

# BSH0702P01F1A

AC servo motor BSH - 2.1 Nm - 8000 rpm -  
untapped shaft - with brake - IP50

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## Main

Product or component type	AC servo motors
Component name	BSH
Continuous stall torque	2.12 N.m for LXM05AD10M2 at 200...240 V single phase 2.12 N.m for LXM05AD10M3X at 200...240 V 3 phases 2.12 N.m for LXM05AD17M2 at 200...240 V single phase 2.12 N.m for LXM05AD17M3X at 200...240 V 3 phases 2.12 N.m for LXM05AD14N4 at 380...480 V 3 phases 2.12 N.m for LXM05BD10M2 at 200...240 V single phase 2.12 N.m for LXM05BD10M3X at 200...240 V 3 phases 2.12 N.m for LXM05BD17M2 at 200...240 V single phase 2.12 N.m for LXM05BD17M3X at 200...240 V 3 phases 2.12 N.m for LXM05BD14N4 at 380...480 V 3 phases 2.12 N.m for LXM05CD10M2 at 200...240 V single phase 2.12 N.m for LXM05CD10M3X at 200...240 V 3 phases 2.12 N.m for LXM05CD17M2 at 200...240 V single phase 2.12 N.m for LXM05CD17M3X at 200...240 V 3 phases 2.12 N.m for LXM05CD14N4 at 380...480 V 3 phases 2.2 N.m for LXM15LD10N4 at 480 V 3 phases 2.2 N.m for LXM15LD13M3 at 230 V single phase 2.2 N.m for LXM15LD10N4 at 230 V 3 phases 2.2 N.m for LXM15LD10N4 at 400 V 3 phases
Peak stall torque	4.57 N.m for LXM05AD10M2 at 200...240 V single phase 4.57 N.m for LXM05AD10M3X at 200...240 V 3 phases 4.57 N.m for LXM05BD10M2 at 200...240 V single phase 4.57 N.m for LXM05BD10M3X at 200...240 V 3 phases 4.57 N.m for LXM05CD10M2 at 200...240 V single phase 4.57 N.m for LXM05CD10M3X at 200...240 V 3 phases 4.85 N.m for LXM15LD10N4 at 230 V 3 phases 4.85 N.m for LXM15LD10N4 at 400 V 3 phases 4.85 N.m for LXM15LD10N4 at 480 V 3 phases 5.63 N.m for LXM15LD13M3 at 230 V single phase 5.63 N.m for LXM05AD17M2 at 200...240 V single phase 5.63 N.m for LXM05AD17M3X at 200...240 V 3 phases 5.63 N.m for LXM05AD14N4 at 380...480 V 3 phases 5.63 N.m for LXM05BD17M2 at 200...240 V single phase 5.63 N.m for LXM05BD17M3X at 200...240 V 3 phases 5.63 N.m for LXM05BD14N4 at 380...480 V 3 phases 5.63 N.m for LXM05CD17M2 at 200...240 V single phase 5.63 N.m for LXM05CD17M3X at 200...240 V 3 phases 5.63 N.m for LXM05CD14N4 at 380...480 V 3 phases

Nominal output power	<p>597 W for LXM15LD10N4 at 230 V 3 phases</p> <p>597 W for LXM15LD13M3 at 230 V single phase</p> <p>600 W for LXM05AD10M2 at 200...240 V single phase</p> <p>600 W for LXM05AD10M3X at 200...240 V 3 phases</p> <p>600 W for LXM05AD17M2 at 200...240 V single phase</p> <p>600 W for LXM05AD17M3X at 200...240 V 3 phases</p> <p>600 W for LXM05AD14N4 at 380...480 V 3 phases</p> <p>600 W for LXM05BD10M2 at 200...240 V single phase</p> <p>600 W for LXM05BD10M3X at 200...240 V 3 phases</p> <p>600 W for LXM05BD17M2 at 200...240 V single phase</p> <p>600 W for LXM05BD17M3X at 200...240 V 3 phases</p> <p>600 W for LXM05BD14N4 at 380...480 V 3 phases</p> <p>600 W for LXM05CD10M2 at 200...240 V single phase</p> <p>600 W for LXM05CD10M3X at 200...240 V 3 phases</p> <p>600 W for LXM05CD17M2 at 200...240 V single phase</p> <p>600 W for LXM05CD17M3X at 200...240 V 3 phases</p> <p>600 W for LXM05CD14N4 at 380...480 V 3 phases</p> <p>1000 W for LXM15LD10N4 at 400 V 3 phases</p> <p>1300 W for LXM15LD10N4 at 480 V 3 phases</p>
Nominal speed	<p>3000 rpm for LXM15LD10N4 at 230 V 3 phases</p> <p>3000 rpm for LXM15LD13M3 at 230 V single phase</p> <p>3000 rpm for LXM05AD10M2 at 200...240 V single phase</p> <p>3000 rpm for LXM05AD10M3X at 200...240 V 3 phases</p> <p>3000 rpm for LXM05AD17M2 at 200...240 V single phase</p> <p>3000 rpm for LXM05AD17M3X at 200...240 V 3 phases</p> <p>3000 rpm for LXM05AD14N4 at 380...480 V 3 phases</p> <p>3000 rpm for LXM05BD10M2 at 200...240 V single phase</p> <p>3000 rpm for LXM05BD10M3X at 200...240 V 3 phases</p> <p>3000 rpm for LXM05BD17M2 at 200...240 V single phase</p> <p>3000 rpm for LXM05BD17M3X at 200...240 V 3 phases</p> <p>3000 rpm for LXM05BD14N4 at 380...480 V 3 phases</p> <p>3000 rpm for LXM05CD10M2 at 200...240 V single phase</p> <p>3000 rpm for LXM05CD10M3X at 200...240 V 3 phases</p> <p>3000 rpm for LXM05CD17M2 at 200...240 V single phase</p> <p>3000 rpm for LXM05CD17M3X at 200...240 V 3 phases</p> <p>3000 rpm for LXM05CD14N4 at 380...480 V 3 phases</p> <p>6000 rpm for LXM15LD10N4 at 400 V 3 phases</p> <p>8000 rpm for LXM15LD10N4 at 480 V 3 phases</p>
Maximum mechanical speed	8000 rpm

