GA 6200-11000

High Frequency

New Generation Off-Grid PV Inverter

NAT POWER TECHNOLOGY

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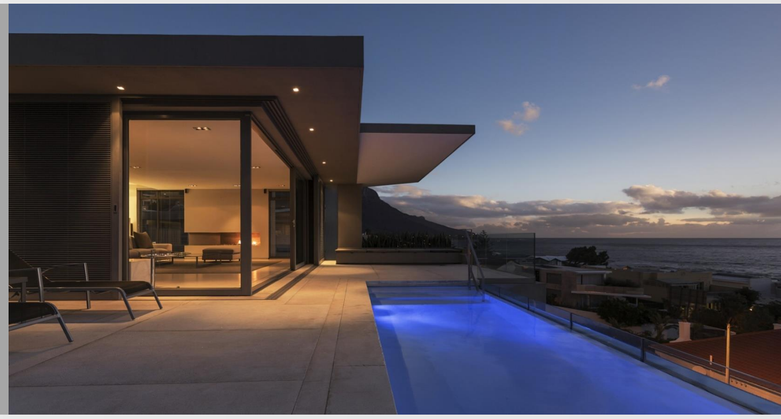
CONTENTS

01

Key Features



Power Factor 1.0

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Power factor : 1.0

Power factor : 0.8

More Powerful

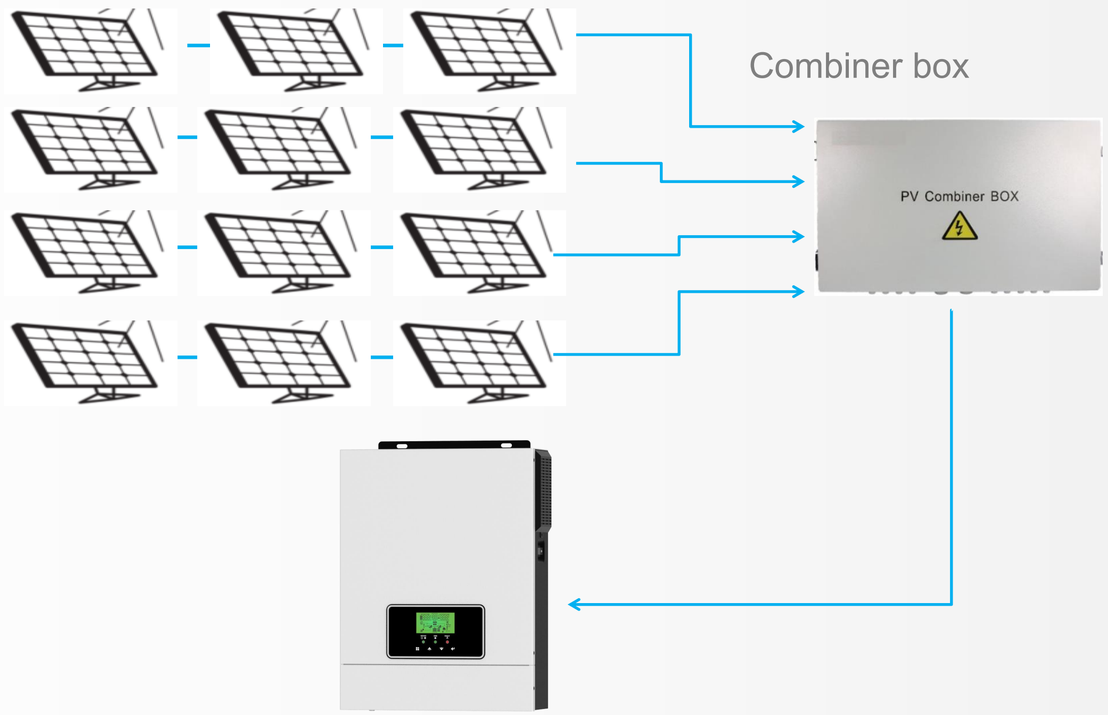
Output power factor: 1.0 (6.2kVA & 6.2kW)

Inverter 100% load, still work normally	Over-load 110%, 10 second

6kW Power Appliances

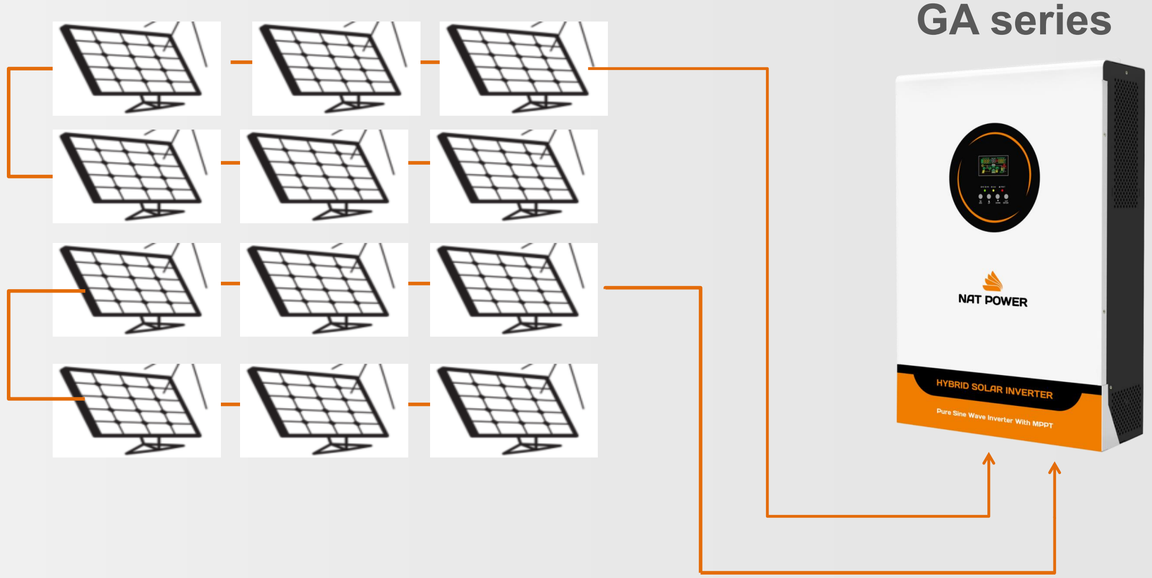
Higher PV Input Range

General inverter application
Max. PV Input is 145VDC



Other Brands (low mppt capacity)

GA series



GA series inverter PV input range up to **500VDC**, no need additional combiner box, which is convenient for installation and save the wiring cost.

Work With or Without Battery

1. Directly connect solar panel and utility without battery operation mode

2. Connect battery optional for energy storage and back-up support

BMS Port: Lithium Battery Ready

05	Battery type	AGM (default) 05 AGn	Flooded 05 FLd
		User-Defined 05 USE	If "User-Defined" is selected, battery charge voltage, low DC cut-off voltage and dual cut -off voltage can be set up in program 24,26,27,29 and 61.
		LIA-protocol compatible battery 05 LIA	If selected,programs of 24,26,27 and 29 will be automatically set up. No need for further setting.
		Pylontech battery 05 PYL	
		Techfine battery 05 tYF	
		Growatt battery 05 GrO	
		LIB-protocol compatible battery 05 LIb	Select "LIB if using Lithium battery compatible to Lib protocol. If selected, programs of 26,27 and 29 will be automatically se up. No meed for further setting.
		3 rd party lithium battery 05 LIC	If selected, programs of 26,27 and 29 will be automatically set up. No need for further setting. Please contact the battery supplier for installation procedure.
37	BMS Function Switch	off(default) bnS 37 OFF	Whether to enable the BMS communication function
		bnS 37 ON	

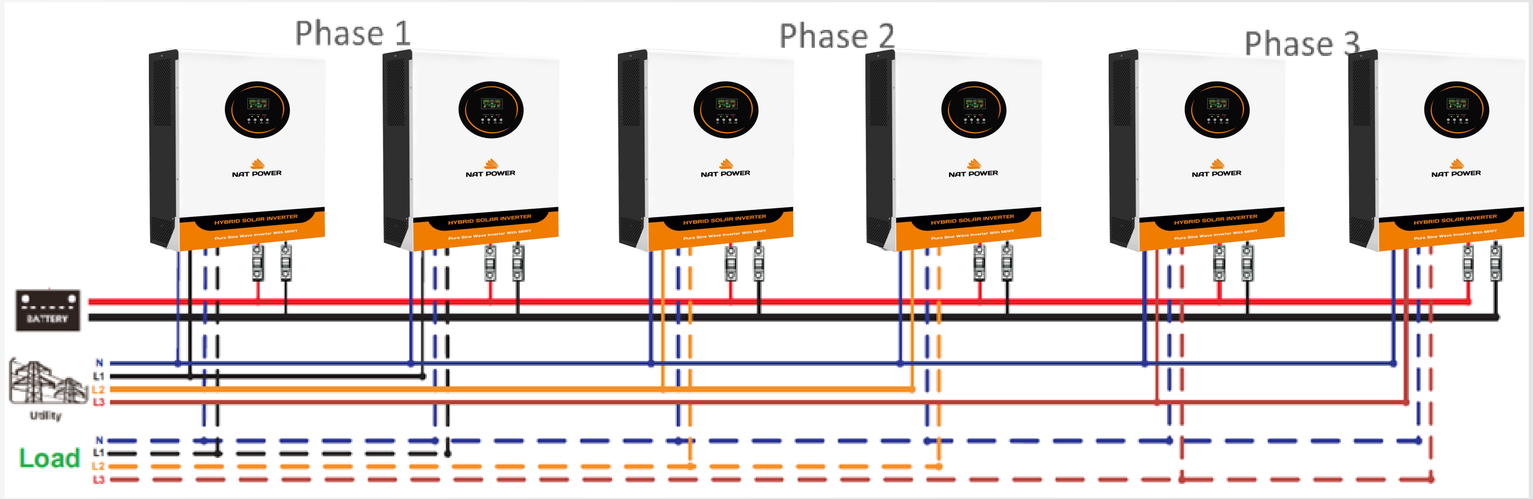
When the BMS/485 communication interface is externally connected, as shown in the following figure:

1. Built in BMS port
2. Multiples brands of batteries are supported

Parallel Extension (optional, only available in some countries)

Parallel operation up to 6 units, the maximum system capacity would be 30kW,
also support to configure three-phase system, provide customer enough flexibility.

