GOODWE
YOUR SOLAR ENGINE

User Manual

SolarGo App

V1.0 -2021 -10-30

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NOTICE

The information in this user manual is subject to change due to product updates or other reasons. This guide cannot replace the product labels or the safety precautions in the user manual unless otherwise specified. All descriptions in the manual are for guidance only.

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1 About This Manual

- This manual introduces commonly used operations in SolarGo App
- Before setting any parameters, read through the app and the inverter user manual to learn the product functions and features. When the inverter parameters are set improperly, the inverter may fail to connect to the utility grid or fail to connect to the utility grid according to related requirements and damage the battery, which will affect the inverter' s power generation.
- This manual is subject to update without notice. For more product details and latest documents, visit www.goodwe.com

1.1 Target Audience

This manual applies to trained and knowledgeable technical professionals. The technical personnel has to be familiar with the product, local standards, and electric systems.

1.2 Symbol Definition

Different levels of warning messages in this manual are defined as follows:

DANGER
Indicates a high-level hazard that, if not avoided, will result in death or serious injury.
WARNING
Indicates a medium-level hazard that, if not avoided, could result in death or serious injury.
CAUTION
Indicates a low-level hazard that, if not avoided, could result in minor or moderate injury.
NOTICE
Highlight and supplement the texts. Or some skills and methods to solve product-related problems to save time.

1.3 Updates

The latest document contains all the updates made in earlier issues.

V1.0 2021-10-30

- First Issue

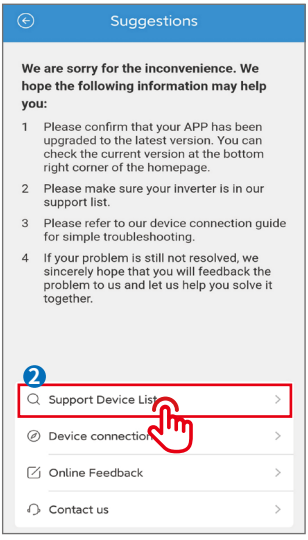
2 Product Introduction

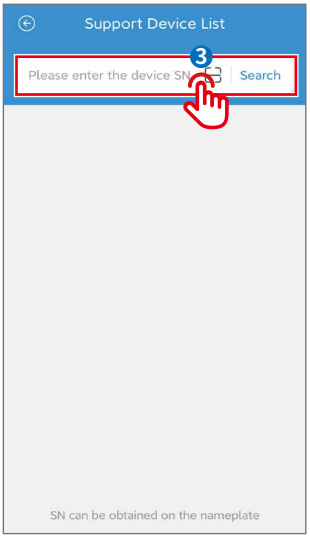
SolarGo App is a mobile application that communicates with the inverter via Bluetooth module, WIFi module or GPRS module. Commonly used functions are as follows:

1. Check the operating data, software version, alarms, etc.
2. Set grid parameters, communication parameters, etc.
3. Equipment maintenance.

2.1 Applicable Inverter Model

SolarGo App applies to DNS, SDT G2, MT G2, SMT, HT series inverters.
Enter the equipment SN to check whether the inverter can be connected to SolarGo App.



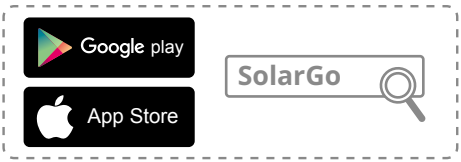


2.2 Downloading and Installing the App

Make sure that the mobile phone meets the following requirements:

- Mobile phone operating system: Android 4.3 or later, iOS 9.0 or later.
- The mobile phone can access the Internet.
- The mobile phone supports WLAN or Bluetooth.

Method 1: Search SolarGo in Google Play (Android) or App Store (iOS) to download and install the app.



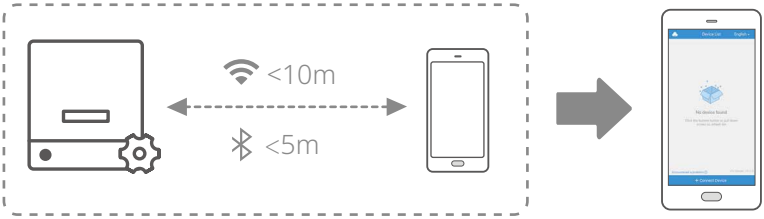
Method 2: Scan the QR code below to download and install the app.

NOTICE

After installing the app, it can automatically prompt users to update the app version.

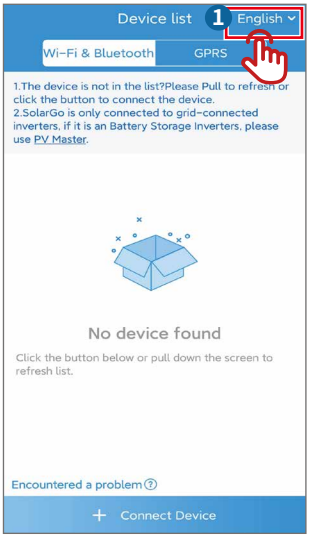
2.3 App Connection

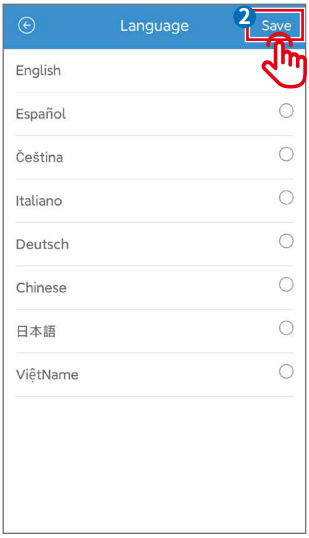
After the DC side of the inverter is powered on, the app can connect to the inverter. Connect as the following shows.



2.4 Setting Language

Step 1 Select the language based on the actual need.

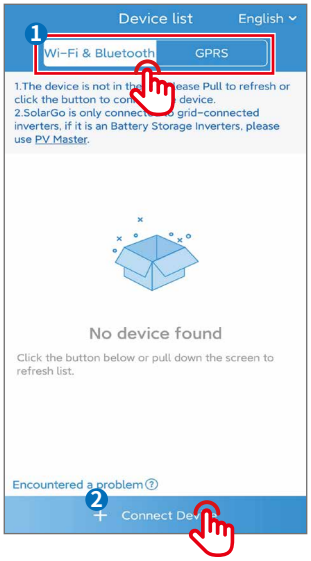


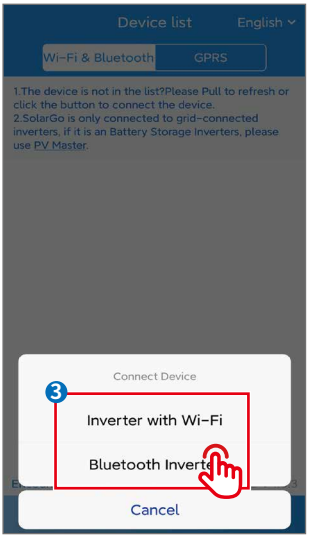


2.5 Log In

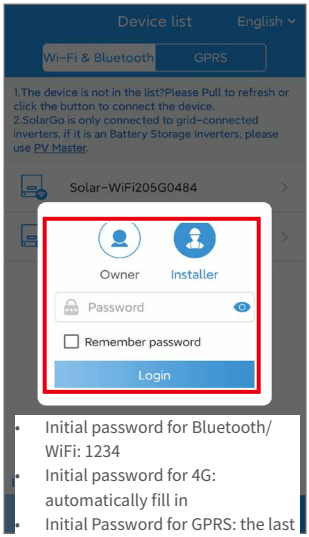
Step 1 Select the connection method based on the communication module type.

1. Tap **WiFi & Bluetooth** when WiFi, LAN, or Bluetooth module is used.
2. Tap **GPRS** when GPRS or 4G modue is used.

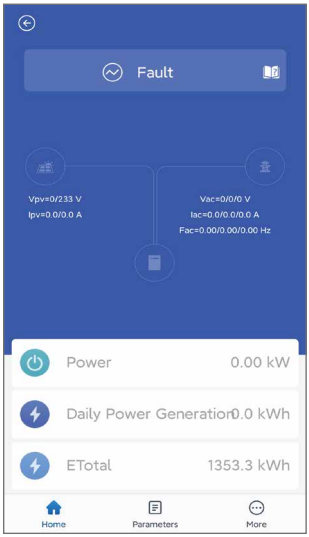




Step 2 Log in as an Owner or an Installer.



- Initial password for Bluetooth/ WiFi: 1234
- Initial password for 4G: automatically fill in
- Initial Password for GPRS: the last 4 digits of the inverter bar code.



NOTICE

Log in using the initial password for the first time and change the password as soon as possible. To ensure account security, you are advised to change the password periodically and keep the new password in mind.

