

# Product data sheet

Specifications



servo motor BMH, Lexium 32,  
8.4Nm, 6000rpm, untapped shaft,  
with brake, IP54, 16bit encoder

BMH1003P06F2A

Product availability: Non-Stock - Not normally stocked in distribution facility

## Main

|                           |                                                                                                                              |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Device short name         | BMH                                                                                                                          |
| Product or Component Type | Servo motor                                                                                                                  |
| Maximum mechanical speed  | 6000 rpm                                                                                                                     |
| Continuous stall torque   | 74.3 lbf.in (8.4 N.m) LXM32.D30N4 10 A, 400 V, three phase<br>74.3 lbf.in (8.4 N.m) LXM32.D30N4 10 A, 480 V, three phase     |
| Peak stall torque         | 222.2 lbf.in (25.1 N.m) LXM32.D30N4 10 A, 400 V, three phase<br>222.2 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            | 54.9 lbf.in (6.2 N.m) LXM32.D30N4 10 A, 400 V, three phase<br>54.9 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   | IP54 standard                                                                                                                |
| Speed feedback resolution | 32768 points/turn                                                                                                            |
| Holding brake             | With                                                                                                                         |
| Mounting Support          | International standard flange                                                                                                |
| Electrical Connection     | Rotatable right-angled 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      | 26.71 A LXM32.D30N4               |
| Maximum permanent current | 29.1 A                            |
| Second shaft              | Without second shaft end          |
| Shaft diameter            | 0.7 in (19 mm)                    |
| Shaft length              | 1.6 in (40 mm)                    |
| Feedback type             | Single turn SinCos Hiperface      |
| Holding torque            | 79.7 lbf.in (9 N.m) holding brake |

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Disclaimer: 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

|                                       |                                                                                         |
|---------------------------------------|-----------------------------------------------------------------------------------------|
| Motor flange size                     | 3.9 in (100 mm)                                                                         |
| Number of motor stacks                | 3                                                                                       |
| Torque constant                       | 1.17 N.m/A 248 °F (120 °C)                                                              |
| Back emf constant                     | 63.5 V/krpm 248 °F (120 °C)                                                             |
| Number of motor poles                 | 5.0                                                                                     |
| Rotor inertia                         | 10.3 kg.cm²                                                                             |
| Stator resistance                     | 0.63 Ohm 68 °F (20 °C)                                                                  |
| Stator inductance                     | 2.615 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                                | 9.2 in (234.3 mm)                                                                       |
| Centring collar diameter              | 3.7 in (95 mm)                                                                          |
| centring collar depth                 | 0.1 in (3.5 mm)                                                                         |
| Number of mounting holes              | 4                                                                                       |
| Mounting holes diameter               | 0.4 in (9 mm)                                                                           |
| Circle diameter of the mounting holes | 4.5 in (115 mm)                                                                         |
| Net Weight                            | 17.97 lb(US) (8.15 kg)                                                                  |
| Sizing reference                      | BMH1003P                                                                                |
| Network number of phases              | 3                                                                                       |
| Accuracy error [angular]              | 4.8 °                                                                                   |
| Temperature copper hot                | 275 °F (135 °C)                                                                         |
| Temperature magnet hot                | 212 °F (100 °C)                                                                         |
| Temperature magnet rt                 | 68 °F (20 °C)                                                                           |

## Ordering and shipping details

|                   |               |
|-------------------|---------------|
| Category          | US1PC5318282  |
| Discount Schedule | PC53          |
| GTIN              | 3606485196626 |
| Returnability     | No            |
| Country of origin | DE            |

## Packing Units

|                        |                     |
|------------------------|---------------------|
| Unit Type of Package 1 | PCE                 |
| Nbr. of units in pkg.  | 1                   |
| Package 1 Height       | 7.91 in (20.100 cm) |
| Package 1 Width        | 8.86 in (22.500 cm) |

|                              |                             |
|------------------------------|-----------------------------|
| Package 1 Length             | 15.98 in (40.600 cm)        |
| Package weight(Lbs)          | 18.814 lb(US) (8.534 kg)    |
| Unit Type of Package 2       | P06                         |
| Number of Units in Package 2 | 12                          |
| Package 2 Height             | 30.31 in (77.000 cm)        |
| Package 2 Width              | 31.50 in (80.000 cm)        |
| Package 2 Length             | 23.62 in (60.000 cm)        |
| Package 2 Weight             | 246.257 lb(US) (111.700 kg) |

## Contractual warranty

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

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

| Environmental footprint                        |                                               |
|------------------------------------------------|-----------------------------------------------|
| Carbon footprint (kg CO2 eq, Total Life cycle) | 2974                                          |
| Environmental Disclosure                       | <a href="#">Product Environmental Profile</a> |

