

How to connect Stiebel Eltron heat pump (EVU contact via Shelly) with Reduxi controller

Connect the EVU contact of your Stiebel Eltron heat pump to the Reduxi Controller via a Shelly.

🔧 Stiebel Eltron heat pump · Reduxi Controller

🔌 EVU contact via Shelly (input I, output O)

⚙️ ON/OFF strategy

STIEBEL ELTRON

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1 Technical documentation

Manufacturer documents for the heat pump:

- [Stiebel Eltron: Technical guide WPL 15/20/25, engineering and installation](#) – Planning and installation document for the WPL 15/20/25 air-to-water heat pumps (PDF).
- [Worcester Bosch: literature search for HPC410](#) – Link from the original article.

2 Required equipment

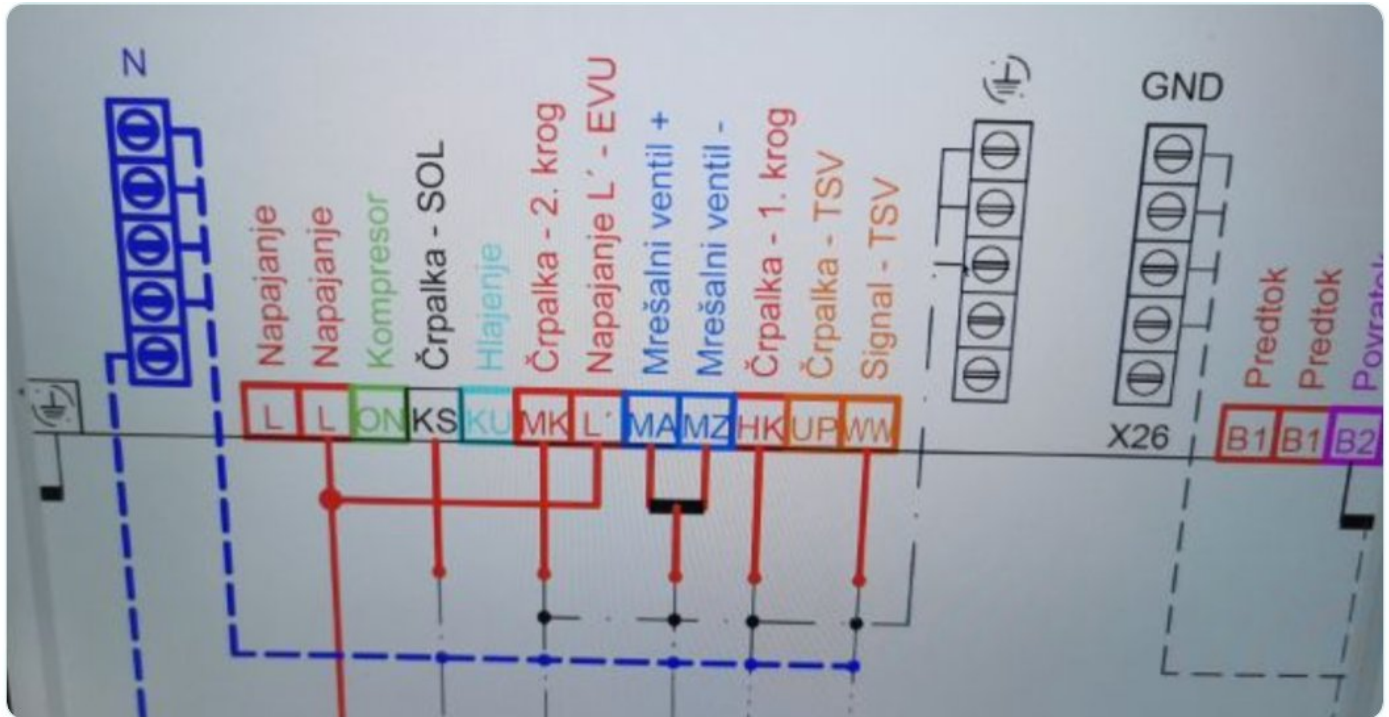
- ☐ Reduxi Controller
- ☐ Stiebel Eltron heat pump with an EVU contact
- ☐ Shelly with an input contact (I) and an output contact (O)
- ☐ Wire to connect the Shelly to the EVU contact
- ☐ Laptop or tablet with internet access to configure the device in Reduxi

3 Connect the EVU contact to the Shelly

The Reduxi Controller uses the EVU contact of the heat pump for Smart Grid support. A Shelly switches the contact.

3.1 Find the EVU contact on the heat pump

The picture shows an example of the terminals of the heat pump. The terminal **L'** is the EVU contact.



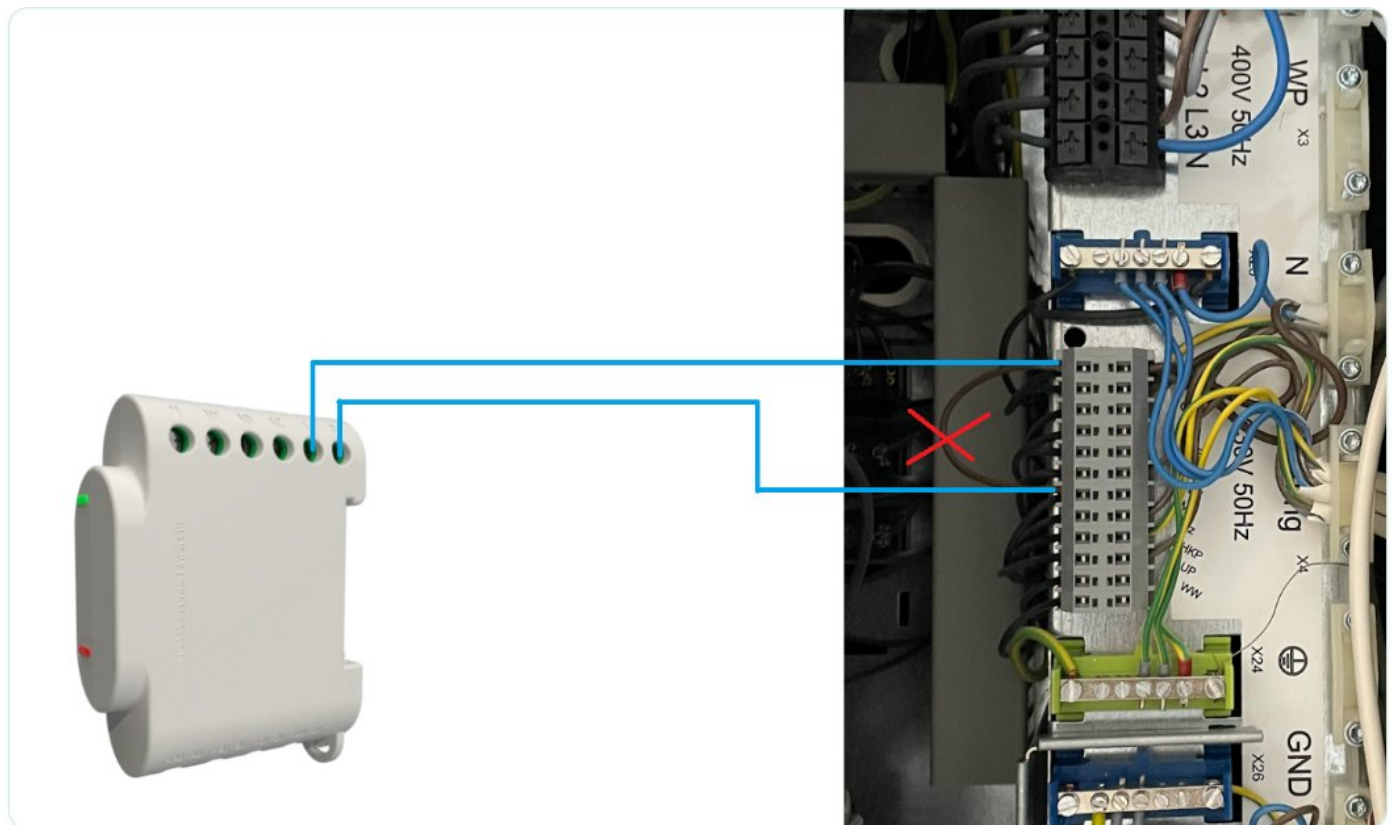
Example: terminal strip with the EVU contact

