SkySail
INNOVATION

HYBRID INVERTER

LOW FREQUENCY HYBRID INVERTER

KEY FEATURES

- DSP BASED DESIGN
- IGBT BASED MPPT CHARGER
- IGBT RECTIFIER FOR GRID CHARGING
- IGBT BASED INVERTER
- LCD ENERGY METER
- REMOTE MONITORING FACILITY USING GSM, WEB BASED

THE GRID SHARING,
BATTERY INDEPENDENT PCU

10 KW to 200 KW

INVERTER

1 KW to 250 KW

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CAPACITY (KW)	AC INPUT	OUT PUT	DC BATTERY INPUT
1/2/3/5/7.5	230 V	230 V	48 V / 72 V / 96 V / 120 V
5/7.5/10/15/20/30	230 V/415 V	230 V/415 V	120 V / 144 V / 192 V / 240 V
40/60/80/100/120/160/220/250	415 V	415 V	192 V / 240 V / 360 V

SOLAR CHARGER (MPPT)	
DC Voltage (DCV)	48/72/96/120/144/180/192/240/360
Maximum PV Open Circuit Voltage (Voc)	22 V per Battery
Vmpp (Per Panel)	16.5 V - 19 V
Maximum PV Wattage (Wp)	Equal to PCU Capacity
Maximum Charging Current Settable (From Solar)	Divide CAPACITY by System DC Voltage
Minimum Charging Current Settable (From Solar)	1.5 A
Maximum MPPT O/P Current	300 A
Default Priority	Solar-Mains-Battery (Various Combinations Possible)
Peak Efficiency	>95%
Display Parameters (LCD)	Panel Voltage, MPPT O/P Voltage, MPPT O/P Current, Units generated, MPPT O/P Power, Temperature, Trip/Status messages

TOLERANCE/REGULATION	
Static Condition / Dynamic Condition	± 1% / ± 4% For 100% Step Load
Frequency (Configurable)	50 Hz/60 Hz ± 0.1 Hz
Power Factor	0.8
Admissible Crest factor	3:1
Waveform	Sinusoidal (Pure Sine wave)
THD	≤ 2% for linear loads, ≤ 5% for non linear loads
Overload	150% for 1 Min., 125% for 5 Min.
Efficiency	>92%
Inverter Topology Control Section	Micro Controller/DSP based
Inverter Topology Power Section	IGBT Based PWM with instantaneous Waveform Correction

PROTECTIONS	
Rectifier	Input Surge Protection, High/Low Voltage Protection, Rectifier Output Short Circuit, Over Current Protection. **3phase Models**: Phase Failure, Abnormal Phase Sequence.
Battery	Charger Over Voltage and Over Current limit, Battery Over charge Trip with latching, Battery deep Discharge cut off, HRC/MCB, Fuse protection, Under Voltage.
Inverter	O/P Over load, Short Circuit, Over Temperature, Over Voltage & Under Voltage, Pulse by Pulse current limit, Feedback failure, Output Circuit breaker, Static bypass, Manual bypass.
Protections (Solar section)	Lightning, High Voltage, Over Current, Short Circuit, Reverse Polarity, Over Temperature.
Display Parameters (LCD) Alphanumeric LCD (2 Line/4 Line)	Displays Input Voltage, Output Voltage, Battery Voltage, Load Current, Output Frequency. Status messages for Mains Failure, Low Battery, Over Load, Over Voltage, Battery Low.