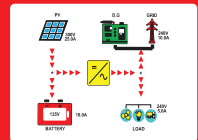


SUN PRO

SOLAR HYBRID PCU

MPPT
3.5KVA/3KW - 10KVA/10KW

Unique Display



3.5KVA - 3KW/24V

Features

- DSP Pure Sine wave Solar PCU MPPT Technology Using Heavy Duty Mosfet.
- Intelligent Sharing – Solar Priority To Save More Electricity.
- Solar Preference Charging For Battery To Reduce The Power Used From Grid.
- Built In Solar Charge Controller – 70 Amp
- Lcd Display (16 X 2)
- Built In Galvanic Isolation Transformer
- MNRE Approved
- Active Front End Charger
- Low Input Current Distortion
- Efficiency – 90%
- Can Be Upgraded To Grid Export Hybrid PCU at Any Time.
- MCB – AC , DC , Solar Used
- Manual Bypass – Rotary Type
- Remote Monitoring Device Available



5KVA - 5KW/48V

Features

- DSP Pure Sine wave Solar PCU MPPT Technology Using Heavy Duty Mosfet.
- Intelligent Sharing – Solar Priority To Save More Electricity.
- Solar Preference Charging For Battery To Reduce The Power Used From Grid.
- Built In Solar Charge Controller – 100 Amp
- Built In Galvanic Isolation Transformer
- MNRE Approved
- Active Front End Charger
- Low Input Current Distortion
- Efficiency – 90%
- Can Be Upgraded To Grid Export Hybrid PCU at Any Time.
- MCB – AC , DC , Solar Used
- Manual Bypass – Rotary Type
- Remote Monitoring Device Available



10KVA - 10KW/96V

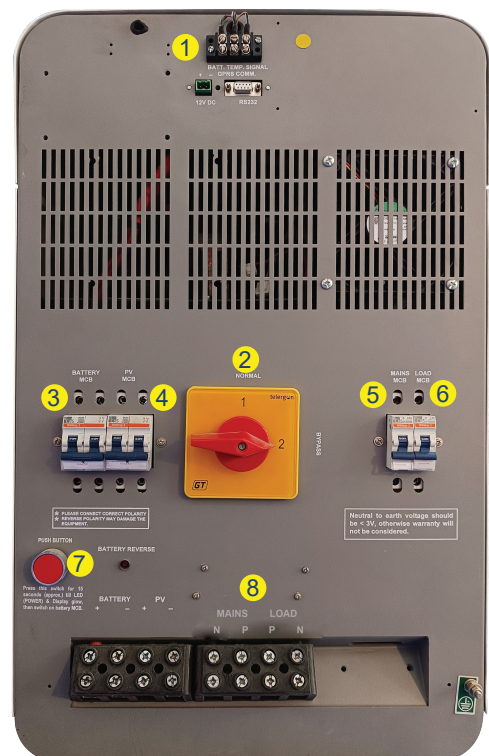
Features

- DSP Pure Sine wave Solar PCU MPPT Technology Using Heavy Duty Mosfet.
- Intelligent Sharing – Solar Priority To Save More Electricity.
- Solar Preference Charging For Battery To Reduce The Power Used From Grid.
- Built In Solar Charge Controller – 80 Amp
- Built In Galvanic Isolation Transformer
- MNRE Approved
- Active Front End Charger
- Low Input Current Distortion
- Efficiency – 90%
- Can Be Upgraded To Grid Export Hybrid PCU at Any Time.
- MCB – AC , DC , Solar Used
- Manual Bypass – Rotary Type
- Remote Monitoring Device Available



Rear View

1. Batt. Temp. Signal
2. Manual Bypass Switch
3. Battery MCB
4. PV MCB
5. Mains MCB
6. Load MCB
7. Push Button
8. Mains Load



TECHNICAL SPECIFICATION

INVERTER RATING (KVA)	3.5KVA	5KVA	10KVA
A. SOLAR CHARGE CONTROLLER (SCC)			
1 Charger Type & Topology	Buck Type MPPT		
2 PV Total Nominal Capacity (KVA)	3KW	5KW	10KW
3 No. of MPPT Channels	1	1	1
4 Per Channel PV Capacity (w) (Nominal Peak)	3.5KW/3.2KW	5KW/5.5KW	10KW/11KW
5 Max. Open Circuit PV Volts (Voc)	240	240	400
6 MPPT Voltage Range (Volts)	70-240	96-300	140-400
7 PV Minimum Voltage (Volts)	24	48	120
8 Max. I/P Amps Per Channel (Amps)	45	75	60
9 Max. Battery Amps during PV Charging (Amps)	70	100	80
10 Battery type supported	VRLA / LMLA/ Li-Ion/Li-Ph (User Settable)		
11 Min. Battery AH (Suggested)	150	150	150
12 Peak Charging Efficiency(%)			
B. Solar Inverter			
1 No. of Phase/Connection Type	1-Phased /2 wire		
2 Nominal battery voltage (Volts)	24	48	96
3 Battery Ripple	5% for VRLA & LMLA/ 1% for Li-Ion/Li-Ph (User Settable)		
4 Nominal Output Voltage/Frequency (Volts/Hz)	230/50		
5 Nominal KVA Capacity (KVA)	3.5KVA	5KVA	10KVA
6 Output Amps	10.43	17.39	34.78
7 Voltage Regulations(In Standalone Mode)	±2%		
8 Freq. Regulation (in Standalone Mode)	±0.5Hz		
9 THD	<3%		
10 Load Power Factor	0.8 Lag to Unity		
11 Efficiency(%) Peak/100% Load /25% Load	>89/>88/>86	>90/>87/>86	>89/>89/>86
12	100-110% - 60 Sec		
13 Over Loads:	110-125% - 30 Sec		
14	125-150% - 5 Sec		
15 Max Allowed Phase Imbalance(%)	N/A		
16 Auto Bypass Feature	Provided		
C. GRID CHARGER			
1 Grid Voltage Range (Voltage Sync. Range)	160V-280V (Phase to Neutral)		
2 Grid Frequency Range (Voltage Sync. Range)	50Hz ±5%		
3 Max Grid Import Power (KVA)	3.5KVA	5KVA	10KVA
4 Max Battery Amps During Grid Charging (Amps)	40	68	54
5 Peak Charging Efficiency (%)	>87		
INVERTER (KW)	3	4	8
1 PV Side	Reverse Polarity, Surg Protection		
2 Battery Side	Reverse Polarity, Over/Under Voltage, Current Limit		
3 Grid Side	Over/Under Voltage, Over/Under Frequency, Anti-Islanding, Surg Protection		
4 Load Side	Overloads, Short Circuit		
5 System Protection	Over Temperature Trip, Breakers at all Inputs, Emergency stop		
D. USER INTERFACE			
1. DISPLAY INTERFACE	LCD NUMERICAL DISPLAY		
2. DISPLAYED PARAMETERS	Voltage, Charging Current, Discharging Current, AH-in AH-out, Cumulative AH-in, Cumulative AH-out, Charging State-Charging/Discharging		
1 Battery Parameters	Voltage, Current, Power, Cumulative, Today Generation		
2 PV Parameters	Voltage, Current, Frequency, Import Power, Import Cumulative, Today Generation		
3 Grid Parameters	Voltage, Current, Frequency, Power, Cumulative, Power Factor		
4 Load Parameters	90 Days PV Geration, Import Energy, Load Energy.		
5 Data Logging	Faults and Warnings		
6 System Level			
3 INDICATION/PROTECTION			
LED Indication:	Power On, PV Available, PV Charging Inverter On, Grid Import Mode, Fault, HYBRID/OFF GRID Mode		
User Keypad for Settings Changes	Keypad for Settings Input		
Breakers at all Inputs/Space Heater/Emergency stop Button	Provided		
Over Shoot due to misbehaviour of BHMS	Provided		
Remote Monitoring: Optional*	Data Monitoring through (GPRS Optional)		
Designed & Manufactured the Product as for IEC	Tested as per IEC 61683, IEC61727, EN50530 and IEC60068 (1,2,14,30).		
MISCELLANEOUS			
Degree of Protection	IP31		
Cooling Method	Temp. Controlled Force Cooling		
Operating Temperature	0-55C ambient Operation		
Humidity (Non-condensign)	Max. 95% Non-Condensing		
Altitude (above Sea level)	1000m above sea level		
Housing	Sheet Metal ,Floor Standing	Floor Standing,Front/Rear Door	
Color Shade	RAL-7035/RAL-7016		
Cable Entry	Rear Bottom	Front Bottom	
Cable Termination Type	Bus Bar Type with ring type lugs		
Terminal Sizes (PV/Battery/Grid/Load)	TERMINAL SCREW TYPE	35-50MM/35-50MM/25MM/25MM	