## Product datasheet Characteristics

## BSH1402P21F1A

AC servo motor BSH - 14.9 N.m - 1500 rpm - untapped shaft - with brake - IP50



Product or component type	Servo motor	
Device short name	BSH	
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 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 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 LXM15MD56N4, 230 V, three phase 3000 rpm for LXM15MD56N4, 230 V, three phase 3000 rpm for LXM15MD56N4, 400 V, three phase 3000 rpm for LXM15MD56N4, 400 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 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	With
Mounting support	International standard flange
Electrical connection	Straight connectors
Complementary	
Range compatibility	Lexium 15
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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 VV
Maximum current Irms	44.1 A for LXM15LD28M3 44.1 A for LXM15MD28N4 44.1 A for LXM15MD40N4 44.1 A for LXM15MD56N4 44.1 A for LXM05AD42M3X 44.1 A for LXM05AD57N4 44.1 A for LXM05BD42M3X 44.1 A for LXM05BD57N4 44.1 A for LXM05CD42M3X 44.1 A for LXM05CD42M3X 44.1 A for LXM05CD42M3X
Maximum permanent current	44.1 A
Switching frequency	4 kHz
Second shaft	Without second shaft end
Shaft diameter	24 mm
Shaft length	50 mm
Feedback type	Single turn SinCos Hiperface
Holding torque	23 N.m holding brake
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	14.48 kg.cm²
Stator resistance	0.6 Ohm at 20 °C
Stator inductance	7.4 mH at 20 °C
Stator electrical time constant	12.33 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
Brake pull-in power	24 W
Type of cooling	Natural convection
Length	310.5 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	17.7 kg

4.2 W

## Contractual warranty

Maximum continuous power

Warranty	18 months	