

## How to connect CHINT POWER CPS ES-125kW-261kWh-EU energy storage system with Reduxi controller

Integrate the CHINT C&I energy storage system with the Reduxi controller via Modbus TCP/IP for maximum flexibility and lower energy costs.

🔧 CHINT CPS ES-125kW-261kWh-EU · Reduxi Controller

🌐 Modbus TCP/IP (Ethernet, LAN1 port of the LEMS module)

🔋 125 kW · 261 kWh



*CHINT CPS ES-125kW/261kWh-EU – liquid-cooled C&I energy storage system (manufacturer image)*

**Text description of this image**

## IN THIS ARTICLE

1. Technical documentation
2. Required equipment
3. System overview & wiring
4. Device configuration on the ESS
  - Modbus TCP
  - EMS settings: System remote dispatch
5. Log in to the Reduxi web interface
  - Via the Reduxi app
  - Via a web browser
6. Add the CHINT ESS to Reduxi
  - Basic settings
  - Communication settings
  - Test communication
7. Check the readings
  - Check the readings
  - Enable control by Reduxi

## 1 Technical documentation

The key facts below come from the manufacturer's datasheet for the CPS ES-125kW/261kWh-EU.

### RATED AC POWER

125 kW · 400 V,  
3P4W

### BATTERY CAPACITY

261 kWh

### DC VOLTAGE

832 V rated · 728–  
936 V range

### COOLING

Battery: liquid · PCS:  
air

### PROTECTION DEGREE

IP55

### INTERFACES

Ethernet · CAN ·  
RS485

### Manufacturer documents:

- [Datasheet](#) – CPS ES-125kW/261kWh-EU (PDF, EN)
- [User manual](#) – US edition, Rev. 1.6 (PDF, EN)
- [User manual, EU model](#) – CPS ES-125kW/261kWh-EU, v2.1, April 2026 (PDF, EN)
- [CHINT POWER product page](#) – CPS ES-125kW/261kWh-EU



#### Modbus TCP for third-party systems

According to the manufacturer's user manual (v2.1), the system supports Modbus-TCP access for third-party scheduling and cloud platforms.

