

How to check CT polarity via iSolarCloud

Disclaimer

The material in this document has been prepared by Sungrow Australia Group Pty. Ltd. ABN 76 168 258 679 and is intended as a guideline to assist solar installers for troubleshooting. It is not a statement or advice on any of the Electrical or Solar Industry standards or guidelines. Please observe all OH&S regulations when working on Sungrow equipment.

Overview:

Current transformers are used to determine current flow and direction. They need to be installed correctly.

There are times when the consumption data in the iSolarCloud is not making sense or export control is not functioning properly. This could be due to incorrect CT installation.

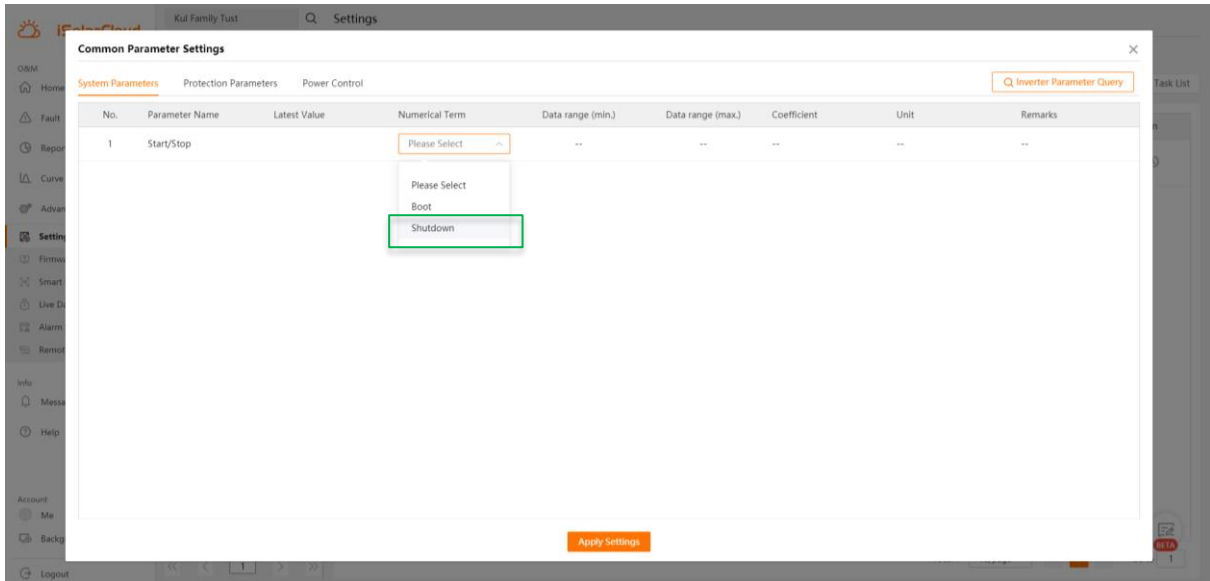
The following procedure will help in determining whether any CT's are the wrong way around.

1. Log into the plant via iSolarCloud, go to settings > Common Parameters > System Parameters and stop the inverter using the Start/Stop command

