

Technical Datasheet

AC C-TEC 2410



DC UPS NCPA1430G01001

Short Description

The DC-UPS of the series **AC C-TEC 2410-10** includes ultra-capacitors as energy storage inside the housing. During normal operation the capacitors are charged from an internal charger, which is supplied by an internal, regulated AC-DC power supply. In case of an interruption of the AC supply, the energy of the ultra-capacitors is released regulated (23,5 V DC \pm 5%). The load is supplied by the back-up module up to the ultra-capacitors are discharged. The back-up time depends on the state of charge of the capacitors 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 potential-free contacts and LED
- Big temperature range -20 C up to 50 C

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Input	
Nominal input voltage	115 V AC -26,1 % / 230 V AC +15 % 115 V DC -21,7 % / 230 V DC +8,7 %
Input voltage range	85 V - 265 V AC 90 V - 250 V DC
Nominal frequency	50 Hz ... 60 Hz \pm 6 %
Max. nominal input current	1,11 A @ 230 V AC 2,35 A @ 110 V AC
Max. inrush current	I_{eff} : 1,8 A / I^2t : 0,5 A ² s
Output	
Nominal output voltage (in mains operation)	24,1 V DC \pm 2 %
Output voltage range (in back-up operation)	23,5 V DC \pm 5 %
Max. nominal output current	10 A
Limited voltage control	10,3 A DC \pm 0,1 A
Switch off in case of exceeded limited current (in back-up operation)	after 1,5 s
effeciency	> 90 %
energy	13,4 kJ
Back-up time	564 sec @ 1 A 49 sec @ 10 A

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Derating	At mains operation no derating. At back-up-/charging operation @ T > 40 °C and I _a > 7.5 A output current three charging/ discharging cycles in sequence are admissible. Afterwards pause 60 s for cooling.
Residual ripple	< 50 mV eff
General information	
Internal device protection (input)	6,3 A (T)
Internal device protection (output)	15 A (FK2)
Internal device protection (capacitor circuit)	25 A (FK2)
Parallel operation	no
Serial operation	no
Max. load control input 1; 2 (Shutdown)	24 V DC (6 V bis 35 V DC)
Max. load message contact 3; 4 (Netz / Mains)	30 V DC max. 0,5 A
Max. load message contact 5; 6 (U _c / V _{cap} .)	30 V DC max. 0,5 A
Max. load message contact 7; 8; 9 (Fehler / Fault)	30 V DC max. 0,5 A
Protective system	IP 20
Operational temperature	-20 °C ... 50 °C
Storage temperature	-20 °C ... 60 °C
Relative humidity	95 % condensation not admissible
Max. mounting height (without load reduction)	2000 m above sea level
Dimensions (H x W x D)	163 mm x 189 mm x 138 mm
weight	3,0 kg

Norms and Regulations

Total unit	EN 50178 EN 61010-1 / EN 61010-2-201 EN 62368-1
Interference emission EN 61000-6-4	EN61000-6-4 EN55011
Noise immunity EN 61000-6-2	EN61000-4-2 EN61000-4-3 EN61000-4-4 EN61000-4-5 EN61000-4-6