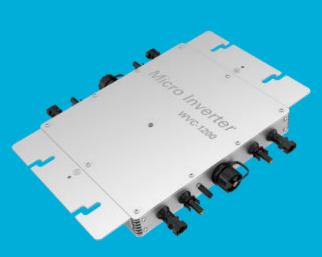
# Green Energy Smart Inverter Expert

Smart Inverter WVC-1200 (Wireless) Description



### WVC -1200 (Wireless) (433MHz Wireless)

Smart Inverter



WVC-1200 (Wireless) Using IP65 waterproof streamline design, Can effectively prevent

rainwater on the surface erosion, Built-in high-performance Maximum Power Point Tracking (MPPT) Function, Better able to track changes in the solar luminosity and control different output power, Effectively capture and collect sunlight. AC electric power transmission using the reverse transmission technology, Is one of our patented technology, The inverter output power can provide load priority use, Extra electricity to the grid, Efficient use of the inverter to the power emitted, Electricity transmission rate of up to 99%.

Communication: The inverter communicates with the collector using the wireless communication 433MHz mode, and the collector communicates with the computer using the RS232 serial port mode. Intelligent monitoring system, can collect real-time inverter data, can control the inverter boot / shutdown / power adjustment function.

#### Features:

- High performance maximum power point tracking (MPPT)
- Reverse power transmission
- Intelligent monitoring management
- Input /output is fully isolated to protect the electrical safety
- Multiple parallel stacking
- Digital control system
- Simplify maintenance (user serviceable)
- Operation and maintenance costs low

Smart Inverter

## WVC-1200 (Wireless)

- Flexible installation
- Use the wireless 433MHz communication mode

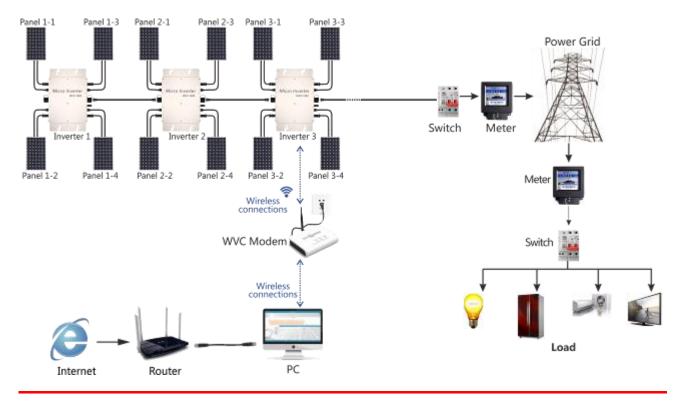
#### WVC-1200 (Wireless) Parameters

Input Data		KD-WVC-1200 (Wireless)-120VAC/230VAC				
Maximum input power		1200Watt				
Recommended using solar panels		Power4×300W, open circuit voltage 36-50V0C				
Solar panel open circuit voltage range		36-50V0C				
Peak power tracking voltage		22-50V				
Min / Max start voltage		22-50V				
Maximum DC short current		80A				
Maximum Input Current		54. 4A				
Output Data	@120VAC		@230VAC			
Peak power output	1200Watt		1200Watt			
Rated output power	1150Watt		1150Watt			
Rated output current	9. 58A		5A			
Rated voltage range	80-160VAC		180-260VAC			
Rated frequency range	47-52.5Hz/57-62	2.5Hz	47-52.5Hz/57-62.5Hz			
Power factor	>99%		>99%			
Maximum units per branch circuit	3PCS (Single-p	hase)	5PCS (Single-phase)			
Output Efficiency	@120VAC		@230VAC			
Static MPPT efficiency	99. 5%		99. 5%			
Maximum output efficiency	95%		95%			
Night time power consumption	<1W		<1₩			
THD	<5%		<5%			
Exterior						
Operating temperature range		-40℃ to +60℃				
Dimensions (WxHxD)		370mm×300mm×41.6mm				
N.W.		2. 83kg				
Waterproof level		IP65				
Cooling		Self-cooling				
Communication Mode		Wireless 433MHz				
Power transmission mode		Reverse transfer, load priority				
Monitoring System		Lifetime free				
Electromagnetic compatibility		EN50081.part1 EN50082.part1				
Grid disturbance		EN61000-3-2 Safety EN62109				
Grid detection		DIN VDE 1026 UL1741				
Certificate		CEC, CE National patent technology				
Package weight						
Sepcification	Single	e(packing)	Whole(2PCS)			
G.W.	4	.03Kg	9.00Kg			
0.111	Dimensions 430×3					

\*Attn:each MODEM can control 46 PCS micro inverters on the condition of non-intelligent electri c box

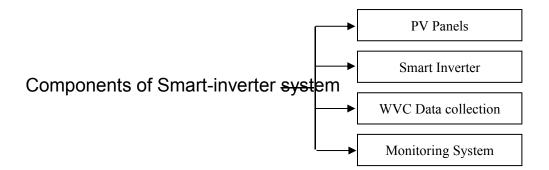
### **PV Smart-inverter system components**

System Block Diagram



### **System Description**

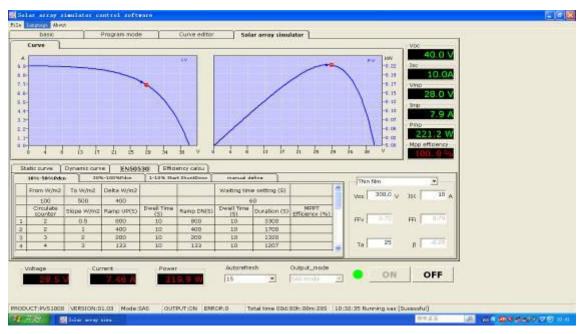
Smart-grid inverter system components



In summary, Micro-inverter system is simpler, more convenient installation.

### High performance maximum power point tracking (MPPT)

Powerful MPPT algorithm, Optimize the power from the solar panels to collect, Accurately capture and lock the maximum output power point, A substantial increase in output power greater than 25% or more.



**MPPT** 

#### **Power Output: (Reverse power transmission)**

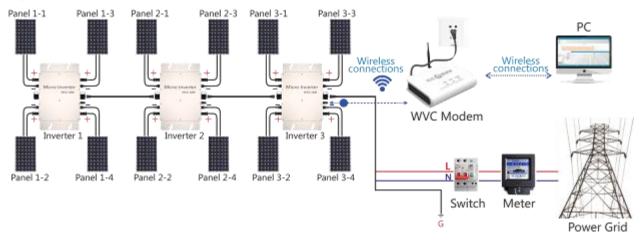
Reverse efficient power transmission technology, Patented technology, The inverter power transmission in the reverse direction, Automatic detection circuit load and using priority, Additional power transmitted to the grid, Power transmission rate up to 99.9%. Higher output efficiency in photovoltaic application system manipulation.

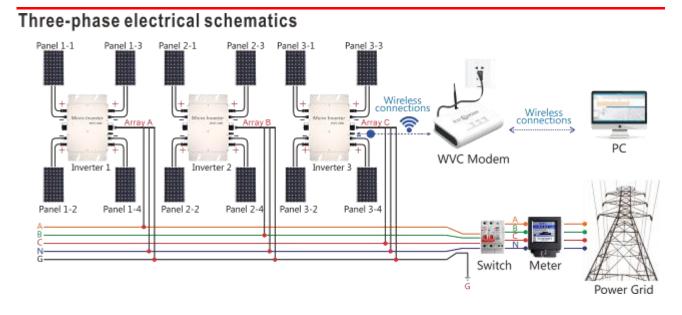
8 4 3 % 🚳 🚺				2			
		U120	010 测试报告	Ĵ			
电压(V) 224.8	电流(A) 1.109	功率(W) 249.0		功率因数 0.998		频率(Hz) 50.00	
		谐波 k	电压 %	电流 %	谐波 k	电压 %	电流 %
		0 2 4 6 8 10	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.6 0.2 0.1 0.1 0.0	1 3 5 7 9 11	100.0 0.2 0.1 0.0 0.0 0.0	100.0 1.2 1.5 1.0 0.9 0.4
电压总谐		12 14 16 18 20 22	0.0 0.0 0.0 0.0 0.0 0.0	$0.0 \\ 0.0 \\ 0.0 \\ 0.1 \\ 0.0 \\ 0.0 \\ 0.0$	13 15 17 19 21 23	0.0 0.1 0.0 0.0 0.0 0.0	0.7 0.8 0.5 0.3 0.6 0.8
1 k 电流总谐	<u>39</u> 波: 3.4%	20 22 24 26 28 30 32 34	0.0 0.0 0.0 0.0 0.0 0.0	$\begin{array}{c} 0.0\\ 0.1\\ 0.1\\ 0.0\\ 0.0\\ 0.0\\ 0.0 \end{array}$	21 23 25 27 29 31 33 35	$\begin{array}{c} 0.1 \\ 0.0 \\ 0.0 \\ 0.0 \\ 0.1 \\ 0.0 \end{array}$	0.9 0.8 0.6 0.5 0.4 0.3
1 k	39	36 38	0.0 0.0	0.0 0.0	37 39	0.0 0.0	0.2 0.3

