

# BSH0553P01A2A

servo motor BSH, Lexium 05, 1.3N.m,  
3000rpm, 55mm, untapped shaft, Sincos single  
turn, without brake, 3 phases, IP50





## Main

Product or Component Type	Servo motor
Device short name	B5H
Maximum mechanical speed	9000 rpm
Continuous stall torque	9.29 Lbf.In (1.05 N.m) LXM32.U60N4 1.5 A, 480 V, three phase 9.29 Lbf.In (1.05 N.m) LXM32.U60N4 1.5 A, 400 V, three phase 11.51 Lbf.In (1.3 N.m) LXM05AD10M2, 200...240 V, single phase 11.51 Lbf.In (1.3 N.m) LXM05BD10M2, 200...240 V, single phase 11.51 Lbf.In (1.3 N.m) LXM05CD10M2, 200...240 V, single phase 11.51 Lbf.In (1.3 N.m) LXM05AD10M3X, 200...240 V, three phase 11.51 Lbf.In (1.3 N.m) LXM05BD10M3X, 200...240 V, three phase 11.51 Lbf.In (1.3 N.m) LXM05CD10M3X, 200...240 V, three phase 11.51 Lbf.In (1.3 N.m) LXM15LD13M3, 230 V, single phase 11.51 Lbf.In (1.3 N.m) LXM15LD13M3, 230 V, three phase 11.51 Lbf.In (1.3 N.m) LXM15LD10N4, 400 V, three phase 11.51 Lbf.In (1.3 N.m) LXM05AD14N4, 380...480 V, three phase 11.51 Lbf.In (1.3 N.m) LXM05BD14N4, 380...480 V, three phase 11.51 lbf.in (1.3 N.m) LXM05CD14N4, 380...480 V, three phase
Peak stall torque	30.98 Lbf.In (3.5 N.m) LXM32.U60N4 1.5 A, 480 V, three phase 30.98 Lbf.In (3.5 N.m) LXM32.U60N4 1.5 A, 400 V, three phase 23.90 Lbf.In (2.7 N.m) LXM15LD13M3, 230 V, single phase 28.15 Lbf.In (3.18 N.m) LXM05AD10M2, 200...240 V, single phase 28.15 Lbf.In (3.18 N.m) LXM05BD10M2, 200...240 V, single phase 28.15 Lbf.In (3.18 N.m) LXM05CD10M2, 200...240 V, single phase 23.90 Lbf.In (2.7 N.m) LXM15LD13M3, 230 V, three phase 34.25 Lbf.In (3.87 N.m) LXM15LD10N4, 400 V, three phase 28.15 Lbf.In (3.18 N.m) LXM05AD10M3X, 200...240 V, three phase 34.25 Lbf.In (3.87 N.m) LXM05AD14N4, 380...480 V, three phase 28.15 Lbf.In (3.18 N.m) LXM05BD10M3X, 200...240 V, three phase 34.25 Lbf.In (3.87 N.m) LXM05BD14N4, 380...480 V, three phase 28.15 Lbf.In (3.18 N.m) LXM05CD10M3X, 200...240 V, three phase 34.25 lbf.in (3.87 N.m) LXM05CD14N4, 380...480 V, three phase

Nominal output power	<p>400 W LXM32.U60N4 1.5 A, 400 V, three phase  400 W LXM32.U60N4 1.5 A, 480 V, three phase  340 W LXM15LD13M3, 230 V, three phase  340 W LXM15LD13M3, 230 V, single phase  350 W LXM05AD10M2, 200...240 V, single phase  350 W LXM05BD10M2, 200...240 V, single phase  350 W LXM05CD10M2, 200...240 V, single phase  350 W LXM05AD10M3X, 200...240 V, three phase  350 W LXM05AD14N4, 380...480 V, three phase  350 W LXM05BD10M3X, 200...240 V, three phase  350 W LXM05BD14N4, 380...480 V, three phase  350 W LXM05CD10M3X, 200...240 V, three phase  350 W LXM05CD14N4, 380...480 V, three phase  670 W LXM15LD10N4, 400 V, three phase</p>
Nominal torque	<p>5.75 Lbf.In (0.65 N.m) LXM32.U60N4 1.5 A, 400 V, three phase  5.75 Lbf.In (0.65 N.m) LXM32.U60N4 1.5 A, 480 V, three phase  9.56 Lbf.In (1.08 N.m) LXM15LD13M3, 230 V, single phase  9.74 Lbf.In (1.1 N.m) LXM05AD10M2, 200...240 V, single phase  9.74 Lbf.In (1.1 N.m) LXM05BD10M2, 200...240 V, single phase  9.74 Lbf.In (1.1 N.m) LXM05CD10M2, 200...240 V, single phase  7.08 Lbf.In (0.8 N.m) LXM15LD10N4, 400 V, three phase  9.56 Lbf.In (1.08 N.m) LXM15LD13M3, 230 V, three phase  9.74 Lbf.In (1.1 N.m) LXM05AD10M3X, 200...240 V, three phase  9.74 Lbf.In (1.1 N.m) LXM05AD14N4, 380...480 V, three phase  9.74 Lbf.In (1.1 N.m) LXM05BD10M3X, 200...240 V, three phase  9.74 Lbf.In (1.1 N.m) LXM05BD14N4, 380...480 V, three phase  9.74 Lbf.In (1.1 N.m) LXM05CD10M3X, 200...240 V, three phase  9.74 lbf.in (1.1 N.m) LXM05CD14N4, 380...480 V, three phase</p>
Nominal speed	<p>6000 rpm LXM32.U60N4 1.5 A, 400 V, three phase  6000 rpm LXM32.U60N4 1.5 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, 230 V, single phase  3000 rpm LXM15LD13M3, 230 V, three phase  8000 rpm LXM15LD10N4, 400 V, three phase</p>
Product compatibility	<p>LXM05AD10M2 200...240 V single phase  LXM05BD10M2 200...240 V single phase  LXM05CD10M2 200...240 V single phase  LXM15LD13M3 230 V single phase  LXM32.U60N4 400 V three phase  LXM32.U60N4 480 V three phase  LXM05AD10M3X 200...240 V three phase  LXM05BD10M3X 200...240 V three phase  LXM05CD10M3X 200...240 V three phase  LXM15LD13M3 230 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</p>
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	Rotatable right-angled connectors

