SUNPUNCH PREMIUM SERIES DATASHEET

INVERTER RATING (KVA)		1KVA	2KVA	3KVA	5KVA	5KVA	7.5KVA	10KVA	15KVA	20KVA	25KVA	30KVA	40KVA	50KVA
A . SOLARCHARGE CONTROLLER (SCC)														
1	ChargerType & Topology	Buck Type MPPT												
2	PV Total Nominal Capacity (KVA)	1KW	2KW	3KW	5KW	5KW	7.5KW	10KW	15KW	20KW	25KW	30KW	40KW	50KW
3	No. of MPPT Channels	1	1	1	1	1	1	1	1	1	1	1	1	1
4	Per Channel PV Capacity (w)(Nominal Peak)	1KW/1.1KW	2KW/2.2KW	3KW/3.3KW	5KW/5.5KW	5KW/5.5KW	7.5KW/8.2KW	10KW/11KW	15KW/16.5KW	20KW/22KW	25KW/27.5KW	30KW/33KW	40KW/44KW	50KW/55KW
5	Max. open Circuit PV Volts (Voc)	240	240	240	240	300	300	400	700	700	700	700	700	700
6	MPPT Voltage Range (Volts)	70-240	70-240	70-240	70-240	96-300	96-300	140-400	240 - 700	240 - 700	240 - 700	240 - 700	240 - 700	240 - 700
7	PV Minimum Voltage (Volts)	48	48	48	48	96	96	120	240	240	240	240	240	240
8	Max. I/P Amps per channel (Amps)	15	30	45	75	35	55	60	45	60	75	80	105	132
9	Max. Battery Amps during PV Charging(Amps)	20	40	60	100	50	73	78	60	78	80	97	129	161
10	Max. SCC O/P (Amps)	20	40	60	100	50	73	78	60	78	80	97	129	161
11	Battery type Supported	VRLA / LMLA/Li-Ion/Li-Ph (User Settable)												
12	Min. Battery AH (Suggested)	150	150	150	150	150	150	150	300	300	300	300	300	300
13	Peak charging Efficiency (%)	>93												
B. SOLAR INVERTER														
1	No. of Phases/Connection Type	1-Phased/2 wire												
2	Nominal Battery Voltage (Volts)	48	48	48	48	96	96	120	240	240	240	240	240	240
3	Battery Ripple	5% for VRLA & LMLA/ 1% for Li-Ion & Li- Ph Battery												
4	Nominal Output Voltage/Frequency (Volts/Hz)	230/50												
5	Nominal KVA Capacity (KVA)	1KVA	2KVA	3KVA	5KVA	5KVA	7.5KVA	10KVA	15KVA	20KVA	25KVA	30KVA	40KVA	50KVA
6	Output Amps	3.47	6.96	10.43	17.39	17.39	26.09	34.78	52.17	69.57	86.96	104.3	139.1	173.9
7	Voltage Regulation (in standalore Mode)	± 2%												
8	Freq. Regulation (in Standalone mode)	± 0.5 Hz												
9	THD	< 3%												
10	Load Power Factor	0.8 lag to unity												
11	Efficiency (%): Peak/ 100% Load/25% Load	>89/ >88/ >86	>89/ >88/ >86	>89/ >88/ >86	>90/ >87/ >86	>90/ >87/ >86	>90/ >87/ >86	>89/ >89/ >86	>89/ >89/ >86	>89/ >89/ >86	>89/ >89/ >86	>91/ >89/ >86	>91/ >89/ >86	>91/ >89/ >86
12	Over Loads :	100-110% - 60 sec												
13		110-125% - 30 sec												
14		125-150% - 5 sec												
15	Max Allowed Phase Imbalance (%)	N/A												
16	Auto Bypass Feature	Provided												
17	Parallel Operation with Grid/DG	Provided												
18	Power Export to Grid Facility Enable / Disable	Enable / Disable (User Settable)												
19	Anti Islanding from Grid	Provided												
C. GRID CHARGER														
1	Grid Voltage Range (Voltage Sync. Range)	160V-280V (Phase to Neutral)												
2	Grid Frequency Range (Freq. Sync. Range)	50 Hz ±5%												
3	Max Grid Import Power (KVA)	1KVA	2KVA	3KVA	5KVA	5KVA	7.5KVA	10KVA	15KVA	20KVA	25KVA	30KVA	40KVA	50KVA
4	Max Battery Amps During Grid Charging (Amps)	13	27	40	68	34	51	54	40	54	68	72.5	96.6	120.8
5	Peak charging Efficiency (%)	>87												
INVERTER (KW)		**0.8**	**1.6**	**2.4**	**4.0**	**4.0**	**6.0**	**8.0**	**12.0**	**16.0**	**20.0**	**24.0**	**32.0**	**40.0**
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		Graphical Display with mimic diagram												
2. DISPLAYED PARAMETERS														
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,Irradiance,Ambient Temprature.												
3	Grid Parameters	Voltage, Current, Frequency, Export Power, Import Power, Export Cumulative Energy, Import Cumulative Energy,Power Factor												
4	Load Parameters	Voltage, Current, Frequency, Power,Cumulative,Power Factor												
5	Data Logging	90 Days PV Generation, Export Energy, Import Energy, Load Energy.												
6	System Level	Faults and warnings												
3. INDICATIONS/PROTECTION														
1	LED Indications:	Power ON, PV Available, PV Charging, Inverter ON, Grid Import Mode, Grid Export Mode, Fault, HYBRID /OFF GRID Mode												
2	User Keypad for Settings Change	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)**												
Designed and Manufactured the product as for IEC		**Tested as per IEC 61683, IEC 61727, IEC 62116 / IS 16169 EN 50530 and IEC 60068 (1, 2, 14, 30).**												
MISCELLANEOUS														
1	Degree of Protection	IP31												
2	Cooling Method	Temp. Controlled Force Cooling												
3	Operating Temperature	0-55°C ambient operation												
4	Humidity (Non-condensing)	Max. 95% Non-Condensing												
5	Altiude (above sea level)	1000m above sea level												
6	Housing	Sheet Metal,Floor Standing							Floor Standing,Front/Rear Door					
7	Colour Shade	RAL-7035/RAL-7016 (Other Colours also available on request)												
8	Cable Entry	Rear Bottom							Front Bottom					
9	Cable Termination Type	Bus Bar Type with ring type lugs												
10	Terminal Sizes(PV/Battery/Grid/Load)	TERMINAL SCREW TYPE							35-50MM/35-50MM/25MM/25MM					
11	Dimensions in mm (H X W X D)	360X280X530	360X280X560	360X280X665	360X280X665	478X375X675	528X375X775	528X375X775	715x850x750					715X1000X750
12	Approx. Weight (kg)	30	35	60	80	80	130	140	160	215	245	260	300	350

Note : The specifications are subject to change due to continuous improvements.
Higher rating systems are available on request.