



⚡ REDUXI CONTROLLER · KNOWLEDGE BASE

How to connect sonnenBatterie with Reduxi controller

Connect your sonnenBatterie to the Reduxi Controller and let Reduxi strategies charge and discharge it at the best prices. This guide covers the JSON API connection and shows where the REST API guide for Gen. 8 or higher applies.

🔧 sonnenBatterie · Reduxi Controller 🌐 JSON API via TCP/IP, port 80 (local network)

🔑 API token: Read API and Write API enabled

sonnenBatterie 10 hybrid with inverter (manufacturer image)

Text description of this image

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1 Technical documentation



Choose the guide that matches your sonnenBatterie

The sonnenBatterie web interface shows which API your battery offers under **Software Integration**. This article covers the **JSON API** tab. For **sonnenBatterie Gen. 8 or higher** with the **REST API**, use [How to connect sonnenBatterie \(Gen. 8 or higher, REST API connection\) with Reduxi controller](#).

Manufacturer pages for the sonnenBatterie:

- [sonnenBatterie 10](#) – Product page from the manufacturer
- [Sonnen operating manuals](#) – Operating manuals from the manufacturer

Video tutorials:

2 Required equipment

Prepare the following:

- ☐ Reduxi Controller (installed and online)
- ☐ sonnenBatterie with the **JSON API** under Software Integration
- ☐ Local IP address of the sonnenBatterie
- ☐ Computer in the same local network as the sonnenBatterie
- ☐ Laptop or tablet with internet access to configure the device in Reduxi

3 Local access to the sonnenBatterie

Connect the sonnenBatterie to the local network via LAN. The Reduxi Controller must be in the same network.

The sonnenBatterie receives its IP address from:

- the router,
- a network switch,
- or a local DHCP server.

To find the IP address or DNS name of the sonnenBatterie, use find-my-sonnen-batterie.com and follow the [Sonnen instruction](#).

Open a web browser and enter the local IP address of the sonnenBatterie to open its web interface.

Example: `http://<IP>`

4 Device configuration on the sonnenBatterie

Log in to the web interface of the sonnenBatterie (see [Point 3](#)). You need the API token and the IP address for the Reduxi Controller (see [Point 6](#)).

4.1 Open Software Integration

1 Open Software Integration

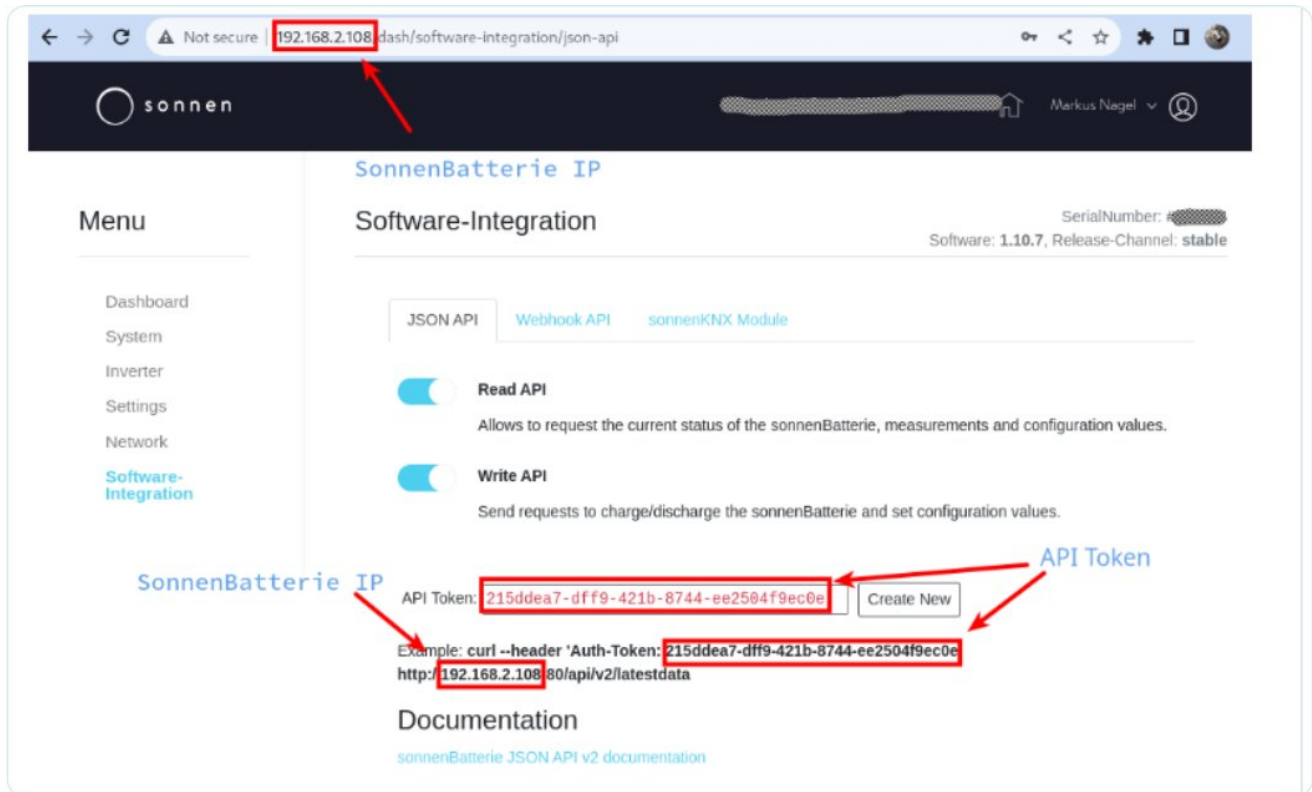
In the menu on the left, select **Software-Integration** and open the **JSON API** tab.

