

How to add Hybrid Inverter Pylontech Force H3X to Reduxi controller

Connect a Pylontech Force H3X hybrid inverter to the Reduxi Controller via Modbus TCP over a wired LAN, set the IP address in the Pylontech app and add it in the Configurator.

🕒 approx. 20–30 min

🔧 Pylontech Force H3X · Reduxi Controller

🌐 Modbus TCP (wired LAN)

📱 IP address set in the Pylontech app



Pylontech Force H3X

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1 Technical documentation

The Pylontech Force H3X is a hybrid inverter with battery modules. The Reduxi Controller communicates with it over the local network via **Modbus TCP**. The IP address of the inverter is set in the Pylontech app, Modbus TCP is already enabled on the inverter.

DEVICE TYPE Hybrid inverter	INTERFACE Modbus TCP · wired LAN	TCP PORT 502	UNIT IDS Inverter 2 · ESS 1 (defaults)
NETWORK CABLE CAT5e or CAT6, up to 100 m recommended	IP ADDRESS SET IN Pylontech app (installer)		

Manufacturer documents:

- [Pylontech website](#) – product information and contact (web, EN)
- [Pylontech downloads](#) – datasheets, manuals and other documents (web, EN)

2 Required equipment

- ☐ Reduxi Controller (installed and online)
- ☐ Pylontech Force H3X hybrid inverter, commissioned
- ☐ Ethernet cable (CAT5e or CAT6) from the LAN (RJ45) port of the power control module to a router or switch
- ☐ Smartphone with the Pylontech app and installer access
- ☐ Laptop or tablet with internet access to configure the device in Reduxi



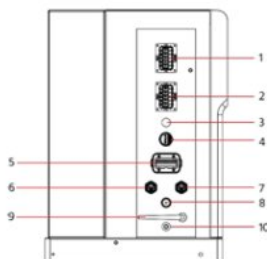
Installer only

The configuration of communication and system parameters must be carried out by an authorized installer. Use a wired LAN connection, wireless connections are not supported.

3 System overview & wiring

Connect the LAN (RJ45) port of the Force H3X power control module to your router or switch. The Reduxi Controller must be in the same network.

Left side view



No.	Name	Description										
1	AC GRID terminal	AC terminal for connection to the utility grid										
2	BACK-UP terminal	AC terminal for Backup loads										
3	Ventilation valve	-										
4	CONTROL	Connector for relay control of parallel connection and external heat pump on/off Rated voltage: 250V; Rated current: 10A Heat pump signal cable: <table><tr><td>PIN1</td><td>PUMP+</td><td rowspan="2">Control heat pump start-up</td></tr><tr><td>PIN2</td><td>PUMP-</td></tr><tr><td>PIN3</td><td>Outrelay+</td><td rowspan="2">Control EPS switchover</td></tr><tr><td>PIN4</td><td>Outrelay-</td></tr></table>	PIN1	PUMP+	Control heat pump start-up	PIN2	PUMP-	PIN3	Outrelay+	Control EPS switchover	PIN4	Outrelay-
PIN1	PUMP+	Control heat pump start-up										
PIN2	PUMP-											
PIN3	Outrelay+	Control EPS switchover										
PIN4	Outrelay-											
5	COM terminal	Connector for meter/CT, or other equipment, or parallel interface For details of the terminal pins, see section 5.7.1										
6	EMS	Connector for EMS communication and commissioning										
7	LAN terminal	Connector for network										
8	START	Long press the button for 10 seconds to switch on the system via the battery. When the system is switched on, a short press for 2 seconds can light up the screen.										
9	WIFI	WiFi antenna										
10	Ground point	Connector for grounding cable.										