3 App Operations

NOTICE

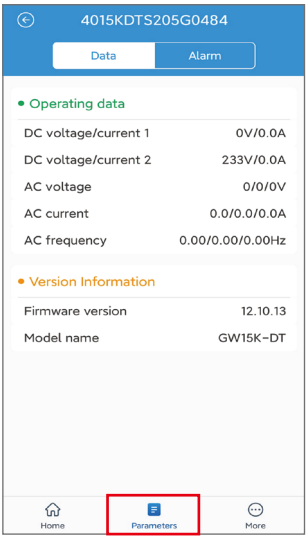
- All the user interface (UI) screenshots in this document are based on SolarGo App V4.0.2. The UI may be different due to the version upgrade. The data on the UI screenshots is for reference only.
- The method to set parameters is the same for all inverters. But the parameters displayed will be different based on the inverter model.
- Before setting any parameters, read through the app and the inverter user manual to learn the product functions and features. When the inverter parameters are set improperly, or send any grid command to the inverter, the inverter may fail to connect to the utility grid or fail to connect to the utility grid according to related requirements and damage the battery, which will affect the inverter' s power generation.

3.1 Checking Information (Owner/Installer)

3.1.1 Checking Operating Data

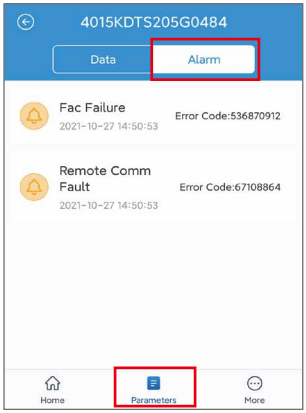
Step 1: Check the Power and Power Generation on the Home page after logging in.

Step 2: Tap **Home** > **Parameters** to check the real-time operating data.



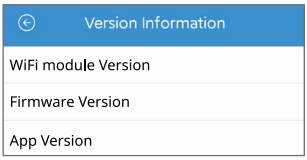
3.1.2 Checking Alarm

Step 1 Tap **Home** > **Parameters** > **Alarm** to check the alarms.



3.1.3 Checking Version Information

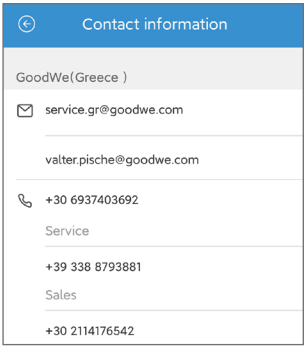
Step 1 Tap **Home** > **More** > **Version** to check the version information.



No.	Parameters	Description
1	WiFi module Version	The module version of the WiFi module connects to the inverter.
2	Firmware Version	The software version of the inverter.
3	App Version	SolarGo App software version.

3.1.4 Checking Contact Information

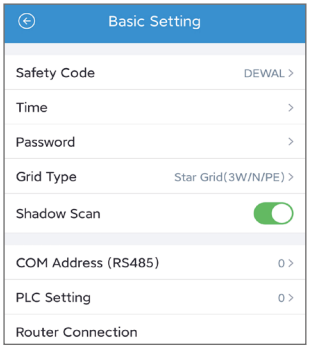
Step 1 Tap **Home** > **More** > **Contact** to check the contact information.

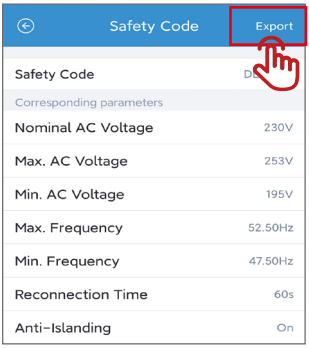


3.2 Setting the Basic Information (Owner/Installer)

Step 1 Tap Home> **More > Basic Setting** to set the basic parameters according to the inverter location and actual application scenarios.

Step 2 (optional) Tap Export to export the default value of some parameters after selecting the safety code.

