Product datasheet

Specifications





AC servo motor BSH, Lexium 05, 11.1N.m, 1500rpm, keyed shaft, with brake, IP50

BSH1401P11F1A

Discontinued on: 01-Nov-2020

① Discontinued

Main

Device short name	BSH				
Product or component type	Servo motor 4000 rpm				
Maximum mechanical speed					
Continuous stall torque	11.1 N.m for LXM32.D30N4 at 10 A, 400 V, three phase				
	11.1 N.m for LXM32.D30N4 at 10 A, 480 V, three phase				
	11.1 N.m for LXM15MD28N4, 400 V, three phase				
	11.1 N.m for LXM15MD28N4, 480 V, three phase				
	11.1 N.m for LXM15MD28N4, 230 V, three phase				
	11.1 N.m for LXM15MD40N4, 400 V, three phase				
	11.1 N.m for LXM15MD40N4, 480 V, three phase				
	11.1 N.m for LXM15LD28M3, 230 V, three phase				
	11.4 N.m for LXM05AD34N4, 380480 V, three phase				
	11.4 N.m for LXM05BD34N4, 380480 V, three phase				
	11.4 N.m for LXM05CD34N4, 380480 V, three phase				
Peak stall torque	27 N.m for LXM32.D30N4 at 10 A, 400 V, three phase				
	27 N.m for LXM32.D30N4 at 10 A, 480 V, three phase				
	23.33 N.m for LXM15MD28N4, 230 V, three phase				
	23.33 N.m for LXM15MD28N4, 400 V, three phase				
	23.33 N.m for LXM15MD28N4, 480 V, three phase				
	23.33 N.m for LXM15MD40N4, 400 V, three phase				
	23.33 N.m for LXM15MD40N4, 480 V, three phase				
	23.8 N.m for LXM15LD28M3, 230 V, three phase				
	23.33 N.m for LXM05AD34N4, 380480 V, three phase				
	23.33 N.m for LXM05BD34N4, 380480 V, three phase				
	23.33 N.m for LXM05CD34N4, 380480 V, three phase				
Nominal output power	2500 W for LXM32.D30N4 at 10 A, 400 V, three phase				
	3000 W for LXM32.D30N4 at 10 A, 480 V, three phase				
	2000 W for LXM15MD28N4, 400 V, three phase				
	2000 W for LXM15MD40N4, 400 V, three phase				
	2200 W for LXM05AD34N4, 380480 V, three phase				
	2200 W for LXM05BD34N4, 380480 V, three phase				
	2200 W for LXM05CD34N4, 380480 V, three phase				
	1400 W for LXM15LD28M3, 230 V, three phase				
	1400 W for LXM15MD28N4, 230 V, three phase				
	2150 W for LXM15MD28N4, 480 V, three phase				
	2150 W for LXM15MD40N4, 480 V, three phase				
Nominal torque	9.5 N.m for LXM32.D30N4 at 10 A, 400 V, three phase				
	9.5 N.m for LXM32.D30N4 at 10 A, 480 V, three phase				
	6.8 N.m for LXM15MD28N4, 480 V, three phase				
	6.8 N.m for LXM15MD40N4, 480 V, three phase				
	6.9 N.m for LXM05AD34N4, 380480 V, three phase				
	6.9 N.m for LXM05BD34N4, 380480 V, three phase				
	6.9 N.m for LXM05CD34N4, 380480 V, three phase				
	7.63 N.m for LXM15MD28N4, 400 V, three phase				
	7.63 N.m for LXM15MD40N4, 400 V, three phase				
	9.1 N.m for LXM15LD28M3, 230 V, three phase				

