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MyHOME

Energy IP data logger

User guide

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User guide

MyHOME

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Introduction and basic functions

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1 Introduction and basic functions

1.1 Fundamental concepts

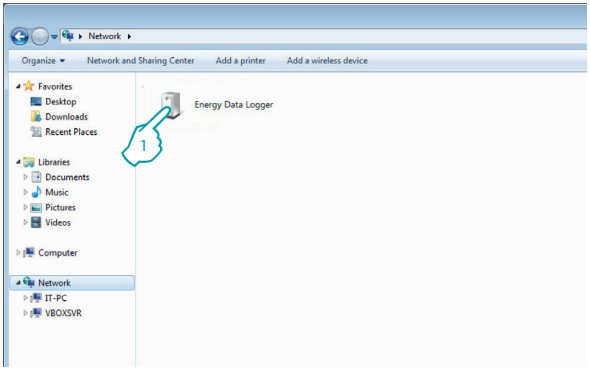
Energy IP data logger gives the possibility of displaying energy consumptions through web pages; not just electric consumptions, but also water and gas consumptions, as well as the data from the heating central accounting system.
The display of the consumptions provides the user with instantaneous and cumulative data of the real lines, as well as the virtual lines obtained by adding or subtracting the real ones, through charts and tables that make interpretation easier.
By setting an indicative tariff, it is also possible to obtain a direct economic assessment of consumptions.
For the electricity it is possible to set both single-hour and multi-hour (two-hour, three-hour) tariffs, up to a maximum of 8 bands.

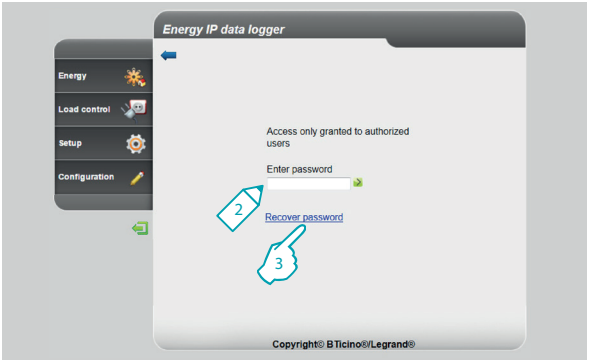
Energy IP data logger includes the following processing and accounting functions:

- numerical instantaneous, daily, monthly, daily average per month, or total for the 12 last months consumption values;
- daily, monthly, or 12 last months consumption graphs;
- consumption expressed in different units of measure (m^3, l, kWh, etc.) and the corresponding in currency (euro, dollar, sterling, etc.);
- consumption values from heat accounting systems (e.g. from remote heating systems).
- The Load control function allows you to check the F521 control unit management of the loads controlled by it to prevent energy detachments by the counter, excluding the loads (such as oven, washing machine, microwave etc.) according to the priority set in the configuration/actuator page. From this page you can check the load status and force reactivation.

Energy IP data logger also gives the possibility of saving consumption data on the microSD Card of the device, or directly on your PC as an Excel® file, so that they may be viewed at a later date.

1.2 Using the Energy IP data logger with Web pages





In "Network resources":

1 - Click the Energy IP data logger icon.

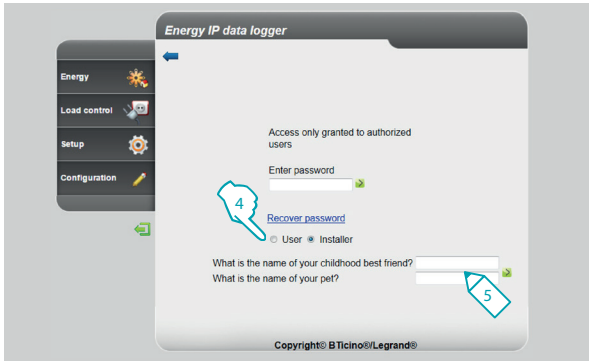
The browser loads the identification page.

WARNING: Depending on the Browser used to access the Web pages, in order to see the data correctly it may be necessary to modify the Browser parameter (for example in Internet Explorer select "Compatibility View").

2 - Enter the "**Password**".

3 - If you loose the password click "**Recover password**" to recover it.

Warning: The Web pages can be accessed in two modes: as "**user**" and as "**administrator**". In addition to having access to the same pages as the user, the administrator can also access the "**CONFIGURATION**" function and define some Data Logger parameters.
Ask your installer for the access password, if not already been provided.



4 - Select the type of password to recover.

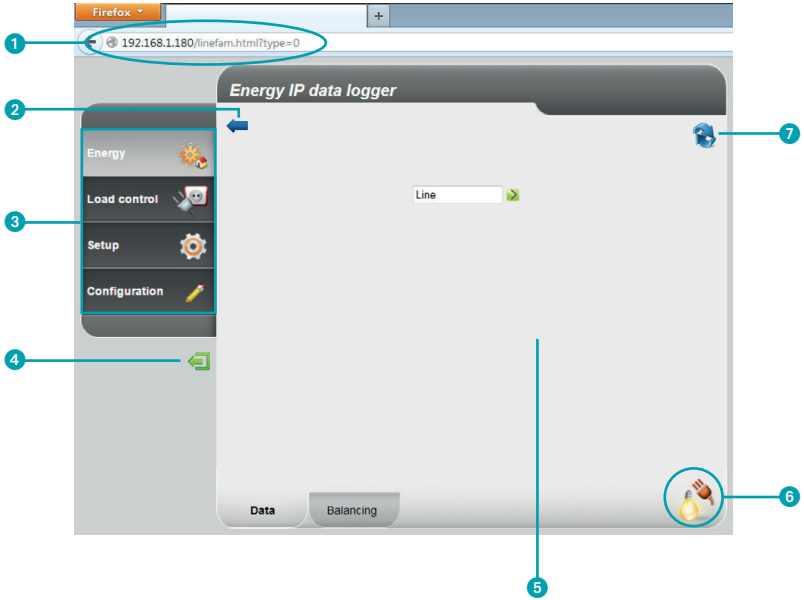
5 - Enter your answers to the security questions previously set in the password setup pages.

With this procedure the password is reset to the default setting (data logger), and you can enter a new password in the appropriate section.

1.2.1 Procedure for Tablet and Smartphone

When using a Tablet or a Smartphone to view the Web pages, if the installation was performed with fixed IP, enter the address in the browser address line.
If a third party UPnP application has been selected, to access the Energy IP data logger Web pages refer to the documentation of this application.

Example of Web page



1. Energy IP data logger address.
2. Previous page pushbutton.
3. Available functions.
4. Exit pushbutton.
5. Information and operation area.
6. Selected function icon.
7. Update page.

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Energy IP data logger
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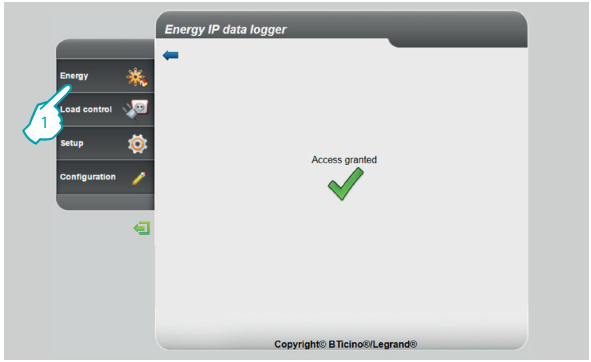
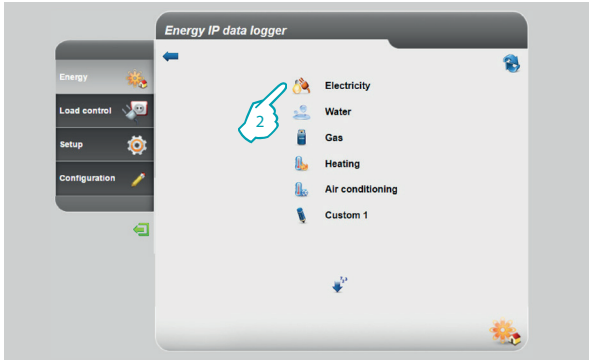
2.1 Energy



This function gives you the possibility to monitor energy consumption and production for the following items: Electricity, Water, Gas, Heating, Air conditioning.

