

How to connect M-Tec hybrid inverter with Reduxi controller

Save up to 70% on costs: connect the M-Tec Energy Butler GEN 3 hybrid inverter to the Reduxi Controller via Modbus TCP/IP.

🔌 M-Tec Energy Butler GEN 3 · Reduxi Controller

🌐 Modbus TCP/IP (Ethernet)

🔌 Port 502 · Modbus unit ID 255 (default)



M-Tec Energy Butler GEN 3

Text description of this image

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1 Prepare the M-Tec Energy Butler GEN 3

1.1 Required equipment

- ☐ M-Tec Energy Butler GEN 3 with the LAN module
- ☐ Reduxi Controller
- ☐ Ethernet cables
- ☐ Router or switch
- ☐ Laptop or tablet with internet access to configure the device in Reduxi

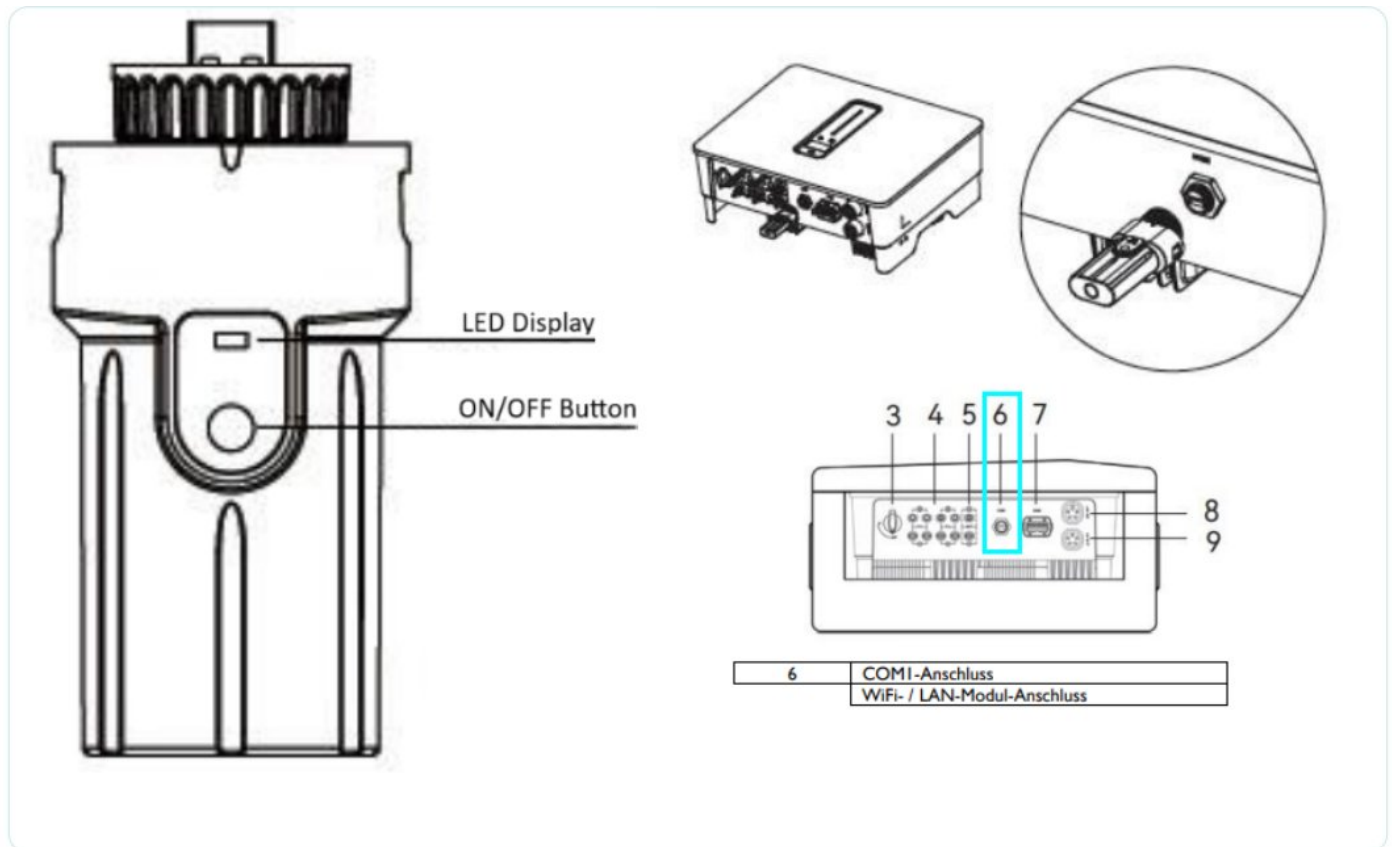
1.2 Install the latest firmware

With the latest firmware, the Modbus connection is enabled automatically. To update the firmware, contact M-Tec customer service: <https://www.mtec-systems.com/serviceanfragen/>

1.3 Connect the LAN module

The LAN module is included in the delivery of the Energy Butler. Connect it to **COM 1** on the inverter.

