The most amazing product which converts your existing Inverter / Home UPS to

Solar Power Conditioning Unit

Solar Sol

Solar Sol Operation

There is DC high cutoff (battery fully charged) and DC Low regain (Buffer backup voltage) points in Solar PCU.Once Solar PCU is with PWM/MPPT Charge controller (MPPT CC), will Charge batteries simultaneously along with Grid Charger. At this time load will be on grid. Now PWM/MPPT CC will charge batteries through Solar power. Load will be on grid. When battery voltage reaches DC high cutoff voltage (Battery is fully charged).Then Solar PCU disconnects grid supply and Load is transferred to Inverter. Now Solar gives power to inverter and for battery charging. Solar PCU will work through solar until solar is healthy. When solar power not sufficient PCU will take deficit power from battery.

When battery voltage reaches DC Low regain (Buffer backup voltage) Solar PCU will shift load from Inverter to grid. Buffer backup is for emergency use in case of grid power failure. Once Solar power is available then PWM/MPPT CC will charge the Batteries and the process continues.

Emergency Battery Backup

Solar PCU will not deep discharge the Batteries.

On PCU Operation Battery Discharge level is adjusted as per power availability.

While PCU DC Low Regain Condition, If Grid supply is not available then battery will give power to load.

UML series (20 A)

Solar Charge Controllers with LED Indication

Type	UML 20
System voltage	12/24 V auto recognition
Max. charge/load current	20 A
Float charge	13.7/27.4 V (25 °C)
Boost charge	14.4 /28.8 V (25 °C), 2 h Activation: battery voltage < 12.3/24.6 V
Equalization	14.8/29.6 V (25 °C), 2 h Activation: battery voltage < 12.1/24.2 V
Deep discharge protection: State-of-charge dependent Voltage dependent Reconnect level	 11.4 – 11.9 V / 22.8 – 23.8 V 11.0/22.0 V 12.8/25.6 V
Overvoltage protection	15.5/31.0 V
Undervoltage protection	10.5/21.0 V
Max. panel voltage (Overvoltage protection by varistor)	30 V in 12 V system 50 V in 24 V system
Temperature compensation (Charge voltage)	-25 mV/K at 12 V -50 mV/K at 24 V
Max. own consumption	< 4 mA
Grounding	Positive grounding possible
Ambient temperature	-40 to +50 °C
Max. height	4,000 m above sea level
Battery type	Lead acid (GEL, AGM, flooded)
Wire cross section	Up to 16 mm2

Manufactured by:

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Solar Sol Connection Diagram