## 2 Required equipment

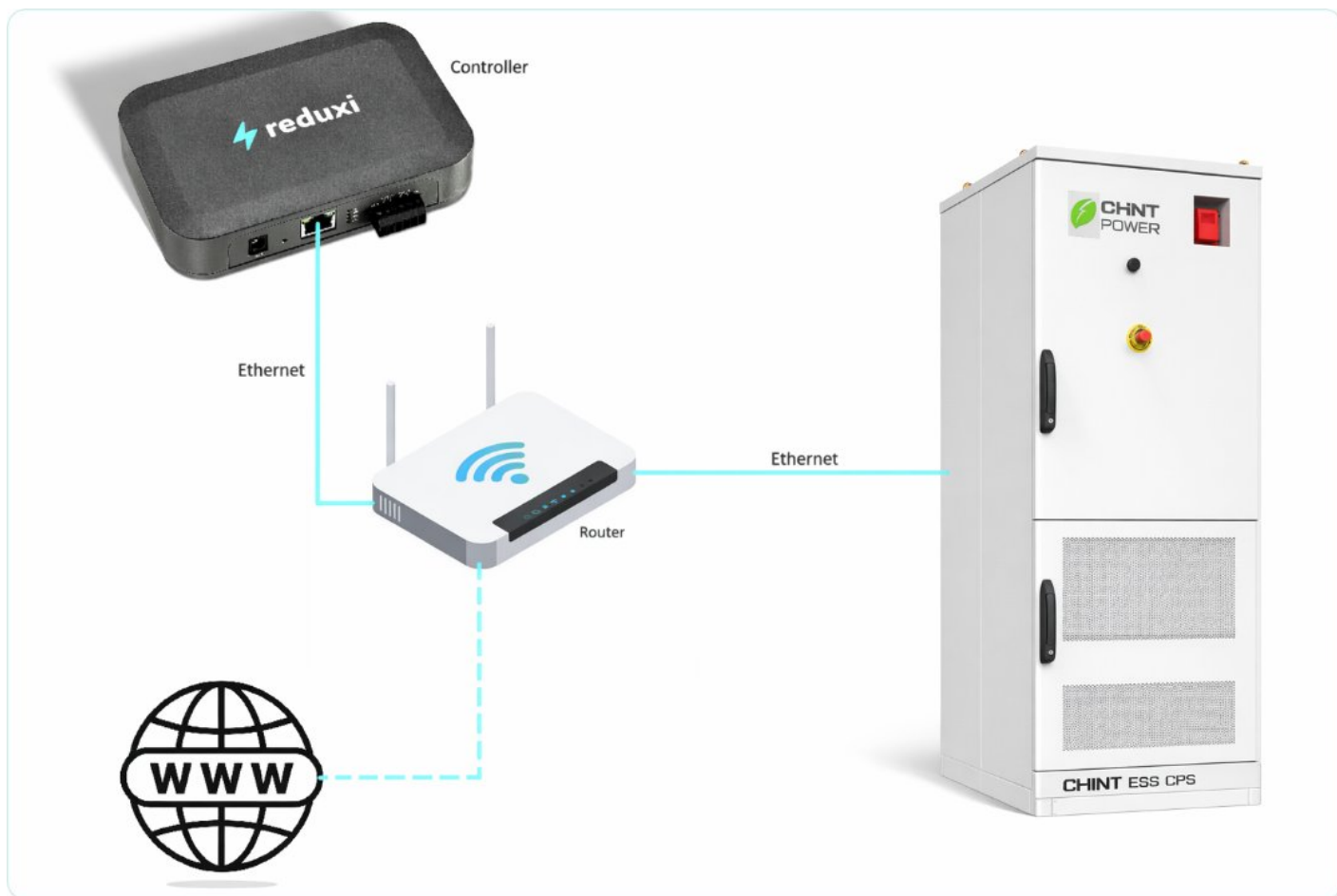
---

- ☐ Reduxi Controller (installed and online)
- ☐ CHINT CPS ES-125kW-261kWh-EU Energy Storage System, commissioned
- ☐ Ethernet cable (Cat5 or Cat6) for the LAN1 port of the LEMS module
- ☐ Local network shared by the ESS and the Reduxi controller, or a direct cable connection to the Reduxi device
- ☐ IP address of the ESS (you can find it with the network scan in the Reduxi Configurator)
- ☐ Laptop or tablet with internet access to configure the device in Reduxi

## 3 System overview & wiring

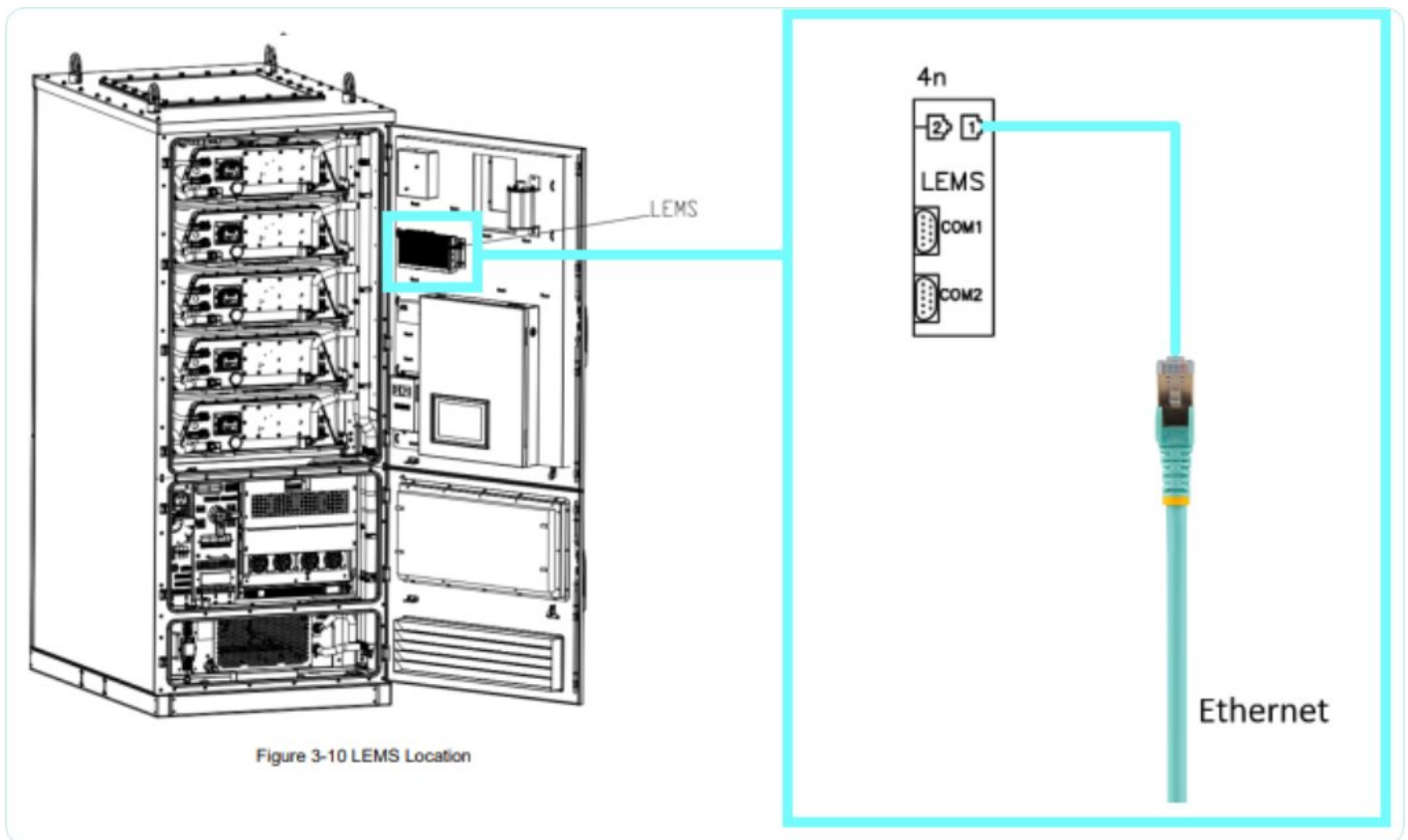
---

The CHINT Energy Storage System (ESS) supports the Modbus TCP protocol for communication with the Reduxi controller. Connect it with an Ethernet cable (Cat5 or Cat6) to the same local network as the Reduxi controller, or directly to the Reduxi device. The connection is made through the LAN1 network port on the LEMS module of the ESS.



