## Introduction

This series of product is a module design of inverter and built-in MPPT controller, which has the advantages of high conversion efficiency, low power consumption and strong load-carrying ability. With intelligent control, customers can set charging mode, (Utility as complementary power) AC first mode or DC first mode, timed inversion mode and timed utility mode, timed on/off sleep mode. This is the currently the most advanced inverter & controller hybrid in the world.

## **Application**

- 1. Off-grid solar power system
- 2. Solar power system with utility as complementary power



## **Feature**

- 1. Easy to install. To configure a solar system, customers only need to connect it with solar panels and batteries;
- 2. CPU management ,intelligent control modular design, User-friendly LCD display;
- 3. Built-in MPPT controller, high charging efficiency ( 95%~99%);
- 4. Low power consumption, high conversion efficiency(85%~92%);
- 5. Intellectual multi-function, convenient for customers with different using environment to fully use the solar energy;
- 6. **External battery connection**, convenient to expand back-up power time;

- 7. **Strong load-carrying ability**, low failure rate, easy maintenance and long service life (under proper operation, it may be as long as 5 years);
- 8. **Perfect protection:** low voltage protection, over voltage protection, overheat protection, short-circuit protection, overloads protection;
- 9. CE / EMC / LVD/ RoHS Approvals;
- 10. Two years warranty, life-long technical supports.

## **Function**

## 1. Charging function

- 1.1 PV charge the battery, utility will not: when PV and utility are both connected to the machine, only the PV will charge the battery when there is sunlight
- 1.2 Both PV and utility will charge the battery: when PV and utility are both connected to the machine, AC (utility) will charge the battery. In the meanwhile, PV will also charge the battery if there is sunlight.

### 2. Utility as complementary power function

#### 2.1 AC first , DC standby UPS mode

When both utility and battery are connected to the machine, utility will supply power to the loads prior to the battery. When utility is cut off, the battery will automatically continue to supply power.

#### 2.2 DC first, AC standby UPS mode

When both utility and battery are connected to the inverter, battery will supply power to the loads prior to utility. When battery capacity is not enough, utility will continue to supply power automatically.

## 3. Timing function

- 3.1 Timed on/off normal working mode and sleep mode: can set specific time when to open normal output and when to close AC output to enter sleep mode.
- 3.2 Battery and utility switchable mode: can set specific time when to use battery or utility supply power (suitable for areas where electric fee is charged according to period in different intervals).

## 4. Recording/checking function

- 4.1 Machine fault checking: can check the machine fault information.
- 4.2 Discharge time checking: can check the discharge time of the battery.

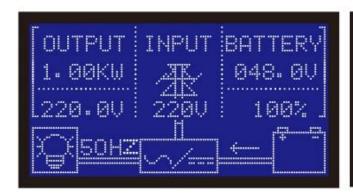
## **Parameter**

Parameter Model		1000W	1500W	2000W	3000W	4000W	5000W			
Rated Output Power		1000W	1500W	2000W	3000W	4000W	5000W			
Peak Power		2000W	3000W	4000W	6000W	8000W	10000W			
Battery		24V	48V							
(Lead-acid battery[		Z4 V	24V/48V(op	Julional)	400	+o v				
Charging	Parameter	_								
Charge Mode[]setting[]		PV charge								
		PV charge + utility charge								
MPPT Solar Controller	Voltage	24V	24V/48V		•	48V				
	Current	20A	25A	30A	40A	40A	40A			
	Max PV Input Voltage	100V								
	r PV Charge Efficiency	95%~99%	_							
	Max PV Input	568W	24V: 710W	852W	24V:1136V	N 2272W	2272W			
	Power		48V1420W	48V: 1704W	48V: 2272W					
Utility	AC Charge Current	0~15A								
	Charge Mode	3-Stage Ch	arging							
Inversion	parameter									
AC Output	Voltage	220V±3% or 230V±3 or 240V±3% or 100V±3% or 110V±3%								
	Frequency		60Hz±0.5							
Output way			ave output, w		istortion rate	e≤3				
Overload a		∏120% 1 mi	n, ∏130% 10s							
Power Consumption		0.4A								
(under normal working mode)			M X 1 / 1 / 1 / 1 / 1 / 1	48V: 0.45A	48V: 0.5A	0.6A	0.65A			
Power Con		1-6W								
(under sleep mode)		1-044								
Inverter Co	onversion	85%~92%								
Efficiency		0370 3270								
Utility Mo		2001	4401.000	<u> </u>						
IAC INDIII I	Voltage		or 110V+35%	6∐optional						
	Frequency		he same as utility							
AC Output	Voltage		220V±5% or 110V+5%∏optional∏							
	Frequency		The same as utility							
Overload A	•		n <u>∏</u> 130% 10s	5						
(AC first o	or DC first) pric		-1							
UPS Output[setting[		AC first, DC standby								
		DC first, AC standby								
		□5ms □AC to DC / DC to AC□								
I ====================================		Set by users Timed open / close AC output automatically								
□setting□	\	rimed open	/ close AC ou	itput autor	natically					
L	arameter	100 : 150								
Display		LCD+LED								
	Display Information	nput voltage, output voltage, output frequency, battery capacity, oad condition, Status Information								
IDITATACTIAN		Overload output, short-circuit, high-voltage input, low-voltage input, overheat								

Environment	Temperature	-10°C <u></u> 50°C							
	humidity	10%[]90%							
	Altitude	≤4000m							
Size W×D×H(mm)		438*208*4	13	450*246*468					
Packing Size W×D×H(mm)		520*310*4	60	540*300*518					
Net Weight (kg)		15	17	19	25	34	35		
Gross Weight (kg)		16	18	20	27	40	41		

# **Products photo**









## **Company photo**









