

# BMH1002P21A2A

servo motor BMH, Lexium 32, 6.2Nm,  
6000rpm, untapped shaft, without brake, IP65,  
IP67, 128bit encoder



## Main

|                           |  |
|---------------------------|--|
| Product or Component Type | Servo motor  |
| Device short name         | BMH  |
| Maximum mechanical speed  | 6000 rpm   |
| Continuous stall torque   | 54.87 Lbf.In (6.2 N.m) LXM32.D18N4 6 A, 400 V, three phase<br>54.87 lbf.in (6.2 N.m) LXM32.D18N4 6 A, 480 V, three phase     |
| Peak stall torque         | 162.85 Lbf.In (18.4 N.m) LXM32.D18N4 6 A, 400 V, three phase<br>162.85 lbf.in (18.4 N.m) LXM32.D18N4 6 A, 480 V, three phase |
| Nominal output power      | 1600 W LXM32.D18N4 6 A, 400 V, three phase<br>1600 W LXM32.D18N4 6 A, 480 V, three phase                                     |
| Nominal torque            | 34.52 Lbf.In (3.9 N.m) LXM32.D18N4 6 A, 400 V, three phase<br>34.52 lbf.in (3.9 N.m) LXM32.D18N4 6 A, 480 V, three phase     |
| Nominal speed             | 4000 rpm LXM32.D18N4 6 A, 400 V, three phase<br>4000 rpm LXM32.D18N4 6 A, 480 V, three phase                                 |
| Product compatibility     | LXM32.D18N4 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   |
| Holding brake             | Without  |
| 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  | 5.04 A                       |
| Continuous power          | 2.36 W                       |
| Maximum current Irms      | 18 A LXM32.D18N4             |
| Maximum permanent current | 18.23 A                      |
| Second shaft              | Without second shaft end     |
| Shaft diameter            | 0.75 in (19 mm)              |
| Shaft length              | 1.57 in (40 mm)              |
| Feedback type             | Single turn SinCos Hiperface |
| Motor flange size         | 3.94 in (100 mm)             |
| Number of motor stacks    | 2                            |
| Torque constant           | 1.2 N.m/A 248 °F (120 °C)    |
| Back emf constant         | 77 V/krpm 248 °F (120 °C)    |
| Number of motor poles     | 10                           |
| Rotor inertia             | 6.28 kg.cm <sup>2</sup>      |
| Stator resistance         | 1.51 Ohm 68 °F (20 °C)       |

|                                       |  |
|---------------------------------------|--|
| Stator inductance                     | 7.5 mH 68 °F (20 °C)   |
| Stator electrical time constant       | 5 ms 68 °F (20 °C)   |
| Maximum radial force Fr               | 990 N 1000 rpm<br>790 N 2000 rpm<br>690 N 3000 rpm<br>620 N 4000 rpm<br>580 N 5000 rpm |
| Maximum axial force Fa                | 0.2 x Fr   |
| Type of cooling                       | Natural convection   |
| Length                                | 6.32 in (160.6 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                            | 10.85 lb(US) (4.92 kg)   |

### Ordering and shipping details

|                   |                        |
|-------------------|------------------------|
| Category          | 18282-LEXIUM 32 MOTORS |
| Discount Schedule | PC53                   |
| GTIN              | 3606485200422          |
| 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             | 11.51 lb(US) (5.22 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 | <a href="#">Yes</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.  |
| 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 | 160               | 202            |

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 | 6.29              | 7.95           |

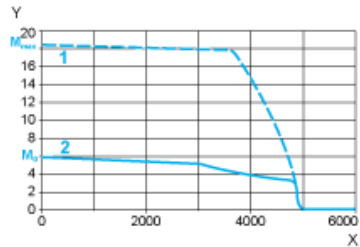
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400 V 3-Phase Supply Voltage

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Torque/Speed Curves

Servo motor with LXM32•D18N4 servo drive



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

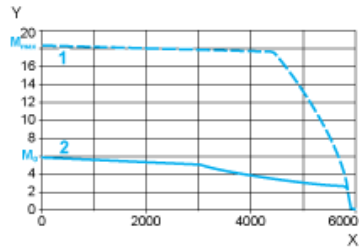
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480 V 3-Phase Supply Voltage

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Torque/Speed Curves

Servo motor with LXM32•D18N4 servo drive



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