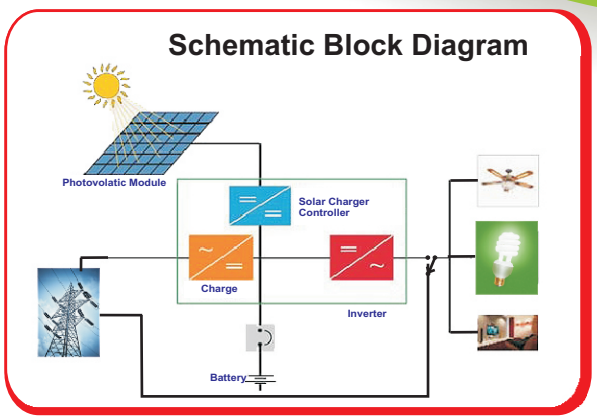
Vitronics Controls

An ISO 9001-2008
Certified OEM Company

AARUSH +

Solar PCU 5 Kva to 100 Kva

DSP Based
Highly Ruggedness
User Settable all Parameters
Inbuild MPPT



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, shopes, 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.

Working of Solar Hybrid Offline Inverter

- When Solar energy is sufficient then total o/p load will operate on solar through MPPT & Inverter Excess solar power will charge batteries.
- When solar energy is weak then inverter is taking DC source from solar & balance from batteries. When batteries reach TO SET discharge level (50%% kept as a bufferas diffault) the o/p load is shifted to grid and change over time will be 1 to 2 seconds.
- After shifting load to grid (bypass) the batteries are charged from solar energy and if solar energy not sufficient to charge the batteries, then remaining DC power is taken from grid chargers.if grid charger is on.
- Once the batteries are fully charged from solar to set level and solar is present then load is shifted back to inverter from grid.
- If grid supply is not present then again load is shifted to inverter to use buffer battery backup When grid returns during inverter which is working on buffer battery backup then the load is shifted to grid & batteries are charging through solar or grid.

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, invertor & 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	5.5kVA - 8kVA		10kVA – 12.5kVA		15kVA-30kVA		50kVA-100kVA
Rating	5.5kVA - 8kVA		10kVA – 12.5kVA		15kVA-30kVA		50kVA-100kVA
DC Voltage	96V/120V		120V/192V		192V/360V		360V
Solar Voltage Range	120V-180V	144V-200V	144V-200V	240V-350V	240V-350V	400V-500V	400V-500V
Charge Controller	MPPT based Charge Controller.						
MPPT Rating	KVA = kW (Customized as per requirement)						
Grid charger Rating	10 A						
Grid Input	Single Phase/Three Phase						
Grid Voltage Range	180V-270V or 360V - 470V						
Type of Inverter	IGBT based PWM Inverter						
O/P Waveform	Pure Sinewave						
O/P Power Capacity	1kVA-100kVA (@ Output PF 0.8)						
O/P Voltage	230 = 2% (1-phase) 415 = 2% (3-Phase)						
Frequency	50Hz						
T.H.D	<3% on Linear Load <5% on Nonlinear Load						
O/P P.F	0.8 lagging to Unity						
Inverter Efficiency	>90%						
Overload Capacity	100%-120% for 30sec 125%-150% for 0 sec						
Change Over Time	2 sec						
Duty Cycle	Continuous						
Operating Mode	Hybrid Offline						
Noise	50dB at 1m distance						
Operating Temperature	0-50 Deg. Celsius						
Storage Temperature	-10 Deg. Celsius to 55 Deg. Celsius						

Humidity	95% (Non Condensing)			
Altitude	<1000m above sea level			
Enclosure Protection	Ip20 or IP21			
Cooling	Forced Air Cooling			
Color	Grey + White			
Cable Entry	Bottom Rear Side			
Dimensions	470mm(L) X 710(W) X 650mm(H)-5kVA, 600mm X 1000mm X 950mm - 10kVA-30kVA , 850mm X 1420mm X 1200mm - 50kVA-150kVA			
Weight	85kg (5kVA), 128kg - 300kg (10kW-30kVA) , 460kg - 570kg (50kVA-100kVA)			
Metering	Solar Voltage Solar Current Solar Power	O/P Voltage O/P Current	Grid Voltage Grid Current	Battery Voltage Battery Status Frequency
Faults Display	O/P Under O/P Over	DC Under DC Over	O/P Overload Over Temperature* Short Circuit	
Protections	MCB at Grid MCB/FUSE at Array Fuse at Battery	Battery Reverse Polarity* Array Reverse Polarity*	AC Over AC Under DC Over DC Under	Over Temperature* Overload Short Circuit
			Above Protections with Alarm	
Pre Alarm	Overload & Battery Low			

Our Other Power Product


Servo Stabilizer


Power Guard

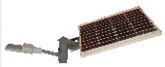

Solar Home UPS


Solar I.P.S & MPPT


Grid Tie Inverter


Grid Sharing UPS


Solar Generater


Street Light


Online UPS

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VITRONICS CONTROLS PVT. LTD.
S. No. 58/7A/1, Opp. Kheteshwar Ashram, Gokul Nagar,
Katraj Kondhwa Road, Kondhwa Bk.Pune - 411 048, India.
Tel. : +91 20 2696 2548, 2696 1311, +91 9404731535
Email:marketing@vitronicscontrols.com