



BUHLE POWER

# Solar Inverter Basics





## Overview

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Put simply, a solar inverter converts the DC electricity generated by your solar panels into AC electricity that can be used in your household or fed back into the power grid. How does a string inverter work?

String inverters connect a set of panels—a string—to one inverter. That inverter converts the power produced by the entire string to AC. Although cost-effective, this setup results in reduced power production on the string if any individual panel experiences issues, such as shading.

How does a solar inverter work?

Most homes and appliances run on alternating current (AC). This is where the solar inverter comes in. Put simply, a solar inverter converts the DC electricity generated by your solar panels into AC electricity that can be used in your household or fed back into the power grid. Without it, all that solar energy would be essentially unusable.

What is a solar inverter?

A solar inverter is the electronic heart of your solar power system—a sophisticated device that converts the direct current (DC) electricity generated by your solar panels into the alternating current (AC) electricity that powers your home and feeds into the electrical grid. Think of it like a translator at the United Nations.

Do all solar power systems need a solar inverter?

All solar power systems need a solar inverter. Its main role is straightforward but crucial, changing the direct current (DC) produced by solar panels into alternating current (AC), the type of electricity that powers homes and businesses in hundreds of thousands across the USA.



## Solar Inverter Basics



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