The diagram shows the module:

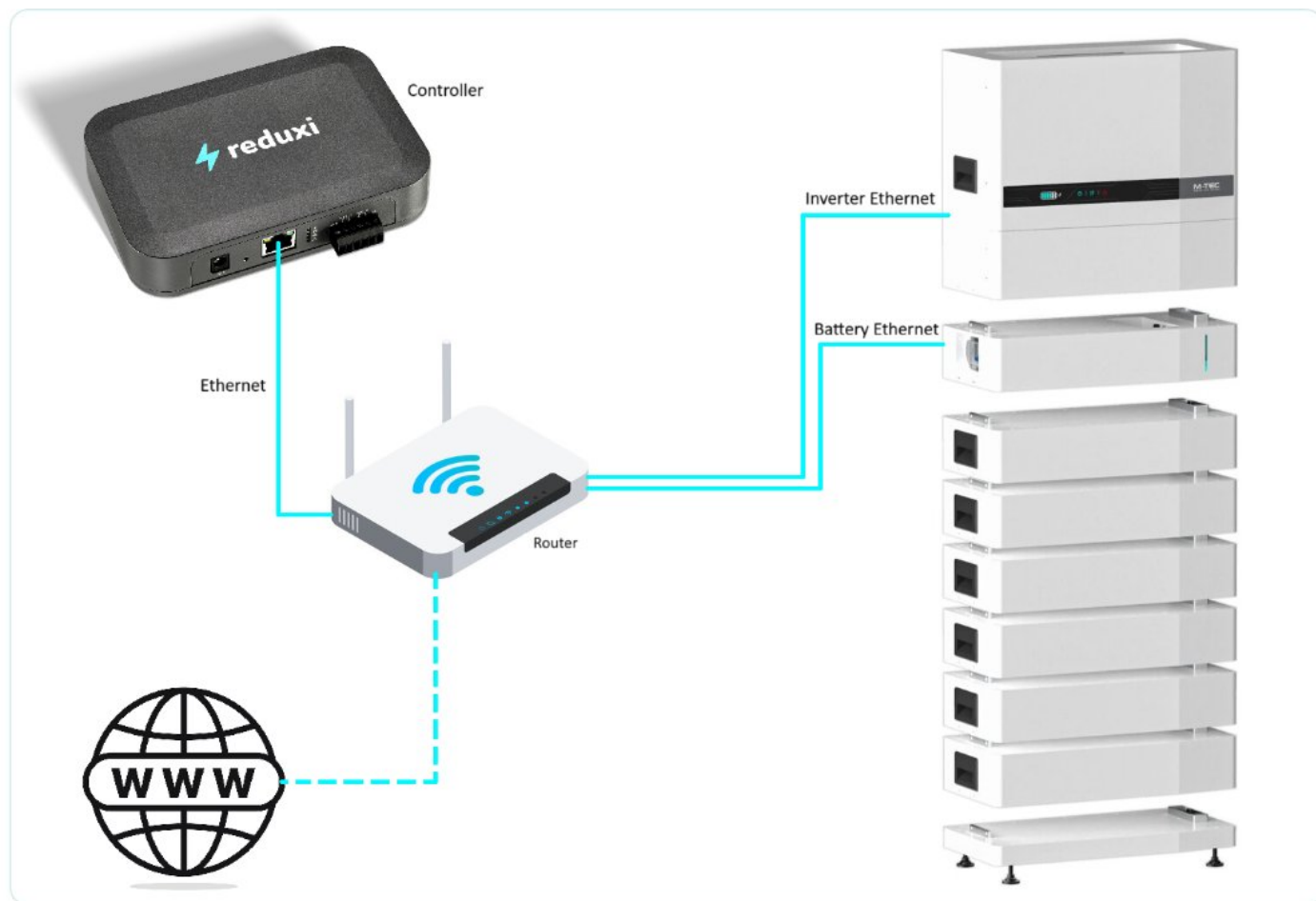


LAN module of the Energy Butler

Text description of this image

2 Physical connection

The picture shows the entire connection from the Reduxi Controller to the inverter.



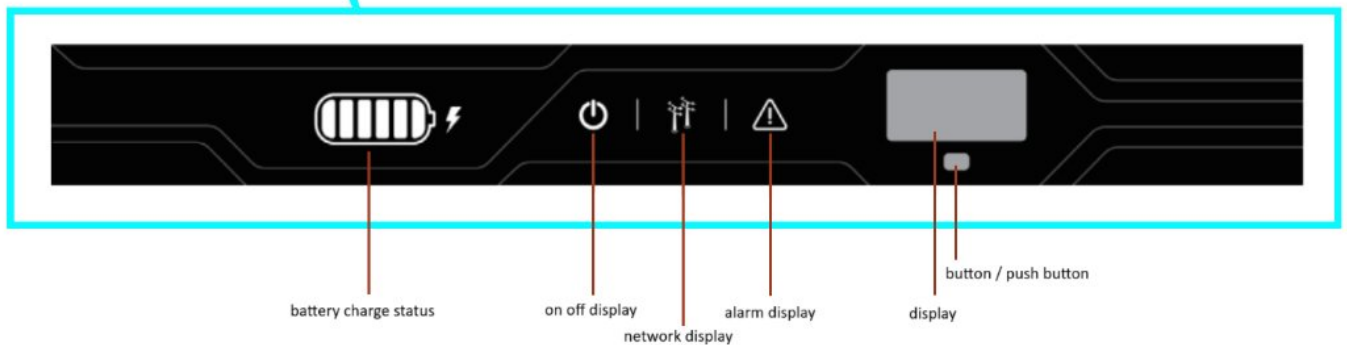
Connection from the Reduxi Controller to the M-Tec Energy Butler

Text description of this image

3 Set the IP address on the M-Tec Energy Butler GEN 3

3.1 Display and menu button

You set the IP address locally on the display of the inverter.



Display and menu button

Text description of this image



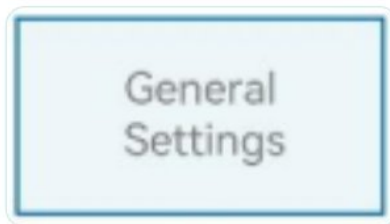
Important

If the parameter is a number, press the button briefly to change the number. Hold it down to confirm the number and move to the next number. Wait 10 seconds: the inverter then saves your changes automatically.

3.2 Menu navigation

1 Open General Settings

Press the button once to activate the display. When **General Settings** appears, press the button for about 3 seconds to enter the submenu.



General Settings

1. Text description of this image

Screenshot of a small inverter display menu entry in a light blue box with a teal border. Text on two lines: General Settings

2 Find DHCP Set

Press the button repeatedly until the **DHCP Set** menu appears. **DHCP On** is displayed by default.



DHCP Set ON

1. Text description of this image

Screenshot of a small inverter display menu in a white box with a teal border. Text on three lines: <General> DHCP Set ON

3 Switch DHCP off

Press and hold the button for about 3 seconds. DHCP **On** changes to **OFF**.



