MADE IN INDIA

invertek energy®

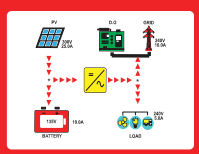
SUN PRO

SOLAR HYBRID PCU

MPPT

5KVA-5KW - 10KVA-10KW

Unique Display



www.invertekenergy.com

info@invertekenergy.com

SUN PRO
SOLAR HYBRID PCU

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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

SUN PRO
SOLAR HYBRID PCU

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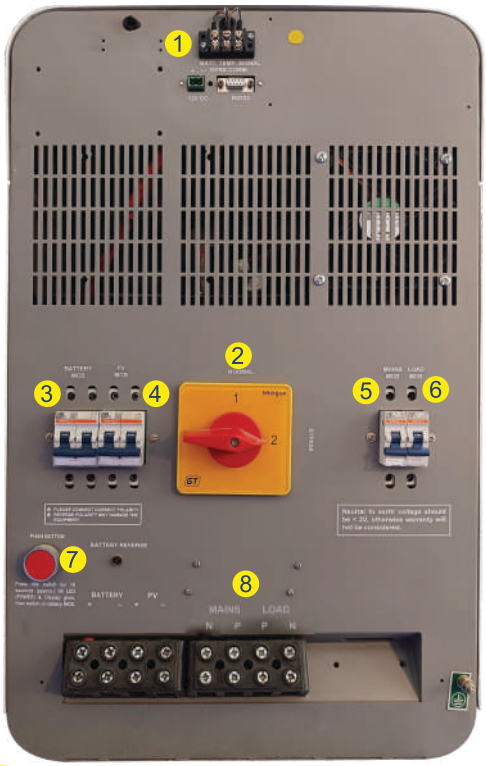
10KVA-10KW/120V

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

SUN PRO
SOLAR HYBRID PCU

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TECHNICAL SPECIFICATION

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