Text description of this image

3.2 Connect the EVU contact to the Shelly

Take the wire from the EVU contact and connect it to the Shelly **I** (input) contact. This wire comes from the **L** power supply on the Stiebel Eltron.

From the **O** (output) contact on the Shelly, take a wire to the EVU contact **L'** on the Stiebel Eltron heat pump.



Wiring: Shelly I and O contacts to the heat pump

Text description of this image

3.3 Configure the Shelly user interface

Press the button in the Shelly user interface to switch the I/O switch on or off. Check whether the EVU is active when the contact is normally closed or normally open.

Stiebel Eltron sets this contact to closed by default, so that the heating keeps operating. If the contact is opened, the EVU contact is activated. The contact is therefore normally closed. Set this accordingly in the Shelly 3EM.

4 Log in to the Reduxi web interface

You can open the Reduxi web interface in two ways:



REMOTE

Reduxi app

Via tunnel connection · works from anywhere



Web browser

In the local network · via IP address or reduxि.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

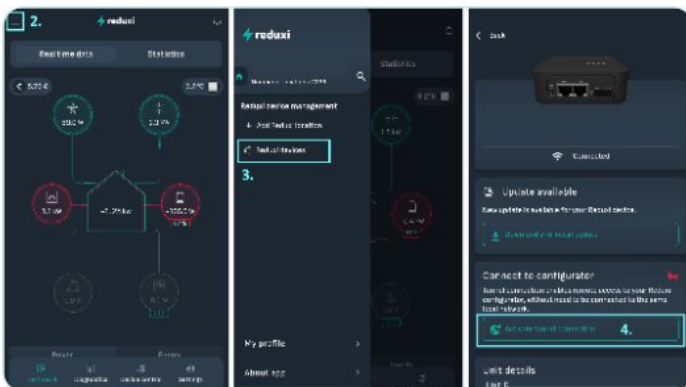
Tap the menu icon (three lines, top left) and select **Reduxi devices**.

3 Activate the tunnel connection

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

4 Open the configurator

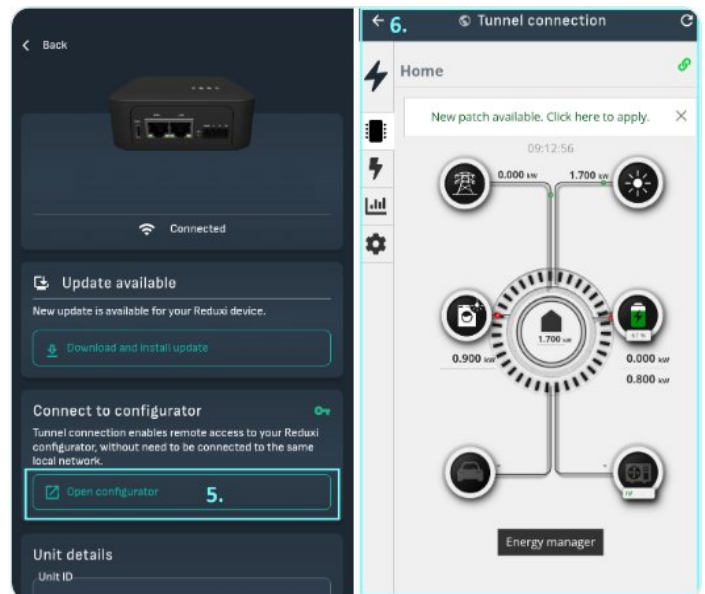
Tap **Open configurator**. The Reduxi web interface opens.



