

PV ISO PRO

PV ISO PRO means the resistance in DC side (solar) is too low on one or more strings.

The ground fault will need to be resolved before the system can be energized. or the inverter will be damaged by it.

PV ISO-PRO01 - Negative wire is connected to ground

PV ISO-PRO02 - Positive wire is connected to ground

1. Check the inverter

1.1 completely isolate the inverter;

1.2 remove all of the DC strings and AC wires;

1.3 turn on the DC switch that was on the inverter; then measure the resistance of all DC+ and earth (put the red pin of the multi-meter into the DC+ terminals and the black pin of the multi-meter to the heat sink).

As showing in picture below. And then measure the resistance of all DC- and earth (put the red pin of the multi-meter into the DC- terminals and the black pin of the multi-meter to the heat sink).



2. To examine all of the PV strings that are connected to the inverter

- 2.1 Shut down the whole system for 5 minutes(both DC &AC side);
 - 2.2 Take off all of the PV strings.
 - 2.3 then input one of the PV strings to the inverter;
 - 2.4 switch on the inverter(with Grid on) for 5 minutes;
 - 2.5 if there's no alarm occurs, then shut off the whole system, pull the PV string off the inverter;
 - 2.6 then swap another PV string to the inverter;
 - 2.7 cycle this and check under which PV string the alarm will occur.
 - 2.8 Then carefully examine that PV string to see if there's any ground problems.(wire connections, insulations of the wires, anything that can lead to the ground problem, DC wires pinched under the array, wires landed in the wrong terminals, precipitation triggering a ground fault, and on and on.)
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3. Check PV strings

Use a multi-meter to check the voltages between PV+ and earth, PV- and earth of all the PV strings. (it should be decreasing from a certain value between 5% of Voc and 95% of Voc) If the voltage value shown on the multi-meter is constant, then there must be something wrong in this PV strings. Then tell us the values, thanks.

If all of these examinations are useless, then the following information is needed:

1. when does the alert first show up? How about the weather like on that day?
2. Was the alert happens all day long or just in the morning or evening or randomly in a day and happens like this everyday ? Or just in moisture days.
3. How about restarting the inverter?
4. The model and the serial number of this inverter.
5. Is the body of this inverter connected with the earth? please send us pictures about it.
6. After the PV ISO Pro happened, turn off the inverter, then plug off all the PV strings, then measure the voltages between PV+ & PE, PV- & PE. Please send us videos about the process.
7. After the PV ISO Pro happened, turn off the inverter, then plug off all the PV strings, then measure the voltages between PV+ & the heat sink, PV- & the heat sink. Please send us videos about the process.
8. Please tell us all the values showing in the running messages in the advanced info of the LCD.

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