

Do you need alternative power?

Load shedding strikes again ... and you've seen adverts selling generators for R5000 or so. Can you use one of these to safely run your laser and computer? Not really.

A conventional generator is basically an engine connected to an alternator, running at a speed that produces 50Hz (in South Africa), regardless of the load on it. If the load increases, the engine throttles up to keep the engine speed the same. The output of the alternator is connected directly to the load, without any processing. This is not ideal for sensitive electronic devices. These are also generally quite noisy.

An inverter generator has the engine connected to an efficient alternator which produces AC, just like a conventional generator. But then a rectifier is used to convert the AC to DC, and capacitors are used to smooth it out before inverting the DC back into clean AC power.

This produces consistent power independent of the engine speed. The result is "cleaner" power (a pure sine wave). Computers, phones, TVs, printers, Laser machines and more, are sensitive to the quality of the electricity they get. Using "dirty" power can damage these devices, and create a safety hazard.

An inverter generator's fuel-efficient engine and the ability to adjust engine speed to the load means they use much less fuel (as much as 30% less than conventional generators).

Another plus - an inverter generator can also be paired with another identical unit, in effect doubling the power output. This parallel capability allows you to use two small and lightweight generators instead of one big and bulky conventional generator.

So yes, the inverter generator is more expensive, but think what it would cost to replace your electronics equipment - and lastly, your insurance company most likely will not pay out if you are using a conventional generator and something goes wrong.

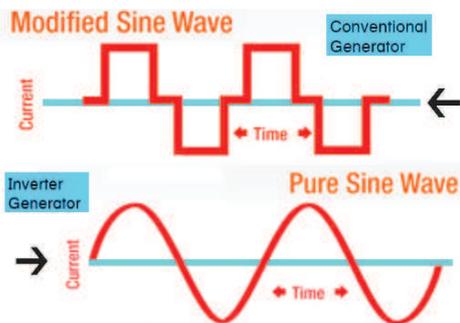
Remember though, no matter what type of generator you use, always remember that it produces electricity that can be fatal. ALWAYS earth the unit, and NEVER use a reverse plug to connect to your plugs - either connect to your distribution board, or else power your appliances directly from the generator.



"Silent Type" Inverter Generator.



Digital display, electric start.



Difference between output waveforms

