## Product datasheet Characteristics

# BSH1402P21A2A

AC servo motor BSH - 14.9 Nm - 4000 rpm - untapped shaft - without brake - IP50





#### Main

Product or component type	Servo motor		
Maximum mechanical speed	4000 rpm		
Continuous stall torque	19.5 N.m for LXM15MD40N4, 400 V, three phase		
	19.5 N.m for LXM15MD40N4, 480 V, three phase		
	14.9 N.m for LXM15LD28M3, 230 V, three phase		
	14.9 N.m for LXM15MD28N4, 230 V, three phase		
	14.9 N.m for LXM15MD28N4, 400 V, three phase		
	14.9 N.m for LXM15MD28N4, 480 V, three phase		
	19.5 N.m for LXM15MD56N4, 230 V, three phase		
	19.5 N.m for LXM15MD56N4, 400 V, three phase		
	19.5 N.m for LXM15MD56N4, 480 V, three phase		
	19.2 N.m for LXM05AD42M3X, 200240 V, three phase		
	19.2 N.m for LXM05AD57N4, 380480 V, three phase		
	19.2 N.m for LXM05BD42M3X, 200240 V, three phase		
	19.2 N.m for LXM05BD57N4, 380480 V, three phase		
	19.2 N.m for LXM05CD42M3X, 200240 V, three phase		
	19.2 N.m for LXM05CD57N4, 380480 V, three phase		
Peak stall torque	28.71 N.m for LXM15LD28M3, 230 V, three phase		
	28.71 N.m for LXM15MD28N4, 230 V, three phase		
	28.71 N.m for LXM15MD28N4, 400 V, three phase		
	28.71 N.m for LXM15MD28N4, 480 V, three phase		
	39.3 N.m for LXM15MD40N4, 230 V, three phase		
	39.3 N.m for LXM15MD40N4, 400 V, three phase		
	39.3 N.m for LXM15MD40N4, 480 V, three phase		
	47.5 N.m for LXM15MD56N4, 230 V, three phase		
	47.5 N.m for LXM15MD56N4, 400 V, three phase		
	47.5 N.m for LXM15MD56N4, 480 V, three phase		
	41.94 N.m for LXM05AD42M3X, 200240 V, three phase		
	47.5 N.m for LXM05AD57N4, 380480 V, three phase		
	41.94 N.m for LXM05BD42M3X, 200240 V, three phase		
	47.5 N.m for LXM05BD57N4, 380480 V, three phase		
	41.94 N.m for LXM05CD42M3X, 200240 V, three phase		
	47.5 N.m for LXM05CD57N4, 380480 V, three phase		
Nominal output power	2350 W for LXM05AD42M3X, 200240 V, three phase		
	2350 W for LXM05BD42M3X, 200240 V, three phase		
	2350 W for LXM05CD42M3X, 200240 V, three phase		
	2350 W for LXM15LD28M3, 230 V, three phase		
	2350 W for LXM15MD28N4, 230 V, three phase		

