

How big a solar panel should I use with a 6 volt water pump





Overview

How much wattage does a solar water pump need?

Let's say you want to pump water from a depth of 50 feet at a rate of 5 GPM using a 12V pump that is 70% efficient. The region receives an average of 6 hours of sunlight per day, and you want to use a 12V solar panel and battery. Using the Solar Water Pump Sizing Calculator, the minimum solar panel wattage required is calculated as follows:.

What is a solar water pump sizing calculator?

The Solar Water Pump Sizing Calculator is an essential tool for individuals who rely on solar power to pump water. By providing the required input data, users can accurately calculate the minimum solar panel wattage and battery capacity required to meet their water pumping needs.

What is the minimum battery capacity required for a solar water pump?

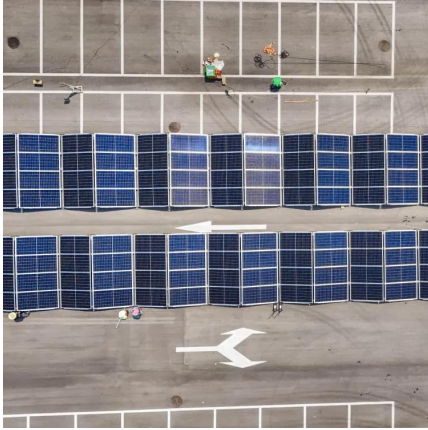
The minimum battery capacity required to store the energy generated by the solar panel can be calculated as follows: $\text{Battery Capacity} = (2.34 \times 6) / 12 = 1.17$ Therefore, the minimum battery capacity required is 1.17 Ah. The Solar Water Pump Sizing Calculator is an essential tool for individuals who rely on solar power to pump water.

How much solar power does a water fountain need?

The higher the head, the more power you need. The Vecharged Rule of Thumb: For every 100 watts of solar panel, you can typically expect to pump around 1,000 gallons of water per day to a moderate height (e.g., 20-30 feet). Example for a Small 12V Fountain: A small 12V water fountain pump might only need a 20-watt solar panel.



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[Calculating Solar Panel Needs for Water Pumping: A ...](#)

Solar-powered water pumping systems harness the sun's energy to move water from a source to a desired location, offering a sustainable and cost-effective solution for various applications.

[How Many Solar Panels for a Solar Water Pump?](#)

Sep 24, 2025 · A standard 1 HP (horsepower) water pump typically requires between 800 to 1200 watts of solar panels. This usually translates to three 400W panels or twelve 100W panels.



[Solar Water Pump Sizing Calculator - 9to5 Equipment](#)

What Is a Solar Water Pump Sizing Calculator? A solar water pump sizing calculator is an online tool that estimates: Pump power (Watts) -> how much energy your pump needs. Solar panel ...

What size solar panel is needed for a solar surface water pump?

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pump power ...



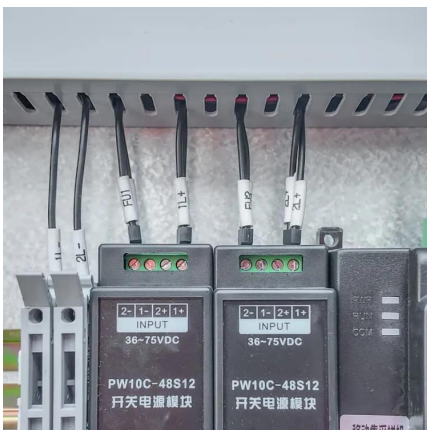
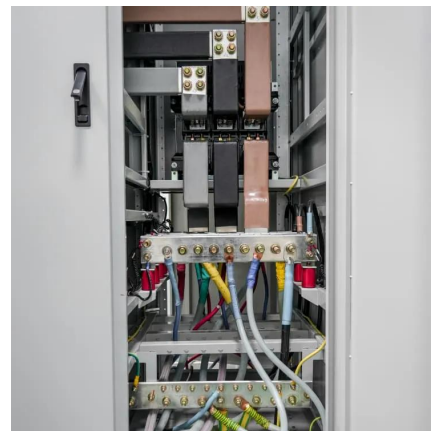
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[How To Calculate Solar Panel For Water Pump](#)

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[Solar Water Pump Sizing Calculator](#)

The Solar Water Pump Sizing Calculator is a tool designed to calculate the solar panel and battery requirements for a water pump. This calculator is particularly useful for individuals who ...



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