

Product datasheet

Specifications



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

BMI0703T12A

⚠ Discontinued on: 30 Jun 2023

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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	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	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 115...230 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	Keyed
Second shaft	Without second shaft end
Shaft diameter	14 mm
Shaft length	30 mm
Key width	5 mm

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Feedback type	Absolute multiturn SinCos Hiperface
Speed feedback resolution	131072 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	75...82 mm
Distance shaft shoulder-flange	2.5 mm

Environment

IP degree of protection	Shaft: IP54 Housing: 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	6.5 kg

Contractual warranty

Warranty (in months)	18
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)



Environmental footprint

Environmental Disclosure

[Product Environmental Profile](#)

Use Better



Materials and Substances

EU RoHS Directive

[Compliant By Exemption](#)

PVC free

Yes

Use Longer



Lifetime extension

Repair

No

Use Again



Repack and remanufacture

End of life manual availability

[End of Life Information](#)

WEEE Label

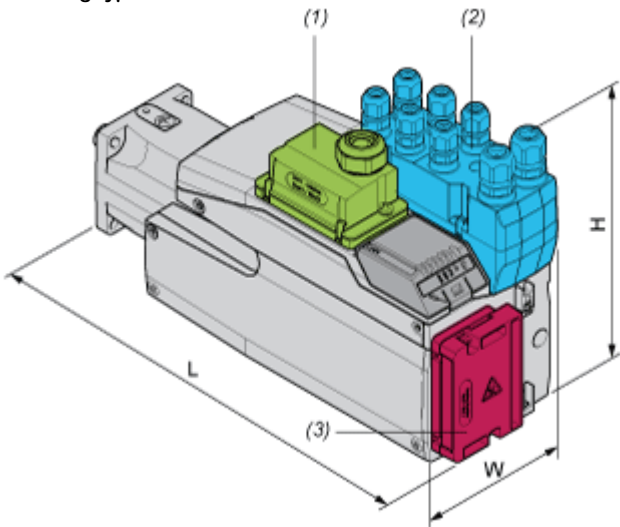


The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Dimensions Drawings

External Dimensions

With Standard Braking Resistor
Mounting type A



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

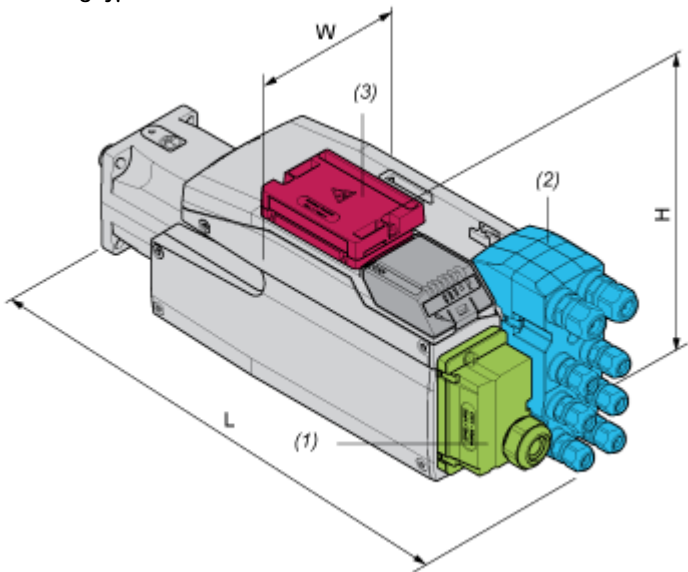
Dimensions in mm

W	H	L
99	187	321

Dimensions in in.

