

# 600VA Solar Inverter



## Product Specifications

Parameters	600VA (Output Power – 480 W)		
	Narrow voltage		Wide voltage
1. Voltage:			
- Mains AC lower voltage cut / Recovery	180 ± 5 V / 190 ± 5 V		110 ± 5 V / 120 ± 5 V
- Mains AC Higher voltage cut / Recovery	265 ± 5 V / 255 ± 5 V		285 ± 10 V / 275 ± 10 V
2. Battery charging voltage range (AC Mains)	180 V AC to 265 V AC		110 V AC to 285 V AC
3. Output voltage (Inverter mode)			
without load	230 ± 5 %		230 ± 5 %
Voltage Regulation	230 ± 10 %		230 ± 10 %
4. Change over time (AC Mains to Inverter)	< 12 milli-sec		< 75 milli-sec
5. Battery Charging (AC Mains):			
No. of Batteries	Double ( 2 x 12V) – Connected in series		
Charging Current	120 V AC	230 V AC	260 V AC
	3 ± 1 A	12 ± 1 A	12 ± 1 A
'Boost Charging' voltage	28.8 ± 0.2 V		
'Float Charging' voltage	27.6 ± 0.2 V		
Charging methodology (AC Mains)	Constant current followed by constant voltage		
Battery lower voltage cut-off	21.6 ± 0.2 V		
6. SPV Charging (PWM Charge Controller):			

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Nominal SPV input voltage	24V DC
Max. SPV input voltage	50V DC
Float Charge	27.4V DC (25 deg. C
Main Charge	28.8V DC (25 deg. C), 30 min. (daily)
Boost charge	28.8V DC (25 deg. C), 2 h
Equalisation	29.6V DC (25 deg. C), 2 h
Max. charge current	20.0 A
Recommended Battery Capacity	80 AH to 180AH (Flat Paste Flooded or Tubular)
7. Output Wave form	Pure Sine Wave
8. Output frequency	Same as input when AC mains available & $50.0 \pm 0.5$ Hz on UPS
9. Efficiency	AC to DC : $\geq 75\%$ DC to AC : $\geq 75\%$
10. Operating Environment	0 deg. C to 50 deg. C
11. LED indications	SPV ON, Mains, Charging, UPS ON, Low battery & Over load
12. Audible Alarm	Low battery, Over load & Short circuit
13. Protections:	
Over load	100 + 5% load on UPS (auto reset if reduce the load within 3 re-try)
Over charge	Protects the battery from overcharging by controlling the charging current & voltage
Short circuit	Shutdown when AC mains is not there and AC fuse / MCB trips when AC mains is available
Thermal shutdown	Above 93 deg. C inside the unit
Battery reverse polarity	Protects the UPS and DC fuses blown on PMB
Battery deep discharge	Protects the battery from deep discharge having cut-off at

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	10.8 ± 0.2 V per battery
14. Mechanical Details:	
Cabinet	Metal front facia with metal cabinet (Sticker design as per the approved sample shared by Mktg)
Cabinet Colour	White
Dimensions (All dimensions in mm)	<b>Without Carton Box:</b> 290 (L) X 327 (W) X 150 (H)
Carton Box	Plain white
15. Recommended Loads	Light, Fan & Television

Load Assumptions: Fan – 42 Inch Sweep considering 75W; Light – 4 Feet Tube Light considering 40W; Television – 21 Inch CRT considering 150W; CFL – 18 W