



POWER INVERTERS GAIN MARKET FORCE

HAVE YOU CONSIDERED ADDING POWER INVERTERS TO YOUR LINE CARD?

As an industrial distributor in today's tough economy, new profit channels are crucial. Diversifying your product line can help the bottom line. Are you selling DC to AC power inverters? Is your DC power inverter product line up to date and all-inclusive? Are you receiving the best pricing available? Do you actually have products in your catalog that sell often?

You should contact a complete power inverter resource to see the latest and greatest DC to AC power inverter products. By using a complete source for your inverter supply, you will increase customer satisfaction and increase profits by selling more products.

If you are looking for products that can help your clients become more productive,

while increasing your profits, you should consider adding a power inverter product group to your lines. Power inverters are applicable in many different industries. They are deployed in fleet vehicles and service vehicles. You can also find power inverters on the job site and in the office for back-up power.

A DC to AC power inverter takes DC power and inverts it to AC power. Simply put, a power inverter takes battery power and makes regular house power. By using batteries coupled with an inverter, you eliminate the noise and maintenance of using a generator for back-up power.

There are many different types of power inverters available today but they tend to fall primarily into two categories, modified sine power inverters and pure sine power

The PWRINV500012W is a compact 12-volt, 5,000-watt modified sine wave power inverter with a host of features including a small footprint — just 17 inches long and weighing 16 pounds. It has four AC receptacles that can be used with any separate splitter to provide even more outlets.

Pure or modified? The graph above shows the difference in the wave forms produced by pure and modified sine wave inverters. The "smooth" nature of the pure sine wave delivers cleaner power, more suitable for more sensitive equipment such as video monitors, laptop computers and charging portable electronics.

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inverters. Within these groups you can find different sub categories: inverter/chargers, industrial grade inverters, car power inverters, 12-, 24- and 48-volt power inverters. All are available in both pure sine and modified sine wave.

You might ask, "What is a sine wave?" An inverter's sine wave is the type of power it produces.

MODIFIED SINE INVERTERS

Most power inverters sold today are modified sine wave inverters, which produce a sine wave not exactly the same as the power you receive from your city utility. The modified sine wave is "blocky" and not as clean as pure sine wave inverter power. Modified sine wave inverters are the most commonly used inverters and work great with most devices.

PURE SINE INVERTERS

The next type of power inverter is the pure sine wave power inverter. A pure sine wave inverter produces a cleaner, smoother power signal that closely resembles the power you get from your city utility grid. Pure sine power inverters are used with devices that require cleaner power to operate. Some of the most common devices that require pure sine power are laser printers, medical equipment, some TVs, and variable speed power tools and cordless tool battery chargers.

One of the most popular power inverter products available today are inverter chargers. These are all-in-one units with a power inverter, charger and built-in transfer switch. These units are available in both pure sine and modified sine wave. They have the ability to act as a back-up power device.

These units connect to city power and, when AC is available, the batteries are charging. When there is no AC power present, the unit switches to run off the batteries. They are great



Pure sine wave power inverters include the AIMS model WRI150012S with built-in battery charger and transfer switch, which produces 1,500 watts of continuous, "clean" pure sine wave power, making it ideal for "finicky" devices such as video monitors and laptop computers.



for backing up sump pumps and also very popular in RVs and boats, as well as for emergency back-up power in the home. If you are using an inverter charger in a work vehicle, you can plug this unit into AC power to recharge the battery bank at the end of the work day, fully charging your batteries for your next job.

INDUSTRIAL GRADE INVERTERS

A third type of inverter is an industrial grade power inverter. These inverters are designed for daily use and can handle heavy loads. For such applications, it is important to make sure you are using a true industrial grade power inverter. The easiest way to tell is to check the unit's surge time. On a regular power inverter, the surge is only momentary; an industrial inverter will have a surge time of about nine seconds. Industrial grade power inverters also have a wider operating range, which means they can handle colder temperatures and higher heat.

Power inverters are being used around the globe in many different applications. You can find them in charter buses, work trucks and company vans. They power many

different types of devices, including freezers, air compressors, x-ray equipment and power tools. In many countries where AC power is unreliable or unavailable, power inverters run businesses and homes. Here in the United States, the demand for power inverters for emergency back-up power in homes is growing rapidly. **IS**

This article was provided by AIMS Power Corp. For more information, contact AIMS at (775) 359-6703 or at www.aimscorp.net.

Real World Applications for DC-to-AC Power Inverters:

- Inside a work truck to power computers, tools and other electronic equipment
- Providing power on remote job sites
- In off-grid cabins and sheds
- Powering small devices
- In industrial vehicles to power x-ray machines and large compressors
- Power inverters are commonly used for AC power in RVs and boats
- For emergency back up power in the home or office