



## DC-UPS

### NCPA0609G01

### 1 Short description

The DC-UPS of the series **C-TEC** includes ultra-capacitors as energy storage inside the housing. This capacitor is charged with the system voltage ( $U_e$ ) during normal operation. The connected loads are supplied as well from the system voltage. In case of an interruption of the system voltage the energy of the ultra-capacitors is released in a regulated way. With a dc/dc converter, the load is supplied by the capacitor until it is discharged. The back-up time depends on the state of charge of the capacitor and on the discharge current.

**The DC-UPS has the following characteristics:**

- Maintenance-free because of long-life ultra-capacitors
- Microcontroller based charging and discharging of the ultra-capacitors
- Parameterizable via USB interface
- Control of operation and status of charge with LED's  
Compatible with the **TECControl**-Software

### 2 Technical Data

Nominal input voltage	12V / 24V DC	Fusing input	15A (FK2) (device internal)
Input voltage range	12,2V - 27V DC	fusing DC- output circuit	15A (FK2) (device internal)
Minimum charging voltage x-001 (decoupled unit): x-002 (not decoupled):	system voltage + 0,7V system voltage + 0,2V	fusing capacitor circuit	25A (FK2) (device internal)
Nominal input current	10,0 A	Type of connection input 'U <sub>E</sub> '	Spring-clamp technique max. 2,5mm <sup>2</sup> (AWG 26-12) torque N/A
max. inrush current	35A / 2ms	Type of connection output 'U <sub>A</sub> '	Spring-clamp technique max. 1mm <sup>2</sup> (AWG 28-14) torque N/A
Output voltage in back-up operation system voltage 12V System voltage 24V	11,7V DC ±4% 23,2V DC±2%	Type of connection USB	USB-B socket
Nominal output current	10A DC	Protective system	IP 20 a. EN 60529
Monitoring of limiting current	10,3A DC ±0,1A	weight	1,3kg
Switch off if limiting current is exceeded	after 1,5 Sek.	Storage temperature / environmental temperature	-40...60°C
Current limitation	1,05...1,2 x I <sub>ANom</sub>		

# Technical Datasheet

## C-TEC 2410-1



**J. Schneider**  
Elektrotechnik

Efficiency $U_A=23,2V$ DC, $I_A= I_{Anom}$	>90%	Humidity	< 95% condensation not permissible
max. power loss 'worst-case'	20W	Dimensions	165 x 70 x 145mm (H x W x D)

### 3 Norms and regulations

Terminal voltage	SELV / PELV nach EN 60950 / EN 50178
Ermitted interference	EN 61000-3-2 EN 61000-3-3 class A EN 55011 class B EN 62040-2
Noise immunity	EN 62040-2 EN 61000-6-2 EN61000-4-2 (Static discharge ESD) 8kV/6kV EN61000-4-3 (Elektromagnetic fields) 10V/m 27 - 1000MHz // 3V/m 1400 - 2700MHz EN61000-4-4 (fast transients / Burst) DC IN, DC OUT 2kV (others 1kV) EN61000-4-5 (Surge) DC IN 0.5kV EN61000-4-6 (conducted immunity) 10V 150kHz – 80MHz EN61000-4-11 (voltage interruption) back-up with ultracapacitor
Total unit	EN 50178 / EN 60950 UL 508 C22.2 Nr.107-01