GOODWE

SolarGo

SolarGo User Manual

SolarGo Mobile App

V1.2 -2022 -10-30

Contents

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 comply with 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

V1.1   3/2/2022
- Updated 3.2 Setting Export Power Limitation

V1.2   10/30/2022
- Updated 3 App Operations

2 Product Introduction

SolarGo app is a mobile application that communicates with the inverter via Bluetooth module, WIFi module, 4G module or GPRS module. Commonly used functions are as follows:

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

2.1 Applicable Inverter Model

SolarGo app applies to GoodWe inverters.

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.

SolarGo App

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

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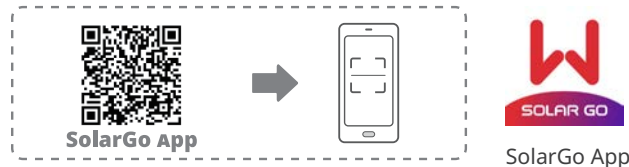
NOTICE
After installing the app, it can automatically prompt users to update the app version.

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.
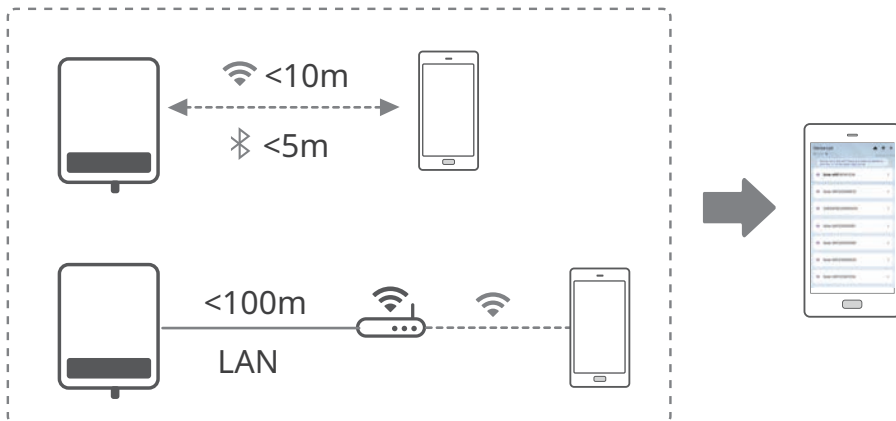
2.4 Set the App Language

Set the language based on the actual need.
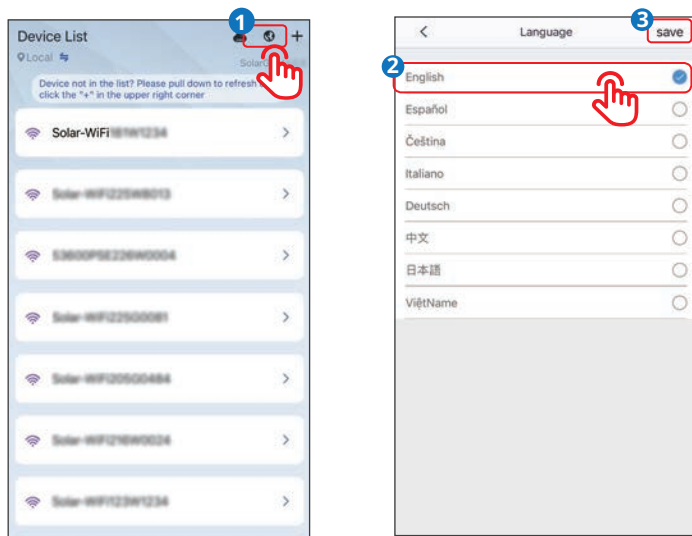
3 App Operations for Grid-Tied PV Inverters

NOTICE
• All the user interface (UI) screenshots in this document are based on SolarGo app V4.0.8. The UI may be different due to the version upgrade. The screenshots are 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 and safety code. • Before setting any parameters, read through user manual of the app and the inverter 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 in compliance with related requirements and damage the battery, which will affect the inverter's power generation.

3.1 Log In as Grid-Tied PV Inverter

NOTICE
Local login applies to the device that supports WiFi and Bluetooth. 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. The screenshots in this chapter are based on Local login.
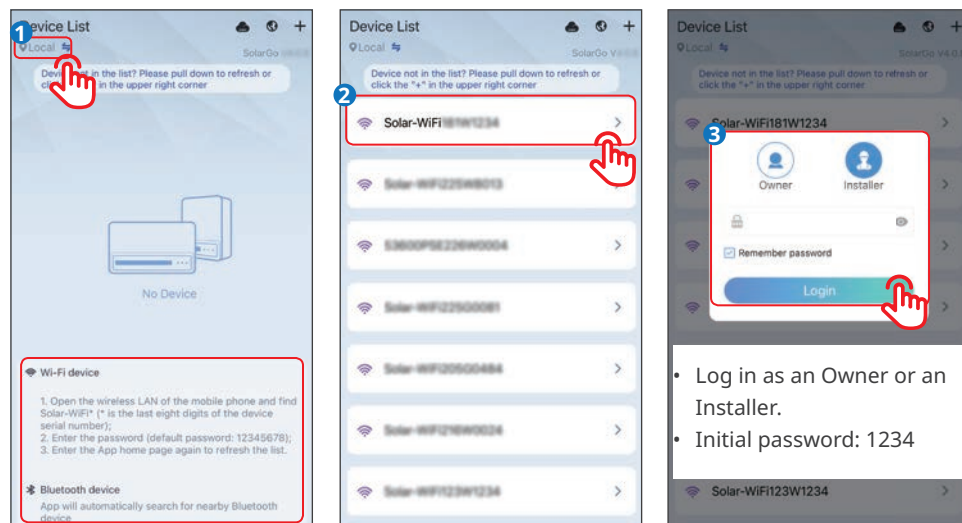
Find SOL-BLE*(* is the last eight digits of the device serial number when connecting bluetooth device.

• Log in as an Owner or an Installer.
• Initial password: 1234

NOTICE
If the inverter can communicate with the cloud, and the smartphone is properly connected to the internet, the inverter can be controlled remotely via Cloud log-in. Scan the QR code of the inverter. The initial password will be filled in automatically. Contact the after-sales service to obtain the Check code and login password if you type the S/N manually. Change the password periodically to ensure account security.
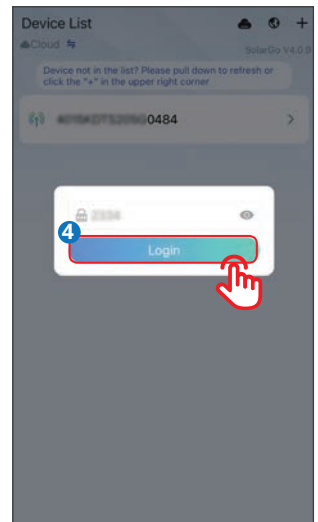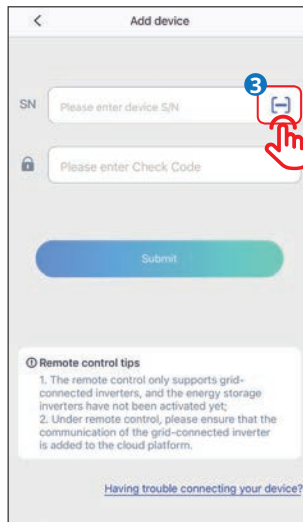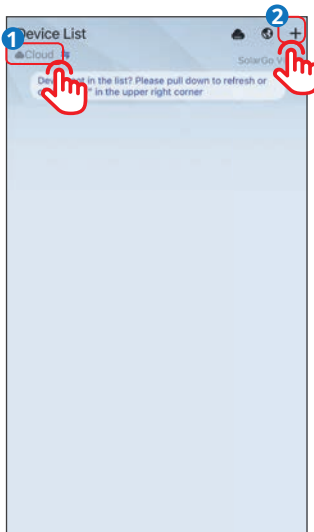
3.2 Checking Information (Owner/Installer)

3.2.1 Checking Operating Data

Step 1 Check the generation data and safety information on the Home page after logging in.

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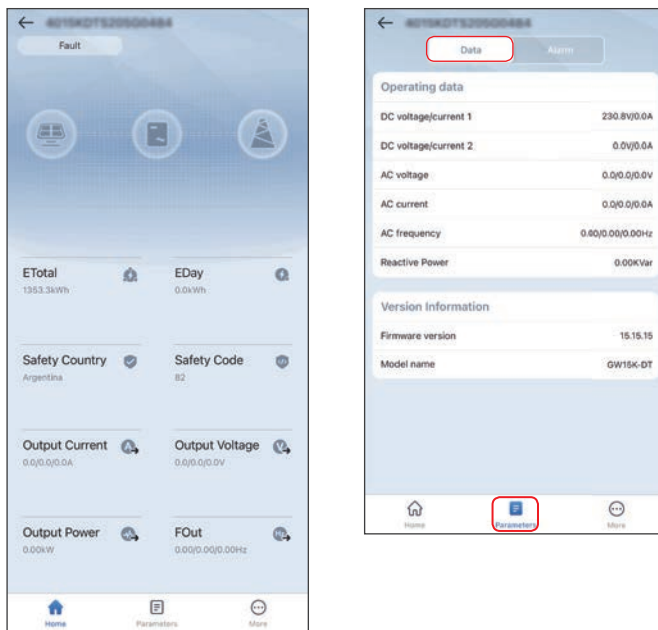
3.2.2 Checking Alarms

Step 1 Tap **Home** > **Parameters** > **Alarm** to check the alarms.
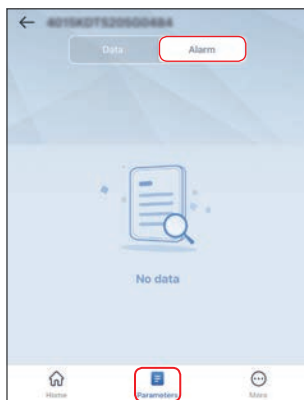
3.2.3 Checking Version Information

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.

3.2.4 Checking Contact Information

Step 1 Tap **Home** > **More** > **Contact** to check the contact information.
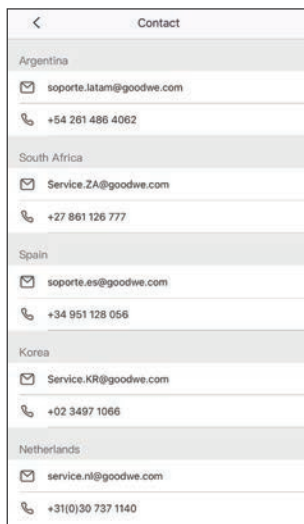
3.3 Setting the Basic Information (Owner/Installer)

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.
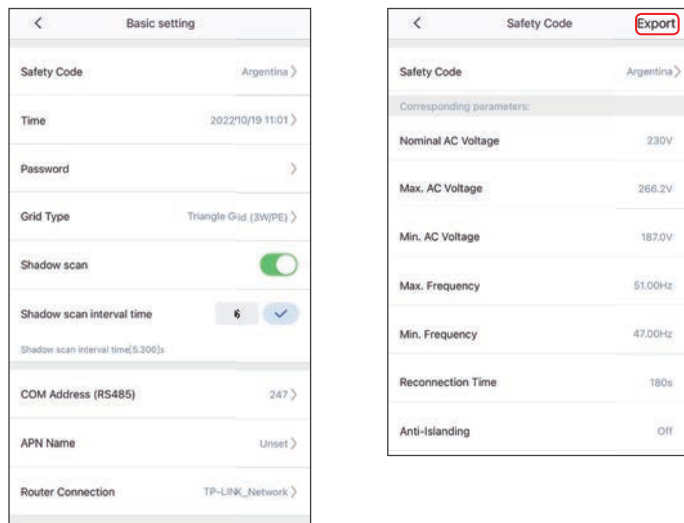
No.	Parameters	Description
1	Safety Code	Set the safety country in compliance with local grid standards and application scenario of the inverter. The default parameters varies depending on different safety code. The safety parameters can be changed in Grid Parameters Setting and Curve Setting. Password for changing the safety parameters: goodwe2010.
2	Time	Set time according to the actual time in the country or 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 and set the scan internal time if the PV panels are shadowed.

