

How to configure and connect CHINT POWER CPS ES-125kW-261kWh-EU Energy Storage System to 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)

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

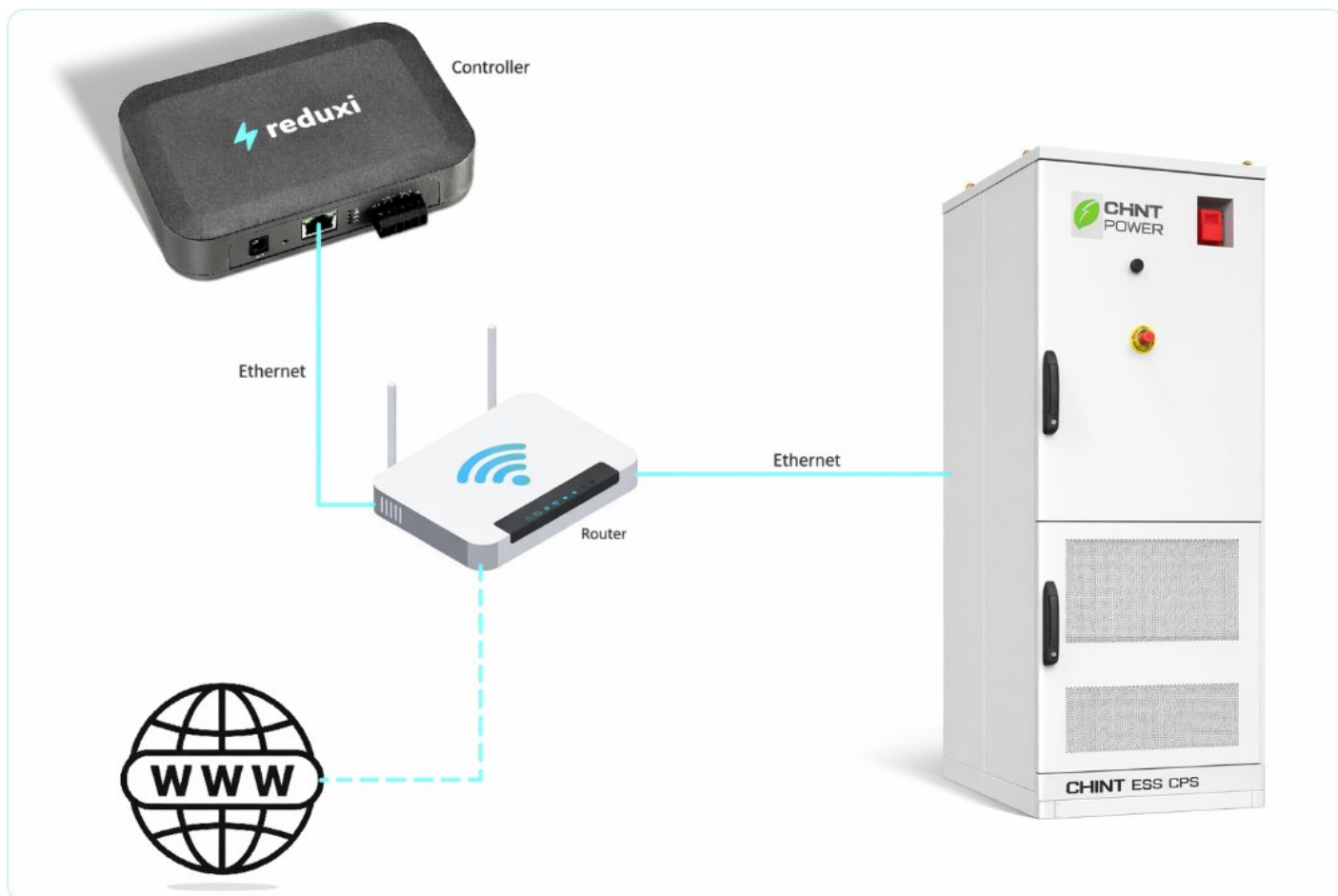
According to the manufacturer's user manual (v2.1), the system supports Modbus-TCP access for third-party scheduling and cloud platforms.

