

CC-2000

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

- Operation of turbo compressor from wide input voltage range (270 – 500 VDC)
- Rated output power: 8 kW
- Sensorless speed control up to 300,000 rpm
- Low voltage power input (8 – 32 VDC) for control



Specifications converter

High voltage input U_{HV}	100 – 550 VDC
Nominal high voltage input U_{HV}	270 – 500 VDC
Maximum output power (high voltage operation)	8 kW ($U_{HV} > 270$ VDC)
Low voltage power input U_{LV}	8 – 32 VDC (Auxiliary supply)
Maximum frequency/speed	5 kHz/300,000 rpm
Output voltage (peak value phase-phase)	0 – $0.95 \cdot U_{HV}$, max. 460 V
Maximum phase current	35 Arms
Communication interface	CAN 2.0A, CAN 2.0B, CAN FD, SAE J1939, RS422-USB (Service Interface)
Interlock	Passive interlock
Ambient temperature	-30 – 65 °C
Weight	5.5 kg
Dimensions (L x W x H)	250 (293.9) x 189 x 79 mm (11.57 x 7.44 x 3.11 inch)

Cooling

Coolant	50%/50% water glycol mixture
Coolant temperature	-30 – 65 °C
In-/Outlet connector type	According to SAE J1231 430192
Tube ID	10 mm

Interfaces

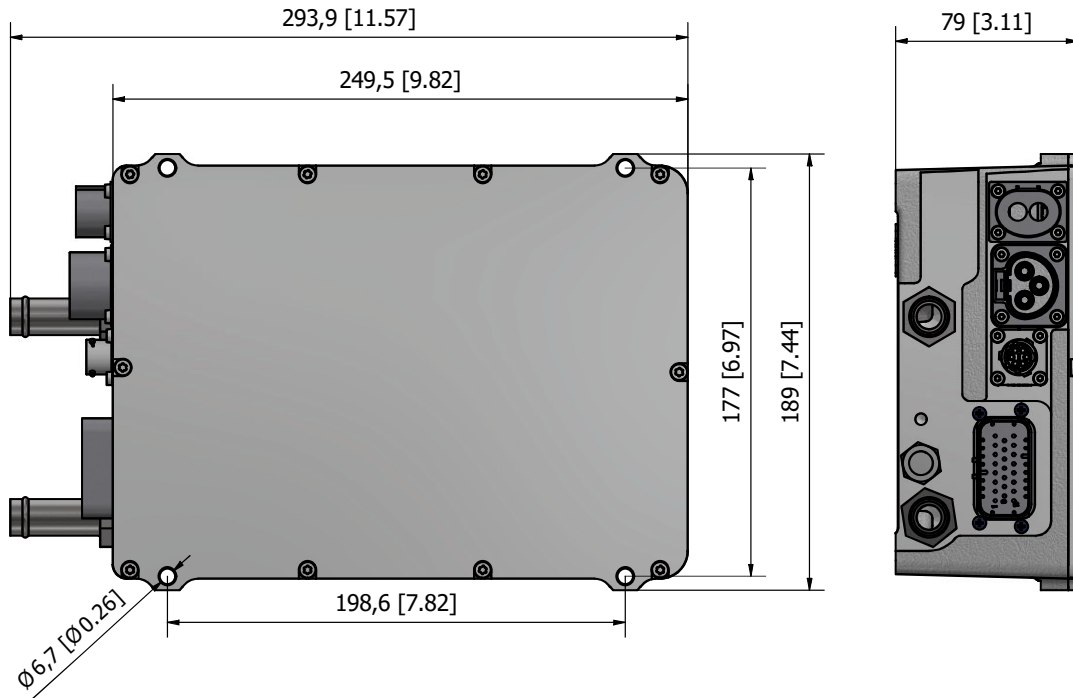
Low voltage and communication interface (X1)	TE Connectivity/AMPSEAL 23 Pos.
High voltage connection	Amphenol/PowerLok 4.0
Motor connection	Amphenol/PowerLok 4.0
Sensor connection (temperature/interlock)	Amphenol/EcoMate
Converter grounding	M6 x 10

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Order codes: CC-2000

Ordering information	Article number
CC-2000	4030089

Drawing in mm [inch]



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