

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

All rights reserved. All information in this document is based on Celeroton's best knowledge and is not to be considered as a warranty or quality specification. The information given is designed as a guidance and customers are requested to check the suitability and usability of the product in their specific application with consulting Celeroton. The information herein is subject to change without notification.



Order codes: CC-3000

Ordering information Article number

CC-3000 4030090

Drawing in mm [inch] 410 [16.142 in] 180 [7.087 in] 230 [9.055 in] 0 0 0 15 [0.591 in] 19 [0.748 in] 234 [9.213 in] 208 [8.189 in] 228 [8.976 in] 170 [6.693 in] 0 430 [16.929 in] 477,295 [18.791 in]

Celeroton AG | Industriestrasse 22 | 8604 Volketswil | Switzerland T: +41 44 250 52 20 | F: +41 44 250 52 29 | info@celeroton.com

All rights reserved. All information in this document is based on Celeroton's best knowledge and is not to be considered as a warranty or quality specification. The information given is designed as a guidance and customers are requested to check the suitability and usability of the product in their specific application with consulting Celeroton. The information herein is subject to change without notification.