

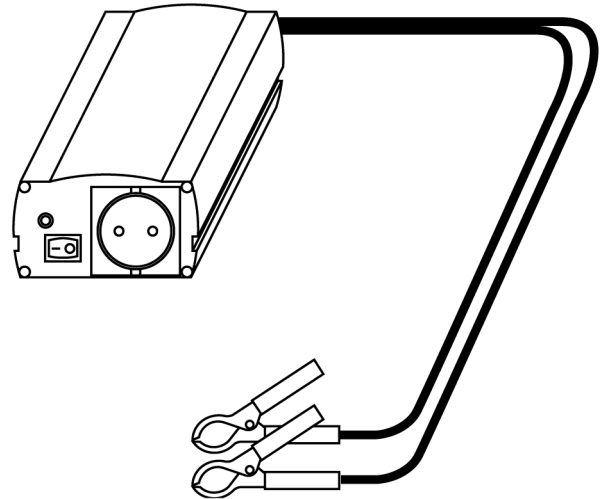
velleman
components

DC TO AC POWER INVERTER

POWER : 300W

PI300M for input voltage 12V

PI30024 for input voltage 24V



ATTENTION – OPGELET - ACHTUNG



OVERLOADING THIS DEVICE OR CONNECTING IT WITH AN INDUCTIVE LOAD (e.g. refrigerator, fan, drill) WILL DAMAGE IT AND AUTOMATICALLY VOID THE WARRANTY !!

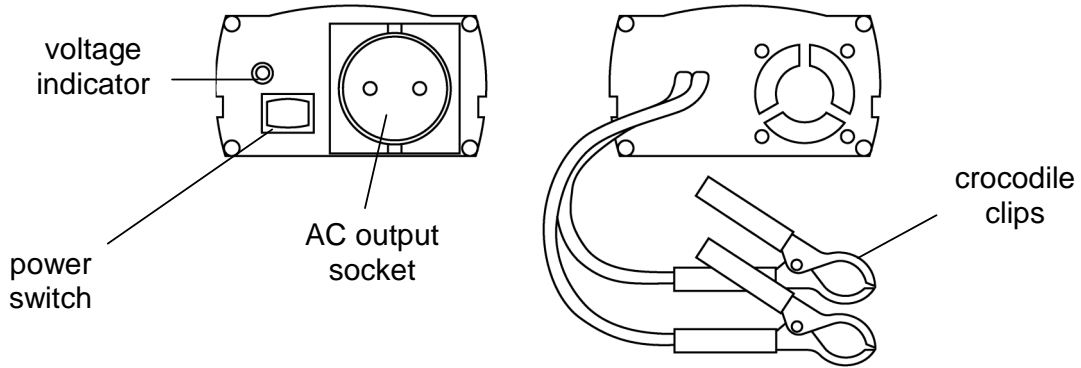
HET TOESTEL ZAL WORDEN BESCHADIGD INDIEN U HET OVERBELAST OF ER EEN INDUCTIEVE BELASTING (vb. koelkast, boormachine, ventilator) OP AANSLUIT. DE GARANTIE VERVALT DAN AUTOMATISCH !!

LA SURCHARGE DE L'APPAREIL OU LA CONNEXION D'UNE CHARGE INDUCTIVE (p.ex. ventilateur, réfrigérateur, perceuse) ENDOMMAGERONT L'APPAREIL ET LA GARANTIE SERA INVALIDEE AUTOMATIQUEMENT !!

DIE GARANTIE ERLISCHT UND DER SPANNUNGSWANDLER KANN BESCHÄDIGT WERDEN, WENN SIE IHN ÜBERLASTEN ODER MIT EINER INDUKTIVEN LAST VERBINDEN (z.B. Kühlschrank, Lüfter, Bohrmaschine).

User Manual
Gebruikershandleiding
Manuel d'utilisation
Bedienungsanleitung

1. DESCRIPTION

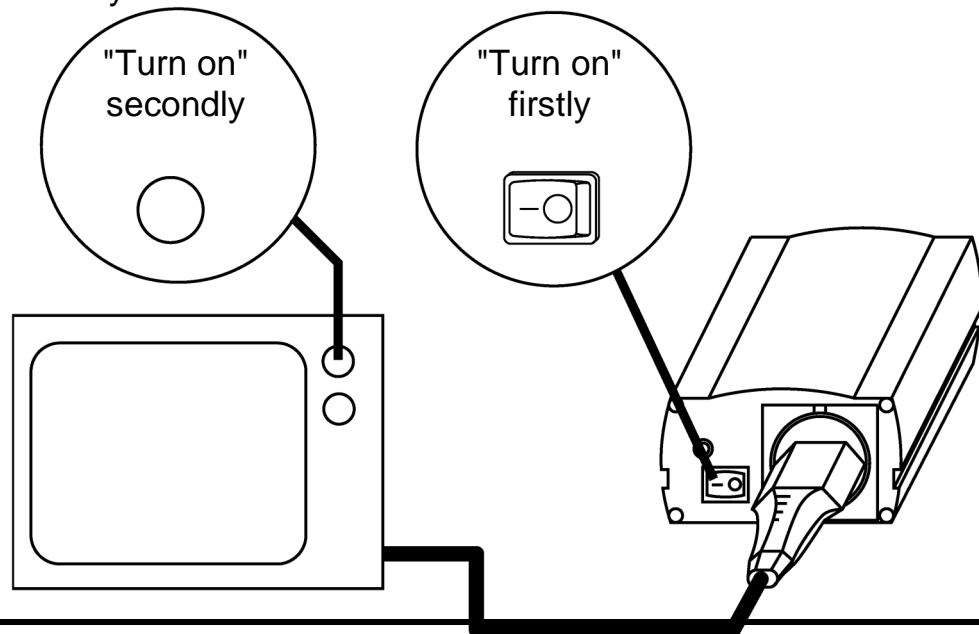


2. CONNECTIONS

Connect to lighter for appliances 0-150W or connect directly to battery (clips included) for appliances of 150-300W. The length of the cable is $\leq 2\text{m}$. Please verify if you have chosen the right operating voltage for both input and output.

3. OPERATION

When connected to an appliance, remember to turn on the inverter before turning on the appliance. If the buzzer sounds during operation, this indicates that the battery voltage is very low and that the inverter will be disconnected in 5 minutes.



4. OUTPUT CAPACITY

The inverter will switch off automatically if the total wattage of the electrical appliances exceeds the inverter's output capacity. This will also happen if the temperature of the inverter exceeds 55°C due to prolonged use.

5. SPECIAL RECOMMENDATIONS

Unplug the AC inverter when not in use and when starting the vehicle's motor.

If the AC inverter makes a beeping sound : switch off your appliance, unplug the inverter and restart your vehicle's engine. The beeping sound is simply the low-battery warning which indicates that the voltage of your battery is getting low. Your inverter will shut down automatically if you do not restart your engine and continue the use of your inverter. This will leave your vehicle's battery at about 10.5VDC (21VDC for a 24V inverter), enabling you to start your engine and resume operation of the inverter. It also eliminates the possibility of being stranded with a dead battery.

To avoid over-discharging the battery, it is advisable to let your engine run for 10 to 20 minutes after every 2-3 hours of using the AC inverter. This allows your vehicle's battery to recharge.

Please remember to connect the "+" wire to the "+" terminal and the "-" wire to the "-" terminal if you choose to use an adapter for a direct connection between the AC inverter and the battery terminals. **IF YOU CONNECT THE WIRES TO INCORRECT TERMINALS, THE POLARITY WILL BE REVERSED AND THIS WILL DAMAGE THE INVERTER. REVERSED POLARITY WILL INSTANTLY VOID YOUR INVERTER'S WARRANTY.**

Please remember to disconnect the AC inverter before using the battery charger to replenish you battery's voltage. Failure to disconnect the inverter prior to connecting a charger may result in an input spike which will damage the inverter. **CONNECTING THE INVERTER'S INPUT TO A BATTERY CHARGER WILL VOID THE WARRANTY AND MAY DAMAGE THE INVERTER.**

