



### DC-UPS

#### NCPA0727G20001

#### 1 Short description

The buffered DC power supply of the **C-TEC** series includes ultra-capacitors as energy storage inside the housing. During normal operation this capacitor is charged from the system voltage (Ue). The connected DC consumers are supplied as well from the system voltage. In case of an interruption of the system voltage, the energy of the ultra-capacitor is released regulated. With a dc/dc converter the load is supplied from the capacitor until it is discharged. The backup time depends on the state of charge of the capacitor and the discharge current.

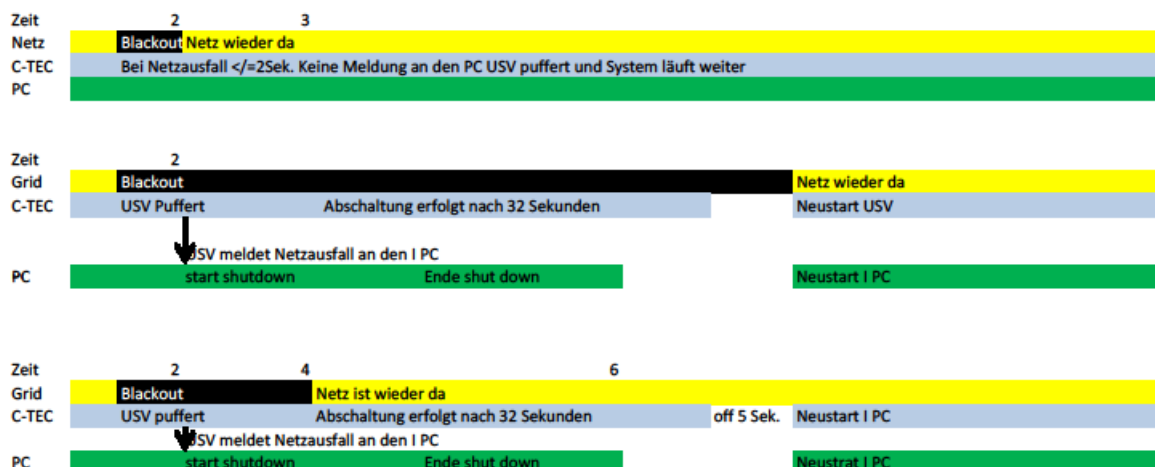
The power supply has the following characteristics:

- Maintenance-free because of long-life ultra-capacitors
- Mikrocontroller based charging and discharging of the ultra-capacitors
- Control of operation and status of charge with potential-free contacts and LED
- Capacity extension possible with external capacitor extension modules
- ‚Ue-o.k.‘ message via USB

The **TECControl** software (optional) monitors permanently the mains. The **C-TEC** equalizes mains disturbances (blackout) or short time drops of the input voltage (brownout).

In case of mains failures > 2 Sekunden the **C-TEC** signalizes the mains failure to the PC, which conducts a system shutdown after an adjustable time. Subsequently the **C-TEC** as well as the IPC are switched off. In case of mains return, the **C-TEC** releases the output voltage, so that the system is able to restart automatically. If the mains returns during the shut down procedure, the **C-TEC** separates nevertheless the PC supply for a short time, so that the PC can restart afterwards without error.

With this function all mains failures can be handle without problems, even complete systems may be switched off only with the main switch and the **C-TEC** respectively the **TECCONTROL** take over the complete internal switch off routine of the system. So downtimes and damages because of an uncontrolled process stop are avoided.



**CAUTION:** if the mains failure is > 2 seconds, the C-TEC switches off at the latest 40 seconds afterwards for at least 5 seconds.

# Technical Datasheet

## C-TEC 2403-1



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### 2 Technical Data

<b>Input</b>	
Nominal Input voltage	24 V DC -1,2 % / +10 % (SELV/PELV)
Input voltage range	23,7...26,4 V DC $\pm$ 0 %
Nominal input current	3 A
<b>Output</b>	
Nominal output current	3 A
Output voltage in back-up operation	23,0 V DC $\pm$ 2 %
Energy (typical)	1,5 kJ @ (U <sub>a</sub> = 22,8 V DC, I <sub>a</sub> = 0,6 A)
Current limitation	Siehe Kapitel 5.5 Kurzschluss
Max power loss ‚worst-case‘	7 W
Efficiency	93,9 % @ (U <sub>e</sub> =24,0 V DC; U <sub>a</sub> =23 V DC; I <sub>a</sub> = 3 A)
<b>Fusing</b>	
Internal device protection (internal)	4 A (T)
Fusing DC output circuit (external)	3 A (T)
<b>General</b>	
Protective system	IP20
Operating temperature	-40 °C ... 60 °C
Storage temperature	-40 °C ... 60 °C
Rel. humidity	$\leq$ 95% no condensation
Max. mounting height (without load reduction)	2000 m
Dimensions (HxWxD)	92,5 mm x 60 mm x 116 mm
Weight	0,6 kg

### 3 Norms and regulations

Terminal voltage	SELV / PELV according to EN 60204-1
Ermittled interference	EN 6100-3-2 EN 6100-3-3 class A EN 55011 class B EN 62040 -2
Noise immunity	EN 61000-6-2 EN 62040-2 EN 61000-4-2 EN 61000-4-3 EN 61000-4-4 EN 61000-4-5 EN 61000-4-6 EN 61000-4-11
Total unit	EN 50178 EN 61010-1 / EN 61010-2-201 EN 62368-1