DHCP Set OFF

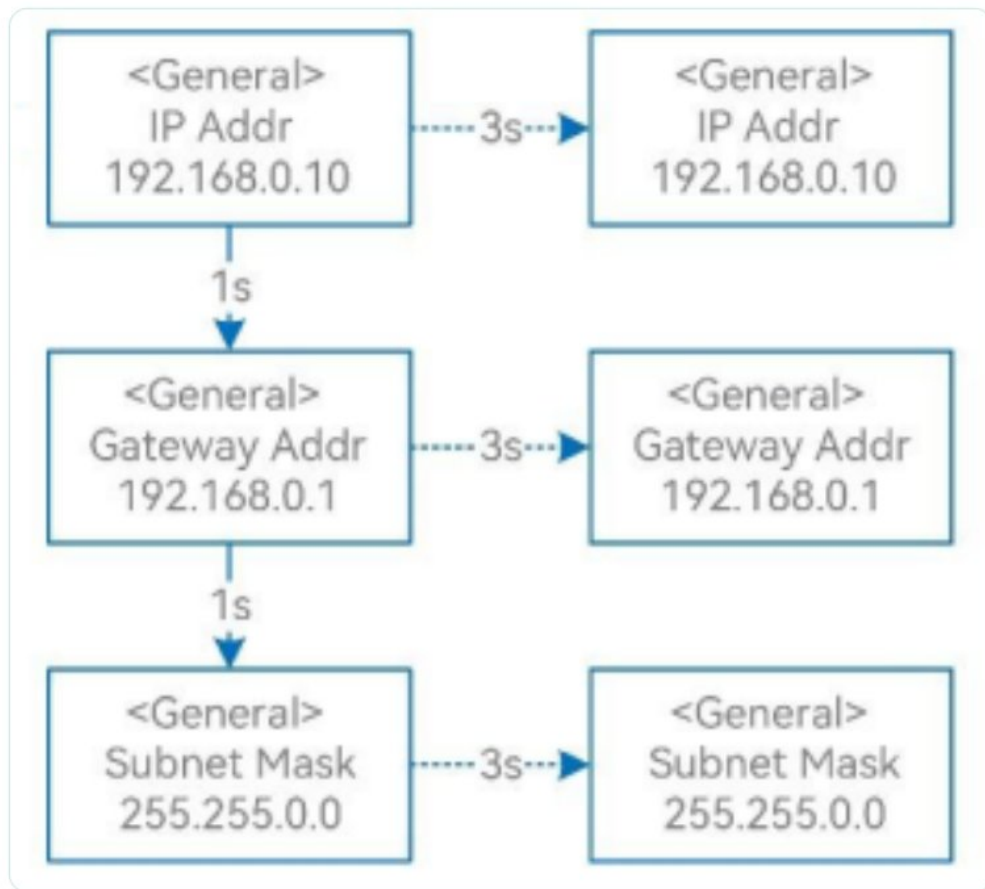
1. Text description of this image

Screenshot of a small inverter display menu in a white box with a teal border. Text on three lines: <General> DHCP Set OFF

4

Set the IP address

Press the button briefly to change the IP settings. Set the address for the Energy Butler GEN 3 that matches your home network. Change the values with a short press. Confirm your entry with a press longer than 3 seconds.



Sequence for IP address, gateway address and subnet mask

1. Text description of this image

Flow diagram of inverter display screens, six boxes with blue borders in two columns. Left column from top to bottom: <General> IP Addr 192.168.0.10; <General> Gateway Addr 192.168.0.1; <General>

5

Set gateway and subnet mask

Repeat the process for the gateway address and the subnet mask.

6

Save

Write down the values. Wait about 10 seconds until the inverter saves the settings and returns to the main menu.

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 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

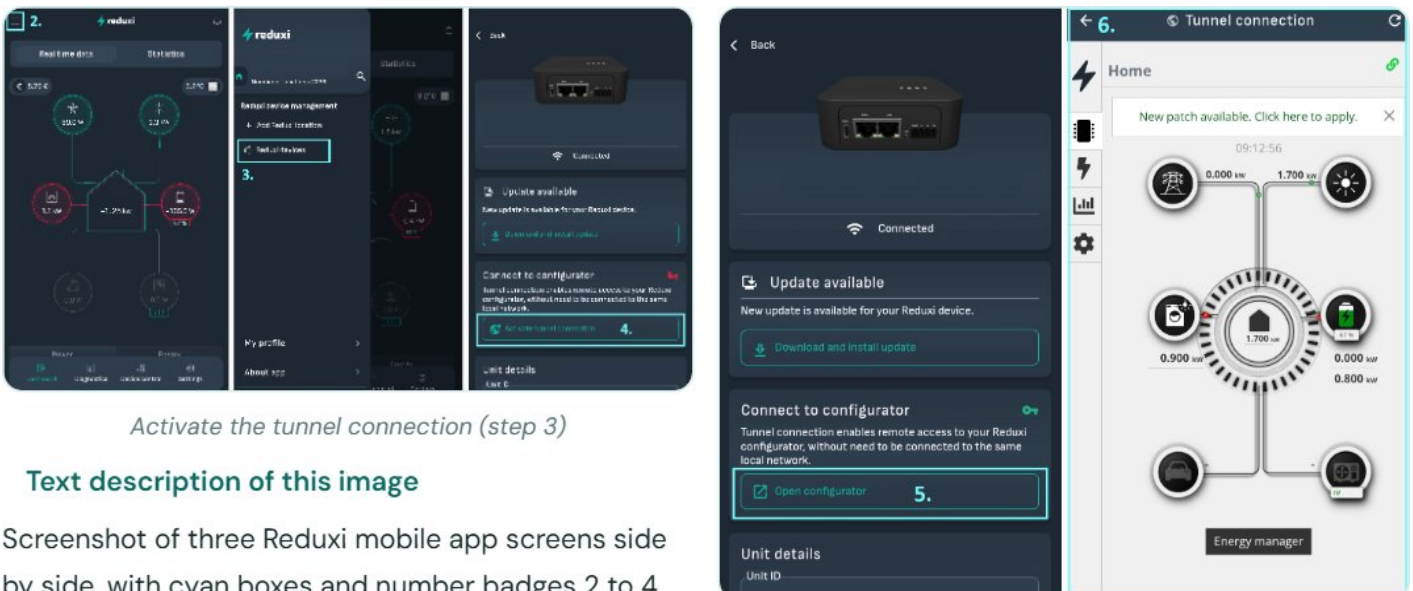
Tap the menu icon (three lines, top left) and select **Reduxi devices**.

