

# PV CHARGE CONTROLLER

PVC - 7840

12 / 24VDC 40A Programmable PV Charge Controller

Manson®

## Description

This controller is designed for the discerning users who want to have more say in the controls of charging profile, load programs, battery disconnect & reconnect settings specifically fine tuned for their solar systems.

The 4 buttons and LCD allow instant monitoring of status of the solar system and easy set up and reviews of all control parameters.

There are 15 intuitive sets of user adjustable and select settings which cover battery types, charge voltages, absorption time, EQ charge, voltage and delay time of LVD, voltage of LVR, 2 night light and 2 day light load program and etc.

A modular RJ-45 port is available for remote trigger signal or on-off control an alarm or other external device such switching on/off a charger or an inverter with reference to the status of LVD or load program of the charge controller.

The added battery remote voltage sensing terminal provides accurate and safe charging and allow longer battery leads to controller.

The Remote Battery Temperature Sensor provides real time monitoring of battery temperature for the controller to proactively compensate of charging voltage. That intelligently prevents over charging and under charging due to seasonal temperature change.

The USB charging port (with selection for Apple or Android based smart phones, tablets) provides a 5V and up to 800mA charging to mobile electronic devices.

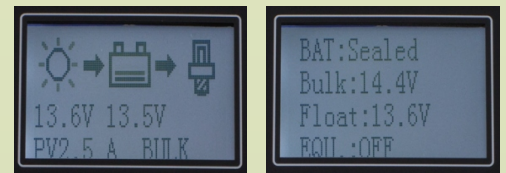
## Protections

- PV over Voltage protection
- Battery Over Voltage protection
- Over charging current protection (self recoverable)
- Over Load protection (Load terminal) (self recoverable)
- Battery reverse polarity protection (self recoverable)
- PV input reverse polarity protection (self recoverable)
- Back current blocking to PV panel protection (self recoverable)

## Specifications

## Features

- 12 / 24V, 40A system selection
- LCD (with on-off back light) shows all power status of solar, charging & load status in one display.
- 3 Stage charging plus Equalization for wet battery, PWM regulation for Absorption & Float charge
- Adjustable charging profile, LVD voltage & delay time, LVR voltage, 2 Night Light and 2 Day Light load programs
- Remote trigger or on/off control capability for external alarm and devices to operate at the same time as the load control and LVD of the charge controller .
- 7 day Ampere Hour records
- Remote battery temperature sensor
- Remote battery voltage sensing
- USB charging port for charging portable electronic devices



	12V Batt. System	24V Batt. System
<b>System Battery Operation Range</b>	4-16V nominal 12V	8-32V nominal 24V
<b>Max. Continuous PV Open Circuit Voltage</b>	30V	60V
<b>Max. Charging Current</b>	30A	
<b>Max. Output Current at Load Terminal</b>	20A	
<b>Absorption Charge Voltage Adjustable Range</b>	13-16V	26-32V
<b>Float Charge Voltage Adjustable Range</b>	12-15V	24-29V
<b>Default Equalization Voltage for Wet type Lead Acid Battery 14day Auto Charge or Manual</b>	Yes	
<b>Battery Low Voltage Disconnect LVD Adjustable Voltage Range</b>	9.5 - 13.5V	19 - 26V
<b>LVD Delay Time (default set at 30seconds) Selection</b>	30 seconds or 3 minutes	
<b>Battery Low Voltage Reconnect LVR Adjustable Voltage Range</b>	11.5 - 15.5V	21 - 28V
<b>LVR Delay Time</b>	5 minutes default setting only	
<b>Standby Current with LCD back Light off</b>	30mA	30mA
<b>Operation Ambient Temperature Range</b>	-10 to +50°C	
<b>Protections</b>		
<b>Over Temperature Protection (Self Recoverable)</b>	Yes	
<b>Over Voltage Protection at PV Terminal</b>	Yes	
<b>Over Voltage Protection at Battery Terminal</b>	Yes	
<b>Over Charge Current Protection (Self Recoverable)</b>	Yes	
<b>Over Current Protection at Load Terminal (Self Recoverable)</b>	Yes	
<b>Self Recoverable Electronic Protections</b>	Batt. Reverse Polarity, Batt. Terminal Short Circuit, PV Reverse Polarity, PV Short Circuit, Short Circuit Protection at Load Terminal	
<b>USB Charging Port for Apple iPad, iPhone and Tablets Smart Phone</b>	5VDC 1A Max.	
<b>Remote Temperature Sensor</b>	Yes	
<b>Dimension (L x W x H)</b>	150x200x64mm 5.9x7.9x2.5inch	
<b>Weight</b>	1.1kg 2.5lbs	

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

■ SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE