

# BRH0572P31F1A

AC servo motors BRH - 1.05 N.m - 4500 rpm -  
keyed shaft - with brake - IP56

## Main

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product or component type   | Motion servo motors                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Component name              | BRH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Continuous stall torque     | 0.76 N.m                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Peak stall torque           | 1.55 N.m for LXM05CU70M2<br>2.07 N.m for LXM05AD10F1<br>2.07 N.m for LXM05AD10M2<br>2.07 N.m for LXM05AD10M3X<br>2.07 N.m for LXM05BD10F1<br>2.07 N.m for LXM05BD10M2<br>2.07 N.m for LXM05BD10M3X<br>2.07 N.m for LXM05CD10F1<br>2.07 N.m for LXM05CD10M2<br>2.07 N.m for LXM05CD10M3X<br>2.46 N.m for LXM05AD14N4<br>2.46 N.m for LXM05BD14N4<br>2.46 N.m for LXM05CD14N4                                                                                                          |
| Nominal output power        | 120 W for LXM05BD10F1<br>120 W for LXM05CD10F1<br>120 W for LXM05AD10F1<br>220 W for LXM05BD10M2<br>220 W for LXM05CU70M2<br>220 W for LXM05CD10M2<br>220 W for LXM05AD10M2<br>400 W for LXM05BD10M3X<br>400 W for LXM05BD14N4<br>400 W for LXM05CD10M3X<br>400 W for LXM05CD14N4<br>400 W for LXM05AD10M3X<br>400 W for LXM05AD14N4                                                                                                                                                 |
| Nominal speed               | 1500 rpm for LXM05AD10F1<br>1500 rpm for LXM05BD10F1<br>1500 rpm for LXM05CD10F1<br>3000 rpm for LXM05AD10M2<br>3000 rpm for LXM05BD10M2<br>3000 rpm for LXM05CU70M2<br>3000 rpm for LXM05CD10M2<br>6000 rpm for LXM05AD10M3X<br>6000 rpm for LXM05AD14N4<br>6000 rpm for LXM05BD10M3X<br>6000 rpm for LXM05BD14N4<br>6000 rpm for LXM05CD10M3X<br>6000 rpm for LXM05CD14N4                                                                                                          |
| Maximum mechanical speed    | 8000 rpm                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Product compatibility       | LXM05AD10F1 at 115 V single phase<br>LXM05AD10M2 at 230 V single phase<br>LXM05AD10M3X at 230 V 3 phases<br>LXM05AD14N4 at 400/480 V 3 phases<br>LXM05BD10F1 at 115 V single phase<br>LXM05BD10M2 at 230 V single phase<br>LXM05BD10M3X at 230 V 3 phases<br>LXM05BD14N4 at 400/480 V 3 phases<br>LXM05CD10F1 at 115 V single phase<br>LXM05CD10M2 at 230 V single phase<br>LXM05CD10M3X at 230 V 3 phases<br>LXM05CD14N4 at 400/480 V 3 phases<br>LXM05CU70M2 at 230 V single phase |
| Shaft end                   | Keyed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| IP degree of protection     | IP56                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Encoder type                | Single turn SinCos Hiperface                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Encoder feedback resolution | 131072 points/turn                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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|                       |                               |
|-----------------------|-------------------------------|
| Holding brake         | With                          |
| Mounting support      | International standard flange |
| Electrical connection | Straight connectors           |
| Number of poles       | 10                            |

## Complementary

|                                  |                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range compatibility              | Lexium 05                                                                                                                                                                                                                                                                                                                                                               |
| Switching frequency              | 8 kHz                                                                                                                                                                                                                                                                                                                                                                   |
| Nominal torque                   | 0.64 N.m for LXM05AD10M3X<br>0.64 N.m for LXM05AD14N4<br>0.64 N.m for LXM05BD10M3X<br>0.64 N.m for LXM05BD14N4<br>0.64 N.m for LXM05CD10M3X<br>0.64 N.m for LXM05CD14N4<br>0.7 N.m for LXM05AD10M2<br>0.7 N.m for LXM05BD10M2<br>0.7 N.m for LXM05CU70M2<br>0.7 N.m for LXM05CD10M2<br>0.73 N.m for LXM05AD10F1<br>0.73 N.m for LXM05BD10F1<br>0.73 N.m for LXM05CD10F1 |
| Maximum current I <sub>rms</sub> | 4.3 A for LXM05CU70M2<br>6 A for LXM05AD10F1<br>6 A for LXM05AD10M2<br>6 A for LXM05AD10M3X<br>6 A for LXM05BD10F1<br>6 A for LXM05BD10M2<br>6 A for LXM05BD10M3X<br>6 A for LXM05CD10F1<br>6 A for LXM05CD10M2<br>6 A for LXM05CD10M3X<br>7.5 A for LXM05CD14N4<br>7.5 A for LXM05BD14N4<br>7.5 A for LXM05AD14N4                                                      |
| Torque constant                  | 0.38 N.m/A rms at 120 °C                                                                                                                                                                                                                                                                                                                                                |
| Back emf constant                | 24.3 V rms/krpm at 120 °C                                                                                                                                                                                                                                                                                                                                               |
| Rotor inertia                    | 0.26 kg.cm <sup>2</sup> with brake<br>0.26 kg.cm <sup>2</sup> without brake                                                                                                                                                                                                                                                                                             |
| Stator resistance                | 6.7 Ohm                                                                                                                                                                                                                                                                                                                                                                 |
| Stator inductance                | 13.6 mH                                                                                                                                                                                                                                                                                                                                                                 |
| Stator electrical time constant  | 2 ms                                                                                                                                                                                                                                                                                                                                                                    |
| Maximum radial force Fr          | 86 N at 6000 rpm<br>87 N at 5000 rpm<br>89 N at 4000 rpm<br>91 N at 3000 rpm<br>96 N at 2000 rpm<br>130 N at 1000 rpm                                                                                                                                                                                                                                                   |
| Maximum axial force Fa           | 0.2 x Fr                                                                                                                                                                                                                                                                                                                                                                |
| Product weight                   | 1.4 kg                                                                                                                                                                                                                                                                                                                                                                  |

## Environment

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