

Technical Datasheet

AC C-TEC 1203



J. Schneider
Elektrotechnik



DC-UPS
NCPA0724G10002

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	115 V...230 V AC $\pm 15\%$
Nominal input voltage rang	97,8 V...264,5 V AC $\pm 0\%$
Nominal frequency	47 Hz...63 Hz
Nominal input current	0,84 A @ 115 V AC 0,42 A @ 230 V AC
Max. inrush current	30 A / 2 ms
Output	
Nominal output current	3 A -13 % +9 %
Nominal output voltage (in mains operation)	12,3 V DC $\pm 2\%$
Nominal output voltage (in back-up operation)	11,5 V DC $\pm 2\%$
Energy1t (typical)	1,5 kJ @ ($U_a = 11,5\text{ V DC}$, $I_a = 0,6\text{ A}$)
Current limitation	See section 5.5 short-circuit
Max power loss ‚worst-case‘	12 W
efficiency	88 % @ ($U_e=230\text{ V AC}$; $U_a=12,3\text{ V DC}$; $I_a=I_{Nenn}$)
fusing	
Internal device protection	2 A (T), 250 V
fusing DC-ouitpit (extern)	3,15 A (T)
General	
Protective system	IP20
Operational temperature	-40 °C...60 °C
Storage temperature	-40 °C...60 °C
Rel. humidity	$\leq 95\%$ no condensation
Max. mounting heigth (without load reduction)	2000 m
dimensions (HxWxD)	152,5 mm x 72 mm x 130 mm
weight	0,85 kg

Document

0724G10D02_AC C-TEC 1203_220118.docx Original language: German

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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3 Norms and regulations

Terminal voltage	SELV / PELV according to EN 60204-1
Ermitted 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 62040-2 EN 61000-4-2 (Static discharge ESD) 8kV/6kV EN 61000-4-3 (electromagnetic fields) 10V/m 27 – 1000MHz 3V/m 1400 - 2700MHz EN 61000-4-4 (fast transients / Burst) DC IN, DC OUT 2kV others 1kV EN 61000-4-5 (Stoßstrombelastung / Surge) DC IN 0.5kV EN 61000-4-6 (conducted noise immunity) 10V 150kHz – 80MHz EN 61000-4-11 (voltage interruptions) back-up with ultra capacitors
Total unit	EN 50178 EN 61010-1 / EN 61010-2-201 EN 62368-1
	UL 508 / C22.2