

SBC-8168

Smart Battery Charger

Lead Acid Battery Charger using
Micro processor Control with Pulse Width Modulation Charge technology

Introduction

This is a fully automatic 3 stage chargers suitable for 2 to 100AH lead acid battery.

The Micro Processor Control (MCU) with Pulse Width Absorption Charge make it suitable for all types of lead acid batteries, Wet, Gel, AGM and Chloride content sealed types.

The MCU checks out the battery, reconditions drained out battery or repairs lightly desulphated battery automatically.


Operations

The Smart Charger runs its own self-tests when connected to an AC source of (90 to 264V).

There are 3 Charge Modes to be selected: Motor Cycle / Car / Cold charge.

The cold charge has higher voltage and can be used for either low temperature or calcium content battery.

Checks faulty battery

The Smart Charger will scan the battery by injecting short DC pulses. If the battery is found faulty, the  LED flashes until the faulty battery is disconnected.

3 Stage charging


When the battery is found to be chargeable, the battery will go through constant current Bulk Charge, then a Pulse Width Absorption Charge, and finally a Pulse Float Charge. The charger can be connected to battery permanently without over charge.

Soft start reconditioning charging

If the battery is found to be heavily depleted, the Smart Charger will first use a soft start low constant current (2.5A) charge until battery becomes ready for normal Bulk charge.

Repair Charging

If the battery is found to be sulphated, the Smart Charger will use special repair charge pulses to de-sulphate the battery until battery becomes ready for normal bulk charge.

If after 8 hours of repair charge, the battery still cannot be improved, it is then considered to be non- repairable and the  LED will flash until battery is removed.

Safety

There is no voltage at the output connectors until they are in contact with the battery terminal.

There is absolutely no spark during the contact.

Electronic reverse polarity and output short circuit protection with flashing alarm LED.

The maximum charge time is limited to 24 hours to avoid over-charging.

The charger has double protections against overheating.

The output power will decrease when ambient temperature increases above a set temperature.

If this does not cool down enough, the charger will shut down at a preset maximum temperature.

Features

- Microprocessor Control 3 stage charger with Pulse Absorption and Float Charge
- Universal AC input (90V to 264V)
- Suitable for All types of lead acid batteries Wet, Gel, AGM
- Suitable for 2AH to 100AH batteries
- Auto pulse precondition and soft start charge
- Compact, all weather, water resistant design with mounting hole
- Thermo control regulates charge current in hot or enclosed conditions
- Two swappable connection leads with clamps and eyelet terminals.
- No worries about wrong connections, shorting of charger leads and sparks on contact.
- No worries about overcharging or undercharging battery designed for long term connection.
- The Micro-processor constantly monitors the battery condition from initial checking, conditioning or soft start if necessary, to bulk, absorption and float charges.
- Simple 3 touch screen selections with intuitive iconic LED indications

Specifications

AC Input Voltage	90-264V
AC Frequency Range	48-62Hz ~
No Load AC Current	100mA@100VAC
Full Load AC Current	1.3A@230VAC
Max Power	70W
Efficiency	> 83%
Soft Start Bulk Charge Current Level (Current Limit) For Car/Low Temp. Mode	2.5A
Bulk Charge Current Level (Current Limit) For Car/Low Temp. Mode	5A
Bulk Charge Current Level (Current Limit) For Motor Mode	1.5A
V _{BULK} For Car/Motor Mode	14.4V
V _{BULK} For Low Temp. Mode	14.7V
V _{FLOAT} High Level	13.5V
V _{FLOAT} Low Level	12.8V
Ripple & Noise(r.m.s)	10mV
Ripple & Noise(P-P)	150mV
Protection	Overload, Short Circuit, Over Temperature, Reverse Polarity, No Spark For Battery Connected, Short Output and 24HR MAX. Charging Time.
Construction	Poly-carbonate Casing, Water Resistant
Cooling System	Natural Convection
Approvals	CE EN55014 EN60335
Weight	Approx. 500g
Dimensions(LXWXH)	150x60x30mm



* SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE *