SMART LIVING

USER MANUAL **INSIGHTS**

RENSON®

INSIGHTS

Today, sustainable living is more important than ever. In concrete terms, this ranges from saving energy to using materials consciously and thus investing in the future.

Here at Renson, a Belgian high-tech manufacturer of smart building technology, we play an important role in this. Thanks to the development of our own software and hardware platform, we have succeeded in automating homes and buildings and even optimising neighbourhoods. At the home level, we automate all the processes such as lighting, heating, ventilation, sun protection, solar panels, garage doors, etc., offering increased comfort.

Smart Living offers a dashboard where a user can monitor his/her energy and sensor values. This offers many possibilities:

- monitoring the consumption of electricity and/or gas
- identifying peak consumption and large consumers (in the context of capacity tariff)
- providing insights into consumption to increase your consumption of your solar energy
- seeing connections between the thermostat and gas or electricity consumption

Energy data can be added to the Smart Living installation by

- connecting the P1 port of the **digital meter** to the Brain/Brain+ module
- adding an **Energy module** to the installation allowing 12 devices or circuits to be measured so that large consumers such as a heat pump, charging station or solar panels can be monitored.

WHAT CAN I FIND IN THIS DOCUMENT?

This document contains more information about setting up and configuring the Insights dashboard.

This is a supplement to the full and comprehensive “Configuration & User Manual”, which explains the configuration of all modules (except the Energy module) and the start-up of your system. So make sure you first read the entire manual and follow it step by step before going through this manual.

Any questions? Contact us via **smartliving@renson.eu** for further information or assistance.

STEP 1: LOG IN WITH YOUR ADMINISTRATOR’S ACCOUNT

Configuring your Energy module or your P1-port is only possible with an administrator’s account. First read the “Configuration & user manual”, which details how to create an account. Follow these steps to log in:

1. Go to https://cloud.renson.eu
2. Log in with your details

Update your installation to the latest version by going to Configuration → Updates and starting the update if a newer version is available.

STEP 2:
CONNECTING THE DIGITAL METER

By connecting the digital meter to your Smart Living installation, your energy data (electricity and gas[1], if applicable) can be read and displayed on the Insights dashboard.

In order to connect your digital meter to the Brain or Brain+, your digital meter must be close to your fuse box with Smart Living installation (maximum 3 metres away).

- Connect the Brain/Brain+ module to the P1 port of the digital meter using the (supplied) RJ12 cable[2].
- Activate the user ports on your digital meter by submitting a request to the grid operator (Fluvius for Belgian digital meters). You will need a recent electricity bill for this. (It can take up to 72 hours for the user port to be activated).
- Activate the P1 port on your Smart Living installation:
  - Go to Configuration → Set up → General
  - Click on the Brain or Brain+ under Gateways
  - Select at 'Digital Meter (P1)':
    - "Onboard P1-port (RJ12)" if you are connecting the RJ12 cable directly to the Brain or Brain+ module
    - "USB to P1-adapter" if you are connecting the RJ12 cable to the Brain or Brain+ module via USB dongle (because the Expansion Bus is already in use)

When the P1 port on your Smart Living installation has been activated by the grid operator, the energy data will start to build up and will appear on the Insights dashboard.[3]

Is the data from the digital meter not coming through?

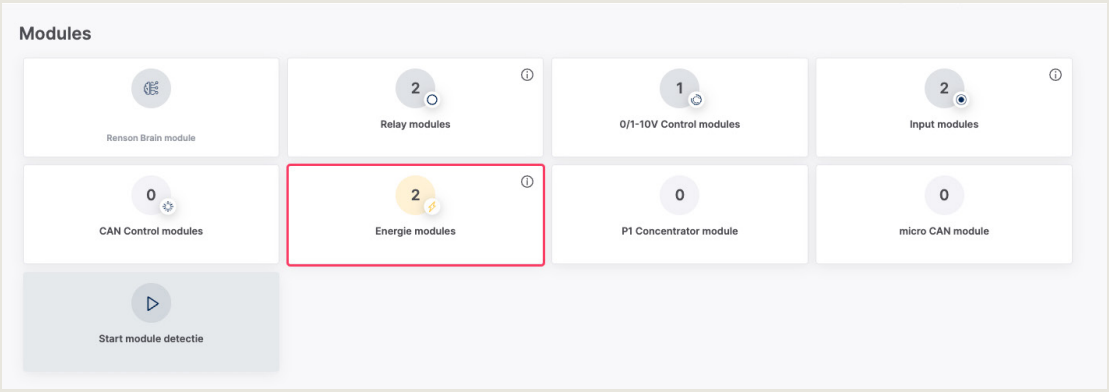
- Check the P1 port is activated on the Smart Living installation
- Check the P1 port has been opened by the grid operator
- Check you have used the (supplied) RJ12 cable to connect the digital counter to the Brain or Brain+ module

1. Gas only with Belgian digital meters.
2. An RJ11 telephone cable also fits in the Brain/Brain+ and digital counter, but it doesn't work. It must be an RJ12 cable.
3. If you go to the Insights dashboard immediately after activation, you will not be able to see much data. This is because data will only be collected from the moment of activation. If you look at the dashboard a day later, you will see data from the moment of activation.

