



Capacitor based UPS

NCPA1906G01001

1 Short description

The AC CAPTEC 2401 is a regulated power supply unit with ultracapacitors and integrated line protection. In addition to the regulated power supply of the load, the integrated ultracapacitors are charged within a few seconds during mains operation. In the event of a mains failure, the AC CAPTEC 2401 ensures uninterrupted and safe maintenance of the DC voltage within the scope of the stored energy.

In mains operation, pulse loads of up to 10 A (10 ms) are permissible with charged ultracapacitors.

The AC CAPTEC 2401 has the following characteristics:

- Regulated power supply with safe separation
- Wide input voltage range 80...264 V AC
- Wide temperature range -40 °C...+60 °C
- Maintenance-free because of long-life ultra-capacitors
- Microcontroller based charging and discharging of the ultra-capacitors
- Control of operation and status of charge with LED's and signal contacts

2 Technical Data

Input	
Nominal input voltage	110 V AC / 230 V AC +15 % /-10 %
Input voltage range	80...264 V AC +0 % /-0 %
Frequency	50 / 60 Hz ±3 Hz
Nominal input current	0,24 A @ U _e = 240 V AC 0,44 A @ U _e = 120 V AC
	25 A @ 115 V AC / 45 A @ 230 V AC
Nominal input power	28 W @ (U _e = 230 V AC, U _a = 24 V DC, I _a = 1 A)
Output	
Nominal output voltage	24 V DC
Output voltage in buffer operation	23,3 V DC ±2 %
Residual ripple	200 mV _{pp}
Nominal output current	1 A
Current limitation	see Operating Instruction
Energy (typical)	600 J (Ws)
Power loss (self consumption)	4 W @ (U _e = 230 V AC, U _a = 24 V DC, I _a = 1 A)
Energy consumption in buffer operation	1 W

Technical Datasheet

AC CAPTEC 2401



Short-circuit proof	see Operating Instruction
Fuse	
Fuse output	5 A T
General	
Protective system housing	IP20
Degree of Overvoltage protection	III
Degree of pollution	2
Dimensions (H x W x D)	91 mm x 106 mm x 62 mm
weight	0,3 kg
Operational temperature / Storage temperature	-40 °C...+60 °C
Operational temperature UL proved	+10 °C...+60 °C
humidity	≤90 % no condensation
Max. height above sea level (without load reduction)	2000 m

3 Standards

Total Unit	2011/65/EU with 2015/863/EU (RoHS) 1907/2006/EG (REACH) 2009/125/EG (Öko-Design) EN 61010-1 / EN 61010-2-201 EN 62368-1 UL 508 / C22.2 No. 107.1
EMI	2014/30/EU (EMV-Regulation) EN 55011+ A1 limiting value class B group 1 EN 61000-6-1 EN 61000-6-3 limiting value class B EN 62040-2 limiting value class C1
Power -HF-transmitter to ensure safe separation primary/secondary	EN 60601-1 2xMOPP (EN 61558-1)

- **EN 55011 limit value class B:** "Class B equipment is equipment suitable for operation in residential areas as well as such areas that are connected directly to a low-voltage supply network that (also) supplies residential buildings".
(EN 55011, 5.2 Classification)
- **EN 55011 group 1:** „Group 1 includes all equipment, ... in which RF energy is not intentionally generated in the radio frequency range of 9 kHz to 400 GHz.“
(EN 55011, 5.1 Classification into groups)