Use Better

| Materials and Substances               |                                                                                                                                                                                                                                                                                             |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Packaging made with recycled cardboard | Yes                                                                                                                                                                                                                                                                                         |
| Packaging without single use plastic   | No                                                                                                                                                                                                                                                                                          |
| <a href="#">EU RoHS Directive</a>      | Pro-active compliance (Product out of EU RoHS legal scope)                                                                                                                                                                                                                                  |
| SCIP Number                            | A7df881f-135f-4256-b8c2-ea55d4c9a151                                                                                                                                                                                                                                                        |
| REACH Regulation                       | <a href="#">REACH Declaration</a>                                                                                                                                                                                                                                                           |
| 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> |
| PVC free                               | Yes                                                                                                                                                                                                                                                                                         |

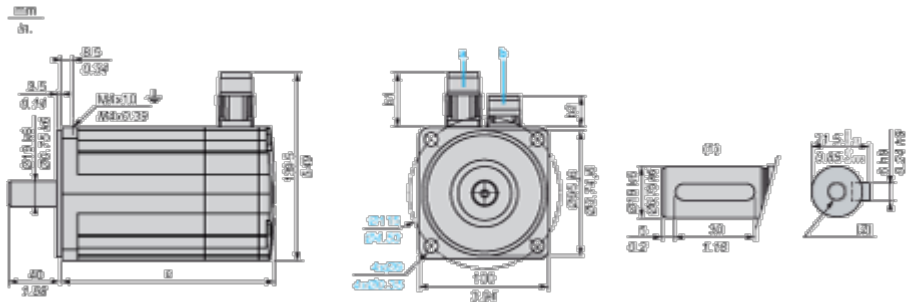
Use Again

| Repack and remanufacture |                                                                                                                                                                                                                  |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Circularity Profile      | No need of specific recycling operations                                                                                                                                                                         |
| Take-back                | No                                                                                                                                                                                                               |
| WEEE                     |  The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins. |

Dimensions Drawings

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.

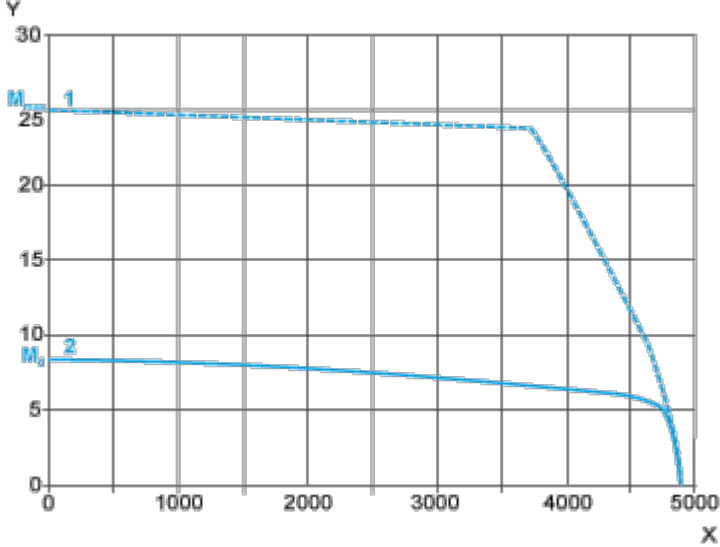
| Straight connectors |      | Rotatable angled connectors |      | c (without brake) | c (with brake) |
|---------------------|------|-----------------------------|------|-------------------|----------------|
| b1                  | b2   | b1                          | b2   |                   |   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

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32-D30N4 servo drive

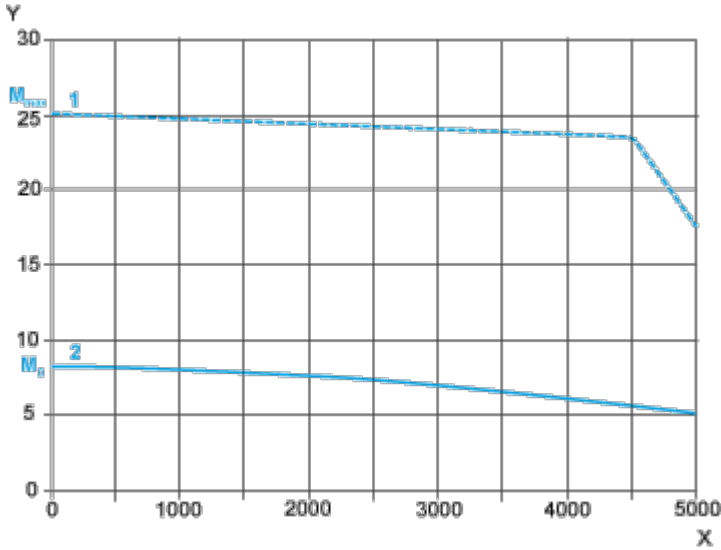


- X    Speed in rpm
- Y    Torque in Nm
- 1    Peak torque
- 2    Continuous torque

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