



# AC servo motor BSH, Lexium 05, 2.83N.m, 6000rpm, untapped shaft, with brake, IP65

BSH0703T21F1A

! Discontinued on: 9 Feb 2023

① Discontinued

#### Main

Device short name	BSH						
Product or component type	Servo motor						
Maximum mechanical speed	8000 rpm						
Continuous stall torque	2.8 N.m for LXM05AD28M2, 200240 V, single phase 2.8 N.m for LXM05BD28M2, 200240 V, single phase 2.8 N.m for LXM05CD28M2, 200240 V, single phase 2.6 N.m for LXM32.D18M2 at 6 A, 230 V, single phase						
	2.83 N.m for LXM15LD28M3, 230 V, three phase 2.8 N.m for LXM05AD28F1, 110120 V, single phase						
	2.8 N.m for LXM05AD42M3X, 200240 V, three phase 2.8 N.m for LXM05BD28F1, 110120 V, single phase						
	2.8 N.m for LXM05BD42M3X, 200240 V, three phase 2.8 N.m for LXM05CD28F1, 110120 V, single phase 2.8 N.m for LXM05CD42M3X, 200240 V, three phase						
Peak stall torque	7.38 N.m for LXM05AD28F1, 110120 V, single phase 7.38 N.m for LXM05AD28M2, 200240 V, single phase						
	7.36 N.m for LXM05BD28F1, 110120 V, single phase 7.38 N.m for LXM05BD28M2, 200240 V, single phase 7.38 N.m for LXM05BD28M2, 200240 V, single phase						
	7.38 N.m for LXM05CD28F1, 110120 V, single phase						
	7.38 N.m for LXM05CD28M2, 200240 V, single phase 7.4 N.m for LXM32.D18M2 at 6 A, 230 V, single phase						
	7.38 N.m for LXM15LD28M3, 230 V, three phase 10.25 N.m for LXM05AD42M3X, 200240 V, three phase						
	10.25 N.m for LXM05BD42M3X, 200240 V, three phase 10.25 N.m for LXM05CD42M3X, 200240 V, three phase						
Nominal output power	750 W for LXM05AD28M2, 200240 V, single phase						
	750 W for LXM05BD28M2, 200240 V, single phase 750 W for LXM05CD28M2, 200240 V, single phase						
	750 W for LXM05AD28F1, 110120 V, single phase						
	750 W for LXM05BD28F1, 110120 V, single phase						
	750 W for LXM05CD28F1, 110120 V, single phase 900 W for LXM32.D18M2 at 6 A, 230 V, single phase						
	1250 W for LXM15LD28M3, 230 V, three phase						
	750 W for LXM05AD42M3X, 200240 V, three phase						
	750 W for LXM05BD42M3X, 200240 V, three phase						
	750 W for LXM05CD42M3X, 200240 V, three phase						
Nominal torque	2.4 N.m for LXM05AD28M2, 200240 V, single phase						
	2.4 N.m for LXM05BD28M2, 200240 V, single phase 2.4 N.m for LXM05CD28M2, 200240 V, single phase						
	2.4 N.m for LXM05CD26M2, 200240 V, single phase 2.4 N.m for LXM05AD28F1, 110120 V, single phase						
	2.4 N.m for LXM05BD28F1, 110120 V, single phase						
	2.4 N.m for LXM05CD28F1, 110120 V, single phase						
	2.1 N.m for LXM32.D18M2 at 6 A, 230 V, single phase						
	2 N.m for LXM15LD28M3, 230 V, three phase						
	2.4 N.m for LXM05AD42M3X, 200240 V, three phase						
	2.4 N.m for LXM05BD42M3X, 200240 V, three phase						
	2.4 N.m for LXM05CD42M3X, 200240 V, three phase						
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Nominal speed	3000 rpm for LXM05AD28M2, 200240 V, single phase							
	3000 rpm for LXM05BD28M2, 200240 V, single phase							
	3000 rpm for LXM05CD28M2, 200240 V, single phase							
	3000 rpm for LXM05AD42M3X, 200240 V, three phase 3000 rpm for LXM05BD42M3X, 200240 V, three phase							
	3000 rpm for LXM05CD42M3X, 200240 V, three phase							
	3000 rpm for LXM05AD28F1, 110120 V, single phase							
	3000 rpm for LXM05BD28F1, 110120 V, single phase							
	3000 rpm for LXM05CD28F1, 110120 V, single phase							
	4000 rpm for LXM32.D18M2 at 6 A, 230 V, single phase 6000 rpm for LXM15LD28M3, 230 V, three phase							
Product compatibility	LXM05AD28F1 at 110120 V single phase							
, ,	LXM05AD28M2 at 200240 V single phase							
	LXM05BD28F1 at 110120 V single phase							
	LXM05BD28M2 at 200240 V single phase							
	LXM05CD28F1 at 110120 V single phase LXM05CD28M2 at 200240 V single phase							
	LXM32.D18M2 at 230 V single phase							
	LXM05AD42M3X at 200240 V three phase							
	LXM05BD42M3X at 200240 V three phase							
	LXM05CD42M3X at 200240 V three phase LXM15LD28M3 at 230 V three phase							
Chaff and	·							
Shaft end	Untapped							
IP degree of protection	IP65 standard IP67 with IP67 kit							
	ii or withii or kit							
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 05 Lexium 32							
	<u> </u>							
supply voltage max	480 V							
Network number of phases	Three phase							
Continuous stall current	7 A							
maximum continuous power	1.7 W							
Maximum current Irms	18 A for LXM32.D18M2							
	30.9 A for LXM15LD28M3							
	29.2 A for LXM05AD28F1 29.2 A for LXM05AD28M2							
	29.2 A for LXM05AD26M2 29.2 A for LXM05AD42M3X							
	29.2 A for LXM05BD28F1							
	29.2 A for LXM05BD28M2							
	29.2 A for LXM05BD42M3X 29.2 A for LXM05CD28F1							
	29.2 A for LXM05CD28F1 29.2 A for LXM05CD28M2							
	29.2 A for LXM05CD42M3X							
Maximum permanent current	29.2 A							
Switching frequency	8 kHz							
Second shaft	Without second shaft end							
Shaft diameter	14 mm							
Shaft length	30 mm							
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Feedback type	Single turn SinCos Hiperface							
Feedback type Holding torque								
	Single turn SinCos Hiperface							