The battery's voltage must never exceed 15VDC (30VDC for a 24V inverter). **CONNECTING THE INVERTER TO A DC POWER SOURCE GREATER THAN 15VDC (30VDC) WILL VOID THE WARRANTY AND MAY DAMAGE THE INVERTER.**

6. ADDING EXTENSION CORDS

We recommend that the buyer refrain from using an extension cord between the DC power source and the inverter's DC input. Connecting an extension cord to the DC input will create a voltage drop, entailing reduced efficiency and output. Instead, we recommend the use of an extension cord between the AC output and the AC appliance. You may use up to 100ft (30m) of high quality extension cord. A longer cord may result in reduced power.

7. EARTHING CONNECTION

WARNING : YOU MUST PROVIDE THE INVERTER WITH AN EARTHING CONNECTION BEFORE USING THE INVERTER.

- The rear panel of the inverter is equipped with a terminal fitted with a wing nut. This terminal is connected to the case of the inverter and also to the earthing terminal of the AC output socket. The nature of your installation will determine whether or not you need this terminal. Always use heavy-duty yellow and green wiring for this connection.
- In a stationary land-based installation, the earthing terminal should be connected to a metal earthing stake driven into the ground to a minimum depth of 1.2m. One of the battery terminals (preferably the negative one) should also be connected to the earthing stake if the battery system powering the inverter is not equipped with a ground connection.
- If the inverter is used in a vehicle, where it is wired directly to the battery, the earthing terminal is simply connected to the chassis of that vehicle. If, however, the inverter has to power equipment used outside the vehicle, an earthing stake should be used as described above.
- Connect the earthing terminal to the existing grounding system when the inverter is used on a boat.

NOTE : The earthing terminal of the AC outlet is connected to the neutral terminal. This is the same as with a standard household power point where the neutral connection is bonded to earth and there is no voltage between the two.

8. FUSE

Please check the fuse if the voltage indicator is not lit during operation. Replace blown fuses with an identical one.

FUSE : max. 35A for a 12V inverter or 20A for a 24V inverter.

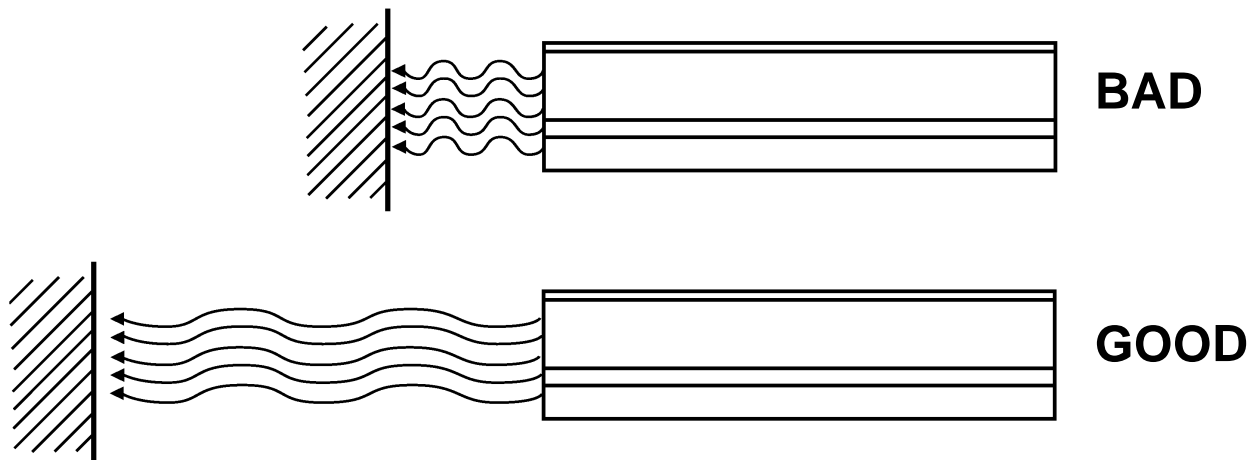
9. MEASURING AC VOLTAGES

The output wave of the AC inverter is a MODIFIED SINEWAVE. If you choose to measure the AC output voltage, you must use an AUTHENTIC RMS VOLT METER. Using any other type of voltage measuring device will result in an AC voltage reading that is up to 20 to 30 volts lower than the rated value. The reading will only be accurate when using an authentic RMS voltmeter.

