Sungrow Premium Crystal G2 Common Faults

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.

Applicability: SG2K-S, SG2.5K-S, SG3K-S, SG3K-D, SG5K-D, SG8K-D

There are several common faults that can occur on the Crystal G2 inverters due to a result of improper installation / other issues. This document discusses these common faults and provides a solution to resolve the issues.

Several operations or settings relating to these issues can be done via local access feature of the iSolarCloud App hence, it is recommended to download the app on the smart phone for easy access.

Technician login details are "**admin**" and "**pw888**". If requested for a password to connect to the SG Wi-Fi, the password is the SN of the dongle.

The table below highlights the fault codes, reason for the fault and a solution.

Table 1: Common Faults

Fault / Alarm Code	Explanation	Resolution
010	**Islanding Fault** – No AC voltage detected at the inverter terminals. This fault is normal if a blackout occurs.	AC voltage on the AC plug and inverter terminals must be checked. Also, need to ensure all AC switches are turned on. Troubleshooting guide below: • Error 010 Islanding

014	**10-min average Grid Over-Voltage Fault** – The grid voltage exceeds the permissible limit for 10 mins	Since this is to do with grid voltage, Sungrow recommends contact the local DNSP to check the voltage. At the same time, the voltage-rise calculations can be doublechecked. The setting for the 10-min overvoltage setting can also be updated if the local DNSP approves. Procedure below: • 10 minutes Overvoltage Issue (Error 014)
039	**Low Insulation Resistance** – The insulation resistance (IR) of the DC strings is too low. Can also occur due to high setting sensitivity.	The IR on the DC strings must be tested. Technicians can follow the document below: • Error 039 Low PV Insulation Resistance If the strings are tested to be clear, a firmware upgrade can be done to improve the IR sensitivity. • Local Firmware Upgrade • Remote Firmware Upgrade
084	**Reverse CT Connection Alarm (With Smart Meter Only)** – The CT is detecting power flow in the wrong direction. Can occur if the CT is incorrectly installed or there is another inverter installed.	CT orientation (S100) / Meter wiring (DTSU666) must be checked. If there is another inverter on site, the existing inverter setting must be enabled. • Error 084 Troubleshooting • Existing Inverter Settings

088	**Arc Fault** – The system has detected an arc on the DC side. Can occur due to high setting sensitivity.	The strings must be checked to ensure there Is no cause of arcing. A firmware update can also be done to improve the sensitivity of the arc detection setting. The fault also needs to be cleared after the upgrade. • Local Upgrade / Fault Clear • Remote Upgrade / Fault Clear
089	**Arc Fault Disabled Alarm** – The AFCI (arc fault current interrupter) function has been disabled. This does not affect the inverter production and is just a warning.	The AFCI function can be turned back on. Can follow the procedures in the documents above. Settings will include "**AFCI Activation**" which needs to be turned on.
100	**AC Overcurrent Fault** – Can occur due to high sensitivity	A remote upgrade needs to be conducted by Sungrow*.
514	**Meter Communication Alarm** – Inverter is unable to detect the meter. This fault will only occur if the export setting has been enabled	Check the communication wiring between the meter and inverter. Must use "Meter" port. Pin 8 = RS485+ A, Pin 6 = RS485- B Meters Compatible: • S100 (Single-Phase) • DTSU666 (Three-Phase) Guides: • S100 Guide • DTSU666 Guide

**Sungrow is currently working on a solution which will be available to the public shortly.*

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.