

What is a bi-directional inverter?

The bi-directional inverter serves two purposes: It either feeds the DC bus to fulfill the demand or, it exports power back to the grid, when the charging station is lying idle or is needed to supplement the grid during peak hours. The key figures of merit for any power conversion block these days are:

How a bidirectional inverter improves your solar energy system?

The two operating modes of a solar energy system that has a bidirectional inverter. The black, solid arrows represent the flow of electricity. Broken lines are activated when the main power supplies (solar or utility) are lost. Now that you know how a bidirectional inverter improves your solar energy system let's summarize the benefits.

Should you buy a bidirectional inverter?

For us, a bidirectional inverter is for green energy consumers who put a ton of value on high-quality electricity 24/7. When shopping around for inverters, your main considerations should revolve around costs, power requirements, protection, and reliability. There are intangibles, too, like post-purchase service, warranties, and product reviews.

Why should you use a bidirectional inverter during a power outage?

During an outage, a bidirectional inverter will immediately switch your power source from the AC outlet to your battery. This is the reason why bidirectional inverters are considered nowadays when it comes to Uninterruptible Power Supply (UPS) feature. However, you should take this information with a grain of salt.

Can a bidirectional inverter charge a battery from an AC outlet?

With a bidirectional inverter, you get extra options regarding where your power comes from. In the other figure, you can see that bidirectional inverters allow you to charge your battery from your AC outlet. More about this later.

Can a bidirectional inverter replace a professional-grade ups?

Bidirectional inverters currently cannot replace the professional-grade UPS out there used for large businesses and organizations. Still, bidirectional inverters can be used for home applications as long as the switching delay is tolerable. Bottom line: a bidirectional inverter allows you to:

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