

How to connect GoodWe hybrid inverters (Dongle, Bluetooth, WiFi, LAN) with Reduxi controller

Connect your GoodWe hybrid inverter to the Reduxi Controller via Modbus TCP. Works with the WiFi/LAN Kit 1.0 and 2.0 over LAN or WiFi.

GOODWE

🔧 GoodWe hybrid inverter · Reduxi Controller

🌐 Modbus TCP (Ethernet) 📶 WiFi/LAN Kit 1.0 or 2.0

🔌 Port 502



GoodWe hybrid inverter (example: ET PLUS+ series)

Text description of this image

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1 Technical documentation

GoodWe documents for the communication module and the supported devices:

- [GoodWe Wi-Fi/LAN Kit Series \(WiFi/LAN Kit-20\)](#) – Product page of the communication module with datasheet and user manual.
- [Compatibility list of GoodWe inverters and IoT products](#) – Shows which inverter works with which communication module and firmware.

2 Required equipment

You need the following components:

- ☐ GoodWe hybrid inverter
- ☐ GoodWe WiFi/LAN Kit 1.0 or WiFi/LAN Kit 2.0 (communication dongle)
- ☐ Reduxi Controller
- ☐ Ethernet cable between the inverter and your router or switch
- ☐ Smartphone with Bluetooth and the SolarGo app or the SEMS+ Classic app (see [Point 4](#) and [Point 5](#))
- ☐ Laptop or tablet with internet access to configure the device in Reduxi

3 Choose the connection and enable Modbus TCP

Modbus TCP communication with Reduxi depends on the dongle and on how the inverter is connected to the Internet. Find your case:

DONGLE AND CONNECTION	MODBUS TCP	NEXT STEP
WiFi/LAN Kit 1.0 via LAN	Enabled automatically	Set a static IP with the SEMS+ Classic app (Point 5)
WiFi/LAN Kit 1.0 via WiFi	Enable it with the SolarGo app	Configure the dongle with SolarGo (Point 4)
WiFi/LAN Kit 2.0 via LAN	Enabled automatically	Check the serial number (Point 3.5)
WiFi/LAN Kit 2.0 via WiFi	Activation by GoodWe After-Sale Support	Send the e-mail (Point 3.4), then check the serial number (Point 3.5)

3.1 WiFi/LAN Kit 1.0 via LAN



WiFi/LAN Kit 1.0

Text description of this image

The inverter is connected to the Internet with the WiFi/LAN Kit 1.0 via LAN. Modbus TCP is **enabled automatically** with these settings:

- Device ID: **1**
- Port: **502**
- Baud rate: **9600**

Continue with [Point 5](#), **Set the static IP with the SEMS+ Classic app.**

3.2 WiFi/LAN Kit 1.0 via WiFi



WiFi/LAN Kit 1.0

Text description of this image

The inverter is connected to the Internet with the WiFi/LAN Kit 1.0 via WiFi. You must enable Modbus TCP with the **SolarGo** app.

Continue with [Point 4](#), **Configure the WiFi/LAN Kit with the SolarGo app.**

3.3 WiFi/LAN Kit 2.0 via LAN



WiFi/LAN Kit 2.0

Text description of this image

The inverter is connected to the Internet with the WiFi/LAN Kit 2.0 via LAN. Modbus TCP is **enabled automatically** with these settings:

- Device ID: **1**
- Port: **502**
- Baud rate: **9600**

Continue with Point 3.5, **Serial number of the WiFi/LAN Kit 2.0.**

3.4 WiFi/LAN Kit 2.0 via WiFi



WiFi/LAN Kit 2.0

Text description of this image

The inverter is connected to the Internet with the WiFi/LAN Kit 2.0 via WiFi. **GoodWe After-Sale Support** must activate Modbus TCP. Send an e-mail to service.se@goodwe.com:

- Subject: **Enable MODBUS TCP for WLAN/LAN 2.0 dongle**
- Inverter serial number
- Dongle serial number

After GoodWe has activated Modbus TCP, continue with Point 3.5.

3.5 Serial number of the WiFi/LAN Kit 2.0

The WiFi/LAN Kit 2.0 exists as a regular version and as a version with cyber security. Check the serial number on the dongle:

- Serial number starts with **72000** : regular version.
- Serial number starts with **72100** : version with cyber security. You must make additional settings on the inverter. Follow the steps in [Point 4](#).



Example: regular version, serial number 72000...

Text description of this image

4 Configure the WiFi/LAN Kit with the SolarGo app

4.1 Download and install the SolarGo app (if needed)



SolarGo in the App Store

Text description of this image



SolarGo on Google Play

2. Text description of this image

4.2 Connect to the inverter via Bluetooth

Make sure the inverter is switched on and that the inverter and the communication module work properly.

1 Open Bluetooth

Tap **Bluetooth** on the homepage of SolarGo.

2 Refresh the list

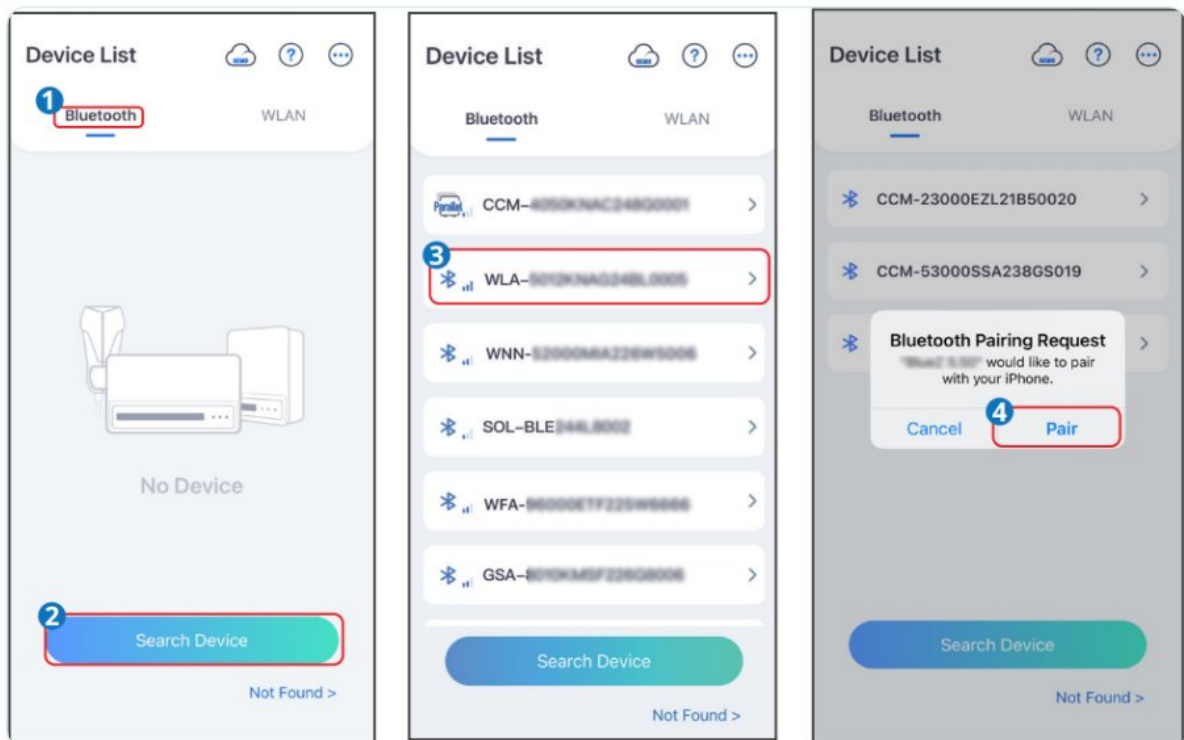
Tap **Device list** to refresh the page.

3 Select the inverter

Find the device by the inverter serial number. Tap the **device name** to log in.