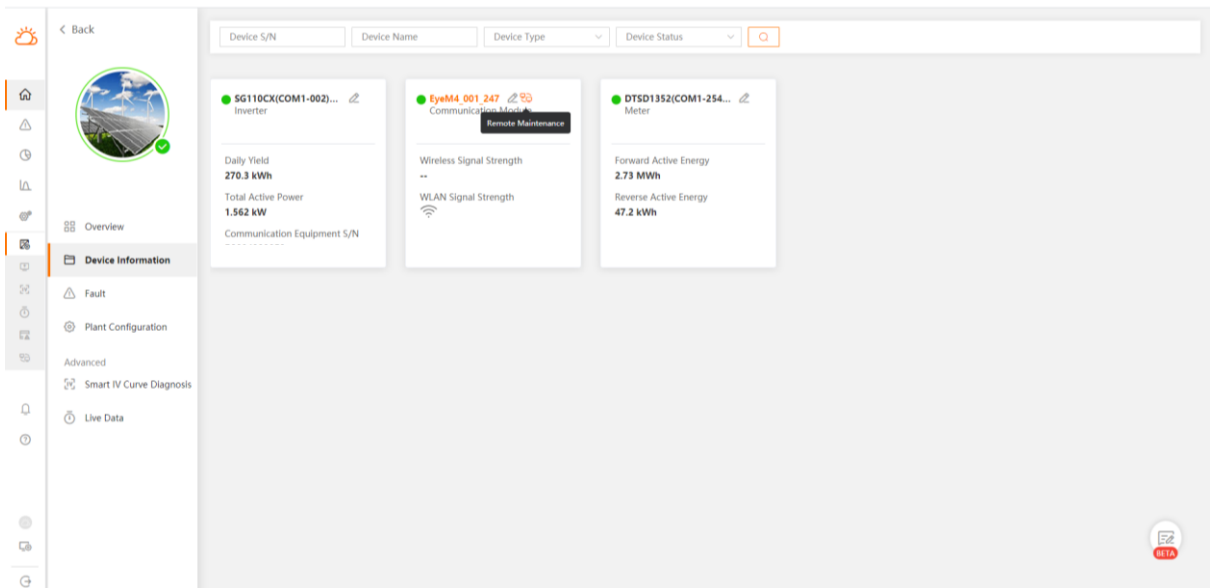
The screenshot shows the iSolarCloud interface. On the left is a navigation menu with 'Settings' selected. The main content area is titled 'Settings' and contains a search bar and several tabs: 'Initial Grid Connection', 'Common Parameter Settings' (highlighted with a green box), and 'Task List'. Below the tabs is a table with the following data:

Plant Name	Device Name	Initial Grid	Device S/N	Device Model	Country/Region	Grid Frequency	Version No.	Device Interval	Operation
	SG110CX(COM1-002_001_002)	Already Set		SG110CX	Australia	50 Hz	CS1-2.0.1.35-A51-1.1.25.0-AA10-1.0.3.0	Grid-connected point_1_1#unit	

At the bottom of the table, there is a pagination bar showing 'Total 1' and '10/page'.



Once the inverter is stopped, go to the home page and log into the EyeM4



Once logged into the EyeM4 (it is not necessary to actually log in as installer), go to 'Device Monitoring' and select the meter.

Observe the Phase A/B/C Active power.

Parameter Name	Real-time Values (Unit)
Phase A Voltage	233.9 V
Phase B Voltage	232.7 V
Phase C Voltage	233.1 V
A-B Line Voltage	404.0 V
B-C Line Voltage	403.3 V
C-A Line Voltage	404.4 V
Phase A Current	0.000 A
Phase B Current	60.000 A
Phase C Current	71.200 A
Phase A Active Power	0.000 kW
Phase B Active Power	-13.200 kW
Phase C Active Power	15.520 kW
PF	0.841
Grid Frequency	49.95 Hz
Active Power	2.2800 kW
Feed-in Power	2.2800 kW
Reactive Power	1.4800 kvar
Apparent Power	30.6400 kVA
Forward Active Energy	2726.00 kWh

All phases should show load only.

In the above example, phase B is showing export energy, which is impossible if the inverter has been stopped (unless there is another PV inverter on that phase).

C-A Line Voltage	404.4 V
Phase A Current	0.000 A
Phase B Current	60.000 A
Phase C Current	71.200 A
Phase A Active Power	0.000 kW
Phase B Active Power	-13.200 kW
Phase C Active Power	15.520 kW

Conclusion: The CT on phase B is reversed

If the issue persists after following above procedures, please take photos testing on site and contact Sungrow Service Department on 1800 786 476 or email to service@sungrowpower.com.au, Monday- Friday 9am - 5pm (AEDT).