



INNOVATING

Energy Storage Solutions



MPPT SOLAR PCU
1KVA-10KVA
(1100VA-10000VA)

PWM SOLAR PCU
1KVA-2.5KVA
(900VA-2250VA)

We Support



MPPT & PWM SOLAR PCU

STANDOUT FEATURES



MPPT SOLAR PCU



Cutting-edge MOSFET-based PWM technology for high efficiency.



Intelligent software ensures seamless Solar-UPS functionality.



MPPT converter achieves over 95% peak efficiency



Smart PFC charger optimizes performance and efficiency.



MPPT tracking algorithm exceeds 99% efficiency



Reliable long backup with pure sine wave stability.



Smart MPPT charge controller for maximum power output.



5-stage charging with auto-equalization for extended battery life.



Extracts and utilizes maximum solar energy to reduce electricity costs.



Can function as a standalone DSP sine wave inverter.



Delivers powerful charging even at extremely low voltage.



Hassle-free installation with minimal maintenance required.



Pure sine wave output ensures silent and stable operation.



Built with 100% genuine, high-quality components.



Advanced thermal management for precise temperature control and safety.



User-selectable Hybrid, Smart, and Normal operating modes.



Ultra-fast protection system enhances durability and lifespan.



Dual LCD and LED display for real-time system monitoring.

*Conditions Apply

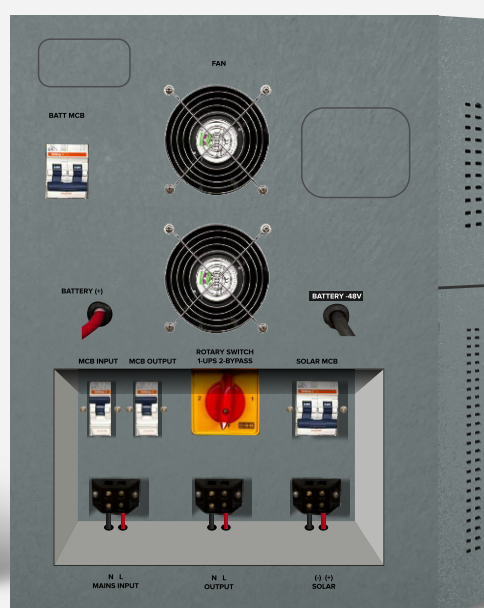
TECHNICAL SPECIFICATIONS



SOLAR HYBRID MPPT PCU

SOLAR HYBRID MPPT PCU	1450/12V	1800/12V	2875/24V	3500/24V	5500/48V	5500/48V	10KVA/96V	10KVA/120V
Parametere/VA	1100 VA	1500 VA	2750 VA	3100 VA	5200 VA	5200 VA	10000 VA	10000 VA
Wattage	1000 W	1200 W	2000 W	2500 W	4200 W	4200 W	8000 W	8000 W
Max Spv (wp)	1000 WP	1180 WP	2000 WP	2800 WP	4000 WP	4000 WP	8000 WP	10000 WP
Max Spv (Voc)	52 Voc	105 Voc	105 Voc	105 Voc	200 Voc	200 Voc	400 Voc	460 Voc
Number Of Batteries	1	1	2	2	4	4	8	10
Output Load	0.8 PF (Bulb Load)							
Grid I/P Range	Wide-Inverter mode 100V-280Vac/Narrow-UPS mode170V-260Vac							
Inverter Switching Device	MOSFET Based					IGBTs Based		
O/P Waveform	Pure Sine Wave							
O/P Volt (vac)	220±5%							
Frequency	50±0.15 Hz							
Peak Efficiency (Inverter Mode)	≥85%							
Peak Efficiency (MPPT Charging Mode)	Upto 97.5% (with synchronous Buck Converter Below 3 KVA)							
MPPT Topology	Smart HF Buck Converter (mosfet)					Smart Buck HF Converter (mosfet/igbts)		
O/P Modes	Solar/Grid/Battery (User Selectable)							
Operating Temperature	Upto 55 deg.cel							
Humidity	95% Non-condensing							
Cooling Type	Exhaust Fan							
Display (Dual)	Solar Voltage, Solar Current, O/P Voltage, Grid Voltage, Overload, Over Temp, Solar Over Voltage							
Protections	All faults are protected through electronics and software							
Alarm	Alarm for all faults are through electronics and software							
Priority	Solar then Grid/Battery							
Change To Grid	Automatic through software control							

Technical Specification is for reference, all working mode like charging and load feature will be set according to Li Battery



STANDOUT FEATURES



PWM SOLAR PCU



Cutting-edge MOSFET-based PWM technology for high efficiency.



