MPPT SOLAR POWER GENERATION SYSTEM

MADE IN INDIA

MPPT SPGS
SOLAR POWER GENERATION SYSTEM

Salient Features

- Interactive multicolor LCD display
- Maximum Utilization of Solar Power
- Good Return on Investment
- Installation support & Service facilities
- Best Extended warranty & Maintenance plans
- Single Point responsibility for entire solution
- Multi Channel Interleaved MPPT Technology with Tracking efficiency- 99.5%
- More efficient and high reliable
- Smart Solar Selection for maximum utilization of Solar Power
- Remote Monitoring & Controlling of the Solar PCU through WI-FI/LAN/GPRS.
- Electrolyte contains special additives to get quick recovery from deep discharge

SMART PROTECTION BUILT-UP ON PCB

AC & DC MCB PROTECTION

NOISELESS OPERATION

EASY TO SERVICE AND INSTALLATION OPERATION

AVAILABLE RANGE

5KVA TO 20KVA

TECHNICAL SPECIFICATIONS*

Parameters	Normal Mode	UPS Mode
Mains AC Lower Voltage Limit	100 ± 5 VAC	180 ± 5 VAC
Mains AC Lower Recovery Volt.	110 ± 5 VAC	190 ± 5 VAC
Mains AC Higher Voltage Limit	280 ± 5 VAC	260 ± 5 VAC
Mains AC Higher Recovery Volt.	270 ± 5 VAC	250 ± 5 VAC
Output Voltage with full load in UPS/ Normal Mode	220 ± 10 V	
Battery Low Cut-Off Voltage (Settable)	10.4 ± 0.2 V (per Batt.) Default	
Mains O/p Frequency	Same as Input	
UPS O/p Frequency	50 ± 1.0 Hz	
Solar Charge Controller		
Technology	DSP based intelligent battery charging and Charge Sharing with Mains#	
Charge Controller Type	MPPT based	
Input Current per Channel (Max. Imp)	As per model	
Solar Battery Charging Current (settable)	50/70 Amps	
Solar Batt. Low Cut Voltage (Settable)	11.5V (Default)	
PV Reverse Polarity Protection	Available	
Reverse Current flow to PV Protection	Available	
Battery Charging		
Battery Charging Volt. Range (AC Input)	120 to 280 V	180 to 260 V
Mains Charging Current (Settable)	HC – 5-22A (range) NC – 25% less than HC	
Trickle Charging Current Limit	0.5 ± 0.3A	
Boost Voltage (settable)	14.4 ± 0.1 V (per Batt.) (default)	
Float Voltage	13.6 ± 0.2 V (per Batt.)	
Overload	100 + 3% (with Auto reset function	
Short Circuit Protection	> 300% Load (with manual reset function)	
Change Over Time	< 20 mSec upto 2.5KVA < 40 mSec 3.75KVA and above	< 10 mSec

*As a process of continuous product improvement, the specifications are subjected to change without notice.

TROUBLE SHOOTING

Problems and Symptoms	Possible Cause	Solution
No indication on LCD OR LCD not ON	Poor battery condition or Battery Fuse blown/ Battery MCB trip	Use new battery or make proper connections or replace battery fuse/ Reset the Battery MCB
'Overload' Fault with continuous buzzer #	System is Overload	Reduce the excessive load from the PCU & Off/ On system
Unit trips frequently at UPS mode	System is Overload	Reduce the load and reset the PCU
'Short Circuit' Fault with continuous buzzer #	House wiring Short Circuited	Get the House Wiring checked & Off/On system
'Thermometer' blink - Thermal Trip with continuous buzzer #	System under Thermal Trip/ shutdown	Call for Service support. There is overheat problem in the PCU
'Fuse Trip' Fault with continuous buzzer #	Mains MCB Trip	Reset AC mains MCB. Check and reduce the load connected to the PCU
'PV Reverse' Fault	Solar wires connected in reverse	Interchange the wires PV Panels at PCU end
Low surge power	Weak batteries cable too long	Refer the cable and battery recommendations in this manual
Empty 'Battery' Blinking with Continuous buzzer #	Battery low cut	Remove all loads and switch ON/OFF the system. OR Allow the battery to charge when the mains is resumed before running the system on the battery again.
Err1	LCD Communication Error	Contact to Auth. Service Center