

USER MANUAL

Model:

| | |
|-------|-------|
| DPP10 | DPP15 |
| DPP20 | DPP25 |
| DPP30 | DPP35 |
| | DPP50 |

Language: English

ENGLISH

| | |
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1. WHAT IS THE POWER INVERTER?

The power inverter converts direct-current (DC) low voltage (12V, 24V, 48V) power to 230V alternating-current (AC). You can connect and operate different devices, for example: microwave, air conditioner, TV, computer or work tools. You must connect the battery and devices to the inverter. It is simple and you can use it anywhere, anytime, you will always be able to run your devices from battery.



2. INTENDED USE

This inverter is used to convert low voltage (Direct Current-DC) into alternating voltage of 230V AC, for example, from battery or in photovoltaic-island systems.

Please use the inverter according to the following instruction and in accordance with the standards and guidelines applicable locally. Any other use may cause injury or property damage. These inverters are not suitable for the supply of life support and / or medical equipment. The inverters are not Uninterruptible Power Supply!

3. INSTALLATION

3.1 Background



Danger

- Do not install the inverter on flammable building materials.
- Do not install the inverter in areas where flammable or explosive materials are stored.
- The inverter must only be installed by sufficient trained personnel in compliance with local safety regulations.



Danger

- When the inverter is running, the temperature of the chassis and the heat sink can be high. Do not install the inverter in locations where it can be inadvertently touched.

3.1.1 CHECKING PACKING

Before unpacking, please check to see if the outer package has been damaged; out of the box, you need to check whether the delivery is complete

3.1.2 CHECKING ACCESSORIES

After unpacking the inverter package, check that the delivery unit is complete and that there is no visible external damage. If any items are missing or if there is any damage, contact your dealer.

Check that the package contains the deliveries as listed below:

- 1) Power Inverter ×1
- 2) One pair of screw cap (Red and Black)
- 3) One pair of DC input terminal ring (For backup)
- 4) User manual ×1
- 5) Ground Cable×1 (Partial model)

- 6) Battery cable
- 7) Remote controller and connecting cable (Need purchasing)
- 8) Spare fuse (Some models)

SELECT THE INSTALLATION LOCATION

You need to choose the appropriate location to install the inverter to ensure that the inverter can work properly and efficiently.

Basic requirement:

- Inverter protection class IP65, indoor and outdoor environment can be used.
- The mounting method and position must be suitable for the weight and dimensions of the inverter, please refer to the technical data.
- When the inverter is running, the temperature of the chassis and the heat sink can be high. Do not install the inverter in locations where it can be inadvertently touched.
- Do not install the inverter in areas where flammable or explosive materials are stored.

3.2 Installation environment requirements

- Ambient temperature should be kept below 50 °C, to ensure the best inverter operating conditions, and extend its service life.
- Inverter should be installed in a well-ventilated environment to ensure good heat dissipation.
- Avoid to place the inverter in direct sunlight, rain and snow. This can extend the life of the inverter. It is advisable to select the installation site with occlusion but ensure proper air-circulation.

3.3 Install carrier requirements

- The inverter mounting carrier must be fire-resistant.
- Do not install the inverter on flammable building materials.
- Please ensure that the mounting surface is strong enough to meet the load requirements of the inverter.
- In a residential area, do not install the inverter on a plasterboard wall or similar sound-poor wall to avoid interference with the noise in the work area.

3.4 Installation requirements:

Install it vertically or tilt it back up to 15 ° to allow the fan to cool the machine.

Figure 3-1 Proper installation

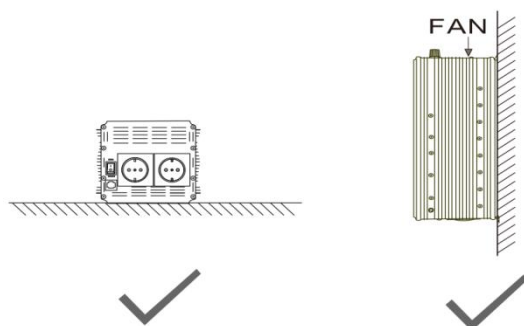
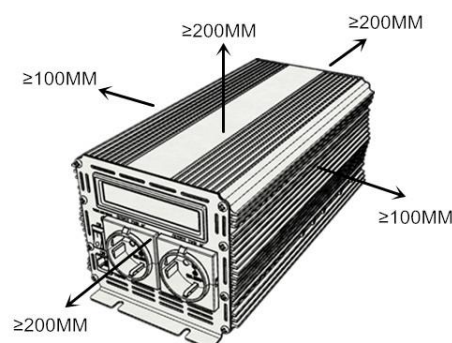


Figure 3-2 Installation Space (Unit: mm)



3.5 Installation space requirements

- It is recommended that the inverter be mounted at an adequate height for easy operation and subsequent maintenance.
- When installing the inverter, make sure that there is enough space around the inverter to ensure adequate installation and cooling space, as shown in Figure3-2.

4. OPENING THE DEVICE

Non-professional personnel must not open the inverter as there is high voltage inside. Before opening the device, please remove cables of both DC and AC sides, turn on the switch and leave the inverter alone for 1 hour.

5. VENTILATION

The inverter should be installed in a dry and well ventilated area. The air inlet may not be blocked, and it should be kept 20cm away from the wall.

Do not install the inverter near flammable or explosive material. Please use dry cloth to clean the inverter.

Do not stack multiple inverters in operation above another so as the cooling is not guaranteed.

6. CONNECTION

1. Battery connection

Set the switch to the "OFF" position when connecting the inverter to the power source. The energy source may be a battery or other stable DC power supply.

It must be ensured that the DC voltage of the power source is matched to the rated DC voltage of the inverter. Higher voltages can cause fire and damage the inverter.

The two DC-input connectors of the inverter are color-coded::

- The red terminal for the positive pole (+) and the black terminal for the negative pole (-).
- Use the supplied cable from the manufacturer or at least those with the same or larger cross-section.
- Keep these connections as short as possible, it will flow considerable current depending on power extraction!
- The connections between power source (battery) and inverter cable terminals must be securely mounted.

2. Load connection

3.


4. The battery must be able to deliver necessary amperage according to the power of the inverter and load. For example, for a 24v inverter to drive 1000W resistive load, the battery should be able to provide more than 45 amps! (on a 12V inverter it will be >90 amps!)

The load power should not exceed the rated power of the inverter.

Please do not connect the AC output side to other power source (i.e. electric supply) as this is not a grid interactive inverter.

Please read the manual carefully and install the inverter properly. If you have questions, please contact our service team. It may cause damage to the inverter or cause injury if you do not act in accordance with the instructions from the manual.

5. Grounding wire installation

The connection method of the ground wire is different based on the different using environment (vehicle, boat, home, outdoors) . You could find where to connect the ground cable in the power inverter following that icon “”

- When using the power inverter in a vehicle, please connect the ground wire to the chassis of the vehicle.
- When using the power inverter on a boat, please connect it to the boat's ground system.
- When using the power inverter at home, please connect it to the home ground wire system. If there is no ground wire system at home, please connect it to the negative terminal of the battery.

- When using the power inverter outdoors, please connect it to the negative terminal of the battery. It will not affect the normal working of the power inverter without connecting the ground wire.

6. Please pay attention when the power inverter works for the main power system in RV or at home

When the power inverter is connected to the RV power system or home power system for power supply, the inverter could be damaged If the shore power or alternator is connected at the same time by mistake when the power inverter is working. The AC input voltage is not accepted by the power inverter.

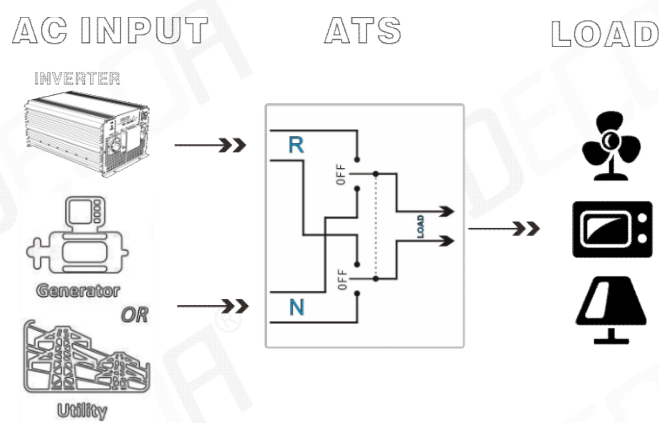
To prevent this case, we recommend installing a Dual Power Automatic Transfer Switch (ATS).

The ATS mainly used for testing whether normal(N) or spare(R) power is normal or not. Here is the compatible specification:

① 2P; ②230V/50HZ;

③Travel switch includes shutdown function ON (R)-OFF-ON(N),

Here is the schematic diagram of RV power system.



