

#### **Invertor Generators**

## Can it run my air conditioner?

Please refer to the specifications for your air conditioner to ascertain its running power and starting power requirements, and then use these values in conjunction with the Generator Selection Guide on our website to choose the right generator.

## Will it fit my RV's generator slide-out tray or storage box?

The overall dimensions of Maxwatt inverter generators are similar to those of other leading manufacturers' units, so you should not have a problem finding a Maxwatt model that fits your RV's storage space.

## Can the inverter generators be connected for parallel operation?

Maxwatt inverter generators configured for the Australian market have this feature. The parallel connection cables are supplied with each generator. The beauty with Maxwatt generators is that no additional parallel box needs to be purchased. Please refer to our website for more details.

# What Are the Key Differences Between an Inverter Generator and Conventional Portable Generator?

Below is an overview of the main differences between conventional portable generators and inverter generators. Notice that there are mechanical differences and secondary differences that are a result of the mechanical differences. In other words, the difference in how a conventional fuel-powered portable generator runs and how an inverter generator runs gives different possibilities in design and use.

Maxwatt petrol generators are tough, rugged and offer the highest levels of performance, reliability and safety, while still being in compliance with Australian WH&S regulations. Our generators are the ideal portable power source to power up all your electrical appliances and tools AND are also useful for home use as a backup power supply.











#### DIFFERENCE #1: CURRENT

The main technical difference between inverter generators and conventional generators is the kind of electricity is produced. Conventional generators only produce AC electricity while an inverter generator produces electricity in 3 phases (high frequency AC to DC back to a stable AC current).

The stable sine wave is what makes inverter generators so unique: it is considered a 'clean electricity source'. This means that there is minimal harmonic distortion and so is a safer energy source for sensitive electronics like a mobile phone, tablet or laptop. In comparison, a conventional portable generator has a much more unstable sine wave which causes more harmonic distortion. Though still a suitable power source for many electrical appliances, the more sensitive personal devices that include microprocessors, can be damaged but this type of current.

#### DIFFERENCE #2: POWER AND FUEL EFFICIENCY

Conventional portable generators are able to produce more power than inverter generators. This has to do with a number of factors including the size of the fuel tank and the mechanical difference in electricity production.

Inverter generators are more energy efficient thanks to how the final AC current is produced. The engine of an inverter generator automatically adjusts to the load which a conventional portable generator cannot do.

The greater fuel efficiency of inverter generators allows for smaller fuel tanks. Greater energy efficiency means less fuel is need for similar run times and so the fuel tank can be smaller, as well.

Conventional generators are not as fuel efficient so they tend to be bulkier because of the larger fuel tank. However, this larger fuel tank does allow for a larger power output. The difference in power is often the deciding factor between an inverter generator and conventional generator. Where inverter generators have an average power of 1200 watts to 4000 watts, conventional portable generators can reach over 10,000 watts.

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### **DIFFERENCE #3: PORTABILITY**

Inverter generators are generally more portable than conventional fuel-powered generators. This again has to do with the amount of power they produce.

Conventional fuel-powered generators which produce more power have a large fuel tank and larger engine, so more material is needed to house the machine. This is why conventional portable generators are bigger and heavier than inverter generators.

In order to still be portable, the larger conventional generators tend to have wheels; and handles to use to pull them. Inverter generators are smaller because their fuel tank is smaller and don't need as big an engine since there is a lower power output. This reduces a lot of weight which is why inverter generators are often light enough to be hand carried with a handle.

#### **DIFFERENCE #4: NOISE**

Conventional portable generators are infamous for the noise that they generate. This has to do with its mechanics so even with noise-minimizing efforts, conventional fuel-powered generators remain noisy.

In comparison, the technology used by inverter generators makes them run more quietly. Inverter generators run at a steady 3600 rpm which removes the bulk of the noise.

Many inverter generators produce around 54 - 58 decibels of noise. This is far quieter than most conventional generators which tend to produce 64 decibels or more.

## **DIFFERENCE #5: PARALLEL CONNECTIONS**

With a parallel connection, two separate inverter generators (of the same model) can be connected to deliver double the amount of power. As of now, conventional portable generators don't offer the parallel connection.

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#### **DIFFERENCE #6: EMISSIONS**

Inverter generators already produce less greenhouse emissions than conventional powerfueled generators. It is easier to find an inverter generator that meets the environmental requirements than to find a conventional portable generator that does.

#### When to Choose an Inverter Generator

The advantages of inverter generators over conventional portable generators is that they are quieter, are more compact and lightweight, more fuel efficient, are safe for sensitive electrical devices and are generally more environmentally friendly.

#### When to Choose a Conventional Fuel-Powered Portable Generator

The main advantage of a regular portable generator over an inverter generator is that it produces much more power.

A regular portable generator is best used as a backup generator for the home in areas where there are frequent power outages or risks of natural events like blizzards/storms that are likely to cut the mains electricity supply. The models with rough track wheels and a sturdy build are also more suitable on work sites.

#### Which is Better, an Inverter Generator or Conventional Portable Generator?

Whether an inverter generator or a conventional portable generator is better really depends on the purpose for which the generator will be used. An inverter generator might be the better option for frequent campers or as a backup source of electricity during road trips; while a conventional portable generator works better to power a home or a work site.

Think about where you need the electricity and how much power you will actually need. This is the best way to decide.

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