

# BRH0854P22F1A

AC servo motors BRH - 4.8 N.m - 6000 rpm -  
untapped shaft - with brake - IP56

## Main

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product or component type   | Motion servo motors                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Component name              | BRH                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Continuous stall torque     | 4.8 N.m                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Peak stall torque           | 9.3 N.m for LXM05AD22N4<br>9.3 N.m for LXM05BD22N4<br>9.3 N.m for LXM05CD22N4<br>13 N.m for LXM05AD28F1<br>13 N.m for LXM05AD28M2<br>13 N.m for LXM05BD28F1<br>13 N.m for LXM05BD28M2<br>13 N.m for LXM05CD28F1<br>13 N.m for LXM05CD28M2<br>18.3 N.m for LXM05AD42M3X<br>18.3 N.m for LXM05BD42M3X<br>18.3 N.m for LXM05CD42M3X                                                                                                                |
| Nominal output power        | 740 W for LXM05BD28F1<br>740 W for LXM05CD28F1<br>740 W for LXM05AD28F1<br>1250 W for LXM05BD28M2<br>1250 W for LXM05CD28M2<br>1250 W for LXM05AD28M2<br>1400 W for LXM05BD22N4<br>1400 W for LXM05CD22N4<br>1400 W for LXM05AD22N4<br>1450 W for LXM05BD42M3X<br>1450 W for LXM05CD42M3X<br>1450 W for LXM05AD42M3X                                                                                                                            |
| Nominal speed               | 1500 rpm for LXM05AD28F1<br>1500 rpm for LXM05BD28F1<br>1500 rpm for LXM05CD28F1<br>3000 rpm for LXM05AD28M2<br>3000 rpm for LXM05BD28M2<br>3000 rpm for LXM05CD28M2<br>4000 rpm for LXM05AD42M3X<br>4000 rpm for LXM05BD42M3X<br>4000 rpm for LXM05CD42M3X<br>6000 rpm for LXM05AD22N4<br>6000 rpm for LXM05BD22N4<br>6000 rpm for LXM05CD22N4                                                                                                 |
| Maximum mechanical speed    | 6000 rpm                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Product compatibility       | LXM05AD22N4 at 400/480 V 3 phases<br>LXM05AD28F1 at 115 V single phase<br>LXM05AD28M2 at 230 V single phase<br>LXM05AD42M3X at 230 V 3 phases<br>LXM05BD22N4 at 400/480 V 3 phases<br>LXM05BD28F1 at 115 V single phase<br>LXM05BD28M2 at 230 V single phase<br>LXM05BD42M3X at 230 V 3 phases<br>LXM05CD22N4 at 400/480 V 3 phases<br>LXM05CD28F1 at 115 V single phase<br>LXM05CD28M2 at 230 V single phase<br>LXM05CD42M3X at 230 V 3 phases |
| Shaft end                   | Untapped                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| IP degree of protection     | IP56                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Encoder type                | Multiturn SinCos Hiperface                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Encoder feedback resolution | 131072 points/turn x 4096 turns                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Holding brake               | With                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Mounting support            | International standard flange                                                                                                                                                                                                                                                                                                                                                                                                                   |

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|                       |                     |
|-----------------------|---------------------|
| Electrical connection | Straight connectors |
| Number of poles       | 10                  |

## Complementary

|                                  |                                                                                                                                                                                                                                                                                                                            |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range compatibility              | Lexium 05                                                                                                                                                                                                                                                                                                                  |
| Switching frequency              | 8 kHz                                                                                                                                                                                                                                                                                                                      |
| Nominal torque                   | 4 N.m for LXM05AD28M2<br>4 N.m for LXM05AD42M3X<br>4 N.m for LXM05BD28M2<br>4 N.m for LXM05BD42M3X<br>4 N.m for LXM05CD28M2<br>4 N.m for LXM05CD42M3X<br>4.71 N.m for LXM05AD28F1<br>4.71 N.m for LXM05BD28F1<br>4.71 N.m for LXM05CD28F1<br>9.3 N.m for LXM05AD22N4<br>9.3 N.m for LXM05BD22N4<br>9.3 N.m for LXM05CD22N4 |
| Maximum current I <sub>rms</sub> | 14 A for LXM05AD22N4<br>14 A for LXM05BD22N4<br>14 A for LXM05CD22N4<br>20 A for LXM05AD28F1<br>20 A for LXM05AD28M2<br>20 A for LXM05BD28F1<br>20 A for LXM05BD28M2<br>20 A for LXM05CD28F1<br>20 A for LXM05CD28M2<br>30 A for LXM05AD42M3X<br>30 A for LXM05BD42M3X<br>30 A for LXM05CD42M3X                            |
| Torque constant                  | 0.68 N.m/A rms at 120 °C                                                                                                                                                                                                                                                                                                   |
| Back emf constant                | 44 V rms/krpm at 120 °C                                                                                                                                                                                                                                                                                                    |
| Rotor inertia                    | 3.9 kg.cm <sup>2</sup> without brake<br>4.44 kg.cm <sup>2</sup> with brake                                                                                                                                                                                                                                                 |
| Stator resistance                | 0.9 Ohm                                                                                                                                                                                                                                                                                                                    |
| Stator inductance                | 3.6 mH                                                                                                                                                                                                                                                                                                                     |
| Stator electrical time constant  | 4.2 ms                                                                                                                                                                                                                                                                                                                     |
| Maximum radial force Fr          | 230 N at 6000 rpm<br>234 N at 5000 rpm<br>241 N at 4000 rpm<br>248 N at 3000 rpm<br>256 N at 2000 rpm<br>300 N at 1000 rpm                                                                                                                                                                                                 |
| Maximum axial force Fa           | 0.2 x Fr                                                                                                                                                                                                                                                                                                                   |
| Product weight                   | 6.1 kg                                                                                                                                                                                                                                                                                                                     |

## Environment

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