Note:  **Danger**

1. The ATS must contain an intermediate disconnect setting to prevent the generator or grid from being connecting at the same time as the inverter, resulting in the inverter being burnt.
2. The switching time of the ATS is 1-2s, and the electrical device will stop working in a short time.

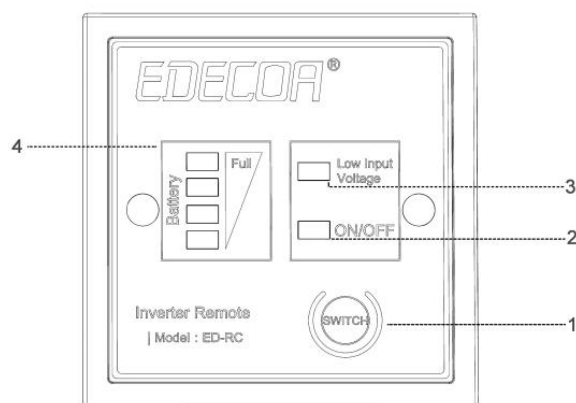
7. ABOUT THE REMOTE CONTROLLER

Tips: The switch of the remote control and the switch of the inverter is parallel.

Therefore, when any one controls the inverter, the other switch must keep the "OFF" state.

According to different models, we have two models of remote control (ED-RC, ET-RC). However, it is not possible to replace each other.

□ ED-RC remote controller



Battery power indicator light:

If DC voltage $\geq 12.5V$, 4 LED lights will be green

If $12V \leq \text{DC voltage} \leq 12.5V$, 3 LED lamps will be green

If $10.8V \leq \text{DC voltage} \leq 12V$, 2 LED lamps will be green

If $10V \leq \text{DC voltage} \leq 10.8V$ only 1 LED lamp will be green

Note: If your inverter is 24v, please multiply the above DC input voltage by 2.

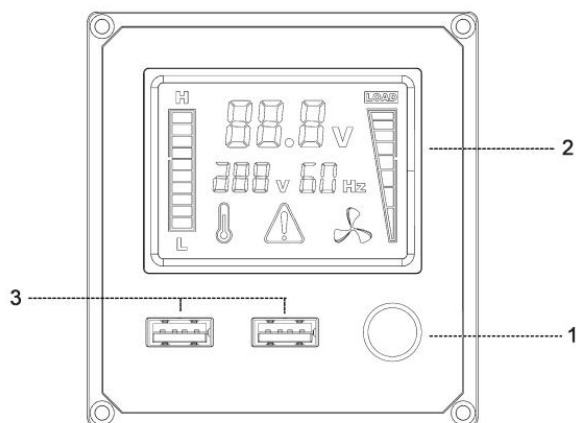
1. ON/OFF switch
2. Status light: If it is green, it means the inverter is on. If it is off, then the inverter is off.
3. Low input voltage indicator light: If the DC input voltage of the inverter is too low, it will be yellow.
4. Battery power indicator light.

About ED-RC remote cable

ED-RC remote cable is 2M or 4M long standard RJ45 network cable, it is easy for you to extend the length of it. When working, the voltage drop through this 2M cable is about 0.02V, you can ignore it. If it is a 10M long cable, the voltage drop will be about 0.1V. If you use very long remote cable, please note that the battery power indicator light maybe not correct.

Note: If the remote controller can't work properly, please try to replace the remote cable first.

□ ET-RC remote controller



1. ON/OFF switch(press 3s),Backlight switch(press once)
2. LCD display
3. USB charging: 5VDC/2.1A Max

About ET-RC remote cable

ET-RC remote cable is 4M long standard RJ45 network cable, In order not to affect the display signal transmission, it is recommended to use network lines within 5M.

Because there are 2 USB interfaces on the remote control, you cannot use a longer network cable.

If you do not use the USB interface to charge, you can extend the use of 8M RJ45 network lines, display, and switching functions are not affected.

Note: If the remote controller can't work properly, please try to replace the remote cable first.




