Product datasheet

Specifications



① Discontinued

AC servo motor BSH - 2.2 N.m -3000 rpm - keyed shaft - with brake - IP50

BSH0702P11F1A

() Discontinued on: 9 Feb 2023

EAN Code: 3389118136281

Main

Device short name	BSH							
Product or component type	Servo motor							
Maximum mechanical speed	8000 rpm							
Continuous stall torque	2.2 N.m for LXM32.D12N4 at 3 A, 400 V, three phase							
	2.2 N.m for LXM32.D12N4 at 3 A, 480 V, three phase							
	2.12 N.m for LXM05AD10M2, 200240 V, single phase							
	2.12 N.m for LXM05AD10M3X, 200240 V, three phase							
	2.12 N.m for LXM05BD10M2, 200240 V, single phase							
	2.12 N.m for LXM05BD10M3X, 200240 V, three phase							
	2.12 N.m for LXM05CD10M2, 200240 V, single phase							
	2.12 N.m for LXM05CD10M3X, 200240 V, three phase							
	2.2 N.m for LXM15LD13M3, 230 V, single phase							
	2.12 N.m for LXM05AD17M2, 200240 V, single phase							
	2.12 N.m for LXM05BD17M2, 200240 V, single phase							
	2.12 N.m for LXM05CD17M2, 200240 V, single phase							
	2.2 N.m for LXM15LD10N4, 480 V, three phase							
	2.12 N.m for LXM05AD17M3X, 200240 V, three phase							
	2.12 N.m for LXM05AD14N4, 380480 V, three phase							
	2.12 N.m for LXM05BD17M3X, 200240 V, three phase							
	2.12 N.m for LXM05BD14N4, 380480 V, three phase							
	2.12 N.m for LXM05CD17M3X, 200240 V, three phase							
	2.12 N.m for LXM05CD14N4, 380480 V, three phase							
	2.2 N.m for LXM15LD10N4, 230 V, three phase							
	2.2 N.m for LXM15LD10N4, 400 V, three phase							
Peak stall torque	7.6 N.m for LXM32.D12N4 at 3 A, 400 V, three phase							
	7.6 N.m for LXM32.D12N4 at 3 A, 480 V, three phase							
	5.63 N.m for LXM15LD13M3, 230 V, single phase							
	4.57 N.m for LXM05AD10M2, 200240 V, single phase							
	5.63 N.m for LXM05AD17M2, 200240 V, single phase							
	4.57 N.m for LXM05BD10M2, 200240 V, single phase							
	5.63 N.m for LXM05BD17M2, 200240 V, single phase							
	4.57 N.m for LXM05CD10M2, 200240 V, single phase							
	5.63 N.m for LXM05CD17M2, 200240 V, single phase							
	4.85 N.m for LXM15LD10N4, 230 V, three phase							
	4.85 N.m for LXM15LD10N4, 400 V, three phase							
	4.85 N.m for LXM15LD10N4, 480 V, three phase							
	4.57 N.m for LXM05AD10M3X, 200240 V, three phase							
	5.63 N.m for LXM05AD17M3X, 200240 V, three phase							
	5.63 N.m for LXM05AD14N4, 380480 V, three phase							
	4.57 N.m for LXM05BD10M3X, 200240 V, three phase							
	5.63 N.m for LXM05BD17M3X, 200240 V, three phase							
	5.63 N.m for LXM05BD14N4, 380480 V, three phase							
	4.57 N.m for LXM05CD10M3X, 200240 V, three phase							
	5.63 N.m for LXM05CD17M3X, 200240 V, three phase							