2 Note the IP address

The IP address of the sonnenBatterie is shown in the address bar of the browser.

3 Copy the API token

Copy the existing **API Token**. If no token is available, click **Create New**.



Software Integration, JSON API tab: IP address of the sonnenBatterie, Read API, Write API and API token

Text description of this image

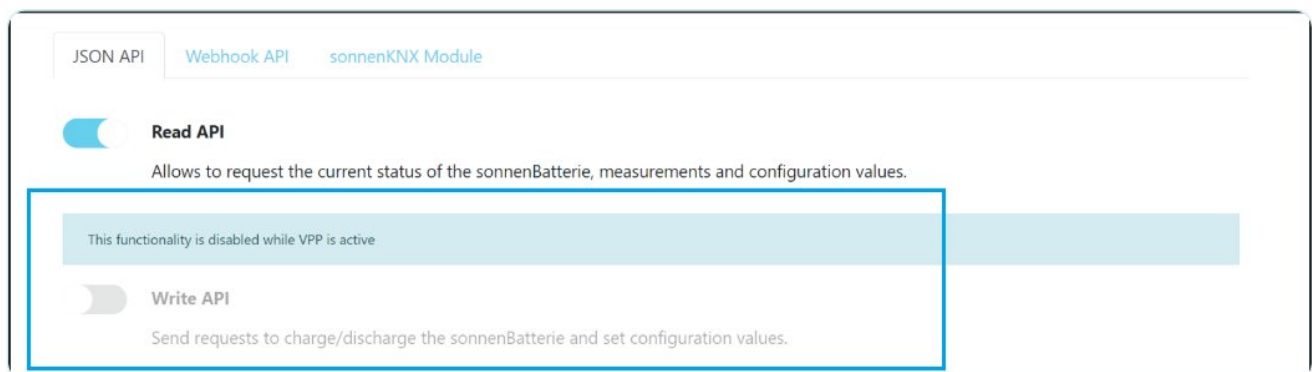
4.2 Enable Read API and Write API

Switch on **Read API** and **Write API**. Both are required: Reduxi reads the measurements with the Read API and sends charge and discharge commands with the Write API.



VPP

Disconnect the battery from the VPP (virtual power plant) to enable and configure the Write API option. While the VPP is active, the Write API is disabled.

