# BSH1403T21F1P

AC servo motor BSH, Lexium 32, 27.8N.m, 3000rpm, untapped shaft, with brake, IP65





#### Main

Product or component type	Servo motor			
Device short name	BSH			
Maximum mechanical speed	4800 rpm			
Continuous stall torque	27.8 N.M for LXM32.D72N4 at 24 A, 400 V, three phase 27.8 N.m for LXM32.D72N4 at 24 A, 480 V, three phase			
Peak stall torque	90.2 N.M for LXM32.D72N4 at 24 A, 400 V, three phase 90.2 N.m for LXM32.D72N4 at 24 A, 480 V, three phase			
Nominal output power	4100 W for LXM32.D72N4 at 24 A, 400 V, three phase 4100 W for LXM32.D72N4 at 24 A, 480 V, three phase			
Nominal torque	12.9 N.M for LXM32.D72N4 at 24 A, 400 V, three phase 12.9 N.m for LXM32.D72N4 at 24 A, 480 V, three phase			
Nominal speed	3000 rpm for LXM32.D72N4 at 24 A, 400 V, three phase 3000 rpm for LXM32.D72N4 at 24 A, 480 V, three phase			
Product compatibility	LXM32.D72N4 at 400 V three phase LXM32.D72N4 at 480 V three phase			
Shaft end	Untapped			
IP degree of protection	IP65 standard IP67 with IP67 kit			
Speed feedback resolution	131072 points/turn			
Holding brake	With			
Mounting support	International standard			
Electrical connection	Straight connectors			

#### Complementary

- Comprehensive				
Range compatibility	Lexium 32			
Supply voltage max	480 V			
Network number of phases	Three phase			
Continuous stall current	22.3 A			
Maximum continuous power	3.3 W			
Maximum current Irms	72 A for LXM32.D72N4			
Maximum permanent current	81.3 A			
Switching frequency	8 kHz			
Second shaft	Without second shaft end			
Shaft diameter	24 mm			
Shaft length	50 mm			
Feedback type	Single turn SinCos Hiperface			
Holding torque	36 N.m holding brake			
Motor flange size	140 mm			
Number of motor stacks	3			

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein.

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.

It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

Torque constant	1.58 N.m/A at 120 °C			
Back emf constant	105 V/krpm at 120 °C			
Number of motor poles	10			
Rotor inertia	14.48 kg.cm²			
Stator resistance	0.4 Ohm at 20 °C			
Stator inductance	5.1 mH at 20 °C			
Stator electrical time constant	12.75 ms at 20 °C			
Maximum radial force Fr	1780 N at 3000 rpm 2030 N at 2000 rpm 2560 N at 1000 rpm			
Maximum axial force Fa	0.2 x Fr			
Brake pull-in power	26 W			
Type of cooling	Natural convection			
Length	365.5 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	23 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	13.29 kg	

## Offer Sustainability

Sustainable offer status	Green Premium product				
REACh Regulation	<sup>™</sup> REACh Declaration				
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)				
Mercury free	Yes				
China RoHS Regulation	☐ China RoHS Declaration				
RoHS exemption information	€Yes				
Environmental Disclosure					
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

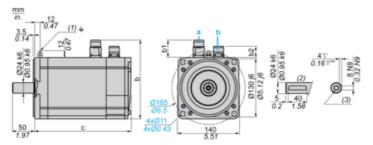
Warranty	18 months
vvarianty	10 111011113

# Product data sheet Dimensions Drawings

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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 con	nectors		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	328	366

#### Dimensions in in.

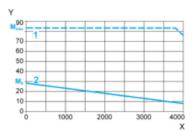
Straight con	nectors		Rotatable angled connectors		c (without brake)	c (with brake)	
b	b1	b2	b	b1	b2		
7.57	2.12	1.00	7.81	2.36	1.55	12.91	14.40

# BSH1403T21F1P

#### 400 V 3-Phase Supply Voltage

#### Torque/Speed Curves

Servo motor with LXM32•D72N4 servo drive



X Speed in rpm

Y Torque in Nm

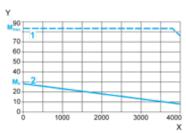
1 Peak torque

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