Nominal output power	850 W for LXM32.D12N4 at 3 A, 400 V, three phase
	850 W for LXM32.D12N4 at 3 A, 480 V, three phase
	1000 W for LXM15LD10N4, 400 V, three phase
	597 W for LXM15LD13M3, 230 V, single phase
	600 W for LXM05AD10M2, 200240 V, single phase
	600 W for LXM05AD17M2, 200240 V, single phase
	600 W for LXM05BD10M2, 200240 V, single phase
	600 W for LXM05BD17M2, 200240 V, single phase
	600 W for LXM05CD10M2, 200240 V, single phase
	600 W for LXM05CD17M2, 200240 V, single phase
	1300 W for LXM15LD10N4, 480 V, three phase
	597 W for LXM15LD10N4, 230 V, three phase
	600 W for LXM05AD10M3X, 200240 V, three phase
	600 W for LXM05AD14N4, 380480 V, three phase 600 W for LXM05AD17M3X, 200240 V, three phase
	600 W for LXM05BD10M3X, 200240 V, three phase
	600 W for LXM05BD14N4, 380480 V, three phase
	600 W for LXM05BD17M3X, 200240 V, three phase
	600 W for LXM05CD10M3X, 200240 V, three phase
	600 W for LXM05CD14N4, 380480 V, three phase
	600 W for LXM05CD17M3X, 200240 V, three phase
Nominal torque	1.64 N.m for LXM32.D12N4 at 3 A, 400 V, three phase
	1.64 N.m for LXM32.D12N4 at 3 A, 480 V, three phase
	1.9 N.m for LXM05AD10M2, 200240 V, single phase
	1.9 N.m for LXM05AD17M2, 200240 V, single phase
	1.9 N.m for LXM05BD10M2, 200240 V, single phase
	1.9 N.m for LXM05BD17M2, 200240 V, single phase
	1.9 N.m for LXM05CD10M2, 200240 V, single phase
	1.9 N.m for LXM05CD17M2, 200240 V, single phase
	1.9 N.m for LXM15LD13M3, 230 V, single phase
	1.55 N.m for LXM15LD10N4, 480 V, three phase
	1.65 N.m for LXM15LD10N4, 400 V, three phase
	1.9 N.m for LXM05AD10M3X, 200240 V, three phase
	1.9 N.m for LXM05AD14N4, 380480 V, three phase
	1.9 N.m for LXM05AD17M3X, 200240 V, three phase
	1.9 N.m for LXM05BD10M3X, 200240 V, three phase
	1.9 N.m for LXM05BD14N4, 380480 V, three phase 1.9 N.m for LXM05BD17M3X, 200240 V, three phase
	1.9 N.m for LXM05CD10M3X, 200240 V, three phase
	1.9 N.m for LXM05CD14N4, 380480 V, three phase
	1.9 N.m for LXM05CD17M3X, 200240 V, three phase
	1.9 N.m for LXM15LD10N4, 230 V, three phase
Nominal speed	5000 rpm for LXM32.D12N4 at 3 A, 400 V, three phase
	5000 rpm for LXM32.D12N4 at 3 A, 480 V, three phase
	3000 rpm for LXM05AD10M2, 200240 V, single phase
	3000 rpm for LXM05BD10M2, 200240 V, single phase
	3000 rpm for LXM05CD10M2, 200240 V, single phase
	3000 rpm for LXM05AD10M3X, 200240 V, three phase
	3000 rpm for LXM05AD14N4, 380480 V, three phase
	3000 rpm for LXM05BD10M3X, 200240 V, three phase
	3000 rpm for LXM05BD14N4, 380480 V, three phase
	3000 rpm for LXM05CD10M3X, 200240 V, three phase
	3000 rpm for LXM05CD14N4, 380480 V, three phase
	3000 rpm for LXM15LD13M3, 230 V, single 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
	8000 rpm for LXM15LD10N4, 480 V, three phase
	3000 rpm for LXM15LD10N4, 230 V, three phase
	6000 rpm for LXM15LD10N4, 400 V, three phase

