



# What size ah battery should I use for a 48v 3kW inverter

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Our rule of thumb is to size your battery bank to have a usable capacity 3 times your daily watt-hour needs. See the Calculating Loads page for determining the daily watt-hours you need.

Calculate the ideal battery size for your inverter system. Input load, backup time, voltage, and battery type to find the required capacity.

Calculate Battery Size for Inverter Calculator helps you determine the optimal battery capacity needed to support your inverter system.

To recharge your battery from time to time you would need the right size solar panel to do the job! Read the below article to find out the suitable solar panel size for your battery bank

Summary: Selecting the proper battery capacity for a 48-volt inverter is critical for optimizing energy storage, reducing costs, and ensuring reliable power. This guide explores key factors like daily ...

Enter your device watts, hours per day, system voltage, inverter efficiency, and depth of discharge (DoD)--the tool instantly returns required capacity in Ah/Wh/kWh and expected runtime.

For example, a 48V 200Ah LiFePO4 battery provides 9.6kWh (48V  $\times$  200Ah  $\times$  0.8 DoD), supporting a 3000W load for ~2.5 hours. Always prioritize lithium chemistries like LiFePO4 for stability and cycle life.

Instantly calculate battery capacity (Ah) for your load and backup hours. Works with 12/24/48V systems -- includes DoD and inverter efficiency.

Struggling to choose the right Ah for your 48V Li-ion battery pack? This in-depth guide covers everything you need to make the best choice. Find out more now!



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Calculate the ideal battery capacity for your inverter with our Inverter to Battery Matching Calculator. Ensure safe voltage, current draw, and runtime for solar systems.

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