# BMI1002P17A

servo motor BMI 3-phase - keyed IP54 multiturn - 32768 p/t x 4096 t





# 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	53.10 lbf.in (6 N.m) 208480 V three phase
Peak stall torque	123.91 Lbf.In (14 N.m) 208 V three phase 123.91 Lbf.In (14 N.m) 400 V three phase 123.91 lbf.in (14 N.m) 480 V three phase
Nominal output power	1000 W 208 V three phase 1900 W 400 V three phase 1900 W 480 V three phase
Nominal torque	45.14 Lbf.In (5.1 N.m) 400 V three phase 47.79 Lbf.In (5.4 N.m) 208 V three phase 36.29 lbf.in (4.1 N.m) 480 V three phase
Nominal speed	1900 rpm 208 V three phase 3800 rpm 400 V three phase 4700 rpm 480 V three phase
Maximum current Irms	17.5 A 208 V, three phase 17.5 A 400 V, three phase 17.5 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)
Shaft length	1.57 in (40 mm)
Key width	0.24 in (6 mm)
Feedback type	Absolute multiturn SinCos Hiperface
Speed feedback resolution	32768 points/turn x 4096 turns
Holding brake	Without

Mounting Support	International standard flange
Motor flange size	3.94 in (100 mm)
Electrical Connection	Printed circuit board connector
Torque constant	1.28 N.m/A 68 °F (20 °C)
Back emf constant	84.52 V/krpm 68 °F (20 °C)
Number of motor poles	10
Rotor inertia	6.28 kg.cm²
Stator resistance	2.347 Ohm 68 °F (20 °C)
Stator inductance	9.79 mH 68 °F (20 °C)
Stator electrical time constant	4.17 ms 68 °F (20 °C)
Maximum radial force Fr	990 N 1000 rpm 790 N 2000 rpm 690 N 3000 rpm 620 N 4000 rpm 580 N 5000 rpm
Maximum axial force Fa	0.2 x Fr
Type of cooling	Natural convection
Length	10.75 in (273 mm)
Number of motor stacks	2
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
	riodaling in oo

# Ordering and shipping details

Category	US1PC5618287
Discount Schedule	PC56
GTIN	3606485377063
Returnability	No
Country of origin	DE

# Packing Units

PCE
1
9.84 in (25.0 cm)
7.32 in (18.6 cm)
21.65 in (55.0 cm)
20.94 lb(US) (9.5 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 www.P65Warnings.ca.gov	
REACh Regulation	REACh Declaration	
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)	
Mercury free	Yes	
China RoHS Regulation	China RoHS Declaration	
RoHS exemption information	₫Yes	

Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information
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

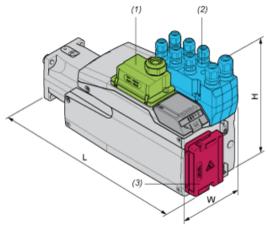
# Product data sheet **Dimensions Drawings**

# BMI1002P17A

# **External Dimensions**

# With Standard Braking Resistor

Mounting type A



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

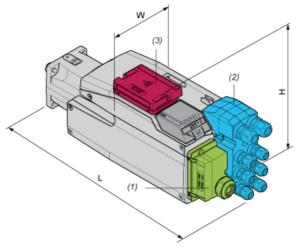
# Dimensions in mm

W	н	L
132,6	217	294

# Dimensions in in.

W	Н	L
5,22	8,54	11,57

# Mounting type B



- Module for supply voltage
- I/O module
- Standard braking resistor

#### Dimensions in mm

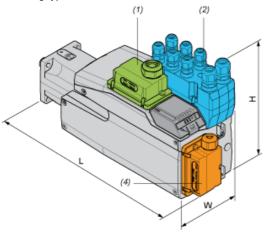
W	н	L
132,6	168	343

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

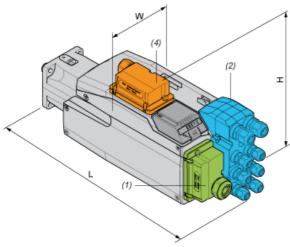
# Dimensions in mm

W	Н	L
	217	306

#### Dimensions in in.

W	н	L
5,22	8,54	12,05

# Mounting type D



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

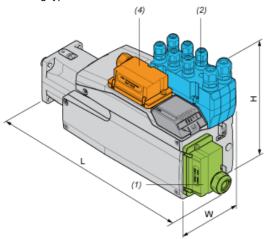
#### Dimensions in mm

W	Н	L
132,6	180	343

# Dimensions in in.

W	н	L
5,22	7,09	13,5

#### Mounting type E



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

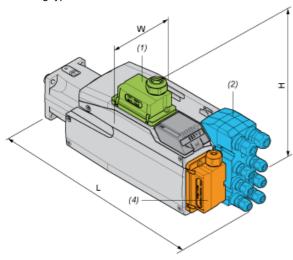
# Dimensions in mm

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
- External braking resistor

# Dimensions in mm

W	н	L
132,6	206,5	343

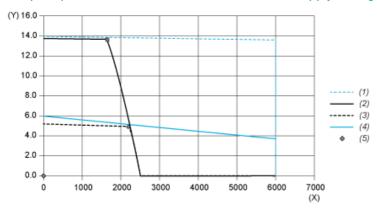
# Dimensions in in.

W	Н	L
5,22	8,13	13,5

# Product data sheet Performance Curves

#### Performance Curves

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

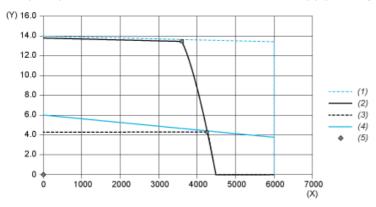


- (X) Speed (rpm)
- (Y) Torque (N.m)
- (1) Motor peak
- (2) Drive peak
- (3) Drive cont(4) Motor cont
- (5) Operating point

		Power	At Speed	With Torque
max. Peak Power		2499 W	1740 rpm	13.72 N.m
max Cont. Power (Drive)	•	1109	2160 rpm	4.90 N.m

#### Performance Curves

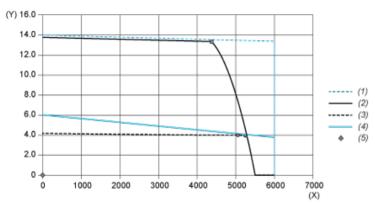
# Torque/Speed Curves with 400 V Three Phases Supply Voltage



- (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		5090 W	3600 rpm	13.50 N.m
max Cont. Power (Drive)	•	1954 W	4320 rpm	4.32 N.m

# Torque/Speed Curves with 480 V Three Phases Supply Voltage



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

- Drive peak Drive cont
- Motor cont Operating point

		Power	At Speed	With Torque
max. Peak Power		6117 W	4380 rpm	13.34 N.m
max Cont. Power (Drive)	•	2080 W	5040 rpm	3.94 N.m