8. TECHNICAL DATA: (PURE SINE WAVE)

| Model | DPP10 | DPP15 | DPP20 | DPP25 | DPP30 | DPP35 | DPP40 |
|------------------------------------|--|-------------|-------------|-------------|-------------|------------------------|-----------|
| Rated Output Power | 1000W | 1500W | 2000W | 2500W | 3000W | 3500W | 4000W |
| Peak Output Power (<10ms) | 2000W | 3000W | 4000W | 5000W | 6000W | 7000W | 8000W |
| AC Output Voltage (RMS) | 220/230/240VAC±5% | | | | | | |
| AC Output Frequency | 50Hz±1% | 50Hz±1% | 50Hz±1% | 50Hz±1% | 50Hz±1% | 50Hz±1% | 50Hz±1% |
| AC Output Wave Form | Pure sine wave | | | | | | |
| Waveform distortion | THD<5% (Linear load) | | | | | | |
| AC Output Plug | 1*EU/UK/AU | 2*EU/UK/AU | 2*EU/UK/AU | 2*EU/UK/AU | 2*EU/UK/AU | 2*EU/UK/AU+3P terminal | |
| Efficiency (>90% Load) | >87% | >87% | >87% | >87% | >87% | >87% | >90% |
| DC Input Voltage | 12VDC | 12VDC | 12VDC | 12VDC | 12VDC | 12VDC | 24VDC |
| DC Input Voltage Range | 10-15.5VDC | 10-15.5VDC | 10-15.5VDC | 10-15.5VDC | 10-15.5VDC | 10-15.5VDC | 20-31VDC |
| Input Low-Voltage Alarm | 10.5VDC±0.3 | 10.5VDC±0.3 | 10.5VDC±0.3 | 10.5VDC±0.3 | 10.5VDC±0.3 | 10.5VDC±0.3 | 21VDC±0.5 |
| Under-voltage Cut-Off Voltage | 10V±0.3 | 10V±0.3 | 10V±0.3 | 10V±0.3 | 10V±0.3 | 10V±0.3 | 21VDC±0.5 |
| Input Over-voltage Cut-Off Voltage | 15.5VDC±0.3 | 15.5VDC±0.3 | 15.5VDC±0.3 | 15.5VDC±0.3 | 15.5VDC±0.3 | 15.5VDC±0.3 | 31VDC±0.5 |
| No Load Current | <1.0A | <1.2A | <1.3A | <1.3A | <1.5A | <1.6A | <1.2A |
| Fan starting condition | In meter internal temperature ≥ 45 °C | | | | | | |
| Temperature Protection | In meter internal temperature ≥ 65 °C | | | | | | |
| Protect Function | Over loaded protection; Short loaded protection; Over Temperature Protection; Input under-voltage protection; input over-voltage protection; | | | | | | |
| Soft Start Function | Yes | | | | | | |
| 1-5 sounds intelligent alarm | Yes (Some models support) | | | | | | |
| Remote control | Yes (Some models support) | | | | | | |

9. HOW TO SELECT THE PROPER INVERTER YOU NEED?

Dependent of the devices you want to operate, you must pay attention on the wattage of each device and calculate the total watts. We recommend you to buy an inverter higher than the power you think you need – good practice is around 30% - 50% more.

For example:

| | |
|---|--|
|  | 150 watts |
|  | 75 watts |
|  | 550 watts (+700 watts avviamento) |
| TOTAL | 775 watts (+700 watts) = 1475 watts |

We recommend you to buy the power inverter 1500w. Sometimes devices like a motor, it needs more power at start-up (peak power) although after the motor is running continuous power. This is important to consider. For example, an air conditioner, may need startup-power from 3 to 7 times of its the continuous power. The best procedure is to find out about the current requirement of the device to be connected to the inverter. Normally this information is in the device specifications.

Example:

If you have a refrigerator with a continuous load of 0.8 amps and a startup load of 8 amps:

0.8 amps x 230 volts = 184 watts continuous

8 amps x 230 volts = 1840 watts continuous

In this case you should use an inverter with 2000W.

11. HOW TO CHOOSE THE PROPER CABLE?

Inverters should be attached directly to the battery. The wire size depends on the distance between the battery and inverter.

The following is a reference to the cable size of the battery recommended by the DC12V system inverter. (DC24V system inverter Cable /2)

| <u>800W continuous load</u> | <u>1000W continuous load</u> | <u>1200W continuous load</u> |
|----------------------------------|-----------------------------------|----------------------------------|
| 0,5 – 1m Cable 10mm ² | 0,5 – 1m Cable 16mm ² | 0,5 – 1m Cable 16mm ² |
| 1 – 1.5m Cable 12mm ² | 1 – 1.5m Cable 16mm ² | 1 – 1.5m Cable 18mm ² |
| 2 – 4m Cable 20mm ² | 2 – 4m Cable 25mm ² | 2 – 4m Cable 28mm ² |
| <u>1500W continuous load</u> | <u>2000W continuous load</u> | <u>2500W continuous load</u> |
| 0,5 – 1m Cable 16mm ² | 0,5 – 1m Cable 16mm ² | 0,5 – 1m Cable 25mm ² |
| 1 – 1.5m Cable 21mm ² | 1 – 1.5m Cable 32mm ² | 1 – 1.5m Cable 36mm ² |
| 2 – 4m Cable 34mm ² | 2 – 4m Cable 50mm ² | 2 – 4m Cable 60mm ² |
| <u>3000W continuous load</u> | <u>3500W continuous load</u> | <u>5000W continuous load</u> |
| 0,5 – 1m Cable 25mm ² | 0,5 -1m Cable 16*2mm ² | 0,5-1m Cable 35*2mm ² |
| 1 – 1.5m Cable 45mm ² | 1 -1.5m Cable 50mm ² | 1 -2m Cable 75mm ² |
| 2 – 4m Cable 70mm ² | 2 – 4m Cable 80mm ² | >2m Not recommended |