Network overview: Reduxi controller, router and CHINT ESS

[Text description of this image](#)



Text description of this image

## 4 Device configuration on the ESS

Two settings on the ESS prepare it for Reduxi: the Modbus TCP connection and the remote dispatch mode.

### 4.1 Modbus TCP

The ESS supports Modbus TCP communication for third-party EMS such as Reduxi. Communication runs through the LAN1 port of the LEMS module. In most installations, no dedicated “enable Modbus” action is required. After commissioning, make sure that:

- ☐ the LEMS has a valid IP address on the local network,
- ☐ Reduxi can reach the device over the network, and
- ☐ TCP port **502** is open on the ESS.

If communication does not work, check the ESMU network settings in the local interface and consult the CHINT documentation or support.

### 4.2 EMS settings (System remote dispatch)

For Reduxi to control the CHINT ESS, adjust the settings in the web interface of the ESS.

The BMS is located on the inside of the door. If a password is requested when you activate the touch screen, enter the following default data:

Username: **admin** · Password: **12345678**

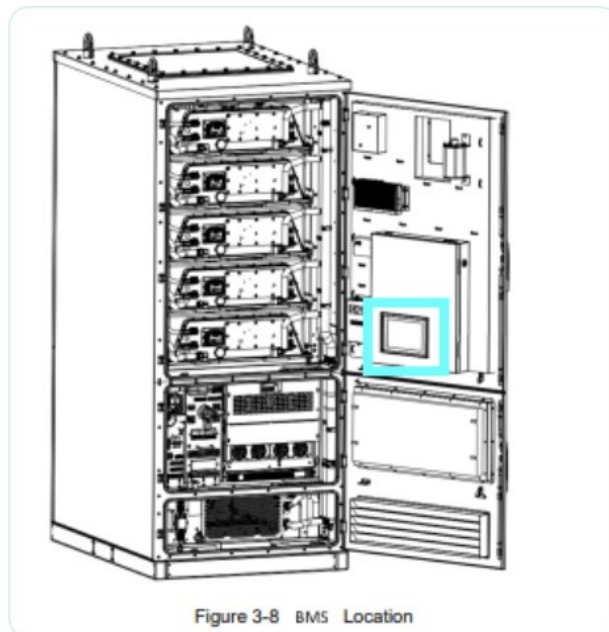


Figure 3-8 BMS Location

Location of the display on the inside of the cabinet door

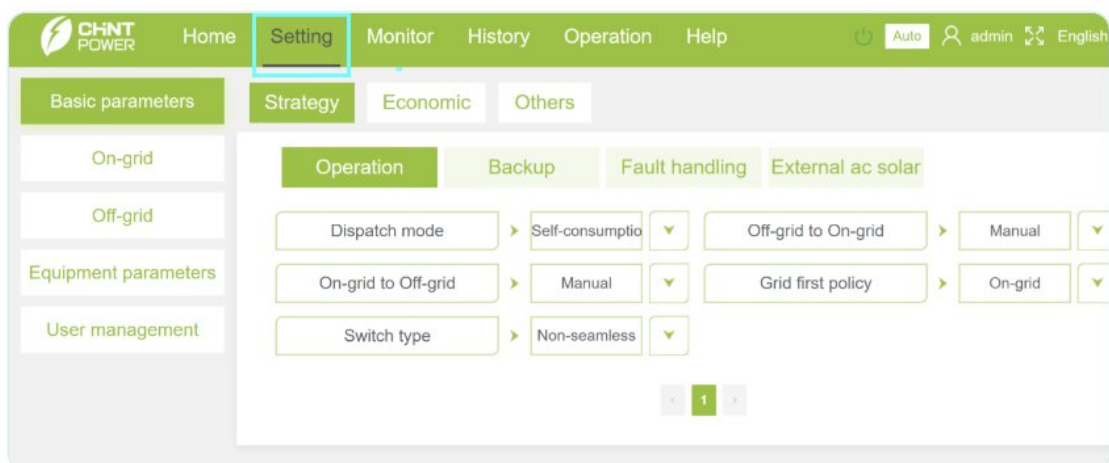
### Text description of this image

Afterwards you are taken to the main page of the system.

1

### Go to the “Settings” submenu

Open **Settings** in the top menu.



