

1 tow 2 Rapid Shutdown Devices SUNGO RSDi-2 & Data Gateway SUNGO GTC Quick Installation Guide

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1 Product Overview

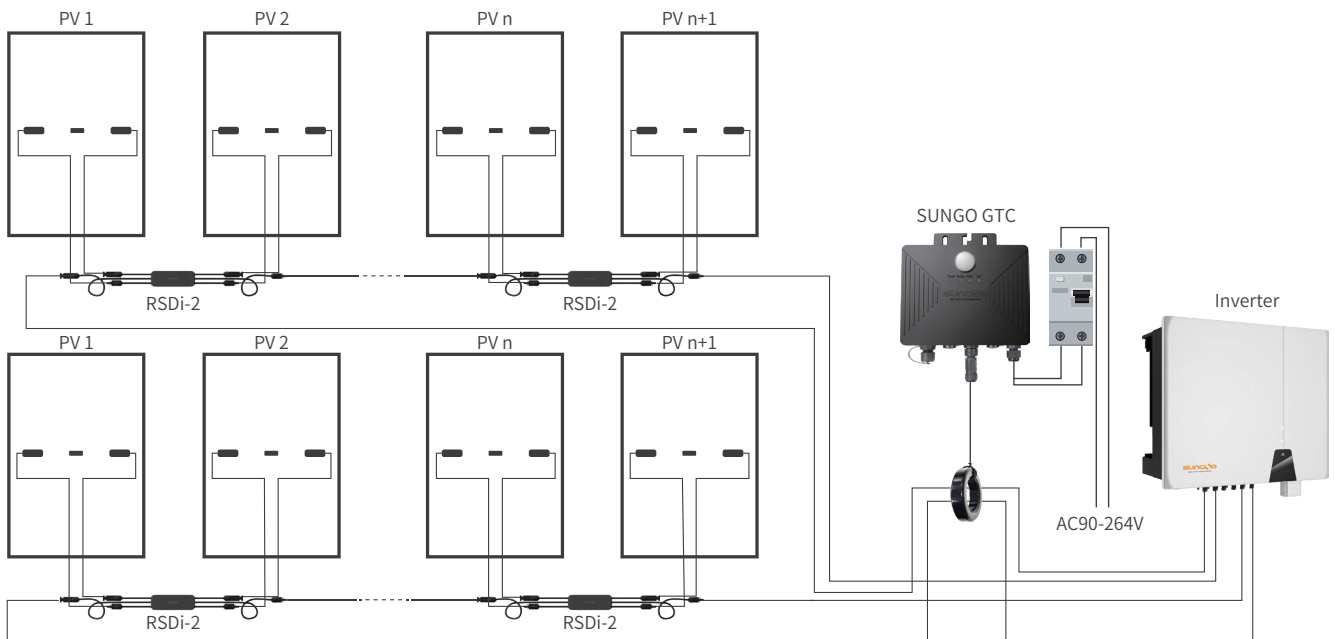


**1 tow 2 Rapid Shutdown Devices
 SUNGO RSDi-2**



**Data Gateway
 SUNGO GTC**

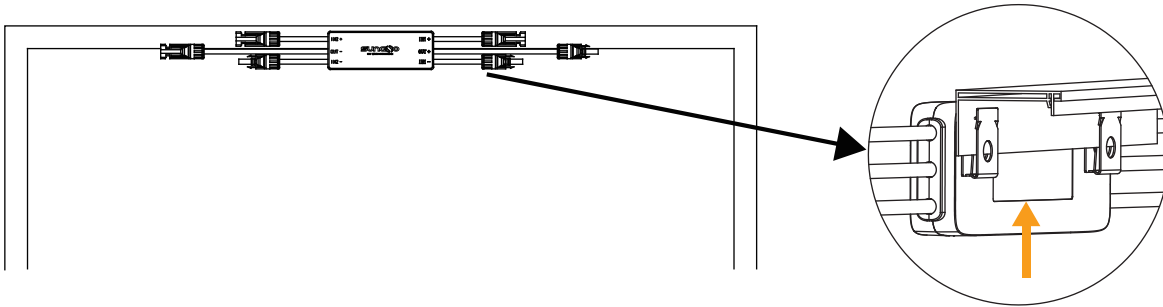
The SUNGO RSDi-2 is a rapid shutdown with data monitoring, matching the data gateway GT or GTC, with a module-level rapid shutdown function that monitors the operating parameters of the PV modules and reports the operating status of the PV modules.



