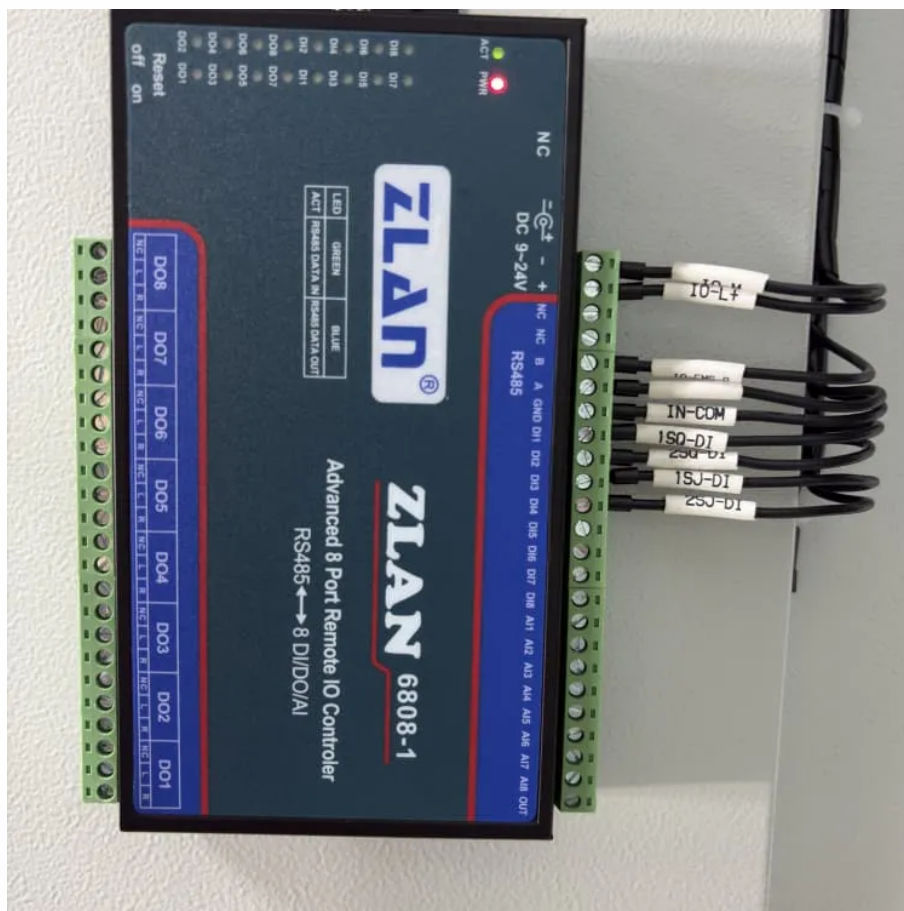


Inverter power is negative





Overview

When power and current are 180° out of phase, the power reading is negative. Changes in phase relationship also have a bearing on the power factor reading. It is important to observe the markings on the CTs and the CT wire polarity. Why is my PV inverter generating negative power at night?

This will generally result in negative power or a very low power factor. In some cases, you may see negative power readings from a PV inverter at night. See [Non-Zero Nighttime PV Power Generation](#) for more information. Reverse the CT on the wire being monitored. Swap the white and black wires at the WattNode.

Why does my PV inverter have a low power factor?

For example, suppose the CTs are shifted by one phase, so that instead of monitoring phases A, B, and C (in that order), the CTs are on B, C, and A. This will generally result in negative power or a very low power factor. In some cases, you may see negative power readings from a PV inverter at night.

Why does my inverter have a high voltage?

This could make it easier for the inverter to push power into the grid and lower the overall voltage required to do so. The reason why the voltage is high in the first place is likely due to high grid impedance. Looking at it this way, I guess it could make sense to add capacitive power to lower the overvoltage condition.

How does a PV inverter work?

PV inverters make power where the current and voltage are in phase. The load consumes power with some angle between the current and voltage. Whatever is different between the PV inverter and the load -- the PoCo has to supply it. The inverter doesn't do anything to the load, the load is still the same.

Does a solar inverter cause a load to draw power?



Therefore if a solar inverter is going to cause a load to draw power from the inverter instead of the grid, it has to raise the voltage at the node where all three come together higher than it would be if the load drew power from the grid. Right?

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What is the difference between 'positive' and 'negative' power?

The practice of "positive" and "negative" power to reference "import" and "export" power is purely by convention, and most importantly based on the desired measurement result. For example, in most buildings, power from the grid, is considered "import" (positive), and power that is pushed to the grid is "export" (negative).



Inverter power is negative

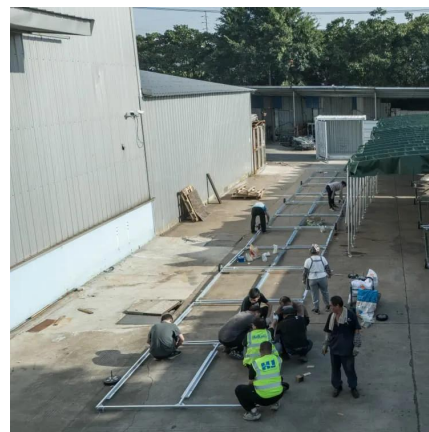


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But with more and more renewable energy feeding back into national grids, new challenges have emerged - leading to zero or even negative feed-in tariffs that actually cost ...

[My Phoenix inverter 12V 250VA 230V sometimes shows negative output](#)

But in this case it is much more likely that the current reading component on those inverters is not precise, just an indication. For a more precise and accurate reading, it is ...



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Inverters with reactive power control can be configured to produce both active and reactive power, i.e. an output that is at a non-unity power factor. This means that the power factor for the load ...

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