

# BMH1003P22F1A

servo motor BMH, Lexium 32, 8.4Nm,  
6000rpm, untapped shaft, with brake, IP65,  
IP67, 128 multiturn encoder, straight



## Main

|                           |                                                                                                                                |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Product or Component Type | Servo motor                                                                                                                    |
| Device short name         | BMH                                                                                                                            |
| Maximum mechanical speed  | 6000 rpm                                                                                                                       |
| Continuous stall torque   | 74.35 Lbf.In (8.4 N.m) LXM32.D30N4 10 A, 400 V, three phase<br>74.35 lbf.in (8.4 N.m) LXM32.D30N4 10 A, 480 V, three phase     |
| Peak stall torque         | 222.15 Lbf.In (25.1 N.m) LXM32.D30N4 10 A, 400 V, three phase<br>222.15 lbf.in (25.1 N.m) LXM32.D30N4 10 A, 480 V, three phase |
| Nominal output power      | 2700 W LXM32.D30N4 10 A, 400 V, three phase<br>2700 W LXM32.D30N4 10 A, 480 V, three phase                                     |
| Nominal torque            | 54.87 Lbf.In (6.2 N.m) LXM32.D30N4 10 A, 400 V, three phase<br>54.87 lbf.in (6.2 N.m) LXM32.D30N4 10 A, 480 V, three phase     |
| Nominal speed             | 4000 rpm LXM32.D30N4 10 A, 400 V, three phase<br>4000 rpm LXM32.D30N4 10 A, 480 V, three phase                                 |
| Product compatibility     | LXM32.D30N4 400...480 V three phase                                                                                            |
| Shaft end                 | Smooth shaft                                                                                                                   |
| IP Degree of Protection   | IP65 standard<br>IP67 with IP67 kit                                                                                            |
| Speed feedback resolution | 131072 points/turn x 4096 turns                                                                                                |
| Holding brake             | With                                                                                                                           |
| Mounting Support          | International standard flange                                                                                                  |
| Electrical Connection     | Straight connectors                                                                                                            |

## Complementary

|                           |                                    |
|---------------------------|------------------------------------|
| Range Compatibility       | Lexium 32                          |
| [Us] rated supply voltage | 480 V                              |
| Phase                     | Three phase                        |
| Continuous stall current  | 7.69 A                             |
| Continuous power          | 3.3 W                              |
| Maximum current Irms      | 29.1 A LXM32.D30N4                 |
| Maximum permanent current | 29.1 A                             |
| Second shaft              | Without second shaft end           |
| Shaft diameter            | 0.75 in (19 mm)                    |
| Shaft length              | 1.57 in (40 mm)                    |
| Feedback type             | Multiturn SinCos Hiperface         |
| Holding torque            | 79.66 lbf.in (9 N.m) holding brake |
| Motor flange size         | 3.94 in (100 mm)                   |
| Number of motor stacks    | 3                                  |
| Torque constant           | 1 N.m/A 248 °F (120 °C)            |
| Back emf constant         | 63.5 V/krpm 248 °F (120 °C)        |
| Number of motor poles     | 10                                 |
| Rotor inertia             | 10.3 kg.cm <sup>2</sup>            |

|                                       |                                                                                         |
|---------------------------------------|-----------------------------------------------------------------------------------------|
| Stator resistance                     | 0.63 Ohm 68 °F (20 °C)                                                                  |
| Stator inductance                     | 4 mH 68 °F (20 °C)                                                                      |
| Stator electrical time constant       | 6.3 ms 68 °F (20 °C)                                                                    |
| Maximum radial force Fr               | 1050 N 1000 rpm<br>830 N 2000 rpm<br>730 N 3000 rpm<br>660 N 4000 rpm<br>610 N 5000 rpm |
| Maximum axial force Fa                | 0.2 x Fr                                                                                |
| Brake pull-in power                   | 18 W                                                                                    |
| Type of cooling                       | Natural convection                                                                      |
| Length                                | 9.22 in (234.3 mm)                                                                      |
| Centring collar diameter              | 3.74 in (95 mm)                                                                         |
| Centring collar depth                 | 0.14 in (3.5 mm)                                                                        |
| Number of mounting holes              | 4                                                                                       |
| Mounting holes diameter               | 0.35 in (9 mm)                                                                          |
| Circle diameter of the mounting holes | 4.53 in (115 mm)                                                                        |
| Net Weight                            | 17.97 lb(US) (8.15 kg)                                                                  |

### Ordering and shipping details

|                   |                        |
|-------------------|------------------------|
| Category          | 18282-LEXIUM 32 MOTORS |
| Discount Schedule | PC53                   |
| GTIN              | 3606485196404          |
| Returnability     | No                     |
| Country of origin | DE                     |

### Packing Units

|                              |                        |
|------------------------------|------------------------|
| Unit Type of Package 1       | PCE                    |
| Number of Units in Package 1 | 1                      |
| Package 1 Height             | 8.66 in (22.0 cm)      |
| Package 1 Width              | 7.87 in (20.0 cm)      |
| Package 1 Length             | 15.75 in (40.0 cm)     |
| Package 1 Weight             | 18.63 lb(US) (8.45 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 |  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.                                                                                                                                                                |
| PVC free                   | Yes                                                                                                                                                                                                                                                                                         |

### Contractual warranty

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

## Servo Motors Dimensions

### Example with Straight Connectors



- a: Power supply for servo motor brake  
b: Power supply for servo motor encoder  
(1) Shaft end, keyed slot (optional)  
(2) For screw M6 x 21 mm/M6 x 0.83 in.

Dimensions in mm

| Straight connectors |      | Rotatable angled connectors |      | c (without brake) | c (with brake) |
|---------------------|------|-----------------------------|------|-------------------|----------------|
| b1                  | b2   | b1                          | b2   |                   |                |
| 39.5                | 25.5 | 39.5                        | 39.5 | 192               | 234            |

Dimensions in in.

| Straight connectors |      | Rotatable angled connectors |      | c (without brake) | c (with brake) |
|---------------------|------|-----------------------------|------|-------------------|----------------|
| b1                  | b2   | b1                          | b2   |                   |                |
| 1.55                | 1.00 | 1.55                        | 1.55 | 7.55              | 9.21           |

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D30N4 servo drive



- X Speed in rpm  
Y Torque in Nm  
1 Peak torque  
2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D30N4 servo drive



- X Speed in rpm  
Y Torque in Nm  
1 Peak torque  
2 Continuous torque