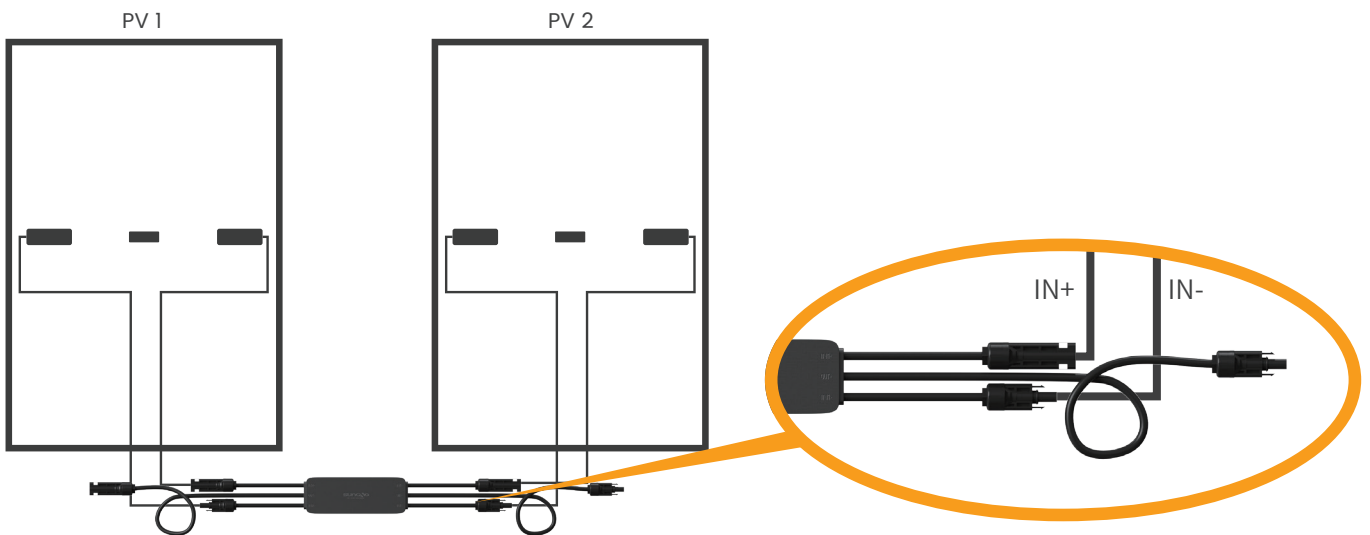
Connection Diagram

2 SUNGO RSDi-2 Product Installation

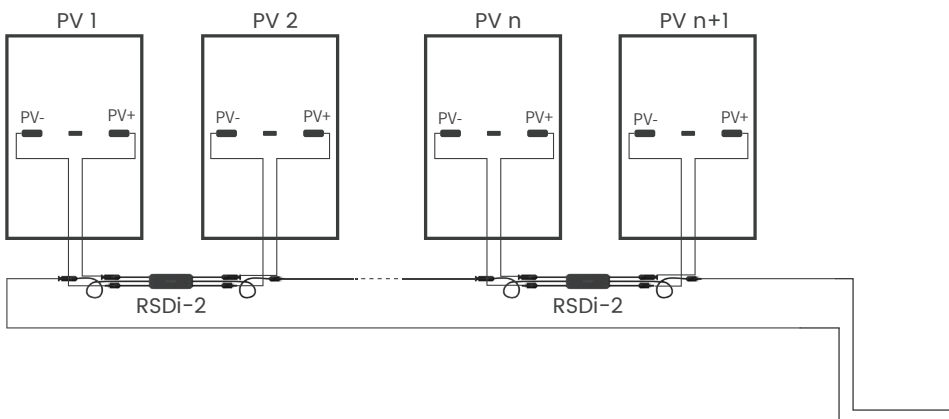
1. Install the RSDi-2 by snapping the RSDi-2 upward onto the PV module frame.



2. Connect IN+ and IN- of RSDi-2 to the positive and negative terminals of the first and second PV module junction boxes respectively, and so on.