No.	Parameters	Description
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 reference only.
7	PLC Setting	Complete the PLC settings based on the connected box-type transformer.
8	APN Name	Set APN to configure the SIM card information of 4G communication device.
9	Router Connection	Set 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 a dynamic IP address is to be used.

3.4 Setting the Grid Parameters (Installer)

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

Step 2 Enter the parameters 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 over the Max. AC Voltage.
2	Min. AC Voltage	The inverter cannot connect to the grid when the AC voltage is under the Min. AC Voltage.
3	Max. Frequency	The inverter cannot connect to the grid when the frequency is over the Max. Frequency.
4	Min. Frequency	The inverter cannot connect to the grid when the frequency is under 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.

3.5 Setting Safety Parameters (Installer)

NOTICE
The parameters displayed will be different when the safety country or region is different.
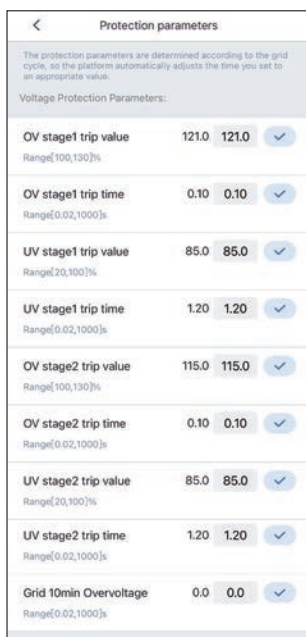
3.5.1 Setting the Protection Parameters

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 Enter the parameters and tap √. The parameters are set successfully.

No.	Parameters	Description
1	OV Stage 1 Trip Value	Set the level 1 overvoltage protection threshold value.
2	OV Stage 1 Trip Time	Set the level 1 overvoltage protection tripping time.
3	UV Stage 1 Trip Value	Set the level 1 undervoltage protection threshold value.

No.	Parameters	Description
4	UV Stage 1 Trip Time	Set the level 1 undervoltage protection tripping time.
5	OV Stage 2 Trip Value	Set the level 2 overvoltage protection threshold value.
6	OV Stage 2 Trip Time	Set the level 2 overvoltage protection tripping time.
7	UV Stage 2 Trip Value	Set the level 2 undervoltage protection threshold value.
8	UV Stage 2 Trip Time	Set the level 2 undervoltage protection tripping time.
9	Grid 10 Min Overvoltage	Set the 10min overvoltage protection threshold value.
10	Overfrequency Threshold 1	Set the level 1 overfrequency protection threshold value.
11	Overfrequency Trip Time 1	Set the level 1 overfrequency protection tripping time.
12	Underfrequency Threshold 1	Set the level 1 underfrequency protection threshold value.
13	Underfrequency Trip Time 1	Set the level 1 underfrequency 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.

3.5.2 Setting the QU Curve

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

Step 2 Enter the parameters 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 $Q/S_{rated}\%=48.5\%$.

3.5.3 Setting the PU Curve

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

Step 2 Enter the parameters 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%.

3.5.4 Setting Cosφ Curve

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

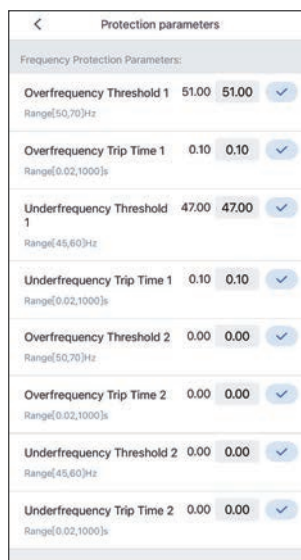**Step 2** Enter the parameters and tap √. The parameters are set successfully. The inverter will adjust the active output power to the apparent power ratio in real-time according to the actual grid voltage to the rated voltage ratio.
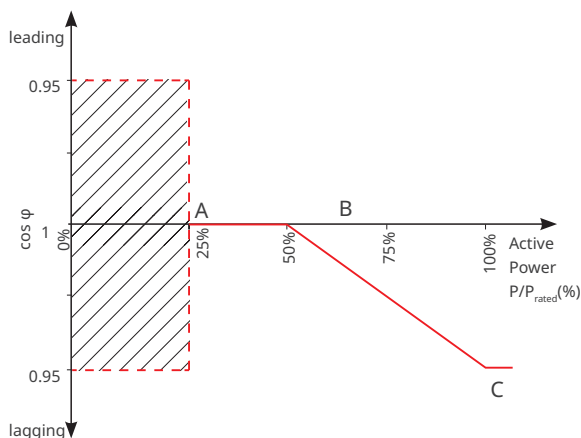
No.	Parameters	Description
1	Cos φ Curve	Enable cos φ Curve when it is required by local grid standards and requirements.
2	Point A/B/C Power	The percentage of the inverter output active power to the rated power at point B.
3	cos φ for Point A/B/C	The power factor at point A/B/C.
7	Lock-in Voltage	When 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.

3.6 Setting the Power Limit Parameters (Installer)

3.6.1 Power Limit Setting (For countries and regions except Australia)

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

Step 2 Enter the parameters 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	Export Power	Set the value based on the actual maximum power feed into the utility grid.
3	External CT Ratio	Set the ratio of the primary current to the secondary current of the external CT.

3.6.2 Power Limit Setting (Only for Australia)

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

Step 2 Enter the parameters and tap √. The parameters are set successfully.

No.	Parameters	Description
1	Soft Limit	Enable Soft Limit when power limiting is required by local grid standards and requirements.
2	Export Power	Set the value based on the actual maximum power feed into the utility grid.
3	External CT Ratio	Set the ratio of the primary current to the secondary current of the external CT.
4	Hard Limit	After enabling this function, the inverter and the utility grid will automatically disconnect when the power feeds into the grid exceeds the required limit.

3.7 Setting Other Parameters (Installer)

Step 1 Tap **Home** > **More** > **Advanced Setting** > **Other Settings** 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	Initial Self-check Time	Time for self-checking when the inverter is powered on for the first time.
6	Reconnect Ramp Up Rate	Indicates the percentage of incremental output power per minute based on the local requirements when the inverter is not connected to the grid for the first time. For example, setting Reconnect Ramp Up Rate to 10 means the reconnect slope is 10%P/S_{rated}/min.
7	Reconnect Self-check Time	Time for self-checking when the inverter is not connected to the grid for the first time.
8	ISO	Indicates the PV-PE insulation resistance threshold value. When the detected value is under the set value, the ISO fault occurs.
9	LVRT	With LVRT on, the inverter will stay connected with the utility grid after a short-term utility grid low voltage exception occurs.
10	HVRT	With HVRT on, the inverter will stay connected with the utility grid after a short-term utility grid high voltage exception occurs.
11	DRED	The standards of some countries/regions require to enable or disable DRED manually when connecting the third party DRED device.
12	Remote Shutdown	The standards of some countries/regions require to enable Remote Shutdown when connecting the third party Remote Shutdown device.

3.8 Set the AFCI Detection Parameters (Installer)

Step 1 Tap **Home** > **More** > **Advanced Setting** > **AFCI Detection** to set the parameters.
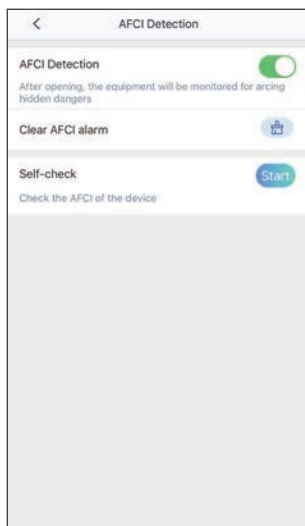
No.	Parameters	Description
1	AFCI Detection	The Inverter ARC function is optional and off by default. Enable or disable AFCI accordingly.
2	Clear AFCI alarm	Clear ARC Faulty alarm records.
3	Self-check	Tap Start to check whether the AFCI function works normally.

3.9 Device Maintenance (Installer)

3.9.1 Starting/Stopping the Grid

Step 1 Tap **Home** > **More** > **Equipment Maintenance** > **Grid Switch** to start or stop connecting to the grid.
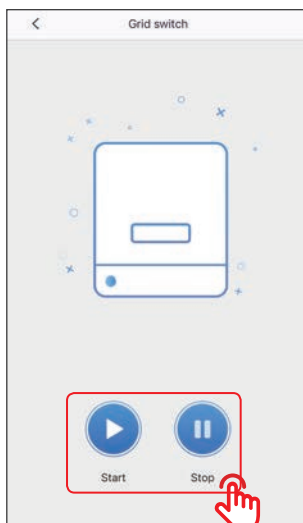
3.9.2 Upgrading the Firmware

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** > **Equipment Maintenance** > **Firmware Upgrade** to upgrade the firmware version.
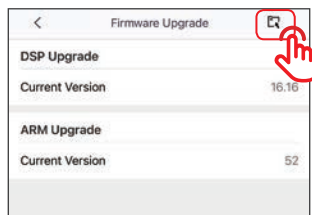
4 App Operations for Hybrid Inverters

NOTICE
• All the user interface (UI) screenshots in this document are based on SolarGo app V4.0.8. The UI may be different due to the version upgrade. The screenshots are 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 and safety code.
• Before setting any parameters, read through user manual of the app and the inverter 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 in compliance with related requirements and damage the battery, which will affect the inverter's power generation.

4.1 Log In as Hybrid Inverter
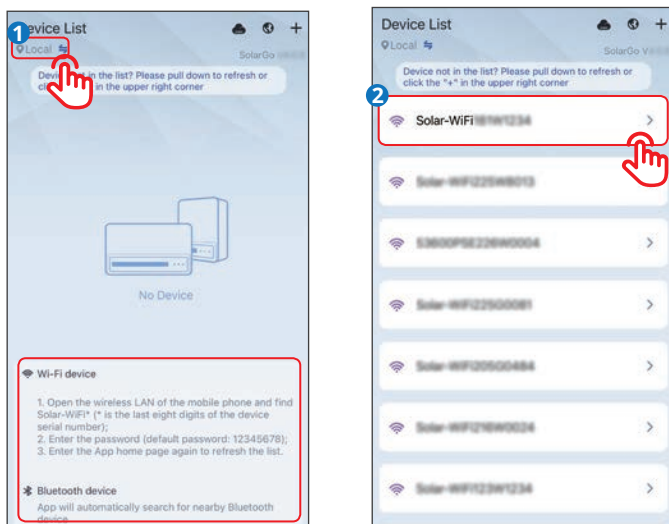
Find SOL-BLE*(* is the last eight digits of the device serial number when connecting bluetooth device.

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.