STEP 3: CONFIGURING THE ENERGY MODULE AND CURRENT SENSORS

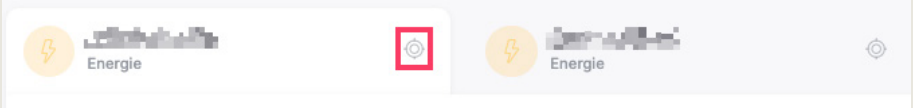
In the Energy section of the Configuration you can change the settings for each installed current sensor (connected to the Energy module). To set this properly you need information about the current sensor and around which phase conductor in the fuse box it is placed. Incorrect configuration of the current sensors will cause the measured values to be incorrect. Especially in the case of a 3-phase electrical installation, it is very important that the necessary attention is paid to correct installation & configuration.

- Navigate to Configuration → Set up → Initialisation
  If the Energy module appears here, you can continue with the next step.



  If not visible in this overview, you must add the module first:
  – Click on the green button “Start module detection”
  – Briefly press the “Action” button on the front panel of the physical Energy module. After a few seconds, the page should show that 1 Energy module was found.
  – Then click on the red button “Stop module detection”.

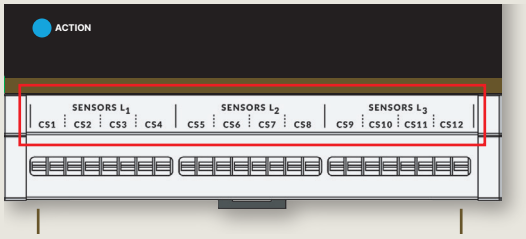
- Then go to Configuration → Set up → Energy
  There you will see your Energy module(s), and you will be able to configure up to 12 current sensors.
  Do you have multiple Energy modules? Then you can identify the Energy module by clicking on the dot next to the Energy modules. This causes the lights of the physical Energy module to flash so you know which one you are configuring.



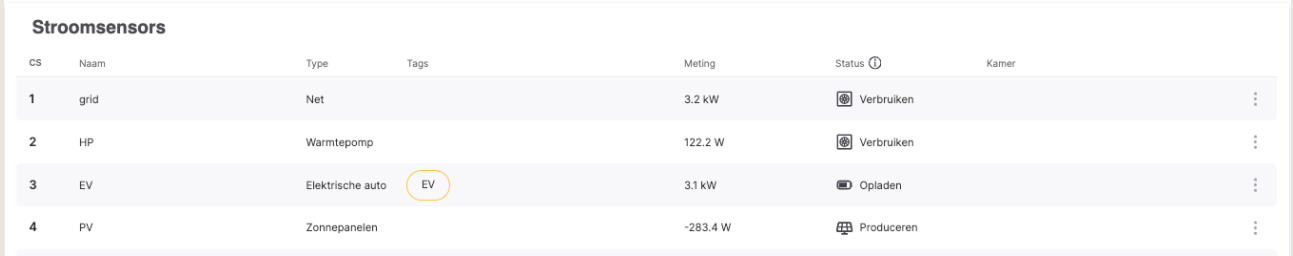
- Select the Energy module you want to install. The current sensors are listed under each module and can be configured by clicking on the pencil on the right.

Each current sensor has the following properties

- **CS:** The number of the current sensor that corresponds to the “CS” designation on the Energy module:



- **Name:** the name of the sensor, which can be configured
- **Maximum capacity of Current Sensor (CS):** this is indicated on the sensor’s product label
- **Invert direction:** if the measured value has an unexpected sign (positive or negative), it can be inverted by turning this toggle on/off. Depending on how the sensor is connected, the direction must be reversed. You can determine whether the sensor needs to be inverted by looking at the current measurement and state in the table:
  - The **Power** displays the real-time measurement of the current sensor, with a positive or negative value.
  - The **State** displays an interpretation of the positive or negative measurement. Example:
    - A consumer (such as a heat pump, washing machine) consumes electricity (and does not produce electricity). If the measurement is positive, the “consume” status will be displayed. If the measurement has a negative reading, the direction of the current sensor must be inverted by changing the “Invert Direction” toggle.
    - Solar panels provide energy, so a negative reading is expected. If not, the current sensor must be inverted.
    - If a current sensor is used to measure the grid or a battery, the State field can be used to interpret whether or not the measurement should be inverted. Depending on the measurement, the State field will indicate whether energy is being consumed/injected or the battery is being charged/discharged. If the State indicated does not correspond to what is expected (e.g. when there is an injection, without the sun shining, for example, then the direction must be reversed).
- **Consumer type:** select the type of consumer from the list, e.g. heat pump, washing machine, solar panels, etc.
  - If there are several sensors with the same type, they are added together.
- **Tags:** tags give you the option to sum different current sensors together (or view them separately if there are multiple sensors with the same type). For example, add a “kitchen” tag to the sensors of the oven, stove and refrigerator if you would like to view them together.
- **Room:** optionally add a room to a current sensor (e.g. “Kitchen” to the refrigerator’s sensor).



