

# BSH1401T32A1A

AC servo motor BSH - 11.1 N.m - 2500 rpm -  
keyed shaft - without brake - IP65



## Main

|                           |                                                                                                                                                                                                                       |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product or component type | Servo motor                                                                                                                                                                                                           |
| Device short name         | BSH                                                                                                                                                                                                                   |
| Maximum mechanical speed  | 4000 rpm                                                                                                                                                                                                              |
| Continuous stall torque   | 11.1 N.m for LXM15MD56N4, 230 V, three phase<br>11.4 N.m for LXM05AD42M3X, 200...240 V, three phase<br>11.4 N.m for LXM05BD42M3X, 200...240 V, three phase<br>11.4 N.m for LXM05CD42M3X, 200...240 V, three phase     |
| Peak stall torque         | 23.33 N.m for LXM15MD56N4, 230 V, three phase<br>23.33 N.m for LXM05AD42M3X, 200...240 V, three phase<br>23.33 N.m for LXM05BD42M3X, 200...240 V, three phase<br>23.33 N.m for LXM05CD42M3X, 200...240 V, three phase |
| Nominal output power      | 2000 W for LXM15MD56N4, 230 V, three phase<br>2200 W for LXM05AD42M3X, 200...240 V, three phase<br>2200 W for LXM05BD42M3X, 200...240 V, three phase<br>2200 W for LXM05CD42M3X, 200...240 V, three phase             |
| Nominal torque            | 6.9 N.m for LXM05AD42M3X, 200...240 V, three phase<br>6.9 N.m for LXM05BD42M3X, 200...240 V, three phase<br>6.9 N.m for LXM05CD42M3X, 200...240 V, three phase<br>7.63 N.m for LXM15MD56N4, 230 V, three phase        |
| Nominal speed             | 3000 rpm for LXM05AD42M3X, 200...240 V, three phase<br>3000 rpm for LXM05BD42M3X, 200...240 V, three phase<br>3000 rpm for LXM05CD42M3X, 200...240 V, three phase<br>2500 rpm for LXM15MD56N4, 230 V, three phase     |
| Product compatibility     | LXM05AD42M3X at 200...240 V three phase<br>LXM05BD42M3X at 200...240 V three phase<br>LXM05CD42M3X at 200...240 V three phase<br>LXM15MD56N4 at 230 V three phase                                                     |
| Shaft end                 | Keyed                                                                                                                                                                                                                 |
| IP degree of protection   | IP65 standard<br>IP67 with IP67 kit                                                                                                                                                                                   |
| Speed feedback resolution | 131072 points/turn x 4096 turns                                                                                                                                                                                       |
| Holding brake             | Without                                                                                                                                                                                                               |
| Mounting support          | International standard flange                                                                                                                                                                                         |
| Electrical connection     | Straight connectors                                                                                                                                                                                                   |

## Complementary

|                     |           |
|---------------------|-----------|
| Range compatibility | Lexium 05 |
|---------------------|-----------|

|                                       |                                                                                                         |
|---------------------------------------|---------------------------------------------------------------------------------------------------------|
|                                       | Lexium 15                                                                                               |
| Supply voltage max                    | 480 V                                                                                                   |
| Network number of phases              | Three phase                                                                                             |
| Continuous stall current              | 13.9 A                                                                                                  |
| Maximum continuous power              | 3.6 W                                                                                                   |
| Maximum current Irms                  | 37.1 A for LXM15MD56N4<br>37.1 A for LXM05AD42M3X<br>37.1 A for LXM05BD42M3X<br>37.1 A for LXM05CD42M3X |
| Maximum permanent current             | 37.1 A                                                                                                  |
| Switching frequency                   | 4 kHz                                                                                                   |
| Second shaft                          | Without second shaft end                                                                                |
| Shaft diameter                        | 24 mm                                                                                                   |
| Shaft length                          | 50 mm                                                                                                   |
| Key width                             | 40 mm                                                                                                   |
| Feedback type                         | Multiturn SinCos Hiperface                                                                              |
| Motor flange size                     | 140 mm                                                                                                  |
| Number of motor stacks                | 1                                                                                                       |
| Torque constant                       | 0.83 N.m/A at 120 °C                                                                                    |
| Back emf constant                     | 56 V/krpm at 120 °C                                                                                     |
| Number of motor poles                 | 10                                                                                                      |
| Rotor inertia                         | 7.41 kg.cm <sup>2</sup>                                                                                 |
| Stator resistance                     | 0.4 Ohm at 20 °C<br>0.44 Ohm at 20 °C                                                                   |
| Stator inductance                     | 4.9 mH at 20 °C<br>5.15 mH at 20 °C                                                                     |
| Stator electrical time constant       | 11.14 ms at 20 °C<br>12.88 ms at 20 °C                                                                  |
| Maximum radial force Fr               | 1530 N at 3000 rpm<br>1760 N at 2000 rpm<br>2210 N at 1000 rpm                                          |
| Maximum axial force Fa                | 0.2 x Fr                                                                                                |
| Type of cooling                       | Natural convection                                                                                      |
| Length                                | 217.5 mm                                                                                                |
| Centring collar diameter              | 130 mm                                                                                                  |
| Centring collar depth                 | 3.5 mm                                                                                                  |
| Number of mounting holes              | 4                                                                                                       |
| Mounting holes diameter               | 11 mm                                                                                                   |
| Circle diameter of the mounting holes | 165 mm                                                                                                  |
| Product weight                        | 11.9 kg                                                                                                 |

### Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|