

# BSH1003M11A2A

AC servo motor BSH - 7.8 Nm - 6000 rpm - key  
shaft - without brake - IP50

## Main

|                             |                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product or component type   | AC servo motors                                                                                                                                                                                                                                                                                                                                         |
| Component name              | BSH                                                                                                                                                                                                                                                                                                                                                     |
| Continuous stall torque     | 7.76 N.m for LXM15LD10N4 at 400 V 3 phases<br>7.76 N.m for LXM15LD17N4 at 230 V 3 phases<br>7.76 N.m for LXM15LD17N4 at 400 V 3 phases<br>7.76 N.m for LXM15LD17N4 at 480 V 3 phases<br>7.8 N.m for LXM05AD22N4 at 380...480 V 3 phases<br>7.8 N.m for LXM05BD22N4 at 380...480 V 3 phases<br>7.8 N.m for LXM05CD22N4 at 380...480 V 3 phases           |
| Peak stall torque           | 15.19 N.m for LXM15LD10N4 at 400 V 3 phases<br>22.95 N.m for LXM15LD17N4 at 230 V 3 phases<br>22.95 N.m for LXM15LD17N4 at 400 V 3 phases<br>22.95 N.m for LXM15LD17N4 at 480 V 3 phases<br>23.17 N.m for LXM05AD22N4 at 380...480 V 3 phases<br>23.17 N.m for LXM05BD22N4 at 380...480 V 3 phases<br>23.17 N.m for LXM05CD22N4 at 380...480 V 3 phases |
| Nominal output power        | 750 W for LXM15LD17N4 at 230 V 3 phases<br>1100 W for LXM05AD22N4 at 380...480 V 3 phases<br>1100 W for LXM05BD22N4 at 380...480 V 3 phases<br>1100 W for LXM05CD22N4 at 380...480 V 3 phases<br>1300 W for LXM15LD10N4 at 400 V 3 phases<br>1400 W for LXM15LD17N4 at 400 V 3 phases<br>1400 W for LXM15LD17N4 at 480 V 3 phases                       |
| Nominal speed               | 1000 rpm for LXM15LD17N4 at 230 V 3 phases<br>1500 rpm for LXM05AD22N4 at 380...480 V 3 phases<br>1500 rpm for LXM05BD22N4 at 380...480 V 3 phases<br>1500 rpm for LXM05CD22N4 at 380...480 V 3 phases<br>2000 rpm for LXM15LD10N4 at 400 V 3 phases<br>2000 rpm for LXM15LD17N4 at 400 V 3 phases<br>2000 rpm for LXM15LD17N4 at 480 V 3 phases        |
| Maximum mechanical speed    | 6000 rpm                                                                                                                                                                                                                                                                                                                                                |
| Product compatibility       | LXM05AD22N4 at 380...480 V 3 phases<br>LXM05BD22N4 at 380...480 V 3 phases<br>LXM05CD22N4 at 380...480 V 3 phases<br>LXM15LD10N4 at 400 V 3 phases<br>LXM15LD17N4 at 230 V 3 phases<br>LXM15LD17N4 at 400 V 3 phases<br>LXM15LD17N4 at 480 V 3 phases                                                                                                   |
| Shaft end                   | Keyed                                                                                                                                                                                                                                                                                                                                                   |
| IP degree of protection     | IP50                                                                                                                                                                                                                                                                                                                                                    |
| Encoder type                | Absolute single turn SinCos Hiperface                                                                                                                                                                                                                                                                                                                   |
| Encoder feedback resolution | 131072 points/turn                                                                                                                                                                                                                                                                                                                                      |
| Holding brake               | Without                                                                                                                                                                                                                                                                                                                                                 |
| Mounting support            | International standard flange                                                                                                                                                                                                                                                                                                                           |
| Electrical connection       | Rotatable right-angled connectors                                                                                                                                                                                                                                                                                                                       |
| Number of poles             | 8                                                                                                                                                                                                                                                                                                                                                       |

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<br>Lexium 15                                                                                                                                                                                                                                                                                                                      |
| Nominal torque                              | 6.36 N.m for LXM15LD10N4 at 400 V 3 phases<br>6.5 N.m for LXM15LD17N4 at 400 V 3 phases<br>6.5 N.m for LXM15LD17N4 at 480 V 3 phases<br>6.73 N.m for LXM05AD22N4 at 380...480 V 3 phases<br>6.73 N.m for LXM05BD22N4 at 380...480 V 3 phases<br>6.73 N.m for LXM05CD22N4 at 380...480 V 3 phases<br>7 N.m for LXM15LD17N4 at 230 V 3 phases |
| Maximum current I <sub>rms</sub>            | 14.7 A for LXM05AD22N4<br>14.7 A for LXM05BD22N4<br>14.7 A for LXM05CD22N4<br>15.6 A for LXM15LD10N4<br>15.6 A for LXM15LD17N4                                                                                                                                                                                                              |
| Switching frequency                         | 4 kHz for LEX05                                                                                                                                                                                                                                                                                                                             |
| Torque constant                             | 2.22 N.m/A rms at 120 °C<br>2.22 N.m/A rms at 120 °C                                                                                                                                                                                                                                                                                        |
| Back electromagnetical force (emf) constant | 1.44 V rms/krpm at 120 °C<br>148 V rms/krpm at 120 °C                                                                                                                                                                                                                                                                                       |
| Rotor inertia                               | 3.22 kg.cm <sup>2</sup> without brake                                                                                                                                                                                                                                                                                                       |
| Stator resistance                           | 5.3 Ohm at 20 °C                                                                                                                                                                                                                                                                                                                            |
| Stator inductance                           | 32.5 mH at 20 °C<br>33.7 mH at 20 °C                                                                                                                                                                                                                                                                                                        |
| Stator electrical time constant             | 6.13 ms at 20 °C<br>6.36 ms at 20 °C                                                                                                                                                                                                                                                                                                        |
| Maximum radial force Fr                     | 660 N at 4000 rpm<br>730 N at 3000 rpm<br>830 N at 2000 rpm<br>1050 N at 1000 rpm                                                                                                                                                                                                                                                           |
| Maximum axial force Fa                      | 0.2 x Fr                                                                                                                                                                                                                                                                                                                                    |
| Product weight                              | 7.4 kg                                                                                                                                                                                                                                                                                                                                      |

## Environment

|                          |           |
|--------------------------|-----------|
| RoHS EUR conformity date | 0850      |
| RoHS EUR status          | Compliant |