

# BMH1003P27A1A

servo motor BMH - 8.4 Nm - 6000 rpm -  
untapped shaft - without brake - IP65/IP67



## 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 | 32768 points/turn x 4096 turns                                                                                                 |
| Holding brake             | Without                                                                                                                        |
| 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  |
| 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             | 9.37 kg.cm²                 |
| 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                                                                                |
| Type of cooling                       | Natural convection                                                                      |
| Length                                | 7.58 in (192.6 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                            | 14.33 lb(US) (6.5 kg)                                                                   |

### Ordering and shipping details

|                       |                          |
|-----------------------|--------------------------|
| Category              | 18282 - LEXIUM 32 MOTORS |
| Discount Schedule     | PC53                     |
| GTIN                  | 03606485196688           |
| Nbr. of units in pkg. | 1                        |
| Package weight(Lbs)   | 14.96 lb(US) (6.79 kg)   |
| Returnability         | No                       |
| Country of origin     | DE                       |

### Packing Units

|                        |                  |
|------------------------|------------------|
| Unit Type of Package 1 | PCE              |
| Package 1 Height       | 8.66 in (22 cm)  |
| Package 1 width        | 7.87 in (20 cm)  |
| Package 1 Length       | 15.75 in (40 cm) |

### 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 Carcinogen & Reproductive harm. For more information go to <a href="http://www.p65warnings.ca.gov">www.p65warnings.ca.gov</a> |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>                                                                                                                                                                        |
| Mercury free               | Yes                                                                                                                                                                                                                                                                   |
| RoHS exemption information | <a href="#">Yes</a>                                                                                                                                                                                                                                                   |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</a>                                                                                                                                                                                                                                |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>                                                                                                                                                                                                                         |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.                                                                                                                                          |

### 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