Product compatibility	LXM05AD10M2 at 200240 V single phase LXM05BD10M2 at 200240 V single phase LXM05BD10M2 at 200240 V single phase LXM05D17M2 at 200240 V single phase LXM05CD10M2 at 200240 V single phase LXM05CD17M2 at 200240 V single phase LXM05CD10M3X at 200240 V three phase LXM05BD10M3X at 200240 V three phase LXM05DD10M3X at 200240 V three phase LXM05DD10M3X at 200240 V three phase LXM05DD14N4 at 380480 V three phase LXM05DD14N4 at 380240 V three phase LXM05DD17M3X at 200240 V three phase
Shaft end	Keyed
IP degree of protection	IP50 standard
Speed feedback resolution	131072 points/turn
Holding brake	With
mounting support	International standard flange
Electrical connection	Straight connectors

Complementary

Range compatibility	Lexium 15
hange compatibility	Lexium 05
	Lexium 32
	Lexiuiii 32
supply voltage max	480 V
Network number of phases	Three phase
Continuous stall current	2.9 A
maximum continuous power	1.51 W
Maximum current Irms	11.8 A for LXM15LD13M3
	11.8 A for LXM15LD10N4
	11.8 A for LXM05AD10M2
	11.8 A for LXM05AD17M2
	11.8 A for LXM05AD10M3X
	11.8 A for LXM05AD17M3X
	11.8 A for LXM05AD14N4
	11.8 A for LXM05BD10M2
	11.8 A for LXM05BD17M2
	11.8 A for LXM05BD10M3X
	11.8 A for LXM05BD17M3X
	11.8 A for LXM05BD14N4
	11.8 A for LXM05CD10M2
	11.8 A for LXM05CD17M2
	11.8 A for LXM05CD10M3X
	11.8 A for LXM05CD17M3X
	11.8 A for LXM05CD14N4
	11.8 A for LXM32.D12N4
Maximum permanent current	11.8 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						
Holding torque	2 N.m holding brake						
Motor flange size	70 mm						
Number of motor stacks	2						
Torque constant	0.77 N.m/A at 120 °C						
Back emf constant	48 V/krpm at 120 °C						
Number of motor poles	6						
Rotor inertia	0.482 kg.cm ²						
Stator resistance	4.2 Ohm at 20 °C						
Stator inductance	19 mH at 20 °C						
Stator electrical time constant	4.52 ms at 20 °C						
Maximum radial force Fr	390 N at 6000 rpm 410 N at 5000 rpm 450 N at 4000 rpm 490 N at 3000 rpm 560 N at 2000 rpm 710 N at 1000 rpm						
Maximum axial force Fa	0.2 x Fr						
Brake pull-in power	10 W						
Type of cooling	Natural convection						
Length	212.5 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 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	3.25 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



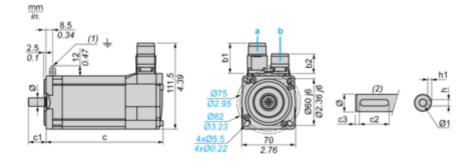
Certifications & Standards

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		c (without	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	187	213	23	18	2.5	4 N9	2.5 ^{+0.1} 0	11 k6	M4 x 10

Dimensions in in.

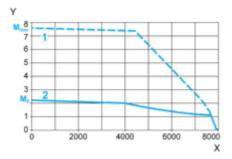
Straigh	ctors	Rotatat angled connec	tors	c (without brake)	c (with brake)	c1	c2	c3	h	h1	ø	Ø1 for screws
b1	b2	b1	b2	,								
1.55	1.00	1.55	1.55	7.36	8.38	0.90	0.70	0.09	0.16 N9	0.01 ^{+0.004} 0	0.43 k6	M4 x 0.39

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D12N4 servo drive



 \boldsymbol{X} Speed in rpm

Y Torque in Nm

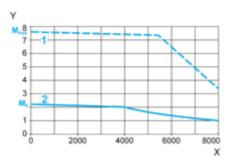
1 Peak torque

2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D12N4 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque