



# AC servo motor BSH - 0.7 N.m - 8000 rpm - keyed shaft - without brake - IP50

BSH0701T11A2A

#### Main

Device short name	BSH
Product or component type	Servo motor
Maximum mechanical speed	8000 rpm
Continuous stall torque	1.3 N.m for LXM32.U90M2 at 3 A, 230 V, single phase 1.4 N.m for LXM05AD10M3X, 200240 V, three phase 1.4 N.m for LXM05BD10M3X, 200240 V, three phase 1.4 N.m for LXM05BD10M3X, 200240 V, three phase 1.4 N.m for LXM05CD10M3X, 200240 V, three phase 1.4 N.m for LXM05AD10F1, 110120 V, single phase 1.4 N.m for LXM05AD17M2, 200240 V, single phase 1.4 N.m for LXM05BD10F1, 110120 V, single phase 1.4 N.m for LXM05BD10F1, 110120 V, single phase 1.4 N.m for LXM05BD17M2, 200240 V, single phase 1.4 N.m for LXM05CD10F1, 110120 V, single phase 1.4 N.m for LXM05CD10F1, 110120 V, single phase 1.4 N.m for LXM05CD17M2, 200240 V, single phase 1.7 N.m for LXM32.D18M2 at 6 A, 115 V, single phase 1.9 N.m for LXM15LU60N4, 400 V, three phase 1.9 N.m for LXM15LU60N4, 480 V, three phase 1.1 N.m for LXM15LU60N4, 230 V, three phase 1.2 N.m for LXM15LD10N4, 230 V, three phase 1.3 N.m for LXM15LD10N4, 480 V, three phase 1.4 N.m for LXM15LD10N4, 480 V, three phase 1.5 N.m for LXM15LD10N4, 230 V, three phase 1.6 N.m for LXM15LD13M3, 230 V, three phase 1.7 N.m for LXM15LD13M3, 230 V, three phase 1.8 N.m for LXM05BD17M3X, 200240 V, three phase 1.9 N.m for LXM05CD17M3X, 200240 V, three phase

#### Peak stall torque

11 Sept 2024

3.5 N.m for LXM32.U90M2 at 3 A, 230 V, single phase 3.19 N.m for LXM15LD13M3, 230 V, single phase 2.42 N.m for LXM05AD10F1, 110...120 V, single phase 3.19 N.m for LXM05AD17M2, 200...240 V, single phase 2.42 N.m for LXM05BD10F1, 110...120 V, single phase 3.19 N.m for LXM05BD17M2, 200...240 V, single phase 2.42 N.m for LXM05CD10F1, 110...120 V, single phase 3.19 N.m for LXM05CD17M2, 200...240 V, single phase 3.5 N.m for LXM32.D18M2 at 6 A, 115 V, single phase 1.9 N.m for LXM15LU60N4, 400 V, three phase 1.9 N.m for LXM15LU60N4, 480 V, three phase 1.9 N.m for LXM15LU60N4, 230 V, three phase 2.91 N.m for LXM15LD10N4, 230 V, three phase 2.91 N.m for LXM15LD10N4, 400 V, three phase 2.91 N.m for LXM15LD10N4, 480 V, three phase  $3.19\ \text{N.m}$  for LXM15LD13M3, 230 V, three phase 3.19 N.m for LXM15LD21M3, 230 V, three phase 2.42 N.m for LXM05AD10M3X, 200...240 V, three phase 3.19 N.m for LXM05AD17M3X, 200...240 V, three phase 2.42 N.m for LXM05BD10M3X, 200...240 V, three phase 3.19 N.m for LXM05BD17M3X, 200...240 V, three phase 2.42 N.m for LXM05CD10M3X, 200...240 V, three phase 3.19 N.m for LXM05CD17M3X, 200...240 V, three phase

