

Product data sheet

Specifications



servo motor BMI 1-phase - untapped
IP65 multiturn - 32768 p/t x 4096 t -
brake

BMI1002T27F

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	115...230 V - 15...10 %
Supply voltage limits	100...240 V
Network number of phases	Single phase
Supply frequency	50/60 Hz - 5...5 %
Network frequency limits	47.5...63 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 115...230 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	Untapped
Second shaft	Without second shaft end
Shaft diameter	19 mm
Shaft length	40 mm

Feedback type	Absolute multiturn SinCos Hiperface
Speed feedback resolution	32768 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	IP65
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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) EU RoHS Declaration
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
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

Contractual 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	H	L
132,6	217	337

Dimensions in in.

W	H	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	H	L
132,6	168	386

Dimensions in in.

W	H	L
5,22	6,61	15,2

With External Braking Resistor

Mounting type C



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

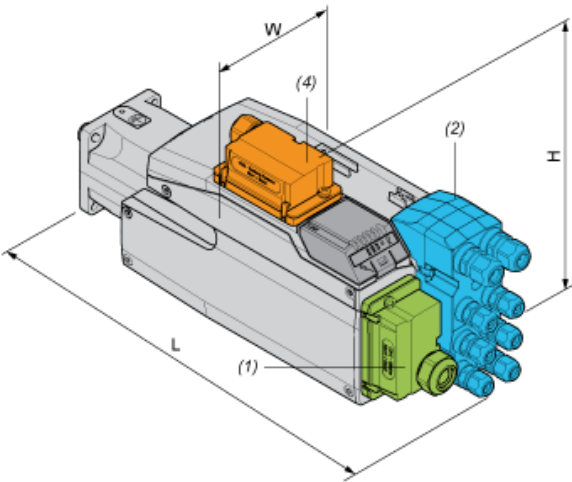
Dimensions in mm

W	H	L
132,6	217	349

Dimensions in in.

W	H	L
5,22	8,54	13,74

Mounting type D



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

Dimensions in mm

W	H	L
132,6	180	386

Dimensions in in.

W	H	L
5,22	7,09	15,2

Mounting type E



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

Dimensions in mm

W	H	L
132,6	217	376

Dimensions in in.

W	H	L
5,22	8,54	14,8

Mounting type F



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

Dimensions in mm

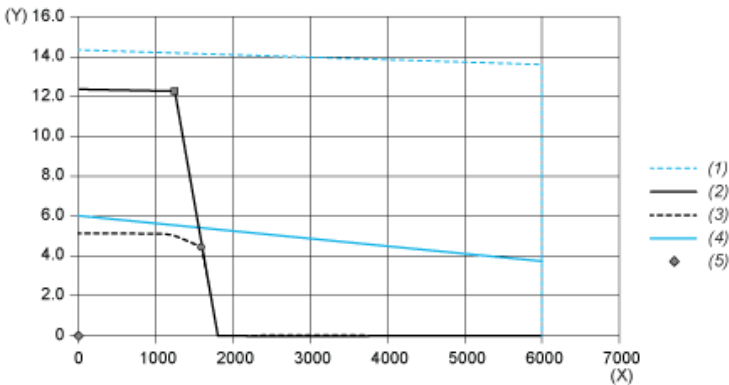
W	H	L
132,6	206,5	386

Dimensions in in.

W	H	L
5,22	8,13	15,2

Performance Curves

Torque/Speed Curves with 115 V Single Phase Supply Voltage

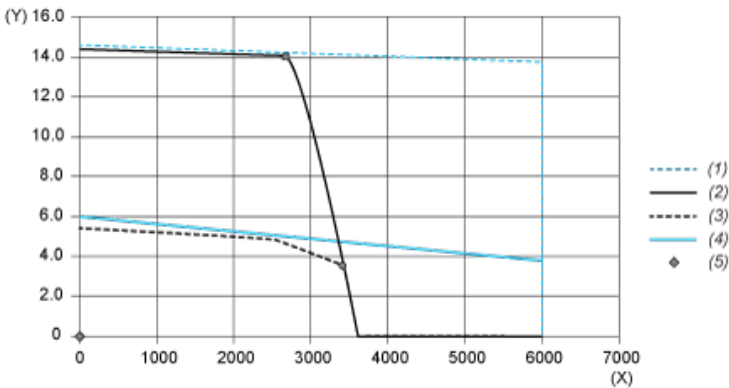


- (X) Speed (rpm)
- (Y) Torque (N.m)
- (1) Motor peak
- (2) Drive peak
- (3) Drive cont
- (4) Motor cont
- (5) Operating point

		Power	At Speed	With Torque
max. Peak Power		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



- (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		4069 W	2760 rpm	14.08 N.m
max Cont. Power (Drive)		1257 W	3420 rpm	3.51 N.m

Recommended replacement(s)