Product datasheet

Specification





AC servo motor BSH, Lexium 32, 32.1N.m, 3000rpm, keyed shaft, with brake, IP50

BSH1404P12F2P

Main

IVIAIII						
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, 380480 V, three phase 32.1 N.m for LXM05BD57N4, 380480 V, three phase 32.1 N.m for LXM05CD57N4, 380480 V, three phase 32.1 N.m for LXM05CD57N4, 380480 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, 380480 V, three phase 63.09 N.m for LXM05BD57N4, 380480 V, three phase 63.09 N.m for LXM05CD57N4, 380480 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, 380480 V, three phase 3400 W for LXM05BD57N4, 380480 V, three phase 3400 W for LXM05CD57N4, 380480 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, 380480 V, three phase 10.8 N.m for LXM05BD57N4, 380480 V, three phase 10.8 N.m for LXM05					
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, 380480 V, three phase 3000 rpm for LXM05BD57N4, 380480 V, three phase 3000 rpm for LXM05DD57N4, 380480 V, three phase 3000 rpm for LXM05CD57N4, 380480 V, three phase					
Product compatibility	LXM05AD57N4 at 380480 V three phase LXM05BD57N4 at 380480 V three phase LXM05CD57N4 at 380480 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

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	10					
Rotor inertia	29.2 kg.cm²					
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					
Product 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

Contractual warranty

Warranty 18 months



Green PremiumTM **label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ products.

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Guide to assess a product's sustainability >





Transparency RoHS/REACh

Well-being performance

	Mercury Free	
⊘	Rohs Exemption Information	Yes
⊘	Pvc Free	

Certifications & Standards

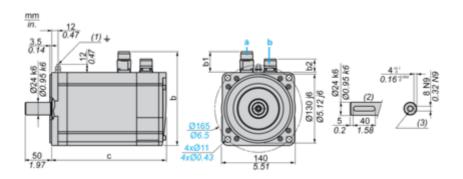
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)				
China Rohs Regulation	China RoHS declaration				
Environmental Disclosure	Product Environmental Profile				
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins				
Circularity Profile	No need of specific recycling operations				

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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

Straigh	traight connectors Rotatable angled connectors		a (itha atha aadaa)	- (i4h h			
b	b1	b2	b	b1	b2	c (without brake)	c (with brake)
192.5	54	25.5	198.5	60	39.5	383	421

Dimensions in in.

Straig	Straight connectors Rotatable angled connectors		a (itha atha a alca)	a (with harles)			
b	b1	b2	b	b1	b2	c (without brake)	c (with brake)
7.57	2.12	1.00	7.81	2.36	1.55	15.07	16.57

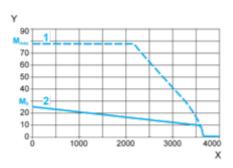
BSH1404P12F2P

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D72N4 servo drive

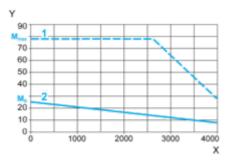


- **X** Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

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