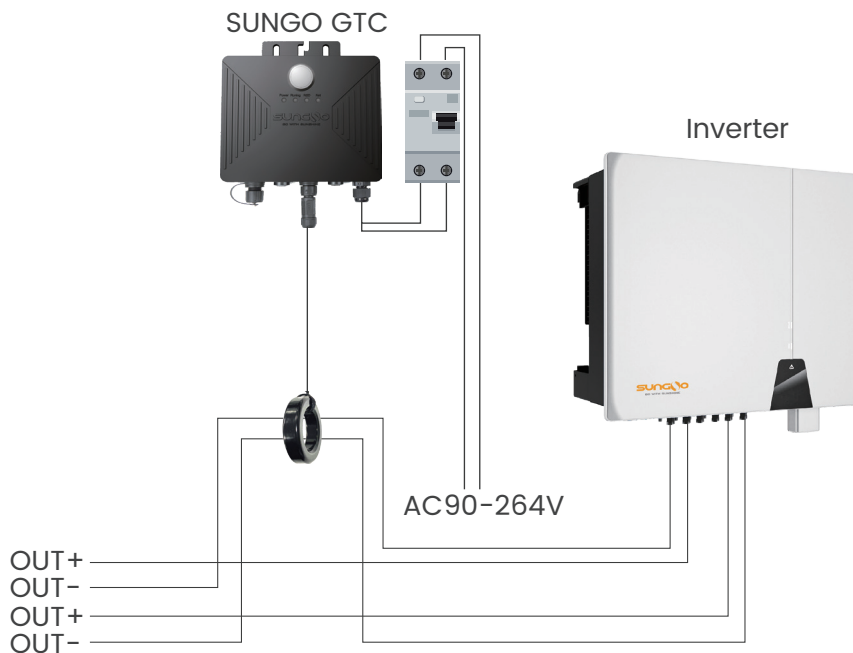
3. Connect two adjacent RSDi-2 output ports in series and then connect them near to the inverters with a homemade DC extension cable.



3 SUNGO GTC Installation

Step 1. Data gateway connectivity

1. Install the GTC near the inverter.
2. Connect the OUT+ of the last rapid shutdown to the PV+ of the inverter.
3. Connect the OUT- of the first rapid shutdown through the magnetic ring of the GTC to the PV- of the inverter.
4. After confirming that the connection is correct GTC connects the MCB and then connects it to the AC.



The GTC itself is IP67 waterproof and can be used without a distribution cabinet. The AC input line is connected to the AC power using the L16-2 waterproof connector.

- Check that the structural mounts are secure and that all screws are tightened.
- Check that all cables are connected with the correct polarity and that the connections are firm and reliable to ensure that there are no short circuits.
- Confirm that the system is connected correctly, the inverter DC switch is ON, and the inverter is turned on.

Note: One GTC can take up to 50 RSDi-2.

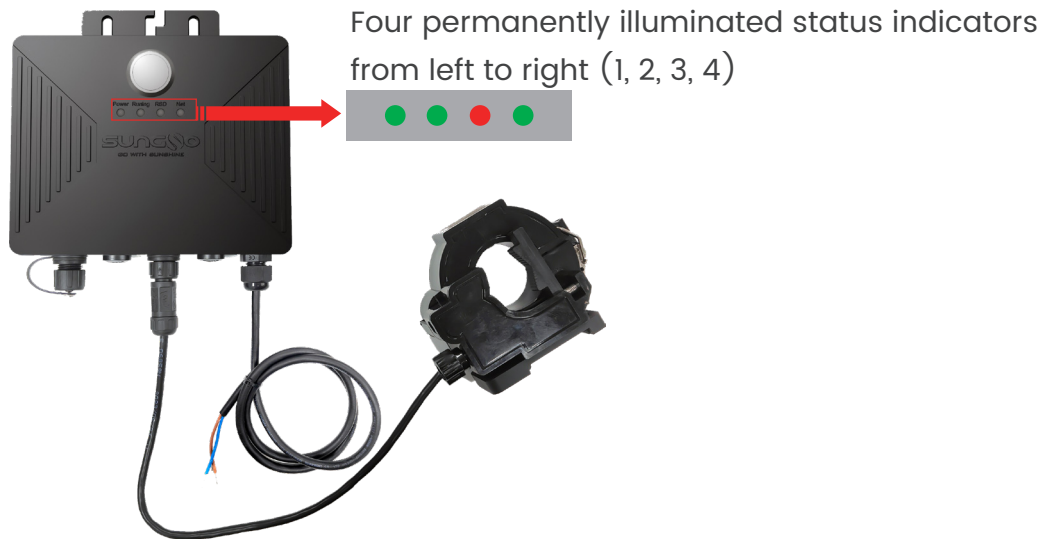
Step 2. Connecting the data gateway to a power source

Connect the data gateway to 90~264V AC power supply. Ensure that the power indicator green light is always on, and the running indicator green light is also always on. Check whether the inverter is working normally.

Step 3. GTC status indication

Search Optimizer self-test and indicator status

Press the center button to allow the Running light to illuminate normally. Let the Rapid Shutdown (RSD) go out for an extended period. After 5 seconds, press and hold the button. After a few seconds, the GT enters the self-test mode, and when the 2, 3, 4, indicator light flashes back and forth, release the button. Wait for about 10 minutes until the Running indicator light flashes, indicating a successful self-test. Press the button again to make the Running indicator light continuously on, confirming that the optimizer is operating normally. If the 3 indicator lights are blinking, it signifies a test failure. In such a case, please check the connections and rerun the test. If the test fails three times, kindly contact the relevant technical personnel.



