

# BSH1402T32F1P

AC servo motor BSH - 14.4 Nm - 4000 rpm -  
key shaft - with brake - IP65

## Main

|                             |                                                                                                                                                                |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product or component type   | AC servo motors                                                                                                                                                |
| Component name              | BSH                                                                                                                                                            |
| Continuous stall torque     | 14.4 N.m for LXM05AD42M3X at 200...240 V 3 phases<br>14.4 N.m for LXM05BD42M3X at 200...240 V 3 phases<br>14.4 N.m for LXM05CD42M3X at 200...240 V 3 phases    |
| Peak stall torque           | 24.56 N.m for LXM05AD42M3X at 200...240 V 3 phases<br>24.56 N.m for LXM05BD42M3X at 200...240 V 3 phases<br>24.56 N.m for LXM05CD42M3X at 200...240 V 3 phases |
| Nominal output power        | 2900 W for LXM05AD42M3X at 200...240 V 3 phases<br>2900 W for LXM05BD42M3X at 200...240 V 3 phases<br>2900 W for LXM05CD42M3X at 200...240 V 3 phases          |
| Nominal speed               | 3000 rpm for LXM05AD42M3X at 200...240 V 3 phases<br>3000 rpm for LXM05BD42M3X at 200...240 V 3 phases<br>3000 rpm for LXM05CD42M3X at 200...240 V 3 phases    |
| Maximum mechanical speed    | 4000 rpm                                                                                                                                                       |
| Product compatibility       | LXM05AD42M3X at 200...240 V 3 phases<br>LXM05BD42M3X at 200...240 V 3 phases<br>LXM05CD42M3X at 200...240 V 3 phases                                           |
| Shaft end                   | Keyed                                                                                                                                                          |
| IP degree of protection     | IP65                                                                                                                                                           |
| Encoder type                | Absolute multturn SinCos Hiperface                                                                                                                             |
| Encoder feedback resolution | 131072 points/turn x 4096 turns                                                                                                                                |
| Holding brake               | With                                                                                                                                                           |
| Mounting support            | International standard flange                                                                                                                                  |
| Electrical connection       | Straight connectors                                                                                                                                            |
| Number of poles             | 10                                                                                                                                                             |

## Complementary

|                                             |                                                                                                                                                          |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range compatibility                         | Lexium 05                                                                                                                                                |
| Nominal torque                              | 9.2 N.m for LXM05AD42M3X at 200...240 V 3 phases<br>9.2 N.m for LXM05BD42M3X at 200...240 V 3 phases<br>9.2 N.m for LXM05CD42M3X at 200...240 V 3 phases |
| Maximum current Irms                        | 75.2 A for LXM05AD42M3X<br>75.2 A for LXM05BD42M3X<br>75.2 A for LXM05CD42M3X                                                                            |
| Switching frequency                         | 4 kHz for LEX05                                                                                                                                          |
| Torque constant                             | 0.87 N.m/A rms at 120 °C                                                                                                                                 |
| Back electromagnetical force (emf) constant | 59 V rms/krpm at 120 °C                                                                                                                                  |
| Rotor inertia                               | 14.48 kg.cm² with brake                                                                                                                                  |
| Stator resistance                           | 0.21 Ohm at 20 °C                                                                                                                                        |
| Stator inductance                           | 2.54 mH at 20 °C                                                                                                                                         |

|                                 |                                                                |
|---------------------------------|----------------------------------------------------------------|
| Stator electrical time constant | 12.1 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                                                          |