Three-phase system



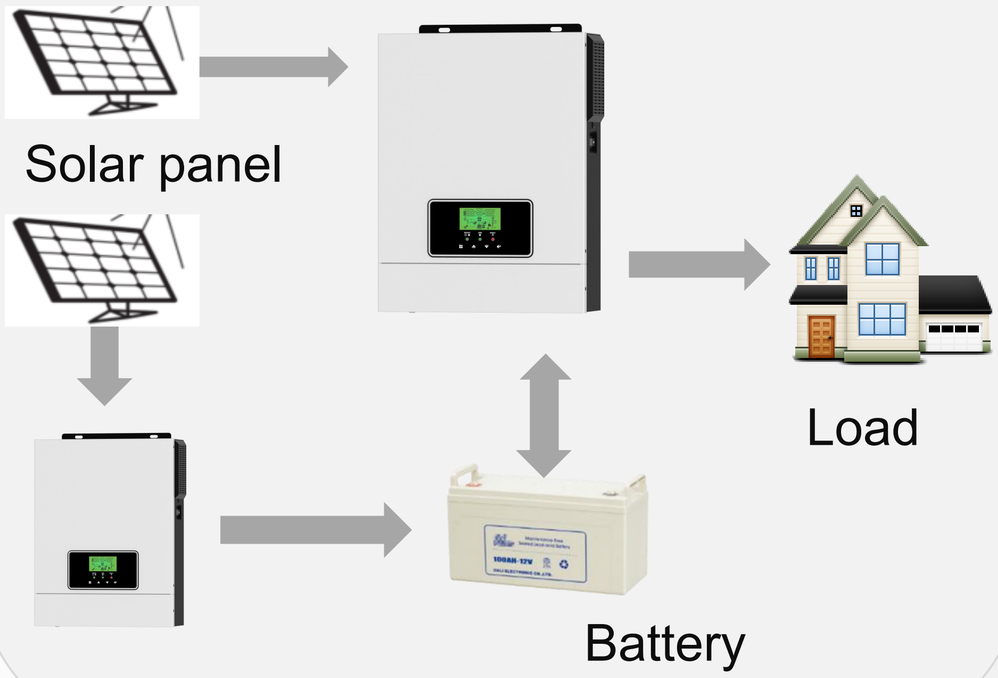
Single-phase system

High DC/AC Ratio up to 1.37

8.5KW PV input support the full load output and additional energy to charge the battery.

General 5KVA inverter

Maximum 4500Wp PV input, need additional SCC for battery charging



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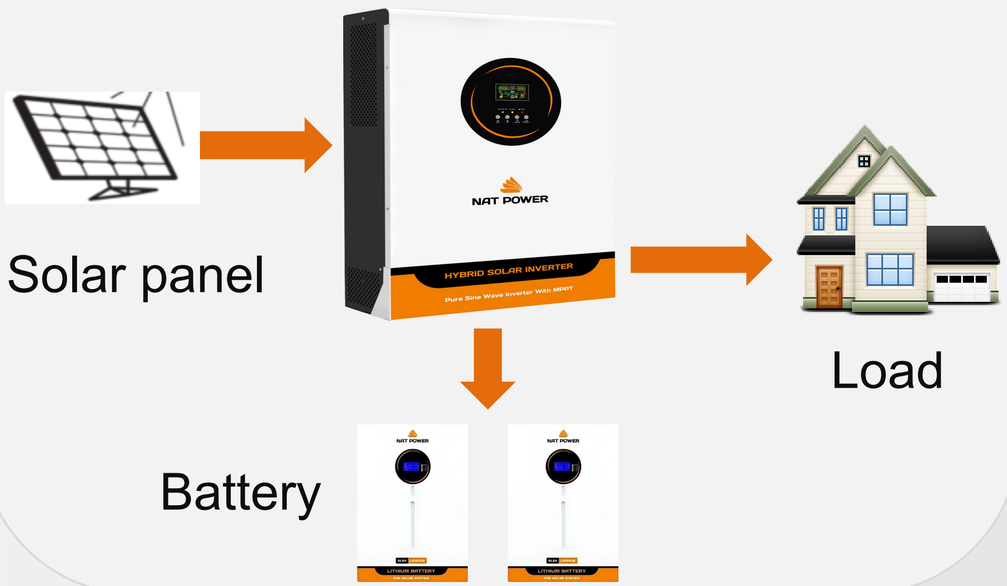
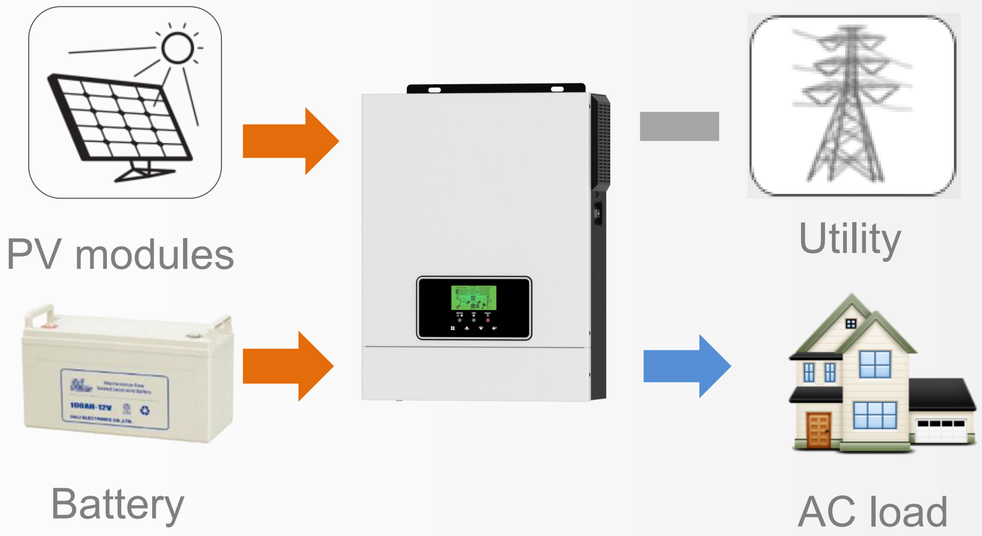
Maximum 8500Wp PV input, enough energy both for load and battery



SUB Work Mode

If solar energy is not sufficient to power all connected loads, solar and utility will power loads at the same time

General 5KVA inverter (Solar power + battery power)



GA 6200 (Solar power + Utility power)

