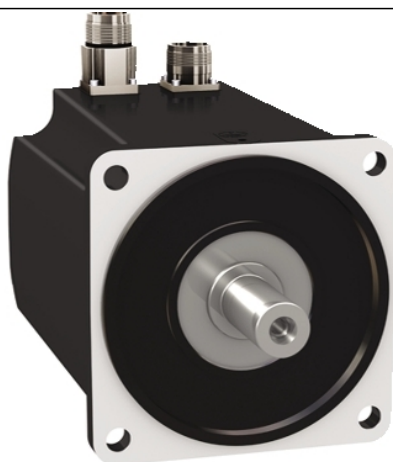


# BMH1401P17A1A

servo motor BMH - 10.3 Nm - 4000 rpm -  
keyed shaft - without brake - IP54



## Main

|                           |                                                                                                                                                                                                  |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product or component type | Servo motor                                                                                                                                                                                      |
| Device short name         | BMH                                                                                                                                                                                              |
| Maximum mechanical speed  | 4000 rpm                                                                                                                                                                                         |
| Continuous stall torque   | 91.16 Lbf.in (10.3 N.m) LXM32.D30M2 10 A, 230 V, single phase<br>91.16 Lbf.in (10.3 N.m) LXM32.D30N4 10 A, 400 V, three phase<br>91.16 lbf.in (10.3 N.m) LXM32.D30N4 10 A, 480 V, three phase    |
| Peak stall torque         | 272.60 Lbf.in (30.8 N.m) LXM32.D30M2 10 A, 230 V, single phase<br>272.60 Lbf.in (30.8 N.m) LXM32.D30N4 10 A, 400 V, three phase<br>272.60 lbf.in (30.8 N.m) LXM32.D30N4 10 A, 480 V, three phase |
| Nominal output power      | 1450 W LXM32.D30M2 10 A, 230 V, single phase<br>2400 W LXM32.D30N4 10 A, 400 V, three phase<br>2400 W LXM32.D30N4 10 A, 480 V, three phase                                                       |
| Nominal torque            | 61.07 Lbf.in (6.9 N.m) LXM32.D30M2 10 A, 230 V, single phase<br>68.15 Lbf.in (7.7 N.m) LXM32.D30N4 10 A, 400 V, three phase<br>68.15 lbf.in (7.7 N.m) LXM32.D30N4 10 A, 480 V, three phase       |
| Nominal speed             | 2000 rpm LXM32.D30M2 10 A, 230 V, single phase<br>3000 rpm LXM32.D30N4 10 A, 400 V, three phase<br>3000 rpm LXM32.D30N4 10 A, 480 V, three phase                                                 |
| Product compatibility     | LXM32.D30M2 230 V single phase<br>LXM32.D30N4 400...480 V three phase                                                                                                                            |
| Shaft end                 | Keyed                                                                                                                                                                                            |
| IP degree of protection   | IP54 standard                                                                                                                                                                                    |
| 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  | 8.58 A                                   |
| Continuous power          | 2.85 W                                   |
| Maximum current Irms      | 29.8 A LXM32.D30M2<br>29.8 A LXM32.D30N4 |
| Maximum permanent current | 29.8 A                                   |
| Second shaft              | Without second shaft end                 |
| Shaft diameter            | 0.94 in (24 mm)                          |
| Shaft length              | 1.97 in (50 mm)                          |
| Key width                 | 1.57 in (40 mm)                          |
| Feedback type             | Multiturn SinCos Hiperface               |

|                                       |                                                       |
|---------------------------------------|-------------------------------------------------------|
| Motor flange size                     | 5.51 in (140 mm)                                      |
| Number of motor stacks                | 1                                                     |
| Torque constant                       | 1.2 N.m/A 248 °F (120 °C)                             |
| Back emf constant                     | 77.4 V/krpm 248 °F (120 °C)                           |
| Number of motor poles                 | 10                                                    |
| Rotor inertia                         | 16.46 kg.cm <sup>2</sup>                              |
| Stator resistance                     | 0.69 Ohm 68 °F (20 °C)                                |
| Stator inductance                     | 6.7 mH 68 °F (20 °C)                                  |
| Stator electrical time constant       | 9.7 ms 68 °F (20 °C)                                  |
| Maximum radial force Fr               | 1930 N 1000 rpm<br>1530 N 2000 rpm<br>1340 N 3000 rpm |
| Maximum axial force Fa                | 0.2 x Fr                                              |
| Type of cooling                       | Natural convection                                    |
| Length                                | 5.98 in (152 mm)                                      |
| Centring collar diameter              | 5.12 in (130 mm)                                      |
| Centring collar depth                 | 0.14 in (3.5 mm)                                      |
| Number of mounting holes              | 4                                                     |
| Mounting holes diameter               | 0.43 in (11 mm)                                       |
| Circle diameter of the mounting holes | 6.50 in (165 mm)                                      |
| Net weight                            | 17.64 lb(US) (8 kg)                                   |

### Ordering and shipping details

|                       |                          |
|-----------------------|--------------------------|
| Category              | 18282 - LEXIUM 32 MOTORS |
| Discount Schedule     | PC53                     |
| GTIN                  | 03606485198569           |
| Nbr. of units in pkg. | 1                        |
| Package weight(Lbs)   | 1 lb(US) (0.45 kg)       |
| Returnability         | No                       |
| Country of origin     | DE                       |

### Packing Units

|                  |          |
|------------------|----------|
| Package 1 Height | 2.600 dm |
| Package 1 width  | 2.000 dm |
| Package 1 Length | 6.000 dm |

### 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) <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.                                                                                                                                                                |
| 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 M8 x 25 mm/M8 x 0.98 in.

Dimensions in mm

| Straight connectors |      | Rotatable angled connectors |      | c (without brake) | c (with brake) |
|---------------------|------|-----------------------------|------|-------------------|----------------|
| b                   | b1   | b                           | b1   |                   |                |
| 39.5                | 25.5 | 39.5                        | 39.5 | 152               | 187            |

Dimensions in in.

| Straight connectors |      | Rotatable angled connectors |      | c (without brake) | c (with brake) |
|---------------------|------|-----------------------------|------|-------------------|----------------|
| b                   | b1   | b                           | b1   |                   |                |
| 1.55                | 1.00 | 1.55                        | 1.55 | 5.98              | 7.36           |

## 230 V Single-Phase Supply Voltage

### Torque/Speed Curves

Servo motor with LXM32•D30M2 servo drive



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

## 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