

## HMI+ Series

Modified Sine Wave Inverter with Built-in Hybrid Charger

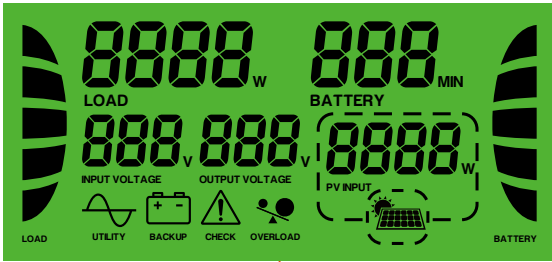


HMI+ series is a multi-functional inverter, with a combination of inverter, solar charger, and AC charger. It comes with a big LCD display to offer end users detailed information about the inverter, battery and solar panels. With a modified sine wave output, it can be used to backup most of the home appliances.

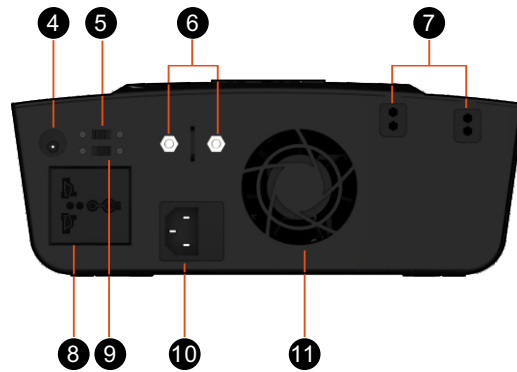
### Main Features

- + Modified sine wave output, suitable for most of the home appliances
- + Selectable input voltage range: 90-280V/170-280V
- + Powerful hybrid charger: AC charger 20A max + Solar charger 50A max
- + Selectable battery type: Deep cycle battery / Car battery
- + LCD graphic display, showing left backup time and solar charger capacity
- + Complete protections for inverter and battery
- + Cold start function
- + Automatic restart when AC is restored
- + Additional USB charging port: 5VDC, 1A max
- + Additional 12VDC port: 12VDC, 5A max
- + Generator input compatible

## Product Overview

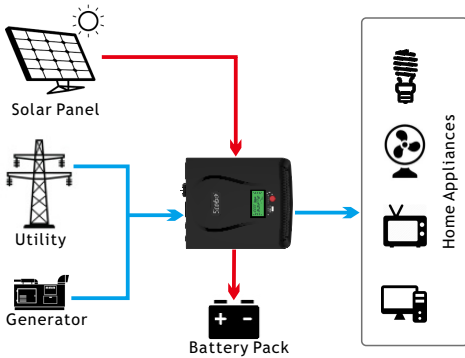


1. LCD Display
2. USB Charging Port
3. Inverter On/Off Switch
4. 12VDC Output Port
5. Input Voltage Selector
6. Solar Panel Terminal
7. Battery Terminal /Cable
8. Output Socket
9. Battery Type Selector
10. AC Input Socket
11. Cooling Fan

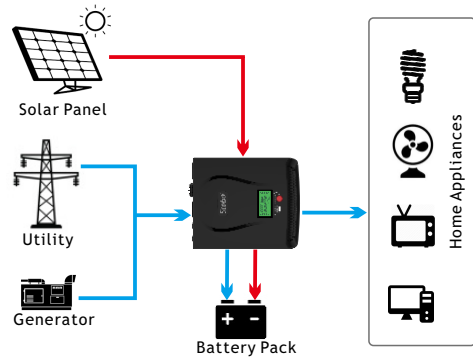


## Working Mode

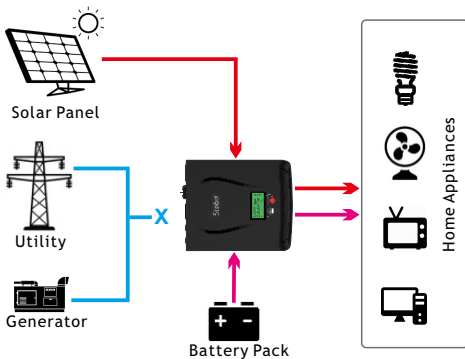
When sunshine is enough for charging battery



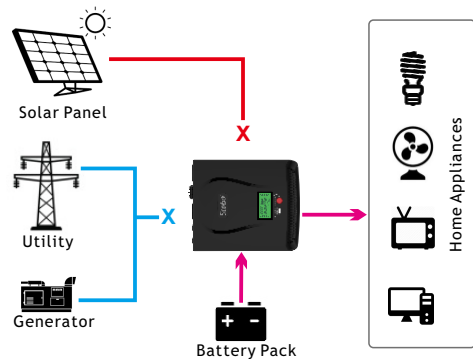
When sunshine is not enough for charging battery



When AC is not available



When AC and sunshine are not available



## Specifications

Model No.	HMI+ 1000	HMI+ 1200	HMI+ 2400
Rated Capacity	1000VA/600W	1200VA/720W	2400VA/1440W
Battery Voltage	12VDC	12VDC	24VDC

### INPUT

Selectable Input Voltage	90-280V (for home appliances) / 170-280V (for personal computers)
Input Frequency	50/60Hz auto sensing

### OUTPUT

Rated Output Voltage	220V/230V
Output Voltage Range	AC Mode: Same as input voltage DC Mode: $\pm 5\%$
Output Frequency	AC Mode: Same as input frequency DC Mode: 50/60Hz $\pm 0.1$ Hz
Output Waveform	AC Mode: Pure sine wave DC Mode: Modified sine wave
Efficiency	AC Mode: $>97\%$ DC Mode: $>80\%$
Transfer Time	AC to DC: $<15$ ms DC to AC: $<4$ ms
USB Charging Port	5VDC, 1A
12VDC Output	12VDC, 5A max

### LCD DISPLAY

Display Content	Backup time in minute, Load capacity in watt, Input/Output voltage, Charging battery/Battery capacity, Load capacity, AC mode, DC mode, Overload, Errors, Solar on, Solar charging capacity
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### PROTECTION & ALARM

Protection	Overload, Overheat, Short circuit, Battery over charge, Surge & Spike Battery over discharge, Battery reverse connection
Buzzer Alarm	Overload, Overheat, Short circuit, Battery low voltage, Other errors

### AC CHARGER

Constant Charging Voltage	14.4VDC	14.4VDC	28.8VDC
Floating Charging Voltage	13.8VDC	13.8VDC	27.6VDC
Max Charging Current	20A	20A	15A

### SOLAR CHARGER

Technology	PWM or MPPT		
Constant Charging Voltage	14.4VDC	14.4VDC	28.8VDC
Floating Charging Voltage	13.8VDC	13.8VDC	27.6VDC
Max Charging Current	50A	50A	50A
Max PV Open Circuit Voltage	60VDC		

### OPERATING CONDITION

Operating Temperature	-5°C ~ +40°C
Operating Humidity	10%-90%, non-condensing
Storage Temperature	-15°C ~ +45°C

### PHYSICAL

Machine Size	W304 x H89 x D230 mm		
Weight/Unit	2.80kgs	2.92kgs	3.07kgs
Package/Carton	6pcs		
Carton Size	L775 x W402 x H318 mm		

