

# BSH1402P12F2A

AC servo motor BSH - 19.2 Nm - 4000 rpm -  
key shaft - with brake - IP50

## Main

Product or component type	AC servo motors
Component name	BSH
Continuous stall torque	14.9 N.m for LXM15LD28M3 at 230 V 3 phases 14.9 N.m for LXM15MD28N4 at 230 V 3 phases 14.9 N.m for LXM15MD28N4 at 400 V 3 phases 14.9 N.m for LXM15MD28N4 at 480 V 3 phases 19.2 N.m for LXM05AD42M3X at 200...240 V 3 phases 19.2 N.m for LXM05AD57N4 at 380...480 V 3 phases 19.2 N.m for LXM05BD42M3X at 200...240 V 3 phases 19.2 N.m for LXM05BD57N4 at 380...480 V 3 phases 19.2 N.m for LXM05CD42M3X at 200...240 V 3 phases 19.2 N.m for LXM05CD57N4 at 380...480 V 3 phases 19.5 N.m for LXM15MD40N4 at 230 V 3 phases 19.5 N.m for LXM15MD40N4 at 400 V 3 phases 19.5 N.m for LXM15MD40N4 at 480 V 3 phases 19.5 N.m for LXM15MD56N4 at 230 V 3 phases 19.5 N.m for LXM15MD56N4 at 400 V 3 phases 19.5 N.m for LXM15MD56N4 at 480 V 3 phases
Peak stall torque	28.71 N.m for LXM15LD28M3 at 230 V 3 phases 28.71 N.m for LXM15MD28N4 at 230 V 3 phases 28.71 N.m for LXM15MD28N4 at 400 V 3 phases 28.71 N.m for LXM15MD28N4 at 480 V 3 phases 39.3 N.m for LXM15MD40N4 at 230 V 3 phases 39.3 N.m for LXM15MD40N4 at 400 V 3 phases 39.3 N.m for LXM15MD40N4 at 480 V 3 phases 41.94 N.m for LXM05AD42M3X at 200...240 V 3 phases 41.94 N.m for LXM05BD42M3X at 200...240 V 3 phases 41.94 N.m for LXM05CD42M3X at 200...240 V 3 phases 47.5 N.m for LXM15MD56N4 at 230 V 3 phases 47.5 N.m for LXM15MD56N4 at 400 V 3 phases 47.5 N.m for LXM15MD56N4 at 480 V 3 phases 47.5 N.m for LXM05AD57N4 at 380...480 V 3 phases 47.5 N.m for LXM05BD57N4 at 380...480 V 3 phases 47.5 N.m for LXM05CD57N4 at 380...480 V 3 phases
Nominal output power	2350 W for LXM15LD28M3 at 230 V 3 phases 2350 W for LXM15MD28N4 at 230 V 3 phases 2350 W for LXM15MD40N4 at 230 V 3 phases 2350 W for LXM15MD56N4 at 230 V 3 phases 2350 W for LXM05AD42M3X at 200...240 V 3 phases 2350 W for LXM05BD42M3X at 200...240 V 3 phases 2350 W for LXM05CD42M3X at 200...240 V 3 phases 3350 W for LXM15MD28N4 at 480 V 3 phases 3350 W for LXM15MD40N4 at 480 V 3 phases 3400 W for LXM15MD28N4 at 400 V 3 phases 3400 W for LXM15MD40N4 at 400 V 3 phases 3400 W for LXM15MD56N4 at 400 V 3 phases 3400 W for LXM15MD56N4 at 480 V 3 phases 3400 W for LXM05AD57N4 at 380...480 V 3 phases 3400 W for LXM05BD57N4 at 380...480 V 3 phases 3400 W for LXM05CD57N4 at 380...480 V 3 phases