Nominal speed	2500 rpm for LXM32.D30N4 at 10 A, 400 V, three phase					
	3000 rpm for LXM32.D30N4 at 10 A, 480 V, three phase					
	3000 rpm for LXM05AD34N4, 380480 V, three phase					
	3000 rpm for LXM05BD34N4, 380480 V, three phase					
	3000 rpm for LXM05CD34N4, 380480 V, three phase					
	1500 rpm for LXM15MD28N4, 230 V, three phase					
	1500 rpm for LXM15LD28M3, 230 V, three phase					
	2500 rpm for LXM15MD28N4, 400 V, three phase					
	2500 rpm for LXM15MD40N4, 400 V, three phase					
	3000 rpm for LXM15MD28N4, 480 V, three phase					
	3000 rpm for LXM15MD40N4, 480 V, three phase					
Product compatibility	LXM15LD28M3 at 230 V three phase					
	LXM05AD34N4 at 380480 V three phase					
	LXM05BD34N4 at 380480 V three phase					
	LXM05CD34N4 at 380480 V three phase					
	LXM15MD28N4 at 400 V three phase					
	LXM15MD28N4 at 480 V three phase					
	LXM15MD40N4 at 400 V three phase					
	LXM15MD40N4 at 480 V three phase					
	LXM15MD28N4 at 230 V three phase					
Shaft end	Keyed					
IP degree of protection	IP50 standard					
Speed feedback resolution	131072 points/turn					
Holding brake	With					
mounting support	International standard flange					
Electrical connection	Straight connectors					

Complementary

complementary				
Range compatibility	Lexium 15			
	Lexium 32			
	Lexium 05			
supply voltage max	480 V			
Network number of phases	Three phase			
Continuous stall current	7.8 A			
maximum continuous power	3.6 W			
Maximum current Irms	20.8 A for LXM15LD28M3			
	20.8 A for LXM15MD28N4			
	20.8 A for LXM15MD40N4			
	20.8 A for LXM05AD34N4			
	20.8 A for LXM05BD34N4			
	20.8 A for LXM05CD34N4			
	20.8 A for LXM32.D30N4			
Maximum permanent current	20.8 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	23 N.m holding brake			
Motor flange size	140 mm			
Number of motor stacks	1			
Torque constant	1.43 N.m/A at 120 °C			
Back emf constant	100 V/krpm at 120 °C			

Number of motor poles	10			
Rotor inertia	9.21 kg.cm ²			
Stator resistance	1.41 Ohm at 20 °C			
Stator inductance	15.6 mH at 20 °C			
Stator electrical time constant	11.06 ms at 20 °C			
Maximum radial force Fr	1530 N at 3000 rpm 1760 N at 2000 rpm 2210 N at 1000 rpm			
Maximum axial force Fa	0.2 x Fr			
Brake pull-in power	24 W			
Type of cooling	Natural convection			
Length	255.5 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	13 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	48.2 cm		
Package 1 Weight	9.79 kg		

Contractual warranty

Warranty

18 months

Sustainability Screen Premium

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.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >



Transparency RoHS/REACh

Well-being performance



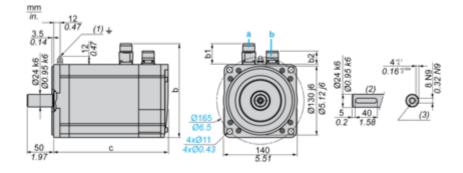
Certifications & Standards

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			

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

Straig	Straight connectors		Rotatable angled connectors				e (with heales)
b	b1	b2	b	b1	b2	c (without brake)	c (with brake)
178	39.5	25.5	178	39.5	39.5	218	256

Dimensions in in.

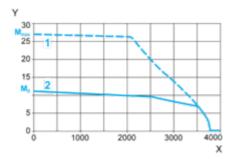
Straight connectors			Rotatable angled connectors				a (with healta)
b	b1	b2	b	b1	b2	c (without brake)	c (with brake)
7.00	1.55	1.00	7.00	1.55	1.55	8.58	10.07

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D30N4 servo drive



 \boldsymbol{X} Speed in rpm

Y Torque in Nm

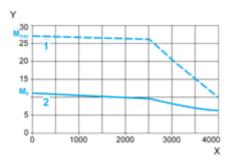
1 Peak torque

2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D30N4 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque