

# C-TEC 2425 P

Ultra capacitor buffered power supply / DC UPS



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## Technical Datasheet NCPA1301G10001

### Brief description

The DC buffer module of the **C-TEC 2425 P** series is equipped with integrated ultra capacitors 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 ultra capacitors is released in a unregulated process (24,5 to 19 V DC). The load is supplied by the buffer module until the voltage is  $\leq 19$  V. The buffering time depends on the state of charge of the capacitor and discharging current. As further function the **C-TEC 2425 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 ultra capacitors
- Input voltage-signal via potential-free contact and LED
- Short overload possible
- Vibration secured wiring via spring loaded plugs
- Wide working temperature range  $-40^{\circ}\text{C}$  till  $60^{\circ}\text{C}$

## Technical Data

Nominal input voltage	24 V DC $\pm$ 10%
Min. nominal input voltage for charging mode	22 V DC
Max. nominal input current	28 A DC
Max. inrush surge current	66 A
Max. charging current	3 A DC
Nominal output voltage (mains operation)	24 V DC $\pm$ 10%
Nominal output voltage (buffer operation)	24,5 V ... 19 V DC $\pm$ 2 %
Max. nominal output current	25 A DC
Short-circuit current	200 A
Overload capacity (nominal value)	50 A für 4 ms
Max. Power loss 'worst-case'	10 W (Charging Mode max. 75 s), 20 W (Discharging Mode) 2 W (Standby)
Efficiency	>90%
Parallel connection	No
Series connection	No
Energy content	1,2 kJ
Max. load digital output	30 V DC / 1 A
Buffer time	47 sec @ 1 A / 1 sec @ 25 A
Degree of protection	IP20
Operating temperature	-40 ... 60 °C
Storage temperature	-40 ... 60 °C
Relative humidity	95% non-condensing
Max. altitude (without derating)	2000 m above sealevel
Dimensions (H x W x D)	123 mm x 65 mm x 145 mm
Weight	0,8 kg

## Terminals

Charge-/Discharge connector 'Input/Output'	Spring clamps (push in) solid 0,2 - 10,0 mm <sup>2</sup> stranded 0,2 – 6 mm <sup>2</sup> stranded, with ferrule with plastic sleeve 0,25 – 4 mm <sup>2</sup> Stripping length 8 mm stranded, with ferrule without plastic sleeve 0,25 – 6 mm <sup>2</sup> Stripping length 8 mm AWG 24-8
Potential-free contact '13/14'	30 VDC / 0,5 A Spring clamps (push in) solid 0,2 - 4,0 mm <sup>2</sup> stranded 0,2 – 2,5 mm <sup>2</sup> stranded, with ferrule with plastic sleeve 0,25 – 1,5 mm <sup>2</sup> Stripping length 8 mm stranded, with ferrule without plastic sleeve 0,25 – 2,5 mm <sup>2</sup> Stripping length 8 mm AWG 24-12