

**AIMS POWER™**  
A DIVISION OF THE AIMS CORPORATION

**DC to AC**  
**PURE SINE WAVE**  
POWER INVERTER

**USER MANUAL**

**Product Registration Instructions**

Please visit our website at [www.AIMSCorp.net](http://www.AIMSCorp.net) and click on the product registration link at the top of the page.

This will validate your warranty with AIMS Power and ensure that you get fast, expedited customer service if you need to repair or exchange your product.

Thank you for choosing



**AIMS POWER™** [www.AIMSCorp.net](http://www.AIMSCorp.net)  
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USER MANUAL

Model NO.: PE60012230S

**WARNING :** Please read this manual in its entirety before using or connecting this inverter. It includes important instructions and safety tips.



## SPECIFICATION

1. Use of advanced micro processor .
2. Cooling fan with intelligent temperature control.
3. USB power supply.

(EN)

Model	PE60012230S
Power supply Voltage	12VDC
Output voltage	230VAC
Output frequency	50Hz
Output wave form	Pure sine wave
Continuous power output	600W
Peak power output	1200W
Under voltage safeguard	10VDC
Over voltage safeguard	16VDC
USB outlet	5V, 1A max
Fuse	2x40A
Operating temperature	0-104°F
Dimension(LxWxH)	8.4x5.51x2.92 in
Weight	3.7lbs/4.3lbs boxed
Cooling fan	temperature > 104°F

(IT)

Tipo	PE60012230S
Tensione di alimentazione:	12VDC
Tensione di uscita:	230VAC
Frequenza di uscita:	50Hz
Forma d'onda di uscita:	Puro sine
Potenza di uscita continuativa:	600W
Potenza di uscita di picco:	1200W
Protezione sottotensione:	10VDC
Protezione sovratensione:	16VDC
Presse USB:	5V, 1A max
Fusibile	2x40A
Temperatura di funzionamento:	0-40°C
Dimensioni (LxWxH)	213x140x74mm
Peso	1.67kg/1.95kg boxed
Ventola	La temperatura > 40°C

(FR)

Modèles	PE60012230S
Tension d'alimentation::	12VDC
Tension de sortie:	230VAC
Fréquence de sortie:	50Hz
Forme d'onde de sortie:	L'onde sinusoïdale pure
Puissance de sortie continue:	600W
Puissance de sortie de crête:	1200W
Protection sous-tension:	10VDC
Protection surtension:	16VDC
Prise USB :	5V, 1A max
Fusible	2x40A
Température de fonctionnement:	0-40°C
Dimensions (LxWxH)	213x140x74mm
Poids	1.67kg/1.95kg boxed
Ventilateur de refroidissement	La température > 40°C

(ES)

Modelos de	PE60012230S
Tensión de alimentación:	12VDC
Tensión de salida:	230VAC
Frecuencia de salida:	50Hz
Forma de onda de salida:	Onda senoidal pura
Potencia de salida continua:	600W
Potencia de salida de pico:	1200W
Protección por bajada de tensión:	10VDC
Protección por subida de tensión:	16VDC
Conector USB:	5V, 1A max
Fusible	2x40A
Temperatura de funcionamiento:	0-40°C
Dimensiones (LxWxH)	213x140x74mm
Peso	1.67kg/1.95kg boxed
Ventilador de refrigeración	La temperatura > 40°C

(DE)

Modelle	PE60012230S
Versorgungsspannung:	12VDC
Ausgangsspannung:	230VAC
Ausgangsfrequenz:	50Hz
Wellenform am Ausgang:	Reine Welle
Dauerleistung am Ausgang:	600W
Spitzenleistung am Ausgang:	1200W
Unterspannungsschutz:	10VDC
Überspannungsschutz:	16VDC
USB-Buchse:	5V, 1A max
Hauptschmelzsicherung:	2x40A
Betriebstemperatur:	0-40°C
Abmessungen (LxWxH)	213x140x74mm
Gewicht	1.67kg/1.95kg boxed
lüfter	Temperatur > 40°C

### 1. BRIEF:

Our power inverter uses advanced engineering, and it can supply you with AC power converted from a DC power source. It not only can be used in cars, vessels and for camping, but also can be used in emergencies when out of electricity.

