# **Product datasheet**

Specification





servo motor BSH, Lexium 05, 5.5N.m, 4000rpm, 100mm, keyed shaft, Sincos single turn, without brake, IP50

BSH1002T11A2A

#### Main

Mani	
Device short name	BSH
Product or component type	Servo motor
Maximum mechanical speed	6000 rpm
Continuous stall torque	5.8 N.m for LXM32.D30M2 at 10 A, 230 V, single phase 5.5 N.m for LXM15LD28M3, 230 V, three phase
	5.5 N.m for LXM05AD42M3X, 200240 V, three phase
	5.5 N.m for LXM05BD42M3X, 200240 V, three phase
	5.5 N.m for LXM05CD42M3X, 200240 V, three phase
Peak stall torque	16.4 N.m for LXM32.D30M2 at 10 A, 230 V, single phase
	11.59 N.m for LXM15LD28M3, 230 V, three phase
	16 N.m for LXM05AD42M3X, 200240 V, three phase
	16 N.m for LXM05BD42M3X, 200240 V, three phase
	16 N.m for LXM05CD42M3X, 200240 V, three phase
Nominal output power	1500 W for LXM32.D30M2 at 10 A, 230 V, single phase
	1400 W for LXM05AD42M3X, 200240 V, three phase
	1400 W for LXM05BD42M3X, 200240 V, three phase
	1400 W for LXM05CD42M3X, 200240 V, three phase
	1700 W for LXM15LD28M3, 230 V, three phase
Nominal torque	3.7 N.m for LXM32.D30M2 at 10 A, 230 V, single phase
	4 N.m for LXM15LD28M3, 230 V, three phase
	4.4 N.m for LXM05AD42M3X, 200240 V, three phase
	4.4 N.m for LXM05BD42M3X, 200240 V, three phase
	4.4 N.m for LXM05CD42M3X, 200240 V, three phase
Nominal speed	4000 rpm for LXM32.D30M2 at 10 A, 230 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
	4000 rpm for LXM15LD28M3, 230 V, three phase
Product compatibility	LXM32.D30M2 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
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

## Complementary

Range compatibility	Lexium 05	
	Lexium 32	
	Lexium 15	

-	
supply voltage max	480 V
Network number of phases	Three phase
Continuous stall current	9.9 A
maximum continuous power	2.51 W
Maximum current Irms	31.2 A for LXM15LD28M3 35.4 A for LXM05AD42M3X 35.4 A for LXM05BD42M3X 35.4 A for LXM05CD42M3X 30 A for LXM32.D30M2
Maximum permanent current	35.4 A
Switching frequency	8 kHz
Second shaft	Without second shaft end
Shaft diameter	19 mm
Shaft length	40 mm
Key width	30 mm
Feedback type	Single turn SinCos Hiperface
Motor flange size	100 mm
Number of motor stacks	2
Torque constant	0.59 N.m/A at 120 °C
Back emf constant	37 V/krpm at 120 °C
Number of motor poles	8
Rotor inertia	2.31 kg.cm²
Stator resistance	0.56 Ohm at 20 °C
Stator inductance	3 mH at 20 °C
Stator electrical time constant	5.36 ms at 20 °C
Maximum radial force Fr	620 N at 4000 rpm 690 N at 3000 rpm 790 N at 2000 rpm 990 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
Type of cooling	Natural convection
Length	204.5 mm
Centring collar diameter	95 mm
Centring collar depth	3.5 mm
Number of mounting holes	4
Mounting holes diameter	9 mm
Circle diameter of the mounting holes	115 mm
Net weight	5.9 kg

## **Packing Units**

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	15.4 cm
Package 1 Width	16.3 cm

Package 1 Length	40.7 cm	
Package 1 Weight	5.8 kg	

## **Contractual warranty**

Warranty 18 months



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Transparency RoHS/REACh

#### Well-being performance

	Mercury Free	
<b>②</b>	Rohs Exemption Information	Yes
	Pvc Free	

#### **Certifications & Standards**

Reach Regulation	REACh Declaration
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

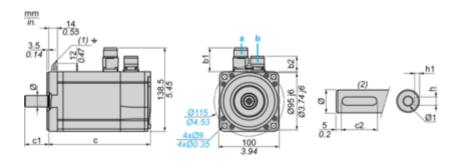
11 Sept 2024

### BSH1002T11A2A

#### **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 brake)	c1	c2	h	h1	Ø	Ø1 for screws
b1	b2	b1	b2	, brancy	braito,						00.0110
39.5	25.5	39.5	39.5	205	236	40	30	6 N9	3.5 <sup>+0.1</sup> <sub>0</sub>	19 k6	M6 x 16

Dimensions in in.

Straight connectors		Rotatable angled connectors		,	c (with	c1	c2	h	h1	Ø	Ø1 for
b1	b2	b1	b2	brake)	brake)						screws
1.55	1.00	1.55	1.55	8.07	9.29	1.57	1.18	0.24 N9	0.14 <sup>+0.1</sup> 0	0.75 k6	M6 x 0.63

## **Product datasheet**

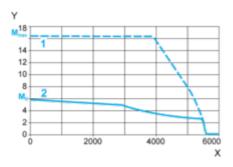
### BSH1002T11A2A

#### Performance Curves

#### 230 V Single-Phase Supply Voltage

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

Servo motor with LXM32•D30M2 servo drive



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