

**SANUPS**

PV INVERTER

**P61A**



**SANYODENKI**

# Highly Efficient PV Inverter

# SANUPS P61A

PV Inverter

Expected November 2010

Golden Sun Certification (金太陽)  
Clean Energy Council (CEC)  
CE Marking

## Grid-connected Type **Transformerless**

Input operating voltage range	Output voltage	Rated output	Ambient temperature
DC 120 V to 500 V	AC 230 V	3 kW, 5 kW	-25 to 60°C



### 1 Maximum Efficiency of 96%

- P61A has achieved maximum efficiency of 96%.

### 2 IP65 (International Protection Code of 65)

- It has achieved IP65 level of protection, and is superior in waterproof / dustproof performance. It's safely used outside as well.

### 3 20 Years of Life Expectancy

- It will last 20 years with part replacement.

## External View

### Front

Operating and display panel



### Bottom 3kW

Model: P61A302

EPO

RS-232



Solar cell input A

External communication\*

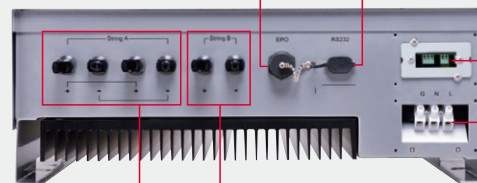
Grid-connected output\*

### Bottom 5kW

Model: P61A502

EPO

RS-232



Solar cell input A

Solar cell input B

External communication\*

Grid-connected output\*

\*The waterproof cover is attached.

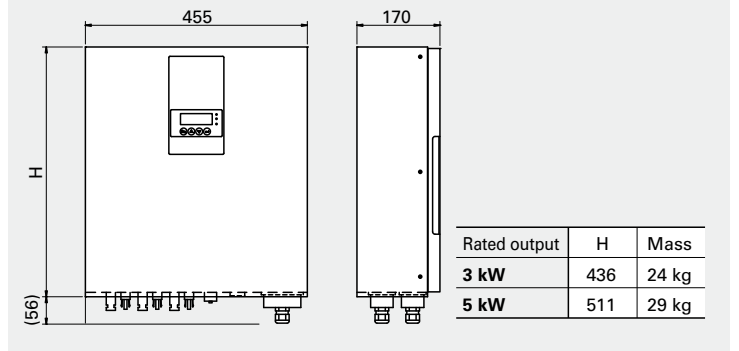
## Specifications

Item	Model*	P61A302	P61A502	Remarks
Rated output		3 kW	5 kW	
System	Main circuit type	Self commutation voltage type		
	Switching method	High frequency PWM		
	Electrical insulation method	Transformerless		
DC input	Maximum allowable input voltage	DC 500 V		
	Input operating voltage range	DC 120 to 500 V		
	Range of rated output voltage	DC 150 to 450 V		
	Maximum power point tracking range	DC 150 to 450 V		
	MPPT tracker	1	2	
AC output	Output electrical system	Single-phase 2-wire system		
	Rated output voltage	AC 230 V		
	Voltage range	AC 184 to 264.5 V		
	Rated frequency	50 / 60 Hz		
	Rated output current	AC 13 A	AC 21.7 A	
	AC output current distortion factor	Total harmonic current :5% or less, Single harmonic current :3% or less		Rated output current ratio
	Output power factor	0.99 min.		At rated output
Conversion efficiency	MAX Efficiency	96%		
	EU Efficiency	94%		
Grid connected protective function		Utility grid over voltage (OVR), Utility grid under voltage (UVR), Utility grid over frequency (OFR), Utility grid under frequency (UFR)		
Islanding operation detecting functions	Passive-type device	Voltage phase jump detection		
	Active-type device	Reactive power variation method		
External communications		RS-485		
Environment	Installation place	Outdoor		
	Ambient temperature	- 25 to 60°C		When ambient temperatures are above +40°C, the output power is limited
	Relative humidity	0 to 90%		Non-condensing
	Altitude	2000 m or less		
Protection code		IP65		
Cooling		Free convection		
Connector		AC: Terminal, DC: Connector (MC4)		

\*Model No. and the setting of grid connected protective function is different in each region.

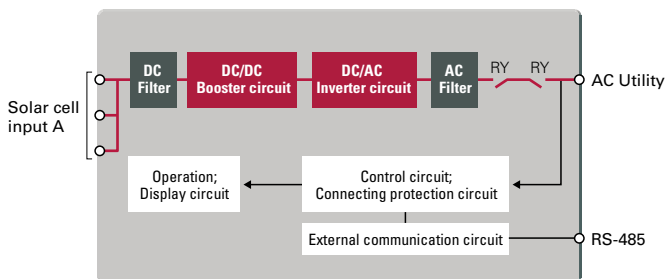
Model No.		Region
3 kW	5 kW	
P61A302RA001	P61A502RA001	China (AC 220V)
P61A302RA002	P61A502RA002	Germany, Spain, France, Belgium (AC 230V)
P61A302RA003	P61A502RA003	Australia (AC 230V)

## Dimensions (Unit: mm)

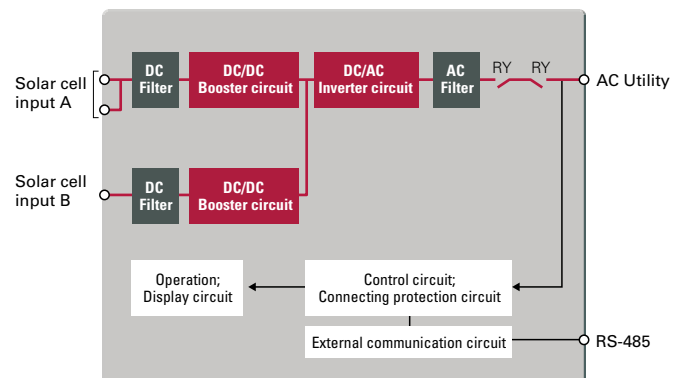


## Circuit block diagram

3kW Model: P61A302



5kW Model: P61A502



## Option

### Data collection and measuring system

#### · SANUPS PV Monitor

SANUPS PV Monitor allows you to easily monitor power generation status in remote area via network. Max. 27 connected devices can be measured / monitored.

### Junction devices

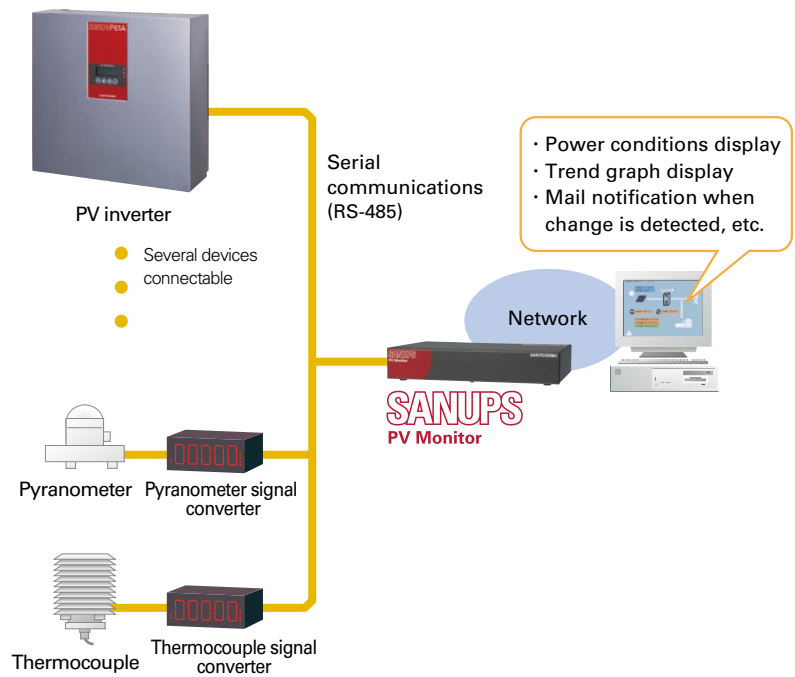
This device plays a role to collect DC outputs from solar cells and outputs to PV inverter.

### Thermocouple

### Pyranometer

### Thermocouple signal converter

### Pyranometer signal converter



## Notes when investigating use of this product in your applications

- Before starting installation, assembling and use, read the "Operation Manual" carefully and use the product correctly in your applications.
- The product or system on this catalog is for general and industrial use. This product or system is not supposed to be applied to where exceptionally high quality and reliability is required, and its failure or improper operation may possibly result in fatal or serious injury. In this case, please call us for further assistance.

- For the applications that undergo vibration, please consult with our company.
- Never modify this product or give additional processing to this product.
- For the installation and maintenance work, please consult with our company or with specialized company.

※ For any inquiry or consultation, please contact our sales representative.

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\*Remarks : Specifications Are Subject To Change Without Notice.

CATALOG No.955-1 '10.9