Power control module of the Force H3X with its connections (excerpt from the manufacturer documentation)

CONNECTION	FROM	TO	NOTE
LAN (Modbus TCP)	Reduxi Controller	Router / switch	Same network as the inverter
LAN (Modbus TCP)	Force H3X, LAN (RJ45) port of the power control module	Router / switch	CAT5e or CAT6, up to 100 m recommended; port 502
LAN	Router	Internet	Needed for the Reduxi Cloud and the app



Use a fixed IP address

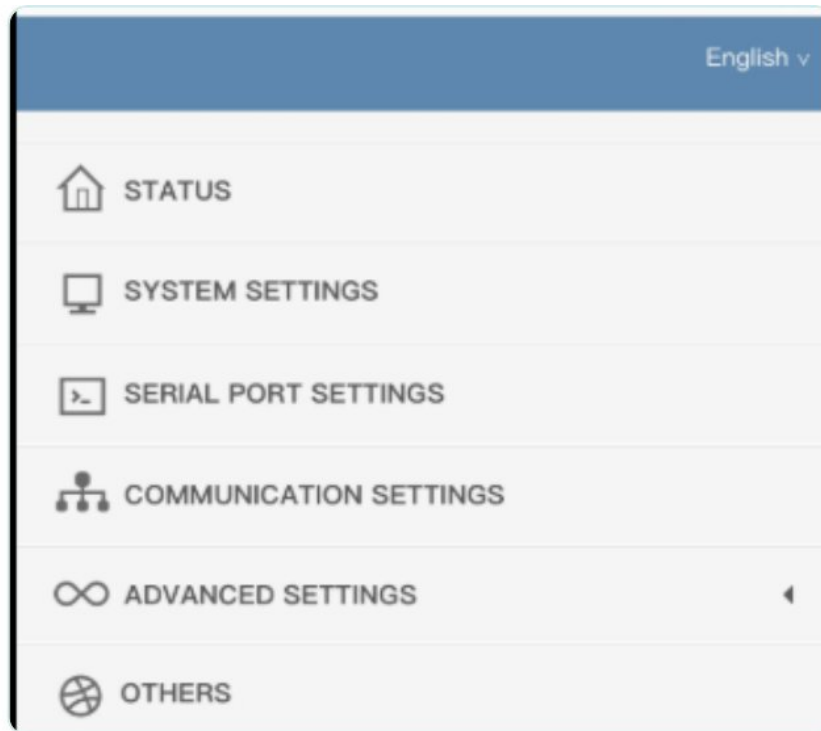
Give the inverter a fixed IP address, see [Point 4.1](#). If the address changes, Reduxi loses the connection.

4 Configure the inverter

4.1 Set the IP address in the Pylontech app

The IP address cannot be configured on the inverter display. It is set only in the Pylontech app, which you can download from the Apple App Store or Google Play.

- 1 Open the app**
 Install or log in to the Pylontech app and open it.
- 2 Select the device**
 Select the corresponding **Plant** and **Device**.
- 3 Open the LAN settings**
 Go to **Settings** → **Communication** → **LAN**.
- 4 Enter a static IP address**
 Enter the network data that match your local network, for example IP address 192.168.1.50 , subnet mask 255.255.255.0 , gateway 192.168.1.1 , DNS server 8.8.8.8 . Your values depend on your network.
- 5 Save and restart**
 Save the configuration and restart the inverter so that the changes take effect.



Pylontech app: Settings → Communication → LAN

4.2 Modbus TCP status

Modbus TCP is enabled by default on the Force H3X. No manual activation is needed. As soon as the LAN connection and the IP address are set up, Modbus TCP is available with these default parameters:

PARAMETER	VALUE
Protocol	Modbus TCP
Port	502
Transport	Ethernet (LAN)

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:



RECOMMENDED

Reduxi app

Opens the Configurator through the tunnel connection, from anywhere.



Web browser

In the same network as the controller, via its IP address or `http://reduxi.local`.

5.1 Via the Reduxi app

1 Open the app and log in

Log in with your Reduxi account.

2 Open Reduxi devices

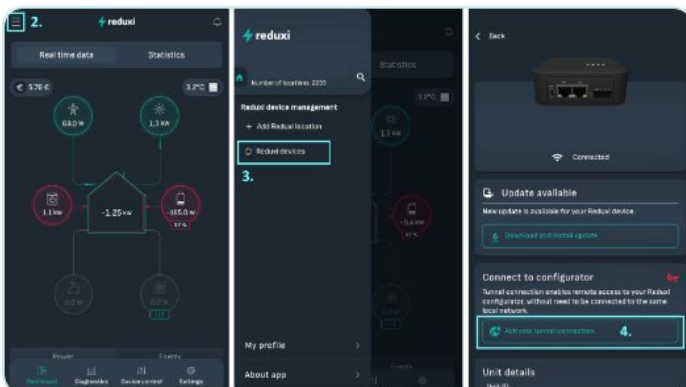
Tap the menu icon top left, then **Reduxi devices**, and select the location.

3 Switch on the tunnel connection

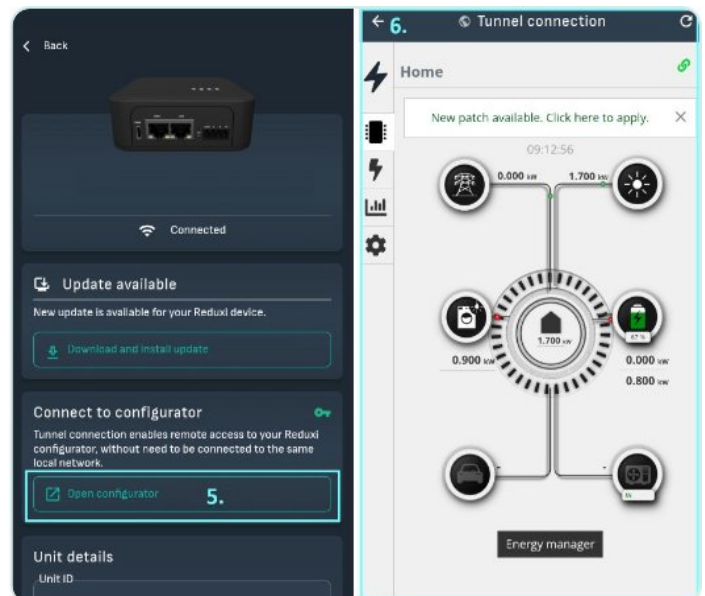
Switch on the tunnel and wait about 30 seconds.

4 Open the Configurator

Tap **Open configurator**. You are logged in automatically.



Reduxi devices with the tunnel switch



Open configurator



On a computer, away from the site

In the Reduxi Cloud (reduxi.app) open the location, then **Manage location** → **OEM devices** → **Activate tunnel connection**, confirm with **OK** and wait about 30 seconds. Then click **Go to controller**. The Configurator opens in a new tab without a password.

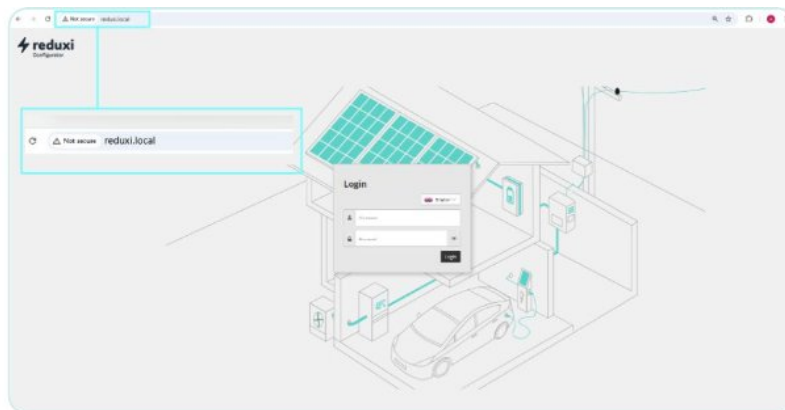
5.2 Via a web browser

1 Open the login page

In the same network, enter the controller's IP address or `http://reduxi.local`. The IP address is in the router's device list or in the app under **Reduxi devices**.

