# **Product data sheet**

Specification





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

BMI1003P16A

Product availability: Non-Stock - Not normally stocked in distribution facility

Price\*: 2,175.88 USD

## Main

Range Compatibility	Lexium 32i	
Product Or Component Type	Servo motor with power stage	
Device Short Name	BMI	

# Complementary

Maximum Mechanical Speed	6000 rpm	
[Us] Rated Supply Voltage	208480 V - 1510 %	
Supply Voltage Limits	208480 V	
Phase	Three phase	
Supply Frequency	50/60 Hz - 55 %	
Network Frequency Limits	47.563 Hz	
Emc Filter	Integrated	
Continuous Output Current	4 A 8 kHz	
Output Current 3S Peak	12 A 400 V 3 s	
Continuous Stall Current	4 A	
Continuous Stall Torque	75.23 lbf.in (8.5 N.m) 208480 V three phase	
Peak Stall Torque	169.93 lbf.in (19.2 N.m) 400 V three phase 169.93 lbf.in (19.2 N.m) 480 V three phase 169.93 lbf.in (19.2 N.m) 208 V three phase	
Nominal Output Power	1000 W 208 V three phase 2000 W 400 V three phase 2100 W 480 V three phase	
Nominal Torque	63.73 lbf.in (7.2 N.m) 208 V three phase 60.18 lbf.in (6.8 N.m) 400 V three phase 49.56 lbf.in (5.6 N.m) 480 V three phase	
Nominal Speed	1500 rpm 208 V three phase 3000 rpm 400 V three phase 3700 rpm 480 V three phase	
Maximum Current Irms	26.7 A 208 V, three phase 26.7 A 400 V, three phase 26.7 A 480 V, three phase	
Product Compatibility	Drive control unit LXM32i CANopen Drive control unit LXM32i EtherCAT	
Shaft End	Keyed	
Second Shaft	Without second shaft end	
Shaft Diameter	0.75 in (19 mm)	

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Shaft Length	1.57 in (40 mm)	
Key Width	0.24 in (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	3.94 in (100 mm)	
Electrical Connection	Printed circuit board connector	
Torque Constant	1.7 N.m/A 68 °F (20 °C)	
Back Emf Constant	112 V/krpm 68 °F (20 °C)	
Number Of Motor Poles	10	
Rotor Inertia	9.37 kg.cm <sup>2</sup>	
Stator Resistance	2.31 Ohm 68 °F (20 °C)	
Stator Inductance	11.43 mH 68 °F (20 °C)	
Stator Electrical Time Constant	4.95 ms 68 °F (20 °C)	
Maximum Radial Force Fr	1050 N 1000 rpm 830 N 2000 rpm 730 N 3000 rpm 660 N 4000 rpm 610 N 5000 rpm	
Maximum Axial Force Fa	0.2 x Fr	
Type Of Cooling	Natural convection	
Length	11.77 in (299 mm)	
Number Of Motor Stacks	3	
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)	
Distance Shaft Shoulder-Flange	0.14 in (3.5 mm)	

## **Environment**

Ip Degree Of Protection Shaft IP54 Housing IP65

# Ordering and shipping details

Category	US1PC5618287
Discount Schedule	PC56
Gtin	3606485377681
Returnability	No
Country Of Origin	DE

# **Packing Units**

Unit Type Of Package 1 PCE

Number Of Units In Package 1	1
Package 1 Height	9.84 in (25.0 cm)
Package 1 Width	7.32 in (18.6 cm)
Package 1 Length	21.65 in (55.0 cm)
Package 1 Weight	24.25 lb(US) (11.0 kg)

# **Contractual warranty**

Warranty 18 months

# Sustainability Green Premium

**Green Premium**<sup>TM</sup> **label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >





Transparency RoHS/REACh

## Well-being performance

<b>Ø</b>	Mercury Free	
	Rohs Exemption Information	Yes
<b>②</b>	Pvc Free	

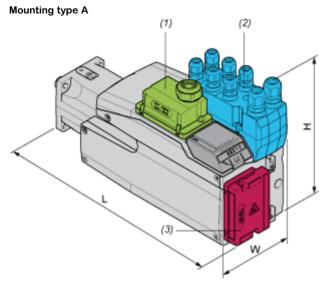
### **Certifications & Standards**

Reach Regulation	REACh Declaration	
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)	
China Rohs Regulation	China RoHS declaration	
Environmental Disclosure	Product Environmental Profile	
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.	
Circularity Profile	End of Life Information	
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 www.P65Warnings.ca.gov	

