SUN PRO
SOLAR HYBRID PCU
MPPT 1P - 1P SERIES

TECHNICAL SPECIFICATIONS

invertek energy

	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