## Complementary

Range Compatibility	Lexium 32 Lexium 15 Lexium 05
Supply voltage max	480 V
Phase	Three phase
Continuous stall current	1.7 A
Maximum continuous power	0.97 W
Maximum current Irms	8.7 A LXM15LD13M3 8.7 A LXM15LD10N4 6.5 A LXM05AD10M2 6.5 A LXM05AD10M3X 6.5 A LXM05AD14N4 6.5 A LXM05BD10M2 6.5 A LXM05BD10M3X 6.5 A LXM05BD14N4 6.5 A LXM05CD10M2 6.5 A LXM05CD10M3X 6.5 A LXM05CD14N4 6 A LXM32.U60N4
Maximum permanent current	6.5 A
Switching frequency	8 kHz
Second shaft	Without second shaft end
Shaft diameter	0.35 in (9 mm)
Shaft length	0.79 in (20 mm)
Feedback type	Single turn SinCos Hiperface
Motor flange size	2.17 in (55 mm)
Number of motor stacks	3
Torque constant	0.7 N.m/A 248 °F (120 °C)
Back emf constant	41 V/krpm 248 °F (120 °C)
Number of motor poles	6
Rotor inertia	0.134 kg.cm <sup>2</sup>
Stator resistance	10.4 Ohm 68 °F (20 °C)
Stator inductance	25 mH 68 °F (20 °C)
Stator electrical time constant	2.4 ms 68 °F (20 °C)
Maximum radial force Fr	190 N 8000 rpm 200 N 7000 rpm 210 N 6000 rpm 230 N 5000 rpm 240 N 4000 rpm 270 N 3000 rpm 310 N 2000 rpm 390 N 1000 rpm
Maximum axial force Fa	0.2 x Fr
Type of cooling	Natural convection
Length	6.95 in (176.5 mm)
Centring collar diameter	1.57 in (40 mm)
Centring collar depth	0.08 in (2 mm)
Number of mounting holes	4
Mounting holes diameter	0.22 in (5.5 mm)
Circle diameter of the mounting holes	2.48 in (63 mm)
Net Weight	3.88 lb(US) (1.76 kg)

## Ordering and shipping details

Category	18282-LEXIUM 32 MOTORS
Discount Schedule	PC53
GTIN	3389118159266
Returnability	No
Country of origin	DE

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	7.48 in (19 cm)
Package 1 Width	7.09 in (18 cm)
Package 1 Length	18.90 in (48 cm)
Package 1 Weight	4.93 lb(US) (2.236 kg)
Unit Type of Package 2	S06
Number of Units in Package 2	10
Package 2 Height	28.94 in (73.5 cm)
Package 2 Width	23.62 in (60 cm)
Package 2 Length	31.50 in (80 cm)
Package 2 Weight	78.04 lb(US) (35.4 kg)

## Offer Sustainability

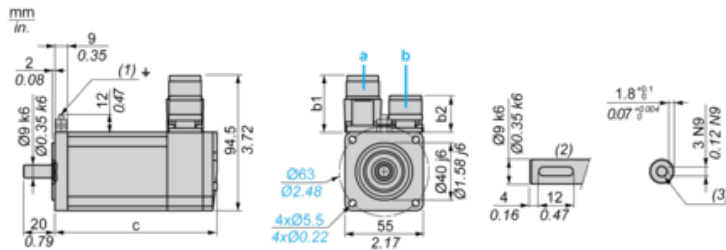
Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS Declaration</a>
RoHS exemption information	<a href="#">Yes</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.
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)
- (3) For screw M3 x 9 mm/M3 x 0.35 in.

Dimensions in mm

Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)
b	b1	b	b1		
39.5	25.5	39.5	39.5	176.5	203

Dimensions in in.

Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)
b	b1	b	b1		
1.55	1.00	1.55	1.55	6.94	7.99

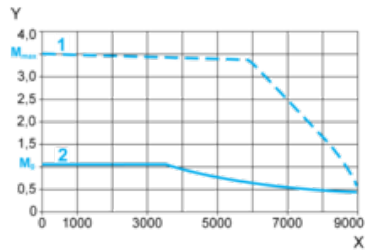
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400 V 3-Phase Supply Voltage

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Torque/Speed Curves

Servo motor with LXM32-U60N4 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque

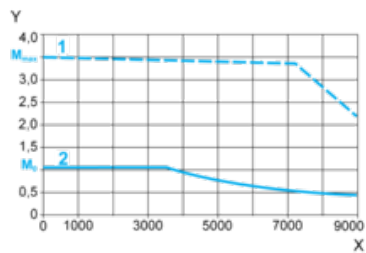
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480 V 3-Phase Supply Voltage

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Torque/Speed Curves

Servo motor with LXM32-U60N4 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque