

How to connect HIQ PM3-E-D-CT energy meter with Reduxi controller

Connect your HIQ PM3-E-D-CT power sensor to the Reduxi Controller.

🔌 HIQ PM3-E-D-CT · Reduxi Controller

🌐 Modbus RTU (RS485) 📄 Modbus unit ID: normally 1

HIQ



HIQ PM3-E-D-CT power sensor

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1 Technical documentation

Instructions to connect and configure the meter are on the HIQ manufacturer web page. Manufacturer documents of the HIQ PM3-E-D-CT:

- [HIQ PM3-E-D-CT wiki page](#) – Product description, interfaces, specifications and documents.
- [PM3-E-D-CT user manual \(PDF\)](#) – Installation, wiring and set-up menu.
- [PM3-E-D-CT Modbus protocol v1.6 \(PDF\)](#) – Modbus RTU protocol description.

2 Required equipment

- ☐ HIQ PM3-E-D-CT power sensor with current transformers (CT-3-E-xx, 0.33 V output), installed by a qualified electrician
- ☐ RS485 cable
- ☐ Reduxi Controller
- ☐ Laptop or tablet with internet access to configure the device in Reduxi

3 Connect and configure the meter

Find the instructions to connect and configure the meter in the documents of [Point 1](#).

3.1 Interface and specification

The PM3-E-D-CT is a digital multi-function power sensor for single-phase and three-phase networks. It measures with current transformers (CT-3-E-xx, 0.33 V output). It connects to a three-phase four-wire (3P4W) supply.

The meter has an RS485 interface (terminals **A** and **B**) with the protocol Modbus RTU, semi-duplex.

PROTOCOL

Modbus RTU on
RS485

MODBUS ADDRESS RANGE

1 to 247

DATA BITS

8

DEVICES PER BUS

Max. 64

DISTANCE

Max. 1000 m

MOUNTING

DIN rail (DIN 43880),
1 module (18 mm)

DIMENSIONS

65 x 72 x 94.5 mm



Terminals and wiring

The terminal layout and the wiring diagram are in the user manual (see [Point 1](#)).

3.2 Modbus settings on the meter

Set the Modbus parameters in the set-up menu of the meter, as described in the user manual:

1

Open the set-up

Press the set-up button for 3 seconds. The password screen appears.

2

Enter the password

The default password is **1000** (see the user manual).

3

Select the parameter

Select **Address ID**, **Baud Rate**, **Parity** or **Stop Bit**.

4

Change the value

Press the confirm button, change the value with the up and down buttons and confirm. Then exit the set-up.

The parity of the meter is **none** by default. You need the Modbus unit ID of the meter in the Reduxi Configurator. Normally, 1 is used.

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

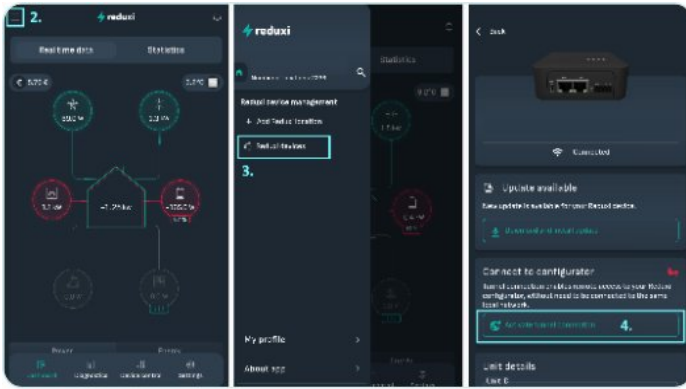
Activate the tunnel connection

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

4

Open the configurator

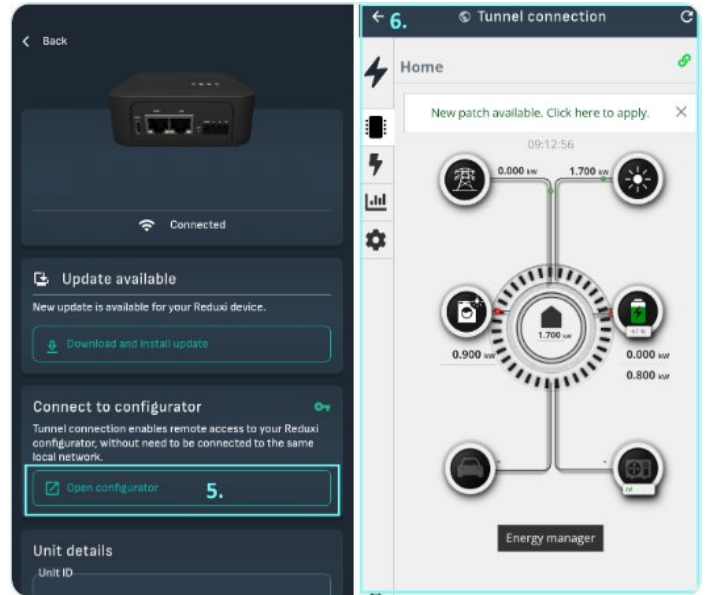
Tap **Open configurator**. The Reduxi web interface opens.



Activate the tunnel connection (step 3)

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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)

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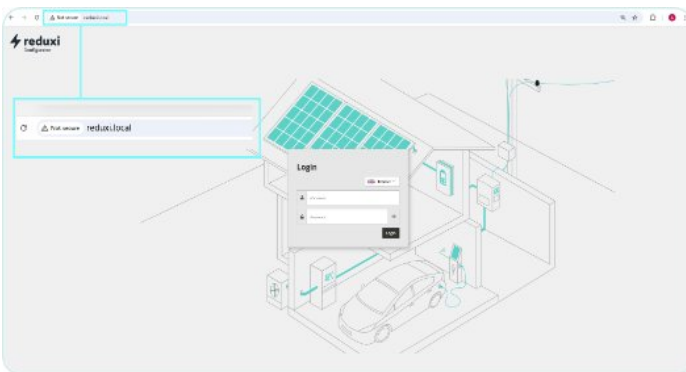
4.2 Via a web browser

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**.

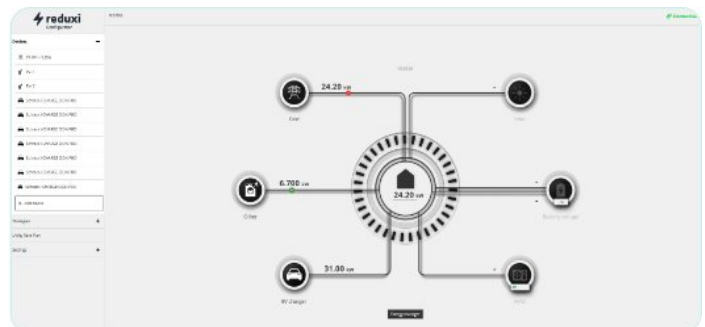
2 Log in

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



Reduxi Controller login screen

Text description of this image



Controller web interface after login

2. Text description of this image

Screenshot of the Reduxi Configurator web interface

5 Add the meter to Reduxi

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



Read only

In the List of supported devices, the HIQ PM3-E-D-CT is listed with the protocol Modbus and with read access.

5.1 Basic settings

Log in to the [Reduxi Configurator via the browser](#) (see [Point 4](#)) and click **Add device**.

In the first step, enter the basic settings of the device. Then click **Next**.

5.2 Communication settings

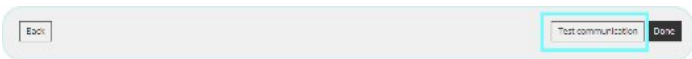
Select the communication channel. Then enter the device configuration:

PARAMETER	VALUE
Modbus unit ID	Normally 1

Then enter and choose the advanced settings. Serial parameters, if requested, must match the settings of the meter (see [Point 3](#)).

5.3 Test communication

Click **Test communication** at the bottom of the wizard. It reads the HIQ PM3-E-D-CT 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

6 Check the readings

6.1 Last measurements

After communication is established, check the values under **Devices** in the Reduxi Configurator. Reduxi only reads the meter.

✓ Summary

Preparation (Points 1–2): Read the HIQ documents and prepare the equipment.

HIQ PM3-E-D-CT (Point 3): Connect the meter via RS485. Set the Modbus parameters and note the Modbus unit ID.

Add to Reduxi (Points 4–5): Log in to the Reduxi Configurator, add the meter with its Modbus unit ID and test the communication.

Go live (Point 6): Check the readings. Reduxi reads the meter.

→ Common issues

ISSUE	SOLUTION
Test communication fails	Check that the Modbus unit ID in Reduxi equals the address set on the meter (1 to 247). Check that the serial parameters match.
The meter does not respond on the RS485 bus	Check the RS485 lines A and B and the communication settings on the meter.
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 <code>admin</code> is rejected	The password was changed during installation. Ask the installer. The Reduxi account password does not work here.
<code>reduxi.local</code> 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:



HIQ PM3-E-D-CT wiki page

Specifications, user manual and Modbus protocol of the PM3-E-D-CT.



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