Activate the tunnel connection (step 3)

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



Open configurator (step 4)

2. Text description of this image

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

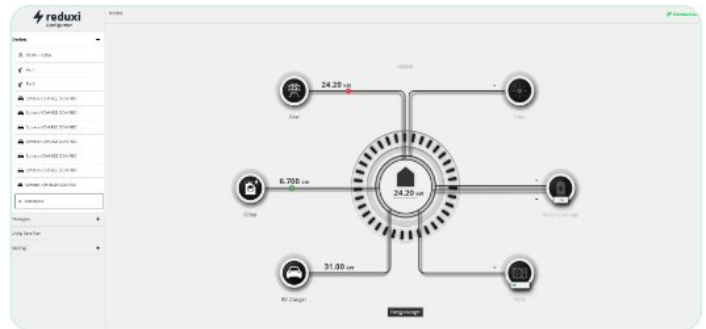
Log in

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 device to Reduxi

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

5.1 Basic settings

Log in locally to the [Reduxi Configurator](#) on the controller (see [Point 4](#)) and click **+ Add device**. Then enter the basic settings.

5.2 Communication settings

Select the communication channel. Then enter the device configuration.

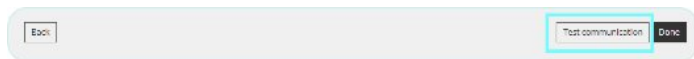
PARAMETER	VALUE
Modbus unit ID	Normally one unit ID is used.

5.3 Advanced settings

Enter and choose the advanced settings.

5.4 Test communication

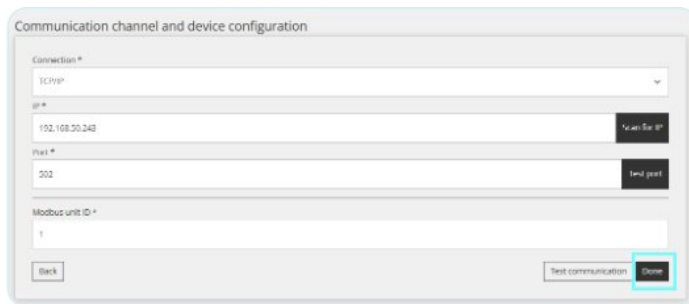
Click **Test communication** at the bottom of the wizard. It reads the the device once and saves nothing. If the test succeeds, click **Done**: only **Done** creates the device.



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

Communication channel and device configuration

6 Check the readings and set the strategy

6.1 Last measurements

After communication is established, check the values of the device under **Devices** in the Reduxi Configurator as an additional test.

6.2 Configure the strategy

Add an ON/OFF strategy in the Reduxi Controller. Define when the EVU contact is open. For example, you can set it to open when the limit on the grid meter is reached.

For details on strategies, see [Strategies for Reduxi controller](#).

✓ Summary

Preparation (Points 1–2): Open the manufacturer document and gather the Reduxi Controller, the Shelly, the wire and a laptop.

Heat pump (Point 3): Find the EVU contact L', connect it to the Shelly I and O contacts and set the contact to normally closed.

Add to Reduxi (Points 4–5): Log in to the Reduxi Configurator, add the device and run Test communication.

Go live (Point 6): Check the readings and add the ON/OFF strategy that opens the EVU contact.

→ Common issues

ISSUE	SOLUTION
The EVU contact does not react	Check the wiring: Shelly I to the L supply, Shelly O to the EVU contact L'. Check that the contact is set to normally closed in the Shelly (Point 3.3).
The heat pump is not controlled	Check that an ON/OFF strategy exists and that it defines when the EVU contact is open (Point 6.2).
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:



Strategies for Reduxi controller

How to define strategies for the Reduxi Controller.



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