12. TYPES OF BATTERIES

| Type of Battery(AH) | Battery of VOLT (V) | Number of batteries | Power of Batteries (WH) | Power drawm (W) | Running time (H) |
|---------------------|---------------------|---------------------|-------------------------|-------------------|------------------|
| 36 | 12 | 1 | 432 | 30 | 12 h 12 min |
| | | | | 65 | 5 h 36 min |
| | | | | 150 | 2 h 24 min |
| | | 2 | 864 | 450 | 1 h 36 min |
| | | | | 650 | 1 h 12 min |
| | | | | | |
| 45 | 12 | 1 | 540 | 80 | 5 h 42 min |
| | | | | 125 | 3 h 42 min |
| | | | | 300 | 1 h 30 min |
| | | 2 | 1080 | 550 | 1 h 42 min |
| | | | | 800 | 1 h 6 min |
| | | | | | |
| 60 | 12 | 1 | 720 | 150 | 4 h 6 min |
| | | | | 200 | 3 h 6 min |
| | | | | 500 | 1 h 12 min |
| | | 2 | 1440 | 750 | 1 h 36 min |
| | | | | 1200 | 1 h |
| | | | | | |
| 80 | 12 | 1 | 960 | 250 | 3 h 18 min |
| | | | | 550 | 1 h 30 min |
| | | | | 800 | 1 h |
| | | 2 | 1920 | 900 | 1 h 48 min |
| | | | | 1600 | 1 h |
| | | | | | |
| 100 | 12 | 1 | 1200 | 400 | 2 h 36 min |
| | | | | 650 | 1 h 36 min |
| | | | | 1000 | 1 h |
| | | 2 | 2400 | 1300 | 1 h 36 min |
| | | | | 1650 | 1 h 12 min |
| | | | | | |
| 120 | 12 | 1 | 1440 | 600 | 2 h |
| | | | | 900 | 1 h 24 min |
| | | | | 1200 | 1 h |
| | | 2 | 2880 | 1500 | 1 h 36 min |
| | | | | 2200 | 1 h 6 min |
| | | | | | |
| 200 | 12 | 1 | 2400 | 750 | 2 h 42 min |
| | | | | 1300 | 1 h 36 min |
| | | | | 1800 | 1 h 6 min |
| | | 2 | 4800 | 2000 | 1 h 6 min |
| | | | | 1600 | 2 h 36 min |
| | | | | 2200 | 1 h 54 min |

You can calculate that the storage battery's use-time by this formula:

$$UsingTime(Hours) = \frac{BatteryCapability(AH)}{load\ power(W)/0.85/Batteryvoltage(V)}$$

Attention:

The use time of storage battery is determined by the quality and the condition and lifetime of the storage battery!

