

# BRH0852M30F2A

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

## Main

|                             |                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product or component type   | Motion servo motors                                                                                                                                                                                                                                                                                                              |
| Component name              | BRH                                                                                                                                                                                                                                                                                                                              |
| Continuous stall torque     | 3.1 N.m                                                                                                                                                                                                                                                                                                                          |
| Peak stall torque           | 7.81 N.m for LXM05AD17M2<br>7.81 N.m for LXM05AD17M3X<br>7.81 N.m for LXM05BD17M2<br>7.81 N.m for LXM05BD17M3X<br>7.81 N.m for LXM05CD17M2<br>7.81 N.m for LXM05CD17M3X<br>9.51 N.m for LXM05AD22N4<br>9.51 N.m for LXM05BD22N4<br>9.51 N.m for LXM05CD22N4                                                                      |
| Nominal output power        | 770 W for LXM05BD17M3X<br>770 W for LXM05CD17M2<br>770 W for LXM05CD17M3X<br>770 W for LXM05AD17M2<br>770 W for LXM05AD17M3X<br>770 W for LXM05BD17M2<br>1150 W for LXM05BD22N4<br>1150 W for LXM05CD22N4<br>1150 W for LXM05AD22N4                                                                                              |
| Nominal speed               | 3000 rpm for LXM05AD17M2<br>3000 rpm for LXM05AD17M3X<br>3000 rpm for LXM05BD17M2<br>3000 rpm for LXM05BD17M3X<br>3000 rpm for LXM05CD17M2<br>3000 rpm for LXM05CD17M3X<br>6000 rpm for LXM05AD22N4<br>6000 rpm for LXM05BD22N4<br>6000 rpm for LXM05CD22N4                                                                      |
| Maximum mechanical speed    | 6000 rpm                                                                                                                                                                                                                                                                                                                         |
| Product compatibility       | LXM05AD17M2 at 230 V single phase<br>LXM05AD17M3X at 230 V 3 phases<br>LXM05AD22N4 at 400/480 V 3 phases<br>LXM05BD17M2 at 230 V single phase<br>LXM05BD17M3X at 230 V 3 phases<br>LXM05BD22N4 at 400/480 V 3 phases<br>LXM05CD17M2 at 230 V single phase<br>LXM05CD17M3X at 230 V 3 phases<br>LXM05CD22N4 at 400/480 V 3 phases |
| Shaft end                   | Keyed                                                                                                                                                                                                                                                                                                                            |
| IP degree of protection     | IP56                                                                                                                                                                                                                                                                                                                             |
| Encoder type                | Single turn SinCos Hiperface                                                                                                                                                                                                                                                                                                     |
| Encoder feedback resolution | 16384 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                   | 2.45 N.m for LXM05AD17M2<br>2.45 N.m for LXM05AD17M3X<br>2.45 N.m for LXM05BD17M2<br>2.45 N.m for LXM05BD17M3X<br>2.45 N.m for LXM05CD17M2<br>2.45 N.m for LXM05CD17M3X<br>11 N.m for LXM05AD22N4<br>11 N.m for LXM05BD22N4<br>11 N.m for LXM05CD22N4 |
| Maximum current I <sub>rms</sub> | 11 A for LXM05AD17M2<br>11 A for LXM05AD17M3X<br>11 A for LXM05BD17M2<br>11 A for LXM05BD17M3X<br>11 A for LXM05CD17M2<br>11 A for LXM05CD17M3X<br>14 A for LXM05AD22N4<br>14 A for LXM05BD22N4<br>14 A for LXM05CD22N4                               |
| Torque constant                  | 0.75 N.m/A rms at 120 °C                                                                                                                                                                                                                              |
| Back emf constant                | 49.2 V rms/krpm at 120 °C                                                                                                                                                                                                                             |
| Rotor inertia                    | 2 kg.cm <sup>2</sup> without brake<br>2.53 kg.cm <sup>2</sup> with brake                                                                                                                                                                              |
| Stator resistance                | 2.5 Ohm                                                                                                                                                                                                                                               |
| Stator inductance                | 9.5 mH                                                                                                                                                                                                                                                |
| Stator electrical time constant  | 3.8 ms                                                                                                                                                                                                                                                |
| Maximum radial force Fr          | 203 N at 6000 rpm<br>207 N at 5000 rpm<br>213 N at 4000 rpm<br>219 N at 3000 rpm<br>226 N at 2000 rpm<br>265 N at 1000 rpm                                                                                                                            |
| Maximum axial force Fa           | 0.2 x Fr                                                                                                                                                                                                                                              |
| Product weight                   | 3.3 kg                                                                                                                                                                                                                                                |

## Environment

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