4.2 Checking Information

4.2.1 Checking Basic Information

Step 1 Tap **Overview** to check the inverter status, battery status, and energy flow.
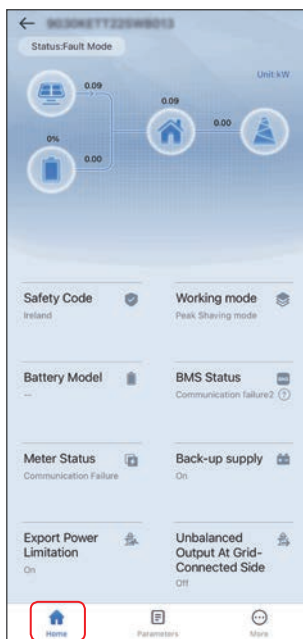
4.2.2 Checking Alarm

Step 1 Tap **Home > Parameters > Alarm** to check the alarms.
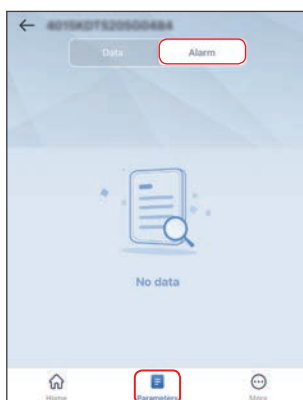
4.2.3 Checking Operating Data

Step 1 Tap **Home > Parameters** to check the real-time operating data.
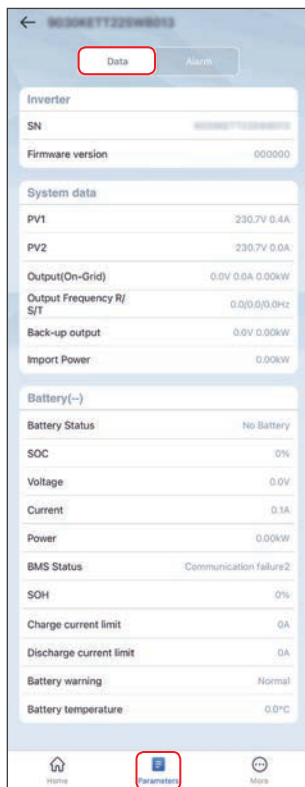
4.2.4 Checking Contact Information

Step 1 Tap **Home > More > Contact** to check the contact information.
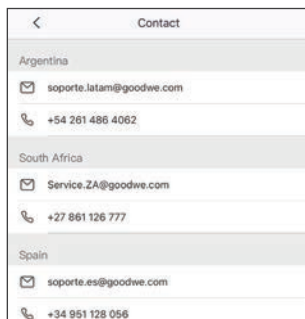
4.2.5 Checking Version Information

Step 1 Tap **Home > More > Version** to check the version information.
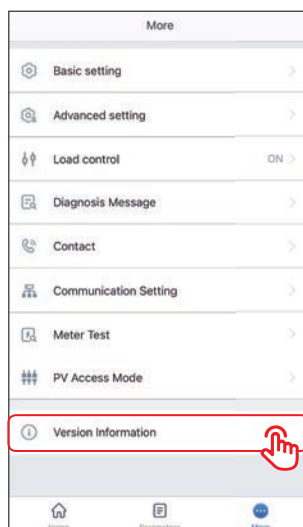
4.3 Setting the Basic Information

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

For ET15-30kW Inverters

Installer password: **goodwe2010**

Select safety country accordingly.

Select the battery number based on the actual battery connected to the inverter.

Select the battery brand and model based on the actual battery conncted to the inverter.

Select a working mode .

After selecting Peak-shaving mode, the UI is as follows.
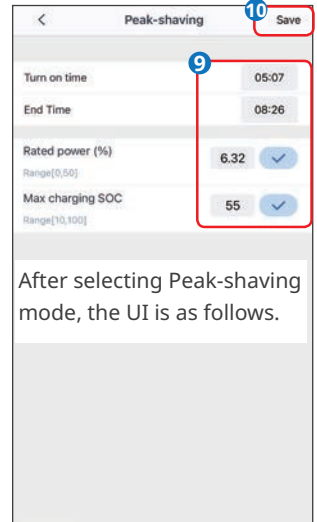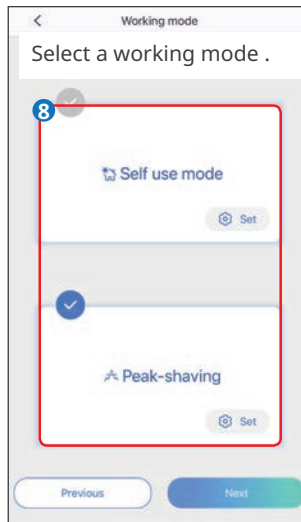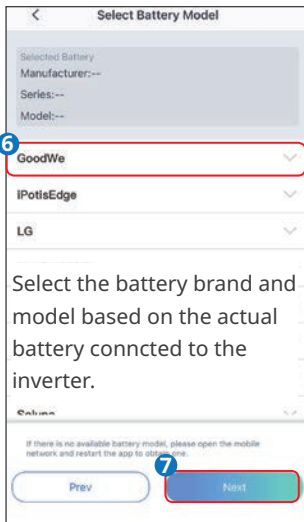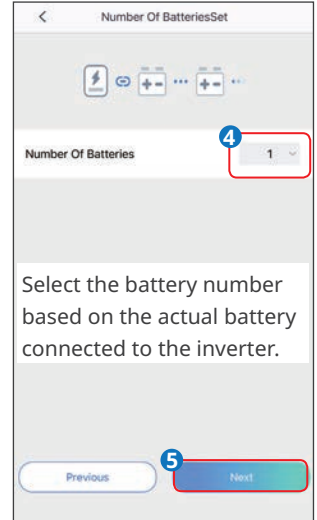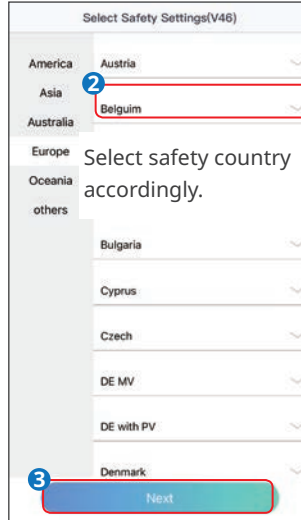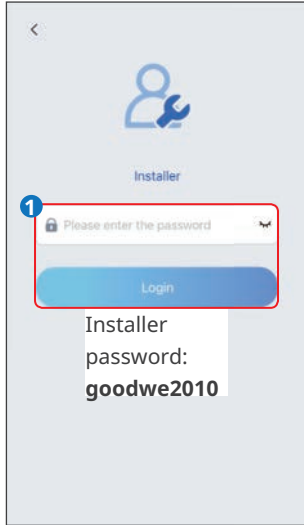
After selecting Self-use mode, you have to set the Advanced setting and select specific working mode.

Self use mode	Advanced setting	Battery working

Self use mode

On-grid DOD Range [10,100]	⑨ 60 ✓
Off-grid DOD Range [10,100]	65 ✓
⑩ Advanced setting	

Advanced setting

- 🏳 Back-up Mode ⓘ ✓
- On-grid DOD 56   Range[0,100]   56 ✓
- Enable grid charging ⬤
- Rated power (%)   Range[0,100]   0.0 ✓
- 🔋 Economic Mode ⓘ ✓
- Battery Working Mode Group1 Discharge   Power:1.0 % **02:15-11:13** January February March   ○
- Add up to seven time groups   + Add
- ⏱ Smart charging ⓘ ✓
- Smart charging month   January February March May September October November December
- Peak limiting power   -32536 ✓ Peak limiting power must be lower than power limit value....
- Switch to charge   ○ PV switch from feeding into grid to charging battery
- Excess PV priority
  - ⊕ Charge battery in priority
  - 🏭 Export to grid in priority ✓

Battery working   Save

Turn on time	00:00
End Time	00:00
Repeat	
Month	
Day	Every day
Battery Mode	Chargi...
Rated power (%) Range[0,100]	0
Max charging SOC Range[10,100]	0

Rated power refers to the ratio of the charging power to the rated power of the invreter.

Working mode

- ✓ 🏠 Self use mode   ⚙ Set
- ✓ ⚡ Peak-shaving   ⚙ Set

Previous   ⑪ Next

Meter Test

⑫ Meter Test   ○

Turn on the meter CT test. The meter CT test can only be performed if the battery is correctly connected, BMS and meter communication is normal, and inverter is connected to the grid.

Test Status   Not tested

This test will take a few minutes. The test results can be viewed in the Settings interface.

Determine whether to perform meter detection based on actual needs.

Exit

Meter Test

Meter Test   ⬤

Turn on the meter CT test. The meter CT test can only be performed if the battery is correctly connected, BMS and meter communication is normal, and inverter is connected to the grid.

Test Status   Not tested

Reminder
Safety regulation curve and power export limitation function are temporarily turned off during detection.

Cancel   ⑬ Set

⑭ Exit

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NOTICE
The parameters will be configured automatically after selecting the safety country/region, including overvoltage protection, undervoltage protection, overfrequency protection, underfrequency protection, voltage/frequency connection protection, cosφ curve, Q(U) curve, P(U) curve, FP curve, HVRT, LVRT, etc. Tap **Overview > More > Advanced Setting > Custom Safety Parameters** to check the detailed parameters.
The power generation efficiency will be different in different working modes. Set the working mode according to the local requirements and situation. Back-up mode, Economic mode, and Smart charging mode can be enabled at the same time. • **Back-up Mode:** The back-up mode is mainly applied to the scenario where the grid is unstable and there is an important load. When the grid is disconnected, the inverter turns to off-grid mode to supply power to the load; when the grid is restored, the inverter switches to on-grid mode. • **Economic Mode:** It is recommended to use economic mode in scenarios when the peakvalley electricity price varies a lot. Select Economic mode only when it meets the local laws and regulations. • **Smart Charging:** In some countries/regions, the PV power feed into the utility grid is limited. Select Smart Charging to charge the battery(ies) using the exceed power to minimize PV power waste. • **Peak Shaving Mode:** Mostly for industrial and commercial scenarios. When required grid power is higher than import power limit, battery will discharge preferentially to cover the demand; if power consumption is lower than import power limit in the set time period, the excess grid power will charge the battery.

