

# BSH0703M12A2A

AC servo motor BSH - 2.8 Nm - 8000 rpm - key shaft - without brake - IP50

## Main

Product or component type	AC servo motors
Component name	BSH
Continuous stall torque	2.8 N.m for LXM05AD10M2 at 200...240 V single phase 2.8 N.m for LXM05AD10M3X at 200...240 V 3 phases 2.8 N.m for LXM05AD14N4 at 380...480 V 3 phases 2.8 N.m for LXM05BD10M2 at 200...240 V single phase 2.8 N.m for LXM05BD10M3X at 200...240 V 3 phases 2.8 N.m for LXM05BD14N4 at 380...480 V 3 phases 2.8 N.m for LXM05CD10M2 at 200...240 V single phase 2.8 N.m for LXM05CD10M3X at 200...240 V 3 phases 2.8 N.m for LXM05CD14N4 at 380...480 V 3 phases
Peak stall torque	8.6 N.m for LXM05AD10M2 at 200...240 V single phase 8.6 N.m for LXM05AD10M3X at 200...240 V 3 phases 8.6 N.m for LXM05AD14N4 at 380...480 V 3 phases 8.6 N.m for LXM05BD10M2 at 200...240 V single phase 8.6 N.m for LXM05BD10M3X at 200...240 V 3 phases 8.6 N.m for LXM05BD14N4 at 380...480 V 3 phases 8.6 N.m for LXM05CD10M2 at 200...240 V single phase 8.6 N.m for LXM05CD10M3X at 200...240 V 3 phases 8.6 N.m for LXM05CD14N4 at 380...480 V 3 phases
Nominal output power	400 W for LXM05AD10M2 at 200...240 V single phase 400 W for LXM05AD10M3X at 200...240 V 3 phases 400 W for LXM05BD10M2 at 200...240 V single phase 400 W for LXM05BD10M3X at 200...240 V 3 phases 400 W for LXM05CD10M2 at 200...240 V single phase 400 W for LXM05CD10M3X at 200...240 V 3 phases 750 W for LXM05AD14N4 at 380...480 V 3 phases 750 W for LXM05BD14N4 at 380...480 V 3 phases 750 W for LXM05CD14N4 at 380...480 V 3 phases
Nominal speed	1500 rpm for LXM05AD10M2 at 200...240 V single phase 1500 rpm for LXM05AD10M3X at 200...240 V 3 phases 1500 rpm for LXM05BD10M2 at 200...240 V single phase 1500 rpm for LXM05BD10M3X at 200...240 V 3 phases 1500 rpm for LXM05CD10M2 at 200...240 V single phase 1500 rpm for LXM05CD10M3X at 200...240 V 3 phases 3000 rpm for LXM05AD14N4 at 380...480 V 3 phases 3000 rpm for LXM05BD14N4 at 380...480 V 3 phases 3000 rpm for LXM05CD14N4 at 380...480 V 3 phases
Maximum mechanical speed	8000 rpm

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Product compatibility	LXM05AD10M2 at 200...240 V single phase LXM05AD10M3X at 200...240 V 3 phases LXM05AD14N4 at 380...480 V 3 phases LXM05BD10M2 at 200...240 V single phase LXM05BD10M3X at 200...240 V 3 phases LXM05BD14N4 at 380...480 V 3 phases LXM05CD10M2 at 200...240 V single phase LXM05CD10M3X at 200...240 V 3 phases LXM05CD14N4 at 380...480 V 3 phases
Shaft end	Keyed
IP degree of protection	IP50
Encoder type	Absolute multiturn SinCos Hiperface
Encoder feedback resolution	131072 points/turn x 4096 turns
Holding brake	Without
Mounting support	International standard flange
Electrical connection	Rotatable right-angled connectors
Number of poles	6

## Complementary

Range compatibility	Lexium 05
Nominal torque	2.4 N.m for LXM05AD14N4 at 380...480 V 3 phases 2.4 N.m for LXM05BD14N4 at 380...480 V 3 phases 2.4 N.m for LXM05CD14N4 at 380...480 V 3 phases 2.63 N.m for LXM05AD10M2 at 200...240 V single phase 2.63 N.m for LXM05AD10M3X at 200...240 V 3 phases 2.63 N.m for LXM05BD10M2 at 200...240 V single phase 2.63 N.m for LXM05BD10M3X at 200...240 V 3 phases 2.63 N.m for LXM05CD10M2 at 200...240 V single phase 2.63 N.m for LXM05CD10M3X at 200...240 V 3 phases
Maximum current Irms	8.7 A for LXM05AD10M2 8.7 A for LXM05AD10M3X 8.7 A for LXM05AD14N4 8.7 A for LXM05BD10M2 8.7 A for LXM05BD10M3X 8.7 A for LXM05BD14N4 8.7 A for LXM05CD10M2 8.7 A for LXM05CD10M3X 8.7 A for LXM05CD14N4
Switching frequency	4 kHz for LEX05
Torque constant	1.48 N.m/A rms at 120 °C
Back electromagnetical force (emf) constant	95 V rms/krpm at 120 °C
Rotor inertia	0.58 kg.cm <sup>2</sup> without brake
Stator resistance	10.2 Ohm at 20 °C
Stator inductance	49.2 mH at 20 °C
Stator electrical time constant	4.82 ms at 20 °C
Maximum radial force Fr	400 N at 6000 rpm 430 N at 5000 rpm 460 N at 4000 rpm 510 N at 3000 rpm 580 N at 2000 rpm 730 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
Product weight	3.62 kg

## Environment

RoHS EUR conformity date	0850
RoHS EUR status	Compliant