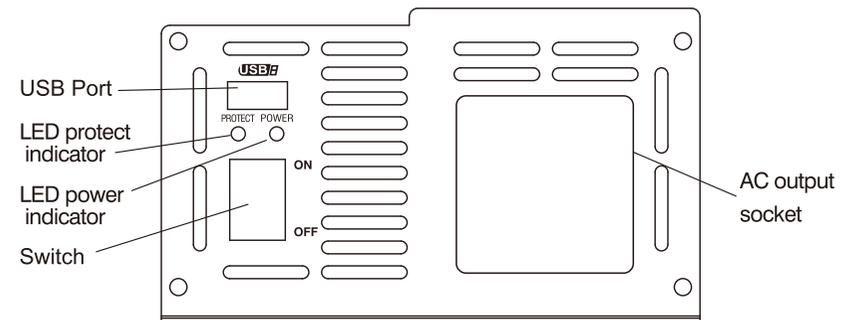
In order to use the inverter efficiently and safely, please install and use it in a proper way. Please read the instructions carefully before installing and using the inverter. Pay special attention to the "WARNING" and "NOTICE" statements in the manual.

## 2. WARNING AND SAFETY

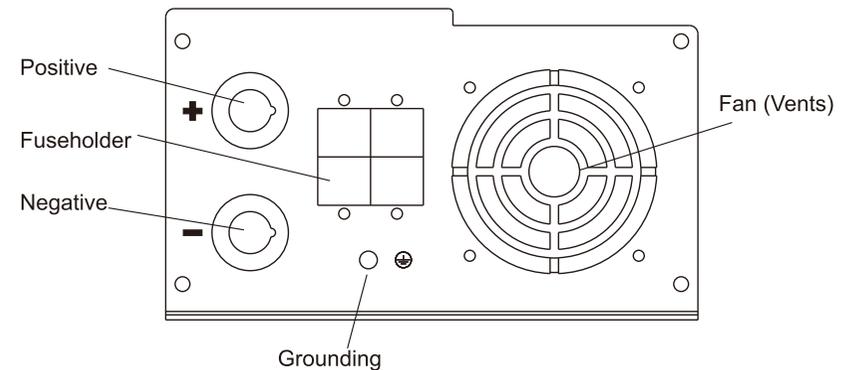
- 1) Read the manual before connecting inverter and keep it for future reference.
- 2) Don't put the inverter in direct sun light, heat source, damp environment.
- 3) The housing of inverter will get hot when using, please avoid touching materials that can't stand high temperature, such as clothes, sleeping bag and carpet, etc.
- 4) The inverter is designed for use with a negative ground electrical system! Don't use it with positive ground electrical systems (The majority of modern automobiles, RVs, trucks and boats are negative ground).
- 5) Do not disassemble the unit as it may cause fire or electric shock.
- 6) Keep children away from inverter and don't allow them to play with the unit.
- 7) The power inverter will output AC power as utility power, please treat the output terminal as carefully as your home AC socket. Don't put any foreign objects into the output terminal except electrical appliance plug. It will cause danger or fire if used improperly .
- 8) Disconnect the battery and inverter when the inverter is not in use.