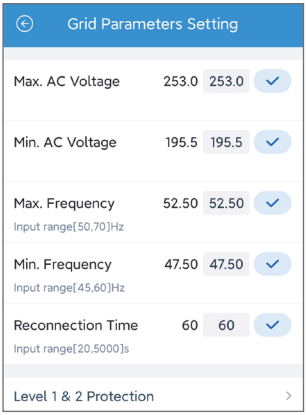




No.	Parameters	Description
1	Safety Code	Set the safety country in compliance with the local grid standards and application scenario of the inverter. The default parameters varies depending on different safety code. Password for changing the safety parameters: goodwe2010.
2	Time	Set time according to the actual time in the country/region where the inverter is located. Both automatic calibration and manual setting are allowed at present.
3	Password	The login password can be changed. Keep the changed password in mind after changing it. Contact the after sales service if you forget the password.
4	Grid Type	Set the grid type according to the actual grid type. Supported grid type: star grid and delta grid.
5	Shadow Scan	Enable the shadow scan function if the PV panels are shadowed.
6	COM Address (RS485)	Set the parameters for RS485 communication. Set the communication address based on the actual requirements. The Protocol type and Baud rate are for viewing only.
7	PLC Setting	Complete the PLC settings based on the connected box-type transformer.
8	Router Connection	Set the parameters of the router based on the connected router. Disable the DHCP and enter the IP Address, Subnet Mask, and Gateway Address manually when a static IP address is to be used. Enable the DHCP to enter the IP Address automatically and complete the registration when the static IP address is not to be used.

3.3 Setting the Grid Parameters (Installer)

Step 1 Tap **Home** > **More** > **Advanced Setting** > **Grid Parameters Setting** to set the parameters.
Step 2 Enter the parameters based on actual needs and tap '√ '.The parameters are set successfully.



No.	Parameters	Description
1	Max. AC Voltage	The inverter cannot connect to the grid when the AC voltage is under the max. AC voltage.
2	Min. AC Voltage	The inverter cannot connect to the grid when the AC voltage is over the min. AC voltage.
3	Max. Frequency	The inverter cannot connect to the grid when the frequency is under the max. frequency.
4	Min. Frequency	The inverter cannot connect to the grid when the frequency is over the min. frequency.
5	Reconnection Time	Indicates the time interval for the inverter to reconnect to the grid after the utility grid voltage and frequency recovers.

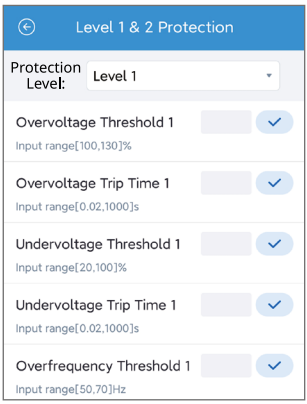
3.4 Setting the Protection Parameters (Installer)

NOTICE
Set the parameters based on the requirements of the grid company. Do not change the parameters without the prior consent of the grid company.

Step 1 Tap **Home** > **More** > **Advanced Setting** > **Grid Parameters Setting** > **Level 1&2 Protection** to set the parameters.

Step 2 Tap **Protection Level** to set level 1 protection parameters or level 2 protection parameters.

Step 3 Enter the parameters based on actual needs and tap "√ ". The parameters are set successfully.



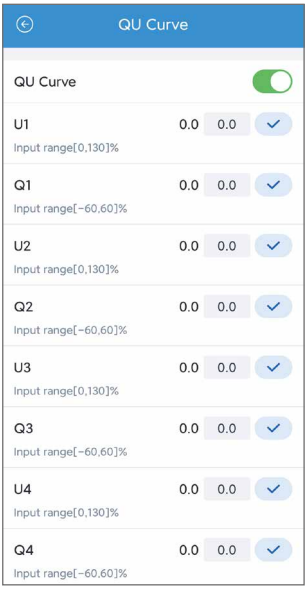
No.	Parameters	Description
1	Overvoltage Threshold 1	Set the level 1 overvoltage protection threshold value.
2	Overvoltage Trip Time 1	Set the level 1 overvoltage protection tripping time.
3	Undervoltage Threshold 1	Set the level 1 undervoltage protection threshold value.
4	Undervoltage Trip Time 1	Set the level 1 undervoltage protection tripping time.
5	Overfrequency Threshold 1	Set the level 1 overfrequency protection threshold value.
6	Overfrequency Trip Time 1	Set the level 1 overfrequency protection tripping time.