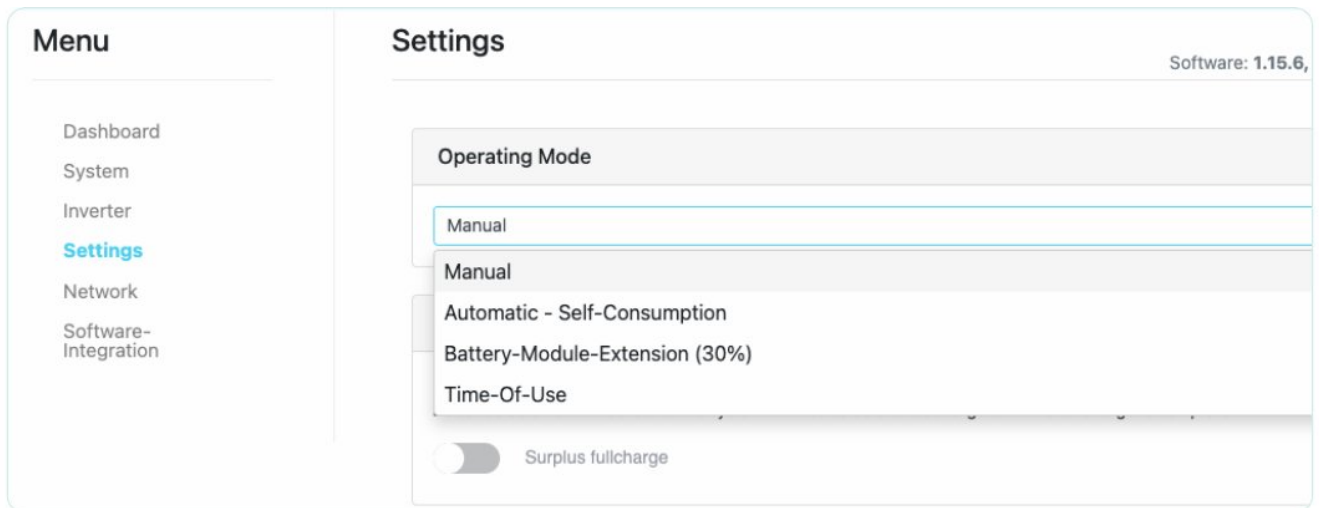


Write API is disabled while the VPP is active

Text description of this image

4.3 Set the operating mode

Open the **Settings** menu on the left side and set the operating mode to **Manual**. Only then can the Reduxi Controller take over control of the battery.



Operating mode Manual

Text description of this image

5 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 reduxि.local

5.1 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

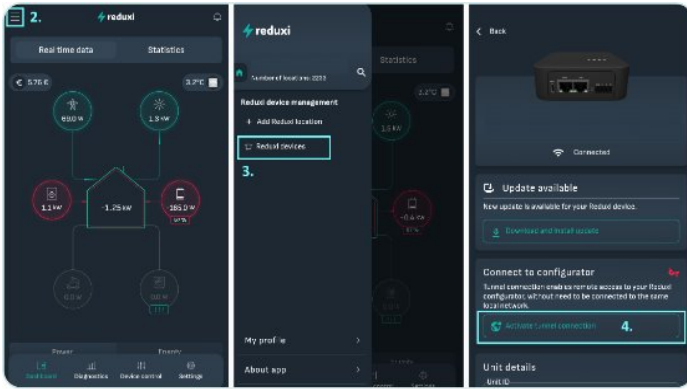
Tap the menu icon (three lines, top left) and select **Reduxi devices**.

3 Activate the tunnel connection

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

4 Open the configurator

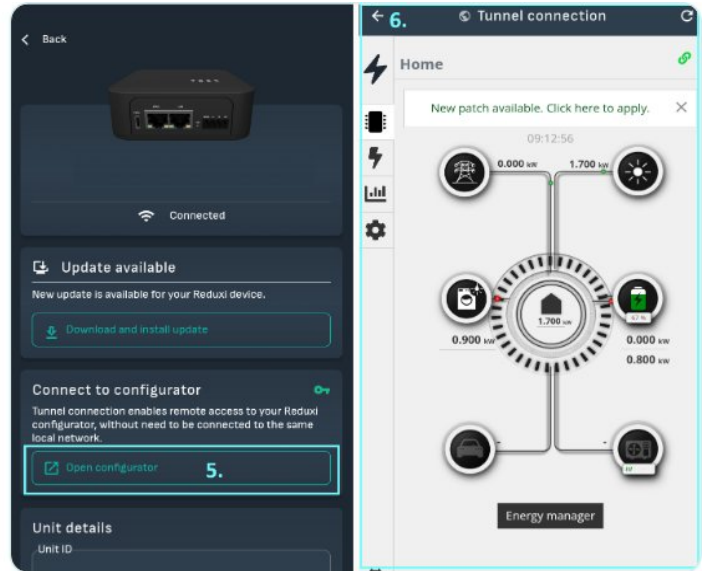
Tap **Open configurator**. The Reduxi web interface opens.



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 € and



Open configurator (step 4)

2. Text description of this image

Screenshot of the Reduxi mobile app showing the 'Tunnel connection' screen. The screen displays a central house icon with a circular gauge around it, showing a value of 1.700 kW. There are four smaller circular gauges around the central one, each showing a different value: 0.000 kW, 1.700 kW, 0.900 kW, and 0.800 kW. The screen also shows a 'New patch available. Click here to apply.' message at the top and a 'Home' button at the bottom.

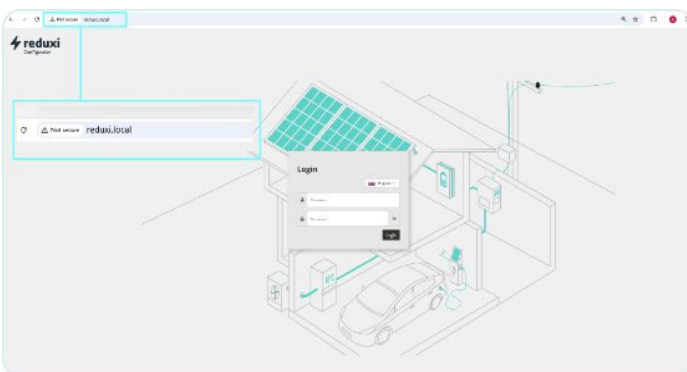
5.2 Via a web browser

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**.

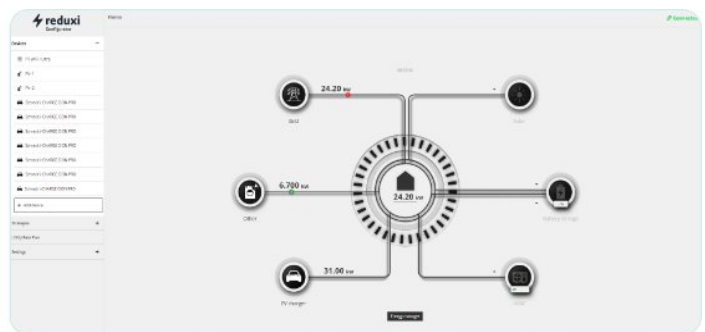
2 Log in

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

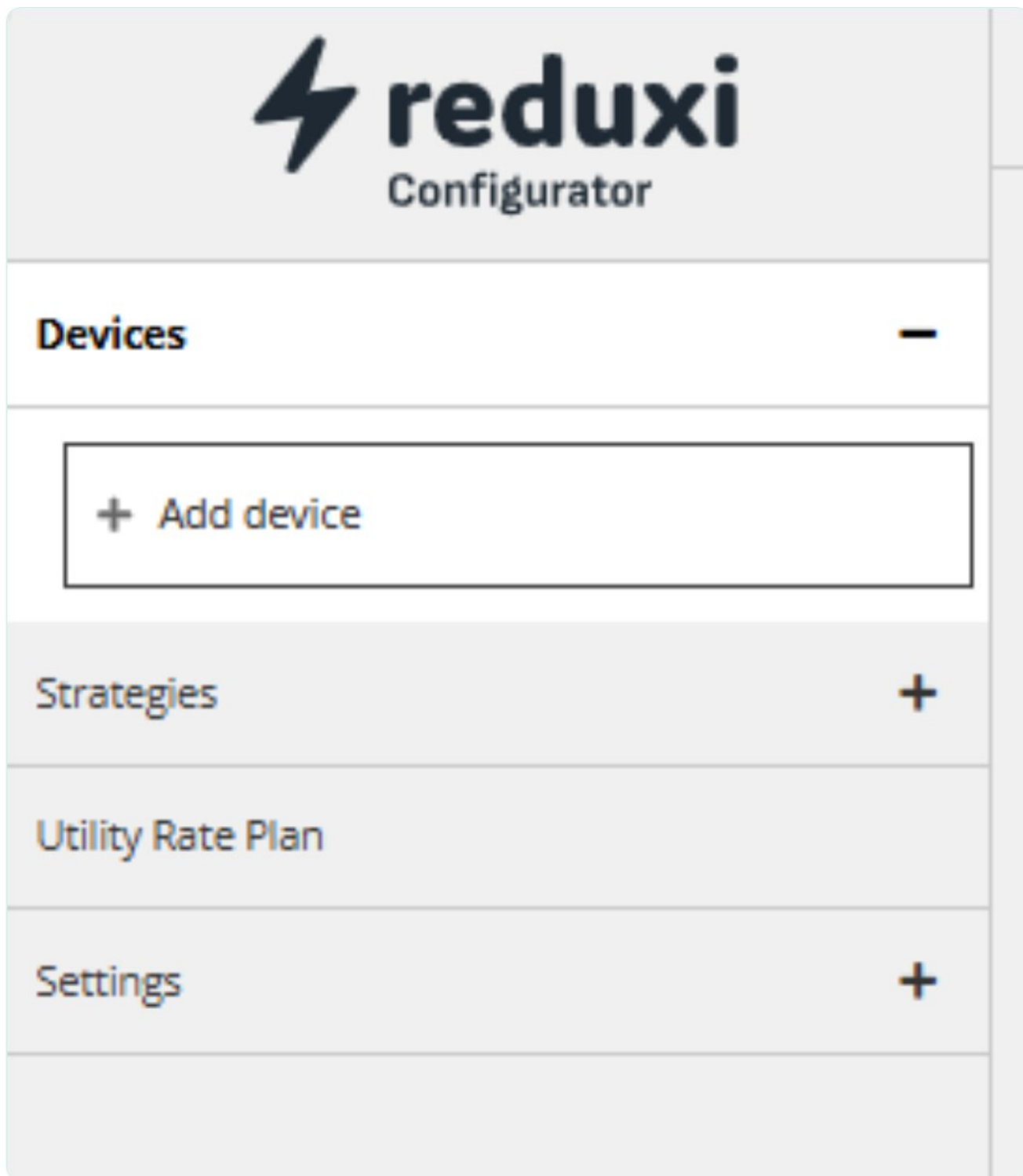
Screenshot of the Reduxi Configurator web interface

