

# How to connect Huawei SUN2000 solar power plant with Reduxi controller

Connect your Huawei SUN2000 inverter to the Reduxi Controller via Modbus.

🔌 Huawei SUN2000 · Reduxi Controller 🌐 Modbus

📖 Modbus unit ID: normally 1



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## 1 Technical documentation

Manufacturer pages and manuals:

- [Huawei SUN2000 support page](#) – Instructions to connect and configure the inverter (Huawei support site)
- [Huawei Digital Power Information Center](#) – Technical documents and videos for Huawei solar products
- [How to connect Huawei SUN2000 \(Smart Dongle WLAN-FE / 4G\) with Reduxi controller](#) – Reduxi guide: set up the Huawei Smart Dongle and its internet access

## 2 Required equipment

You need:

- ☐ Reduxi Controller
- ☐ Huawei SUN2000 inverter
- ☐ Communication connection between the Reduxi Controller and the inverter, as described by Huawei (see [Point 1](#))
- ☐ Laptop or tablet with internet access to configure the device in Reduxi

## 3 Connect and configure the inverter

### 3.1 Connect and configure on the Huawei side

Find the instructions to connect and configure the inverter on the manufacturer web page:

<https://support.huawei.com/enterprise/en/fusionsolar/sun2000-pid-7551590>

### 3.2 Enable Modbus TCP

If you connect through the Huawei Smart Dongle, enable Modbus TCP in the FusionSolar app: **Settings – Communication configuration – Dongle parameter settings – Modbus-TCP**. Set it to **Enable (unrestricted)**. It is disabled by default. The default TCP port is **502**. Installer access is required.

To set up the dongle itself, see [How to connect Huawei SUN2000 \(Smart Dongle WLAN-FE / 4G\) with Reduxi controller](#).

## 4 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`

## 4.1 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

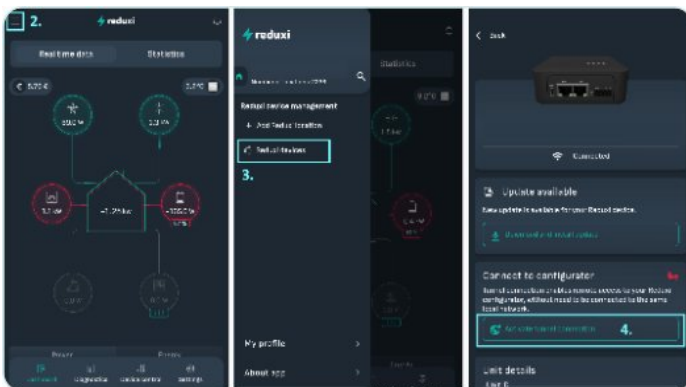
Tap the menu icon (three lines, top left) and select **Reduxi devices**.

### 3 Activate the tunnel connection

Switch on the tunnel connection and wait a moment until it is active.

### 4 Open the configurator

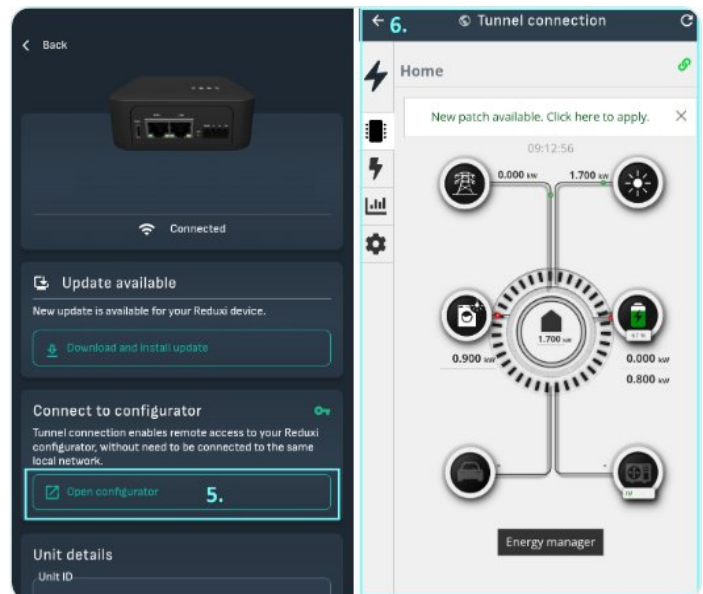
Tap **Open configurator**. The Reduxi web interface opens.



