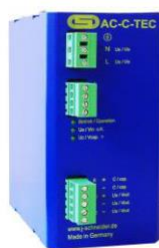


Technical Datasheet

AC C-TEC 1203-1



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

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|--|---|
| Nominal input voltage | 115 V ... 230 V AC ($\pm 15\%$) |
| Input voltage range for charging operation | 97,8 V ... 264,5 V AC |
| Nominal frequency | 47 Hz ... 63 Hz |
| Max. nominal input current | 0,84 A @ 115VAC 0,42 A @ 230 V AC |
| Max. inrush current | 30 A / 2 ms |
| nominal output current Max. | 3 A DC (at 0,94 kJ) |
| nominal output current at maximum energy | 2 A DC (at 1,0 kJ) |
| Current limitation | 1,05 ... 1,5 x I _{Nenn} |
| Nominal output voltage (in mains operation) | 12,3 VDC $\pm 2\%$ |
| Output voltage (in back-up operation) | 11,5 VDC $\pm 2\%$ |
| Energy | 1 kJ |
| Max power loss ,worst-case' | 12 W |
| efficiency | 88% @ (U _e =230 V AC; U _a =24,3 V DC; I _a =I _{Nenn}) |
| Internal device protection | 2 A (T), 250 V |
| Fuse DC-output circuit (external) | 3,15 A (T) |
| Type of connection: input U _e | screw terminal max. 2,5 mm ² 0,4 Nm |
| Type of connection: output U _a | screw terminal max. 2,5 mm ² 0,4 Nm |
| Type of connection: message contact | screw terminal max. 2,5 mm ² 0,4 Nm |
| Max. load message contact (U _e -OK ¹) | 30 V / 0,5 A potentialfree relay contact |
| Max. load message contact (U _c > ¹) | 30 V / 0,5 A potentialfree relay contact |
| Protective system | IP20 u. EN 60529 |

¹ The message contacts are coupled with the LED display. The illumination of a LED effects the activation of the corresponding relay.

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| | |
|---|-----------------------------------|
| Environmental temperature | -40 °C ... 60 °C |
| Storage temperature | -40 °C ... 60 °C |
| Rel. humidity | ≤95% condensation not permissible |
| Max. mounting height (without load reduction) | 2000 m ü. NN |
| Dimensions (H x W x D) | 152,5 mm, 72 mm, 130 mm |
| weight | 0,85 Kg |

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 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 |