DC-DC BATTERY CHARGER

SBC - 5926

20A Dual Input (Solar MPPT & DC) in-car charger

Manson®

Description

A smart auto defined 12V/24V input system to charge 12V battery in 3 stages.

When input is connected to both solar (max. 30V) and DC source (9-32V), the charger will take all available solar power and fills up the rest max output power from car's DC source. Solar power is the priority power source when available and DC source fills in when solar power diminishes. The solar charging mode is operating under MPPT algorithm to provide maximum charging efficiency.

It supports PV panel with max. 30V open circuit voltage and 9V to 32V DC source.

There are 3 selectable charging profile designated for Lead/ AGM/ LiFePO4 battery.

The adaptable wide input range and 3 stage charging ensure a complete full charge of your auxiliary battery even at a distance from the starting battery as in trailer and caravan.

When charger is set at automatic ignition mode, charging from DC source (starter battery) stops when ignition is turned off but the solar charge will continue.

The advanced micro-processor control and hard ware based protections will give timely input low voltage cut off to further protect your starting battery from going flat in addition to protections listed .

The wide input voltage range with smart protections make this charger suitable for all alternators system including Start-Stop, Euro 6 and smart alternator.

Features

- Dual Input Source: Solar and DC source from alternator/ starting battery.
- Auto- priority source to solar when available.
- 3 Stage charge for Lead/ AGM and 2 stage charge for LiFePO4.
- Complete charging of auxiliary battery for all alternator systems; Start Stop, Euro 6. and even at a distance from starting battery.
- Automatic Ignition Control to stop charging from starting battery when ignition is off.
- User preset over-ride for manual ON-OFF charging function.
- Low Voltage Cut Off Protection for starting battery as DC source.
- Input Over Voltage Protection (>33V) by thermal fuse.
- Self Recoverable:
  - Input Under Voltage Protection.
  - Overload Protection (CC) with constant current at reduced output voltage.
  - Over Temperature Protection.
  - Wrong Polarity Protection for both Input and Output.
- Supplied with accessory Remote LED Indicator Module showing:
  - Battery voltage level when no load connected to battery or Output Voltage from charger.
  - Bulk/ Absorption / Float Charging Stage.
- Optional accessory AVS-8025 vibration sensor to automatically control the On-Off charging operation without touching the car's electrical system at all. This is ideal for non-technical users.

Specifications

Rated Output Power	20A at 13.8VDC	
Efficiency	≥90%	
Input Voltage		
DC Input Voltage Range	9 - 16VDC (12VDC Input) / 18-32VDC (24VDC Input)	
Maximum Solar Panel Open Circuit Voltage	30VDC	
Output (Charge) Voltage		
Battery Type	Absorption	Float
Lead	14.4V	13.5V
AGM	14.7V	13.6V
LiFePO4	14.2V	Stop
No Load Input Current	<25mA	
Protections	Over Temperature Protection, Low Voltage Cut Off, Output Over Charging Current, Output Over Voltage Protection, Input Over Voltage Protection, Input Under Voltage Protection, Input/ Output Wrong Polarity	
LVD Voltage with ignition mode	<9V (12V system) / <18V (24V system)	
LVD Voltage without ignition mode	<13V (12V system) / <26V (24V system)	
LVR Voltage with ignition mode	>11V (12V system) / >22V (24V system)	
LVR Voltage without ignition mode	>13.4V (12V system) / >26.8V (24V system)	
Size (L x W x H)mm	200 x 130 x 55 mm	
Weight	Approx. 1 kg	
Accessories (Supplied)	Remote LED Indicator Module (with 2M cable), One plastic wire guide, 4 heavy duty electrical eye connectors, Double side sticker tape	
Accessories (Optional)	Vibration Sensor AVS-8025	
Recommended Cable Size		
Cable Length	Recommended SAE	
1 - 5 Meters	8 AWG	
5 - 9 Meters	6 AWG	

- All values are based on the Standard ambient Temperature 25°C and Pressure 0.1Mpa.
- SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE