

Technical Datasheet

AC C-TEC 2420-8



DC-UPS

NCPA0746G01xxx

1 Short-description

The buffered DC power supply of the AC C-TEC series includes ultra-capacitors as energy storage inside the housing. During normal operation this capacitor is charged from AC-mains. The connected DC consumers are supplied as well from AC mains. In case of an interruption of the AC supply, 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
- Low wiring effort due to the integration of power supply unit and energy storage
- Compatible with TECControl software
- Communication with an IPC via USB or RS232 cable possible
- Parameterisable via USB interface
- Capacity can be extended by external capacitor modules
- cyclical capacitor test during mains operation
- wide temperature range -40 °C to 60 °C

2 Technical Data

Input	
Nominal input voltage	400 V AC -15% / 500 V AC +10%
Input voltage range	340 V – 550 V AC
Nominal frequency	45 – 66 Hz
Rated input current	0,95 A AC (U _e = 400 V AC)
Max. pre-fusing	3 x 2 A (T)
Max inrush current	32 A / 0,5 ms
output	
Nominal output voltage (in mains operation)	24,6 V DC ± 2,0 %
Nominal output voltage (in back-up operation)	23,2 V DC ± 2,0 %
Max. nominal output current (in mains operation)	17,5 A DC @ 60 °C 20,0 A DC @ 50 °C
Max. nominal output current (in back-up operation)	17,5 A DC @ 60 °C 20,0 A DC @ 50 °C
Max. power loss 'worst-case'	65 W (U _a = 24,0 V DC)
Energy	8 kJ
Back-up time	344 s @ 1 A / 12 s @ 20 A

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In general	
Leackage current	< 3,5 mA
Parallel operation	Yes
Serial operation	Yes
Protective system	IP20
Operational temperature	-40 ... 60 °C
Storage temperature	-40 ... 70 °C
Relative humidity	< 95 % non-condensing
Max. mounting heigth	2000 m above sea level
dimensions (H x W x D)	192,5 mm, 170 mm, 198 mm
weight	3,5 kg

3 Norms and Regulations

Total unit	EN 50178 EN 61010-1 / EN 61010-2-201 EN 62368-1 UL 508
EMC	EN 55011 / 1998 / Klasse A EN 61000-3-2 und EN 61000-3-3 / Klasse A EN 61000-6-2 EN 62040-2
Power HF-transmitter to ensure safe isolation primary/secondary	EN 61558 2-17 (VDE 0570 2-17)
Optocoupler to ensure safe isolation pri- mary/secondary	VDE 0884