

Off-Grid Solar Inverter

INV - OFFGRID_INDUSTRY

High performance off-grid solar inverter


Features

- Hybrid Design (Grid & Solar Charging)
- Inbuilt intelligent charge controller
- High Efficiency Design
- Superior Algorithm
- Solar priority / Grid Priority Logic
- Electronic Protection
- Auto restart facility
- LCD Display
- Inbuilt Measurements
- Compact / Rugged design
- Remote monitoring facility (Optional)

Specification

MODEL	IG7500VA	IG10000VA
Capacity (VA)	7500	10000
Capacity (W)	6000	8000
Battery VDC	120	192
Nominal Output Voltage	220 - 240VAC	
INPUT		
User Selection Mode	UPS MODE / INVERTER MODE	
Voltage Range	180 – 256V AC / 110 – 290V AC	
Voltage Cut off Range	180 – 265 ± 5 V AC / 110 – 290 ± 10 V AC	
Voltage Recovery Range	190 – 255 ± 5 V AC / 120 – 275 ± 10 V AC	
Frequency Range	47 – 53 Hz	
OUTPUT		
Voltage Regulation on Mains	Same as Mains Input	
Voltage Regulation in Battery Mode	220V AC Nominal ± 2% (Range 210V – 240V)	
Frequency Regulation on Mains Mode	Same as Mains Input	
Frequency Regulation in Battery Mode	50HZ ± 0.1 Hz	
Power Factor	>0.8	
Waveform	Pure Sine Wave	
Efficiency	>85%	
Over Load (PCU Mode) 120% load on Inverter for 30 sec. ;	9000	12000
After 3 Retries and Shutdown.	8700	11600
Max Load (Grid Mode)	10000	12000
Battery Charging -GRID		
Grid Charging Current	50A	80A
Boost Charging' voltage	144 ±0.2V	
Float Charging' voltage	138 ±0.2V	
'Battery low voltage cut-off'	105 ±0.2 V	
Battery Voltage High	162.5 ±0.2 V	

SPV Charging - SOLAR		
Charge controller Type	MPPT (Maximum Power Point Tracking)	
Maximum SPV Input Power	5000Wp	6000Wp
Nominal SPV input Voltage	150V	250
Max. PV Input voltage (VOC)	200V	300
Panel Voltage Operation range	150 - 200V	250 - 300V
Max. Charging Current	40A	50A
PROTECTIONS		
Over Load	For 100% Load – Buzzer Indication, 101% above load trips & retry for 4 times then inverter shutdown	
Output Short Circuit	Circuit breaker on mains, Shutdown on inverter	
Battery Reverse Protection	Fuse	
Low Battery	Load Disconnection	
Thermal Shutdown	Below 0°C and above 90°C	
Lightening/Surge	Protected up to 4KV Surge	
Solar Reverse	Blocking diode is provided to prevent reverse flow of current	
Change Over Time	<20ms	
ENVIRONMENT OPERATING CONDITIONS		
Operating Temperature	0 - 50°C	
Storage Temperature	0 to +60 °C	
Relative Humidity	0-95% non-condensing	
Cooling	Forced fan cooling	
Altitude	Less than 2000 meter above sea level	
Communication	Optional	
DISPLAY		
LED Display	Mains ON(Red), Charging On Mains (RED), Charging On Solar(Green), Inverter(Green), Battery Low(Yellow), Overload/Short Circuit(Yellow)	
LCD Display	Battery Voltage, Input Voltage Band (Narrow or Wide) , Grid Charging Current , Solar Voltage., Solar Charging Current, Solar Units Saved kWh, Over Load, Battery Low Indication.	