

Choosing a Generator

Choosing a generator can be a difficult and time-consuming process. There are so many generators to choose from! How do I make up my mind?

In this age of consumer freedom the choice for many items including generators seems endless, buy in confidence that all our generators are from top European, American or Japanese companies, we do not sell inferior quality generators as sold on auction websites.. Before you choose a generator you may wish to consider the following :

What size of generator do I require?

All electrical products have a data plate with information regarding their power usage. For most power tools (drills, sanders etc), their listed wattage is all the power they require to run. Household items such as central heating pumps, lights, TV's, video recorders etc. fall in the same category. Items such as freezers, fridges, washing machines, some lawn mowers are normally different, whilst they can state a wattage rating, due to the type of motor they use can require a much greater requirement on startup, when started they then require a smaller usage.

If you are unsure as to what power usage a product has it is always advisable to contact the relevant manufacturers sales or technical dept, quoting model number and requesting the START UP wattage & RUNNING wattage of your item. With this information you will be able to determine accurately the size of generator you require.

Do I require a generator that has a long run fuel tank?

Generators are available in either standard run or long run versions. A standard tank will last for 2-4 hrs, where most long run generators can run through the night. If you are looking to purchase a generator for back up (when you experience a powercut) then we would recommend a long run tank machine.

Do I want to run a computer off my generator?

Running home computers from a standard generator is not advisable. You will need a generator that utilises AVR (Automatic Voltage Regulation). Our generators have this as standard . They will give you more stable electricity than the mains. Please note: As a generator runs out of fuel, the engine is likely to surge. To avoid this affecting electronic equipment an Uninterruptible Power Supply (UPS) can be used. These are

typically sold for use with computers so that data is not lost in the event of a power cut.

I have bought a generator, and I am concerned about safety. Can I use a personal power breaker?

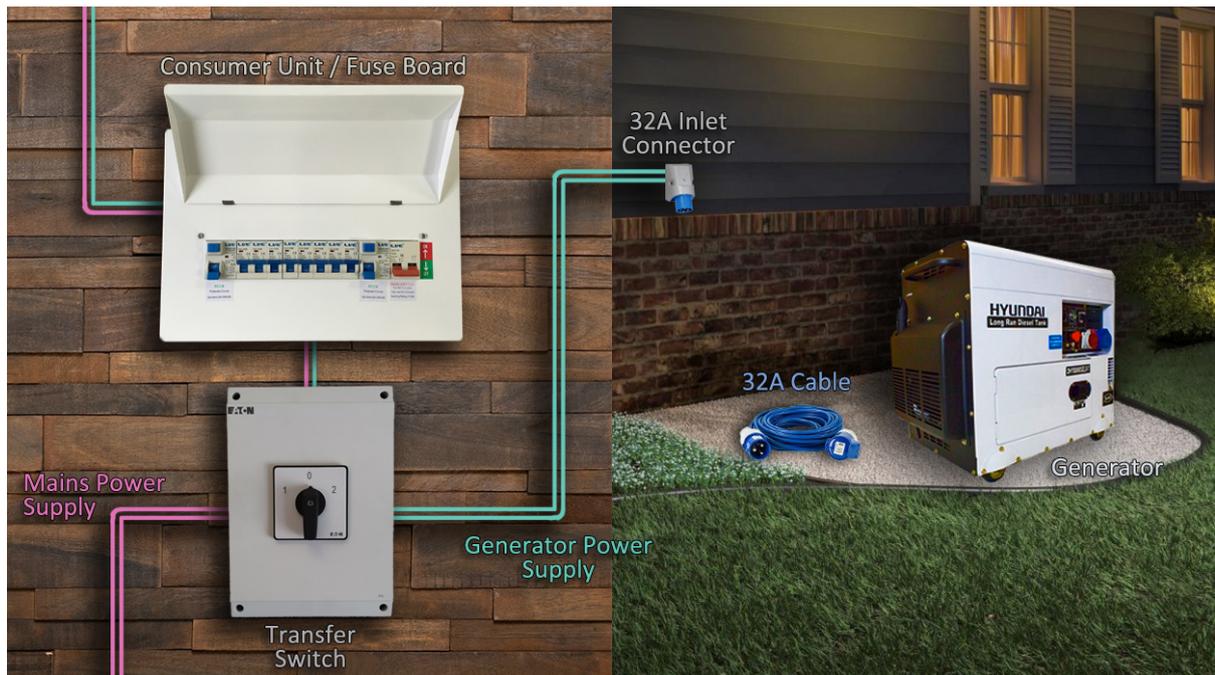
The generator is configured differently to the mains supply. The generator has a 'floating earth', whilst the mains has an earthed neutral. Whereas it is definitely recommended to use a personal power breaker (RCD) from the mains, for the majority of cases, it is not necessary to use one with a generator. Personal power breakers are designed to operate from the mains. If one is to be used with a generator, then it is necessary to modify the generator so that it is configured in the same way as the mains. This is a relatively simple modification for a qualified electrician involving adding a link wire from the neutral terminal to the earth terminal. However, once the generator has been modified, it is necessary to then always use a personal power breaker and to also always use an earth spike, which connects between the generator frame and the ground. Since this is difficult to ensure, it is generally recommended not to modify the generator.

I have bought a generator, and would like to connect it to my house in case of mains failure. What do I need to do?

When using a generator as an alternative supply to the mains, there are several precautions that must be observed. It is vital that the generator is completely isolated from the mains supply. This ensures that the generator is not attempting to power up the whole neighbourhood, but also ensures that it does not electrocute a utility worker trying to restore the mains supply.

To achieve this, a double-pole, break-before-make, changeover switch must be installed by a qualified electrician.

This should be fitted between the electricity meter and the building consumer unit. The switch connects the building to either the mains supply or to a lead which can be plugged into the generator.



Most buildings now have an RCD built into the consumer unit. This is configured to operate from the mains supply with an earthed neutral, and not from a generator with a floating earth. To utilize this protection device, it is necessary to modify the generator so that it is configured in the same way as the mains supply. This is a simple modification for a qualified electrician, involving adding a link wire from the neutral terminal to the earth terminal. It is recommended to make this connection in the plug that is to be used to connect to the generator. This ensures that the generator is unmodified when it is disconnected from the house, and therefore remains safe.

The plug should be labeled "Do not connect to mains: Neutral-Earth link fitted". The lead between the generator and the transfer switch is not protected by the RCD, it is therefore recommended to use a steel armored cable for this connection. Finally a local low-impedance earth spike needs to be installed.