## 3. PARTS LIST

### 1) Front panel:



### 2) Rear panel:



## 4. ASSEMBLE

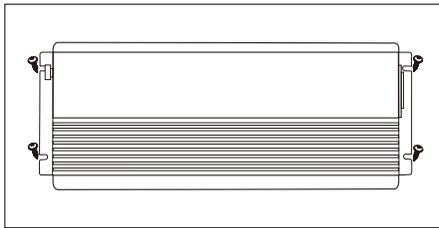
### 1. Location

First ensure that there is enough space to install the inverter, while the installation location must meet the following requirements:

- (1) Dryness: Avoid dripping water or other liquids on the inverter.
- (2) Coolness: The operating temperature for the product is 32-104° F(0-40°C), the preferable temperature is 50-77°F(10-25°C), the lower temperature is better within this range.
- (3) Ventilation: There should be a certain distance between inverter and other objects, to avoid blocking the product's vents. Allow 2 inches( 5cm) from openings.
- (4) Cleanness: Do not install the product around dust, wood chips or other particles. When the cooling fan turns on, the particles will be sucked into the inverter , thus increasing internal temperature..
- (5) When connecting inverters and batteries, it will produce arcs or sparks, so there should not be flammable objects around, such as gasoline, alcohol, etc.

### 2. Mounting instructions

Mount on a solid platform because of the heavy weight, such as floor, table or stable support. In order to avoid sliding off, the platform should bear the weight of the product, and it is better to attach the product with four screws.



## 5. USAGE

### How to use inverter

1. Check the output voltage and capacity of the battery, it should comply with the requirement of the product use.
2. Connect your inverter to your battery bank, but be sure not to reverse the polarities of the connection.
3. Press the power on button on your inverter for 0.5 seconds and a green LED will light up indicating that the inverter is on. The remote also has an on indicator light.
4. Before plugging anything into your inverter, make sure the appliance you're trying to power is shut OFF, then plug it into the AC outlet of your inverter and power on your appliance.
5. Once finished using the inverter, turn off your electrical appliance and the inverter. Also, if you do not plan to use the inverter for a long period of time, disconnect it from your battery bank.
6. The cooling fan on this product will not run on start up. It will start when the inverter's load power reaches about 100W. Again, be sure to turn off the inverter when it's not in use. Accidentally leaving the inverter on for a long period of time could result in damaging the product or batteries.
7. The USB port on this unit can provide a stable line of 5V DC . The maximum current is 1000 mA. Be sure to double check your device to make sure it doesn't exceed these requirements.

## 6. BATTERY OPERATING TIME

Battery operating time depends on the capacity (amp hours) of the batteries being used and the amount of power being used (wattage). The calculation for determining operating time is:

[ battery capacity (AH) X battery output voltage (V) ] / power being used (W) Example: A 12V 200Ah battery with a 600W power load has 4 hours of operating time (200 X 12 / 600 = 4)

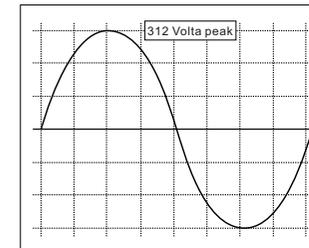
## 7. SOFT START TECHNOLOGY

The soft start technology built into this inverter protects the unit from outputting too much AC voltage at once by gradually increasing the amount of power pushed out. To make sure that you're utilizing this feature, turn on the appliance being used before turning on the inverter. This is especially necessary for products that use an inductive load or electrical motor.

## 8. OUTPUT VOLTAGE & WAVEFORM

The electrical waveform output of this inverter is a pure sine wave, which has the same quality as utility and/or domestic power. This type of waveform is suitable for most all electrical devices, appliances and tools. This pure sine wave unit provides more capabilities than modified sine wave inverters, because it is a cleaner form of power. The pure sine wave also effectively reduces the noise produced while using appliances.

Pure Sine Wave Output  
(230 VAC Model)



## 9. FUNCTION

**1. Input under-voltage alarm:** When the input DC voltage is lower than 10.6V for 12V model, the buzzer will whistle intermittently to remind that the inverter will go into the under voltage protection. Pay attention to save the data if you are using computer.

**2. Under voltage protection:** The inverter will automatically shut down when the input DC voltage is lower than 10V for 12V model. The buzzer will whistle continuously and the green light is off red light on. Please turn off the inverter and use it after recharging the battery.