6 Add the sonnenBatterie to Reduxi

Use these steps to add the sonnenBatterie as a new device on the Reduxi Controller.

6.1 Basic settings

Log in to the Reduxi Configurator (see [Point 5](#); see also [How to log in to Reduxi Configurator via browser](#)) and click **+ Add device**.



The + Add device button

Text description of this image

In the first step, define the basic settings:

- Device type: **Hybrid Inverter**
- Type: **Sonnen**
- Name: a name of your choice

Basic settings: device type, type and name

Text description of this image

Click **Next**.

6.2 Communication settings

Enter the connection parameters between the Reduxi Controller and the sonnenBatterie. Use the IP address and the API token from [Point 4](#).

PARAMETER	VALUE
Connection	TCP/IP
IP	IP address of the sonnenBatterie
Port	80
API token	The API token from the JSON API tab (Point 4 , Point 4.1)
Rated power	Select the rated power that matches your sonnenBatterie
PV	Select Yes if a PV meter is installed, otherwise No

Communication channel and device configuration

Connection *

TCP/IP

IP *

Port *

80

API token *

API token is located in inverter web interface in section Software-Integration / JSON API

Rated power *

14.4 kW

PV *

Yes

Is PV meter installed?

Back

Test communication

Next

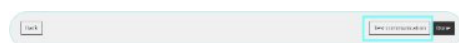
Communication settings: IP address and API token

Text description of this image

6.3 Test communication

Click **Test communication** at the bottom of the wizard. It reads the sonnenBatterie once and saves nothing. If the test succeeds, click **Next**.

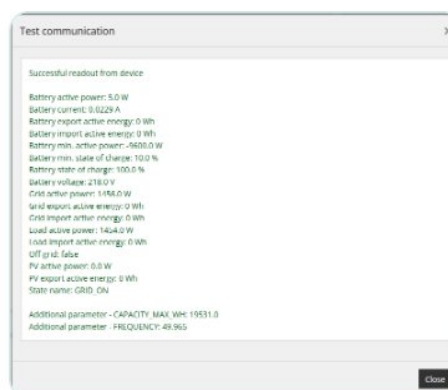
The test returns one of two results:



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'.



1. Successful readout: the connection works

2. Text description of this image



2. Failed test: the system is not configured correctly

3. Text description of this image

Screenshot of a dialog titled Test communication (close X at top right). First box: Unable to communicate with device. Second box with red

If you get the message “Unable to communicate with device”, check the settings (see [Point 8](#)).

