

# BSH1003P02F2A

AC servo motor BSH - 7.8 N.m - 2500 rpm -  
untapped shaft - with brake - IP50

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



Price\*\* : 2,325.00 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, 200...240 V, single phase 69.04 lbf.in (7.8 N.m) LXM05AD28M2, 200...240 V, single phase 69.04 lbf.in (7.8 N.m) LXM05BD28M2, 200...240 V, single phase 69.04 lbf.in (7.8 N.m) LXM05BD34N4, 380...480 V, three phase 69.04 lbf.in (7.8 N.m) LXM05BD42M3X, 200...240 V, three phase 69.04 lbf.in (7.8 N.m) LXM05CD34N4, 380...480 V, three phase 69.04 lbf.in (7.8 N.m) LXM05CD42M3X, 200...240 V, three phase 59.30 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 59.30 lbf.in (6.7 N.m) LXM15LD17N4, 480 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) LXM15MD40N4, 400 V, three phase 69.04 lbf.in (7.8 N.m) LXM15MD40N4, 480 V, three phase 69.04 lbf.in (7.8 N.m) LXM05AD34N4, 380...480 V, three phase 69.04 lbf.in (7.8 N.m) LXM05AD42M3X, 200...240 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, 200...240 V, single phase 174.27 lbf.in (19.69 N.m) LXM05BD28M2, 200...240 V, single phase 174.27 lbf.in (19.69 N.m) LXM05CD28M2, 200...240 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, 400 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, 400 V, three phase

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

	<p>205.07 lbf.in (23.17 N.m) LXM15MD40N4, 480 V, three phase  203.66 lbf.in (23.01 N.m) LXM05AD34N4, 380...480 V, three phase  205.07 lbf.in (23.17 N.m) LXM05AD42M3X, 200...240 V, three phase  203.66 lbf.in (23.01 N.m) LXM05BD34N4, 380...480 V, three phase  205.07 lbf.in (23.17 N.m) LXM05BD42M3X, 200...240 V, three phase  203.66 lbf.in (23.01 N.m) LXM05CD34N4, 380...480 V, three phase  205.07 lbf.in (23.17 N.m) LXM05CD42M3X, 200...240 V, three phase</p>
Nominal output power	<p>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</p>
Nominal torque	<p>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</p>
Nominal speed	<p>3000 rpm LXM32.D30N4 10 A, 400 V, three phase  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</p>
Product compatibility	<p>LXM05AD28M2 200...240 V single phase  LXM05BD28M2 200...240 V single phase  LXM05CD28M2 200...240 V single phase  LXM15LD21M3 230 V three phase  LXM05AD42M3X 200...240 V three phase  LXM05BD42M3X 200...240 V three phase  LXM05CD42M3X 200...240 V three phase</p>

LXM15LD17N4 230 V three phase  
 LXM15LD17N4 400 V three phase  
 LXM15LD17N4 480 V three phase  
 LXM15LD28M3 230 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

Shaft end	Untapped
IP degree of protection	IP50 standard
Speed feedback resolution	131072 points/turn x 4096 turns
Holding brake	With
Mounting support	International standard flange
Electrical connection	Rotatable right-angled connectors

### Complementary

Range compatibility	Lexium 05 Lexium 15 Lexium 32
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	Multiturn SinCos Hiperface
Holding torque	79.66 lbf.in (9 N.m) holding brake
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	3.838 kg.cm <sup>2</sup>
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
Brake pull-in power	18 W
Type of cooling	Natural convection
Length	10.69 in (271.5 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	17.64 lb(US) (8 kg)

## Ordering and shipping details

Category	18282 - LEXIUM 32 MOTORS
Discount Schedule	PC53
GTIN	03389118140202
Package weight(Lbs)	8.12 kg (17.9 lb(US))
Returnability	No
Country of origin	DE

## Offer Sustainability

Sustainable offer status	Green Premium product
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 <a href="http://www.p65warnings.ca.gov">www.p65warnings.ca.gov</a>
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Not applicable, out of EU RoHS legal scope
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	No need of specific recycling operations
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

## Contractual warranty

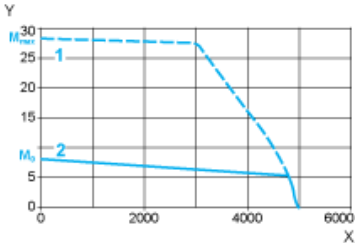
Warranty	18 months
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400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32-D30N4 servo drive



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

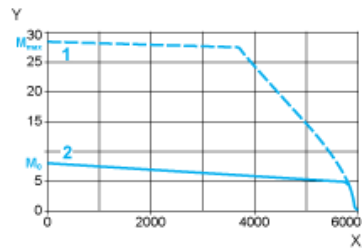
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480 V 3-Phase Supply Voltage

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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