Product datasheet

Specifications





AC servo motor BSH, Lexium 05, 0.7N.m, 8000rpm, keyed shaft, without brake, IP50

BSH0701T11A1A

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 LXM05CD10M3X, 200240 V, three phase						
	1.4 N.m for LXM15LD13M3, 230 V, single 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 LXM05BD17M2, 200240 V, single phase						
	1.4 N.m for LXM05CD10F1, 110120 V, single phase						
	1.4 N.m for LXM05CD17M2, 200240 V, single phase						
	1.4 N.m for LXM32.D18M2 at 6 A, 115 V, single phase						
	0.7 N.m for LXM15LU60N4, 400 V, three phase						
	0.7 N.m for LXM15LU60N4, 480 V, three phase						
	0.91 N.m for LXM15LU60N4, 230 V, three phase						
	1.4 N.m for LXM15LD10N4, 230 V, three phase						
	1.4 N.m for LXM15LD10N4, 400 V, three phase						
	1.4 N.m for LXM15LD10N4, 480 V, three phase						
	1.4 N.m for LXM15LD13M3, 230 V, three phase						
	1.4 N.m for LXM15LD21M3, 230 V, three phase						
	1.4 N.m for LXM05AD17M3X, 200240 V, three phase						
	1.4 N.m for LXM05BD17M3X, 200240 V, three phase 1.4 N.m for LXM05CD17M3X, 200240 V, three phase						
Peak stall torque	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, 110120 V, single phase						
	3.19 N.m for LXM05AD17M2, 200240 V, single phase						
	2.42 N.m for LXM05BD10F1, 110120 V, single phase						
	3.19 N.m for LXM05BD17M2, 200240 V, single phase						
	2.42 N.m for LXM05CD10F1, 110120 V, single phase						
	3.19 N.m for LXM05CD17M2, 200240 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 N.m for LXM15LD13M3, 230 V, three phase						
	3.19 N.m for LXM15LD21M3, 230 V, three phase						
	2.42 N.m for LXM05AD10M3X, 200240 V, three phase						
	3.19 N.m for LXM05AD17M3X, 200240 V, three phase						
	2.42 N.m for LXM05BD10M3X, 200240 V, three phase						
	3.19 N.m for LXM05BD17M3X, 200240 V, three phase						
	2.42 N.m for LXM05CD10M3X, 200240 V, three phase						
	3.19 N.m for LXM05CD17M3X, 200240 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, 200240 V, three phase
	400 W for LXM05BD10M3X, 200240 V, three phase
	400 W for LXM05CD10M3X, 200240 V, three phase
	380 W for LXM05AD10F1, 110120 V, single phase
	380 W for LXM05BD10F1, 110120 V, single phase
	380 W for LXM05CD10F1, 110120 V, single phase
	400 W for LXM05AD17M2, 200240 V, single phase
	400 W for LXM05BD17M2, 200240 V, single phase
	400 W for LXM05CD17M2, 200240 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, 200240 V, three phase
	400 W for LXM05BD17M3X, 200240 V, three phase
	400 W for LXM05CD17M3X, 200240 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, 480 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
Nominal speed	5000 rpm for LXM32.U90M2 at 3 A, 230 V, single phase
	3000 rpm for LXM05AD10F1, 110120 V, single phase 3000 rpm for LXM05BD10F1, 110120 V, single phase
	3000 rpm for LXM05CD10F1, 110120 V, single phase
	3000 rpm for LXM05AD10M3X, 200240 V, three phase
	3000 rpm for LXM05BD10M3X, 200240 V, three phase
	3000 rpm for LXM05CD10M3X, 200240 V, three phase
	8000 rpm for LXM15LD10N4, 400 V, three phase
	3000 rpm for LXM05AD17M2, 200240 V, single phase
	3000 rpm for LXM05BD17M2, 200240 V, single phase
	3000 rpm for LXM05CD17M2, 200240 V, single phase
	3000 rpm for LXM05AD17M3X, 200240 V, three phase
	3000 rpm for LXM05BD17M3X, 200240 V, three phase
	3000 rpm for LXM05CD17M3X, 200240 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

Burnels and a survey of the life s	
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
	LXM05AD10M3X at 200240 V three phase
	LXM05DD10M3X at 200240 V three phase
	LXM050D 1000X at 200240 V three phase
	LXM15LD60N4 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

Straight connectors

Electrical connection

Complementary

Range compatibility	Lexium 05						
	Lexium 32						
	Lexium 15						
	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						
Second shaft	Without second shaft end						
Shaft diameter	11 mm						
Shaft length	23 mm						
Key width	18 mm						
Feedback type	Single turn SinCos Hiperface						
Motor flange size	70 mm						
Number of motor stacks	1						
Torque constant	0.44 N.m/A at 120 °C						
Back emf constant	26 V/krpm at 120 °C						

Number of motor poles	6
Rotor inertia	0.25 kg.cm ²
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

Contractual warranty

Warranty

18 months

Sustainability Screen Premium

Green PremiumTM 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-CO₂ products.

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

Learn more about Green Premium >

Guide to assess a product's sustainability >



Transparency RoHS/REACh

Well-being performance

Mercury Free
Rohs Exemption Information Yes
Pvc Free

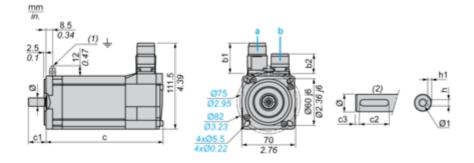
Certifications & Standards

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

Dimensions Drawings

Servo Motors Dimensions

Example with Straight Connectors



a: Power supply for servo motor brakeb: Power supply for servo motor encoder

(1) M4 screw

(2) Shaft end, keyed slot (optional)

Dimensions in mm

Straight Rotatable angled connectors connectors		c (without c (with brake) brake)		c1	c2	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 ^{+0.1} 0	11 k6	M4 x 10

Dimensions in in.

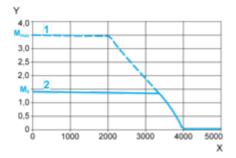
connec	Straight connectors		tors	c (without brake)	c (with brake)	c1	c2	c3	h	h1	ø	Ø1 for screws
b1	b2	b1	b2									
1.55	1.00	1.55	1.55	6.06	7.08	0.90	0.70	0.09	0.16 N9	0.01 ^{+0.004} 0	0.43 k6	M4 x 0.39

Performance Curves

115 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D18M2 servo drive



 \boldsymbol{X} Speed in rpm

Y Torque in Nm

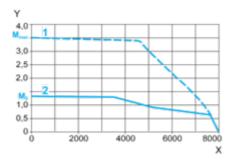
1 Peak torque

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