

# The difference between 18v and 36v solar photovoltaic panels





## Overview

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What is the output voltage of a 36 cell solar panel?

36-Cell Solar Panel Output Voltage =  $36 \times 0.58V = 20.88V$  What is especially confusing, however, is that this 36-cell solar panel will usually have a nominal voltage rating of 12V. Despite the output voltage being 18.56 volts, we still consider this a 12-volt solar panel. What gives?

Which is the correct voltage; 12V or 20.88V?

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What happens if you convert 36V solar panels to 18V?

Keep in mind that the voltage drop over a diode is about 1.4 volts, so if you convert from 36 volts to 18 volts, there will be a loss of about 5.2 volts per panel. What are the advantages and disadvantages of converting 36v solar panels to 18v?

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Are 24V panels the same as 18V panels?

Also, most panels advertised as 24V are really 36V or two 18V panels in series with an open-circuit voltage well above 40V. Both 12V and 18V panels are listed for sale on Amazon and inspection of the electrical specs shows that they are essentially identical.

What are the different solar panel voltages?

Namely, we have to come to terms with the fact that there are several different voltages we are using for solar panels (don't worry, all of these make sense, we'll explain it). These solar panel voltages include: Nominal Voltage. This is your typical voltage we put on solar panels; ranging from 12V, 20V, 24V, and 32V solar panels.



Are 12V & 18V solar panels the same?

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How much power does a solar panel produce?

Maximum Power Voltage: The voltage at which your panel produces the most power typically falls between 18V to 36V. So, when you're thinking about solar panel voltage, just remember that it's the driving force that contributes to your energy production.



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### [Solar Panel Output Voltage: How Many Volts Do PV Panel ...](#)

It's not all that easy to find the solar panel output voltage; there is a bit of confusion because we have 3 different solar panel voltages. To help everybody out, we will explain how to deduce ...

### [Which is better for charging solar panels 18v or 36v](#)

The choice between 18V and 36V depends on the specific application. Generally, for lighter tasks and portability, 18V may suffice, while 36V is better suited for heavier-duty applications that ...



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