Settings submenu

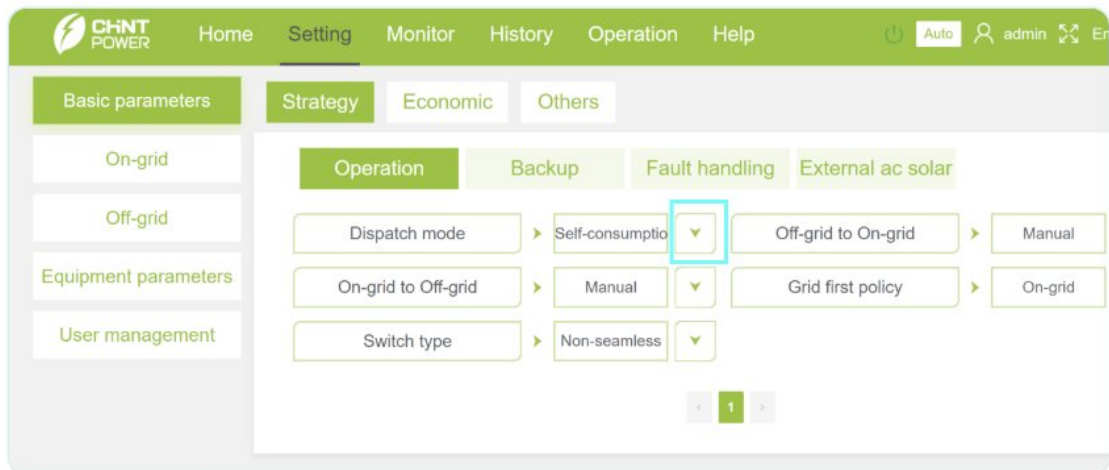
### 1. Text description of this image

Screenshot of the CHINT POWER ESS web interface. Top menu: Home, Setting (highlighted by a light blue box). Monitor, History, Operation, Help, top right: Auto button, user admin, language English. Left

2

## Select "Dispatch mode"

Open the **Dispatch mode** drop-down.



Dispatch mode drop-down

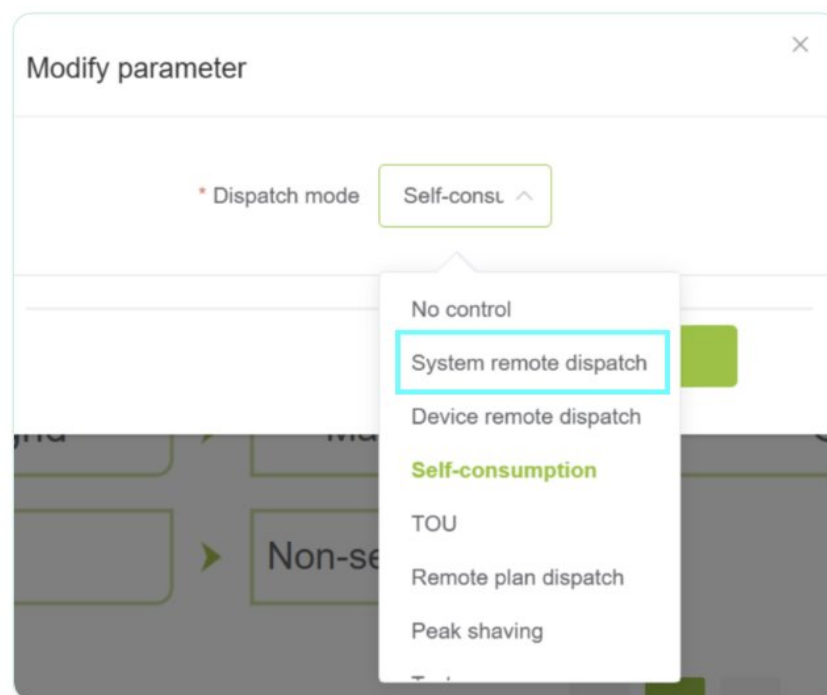
### 1. Text description of this image

Screenshot of the CHINT POWER ESS web interface. Top menu: Home, Setting (selected), Monitor, History, Operation, Help. Right: Auto button, user admin, language. Left menu: Basic parameters, Strategy, Economic, Others. Main content: Operation, Backup, Fault handling, External ac solar. Under Operation, Dispatch mode dropdown is open, showing options: Self-consumption (highlighted), Off-grid to On-grid, Manual, On-grid to Off-grid, Grid first policy, Non-seamless.

3

## Activate "System remote dispatch"

Select **System remote dispatch** in the list.



System remote dispatch selected in the list

### 1. Text description of this image

Screenshot of the CHINT ESS web interface dialog 'Modify parameter' (close X at top right). Field: Dispatch mode (required) with the drop-down closed value 'Self-consumption' (out of). The open list

## 5 Log in to the Reduxi web interface

The device is added in the **Configurator**, the web interface of the Reduxi Controller. You do not add it in the Reduxi app itself or in the Reduxi Cloud. You can open it in two ways:



### Reduxi app

Via tunnel connection · works from anywhere

RECOMMENDED

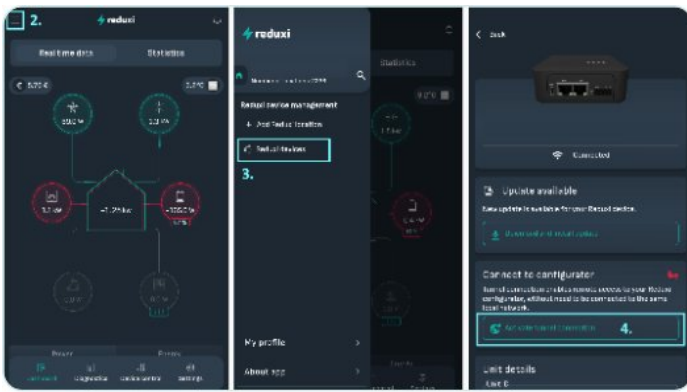


### Web browser

In the local network · via IP address or reduxि.local

### 5.1 Via the Reduxi app

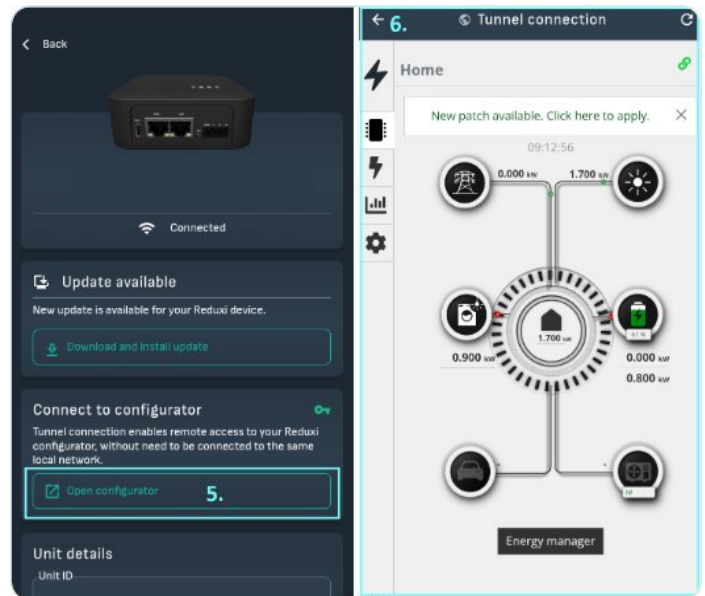
- 1 Open the app and log in**  
Launch the Reduxi app on your smartphone or tablet and log in with your Reduxi account.
- 2 Open Reduxi devices**  
Tap the menu icon (top left, image point 2), select **Reduxi devices** (image point 3) and choose your location.
- 3 Switch on the tunnel connection**  
Tap **Activate tunnel connection** (image point 4) and wait about 30 seconds until it is active.
- 4 Open the Configurator**  
Tap **Open configurator** (image point 5). You are logged in automatically.



Menu, Reduxi devices and tunnel connection (image points 2–4)

### 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; 'Connect to configurator' button marked with a box and badge 4.



Open configurator (image points 5–6)

### 2. Text description of this image



#### On a computer, away from the site

Open the Reduxi Cloud ( [reduxi.app](https://reduxi.app) ), open the location, go to **Manage location** → **OEM devices** and click **Activate tunnel connection**. Confirm with **OK**, wait about 30 seconds and click **Go to controller**. The Configurator opens in a new tab without a password.