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)

#### 2. Text description of this image

## 4.2 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**.

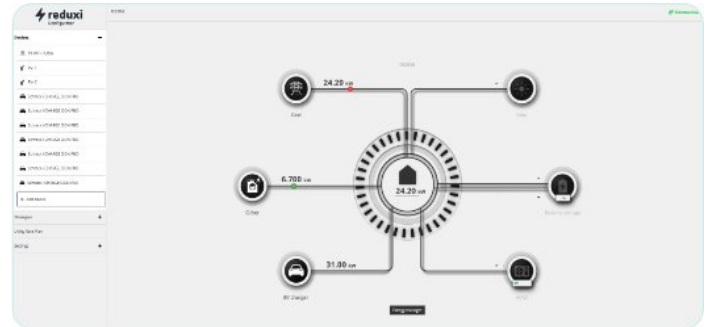
2

## Log in

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



Reduxi Controller login screen



Controller web interface after login

## 2. Text description of this image

### Text description of this image

Screenshot of the Reduxi Configurator web interface

## 5 Add the Huawei SUN2000 to Reduxi

Use these steps to add a new inverter or to edit an existing one.

### 5.1 Basic settings

Log in to the [Reduxi Configurator](#) (see [Point 4](#)) and click **+ Add device**. Then enter the basic settings:

- Device type: **Solar Power Plant**
- Type: **Huawei SUN2000**
- Name: a name of your choice, for example **Huawei SUN2000**

Click **Next**.

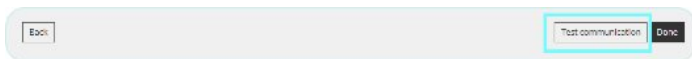
### 5.2 Communication settings

Select the communication channel and enter the device configuration:

| PARAMETER             | VALUE                                                                      |
|-----------------------|----------------------------------------------------------------------------|
| Communication channel | The channel you use to connect the inverter (see <a href="#">Point 2</a> ) |
| Modbus unit ID        | Normally <b>1</b>                                                          |
| Advanced settings     | Enter and choose the advanced settings as needed                           |

### 5.3 Test communication

Click **Test communication** at the bottom of the wizard. It reads the Huawei SUN2000 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'.



The *Done* button

## 2. Text description of this image

Communication channel and device configuration

## 6 Check the readings

### 6.1 Last measurements

After communication is established, check the values under **Devices – Huawei SUN2000** in the [Reduxi Configurator](#).

### 6.2 Enable control by Reduxi

For control by the Reduxi strategies, set the **control type** of the device to **AUTO** under **Devices – Huawei SUN2000**. Only then do strategy commands affect the inverter.

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

## ✓ Summary

**Preparation (Points 1–2):** Check the Huawei documentation and prepare the equipment.

**Huawei SUN2000 (Point 3):** Connect and configure the inverter and enable Modbus TCP.

Plant **Huawei SUN2000** (normally **1**), run **Test communication** and click **Done**.

**Go live (Point 6):** Check the last measurements and set the **control type** to **AUTO**.

## → Common issues

| ISSUE                                          | SOLUTION                                                                                                                                  |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Test communication fails                       | Check that Modbus TCP is enabled on the inverter or dongle (see Point 3.2) and that the Modbus unit ID matches. It is normally <b>1</b> . |
| 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 <b>admin</b> is rejected            | The password was changed during installation. Ask the installer. The Reduxi account password does not work here.                          |
| <b>reduxi.local</b> 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:



### How to connect Huawei SUN2000 (Smart Dongle WLAN-FE / 4G) with Reduxi controller

Set up the Huawei Smart Dongle: local connection and internet access



### 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