Note: Indicator status indicates

1, 2, 4 Indicator status schematic: ● Indicates normally lit ● Indicates extinguished ● Indicates blinking	
3 Indicator status schematic: ● Indicates normally lit ● Indicates extinguished ● Indicates blinking	
<p>None of the four indicator lights are lit Wrong or faulty circuit connection</p>	<p>1 on 2 off 3 on 4 on Turn off the optimizer, the network is connected normally</p>
<p>1, 2 on 3, 4 off Start optimizer, network not connected</p>	<p>1 on 2 blinking 3 blinking 4 blinking Search Optimizer self-test</p>
<p>1, 2 on 3 off 4 on Start the optimizer, the network is connected normally</p>	<p>1 on 2Blinking 3on 4 on or off Search Optimizer self-test successful</p>
<p>1 on 2 off 3 on 4 off Optimizer off, network not connected</p>	<p>1 on 2 off 3 blinking 4 on or off Search Optimizer self-test failed</p>

Step 4. GTC entry whitelisting

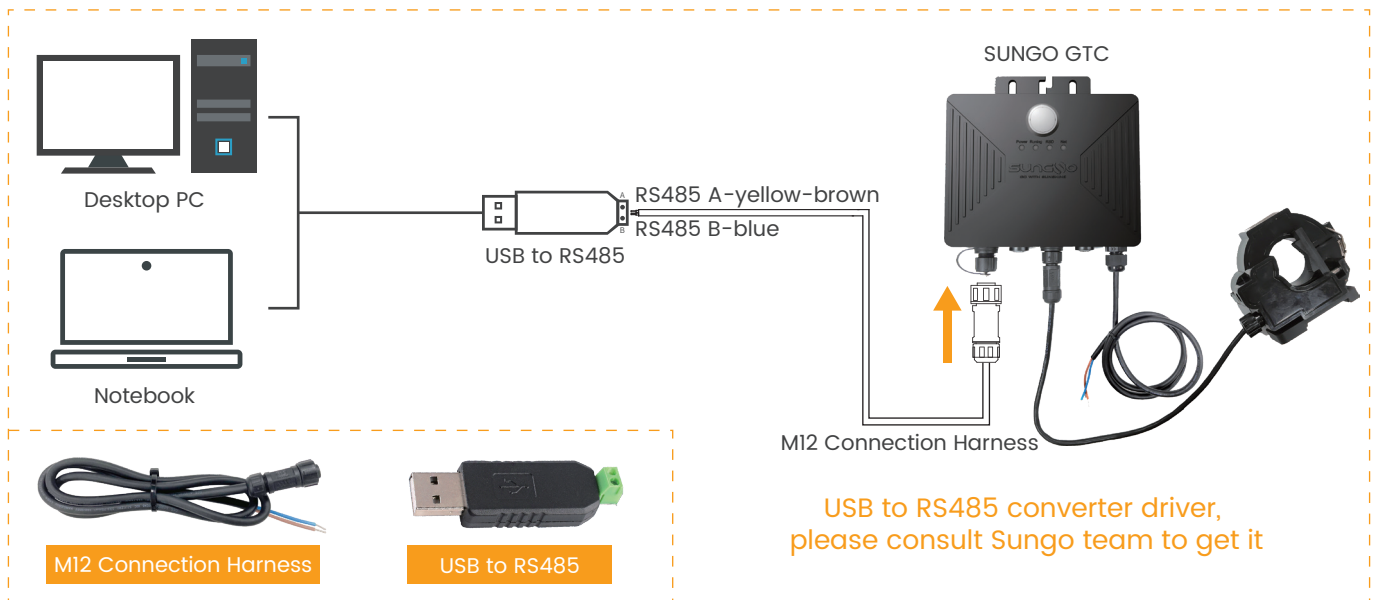
I. Process

Recommended application process:

1. First power up the GT/GTC.
2. Use the USB to RS485 cable to connect GT/GTC and the computer
3. Select the corresponding serial port
4. Read MAC Addr and Version, if normal display, represents the current connection is normal, otherwise check whether the cable is properly connected.
5. Enter the RSDi-2 code into the List list, and then click Write to write it to GT/GTC; there are two ways to enter the code as follows
 - ① Through Import button, recognize the selected picture to import.
 - ② Enter the number manually through the keyboard, and note that each number is separated by a comma.
6. Monitor the current status of the rapid shutdown through To Monitor.