6.4 Advanced settings

The advanced settings are optional and depend on the needs of the site. When you are finished, click **Done**: only **Done** creates the device.

Advanced settings

Do you want to set data saving interval? ☐ No Default: 1 min

Do you want to set reading delay? ☐ No Default: 1000 ms

Do you want to set writing delay? ☐ No Default: 1000 ms

Do you want to set power generation limits and capabilities? ☐ No

Do you want to set power consumption limits and capabilities? ☐ No

Do you want to limit communication with the device to read-only? ☐ No Default: No

Do you want to invert direction for energy import and export? ☐ No Default: No

Do you want to exclude device from summary? ☐ No Default: No

L1 is connected to main feed L2 is connected to main feed L3 is connected to main feed

Back Done

Advanced settings (optional) and the Done button

Text description of this image

7 Check the readings and set up strategies

7.1 Last measurements

After communication is established, check the measured values under **Devices** – your Sonnen device – **Last measurements** in the [Reduxi Configurator](#).

7.2 Control type

Open **Devices** – your Sonnen device in the Reduxi Configurator and set the control type to **AUTO**. Commands from the strategy then take effect on the battery.

7.3 Reduxi Cloud

How to add and connect the controller to the Reduxi Cloud: [Reduxi Cloud](#)

Once the device is added, you can monitor and control it in the Reduxi app as well.

7.4 Strategies

To set up strategies and the AI Energy Manager, use the documentation below.



Energy market price list

To use the AI Energy Manager, you have to set up an energy market price list.

- [How to set up electricity price lists in Reduxi Cloud](#)
- [Strategies for Reduxi controller](#)
- [Reduxi AI strategies](#)

8 Checklist

Review this checklist for proper setup and reliable operation.

8.1 On the Reduxi Controller

- ☐ **IP address and port:** The IP address of the sonnenBatterie and port **80** are entered.
- ☐ **API token:** A valid API token is entered.
- ☐ **Rated power and PV:** The rated power and the PV selection match the system.
- ☐ **Communication test:** The communication test is completed successfully.
- ☐ **Control type:** The control type of the device is set to **AUTO**.
- ☐ **Reachability:** The device IP address is reachable from the Reduxi Controller.

8.2 On the sonnenBatterie web interface

- ☐ **API permissions:** Both **Read API** and **Write API** are enabled.
- ☐ **VPP:** The battery is disconnected from the VPP.
- ☐ **Operating mode:** The operating mode is **Manual**.

8.3 Strategy

- ☐ **Active strategy:** The selected strategy is set to **Active**.
- ☐ **AI energy optimization:** AI Energy Manager optimization is enabled in the strategy.
- ☐ **Single active strategy:** Only one strategy is active at a time.
- ☐ **Import/export limits:** The import and export limits are defined and configured.

✓ Summary

Preparation (Points 1–3): Prepare the local IP address and a computer in the same network. Open the web interface of the sonnenBatterie.

API mode to **Manual** . Write

Add to Reduxi (Points 5–6): Open the Configurator and add the device with type **Sonnen** . Enter IP address, port **80** , API token, rated power and PV. Run **Test communication**, then click **Done**.

Go live (Points 7–8): Check the readings, set the control type to **AUTO** , set up the strategies and go through the checklist.

→ Common issues

ISSUE	SOLUTION
Test communication shows "Unable to communicate with device"	Check the IP address, port 80 , the API token and that the IP address is reachable from the controller (see Point 8).
Write API cannot be switched on	The notice "This functionality is disabled while VPP is active" is shown. Disconnect the battery from the VPP, then enable Write API (see Point 4.2).
No API token available	Open Software-Integration, JSON API tab, in the sonnenBatterie web interface and click Create New .
Reduxi commands have no effect on the battery	Check that the operating mode is Manual, that Read API and Write API are enabled, that the control type is AUTO, that the strategy is Active and that only one strategy is active (see Point 8).
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 and port, and that the API is enabled on the device.

Related articles

Matching guides from the Reduxi knowledge base:



sonnenBatterie Gen. 8 or higher (REST API)

Step-by-step guide for the REST API connection



Device setup guides

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



List of supported devices

All devices that work with the Reduxi Controller



Strategies for the Reduxi Controller

Energy manager and other strategies explained