

# BSH1401T21A2A

AC servo motor BSH, Lexium 05, 11.1N.m,  
2500rpm, untapped 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                 | Untapped                                                                                                                                                                                                              |
| IP degree of protection   | IP65 standard<br>IP67 with IP67 kit                                                                                                                                                                                   |
| Speed feedback resolution | 131072 points/turn                                                                                                                                                                                                    |
| Holding brake             | Without                                                                                                                                                                                                               |
| Mounting support          | International standard flange                                                                                                                                                                                         |
| Electrical connection     | Rotatable right-angled connectors                                                                                                                                                                                     |

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                                                                                  |
| 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                                                                                                   |
| Feedback type                         | Single turn 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                                                                                                  |
| Net weight                            | 11.9 kg                                                                                                 |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Height             | 27.0 cm |
| Package 1 Width              | 27.0 cm |
| Package 1 Length             | 48.2 cm |
| Package 1 Weight             | 8.0 kg  |

## Offer Sustainability

|                          |                                                                                                                            |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status | Green Premium product                                                                                                      |
| REACH Regulation         |  <a href="#">REACH Declaration</a>      |
| EU RoHS Directive        | Pro-active compliance (Product out of EU RoHS legal scope)                                                                 |
| Mercury free             | Yes                                                                                                                        |
| China RoHS Regulation    |  <a href="#">China RoHS Declaration</a> |

|                             |                                                                                                                                 |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| RoHS exemption information  |  Yes                                            |
| Environmental Disclosure    |  <a href="#">Product Environmental Profile</a> |
| Circularity Profile         | No need of specific recycling operations                                                                                        |
| WEEE                        | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins     |
| <b>Contractual warranty</b> |                                                                                                                                 |
| Warranty                    | 18 months                                                                                                                       |