Converters vs Inverters

The simple and basic distinction between the various available converters or inverters these days is just the elementary fact that these devices vary in their nature and the available devices that they support. To brief up and explain the main differences between the two, let’s take a look at the types of converters first.

Analog-to-digital converter (ADC) which is a device that performs a conversion on an input analog voltage so that it gets digitised and quantised to a set of binary numbers. These binary numbers are proportional to the magnitude of the voltage that was fed to it. These do not have to be fancy, high end integrated circuits that are available today. Even rotary encoders, which are partially electronic, can be considered an analog to digital converter.

Digital-to-analog converter (DAC) is another device that is a reversal of an analog to digital converter. It takes a set of binary digits, or a digital code and then maps it to some analog voltage level for a signal. These DACs will be found in a lot of devices like digital music players, PC sound cards and CD players.

Digital-to-digital converter (DDC) This device is another converter which takes one form of digital data and converts it into another digital form, or code. It could either be compression or extraction, or any other form of digital to digital data conversion.

Now that converters are understood, let us now discuss the different types of inverters, **luminous pure sine wave inverter** is also one of these types. The three main types are:

Square wave inverter: This electronic device produces an alternating polarity DC voltage signal, also commonly called as a square wave, hence the name square wave inverter. The constituents are a DC source, like all inverters, and it is usually controlled by four switches. These switches are capable of withstanding high currents and are very robust. This is the least expensive inverter as it is very simple to build and understand, the drawback here is that it only manages to produce low quality power.

Sine wave inverters: These devices, being the most expensive, are the true inverters. Our powerlines carry sinusoidal waveforms as outputs and so, these are the perfect match for it. One can **buy sine wave inverter online in India**, using various websites to place orders. Luminous provides these devices in their catalogue as well. These devices, being very expensive, are not used often. Instead, the third type of inverters are generally employed instead.

Quasi wave or Modified square wave inverters: These devices, as their name suggests, are not exactly a square wave inverter or even a sinusoidal wave inverter. It’s something in between the two. Usually, any modified square wave has a zero signal, flanking the two polarity changes, like a dead space. This is intentional and it is used to reduce distortions and unwanted harmonics, which could cause interference and ruin other surrounding electrical devices. They, fortunately cost lesser than square wave inverters and is also generally more effective than the latter.