



# CBI1210A DC UPS



## Features:

- Input: Single-phase 115 - 277 VAC
- Output Load: power supply 12 VDC; 10 A
- Output: Battery charging 12 VDC; 10 A
- Suited for the following battery types:  
Open Lead Acid, Sealed Lead Acid, lead Gel and Ni-Cd (option)
- Automatic diagnostic of battery status.
- Switching technology, output voltage 10-14.4 VDC
- Three charging levels: Boost, trickle and recovery
- Protection degree IP20 - DIN rail mountable

## INPUT

## OUTPUT

## PROTECTION

## LOAD OUTPUT

## BATTERY OUTPUT

## OTHERS

### Cat. No.

### CBI1210A

Nominal Input Voltage  
Voltage range  
Inrush Current ( $V_n - I_n$  nom. Load).  $I_n^2t$   
Frequency  
Input Current (115 – 230 VAC)  
Internal fuse (factory replaceable)  
External Fuse (recommended) MCB curve B

115 ~ 230 ~ 277 VAC  
90 – 305 VAC  
 $\leq 11 A \leq 5 \text{ msec}$   
47 – 63 Hz  
2.8 ~ 1.3 A  
4 A  
10 A

Output Voltage ( $V_n$ ) / Nominal Current ( $I_n$ )  
Output Current  $I_n$   
Efficiency (at 50% of rated current)  
Turn-On delay after applying input voltage  
Start up with Strong Load (capacitive load)  
Dissipation power load max

12 VDC / 10A  
10 A  
 $\geq 90 \%$   
1 sec. (max)  
Yes, Unlimited  
17 W

Short-circuit protection  
Over Load protection  
Over Voltage Output protection  
Over Temperature protection

Yes  
Yes  
Yes (typ. 35 VDC)  
Yes

Output voltage (at  $I_n$ )  
Nominal current  $I_{load}$   
Continuous current (without battery)  $I_{load} = I_n$   
Continuous current (with battery)  $I_{load} = I_n + I_{batt}$   
Max. Current Output Load (Main)  $I_{load}$  (4 sec.)  
Max. Current Output Load (Back Up)  $I_{load}$  (4 sec.)  
Push Button or Remote Input Control (RTCONN cable)  
Time Buffering; min (switch output off without main input)  
Protection alarm against total discharge  
Threshold alarm for battery almost flat

10 ~ 14.4 VDC  
 $1.1 \times I_n A \pm 5\%$   
10 A  
20 A  
30 A max.  
20 A max.  
Start From Battery Without Main  
 $\infty$ : standard 5 min.: Require SW  
9-10V DC battery  
10-11 V DC battery

Boost charge (25 °C) (at  $I_n$ )  
Max. time Bust Charge  
Min. time Bust Charge  
Trickle charge (25 °C) (at  $I_n$ )  
Jumper Configuration battery type (V cell) Ni-Cd (optional)  
Recovery Charge  
Charging current max  $I_{batt}$   
Charging current limiting  $I_{adj}$   
Reverse battery protection  
Sulfated battery check  
Detection of element in short circuit  
Quiescent Current  
Charging Curve automatic:  $I_{UoUo}$   
Remote Input Control (RTCONN cable)

14.4 VDC  
15 h  
1 min.  
13.75 VDC  
2.23; 2.25; 2.27; 2.30; NiCd: 1.50 (10 elem.)  
2 ~ 9 VDC  
10 A  $\pm 5\%$   
20 – 100 % /  $I_{batt}$   
Yes  
Yes by Jumper  
Yes  
 $\leq 5 \text{ mA}$   
3 stage  
Boost / Trickle / Recovery

Ambient temperature (operation)  
De Rating  $T_a > 50^\circ\text{C}$   
Ambient temperature Storage  
Humidity at 25°C no condensation  
Cooling  
MTBF

-25 – +70°C  
- 2.5%(In) / °C  
-40 – +85°C  
95%  
Auto convention  
> 300.000 h (IEC 61709)

# CBI1210A

## DC UPS

The Altech DC-UPS system is built to optimize power management. The available power is automatically allocated between load and battery, supplying power to the load is the first priority. For high inrush applications the charging power will reroute automatically to the load. In this case the maximum available current on the load output is two times the value of the device rated current.

The Battery Care concept based on algorithms that achieve rapid and automatic charging, battery optimization during charging time, flat batteries recovery and real time diagnostic. The Real Time Auto-diagnostic system, monitors battery faults, sulfated battery, short circuit battery elements, reverse polarity connection, battery disconnect. These conditions are detected and identified by the number of blinks of the diagnosis Led.

