

# ROC-SOLID

## SOLAR CONTROLLER



## SC Series Solar Controller Features

- Available for 12V/24V (automatic voltage detection) & 48V systems
- Available in 10, 20, 40 and 60 Amp units
- LCD display shows battery volts, charging and load current alternatively
- LED status indicators for charge and load operation
- Data logging of charge and discharge currents
- Two stage charging (Float & Boost)
- Reverse polarity protection for solar panel input
- Reverse polarity protection for battery
- Automatic temperature compensation
- Lightning surge protection

## Features

The ROC-SOLID SC Series Solar Controllers incorporates the following features :

- Available for 12V/24V (automatic voltage detection) & 48V systems
- Available in 10, 20, 40 and 60 Amp units
- LCD display shows the battery volts, charging and load current alternatively
- LED status indicators for charge and load operation
- Data logging of charge and discharge currents
- Controller can simultaneously charge battery and supply load
- Reverse polarity protection for solar panel input
- Two stage charging (Float and Boost)
- On completion of charging, maintain the battery on 'float charge'
- Prevention for battery over-charging
- Prevention for battery over-discharging
- Reverse polarity protection for battery
- Automatic temperature compensation
- Load over current protection
- Load short circuit protection
- Automatic load disconnect at low battery voltage
- Automatic load reconnect upon battery voltage recovery
- Lightning surge protection

The ROC-SOLID SC Series Solar Controllers are an affordable entry level range of product which uses a microprocessor to provide SOC (State Of Charge) management functions, This in turn controls the charge current to the battery using PWM technology and controls the supply of power to the load(s) according to the voltage and capacity of the battery.

The ROC-SOLID SC Series Solar Controllers offer a complete battery management and load control product designed for small, medium and large 12V, 24V and 48V solar power systems, with units available from 10Amp to 60 Amp. Applications include RAPS (Remote Area Power Supply), recreational vehicles, boating, remote telemetry, camping and general solar enthusiasts.

The on-board LCD and menu keys allow you to navigate through the 'easy to read' menu system to display controller temperature, total Ampere hours logged for battery charge, total Ampere hours logged from battery to load, the controllers "State of Charge" indicating the percentage condition of the battery along with user definable settings. The display will cycle through and display the instantaneous measured battery voltage, charge current and load current in sequence, via the single push of a button. Each will be displayed for about 5 seconds.

LED Status indicators provides an immediate visual indication via a red LED for battery charge rate - fast charge (ON) or float charge (flashing) and a green LED for load control - load connected (ON) or disconnected (OFF)

## Technical Specification

Model	SC-2410	SC-2420	SC-2440	SC-2460	SC-4840	SC-4860
<b>LCD Display</b>	No	Yes	Yes	Yes	Yes	Yes
<b>Data Logging</b>	No	Yes	Yes	Yes	Yes	Yes
<b>Rated Voltage</b>	12V/24V Automatic voltage detection				48V	
<b>Maximum Solar Current</b>	10 Amp	20 Amp	40 Amp	60 Amp	40 Amp	60 Amp
<b>Maximum Load Current</b>	10 Amp	20 Amp	40 Amp	60 Amp	40 Amp	60 Amp
<b>Full charge cut out Voltage</b>	13.7V/27.4V				54.8V Default (user settable)	
<b>Low voltage cut out Voltage</b>	10.5V/21V				42V Default (user settable)	
<b>Temperature compensation</b>	-3mv/degrees C/cell					
<b>No Load loss</b>	≤10mA	≤20mA (when configured in 12V system)			≤40mA	
		≤30mA (when configured in 24V system)			na	
<b>Max wire diameter</b>	3mm <sup>2</sup>	6mm <sup>2</sup>	8mm <sup>2</sup>	8mm <sup>2</sup>	8mm <sup>2</sup>	8mm <sup>2</sup>
<b>Ambient temperature</b>	-25C to +55C					
<b>Solar Panel input Voltage</b>	20V (12V System)				60V	
	40V (24V System)				na	
	*note: panel, battery and load nominal voltages should always be the same					
<b>Solar Panel Voc Max</b>	50V				100V	



For further information contact

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