Product datasheet

Specification





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

BMI0702P07A

! Discontinued on: 9 Feb 2023

① Discontinued

Main

Range Compatibility	Lexium 32i
Product Or Component Type	Servo motor with power stage
Device Short Name	BMI

Complementary

J	
Maximum Mechanical Speed	8000 rpm
[Us] Rated Supply Voltage	208480 V - 1510 %
Supply Voltage Limits	208480 V
Network Number Of Phases	Three phase
Supply Frequency	50/60 Hz - 55 %
Network Frequency Limits	47.563 Hz
Emc Filter	Integrated
Continuous Output Current	2 A at 8 kHz
Output Current 3S Peak	6 A at 400 V for 3 s
Continuous Stall Current	2 A
Continuous Stall Torque	2.48 N.m at 208480 V three phase
Peak Stall Torque	6.8 N.m at 208 V three phase 6.8 N.m at 400 V three phase 6.8 N.m at 480 V three phase
Nominal Output Power	400 W at 208 V three phase 800 W at 400 V three phase 900 W at 480 V three phase
Nominal Torque	2.4 N.m at 208 V three phase 2.2 N.m at 400 V three phase 2 N.m at 480 V three phase
Nominal Speed	1800 rpm at 208 V three phase 3600 rpm at 400 V three phase 4400 rpm at 480 V three phase
Maximum Current Irms	9.6 A at 208 V, three phase 9.6 A at 400 V, three phase 9.6 A at 480 V, three phase
Product Compatibility	Drive control unit LXM32i CANopen Drive control unit LXM32i EtherCAT
Shaft End	Untapped
Second Shaft	Without second shaft end
Shaft Diameter	11 mm

Shaft Length	23 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	1.15 N.m/A at 20 °C
Back Emf Constant	77.18 V/krpm at 20 °C
Number Of Motor Poles	10
Rotor Inertia	1.13 kg.cm²
Stator Resistance	8.89 Ohm at 20 °C
Stator Inductance	25.75 mH at 20 °C
Stator Electrical Time Constant	2.9 ms at 20 °C
Maximum Radial Force Fr	710 N at 1000 rpm 560 N at 2000 rpm 490 N at 3000 rpm 450 N at 4000 rpm 410 N at 5000 rpm 390 N at 6000 rpm
Maximum Axial Force Fa	0.2 x Fr
Type Of Cooling	Natural convection
Length	268 mm
Number Of Motor Stacks	2
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

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	26.0 cm
Package 1 Width	20.0 cm
Package 1 Length	59.0 cm
Package 1 Weight	5.594 kg
Unit Type Of Package 2	P06
Number Of Units In Package 2	8

Package 2 Height	77.0 cm
Package 2 Width	80.0 cm
Package 2 Length	60.0 cm
Package 2 Weight	53.252 kg

Contractual warranty

Warranty 18 months



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Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

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Guide to assess a product's sustainability >





Transparency RoHS/REACh

Well-being performance

②	Mercury Free	
	Rohs Exemption Information	Yes
	Pvc Free	

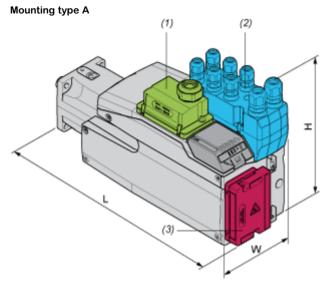
Certifications & Standards

Reach Regulation	Pro-active compliance (Product out of EU RoHS legal scope)	
Eu Rohs Directive		
China Rohs Regulation	China RoHS declaration	
Environmental Disclosure	Product Environmental Profile	
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins	
Circularity Profile	End of Life Information	

Dimensions Drawings

External Dimensions

With Standard Braking Resistor



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

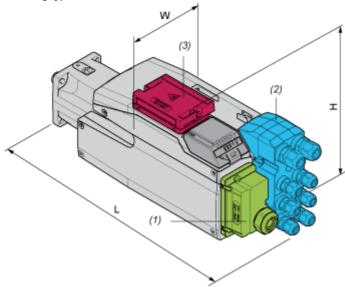
Dimensions in mm

W	Н	L
99	187	289

Dimensions in in

Difficitions in in.		
W	Н	L
3,9	7,36	11,38

Mounting type B



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

BMI0702P07A

(3) Standard braking resistor

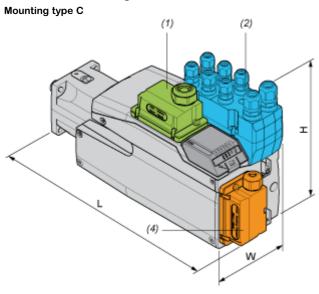
Dimensions in mm

W	Н	L
99	138,5	338

Dimensions in in.

