



Off Grid Solar Solutions

2022





Solar Energy around the world

In the past thousand of years, humankind mainly uses fossil energy, like oil, natural gas etc.

However, with global warm becoming worse, it will be not sustainable, since photovoltaic effect was found in 1839, solar energy has been developed dramatically. From earth to space, It is transforming our life and thinking.

In solar system, inverter is key device which is used to convert PV power to AC. Good inverter will improve your electrical quality and make us own better life.





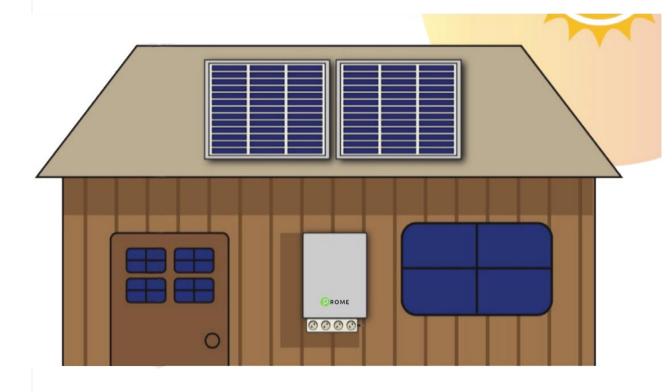
Mission Statement

Our mission is to create excellent smart products, including Inverter, Storage system, Smart remote monitoring, Smart Maintainence via Big Data etc.

About US

HK Prome Smart Science Ltd. has been registered in HK, which aims to achieve the goal that make new energy become more affordable and help those people who can't use electricity. Equity is our pursue in the world.





Off Grid inverter Application



Off grid inverter is widely used in the area that often has the power cut or without electricity.

Our off grid products has been exported to many countries like America, Europe, Africa etc.





Mountain Aria



Family House



Island



Tour



Pasturing



Touring car



How to choose off grid inverter

Inverter power

You need to have the statistics about your load and know about what are resistive and inductive load.

Our family load mainly contains Resistive and inductive load.

Capacitive load is like Light, Water heater, Electric oven etc.

Inductive load is like Air fan, Washing machine, Air conditioning, refrigerator, Electromotor etc.

In usual, off grid inverter can have 2 times of rated AC output power. When Inductive load starts working, 3-7 times rated power of appliance is needed. For example, 1000W air conditioning, Peak surge power is 7000W, so you must choose 3500W inverter at least.

Air conditioner has 2 types: variable frequency air conditioner and Non-variable frequency. Non-variable frequency air conditioner needs to be calculated according to 7 times rated power. While variable frequency air conditioner is almost 4 times rated power. So 1000W variable frequency air conditioner can choose 2000W inverter.





Inverter Efficiency

It should be greater than 90% at least.

wave form distortion

wave form distortion should be lower than 5%

Perfect protection function

When AC output power is greater than 110%, it should last for 1 minute, when it is greater than 150%, it should last for 20 seconds





Using Environment

-10 degree-40 degree; Humidity: < 95%

Monitoring

Remote monitoring

Communication

485 or CAN communication







Here is PR 3000VA 24V Off Grid Inverter.

Built-in WiFi for mobile monitoring (Android/iOS App is available). Configurable AC/PV output time setting.

Built-in DC output for DC fan, LED bulb, router and so on.



PR 5600VA OFF GRID INVERTER

PR 5600VA

Main Features

- Efficiency (Peak) 93%
- MAX 9 pcs in parallel
- Battery Independent Design, it can work without battery



Cold start function



Ideal Inverter for solar power

- Wide PV input range
- Built-in Bluetooth for mobile monitoring (Android/iOS App is available).
- Selectable high power charging current
- Configurable AC/PV output time and priority