	2350 W for LXM15MD40N4, 230 V, three phase 2350 W for LXM15MD56N4, 230 V, three phase 3350 W for LXM15MD28N4, 480 V, three phase 3350 W for LXM15MD40N4, 480 V, three phase 3400 W for LXM05AD57N4, 380480 V, three phase 3400 W for LXM05BD57N4, 380480 V, three phase 3400 W for LXM05CD57N4, 380480 V, three phase 3400 W for LXM05CD57N4, 380480 V, three phase 3400 W for LXM15MD28N4, 400 V, three phase 3400 W for LXM15MD40N4, 400 V, three phase 3400 W for LXM15MD56N4, 400 V, three phase 3400 W for LXM15MD56N4, 480 V, three phase	
Nominal torque	8 N.m for LXM15MD40N4, 480 V, three phase 10.8 N.m for LXM05AD57N4, 380480 V, three phase 10.8 N.m for LXM05BD57N4, 380480 V, three phase 10.8 N.m for LXM05CD57N4, 380480 V, three phase 10.8 N.m for LXM15MD28N4, 400 V, three phase 10.8 N.m for LXM15MD40N4, 400 V, three phase 10.8 N.m for LXM15MD56N4, 400 V, three phase 10.8 N.m for LXM15MD56N4, 480 V, three phase 15 N.m for LXM05AD42M3X, 200240 V, three phase 15 N.m for LXM05BD42M3X, 200240 V, three phase 15 N.m for LXM05CD42M3X, 200240 V, three phase 15 N.m for LXM15LD28M3, 230 V, three phase 15 N.m for LXM15MD28N4, 230 V, three phase 15 N.m for LXM15MD28N4, 230 V, three phase 15 N.m for LXM15MD40N4, 230 V, three phase 15 N.m for LXM15MD40N4, 230 V, three phase 8 N.m for LXM15MD28N4, 480 V, three phase	
Nominal speed	1500 rpm for LXM05AD42M3X, 200240 V, three phase 1500 rpm for LXM05BD42M3X, 200240 V, three phase 1500 rpm for LXM05CD42M3X, 200240 V, three phase 1500 rpm for LXM15MD28N4, 230 V, three phase 1500 rpm for LXM15MD40N4, 230 V, three phase 3000 rpm for LXM05AD57N4, 380480 V, three phase 3000 rpm for LXM05BD57N4, 380480 V, three phase 3000 rpm for LXM05CD57N4, 380480 V, three phase 3000 rpm for LXM15MD28N4, 400 V, three phase 3000 rpm for LXM15MD28N4, 400 V, three phase 4000 rpm for LXM15MD28N4, 480 V, three phase 1500 rpm for LXM15D28N3, 230 V, three phase 1500 rpm for LXM15MD56N4, 230 V, three phase 3000 rpm for LXM15MD56N4, 480 V, three phase 3000 rpm for LXM15MD56N4, 480 V, three phase 3000 rpm for LXM15MD56N4, 480 V, three phase	
Product compatibility	LXM05AD42M3X at 200240 V three phase LXM05BD42M3X at 200240 V three phase LXM05CD42M3X at 200240 V three phase LXM15LD28M3 at 230 V three phase LXM15MD28N4 at 400 V three phase LXM15MD28N4 at 480 V three phase LXM15MD40N4 at 480 V three phase LXM15MD40N4 at 480 V three phase LXM15MD40N4 at 480 V three phase LXM05AD57N4 at 380480 V three phase LXM05BD57N4 at 380480 V three phase LXM05CD57N4 at 380480 V three phase LXM15MD28N4 at 230 V three phase LXM15MD28N4 at 230 V three phase LXM15MD40N4 at 230 V three phase LXM15MD56N4 at 230 V three phase LXM15MD56N4 at 400 V three phase LXM15MD56N4 at 480 V three phase LXM15MD56N4 at 480 V three phase	
Shaft end	Untapped	
IP degree of protection	IP65 standard IP67 with IP67 kit	
Speed feedback resolution	131072 points/turn	
Holding brake	Without	
Mounting support	International standard flange	
Electrical connection	Straight connectors	
Complementary		
Range compatibility	Lexium 15 Lexium 05	

Supply voltage max	480 V	
Network number of phases	Three phase	
Continuous stall current	13.2 A	
Maximum continuous power	4.2 W	
Maximum permanent current	44.1 A	
Second shaft	Without second shaft end	
Shaft diameter	24 mm	
Shaft length	50 mm	
Feedback type	Single turn SinCos Hiperface	
Motor flange size	140 mm	
Number of motor stacks	2	
Torque constant	1.47 N.m/A at 120 °C	
Back emf constant	101 V/krpm at 120 °C	
Number of motor poles	10	
Rotor inertia	12.68 kg.cm²	
Stator resistance	0.6 Ohm at 20 °C	
Stator inductance	7.4 mH at 20 °C	
	7.71 mH at 20 °C	
Stator electrical time constant	12.33 ms at 20 °C 12.85 ms at 20 °C	
Maximum radial force Fr	1680 N at 3000 rpm 1930 N at 2000 rpm	
	2430 N at 1000 rpm	
Maximum axial force Fa	0.2 x Fr	
Type of cooling	Natural convection	
Length	272.5 mm	
Centring collar diameter	130 mm	
Centring collar depth	3.5 mm	
Number of mounting holes	4	
Mounting holes diameter	11 mm	
Circle diameter of the mounting holes	165 mm	
Product weight	16.6 kg	

## Offer Sustainability

Sustainable offer status	Green Premium product	
REACh Regulation	REACh Declaration	
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration	
Mercury free	Yes	
RoHS exemption information	Yes	
China RoHS Regulation	China RoHS declaration	
Environmental Disclosure	Product Environmental Profile	
Circularity Profile	No need of specific recycling operations	
WEEE	The product must be disposed on European Union markets following specific waste collection never end up in rubbish bins	

## Contractual warranty

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Warranty	18 months	