## 5.2 Via a web browser

1

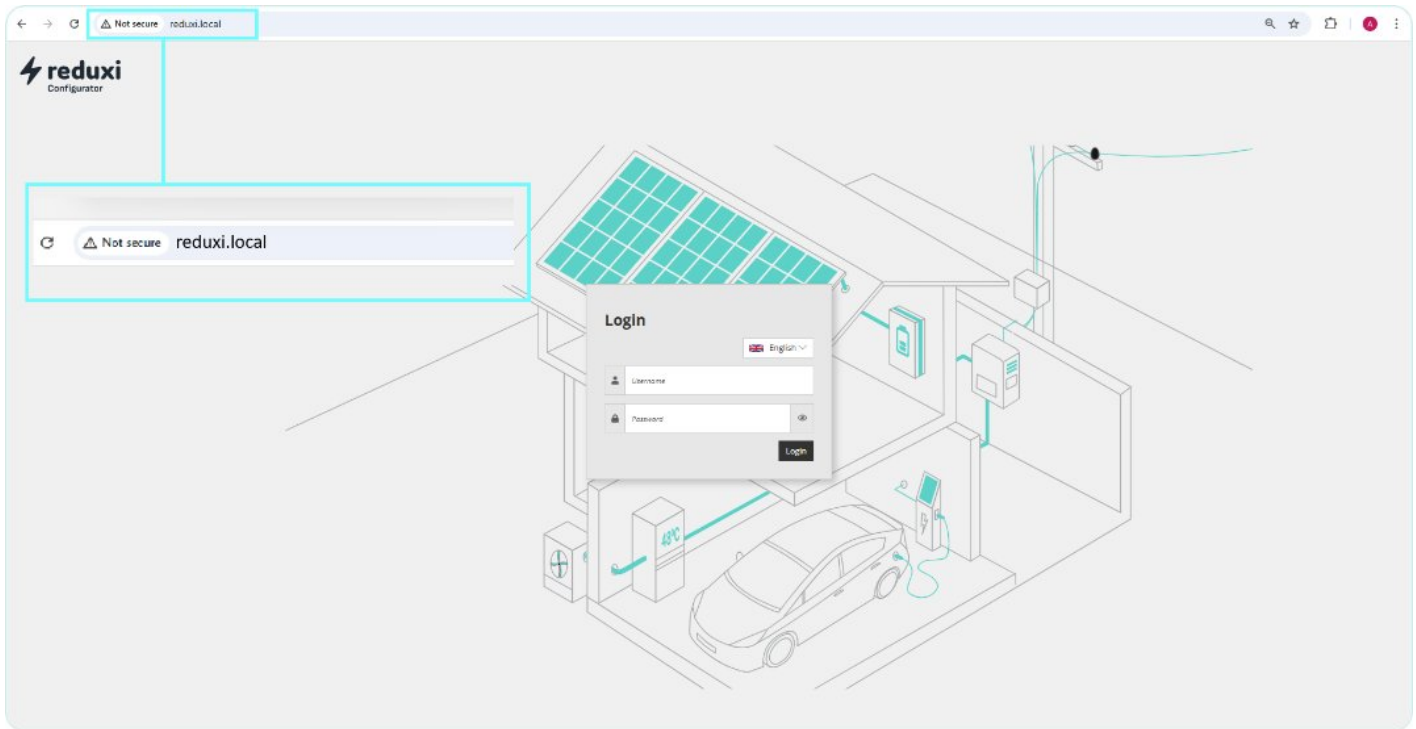
### Open the login page

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

2

### Log in

Username: **admin** · Password: **admin** (factory default). If the password was changed during installation, use that one. It is not your Reduxi account password.



Configurator login screen

#### Text description of this image



#### Common stumbling blocks

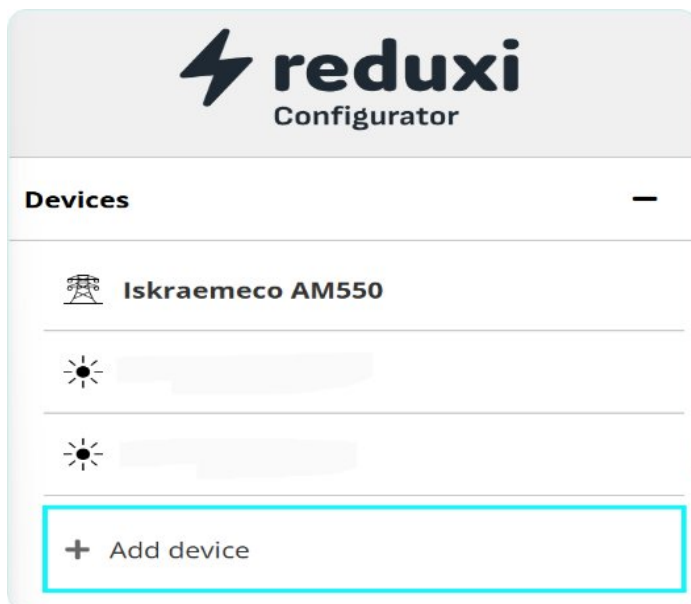
The tunnel needs about 30 seconds after activation. The **admin** login is not your Reduxi account. **redux.local** only works in the same network as the controller.

## 6 Add the CHINT ESS to Reduxi

Once the ESS is connected and configured (see [Point 4](#)) and the Configurator is open (see [Point 5](#)), register it as a new device (CHINT CPS ES-125kW-261kWh-EU).

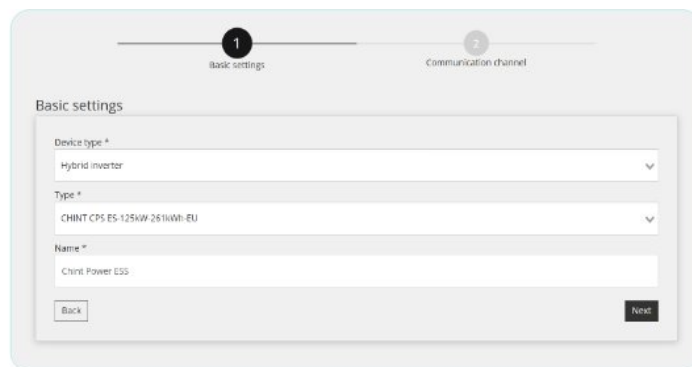
### 6.1 Basic settings

- 1 Click + Add device**  
In the left menu, the section **Devices** lists all devices (click it if it is collapsed). **+ Add device** sits directly below the list. Do not use **+ Add EEBUS device**.
- 2 Define the basic settings**  
Select **Device type:** **Hybrid Inverter**. Select **Type:** **CHINT CPS ES-125kW-261kWh-EU**. Name the device as you wish, for example **Chint Power ESS**.



