

CC-3000

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

- Operation of turbo compressor from wide input voltage range (200 – 450 VDC)
- Rated output power: 21 kW
- Sensorless speed control up to 130,000 rpm
- Low voltage power input (8 32 VDC) for control
- Galvanic separation between high and low voltage input



Specifications converter	
High voltage input U _{HV}	120 – 500 VDC
Nominal high voltage input U _{HV}	200 – 450 VDC
Maximum output power	21 kW (U _{HV} > 200 VDC)
Low voltage power input U _{LV}	8 – 32 VDC (Auxiliary supply)
Maximum frequency/speed	2.17 kHz/130,000 rpm
Maximum output voltage	650 V (peak value phase-phase)
Maximum phase current	35 Arms
Communication interface	CAN 2.0A, CAN 2.0B, RS422-USB (Service Interface)
Interlock	High voltage connector, motor connector
Ambient temperature	-30 – 65 °C
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	
Coolant	50%/50% water glycol mixture
In-/Outlet connector type	According to SAE J1231 430192
Tube ID	16 mm

Interfaces	
Low voltage and communication interface (X1)	TE Connectivity/AMPSEAL 14 Pos.
High voltage connection	Amphenol/Excel-Mate
Motor connection	Amphenol/PowerLok 4.0
Sensor connection (Temperature/Interlock)	Amphenol/Eco-Mate RM
Converter grounding	M6 x 10

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Order codes: CC-3000

Ordering information Article number

CC-3000 contact sales

Drawing in mm [inch] 410 [16.142 in] 180 [7.087 in] 230 [9.055 in] 15 [0.591 in] 19 [0.748 in] 430 [16.929 in] 477,295 [18.791 in]

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