BMI1002T12F

servo motor BMI 1-phase - keyed IP54 multiturn - 131072 p/t x 4096 t - brake





Main

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

Complementary

Maximum mechanical speed	6000 rpm
[Us] rated supply voltage	115230 V - 1510 %
Supply voltage limits	100240 V
Network number of phases	Single phase
Supply frequency	50/60 Hz - 55 %
Network frequency limits	47.563 Hz
EMC filter	Integrated
Continuous output current	6 A at 8 kHz
Output current 3s peak	18 A at 230 V for 3 s
Continuous stall current	6 A
Continuous stall torque	6 N.m at 115230 V single phase
Peak stall torque	14.5 N.M at 115 V single phase 14.5 N.m at 230 V single phase
Nominal output power	750 W at 115 V single phase 1300 W at 230 V single phase
Nominal torque	5.4 N.M at 115 V single phase 4.4 N.m at 230 V single phase
Nominal speed	1400 rpm at 115 V single phase 3000 rpm at 230 V single phase
Maximum current Irms	30 A at 115 V, single phase 30 A at 230 V, single phase
Product compatibility	Drive control unit LXM32i CANopen Drive control unit LXM32i EtherCAT
Shaft end	Keyed
Second shaft	Without second shaft end
Shaft diameter	19 mm
Shaft length	40 mm
Key width	6 mm
Feedback type	Absolute multiturn SinCos Hiperface
Speed feedback resolution	131072 points/turn x 4096 turns
Holding brake	With
Holding torque	5.5 N.m holding brake
Mounting support	International standard flange
Motor flange size	100 mm
Electrical connection	Printed circuit board connector

Torque constant	0.89 N.m/A at 20 °C
Back emf constant	58.5 V/krpm at 20 °C
Number of motor poles	10
Rotor inertia	6.77 kg.cm²
Stator resistance	1.08 Ohm at 20 °C
Stator inductance	4.7 mH at 20 °C
Stator electrical time constant	4.35 ms at 20 °C
Maximum radial force Fr	990 N at 1000 rpm 790 N at 2000 rpm 690 N at 3000 rpm 620 N at 4000 rpm 580 N at 5000 rpm
Maximum axial force Fa	0.2 x Fr
Brake pull-in power	8 W
Type of cooling	Natural convection
Length	282 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

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	9.5 kg	

Offer Sustainability

Sustainable offer status	Green Premium product	
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

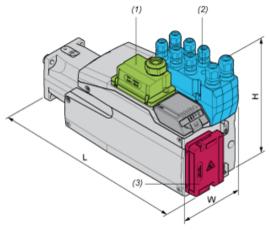
Contractadi Warranty	
Warranty	18 months

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External Dimensions

With Standard Braking Resistor

Mounting type A



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

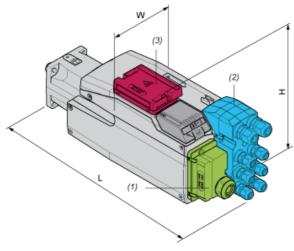
Dimensions in mm

W	Н	L
	217	337

Dimensions in in.

W	Н	L
5,22	8,54	13,27

Mounting type B



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

Dimensions in mm

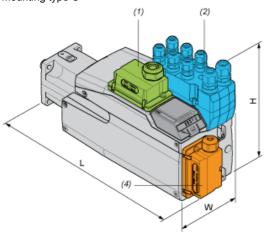
W	н	L
132,6	168	386

Dimensions in in.

W	н	L
5,22	6,61	15,2

With External Braking Resistor

Mounting type C



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

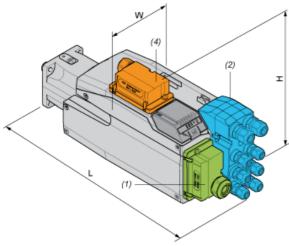
Dimensions in mm

W	Н	L
132,6	217	349

Dimensions in in.

W	н	L
5,22	8,54	13,74

Mounting type D



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

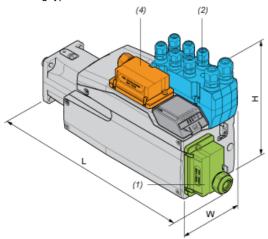
Dimensions in mm

W	Н	L
132,6	180	386

Dimensions in in.

W	Н	L
5,22	7,09	15,2

Mounting type E



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

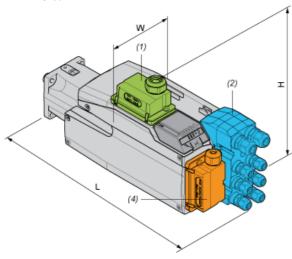
Dimensions in mm

W	н	L
132,6	217	376

Dimensions in in.

W	Н	L
5,22	8,54	14,8

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	386

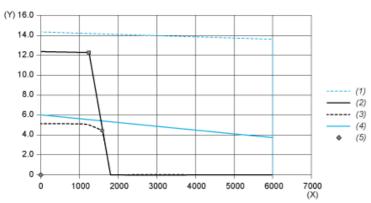
Dimensions in in.

W	Н	L
5,22	8,13	15,2

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Performance Curves

Torque/Speed Curves with 115 V Single Phase Supply Voltage

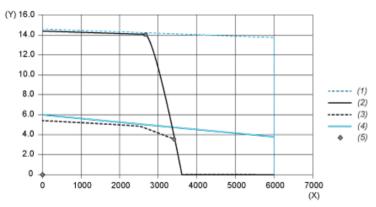


- Speed (rpm)
- (Y) Torque (N.m)
- (1) Motor peak
- (2) (3) (4) Drive peak
- Drive cont Motor cont
- (5) Operating point

		Power	At Speed	With Torque
max. Peak Power	•	1721 W	1380 rpm	11.91 N.m
max Cont. Power (Drive)	•	757 W	1620 rpm	4.46 N.m

Performance Curves

Torque/Speed Curves with 230 V Single Phase Supply Voltage



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

		Power	At Speed	With Torque
max. Peak Power		4069 W	2760 rpm	14.08 N.m
max Cont. Power (Drive)	•	1257 W	3420 rpm	3.51 N.m