For Other GoodWe Inverters
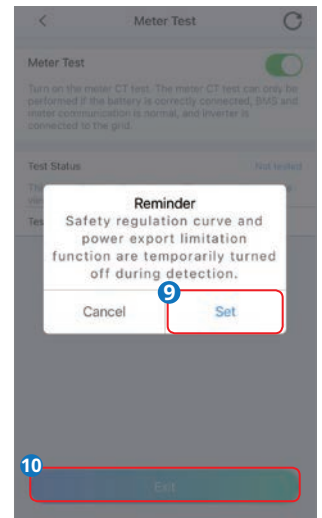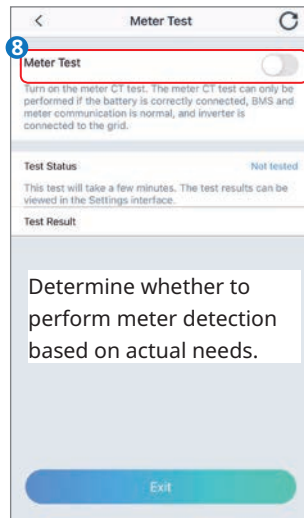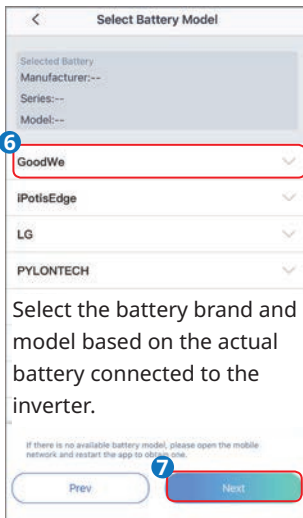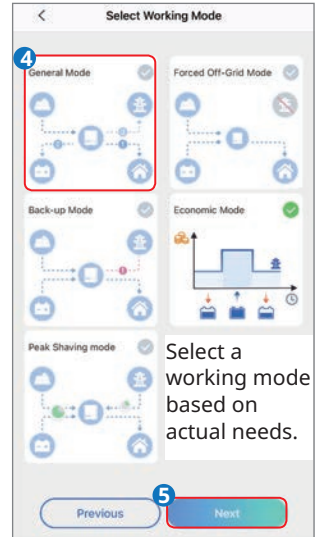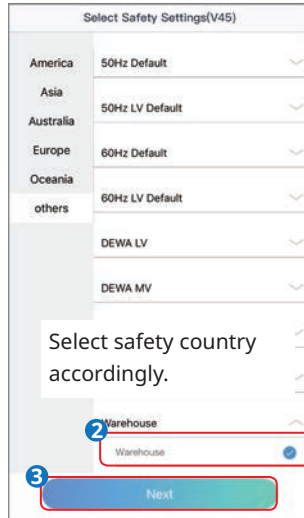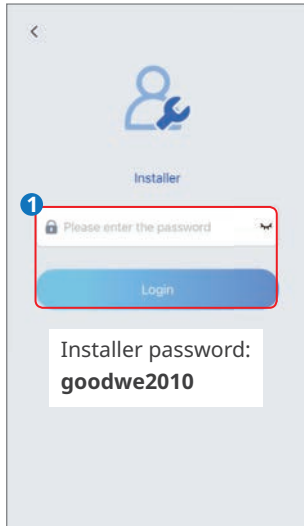
Installer password:
goodwe2010

Select safety country accordingly.

Select a working mode based on actual needs.

Select the battery brand and model based on the actual battery connected to the inverter.

Determine whether to perform meter detection based on actual needs.

NOTICE
The parameters will be configured automatically after selecting the safety country/region, including overvoltage protection, undervoltage protection, overfrequency protection, underfrequency protection, voltage/frequency connection protection, cosφ curve, Q(U) curve, P(U) curve, FP curve, HVRT, LVRT, etc. Tap **Overview > Settings > Advanced Setting > Custom Safety Parameters** to check the detailed parameters.
The power generation efficiency will be different in different working modes. Set the working mode according to the local requirements and situation. • **General Mode:** The power generated by the PV panels firstly supports the load, secondly it charges the battery, and the rest of the power is exported to the grid. • **Forced Off-Grid Mode:** Used for off-grid operation (no grid connection). When choosing this mode, the system automatically cuts off the connection to the grid, even if the grid is available. • **Backup Mode:** Battery is only discharged for urgent use to support backup loads when grid is unavailable. • **Eco Mode:** It is recommended to use economic mode in scenarios when the peak-valley electricity price varies a lot. Charge the battery when the electricity price is at its valley, and sold excess power to the grid when the price is at its peak. Select Economic mode only when it meets the local laws and regulations. • **Peak Shaving Mode:** When required grid power is higher than import power limit, battery will discharge preferentially to cover the demand; if power consumption is lower than import power limit in the set time period, the excess grid power will charge the battery.

4.4 Setting the Power Limit Parameters
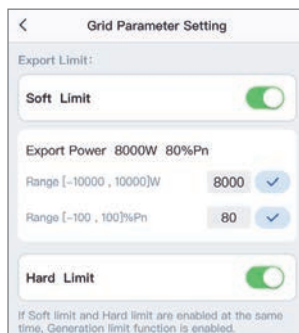
NOTICE
Password for Advanced Setting: goodwe2010.

Enable the Export/Power Limit function, which is disabled by default. Set Export/Power Limit after enabling the function. Set the Export/Power Limit in compliance with local grid requirements.

3.3.1 Power Limit Setting (Only for Australia)

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

No.	Parameters	Description
1	Soft Limit	Enable Soft Limit when power limiting is required by local grid standards and requirements.
2	Export Power	Set the value based on the actual maximum power feed into the utility grid.
3	Hard Limit	After enabling this function, the inverter and the utility grid will automatically disconnect when the power feeds into the grid exceeds the required limit.

3.3.2 Power Limit Setting (For Countries And Regions Except Australia)

Step1 Tap **Home > More** > **Advanced Setting** > **Grid Parameter Setting**.

Step2 Enter the parameters and tap '√ '.The parameters are set successfully.
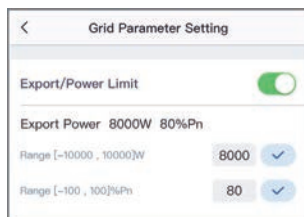
4.5 Setting the Outbalanced Output

Enable the Outbalanced Output when connecting unbalanced loads, which means L1, L2, L3 of the inverter respectively connected to loads with different power. Only for three phase inverters.

Step 1 Tap **Home > More > Advanced Setting> Grid Parameters Setting**.

Step 2 Enter the parameters and tap '√ '.The parameters are set successfully.
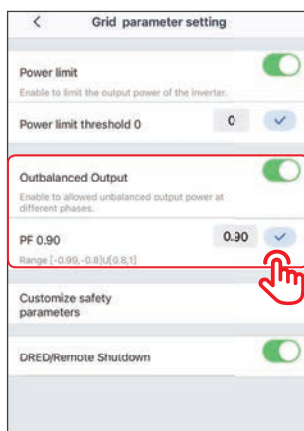
4.6 Setting the DRED/Remote Shutdown

Enable DRED/Remote Shutdown before connecting the third party DRED or remote shutdown device to comply with local laws and regulations.

Step 1 Tap **Home > More > Advanced Setting> Grid Parameters Setting**.

Step 2 Enable or disable the DRED/Remote shutdown function.
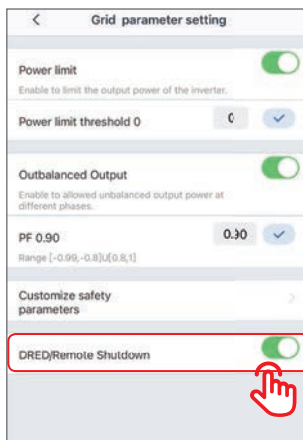
4.7 Setting Custom Safety Parameters

NOTICE
Set the custom safety parameters in compliance with local requirements. Do not change the parameters without the prior consent of the grid company.

4.7.1 Setting Voltage Protection Parameters

Step 1 Tap **Overview > More > Advanced Setting > Custom Safety Parameters > Protection Parameters**.

Step 2 Set the parameters.

No.	Parameters	Description
1	OV Stage1 Trip Value	Set the level 1 overvoltage protection threshold value.
2	OV Stage1 Trip Time	Set the level 1 overvoltage protection tripping time.
3	UV Stage1 Trip Value	Set the level 1 undervoltage protection threshold value.
4	UV Stage1 Trip Time	Set the level 1 undervoltage protection tripping time.
5	OV Stage2 Trip Value	Set the level 2 overvoltage protection threshold value.
6	OV Stage2 Trip Time	Set the level 2 overvoltage protection tripping time.
7	UV Stage2 Trip Value	Set the level 2 undervoltage protection threshold value.
8	UV Stage2 Trip Time	Set the level 2 undervoltage protection tripping time.
9	OV 10min mean value	Set the 10min overvoltage protection threshold value.

4.7.2 Setting Frequency Protection Parameters

Step 1 Tap **Overview > More > Advanced setting > Custom safety parameters > Protection parameters**.

Step 2 Set the parameters.

No.	Parameters	Description
1	OF Stage1 Trip Value	Set the level 1 overfrequency protection threshold value.
2	OF Stage1 Trip Time	Set the level 1 overfrequency protection tripping time.
3	UF Stage1 Trip Value	Set the level 1 underfrequency protection threshold value.
4	UF Stage1 Trip Time	Set the level 1 underfrequency protection tripping time.
5	OF Stage2 Trip Value	Set the level 2 overfrequency protection threshold value.
6	OF Stage2 Trip Time	Set the level 2 overfrequency protection tripping time.
7	UF Stage2 Trip Value	Set the level 2 underfrequency protection threshold value.
8	UF Stage2 Trip Time	Set the level 2 underfrequency protection tripping time.

4.7.3 Setting the Connection Point

Step 1 Tap **Overview > More > Advanced setting > Custom safety parameters > Connection point**.

Step 2 Set the parameters.

No.	Parameters	Description
1	Upper Voltage	The inverter cannot connect to the grid if it is powered on for the first connection and the grid voltage is higher than the Upper Voltage.
2	Lower Voltage	The inverter cannot connect to the grid if it is powered on for the first connection and the grid voltage is lower than the Lower Voltage.
3	Upper Frequency	The inverter cannot connect to the grid if it is powered on for the first connection and the grid frequency is higher than the Upper Frequency.
4	Lower Frequency	The inverter cannot connect to the grid if it is powered on for the first connection and the grid frequency is lower than the Lower Frequency.

No.	Parameters	Description
5	Observation Time	The waiting time for connecting the inverter to the grid when meeting the following requirements. 1. The inverter is powered on for the first connection. 2. The utility grid voltage and frequency meet certain requirements.
6	Fault Condition Connection Upper Voltage	The inverter cannot connect to the grid if it is reconnecting due to a fault and the grid voltage is higher than the High voltage limit under fault conditions.
7	Low Voltage Limit Under Fault Conditions	The inverter cannot connect to the grid if it is reconnecting due to a fault and the grid voltage is lower than the Low voltage limit under fault conditions.
8	High Frequency Limit Under Fault Conditions	The inverter cannot connect to the grid if it is reconnecting due to a fault and the grid frequency is higher than the Highfrequency limit under fault conditions.
9	Low Frequency Limit Under Fault Conditions	The inverter cannot connect to the grid if it is reconnecting due to a fault and the grid frequency is lower than the Low frequency limit under fault conditions.
10	Observation Time Under Fault Conditions	The waiting time for connecting the inverter to the grid when meeting the following requirements. 1. The inverter is reconnecting to the grid due to a fault. 2. The utility grid voltage and frequency meet certain requirements.
11	Enable Power Slope	Enable the start up power slope.
12	Output (On-Grid) Power Slope	Indicates the duration for the output power increases to the rated power when the inverter connects to the utility grid for the first time.
13	Output (On-Grid) Power Slope Under Fault Conditions	Indicates the duration for the output power increases to the rated power when the inverter reconnects to the utility grid due to a fault.

