

CC-550-5000



Converter for driving ultra-high-speed turbo compressors in fuel cells systems

- Operation of turbo compressor from wide output voltage range of the fuel cell (300 – 550 VDC)
- Rated output power: 5 kW
- Sensorless speed control up to 300,000 rpm
- Protection class IP67
- Water cooled
- Auxiliary voltage supply (10 – 28 VDC) for startup of the turbo compressor from battery



Specifications converter

Input voltage U_{in} (DC)	300 – 550 V
Maximum input current	20 Arms
Rated output power	5 kW
Output voltage (peak value phase-phase)	0 – 500 V
Maximum phase current	15 Arms
Input voltage auxiliary supply $U_{aux,in}$ (DC)	10 – 28 V
Maximum power auxiliary supply	300 W
Maximum frequency / speed	5 kHz / 300,000 rpm
Communication interface	CAN, RS422
Weight (incl. housing)	4 kg
Dimensions (L x W x H)	300 x 190 x 80 mm

Connector X1 – In-/output

3 x CAN interface	CanH, CanL, CanGND
4 x RS422 interface	TX-, RX+, TX+, RX-
2 x Auxiliary power supply (DC)	U _{aux,in} , GND
2 x GND	Reference potential auxiliary supply
2 x PE	Protective earth

High voltage input

2 x High voltage power supply (DC)	HV+, HV-
2 x PE	Protective earth HV-input shield
Cable length	2 m (open end)

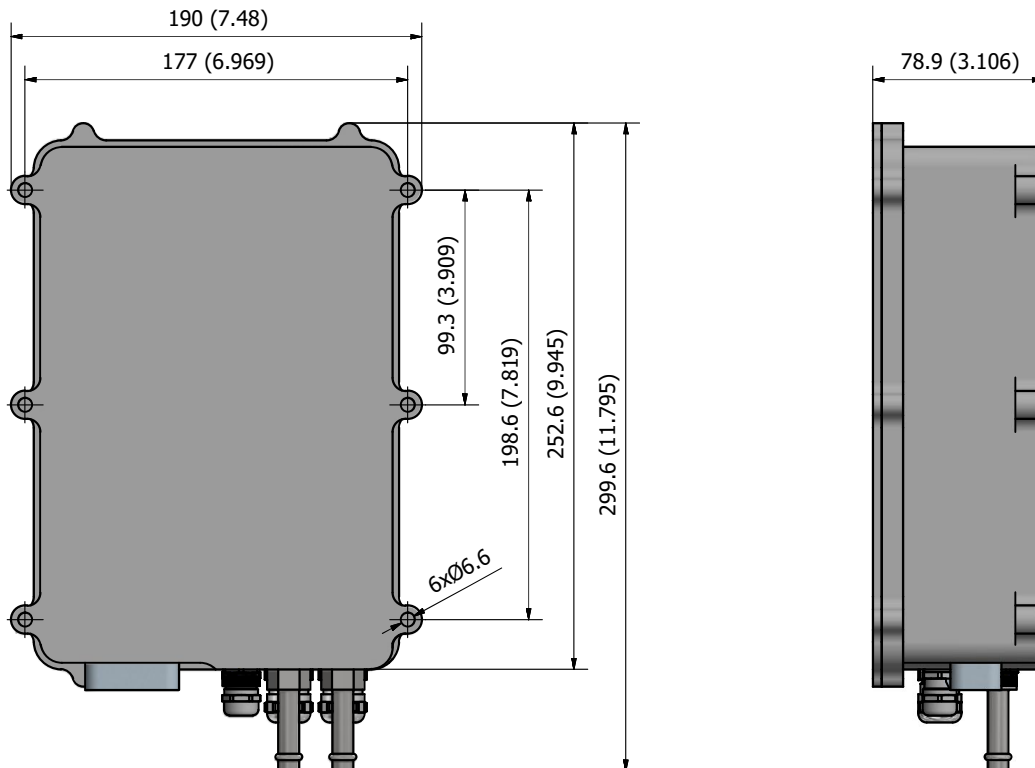
Motor cable

3 x Motor phase, shield, PE	
Cable length	2 m (open end)

Temperature sensor

2 x Temperature sensor	
Cable length	2 m (open end)

Drawing in mm (inch)



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