

# BRH0851P21F2A

AC servo motors BRH - 4.2 N.m - 6000 rpm -  
untapped shaft - with brake - IP56

## Main

Product or component type	Motion servo motors
Component name	BRH
Continuous stall torque	1.86 N.m
Peak stall torque	4.61 N.m for LXM05AD17F1 4.61 N.m for LXM05AD17M2 4.61 N.m for LXM05AD17M3X 4.61 N.m for LXM05BD17F1 4.61 N.m for LXM05BD17M2 4.61 N.m for LXM05BD17M3X 4.61 N.m for LXM05CD17F1 4.61 N.m for LXM05CD17M2 4.61 N.m for LXM05CD17M3X 5.34 N.m for LXM05AD22N4 5.34 N.m for LXM05BD22N4 5.34 N.m for LXM05CD22N4
Nominal output power	280 W for LXM05BD17F1 280 W for LXM05CD17F1 280 W for LXM05AD17F1 730 W for LXM05BD17M2 730 W for LXM05BD17M3X 730 W for LXM05CD17M2 730 W for LXM05CD17M3X 730 W for LXM05AD17M2 730 W for LXM05AD17M3X 910 W for LXM05BD22N4 910 W for LXM05CD22N4 910 W for LXM05AD22N4
Nominal speed	1500 rpm for LXM05AD17F1 1500 rpm for LXM05BD17F1 1500 rpm for LXM05CD17F1 4500 rpm for LXM05AD17M2 4500 rpm for LXM05AD17M3X 4500 rpm for LXM05BD17M2 4500 rpm for LXM05BD17M3X 4500 rpm for LXM05CD17M2 4500 rpm for LXM05CD17M3X 6000 rpm for LXM05AD22N4 6000 rpm for LXM05BD22N4 6000 rpm for LXM05CD22N4
Maximum mechanical speed	6000 rpm
Product compatibility	LXM05AD17F1 at 115 V single phase LXM05AD17M2 at 230 V single phase LXM05AD17M3X at 230 V 3 phases LXM05AD22N4 at 400/480 V 3 phases LXM05BD17F1 at 115 V single phase LXM05BD17M2 at 230 V single phase LXM05BD17M3X at 230 V 3 phases LXM05BD22N4 at 400/480 V 3 phases LXM05CD17F1 at 115 V single phase LXM05CD17M2 at 230 V single phase LXM05CD17M3X at 230 V 3 phases LXM05CD22N4 at 400/480 V 3 phases
Shaft end	Untapped
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

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Electrical connection	Rotatable right-angled connectors
Number of poles	10

## Complementary

Range compatibility	Lexium 05
Switching frequency	8 kHz
Nominal torque	1.45 N.m for LXM05AD22N4 1.45 N.m for LXM05BD22N4 1.45 N.m for LXM05CD22N4 1.55 N.m for LXM05AD17M2 1.55 N.m for LXM05AD17M3X 1.55 N.m for LXM05BD17M2 1.55 N.m for LXM05BD17M3X 1.55 N.m for LXM05CD17M2 1.55 N.m for LXM05CD17M3X 1.76 N.m for LXM05AD17F1 1.76 N.m for LXM05BD17F1 1.76 N.m for LXM05CD17F1
Maximum current I <sub>rms</sub>	11 A for LXM05AD17F1 11 A for LXM05AD17M2 11 A for LXM05AD17M3X 11 A for LXM05BD17F1 11 A for LXM05BD17M2 11 A for LXM05BD17M3X 11 A for LXM05CD17F1 11 A for LXM05CD17M2 11 A for LXM05CD17M3X 14 A for LXM05AD22N4 14 A for LXM05BD22N4 14 A for LXM05CD22N4
Torque constant	0.48 N.m/A rms at 120 °C
Back emf constant	30.5 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	2.1 Ohm
Stator inductance	8 mH
Stator electrical time constant	3.8 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