

BSH1003P02F1A

AC servo motor BSH - 7.8 Nm - 6000 rpm -
untapped shaft - with brake - IP50

Main

Product or component type	AC servo motors
Component name	BSH
Continuous stall torque	6.7 N.m for LXM15LD21M3 at 230 V 3 phases 6.7 N.m for LXM15LD17N4 at 230 V 3 phases 6.7 N.m for LXM15LD17N4 at 400 V 3 phases 6.7 N.m for LXM15LD17N4 at 480 V 3 phases 7.8 N.m for LXM05BD34N4 at 380...480 V 3 phases 7.8 N.m for LXM05BD42M3X at 200...240 V 3 phases 7.8 N.m for LXM05CD28M2 at 200...240 V single phase 7.8 N.m for LXM05CD34N4 at 380...480 V 3 phases 7.8 N.m for LXM05CD42M3X at 200...240 V 3 phases 7.8 N.m for LXM15LD28M3 at 230 V 3 phases 7.8 N.m for LXM15MD28N4 at 400 V 3 phases 7.8 N.m for LXM15MD28N4 at 480 V 3 phases 7.8 N.m for LXM15MD40N4 at 400 V 3 phases 7.8 N.m for LXM15MD40N4 at 480 V 3 phases 7.8 N.m for LXM05AD28M2 at 200...240 V single phase 7.8 N.m for LXM05AD34N4 at 380...480 V 3 phases 7.8 N.m for LXM05AD42M3X at 200...240 V 3 phases 7.8 N.m for LXM05BD28M2 at 200...240 V single phase
Peak stall torque	12.5 N.m for LXM15LD17N4 at 230 V 3 phases 12.5 N.m for LXM15LD17N4 at 400 V 3 phases 12.5 N.m for LXM15LD17N4 at 480 V 3 phases 15.5 N.m for LXM15LD21M3 at 230 V 3 phases 19.69 N.m for LXM15LD28M3 at 230 V 3 phases 19.69 N.m for LXM15MD28N4 at 400 V 3 phases 19.69 N.m for LXM15MD28N4 at 480 V 3 phases 19.69 N.m for LXM05AD28M2 at 200...240 V single phase 19.69 N.m for LXM05BD28M2 at 200...240 V single phase 19.69 N.m for LXM05CD28M2 at 200...240 V single phase 23.01 N.m for LXM05AD34N4 at 380...480 V 3 phases 23.01 N.m for LXM05BD34N4 at 380...480 V 3 phases 23.01 N.m for LXM05CD34N4 at 380...480 V 3 phases 23.17 N.m for LXM15MD40N4 at 400 V 3 phases 23.17 N.m for LXM15MD40N4 at 480 V 3 phases 23.17 N.m for LXM05AD42M3X at 200...240 V 3 phases 23.17 N.m for LXM05BD42M3X at 200...240 V 3 phases 23.17 N.m for LXM05CD42M3X at 200...240 V 3 phases