II. Wiring

Use USB to RS485 to connect the GT/GTC to the computer, the connection is shown below:

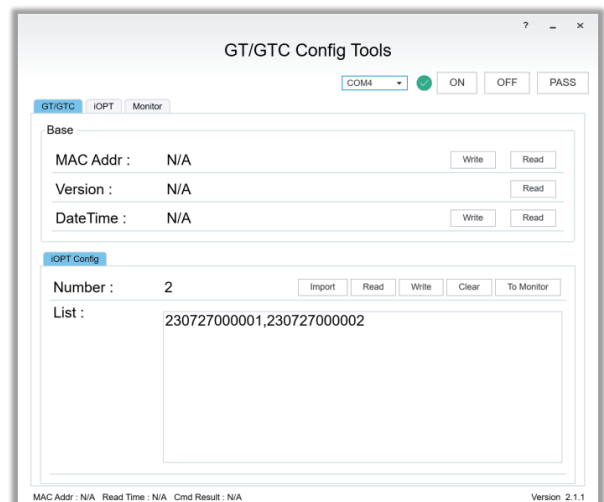
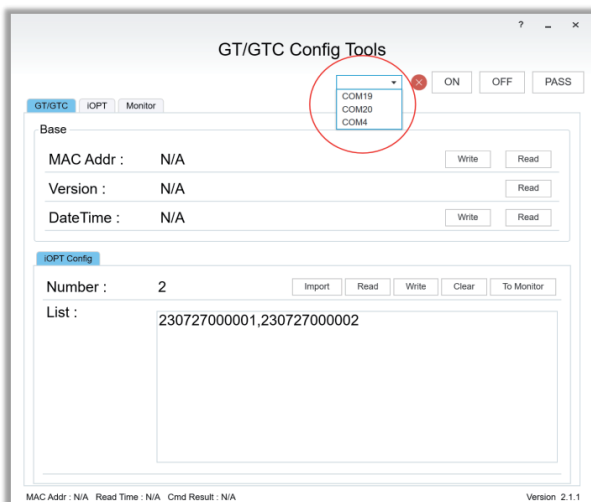


Wiring Diagram

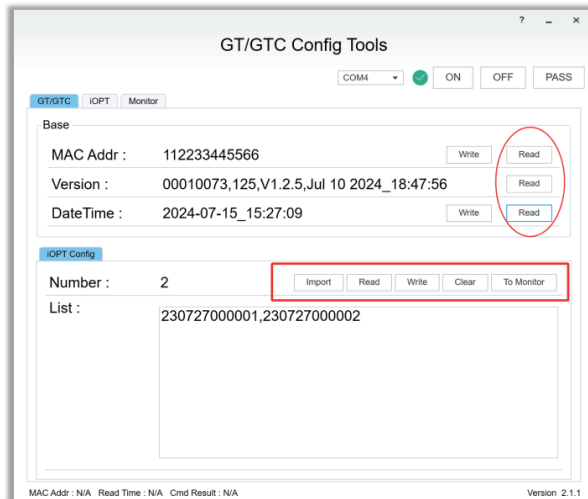
III. Description

1. Select the corresponding serial port

After success, the green circle is displayed as follows



2. Description of GT/GTC functions



①MAC Addr:

Click Read to read the address of GT/GTC, and click Write to write the address in the left input box to GT/GTC.

②Version

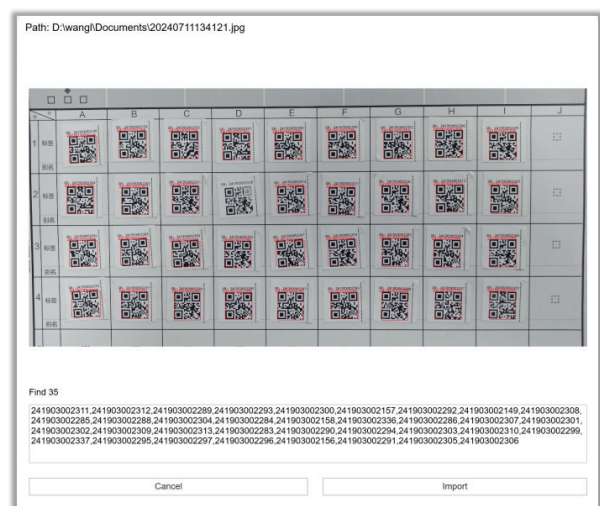
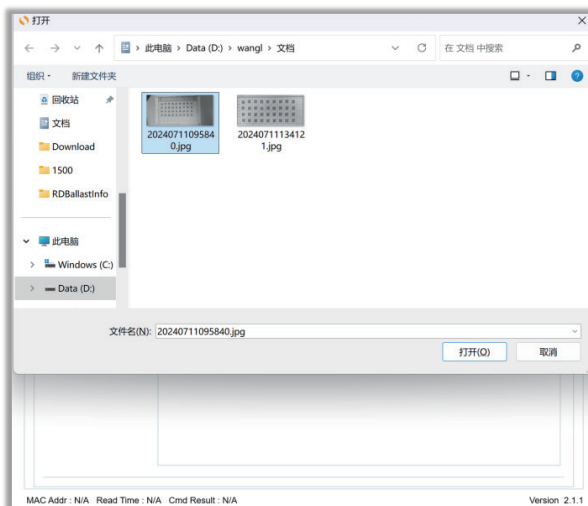
Click Read to read the software version number of GT/GTC.

