

CC-4000

High-voltage inverter for driving ultra-high-speed turbo compressors in fuel cell systems.

- Operation of turbo compressor from wide input voltage range (450 - 920 V DC)
- Rated output power: 26 kW
- Sensorless speed control up to 140,000 rpm
- Low-voltage power input (8 – 32 VDC) for control



Specifications Inverter

High-voltage input U_{HV}	450 – 920 V DC (unrestricted operation: 520 – 850 V DC)
Maximum output power	26 kW (continuous, $\cos(\varphi) \geq 0.8$, $U_{HV} > 520$ V DC)
Low voltage power input U_{LV}	8 – 32 V DC
Maximum frequency/speed	2.3 kHz/140,000 rpm
Maximum output voltage	700 V (peak value phase-phase)
Maximum phase current	40 Arms
Communication interface	CAN 2.0A/B (500 kbps), RS232-USB (service interface)
Ambient temperature	-40 – 85 °C
Protection class	IP67
Weight	15.8 kg
Dimensions (L x W x H)	430 (478) x 248 x 94 mm (16.9 (18.8) x 9.8 x 3.7 inch)

Cooling interfaces

Liquid	Inhibited 50%/50% water glycol mixture
Coolant temperature	-20 – 65 °C
In-/outlet connector type	According to SAE J1231 430192
Tube ID	16 mm

High-voltage interfaces

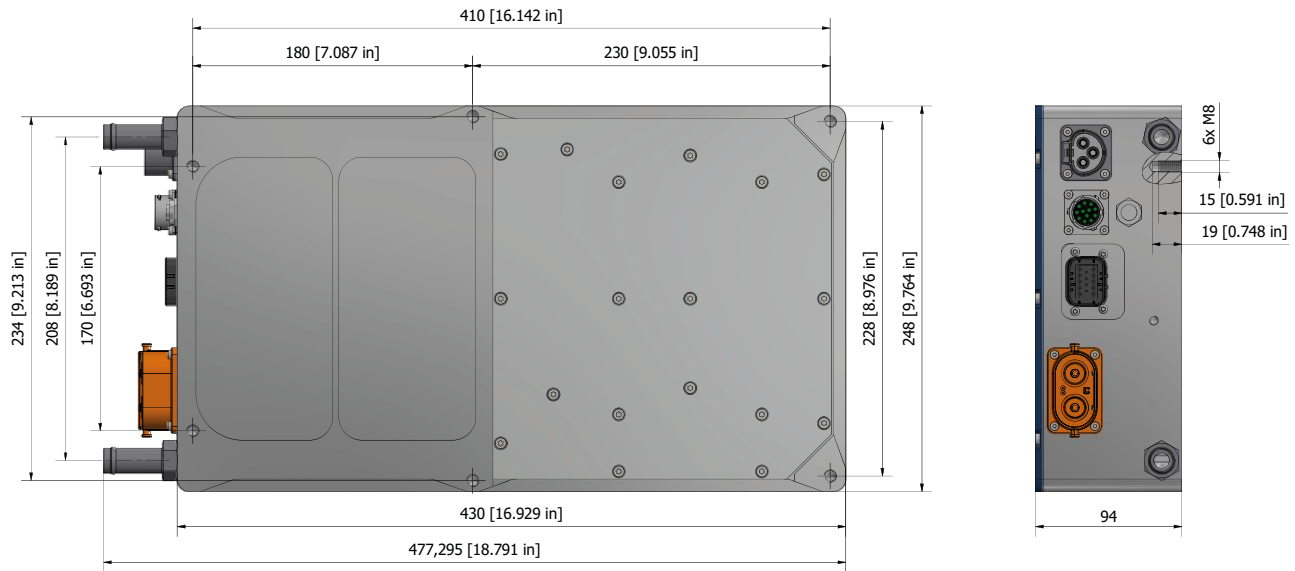
High-voltage DC interface	Amphenol/Excel-Mate, 2 poles
Motor interface	Amphenol/PowerLok 4.0
HVIL	for all high-voltage interfaces
Converter grounding	M6 x 10

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Low-voltage and control interface

Low-voltage and communication interface	TE Connectivity/AMPSEAL 14 Pos.
Sensor interface	Amphenol/Eco-Mate RM (for compressor temperature supervision and HVIL)

Drawing in mm [inch]



Order codes

Ordering information	Article number
CC-4000	contact sales

Celeroton TurboCell AG | Industriestrasse 22 | 8604 Volketswil | Switzerland
 T: +41 44 250 52 20 | info@celeroton-turboCELL.com

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