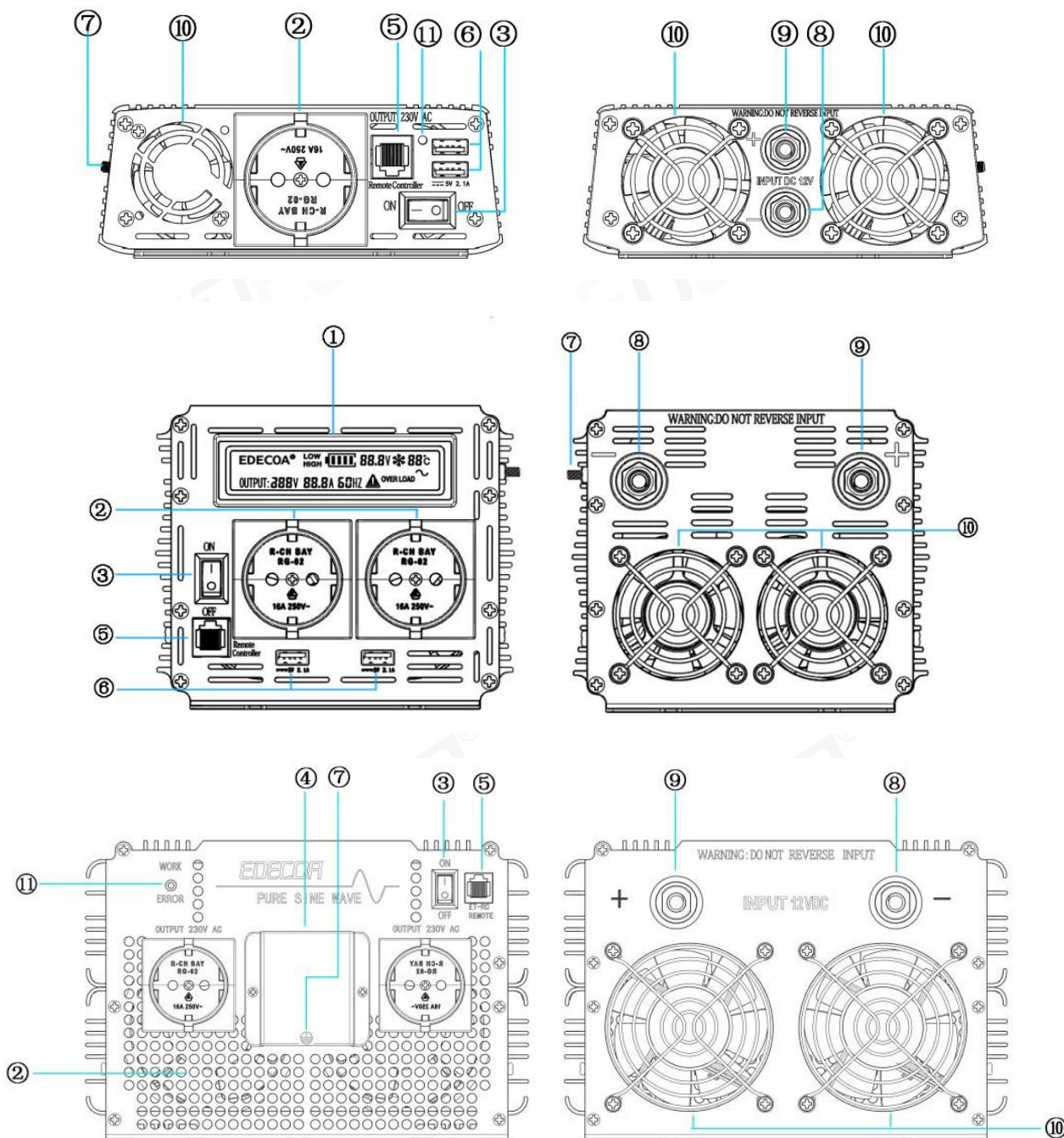
*If batteries of the same size are connected in parallel, the time is multiplied by the number of parallel batteries. For example, four 12V 60AH batteries are connected in parallel, and 500W of load can be used continuously for 1 h 12 min*4=4 h 48 min*

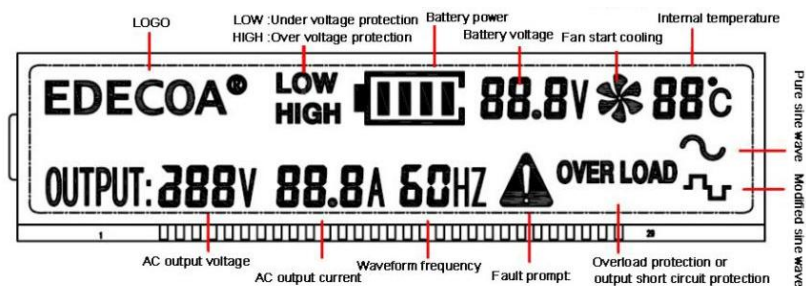
*The above is the time that can be used when the new battery is fully charged. If it is an old battery, use it for more than half a year and multiply it by 0.8. If the battery has been used for more than one year, it needs to multiply the usage time by 0.5. For example, a 12V 100A battery has been used for half a year. If a 1000W load is used, it can be used continuously for 1h*0.8=48 min.*

Tip: Use the inverter in your car. Engine start batteries should not be discharged below 90% charged state, and marine deep cycle batteries should not be discharged below 50% charged state. Doing so will shorten the life of the battery based on most battery manufacturers recommendations.