Battery Equalization

Use for Lead Acid Batteries

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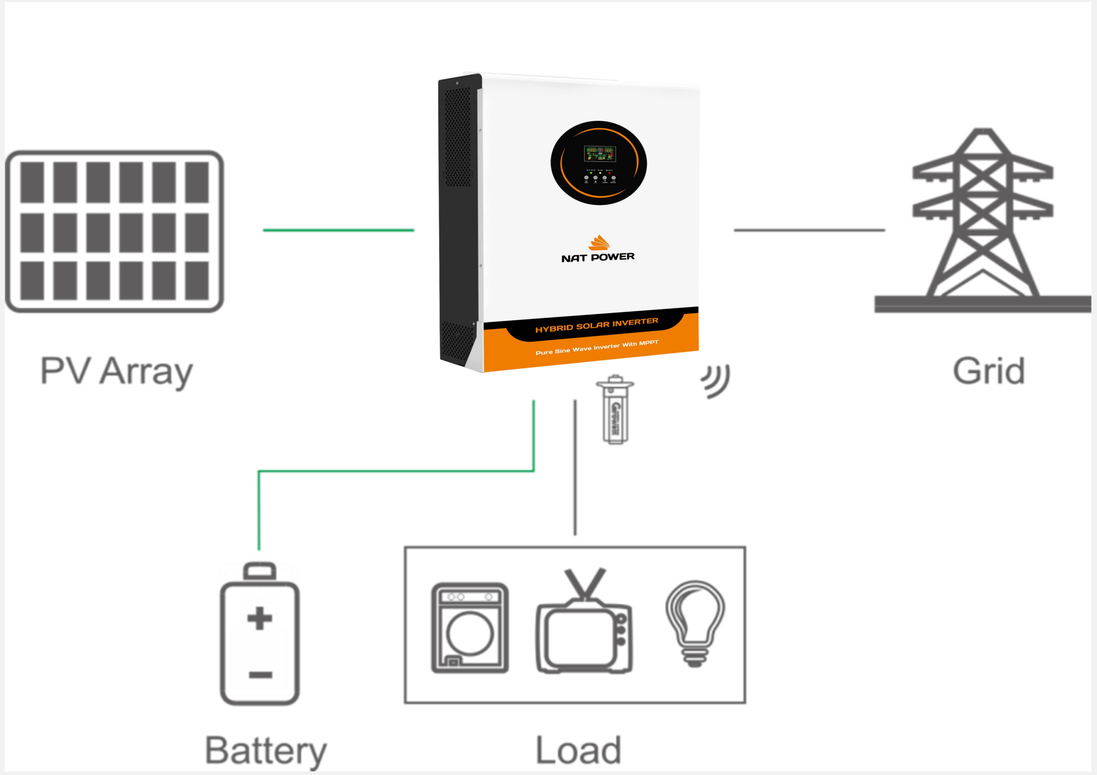
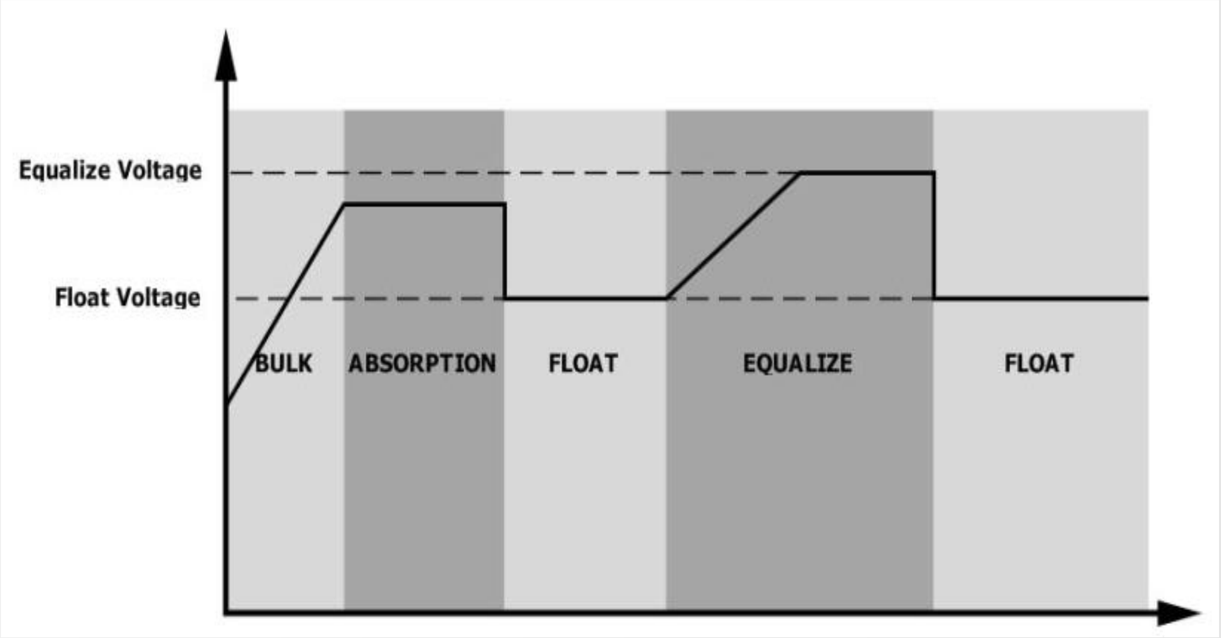


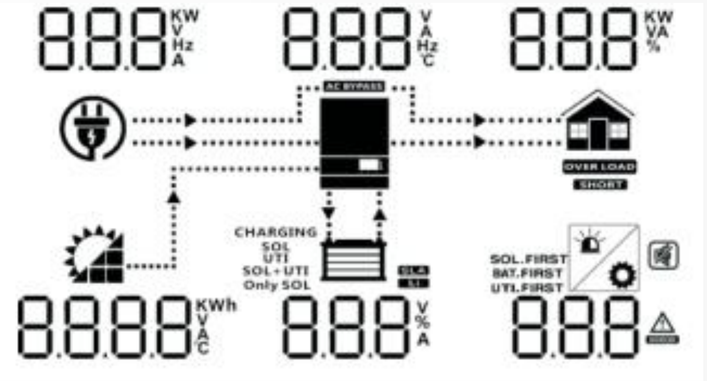
Inverter can setting lead-acid battery equalization charge interval time and charge voltage to active lead-acid battery feature then further can extend lead-acid battery life time.



Charging curve

Convenient HMI

Colorful LCD display



1. Input information (PV voltage, AC voltage, frequency, PV generation, battery voltage, charger current)

2. Output information (voltage, load percentage, frequency, load in VA, load in watt, discharging current)

GA series

USB cable

PC install monitoring software

PVkeeper platform
for local configuration or monitoring.

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02

Application Scenarios

Multiple Work Modes

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Working mode: (output SOL: solar first ; charging SNU: solar and utility power)

1. Solar power is sufficient

2. Solar power is not sufficient

3. Battery discharge low voltage back to utility mode (44-51.2 Vdc can set)

4. Utility charging voltage back to battery mode (48-58 Vdc can set)

Multiple Work Modes

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Working mode: (output UTI: utility first ; charging SOC : solar first)

1. Solar power is sufficient

2. Solar power is not sufficient

3. Solar power is not available

4. Utility power is not available

Scenario 1: Save Electricity Cost

When Solar power is sufficient (supply power to load and charge the battery). For cost-effective support, Utility feeds power only if the battery feeding is under low-level warning value.

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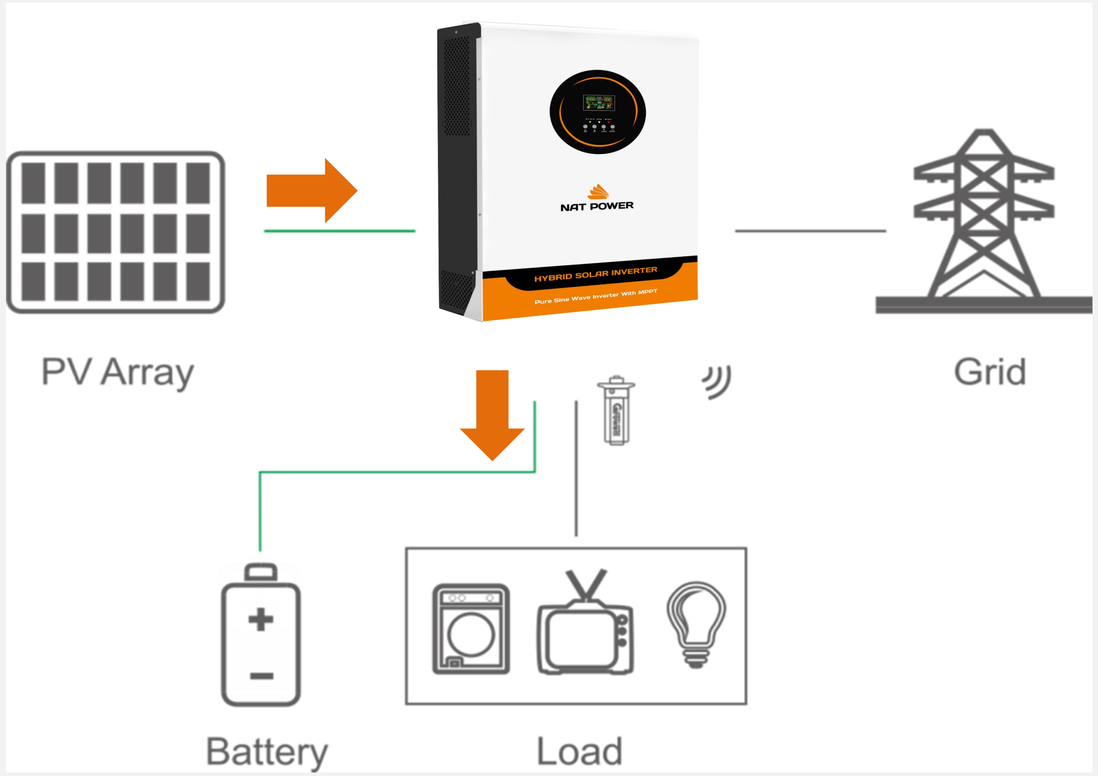

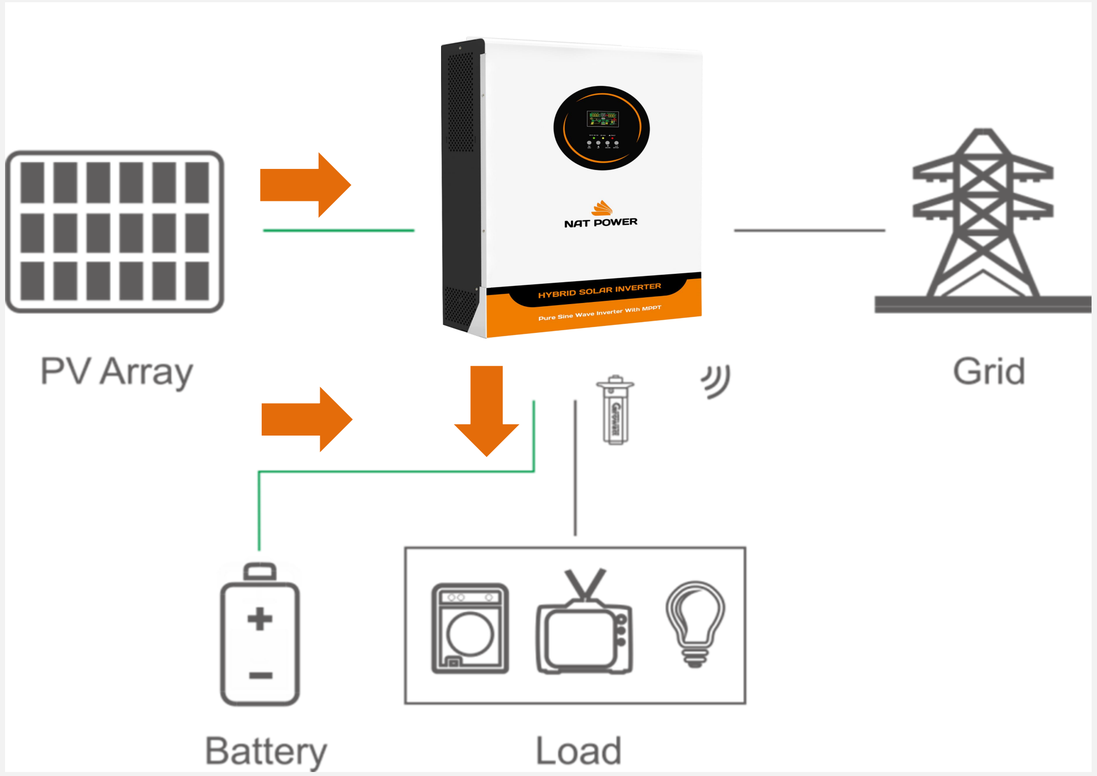

Priority mode : SBU first (other parameters use default setting)

Scenario 2: Power Backup

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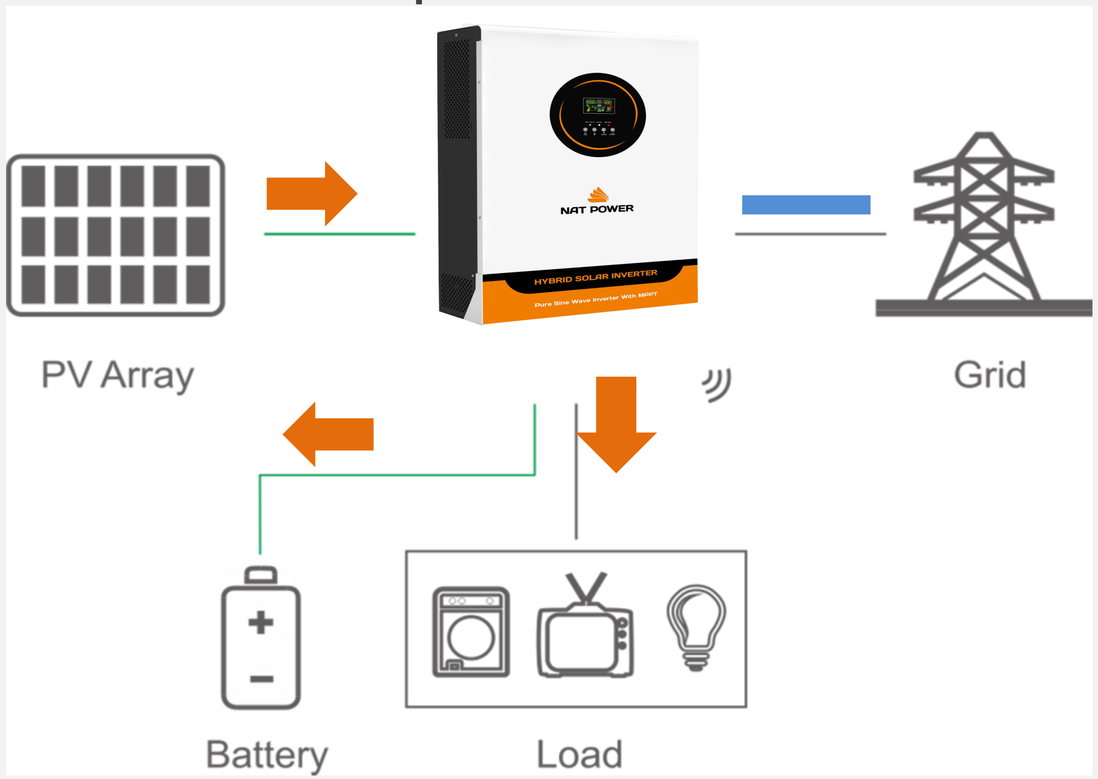
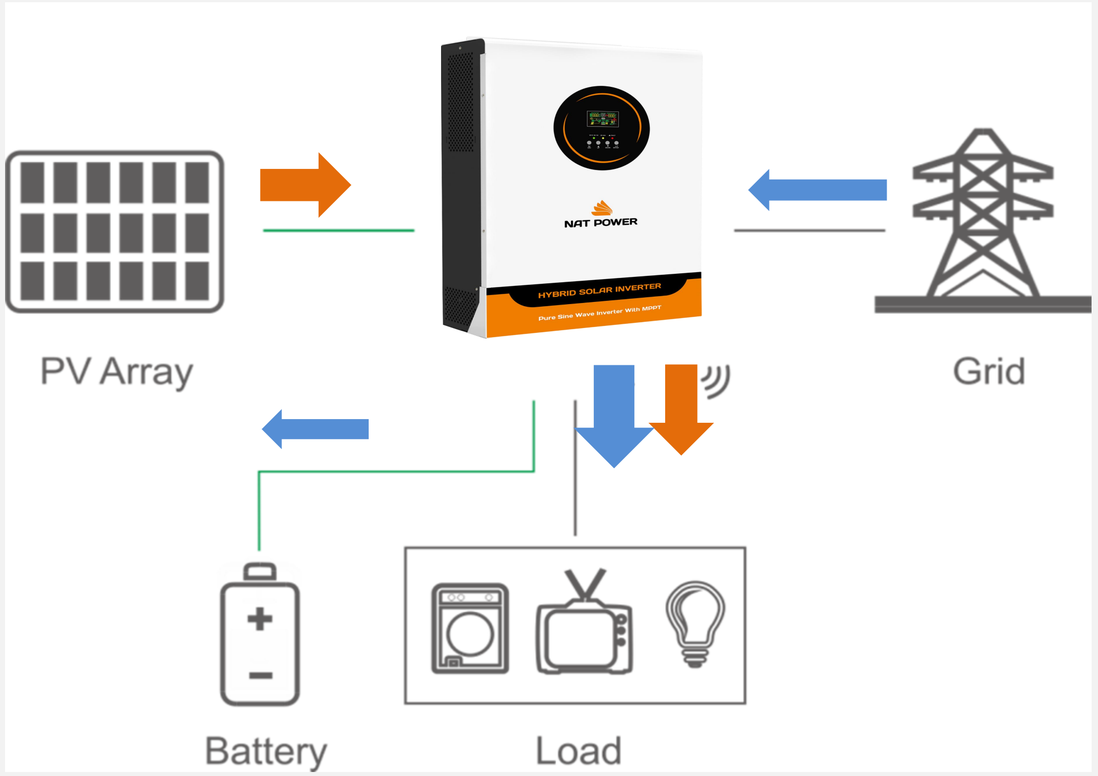
Solar power is sufficient (supply power to load and also charge the battery). When solar power is not sufficient, utility supply power to the load and charge the battery.