**3. Over voltage protection:** The inverter will automatically shut down when the input DC voltage is higher than 16V for 12V model. The buzzer will whistle continuously and the switch indicator light is on. Please turn off the inverter and adjust the input voltage to the admissible range.

**4. Overload protection:** The inverter will automatically shut down when the load power is higher than the rated power. The buzzer will whistle continuously. Turn off the inverter and resume to normal operation after taking away the excess load.

**5. Thermal protection:** The unit will be hot during operation. If the temperature is higher than 149°F(65°C), the inverter will automatically shut down. Then the buzzer will whistle continuously and the green light is off, red light is on. Please turn off the inverter, and continue using it after the temperature goes back to normal temperature naturally. Meanwhile find out the factors causing the fault, such as ventilation, ambient temperature, vent, load power and so on. It can avoid similar problems.

**10. Troubleshooting tips**

Fault/Display	Cause	Solutions
No output voltage, buzzer whistles continuously	Low input DC voltage	Recharge or replace the battery.
	High input DC voltage	1. Do not use when the battery is charging. 2. Check the rated voltage of the battery and make sure that it is in the allowable range of the input voltage.
	Overload	Reduce the load power.
	Over temperature	1. Cut off the load and allow to cool for 10 to 30 minutes. Restart after it reaches normal temperature. 2. The load power is too large. Reduce the total load power to the range of rated power. 3. Avoid blocking the vent and improve the ventilation condition. 4. Reduce the ambient temperature.
No output voltage	1.The switch is off. 2.Loose connection	1. Turn on the power switch. 2. Check the connections.
Incorrect output voltage	1.Measure using true RMS multimeter. 2.The battery power of RMS Multimeter is low. 3.The input voltage is too high or too low.	1. Use a true RMS multimeter to measure, such as model FLUKE 177/179. 2. Change the battery of the multimeter then test again. 3. Try to maintain the input voltage in the range of rated power.
Cannot power the load	1.Load power is too large, or the actual power of the appliance exceeds nominal power. 2.The starting power of appliance is larger than the rated power(such as motor)	Reduce the load power, or turn the appliance on first, then open the inverter. Use the internal soft-start circuit of the inverter to buffer the start.
When using with TV or audio, there is snowflake on the screen or noise from the audio.	Disturbance	1. Keep the inverter far from antenna. 2. Use screened antenna.

If the unit still doesn't work normally after using all the methods above, it maybe the internal faults of the circuit. Please call or email your local distributor.

AIMS Power Warranty Instructions:

This product is designed using the most modern digital technology and under very strict quality control and testing guide lines. If however you feel this product is not performing as it should, please contact us:

[techsupport@aimscorp.net](mailto:techsupport@aimscorp.net) or 001-(775)359-6703 or contact your local distributor.

We will do our best to resolve your concerns. If the product needs repair or replacement, make sure to keep your receipt/invoice, as that will need to be sent back along with the package and RA# prepaid to AIMS. You have a full 1 year from date of purchase warranty.

This warranty is valid world wide with the exception that freight and duty charges incurred outside the contiguous 48 United States will be prepaid by customer.

Except as provided above, AIMS makes no warranty of any kind, express or implied, including without limitation the implied warranties of merchantability and fitness for a particular purpose. In no event shall AIMS be liable for indirect, special or consequential damages. This warranty only applies to AIMS Power branded products. All other name brand products are warranted by and according to their respective manufacturer. Please do not attempt to return non-AIMS Power branded products to AIMS Power.

For additional products such as:

- Modified sine wave inverters
- Pure sine wave inverters
- Low Frequency Inverters
- Solar Charge Controllers
- Micro Grid Tied Inverters
- Inverter Chargers and Automatic transfer switches
- Converters AC-DC and DC-DC
- Custom cut cables
- Batteries
- Solar Panels & Racks

Please visit our web site: [www.aimscorp.net](http://www.aimscorp.net)

To find out where to buy any of our products, you may also e-mail: [sales@aimscorp.net](mailto:sales@aimscorp.net) or call 001-(775)359-6703.