Number of motor stacks	3
Torque constant	0.44 N.m/A at 120 °C
Back emf constant	29 V/krpm at 120 °C
Number of motor poles	6
Rotor inertia	0.81 kg.cm <sup>2</sup>
Stator resistance	0.91 Ohm at 20 °C
Stator inductance	4.4 mH at 20 °C
Stator electrical time constant	4.84 ms at 20 °C
Maximum radial force Fr	400 N at 6000 rpm 430 N at 5000 rpm 460 N at 4000 rpm 510 N at 3000 rpm 580 N at 2000 rpm 730 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
Brake pull-in power	12 W
Type of cooling	Natural convection
Length	254 mm
Centring collar diameter	60 mm
Centring collar depth	2.5 mm
Number of mounting holes	4
Mounting holes diameter	5.5 mm
Circle diameter of the mounting holes	82 mm
Net weight	3.8 kg

# **Packing Units**

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	12.3 cm
Package 1 Width	12.8 cm
Package 1 Length	37.7 cm
Package 1 Weight	4.05 kg

# **Contractual warranty**

Warranty 18 months

# Sustainability Screen Premium\*

**Green Premium**<sup>TM</sup> **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-CO<sub>2</sub> products.

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

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Guide to assess a product's sustainability >





Transparency RoHS/REACh

## Well-being performance



Mercury Free



Rohs Exemption Information

Yes

#### **Certifications & Standards**

Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)					
China Rohs Regulation	China RoHS declaration					
<b>Environmental Disclosure</b>	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					

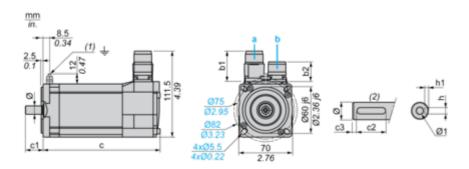
4 Sept 2024

## BSH0703T21F1A

#### **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)

#### Dimensions in mm

Straight connectors		Rotatable angled connectors		c (without	c (with	c1	c2	сЗ	h	h1	Ø	Ø1 for
b1	b2	b1	b2	brake)	brake)							screws
39.5	25.5	39.5	39.5	220	254	30	20	5	5 N9	3 <sup>+0.1</sup> 0	14 k6	M5 x 12.5

#### Dimensions in in.

_	Straight connectors Rotatable angled connectors			(without :	c (with brake)	C1	c2	с3	h	h1	Ø	Ø1 for screws
b1	b2	b1	b2	Diake)								
1.55	1.00	1.55	1.55	8.66	10.00	1.18	0.78	0.19	0.20 N9	0.12 <sup>+0.004</sup> 0	0.55 k6	M5 x 0.49

## **Product datasheet**

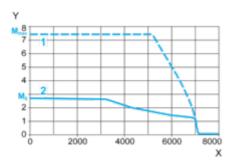
## BSH0703T21F1A

Performance Curves

#### 230 V Single-Phase Supply Voltage

#### **Torque/Speed Curves**

Servo motor with LXM32•D18M2 servo drive



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