③DateTime

Click Read to read the time of GT/GTC, and click Write to write the system time into GT/GTC.

④iOPT Config - Import

Click Import to import the RSDi-2 code through the image, as follows
Click Import to import the recognized codes into the List box.



⑤iOPT Config - Read

Click Read to read the RSDi-2 list of the current GT/GTC configuration.

⑥iOPT Config - Write

Click Write to write the RSDi-2 list to GT/GTC.

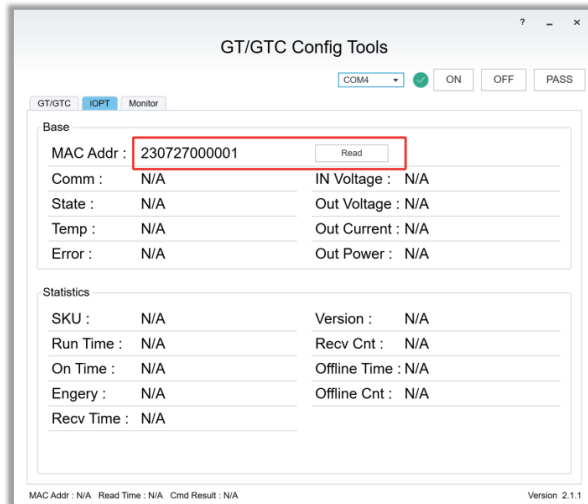
⑦iOPT Config - Clear

Click Clear to delete all the RSDi-2 in GT/GTC.

⑧RSDi-2 Config - To Monitor

Click Monitor to display the RSDi-2 in List on the Monitor page.

3. Read single RSDi-2 working parameters function description



Input the RSDi-2 number you need to read, click Read to read its current status.

Comm: communication status, Online stands for online, Offline stands for offline.

State: current state, ON working, OFF closed.

Temp: current temperature, Celsius degrees

Error: current fault, Normal stands for normal.

IN Voltage: input voltage

Out Voltage: Output Voltage

Out Current: Output Current

Out Power: Output Power

SKU: Product Model

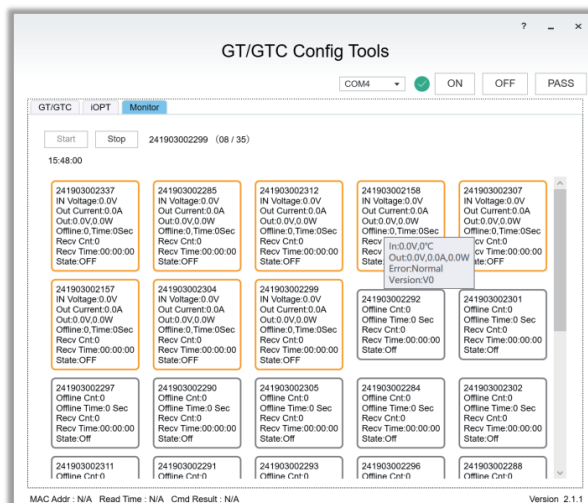
Run Time: Run Time

On Time: Working Time

Engery: Power Generation

Recv Time: Receive Time

4. Monitor Function Description



Click Start to start monitoring, the software will refresh the status of RSDi-2 in List regularly.

4 GTC distribution network

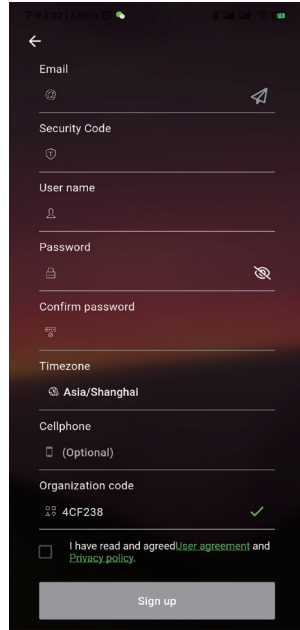
Step 1. Download APP and register account