4.7.4 Setting the Cosφ Curve

Step 1 Tap **Overview > More > Advanced Setting > Custom Safety Parameters > Curve Settings.**

Step 2 Enter the parameters. The inverter will adjust the active output power to the apparent power ratio in realtime according to the actual grid voltage to the rated voltage ratio.
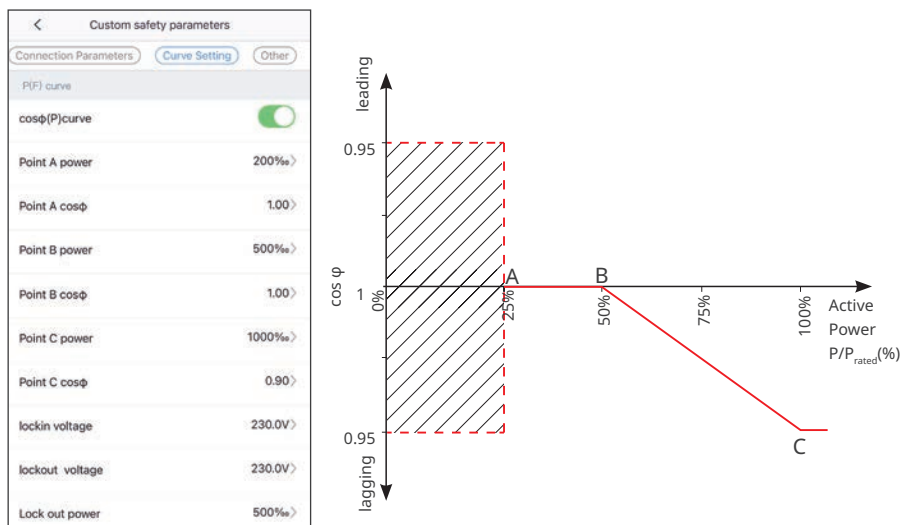
No.	Parameters	Description
1	Cosφ (P) Curve	Enable Cosφ (P) curve when it is required by local grid standards and requirements .
2	Point A/B/C Power	The percentage of the inverter output active power to the rated power at point A/B/C.
3	Point A/B/C Cosφ	The power factor at point A/B/C.
4	Lock-in Voltage	When the grid voltage is between Lock-in voltage and Lock-out voltage, the voltage meets Cosφ curve requirements.
5	Lock-out Voltage	
6	Lock-out Power	The Cosφ curve cannot work when the output active power to rated power ratio is lower than the Lock-out power.

4.7.5 Setting the FP Curve

Step 1 Tap **Overview > More > Advanced Setting > Custom Safety Parameters > Curve Settings.**

Step 2 Set the parameters.

No.	Parameters	Description
1	FP Curve	Enable FP Curve when it is required by local grid standards and requirements.
2	Overfrequency Threshold	The inverter output active power will decrease when the utility grid frequency is too high. The inverter output power will decrease when the utility grid frequency is higher than Overfrequency Threshold.
3	Underfrequency Threshold	The inverter output active power will increase when the utility grid frequency is too low. The inverter output power will increase when the utility grid frequency is lower than Underfrequency Threshold.
4	Overfrequency Endpoint	The inverter output active power will decrease when the utility grid frequency is too high. The inverter output power will stop decreasing when the utility grid frequency is higher than Overfrequency Endpoint.
5	Underfrequency Endpoint	The inverter output active power will increase when the utility grid frequency is too low. The inverter output power will stop increasing when the utility grid frequency is lower than Underfrequency Endpoint.
6	Observation Time	Indicates the time the output power of the inverter needs for recovering after the power grid recovers.
7	F(Stop) Upper	The inverter output active power decreases when the utility grid frequency is too high. The inverter output power recovers when the utility grid frequency is lower than F(Stop) Upper.
8	F(Stop) Lower	The inverter output active power will increase when the utility grid frequency is too low. The inverter output power will recover when the utility grid frequency is higher than F(Stop) Lower.
9	Reconnection Gradient	Indicates the time the inverter output power recovers.
10	Power Response To Overfrequency Gradient	The inverter output active power will decrease when the utility grid frequency is too high. Indicates the slope when the inverter output power decreases.
11	Power Response To Underfrequency Gradient	The inverter output active power will increase when the utility grid frequency is too low. Indicates the slope when the inverter output power increases.
12	Recovery Power Slope	Indicates the variation slope when the power recovers.

4.7.6 Setting the PU Curve

When the grid voltage is too high, decrease the inverter output power to decrease the grid-tied power.

Step 1 Tap **Overview > More > Advanced Setting > Custom Safety Parameters > Curve Settings.**

Step 2 Enter the parameters. The inverter will adjust the active output power to the apparent power ratio in realtime according to the actual grid voltage to the rated voltage ratio.

No.	Parameters	Description
1	P(U) Curve	Enable P(U) curve when it is required by local grid standards and requirements.
2	Vn Voltage	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 Power	The percentage of the output reactive power to the apparent power at Vn point (n=1, 2, 3, 4). For example, setting Vn active power to 48.5 means Q/Prated%=48.5%. Q/P_{rated}%=48.5%
4	Time Constant	The power is required to reach 95% in the first order LPF curve within three time constant.

4.7.7 Setting the QU Curve

Step 1 Tap **Overview > More > Advanced Setting > Custom Safety Parameters > Curve Settings.**

Step 2 Enter the parameters. 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	Lock-In Power	When the inverter output reactive power to the rated power ratio is between the Lock-in power and Lock-out power, the ratio meets Q(U) curve requirements.
3	Lock-Out Power	
4	Vn Voltage	The percentage of actual voltage to the rated voltage at Vn point (n=1, 2, 3, 4). For example, setting Un to 90 means $V/V_{rated}\%=90\%$.
5	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/Srated%=48.5%. $Q/S_{rated}\%=48.5\%$
6	Time Constant	The power is required to reach 95% in the first order LPF curve within three time constant.

4.7.8 Setting Other Parameters

Step 1 Tap **Overview > More > Advanced Setting > Custom Safety Parameters > Others**.

Step 2 Set the parameters.

	Custom safety parameters	
Connection Parameters	Curve Setting	Other
OV stage3 trip value		0.0V ›
Overvoltage trigger third-order trip time		0.00s ›
UV stage3 trip value		0.0V ›
UV stage3 trip time		0.00s ›
LVRT		
Extended functions		⬤
Ride through voltage start point		184.0V ›
Ride through voltage end point		34.5V ›
Ride through time start point		2.00s ›
Ride through time end point		0.24s ›
Ride through trip threshold		184.0V ›
HVRT		
Extended functions		⬤
Ride through voltage start point		276.0V ›
Ride through voltage end point		287.5V ›
Ride through time start point		60.00s ›
Ride through time end point		0.12s ›
Ride through trip threshold		276.0V ›

No.	Parameters	Description
1	OV Stage3 Trip Value	Set the level 3 overvoltage protection threshold value.
2	Overvoltage Trigger Third-Order Tirp Time	Set the level 3 overvoltage protection tripping time.
3	UV Stage3 Trip Value	Set the level 3 undervoltage protection threshold value.
4	UV Stage3 Trip Time	Set the level 3 undervoltage protection tripping time.
LVRT		
5	Ride Through Voltage Start Point	The inverter will not be disconnected from the utility grid immediately when the grid voltage is between start point of ride through and end point of ride through.
6	Ride Through Voltage End Point	
7	Ride Through Time Start Point	The longest time for the inverter stays connected to the grid when the grid voltage is at the Start point of ride through.
8	Ride Through Time End Point	The longest time for the inverter stays connected to the grid when the grid voltage is at the End point of ride through.
9	Ride Through Trip Threshold	LVRT is allowed when the grid voltage is lower than the Limit of ride through.
HVRT		
10	Ride Through Voltage Start Point	The inverter will not be disconnected from the utility grid immediately when the grid voltage is between the start point of ride through and the end point of ride through.
11	Ride Through Voltage End Point	
12	Ride Through Time Start Point	The longest time for the inverter stays connected to the grid when the grid voltage is at the Start point of ride through.
13	Ride Through Time End Point	The longest time for the inverter stays connected to the grid when the grid voltage is at the End point of ride through.
14	Ride Through Trip Threshold	HVRT is allowed when the grid voltage is higher than the Limit of ride through.

4.8 Setting the Backup Supply

After enabling the Back-Up Supply function, the battery will power the load connected to the backup port of the inverter to ensure Uninterrupted Power Supply when the power grid fails.

Step 1 Tap **Overview > More > Advanced Setting > Back-up supply**.

Step 2 Enable or disable the BACKUP supply function.
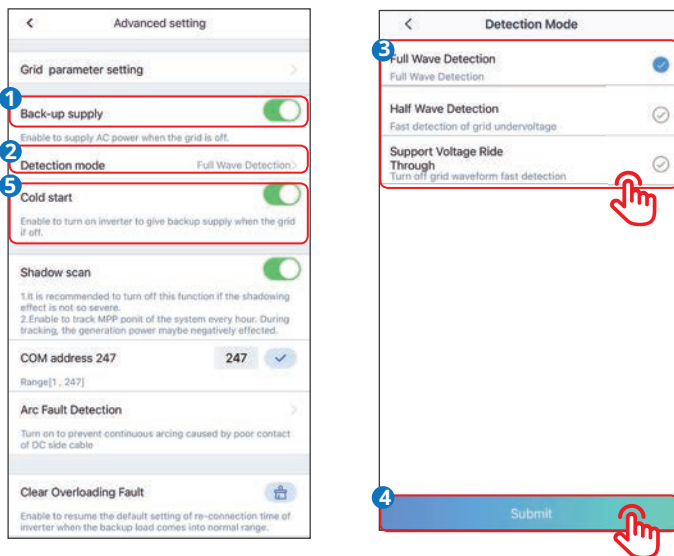
No.	Parameters	Description
1	Full Wave Detection	Check whether the utility grid voltage is too high or too low.
2	Half Wave Detection	Check whether the utility grid voltage is too low.
3	Support Voltage Ride Through	Stop detecting utility grid voltage.
4	Cold Start	When the utility grid is disconnected, enable Cold start to turn on the inverter for backup supply.

4.9 Setting the Shadow Scan

Enable Shadow Scan when the PV panels are severely shadowed to optimize the power generation efficiency.

Step 1 Tap **Overview > More > Advanced Setting > Shadow scan**.

Step 2 Set Shadow Scan.
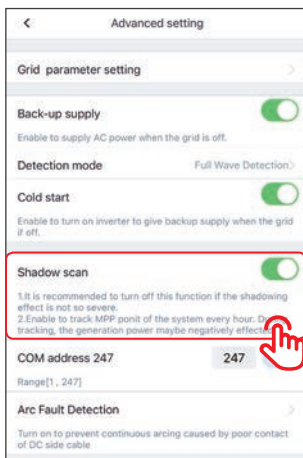
4.10 Setting the COM Address

NOTICE
Set the communication address of the inverter. For a single inverter, the address is set based on actual needs. For multi connected inverters, the address of each inverter should be different while cannot be 247.

Step 1 Tap **Overview > More > Advanced Setting > COM address**.
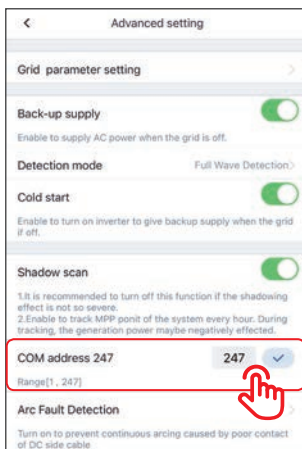
4.11 Setting the Arc Fault Detection

Step 1 Tap **Overview > More > Advanced Setting > Arc Fault Detection**.

