BHASKARA

Vitronics Controls
An ISO 9001- 2008

MPPT

A MPPT Solar Charger Controller is the change controller embedded with MPPT algoritum to maximize the amount of current going into the battery from PV module

MPPT Working

What is MPPT:

MPPT or Maximum Power Point Tracking is an algorithm included in this system which used for extracting maximum available power from solar panels under certain conditions. The voltage at which solar panels can produce maximum power is called 'maximum power point' (or peak power voltage). Maximum power varies with solar radiation, ambient temperature and solar cell temperature

How MPPT Works:

The major principle of MPPT is to extract the maximum available power from solar panel by making them to operate at the most efficient voltage (maximum power point). That is to say: MPPT checks output of solar panels, compares it to battery voltage then fixes what is the best power that panels can produce to charge the battery and converts it to the best voltage to get maximum current into battery.

TECHNICAL SPECIFICATIONS

Models available : 12 V – 360 V 40 A/ 60 A .

MODEL	VCMP 12V 40A	VCMP 12V 40A	VCMP 24V 60A	VCMP 48V 40A	VCMP 48V 60A	VCMP 72V 40A
Max Panel Wattage Wp	600W	1000W	1500W	2000W	3000W	3000W
Max Panel PV for MPPT	50V	100V	100V	160V	160V	250V
Solar I/P Voltage Range for MPPT	20-50V DC	30-100V DC	30-100V DC	60-160V DC	60-160V DC	90-100V DC
MPPT Range	15-40V	30-90V	30-90V	15-40V	50-60V	80-220V
OUTPUT SPECIFICATIONS						
Battery Voltage	12V	24V	24V	48V	48V	72V
Max Charging Voltage	14.2V	28.4V	28.4V	57V	57V	87V
Max Charging Current	40A	40A	60A	40A	60A	40V
PROTECTION						
Lightning (MOV)	YES	YES	YES	YES	YES	YES
Panel Reverse Polarity	YES	YES	YES	YES	YES	YES
Battery Reverse Polarity (by fuse)	YES	YES	YES	YES	YES	YES
Short Circuit	YES	YES	YES	YES	YES	YES
Over Load	YES	YES	YES	YES	YES	YES
COOLING SYSTEM	FAN	FAN	FAN	FAN	FAN	FAN
INDICATIONS on LCD Display						
Solar Voltage	YES	YES	YES	YES	YES	YES
Battery Voltage	YES	YES	YES	YES	YES	YES
Solar Current	YES	YES	YES	YES	YES	YES
Generation of Solar Energy(Watts)	YES	YES	YES	YES	YES	YES
ENCLOSURE TYPE	IP20					
OPERATING TEMPERATURE	0-50C					

MODEL	VCMP 96V 40A	VCMP 120V 40A	VCMP 180V 40A	VCMP 2408V 40A
Max Panel Wattage Wp	4000W	5000W	8000W	10000W
Max Panel PV for MPPT	250V	250V	350V	450V
Solar I/P Voltage Range for MPPT	120-250V DC	140-250V DC	210-350V DC	260-425V DC
MPPT Range	100-220V	120-220V	200-330V	240-400V
OUTPUT SPECIFICATIONS				
Battery Voltage	96V	120V	180V	240V
Max Charging Voltage	115V	145V	218V	290V
Max Charging Current	40A	40A	40A	40A
PROTECTION				
Lightning (MOV)	YES	YES	YES	YES
Panel Reverse Polarity	YES	YES	YES	YES
Battery Reverse Polarity (by fuse)	YES	YES	YES	YES
Short Circuit	YES	YES	YES	YES
Over Load	YES	YES	YES	YES
COOLING SYSTEM	FAN	FAN	FAN	FAN
INDICATIONS on LCD Display				
Solar Voltage	YES	YES	YES	YES
Battery Voltage	YES	YES	YES	YES
Solar Current	YES	YES	YES	YES
Generation of Solar Energy(Watts)	YES	YES	YES	YES
ENCLOSURE TYPE	IP20			
OPERATING TEMPERATURE	0-50C			

*Prices subject to change without notice

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.

Authorised Dealer

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