



DC-UPS

NCPA1301G20001

1 Short description

The DC buffer module of the **C-TEC 4815 P** series is equipped with integrated ultracapacitors for accumulating energy. During normal operation this capacitor is charged by an internal charger which is supplied by an external, regulated DC power supply. If the DC supply is interrupted, energy of the ultracapacitors is released in a unregulated process (49 to 38 V DC). The load is supplied by the buffer module until the voltage is ≤ 38 V. The buffering time depends on the state of charge of the capacitor and discharging current. As further function the **C-TEC 4815 P** can provide more current for a certain time.

The DC-UPS shows the following features:

- Maintenance-free due to durable ultra capacitors
- Microcontroller based charging and discharging of the ultracapacitors
- Input voltage-signal via potential-free contact and LED
- Short overload possible
- Vibration secured wiring via spring loaded plugs
- Wide working temperature range -40°C till 60°C

2 Norms and regulations

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|---------------------------------------|--|
| Total unit | EN 50178 EN 61010-1 / EN 61010-2-201 / EN 62368-1 |
| Emission EN 61000-6-4 | EN61000-6-4 Emission standard for industrial environments EN55011 Industrials, scientific and medical (ISM) radio-frequency equipment |
| Interference immunity EN 61000-6-2 | EN61000-4-2 (statically unloading / ESD) air discharge 8kV / contact discharge 6kV EN61000-4-3 (electromagnetic fields) 10 V / m 80 - 2000 MHz 3 V / m 1400 - 2700 MHz EN61000-4-4 (fast transient) DC IN, DC OUT 2 kV miscellaneous 1 kV EN61000-4-5 (current load / Surge) DC IN 0.5kV EN61000-4-6 (conducted fault-free / Cond. Rf) 10 V 150 kHz - 80 MHz |
| Environment tests | EN 60068-2-6 and EN 60068-2-27 |
| Pollution degree | II |

Technical Datasheet

C-TEC 4815 P



J. Schneider
Elektrotechnik

3 Technical Data

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|--|---|
| Nominal input voltage | 48 V DC $\pm 10\%$ SELV/PELV (EN 60204-1) |
| Input voltage range | 43,2...52,8 V DC |
| Min. Nominal input voltage for Charging mode | 44 V DC |
| Max. nominal input current | 18 A DC |
| Max. Inrush surge current | 66 A |
| Max. charging current | 3ADC |
| Nominal output voltage (mains operation) | 48 V DC $\pm 10\%$ |
| Nominal output voltage (Buffer operation) | 49 V...38VDC $\pm 2\%$ |
| Max. nominal output current | 15 A DC |
| Short-circuit current | 200 A |
| Overload capacity (nominal value) | 65 A for 14 ms, 200 A for 1,5 ms |
| Max. Power loss 'worst-case' | 10 W (Charging Mode max. 40 s), 20 W (Discharging Mode) 2 W (Standby) |
| Efficiency | >90% |
| Parallel connection | No |
| Series connection | No |
| Energy content | 1,2 kJ |
| Max. load digitale output | 60 VDC/1A |
| Buffer time | 25 sec @ 1 A / 0,6 sec @ 15 A |
| Degree of protection | IP20 |
| Operating temperature | -40 ... 60 °C |
| Storage temperature | -40 ... 60 °C |
| Relative humidity | 95% non-condensing |
| Max. altitude (whitout derating) | 2000 m above sealevel |
| Dimensions (H x W x D) | 123 mm x 65 mm x 145 mm |
| Weight | 0,8 kg |