2 Required equipment

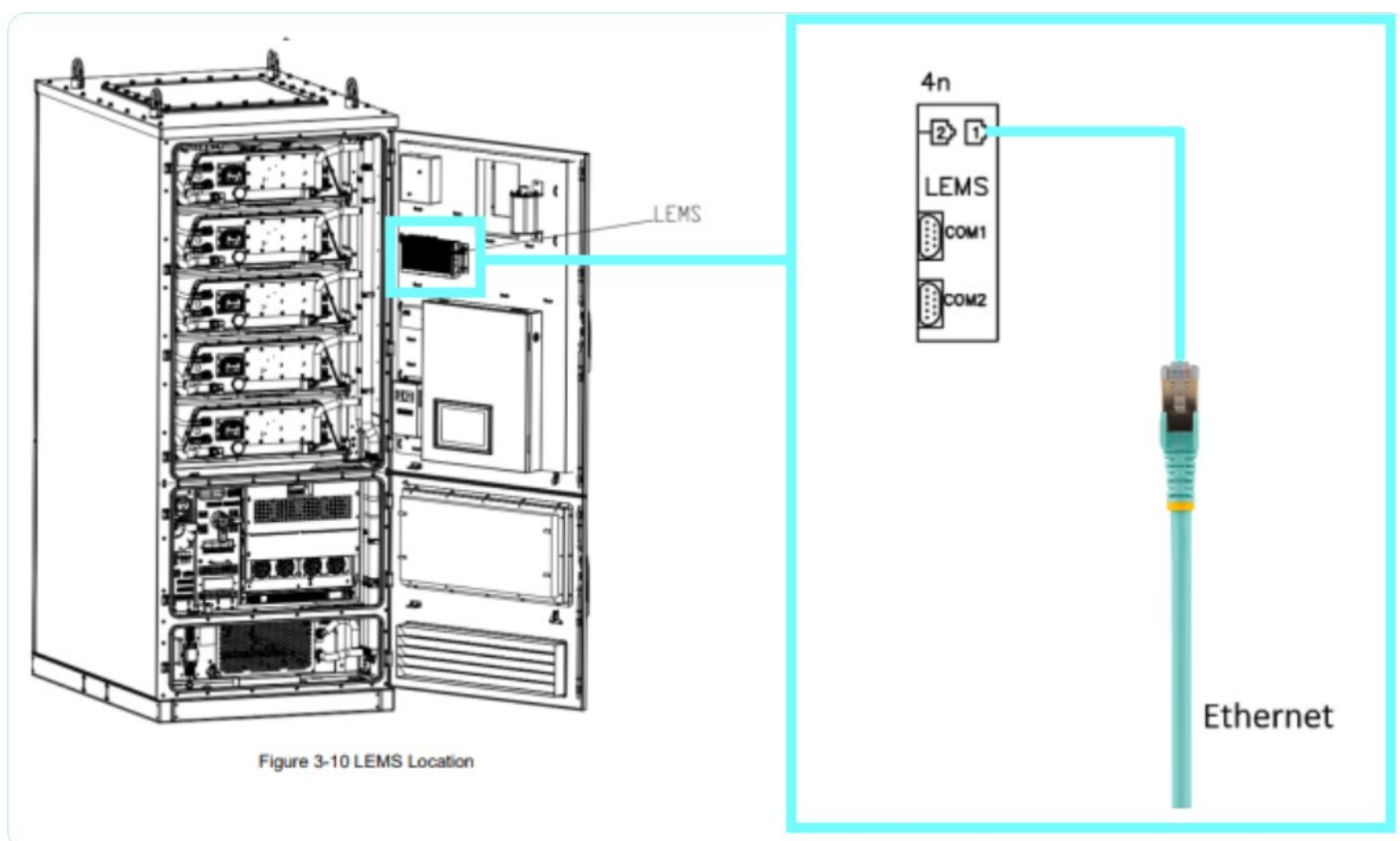
- ☐ Reduxi Controller (installed and online)
- ☐ CHINT CPS ES-125kW-261kWh-EU Energy Storage System, commissioned
- ☐ Ethernet cable (Cat5 or Cat6) for the LAN1 port of the LEMS module
- ☐ Local network shared by the ESS and the Reduxi controller, or a direct cable connection to the Reduxi device
- ☐ 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



Location of the LEMS module and the LAN1 port (manufacturer drawing)

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**

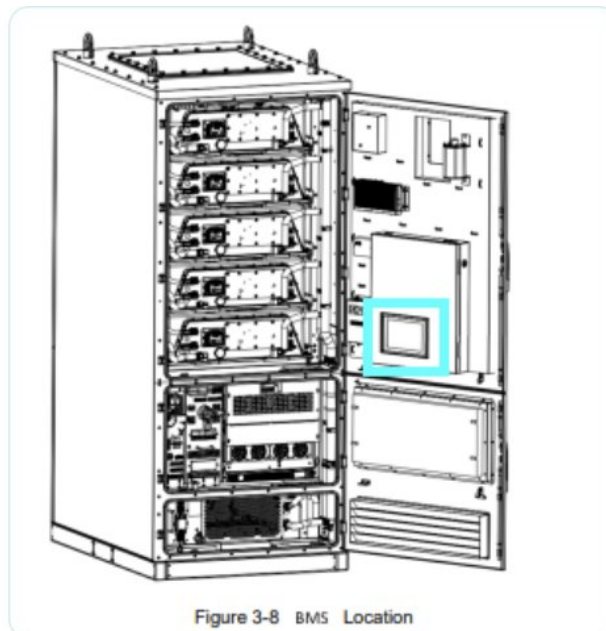


Figure 3-8 BMS Location

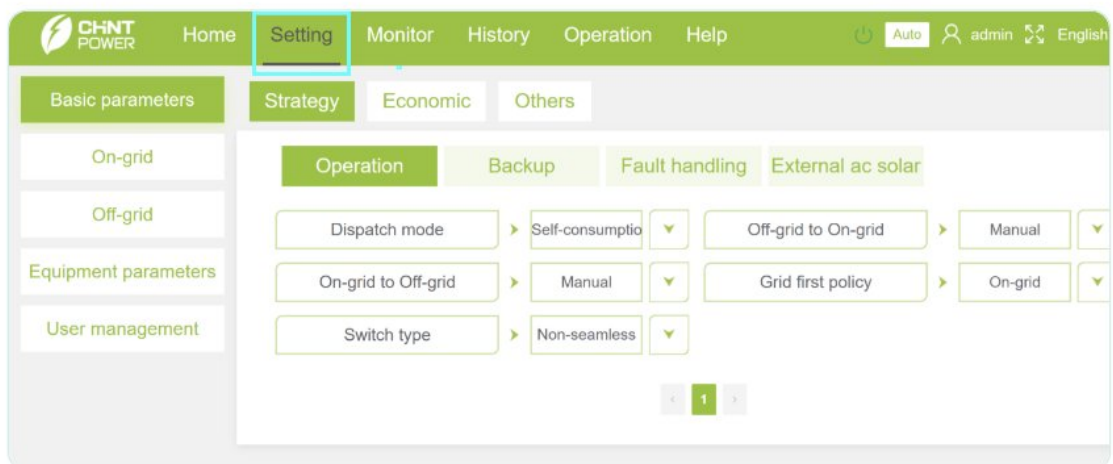
Location of the display on the inside of the cabinet door

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

1

Go to the "Settings" submenu

Open **Settings** in the top menu.

