



## DC-UPS

### NCPA1301G30001

### 1 Short description

The DC buffer module of the **C-TEC 1225 P** series is equipped with integrated ultracapacitors for accumulating energy. During normal operation this capacitor is charged by an internal charger which is supplied by an external, regulated DC power supply. If the DC supply is interrupted, energy of the ultracapacitors is released in a unregulated process (12 to 10 V DC). The load is supplied by the buffermodul until the voltage is  $\leq 10$  V. The buffering time depends on the state of charge of the capacitor and discharging current. As further function the **C-TEC 1215 P** can provide more current for a certain time.

#### The DC-UPS shows the following features:

- Maintenance-free due to durable ultra capacitors
- Microcontroller based charging and discharging of the ultracapacitors
- Inputvoltage-signal via potential-free contact and LED
- Short overload possible
- Vibration secured wiring via spring loaded plugs
- Wide working temperature range  $-40^{\circ}\text{C}$  up to  $60^{\circ}\text{C}$

### 2 Norms and regulations

Total unit	EN 50178 EN 61010-1 / EN 61010-2-201 / EN 62368-1
Emission EN 61000-6-4	EN61000-6-4 Emission standard for industrial environments EN55011 Industrials, scientific and medical (ISM) radio-frequency equipment
Interference immunity EN 61000-6-2	EN61000-4-2 (statically unloading / ESD) air discharge 8kV / contact discharge 6kV EN61000-4-3 (electromagnetically fields) 10 V / m 80 - 2000 MHz 3 V / m 1400 - 2700 MHz EN61000-4-4 (fast transient) DC IN, DC OUT 2 kV miscellaneous 1 kV EN61000-4-5 (current load / Surge) DC IN 0.5kV EN61000-4-6 (conducted fault-free / Cond. Rf) 10 V 150 kHz - 80 MHz
Vibrationstest, sine Shocktest refer	EN 60068-2-6 and EN 600068-2-27
Pollution degree	II

# Technical Datasheet

## C-TEC 1225 P



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### 3 Technical Data

Nominal input voltage	12 V DC $\pm 10\%$ SELV/PELV (according to EN 60204-1)
Input voltage range	10,8...13,2 V DC
Min. Nominal input voltage for Charging mode	11,3 V DC
Max. nominal input current	28,5 A DC
Max. Inrush surge current	66 A
Max. charging current	3,5 A DC
Nominal output voltage (mains operation)	12 V DC $\pm 10\%$
Nominal output voltage (Buffer operation)	12,25 V ... 10 V DC $\pm 2\%$
Max. nominal output current	25 A DC
Short-circuit current	200 A
Overload capacity (nominal value)	50 A für 4 ms
Max. Power loss 'worst-case'	10 W (Charging Mode max. 68 s), 20 W (Discharging Mode) 0,9 W (Standby)
Efficiency	>90%
Parallel connection	No
Series connection	No
Energy content	0,46 kJ
Max. load digitale output	30 V DC / 1 A
Buffer time	34 sec @ 1 A / 0,5 sec @ 25 A
Degree of protection	IP20
Operating temperature	-40 ... 60 °C
Storage temperature	-40 ... 60 °C
Relative humidity	95% non-condensing
Max. altitude (without derating)	2000 m above sealevel
Dimensions (H x W x D)	123 mm x 65 mm x 145 mm
Weight	0,7 kg