

# BSH0702T02A1A

AC servo motor BSH - 2.12 Nm - 8000 rpm -  
untapped shaft - without brake - IP50

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## Main

Product or component type	AC servo motors
Component name	BSH
Continuous stall torque	<p>2.12 N.m for LXM15LD17N4 at 230 V 3 phases</p> <p>2.12 N.m for LXM15LD21M3 at 230 V 3 phases</p> <p>2.12 N.m for LXM05AD17F1 at 110...120 V single phase</p> <p>2.12 N.m for LXM05AD17M2 at 200...240 V single phase</p> <p>2.12 N.m for LXM05AD28M2 at 200...240 V single phase</p> <p>2.12 N.m for LXM05AD42M3X at 200...240 V 3 phases</p> <p>2.12 N.m for LXM05BD17F1 at 110...120 V single phase</p> <p>2.12 N.m for LXM05BD17M2 at 200...240 V single phase</p> <p>2.12 N.m for LXM05BD28M2 at 200...240 V single phase</p> <p>2.12 N.m for LXM05BD42M3X at 200...240 V 3 phases</p> <p>2.12 N.m for LXM05CD17F1 at 110...120 V single phase</p> <p>2.12 N.m for LXM05CD17M2 at 200...240 V single phase</p> <p>2.12 N.m for LXM05CD28M2 at 200...240 V single phase</p> <p>2.12 N.m for LXM05CD42M3X at 200...240 V 3 phases</p>
Peak stall torque	<p>4.14 N.m for LXM05AD17F1 at 110...120 V single phase</p> <p>4.14 N.m for LXM05AD17M2 at 200...240 V single phase</p> <p>4.14 N.m for LXM05BD17F1 at 110...120 V single phase</p> <p>4.14 N.m for LXM05BD17M2 at 200...240 V single phase</p> <p>4.14 N.m for LXM05CD17F1 at 110...120 V single phase</p> <p>4.14 N.m for LXM05CD17M2 at 200...240 V single phase</p> <p>4.47 N.m for LXM15LD17N4 at 230 V 3 phases</p> <p>5.45 N.m for LXM15LD21M3 at 230 V 3 phases</p> <p>6.8 N.m for LXM05AD28M2 at 200...240 V single phase</p> <p>6.8 N.m for LXM05AD42M3X at 200...240 V 3 phases</p> <p>6.8 N.m for LXM05BD28M2 at 200...240 V single phase</p> <p>6.8 N.m for LXM05BD42M3X at 200...240 V 3 phases</p> <p>6.8 N.m for LXM05CD28M2 at 200...240 V single phase</p> <p>6.8 N.m for LXM05CD42M3X at 200...240 V 3 phases</p>

Nominal output power	570 W for LXM05AD17F1 at 110...120 V single phase 570 W for LXM05BD17F1 at 110...120 V single phase 570 W for LXM05CD17F1 at 110...120 V single phase 600 W for LXM05AD17M2 at 200...240 V single phase 600 W for LXM05AD28M2 at 200...240 V single phase 600 W for LXM05AD42M3X at 200...240 V 3 phases 600 W for LXM05BD17M2 at 200...240 V single phase 600 W for LXM05BD28M2 at 200...240 V single phase 600 W for LXM05BD42M3X at 200...240 V 3 phases 600 W for LXM05CD17M2 at 200...240 V single phase 600 W for LXM05CD28M2 at 200...240 V single phase 600 W for LXM05CD42M3X at 200...240 V 3 phases 1000 W for LXM15LD17N4 at 230 V 3 phases 1000 W for LXM15LD21M3 at 230 V 3 phases
Nominal speed	3000 rpm for LXM05AD17F1 at 110...120 V single phase 3000 rpm for LXM05AD17M2 at 200...240 V single phase 3000 rpm for LXM05AD28M2 at 200...240 V single phase 3000 rpm for LXM05AD42M3X at 200...240 V 3 phases 3000 rpm for LXM05BD17F1 at 110...120 V single phase 3000 rpm for LXM05BD17M2 at 200...240 V single phase 3000 rpm for LXM05BD28M2 at 200...240 V single phase 3000 rpm for LXM05BD42M3X at 200...240 V 3 phases 3000 rpm for LXM05CD17F1 at 110...120 V single phase 3000 rpm for LXM05CD17M2 at 200...240 V single phase 3000 rpm for LXM05CD28M2 at 200...240 V single phase 3000 rpm for LXM05CD42M3X at 200...240 V 3 phases 6000 rpm for LXM15LD17N4 at 230 V 3 phases 6000 rpm for LXM15LD21M3 at 230 V 3 phases
Maximum mechanical speed	8000 rpm
Product compatibility	LXM05AD17F1 at 110...120 V single phase LXM05AD17M2 at 200...240 V single phase LXM05AD28M2 at 200...240 V single phase LXM05AD42M3X at 200...240 V 3 phases LXM05BD17F1 at 110...120 V single phase LXM05BD17M2 at 200...240 V single phase LXM05BD28M2 at 200...240 V single phase LXM05BD42M3X at 200...240 V 3 phases LXM05CD17F1 at 110...120 V single phase LXM05CD17M2 at 200...240 V single phase LXM05CD28M2 at 200...240 V single phase LXM05CD42M3X at 200...240 V 3 phases LXM15LD17N4 at 230 V 3 phases LXM15LD21M3 at 230 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	Without
Mounting support	International standard flange
Electrical connection	Straight connectors
Number of poles	6

## Complementary

Range compatibility	Lexium 05 Lexium 15
Nominal torque	1.66 N.m for LXM15LD21M3 at 230 V 3 phases 1.66 N.m for LXM15LD17N4 at 230 V 3 phases 1.83 N.m for LXM05CD17F1 at 110...120 V single phase 1.83 N.m for LXM05AD17F1 at 110...120 V single phase 1.83 N.m for LXM05BD17F1 at 110...120 V single phase 1.9 N.m for LXM05BD42M3X at 200...240 V 3 phases 1.9 N.m for LXM05CD17M2 at 200...240 V single phase 1.9 N.m for LXM05CD28M2 at 200...240 V single phase 1.9 N.m for LXM05CD42M3X at 200...240 V 3 phases 1.9 N.m for LXM05AD17M2 at 200...240 V single phase 1.9 N.m for LXM05AD28M2 at 200...240 V single phase 1.9 N.m for LXM05AD42M3X at 200...240 V 3 phases 1.9 N.m for LXM05BD17M2 at 200...240 V single phase 1.9 N.m for LXM05BD28M2 at 200...240 V single phase
Maximum current Irms	19.9 A for LXM05AD17F1 19.9 A for LXM05AD17M2 19.9 A for LXM05AD28M2 19.9 A for LXM05AD42M3X 19.9 A for LXM05BD17F1 19.9 A for LXM05BD17M2 19.9 A for LXM05BD28M2 19.9 A for LXM05BD42M3X 19.9 A for LXM05CD17F1 19.9 A for LXM05CD17M2 19.9 A for LXM05CD28M2 19.9 A for LXM05CD42M3X 20.6 A for LXM15LD21M3 20.6 A for LXM15LD17N4
Switching frequency	8 kHz for LEX05
Torque constant	0.42 N.m/A rms at 120 °C
Back electromagnetical force (emf) constant	28 V rms/krpm at 120 °C
Rotor inertia	0.41 kg.cm <sup>2</sup> without brake
Stator resistance	1.5 Ohm at 20 °C
Stator inductance	6.6 mH at 20 °C 6.7 mH at 20 °C
Stator electrical time constant	4.47 ms at 20 °C 4.5 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