



# Off Grid Solar Solutions

2022



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PROME





# 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.



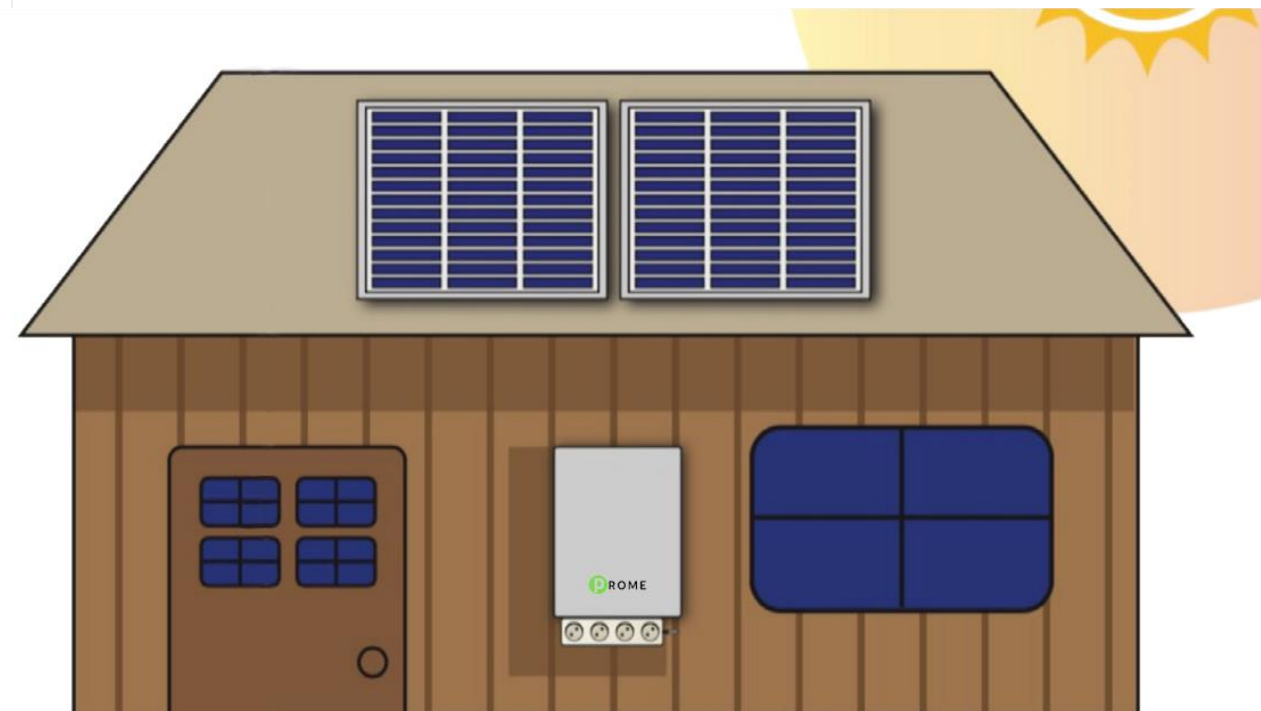


## Mission Statement

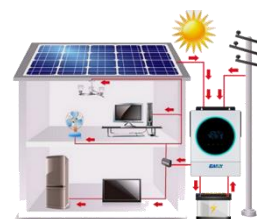
Our mission is to create excellent smart products, including Inverter, Storage system, Smart remote monitoring, Smart Maintenance via Big Data etc.