Step 2 Enable or disable Arc Detection.
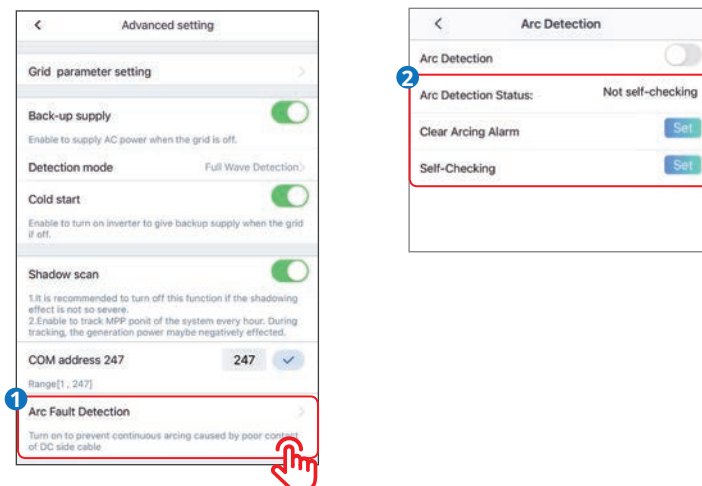
No.	Parameters	Description
1	Arc Fault Detection	Enable or disable the Arc Detection.
2	Arc Detection Status	The detection status like Not Self-checking.
3	Clear Arcing Alarm	Clear arc alarm records.
4	Self-Checking	Check whether the arc detection function is normal.

4.12 Setting the APN

Step 1 Tap **Overview > More > Advanced Setting > APN**.

Step 2 Set APN based on actual needs.

NOTICE
Configure the SIM card information of 4G communication device.
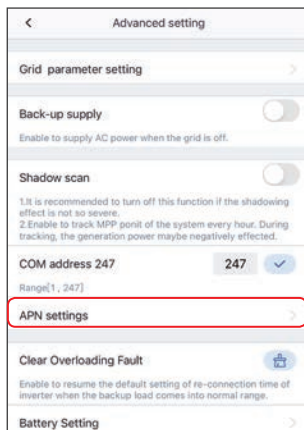
4.13 Clearing Overloading Fault

Once the power of loads connected to the inverter BACK-UP ports exceeds the rated load power, the inverter will restart and detect the power again. The inverter will perform restart and detection several times until the overloading problem is solved. Tap Clear Overloading Fault to reset the restart time interval after the power of the loads connected to the BACK-UP ports meets the requirements. The inverter will restart immediately.

Step 1 Tap **Overview > More > Advanced Setting > Clear Overloading Fault**.
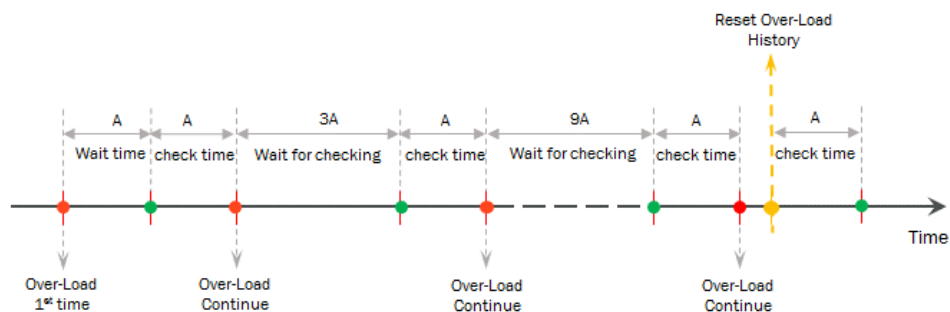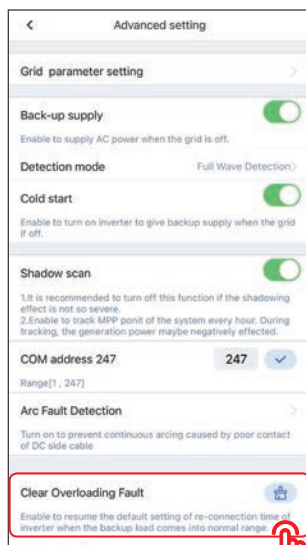
4.14 Setting the Battery

Step 1 Tap **Overview > More > Battery Setting** to set the battery.

Step 2 Enter the parameters and tap '√'.
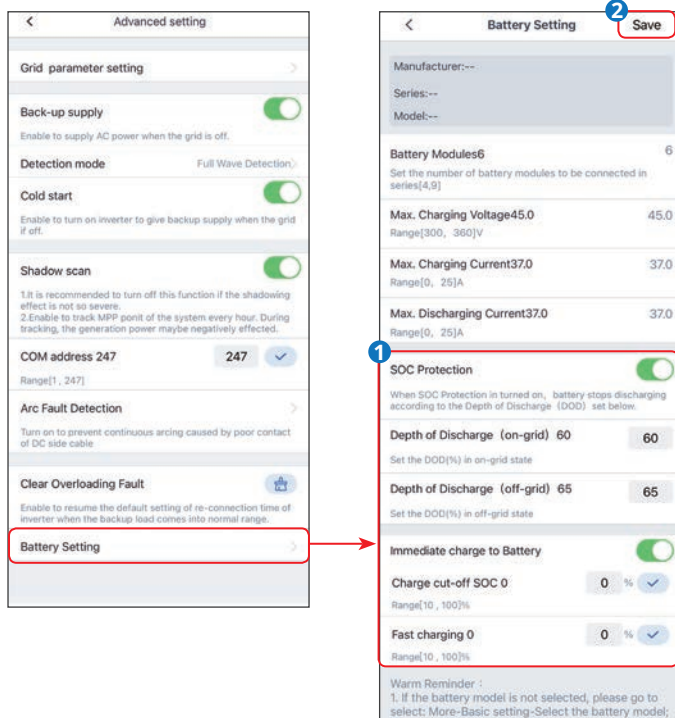
No.	Parameters	Description
1	SOC Protection	The battery will stop discharging when the battery capacity is lower than the Depth of Discharge.
2	Depth of Discharge (On-Grid)	Indicates the depth of discharge of the battery when the inverter is on-grid or off-grid.
3	Depth of Discharge (Off-Grid)	
4	Immediate Charge to Battery	Enable to charge the battery by the grid. It will only take effect once.
5	Charge Cut-Off SOC	Stop charging the battery once the battery SOC reaches the Charge Cut-Off SOC.
6	Fast Charging	Indicates the percentage of the charging power to the inverter rated power when enabling Immediate Charge to Battery. For example, setting the Fast charging value of a 10kW inverter to 60 means the charging power of the inverter is 10kW*60%=6kW.

4.15 Setting the Load Control

Control the loads via SolargGo app if the inverter supports load control function.

Step 1 Tap **Overview > More > Load Control** to set the load control mode.

Step 2 Select the load control mode.

• Power Switch Mode: when the switch status is ON, the loads will be powered; when the switch status is OFF, the power will be cut off.
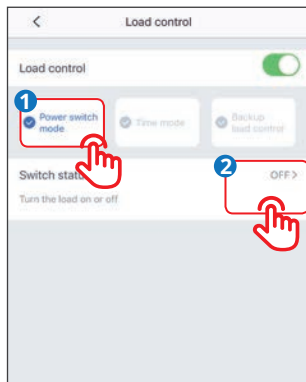
• Time mode: set the time to enable the load, and the load will be powered automatically within the setting time period. Select standard mode or intelligent mode.
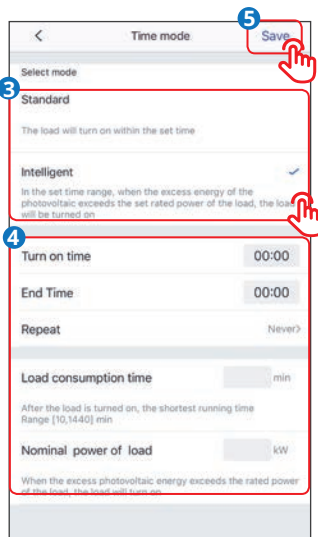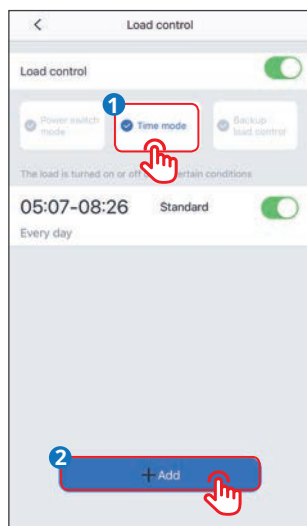
No.	Parameters	Description
1	Standard mode	The loads will be powered within the setting time period.
2	Intelligent mode	Once the excess energy of the photovoltaic exceeds the load nominal power within the time period, the loads will be powered.
3	Turn on time	The time mode will be on between the Turn on time and End time.
4	End time	
5	Repeat	The repeat days.
6	Load consumption time	The shortest load working time after the loads been powered. The time is set to prevent the loads be turned on and off frequently when the PV power fluctuates greatly. Only for Intelligent mode.
7	Nominal power of load	The loads will be powered when the excess energy of the photovoltaic exceeds the nominal power of load. Only for Intelligent mode.

- Backup load control: the inverter has integrated dry contact controlling port, which can control whether the load is powered or not by contactor. In off-grid mode, the load connected to the port will not be powered if the BACKUP overload is detected or the battery SOC value is lower than the Off-grid battery protection value.
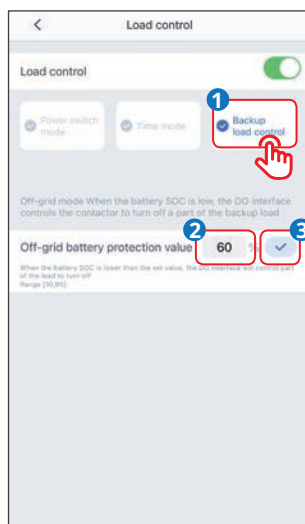
4.16 Setting the PV Access Mode

When there are two or more MPPTs in one inverter, set the PV access mode manually to avoid incorrect PV access recognition due to too many MPPTs.

Step 1 Tap **Overview > More > PV Access Mode**.
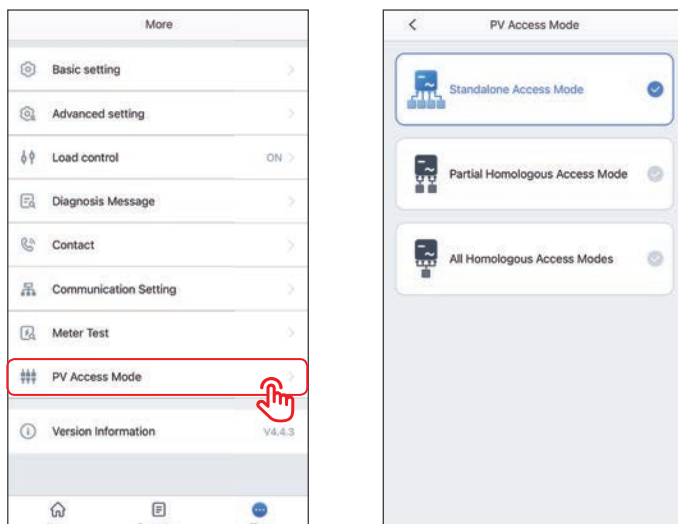
No.	Parameters	Description
1	Standalone Access Mode	The external PV modules are connected to the PV input terminals of the inverter one-to-one.
2	Partial Homologous Access Mode	The PV modules are connected to the inverter in two ways: • one PV module to one PV input terminal. • one PV module to more than one PV input terminal.
3	All Homologous Access Mode	One external PV module is connected to more than one PV input terminal.

4.17 Configuring the Communication

For GoodWe Ezlink device communication.