Left menu: + Add device (marked)

### Text description of this image



Basic settings: device type, type and name

## 2. Text description of this image

Screenshot of the Reduxi Configurator wizard step 1 'Basic settings' (step 2 'Communication channel' greyed). Form: Device type \*: Hybrid inverter; Type \*: CHINT CPS ES-125kW-261kWh-EU; Name \*: Chint Power ESS. Buttons: Back, Next.

## 6.2 Communication settings

In the next step you configure the communication channel, which is essential for proper Modbus TCP/IP communication. It establishes the link between the Reduxi controller and the CHINT ESS.

| PARAMETER                              | VALUE                                                                                 |
|----------------------------------------|---------------------------------------------------------------------------------------|
| Connection                             | TCP/IP                                                                                |
| IP                                     | IP address of the CHINT ESS (you can scan the network to find the desired IP address) |
| Port                                   | 502                                                                                   |
| Modbus unit ID                         | The same ID as set on the inverter (default: 1 )                                      |
| Control mode                           | Choose which EMS modes are used to control the EMS                                    |
| Are electricity meter and PV connected | Set to yes if the electricity meter and PV are connected directly to the ESS device   |

1

Basic settings

2

Communication channel

### Communication channel and device configuration

Connection \*

TCP/IP

IP \*

Scan for IP

Port \*

502

Modbus unit ID \*

1

Control mode \*

EMS by Inverter

Is electricity meter installed?

Yes

Is PV installed?

Yes

Back

Test communication

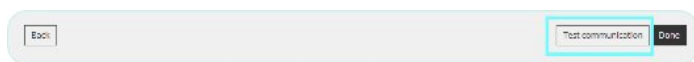
Done

Communication channel and device configuration

### Text description of this image

## 6.3 Test communication

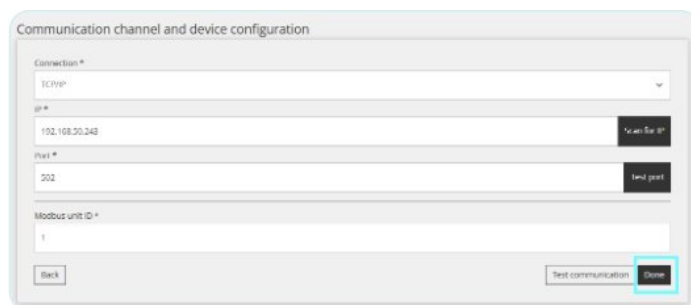
Below the fields of the communication channel, click **Test communication**. It reads the device once and saves nothing, and it verifies that the Modbus TCP/IP connection between the devices works. If the test is fine, click **Done**: only **Done** creates the device.



Test communication button

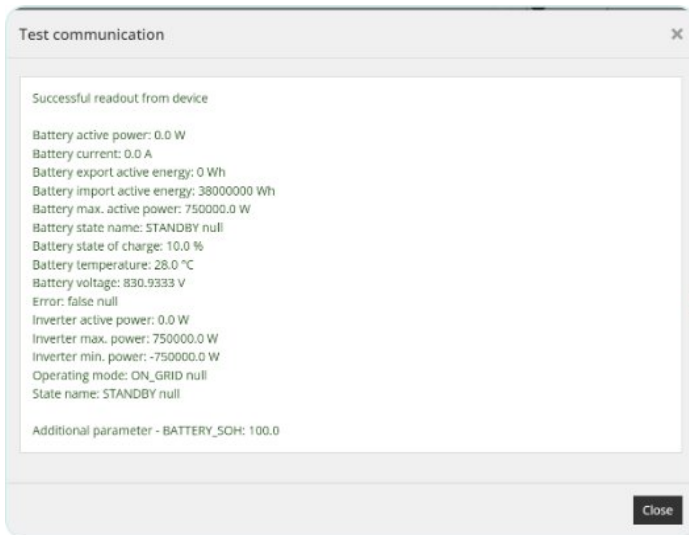
### Text description of this image

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'.



Done button

## 2. Text description of this image



Successful response (example)



Unsuccessful response (example)

## 2. Text description of this image

Screenshot of a dialog titled Test communication with a close x at the top right. Message in red text: Unable to communicate with device. Dark button at the bottom right: Close.

### Text description of this image

If the test fails, check the network cabling, the IP settings and the settings on the Reduxi controller, then try again.

