

Technical Datasheet

C-TEC 2410 2 kJ



DC-UPS

NCPA0609G01

1 Short description

The DC UPS of the **C-TEC** series has inside of the housing ultracaps as energy storage. In mains operation, the ultracaps will be charged by an external controlled DC power supply. In the event of interruption of DC power supply, the energy of the ultracaps will be released in a controlled way. The load will be fed until the **C-TEC** is discharged.

The buffer time depends on the output current and the energy of the ultracaps.

The **C-TEC** 2410 is characterized by the following properties:

- Maintenance-free due to durable ultracaps
- Micro-controller supported charging and discharging of the ultracaps
- Operation monitoring and charge status monitoring by LEDs
- Fast charging by active current charging control
- IPC management by time triggered and output current triggered shutdown function

Numerous customer-specific parametrization settings by USB interface

2 Technical Data

| Input | | |
|---|--------------------------------|---|
| Nominal input voltage* | | 12 V DC / 24 V DC (SELV / PELV) |
| Input voltage range in charge mode | | |
| Nominal input voltage 12 V DC (decoupled / non-decoupled) | | 11.9...17.4 V DC $\pm 0\%$ / 11.4...17.4 V DC $\pm 0\%$ |
| Nominal input voltage 24 V DC (decoupled / non-decoupled) | | 23.9...27 V DC $\pm 0\%$ / 23.4...27 V DC $\pm 0\%$ |
| Nominal input current | | 10 A @ (U _e = 24.0 V DC, U _a = 23.2 V DC, I _a = 9.9 A) |
| Inrush current | | ≤ 35 A / 2 ms |
| Charging current | | Max. 7 A; active charging current control |
| Nominal input power | | 240 W @ (U _e = 24.0 V DC, U _a = 23.2 V DC, I _a = 10 A) |
| Output | | |
| Nominal output voltage | | 12 V DC / 24 V DC |
| Nominal output voltage in buffer mode (system voltage)** | | |
| Nominal input voltage 12 V DC | | 11.2 V DC $\pm 4\%$ |
| Nominal input voltage 24 V DC | | 23.2 V DC $\pm 2\%$ |
| Nominal output current | | 10 A |
| Current limitation in discharge operation | | 11.25 A ± 0.75 A |
| Limiting current monitoring in discharge operation by switching-off | | 10.3 A $\pm 0,1$ A after 1.5 s |
| Energy capacity (typical) | NCPA0606G01 | 2,0 kJ (kWs) @ (U _a = 23.2 V DC, I _a = 2 A) |
| Efficiency | | 95,1 % @ (U _e = 24.0 V DC, U _a = 23.2 V DC, I _a = 10 A) |
| Internal consumption in buffer mode | | 1.7 W |
| Short-circuit resistance | Mains operation Buffer mode | Conditional short-circuit proof Short-circuit proof |
| Fuse | | |
| Fuse output circuit | | External |

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J. Schneider
Elektrotechnik

| General | |
|---|--|
| Protection class of the housing | IP20 |
| Overvoltage category | II |
| Pollution degree | 2 |
| Dimensions (H x W x D) | 6.78 in x 2.78 in x 5.65 in (172 mm x 70 mm x 143 mm) |
| Weight | 2.87 lbs (1.3 kg) |
| Operating temperature / storage temperature | -40 °F (-40 °C)...140 °F (+60 °C) |
| Operating temperature UL tested | 50 °F (+10 °C)...140 °F (+60 °C) |
| Relative humidity | ≤95 % non-condensing |
| Max. height above sea level (without power reduction) | 6561.1 ft (2000 m) |

3 Norms and regulations

| | |
|-----------------|---|
| Complete device | 2011/65/EU with 2015/863/EU (RoHS Directive) 1907/2006/EG (REACH) 2009/125/EG (Eco Design Directive) EN 61010-1 / EN 61010-2-201 EN 62368-1 UL 508 / C22.2 No. 107.1 |
| EMC | 2014/30/EU (EMC Directive) EN 62040-2 limit class C1 EN 55011+ A1 limit class B group 1 EN 61000-6-2 EN 61000-6-4 |