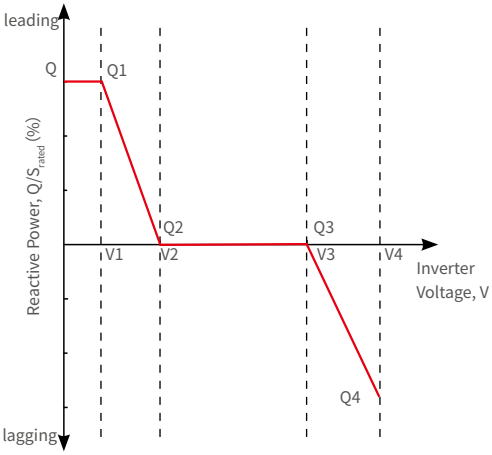
No.	Parameters	Description
7	Underfrequency Threshold 1	Set the level 1 underfrequency protection threshold value.
8	Underfrequency Trip Time 1	Set the level 1 underfrequency protection tripping time.
9	10 Minute Overvoltage Threshold	Set the 10min overvoltage protection threshold value.
10	Overvoltage Threshold 2	Set the level 2 overvoltage protection threshold value.
11	Overvoltage Trip Time 2	Set the level 2 overvoltage protection tripping time.
12	Undervoltage Threshold 2	Set the level 2 undervoltage protection threshold value.
13	Undervoltage Trip Time 2	Set the level 2 undervoltage protection tripping time.
14	Overfrequency Threshold 2	Set the level 2 overfrequency protection threshold value.
15	Overfrequency Trip Time 2	Set the level 2 overfrequency protection tripping time.
16	Underfrequency Threshold 2	Set the level 2 underfrequency protection threshold value.
17	Underfrequency Trip Time 2	Set the level 2 underfrequency protection tripping time.

3.4.1 Setting the QU Curve

Step 1 Tap **Home** > **More** > **Advanced Setting** > **Curve Settings** > **QU Curve** to set the parameters.

Step 2 Enter the parameters based on actual needs and tap "√". The parameters are set successfully. The inverter will adjust the reactive power to the apparent power ratio in real-time according to the actual grid voltage to the rated voltage ratio.

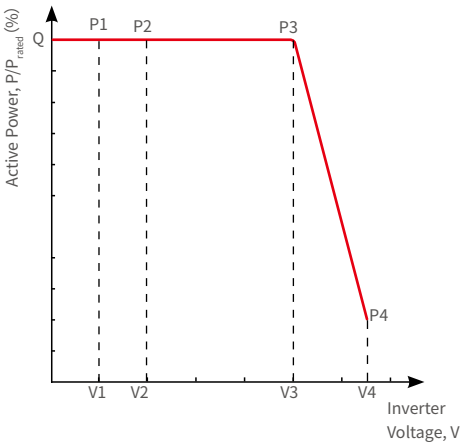




No.	Parameters	Description
1	QU Curve	Enable QU Curve when it is required by local grid standards and requirements.
2	Un	The percentage of actual voltage to the rated voltage at Vn point, n=1, 2, 3, 4. For example, setting Un to 90 means V/V_{rated}%=90%.
3	Qn	The percentage of the reactive output power to the apparent power at Vn point, n=1, 2, 3, 4. For example, setting Qn to 48.5 means Q/S_{rated}%=48.5%.

3.4.2 Setting the PU Curve

Step 1 Tap **Home** > **More** > **Advanced Setting** > **Curve Settings** > **PU Curve** to set the parameters.
Step 2 Enter the parameters based on actual needs and tap "√ ". The parameters are set successfully. The inverter will adjust the active output power to the apparent power ratio in real-time according to the actual grid voltage to the rated voltage ratio.

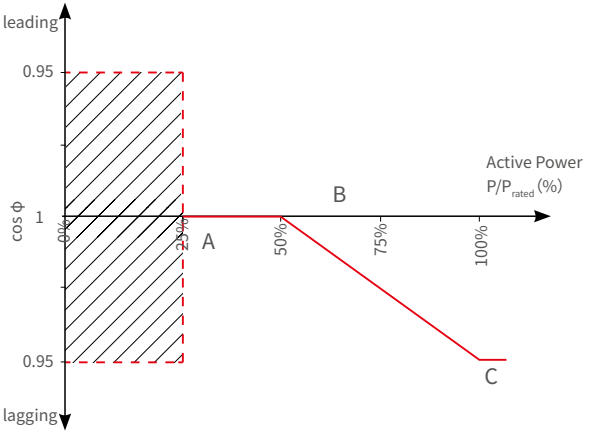


No.	Parameters	Description
1	PU Curve	Enable PU Curve when it is required by local grid standards and requirements.
2	Un	The percentage of actual voltage to the rated voltage at Vn point (n=1, 2, 3, 4). For example, setting Un to 90 means V/V_{rated}%=90%.
3	Vn Active Value	The percentage of the output reactive power to the apparent power at Vn point (n=1, 2, 3, 4). For example, setting Vn Active Value to 48.5 means Q/P_{rated}%=48.5%.

3.4.3 Setting Cosφ Curve

Step 1 Tap **Home** > **More** > **Advanced Setting** > **Curve Settings** > **cos ϕ Curve** to set the parameters.

