



DC-UPS

NCPA0727G01001

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 (U_e). 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

2 Technical Data

Input	
Nominal input voltage	24 V DC -1,2 % / +15 % (SELV/PELV)
Input voltage range	23,7...27,6 V DC \pm 0 %
Min. charging voltage	23,7 V DC
Nominal input current	3 A
Output	
Output voltage in back-up operation	23,0 V DC \pm 2 %
Nominal output current	3 A
Energy (typical)	0,7 kJ @ ($U_a = 22,8$ V DC, $I_a = 0,6$ A)
Overload	5 A @ 1 s
Current limitation	See section 5.5 short-circuit in operation instruction
Max power loss ‚worst-case‘	7 W
efficiency	93,9% @ ($U_e=24,0$ V DC; $U_a=23$ V DC; $I_a=3$ A)
Fusing	
Internal device protection (internal)	4 A (T)
Fusing DC-output circuit (external)	3 A (T)
General	
Protective system	IP20
Operational 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
Emitted 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 UL 508