Nominal output power	1100 W for LXM05AD28M2 at 200...240 V single phase 1100 W for LXM05AD42M3X at 200...240 V 3 phases 1100 W for LXM05BD28M2 at 200...240 V single phase 1100 W for LXM05BD42M3X at 200...240 V 3 phases 1100 W for LXM05CD28M2 at 200...240 V single phase 1100 W for LXM05CD42M3X at 200...240 V 3 phases 1300 W for LXM15LD28M3 at 230 V 3 phases 1700 W for LXM15LD21M3 at 230 V 3 phases 1700 W for LXM15LD17N4 at 230 V 3 phases 1800 W for LXM05AD34N4 at 380...480 V 3 phases 1800 W for LXM05BD34N4 at 380...480 V 3 phases 1800 W for LXM05CD34N4 at 380...480 V 3 phases 2000 W for LXM15MD28N4 at 400 V 3 phases 2000 W for LXM15MD40N4 at 400 V 3 phases 2200 W for LXM15LD17N4 at 400 V 3 phases 2200 W for LXM15MD28N4 at 480 V 3 phases 2200 W for LXM15MD40N4 at 480 V 3 phases 2300 W for LXM15LD17N4 at 480 V 3 phases
Nominal speed	1500 rpm for LXM05AD28M2 at 200...240 V single phase 1500 rpm for LXM05AD42M3X at 200...240 V 3 phases 1500 rpm for LXM05BD28M2 at 200...240 V single phase 1500 rpm for LXM05BD42M3X at 200...240 V 3 phases 1500 rpm for LXM05CD28M2 at 200...240 V single phase 1500 rpm for LXM05CD42M3X at 200...240 V 3 phases 2000 rpm for LXM15LD28M3 at 230 V 3 phases 2500 rpm for LXM15LD21M3 at 230 V 3 phases 2500 rpm for LXM15LD17N4 at 230 V 3 phases 3000 rpm for LXM05AD34N4 at 380...480 V 3 phases 3000 rpm for LXM05BD34N4 at 380...480 V 3 phases 3000 rpm for LXM05CD34N4 at 380...480 V 3 phases 4000 rpm for LXM15MD28N4 at 400 V 3 phases 4000 rpm for LXM15MD40N4 at 400 V 3 phases 4500 rpm for LXM15LD17N4 at 400 V 3 phases 4500 rpm for LXM15MD28N4 at 480 V 3 phases 4500 rpm for LXM15MD40N4 at 480 V 3 phases 6000 rpm for LXM15LD17N4 at 480 V 3 phases
Maximum mechanical speed	6000 rpm
Product compatibility	LXM05AD28M2 at 200...240 V single phase LXM05AD34N4 at 380...480 V 3 phases LXM05AD42M3X at 200...240 V 3 phases LXM05BD28M2 at 200...240 V single phase LXM05BD34N4 at 380...480 V 3 phases LXM05BD42M3X at 200...240 V 3 phases LXM05CD28M2 at 200...240 V single phase LXM05CD34N4 at 380...480 V 3 phases LXM05CD42M3X at 200...240 V 3 phases LXM15LD17N4 at 230 V 3 phases LXM15LD17N4 at 400 V 3 phases LXM15LD17N4 at 480 V 3 phases LXM15LD21M3 at 230 V 3 phases LXM15LD28M3 at 230 V 3 phases LXM15MD28N4 at 400 V 3 phases LXM15MD28N4 at 480 V 3 phases LXM15MD40N4 at 400 V 3 phases LXM15MD40N4 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 x 4096 turns

Holding brake	With
Mounting support	International standard flange
Electrical connection	Straight connectors
Number of poles	8

Complementary

Range compatibility	Lexium 05 Lexium 15
Nominal torque	3.7 N.m for LXM15LD17N4 at 480 V 3 phases 4.6 N.m for LXM15MD28N4 at 480 V 3 phases 4.6 N.m for LXM15MD40N4 at 480 V 3 phases 4.7 N.m for LXM15LD17N4 at 400 V 3 phases 5 N.m for LXM15MD28N4 at 400 V 3 phases 5 N.m for LXM15MD40N4 at 400 V 3 phases 5.7 N.m for LXM05AD34N4 at 380...480 V 3 phases 5.7 N.m for LXM05BD34N4 at 380...480 V 3 phases 5.7 N.m for LXM05CD34N4 at 380...480 V 3 phases 6 N.m for LXM15LD21M3 at 230 V 3 phases 6 N.m for LXM15LD17N4 at 230 V 3 phases 6.3 N.m for LXM15LD28M3 at 230 V 3 phases 6.73 N.m for LXM05AD28M2 at 200...240 V single phase 6.73 N.m for LXM05AD42M3X at 200...240 V 3 phases 6.73 N.m for LXM05BD28M2 at 200...240 V single phase 6.73 N.m for LXM05BD42M3X at 200...240 V 3 phases 6.73 N.m for LXM05CD28M2 at 200...240 V single phase 6.73 N.m for LXM05CD42M3X at 200...240 V 3 phases
Maximum current I _{rms}	28.3 A for LXM15LD21M3 28.3 A for LXM15LD28M3 28.3 A for LXM15LD17N4 28.3 A for LXM15MD28N4 28.3 A for LXM15MD40N4 28.3 A for LXM05AD28M2 28.3 A for LXM05AD42M3X 28.3 A for LXM05AD34N4 28.3 A for LXM05BD28M2 28.3 A for LXM05BD42M3X 28.3 A for LXM05BD34N4 28.3 A for LXM05CD28M2 28.3 A for LXM05CD42M3X 28.3 A for LXM05CD34N4
Switching frequency	4 kHz for LEX05
Torque constant	1.22 N.m/A rms at 120 °C
Back electromagnetical force (emf) constant	77 V rms/krpm at 120 °C
Rotor inertia	3.838 kg.cm ² with brake
Stator resistance	1.43 Ohm at 20 °C
Stator inductance	8.8 mH at 20 °C 9.4 mH at 20 °C
Stator electrical time constant	6.15 ms at 20 °C 6.57 ms at 20 °C
Maximum radial force Fr	660 N at 4000 rpm 730 N at 3000 rpm 830 N at 2000 rpm 1050 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
Product weight	7.4 kg

Environment

RoHS EUR conformity date	0850
RoHS EUR status	Compliant