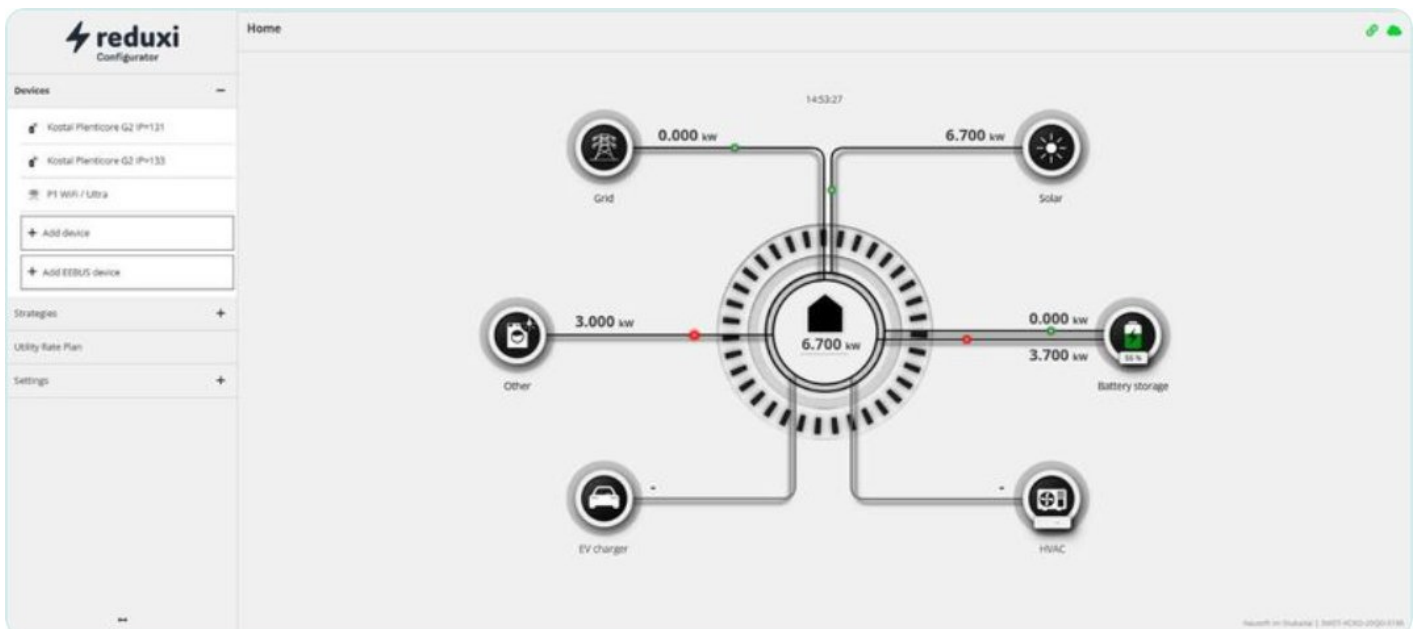
2 Log in

Username `admin` · Password `admin` (factory default). If it was changed during installation, use that one. This is not your Reduxi account password.



Login screen of the Reduxi Controller

This is what you should see:



Configurator home screen with the device list on the left



Common stumbling blocks

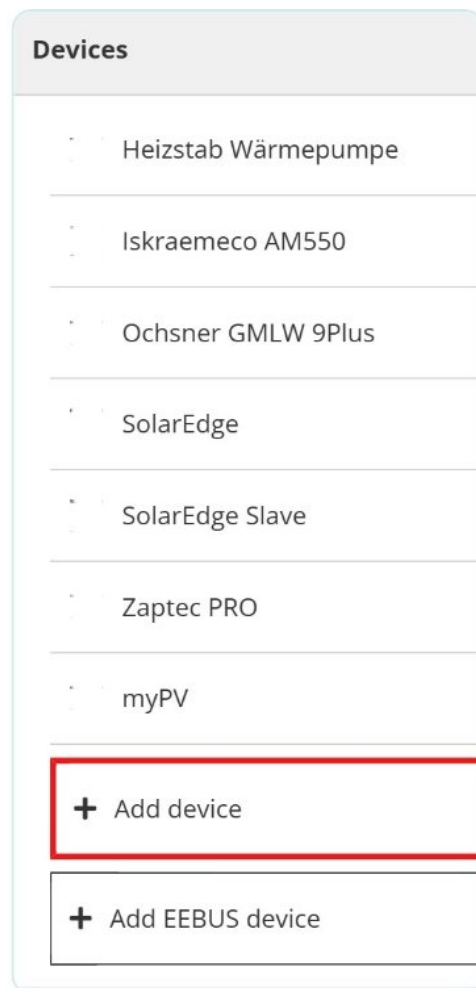
The tunnel needs about 30 seconds before the Configurator opens. The `admin` login is not your Reduxi account. `reduxi.local` only works in the same network as the controller.

6 Add the device to Reduxi

Open the Configurator first, see [Point 5](#). The device is added with the wizard in two steps.

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 Device type**
Select **Hybrid inverter**.
- 3 Type**
Select **Pylontech Force H3X Hybrid**.
- 4 Name and strategies**
Enter a clear name, for example **Pylontech Force H3X**. Tick the strategies the inverter should take part in, then click **Next**.



+ Add device below the device list (marked in red)

1

2

Communication channel

Basic settings

Device type *

Hybridinverter

Type *

PylonTechForce H3X Hybrid

APStorage 261
AUSTA
AUSTA Hybrid Inverter 3P
AUSTA Hybrid Inverter High Voltage 3P
Afore Hybrid
AlphaESS G2-H30/H50, H50-G3
AlphaESS Smile Series
AlphaESS StaX-M
Atmoce Gateway
Bluesun Hybrid

Basic settings: Hybrid inverter, PylonTech Force H3X Hybrid, name

6.2 Communication settings

The second step sets up the communication channel for Modbus TCP.

PARAMETER	VALUE
Connection	TCP/IP
IP	The static IP address of the inverter from Point 4.1 . Scan for IP can search for it in the network.
Port	502 (default)
Extended IP recovery	Leave switched on (default)
Inverter Modbus unit ID	2 (default)
ESS Modbus unit ID	1 (default)
Control mode	Leave the default unless you need a different control mode
Is electricity meter installed? / Is internal PV installed? / Is external PV installed (other inverter)?	Set according to your system. If external PV is installed, also enter its rated power.

1

2

Communication channel and device configuration

Connection *

TCP/IP

IP *

Scan for IP

Port *

502

Extended IP recovery 

Yes



Inverter Modbus unit ID *

2

ESS Modbus unit ID *

1

Control mode *

EMS by Inverter

Select control mode of inverter

Is electricity meter installed?

Yes



Is internal PV installed?

Yes



PV (monitoring only): Measurements only; active power setpoint cannot be written

Is external PV installed (other inverter)?



No

External PV rated power

0

kW

Only applicable if external PV (other inverter) is enabled.

Back

[How to configure?](#)

Test communication

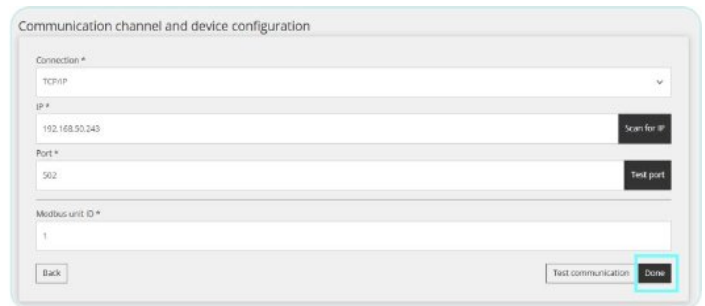
Done

6.3 Test communication

Click **Test communication** at the bottom of the wizard. It checks the connection once and saves nothing. If you get a response, click **Done**. Only **Done** creates the device.



Test communication



Done

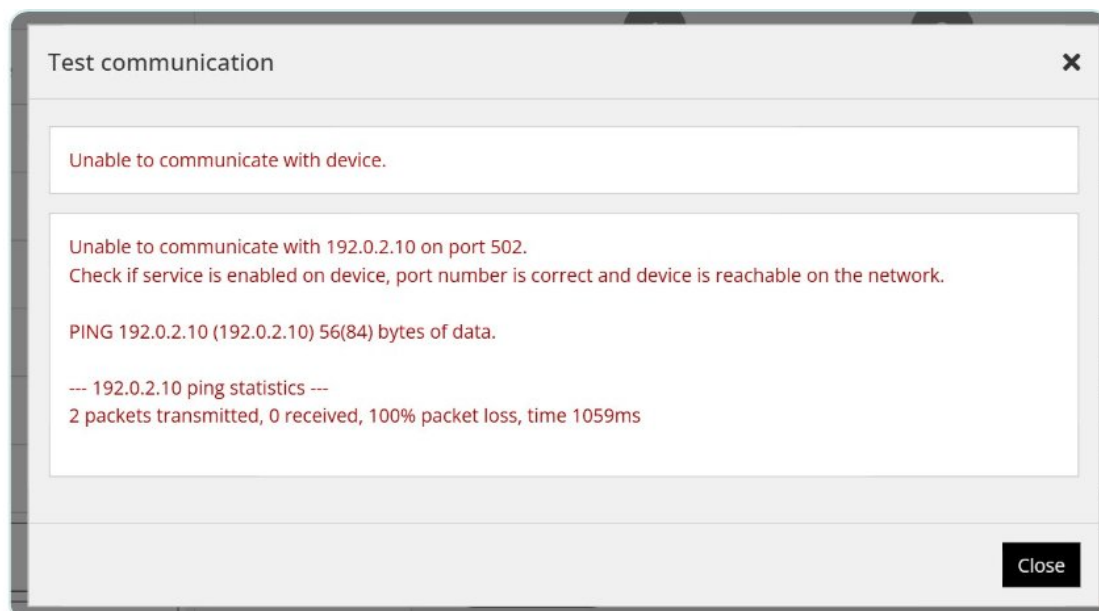


Successful readout from device

Battery active power: 30.0 W
Battery current: 0.1 A
Battery export active energy: 41681 Wh
Battery import active energy: 28898 Wh
Battery max. active power: 10000.0 W
Battery state name: IDLE null
Battery state of charge: 10.0 %
Battery temperature: 35.0 °C
Battery voltage: 307.5 V
Error: false null
Grid active power: 596.0 W
Grid export active energy: 39877.0 Wh
Grid frequency: 49.99 Hz
Grid import active energy: 179850.0 Wh
Inverter active power: 29.0 W
Inverter max. power: 10000.0 W
Inverter min. power: -10000.0 W
Load active power: 567.0 W
Load import active energy: 1.0 Wh
PV active power: 0.0 W
PV current: 0.0 A
PV export active energy: 0.0 Wh
PV min. active power: -10000.0 W
PV voltage: 7.0333 V
State name: NORMAL null

Additional parameter - BATTERY_SOH: 100.0

Test communication: example response



Unsuccessful response: Unable to communicate with device

7 Check the readings

7.1 Check the readings

Open **Devices** → **Pylontech ...** → **Last measurements**. The values of the inverter and the battery should update. If all values stay at 0, check the points in the Common issues table below.

-

Example: Last measurements of a device (shown here for an energy meter)

7.2 Control behaviour

After the device has been added, it can take part in the Reduxi strategies you ticked in the wizard. How to define a strategy for dynamic prices and tariffs is described in [Strategies for Reduxi controller](#). You can monitor the system in [the Reduxi application](#).

✓ Summary

Preparation (Points 1–3): Check the manufacturer information, connect the power control module to the router or switch with a LAN cable and note the IP address plan.

Pylontech Force H3X (Point 4): Set a static IP address in the Pylontech app (Settings → Communication → LAN) and restart the inverter. Modbus TCP is already enabled.

Add to Reduxi (Points 5–6): Open the Configurator, add a Hybrid inverter of type PylonTech Force H3X Hybrid, enter IP, port **502**, inverter unit ID **2** and ESS unit ID **1**, run Test communication and click Done.

Go live (Point 7): Check the last measurements and select the strategies the inverter should take part in.

→ Common issues

ISSUE	SOLUTION
Test communication fails	Check that the LAN cable is connected to the LAN (RJ45) port of the power control module and that the inverter and the controller are in the same network. Check the IP address (Point 4.1), port 502 and the unit IDs (inverter 2 , ESS 1). Wireless connections are not supported.
The IP address cannot be changed on the inverter display	The IP address can only be set in the Pylontech app: Settings → Communication → LAN (Point 4.1).
The new IP address does not take effect	Restart the inverter after saving the LAN settings in the app.
The device goes offline after a router restart	The IP address has probably changed. Use a static IP address on the inverter and enter it in Reduxi.
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 there.
reduxi.local does not load	You are not in the same network. Use the IP address or the tunnel.
Communication test fails, device offline	Check reachability, IP, port 1502 and unit ID 71 , and that Modbus is enabled on the inverter.

→ Related articles

Matching guides from the Reduxi knowledge base:



Pylontech

Manufacturer website with product information and downloads



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