

C-TEC 2425 P

Ultra capacitor buffered power supply / DC UPS



J. Schneider
Elektrotechnik



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 ≤ 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°C till 60°C

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G10001D02-150119
Technische Änderungen
vorbehalten!



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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 ² stranded 0,2 – 6 mm ² stranded, with ferrule with plastic sleeve 0,25 – 4 mm ² Stripping length 8 mm stranded, with ferrule without plastic sleeve 0,25 – 6 mm ² 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 ² stranded 0,2 – 2,5 mm ² stranded, with ferrule with plastic sleeve 0,25 – 1,5 mm ² Stripping length 8 mm stranded, with ferrule without plastic sleeve 0,25 – 2,5 mm ² Stripping length 8 mm AWG 24-12

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Standards and Regulations

Overall Unit	EN 50178 / EN 60950 UL 508 C22.2 No. 107.1-01.
Emitted interference 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 (Electrostatic discharge ESD) Air discharge 8kV / contact discharge 6kV EN61000-4-3 (Electro-magnetic fields) 10 V / m 80 - 2000 MHz 3 V / m 1400 - 2700 MHz EN61000-4-4 (Fast transients / burst) DC IN, DC OUT 2 kV others 1 kV EN61000-4-5 (Surge DC IN 0.5kV) EN61000-4-6 (conducted interference immunity) 10 V 150 kHz - 80 MHz
Vibrationstest, sine Shocktest refer	EN 60068-2-6 und EN 600068-2-27
Degree of pollution	II

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