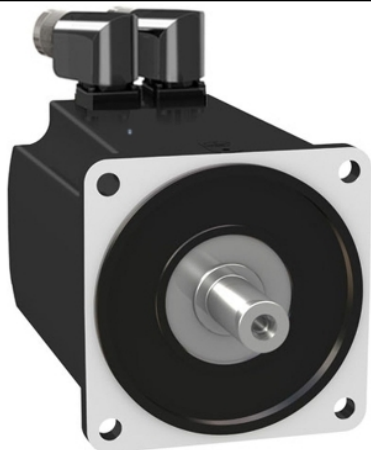


# BSH1403P21A2A

AC servo motor BSH, Lexium, 22.2N.m,  
1500rpm, untapped shaft, without brake, IP65





## Main

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Device short name         | BSH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Product or Component Type | Servo motor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Maximum mechanical speed  | 4000 rpm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Continuous stall torque   | 224.8 Lbf.In (25.4 N.m) LXM05AD57N4, 380...480 V, three phase<br>224.8 Lbf.In (25.4 N.m) LXM05BD57N4, 380...480 V, three phase<br>224.8 Lbf.In (25.4 N.m) LXM05CD57N4, 380...480 V, three phase<br>196.5 Lbf.In (22.2 N.m) LXM15MD40N4, 230 V, three phase<br>196.5 Lbf.In (22.2 N.m) LXM15MD40N4, 400 V, three phase<br>196.5 Lbf.In (22.2 N.m) LXM15MD40N4, 480 V, three phase<br>246.05 Lbf.In (27.8 N.m) LXM15MD56N4, 230 V, three phase<br>246.05 Lbf.In (27.8 N.m) LXM15MD56N4, 400 V, three phase<br>246.05 lbf.in (27.8 N.m) LXM15MD56N4, 480 V, three phase    |
| Peak stall torque         | 368.2 Lbf.In (41.6 N.m) LXM15MD40N4, 230 V, three phase<br>368.2 Lbf.In (41.6 N.m) LXM15MD40N4, 400 V, three phase<br>368.2 Lbf.In (41.6 N.m) LXM15MD40N4, 480 V, three phase<br>507.1 Lbf.In (57.3 N.m) LXM15MD56N4, 230 V, three phase<br>507.1 Lbf.In (57.3 N.m) LXM15MD56N4, 400 V, three phase<br>507.1 Lbf.In (57.3 N.m) LXM15MD56N4, 480 V, three phase<br>507.32 Lbf.In (57.32 N.m) LXM05AD57N4, 380...480 V, three phase<br>507.32 Lbf.In (57.32 N.m) LXM05BD57N4, 380...480 V, three phase<br>507.32 lbf.in (57.32 N.m) LXM05CD57N4, 380...480 V, three phase |
| Nominal output power      | 3400 W LXM15MD56N4, 480 V, three phase<br>3000 W LXM15MD40N4, 230 V, three phase<br>3000 W LXM15MD56N4, 230 V, three phase<br>3400 W LXM15MD40N4, 480 V, three phase<br>3900 W LXM05AD57N4, 380...480 V, three phase<br>3900 W LXM05BD57N4, 380...480 V, three phase<br>3900 W LXM05CD57N4, 380...480 V, three phase<br>3900 W LXM15MD40N4, 400 V, three phase<br>3900 W LXM15MD56N4, 400 V, three phase                                                                                                                                                                |
| Nominal torque            | 109.7 Lbf.In (12.4 N.m) LXM15MD40N4, 400 V, three phase<br>109.7 Lbf.In (12.4 N.m) LXM15MD56N4, 400 V, three phase<br>110.01 Lbf.In (12.43 N.m) LXM05AD57N4, 380...480 V, three phase<br>110.01 Lbf.In (12.43 N.m) LXM05BD57N4, 380...480 V, three phase<br>110.01 Lbf.In (12.43 N.m) LXM05CD57N4, 380...480 V, three phase<br>166.4 Lbf.In (18.8 N.m) LXM15MD40N4, 230 V, three phase<br>166.4 Lbf.In (18.8 N.m) LXM15MD56N4, 230 V, three phase<br>71.7 Lbf.In (8.1 N.m) LXM15MD40N4, 480 V, three phase<br>71.7 lbf.in (8.1 N.m) LXM15MD56N4, 480 V, three phase     |

