Solar Power Conditioning Unit

- Advanced microprocessor to optimize operation processes
- LCD display
- Inbuilt MPPT/ PWM technology charge controller
- Solar prioritisation
- High efficiency
- Dual mode operation
- Advanced Bi-directional SMPS charger
- Pure sine wave output
- Good voltage regulation
- Over voltage / current protection

These Solar Power Conditioning Units are a new generation of inverters, changing DC energy from solar modules into clean, stable AC power. Phocos-PCUs are designed for highest efficiency: Integrated advanced microprocessor technology combined with pure sine wave output makes them the perfect choice to use with high-end electronics and electrical equipment. The combination of high quality MOSFETs with MPPT-technology and added Solar Prioritisation as an additional feature to offer you a device that is clearly ahead of its competitors.

***Charge Controller Specification:-**

Type	MPPT	PWM
Max Solar Input Voltage (Voc)	85V DC @ 12/24V 110V DC @ 48V	40V DC
Nominal Voltage	12 / 24 / 48V	12 / 24V
Solar Input Max / Min	55 / 18Vmp @ 12V 66 / 38Vmp @ 24V 90 / 66Vmp @ 48V	30Vmp @ 12V 40Vmp @ 24V
Max PV Input power	400Wp @12V, 1000Wp @24V, 1500Wp @ 48V	400Wp / 1000Wp
Charging Current (Imax)	30A @ 12V 40A @ 24V 30A @ 48V	30A @ 12V 40A @ 24V
Efficiency	>97% Peak	>92% Peak

Typical Loads Suitable for Usage:-

- Lighting load
- Table Fan / Ceiling Fan
- TV
- Computer

Note:-
Any Other Loads connect to the INVERTER please check with Manufacture

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Nominal output power	450VA 300W	650VA 500W	800VA 650W	1400VA 1000W	2000VA 1600W	2000VA 1600W
Battery Voltage	12V DC			24V DC		48V DC
Input Voltage range	110V AC to 275V AC ± 5 V AC					
Input frequency	49-60Hz ± 1%					
Output frequency	50Hz ± 1%					
Output wave form	Pure Sine Wave with less than 3% THD.					
Output voltage in INVERTER / UPS	230V AC ± 5%.					
Output voltage in MAINS	Same as Input Voltage					
Solar Charge controller*	MPPT / PWM					
AC Charging Current	2A to 10A Auto programmed					
Inverter efficiency	>85%					
Power factor	0.8					
Typical transfer time	<15ms in UPS Mode, < 40 ms in INVERTER Mode					
Battery LVD Cut off	10.8V ± 0.2V			21.6V ± 0.2V		43.2V ± 0.2V
Load Reconnection	12.6V ± 0.2V			25.2V ± 0.2V		50.4V ± 0.2V
System Output Condition:-	When the battery is fully charged, System output will be automatically change over to UPS / INVERTER mode, and resume back only by 11.5 V±0.2 V / 23±0.2V / 46±0.2V when PV is available					
Charging priority:	Battery is always charged through Solar as priority.					
AC Input Range INVERTER Mode	Grid Low cut off / Recovery : 110V AC ± 5V / 120V AC ± 5V Grid high cut off / Recovery : 270V AC ± 5V / 265V AC ± 5V					
AC Input Range UPS Mode	Grid Low cut off / Recovery : 170V AC ± 5V / 180V AC ± 5V Grid high cut off / Recovery : 250V AC ± 5V / 245V AC ± 5V					
Protection	Over Load, Over Charge, Phase Reversal, Over Temperature, Surge, PV Reverse Polarity, Reverse Current Flow, Phase Reversal, Over/Under input Voltage i. Operating safely for at least one minute at 125% of rated power. ii. Operating safely for at least ten seconds at 150 % of rated power. iii. Operating safely for at least five second at 200% of rated power.					
Displays	Battery Voltage, Load Level, UPS ON, Mains ON, MPPT ON / Solar ON, Battery Full					
Power Saving Recovery Time	5 Seconds					
DC Standby Consumption	<6 W					
Enclosure Rating	IP20					
Environmental	Operating temperature : 0°C to + 45°C Relative Humidity : 0 to 90% Non - Condensing					
Cooling	Thermostatically controlled cooling fan					
Dimension(H x W x L) mm	120 x 280 x 380 mm					135 x 293 x 393 mm
Weight	7Kg					7.5Kg