

# The solar inverter power is too small





## Overview

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What happens if a solar inverter is too small?

**Optimal Efficiency:** If the inverter is too small, it will "clip" excess power when the panels generate more than the inverter's capacity, wasting energy. If the inverter is too large, it may operate inefficiently during periods of low solar production (e.g. early morning or cloudy days).

Should a solar inverter be sized correctly?

Sizing your inverter correctly ensures that no electricity is wasted and maximum efficiency is achieved. Undersized inverters waste energy and wear out faster. If your inverter is too small, excess solar power is lost, and the unit degrades more quickly. Your inverter should match your solar and battery needs.

Why is inverter size important?

Inverter size also plays a key role in the DC-to-AC ratio—a critical design metric in any solar system. This ratio compares the total power rating of your solar panels (in DC) to the maximum output of your inverter (in AC).

What is a solar inverter size?

When we talk about solar inverter size, we're referring to the inverter's rated power output capacity, typically measured in kilowatts (kW). In simple terms, it tells you how much electrical power your solar inverter can handle and convert from DC (direct current) to AC (alternating current) at any given time.



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### Did you make the mistake of installing too small an inverter?

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