

CB1210 & CB1205

Smart Lead Acid Battery Chargers

HIGHLIGHTS »

Designed for 12V lead acid battery

Automated three stage battery charging feature for ensuring longer battery life

Advanced switch mode supply design for higher output efficiency (>85%)

Manual boost mode feature for fast charging

Built-in protection against electrical malfunctioning

LEDs for status diagnostic support

Can be used as a Switched Mode Power Supply (SMPS)



CB1210 & CB1205

SEDEMAC's **CB1210 and CB1205** are smart, automatic, multistage battery chargers designed for 12V lead acid storage battery. The chargers comprise of high grade electronic components to ensure reliable and efficient performance.

The charger is based on "**Switch mode technology**" that results in higher efficiency (>85%), lower weight, smaller size and wide input range tolerance.

The concept of "**battery care ideology**" ensures safe operation and longer battery life.

The "**robust structure**" tested in varied environmental conditions makes it ideal for any industrial use.

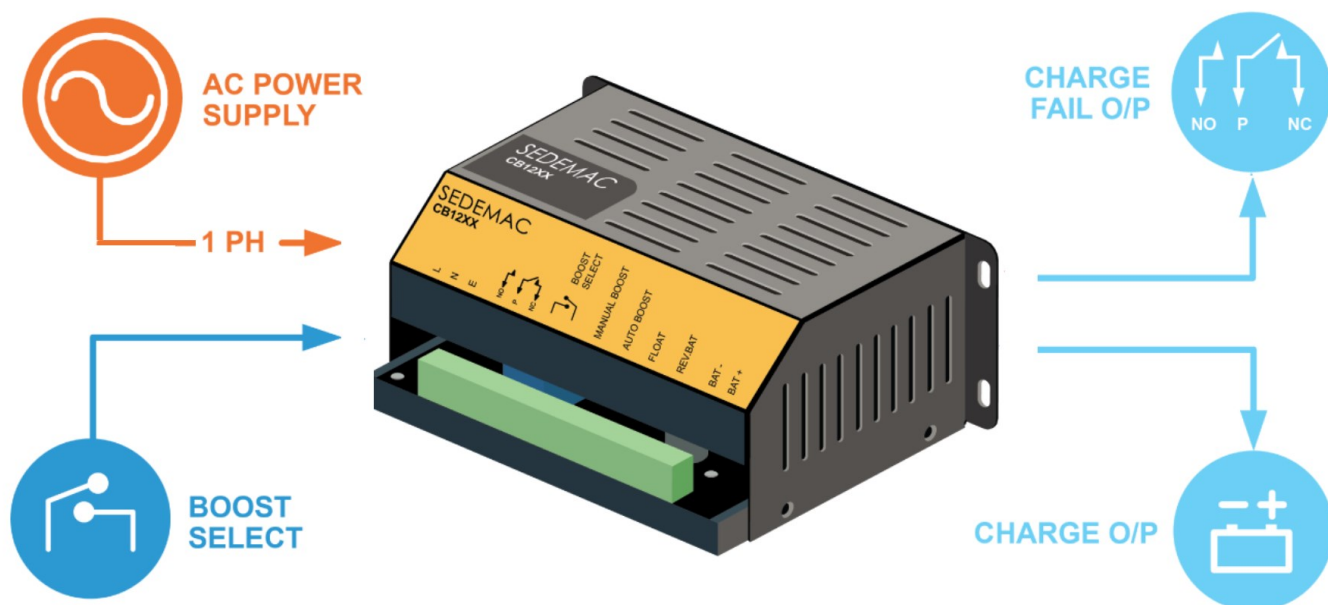
Special current - voltage protective circuits provide effective protection against **short circuit, reverse connection, output overcurrent and other electrical tampering/malfunctioning.**

A dual potential free output is provided to monitor the AC mains failure.

LEDs are provided for **visual indication** and diagnostic support.

