Product data sheet
Characteristics

BMI1003P06F
servo motor BMI 3-phase - untapped IP54 single turn - 32768 p/t - brake

Main

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

Complementary

Maximum mechanical speed	6000
[Us] rated supply voltage	208...480 V (- 15...10 %)
Supply voltage limits	208...480 V
Network number of phases	Three phase
Supply frequency	50/60 Hz (- 5...5 %)
Network frequency limits	47.5...63 Hz
EMC filter	Integrated
Continuous output current	4 A at 8 kHz
Output current 3s peak	12 A at 400 V for 3 s
Continuous stall current	4 A
Continuous stall torque	8.5 N.m at 208...480 V, three phase
Peak stall torque	19.2 N.m at 208 V, three phase 19.2 N.m at 480 V, three phase 19.2 N.m at 400 V, three phase
Nominal output power	2100 W at 480 V, three phase 2000 W at 400 V, three phase 1000 W at 208 V, three phase
Nominal torque	5.6 N.m at 480 V, three phase 6.8 N.m at 400 V, three phase 7.2 N.m at 208 V, three phase
Nominal speed	3700 rpm at 480 V, three phase 3000 rpm at 400 V, three phase 1500 rpm at 208 V, three phase
Maximum current Irms	26.7 A at 480 V, three phase 26.7 A at 400 V, three phase 26.7 A at 208 V, three phase
Product compatibility	LXM32i drive control unit (EtherCAT) LXM32i drive control unit (CANopen)
Shaft end	Untapped
Second shaft	Without second shaft end
Shaft diameter	19 mm
Shaft length	40 mm
Feedback type	Absolute single turn SinCos Hiperface
Speed feedback resolution	32768 points/turn
Holding brake	With
Holding torque	9 N.m for holding brake
Mounting support	International standard flange
Motor flange size	100 mm

Electrical connection	Printed circuit board connector
Torque constant	1.7 N.m/A at 20 °C
Back emf constant	112 V/krpm at 20 °C
Number of motor poles	10
Rotor inertia	10.3 kg.cm²
Stator resistance	2.31 Ohm at 20 °C
Stator inductance	11.43 mH at 20 °C
Stator electrical time constant	4.95 ms at 20 °C
Maximum radial force Fr	610 N at 5000 rpm 660 N at 4000 rpm 730 N at 3000 rpm 830 N at 2000 rpm 1050 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
Brake pull-in power	8 W
Type of cooling	Natural convection
Length	338 mm
Number of motor stacks	3
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

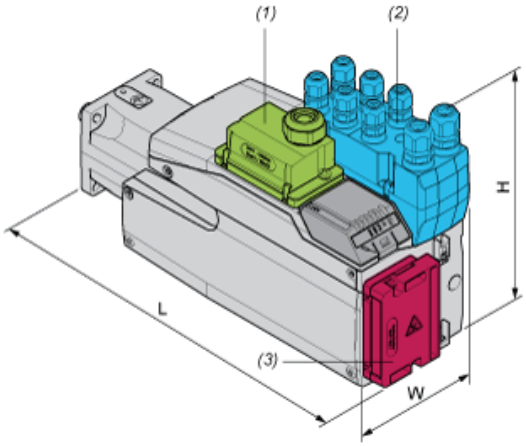
Environment

IP degree of protection	IP65 for housing IP54 for shaft

External Dimensions

With Standard Braking Resistor

Mounting type A



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

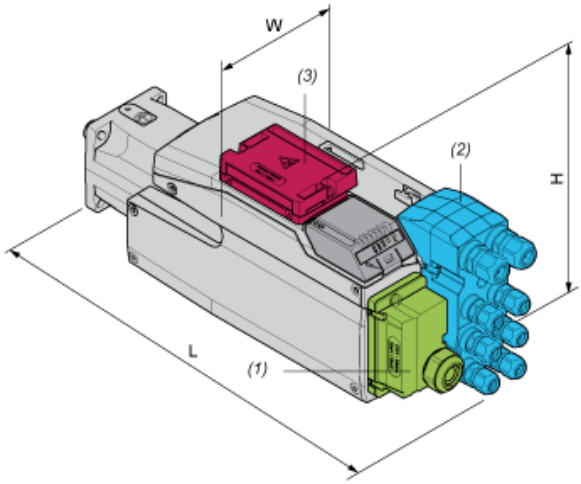
Dimensions in mm

W	H	L
132,6	217	367

Dimensions in in.

