

How to connect Nibe S-series heat pump (Modbus) with Reduxi controller

Add a Nibe S-series heat pump to the Reduxi Controller over Modbus and read its values.

🔗 Nibe S-series heat pump · Reduxi Controller

🌐 Modbus TCP/IP (port 502) or Modbus RTU via RS485

🔢 Modbus unit ID: 1 (normally)

👁️ Integration level: Read

The NIBE logo is displayed in a bold, red, serif font. It is centered within a white rectangular box that has rounded corners. The background of the entire page is a dark teal color with a subtle circular gradient pattern.



Nibe VVM S320 (S-series)

Text description of this image

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1 Prepare the connection

1.1 Technical documentation

Documents of the manufacturer:

- **[Nibe professional: search documents](#)** – Instructions on the manufacturer web page
- **[Technical Information: Modbus S-Series \(PDF, M12676EN\)](#)** – Modbus TCP/IP of the NIBE S-series: menus, port, register tables
- **[MODBUS 40: tips and tricks \(PDF\)](#)** – Settings and connection of the MODBUS 40 accessory (RS485)

1.2 Required equipment

These components connect the Reduxi Controller to the Nibe heat pump:

- ☐ Reduxi Controller
- ☐ Nibe heat pump with Modbus: S-series with built-in Modbus TCP/IP (software 2.2.1 or later), or a heat pump with the MODBUS 40 accessory (RS485)
- ☐ Network connection of the heat pump (Wi-Fi or Ethernet) for Modbus TCP/IP
- ☐ RS485 cable, only for the connection with MODBUS 40
- ☐ Laptop or tablet with internet access to configure the device in Reduxi

2 Activate Modbus on the heat pump

Use one of the two connection types. Both are listed for Nibe in the List of supported devices.

2.1 Modbus TCP/IP (S-series)

1 Connect the heat pump to the local network

Menu **5.2 Network settings**: select Wi-Fi or Ethernet.

2 Activate Modbus TCP/IP

Menu **7.5.9 Modbus TCP/IP**. Modbus TCP/IP needs software version 2.2.1 or later. The heat pump uses port **502**.

3 Note the IP address

Menu **3.1.13 Connections** shows the IP address, the netmask and the MAC address. You need the IP address in the Reduxi Configurator (see [Point 4](#)).

The heat pump accepts connections only from private address ranges (10.x.x.x, 172.16–31.x.x, 192.168.x.x). In menu 7.5.9 you can restrict access to a trusted IP address ("IP address restriction"). If you use it, enter the IP address of the Reduxi Controller.



Important

Nibe: Modbus/TCP communication over the open internet is very risky and is not recommended.

2.2 Modbus RTU over RS485 (MODBUS 40)

The MODBUS 40 accessory connects the heat pump over RS485 with Modbus RTU. Default settings:

PARAMETER	VALUE
Baud rate	9600
Data bits	8
Parity	none
Stop bits	1
Slave address	1 (0x01) for MODBUS 40 version 7 or lower. From version 10 the address can be changed.

1 Activate MODBUS 40

In the heat pump menu **5.2** or **5.2.4**. Menu **3.1** shows the MODBUS 40 with version 7 or higher.

2 Connect the RS485 line

Terminals **AA9-X2** of the MODBUS 40: **A** = +, **B** = -, **GND** = ground. If communication fails, swap A and B to test the cable. For the cabling to the Reduxi Controller see [Wiring, cable types and connection diagram](#).

3 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`

3.1 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

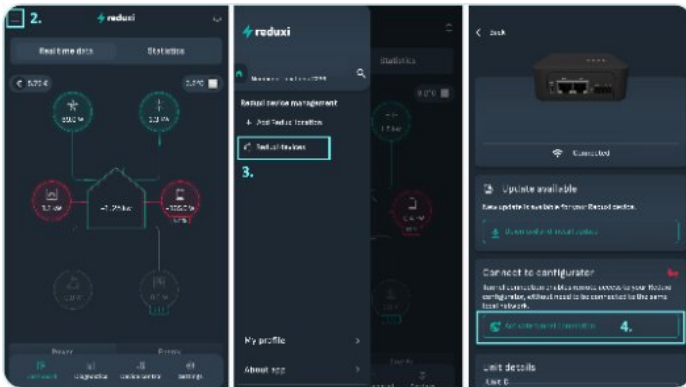
Tap the menu icon (three lines, top left) and select **Reduxi devices**.

3 Activate the tunnel connection

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

4 Open the configurator

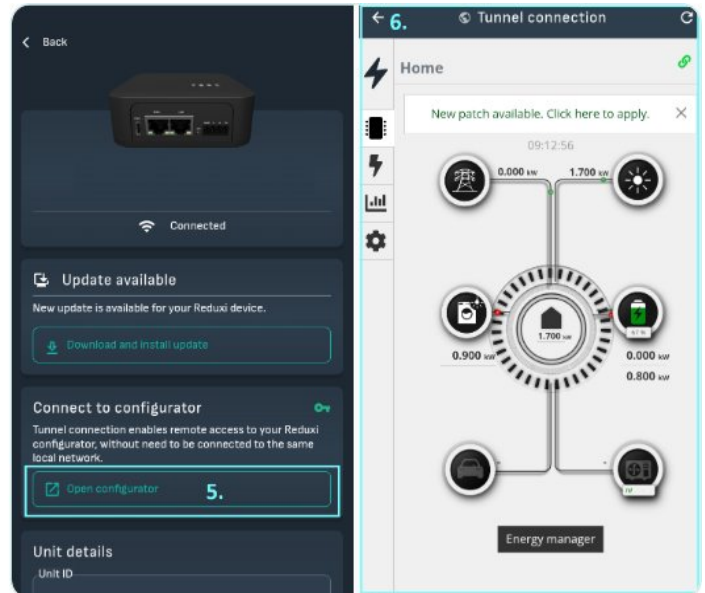
Tap **Open configurator**. The Reduxi web interface opens.



