

IN-CAR BATTERY CHARGER for Lead & LFP batteries

SBC-6000 Series



Optional Remote Control SDR-5100

Description

Optimal Efficiency 92% with Digital Control

The high power conversion efficiency allows quiet and cooling running of the charger and can provide continuous full load operation at 40°C ambient temperature.

Designed to cover old and new types of car alternators

The SBC-6000 series are designed to address the issues of wide swing of output voltages from the smart alternator, braking regenerative EURO 5/ 6 vehicles in fully charging the house battery. They are also suitable for use with distant house battery. The charger Booster provides fast safe charging profiles for 4 types of lead based and 2 types of Lithium FePO4 batteries.

Multistage Charging

This is a select (battery type) and forget charger designed for fast accurate and safe recharge of your house battery banks. The (digital control) smart multistage charging enables the charger to be connected permanently to your battery banks without the worry of over charging or drying out the electrolyte.

Lead acid based Battery

A 3 Stage Bulk, Absorption & Float charging profile for 4 types of lead acid based battery with maximum constant charging current at the Bulk Stage and a Constant Voltage with decreasing charging at the Absorption Stage and a reduced voltage Float Charge for maintenance when battery is full.

LiFePO4 (LFP) Battery

A 2 Stage charging is specially for 2 types LiFePO4 battery and charging current stops at the end of Absorption stage.

Three Charge Control Methods:

- Ignition Control:** Charger starts charging only when ignition is on and stops charging when Ignition is off. This is the recommended control as it is safer and allows for large input voltage range.
- Input Voltage Control:** This is for non-intelligent or older type alternators with sufficient high & uniform voltage. Charging is cut off easily due to high threshold voltage to protect the starting battery.
- Vibration Sensor Control:** Charger starts charging when repeated vibrations are detected and stops charging when no vibration is detected for over 2 minutes. The built-in vibration sensor makes it possible to use the charger by just connecting to the starter terminal without touching the car's electrical/electronic wiring thus avoiding any possible excuse for revoking the car's warranty.

Supplied accessory:

Remote battery temperature sensor allow the charger monitor battery temperature and automatically compensate the charging voltage according to battery temperature for Lead Acid based battery only. It protect the battery by cut off output of charging whenever battery temperature are too high or drop below -5°C.

Optional accessory:

With optional SDR-5100 remote control, it enables to set 2 additional User defines charging profile on top of the 6 build-in battery types. The SDR-5100 remote control come with 4m cable which extend the display from charger to your panel. You can set battery type, ignition control ON/OFF, Float charge ON/OFF on control as well as monitor the current charge status.

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

* SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

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Features

- Up to 1650Watt power conversion efficiency >90%.
- 6 selective charging profiles suitable for charging for the most lead acid & Lithium FePO4 batteries.
- Supplied with a remote Battery temperature sensor to ensure precise and safe charging in large temperature variation.
- 3 types of operation control to choose for specific situation.
- Alarm signal (fault or not charging) available to integrate with your system.
- Thermostatically speed control Fan, Air Convection for SBC-6102.

Protections

- Self recoverable Input under voltage protection.
- Self recoverable Input over voltage protection.
- Self recoverable Output over voltage protection
- Self recoverable Overcurrent protection
- Self recoverable Charger over temperature protection

Specifications

Models	SBC-6102	SBC-6104	SBC-6106	SBC-6111	SBC-6126	SBC-6143	SBC-6326	SBC-6343
Rated Output Power	20A@13.8V	40A@13.8V	60A@13.8V	110A@13.8V	60A@27.6V	26A@55.2V	60A@27.6V	26A@55.2V
Optimal Efficiency	≥92%							
Input								
DC Input Voltage Range	9-16V						9-32V	
No load Input Current	<20mA							
Output Voltage for Different Battery Type								
Battery Type	Output Voltage (Absorption / Float)							
Lead	14.4V / 13.3V		28.8V / 26.6V		57.6V / 53.2V		28.8V / 26.6V / 57.6V / 53.2V	
Lead 2	14.6V / 13.5V		29.2V / 27.0V		58.4V / 54.0V		29.2V / 27.0V / 58.4V / 54.0V	
AGM	14.2V / 13.1V		28.4V / 26.2V		56.8V / 52.4V		28.4V / 26.2V / 56.8V / 52.4V	
AGM 2	14.7V / 13.6V		29.4V / 27.2V		58.8V / 54.4V		29.4V / 27.2V / 58.8V / 54.4V	
LiFePO4	14.4V / Stop		28.8V / Stop		57.6V / Stop		28.8V / Stop / 57.6V / Stop	
LiFePO4 2	14.8V / Stop		29.6V / Stop		59.2V / Stop		29.6V / Stop / 59.2V / Stop	
Additional Output								
Alarm Output	12V 100mA							
12V signal for ignition use	12V 50mA							
Charge ON/ OFF for Different Setting Mode								
Mode	Condition							
Vibration Sensor Mode	Charge ON: Input 11-16V ; Charge OFF: Input <9V							
Ignition Control Mode	Charge ON: Input 11-16V ; Charge OFF: Input <9V							
Input Voltage Control Mode	Charge ON: Input 13.5-16V ; Charge OFF: Input <12.8V							
Accessories								
Accessories	Battery Temperature Sensor							
Optional Accessories	Remote Control SDR-5100							
Approval	CE Compliance							
Cooling Method	Thermostatically Controlled Variable Low Speed Fan, Air Convection for SBC-6102							
Dimension (LxWxH) mm	123x130x56	163x130x56	233x130x56	268x130x73				
Weight	0.62 kg	0.82 kg	1 kg	1.8 kg				
Operation Temperature	-10° to +50°C (Full load at +40°C)							

* Contact us (https://www.manson.com.hk/contact_us/contact-us/) for more details and models which are not listed in the above table.

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