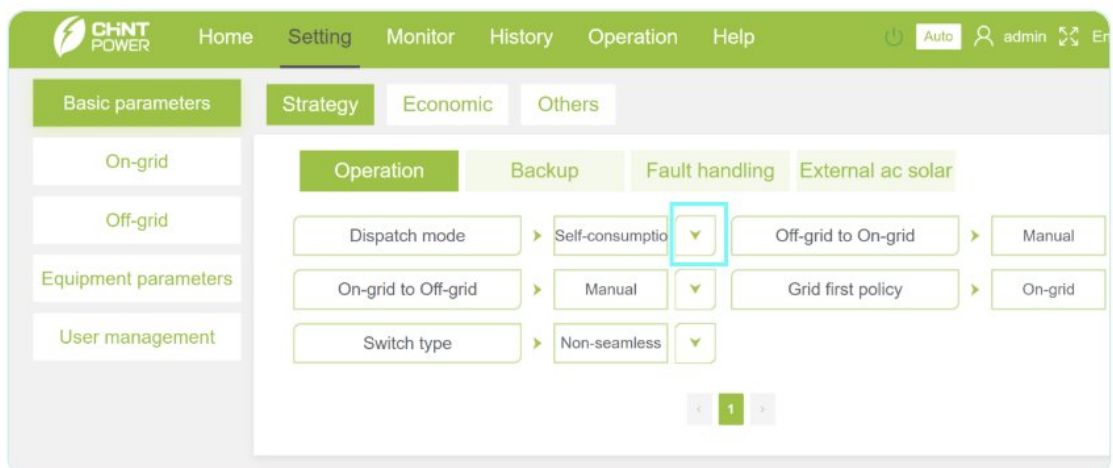


Settings submenu

2

Select "Dispatch mode"

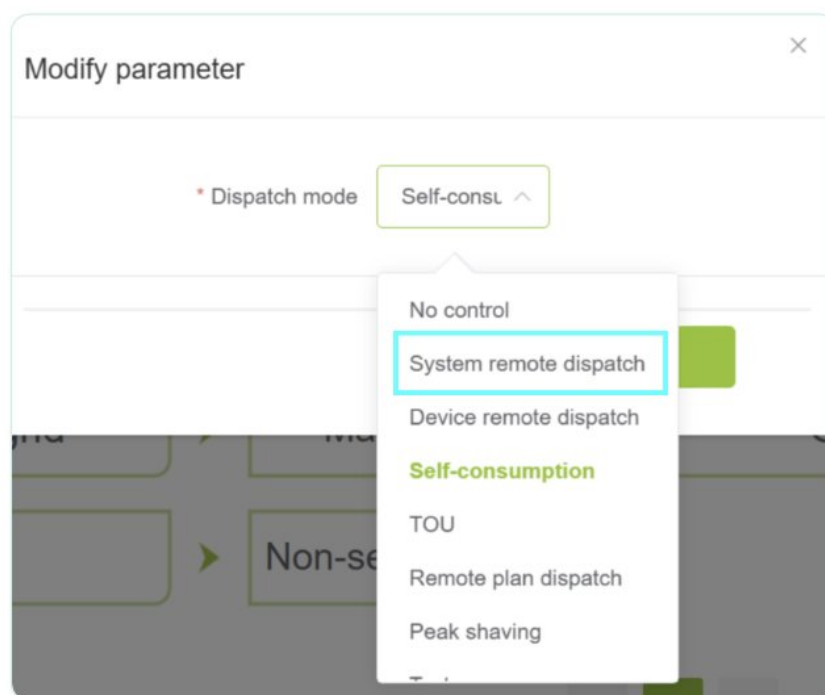
Open the **Dispatch mode** drop-down.



