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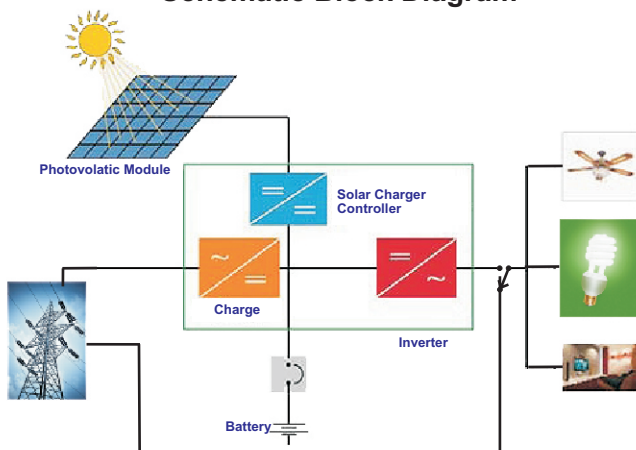
SOLAR PCU

Models - 400VA/600VA/800VA/12V 1000VA/1600VA/2500VA/24V 3500VA/5000VA/48V

DSP Based
5 Stage Battery Charging
Highlight Ruggedness
A Patent ALR Technology For Efficient Charging
Inbuild SBM Smart Battery Management



Schematic Block Diagram



Solar Hybrid Inverter (Power Conditioning Unit)

A solar Hybrid Inverter (PCU) can benefit the home in a variety of ways. Depending on the size, it can allow an establishment to remain unaffected in the event of power failure. It can also be used to simply cut the costs of daily energy use. Ideal for usage in homes, shoppes, Hospitals, Banks, schools etc.

The Power Conditioning unit, ensures maximum utilization of solar by prioritizing the control process. the panels usually bigger in size charges the battery enough to take care of not only backup during power failure; but also the entire load during night. The inverter automatically disconnects the EB/ Mains power supply and the inverter supplies the entire power to the load, saving electricity.

Solar PCU Features

- ▶ DSP based; less components, small size less electricity bill more efficiency.
- ▶ Soft Start features; protects appliances at start up.
- ▶ Last Fault Display and record : the system records the last fault and you can analyze it.
- ▶ Adaptive loss reduction process gives more efficient charging system.
- ▶ 5 stag battery charge control system for lower gassing and faster Charging
- ▶ In built SBM (Smart Battery Management) system to provide higher degree battery production & life
- ▶ Battery usage data is recorded for better evaluation of battery.
- ▶ Supply the highest quality pure sine wave power; protects your expensive
- ▶ household appliance & sensitive office equipments.
- ▶ Musical Alarm
- ▶ Highly cost effective design with special features to safeguard the mosfets to poor electrical quantity.
- ▶ Over load and D.C. low protection
- ▶ Software controlled Auto self testing
- ▶ Fully computer friendly UPS operation.
- ▶ Intelligent Auto sense; continuously monitors health of system.
- ▶ AC input low & high voltage cut off protections in both, inverter & U.P.S.modes.
- ▶ Silent operation of fans, tube light or appliances.
- ▶ Quick Change over from Mains to inverter mode.
- ▶ Software controlled Auto reset feature for over load, Short ckt & low battery.
- ▶ Very low no load current for prolonged battery operation under standby.
- ▶ Cooling fan improves reliability of system.

Solar PCU Technical Specification

MODEL	400VA/600VA/800VA/12V	1000VA/1600VA/2500VA/24V	3500VA/5000VA/48V
Input Voltage (UPS)	180-260V		
Input Voltage (INV)	130-280V		
Output Voltage on mains mode	Same as input		
Output Frequency on inverter mode	50Hz \pm 0.1Hz		
Display			
A.C Output Voltage of inverter, Mains Voltage input of inverter, Mains Frequency of the inverter, Inverter Load %, Battery Current Battery Level in %, Battery Status, Inverter Status, Inverter Error (if any), Solar Voltage, Solar Current, Solar watts, Solar KWH Solar Voltage, Days in service, Solar Status & mode of operation			
Bill reducing protocol	Available		
Output Waveform on mains mode	Same as input		
Output Waveform on inverter mode	PURE SINE WAVE		
Overload	110%		
Overload delay	0-20sec	Settable for handling motor loads	
Overload restart	5 times	Auto restart on over load	
Charging current	5amp till 20amps		
Charging process	5 stage charging process		
Data logged	Battery usage	Number of time battery discharged till warning and number times battery charged	
	Last Fault record.	Last Fault record.	
Mode control	Fast / slow	For computer applications select fast mode In fast mode transfer is within 4milli sec.	
Inverter Protection			
Unique protection scheme have been incorporated to enhance reliability.			
Reverse Phase	In the event of phase voltage wrongly connected to the inverter output safe shut down will occur		
Overload	In the event of overload system will shut down and restart 5 times		
Short Circuit	A short circuit on the output will be detected separately and lead to lock down.		
Over temperature	Excessive temperature rise due to poor cooling or fan failure will		
Under charged battery	cause shut down		

MODEL	400VA/600VA/800VA/12V	1000VA/1600VA/2500VA/24V	3500VA/5000VA/48V
Battery loose	Sparking or spikes on the dc bus will cause safe shut down and lock down.		
Battery deep discharge	Soft current build up in case of deep discharge battery		
Battery bad	In event a cell is dead or shorted a time out circuit will prevent prolonged charging.		
Auto reset features	Yes	Yes	
(Solar Charger) Protection			
Solar panel Reversed			
Solar panel shorted			
Solar switch Bad			
Inverter comm. failure			
Alarm	6 Separate audio tones		
DC high / battery loose			
Phase reverse or short			
Hot or fuse fail			
Overload / Output low			
Battery low or bad, Battery			
Water reminder			
SOLAR CHARGER SPECIFICATON			
PV Panel Input Voltage	15-21 V	30-43 V	
PV Panels Max	300/500/500 W	1000/1500/1600 W	
Output Voltage	12V	24 V	
Output Current, solar charging	10 to 40 Amp	10 to 40 Amp	

Our Other Power Product

								
Servo Stabilizer	Power Guard	Solar Home UPS	Solar I.P.S & MPPT	Grid Tie Inverter	Grid Sharing UPS	Solar Generator	Street Light	Online UPS

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.

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