Product datasheet Characteristics

BSH1401P31A1A

AC servo motor BSH - 11.1 N.m - 1500 rpm - keyed shaft - without brake - IP65





Main

IVICIII					
Product or component type	Servo motor				
Device short name	BSH				
Maximum mechanical speed	4000 rpm				
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				
Peak stall torque	11.4 N.m for LXM05CD34N4, 380480 V, three phase 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 23.33 N.m for LXM15MD40N4, 480 V, three phase 23.33 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 LXM05BD34N4, 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 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 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				

Nominal speed	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 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 9.1 N.m for LXM15MD28N4, 230 V, three phase 9.1 N.m 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 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 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 LXM15MD40N4 at 480 V three phase LXM15MD40N4 at 480 V three phase LXM15MD28N4 at 230 V three phase
Shaft end	Keyed
IP degree of protection IP65 standard IP67 with IP67 kit	
Speed feedback resolution	131072 points/turn
Holding brake	Without
Mounting support	International standard flange
Electrical connection	Straight connectors
Complementary	
Range compatibility	Lexium 32 Lexium 05 Lexium 15
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

Back emf constant	100 V/krpm at 120 °C		
Number of motor poles	10		
Rotor inertia	7.41 kg.cm²		
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		
Type of cooling	Natural convection		
Length	217.5 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	11.9 kg		

Offer Sustainability

Sustainable offer status	Green Premium product			
REACh Regulation	REACh Declaration			
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration			
Mercury free	Yes			
RoHS exemption information	Yes			
China RoHS Regulation	China RoHS declaration			
Environmental Disclosure Product Environmental Profile				
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			

Contractual warranty

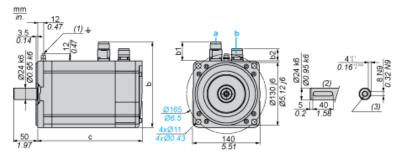
Warranty	18 month	ths

Product datasheet **Dimensions Drawings**

BSH1401P31A1A

Servo Motors Dimensions

Example with Straight Connectors



- Power supply for servo motor brake a:
- b: Power supply for servo motor encoder
- M4 screw
- (1) (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		
	178	39.5	25.5	178	39.5	39.5	218	256

Dimensions in in.

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

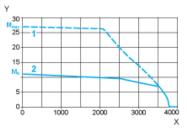
Product datasheet Performance Curves

BSH1401P31A1A

400 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

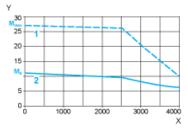
Product datasheet Performance Curves

BSH1401P31A1A

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