

# BRH1101P22A2A

AC servo motors BRH - 5.2 N.m - 6000 rpm -  
untapped shaft - without brake - IP56

## Main

|                             |                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product or component type   | Motion servo motors                                                                                                                                                                                                                                                                                                              |
| Component name              | BRH                                                                                                                                                                                                                                                                                                                              |
| Continuous stall torque     | 5.2 N.m                                                                                                                                                                                                                                                                                                                          |
| Peak stall torque           | 13 N.m for LXM05AD34N4<br>13 N.m for LXM05BD34N4<br>13 N.m for LXM05CD34N4<br>14 N.m for LXM05AD28M2<br>14 N.m for LXM05BD28M2<br>14 N.m for LXM05CD28M2<br>16.2 N.m for LXM05AD42M3X<br>16.2 N.m for LXM05BD42M3X<br>16.2 N.m for LXM05CD42M3X                                                                                  |
| Nominal output power        | 1400 W for LXM05BD28M2<br>1400 W for LXM05BD42M3X<br>1400 W for LXM05CD28M2<br>1400 W for LXM05CD42M3X<br>1400 W for LXM05AD28M2<br>1400 W for LXM05AD42M3X<br>1900 W for LXM05CD34N4<br>1900 W for LXM05AD34N4<br>1900 W for LXM05BD34N4                                                                                        |
| Nominal speed               | 3000 rpm for LXM05AD28M2<br>3000 rpm for LXM05AD42M3X<br>3000 rpm for LXM05BD28M2<br>3000 rpm for LXM05BD42M3X<br>3000 rpm for LXM05CD28M2<br>3000 rpm for LXM05CD42M3X<br>4500 rpm for LXM05AD34N4<br>4500 rpm for LXM05BD34N4<br>4500 rpm for LXM05CD34N4                                                                      |
| Maximum mechanical speed    | 6000 rpm                                                                                                                                                                                                                                                                                                                         |
| Product compatibility       | LXM05AD28M2 at 230 V single phase<br>LXM05AD34N4 at 400/480 V 3 phases<br>LXM05AD42M3X at 230 V 3 phases<br>LXM05BD28M2 at 230 V single phase<br>LXM05BD34N4 at 400/480 V 3 phases<br>LXM05BD42M3X at 230 V 3 phases<br>LXM05CD28M2 at 230 V single phase<br>LXM05CD34N4 at 400/480 V 3 phases<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               | Without                                                                                                                                                                                                                                                                                                                          |
| 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                  | 4.04 N.m for LXM05AD34N4<br>4.04 N.m for LXM05BD34N4<br>4.04 N.m for LXM05CD34N4<br>4.5 N.m for LXM05AD28M2<br>4.5 N.m for LXM05AD42M3X<br>4.5 N.m for LXM05BD28M2<br>4.5 N.m for LXM05BD42M3X<br>4.5 N.m for LXM05CD28M2<br>4.5 N.m for LXM05CD42M3X |
| Maximum current Irms            | 18 A for LXM05AD34N4<br>18 A for LXM05BD34N4<br>18 A for LXM05CD34N4<br>20 A for LXM05AD28M2<br>20 A for LXM05BD28M2<br>20 A for LXM05CD28M2<br>30 A for LXM05AD42M3X<br>30 A for LXM05BD42M3X<br>30 A for LXM05CD42M3X                               |
| Torque constant                 | 0.83 N.m/A rms at 120 °C                                                                                                                                                                                                                              |
| Back emf constant               | 54.2 V rms/krpm at 120 °C                                                                                                                                                                                                                             |
| Rotor inertia                   | 4.5 kg.cm <sup>2</sup> without brake<br>5.8 kg.cm <sup>2</sup> with brake                                                                                                                                                                             |
| Stator resistance               | 1.2 Ohm                                                                                                                                                                                                                                               |
| Stator inductance               | 8.1 mH                                                                                                                                                                                                                                                |
| Stator electrical time constant | 6.5 ms                                                                                                                                                                                                                                                |
| Maximum radial force Fr         | 629 N at 6000 rpm<br>655 N at 5000 rpm<br>688 N at 4000 rpm<br>697 N at 3000 rpm<br>709 N at 2000 rpm<br>729 N at 1000 rpm                                                                                                                            |
| Maximum axial force Fa          | 0.2 x Fr                                                                                                                                                                                                                                              |
| Product weight                  | 4.9 kg                                                                                                                                                                                                                                                |

## Environment

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