iSungo-Android

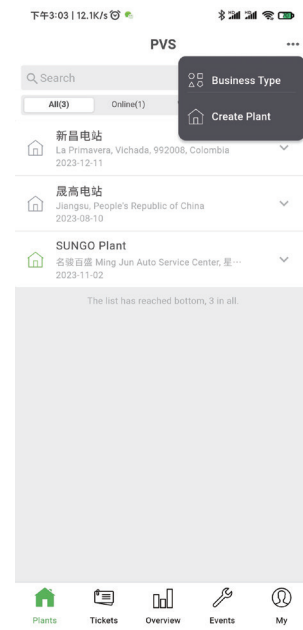


iSungo-ios



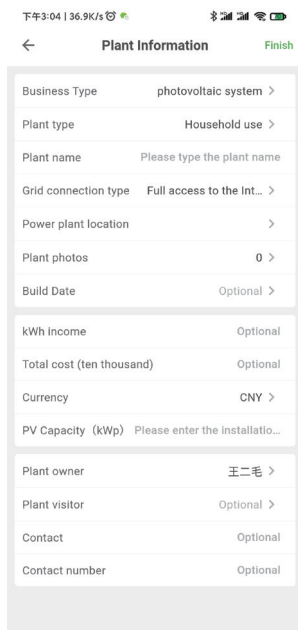
Open the APP to register an account

Step 2. Creation of PV power plants



Click on the top right corner to create a power station

Step 3. Fill in the power station information



Step 4. Sweeping Code Collection Data Gateway



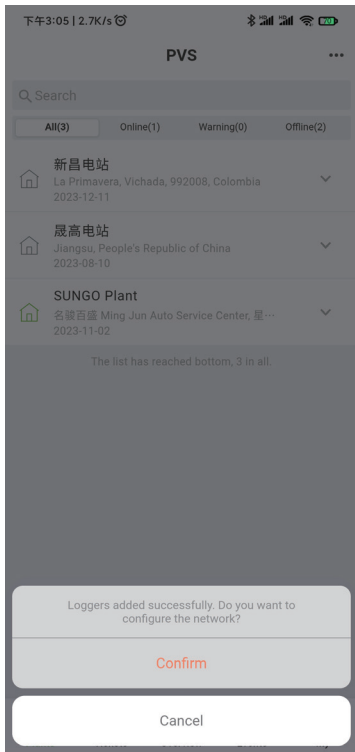
WiFi Serial Number:
XXXXXXXXXXXXXXXXXX



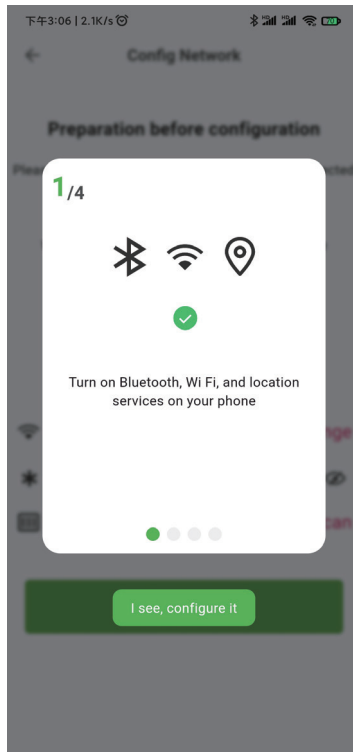
Example of QR code on the left side of GTC

Click the arrow on the right side of the power station, scroll down, and click 'Add Collector.' Then, scan the WiFi serial number on the left side of the Data Gateway GTC by using the QR Code.