Step 2 Enter the parameters based on actual needs and tap "√ **"**. The parameters are set successfully. The inverter will adjust the active output power to the apparent power ratio in real-time according to the actual grid voltage to the rated voltage ratio.

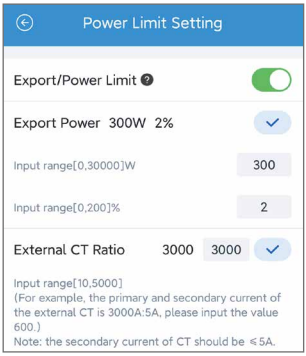


No.	Parameters	Description
1	Cos ϕ Curve	Enable cos ϕ Curve when it is required by local grid standards and requirements.
2	Point A/B/C Power	The percentage of the inverter output active power to the rated power at point B.
3	cos ϕ for Point A/B/C	The power factor at point A/B/C.
7	Lock-in Voltage	When the grid voltage is between Lock-In Voltage and Lock-Out Voltage, the voltage meets Cosϕ curve requirements
8	Lock-out Voltage	
9	Lock-out Power	The Cosϕ curve cannot work when the output active power to rated power ratio is lower than the Lock-Out Power.

3.5 Setting the Power Limit Parameters (Installer)

Step 1 Tap**Home** > **More** > **Advanced Setting** > **Power Limit Settings** to set the parameters.

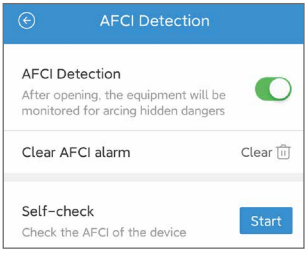
Step 2 Enter the parameters based on actual needs and tap "√ **"**.The parameters are set successfully.



No.	Parameters	Description
1	Export/Power Limit	Enable Export/Power Limit when power limiting is required by local grid standards and requirements.
2	Mode	Select the power limiting mode in compliance with country/region requirements. Both single-phase and three-phase power limiting modes are supported.
3	Export Power	Set the value based on the actual maximum power feed into the utility grid.
4	External CT Ratio	Set the ratio of the primary current to the secondary current of the external CT.
5	Export Power Limit Protection	After enabling this function, the inverter will stop grid tying once the export power limit fails.

3.6 Set the AFCI Detection Parameters (Installer)

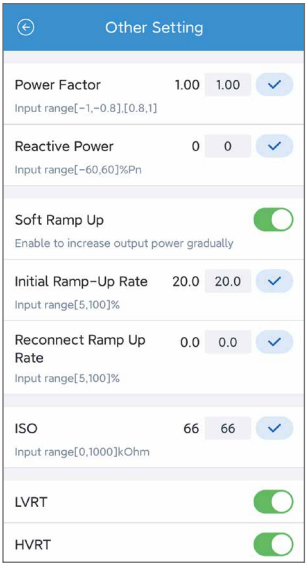
Step 1 Tap **Home** > **More** > **Advanced Setting** > **AFCI Detection** to set the parameters.

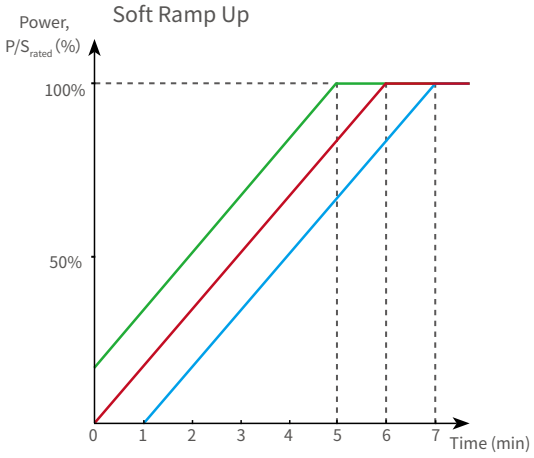


No.	Parameters	Description
1	AFCI Detection	The Inverter ARC function is optional and off by default. Enable or disable ARC accordingly.
2	Clear AFCI alarm	Clear ARC Faulty alarm records.
3	Self-check	Tap Start to check whether the AFCI function is normal.

3.7 Setting Other Parameters (Installer)

Step 1 Tap **Home** > **More** > **Advanced Setting** > **Other Setting** to set the parameters.