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

3.2 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**.

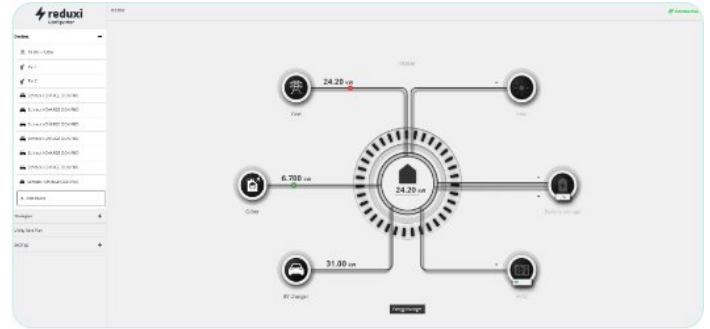
2 Log in

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



Reduxi Controller login screen

Text description of this image



Controller web interface after login

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Screenshot of the Reduxi Configurator web interface

4 Add the heat pump to Reduxi

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

4.1 Basic settings

Log in locally to the [Reduxi Configurator](#) on the controller (see [Point 3](#)) and click **Add device**.

reduxi Configurator

Devices



Elwe 2



Fronius SYMO



Schrack NA96



Sunways Hybrid Inverter



Thor



Add device

The Add device button

Text description of this image

Enter the basic settings of the device:

- Device type: HVAC
- Type: Nibe S-series
- Name: a name of your choice, for example Nibe S-series

Then click **Next**.

4.2 Communication settings

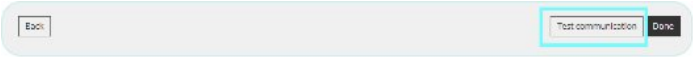
Select the communication channel and enter the device configuration:

PARAMETER	MODBUS TCP/IP	MODBUS RTU (RS485)
Connection	TCP/IP	RS485
IP address	IP address of the heat pump (menu 3.1.13)	–
Port	502	–
Modbus unit ID	Normally 1	Normally 1 (slave address of the MODBUS 40)
Serial settings	–	9600 baud, 8 data bits, no parity, 1 stop bit (MODBUS 40 defaults)

Then enter and select the advanced settings.

4.3 Test communication

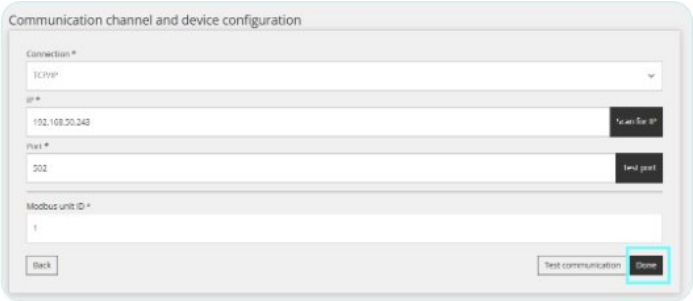
Click **Test communication** at the bottom of the wizard. It reads the Nibe heat pump once and saves nothing. If the test succeeds, click **Done**: only **Done** creates the device.



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

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5 Check the readings

5.1 Last measurements

After communication is established, check the values under **Devices – Nibe S-series** in the **Reduxi Configurator** as an additional test.

5.2 Control by Reduxi

The List of supported devices shows the Nibe Modbus entries with the integration level **Read**. Reduxi reads the values over Modbus. Strategy commands do not control the heat pump over Modbus.

To control a Nibe heat pump with the operating modes of the SG-ready contacts, see **How to connect Nibe heat pump with Reduxi Gateway**. Reduxi strategies are described in **Strategies for Reduxi controller**.

✓ Summary

Preparation (Points 1–2): Open the Nibe documents. In the S-series, activate Modbus TCP/IP in menu 7.5.9. With the MODBUS 40 accessory, activate it in menu 5.2 and connect RS485.

Nibe heat pump (Point 2): Note the IP address of the heat pump (menu 3.1.13). The heat pump uses port 502.

Add to Reduxi (Points 3–4): Log in to the Reduxi web interface. Add the device with type HVAC and Nibe S-series, enter the communication settings and test the communication.

Go live (Point 5): Check the last measurements. The Modbus integration is read only.

→ Common issues

ISSUE	SOLUTION
Test communication fails over Modbus TCP/IP	Check that Modbus TCP/IP is activated in menu 7.5.9 and that the software is version 2.2.1 or later. Check the IP address and port 502 (see Point 4). If you use the IP address restriction, enter the IP address of the Reduxi Controller (see Point 2).
No data over RS485	Check the A/B polarity (swap A and B to test), the serial settings and the Modbus unit ID (see Point 2).
Strategy does not control the heat pump	The Modbus integration is read only (see Point 5). Use the SG-ready connection for control.
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:



How to connect Nibe heat pump with Reduxi Gateway

Control a Nibe heat pump through the SG-ready contacts



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