#### Nominal output power

500 W for LXM32.U90M2 at 3 A, 230 V, single phase 350 W for LXM32.D18M2 at 6 A, 115 V, single phase 400 W for LXM05AD10M3X, 200...240 V, three phase 400 W for LXM05BD10M3X, 200...240 V, three phase 400 W for LXM05CD10M3X, 200...240 V, three phase 380 W for LXM05AD10F1, 110...120 V, single phase 380 W for LXM05BD10F1, 110...120 V, single phase 380 W for LXM05CD10F1, 110...120 V, single phase 400 W for LXM05AD17M2, 200...240 V, single phase 400 W for LXM05BD17M2, 200...240 V, single phase 400 W for LXM05CD17M2, 200...240 V, single phase 654 W for LXM15LD13M3, 230 V, single phase 1000 W for LXM15LD10N4, 400 V, three phase 1000 W for LXM15LD10N4, 480 V, three phase 400 W for LXM05AD17M3X, 200...240 V, three phase 400 W for LXM05BD17M3X, 200...240 V, three phase 400 W for LXM05CD17M3X 200 240 V three phase 440 W for LXM15LU60N4, 230 V, three phase 564 W for LXM15LD10N4, 230 V, three phase 586 W for LXM15LU60N4, 400 V, three phase 586 W for LXM15LU60N4, 480 V, three phase 654 W for LXM15LD13M3, 230 V, three phase 654 W for LXM15LD21M3, 230 V, three phase

#### Nominal torque

0.94 N.m for LXM32.U90M2 at 3 A, 230 V, single phase 1.25 N.m for LXM15LD13M3, 230 V, single phase 1.36 N.m for LXM32.D18M2 at 6 A, 115 V, single phase 0.7 N.m for LXM15LU60N4, 230 V, three phase 0.7 N.m for LXM15LU60N4, 400 V, three phase 0.7 N.m for LXM15LU60N4, 480 V, three phase 1.23 N.m for LXM15LD10N4, 400 V, three phase 1.23 N.m for LXM15LD10N4, 400 V, three phase 1.25 N.m for LXM15LD10N4, 230 V, three phase 1.25 N.m for LXM15LD10N4, 230 V, three phase 1.25 N.m for LXM15LD13M3, 230 V, three phase 1.25 N.m for LXM15LD21M3, 230 V, three phase 1.25 N.m for LXM15LD21M3, 230 V, three phase

#### Nominal speed

5000 rpm for LXM32.U90M2 at 3 A, 230 V, single phase 3000 rpm for LXM05AD10F1, 110...120 V, single phase 3000 rpm for LXM05BD10F1, 110...120 V, single phase 3000 rpm for LXM05CD10F1, 110...120 V, single phase 3000 rpm for LXM05AD10M3X, 200...240 V, three phase 3000 rpm for LXM05BD10M3X, 200...240 V, three phase 3000 rpm for LXM05CD10M3X, 200...240 V, three phase 8000 rpm for LXM15LD10N4, 400 V, three phase  $\stackrel{\cdot}{\text{3000}}$  rpm for LXM05AD17M2, 200...240 V, single phase 3000 rpm for LXM05BD17M2, 200...240 V, single phase 3000 rpm for LXM05CD17M2, 200...240 V, single phase 3000 rpm for LXM05AD17M3X, 200...240 V, three phase 3000 rpm for LXM05BD17M3X, 200...240 V, three phase 3000 rpm for LXM05CD17M3X, 200...240 V, three phase 5000 rpm for LXM15LD13M3, 230 V, single phase 2500 rpm for LXM32.D18M2 at 6 A, 115 V, single phase 5000 rpm for LXM15LD10N4, 230 V, three phase 5000 rpm for LXM15LD13M3, 230 V, three phase 5000 rpm for LXM15LD21M3, 230 V, three phase 6000 rpm for LXM15LU60N4, 230 V, three phase 8000 rpm for LXM15LD10N4, 480 V, three phase 8000 rpm for LXM15LU60N4, 400 V, three phase 8000 rpm for LXM15LU60N4, 480 V, three phase