W	Н	L
3,9	5,45	13,31

With External Braking Resistor



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

Dimensions in mm

W	Н	L
99	187	301

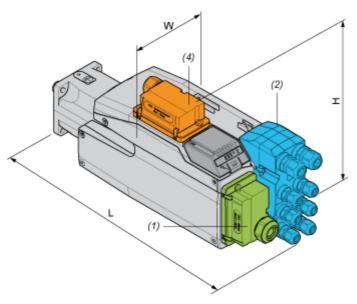
Dimensions in in.

W	Н	L
3,9	7,36	11,85

Mounting type D

Product datasheet

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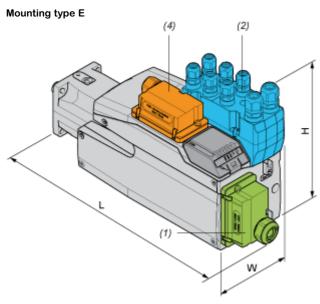
- (1) Module for supply voltage
- (2) I/O module
- (4) External braking resistor

Dimensions in mm

W	Н	L
99	160	338

Dimensions in in.

	D.1111011010110 111 1111					
W	Н	L				
3,9	6,3	13,31				



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

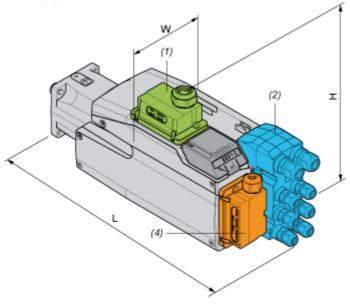
Dimensions in mm

W	Н	L
99	187	328

Dimensions in in.

D						
W	Н	L				
3,9	7,36	12,91				

Mounting type F



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

Dimensions in mm

W	H L			
99	180	338		

Dimensions in in.

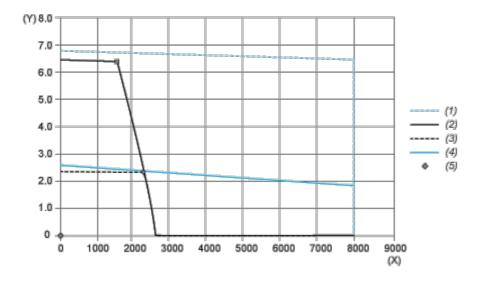
W	Н	L	
3,9	7,09	13,31	

BMI0702P07A

Performance Curves

Performance Curves

Torque/Speed Curves with 208 V Three Phases Supply Voltage

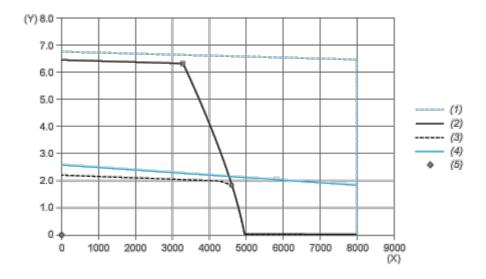


- (X) Speed (rpm)
- (Y) Torque (N.m)
- (1) Motor peak
- (2) Drive peak
- (3) Drive cont
- (4) Motor cont
- (5) Operating point

		Power	At Speed	With Torque
max. Peak Power		1013 W	1520 rpm	6.36 N.m
max Cont. Power (Drive)	•	519 W	2240 rpm	2.21 N.m

Performance Curves

Torque/Speed Curves with 400 V Three Phases Supply Voltage

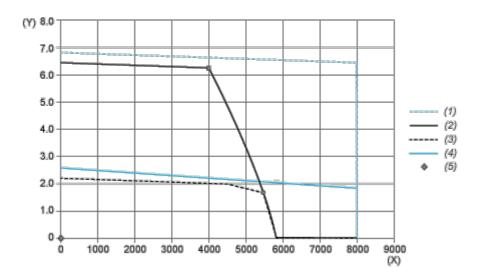


- (X) Speed (rpm)
- (Y) Torque (N.m)
- (1) Motor peak
- (2) Drive peak
- (3) Drive cont
- (4) Motor cont
- (5) Operating point

		Power	At Speed	With Torque
max. Peak Power		2161 W	3280 rpm	6.29 N.m
max Cont. Power (Drive)	•	892 W	4560 rpm	1.87 N.m

Performance Curves

Torque/Speed Curves with 480 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		2623 W	4000 rpm	6.26 N.m
max Cont. Power (Drive)	•	943 W	5600 rpm	1.61 N.m