W	H	L
5,22	8,54	14,45

Mounting type B



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

Dimensions in mm

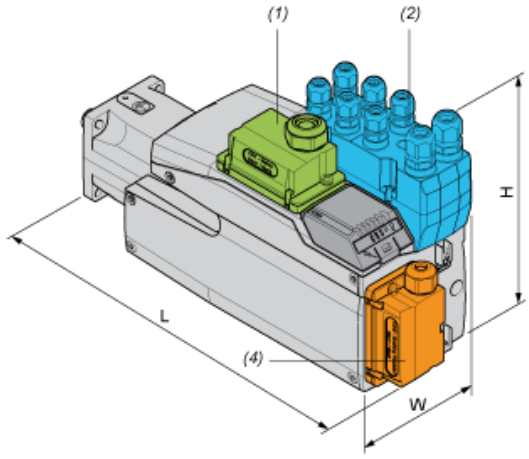
W	H	L
132,6	168	416

Dimensions in in.

W	H	L
5,22	6,61	16,38

With External Braking Resistor

Mounting type C



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

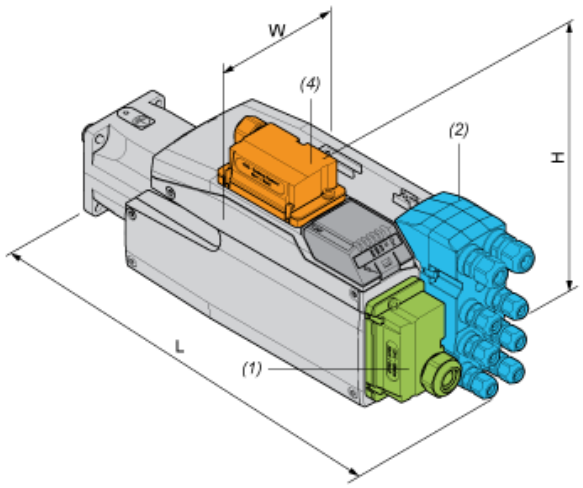
Dimensions in mm

W	H	L
132,6	217	379

Dimensions in in.

W	H	L
5,22	8,54	14,92

Mounting type D



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

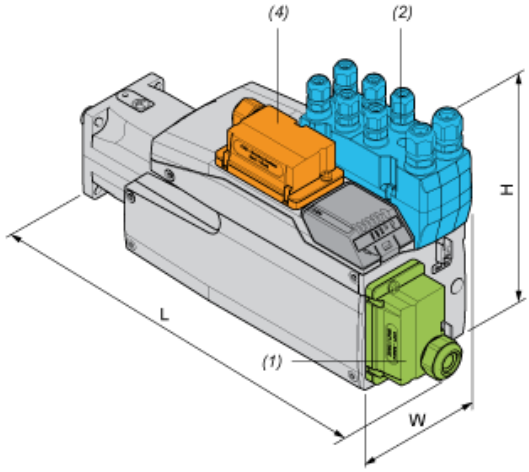
Dimensions in mm

W	H	L
132,6	180	416

Dimensions in in.

W	H	L
5,22	7,09	16,38

Mounting type E



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

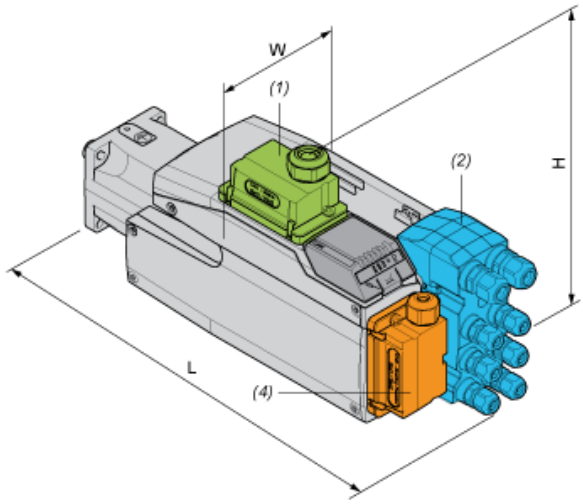
Dimensions in mm

W	H	L
132,6	217	406

Dimensions in in.

W	H	L
5,22	8,54	15,98

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	416

Dimensions in in.

W	H	L
5,22	8,13	16,38