

Converter

CC-230-3000



Summary

- Converter for driving permanent-magnet synchronous motors (PMSM) and brushless DC motors (BLDC)
- Sensorless speed control from 7,000 rpm up to 500,000 rpm
- Maximum output power of 3 kW
- No output filter required
- User definable setup for different motor parameters
- Custom-definable input- and output-connections
- Torque- or speed-control
- Integrated braking chopper
- Input with power factor correction (PFC)
- Input voltage 110 – 240 Vrms (50 Hz / 60 Hz)
- User-friendly PC control software (CelerotonPilot)

Specifications	
Input voltage (ac)	110 – 240 Vrms (50Hz / 60 Hz)
Maximum output power	3,000 W ¹
Output voltage (peak value phase-phase)	0 – 360 V
Maximum phase current (PAM-operation)	11.7 Arms / 16.5 Apeak ²
Maximum frequency / speed (PAM-operation)	8.3 kHz / 500,000 rpm
Operating range	4-Quadrant (with Chopper)
Communication interface	USB
Communication interfaces (optional)	RS232; RS485; CAN; Ethernet
Brake chopper (pulse / continuous)	60 W / 30 W
PC control software	CelerotonPilot
Weight	6.8 kg
Dimensions	340 x 245 x 90 mm
Operating temperature	0 – 40 °C

¹For input voltage higher 200 Vrms; 1.5 kW for input voltage of 110 Vrms

²Fundamental of the PAM-block current

Variable user interface (X2, X3, X4)

Standard configuration E01

Connector X2 – Motor Interface	
1 x power supply	5 V, 100 mA
3 x digital hall sensor inputs	(open collector), pull up to 5 V
1 x temperature measurement input	Thermocouple type K
1 x temperature measurement input	PTC or NTC
Connector X3 – Digital Interface	
1 x auxiliary power supply	12 – 24 V (adjustable), 200 mA (max.) e.g. for digital inputs/outputs
2 x digital inputs	0 – 24 V, galvanically isolated (software adjustable thresholds 0.8 – 23 V)
2 x digital outputs	0 – 24 V, galvanically isolated (relay, normally open contacts)
Connector X4 – Analog Interface	
1 x power supply	10 V, 100 mA
2 x analog inputs	0 – 10 V
2 x analog outputs	0 – 10 V

Connectors X2, X3 and X4 can be customized according to user specifications.

Options

CC-230-3000.Exx.SLx.COx

Extension Board Exx (Configuration of the connectors X2, X3, X4)

- E01: Standard – see above

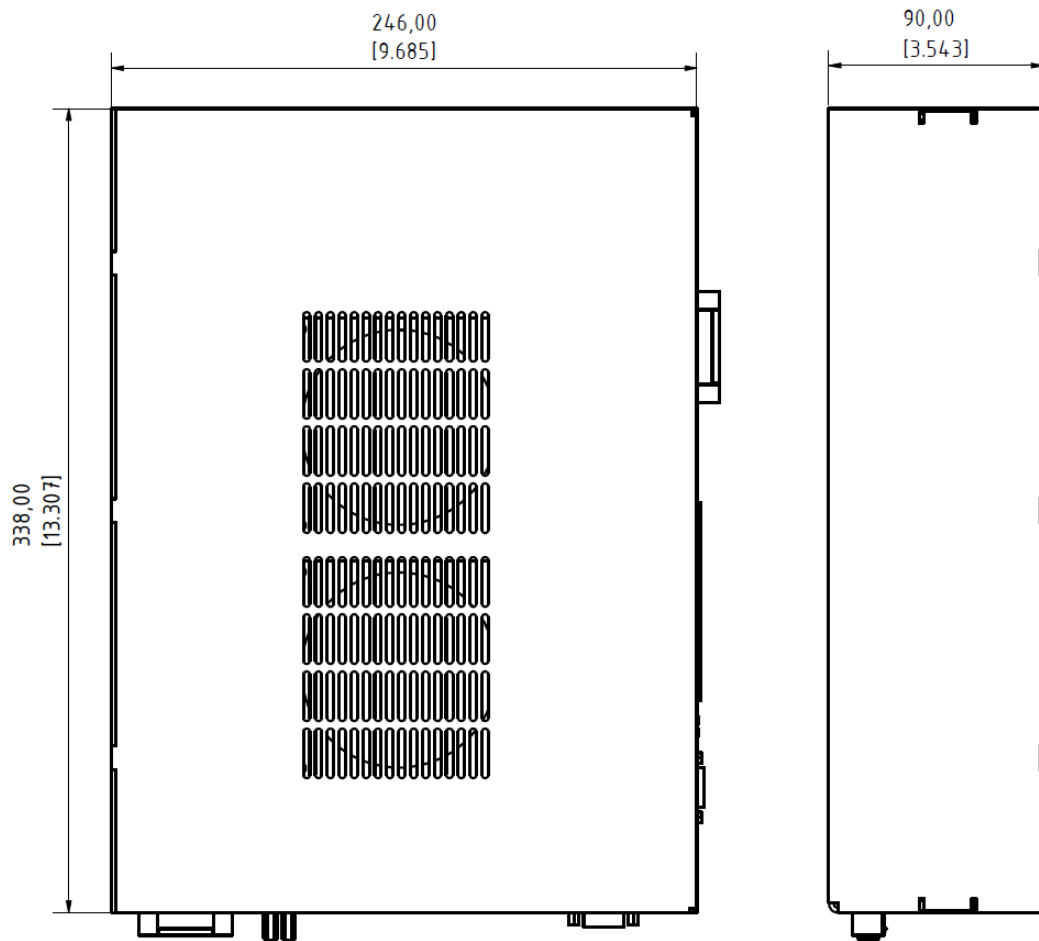
Sensorless SLx

- **SL1 (Standard):**
 - o Speed constants between 121 and 3,620 rpm/V
 - o Sensorless speed control from 7,000 rpm

Communication interfaces COx

	USB	CAN	RS232/RS485	Ethernet
CO1 (Standard)	x	x	x	
CO6	x	x	x	x

Basic converter dimensions in mm (inch)



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