30M2 at 10 A, 115 V, single phase 3000 rpm for LXM05AD28M2, 200...240 V, single phase 3000 rpm for LXM05BD28M2, 200...240 V, single phase 3000 rpm for LXM05CD28M2, 200...240 V, single phase 3000 rpm for LXM05AD42M3X, 200...240 V, three phase 3000 rpm for LXM05BD42M3X, 200...240 V, three phase 3000 rpm for LXM05CD42M3X, 200...240 V, three phase 4000 rpm for LXM32.D18M2 at 6 A, 230 V, single phase 1500 rpm for LXM05AD28F1, 110...120 V, single phase 1500 rpm for LXM05BD28F1, 110...120 V, single phase 1500 rpm for LXM05CD28F1, 110...120 V, single phase 4000 rpm for LXM15LD28M3, 230 V, three phase
Product Compatibility	LXM05AD28F1 at 110...120 V single phase LXM05AD28M2 at 200...240 V single phase LXM05BD28F1 at 110...120 V single phase LXM05BD28M2 at 200...240 V single phase LXM05CD28F1 at 110...120 V single phase LXM05CD28M2 at 200...240 V single phase LXM32.D30M2 at 115 V single phase LXM32.D18M2 at 230 V single phase LXM05AD42M3X at 200...240 V three phase LXM05BD42M3X at 200...240 V three phase LXM05CD42M3X at 200...240 V three phase LXM15LD28M3 at 230 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	Straight connectors

Complementary

Range Compatibility	Lexium 05 Lexium 32 Lexium 15
Supply Voltage Max	480 V
Network Number Of Phases	Three phase
Continuous Stall Current	7.3 A
Maximum Continuous Power	1.6 W
Maximum Current Irms	18 A for LXM32.D18M2 at 230 V 15 A for LXM32.D30M2 at 115 V 23 A for LXM15LD28M3 25.1 A for LXM05AD28F1 25.1 A for LXM05AD28M2 25.1 A for LXM05AD42M3X 25.1 A for LXM05BD28F1 25.1 A for LXM05BD28M2 25.1 A for LXM05BD42M3X 25.1 A for LXM05CD28F1 25.1 A for LXM05CD28M2 25.1 A for LXM05CD42M3X
Maximum Permanent Current	25.1 A
Switching Frequency	8 kHz
Second Shaft	Without second shaft end
Shaft Diameter	19 mm
Shaft Length	40 mm
Key Width	30 mm
Feedback Type	Single turn SinCos Hiperface

Motor Flange Size	100 mm
Number Of Motor Stacks	1
Torque Constant	0.45 N.m/A at 120 °C
Back Emf Constant	29 V/krpm at 120 °C
Number Of Motor Poles	8
Rotor Inertia	1.4 kg.cm²
Stator Resistance	0.87 Ohm at 20 °C
Stator Inductance	4 mH at 20 °C
Stator Electrical Time Constant	4.6 ms at 20 °C
Maximum Radial Force Fr	530 N at 5000 rpm 570 N at 4000 rpm 630 N at 3000 rpm 720 N at 2000 rpm 900 N at 1000 rpm
Maximum Axial Force Fa	0.2 x Fr
Type Of Cooling	Natural convection
Length	168.5 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	4.2 kg

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	15.4 cm
Package 1 Width	16.3 cm
Package 1 Length	40.7 cm
Package 1 Weight	4.3 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

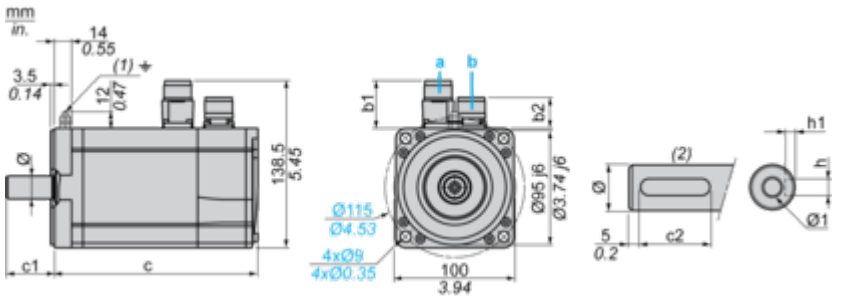
Certifications & Standards

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

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	169	200	40	30	6 N9	$3.5^{+0.1}_{0}$	19 k6	M6 x 16

Dimensions in in.

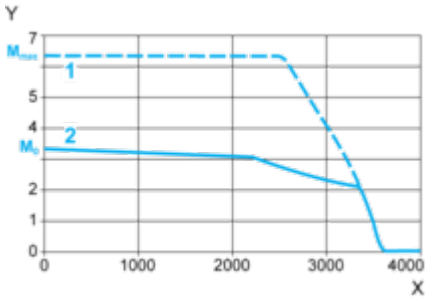
Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)	c1	c2	h	h1	Ø	Ø1 for screws
b1	b2	b1	b2								
1.55	1.00	1.55	1.55	6.65	7.87	1.57	1.18	0.24 N9	$0.14^{+0.1}_{0}$	0.75 k6	M6 x 0.63

Performance Curves

115 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D30M2 servo drive

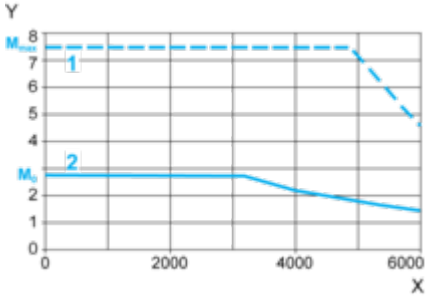


X Speed in rpm
Y Torque in Nm
1 Peak torque
2 Continuous torque

230 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D18M2 servo drive



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