

# 12v inverter variable service life





## Overview

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How to calculate battery life of a 12V inverter?

Divide the available battery capacity for Inverter by the overall power consumed by the inverter to get an estimate of the 12v battery life. Battery Running Time = Battery Capacity x 12v x DOD% x Inverter Efficiency / Inverter Rated Power.

What is the runtime of a 12V battery with an inverter?

The runtime of a 12v battery with an inverter depends on battery capacity, device power consumption, inverter efficiency, battery health, discharge depth, and environmental conditions.

How long does a 12V battery run on a 3000W inverter?

So, battery running time for a 12V battery with a 3000W inverter (94% efficiency) is 0.3008 hours. Battery Running Time =  $100\text{Ah} \times 12\text{v} \times 80\% \times 95\% / 5000\text{W} = 0.1824$  hours With a 5000W inverter (95% efficiency), a 12V battery will run for 0.1824 hours. Battery running time for a 12V battery with a 5000W inverter (95% efficiency) is 0.1824 hours.

What is a 12V battery & inverter?

12v Battery: The workhorse of our off-grid power system. A 12v battery, familiar from most vehicles, stores electrical energy. It's like a little reservoir of power waiting to be tapped. Inverter: Think of an inverter as a translator.



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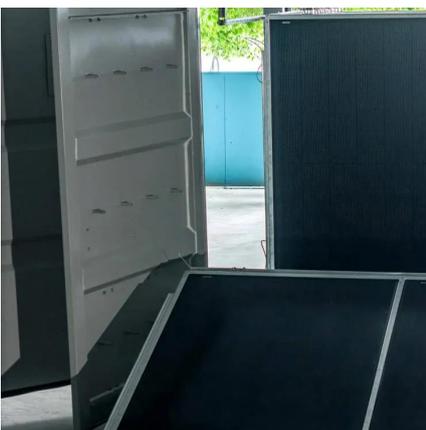
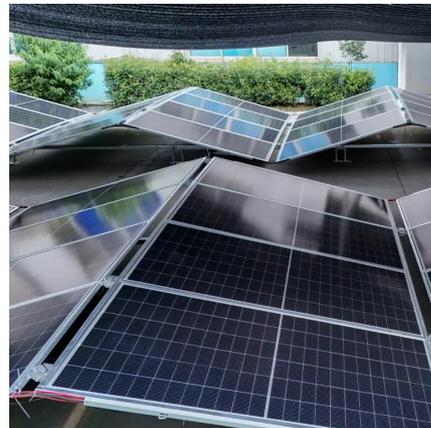


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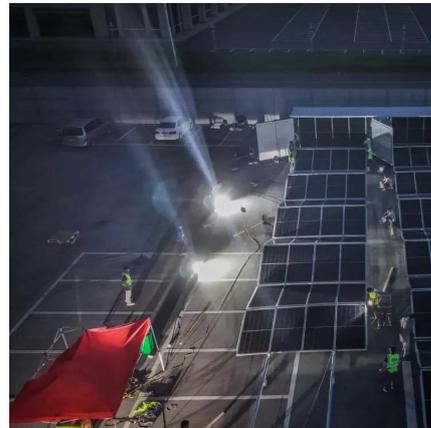


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