

# BSH1002M12A1A

AC servo motor BSH - 5.5 Nm - 6000 rpm - key shaft - without brake - IP50

## Main

|                             |                                                                                                                                                          |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product or component type   | AC servo motors                                                                                                                                          |
| Component name              | BSH                                                                                                                                                      |
| Continuous stall torque     | 5.5 N.m for LXM05AD14N4 at 380...480 V 3 phases<br>5.5 N.m for LXM05BD14N4 at 380...480 V 3 phases<br>5.5 N.m for LXM05CD14N4 at 380...480 V 3 phases    |
| Peak stall torque           | 13.3 N.m for LXM05AD14N4 at 380...480 V 3 phases<br>13.3 N.m for LXM05BD14N4 at 380...480 V 3 phases<br>13.3 N.m for LXM05CD14N4 at 380...480 V 3 phases |
| Nominal output power        | 780 W for LXM05AD14N4 at 380...480 V 3 phases<br>780 W for LXM05BD14N4 at 380...480 V 3 phases<br>780 W for LXM05CD14N4 at 380...480 V 3 phases          |
| Nominal speed               | 1500 rpm for LXM05AD14N4 at 380...480 V 3 phases<br>1500 rpm for LXM05BD14N4 at 380...480 V 3 phases<br>1500 rpm for LXM05CD14N4 at 380...480 V 3 phases |
| Maximum mechanical speed    | 6000 rpm                                                                                                                                                 |
| Product compatibility       | LXM05AD14N4 at 380...480 V 3 phases<br>LXM05BD14N4 at 380...480 V 3 phases<br>LXM05CD14N4 at 380...480 V 3 phases                                        |
| Shaft end                   | Keyed                                                                                                                                                    |
| IP degree of protection     | IP50                                                                                                                                                     |
| Encoder type                | Absolute multturn SinCos Hiperface                                                                                                                       |
| Encoder feedback resolution | 131072 points/turn x 4096 turns                                                                                                                          |
| Holding brake               | Without                                                                                                                                                  |
| Mounting support            | International standard flange                                                                                                                            |
| Electrical connection       | Straight connectors                                                                                                                                      |
| Number of poles             | 8                                                                                                                                                        |

## Complementary

|                                             |                                                                                                                                                          |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range compatibility                         | Lexium 05                                                                                                                                                |
| Nominal torque                              | 4.96 N.m for LXM05AD14N4 at 380...480 V 3 phases<br>4.96 N.m for LXM05BD14N4 at 380...480 V 3 phases<br>4.96 N.m for LXM05CD14N4 at 380...480 V 3 phases |
| Maximum current Irms                        | 9 A for LXM05AD14N4<br>9 A for LXM05BD14N4<br>9 A for LXM05CD14N4                                                                                        |
| Switching frequency                         | 4 kHz for LEX05                                                                                                                                          |
| Torque constant                             | 2.32 N.m/A rms at 120 °C                                                                                                                                 |
| Back electromagnetical force (emf) constant | 146 V rms/krpm at 120 °C                                                                                                                                 |
| Rotor inertia                               | 2.31 kg.cm <sup>2</sup> without brake                                                                                                                    |
| Stator resistance                           | 8.6 Ohm at 20 °C                                                                                                                                         |
| Stator inductance                           | 45.7 mH at 20 °C                                                                                                                                         |
| Stator electrical time constant             | 5.31 ms at 20 °C                                                                                                                                         |
| Maximum radial force Fr                     | 620 N at 4000 rpm<br>690 N at 3000 rpm<br>790 N at 2000 rpm<br>990 N at 1000 rpm                                                                         |

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|                        |          |
|------------------------|----------|
| Maximum axial force Fa | 0.2 x Fr |
| Product weight         | 5.9 kg   |

## Environment

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