

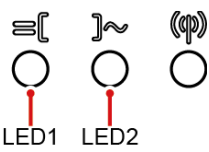
# HUAWEI SUN2000-5/6KTL-M1 Inverter Low Insulation Resistance Fault Indication Guide

HUAWEI single phase residential inverter SUN2000-5/6KTL-M1 inverter has followed the requirement of AS 4777.2:2015 to detect earth fault via check the insulation resistance value. The fault is depicted in following table:

Alarm ID Alarm	Alarm Name	Alarm Severity	Possible Causes	Troubleshooting
2062	Low Insulation Resistance	Major	Cause ID = 1 <ul style="list-style-type: none"> <li>A short circuit exists between the PV array and the ground.</li> <li>The PV array is in a moist environment and the circuit is not well insulated to the ground.</li> </ul>	Check the output <ol style="list-style-type: none"> <li>Check the impedance between the PV array output and the ground. If a short circuit occurs or the insulation is insufficient, rectify the fault.</li> <li>Check whether the PE cable of the SUN2000 is correctly connected.</li> <li>If you have confirmed that the impedance is lower than the specified protection threshold in a cloudy or rainy environment, log in to the app, SmartLogger, or NMS and set the Insulation resistance protection threshold.</li> </ol>

The fault or alarm can be indicated through two different ways:

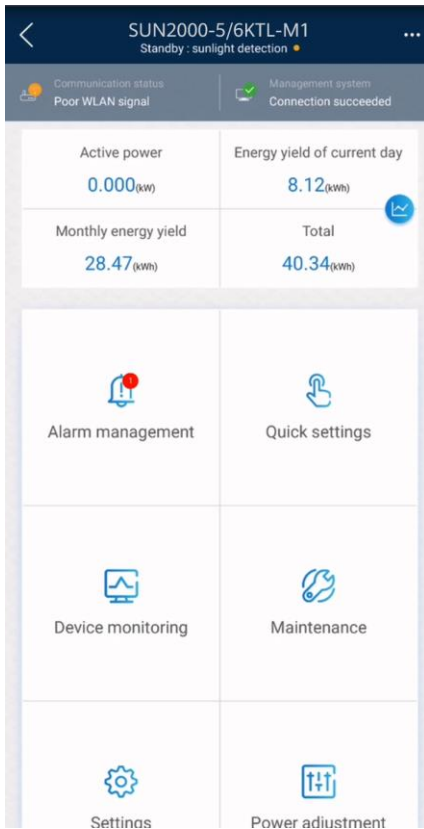
## 1. Inverter LED display:

Category	Status		Description
Running indicator	<b>LED1</b>	<b>LED2</b>	
	Steady red	Steady red	Fault

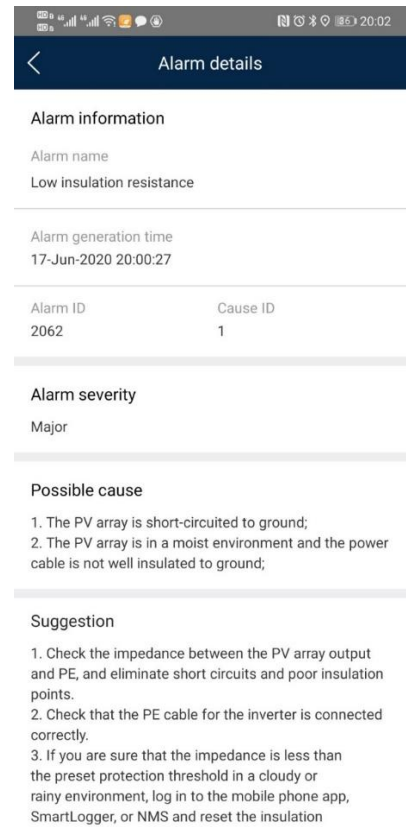
## 2. FusionSolar App Indication :

- When connecting FusionSolar App to inverter via its built-in WLAN communication, low insulation resistance alarm or fault can be indicated via following interface by:

Click 'Alarm Management'



Select 'Low Insulation resistance' alarm



- When user monitoring the PV plant registered in FusionSolar App, the low insulation resistance alarm or fault can also be indicated via following interface by :

Clicking the inverter icon in power flow diagram → Select Alarm info tab → click 'Low Insulation



## Resistance' active alarm

Smart Energy Center

Real-time Info Device Info Alarm Info Historical Info

Active Alarm Historical Alarm

**Low Insulation Resistance(Major)**

Occurrence Time: 18/06/2020 14:15:08

Confirm status: Activate

Alarm Details

**Low Insulation Resistance**

Plant Name: huawei

Alarm Severity: Major

Alarm Status: Activate

Alarm ID: 2062

Cause ID: 1

Device name: HV2050138102

Device type: Smart Energy Center

Local Time: 17/06/2020 20:00:27

Occurrence Time: 17/06/2020 20:00:27

Recovery Time: --

### Handling Suggestion Details

Possible cause:

1. The PV array is short-circuited to ground.
2. The PV array is in a moist environment and the power cable is not well insulated to ground.

Suggestion:

1. Check the impedance between the PV array output and PE, and eliminate short circuits and poor insulation points.
2. Check that the PE cable for the inverter is

Confirm Clear Recover