Disclaimer. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications



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

BMI1003P16A

Main

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

Complementary

| 6000 rpm |
|---|
| 208480 V - 1510 % |
| 208480 V |
| Three phase |
| 50/60 Hz - 55 % |
| 47.563 Hz |
| Integrated |
| 4 A at 8 kHz |
| 12 A at 400 V for 3 s |
| 4 A |
| 8.5 N.m at 208480 V three phase |
| 19.2 N.m at 400 V three phase 19.2 N.m at 480 V three phase 19.2 N.m at 208 V three phase |
| 1000 W at 208 V three phase 2000 W at 400 V three phase 2100 W at 480 V three phase |
| 7.2 N.m at 208 V three phase 6.8 N.m at 400 V three phase 5.6 N.m at 480 V three phase |
| 1500 rpm at 208 V three phase 3000 rpm at 400 V three phase 3700 rpm at 480 V three phase |
| 26.7 A at 208 V, three phase 26.7 A at 400 V, three phase 26.7 A at 480 V, three phase |
| Drive control unit LXM32i CANopen Drive control unit LXM32i EtherCAT |
| Keyed |
| Without second shaft end |
| 19 mm |
| 40 mm |
| |

| key width | 6 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 | 1.7 N.m/A at 20 °C | |
| Back emf constant | 112 V/krpm at 20 °C | |
| Number of motor poles | 10 | |
| Rotor inertia | 9.37 kg.cm² | |
| Stator resistance | 2.31 Ohm at 20 °C | |
| Stator inductance | 11.43 mH at 20 °C | |
| Stator electrical time constant | 4.95 ms at 20 °C | |
| Maximum radial force Fr | 1050 N at 1000 rpm 830 N at 2000 rpm 730 N at 3000 rpm 660 N at 4000 rpm 610 N at 5000 rpm | |
| Maximum axial force Fa | 0.2 x Fr | |
| type of cooling | Natural convection | |
| Length | 299 mm | |
| Number of motor stacks | 3 | |
| 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

IP degree of protection Shaft: IP54
Housing: IP65

Packing Units

| Unit Type of Package 1 | PCE |
|------------------------------|---------|
| Number of Units in Package 1 | 1 |
| Package 1 Height | 25.0 cm |
| Package 1 Width | 18.6 cm |
| Package 1 Length | 55.0 cm |
| Package 1 Weight | 11.0 kg |

Contractual warranty

Warranty 18 months



Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing "Use Better, Use Longer, Use Again" campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability

| 0 | Environmental | faatarint |
|---|----------------------|-------------|
| ~ | Environmental | 100tbi iiit |

Environmental Disclosure

Product Environmental Profile

Use Better

| Packaging made with recycled cardboard | Yes |
|--|--|
| Packaging without single use plastic | No |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) |
| REACh Regulation | REACh Declaration |
| PVC free | Yes |

Use Again

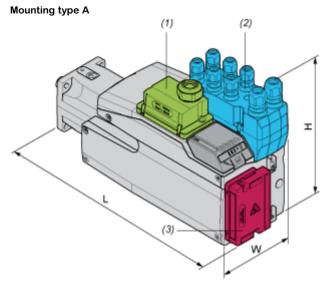
| ○ Repack and remanufacture | |
|---------------------------------|---|
| End of life manual availability | End of Life Information |
| Take-back | No |
| WEEE Label | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

BMI1003P16A

Dimensions Drawings

External Dimensions

With Standard Braking Resistor



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

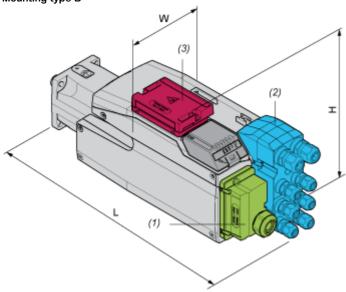
Dimensions in mm

| Difficitionionia in mini | | |
|--------------------------|-----|-----|
| W | Н | L |
| 132,6 | 217 | 320 |

Dimensions in in

| Difficitions in in. | | |
|---------------------|------|------|
| W | Н | L |
| 5,22 | 8,54 | 12,6 |

Mounting type B



- (1) Module for supply voltage
- (2) I/O module

Product datasheet

BMI1003P16A

(3) Standard braking resistor

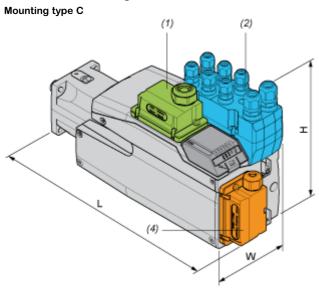
Dimensions in mm

| D | | |
|-------|-----|-----|
| W | Н | L |
| 132,6 | 168 | 369 |

Dimensions in in.

| W | Н | L |
|------|------|-------|
| 5,22 | 6,61 | 14,53 |

With External Braking Resistor



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

Dimensions in mm

| W | Н | L |
|-------|-----|-----|
| 132,6 | 217 | 332 |

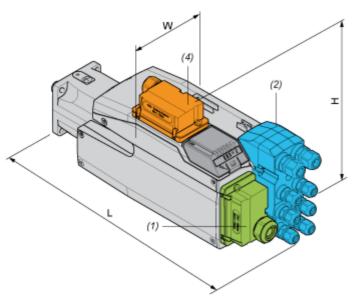
Dimensions in in.