W	H	L
3,90	7,36	12,64

Mounting type B



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

(3) Standard braking resistor

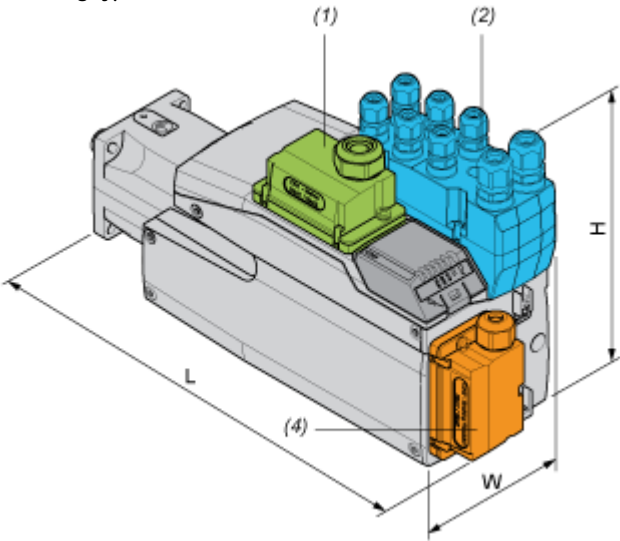
Dimensions in mm

W	H	L
99	138,5	370

Dimensions in in.

W	H	L
3,90	5,45	14,57

With External Braking Resistor
Mounting type C



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

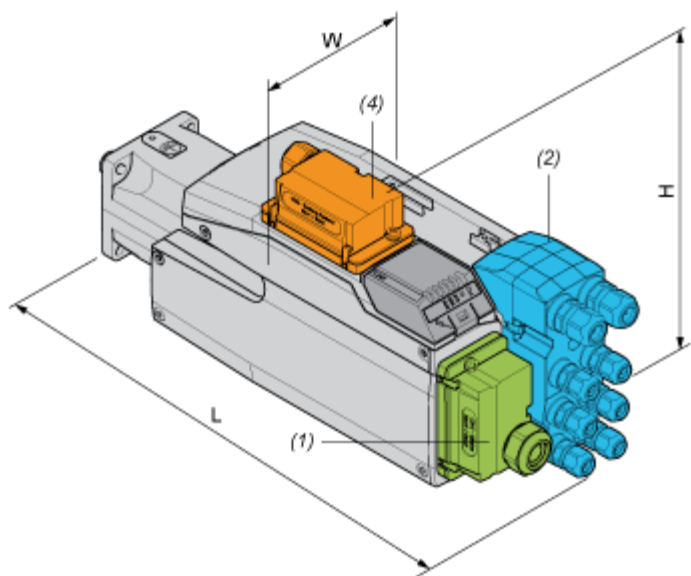
Dimensions in mm

W	H	L
99	187	333

Dimensions in in.

W	H	L
3,90	7,36	13,11

Mounting type D



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

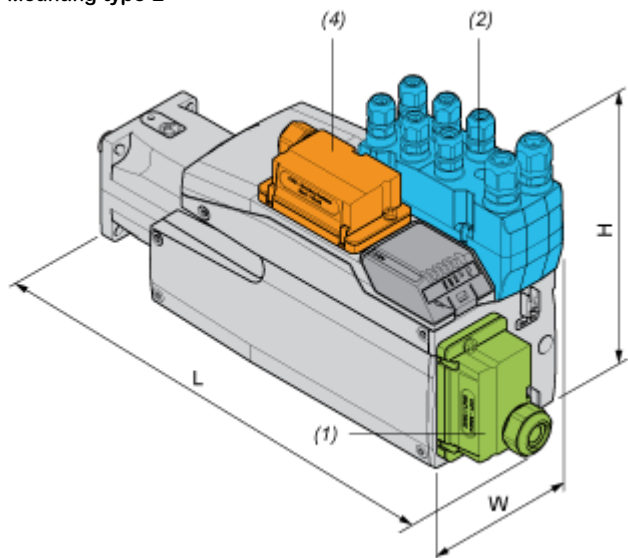
Dimensions in mm

W	H	L
99	160	370

Dimensions in in.