## **Dimensions Drawings**

#### **External Dimensions**

## With Standard Braking Resistor



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

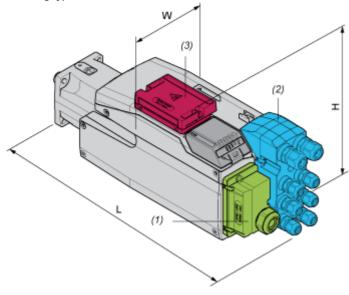
#### Dimensions in mm

W	Н	L
132,6	217	320

#### Dimensions in in.

W	Н	L
5,22	8,54	12,6

#### Mounting type B



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

#### (3) Standard braking resistor

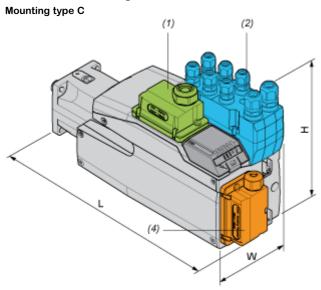
Dimei	nsions	in	mm

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
- External braking resistor (4)

Dimensions in mm

W	Н	L
132,6	217	332

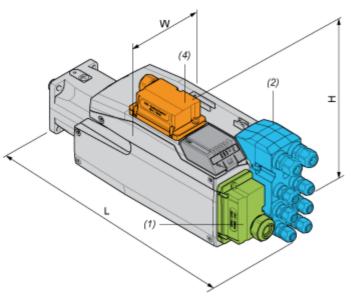
Dimensions in in

W	Н	L
5,22	8,54	13,07

### Mounting type D

# **Product data sheet**

# BMI1003P16A



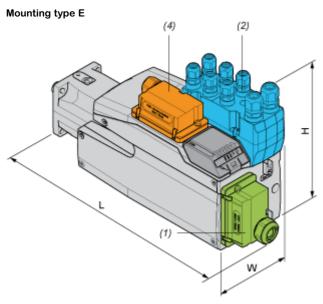
- (1) Module for supply voltage
- (2) I/O module
- (4) External braking resistor

#### Dimensions in mm

W	Н	L
132,6	180	369

#### Dimensions in in.

	D.11.1011010110 111 1111					
W H		Н	L			
	5,22	7,09	14,53			



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

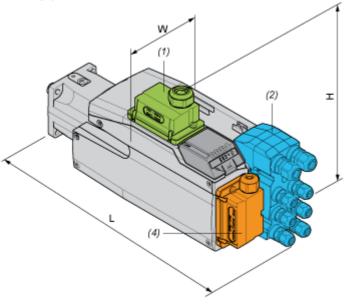
#### Dimensions in mm

W	H L				
132,6	217	359			

Dimensions in in.

W	H 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

Difficitations in thirt				
W	H L			
132,6	206,5	369		

#### Dimensions in in

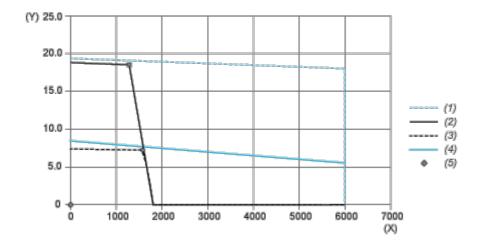
W	Н	L
5,22	8,13	14,53

## BMI1003P16A

#### Performance Curves

## **Performance Curves**

### Torque/Speed Curves with 208 V Three Phases Supply Voltage

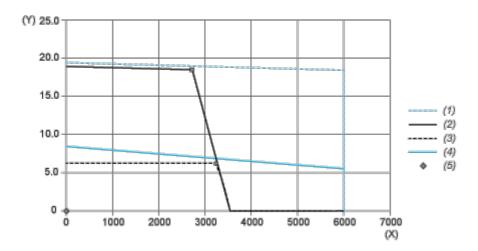


- (X) Speed (rpm)
- (Y) Torque (N.m)
- (1) Motor peak
- (2) Drive peak
- (3) Drive cont
- (4) Motor cont
- (5) Operating point

		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

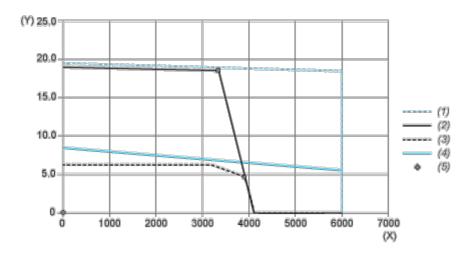


- (X) Speed (rpm)
- (Y) Torque (N.m)
- (1) Motor peak
- (2) Drive peak
- (3) Drive cont
- (4) Motor cont
- (5) Operating point

		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