

Product datasheet

Specifications



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

BRH0851M12F1A

⚠ Discontinued on: 8 Jul 2022

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EAN Code: 3389118359932

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 LXM05AD10M2 520 W for LXM05AD17M3X 520 W for LXM05BD10M2 520 W for LXM05BD17M3X 520 W for LXM05CD10M2 520 W for LXM05CD17M3X 910 W for LXM05AD14N4 910 W for LXM05BD14N4 910 W for LXM05CD14N4
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
Speed feedback resolution	131072 points/turn x 4096 turns
Holding brake	With
Mounting support	International standard flange

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Electrical connection	Straight connectors
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
Number of poles	10
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

Complementary

Range compatibility	Lexium 05
Switching frequency	8 kHz
Maximum current Irms	11 A for LXM05AD17M3X 11 A for LXM05BD17M3X 11 A for LXM05CD17M3X 6 A for LXM05AD10M2 6 A for LXM05BD10M2 6 A for LXM05CD10M2 7.5 A for LXM05AD14N4 7.5 A for LXM05BD14N4 7.5 A for LXM05CD14N4
Torque constant	0.6 N.m/A at 120 °C
Back emf constant	37.9 V/krpm at 120 °C
Rotor inertia	1.06 kg.cm² without brake 1.59 kg.cm² with brake
Stator resistance	3.3 Ohm
Stator inductance	12.3 mH
Stator electrical time constant	3.7 ms
Maximum axial force Fa	0.2 x Fr
Net weight	2.2 kg



Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

Use Longer

Lifetime extension	
Repair	No