



## Main

Product or component type	Servo motor
Device short name	BSH
Maximum mechanical speed	8000 rpm
Continuous stall torque	1.4 N.m for LXM32.D12N4 at 3 A, 400 V, three phase 1.4 N.m for LXM32.D12N4 at 3 A, 480 V, three phase 1.4 N.m for LXM05AD10M3X, 200...240 V, three phase 1.4 N.m for LXM05BD10M3X, 200...240 V, three phase 1.4 N.m for LXM05CD10M3X, 200...240 V, three phase 1.4 N.m for LXM15LD13M3, 230 V, single phase 1.4 N.m for LXM05AD10M2, 200...240 V, single phase 1.4 N.m for LXM05BD10M2, 200...240 V, single phase 1.4 N.m for LXM05CD10M2, 200...240 V, single phase 1.4 N.m for LXM15LU60N4, 230 V, three phase
Peak stall torque	3.5 N.m for LXM32.D12N4 at 3 A, 400 V, three phase 3.5 N.m for LXM32.D12N4 at 3 A, 480 V, three phase 2.66 N.m for LXM05AD10M3X, 200...240 V, three phase 2.66 N.m for LXM05BD10M3X, 200...240 V, three phase 2.66 N.m for LXM05CD10M3X, 200...240 V, three phase 2.66 N.m for LXM15LD13M3, 230 V, single phase 2.66 N.m for LXM05AD10M2, 200...240 V, single phase 2.66 N.m for LXM05BD10M2, 200...240 V, single phase 2.66 N.m for LXM05CD10M2, 200...240 V, single phase 2.66 N.m for LXM15LU60N4, 230 V, three phase
Nominal output power	700 W for LXM32.D12N4 at 3 A, 400 V, three phase 700 W for LXM32.D12N4 at 3 A, 480 V, three phase 400 W for LXM05AD10M2, 200...240 V, single phase 400 W for LXM05BD10M2, 200...240 V, single phase 400 W for LXM05CD10M2, 200...240 V, single phase 411 W for LXM15LD13M3, 230 V, single phase 400 W for LXM05AD10M3X, 200...240 V, three phase 400 W for LXM05BD10M3X, 200...240 V, three phase 400 W for LXM05CD10M3X, 200...240 V, three phase 411 W for LXM15LU60N4, 230 V, three phase
Nominal torque	1.32 N.m for LXM32.D12N4 at 3 A, 400 V, three phase 1.32 N.m for LXM32.D12N4 at 3 A, 480 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>1.3 N.m for LXM05AD10M2, 200...240 V, single phase  1.3 N.m for LXM05BD10M2, 200...240 V, single phase  1.3 N.m for LXM05CD10M2, 200...240 V, single phase  1.31 N.m for LXM15LD13M3, 230 V, single phase  1.3 N.m for LXM05AD10M3X, 200...240 V, three phase  1.3 N.m for LXM05BD10M3X, 200...240 V, three phase  1.3 N.m for LXM05CD10M3X, 200...240 V, three phase  1.31 N.m for LXM15LU60N4, 230 V, three phase</p>
Nominal speed	<p>5000 rpm for LXM32.D12N4 at 3 A, 400 V, three phase  5000 rpm for LXM32.D12N4 at 3 A, 480 V, three phase  3000 rpm for LXM05AD10M2, 200...240 V, single phase  3000 rpm for LXM05BD10M2, 200...240 V, single phase  3000 rpm for LXM05CD10M2, 200...240 V, single phase  3000 rpm for LXM05AD10M3X, 200...240 V, three phase  3000 rpm for LXM05BD10M3X, 200...240 V, three phase  3000 rpm for LXM05CD10M3X, 200...240 V, three phase  3000 rpm for LXM15LD13M3, 230 V, single phase  3000 rpm for LXM15LU60N4, 230 V, three phase</p>
Product compatibility	<p>LXM05AD10M2 at 200...240 V single phase  LXM05BD10M2 at 200...240 V single phase  LXM05CD10M2 at 200...240 V single phase  LXM15LD13M3 at 230 V single phase  LXM15LU60N4 at 230 V three phase  LXM05AD10M3X at 200...240 V three phase  LXM05BD10M3X at 200...240 V three phase  LXM05CD10M3X at 200...240 V three phase  LXM32.D12N4 at 400 V three phase  LXM32.D12N4 at 480 V three phase</p>
Shaft end	Keyed
IP degree of protection	IP50 standard
Speed feedback resolution	131072 points/turn x 4096 turns
Holding brake	Without
Mounting support	International standard flange
Electrical connection	Straight connectors