Product compatibility	LXM05AD10F1 at 110120 V single phase
	LXM05AD17M2 at 200240 V single phase
	LXM05BD10F1 at 110120 V single phase
	LXM05BD17M2 at 200240 V single phase
	LXM05CD10F1 at 110120 V single phase
	LXM05CD17M2 at 200240 V single phase
	LXM15LD13M3 at 230 V single phase LXM32.U90M2 at 230 V single phase
	LXM32.D18M2 at 115 V single phase
	LXM15LU60N4 at 230 V three phase
	LXM05AD10M3X at 200240 V three phase
	LXM05BD10M3X at 200240 V three phase
	LXM05CD10M3X at 200240 V three phase
	LXM15LD13M3 at 230 V three phase
	LXM15LU60N4 at 400 V three phase
	LXM15LU60N4 at 480 V three phase
	LXM15LD10N4 at 400 V three phase LXM05AD17M3X at 200240 V three phase
	LXM05BD17M3X at 200240 V three phase
	LXM05CD17M3X at 200240 V three phase
	LXM15LD10N4 at 230 V three phase
	LXM15LD10N4 at 480 V three phase
	LXM15LD21M3 at 230 V three phase
Shaft end	Keyed
IP degree of protection	IP50 standard
Speed feedback resolution	131072 points/turn
Holding brake	Without
mounting support	International standard flange
Electrical connection	Rotatable right-angled connectors
Oammiam antom.	
Complementary	
Range compatibility	Lexium 05
	Lexium 32
	Lexium 15
supply voltage max	480 V
Network number of phases	Three phase
Continuous stall current	3.2 A
maximum continuous power	1.06 W
Maximum current Irms	10 A for LXM32.D18M2
	9 A for LXM32.U90M2
	9.9 A for LXM15LD13M3
	9.9 A for LXM15LD21M3
	9.9 A for LXM15LU60N4
	9.9 A for LXM15LD10N4
Maximum permanent current	10.1 A
Switching frequency	8 kHz

Number of motor poles	6
Rotor inertia	0.25 kg.cm²
Stator resistance	3.3 Ohm at 20 °C
Stator inductance	12.3 mH at 20 °C
Stator electrical time constant	3.73 ms at 20 °C
Maximum radial force Fr	360 N at 6000 rpm 380 N at 5000 rpm 410 N at 4000 rpm 460 N at 3000 rpm 520 N at 2000 rpm 660 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
Type of cooling	Natural convection
Length	154 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	2.2 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	2.1 kg
Unit Type of Package 2	P06
Number of Units in Package 2	6
Package 2 Height	77.0 cm
Package 2 Width	80.0 cm
Package 2 Length	60.0 cm
Package 2 Weight	24.406 kg

# **Contractual warranty**

Warranty 18 months



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**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



#### **Certifications & Standards**

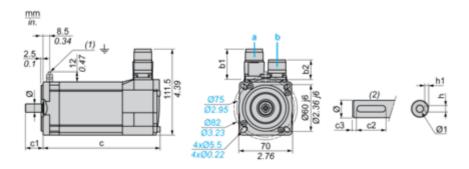
Circularity Profile	No need of specific recycling operations
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Environmental Disclosure	Product Environmental Profile
China Rohs Regulation	China RoHS declaration
Eu Rohs Directive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

## BSH0701T11A2A

#### **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 brake)	c (with	c1	c2	c3	h	h1	Ø	Ø1 for
b1	b2	b1	b2	brake)	brake)							screws
39.5	25.5	39.5	39.5	154	180	23	18	2.5	4 N9	2.5 <sup>+0.1</sup> <sub>0</sub>	11 k6	M4 x 10

#### Dimensions in in.

Straigh		Rotatal angled connec		c (without brake)	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	6.06	7.08	0.90	0.70	0.09	0.16 N9	0.01 <sup>+0.004</sup> 0	0.43 k6	M4 x 0.39

## **Product datasheet**

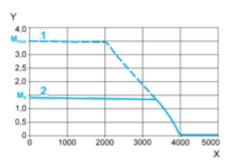
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#### Performance Curves

### 115 V Single-Phase Supply Voltage

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

Servo motor with LXM32•D18M2 servo drive

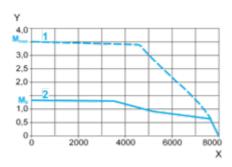


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

#### 230 V Single-Phase Supply Voltage

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

Servo motor with LXM32•U90M2 servo drive



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