Product compatibility	LXM05AD10M2 at 200...240 V single phase LXM05AD10M3X at 200...240 V 3 phases LXM05AD14N4 at 380...480 V 3 phases LXM05AD17M2 at 200...240 V single phase LXM05AD17M3X at 200...240 V 3 phases LXM05BD10M2 at 200...240 V single phase LXM05BD10M3X at 200...240 V 3 phases LXM05BD14N4 at 380...480 V 3 phases LXM05BD17M2 at 200...240 V single phase LXM05BD17M3X at 200...240 V 3 phases LXM05CD10M2 at 200...240 V single phase LXM05CD10M3X at 200...240 V 3 phases LXM05CD14N4 at 380...480 V 3 phases LXM05CD17M2 at 200...240 V single phase LXM05CD17M3X at 200...240 V 3 phases LXM15LD10N4 at 230 V 3 phases LXM15LD10N4 at 400 V 3 phases LXM15LD10N4 at 480 V 3 phases LXM15LD13M3 at 230 V single phase
Shaft end	Untapped
IP degree of protection	IP50
Encoder type	Absolute single turn SinCos Hiperface
Encoder feedback resolution	131072 points/turn
Holding brake	With
Mounting support	International standard flange
Electrical connection	Straight connectors
Number of poles	6

## Complementary

Range compatibility	Lexium 05 Lexium 15
Nominal torque	1.55 N.m for LXM15LD10N4 at 480 V 3 phases 1.65 N.m for LXM15LD10N4 at 400 V 3 phases 1.9 N.m for LXM15LD13M3 at 230 V single phase 1.9 N.m for LXM15LD10N4 at 230 V 3 phases 1.9 N.m for LXM05AD10M2 at 200...240 V single phase 1.9 N.m for LXM05AD17M2 at 200...240 V single phase 1.9 N.m for LXM05AD10M3X at 200...240 V 3 phases 1.9 N.m for LXM05AD17M3X at 200...240 V 3 phases 1.9 N.m for LXM05AD14N4 at 380...480 V 3 phases 1.9 N.m for LXM05BD10M2 at 200...240 V single phase 1.9 N.m for LXM05BD17M2 at 200...240 V single phase 1.9 N.m for LXM05BD10M3X at 200...240 V 3 phases 1.9 N.m for LXM05BD17M3X at 200...240 V 3 phases 1.9 N.m for LXM05BD14N4 at 380...480 V 3 phases 1.9 N.m for LXM05CD10M2 at 200...240 V single phase 1.9 N.m for LXM05CD17M2 at 200...240 V single phase 1.9 N.m for LXM05CD10M3X at 200...240 V 3 phases 1.9 N.m for LXM05CD17M3X at 200...240 V 3 phases 1.9 N.m for LXM05CD14N4 at 380...480 V 3 phases
Maximum current Irms	11.8 A for LXM15LD13M3 11.8 A for LXM15LD10N4 11.8 A for LXM05AD10M2 11.8 A for LXM05AD17M2 11.8 A for LXM05AD10M3X 11.8 A for LXM05AD17M3X 11.8 A for LXM05AD14N4 11.8 A for LXM05BD10M2 11.8 A for LXM05BD17M2 11.8 A for LXM05BD10M3X 11.8 A for LXM05BD17M3X 11.8 A for LXM05BD14N4 11.8 A for LXM05CD10M2 11.8 A for LXM05CD17M2 11.8 A for LXM05CD10M3X 11.8 A for LXM05CD17M3X 11.8 A for LXM05CD14N4
Switching frequency	4 kHz for LEX05
Torque constant	0.77 N.m/A rms at 120 °C
Back electromagnetical force (emf) constant	48 V rms/krpm at 120 °C
Rotor inertia	0.482 kg.cm <sup>2</sup> with brake

Stator resistance	4.2 Ohm at 20 °C
Stator inductance	19 mH at 20 °C
Stator electrical time constant	4.52 ms at 20 °C
Maximum radial force Fr	390 N at 6000 rpm 410 N at 5000 rpm 450 N at 4000 rpm 490 N at 3000 rpm 560 N at 2000 rpm 710 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
Product weight	2.89 kg

## Environment

RoHS EUR conformity date	0850
RoHS EUR status	Compliant