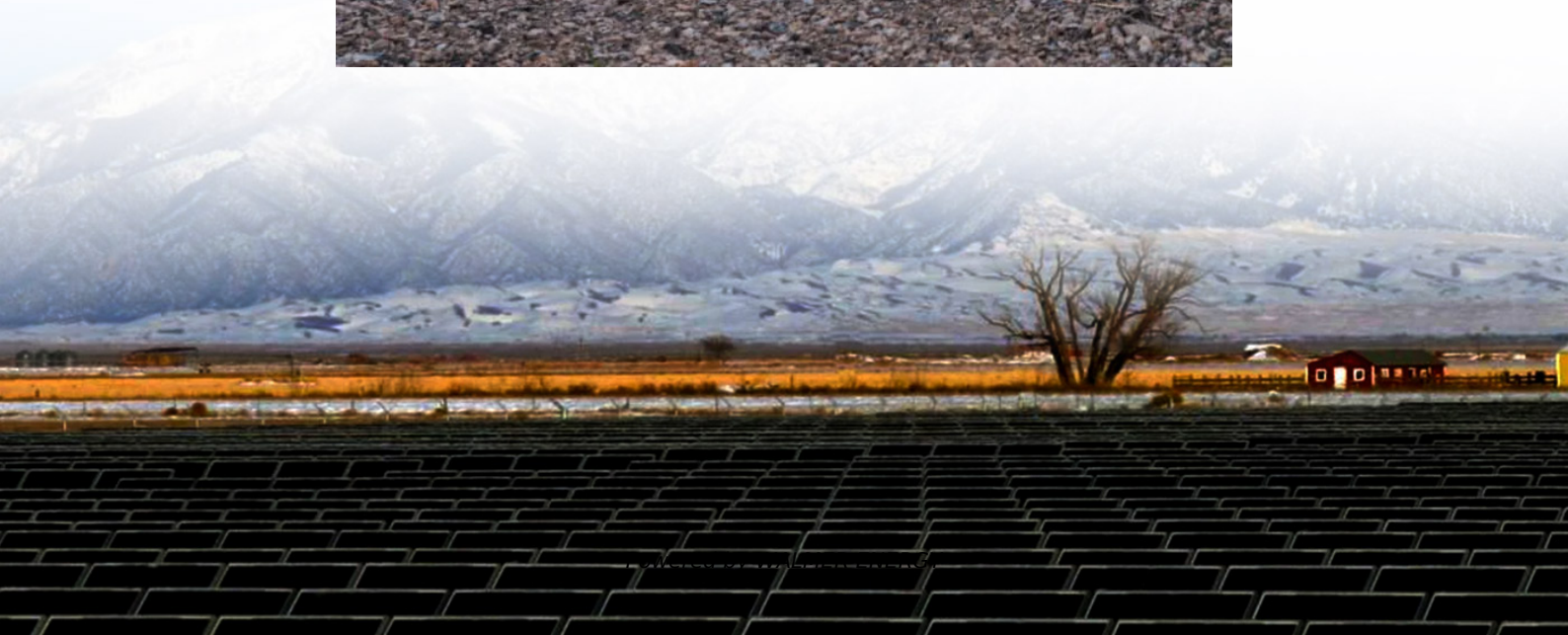


Inverter DC measurement to ground





Overview

Can a DC inverter carry a lethal voltage?

This test should only be performed by qualified personnel. DC systems can carry lethal voltages. Ensure proper PPE is used and that the system is safely isolated from the inverter before conducting any tests. Understanding the Problem: What Is a Ground Fault?

A ground fault occurs when a conductor in the DC system unintentionally contacts ground.

How far should an inverter be from the ground?

Regardless of the system, if you can place an inverter, you'll want it to have a free space of half a foot on either side and above. It's also smart to have the inverter be three feet off from the ground to keep it out of range of flood or rising water level incidents. You'll also want to be looking at how far the inverter is from the battery bank.

How much DC power does an inverter use?

If you're using an inverter to power some 120v appliances like a microwave or induction burner it takes 10 times the 12v power to make the 120v power. So you need to multiply the amp consumption of those devices by 10 to see how much DC power they'd take. Actually, because the inverter isn't 100% efficient, it's better to multiply by 13.

How do you know if an inverter has a ground fault?

Measure the remaining strings in the same manner. If the insulation resistance of a string deviates considerably from the theoretically calculated value, there is a ground fault present in that string. Reconnect to the inverter only those strings from which the ground fault has been eliminated. Reconnect all other strings to the inverter.



Inverter DC measurement to ground

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