4 Pair

When you connect to the inverter via Bluetooth for the first time, a **pairing** prompt appears. Tap **Pair** to continue.



Device list and pairing prompt

1. Text description of this image

Three phone screenshots side by side of the Device List screen of the SolarGo app, with numbered blue badges and red outlines. Header of each: 'Device List' with a cloud icon, a help icon and a menu icon.

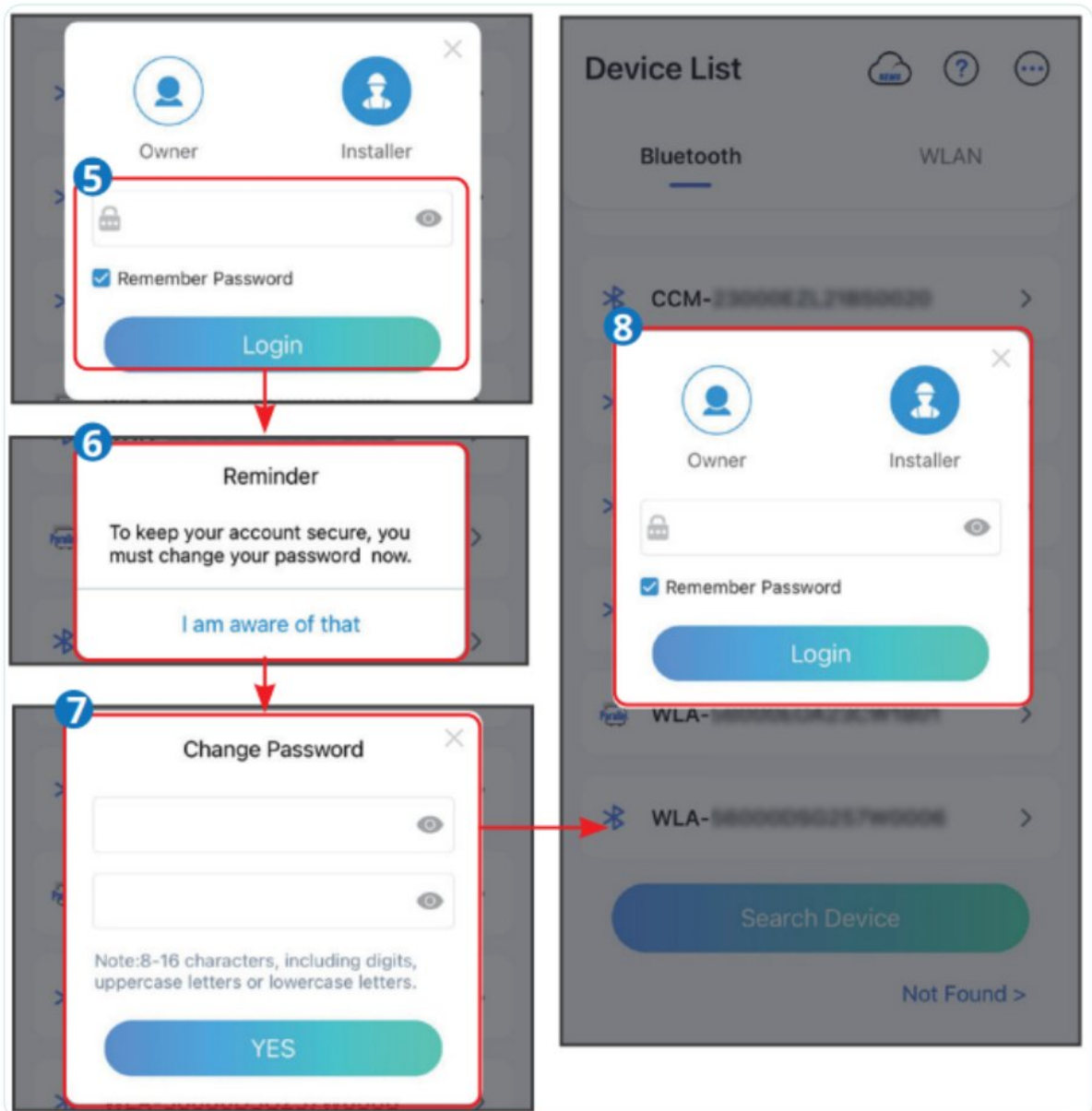
5 Log in

Log in as **Owner** or **Installer**. Initial password: **1234**. If the password has already been changed, use your chosen password. A reminder to change the password appears only when necessary. Change the password if you have not done so yet.

6

Remember the password

Activate **Remember Password** and enable **Bluetooth stays on** on the following page.



Login with Remember Password

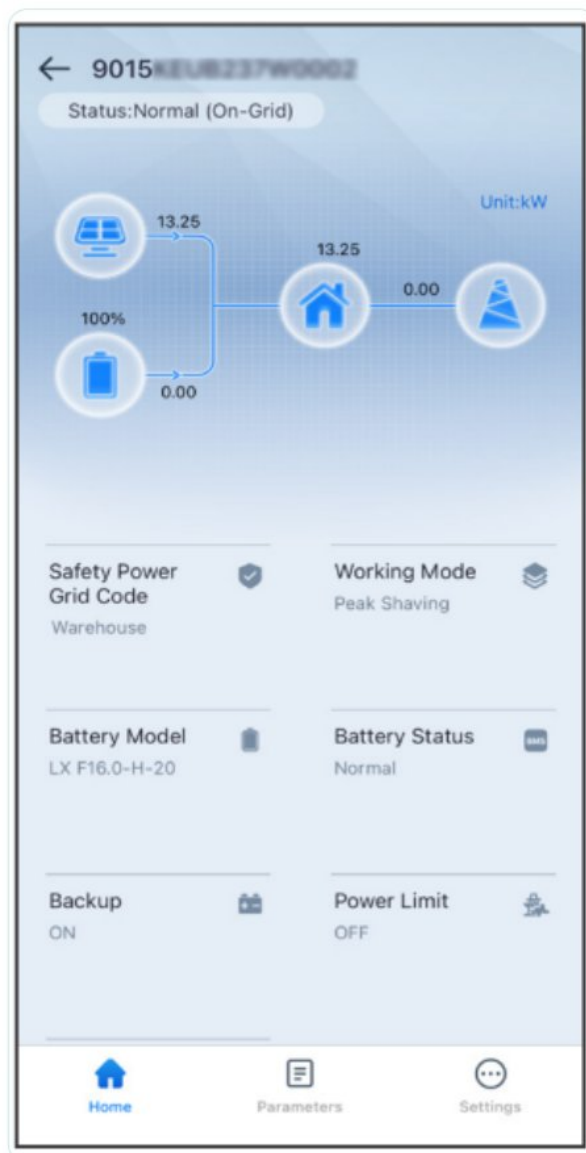
1. Text description of this image

Composite of SolarGo app screens with red outlines, numbered blue badges 5 to 8 and red arrows showing the order. Badge 5 (top left): login dialog over a grouped device list with two role icons: Owner

7

Check the main page

If all entries are correct, you are on the main page of the SolarGo app. You see the data of your inverter.



SolarGo main page

1. Text description of this image

Screenshot of the main page of the SolarGo app on a phone. Header: back arrow and a device number beginning with 9015. Status pill: 'Status: Normal (On-Grid)'. Energy flow diagram 'Unit: kW'.

4.3 Enable and configure Modbus TCP

The Modbus TCP settings depend on the dongle. Check the serial number first (see [Point 3](#), Point 3.5).

Regular dongle: serial number starts with 72000

1

Open Settings

Tap **Settings** at the bottom of the main page.

2 Open Communication Settings

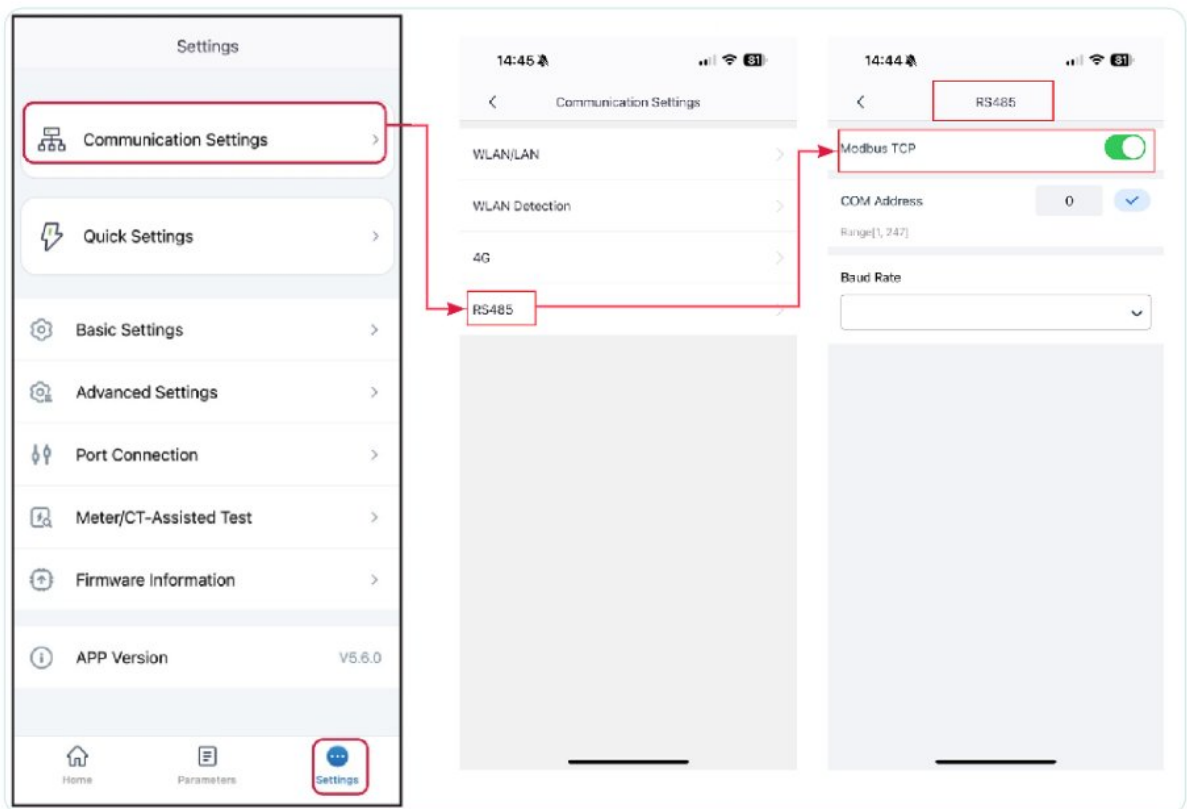
Tap **Communication Settings**.

3 Open RS485

Tap **RS485**.

4 Enable Modbus TCP

Enable **Modbus TCP**.



Path to the Modbus TCP switch

1. Text description of this image

Three phone screens side by side from the SolarGo app, connected by red lines and arrows. Screen 1, Settings; Communication Settings (red box); Quick Settings; Basic Settings; Advanced Settings; Port

5 Enter the values

After you enable Modbus TCP, set the address, device ID and baud rate:

- Device ID: **1**
- Port: **502**
- Baud rate: **9600**

Cyber security dongle: serial number starts with 72100

1

Open Settings

Tap **Settings** at the bottom of the main page.

2

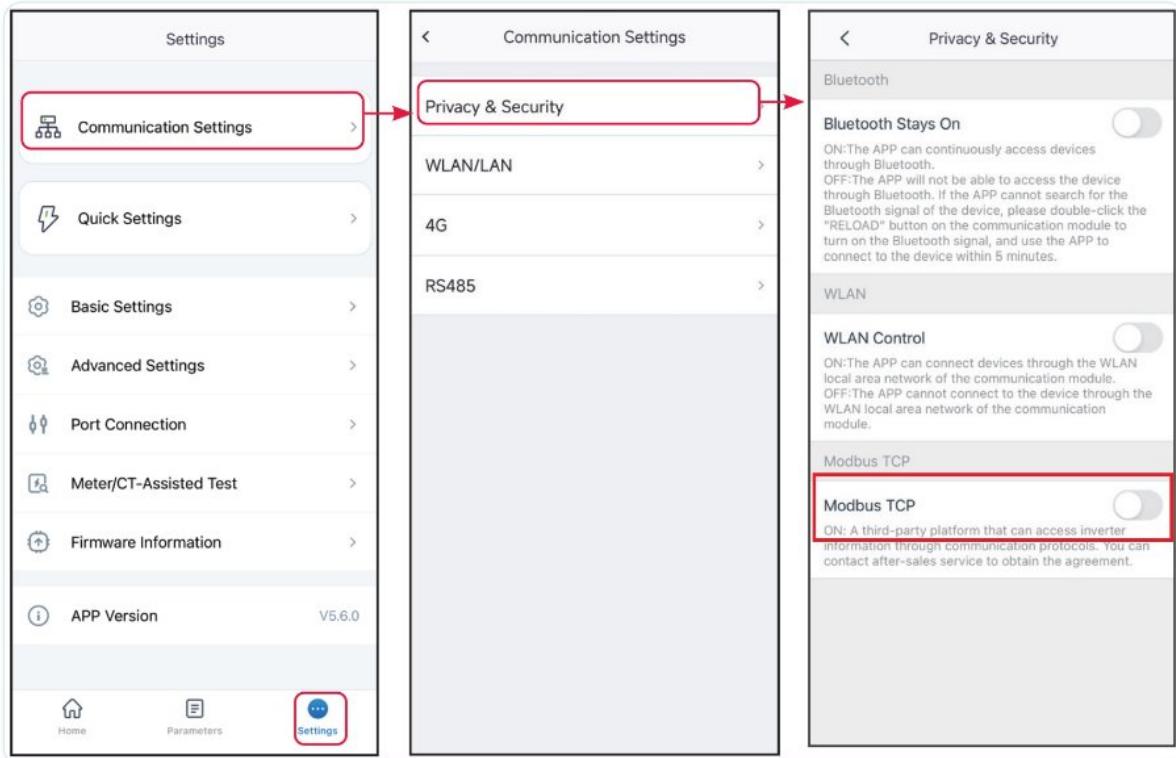
Open Privacy & Security

Tap **Privacy & Security**.

3

Enable Modbus TCP

Enable **Modbus TCP**.



Modbus TCP switch under Privacy & Security

1. Text description of this image

Three phone screenshots of the SolarGo app side by side, joined by red arrows. Left, 'Settings' list: Communication Settings (outlined in red), Quick Settings, Basic Settings, Advanced Settings, Port Connection, Meter/CT-Assisted Test, Firmware Information, APP Version V5.6.0. Bottom navigation bar shows Home, Parameters, and Settings (highlighted in red).

4

Enter the values

After you enable Modbus TCP, set the address, device ID and baud rate:

- Device ID: **1**
- Port: **502**
- Baud rate: **9600**

4.4 Set a static IP address

Set the IP address of the inverter. We recommend a **fixed (static) IP address**.