Good to know

To have a view on the **total consumption or injection from/to the grid** you can
- connect the digital meter to the Brain/Brain+ module, or
- add a current sensor from the Energy module around the main switch (3 current sensors with 3-phase connection).

Do you have both an Energy module and the digital meter connected? Then it is not necessary to connect a current sensor of the Energy module around the main switch(es).

Energy rates

Standard energy rates have been defined for electricity injection, consumption and gas. These rates are used on the Insights Dashboard to provide an estimate of energy costs or savings. You can adjust these standard rates to the rates of your energy bill to make the price estimate as accurate as possible.

Click on “Set energy rates” at the top right of the Energy configuration page. On the panel that opens, you can adjust the standard rates.

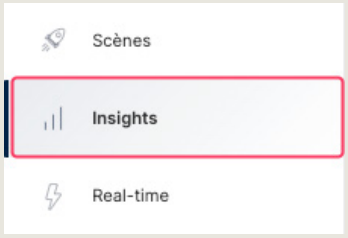
STEP 4:
INSIGHTS & REAL-TIME DASHBOARD

The Insights Dashboard can be found in the Renson One App and Portal. The energy and sensor data of your Smart Living installation are displayed here.

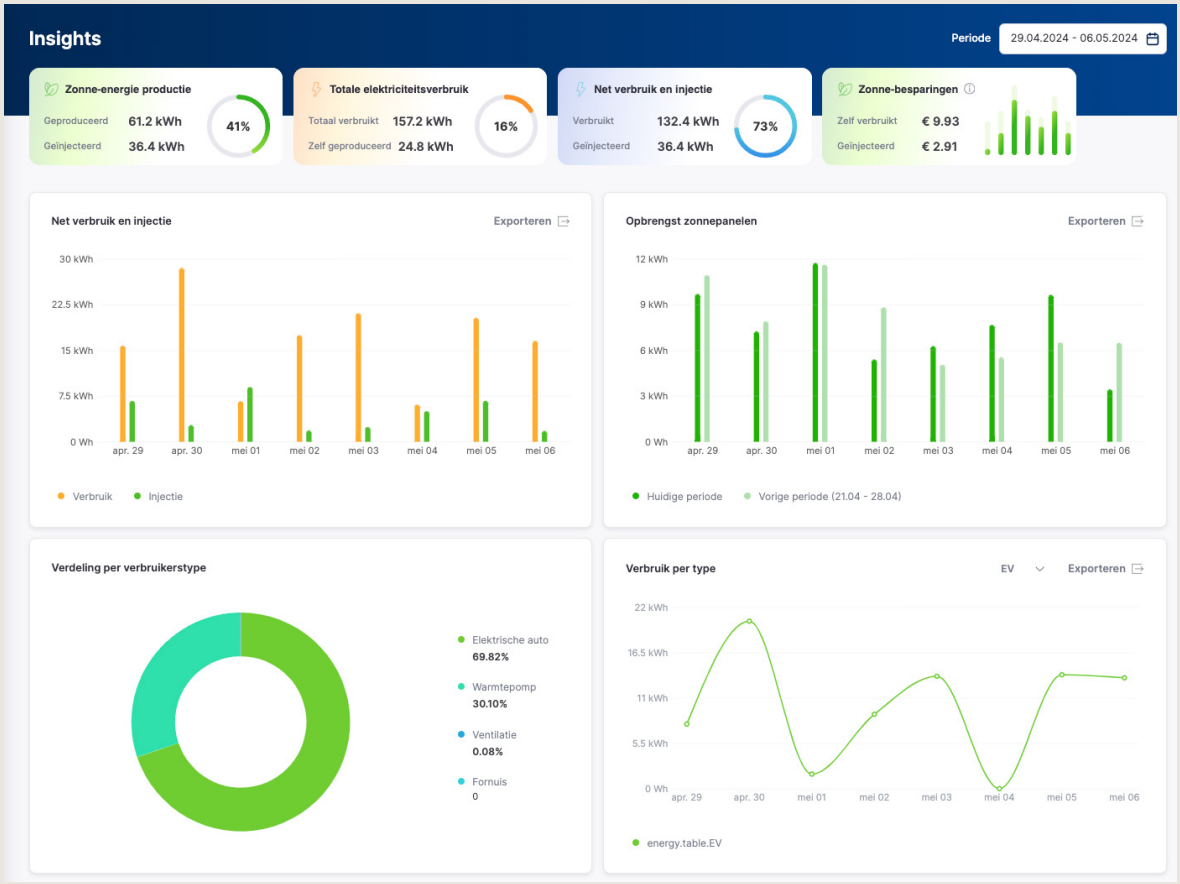
The dashboard is constructed depending on what information is available in your installation. Sensor graphs are available when there is a temperature, humidity or CO_2 sensor or a thermostat in your installation. Energy data from the digital meter or from an Energy module is also displayed on the dashboard.

