

Product datasheet

Specifications



AC servo motor BSH - 32.1 N.m - 3000 rpm - keyed shaft - with brake - IP50

BSH1404P12F2P

EAN Code: 3389118361546

Main

Device short name	BSH
Product or component type	Servo motor
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	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 32
supply voltage max	480 V

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

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	Multiturn 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	5.0
Rotor inertia	29.2 kg.cm²
Stator resistance	0.28 Ohm at 20 °C
Stator inductance	2.035 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
Sizing reference	BSH1404P
Network number of phases	3
Accuracy error [angular]	1.4 °
Temperature copper hot	120 °C
Temperature magnet hot	100 °C
Temperature magnet rt	20 °C

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

Contractual warranty

Warranty	18 months
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

Environmental footprint	
Carbon footprint (kg.eq.CO2 per CR, Total Life cycle)	5477
Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
REACH Regulation	REACH Declaration
PVC free	Yes

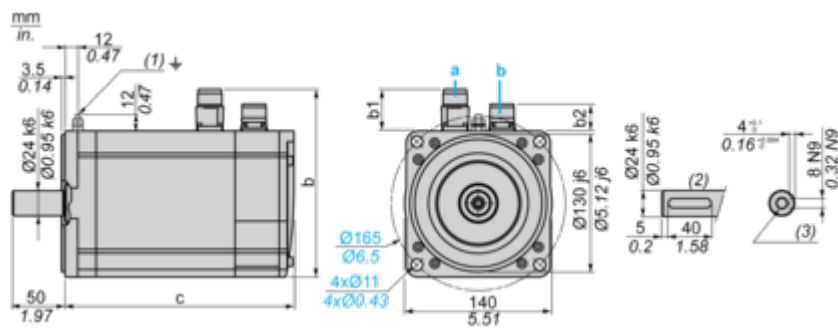
Use Again

Repack and remanufacture	
Circularity Profile	No need of specific recycling operations
Take-back	No
WEEE	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

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)
(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.

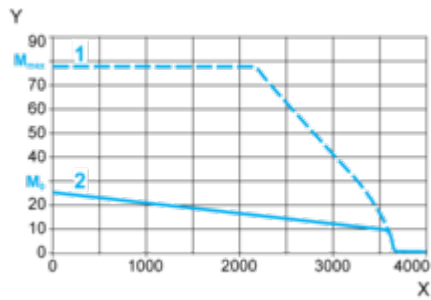
Straight connectors			Rotatable angled connectors			c (without brake)	c (with brake)
b	b1	b2	b	b1	b2		
7.57	2.12	1.00	7.81	2.36	1.55	15.07	16.57

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D72N4 servo drive

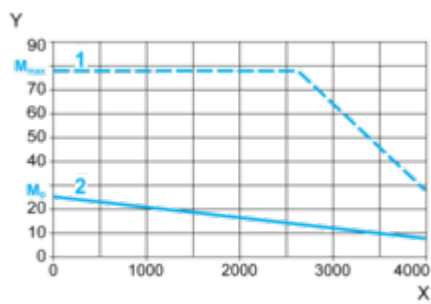


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D72N4 servo drive



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