

# BMH1003P36A1A

servo motor BMH, Lexium 32, 8.4Nm,  
6000rpm, keyed shaft, without brake, IP65,  
IP67, 16bit encoder, straight



## Main

|                           |                                                                                                              |
|---------------------------|--------------------------------------------------------------------------------------------------------------|
| Product or component type | Servo motor                                                                                                  |
| Device short name         | BMH                                                                                                          |
| Maximum mechanical speed  | 6000 rpm                                                                                                     |
| Continuous stall torque   | 8.4 N.M for LXM32.D30N4 at 10 A, 400 V, three phase<br>8.4 N.m for LXM32.D30N4 at 10 A, 480 V, three phase   |
| Peak stall torque         | 25.1 N.M for LXM32.D30N4 at 10 A, 400 V, three phase<br>25.1 N.m for LXM32.D30N4 at 10 A, 480 V, three phase |
| Nominal output power      | 2700 W for LXM32.D30N4 at 10 A, 400 V, three phase<br>2700 W for LXM32.D30N4 at 10 A, 480 V, three phase     |
| Nominal torque            | 6.2 N.M for LXM32.D30N4 at 10 A, 400 V, three phase<br>6.2 N.m for LXM32.D30N4 at 10 A, 480 V, three phase   |
| Nominal speed             | 4000 rpm for LXM32.D30N4 at 10 A, 400 V, three phase<br>4000 rpm for LXM32.D30N4 at 10 A, 480 V, three phase |
| Product compatibility     | LXM32.D30N4 at 400...480 V three phase                                                                       |
| Shaft end                 | Keyed                                                                                                        |
| IP degree of protection   | IP65 standard<br>IP67 with IP67 kit                                                                          |
| Speed feedback resolution | 32768 points/turn                                                                                            |
| Holding brake             | Without                                                                                                      |
| Mounting support          | International standard flange                                                                                |
| Electrical connection     | Straight connectors                                                                                          |

## Complementary

|                           |                              |
|---------------------------|------------------------------|
| Range compatibility       | Lexium 32                    |
| [Us] rated supply voltage | 480 V                        |
| Network number of phases  | Three phase                  |
| Continuous stall current  | 7.69 A                       |
| Continuous power          | 3.3 W                        |
| Maximum current Irms      | 29.1 A for LXM32.D30N4       |
| Maximum permanent current | 29.1 A                       |
| Second shaft              | Without second shaft end     |
| Shaft diameter            | 19 mm                        |
| Shaft length              | 40 mm                        |
| Key width                 | 30 mm                        |
| Feedback type             | Single turn SinCos Hiperface |
| Motor flange size         | 100 mm                       |
| Number of motor stacks    | 3                            |
| Torque constant           | 1 N.m/A at 120 °C            |

|                                       |                                                                                                        |
|---------------------------------------|--------------------------------------------------------------------------------------------------------|
| Back emf constant                     | 63.5 V/krpm at 120 °C                                                                                  |
| Number of motor poles                 | 10                                                                                                     |
| Rotor inertia                         | 9.37 kg.cm <sup>2</sup>                                                                                |
| Stator resistance                     | 0.63 Ohm at 20 °C                                                                                      |
| Stator inductance                     | 4 mH at 20 °C                                                                                          |
| Stator electrical time constant       | 6.3 ms at 20 °C                                                                                        |
| Maximum radial force Fr               | 1050 N at 1000 rpm<br>830 N at 2000 rpm<br>730 N at 3000 rpm<br>660 N at 4000 rpm<br>610 N at 5000 rpm |
| Maximum axial force Fa                | 0.2 x Fr                                                                                               |
| Type of cooling                       | Natural convection                                                                                     |
| Length                                | 192.6 mm                                                                                               |
| Centring collar diameter              | 95 mm                                                                                                  |
| Centring collar depth                 | 3.5 mm                                                                                                 |
| Number of mounting holes              | 4                                                                                                      |
| Mounting holes diameter               | 9 mm                                                                                                   |
| Circle diameter of the mounting holes | 115 mm                                                                                                 |
| Net weight                            | 6.5 kg                                                                                                 |

## Offer Sustainability

|                            |                                                                                                                                                                                    |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                                                                              |
| 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                                                                                                                                                                                |
| 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                                                                                                                                                                                |

## 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