

# HIGH POWER SMART BATTERY CHARGER

SBC-8139, 8239

## Description

The software based MCU control 4 stage charger is designed with user friendly features and software plus hardware protections. It is a set, connect and forget charger that ensures complete recharge of your battery. Your battery can be connected indefinitely to the charger which will enter into energy conservation mode to prevent over charging and save electricity bills. The battery state of charge and temperature are closely monitored, updated & logged by the MCU and the remote temperature sensor mounted on the supplied charger cable and heavy duty battery clamps. Though the charger basically is engineered to charge high capacity battery/ banks, it can be made to charge much smaller battery by selecting the right reduced output setting. This charger can also be converted to a fixed voltage power supply with one simple concealed switch setting.

The extensive protections with alarm & LED indications including the thermostatic decrease of charging current to shut down ensure a durable working life span even in harsh conditions for the charger and the battery.

There are selections for Wet, AGM, GEL and LiFePO4 battery types.

Special evaluation, re-conditioning charging profiles are made for the Wet type battery.



## Features

- Software based MCU control 4 Stage Battery Charger.
- Fixed Voltage Power Supply selectable.
- Selectable for Wet/ AGM/ GEL and LiFePO4 batteries.
- Adjustable maximum charging current from 20% to 100% for wide range of battery AH.
- Extensive protections with alarm and LED indicators.
- Auto decrease of charging current in high working temperature to shut down.
- LED indication for charging stage and protection status.
- Supplied with charging cable and clamp mounted with the wired remote temperature sensor.
- Night mode & Low mode selection to reduce charging current by half.

## Specifications

Models	SBC-8139	SBC-8239		
AC Input Voltage	200-240VAC, 50Hz~			
AC Input Current at Full Load (at 230VAC)	2.9A			
Output (Charge) Voltage Selections				
Mode	Absorption	Float	Absorption	Float
WET	14.4V	13.5V	28.8V	27.0V
AGM	14.3V	13.2V	28.6V	26.4V
GEL	14.1V	13.7V	28.2V	27.4V
LiFePO4		13.5V		27.0V
Recondition (for WET battery only)	15.9V / 3A		31.8V / 3A	
Power Supply Mode	13.3V		26.6V	
Maximum Output Charging Current	25A		13A	
Soft Start Bulk Charge				
Battery Voltage to Trigger (cut-in) Soft Start Bulk Charge Mode	<11V		<22V	
Soft Start Bulk Charge Current Level (current limit)	1/2 of the charging current			
Ripple & Noise (peak-peak)	<200mV			
Efficiency at WET (230VAC)	≥85%			
Protections	Short Circuit, Over Temperature, Reverse Polarity (by mosfet), Overload, OVP (O/P Tracking/ Fixed over voltage protection selectable)			
Thermal decrease of charger output power	Yes			
Cooling System	Thermostatically controlled variable speed fan (0-full speed)			
Approval	CE EN 60335, 55014, 62233			
Charge Cycle, Protection Indicator	LED Indicators for Charging Status, Mode & Fault			
Plastic Housing with Mounting Flange	Yes			
Dimension (WxHxD)	220x80x140 mm 8.7x3.2x5.5 inch			
Weight	2 kg 4.4 lbs			
Recommended Battery Capacity Range	20-250AH		10-125AH	

\* All values are based on the Standard ambient Temperature 25°C and Pressure 0.1Mpa.

\* SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE