Energy-saving Solutions

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Operating Diagram

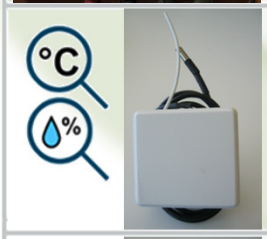
It is a ***simple and economic*** solution to optimise the energy consumption in buildings, offices and installations through the management and monitoring of the energy and with the advantage to compare, analyse and represent the data collected of several buildings using consumption graphs and customizable ratios.

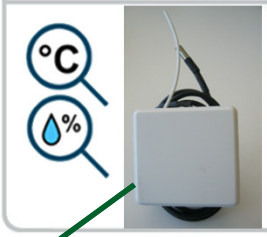
enerBOX

Wireless transmitter with the capacity to measure up to 4 single-phase current lines or 1 three-phase of up to 100A.

Electricity consumption measures

Temperature and humidity measures

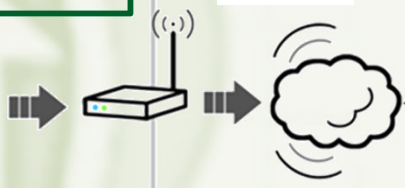




recepBOX

Wireless receiver with the capacity to connect up to 30 nodes simultaneously .

Receiving station



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Base de datos

WEBENER

Web application to visualize and monitor the electricity consumption data. It can also inform of the alerts and alarms to an email address.

ambientBOX

Humidity and temperature wireless meter.

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Wireless transmitter with the capacity to measure up to 4 single-phase current lines or 1 three-phase of up to 100A.

433 MHz

Max. 50m.

recepBOX

Wireless receiver with the capacity to connect up to 30 nodes simultaneously .

433 MHz

Max. 50m.

Optical pulse sensor

Device to carry out the electricity meter reading.

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Base de datos

433 MHz

Max. 50m.

WEBENER

Web application to visualize and monitor the electricity consumption data. It can also inform of the alerts and alarms to an email address.

ambientBOX

Humidity and temperature wireless meter.

Solution components

1

Sensors SCT013-100A

Non-intrusive sensors to measure currents reaching up to 100A in AC.

3

ambientBOX

Temperature and humidity wireless sensor. The sensor is powered by batteries and sends the data directly to **recepBOX**.

enerBOX

Wireless transmitter with the capacity to measure up to 4 single-phase current lines or 1 three-phase of up to 100A.

2

5

recepBOX

Wireless receiver with the capacity to connect up to 30 nodes simultaneously .

Optical pulse meter

Wireless optical sensor to know the electricity meter reading through the LED blink of the meter.

4

6

WEBENER

Web application to visualize and monitor the electricity consumption data. It can also inform of the alerts and alarms to an email address.

Electric energy monitoring

It is a ***simple and economic*** solution to optimise the energy consumption in houses and offices .

How does it work?

Clamp meters are installed in the electrical panel so as to measure the consumptions of every circuit. This information is sent wirelessly from **enerBOX** to the receiver station, **recepBOX**, which will dump the data in real time to **WEBENER** platform. Thus, the user will be able to visualize the electric consumptions in the platform using the Internet, being also able to inform of alerts and alarms via email.

Specifications

- Display of powers and energies in real time and its cost in €.
- Display of historical data.
- Possibility to monitor the electricity meter used by the electricity company to charge for the electricity.
- Maximum distance of 50m between the devices.
- Possibility to measure up to 30 different nodes with the same **recepBOX**.

Advantages

- Energy consumption monitoring of electric devices in houses and offices.
- Optimization of the contracted electric tariff on the basis of the analysis of the consumption data.
- Elimination of stand-by consumptions.
- Simple Internet access .
- Contribution to the environment due to the reduction of CO2 emissions.

Characteristics

Model	enerBOX
External Voltage	**12 V**
Current consumption	**54 mA**
Freq. Range	**433 MHz**
Max. distance to receiver	**50 m**
Current sensors (max. 4)	**100 A / 50 mA**
External AC measurement	**220 / 9 VAC**

Model	recepBOX
External Voltage	**5 V / 2.5 A**
Freq. Range	**433 MHz**
Max. distance to sensors	**50 m**
Max. number of sensors	**30 nodes**

Model	ambientBOX
Power supply	**2 x AA batteries**
Sleep current consumption	**0.12 mA**
Average current consumption	**9.5 mA**
Freq. Range	**433 MHz**
Max. distance to receiver	**50 m**

WEBENER Platform

- **Data management and visualization via Web**. The user **only needs Internet connection** to access the tool. It is **not necessary to acquire** any additional **software** or **hardware**.

- **Monitoring of consumptions in real time and historical data consultation** obtained from the measuring devices through the execution of reports and monitoring indicators.

- **Registry, notification and alarms and alerts visualization system** in order to detect and solve undesirable habits and possible defects.

- **Centralised System**, allowing the **management of different locations**.