

# BMH2051P07F2A

servo motor BMH - 34.4 Nm - 3800 rpm -  
untapped shaft - with brake - IP54



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



## Main

|                           |                                                                                                                                  |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Product or component type | Servo motor                                                                                                                      |
| Device short name         | BMH                                                                                                                              |
| Maximum mechanical speed  | 3800 rpm                                                                                                                         |
| Continuous stall torque   | 304.47 Lbf.In (34.4 N.m) LXM32.D72N4 24 A, 400 V, three phase<br>304.47 lbf.in (34.4 N.m) LXM32.D72N4 24 A, 480 V, three phase   |
| Peak stall torque         | 915.17 Lbf.In (103.4 N.m) LXM32.D72N4 24 A, 400 V, three phase<br>915.17 lbf.in (103.4 N.m) LXM32.D72N4 24 A, 480 V, three phase |
| Nominal output power      | 5400 W LXM32.D72N4 24 A, 400 V, three phase<br>5400 W LXM32.D72N4 24 A, 480 V, three phase                                       |
| Nominal torque            | 228.35 Lbf.In (25.8 N.m) LXM32.D72N4 24 A, 400 V, three phase<br>228.35 lbf.in (25.8 N.m) LXM32.D72N4 24 A, 480 V, three phase   |
| Nominal speed             | 2000 rpm LXM32.D72N4 24 A, 400 V, three phase<br>2000 rpm LXM32.D72N4 24 A, 480 V, three phase                                   |
| Product compatibility     | LXM32.D72N4 400...480 V three phase                                                                                              |
| Shaft end                 | Smooth shaft                                                                                                                     |
| IP degree of protection   | IP54 standard                                                                                                                    |
| Speed feedback resolution | 32768 points/turn x 4096 turns                                                                                                   |
| 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  | 21.5 A                               |
| Continuous power          | 6.8 W                                |
| Maximum current Irms      | 72 A LXM32.D72N4                     |
| Maximum permanent current | 78.1 A                               |
| Second shaft              | Without second shaft end             |
| Shaft diameter            | 1.50 in (38 mm)                      |
| Shaft length              | 3.15 in (80 mm)                      |
| Feedback type             | Multiturn SinCos Hiperface           |
| Holding torque            | 708.06 lbf.in (80 N.m) holding brake |
| Motor flange size         | 8.07 in (205 mm)                     |
| Number of motor stacks    | 1                                    |
| Back emf constant         | 104 V/krpm 248 °F (120 °C)           |
| Number of motor poles     | 10                                   |
| Rotor inertia             | 87.4 kg.cm <sup>2</sup>              |
| Stator resistance         | 0.3 Ohm 68 °F (20 °C)                |
| Stator inductance         | 5.9 mH 68 °F (20 °C)                 |

|                                       |                                                       |
|---------------------------------------|-------------------------------------------------------|
| Stator electrical time constant       | 19.7 ms 68 °F (20 °C)                                 |
| Maximum radial force Fr               | 3730 N 1000 rpm<br>2960 N 2000 rpm<br>2580 N 3000 rpm |
| Maximum axial force Fa                | 0.2 x Fr                                              |
| Brake pull-in power                   | 40 W                                                  |
| Type of cooling                       | Natural convection                                    |
| Length                                | 14.59 in (370.5 mm)                                   |
| Centring collar diameter              | 7.09 in (180 mm)                                      |
| Centring collar depth                 | 0.16 in (4 mm)                                        |
| Number of mounting holes              | 4                                                     |
| Mounting holes diameter               | 0.55 in (14 mm)                                       |
| Circle diameter of the mounting holes | 8.46 in (215 mm)                                      |
| Product weight                        | 83.56 lb(US) (37.9 kg)                                |

## Ordering and shipping details

|                     |                          |
|---------------------|--------------------------|
| Category            | 18282 - LEXIUM 32 MOTORS |
| Discount Schedule   | PC53                     |
| GTIN                | 03606485203003           |
| Package weight(Lbs) | 43.81 kg (96.58 lb(US))  |
| Returnability       | No                       |
| Country of origin   | DE                       |

## 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> |
| REACH Regulation           | <a href="#">REACH Declaration</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>                                                                                                                                                                                                                         |
| 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

|          |           |
|----------|-----------|
| 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 M12 x 28 mm/M12 x 1.10 in.

Dimensions in mm

| Straight connectors |    |      | Rotatable angled connectors |    |      | c (without brake) | c (with brake) |
|---------------------|----|------|-----------------------------|----|------|-------------------|----------------|
| b                   | b1 | b2   | b                           | b1 | b2   |                   |                |
| 259                 | 54 | 25.5 | 265                         | 60 | 39.5 | 312               | 370.5          |

Dimensions in in.

| Straight connectors |      |      | Rotatable angled connectors |      |      | c (without brake) | c (with brake) |
|---------------------|------|------|-----------------------------|------|------|-------------------|----------------|
| b                   | b1   | b2   | b                           | b1   | b2   |                   |                |
| 10.19               | 2.12 | 1.00 | 10.43                       | 2.36 | 1.55 | 12.28             | 14.58          |

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D72N4 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•D72N4 servo drive



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