

## SMC-02 Solar Module Controller

### ■ Features

- Power Tracking – Automatic Voltage Steering
- Works with a panel in all light conditions
- Class 1 Div 2 rated
- Designed for 12 Volt Sealed Lead Acid Batteries
- LED Indication of charging or fault status
- DIN rail mountable
- Solar panel and battery temperature monitored / compensation
- “Ideal Diode” output to the battery stops any reverse leakage when there is no energy from the solar panel
- Very low power circuitry lets your all solar cell’s energy be used to charge the battery and not be wasted running the module (quiet switcher technology).



### ■ Operational Description

The SMC-02 is an efficient solar module controller that can be used to keep a sealed lead acid battery topped off with a solar panel while handling as low as 5 watt solar panels and up to 40 watt size.

Designed for use in harsh places, the SMC-02 is Class 1 Div 2 approved. The controller features built in battery and solar module temperature compensation.

Features a charge rate of up to 2 amps.

The SMC-02 automatically steers the voltage to the point of maximum power output of the solar panel even though the output is varying due to light intensity changes. Standard solar controllers will simply stop charging the battery when illumination levels are below the chargers full power requirements. This Maximum Peak Power tracking gives you 10- 40% more energy from your panel.

If your panel is in a low light area this may be the difference of no charging from a standard controller to moderate charging from this controller, thus keeping the battery alive.

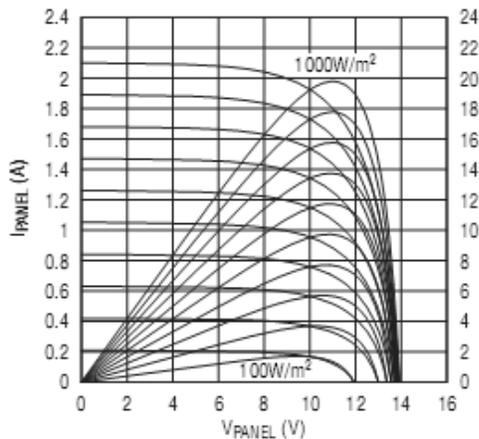
### ■ Applications

- Charging battery powered, remote equipment, with up to 40 watt solar panels
- Mates with SPS-1212 System for powering equipment
- For use with low power equipment as SMC-02 is extremely low power standby allowing usage of smaller panel and battery than typically used

■ **Technical Specifications**

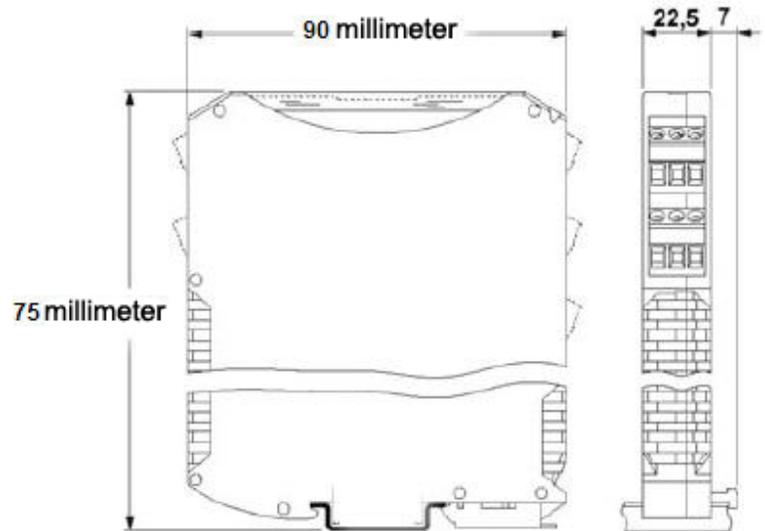
<b>Power Requirements</b>	
• Solar Panel Voltage Range	14-30 V
• Solar Panel Wattage Range	up to 40 W
• Load Current Range	up to 4 A
• Current consumption:	
To/From battery with no load	0.022 Milliamps
To/From Solar Panel No Load	0.265 Milliamps
• Charging start voltage	13.45 volts
<b>Environmental</b>	
• Standard	-40 to 80°C (-40 to 176°F)
<b>Physical</b>	
• Enclosure	Plastic, DIN Rail Mountable
• Size (inches)	3.5 x 0.88 x 2.95
• Size (cm)	9.0 x 2.25 x 7.5
• Weight	
- SMC-02	0.025kg (0.055 lbs)
<b>Approvals</b>	
• Class 1 Div 2 Groups C, D, T3	
• CSA Std C22.2 No 213, 14, E79-15-95	

Specifications are subject to change without notice.



Maximum power output occurs at the knee of each curve, where the SMC-02 will steer the solar modules output voltage.

■ **Enclosure Dimensions**



■ **Ordering Information**

Model	Description
SMC-02	Solar Module Controller
SMS-1212	Solar Module System including SMC-02

**Power Supply Options:** 12V 12 Amp Hour SLA Battery and 40 Watt Solar Panel

**Enclosures:** Steel or fiberglass with power supply and backup battery, predefined for mounting the module.