

# BRH0853P31F2A

AC servo motors BRH - 12 N.m - 4500 rpm -  
keyed shaft - with brake - IP56

## Main

Product or component type	Motion servo motors
Component name	BRH
Continuous stall torque	4.2 N.m
Peak stall torque	9.7 N.m for LXM05AD28F1 9.7 N.m for LXM05AD28M2 9.7 N.m for LXM05BD28F1 9.7 N.m for LXM05BD28M2 9.7 N.m for LXM05CD28F1 9.7 N.m for LXM05CD28M2 13.6 N.m for LXM05AD42M3X 13.6 N.m for LXM05BD42M3X 13.6 N.m for LXM05CD42M3X
Nominal output power	570 W for LXM05CD28F1 570 W for LXM05AD28F1 570 W for LXM05BD28F1 1200 W for LXM05BD28M2 1200 W for LXM05CD28M2 1200 W for LXM05AD28M2 1250 W for LXM05BD42M3X 1250 W for LXM05CD42M3X 1250 W for LXM05AD42M3X
Nominal speed	1500 rpm for LXM05AD28F1 1500 rpm for LXM05BD28F1 1500 rpm for LXM05CD28F1 4500 rpm for LXM05AD28M2 4500 rpm for LXM05BD28M2 4500 rpm for LXM05CD28M2 6000 rpm for LXM05AD42M3X 6000 rpm for LXM05BD42M3X 6000 rpm for LXM05CD42M3X
Maximum mechanical speed	6000 rpm
Product compatibility	LXM05AD28F1 at 115 V single phase LXM05AD28M2 at 230 V single phase LXM05AD42M3X at 230 V 3 phases LXM05BD28F1 at 115 V single phase LXM05BD28M2 at 230 V single phase LXM05BD42M3X at 230 V 3 phases LXM05CD28F1 at 115 V single phase LXM05CD28M2 at 230 V single phase LXM05CD42M3X at 230 V 3 phases
Shaft end	Keyed
IP degree of protection	IP56
Encoder type	Single turn SinCos Hiperface
Encoder feedback resolution	131072 points/turn
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	2.55 N.m for LXM05AD28M2 2.55 N.m for LXM05AD42M3X 2.55 N.m for LXM05BD28M2 2.55 N.m for LXM05BD42M3X 2.55 N.m for LXM05CD28M2 2.55 N.m for LXM05CD42M3X 3.65 N.m for LXM05AD28F1 3.65 N.m for LXM05BD28F1 3.65 N.m for LXM05CD28F1
Maximum current Irms	20 A for LXM05AD28F1 20 A for LXM05AD28M2 20 A for LXM05BD28F1 20 A for LXM05BD28M2 20 A for LXM05CD28F1 20 A for LXM05CD28M2 30 A for LXM05AD42M3X 30 A for LXM05BD42M3X 30 A for LXM05CD42M3X
Torque constant	0.51 N.m/A rms at 120 °C
Back emf constant	33 V rms/krpm at 120 °C
Rotor inertia	2.96 kg.cm <sup>2</sup> without brake 3.49 kg.cm <sup>2</sup> with brake
Stator resistance	0.7 Ohm
Stator inductance	2.7 mH
Stator electrical time constant	4 ms
Maximum radial force Fr	220 N at 6000 rpm 223 N at 5000 rpm 230 N at 4000 rpm 237 N at 3000 rpm 244 N at 2000 rpm 287 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
Product weight	4.4 kg

## Environment

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