## 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



# PR 3600VA OFF GRID INVERTER

PR 3600VA

## Main Features

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





- Wide PV input range
- Built-in WiFi for mobile monitoring ( Android/iOS App is available ).
- Touchable button with 4.3 “ color LCD



- Customized RGB Lighting



## Ideal Inverter for solar power

### PR 3600VA

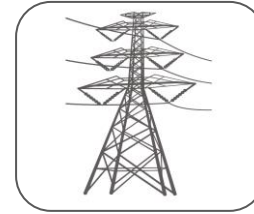
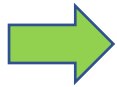
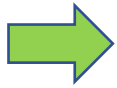
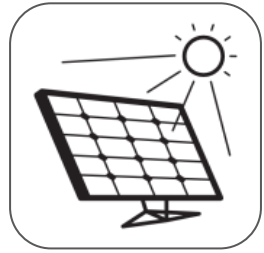
Max PV Array Power	3600VA/3600W
MAX PV Open Circuit Voltage	500 V DC
MPPT Range	120V-430V DC
MAX Solar Charge Current	100A
MAX AC Charge Current	100A
Parallel Capability	YES, 9 Units



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 $\pm$ 5%
Efficiency Peak	93%
Transfer Time	10ms( Personal Computers ) ; 20ms ( Home Appliances )
Waveform	Pure Sine Wave
No Load Power Consumption	<75W
Battery	
Battery voltage	48V DC
Floating Charge Voltage	54V DC
Overcharge Protection	66V DC
PHYSICAL	
Dimension, D*W*H( mm )	140*295*468
Net Weight(kgs)	11
Communication Interface	USB/RS232/RS485/WIFI/Dry-contact
Operating Environment	
Operating Temperature	-10 -50
Humidity	5%-95% Relative Humidity( Non-condensing )



# System Diagram



# 32.4KW OFF GRID APPLICATION



Battery

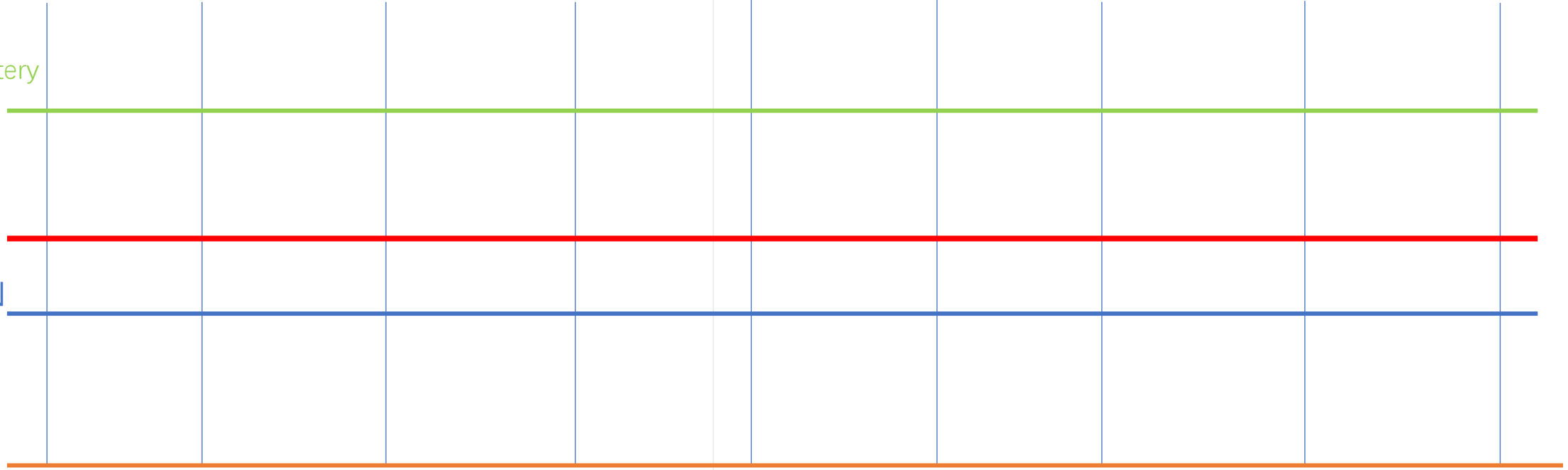


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Load













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