# BSH1401T21F1A

AC servo motor BSH, Lexium 05, 11.1N.m, 2500rpm, untapped shaft, with brake, IP65





#### Main

| Product or Component<br>Type | Servo motor   |
|------------------------------|---|
| Device short name            | BSH   |
| Maximum mechanical speed     | 4000 rpm  |
| Continuous stall torque      | 98.24 Lbf.In (11.1 N.m) LXM15MD56N4, 230 V, three phase 100.90 Lbf.In (11.4 N.m) LXM05AD42M3X, 200240 V, three phase 100.90 Lbf.In (11.4 N.m) LXM05BD42M3X, 200240 V, three phase 100.90 lbf.in (11.4 N.m) LXM05CD42M3X, 200240 V, three phase      |
| Peak stall torque            | 206.49 Lbf.In (23.33 N.m) LXM15MD56N4, 230 V, three phase 206.49 Lbf.In (23.33 N.m) LXM05AD42M3X, 200240 V, three phase 206.49 Lbf.In (23.33 N.m) LXM05BD42M3X, 200240 V, three phase 206.49 lbf.in (23.33 N.m) LXM05CD42M3X, 200240 V, three phase |
| Nominal output power         | 2000 W LXM15MD56N4, 230 V, three phase<br>2200 W LXM05AD42M3X, 200240 V, three phase<br>2200 W LXM05BD42M3X, 200240 V, three phase<br>2200 W LXM05CD42M3X, 200240 V, three phase  |
| Nominal torque               | 61.07 Lbf.In (6.9 N.m) LXM05AD42M3X, 200240 V, three phase 61.07 Lbf.In (6.9 N.m) LXM05BD42M3X, 200240 V, three phase 61.07 Lbf.In (6.9 N.m) LXM05CD42M3X, 200240 V, three phase 67.53 lbf.in (7.63 N.m) LXM15MD56N4, 230 V, three phase            |
| Nominal speed                | 3000 rpm LXM05AD42M3X, 200240 V, three phase 3000 rpm LXM05BD42M3X, 200240 V, three phase 3000 rpm LXM05CD42M3X, 200240 V, three phase 2500 rpm LXM15MD56N4, 230 V, three phase   |
| Product compatibility        | LXM05AD42M3X 200240 V three phase<br>LXM05BD42M3X 200240 V three phase<br>LXM05CD42M3X 200240 V three phase<br>LXM15MD56N4 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                | With  |
| Mounting Support             | International standard flange   |
| Electrical Connection        | Straight connectors   |
|                              |   |

### Complementary

| Complementary                         |   |
|---------------------------------------|---|
| Range Compatibility                   | Lexium 05<br>Lexium 15  |
| Supply voltage max                    | 480 V   |
| Phase                                 | Three phase   |
| Continuous stall current              | 13.9 A  |
| Maximum continuous power              | 3.6 W   |
| Maximum current Irms                  | 37.1 A LXM15MD56N4<br>37.1 A LXM05AD42M3X<br>37.1 A LXM05BD42M3X<br>37.1 A LXM05CD42M3X |
| Maximum permanent current             | 37.1 A  |
| Switching frequency                   | 4 kHz   |
| Second shaft                          | Without second shaft end  |
| Shaft diameter                        | 0.94 in (24 mm)   |
| Shaft length                          | 1.97 in (50 mm)   |
| Feedback type                         | Single turn SinCos Hiperface  |
| Holding torque                        | 203.57 lbf.in (23 N.m) holding brake  |
| Motor flange size                     | 5.51 in (140 mm)  |
| Number of motor stacks                | 1   |
| Torque constant                       | 0.83 N.m/A 248 °F (120 °C)  |
| Back emf constant                     | 56 V/krpm 248 °F (120 °C)   |
| Number of motor poles                 | 10  |
| Rotor inertia                         | 8.56 kg.cm²   |
| Stator resistance                     | 0.4 Ohm 68 °F (20 °C)<br>0.44 Ohm 68 °F (20 °C)   |
| Stator inductance                     | 4.9 MH 68 °F (20 °C)<br>5.15 mH 68 °F (20 °C)   |
| Stator electrical time constant       | 11.14 Ms 68 °F (20 °C)<br>12.88 ms 68 °F (20 °C)  |
| Maximum radial force Fr               | 1530 N 3000 rpm<br>1760 N 2000 rpm<br>2210 N 1000 rpm                                   |
| Maximum axial force Fa                | 0.2 x Fr  |
| Brake pull-in power                   | 24 W  |
| Type of cooling                       | Natural convection  |
| Length                                | 10.06 in (255.5 mm)   |
| Centring collar diameter              | 5.12 in (130 mm)  |
| Centring collar depth                 | 0.14 in (3.5 mm)  |
| Number of mounting holes              | 4   |
| Mounting holes diameter               | 0.43 in (11 mm)   |
| Circle diameter of the mounting holes | 6.50 in (165 mm)  |
| Net Weight                            | 28.66 lb(US) (13 kg)  |

### Ordering and shipping details

| Category          | US1PC5318282  |  |
|-------------------|---------------|--|
| Discount Schedule | PC53          |  |
| GTIN              | 3389118141247 |  |
| Returnability     | No            |  |
| Country of origin | DE            |  |

## Packing Units

| PCE                    |
|------------------------|
| 1                      |
| 10.63 in (27.0 cm)     |
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| 18.98 in (48.2 cm)     |
| 21.58 lb(US) (9.79 kg) |
|                        |

### Offer Sustainability

| Sustainable offer status   | Green Premium product   |  |
|----------------------------|---|--|
| California proposition 65  | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov |  |
| REACh Regulation           | REACh Declaration   |  |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)  |  |
| Mercury free               | Yes   |  |
| China RoHS Regulation      | China RoHS Declaration  |  |
| RoHS exemption information | ₫Yes  |  |
| Environmental Disclosure   | Product Environmental Profile   |  |
| 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.  |  |

#### Contractual warranty

| Contraction warranty |           |  |
|----------------------|-----------|--|
| Warranty             | 18 months |  |