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

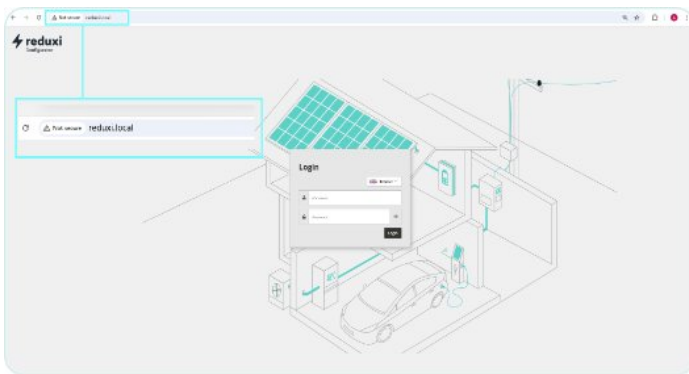
4.2 Via a web browser

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**.

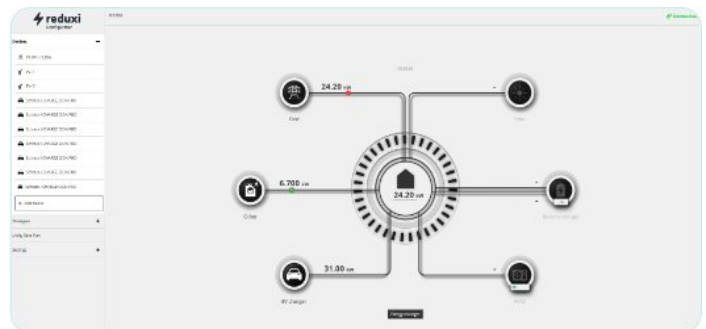
2 Log in

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

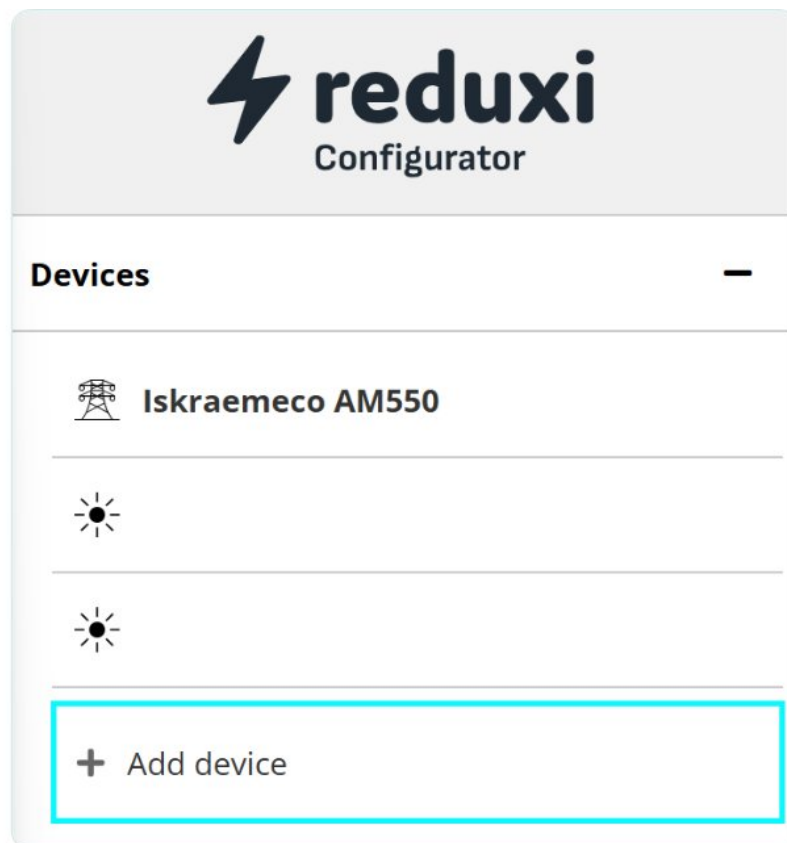
Screenshot of the Reduxi Configurator web interface

