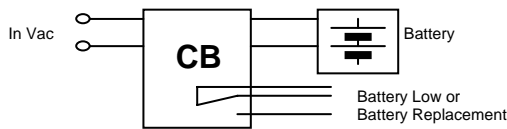


# CB2410A Battery Charger



Input: Single-phase 115 ÷ 230 VAC

Output: Battery charging 24 VDC; 10 A  
duty cycle 50%

Suited for the following battery types: Open Lead Acid, Sealed Lead Acid, lead Gel and Ni-Cd (option)

Automatic diagnostic of battery status. Charging curve UI, constant voltage and constant current.

Switching technology, output voltage 28,8VDC  
Two charging levels: Boost and Trickle

Protected against short circuit and inverted polarity

Signal output (contact free) for discharged or damaged battery

Protection degree IP20 - DIN rail or bracket mounting

## Technical features

The CB series is a range of microprocessor control battery chargers able to optimize charging and discharging cycles while ensuring extended battery life. Boost and trickle charging are under micro-processor supervision.

Continuous monitoring of battery efficiency reduces battery damage risk and allows a safe operation also in case of permanent connection.

They are suited for several battery types, Open Lead Acid, Sealed Lead Acid, Lead Gel and Ni-Cd. They are programmed for two charging levels, boost and trickle.

A rugged casing with bracket for DIN rail mounting provide IP20 protection degree.

## Charging curve selection

By means of jumpers. Predefined curves for Open Lead Acid, Sealed Lead Acid, Gel, Ni-Cd(option) or Single charging level

## Type of Signal Output Contact

Maximum current can be switched: 1 A – 30 Vdc.

## Installation

The device must be installed according to EN 60950 norm, with a proper isolation switch.

## Norms and Certifications

Conforming with:

IEC/EN 60335-2-29 Battery chargers

EN60950 / UL1950 Electrical safety

89/336/EEC EMC Directive

93/68/EEC (Low Voltage)

DIN41773 (Charging cycle)

EN 61000-3-2 (Current harmonics).

EN50082-2 level 3 criteria B (immunity to EMC interference)

EN55011 Class B (Suppression of radio interference for industrial and residential environment)

## Input Data

Rated voltage	115 – 230 Vac
Voltage range	93 ÷ 264 Vac
Frequency	47 ÷ 63 Hz
Internal fuse (not replaceable)	Yes

## Battery Output

Boost charge (25 °C) (Typ. at In) duty cycle 50%	28.8 Vdc duty cycle 50%
Trickle charge (25 °C) (Typ. at In) duty cycle 50%	27.5 Vdc
Output: Charging current max I <sub>batt</sub> duty cycle 50%	10 A ± 5%
Setting range of charging current (% In)	20 ÷ 100 %
Recovery Charge	Yes
Jumper Charging Configuration	Yes
Reverse battery protection	Yes
Detection of element in short circuit	Yes
Efficiency	≥ 81 %
Short-circuit protection)	Yes
Over Load protection	Yes
Over Voltage Output protection	Yes

## Signal Output (free switch contact)

Main or Backup Power	Yes
Low Battery	Yes
Fault Battery	Yes

## Climatic Data

Range of ambient working temperature	-10 ÷ +50°C
Range of ambient stocking temperature	-25 ÷ +85°C
Max. relative humidity, without condensation	95% to 25°C

## General Data

Insulation voltage (IN/OUT)	3000 V
Insulation voltage (input / ground)	1605 V
Protection degree	IP20
Protection class	I, with PE connected
Dimensions (w-h-d)	65x115x135 mm