# Pure vs Modified Sine Wave

Pure sine wave can -

reach a higher voltage

can provide.

Like utility-supplied power, the output voltage wave form is smooth and produces a current virtually identical to utility power, with very little harmonic distortion. This is much better for

motor loads, which run better, quieter and cooler on this type of wave form

SINE WAVE

level, which causes the load to perform better than modified sine wave Modified sine wave has a lower peak voltage and higher interference effect on loads, causing the product it powers to run hotter than designed MODIFIED

SINE WAVE

## **KISAE** Sinewave Inverters and Inverter-Chargers

Virtually all modern electonics are designed to run on sine wave electricity. Items like personal electronic devices, computers and cameras, with lithium batteries will benefit from improved charging, longer battery life and longer device life. Products with electric motors, like blenders, fans, power tools and vacuums will run more efficiently and quieter with a pure sine wave inverter. Pure sine wave also has the added benefit of reducing electrical noise, so things like televisions and lights won't flicker, stereos will produce better sound, and printers will produce better looking documents. If you use kitchen appliances like milk frothers, breadmakers and high-end coffee makers, pure sine wave power will allow them to perform just like they were at home.

Modified sine wave inerters can cause computer crashes as well as cause printers to print irregularly. They will cause electronics to build more heat and decrease their performance. They can also reduce the life span of sensitive electronics. Modified sine wave inverters do output 120V power and for non-critical and non-electronic applications, they will work fine.

For all of today's modern power needs, KISAE has created the most sophisticated, cost effective, high quality pure sine wave inverter solution. Choose one of the KISAE inverters or inverter-chargers to precisely replicate the electicity supplied by utility companies.

### Kisae recommends using a pure sine wave inverter for powering the following:

Charge a Cell Phone Use a Printer Charge a Camera Listen to a Stereo Watch a TV Use Kitchen Appliances

The corners on modified sine wave can cause significant harmonic distortion and

Charge Cordless Tools Charge a Laptop computer Use anything with Variable Speed Charge a Tablet device Use anything with a Microprocessor

Many devices rely on a pure sinewave to time their operation based on counting the times the wave passes through zero voltage. The "plateau" of the modified sinewave at zero voltage means that the device thinks that the wave is passing once through zero voltage, but in reality, it stays at zero voltage for a longer period of time. This effect can "trick" loads and result in poor performance, higher temperature stresses on circuits, and shorter product lifesnan



**KISAE SINEWAVE INVERTER-CHARGERS** IC 121040 IC1220100 IC1230150

### Kisae Product Models

#### **KISAE SINEWAVE INVERTERS**

SW 1204 SW 1210 SWXFR1220 SW 1220 SWXFR1210 SWXFR 1230 (1000W, 2000W, 3000W sinewave inverters)

IC 122055



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