Note: If you intend to use power tools for commercial use, or any load of 200W for more than 1 hour regularly (between battery recharging) we recommend installing an auxiliary battery to provide power to the inverter. This battery should be a deep cycle type and sized to meet your run time expectations with the engine off. The auxiliary battery should be connected to the alternator through an isolator module to prevent the inverter from discharging the engine start battery when the engine is off.

13. INVERTER APPEARANCE DESCRIPTION



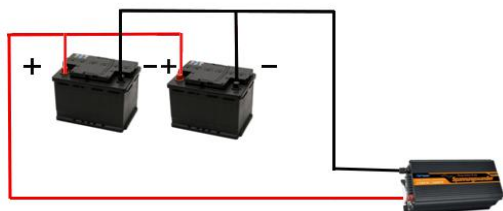


- ① LCD Display
- ② Outlets
- ③ Power ON/OFF Switch
- ④ AC Output : 3P Terminals
- ⑤ Remote Control Port
- ⑥ USB Charging
- ⑦ GND Terminal
- ⑧ Battery input -
- ⑨ Battery input +
- ⑩ Fans
- ⑪ LED Status Display

| | | | | |
|----------------------------------|--------------|--------|--------|--------------|
| Output socket | | | | |
| AC output voltage | 220 ~ 230VAC | 240VAC | 240VAC | 220 ~ 240VAC |
| Single socket max output current | 16A | 13A | 10A | 13A |
| Single socket max output power | 3500W | 3100W | 2400W | 3100W |

14. HOW TO CONNECT TWO OR MORE BATTERIES?

Connected in parallel = same voltage doubled AH



Connected in series = double voltage same AH



15. WIRING DIAGRAM

Red wire to + terminal of the battery and red terminal,

Black wire to – terminal of the battery and black terminal of the inverter

16. PROTECTION FEATURES

- **Low Voltage Protection:** when the battery is in discharged condition, the inverter will shut down, at the same time, an alarm will sound and the indicator light will turn on.
- **Over-voltage protection:** when the input voltage exceeds rated voltage, the inverter will shut down, at the same time, an alarm will sound and the indicator light will turn on. A substantial excess of the rated voltage, for example, at 100V on a 24V inverter will destroy the inverter!
- **Reverse polarity protection:** when the inverter is connected reversely, inverter's fuse will blow out to protect the inverter. The DC input side with MOSFET protection will not work.
You have to replace all burnt fuses.
- **Overload protection:** when the continuous draw exceeds rated Watts, the inverter will shut down, at the same time, an alarm will sound and the indicator light will turn on.
- **Short circuit protection:** when the output side is short circuited, the inverter will shut down, an alarm will sound and the indicator light will turn on.
- **Temperature control:** If the temperature in the unite reaches 45°C the fan will start and cool down the device.
- **Over-temperature protection:** when the inside temperature is over 75°, the inverter will shut down, an alarm will sound and the indicator light will turn on.

17. SERVICE ENVIRONMENT

Ambient temperature:-20~+50°C

Storage temperature:-40~+85°C

Relative humidity: 0~85% Non condensing

18. PROBLEM CAUSES

| PROBLEM | POSSIBLE CAUSE | SOLUTION |
|---|---|---|
| The inverter is switched on but the LED does not work. No response. No alarm. | Open circuit. No DC input. Fuse faulty. | <ol style="list-style-type: none"> 1. Check entry circuit continuity 2. Check that the battery fuse is right. 3. Check if all circuit connections are correct. 4. Check the on/off button wiring. |
| The inverter is switched on and the LED works. No AC output. No alarm. | Reversed of polarity connection on input side and internal fuses have been burnt. | <ol style="list-style-type: none"> 1. Check and correct the polarity of input connections and replace the internal fuse. (NOTE: Reversing the polarity may cause irreversible damage to the circuit) |
| Unusual Low output AC voltage | Poor battery. Internal MOSFET faulty. Drive circuit faulty. | <ol style="list-style-type: none"> 1. Reverse the potentiometer on drive panel to get right output voltage. 2. Ensure enough and full battery power.. 3. Contact the technical support. |
| The alarm sounds 1 (2) time per time, after 2 seconds, same beeps again. (Without any load) | Poor battery. Connection cable is too thin or too long. | <ol style="list-style-type: none"> 1. Ensure enough and full battery power. 2. Use the original cable. |