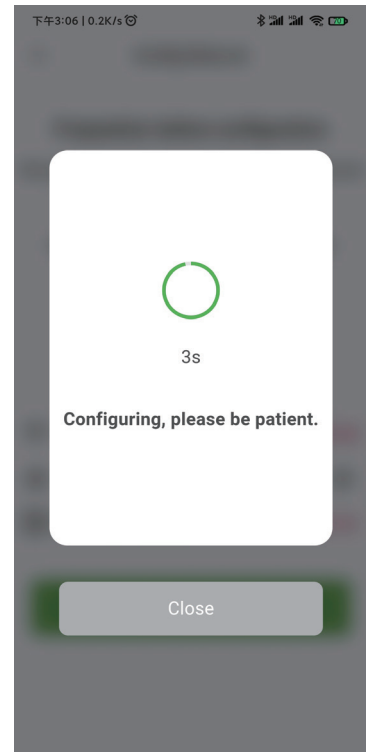
Step 5. GTC WIFI Distribution Network



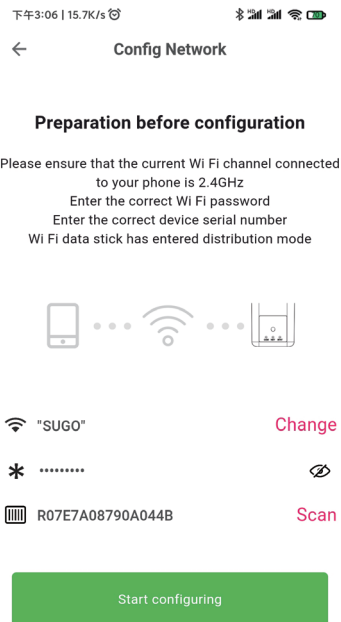
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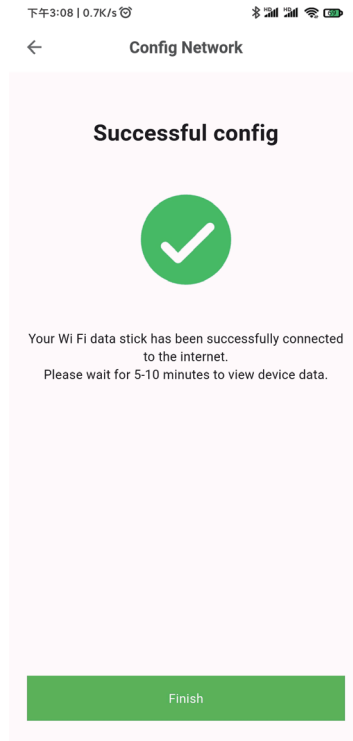
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3



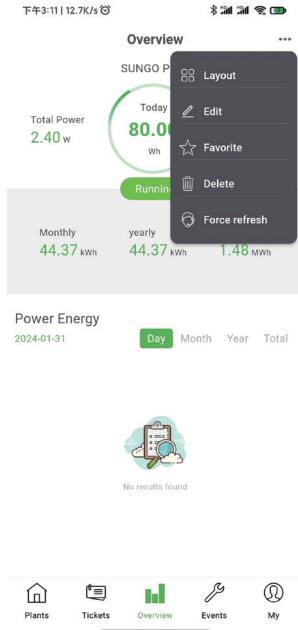
4



5

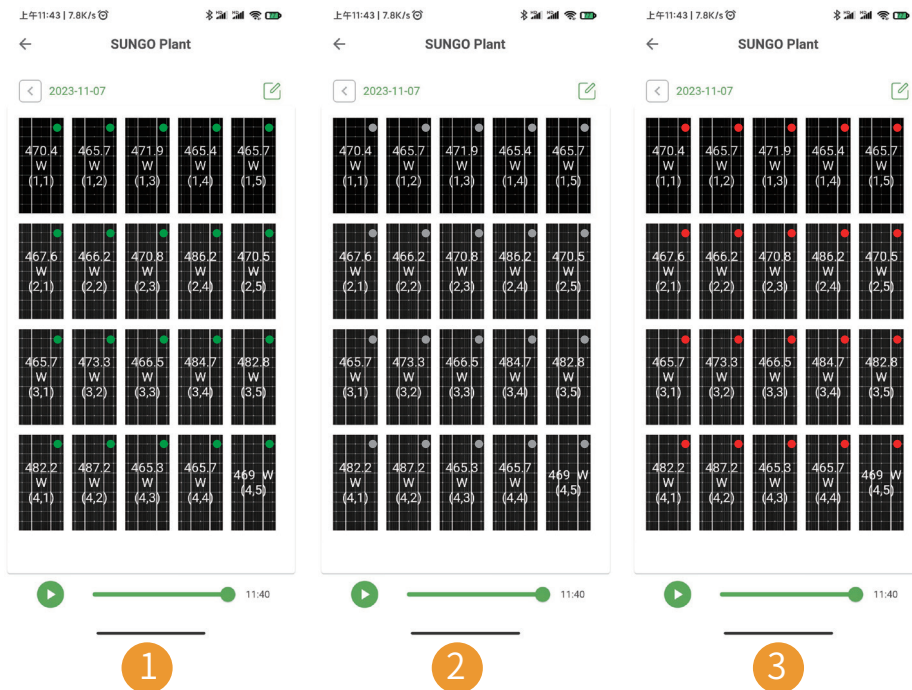
Just follow the instructed process to show the successful distribution of the network.

Step 7. Check the status of the power station



Click on APP OVERVIEW, then open the drop-down menu in the upper right corner of the page. Click on the layout to see the status.

After clicking Layout, the status of the power plant is displayed in several states as shown below.



State of affairs	Clarification
Figure 1 - Green circle in the upper right corner	Rapid shutdown is running fine
Figure 2 - Gray circle in the upper right corner	Rapid shutdown is offline, please check that the SN and location information is correct and then search the device again!
Figure 3 - Red circle in the upper right corner	Rapid shutdown failure, need to replace rapid shutdown

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