1 Open Settings

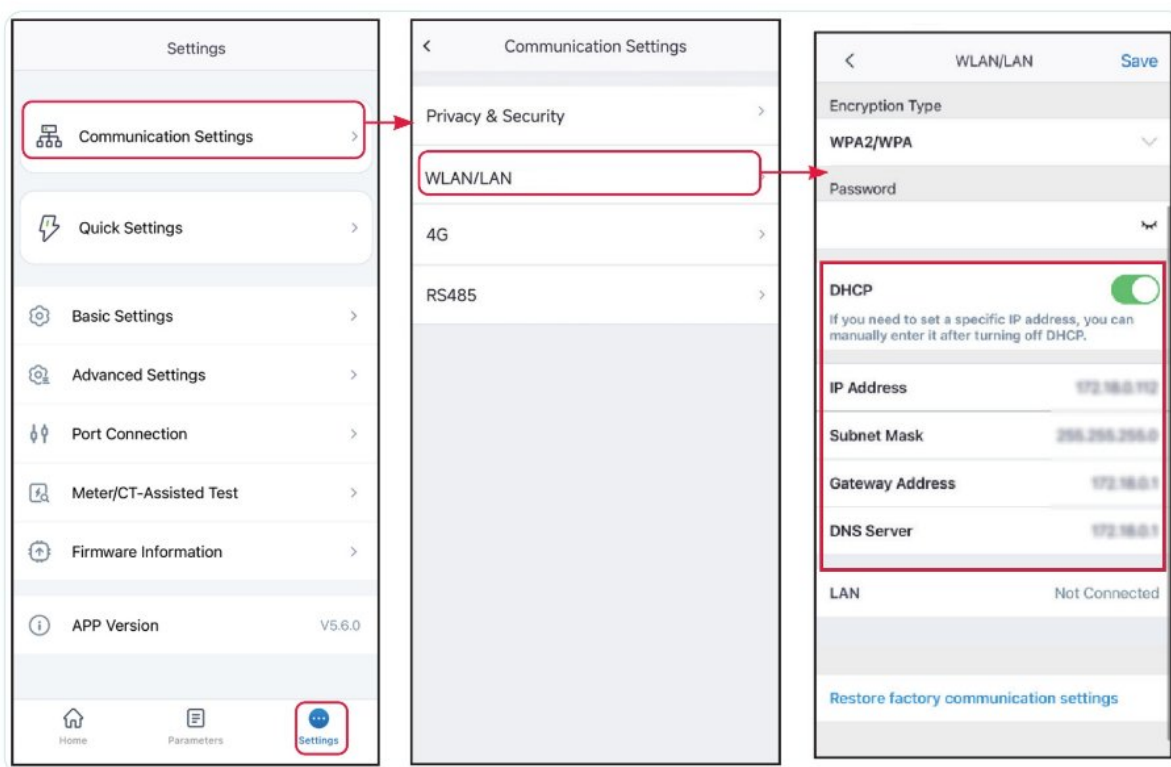
Tap **Settings** at the bottom of the main page.

2 Open WLAN/LAN

Tap **WLAN/LAN**.

3 Disable DHCP

If the **DHCP** switch is on, switch it off. Enter the data that fits your network manually. Write down the IP address. You need it later in Reduxi.



WLAN/LAN settings with DHCP off

1. Text description of this image

Three phone screens side by side from the SolarGo app, connected by red arrows. Screen 1, Settings: entries Communication Settings (red box highlighted), Quick Settings, Basic Settings, Advanced



Done

The inverter configuration is complete. Continue with [Point 7](#) and [Point 8](#) to add the inverter to the Reduxi Controller.

5 Set the static IP with the SEMS+ Classic app

5.1 Download and install the SEMS+ Classic app (if needed)



SEMS+ Classic in the App Store

Text description of this image



SEMS+ Classic on Google Play

2. Text description of this image

5.2 Connect to the inverter via Bluetooth and set the IP

Make sure the inverter is switched on and that the inverter and the communication module work properly.

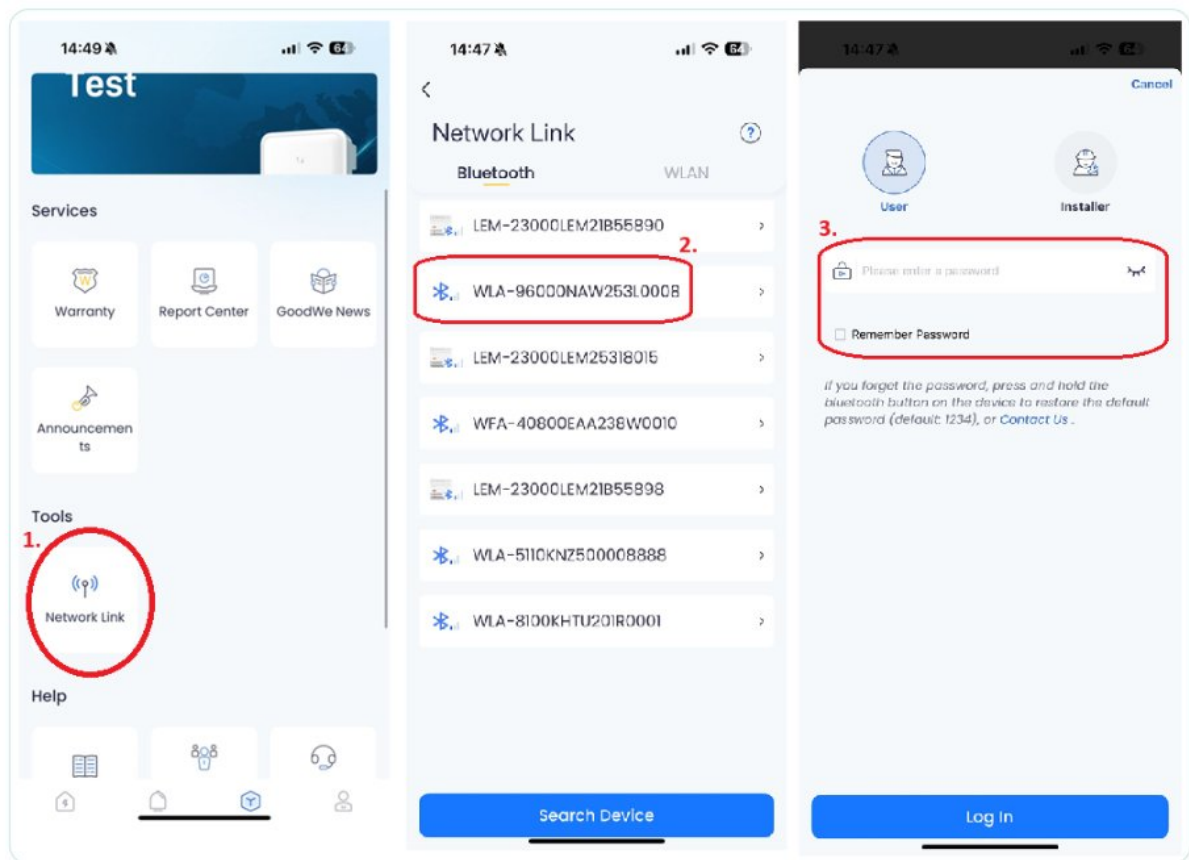
1 Open Network Link

Tap **Network Link** on the homepage of SEMS+.

2

Select and pair

Find the device by the inverter serial number. Tap the **device name** to log in. When you connect to the inverter via Bluetooth for the first time, a **pairing** prompt appears. Tap **Pair** to continue.



Device list and pairing prompt

1. Text description of this image

Three phone screenshots side by side from the SEMS+ app (GoodWe), with red ovals and numbers 1, 2 and 3. Screenshot 1 (time 14:49): home screen with a banner 'Test' showing a white inverter section

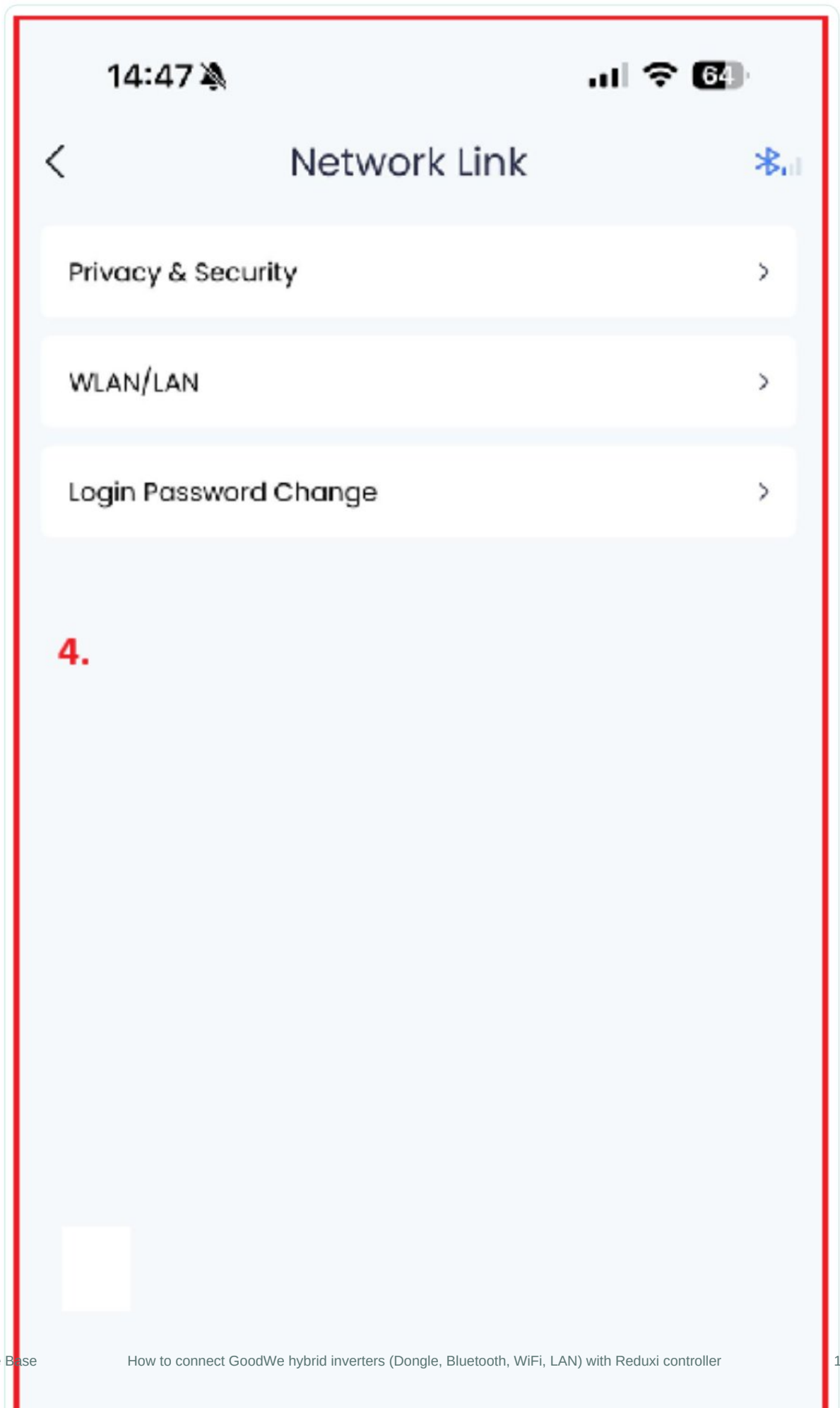
3

Log in

Log in as **Owner** or **Installer**. Initial password: **1234**. If the password has already been changed, use your chosen password. A reminder appears only when necessary. Change the password if you have not done so yet. Activate **Remember Password** and continue.

Check the Network Link page

If all entries are correct, you are on the Network Link page of the inverter.



5

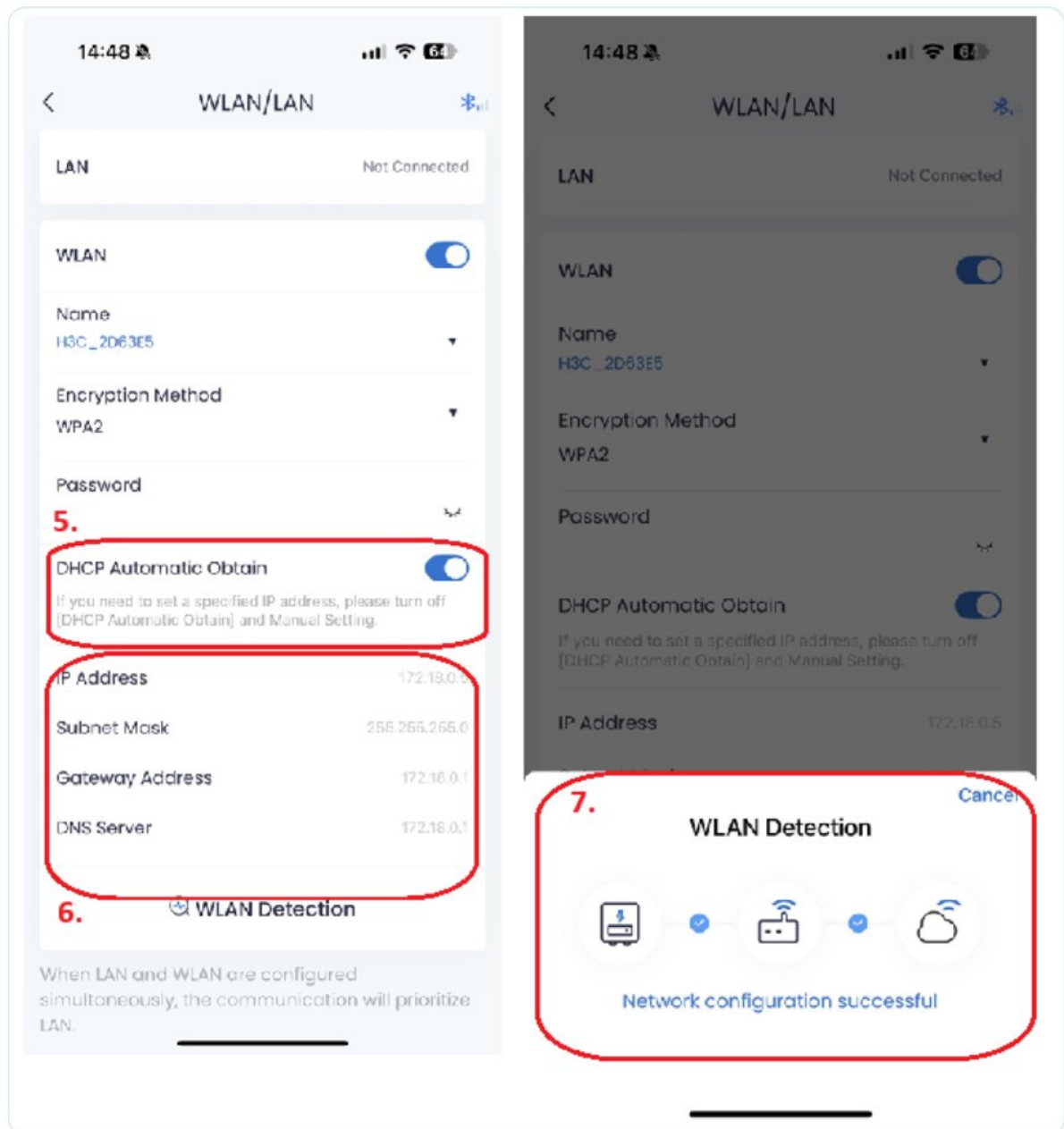
Switch to a static IP

Switch off the **DHCP Automatic Obtain** button. The IP setting changes from DHCP to Static.

6

Adjust the IP settings

Adjust the IP settings of the inverter to match your network. Write them down. You need them later in Reduxi. Then tap **WLAN Detection**.