| | | |
|---|--|---|
| The alarm sounds 1 time per time, after 2 seconds, same beeps again. | The input voltage is very low. DC12V inverter: 10-10.5V DC24V inverter: 20-21V | <ol style="list-style-type: none"> 1. Ensure enough and full battery power. 2. Check that the battery cables are suitable for transporting the DC voltage. Use a thicker or shorter cable. 3. Setting DC input circuit connections |
| The alarm sounds 2 times per time, after 2 seconds, same beeps again. | The input voltage is too low and the inverter stop working. | <ol style="list-style-type: none"> 1. Ensure enough and full battery power. 2. Check that the battery cables are suitable for transporting the DC voltage. Use a thicker or shorter cable. 3. Checking DC input circuit connections. |
| The alarm sounds 3 times per time, after 2 seconds, same beeps again. | The input voltage is too high. DC12 inverter: higher than 15.5V; DC24V inverter: higher than 30V | <ol style="list-style-type: none"> 1. Check that the voltage at the input DC terminals does not exceed 15v 2. Make sure that the maximum voltage of the battery controller does not supply voltages higher than 15v(30V) 3. Check that we are not using a panel or wind turbine not regulated for battery charging |
| The alarm sounds 5 times per time, after 2 seconds, same beeps again. (The alarm is beeping repeatedly) | The load AC exceeds the nominal power by 120%. Short circuit in connection. | <ol style="list-style-type: none"> 1. Disconnect the inverter 2. Disconnect the load 3. Reduce load 4. Connect the appliance first, turn on the inverter switch after turning on the appliance switch |
| The alarm sounds 4 times per time, after 2 seconds, same beeps again. | Inverter overheating | Check that the fan is working correctly, Try again when the inverter has been cool down. |
| Got 115VAC or so while testing inverter's ground wire and Neutral line ? | This voltage is an electromagnetic induction voltage, there is no current leakage. | This is normal. Inverter output communication does not distinguish hotline and neutral line, if you need to distinguish the hotline and neutral line, please contact customer service or after-sales technology. |

10. IMPROPER USE OF POWER INVERTER

1. Reverse polarity: For the models which have reverse polarity protection, inverter's fuse will blow out to protect the other part inside the inverter when the inverter is connected reversed. It is possible to damage the part of the positive and negative terminals due to high current after a short circuit. It will not affect the normal use after changing the fuse. For the model which is not equipped with reverse polarity protection, it is possible that the electrolytic capacitor and the Mosfet will burn out. When this occurs, a crack sound can be heard and smoke will be seen coming out.

2. When the input voltage exceeds the allowable voltage range of the inverter, the electrolytic capacitor inside the inverter will burn out. In this case, a crack sound can be heard and smoke will be seen coming out.

3. Heavy overload. The overload protection power of the inverter is 10% higher than the rated Watts, mainly used to start some appliances which require high start current. It doesn't support a long-term use. If customer uses the inverter for long period of overload, it may cause aging of electronic parts and rapid increase of machine temperature. In more serious cases, the electrolytic capacitor inside the inverter will burn out. If so, a crack sound can be heard and smoke will be seen coming out.

4. The power inverter is used outdoor during rainy days or when water gets into the inverter. Because the inverter is not waterproof, water entering any electronic part will cause short circuit and corrosion of such electronic parts. Failure to dry after water entry will cause the electronic components to burn. When this occurs, a crack sound will be heard and smoke will be seen.

5. The inverter output socket or terminal can only be connected to the appliance with the matching voltage. If the customer connects the 110-120V appliance to the 230V inverter outlet, it may cause the appliance to burn out. 6. The AC output can only be connected to the electrical appliances. If connected to grid or generator, it may burn electronic components. When this happens, a crack sound will be heard and smoke will be seen.

Should any of above cases occur here is the proper operation: first turn the inverter off; then disconnect the battery cable; finally disconnect the appliances when smoke dissipates. Please feel free to contact Customer Service for technical guide or repair service. (When the part in the inverter burns out, a crack sound will always be heard and smoke seen. Please keep calm and follow the step above. Attention: please don't use water to irrigate the inverter or it will cause more loss.)

19. DISPOSAL

Do not dispose the product in the household waste. Please dispose it according to the disposal regulations for electronic waste in your country.

20. WARRANTY

Warranty for the product is one year starting from the date of purchase.

21. DISCLAIMER OF WARRANTIES

By damage of the unit in case of faulty installation, incorrect connection, misuse or abuse of the equipment will void the warranty.

Incorrect repairs by unauthorized persons / workshops on the unit also lead to loss of warranty.

22. COMPENSATION

If not satisfied with the product, the product can be replaced within 7 days (from date of delivery). When the casing or packaging of the products is damaged, it will not be replaced for free.

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