# BMI0703T07A

servo motor BMI 1-phase - untapped IP54 multiturn - 32768 p/t x 4096 t





#### Main

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

Complementary

Maximum mechanical speed	8000 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	3.5 A at 8 kHz
Output current 3s peak	10.5 A at 230 V for 3 s
Continuous stall current	3.5 A
Continuous stall torque	3.4 N.m at 115230 V single phase
Peak stall torque	8.6 N.M at 115 V single phase 8.6 N.m at 230 V single phase
Nominal output power	700 W at 230 V single phase 400 W at 115 V single phase
Nominal torque	2.9 N.M at 115 V single phase 2.2 N.m at 230 V single phase
Nominal speed	3200 rpm at 230 V single phase 1400 rpm at 115 V single phase
Maximum current Irms	17.8 A at 115 V, single phase 17.8 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	14 mm
Shaft length	30 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	70 mm
Electrical connection	Printed circuit board connector
Torque constant	0.81 N.m/A at 20 °C
Back emf constant	54.44 V/krpm at 20 °C

Number of motor poles	10
Rotor inertia	1.67 kg.cm²
Stator resistance	2.58 Ohm at 20 °C
Stator inductance	2.28 mH at 20 °C
Stator electrical time constant	0.88 ms at 20 °C
Maximum radial force Fr	730 N at 1000 rpm 580 N at 2000 rpm 510 N at 3000 rpm 460 N at 4000 rpm 430 N at 5000 rpm 400 N at 6000 rpm
Maximum axial force Fa	0.2 x Fr
Type of cooling	Natural convection
Length	300 mm
Number of motor stacks	3
Centring collar diameter	60 mm
Centring collar depth	2.5 mm
Number of mounting holes	4
Mounting holes diameter	5.5 mm
Circle diameter of the mounting holes	7582 mm
Distance shaft shoulder-flange	2.5 mm

## Environment

IP degree of protection	Shaft: IP54 Housing: IP65
	110031119. 11 00

## Packing Units

PCE
1
62.0 cm
20.0 cm
59.0 cm
5.594 kg
P06
8
77.0 cm
80.0 cm
60.0 cm
53.252 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

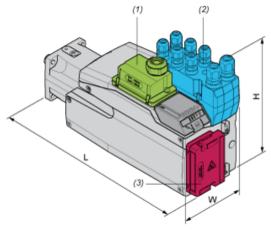
Warranty	18 months

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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

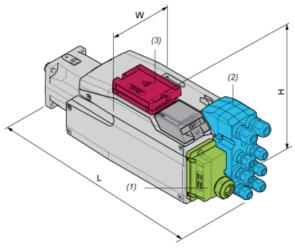
#### Dimensions in mm

W	Н	L
99	187	321

### Dimensions in in.

W	Н	L
3,90	7,36	12,64

#### Mounting type B



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

#### Dimensions in mm

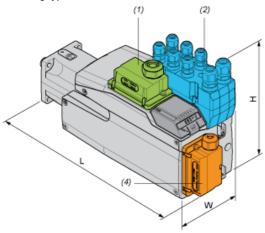
W	н	L
99	138,5	370

Dimensions in in.

W	н	L
3,90	5,45	14,57

## With External Braking Resistor

Mounting type C



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

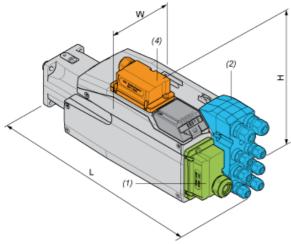
Dimensions in mm

W	Н	L
99	187	333

Dimensions in in.

W	н	L
3,90	7,36	13,11

## Mounting type D



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

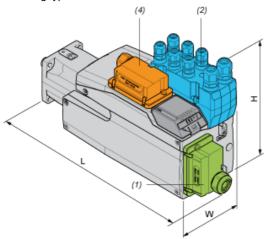
Dimensions in mm

W	Н	L
99	160	370

Dimensions in in.

W	Н	L
3,90	6,3	14,57

#### Mounting type E



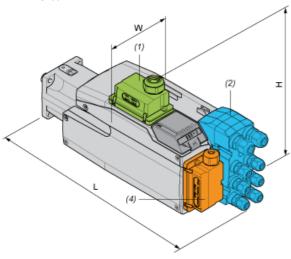
- (1) (2) Module for supply voltage I/O module
- (4) External braking resistor

#### Dimensions in mm

W	н	L		
99	187	360		
Dimensions in in.				

W	Н	L
3,90	7,36	14,17

## Mounting type F



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

### Dimensions in mm

W	Н	L
99	180	370

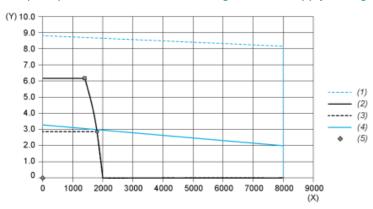
## Dimensions in in.

W	Н	L
3,90	7,09	14,57

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#### **Performance Curves**

## Torque/Speed Curves with 115 V Single Phase Supply Voltage

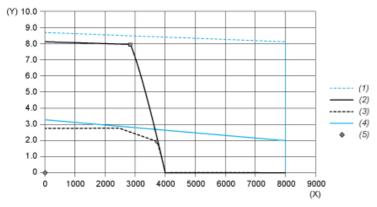


- Speed (rpm)
- (Y) Torque (N.m)
- (1) Motor peak
- (2) Drive peak
- (3) Drive cont
- (4) Motor cont
- Operating point

		Power	At Speed	With Torque
max. Peak Power	•	889 W	1360 rpm	6.24 N.m
max Cont. Power (Drive)	•	501 W	1680 rpm	2.85 N.m

### **Performance Curves**

## Torque/Speed Curves with 230 V Single Phase Supply Voltage



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

		Power	At Speed	With Torque
max. Peak Power	•	2314 W	2800 rpm	7.89 N.m
max Cont. Power (Drive)	•	738 W	3600 rpm	1.96 N.m