Static IP settings and WLAN Detection

1. Text description of this image

Two phone screenshots side by side from the SEMS+ app, WLAN/LAN screen, with red outlines and red number labels 5, 6 and 7. Left screen: LAN: Not Connected; WLAN: on (toggle); Name: H3C_2D63E5; Encryption Method: WPA2; Password: ; DHCP Automatic Obtain: on; IP Address: 172.18.0.5; Subnet Mask: 255.255.255.0; Gateway Address: 172.18.0.1; DNS Server: 172.18.0.1; WLAN Detection: button. Right screen: DHCP Automatic Obtain: off; WLAN Detection dialog box: Network configuration successful; Cancel: button.

7

Check the result

If everything is configured correctly, you receive a success message. If you receive an error message, check your entries.



Done

The inverter configuration is complete. Continue with [Point 7](#) and [Point 8](#) to add the inverter to the Reduxi Controller.

6

Update the firmware and check the network (if needed)

6.1 Update the inverter firmware

If you have any problems, update the inverter firmware to the latest version.

1

Open Settings

Tap **Settings** at the bottom of the main page.

2

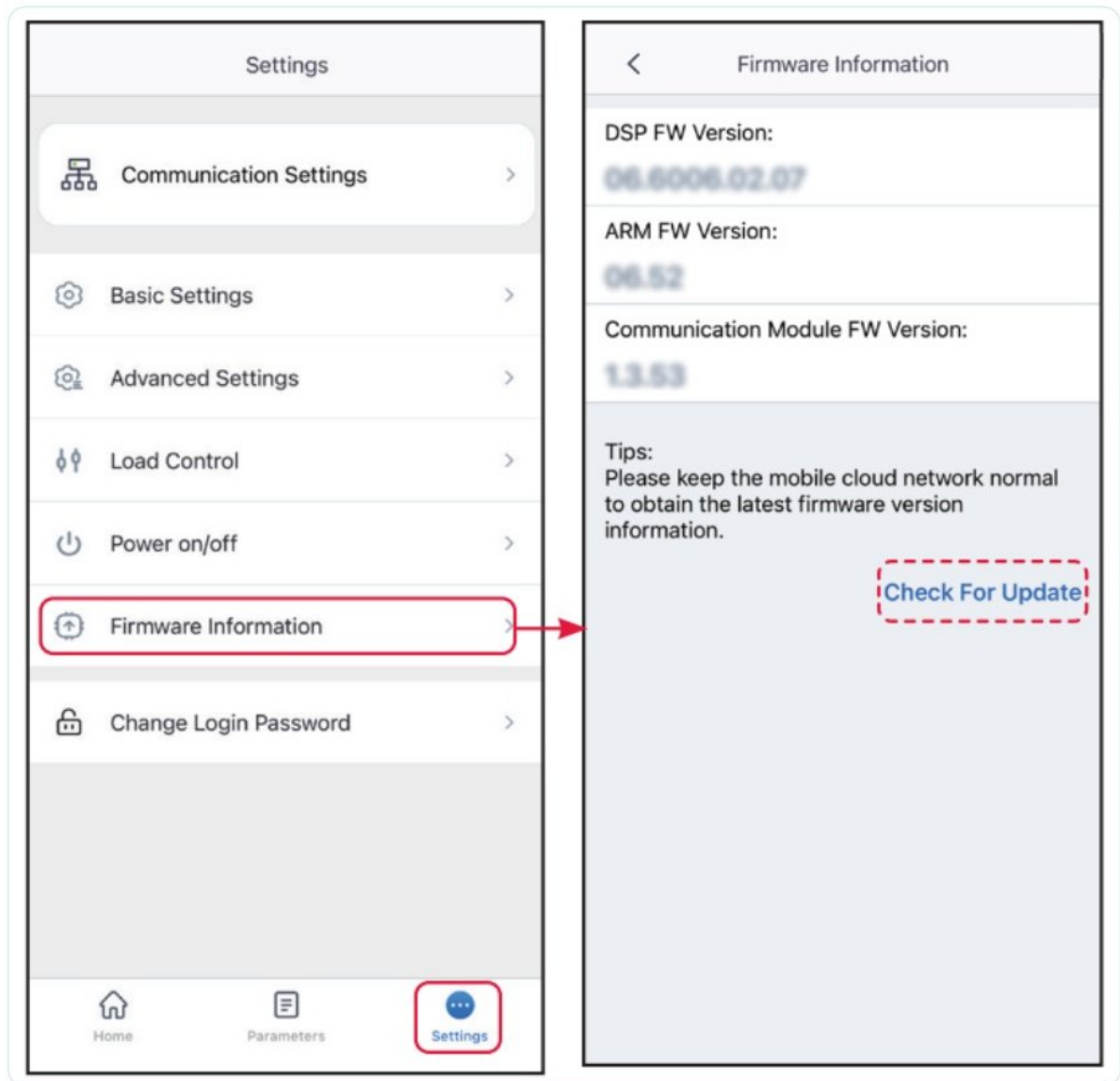
Open Firmware Information

Tap **Firmware Information**.

3

Check for updates

Select **Check for Updates**.



Check for Updates

1. Text description of this image

Two phone screenshots side by side from the SolarGo/SEMS+ app, joined by a red arrow. Left, 'Settings' list: Communication Settings, Basic Settings, Advanced Settings, Load Control, Power on/off, Firmware Information, Change Login Password. Right, 'Firmware Information' screen: DSP FW Version: 06.6006.02.07, ARM FW Version: 06.52, Communication Module FW Version: 1.3.53, Tips: Please keep the mobile cloud network normal to obtain the latest firmware version information, Check For Update button.

4

Install the update

If a new version is available, upgrade according to the instructions.

6.2 Configure the network

Connect the inverter to the Internet with an Ethernet cable. Only then can the inverter communicate with the Reduxi Controller via Modbus TCP.

Modbus TCP: tap **Settings**, then **Privacy & Security**, and enable **Modbus TCP**. Then set:

- Device ID: **1**
- Port: **502**
- Baud rate: **9600**

Static IP address: tap **Settings**, then **WLAN/LAN**. If the **DHCP** switch is on, switch it off and enter the data that fits your network manually. We recommend a **fixed (static) IP address**. Write down the IP address for later. The screens are the same as in [Point 4](#), Points 4.3 and 4.4.

Then continue with [Point 7](#) and [Point 8](#).

7 Log in to the Reduxi web interface

You can open the Reduxi web interface in two ways:



Reduxi app
Via tunnel connection · works from anywhere

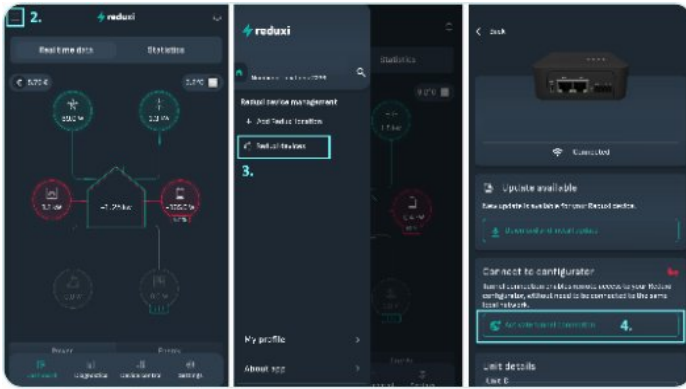
REMOTE



Web browser
In the local network · via IP address or `reduxi.local`

7.1 Via the Reduxi app

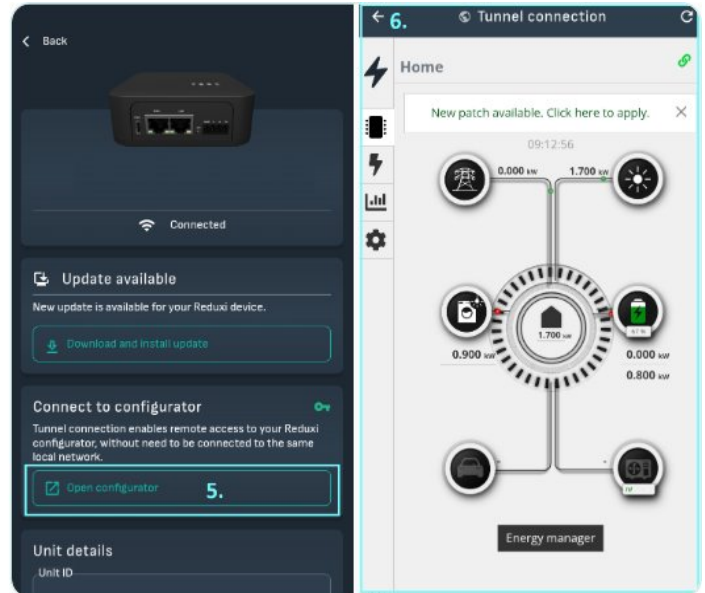
- 1 Open the app and log in**
Launch the Reduxi app on your smartphone or tablet and log in with your credentials.
- 2 Open Reduxi devices**
Tap the menu icon (three lines, top left) and select **Reduxi devices**.
- 3 Activate the tunnel connection**
Switch on the tunnel connection and wait a moment until it is active.
- 4 Open the configurator**
Tap **Open configurator**. The Reduxi web interface opens.



Activate the tunnel connection (step 3)

Text description of this image

Screenshot of three Reduxi mobile app screens side by side, with cyan boxes and number badges 2 to 4. Left screen (dashboard, dark theme): menu icon at top left marked with a box and badge 2; 'reduxi' logo; tabs 'Real time data' (active) and 'Statistics'; price 5.79



Open configurator (step 4)

Text description of this image

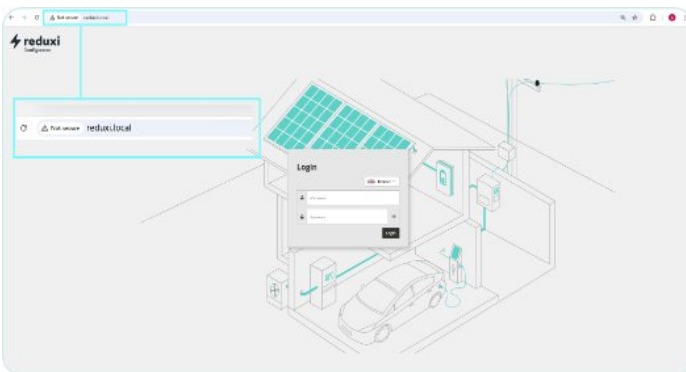
7.2 Via a web browser

1 Open the login page

On a device in the same network, open a web browser and enter the controller's IP address or <http://reduxi.local>. You can find the controller's IP address in your router's device list or in the Reduxi app under **Reduxi devices**.

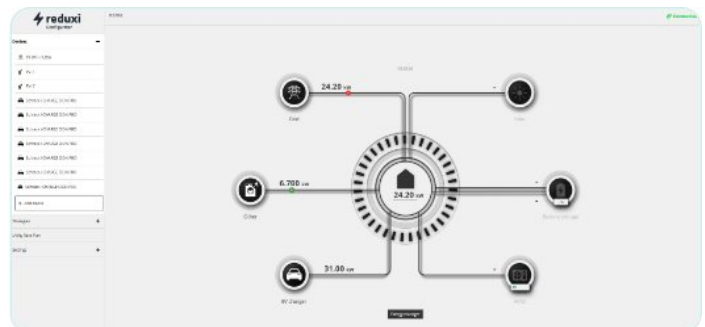
2 Log in

Username: **admin** · Password: **admin** (factory default)



Reduxi Controller login screen

Text description of this image



Controller web interface after login

2. Text description of this image

Screenshot of the Reduxi Configurator web interface

8 Add the GoodWe inverter to the Reduxi Controller

Connect the Reduxi Controller and the hybrid inverter via Ethernet. Then register the inverter as a new device (GoodWe hybrid inverter).

| 8.1 Basic settings

Log in locally to the [Reduxi Configurator](#) on the controller (see [Point 7](#)) and click **+ Add device**.



Devices



BYD 24kWh



Iskraemeco AM550



Ochsner GMLW 9Plus



SolarEdge Master



SolarEdge Slave



Add device

The Add device button

Text description of this image

In the first step (basic settings), select the basic parameters of the device:

- Device type: **Hybrid inverter**
- Type: **GoodWe Energy Storage Inverters HV**
- Name: a name of your choice

1 Basic settings

2 Communication channel

Basic settings

Device type *

Hybrid inverter

Type *

GoodWe Energy Storage Inverters HV

Name *

GoodWe Energy Storage Inverters HV

Back

Next

Basic settings: device type, type and name

Text description of this image

Press **Next**.

8.2 Communication settings

The second step sets up the communication channel for Modbus TCP. It links the Reduxi Controller with the GoodWe hybrid inverter. Enter the IP address of the inverter that you set earlier (see [Point 4](#), [Point 4.4](#), or [Point 5](#)).

PARAMETER	VALUE
Connection	TCP/IP
IP	The static IP address you set on the inverter
Port	502
Modbus unit ID	Default 247 (as shown in the Configurator)
Control mode	Default EMS (as shown in the Configurator)

Connection *

TCP/IP

IP *

Port *

502

Modbus unit ID *

247

Control mode *

EMS

Select control mode of inverter

Back

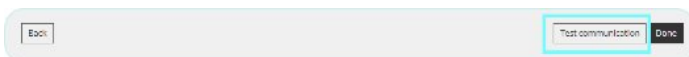
Test communication Done

Communication settings

Text description of this image

8.3 Test communication

Click **Test communication** at the bottom of the wizard. It reads the GoodWe hybrid inverter once and saves nothing. If the test succeeds, click **Done**: only **Done** creates the device.



The **Test communication** button

Text description of this image

Screenshot of the bottom button bar of a Reduxi Configurator page. Left: button 'Back'. Right: button 'Test communication' (marked with a cyan box) and dark button 'Done'.

