



DC-UPS

NCPA0724G01020

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
- Capacity extension possible with external capacitor extension modules

2 Technical Data

Input	
Nominal input voltage	400 V AC ($\pm 15\%$)
Input voltage range	340...460 V AC
Nominal frequency	47 Hz ... 63 Hz
Nominal input current	0,2 A @ 400 V AC
Max. inrush current	30 A / 2 ms
Output	
Nominal output current	3 A -13% +9%
Nominal output voltage (in mains operation)	24,3 V DC $\pm 2\%$
Output voltage (in back-up operation)	23,5 V DC $\pm 2\%$
Energy capacity ¹	1,5 kJ (kWs) @ ($U_a = 22,8$ V DC, $I_a = 0,6$ A)
Current limitation	See chapter 5.4 Short-circuit
Max power loss ,worst-case'	12 W
Efficiency	88% @ ($U_e=400$ V AC; $U_a=24,3$ V DC; $I_a=I_{Nenn}$)
Fuse	
Internal device protection	2,5 A (T), 250 V
Fuse DC-output circuit (external)	3,15 A (T)
General	
Environmental temperature	-40 °C ... 60 °C
Storage temperature	-40 °C ... 60 °C
Relative humidity	$\leq 95\%$ condensation not permissible
Max. height above sea level (without power reduction)	2000 m
Dimensions (H x W x D)	152,5 mm x 102 mm x 130 mm
Weight	2,2 kg

Technical Datasheet

AC C-TEC 2403-1-400



3 Norms and regulations

Terminal voltage	SELV / PELV according to EN 60204-1
Ermited 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 61000-4-2 EN 61000-4-3 EN 61000-4-4 EN 61000-4-5 EN 61000-4-6 EN 61000-4-11 EN 62040-2
Complete device	EN 50178 EN 61010-1 / EN 61010-2-201 EN 62368-1