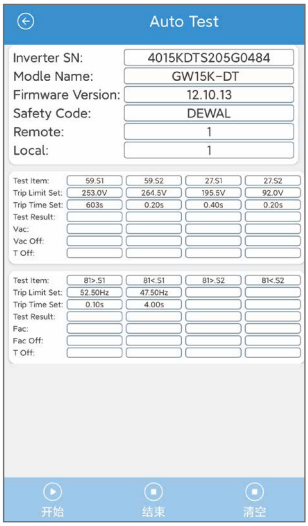




No.	Parameters	Description
1	Power Factor	Set the power factor of the inverter based on the actual situation.
2	Reactive Power	Set the reactive power value of the inverter.
3	Soft Ramp Up	The standards of some countries/regions require that the inverter shall derate the active power following a certain slope.
4	Initial Ramp-Up Rate	Indicates the percentage of incremental output power per minute based on the local requirements when the inverter is powered on for the first time. For example, setting Initial Ramp-Up Rate to 10 means the start-up slope is 10%P_{rated}/min.
5	Reconnect Ramp Up Rate	Indicates the percentage of incremental output power per minute based on the local requirements when the inverter is not powered on for the first time. For example, setting Reconnect Ramp Up Rate to 10 means the reconnect slope is 10%P/$S_{rated\%\%}$%.
6	ISO	Indicates the PV-PE insulation resistance threshold value. When the detected value is under the set value, the IOS fault occurs.
7	LVRT	With LVRT on, the inverter will stay connected with the utility grid after a short-term utility grid low voltage exception occurs.
8	HVRT	With HVRT on, the inverter will stay connected with the utility grid after a short-term utility grid high voltage exception occurs.

3.8 Setting Auto Test Parameters (Installer)

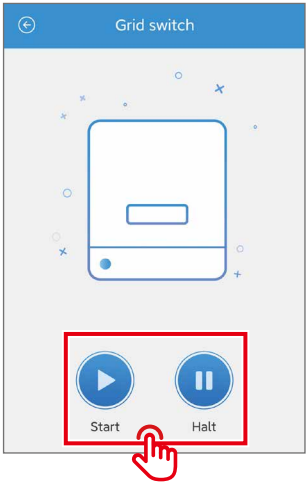
Step 1 Tap **Home** > **More** > **Advanced Setting** > **Auto Test** to set the parameters.



3.9 Device Maintenance (Installer)

3.9.1 Starting/Halting the Grid

Step 1 Tap **Home** > **More** > **Device maintenance** > **Grid** to start or halt the grid.

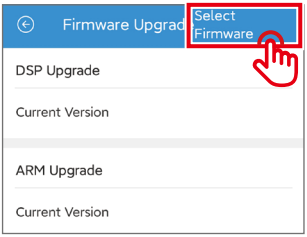


3.9.2 Upgrading the Firmware

Requirements:

- The upgrade patch has been obtained from the dealer or the after sales service.
- Duplicate the upgrade patch to the smart phone for the Android system.

Step 1 Tap **Home** > **More** > **Device maintenance** > **Firmware upgrade** to upgrade the firmware version.



4 Troubleshooting

No.	Fault	Cause	Solution
1	Cannot install the App	1. The smart phone operating system version is too low. 2. The smart phone prevents installing the app.	1. Upgrade the phone operating system. 2. Select Setting > Security > Install apps from external sources on your smart phone.
2	Communication failure	The communication distance between the smart phone and the inverter is out of range.	Place the smart phone near the inverter and reconnect the WiFi module.
3	Fail to obtain the data during operation.	The communication between the inverter and WiFi is interrupted.	
4	The connection between the inverter and WiFi is interrupted.	The communication between the inverter and WiFi is interrupted.	
5	The WiFi signal is not included in the app device list.	The app is not connected to the WiFi signal.	1. Make sure that the WiFi module works normally. 2. Refresh the device list. If the signal is still missing, restart the app.

5 Appendix

5.1 Safety Country

No.	Safety Code	No.	Safety Code
Europe			
1	Austria	2	Belgium
3	Bulgaria	4	CEI_016
5	Cyprus	6	Czech
7	Denmark	8	France
9	French_50Hz	10	French_60Hz
11	G98_1	12	G99_1
13	Germany	14	Germany_B
15	GreeceMainland	16	Holland
17	Holland_2	18	Holland_MV
19	Hungary	20	Ireland
21	Italy	22	NorthIreland
23	Poland	24	Poland_MV
25	Romania	26	Slovakia
27	Spain	28	Spain_MV
29	SpainIsland	30	Sweden
31	Sweden_MV	32	Switzerland
33	VDE4110		
Global			
1	50Hz_LV	2	50Hz Grid
3	60Hz_LV	4	60HzGrid
North America			
1	Barbados	2	IEEE_1547_208
3	IEEE_1547_220	4	IEEE_1547_240
5	IEEE1547_380V		
South America			
1	Argentina	2	Brazil
3	Brazil_LV		