10. VENTILATION

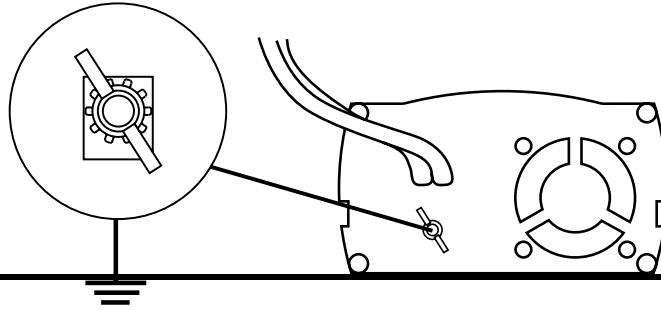
IMPORTANT ! During operation, make sure the fan keeps revolving. Check the inverter for possible malfunctions if the fan does not work when this unit is being used.

Make sure the fan is not blocked in order to avoid poor ventilation.



11. CHASSIS EARTHING

The chassis earthing lug should be connected to an earthing point. This point will vary depending on where the power inverter is installed. If the power inverter is installed in a vehicle, you should connect the chassis ground lug to the chassis of the vehicle. If the inverter is being used on a boat, you should connect it to the boat's grounding systems. Connect your inverter to earth if used in a fixed location.



12. CAUTION

In case of trouble with the AC output, e.g. short-circuit, overload, etc... the protection circuit will automatically cut off the output.

In such cases :

- (A) switch off the power at once
- (B) disconnect all units
- (C) check the connected devices
- (D) use the units again as soon as any problems concerning the connected devices have been solved

When in use for a prolonged period of time, the AC output may suddenly be cut off although the battery voltage is still very strong. This may be caused by excessive temperatures. If this happens, please proceed as follows :

- (A) Switch off the inverter at once
- (B) Disconnect some of the appliances or wait until the inverter cools off
- (C) Switch the inverter back on

Always keep the inverter in an environment which is :

- (A) Well-ventilated
- (B) Not exposed to direct sunlight or any other heat source
- (C) Inaccessible to children
- (D) Safe from water/moisture, oil or grease
- (E) Safe from any flammable substance

If the inverter is connected in the wrong way, this will void the warranty.

13. MAINTENANCE

Very little maintenance is required to keep your inverter operating smoothly. Clean the exterior of the device periodically using a damp cloth in order to prevent the accumulation of dust and dirt. Tighten the screws on the DC input terminals whenever you are cleaning the device.

14. SPECIFICATIONS

- DC input voltage : 12V / 24V : refer to model label !!!
- AC Output voltage : 230V
- Output frequency : 50Hz
- Continuous output power : 12V input : 275W
 24V input : 300W
- Surge power capacity : 600W
- Output wave : modified sine wave
- Efficiency : 90% (typical)
- No-load current : < 0.65A
- Input current at 100% load : 29.5A for a 12V inverter, 16A for a 24V inverter
- Output current at 100% load : 1.266A
- Battery-low alarm & shutdown : $10.5 \pm 0.5\text{VDC}$ for 12V input, $21 \pm 1\text{VDC}$ for 24V input
- Overheating protection : $55 \pm 5^\circ\text{C}$
- Dimensions : 232 x 104 x 58mm
- Weight : 0,9kg
- Power switch : DC input ON/OFF control

15. NOTE

All specifications are typical at nominal input voltage, 50% load and 25°C unless otherwise noted. All specifications are subject to change without prior notice.

WARNING : DO NOT DISASSEMBLE THIS UNIT AS DOING SO MAY CAUSE HAZARDOUS VOLTAGES !! RETURN THIS UNIT TO THE DEALER IN CASE OF TROUBLE !!

DO NOT CONNECT ANY INDUCTIVE LOADS WITH THIS DEVICE !!