

# CC-230-3500



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 3.5 kW
- No output filter required
- User definable setup for different motor parameters
- Torque- or speed-control
- Internal or external braking chopper
- Input with power factor correction (PFC)
- Input voltage 110 – 230 VAC (50 Hz / 60 Hz)
- User-friendly PC control software (CelerotonPilot)
- Compressor surge protection functionality



## Specifications converter

Input voltage (AC)	110 – 230 VAC (50 Hz / 60 Hz)
Maximum output power	3,500 W <sup>1</sup>
Output voltage (Peak value phase-phase)	0 – 360 V
Maximum phase current (PAM-operation)	14.2 Arms / 20 Apeak <sup>2</sup>
Maximum frequency / speed (PAM-operation)	8.3 kHz / 500,000 U/min
Operating range	4-Quadrant (with Chopper)
Communication interface	USB; RS232/RS485; CAN
Brake chopper (pulse / continuous)	60 W / 30 W
External brake chopper	up to 3,500 W
PC control software	CelerotonPilot
Weight	4.5 kg
Dimensions	267 (317) x 205 x 80 mm
Operating temperature	0 – 40 °C

<sup>1</sup> For input voltages higher 200 VAC; 1.8 kW for input power of 100/110 VAC

<sup>2</sup> Fundamental of the PAM block current

## User interfaces (X4, X5, X6, X7, X8, X9, X10, X11, X12)

Connector X4 – Digital Output 1	
4 x digital outputs	0 – 24 V (relay, normally open contacts)

  

Connector X5 – Digital Input	
4 x digital inputs	0 – 24 V (software adjustable thresholds 0.8 – 24 V)
1 x power supply	24 V, 100 mA

  

Connector X6 – Digital Output 2	
4 x rotor position signals (SA, SB, SC, SI)	5 V level

  

Connector X7 – Analog Output	
4 x analog outputs	0 – 10 V

  

Connector X8 – Analog Input	
4 x analog inputs	0 – 10 V
1 x power supply	10 V, 100 mA

  

Connector X9 – Hall Motor	
1 x power supply	5 V, 100 mA
3 x digital hall sensor inputs	(open collector), pull up to 5 V

  

Connector X10 – Encoder Motor	
1 x power supply	5 V, 100 mA
3 x differential encoder inputs	5 V level

  

Connector X11 – Motor Interface	
1 x temperature measurement input	Thermocouple type K
1 x temperature measurement input	PTC or NTC

  

Connector X12 – Safety	
1 x power supply	24 V, 100 mA
2 x Safety switching input and interlock	STO – 24 V level

**Drawing in mm (inch)**