You will see the data of the last 3 months on the dashboard[1].

Go to the Insights icon to see your Insights dashboard.



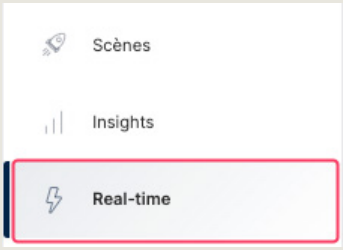
Insights dashboard



1. After connecting sensors, or configuring the Energy module or digital counter, the data will start building up to a maximum of 3 months of data.

Real-time

In addition to the Insights dashboard, you can also use a **Real-time** overview of electricity consumption.
Go to Real-time.



Here you can see the real-time electricity consumption (depending on what is available and measured in your installation)

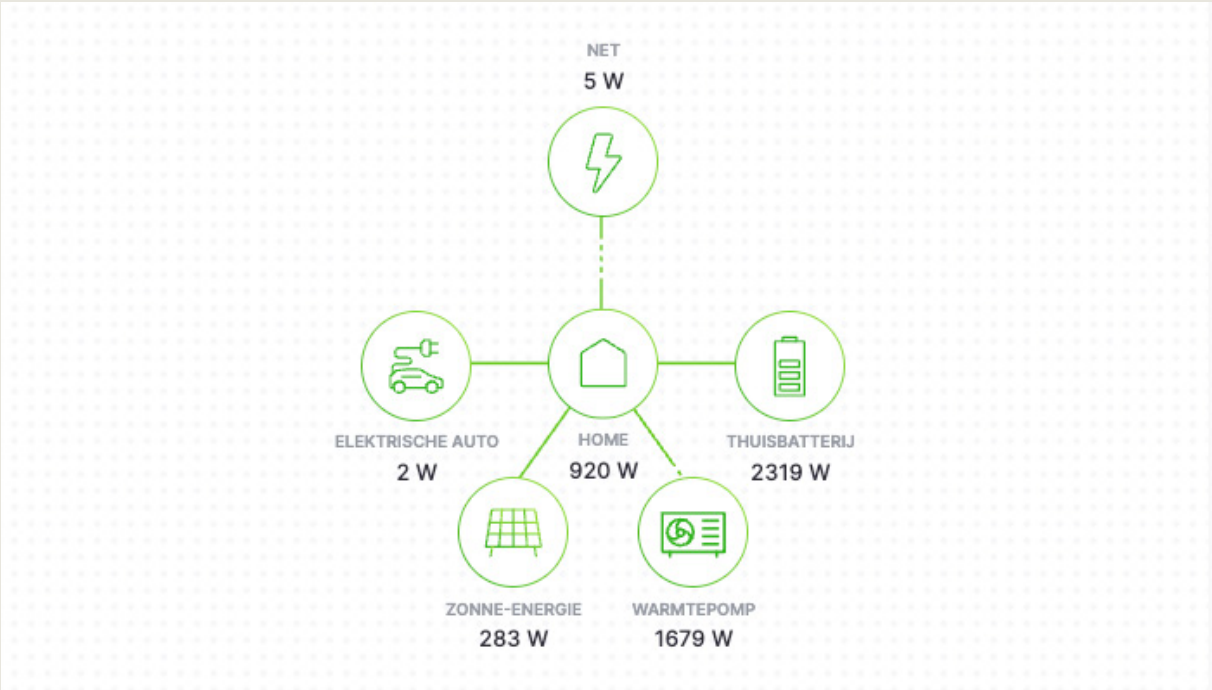
- the net (via P1 or Energy module)
- heat pump (via Energy module)
- solar panels (via Energy module or SMA plugin)
- battery (via Energy module)
- charging station (via Energy module)
- your home (all other consumption) (via P1 or Energy module)

The animation between these consumers shows in which direction the current is flowing.

Depending on the available energy data (digital counter or Energy module with current sensors), you will be able to monitor real-time consumption in more/less detail.

If you have measurements other than those listed above, you can also monitor them in real-time in the “detailed measurements” table on the Renson One Portal (not in the Renson One App).
You can also find tags in the table with their real-time values.

Real-time overview



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