CB1205/CB1210

SCHEMATIC »



CB1210/CB1205 BATTERY CHARGER

FEATURES »

- SEDEMAC's **CB1210 and 1205** battery charger has the capability to work within wide input voltage and frequency range (90V to 305V and 48Hz to 62Hz AC power supply respectively)
- 3 operation modes as per battery current drawing conditions are as follows:
 - **Auto boost mode:** In auto boost mode, the charger output voltage is 13.7V
 - **Float mode:** In float mode, the charger output voltage is 13.2V
 - **Manual boost mode:** In manual boost mode, the charger output voltage is 14.4V
- 4 LEDs are provided to indicate the operation modes and to diagnose the reverse battery connection
- 3 stages according to battery charging characteristics are as follows:
 - **Constant current (CC):** In constant current stage, voltage rises at constant current to reach the voltage peak
 - **Constant voltage (CV):** In constant voltage stage, current drops at a constant voltage to reach at threshold value
 - **Floating stage:** In floating stage, voltage is lowered to float charge level

Ordering Information:

CB1210 Controller	SM0004052
CB1205 Controller	SM0004885

SPECIFICATIONS »

Environmental Testing Standards

Operating temperature

-30°C to 60°C as per IEC 60068-2-1, 2

Storage temperature Range

-30°C to 85°C as per IEC 60068-2-1, 2

Vibration

2G in X,Y and Z axes for 8-500 Hz as per IEC 60068-2-6

Humidity

Damp heat (Steady State)

Humidity: 95% at temperature: 40°C, as per IEC60068-2-78

Damp Heat (Cyclic test)

Humidity: 93%, at temperature: 20°C & 55°C, as per IEC60068-2-30

Shock

15 g for 11 ms, compliance as per IEC 60068-2-27

Technical

Input Section

Input Voltage: 90V to 300V (L-N)

Frequency: 48Hz to 62Hz

Output Section

For CB1210:

Maximum output current: 10A

Float mode voltage: 13.2V (if charging current < 2A)

Auto boost mode voltage: 13.7V (if charging current >2A)

Manual boost mode voltage: 14.4V

For CB1205:

Maximum output current: 5A

Float mode voltage: 13.2V (if charging current < 1A)

Auto boost mode voltage: 13.7V (if charging current >1A)

Manual boost mode voltage: 14.4V

Efficiency & Regulation

Efficiency: >85%

Line regulation: ≤ 1%

load regulation: ≤ 1%

Protections

Short circuit, DC over voltage, DC over current, Reverse polarity, AC under & over voltage

Dimensions

CB1210: 192 mm x 129 mm x 67 mm and

CB1205: 165 mm x 119 mm x 67 mm

Weight

CB1210: ~1.2 kg and CB1205: ~0.9 kg

SEDEMAC GENSET CONTROLS »



Genset Controllers



Electronic Governors



ATS Controllers



R2D3 IIoT Platform



Battery Chargers



About Company

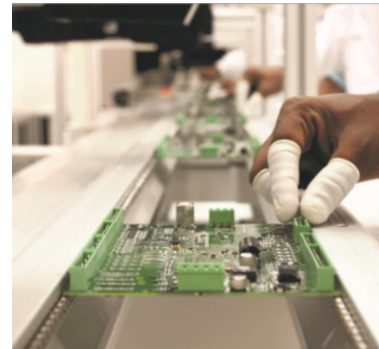
SEDEMAC Mechatronics is a mechatronic products company engaged in the business of control solutions for automotive and off-highway powertrains. The company manufactures a wide range of control products like a variety of AMF genset controllers, electronic governors and variable speed controls for diesel gensets / engines. SEDEMAC's portfolio for gasoline engines / powertrains includes products like Smart Ignition, Integrated Starter Generator (ISG), ECU, Automated Manual Transmissions (AMT) ECU, Electronic Fuel Injection (EFI) ECU and so on.

A group of researchers founded SEDEMAC in 2007 in Mumbai, India. What started as a small lab-based enterprise has now grown into a rapidly growing company that supplies / licenses unique control products to the leading OEMs in India.

Each of the SEDEMAC's products goes through complete cycle of need of identification, development of relevant technology, design of practical products around developed technology, validation of products coordinating with key potential customers, organization of supply chain for series production, delivery to customers and effective after sales product support.

SEDEMAC is #1 in genset market control in India today and is the preferred choice of leading OEM's for unique control products.

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