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Nominal speed             | 1500 rpm LXM15MD40N4, 230 V, three phase<br>3000 rpm LXM05AD57N4, 380...480 V, three phase<br>3000 rpm LXM05BD57N4, 380...480 V, three phase<br>3000 rpm LXM05CD57N4, 380...480 V, three phase<br>3000 rpm LXM15MD40N4, 400 V, three phase<br>1500 rpm LXM15MD56N4, 230 V, three phase<br>3000 rpm LXM15MD56N4, 400 V, three phase<br>4000 rpm LXM15MD40N4, 480 V, three phase<br>4000 rpm LXM15MD56N4, 480 V, three phase |
| Product compatibility     | LXM15MD40N4 400 V three phase<br>LXM15MD40N4 480 V three phase<br>LXM05AD57N4 380...480 V three phase<br>LXM05BD57N4 380...480 V three phase<br>LXM05CD57N4 380...480 V three phase<br>LXM15MD40N4 230 V three phase<br>LXM15MD56N4 230 V three phase<br>LXM15MD56N4 400 V three phase<br>LXM15MD56N4 480 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                                                                                                                                                                                                                                                                                                                                                                                          |

## Complementary

|                                 |                                                                                                  |
|---------------------------------|--------------------------------------------------------------------------------------------------|
| Range Compatibility             | Lexium 05<br>Lexium 15                                                                           |
| Supply voltage max              | 480 V                                                                                            |
| Phase                           | Three phase                                                                                      |
| Continuous stall current        | 17.6 A                                                                                           |
| Maximum continuous power        | 3.3 W                                                                                            |
| Maximum current Irms            | 61 A LXM15MD40N4<br>61 A LXM15MD56N4<br>61 A LXM05AD57N4<br>61 A LXM05BD57N4<br>61 A LXM05CD57N4 |
| Maximum permanent current       | 61 A                                                                                             |
| Switching frequency             | 4 kHz                                                                                            |
| Second shaft                    | Without second shaft end                                                                         |
| Shaft diameter                  | 0.9 in (24 mm)                                                                                   |
| Shaft length                    | 2.0 in (50 mm)                                                                                   |
| Feedback type                   | Single turn SinCos Hiperface                                                                     |
| Motor flange size               | 5.5 in (140 mm)                                                                                  |
| Number of motor stacks          | 3                                                                                                |
| Torque constant                 | 1.58 N.m/A 248 °F (120 °C)                                                                       |
| Back emf constant               | 105 V/krpm 248 °F (120 °C)                                                                       |
| Number of motor poles           | 10                                                                                               |
| Rotor inertia                   | 17.94 kg.cm <sup>2</sup>                                                                         |
| Stator resistance               | 0.4 Ohm 68 °F (20 °C)                                                                            |
| Stator inductance               | 5.1 mH 68 °F (20 °C)                                                                             |
| Stator electrical time constant | 12.75 ms 68 °F (20 °C)                                                                           |
| Maximum radial force Fr         | 1780 N 3000 rpm<br>2030 N 2000 rpm<br>2560 N 1000 rpm                                            |
| Maximum axial force Fa          | 0.2 x Fr                                                                                         |
| Type of cooling                 | Natural convection                                                                               |
| Length                          | 12.9 in (327.5 mm)                                                                               |
| Centring collar diameter        | 5.1 in (130 mm)                                                                                  |
| Centring collar depth           | 0.1 in (3.5 mm)                                                                                  |
| Number of mounting holes        | 4                                                                                                |

|                                       |                       |
|---------------------------------------|-----------------------|
| Mounting holes diameter               | 0.4 in (11 mm)        |
| Circle diameter of the mounting holes | 6.5 in (165 mm)       |
| Net Weight                            | 46.7 lb(US) (21.2 kg) |

### Ordering and shipping details

|                   |               |
|-------------------|---------------|
| Category          | US1PC5318282  |
| Discount Schedule | PC53          |
| GTIN              | 3389118142770 |
| Returnability     | No            |
| Country of origin | DE            |

### Packing Units

|                              |                        |
|------------------------------|------------------------|
| Unit Type of Package 1       | PCE                    |
| Number of Units in Package 1 | 1                      |
| Package 1 Height             | 10.6 in (27.0 cm)      |
| Package 1 Width              | 10.6 in (27.0 cm)      |
| Package 1 Length             | 21.4 in (54.4 cm)      |
| Package 1 Weight             | 33.07 lb(US) (15.0 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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> " |
| 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 | <a href="#">Yes</a>                                                                                                                                                                                                                                                                            |
| 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.                                                                                                                                                                   |
| PVC free                   | Yes                                                                                                                                                                                                                                                                                            |

### Contractual warranty

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