

Solar Controller / Battery Charger

MODEL: RS-PWM30WP

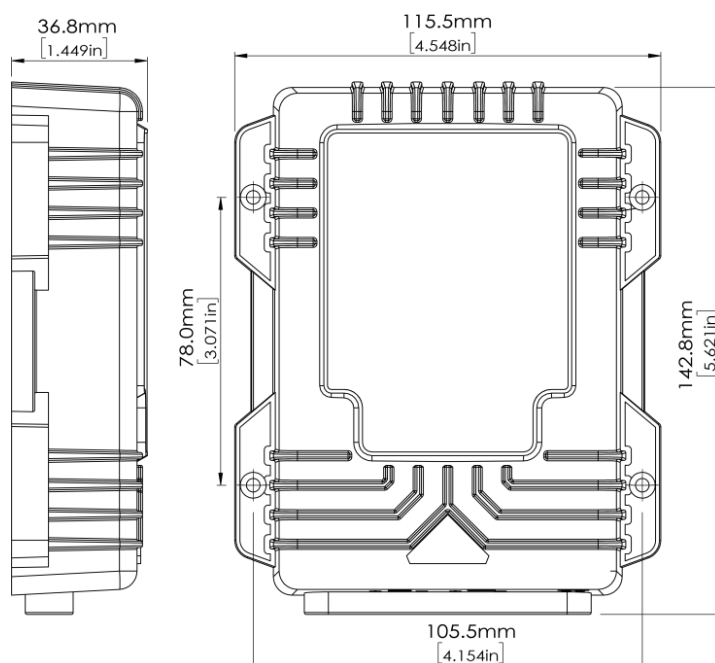
FEATURES AND ADVANTAGES

- PWM technology, switching control by MOSFET
- Common Positive Grounding connection
- High efficiency and low power consumption
- Battery type setting and battery condition indication
- Smart charging control
- Charging time management
- LED indication for the battery condition and charging statuses
- Digital display charging parameters and battery settings
- Automatically active to Lithium battery against BMS protection
- Thermal protection
- Over voltage protection, Short circuit protection, Reverse polarity protection
- No sparks
- Waterproof
- Solid-duty cables
- Corrosion-resistant terminals and connectors
- Conformal coating supplied to the inside board against moisture
- Includes a port for external battery temperature sensor (BTS - optional)
- Suitable for most of the rechargeable Lead acid battery, including Flooded (WET), AGM, GEL, Calcium battery and Lithium batteries
- Designed according to CE standard, EMC, FCC compliance



MOUNTING THE DEVICE

The quickest and easiest way to mount the unit is to use the four plastic spacers and self-tapping screws supplied and mount the unit to a flat surface.



SPECIFICATION

ELECTRICAL PARAMETERS	Rated Solar Panel Amps	Max. 30A
	Normal Input Solar Cell Array Voltage	15-22 VDC
	Max. Solar Cell Array Voltage (Output Has no Load)	Max. 25 VDC
	The Controller Lowest Operating Voltage at Solar or Battery Side	8 VDC
	Standby Current Consumption at Night	5 mA
	Maximum Voltage Drop-Solar Panel to Battery	0.25 VDC
CHARGING CHARACTERISTICS	Minimum Battery Starts Charging Voltage	3 VDC
	Soft Start Charging Voltage	3-10 ± 0.2 VDC
	Soft Start Charging Current (50% PWM Duty)	Up to 15 AMP
	Bulk Charge	By the max. rated current
	Absorption Charging Voltage at 25°C	
	- Gel Type Battery	14.1 ± 0.2 VDC
	- AGM Type Battery (Default Setting)	14.4 ± 0.2 VDC
	- WET Type Battery	14.7 ± 0.2 VDC
	- Calcium Type Battery	14.9 ± 0.2 VDC
	- LTO Battery	14.0 ± 0.2 VDC
	- LFP Battery	14.4 ± 0.2 VDC
	Absorption Transits to Equalizing or Float Condition:	
	- Charging Current Drops to	1.5 ± 0.1 AMP
	- or Absorption Charging Timer Timed out	4h
	Equalization Charging Active (Only for WET or Calcium Battery)	
	- Battery Voltage Discharged to Less Than	10 ± 0.2
	- Automatic Equalizing Charging Periodical	28 Day
	Equalization Charging Voltage at 25°C	15.5 ± 0.2 VDC
	Equalization Charging Timer Timed out	2h
	Float Voltage (GEL, WET, Calcium, AGM battery) at 25°C	13.6 ± 0.2 VDC
	Restart Voltage for LTO Battery	13.2 ± 0.2 VDC
	Restart Voltage for LFP Battery	13.4 ± 0.2 VDC
	Voltage Control Accuracy	± 0.1 %
	Battery Temperature Compensation Coefficient	-24 mV/°C
	Temperature Compensation Range	-20~+50°C (-4°F to 122°F)
PROTECTION	Over Temperature Protection During Charging	65°C (149°F)
ELECTRICAL PARTS	Input Output Terminal	M5 terminals
PHYSICAL PARAMETERS	Controller Material	Plastic, Standard ABS
	Power Terminal Maximum Stranded Wire Size	#10 AWG stranded- 5 mm ²
	Power Terminal Torque	Up to 17 in-lb (1.92N·m)
	Mounting	Vertical wall mounting
	IP Grade	IP65
	Net Weight	Approx. 300g/0.66lb
ENVIRONMENTAL CHARACTERISTICS	Operating Temperature	-25 ~ 50°C (-13 ~ 122 °F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185 °F)
	Operating Humidity Range	100% no condensation