Communication channel and device configuration

Connection *

TCP/IP

IP *

192.168.20.248

Port *

502

Modbus unit ID *

1

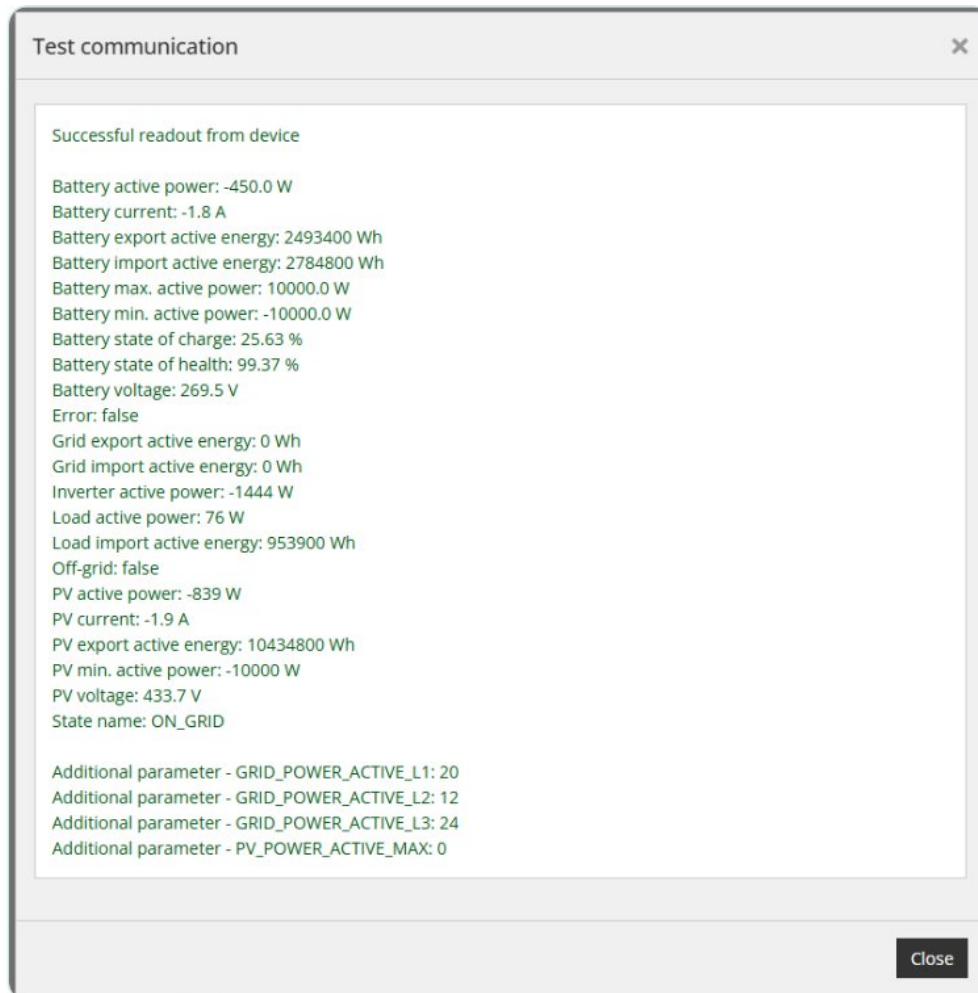
Back

Test communication Done

The **Done** button

2. Text description of this image

Example of a successful readout:



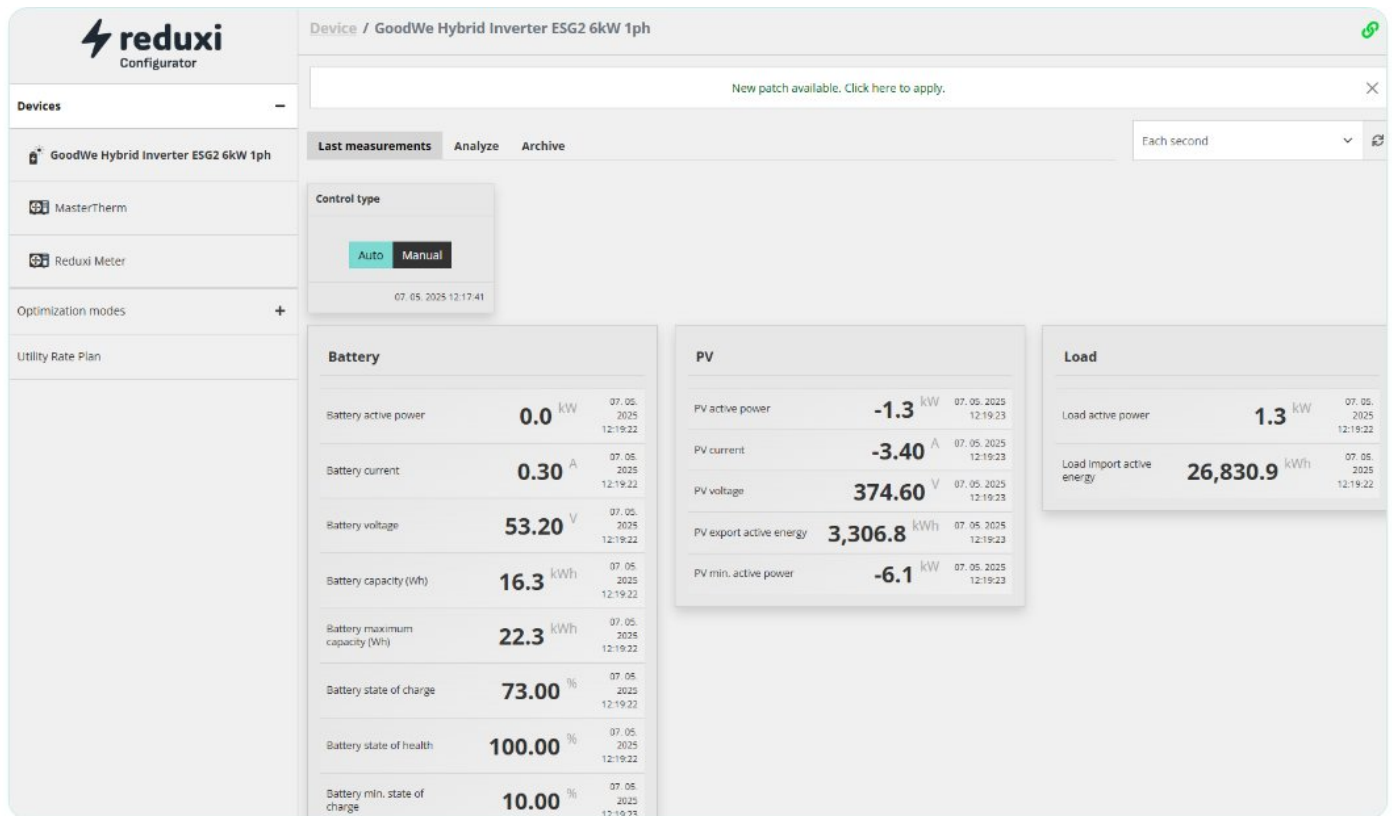
Successful readout (example)

Text description of this image

9 Check the readings

9.1 Last measurements

Check the readings under **Devices – GoodWe Hybrid Inverter – Last measurements** in the Reduxi Configurator.



Last measurements of the inverter

Text description of this image

After the device is added in the Configurator, you can also monitor it in the [Reduxi cloud application](#).

9.2 Enable control by Reduxi

For control by Reduxi, set the **control type** to **AUTO** under **Devices – GoodWe Hybrid Inverter** in the Reduxi Configurator. Only then do strategy commands affect the inverter.

To reduce energy costs with dynamic prices and dynamic tariffs, define a strategy as described in [Strategies for Reduxi controller](#).

✓ Summary

Preparation (Points 1–3): Check the documents and the equipment. Choose your dongle and connection and enable Modbus TCP (Point 3).

GoodWe inverter (Points 4–6): Configure the dongle with SolarGo or set the static IP with SEMS+ Classic. Write down the IP address. Update the firmware if needed.

Add to Reduxi (Points 7–8): Log in to the Reduxi web interface. Add the device as Hybrid inverter, type GoodWe Energy Storage Inverters HV. Enter the IP and port 502. Run Test communication, then click Done.

Go live (Point 9): Check the last measurements. Set the control type to AUTO.

→ Common issues

ISSUE	SOLUTION
Test communication fails	Check the IP address of the inverter, port 502 and that Modbus TCP is enabled. Check that the inverter is connected via Ethernet and in the same network as the controller.
Modbus TCP is not available with WiFi/LAN Kit 2.0 via WiFi	GoodWe After-Sale Support must activate it. Send the e-mail described in Point 3.4.
Dongle serial number starts with 72100	Enable Modbus TCP under Settings – Privacy & Security (Point 4.3).
The inverter IP address changes	Switch off DHCP and set a static IP address (Point 4.4 or Point 5.2).
Communication problems persist	Update the inverter firmware (Point 6.1).
Open configurator does not open or stays empty	The tunnel is not active yet. Wait about 30 seconds and check that the controller is online.
Login with admin is rejected	The password was changed during installation. Ask the installer. The Reduxi account password does not work here.
reduxi.local does not load	Your device is not in the same network as the controller. Use the IP address or the tunnel connection.
Communication test fails, device shows offline	Check reachability, IP address / port / unit ID, and that the protocol is enabled on the device.

→ Related articles

Matching guides from the Reduxi knowledge base:



GoodWe WiFi/LAN Kit Series

Datasheet and user manual of the GoodWe communication module.



Device setup guides

All step-by-step guides for connecting devices to the Reduxi Controller



Strategies for the Reduxi Controller

Energy manager and other strategies explained