PR 3000VA

Max PV Array Power 3000VA/3000W

MAX PV Open Circuit Voltage 500 V DC

MAX Solar Charge Current 100A

MAX AC Charge Current 100A

Parallel Capability NO



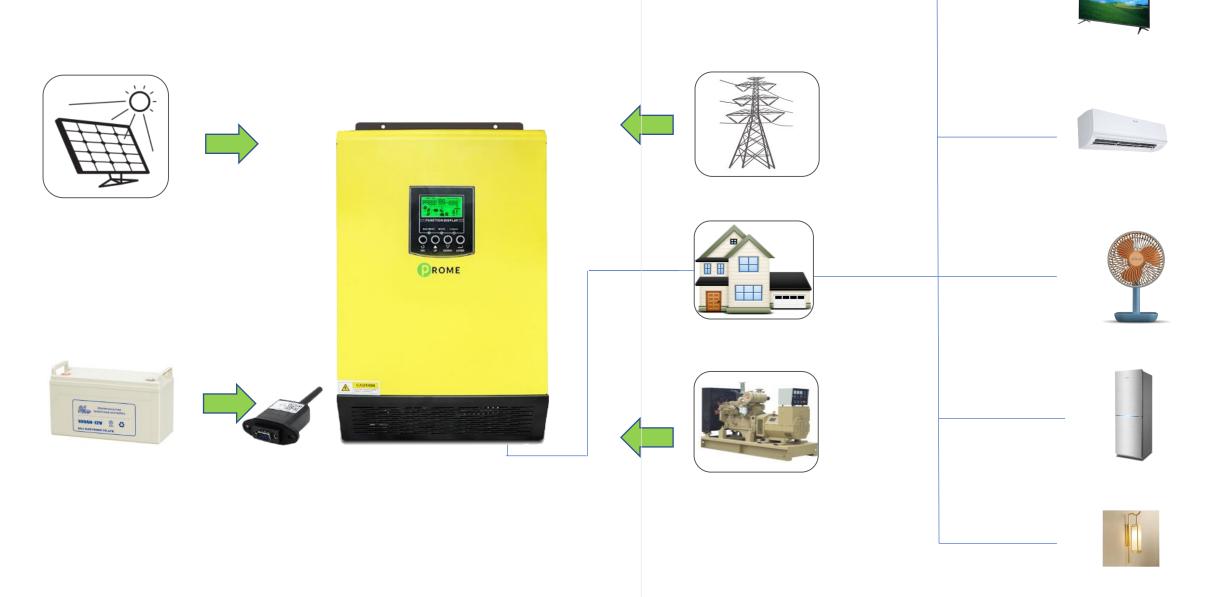


| AC Input | |
|---------------------------------------|--|
| Voltage | 230V AC |
| Voltage Range | 170-280 V DC(Personal Computers); 90-280 V(Home Appliances) |
| Frequency Range | 50 HZ/60 HZ(Auto sensing) |
| AC Output | |
| AC Voltage Regulation(Battery Mode) | 230V AC ± 5% |
| Surge Power | 6000VA |
| Efficiency Peak | 90-93% |
| Transfer Time | 15ms(Personal Computers); 20ms (Home Appliances) |
| Waveform | Pure Sine Wave |
| No Load Power Consumption | <75W |
| Battery | |
| Battery voltage | 24V DC |
| Floating Charge Voltage | 27V DC |
| Overcharge Protection | 33V DC |
| PHYSICAL | |
| Dimension, D*W*H(mm) | 115*300*400 |
| Net Weight(kgs) | 9 |
| Communication Interface | USB / RS232 / RS485 / WiFi / Dry-contact |
| Operating Environment | |
| Operating Temperature | -10 -50 |
| Humidity | 5%-95% Relative Humidity(Non-condensing) |
| | |





System Diagram

















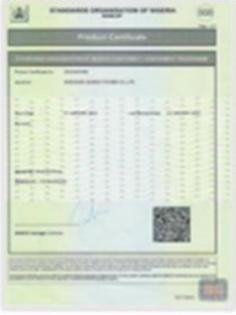


















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