

AC C-TEC 2410-10

Ultrakondensatorgepufferte Stromversorgung/ DC USV



J. Schneider
Elektrotechnik



Technical Datasheet 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

J. Schneider Elektrotechnik GmbH

Helmholtzstraße13, 77652 Offenburg · Postfach 2327, 77613 Offenburg · Werner-von-Siemens-Straße 12, 77656 Offenburg
Tel +49 (0) 781 206 0 · Fax +49 (0) 781 253 18 · info@j-schneider.de · www.j-schneider.de · Amtsgericht Freiburg HRB 470458
Geschäftsführer: Dipl.-Betriebswirtin (BA) Bettina Schneider · Dipl.-Wirt.-Ing. (FH) Rolf Anti · UST-Ident-Nr. DE142532740

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Technische Änderungen
vorbehalten!



REG-Nr. 2750

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Technical data

Input	
Input voltage range	100 V - 240 V AC 100 V - 230 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	1,76 A
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	after 1,5 Sek.
effeciency	> 90 %
energy	10,0 kJ
Back-up time	400 sec @ 1 A 42 sec @ 10 A
Derating	At mains operation: no derating At back-up-/charging operation: from 40°C and 7,5 A output current only three charging/ discharging cycles in sequence, afterwards only 50% on-time
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 (Uc / Vcap.)	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 permissible
Max. mounting heigth (without load reduction)	2000 m above NN
Dimensions (H x W x D)	163 mm x 189 mm x 138 mm
weight	3,0 kg

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Terminals

Mains connection Ue	Screw terminal IEC: 400 V / 20 A 2,5 mm ² (AWG 13) 0,4 Nm (3,5Lb-In) remove 7 mm of insulation
Discharge connection Ua /Vout	Screw terminal IEC: 320 V / 20 A 2,5 mm ² (AWG 13) 0,4 Nm (3,5Lb-In) remove 7 mm of insulation
Control connection IO-1	Screw terminal IEC: 320 V / 20 A 2,5 mm ² (AWG 13) 0,4 Nm (3,5Lb-In) remove 7 mm of insulation
communication USB	USB standard-B socket

Norms and regulations

Total unit	EN 50178 / EN 60950 C22.2 No. 107.1-01.
Emitted interference EN 61000-6-4	EN61000-6-4 Emitted interference for industrial areas EN55011 Industrial, scientific and medical – Radio-frequency disturbance characteristics – Limits and methods of measurements
Noise immunity EN 61000-6-2	EN61000-4-2 (Static discharge / ESD) air discharge ± 8 kV contact discharge ± 6 kV EN61000-4-3 (Electromagnetic fields) 10 V / m 80 - 2000 MHz 3 V / m 1400 - 2700 MHz EN61000-4-4 (fast transients) AC IN, DC OUT 2 kV others 1 kV EN61000-4-5 (Surge current) AC IN 4 kV EN61000-4-6 (conducted noise immunity) 10 V 150 kHz - 80 MHz
Degree of pollution	2

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