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Nominal speed	1500 rpm for LXM15LD28M3 at 230 V 3 phases 1500 rpm for LXM15MD28N4 at 230 V 3 phases 1500 rpm for LXM15MD40N4 at 230 V 3 phases 1500 rpm for LXM15MD56N4 at 230 V 3 phases 1500 rpm for LXM05AD42M3X at 200...240 V 3 phases 1500 rpm for LXM05BD42M3X at 200...240 V 3 phases 1500 rpm for LXM05CD42M3X at 200...240 V 3 phases 3000 rpm for LXM15MD28N4 at 400 V 3 phases 3000 rpm for LXM15MD40N4 at 400 V 3 phases 3000 rpm for LXM15MD56N4 at 400 V 3 phases 3000 rpm for LXM15MD56N4 at 480 V 3 phases 3000 rpm for LXM05AD57N4 at 380...480 V 3 phases 3000 rpm for LXM05BD57N4 at 380...480 V 3 phases 3000 rpm for LXM05CD57N4 at 380...480 V 3 phases 4000 rpm for LXM15MD28N4 at 480 V 3 phases 4000 rpm for LXM15MD40N4 at 480 V 3 phases
Maximum mechanical speed	4000 rpm
Product compatibility	LXM05AD42M3X at 200...240 V 3 phases LXM05AD57N4 at 380...480 V 3 phases LXM05BD42M3X at 200...240 V 3 phases LXM05BD57N4 at 380...480 V 3 phases LXM05CD42M3X at 200...240 V 3 phases LXM05CD57N4 at 380...480 V 3 phases LXM15LD28M3 at 230 V 3 phases LXM15MD28N4 at 230 V 3 phases LXM15MD28N4 at 400 V 3 phases LXM15MD28N4 at 480 V 3 phases LXM15MD40N4 at 230 V 3 phases LXM15MD40N4 at 400 V 3 phases LXM15MD40N4 at 480 V 3 phases LXM15MD56N4 at 230 V 3 phases LXM15MD56N4 at 400 V 3 phases LXM15MD56N4 at 480 V 3 phases
Shaft end	Untapped
IP degree of protection	IP50
Encoder type	Absolute multiturn SinCos Hiperface
Encoder feedback resolution	131072 points/turn
Holding brake	Without
Mounting support	International standard flange
Electrical connection	Straight connectors
Number of poles	10

## Complementary

Range compatibility	Lexium 05 Lexium 15
Nominal torque	8 N.m for LXM15MD28N4 at 480 V 3 phases 8 N.m for LXM15MD40N4 at 480 V 3 phases 10.8 N.m for LXM05BD57N4 at 380...480 V 3 phases 10.8 N.m for LXM05CD57N4 at 380...480 V 3 phases 10.8 N.m for LXM15MD28N4 at 400 V 3 phases 10.8 N.m for LXM15MD40N4 at 400 V 3 phases 10.8 N.m for LXM15MD56N4 at 400 V 3 phases 10.8 N.m for LXM15MD56N4 at 480 V 3 phases 10.8 N.m for LXM05AD57N4 at 380...480 V 3 phases 15 N.m for LXM05BD42M3X at 200...240 V 3 phases 15 N.m for LXM05CD42M3X at 200...240 V 3 phases 15 N.m for LXM15LD28M3 at 230 V 3 phases 15 N.m for LXM15MD28N4 at 230 V 3 phases 15 N.m for LXM15MD40N4 at 230 V 3 phases 15 N.m for LXM15MD56N4 at 230 V 3 phases 15 N.m for LXM05AD42M3X at 200...240 V 3 phases
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 LXM05CD57N4
Switching frequency	4 kHz for LEX05
Torque constant	1.47 N.m/A rms at 120 °C
Back electromagnetical force (emf) constant	101 V rms/krpm at 120 °C
Rotor inertia	12.68 kg.cm <sup>2</sup> without brake
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
Product weight	16 kg

## Environment

RoHS EUR conformity date	0850
RoHS EUR status	Compliant