W	H	L
3,90	6,3	14,57

Mounting type E



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

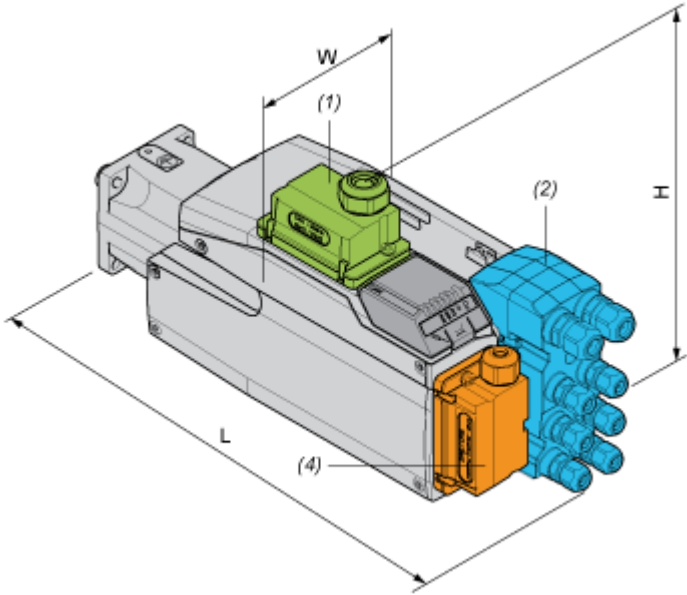
Dimensions in mm

W	H	L
99	187	360

Dimensions in in.

W	H	L
3,90	7,36	14,17

Mounting type F



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

Dimensions in mm

W	H	L
99	180	370

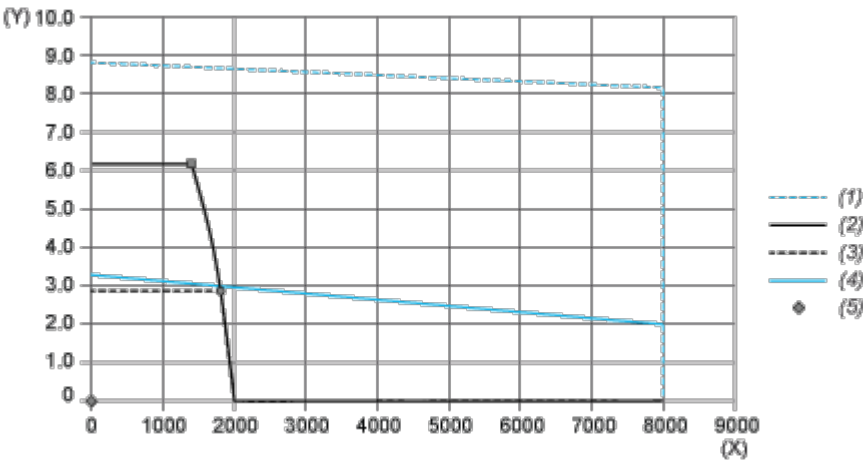
Dimensions in in.

W	H	L
3,90	7,09	14,57

Performance Curves

Performance Curves

Torque/Speed Curves with 115 V Single Phase Supply Voltage

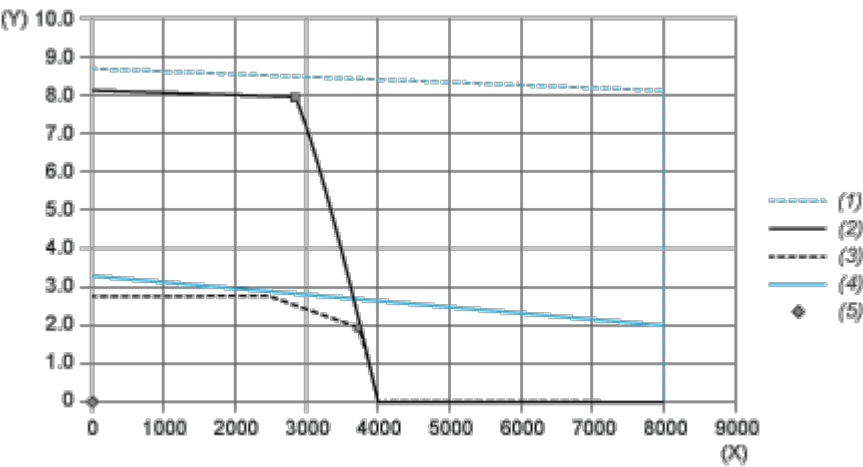


- (X) Speed (rpm)
- (Y) Torque (N.m)
- (1) Motor peak
- (2) Drive peak
- (3) Drive cont
- (4) Motor cont
- (5) Operating point

		Power	At Speed	With Torque
max. Peak Power	■	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



- (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	■	2314 W	2800 rpm	7.89 N.m
max Cont. Power (Drive)	●	738 W	3600 rpm	1.96 N.m