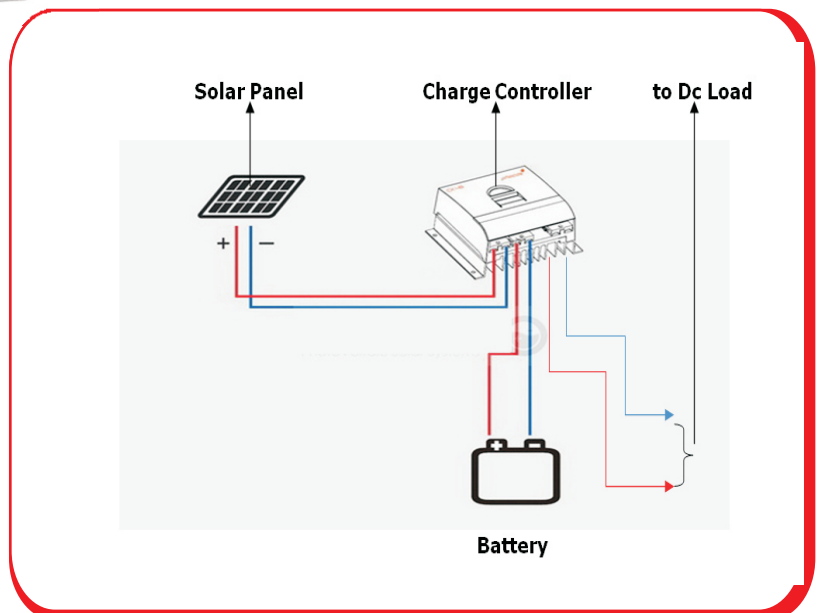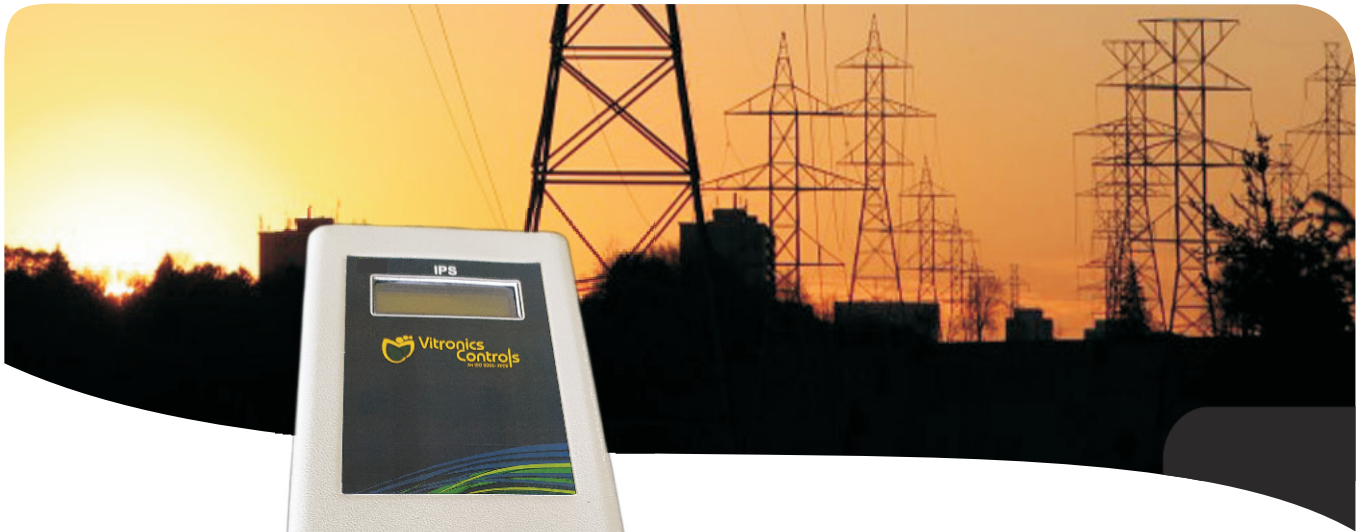# PWM (SOLAR CHARGE CONTROLLER)

Solar Panel   Charge Controller   to Dc Load

Battery

PWM (SOLAR CHARGE CONTROLLER)

A charge controller, or charge regulator is similar to the voltage regulator in your car. It regulates the voltage and current coming from the solar panels going to the battery. Most "12 volt" panels put out about 16 to 20 volts, so if there is no regulation the batteries will be damaged from overcharging. Most batteries need around 14 to 14.5 volts to get fully charged.

The final function of modern solar charge controllers is preventing reverse-current flow. At night, when solar panels aren't generating electricity, electricity can actually flow backwards from the batteries through the solar panels, draining the batteries. You've worked hard all day using solar power to charge the batteries; you don't want to waste all that power! The charge controller can detect when no energy is coming from the solar panels and open the circuit, disconnecting the solar panels from the batteries and stopping reverse current flow.

PWM (SOLAR CHARGE CONTROLLER)

GENERAL						
MODEL	**PWM1224/10A**		**PWM1224/20A**		**PWM12V 40A**	**PWM24V 40A**
DC Voltage	12V	24V	12V	24V	12V	24V
Precise	Micro controller					
Operating Temperature	0-50 °C					
Storage Temperature	-20* to 70* C					
Battery Type	Tubular					
Battery Capacity	200 AH Max.					
Battery Charging Regulation Mode	PWM					
Operating Solar Input Voltage (Voc) Max	22.5V	45V	22.5V	45V		
Solar Module Size(Max)	150W	300W	300W	600W	600W	1200W
ELECTRICAL						
Nominal Battery voltage	12/24V DC (Auto Sensing)					
SPV Chg. Voltage Boost	14.5V	29V	15.5V	31V		
Charging Current (max)	10A		20A		40A	
Load Current Max.	>95%					
Charge Controller Efficiency Idle Consumption	<30mA					
Min. Solar Input Voltage(Voc) @ Startup	17V ±2V	30V ±2V	17V ±2V	30V ±2V		
LED / LCD	LED	LED	LED/LCD	LED/LCD	LCD	LCD
LOAD CONDITION						
USB Port						
Battery Low Voltage Load Disconnect						
Battery Low Voltage Load Recovery						
Battery High Voltage Load Disconnect						
Battery High Voltage Load Recovery						
LED INDICATION						
Solar ON	Green					
Fault	Green					
Batt. Low	Red					
Load ON	Green					
DISPLAY PARAMETER						
Batt. Voltage, Batt. Current						
Solar Status: Overload						
Load Current						
Solar Wattage						
Solar PWH						
PROTECTION						
Battery High / Low	Available					
Battery Reverse	Available					
SPV Reverse	Available					
SPV High / Low	Available					
Reverse Current Flow from Battery to Solar	Available					
Panel Array	Available					
Load short Circuit through DC Fuce	Available					
PHYSICAL						
Weight	130GM		300GM			
Dimension (LXWXH) MM	75x132x36 mm		100x161x50 mm			

Protect Solar Charge Controller from direct Sunlight & Water.

Panel open circuit voltage should not to do be more than specified voltage

*Specification are subject to change without prior notice due to constant improvement in design & technology.