| | D | | | | | |
|------|------|-------|--|--|--|--|
| W | Н | L | | | | |
| 5,22 | 8,54 | 13,07 | | | | |

Mounting type D

Product datasheet

BMI1003P16A



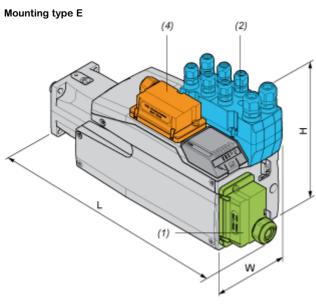
- (1) Module for supply voltage
- (2) I/O module
- External braking resistor (4)

Dimensions in mm

| Difficusions in mini | | | | |
|----------------------|-----|-----|--|--|
| W | H L | | | |
| 132,6 | 180 | 369 | | |

Dimensions in in.

| W | H L | | | | | |
|------|------|-------|--|--|--|--|
| 5,22 | 7,09 | 14,53 | | | | |



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

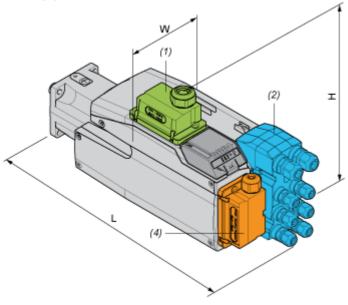
Dimensions in mm

| D | | | | |
|-------|-----|-----|--|--|
| W | H L | | | |
| 132,6 | 217 | 359 | | |

Dimensions in in.

| W | Н | L |
|------|------|-------|
| 5,22 | 8,54 | 14,13 |

Mounting type F



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

Dimensions in mm

| W | H L | | | | |
|-------|-------|-----|--|--|--|
| 132,6 | 206,5 | 369 | | | |

Dimensions in in

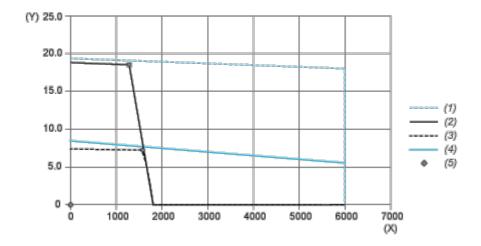
| W | W H L | |
|------|-------|-------|
| 5,22 | 8,13 | 14,53 |

BMI1003P16A

Performance Curves

Performance Curves

Torque/Speed Curves with 208 V Three Phases Supply Voltage

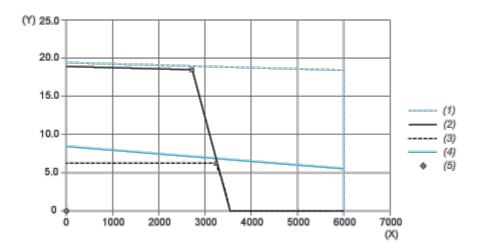


- (X) Speed (rpm)
- (Y) Torque (N.m)
- (1) Motor peak
- (2) Drive peak
- (3) Drive cont
- (4) Motor cont
- (5) Operating point

| | | Power | At Speed | With Torque |
|-------------------------|---|--------|----------|-------------|
| max. Peak Power | | 2675 W | 1380 rpm | 18.51 N.m |
| max Cont. Power (Drive) | • | 1223 W | 1620 rpm | 7.21 N.m |

Performance Curves

Torque/Speed Curves with 400 V Three Phases Supply Voltage

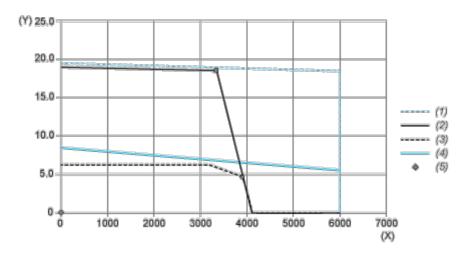


- (X) Speed (rpm)
- (Y) Torque (N.m)
- (1) Motor peak
- (2) Drive peak
- (3) Drive cont
- (4) Motor cont
- (5) Operating point

| | | Power | At Speed | With Torque |
|-------------------------|---|--------|----------|-------------|
| max. Peak Power | | 5328 W | 2760 rpm | 18.44 N.m |
| max Cont. Power (Drive) | • | 2096 W | 3240 rpm | 6.18 N.m |

Performance Curves

Torque/Speed Curves with 480 V Three Phases Supply Voltage



- (X) Speed (rpm)
- (Y) Torque (N.m)
- (1) Motor peak
- (2) Drive peak
- (3) Drive cont
- (4) Motor cont
- (5) Operating point

| | | Power | At Speed | With Torque |
|-------------------------|---|--------|----------|-------------|
| max. Peak Power | | 6454 W | 3360 rpm | 18.34 N.m |
| max Cont. Power (Drive) | • | 1994 W | 3960 rpm | 4.81 N.m |