## 7 Check the readings

### 7.1 Check the readings

Check the measured values of the device and whether it communicates correctly under **Devices** → **Chint Power ESS** → **Last measurements**.

| Last measurements     |          |     |                     | Analyze             | Archive | Details |
|-----------------------|----------|-----|---------------------|---------------------|---------|---------|
| Control type          |          |     |                     | Auto                | Manual  |         |
|                       |          |     |                     | 24.02.2020 15:51:27 |         |         |
| Battery               |          |     |                     |                     |         |         |
| Active power          | 0.0      | kW  | 24.02.2020 15:51:34 |                     |         |         |
| Current               | 0.00     | A   | 24.02.2020 15:51:34 |                     |         |         |
| Voltage               | 830.93   | V   | 24.02.2020 15:51:34 |                     |         |         |
| Battery state         | STANDBY  |     | 24.02.2020 15:51:34 |                     |         |         |
| State of charge       | 10.00    | %   | 24.02.2020 15:51:34 |                     |         |         |
| Min. state of charge  | 10.00    | %   | 24.02.2020 15:51:34 |                     |         |         |
| Capacity              | 156.6    | kWh | 24.02.2020 15:51:34 |                     |         |         |
| Max capacity          | 1,566.0  | kWh | 24.02.2020 15:51:34 |                     |         |         |
| Max. state of charge  | 100.00   | %   | 24.02.2020 15:51:34 |                     |         |         |
| Import active energy  | 38,000.0 | kWh | 24.02.2020 15:51:34 |                     |         |         |
| Temperature           | 28.00    | °C  | 24.02.2020 15:51:34 |                     |         |         |
| Export active energy  | 0.0      | kWh | 24.02.2020 15:51:34 |                     |         |         |
| Min. active power     | 0.0      | kW  | 24.02.2020 15:51:34 |                     |         |         |
| Max. active power     | 750.0    | kW  | 24.02.2020 15:51:34 |                     |         |         |
| Active power setpoint | 0.0      | kW  | 24.02.2020 15:51:34 |                     |         |         |
| Inverter              |          |     |                     |                     |         |         |
| Active power          | 0.0      | kW  | 24.02.2020 15:51:34 |                     |         |         |
| Max active power      | 750.0    | kW  | 24.02.2020 15:51:34 |                     |         |         |
| Min active power      | -750.0   | kW  | 24.02.2020 15:51:34 |                     |         |         |
| State                 | STANDBY  |     | 24.02.2020 15:51:34 |                     |         |         |
| Error                 | OFF      |     | 24.02.2020 15:51:34 |                     |         |         |
| Operating mode        | ON_GRID  |     | 24.02.2020 15:51:34 |                     |         |         |
| Other                 |          |     |                     |                     |         |         |
| Communication error   | OFF      |     | 24.02.2020 15:51:34 |                     |         |         |
| Control type          | AUTO     |     | 24.02.2020 15:51:34 |                     |         |         |
| Mode name setpoint    | SETPOINT |     | 24.02.2020 15:51:34 |                     |         |         |

Last measurements of the CHINT ESS

## Text description of this image

## 7.2 Enable control by Reduxi

For advanced control, integrate the device into the optimization modes of the Reduxi system. Under **Devices** → **Chint Power ESS** in [the Reduxi configurator](#), set the **control type** to **AUTO** so that the commands of the strategy affect the battery.

To achieve maximum flexibility and lower energy costs with dynamic prices and dynamic tariffs, define your strategy as described in [Strategies for Reduxi controller](#).

After you have added the device successfully, you can monitor and control it via [the Reduxi application](#).

## ✓ Summary

**Preparation (Points 1–3):** Read the manufacturer documents, prepare the Ethernet cable and a laptop or tablet, and connect the LAN1 port of the LEMS module to the local network of the Reduxi controller.

**CHINT ESS (Point 4):** Make sure the LEMS has a valid IP address and TCP port **502** is open, then activate **System remote dispatch** in the ESS settings.

|                 |     |   | CHINT CPS ES- |
|-----------------|-----|---|---------------|
| 125kW-261kWh-EU | 502 | 1 | <b>Test</b>   |

**communication.**

**Go live (Point 7):** Check the readings under **Last measurements** and set the control type to **AUTO** .

## → Common issues

| ISSUE                                                                        | SOLUTION                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test communication shows "Unable to communicate with device", device offline | Check the network cabling, the IP settings and the settings on the Reduxi controller. Check that the ESS is reachable, that IP address, port <b>502</b> and Modbus unit ID are correct and that Modbus TCP is available on the ESS (see <a href="#">Point 4</a> ). |
| No communication although the cable is connected                             | Check that the LEMS has a valid IP address on the local network, that Reduxi can reach the device and that TCP port <b>502</b> is open on the ESS. Check the ESMU network settings in the local interface and consult the CHINT documentation or support.          |
| The touch screen asks for a password                                         | Enter the default data: Username <b>admin</b> · Password <b>12345678</b> .                                                                                                                                                                                         |
| Reduxi commands have no effect on the battery                                | Check that <b>System remote dispatch</b> is activated on the ESS (see <a href="#">Point 4</a> ) and that the control type in Reduxi is set to <b>AUTO</b> (see <a href="#">Point 7</a> ).                                                                          |
| 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 probably changed during installation: ask the installer. The Reduxi account password does not work there.                                                                                                                                         |
| <b>reduxi.local</b> does not load                                            | You are not in the same network as the controller. Use the IP address or the tunnel.                                                                                                                                                                               |

## → Related articles

Matching guides from the Reduxi knowledge base:



### CHINT POWER CPS ES-125kW/261kWh-EU

Product page and documents from the manufacturer



### 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