### Signal Output Contacts

Main or Backup Power	Yes
Battery Power Low	Yes
Battery Fault	Yes
Max. Current Rating (Resistive Load)	1A 30 VDC/60 VAC
Minimum Permissible Current Rating	1mA @ 5 VDC

### RJ45 Connection Input/Output

Temp. Comp. Battery (with ext. probe)	Yes - Optional
Remote monitoring display	Yes - Optional
Can Bus	No

### Environment

Insulation voltage (IN/OUT)	3000 VAC
Insulation voltage (input / ground)	1605 VAC
Insulation voltage (Output / ground)	500 VAC
Protection Class (EN/IEC 60529)	IP20
Pollution Degree Environment	2
Connection TB, Screw Terminal	2,5 mm <sup>2</sup> (24-14AWG)
Protection class (Ground Connected)	Class I
Dimensions (WxHxD)	65x115x135 mm
2.56x4.53x5.32 in	
Weight (approx.)	0.6 kg (1.35 Lbs)

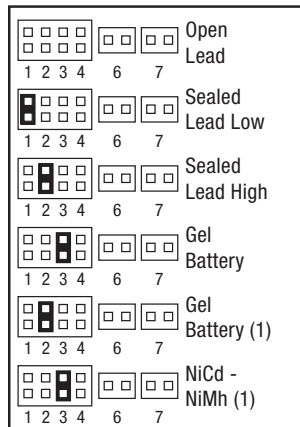
### Safety and EMC

Battery charger standard compliance	IEC/EN 60335-2-29
Safety standards compliance:	EN60950 / UL1950 / CE
Fire Detection and alarm compliance	EN54-4
EMC Directive	89/336/EEC
Charging cycle	DIN41773
Emission	IEC 61000-6-4
Immunity	IEC 61000-6-2

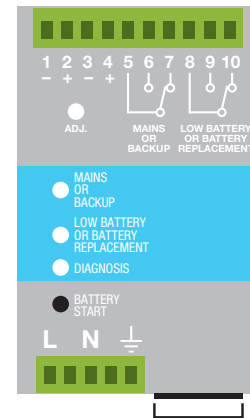
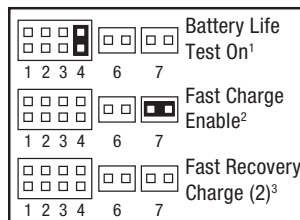
The Altech DC-UPS system is designed to charge and monitor all battery types, by selecting the battery type via jumpers. The predefined curves include Open Lead Acid, Sealed Lead Acid, Gel, Ni-Cd (optional) battery types. The charging curve is programmed to automatically switch between Recovery Charge, Boost charge and Trickle charge. The continuous battery efficiency monitoring, reduces battery damage risk and allows a safe operation in permanent connection.

A compact and rugged metal case with DIN rail mounting bracket provide an easy installation and an IP20 protection.

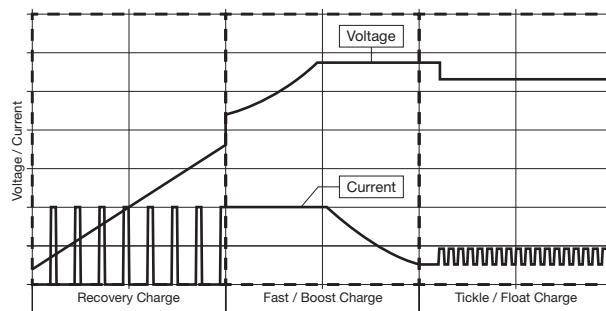
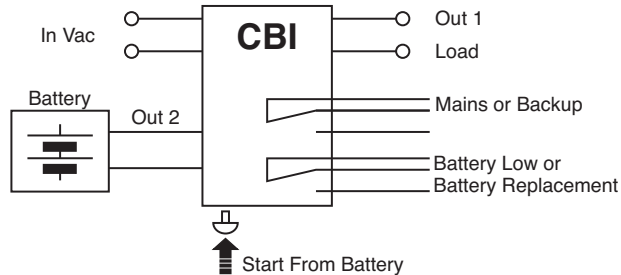
### Jumper for Battery Type Selection



### Jumper for Functional Setting



- 1 Jumper present: life test enabled.
- 2 Jumper present: fast test enabled.
- 3 Jumper present: fast recovery charge enabled only for size 3. Possibility to recharge the battery also when the voltage is close to zero with the maximum power of the device.



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