

# BRH0853P22F2A

AC servo motors BRH - 12 N.m - 4500 rpm -  
untapped 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<br>9.7 N.m for LXM05AD28M2<br>9.7 N.m for LXM05BD28F1<br>9.7 N.m for LXM05BD28M2<br>9.7 N.m for LXM05CD28F1<br>9.7 N.m for LXM05CD28M2<br>13.6 N.m for LXM05AD42M3X<br>13.6 N.m for LXM05BD42M3X<br>13.6 N.m for LXM05CD42M3X                                                                            |
| Nominal output power        | 570 W for LXM05CD28F1<br>570 W for LXM05AD28F1<br>570 W for LXM05BD28F1<br>1200 W for LXM05BD28M2<br>1200 W for LXM05CD28M2<br>1200 W for LXM05AD28M2<br>1250 W for LXM05BD42M3X<br>1250 W for LXM05CD42M3X<br>1250 W for LXM05AD42M3X                                                                                           |
| Nominal speed               | 1500 rpm for LXM05AD28F1<br>1500 rpm for LXM05BD28F1<br>1500 rpm for LXM05CD28F1<br>4500 rpm for LXM05AD28M2<br>4500 rpm for LXM05BD28M2<br>4500 rpm for LXM05CD28M2<br>6000 rpm for LXM05AD42M3X<br>6000 rpm for LXM05BD42M3X<br>6000 rpm for LXM05CD42M3X                                                                      |
| Maximum mechanical speed    | 6000 rpm                                                                                                                                                                                                                                                                                                                         |
| Product compatibility       | LXM05AD28F1 at 115 V single phase<br>LXM05AD28M2 at 230 V single phase<br>LXM05AD42M3X at 230 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>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                                                                                                                                                                                                                                                                                                    |
| Electrical connection       | Rotatable right-angled connectors                                                                                                                                                                                                                                                                                                |
| Number of poles             | 10                                                                                                                                                                                                                                                                                                                               |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. 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. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

## Complementary

|                                 |                                                                                                                                                                                                                                                             |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range compatibility             | Lexium 05                                                                                                                                                                                                                                                   |
| Switching frequency             | 8 kHz                                                                                                                                                                                                                                                       |
| Nominal torque                  | 2.55 N.m for LXM05AD28M2<br>2.55 N.m for LXM05AD42M3X<br>2.55 N.m for LXM05BD28M2<br>2.55 N.m for LXM05BD42M3X<br>2.55 N.m for LXM05CD28M2<br>2.55 N.m for LXM05CD42M3X<br>3.65 N.m for LXM05AD28F1<br>3.65 N.m for LXM05BD28F1<br>3.65 N.m for LXM05CD28F1 |
| Maximum current Irms            | 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                 | 0.51 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<br>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<br>223 N at 5000 rpm<br>230 N at 4000 rpm<br>237 N at 3000 rpm<br>244 N at 2000 rpm<br>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 |