Solar power is sufficient



Solar power is not sufficient



Priority mode : SUB first or SOL first
(should set battery discharge voltage higher from program 12 by LCD screen button or shine Phone APP)

Scenario 3: Off-Peak Charging

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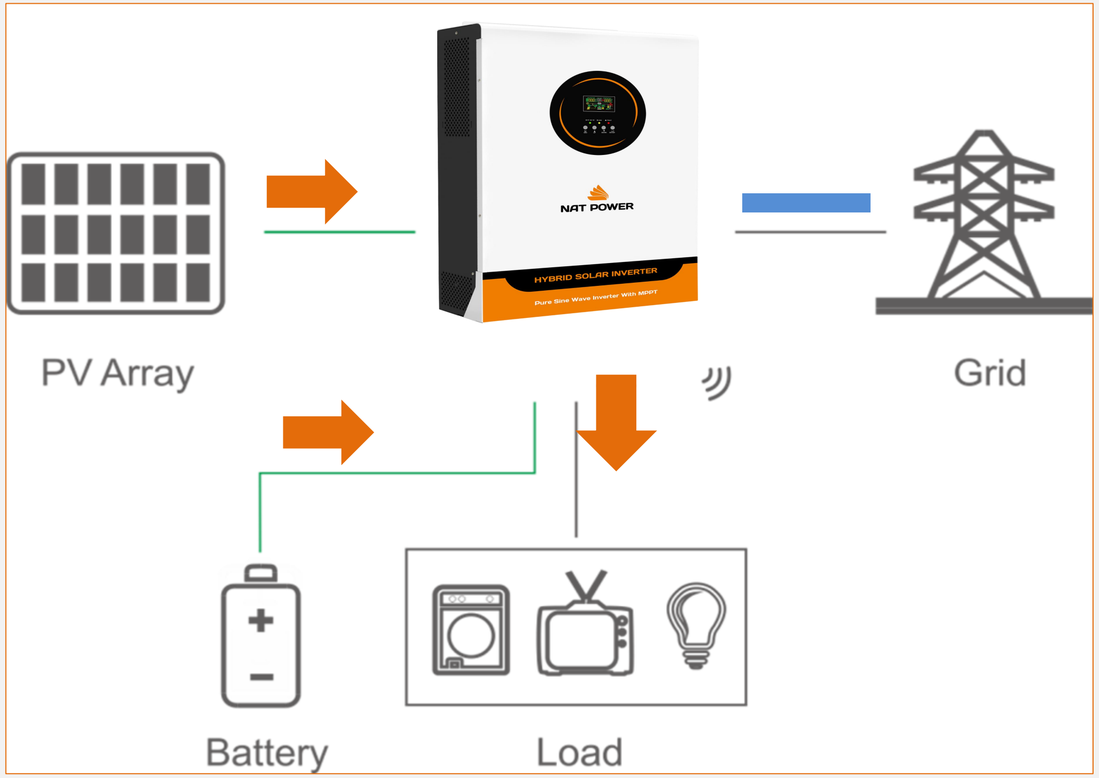
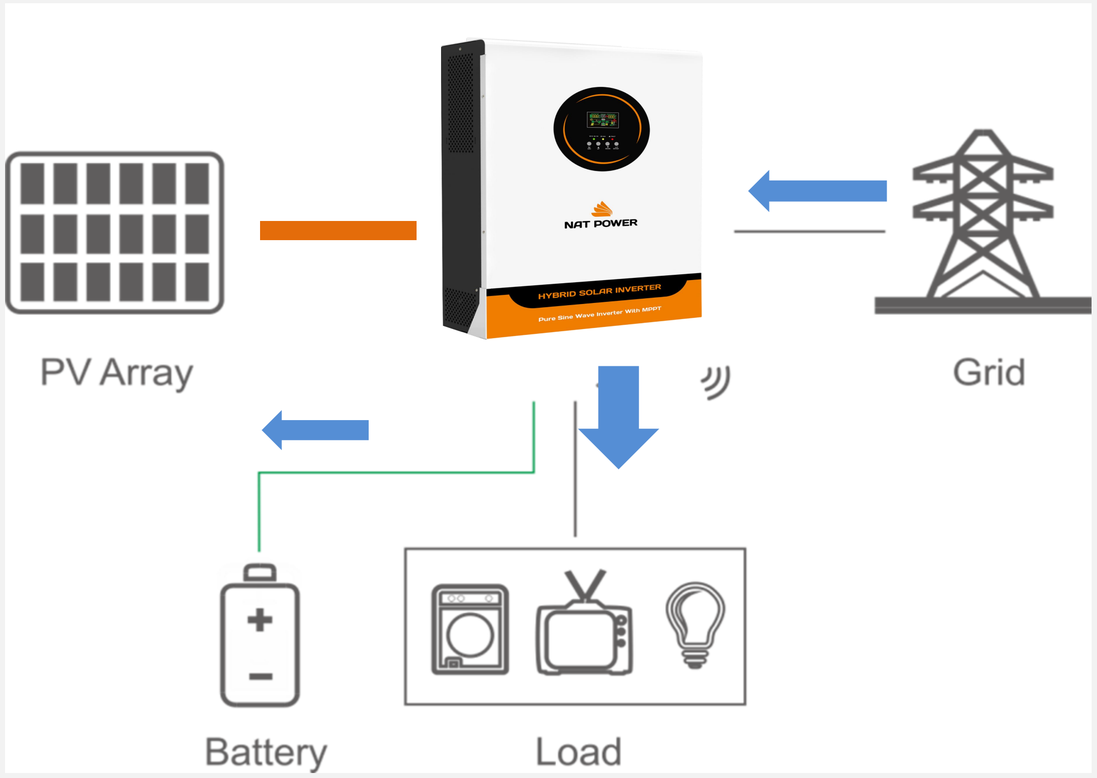
The time of grid power support and battery charging/discharging can be set during off-peak or peak time.

Peak time



Off-Peak time



Priority mode : SUB first or SOL first
(should set battery discharge voltage higher from program 12 by LCD screen button or shine Phone APP)

Specifications

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Model		GA6248SMH	GA8648SMH	GA11048SMH
AC Input		220/230/240VAC		
Input Voltage Range		90-280VAC±3V(Normal Mode) 185-264VAC±3V (UPS Mode)		
Frequency		50/60Hz(Adaptive)		
Photovoltaic inverter		6200W	8600W	11000W
Rated Power		6500W	11000W	12000W
Output Voltage		208/220/230/240VAC±5%		
Output Frequency		50/60Hz±0.1%		
Output Wave		Pure Sine Wave		
Transfer Time(Adjustable)		10ms for Computer Equipment,20ms for Household Equipment		
Peak Power		12400VA	17200VA	22000VA
Overload Ability		Battery Mode : 21s@102%~110% load 10s@110%~130% load 3s@130%~150% load 400ms@>150% load		
Peak Efficiency(Battery Model)		>94%		
Rated Voltage		48VDC		
Constant Charging Voltage		56.4Vdc		
Float Charging Voltage		54VDC		
PV Charging Method		MPPT		
Max PV Input		8500W	2×6500W	2×7500W
MPPT Tracking Range		60~500VDC	90~500VDC	90~500VDC
MAX PV Input Voltage		500VDC	500VDC	500VDC
MAX PV Charge Current		120A	150A	150A
MAX AC Charge Current		100A	150A	150A
MAX Charge Current		120A	150A	150A
LCD		Can display operating mode/load/input/output		
RS232		Baud Rate 2400		
Expansion Slot Communication Interface		Lithium Battery BMS Communication Card,WIFI		
Parallel Interface		Optional		
Grid connected operation	output voltage	220/230/240VAC		
	Grid voltage Range	170-265VAC		
	Grid Frequency Range	49~51±1Hz/59~61±1Hz		
	Output Current	26.9A	37.4A	47.8A
	Power Factor Range		0.99	
Operating /Storage Temperature		-10°C~50°C/-15~60°C		
Ork Altitude		No more than 1000m, If 1000m<,Rate power will lower, MAX 4000m, Refer		
Operating Environment Humidity		20%~95%Non Condensing		
Noise		⩽50dB		
L*W*H(mm)		495*312*125mm	570.8*471*148.2mm	
Standards and certifications		EN-IEC 60335-1, EN-IEC 60335-2-29, IEC 62109-1		

GA SERIES

PARAMETES

- ☆ Lithium Battery Auto-restart Function，More Convenient for Lithium Battery Charging
- ☆ Intelligent Power Supply Mode, Intelligent Distribution of Solar Panel/Mains/BatteryPower Shares
- ☆ Utility Charging Voltage/PV Charging Voltage Adjustable，Match Different Battery Charging Requirements
- ☆ Slim Body, Convenient Installation And Transportation
- ☆ Battery Reverse Connection Protection with Fuse Switch, Safer Installation
- ☆ PF1.0, High Efficiency, Lower Consumption,Energy Conservation/ Environmental Protection/Electricity Saving/Cost Saving
- ☆ Support Working without Battery: Reduce Solar System Cost
- ☆ Parallel Function Up to Maximum 9 Units: Enlarge More Loads
- ☆ High Precision of Output Voltage,±5%, Take Care of Your Appliances
- ☆ Communication Option: External WIFI, Supervise at Any Time
- ☆ BMS function for lithium battery

THANKS

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