

# BRH0851M12F2A

AC servo motors BRH - 3.1 N.m - 6000 rpm -  
keyed shaft - with brake - IP41

## Main

Product or component type	Motion servo motors
Component name	BRH
Continuous stall torque	1.86 N.m
Peak stall torque	3.4 N.m for LXM05AD10M2 3.4 N.m for LXM05BD10M2 3.4 N.m for LXM05CD10M2 4.05 N.m for LXM05AD14N4 4.05 N.m for LXM05BD14N4 4.05 N.m for LXM05CD14N4 5.27 N.m for LXM05AD17M3X 5.27 N.m for LXM05BD17M3X 5.27 N.m for LXM05CD17M3X
Nominal output power	520 W for LXM05BD17M3X 520 W for LXM05CD10M2 520 W for LXM05CD17M3X 520 W for LXM05AD10M2 520 W for LXM05AD17M3X 520 W for LXM05BD10M2 910 W for LXM05BD14N4 910 W for LXM05CD14N4 910 W for LXM05AD14N4
Nominal speed	3000 rpm for LXM05AD10M2 3000 rpm for LXM05AD17M3X 3000 rpm for LXM05BD10M2 3000 rpm for LXM05BD17M3X 3000 rpm for LXM05CD10M2 3000 rpm for LXM05CD17M3X 6000 rpm for LXM05AD14N4 6000 rpm for LXM05BD14N4 6000 rpm for LXM05CD14N4
Maximum mechanical speed	6000 rpm
Product compatibility	LXM05AD10M2 at 230 V single phase LXM05AD14N4 at 400/480 V 3 phases LXM05AD17M3X at 230 V 3 phases LXM05BD10M2 at 230 V single phase LXM05BD14N4 at 400/480 V 3 phases LXM05BD17M3X at 230 V 3 phases LXM05CD10M2 at 230 V single phase LXM05CD14N4 at 400/480 V 3 phases LXM05CD17M3X at 230 V 3 phases
Shaft end	Keyed
IP degree of protection	IP41
Encoder type	Multiturn SinCos Hiperface
Encoder feedback resolution	131072 points/turn x 4096 turns
Holding brake	With
Mounting support	International standard flange
Electrical connection	Rotatable right-angled connectors
Number of poles	10

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## Complementary

Range compatibility	Lexium 05
Switching frequency	8 kHz
Nominal torque	1.45 N.m for LXM05AD14N4 1.45 N.m for LXM05BD14N4 1.45 N.m for LXM05CD14N4 1.66 N.m for LXM05AD10M2 1.66 N.m for LXM05AD17M3X 1.66 N.m for LXM05BD10M2 1.66 N.m for LXM05BD17M3X 1.66 N.m for LXM05CD10M2 1.66 N.m for LXM05CD17M3X
Maximum current Irms	6 A for LXM05AD10M2 6 A for LXM05BD10M2 6 A for LXM05CD10M2 7.5 A for LXM05CD14N4 7.5 A for LXM05BD14N4 7.5 A for LXM05AD14N4 11 A for LXM05AD17M3X 11 A for LXM05BD17M3X 11 A for LXM05CD17M3X
Torque constant	0.6 N.m/A rms at 120 °C
Back emf constant	37.9 V rms/krpm at 120 °C
Rotor inertia	1.06 kg.cm <sup>2</sup> without brake 1.59 kg.cm <sup>2</sup> with brake
Stator resistance	3.3 Ohm
Stator inductance	12.3 mH
Stator electrical time constant	3.7 ms
Maximum radial force Fr	173 N at 6000 rpm 176 N at 5000 rpm 181 N at 4000 rpm 187 N at 3000 rpm 193 N at 2000 rpm 226 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
Product weight	2.2 kg

## Environment

RoHS EUR conformity date	4Q2009
RoHS EUR status	Will be compliant