

**TECHNICAL SPEC. OF SOLAR POWER HOUSE 5KVA / 96V with MPPT
(Digital Version)**

	DESCRIPTION	SPECIFICATIONS
01.	Battery Voltage	: 96 VDC Nominal 82.8 VDC Minimum 132 VDC Maximum
02.	MPPT Solar Voltage Range	: 110 - 170 VDC Minimum
03.	MPPT Solar Charging Current	: 30A
04.	MPPT Charging Efficiency	: > 98%
05.	Maximum Inverter continuous O/P Power	: 5KVA
06.	Self diagnostic check	: Ensure full functionality of system.
07.	Inverter mode nominal AC Volt Regulation	: 220V single phase 220V <u>±</u> 5%
08.	Inverter mode nominal Frequency Regulation	: 50Hz. 50Hz. <u>±</u> 0.1%
09.	Wave Shape	: Sinusoidal
10.	Design	: Micro controller, Mosfet topology
11.	Soft Start	: Yes
12.	Inverter Surge O/P rating	: 120% for 1 Sec. 150% for 10 msc.
13.	Peak Efficiency	: >91% at nominal battery voltage at 25°C
14.	THD	: <3%
15.	Overload	: Auto reset 5 operations. Beyond system shutdown. Restart with Reset switch.
16.	Mains I/P Voltage Window	: 135V - 270 V
17.	Mains I/P Frequency Range	: 50Hz. <u>±</u> 10%
18.	Mains Charging Current (Boost) (Float)	: SMPS base 10A 2A
19.	Mains out of Range	: Auto Change Over to Inverter. On recovery back to Mains with 140V/265V.Extra protection for load appliances.
20.	Mains O/P short circuit / over load	: Protection by MCB

21.	Mimic Display	:	Inverter ON Grid (within range) Battery OK Battery low Solar Charging or Mains Charging ON Load on system Self diagnostic check:-prevents system damage before startup. Over load Temperature high Mains out of range System fault
22.	LCD Display	:	Output voltage Output frequency Mains voltage / Mains off Mains out of range Battery voltage Diagnostic fault detection
23.	Fault Protection	:	Inverter overload (time dependent) O/P short circuit Battery over voltage Battery under voltage Mains out of range Inverter over temperature System Fault
24.	Audible alarm	:	At the starting, over load, battery low
25.	System Switch	:	System ON/OFF Over load 'Reset'
26.	Max. utilization of solar power	:	When battery is fully charged by solar excess power being wasted normally. In this system the inverter disconnects mains power automatically and goes into battery mode and support the load together with excess solar power and partly discharging the battery if needed. This feature ensures full utilization of solar power when battery is fully charged.
27.	Operating Temperature	:	0°C to 50°C
28.	Humidity	:	5% to 95% non-condensing
29.	Enclosure	:	Floor Mounting with Powder Coating.

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