

PROGRAMMABLE DC-DC CONVERTER with battery charger function

SDC-5330, 5340, 5360



Description

This new series of non-isolated digital DC-DC Step Down Converter with micro-processor control for fine adjustment of output voltage to optimally suit the loading condition.

The 3 digit LED display shows: output voltage, current, operation mode and fault status

It is further equipped with 4 special features:

1. A full powered 2 Stage Charger with 14.3V Bulk & 13.6V Float Charge.
2. A Remote Control terminal that turns off the converter when the Ignition is switched off, preventing discharging of starter battery. This terminal can be used with other external on-off switch set up.
3. A Remote Voltage Sensing at load point to ensure accurate output voltage for distant load/ battery to ensure optimal operation.
4. An independent, separate and always-on output (0.5A 13.8VDC) for essential devices such as security system that requires a permanent dc source. It can also be used for the remote on off switch.

Features

- Micro-Processor Control with switching mode power design.
- 19 -36VDC Input with adjustable Output 12 to 15VDC in 0.2V step.
- 3digit LCD display for Current, Voltage, Operation Mode and Protection Diagnosis .
- 2 Stage full powered charger mode with 14.3V bulk and 13.6V float charge.
- Remote Voltage Sensing for optimal powering of distant load or charging battery.
- Remote control terminal auto On/ Off with ignition control and other external on/off switch.
- An independent always-on auxiliary output (0.5A, 13.8V) to power critical electronic device or the remote on off switch.
- 8 fail- save protections of which 6 with diagnostic code at the LED display.
- Input under voltage warning has remote alarm connection.
- Optional accessory AVS-5025 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.

Extensive Protections

Multi-stage software based safety device with early warnings of impending shut down faults for low input voltages. Most of the protections are self recoverable when conditions return to normal with 6 diagnostic code on the LED display.

- Input under voltage (self recoverable)
- Input over voltage (internal fuse)
- Output over voltage (self recoverable)
- Output short circuit (self recoverable)
- Output overload (self recoverable)
- Output (battery) reversed polarity (internal fuse)
- Over temperature (self recoverable)
- Fan Stuck Fault (jammed object removed -> self recoverable)

* 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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Specifications

Models	SDC-5330	SDC-5340	SDC-5360
Input Voltage Range	19-36DC		
Output Voltage	13.8VDC		
Adjustable Output Voltage Range	12-15VDC (0.2V increments)		
Continuous Output Current	30A	40A	60A
No Load Current	<50mA		
Efficiency	≥90%		
Protections	OVP (Output Over Voltage Protection), Overload, Input Reverse Polarity, Over Temperature Protection, Output Short Circuit Protection		
Aux. Output (Always ON)	13.8VDC / 0.5A		
Two Stages Battery Charger	Bulk 14.3VDC, Float 13.6VDC		
Output Remote ON/OFF Control	Yes		
Remote Sense	Yes		
External Alarm Output	13.5VDC / 0.25A		
Indicators	3digits LED display for V, A & Fault Indication, Battery Charger Indicator		
Cooling System	Thermostatic Control Fan		
Operating Temperature	-10°C to +50°C		
Accessories (Supplied)	4 Cable lug connectors, One 400V 3A diode		
Accessories (Optional)	Vibration Sensor AVS-5025		
Approvals	CE EN 55014		CE EN 61000
Dimensions (WxHxD)	130x55x180 mm 5.2x2.2x7.1 inch	130x55x200 mm 5.2x2.2x7.9 inch	
Weight	1 kg 2.2 lbs	1.2 kg 2.6 lbs	
Recommended Battery Capacity Range	100-300AH	130-400AH	200-600AH

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