

# BSH1404P31F1P

servo motor BSH, Lexium 32, 32.1N.m,  
3000rpm, 140mm, keyed shaft, Sincos single  
turn, with brake, IP65, straight





## Main

Product or component type	Servo motor
Device short name	BSH
Maximum mechanical speed	4000 rpm
Continuous stall torque	33.4 N.M for LXM32.D72N4 at 24 A, 400 V, three phase 33.4 N.M for LXM32.D72N4 at 24 A, 480 V, three phase 32.1 N.M for LXM05AD57N4, 380...480 V, three phase 32.1 N.M for LXM05BD57N4, 380...480 V, three phase 32.1 N.m for LXM05CD57N4, 380...480 V, three phase
Peak stall torque	103.6 N.M for LXM32.D72N4 at 24 A, 400 V, three phase 103.6 N.M for LXM32.D72N4 at 24 A, 480 V, three phase 63.09 N.M for LXM05AD57N4, 380...480 V, three phase 63.09 N.M for LXM05BD57N4, 380...480 V, three phase 63.09 N.m for LXM05CD57N4, 380...480 V, three phase
Nominal output power	5000 W for LXM32.D72N4 at 24 A, 400 V, three phase 5000 W for LXM32.D72N4 at 24 A, 480 V, three phase 3400 W for LXM05AD57N4, 380...480 V, three phase 3400 W for LXM05BD57N4, 380...480 V, three phase 3400 W for LXM05CD57N4, 380...480 V, three phase
Nominal torque	19 N.M for LXM32.D72N4 at 24 A, 400 V, three phase 19 N.M for LXM32.D72N4 at 24 A, 480 V, three phase 10.8 N.M for LXM05AD57N4, 380...480 V, three phase 10.8 N.M for LXM05BD57N4, 380...480 V, three phase 10.8 N.m for LXM05CD57N4, 380...480 V, three phase
Nominal speed	2500 rpm for LXM32.D72N4 at 24 A, 400 V, three phase 2500 rpm for LXM32.D72N4 at 24 A, 480 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
Product compatibility	LXM05AD57N4 at 380...480 V three phase LXM05BD57N4 at 380...480 V three phase LXM05CD57N4 at 380...480 V three phase LXM32.D72N4 at 400 V three phase LXM32.D72N4 at 480 V three phase
Shaft end	Keyed
IP degree of protection	IP65 standard IP67 with IP67 kit
Speed feedback resolution	131072 points/turn
Holding brake	With
Mounting support	International standard flange
Electrical connection	Straight connectors

## Complementary

Range compatibility	Lexium 05 Lexium 32
Supply voltage max	480 V
Network number of phases	Three phase
Continuous stall current	21.3 A
Maximum continuous power	4.33 W
Maximum current Irms	72 A for LXM32.D72N4 95.6 A for LXM05AD57N4 95.6 A for LXM05BD57N4 95.6 A for LXM05CD57N4
Maximum permanent current	95.6 A
Switching frequency	8 kHz
Second shaft	Without second shaft end
Shaft diameter	24 mm
Shaft length	50 mm
Key width	40 mm
Feedback type	Single turn SinCos Hiperface
Holding torque	36 N.m holding brake
Motor flange size	140 mm
Number of motor stacks	4
Torque constant	1.57 N.m/A at 120 °C
Back emf constant	104 V/krpm at 120 °C
Number of motor poles	10
Rotor inertia	29.2 kg.cm <sup>2</sup>
Stator resistance	0.28 Ohm at 20 °C
Stator inductance	3.9 mH at 20 °C
Stator electrical time constant	13.93 ms at 20 °C
Maximum radial force Fr	1840 N at 3000 rpm 2110 N at 2000 rpm 2660 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
Brake pull-in power	26 W
Type of cooling	Natural convection
Length	420.5 mm
Centring collar diameter	130 mm
Centring collar depth	3.5 mm
Number of mounting holes	4
Mounting holes diameter	11 mm
Circle diameter of the mounting holes	165 mm
Net weight	27.8 kg

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	27.0 cm
Package 1 Width	27.0 cm
Package 1 Length	60.6 cm
Package 1 Weight	20.6 kg

## Offer Sustainability

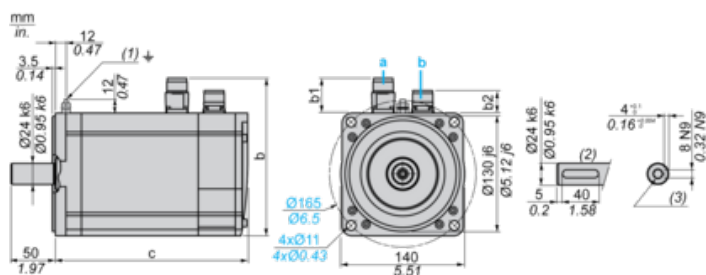
Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS Declaration</a>
RoHS exemption information	<a href="#">Yes</a>
Environmental 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 screws M8 x 19 mm/M8 x 0.75 in.

Dimensions in mm

Straight connectors			Rotatable angled connectors			c (without brake)	c (with brake)
b	b1	b2	b	b1	b2		
192.5	54	25.5	198.5	60	39.5	383	421

Dimensions in in.

Straight connectors			Rotatable angled connectors			c (without brake)	c (with brake)
b	b1	b2	b	b1	b2		
7.57	2.12	1.00	7.81	2.36	1.55	15.07	16.57

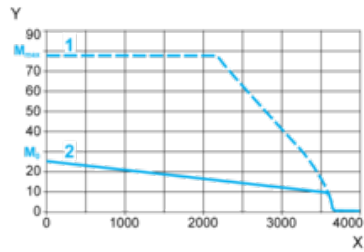
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400 V 3-Phase Supply Voltage

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Torque/Speed Curves

Servo motor with LXM32•D72N4 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque

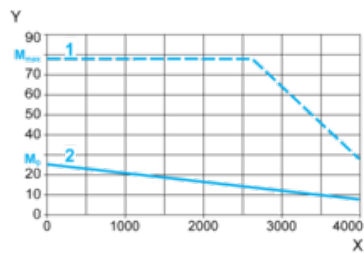
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480 V 3-Phase Supply Voltage

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Torque/Speed Curves

Servo motor with LXM32•D72N4 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque