# Product data sheet Characteristics

# BMI1002P06A

# servo motor BMI 3-phase - untapped IP54 single turn - 32768 p/t



#### Main

| Range compatibility       | Lexium 32i                   |
|---------------------------|------------------------------|
| Product or component type | Servo motor with power stage |
| Device short name         | BMI                          |

# Complementary

| Complementary             |  |
|---------------------------|--|
| Maximum mechanical speed  | 6000   |
| [Us] rated supply voltage | 208480 V (- 1510 %)  |
| Supply voltage limits     | 208480 V   |
| Network number of phases  | Three phase  |
| Supply frequency          | 50/60 Hz (- 55 %)  |
| Network frequency limits  | 47.563 Hz  |
| EMC filter                | Integrated   |
| Continuous output current | 4 A at 8 kHz   |
| Output current 3s peak    | 12 A at 400 V for 3 s  |
| Continuous stall current  | 4 A  |
| Continuous stall torque   | 6 N.m at 208480 V, three phase   |
| Peak stall torque         | 14 N.m at 480 V, three phase<br>14 N.m at 400 V, three phase<br>14 N.m at 208 V, three phase       |
| Nominal output power      | 1900 W at 480 V, three phase<br>1900 W at 400 V, three phase<br>1000 W at 208 V, three phase       |
| Nominal torque            | 4.1 N.m at 480 V, three phase<br>5.4 N.m at 208 V, three phase<br>5.1 N.m at 400 V, three phase    |
| Nominal speed             | 4700 rpm at 480 V, three phase<br>3800 rpm at 400 V, three phase<br>1900 rpm at 208 V, three phase |
| Maximum current Irms      | 17.5 A at 480 V, three phase<br>17.5 A at 400 V, three phase<br>17.5 A at 208 V, three phase       |
| Product compatibility     | LXM32i drive control unit (EtherCAT) LXM32i drive control unit (CANopen)                           |
| Shaft end                 | Untapped   |
| Second shaft              | Without second shaft end   |
| Shaft diameter            | 19 mm  |
| Shaft length              | 40 mm  |
| Feedback type             | Absolute single turn SinCos Hiperface  |
| Speed feedback resolution | 32768 points/turn  |
| Holding brake             | Without  |
| Mounting support          | International standard flange  |
| Motor flange size         | 100 mm   |
| Electrical connection     | Printed circuit board connector  |
|                           |  |

| Torque constant                       | 1.28 N.m/A at 20 °C   |
|---------------------------------------|---|
| Back emf constant                     | 84.52 V/krpm at 20 °C   |
| Number of motor poles                 | 10  |
| Rotor inertia                         | 6.28 kg.cm²   |
| Stator resistance                     | 2.347 Ohm at 20 °C  |
| Stator inductance                     | 9.79 mH at 20 °C  |
| Stator electrical time constant       | 4.17 ms at 20 °C  |
| Maximum radial force Fr               | 580 N at 5000 rpm<br>620 N at 4000 rpm<br>690 N at 3000 rpm<br>790 N at 2000 rpm<br>990 N at 1000 rpm |
| Maximum axial force Fa                | 0.2 x Fr  |
| Type of cooling                       | Natural convection  |
| Length                                | 273 mm  |
| Number of motor stacks                | 2   |
| 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  |
| Distance shaft shoulder-flange        | 3.5 mm  |

# Environment

| ZIIVII OIIIII OIII      |                  |  |
|-------------------------|------------------|--|
| IP degree of protection | IP65 for housing |  |
|                         | IP54 for shaft   |  |

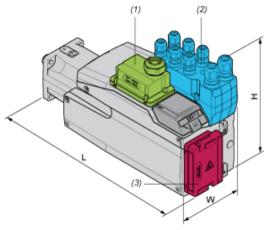


# BMI1002P06A

#### **External Dimensions**

# With Standard Braking Resistor

Mounting type A



- (1) Module for supply voltage
- (2) I/O module
- (3) Standard braking resistor

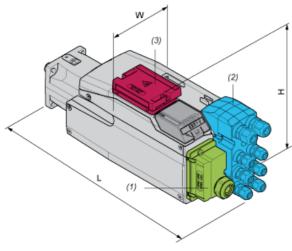
# Dimensions in mm

| W     | н   | L   |
|-------|-----|-----|
| 132,6 | 217 | 294 |

#### Dimensions in in.

| W    | Н    | L     |
|------|------|-------|
| 5,22 | 8,54 | 11,57 |

#### Mounting type B



- (1) Module for supply voltage
- (2) I/O module
- (3) Standard braking resistor

#### Dimensions in mm

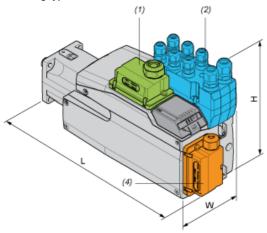
| W     | н   | L   |
|-------|-----|-----|
| 132,6 | 168 | 343 |

Dimensions in in.

| W    | н    | L    |
|------|------|------|
| 5,22 | 6,61 | 13,5 |

# With External Braking Resistor

Mounting type C



- Module for supply voltage I/O module
- (4) External braking resistor

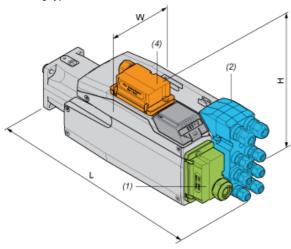
Dimensions in mm

| W     | Н   | L   |
|-------|-----|-----|
| 132,6 | 217 | 306 |

Dimensions in in.

| W    | Н    | L     |
|------|------|-------|
| 5,22 | 8,54 | 12,05 |

Mounting type D



- Module for supply voltage
- (2) I/O module(4) External braking resistor

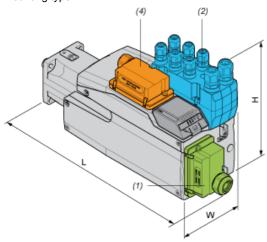
Dimensions in mm

| W     | Н   | L   |
|-------|-----|-----|
| 132,6 | 180 | 343 |

Dimensions in in.

| W    | н    | L    |
|------|------|------|
| 5,22 | 7,09 | 13,5 |

#### Mounting type E



- Module for supply voltage I/O module
- (1) (2)
- (4) External braking resistor

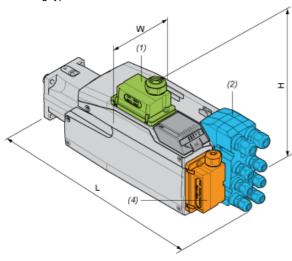
#### Dimensions in mm

| W     | Н   | L   |
|-------|-----|-----|
| 132,6 | 217 | 333 |
|       |     |     |

#### Dimensions in in.

| W    | Н    | L     |
|------|------|-------|
| 5,22 | 8,54 | 13,11 |

# Mounting type F



- (1) (2) Module for supply voltage
- I/O module
- (4) External braking resistor

#### Dimensions in mm

| W     | Н     | L   |
|-------|-------|-----|
| 132,6 | 206,5 | 343 |

# Dimensions in in.

| W    | Н    | L    |
|------|------|------|
| 5,22 | 8,13 | 13,5 |