## Complementary

Range compatibility	<p>Lexium 15  Lexium 05  Lexium 32</p>
Supply voltage max	480 V
Network number of phases	Three phase
Continuous stall current	1.8 A
Maximum continuous power	1.06 W
Maximum current Irms	<p>5.7 A for LXM05AD10M3X  5.7 A for LXM05BD10M2  5.7 A for LXM05BD10M3X  5.7 A for LXM05CD10M2  5.7 A for LXM05CD10M3X  5.3 A for LXM15LD13M3  5.3 A for LXM15LU60N4  5.7 A for LXM05AD10M2  5.7 A for LXM32.D12N4</p>
Maximum permanent current	5.7 A
Switching frequency	8 kHz
Second shaft	Without second shaft end
Shaft diameter	11 mm
Shaft length	23 mm
Key width	18 mm
Feedback type	Multiturn SinCos Hiperface
Motor flange size	70 mm
Number of motor stacks	1
Torque constant	0.8 N.m/A at 120 °C
Back emf constant	46 V/krpm at 120 °C

Number of motor poles	6
Rotor inertia	0.25 kg.cm <sup>2</sup>
Stator resistance	10.4 Ohm at 20 °C
Stator inductance	38.8 mH at 20 °C
Stator electrical time constant	3.73 ms at 20 °C
Maximum radial force Fr	360 N at 6000 rpm 380 N at 5000 rpm 410 N at 4000 rpm 460 N at 3000 rpm 520 N at 2000 rpm 660 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
Type of cooling	Natural convection
Length	154 mm
Centring collar diameter	60 mm
Centring collar depth	2.5 mm
Number of mounting holes	4
Mounting holes diameter	5.5 mm
Circle diameter of the mounting holes	82 mm
Net weight	2.2 kg

### Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	2.444 kg
Package 1 Height	11.5 cm
Package 1 width	19 cm
Package 1 Length	39.5 cm

### Offer Sustainability

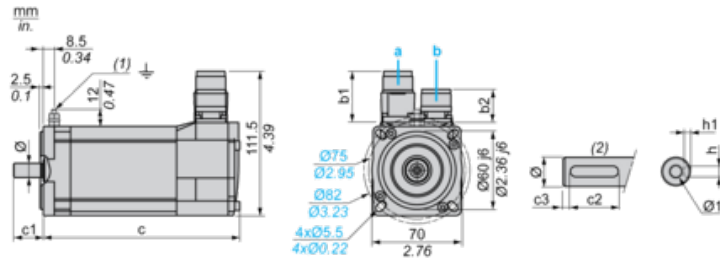
Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
PVC free	Yes

### Contractual warranty

Warranty	18 months
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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	154	180	23	18	2.5	4 N9	2.5 <sup>+0.1</sup> <sub>0</sub>	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	6.06	7.08	0.90	0.70	0.09	0.16 N9	0.01 <sup>+0.004</sup> <sub>0</sub>	0.43 k6	M4 x 0.39

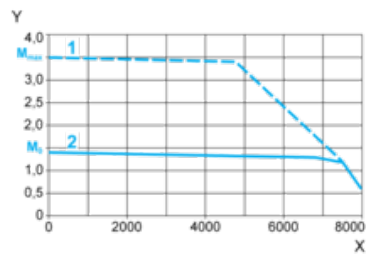
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400 V 3-Phase Supply Voltage

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Torque/Speed Curves

Servo motor with LXM32•D12N4 servo drive



X Speed in rpm

Y Torque in Nm

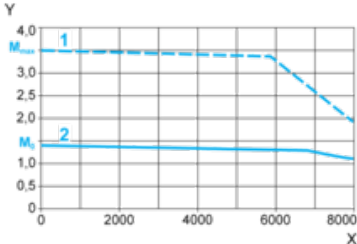
1 Peak torque

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