Step 1 Tap **Overview > More > Communication Setting**.
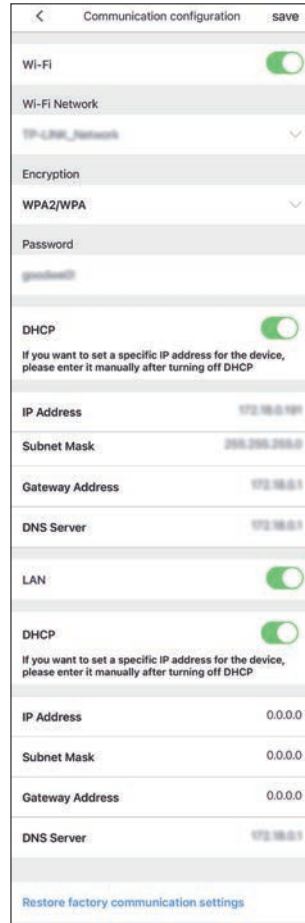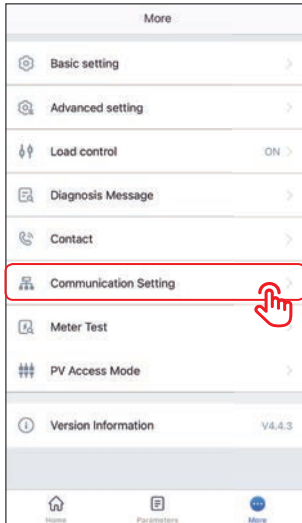
NOTICE
• Disable the DHCP and enter the IP Address, Subnet Mask, and Gateway Address manually when a static IP address is to be used.
• Enable the DHCP to enter the IP Address automatically and complete the registration when a dynamic IP address is to be used.

4.18 Equipment Maintenance

4.18.1 Diagnosis Message

Tap **Diagnosis Message** to check inverter working status information and battery charge or discharge information.

Step 1 Tap **Overview > More > Diagnosis Message**.
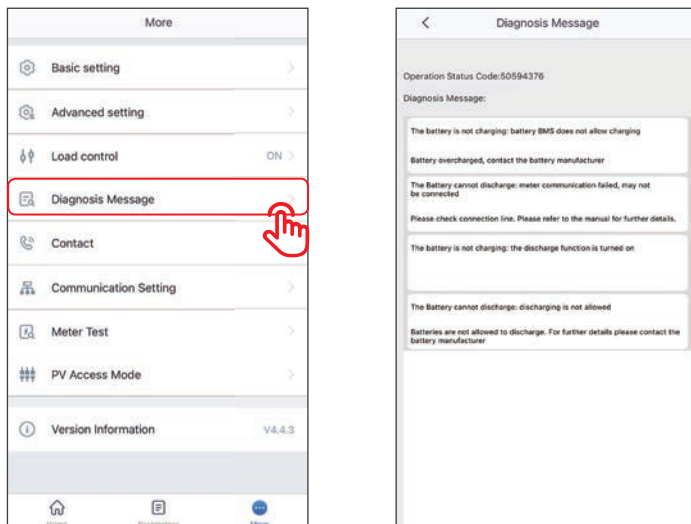
4.18.2 WiFi Diagnosis

WiFi Diagnose helps to find out the problem in the WFi communication route. Available when connecting SolarGo to inverter Solar-WiFi signal directly.

Step 1 Tap **Overview > More > WiFi Diagnosis**.
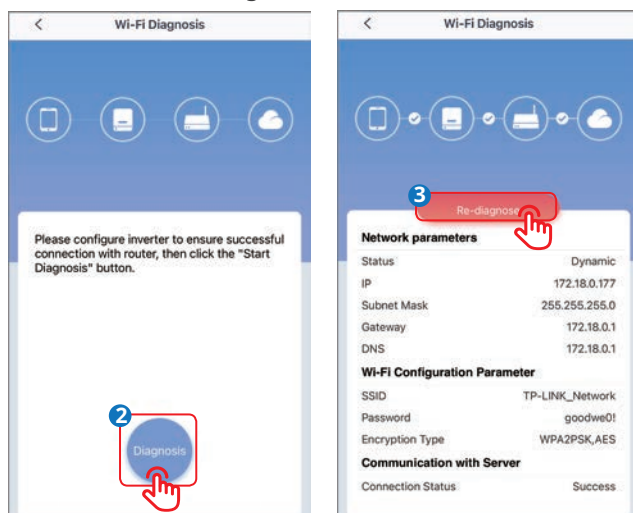
4.18.3　Update Wi-Fi Password of Inverter

NOTICE
Initial password: 12345678. To ensure account security, change the password periodically.

Step 1　Tap **Overview > Settings > Update Wi-Fi Password of Inverter**.
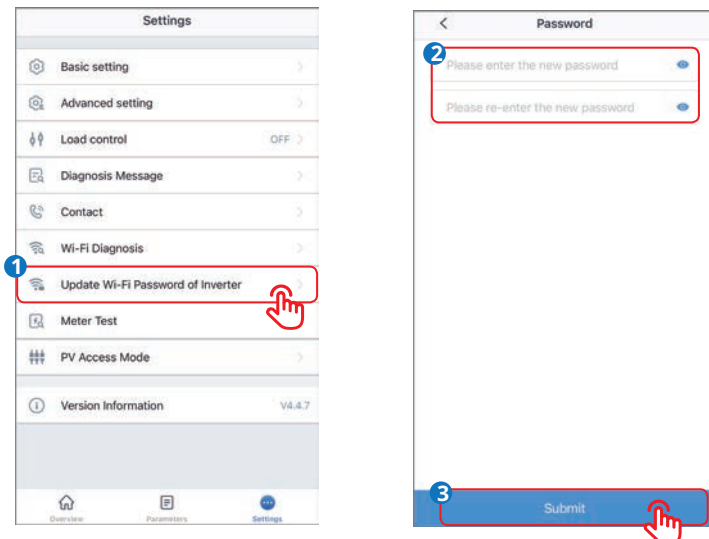
4.18.4　Meter Test

Meter Detection is used to auto-check if the Smart Meter and CT are connected in the right way and their working status.

Step 1　Tap **Overview > More > Meter Test**.
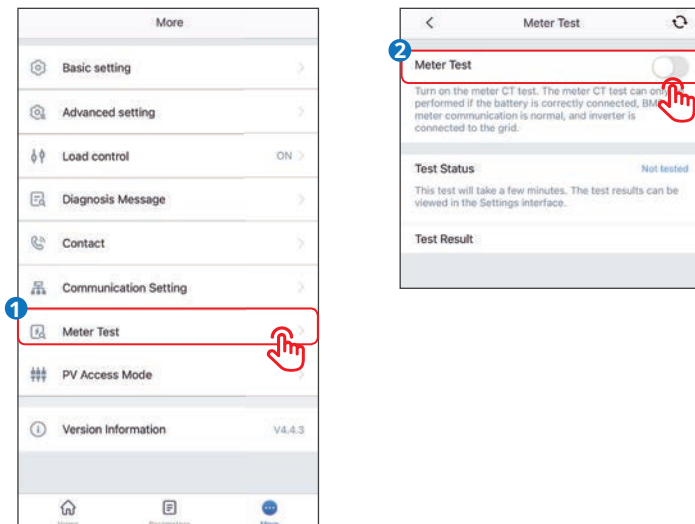
5   AC Charger

5.1 Log In as AC Charger
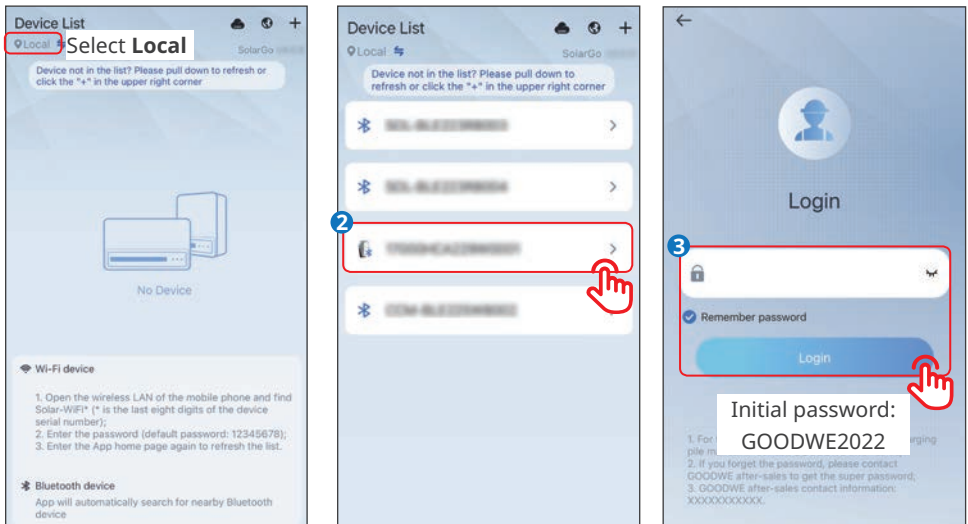
NOTICE
Log in using the initial password for the first time and change the password as soon as possible. To ensure account security, you are advised to change the password periodically.

5.2 Setting Charging Mode

No.	Parameters	Description
1	Charging Mode	Select the charging mode for electric vehicle (EV for short). • Fast: Charge the EV at the rated power of the charger. • PV Only: Only the PV power is used to charge the EV. Loads take priority in PV power consumption, the remaining power will charge the EV. • PV & Battery: The PV power and battery are used to charge the EV. Loads take priority in power consumption, the remaining power will charge the EV.
2	Schedule to Charge	Set the single charging time or cycle charging time.
3	Plug And Charge	Start charging immediately after plugging in the charging plug.
4	Start/ End Charging	Start charging the EV using the charger when all the settings are completed. • Start Charging: Start charging the EV. • End Charging: Stop charging the EV.
5	Energy Chargerd	Charging information like charging time, current, power, and total energy will be displayed after the charger starts charging the EV.

5.3 Setting Basic Settings
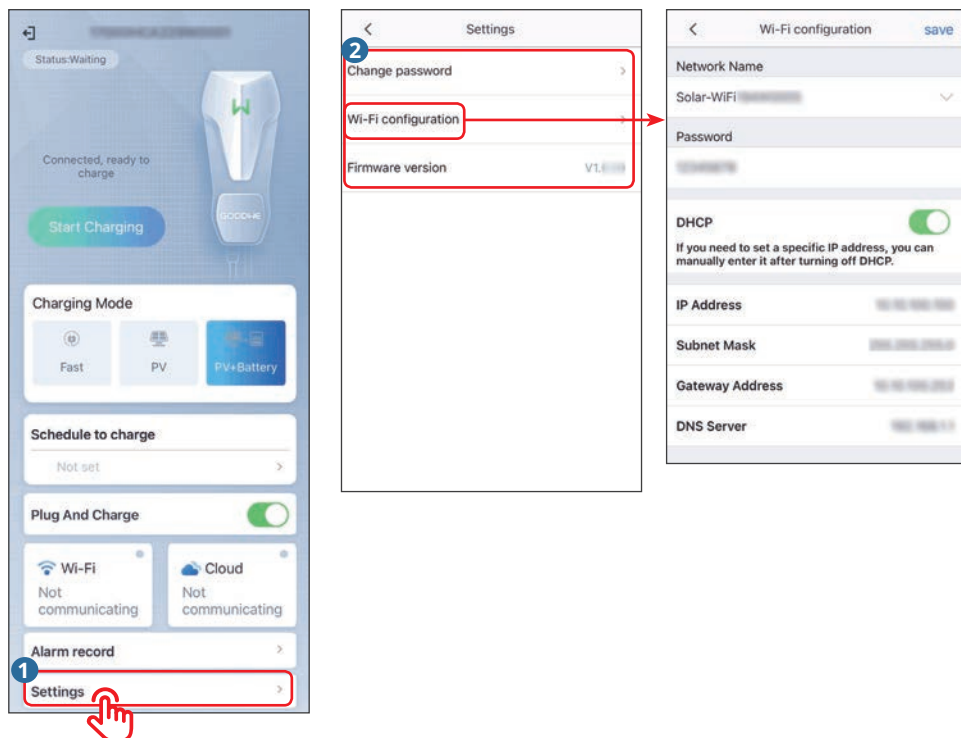
No.	Parameters		Description
1	Change password		Change the login password of the charger.
2	WiFi configuration	Network Name	Select a network to establish communication between the charger and a router or a network switch. Then the charger can be connected to the Cloud.
		Password	Input the password of the selected network.
		DHCP	• Enable DHCP when the router is in dynamic IP mode. • Disable DHCP when a switch is used or when the router is in static IP mode.
		IP Address	• Do not configure the parameters when DHCP is enabled. • Configure the parameters based on the router or switch information when DHCP is disabled.
		Subnet Mask	
		Gateway Address	
		DNS Server	
3	Firmware version		Check the firmware version of the charger.

