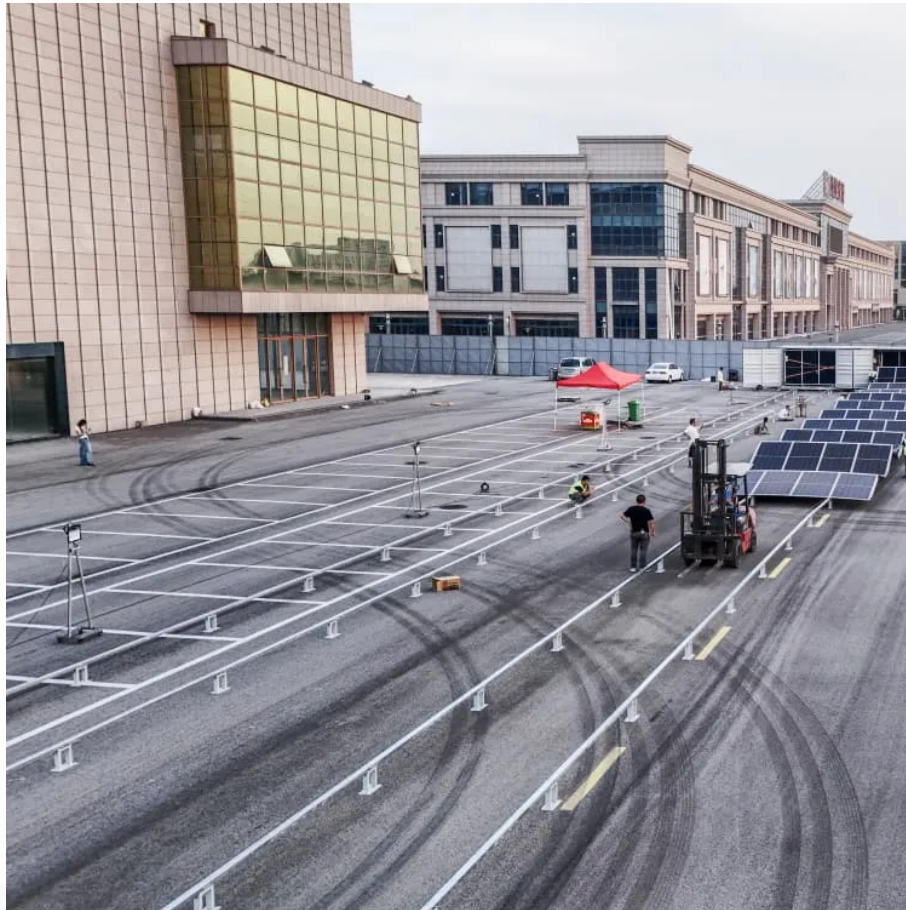


## Kongres Container

# What is the appropriate power margin for the inverter



## Overview

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When sizing an inverter, calculate the total wattage needed and understand surge vs. continuous power. Choose the right size with a 20% safety margin. Factor in simultaneous device use and peak power requirements and add essential margin for future power needs and system upgrades.

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At minimum site temperature, ensure string Voc stays under inverter max DC voltage with margin (commonly 5%-10%). At maximum site temperature, ensure Vmp stays inside the MPPT window for typical operating hours. Check combined Isc vs inverter input current limit and per-MPPT allocation.

To avoid overloading your inverter, it's a good idea to add a safety margin of 20-30% to the rated power consumption of your appliances.

Ideally at 80-110%, to compensate for panel overproduction in bright sunlight and to avoid compromising inverter efficiency. 2. Select an Appropriate Inverter Rating Here's how inverter sizes usually correlate: Panels: 3,000 - 6,000 W Inverter: 3,000 W to 5,500 W Panels: 6,000 - 10,000 W.

It is best when the total capacity of your solar panels (DC size) is slightly bigger than the peak capacity of your inverters (AC size). To set up an efficient solar system, we recommend a DC-to-AC ratio of 1.25:1, or as close as possible to that ratio.

## What is the appropriate power margin for the inverter

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### Contact Us

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