Smart PWM charge controller for maximum power output.



Extracts and utilizes maximum solar energy to reduce electricity costs.



Delivers powerful charging even at extremely low voltage.



Pure sine wave output ensures silent and stable operation.



Advanced thermal management for precise temperature control and safety.



Ultra-fast protection system enhances durability and lifespan.



Intelligent software ensures seamless Solar-UPS functionality.



Reliable long backup with pure sine wave stability.



5-stage charging with auto-equalization for extended battery life.



Can function as a standalone DSP sine wave inverter.



Hassle-free installation with minimal maintenance required.



Built with 100% genuine, high-quality components.



User-selectable Hybrid, Smart, and Normal operating modes.



Dual LCD and LED display for real-time system monitoring.



Smart PFC charger optimizes performance and efficiency.

TECHNICAL SPECIFICATIONS



SOLAR HYBRID PCU	1100/12V	1400/12V	1750/12V	2500/24V
VA	900VA	1100VA	1500VA	2250VA
Wattage	720W	880W	1200W	1800W
Battery Voltage	12V	12V	12V	24V
Max Solar Pannel Wattage	600W	750W	1400W	1500W
Rated Input Voltage	Normal Mode Range: 100V-280V UPS Mode Range: 180-260V			
Rated Output Voltage On Mains	Same as Input			
Load Power Factor	0.8PF			
OUTPUT PARAMETER				
Rated Output Voltage on UPS Mode	230V±10V			
Output Frequency On UPS Mode	50Hz±0.1Hz			
Output Waveform On UPS Mode	Pure Sine Wave			
Overload	Above 110%			
Short Circuit	>300% Load (Few Msec.)			
VOLTAGE LIMIT UPS MODE				
Main Low Cut	180V±10V			
Mains Low Cut Recovery	190V±10V			
Main High Cut	260V±10V			
Mains High Cut Recovery	250V±10V			
VOLTAGE LIMIT NORMAL MODE				
Main Low Cut	100V±10V			
Mains Low Cut Recovery	120V±10V			
Main High Cut	280V±10V			
Mains High Cut Recovery	270V±10V			
PROTECTIONS				
Short Circuit, Battery Over Voltage, Battery Low, Battery Deep Discharge, Over Temperature (Auto Recovery)				
ALARM & INDICATION				
16x2 LCD	Mains Voltage, Output Voltage, Battery Charging, Battery Charged, Solar Voltage, Solar Current and all Faults			
LED INDICATIONS				
Mains On, Charging On, UPS On, Battery Low, Overload				
BATTERY CHARGING				
Mains Disconnect Voltage TUB Mode	14.4V±0.2V		28.8V±0.4V	
Mains Reconnect Voltage TUB Mode	11.8V±0.2V		23.6V±0.4V	
Mains Disconnect Voltage STD Mode	14.0V±0.2V		28.0V±0.4V	
Mains Reconnect Voltage STD Mode	11.8V±0.2V		23.6V±0.4V	
Battery Boost Voltage High Mode	14.4V±0.2V		28.4V±0.4V	
Battery Float Voltage High Mode	13.8V±0.2V		27.6V±0.4V	
Battery Boost Voltage STD Mode	14.0V±0.2V		28.0V±0.4V	
Battery Float Voltage STD Mode	13.4V±0.2V		26..8V±0.4V	
Charging Current	15A±2A		15A±2A	
Recommended Battery Capacity	100Ah-200Ah		100Ah-200Ah	
Number Of Batteries	1		2	
Charger	Power Factor Controlled Boost Technology			
SOLAR CHARGER				
Max Solar Current	Upto 50Amp		Upto 50Amp	
Charger Topology	PWM Based Smart Charging Profile			
TECHNOLOGY				
Digital Signal Processor (DSP) Based State-of-the-art Technology				
ENVIRONMENT				
Storage Temperature	0-60°C			
Operating Temperature	0-50°C			
Humidity	90% Non-Condensing			



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1KVA-2.5KVA

(900VA-2250VA)



UKIYO ENERGIES

Corporate Office: Plot 26/7 Industrial Area Phase 2, Chandigarh, 16002, India

Registered Office: 1st Floor, Halwasia Market, Near Kirorimal Mandir, Bhiwani, Haryana-127021, INDIA

Manufacturing Unit: Plot-2, Part-II, Shed No. F, Sector-21, Industrial Area, Bhiwani, Haryana-127021, INDIA

www.ukiyoenergies.com, info@ukiyoenergies.com