Product data sheet
Characteristics

BSH1402T21F2P
AC servo motor BSH - 14.4 Nm - 4000 rpm - untapped shaft - with brake - IP65

Main

Product or component type	AC servo motors
Component name	BSH
Continuous stall torque	14.4 N.m for LXM05AD42M3X at 200...240 V 3 phases 14.4 N.m for LXM05BD42M3X at 200...240 V 3 phases 14.4 N.m for LXM05CD42M3X at 200...240 V 3 phases
Peak stall torque	24.56 N.m for LXM05AD42M3X at 200...240 V 3 phases 24.56 N.m for LXM05BD42M3X at 200...240 V 3 phases 24.56 N.m for LXM05CD42M3X at 200...240 V 3 phases
Nominal output power	2900 W for LXM05AD42M3X at 200...240 V 3 phases 2900 W for LXM05BD42M3X at 200...240 V 3 phases 2900 W for LXM05CD42M3X at 200...240 V 3 phases
Nominal speed	3000 rpm for LXM05AD42M3X at 200...240 V 3 phases 3000 rpm for LXM05BD42M3X at 200...240 V 3 phases 3000 rpm for LXM05CD42M3X at 200...240 V 3 phases
Maximum mechanical speed	4000 rpm
Product compatibility	LXM05AD42M3X at 200...240 V 3 phases LXM05BD42M3X at 200...240 V 3 phases LXM05CD42M3X at 200...240 V 3 phases
Shaft end	Untapped
IP degree of protection	IP65
Encoder type	Absolute single turn SinCos Hiperface
Encoder feedback resolution	131072 points/turn
Holding brake	With
Mounting support	International standard flange
Electrical connection	Rotatable right-angled connectors
Number of poles	10

Complementary

Range compatibility	Lexium 05
Nominal torque	9.2 N.m for LXM05AD42M3X at 200...240 V 3 phases 9.2 N.m for LXM05BD42M3X at 200...240 V 3 phases 9.2 N.m for LXM05CD42M3X at 200...240 V 3 phases
Maximum current Irms	75.2 A for LXM05AD42M3X 75.2 A for LXM05BD42M3X 75.2 A for LXM05CD42M3X
Switching frequency	4 kHz for LEX05
Torque constant	0.87 N.m/A rms at 120 °C
Back electromagnetical force (emf) constant	59 V rms/krpm at 120 °C
Rotor inertia	14.48 kg.cm² with brake
Stator resistance	0.21 Ohm at 20 °C
Stator inductance	2.54 mH at 20 °C

Stator electrical time constant	12.1 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