No.	Safety Code	No.	Safety Code
Oceania			
1	AU_Endeavour	2	AU_Energex
3	AU_Ergon	4	AU_Horizon
5	AU_MicroGrid	6	AU_VIC
7	AUAusgrid	8	AUEssential
9	AUSAPN	10	AustralianA
11	AustralianB	12	AustralianC
13	AustralianL	14	AUWAPN
15	Energex30K	16	Ergon30k
17	GreenGrid	18	NewZealand
Asia			
1	China	2	ChinaStation
3	CHNspecialHigh	4	CHNspecialMedium
5	DEWA_MV	6	DEWAL
7	HongKong	8	IEC61727_50Hz
9	India	10	India_60HZ
11	IndiaHigher	12	Israel
13	JP_50Hz	14	JP_60Hz
15	Korea	16	Philippines
17	SriLanka	18	Taiwan
19	ThailandM	20	ThailandP
Africa			
1	Africa	2	Mauritius

5.2 Australia Safety Regulations

For the Australian market, to comply with AS/NZS 4777.2:2020, please select from Australia Region A/B/C, please contact your local electricity grid operator on which Region to select.

Selecting a Region B should then automatically load all region B setpoints for volt-watt, volt-var, underfrequency, overfrequency, etc.

Volt–var response set-point values

Region	Default value	U1	U2	U3	U4
Australia A	Voltage	207V	220V	240V	258V
	Inverter reactive power level (Q) % of Srated	44 % supplying	0%	0%	60 % absorbing
Australia B	Voltage	205V	220V	235V	255V
	Inverter reactive power level (Q) % of Srated	30 % supplying	0%	0%	40 % absorbing
Australia C	Voltage	215V	230V	240V	255V
	Inverter reactive power level (Q) % of Srated	44 % supplying	0%	0%	60 % absorbing
New Zealand	Voltage	207V	220V	235 V	244 V
	Inverter reactive power level (Q) % of Srated	60 % supplying	0%	0%	60 % absorbing
Allowed range	Voltage	180 to 230 V	180 to 230 V	230 to 265 V	230 to 265 V
	Inverter reactive power level (Q) % of Srated	30 to 60 % supplying	0%	0%	30 to 60 % absorbing

NOTE 1 Inverters may operate at a reactive power level with a range up to 100 % supplying or absorbing.

NOTE 2 Australia C parameter set is intended for application in isolated or remote power systems.

Volt–watt response default set-point values

Region	Default value	U3	U4
Australia A	Voltage	253V	260V
	Inverter maximum active power output level (P) % of S_{rated}	100%	20%
Australia B	Voltage	250V	260V
	Inverter maximum active power output level (P) % of S_{rated}	100%	20%
Australia C	Voltage	253V	260V
	Inverter maximum active power output level (P) % of S_{rated}	100%	20%
New Zealand	Voltage	242 V	250V
	Inverter maximum active power output level (P) % of S_{rated}	100%	20%
Allowed range	Voltage	235 to 255 V	240 to 265 V
	Inverter maximum active power output level (P) % of S_{rated}	100%	0 % to 20 %

NOTE: Australia C parameter set is intended for application in isolated or remote power systems.

Passive anti-islanding voltage limit values

Protective function	Protective function limit	Trip delay time	Maximum disconnection time
Undervoltage 2 (V < <)	70 V	1 s	2 s
Undervoltage 1 (V <)	180 V	10 s	11 s
Overvoltage 1 (V >)	265 V	1 s	2 s
Overvoltage 2 (V > >)	275V	-	0.2 s

Passive anti-islanding frequency limit values

	Region	Australia A	Australia B	Australia C	New Zealand
Underfrequency 1(F <)	Protective function limit value	47 Hz	47 Hz	45 Hz	45 Hz
	Trip delay time	1 s	1 s	5 s	1 s
	Maximum disconnection time	2 s	2 s	6 s	2 s
Over-frequency 1 (F >)	Protective function limit value	52 Hz	52 Hz	55 Hz	55 Hz
	Trip delay time	-	-	-	-
	Maximum disconnection time	0.2s	0.2s	0.2s	0.2s

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