Dispatch mode drop-down

3 Activate "System remote dispatch"

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



System remote dispatch selected in the 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

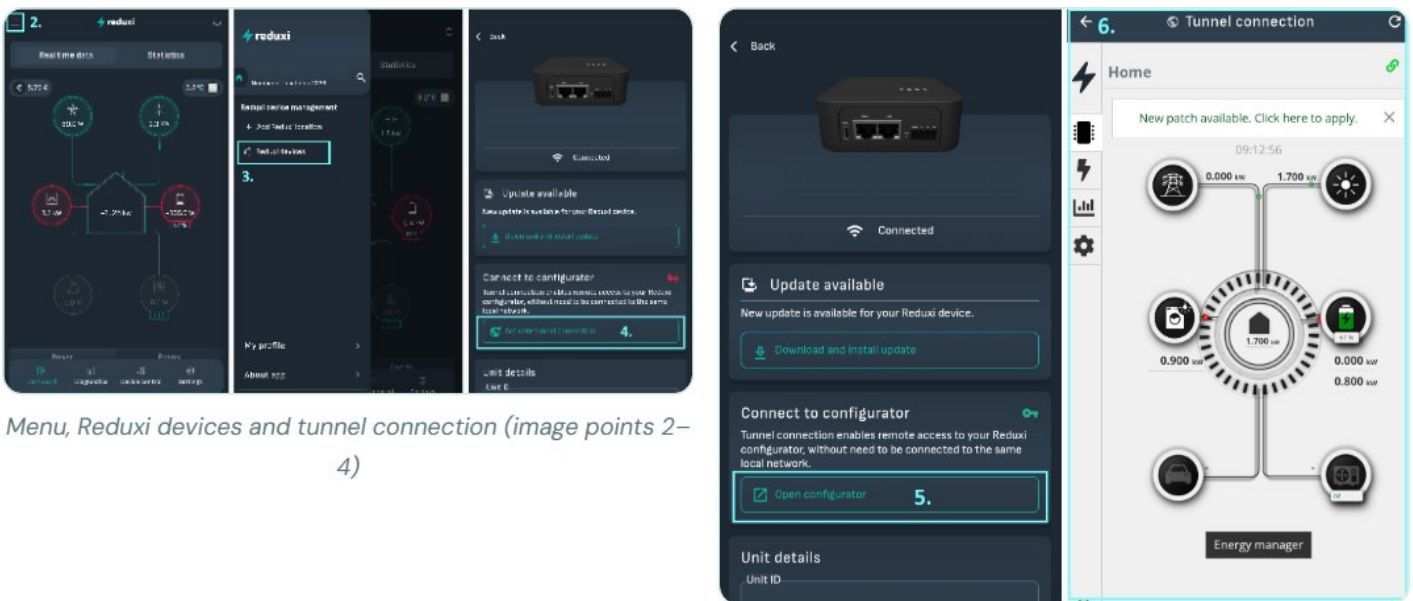
In the local network · via IP address or reduxि.local

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)

Open configurator (image points 5–6)



On a computer, away from the site

Open the Reduxi Cloud (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

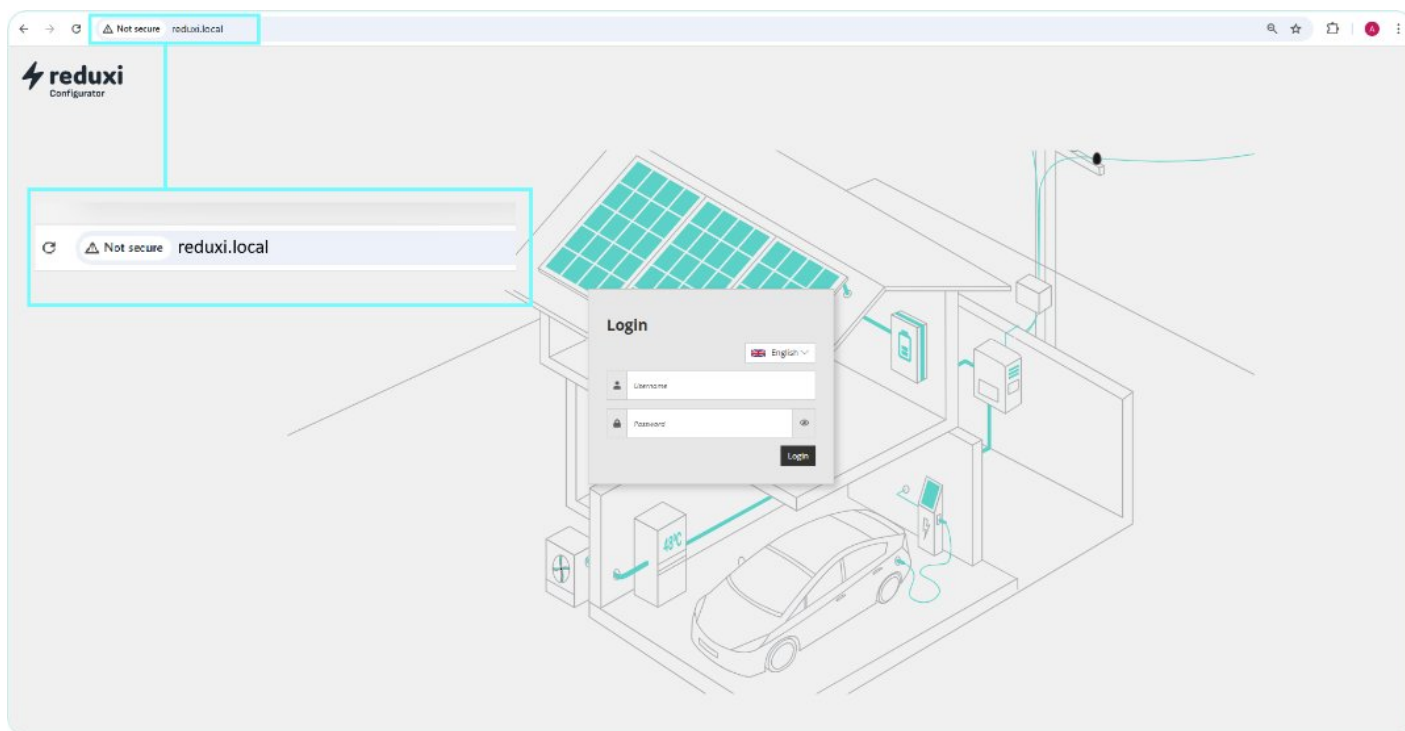
1 Open the login page

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



Common stumbling blocks

The tunnel needs about 30 seconds after activation. The **admin** login is not your Reduxi account. **reduxi.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

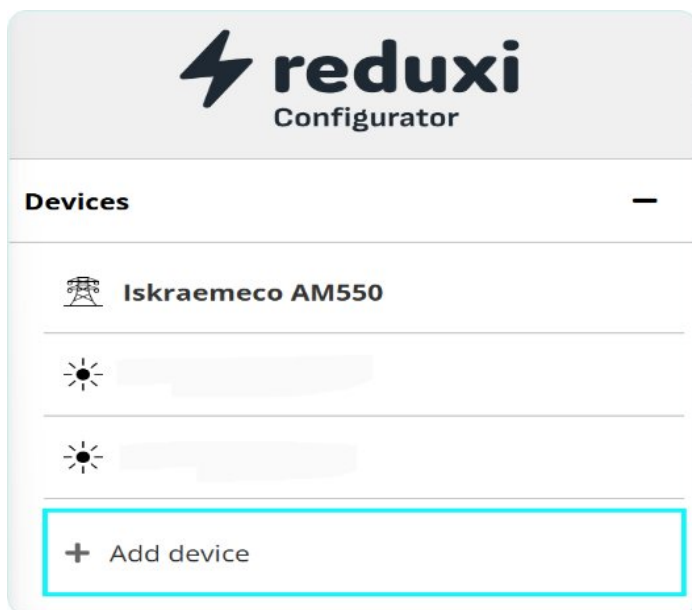
Click + Add device

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**.

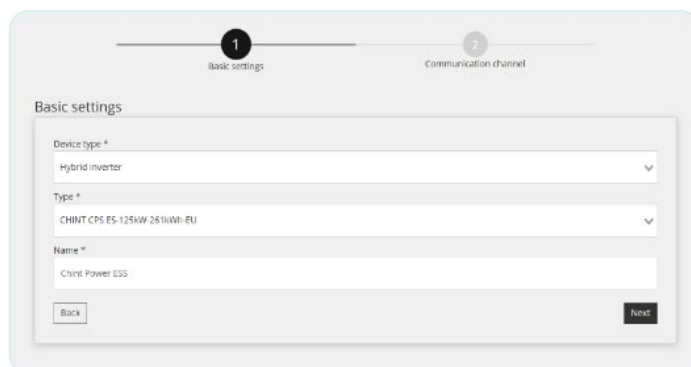
2

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)



Basic settings: device type, type and name

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

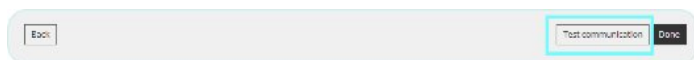
Test communication

Done

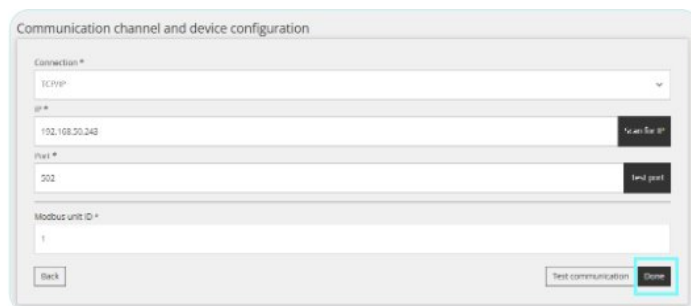
Communication channel and device configuration

6.3 Test communication

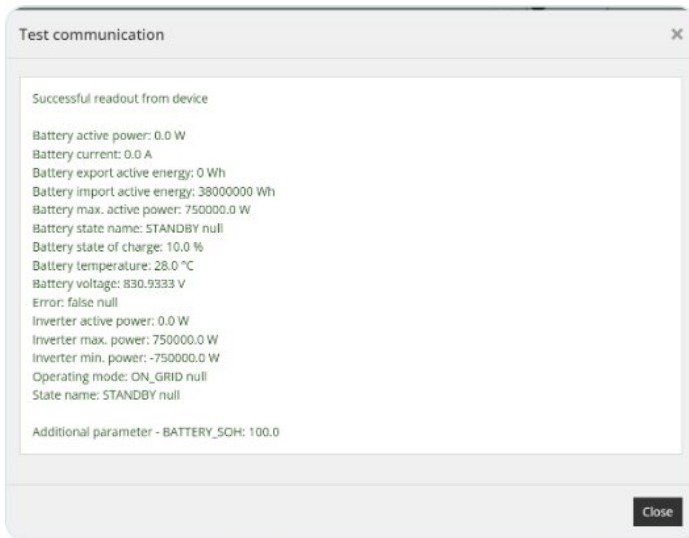
Below the fields of the communication channel, click **Test communication**. It reads the device once and saves nothing, and it verifies that the Modbus TCP/IP connection between the devices works. If the test is fine, click **Done**: only **Done** creates the device.



Test communication button



Done button



Successful response (example)



Unsuccessful response (example)

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 15:51:32	
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

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	Test

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 502 and Modbus unit ID are correct and that Modbus TCP is available on the ESS (see Point 4).
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 502 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 admin · Password 12345678 .
Reduxi commands have no effect on the battery	Check that System remote dispatch is activated on the ESS (see Point 4) and that the control type in Reduxi is set to AUTO (see Point 7).
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 probably changed during installation: ask the installer. The Reduxi account password does not work there.
reduxi.local 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



List of supported devices

All devices that work with the Reduxi Controller



Strategies for the Reduxi Controller

Energy manager and other strategies explained