5.4 Checking Basic Information
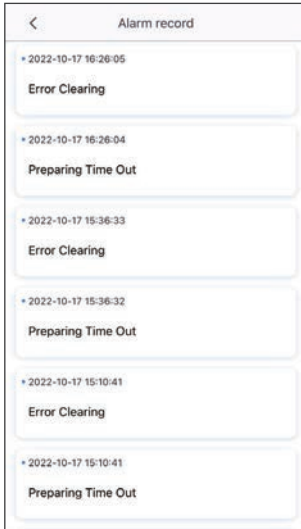
Check alarms
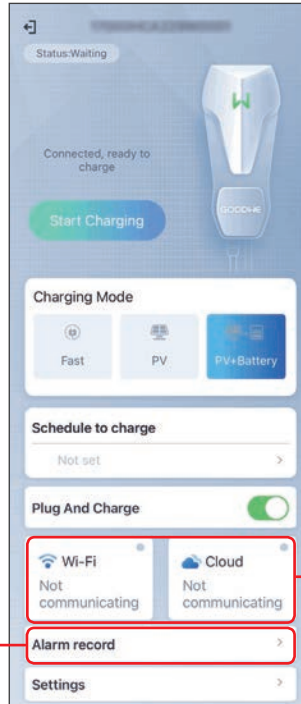
- WiFi: whether the charger is communicating with the router
- Cloud: whether the charger is communicating with the Cloud

6   Troubleshooting

6.1 App 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.

6.2 Inverter Alarms

No.	Alarm	Reasons	Solutions
1	SPI Fail	1. The exception is caused by an external fault. 2. Control board of the inverter cannot work properly.	1. Restart the inverter. If the inverter recovers, the problem is accidental and does not affect system working. 2. If the problem persists, contact the after-sales service.
2	EEPROM R/W Fail	1. The exception is caused by an external fault. 2. Control board of the inverter cannot work properly.	1. Restart the inverter. If the inverter recovers, the problem is accidental and does not affect system working. 2. If the problem persists, contact the after-sales service.
3	Fac Fail	1. Wrong safety code. 2. Unstable grid frequency.	1. Check the safety code. 2. Check whether the AC frequency (Fac) is within the normal range. 3. If the problem occurs occasionally, the utility grid may be abnormal temporarily.
4	AFCI Fault	1. The PV string cables are in poor contact. 2. The insulation between the PV string and ground is abnormal.	1. Check whether the PV cables are connected properly. 2. Contact after-sales service if theproblem persists.
5	Night SPS Fault	The equipment cannot work properly.	1. Restart the inverter. 2. Upgrade the software version to solve the problem.
6	L-PE Fail	The live wire of the inverter output terminal is connected improperly.	1. Check the wiring of the grid. 2. If the problem persists, contact the after-sales service.
7	Relay Chk Fail	1. The relay is abnormal or short-circuited. 2. The control circuit is abnormal. 3. The AC cable is connected improperly, like a virtual connection or short circuit.	1. Measure the voltage between N and PE cable on AC side. If the voltage is higher than 10V, it means the cables are connected improperly. 2. Restart the inverter.

No.	Alarm	Reasons	Solutions
8	N-PE Fail	1. The N and PE cables are connected improperly. 2. The AC output cable is connected improperly.	1. Make sure that the N and PE cables are connected correctly. 2. Make sure that the output cable is connected correctly. 3. If the problem persists, contact the after-sales service.
9	ARC Fail-HW	The power limit function is abnormal. (For Australia)	1. Make sure that the grid and smart meter are connected correctly. 2. If the problem persists, contact the after-sales service.
10	PV Reverse Fault	The PV strings are connected reversely.	1. Make sure that the PV strings are connected correctly. 2. If the problem persists, contact the after-sales service.
11	String OverCurr	The current of one PV string is too high.	Check the PV string connection.
12	LCD Comm Fail	The LCD connection is not firm.	Contact the after-sales service.
13	DCI High	DC component exceeds the allowed range.	1. Restart the inverter. If the inverter recovers, the problem is accidental and does not affect system working. 2. If the problem persists, contact the after-sales service.
14	Isolation Fail	1. The PV panels are connected improperly. 2. The DC cable is broken. 3. The N and PE cables are connected improperly. 4. The system is in a moist environment like rainy days, early morning or sunset.	1. Connect the PV strings in turn to find the one caused error. 2. Check whether the DC cable is broken. 3. Measure the voltage between N and PE cable on AC side. If the voltage is higher than 10V, it means the cables are connected improperly. 4. Make sure that the PV modules are grounded properly.

No.	Alarm	Reasons	Solutions
15	Vac Fail	1. Wrong safety code. 2. Unstable grid frequency. 3. Improper AC cable specifications, like too long or too thin. 4. The AC cable is connected improperly.	1. Check the safety code. 2. Make sure that the voltage of each phase (Between L1&N, L2&N, L3&N) is within a normal range • if the voltage is too high, make sure that the AC cable meets specification requirements. • if the voltage is too low, check whether the AC cable and breakers are properly connected. 3. Make sure the grid voltage is stable.
16	EFan Fail	The external fan is blocked or connected improperly.	Clear the external fan to remove the blocks.
17	PV Over Voltage	Excess PV modules are connected, and the open-circuit voltage is higher than the max DC input voltage of the inverter.	1. Measure whether the open circuit voltage of the PV string is higher than the max DC input voltage of the inverter. 2. If the voltage is high, remove some panels connected to make sure that the open circuit voltage meets the requirement.
19	Overtemp.	The inverter is installed in a place wth poor ventilation. The ambient temperature is too high.	1. Cool down the ambient temperature. 2. Make sure that the installation meets the enviroment requirements listed in the inverter user manual. 3. Power off the inverter and power on 15 minutes later.
20	IFan Fail	The internal fan is blocked or connected improperly.	1. Restart the inverter. If the inverter recovers, the problem is accidental and does not affect system working. 2. If the problem persists, contact the after-sales service.
21	DC Bus High	1. The PV voltage is too high. 2. Control board of the inverter cannot work properly.	1. Detect the DC voltage of PV string using a multimeter to check if it is higher than the max DC Input voltage of the inverter. 2. Reduce the number of PV panels per string if the DC voltag is too high.

No.	Alarm	Reasons	Solutions
22	Ground I Fail	1. The AC PE cable is not connected well. 2. The system is in a moist environment like rainy days, early morning or sunset.	Detect the voltage between the enclosure and the ground. The PE cable is connected improperly if any voltage detected.
23	Utility Loss	1. Utility grid power fails. 2. The AC cable is disconnected, or the AC breaker is off. 3. AC breaker fails.	1. Ensure that the utility grid is available. 2. Measure the AC voltage using a multimeter. 3. Check whether the breaker is broken. 4. Check whether the AC cable is connected. 5. Ensure that the grid is connected and AC breaker turned ON. 6. Disconnect the AC output switch and DC input switch, then connect them 5 minutes later.
24	AC HCT Fail	1. The exception is caused by an external fault. 2. Control board of the inverter cannot work properly.	1. Restart the inverter. If the inverter recovers, the problem is accidental and does not affect system working. 2. If the problem persists, contact the after-sales service.
25	Relay Dev Fail	1. The exception is caused by an external fault. 2. Control board of the inverter cannot work properly.	1. Restart the inverter. If the inverter recovers, the problem is accidental and does not affect system working. 2. If the problem persists, contact the after-sales service.
26	GFCI Fail	1. The exception is caused by an external fault. 2. Control board of the inverter cannot work properly.	1. Restart the inverter. If the inverter recovers, the problem is accidental and does not affect system working. 2. If the problem persists, contact the after-sales service.
28	DC SPD Fail	Lighting strike	1. Improve the lightning protection facilities around the inverter. 2. Replace the inverter with a new one if it cannot work anymore.

No.	Alarm	Reasons	Solutions
29	DC Switch Fail	The number of times of use of the DC trip switch exceeds the service life	Contact the after-sales service.
30	Ref 1.5V Fail	1. The exception is caused by an external fault. 2. Control board of the inverter cannot work properly.	1. Restart the inverter. If the inverter recovers, the problem is accidental and does not affect system working. 2. If the problem persists, contact the after-sales service.
31	AC HCT Chk Fail	The sampling of the AC HCT is abnormal.	1. Restart the inverter. If the inverter recovers, the problem is accidental and does not affect system working. 2. If the problem persists, contact the after-sales service.
32	GFCI Chk Fail	The sampling of the GFCI HCT is abnormal.	1. Restart the inverter. If the inverter recovers, the problem is accidental and does not affect system working. 2. If the problem persists, contact the after-sales service.

6.3 Battery Alarms

No.	Alarm	Troubleshooting
1	High battery temperature	The battery is overloaded. You are recommended to reduce loads. If the problem persists, contact the after-sales service for help.
2	Low battery temperature	The ambient temperature is too low to run the battery.
3	Battery cell voltage differences	If the problem persists, contact the after-sales service for help.
4	Battery over total voltage	
5	Battery discharge overcurrent	If the problem persists, contact the after-sales service for help.
6	Battery charge over current	If the problem persists, contact the after-sales service for help.
7	Battery under SOC	If the PV works properly but the problem persists, contact the after-sales service for help.
8	Battery under total voltage	
9	Battery communication failure	Check the electrical connections by professionals.
10	Battery output shortage	
11	Battery SOC too high	If the problem persists, contact the after-sales service for help.
12	BMS module fault	
13	BMS system fault	
14	BMS internal fault	
15	High battery charge temperature	
16	High battery discharge temperature	The battery is overloaded. You are recommended to reduce loads. If the problem persists, contact the after-sales service for help.
17	Low battery charge temperature	The ambient temperature is too low to run the battery.
18	Low battery discharge temperature	

7 Appndix

7.1 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

No.	Safety Code	No.	Safety Code
3	Brazil_LV		
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	Australia
11	AustraliaB	12	AustraliaC
13	AustraliaL	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

7.2 Australia Safety Regulations

For the Australian market, to comply with AS/NZS 4777.2:2020, please select from Australia A, Australia B, Australia C, or New Zealand. 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

GoodWe Website

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