THD

### **Electrical schematics**

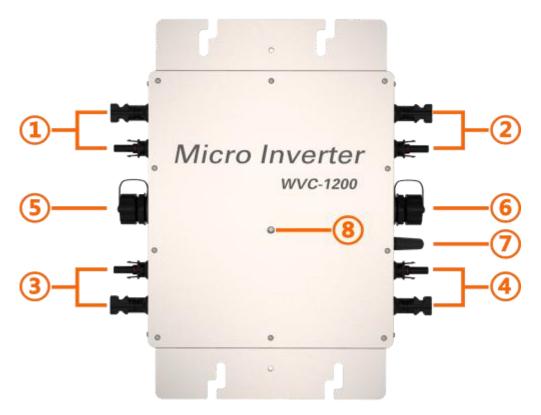
### Single-phase electrical schematics





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Extra electricity to the grid, Efficient use of the inverter to the power emitted, Electricity transmission rate of up to 99%.

①PV Panel Input 1

②PV Panel Input 2

③PV Panel Input 3

④PV Panel Input 4

(5) AC Input – Connect to the Previous

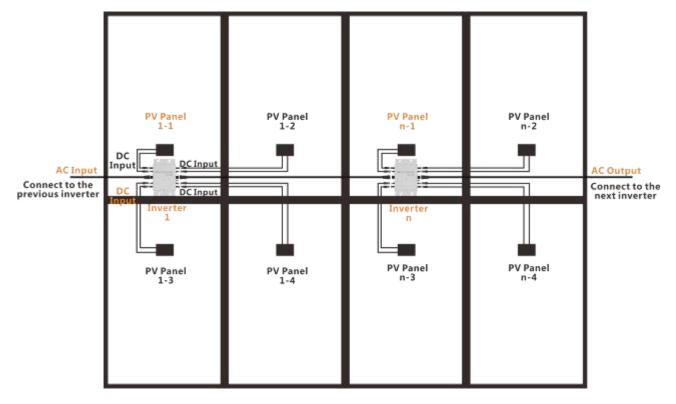
6 AC Output – Connect to the Next

⑦433/462MHz Wireless Line

⑧LED Display

#### Installation and connection

WVC-1200 (Wireless) Series Solar Inverter very easy to install, No need for project professionals can also install. Whether installation or maintenance are very simple, No maintenance  $_{\circ}$ 



### Smart Inverter WVC-1200 (Wireless)

#### Monitoring System

The Monitoring System KDM is KaiDeng Energy Technology Co., Ltd. have complete independent intellectual property developed intelligent monitoring systems, It is a product designed specifically for WVC

今日电量	0.5KWh			2		由銷数量·	2 逆变器数量:3	24	
总发电量	575.5KWh			K	2	-C HD XA III.		81.	
有功功率	886,40W				(	44 100-00 000			
无功功率	225.80W	无法	力电量 5	4.5KWh	IT-	单相电箱			
电网电压	A相 219.11V	B相 0.0	ov c	相 0.00V	R.	编码:8888			5
输出电流	A相 4.31A	日相 0.0	DA C	NB 0.00A	- UL	CT:1			1
	B	[]时功率(W)				逆变器数量:18			
500	625.2				A相电压	212.24V	交换频率	49.98Hz	2
400	1				B相电压	0.0V	功率因数	0.976PF	"
300					C相电压	0.0V	有功电量	314.3KWh	
8000					A相电流	2.877A	无功电量	31.2KWh	
200					B相电流	E 0.0A	有功功率	582.00W	
100	1				C相电流	0.0A	无功功率	129.20W	
0							*		