

# BSH1402M01A1A

AC servo motor BSH - 19.2 Nm - 4000 rpm -  
untapped shaft - without brake - IP50

## Main

|                             |                                                                                                                                                                                                                                                      |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product or component type   | AC servo motors                                                                                                                                                                                                                                      |
| Component name              | BSH                                                                                                                                                                                                                                                  |
| Continuous stall torque     | 19.2 N.m for LXM05AD34N4 at 380...480 V 3 phases<br>19.2 N.m for LXM05BD34N4 at 380...480 V 3 phases<br>19.2 N.m for LXM05CD34N4 at 380...480 V 3 phases<br>19.5 N.m for LXM15MD40N4 at 400 V 3 phases<br>19.5 N.m for LXM15MD40N4 at 480 V 3 phases |
| Peak stall torque           | 47.5 N.m for LXM15MD40N4 at 400 V 3 phases<br>47.5 N.m for LXM15MD40N4 at 480 V 3 phases<br>47.5 N.m for LXM05AD34N4 at 380...480 V 3 phases<br>47.5 N.m for LXM05BD34N4 at 380...480 V 3 phases<br>47.5 N.m for LXM05CD34N4 at 380...480 V 3 phases |
| Nominal output power        | 2350 W for LXM15MD40N4 at 400 V 3 phases<br>2350 W for LXM15MD40N4 at 480 V 3 phases<br>2350 W for LXM05AD34N4 at 380...480 V 3 phases<br>2350 W for LXM05BD34N4 at 380...480 V 3 phases<br>2350 W for LXM05CD34N4 at 380...480 V 3 phases           |
| Nominal speed               | 1500 rpm for LXM15MD40N4 at 400 V 3 phases<br>1500 rpm for LXM15MD40N4 at 480 V 3 phases<br>1500 rpm for LXM05AD34N4 at 380...480 V 3 phases<br>1500 rpm for LXM05BD34N4 at 380...480 V 3 phases<br>1500 rpm for LXM05CD34N4 at 380...480 V 3 phases |
| Maximum mechanical speed    | 4000 rpm                                                                                                                                                                                                                                             |
| Product compatibility       | LXM05AD34N4 at 380...480 V 3 phases<br>LXM05BD34N4 at 380...480 V 3 phases<br>LXM05CD34N4 at 380...480 V 3 phases<br>LXM15MD40N4 at 400 V 3 phases<br>LXM15MD40N4 at 480 V 3 phases                                                                  |
| Shaft end                   | Untapped                                                                                                                                                                                                                                             |
| 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       | Straight connectors                                                                                                                                                                                                                                  |
| Number of poles             | 10                                                                                                                                                                                                                                                   |

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## Complementary

|                                             |                                                                                                                                                                                                                                            |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range compatibility                         | Lexium 05<br>Lexium 15                                                                                                                                                                                                                     |
| Nominal torque                              | 15 N.m for LXM15MD40N4 at 400 V 3 phases<br>15 N.m for LXM15MD40N4 at 480 V 3 phases<br>15 N.m for LXM05AD34N4 at 380...480 V 3 phases<br>15 N.m for LXM05BD34N4 at 380...480 V 3 phases<br>15 N.m for LXM05CD34N4 at 380...480 V 3 phases |
| Maximum current Irms                        | 22.4 A for LXM15MD40N4<br>22.4 A for LXM05AD34N4<br>22.4 A for LXM05BD34N4<br>22.4 A for LXM05CD34N4                                                                                                                                       |
| Switching frequency                         | 4 kHz for LEX05                                                                                                                                                                                                                            |
| Torque constant                             | 2.91 N.m/A rms at 120 °C                                                                                                                                                                                                                   |
| Back electromagnetical force (emf) constant | 199 V rms/krpm at 120 °C                                                                                                                                                                                                                   |
| Rotor inertia                               | 12.68 kg.cm <sup>2</sup> without brake                                                                                                                                                                                                     |
| Stator resistance                           | 2.3 Ohm at 20 °C<br>2.32 Ohm at 20 °C                                                                                                                                                                                                      |
| Stator inductance                           | 28.6 mH at 20 °C<br>29.79 mH at 20 °C                                                                                                                                                                                                      |
| Stator electrical time constant             | 12.33 ms at 20 °C<br>12.85 ms at 20 °C                                                                                                                                                                                                     |
| Maximum radial force Fr                     | 1680 N at 3000 rpm<br>1930 N at 2000 rpm<br>2430 N at 1000 rpm                                                                                                                                                                             |
| Maximum axial force Fa                      | 0.2 x Fr                                                                                                                                                                                                                                   |
| Product weight                              | 16 kg                                                                                                                                                                                                                                      |

## Environment

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