5 Add the M-Tec Energy Butler GEN 3 to Reduxi

After you connect the Reduxi Controller and the M-Tec Energy Butler, register it as a new device.

5.1 Basic settings

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



The Add device button

Text description of this image

In the first step, select the basic settings:

- Device type: Hybrid Inverter
- Type: M-Tec Energy Butler GEN 3
- Name: a name of your choice, for example **M-Tec Energy Butler GEN 3**

1

Basic settings

2

Communication channel

Basic settings

Device type *

Hybrid inverter

Type *

Name *

M-Tec Energy Butler GEN 3

Back

Next

Basic settings: device type, type and name

Text description of this image

Click **Next**.

5.2 Communication settings

The second step sets up the communication channel for Modbus TCP/IP between the Reduxi Controller and the inverter:

PARAMETER	VALUE
Connection	TCP/IP
IP	The IP address of the M-Tec Energy Butler GEN 3 (see Point 3)
Port	502
Modbus unit ID	255 : the default value of M-Tec

1 Basic settings

2 Communication channel

Communication channel and device configuration

Connection *

TCP/IP

IP *

Port *

502

Modbus unit ID *

1

Back

Test communication

Done

Communication settings

Text description of this image

5.3 Test communication

Click **Test communication** at the bottom of the wizard. It reads the M-Tec Energy Butler GEN 3 once and saves nothing. If the test succeeds, click **Done**: only **Done** creates the device.

Back

Test communication

Done

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'.

Communication channel and device configuration

Connection *

TCP/IP

IP *

192.168.20.248

Port *

502

Modbus unit ID *

1

Back

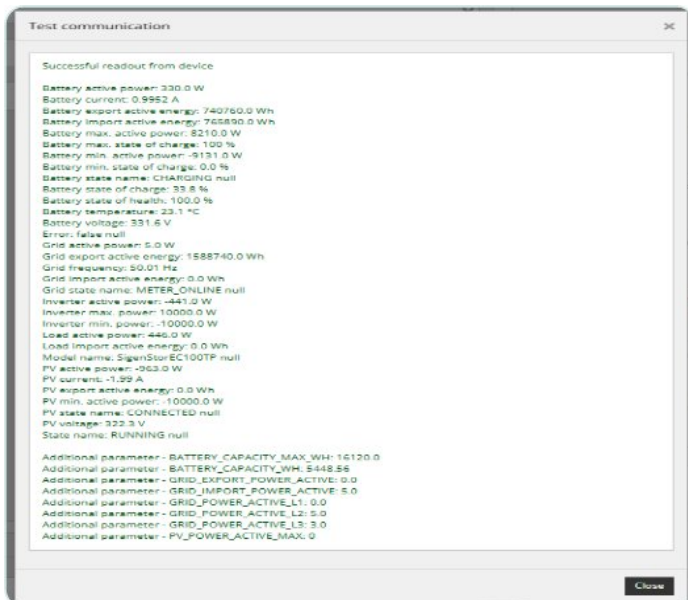
Test communication

Done

The **Done** button

2. Text description of this image

Examples of the result for this device:



1. Test successful (example)

Text description of this image



2. Test failed (example)

2. Text description of this image

Screenshot of a dialog titled Test communication with a close x at the top right. Message in red text: Unable to communicate with device. Dark button at the bottom right: Close.

6 Check the readings

6.1 Last measurements

Check the measured values and the communication under **Devices – M-Tec Energy Butler GEN 3 – Last Measurement** in the Reduxi Configurator.

Last measurementsAnalyzeArchive

Without refreshing

Control type

AutoManual

14.03.2025 12:49:53

PV

PV active power

-1.0 kW

14.03.2025 12:49:53

PV current

-1.98 A

14.03.2025 12:49:53

PV voltage

327.63 V

14.03.2025 12:49:53

PV export active energy

587.0 kWh

14.03.2025 12:49:53

PV min. active power

-10.0 kW

14.03.2025 12:49:53

PV export active power limit

kW

14.03.2025 12:49:53

enumeration.PV_STATE_NAME

CONNECTED

14.03.2025 12:49:53

Load

Load active power

0.4 kW

14.03.2025 12:49:53

Load import active energy

1,109.2 kWh

14.03.2025 12:49:53

Battery

Battery active power

0.4 kW

14.03.2025 12:49:53

Battery current

1.09 A

14.03.2025 12:49:53

Battery voltage

331.60 V

14.03.2025 12:49:53

Battery state name

CHARGING

14.03.2025 12:49:53

Battery state of charge

33.80 %

14.03.2025 12:49:53

Battery min. state of charge

0.00 %

14.03.2025 12:49:53

Battery max. state of charge

100.00 %

14.03.2025 12:49:53

Battery import active energy

765.9 kWh

14.03.2025 12:49:53

Battery export active energy

740.8 kWh

14.03.2025 12:49:53

Battery min. active power

-9.1 kW

14.03.2025 12:49:53

Battery max. active power

8.2 kW

14.03.2025 12:49:53

Battery active power setpoint

1.0 kW

14.03.2025 12:49:53

Inverter

Inverter active power

-0.4 kW

14.03.2025 12:49:53

Inverter max. active power

10.0 kW

14.03.2025 12:49:53

Inverter min. active power

-10.0 kW

14.03.2025 12:49:53

State name

RUNNING

14.03.2025 12:49:53

Error

OFF

14.03.2025 12:49:53

Grid

Grid frequency

49.990 Hz

14.03.2025 12:49:53

Grid active power

0.0 kW

14.03.2025 12:49:53

Grid import active power limit

kW

14.03.2025 12:49:53

Grid export active power limit

kW

14.03.2025 12:49:53

enumeration.GRID_STATE_NAME

METER_ONLINE

14.03.2025 12:49:53

Grid export active energy

1,588.7 kWh

14.03.2025 12:49:53

Grid import active energy

0.0 kWh

14.03.2025 12:49:53

Other

Battery state of health

100.00 %

14.03.2025 12:49:53

Battery temperature

23.10 °C

14.03.2025 12:49:53

Model name

SigenStorEC100TP

14.03.2025 12:49:53

Communication error

OFF

14.03.2025 12:49:53

Control type

MANUAL

14.03.2025 12:49:53

Mode name variants

SELF_CONSUMPTION

14.03.2025 12:49:53

Last measurements of the inverter

Text description of this image

6.2 Enable control by Reduxi

For advanced control, integrate the device into the optimization modes of the Reduxi system. Under **Devices – M-Tec Energy Butler GEN 3** in the Reduxi Configurator, set the **control type** to **AUTO**. Only then do strategy commands affect the battery.

To achieve maximum flexibility and energy cost reduction with dynamic prices and dynamic tariffs, define a strategy as described in [Strategies for Reduxi controller](#).

After you add the device, you can monitor and control it via [the Reduxi application](#).

✓ Summary

Preparation (Points 1–2): Install the latest firmware. Connect the LAN module to COM 1. Connect the inverter and the Reduxi Controller to the router.

M-Tec Energy Butler GEN 3 (Point 3): Switch DHCP off on the display and set IP address, gateway address and subnet mask. Write the values down.

Add to Reduxi (Points 4–5): Log in to the Reduxi web interface, click + Add device, enter IP, port 502 and unit ID 255. Click Test communication, then Done.

Go live (Point 6): Check the last measurements. Set the control type to AUTO and define a strategy.

→ Common issues

ISSUE	SOLUTION
Modbus connection does not work	Install the latest firmware. It enables Modbus automatically. Contact M-Tec customer service for the update.
Display settings are not saved	Wait about 10 seconds after the last entry. The inverter then saves the settings.
Test communication fails	Check the IP address (Point 3), port 502 and the Modbus unit ID. The M-Tec default is 255.
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:



M-Tec customer service

Request the firmware update for the Energy Butler.



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