1 - Click "**Energy**".



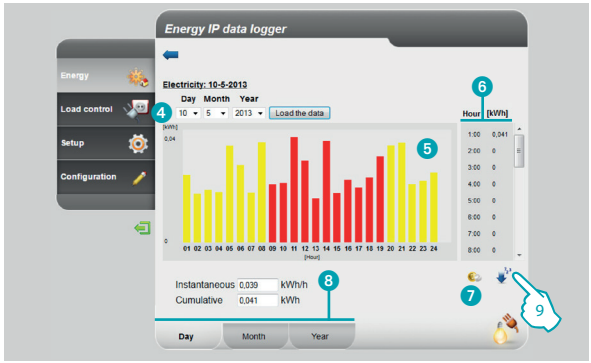
The browser loads the "**Energy**" page.

2 - Click the item to display among:

Electricity: It displays the electricity consumed by the system.
Water: it displays the water consumed by the system.
Gas: It displays gas consumption.
Heating: it displays heat (in thermal Kwh - calories) consumed by the heating system.
Air conditioning: it displays the frigories (in thermal Kwh - frigories) consumed by the air conditioning system.

Some items may not be visible if the installer has not set the function up.

2 Browse pages



This manual only describes the control of the Electricity. All the other energy controls are managed in the same way.

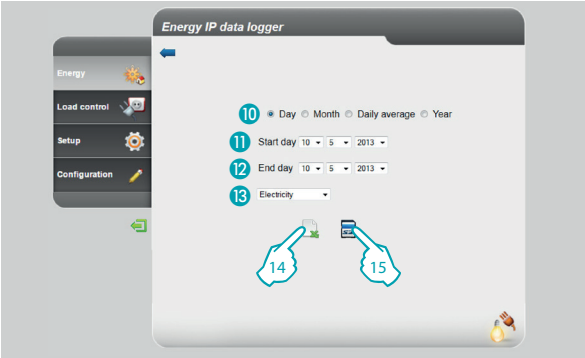
3 - Click the meter for which you want to display consumptions.

This page displays energy consumptions/productions in a chart or table format. The details may be displayed as daily, monthly, or annual figures.

In this page you can:

4. Set the display period.
5. Display the consumption chart.
6. Display the consumption table.
7. Switch consumption display from energy units to monetary units.
8. Select the type of display between DAY/MONTH/YEAR.

9 - Click to save the data.



This page can be used to save the consumption data relating to a meter on a microSD Card (for the last 12 months), or to export them in Excel format.

10 Select either DAY/MONTH/YEAR.

11 Select the start day, month, and year.

12 Select the end day, month, and year.

13 Select the line for which you want to save the consumptions.

14 - Export the data to Excel.

15 - Click to confirm the request to save the data on the microSD Card inserted in the Energy IP data logger.

For the control of the Electricity only, you can compare consumption to production and display the corresponding chart

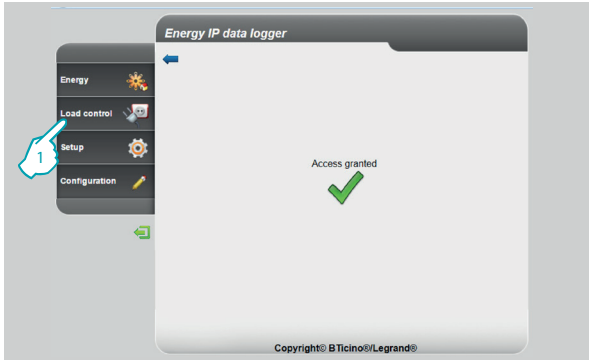
1 - Select the meter/s (consumption).

2 - Select the meter/s (production).

3 - Click to produce the comparison.

The data will be displayed as a chart and as a table as shown before.

2.2 Load control



This function can control the power used to prevent trips by the meter, excluding the loads (such as cooker, washing machine, microwave etc.) according to the priority set in the configuration/actuators page

1 - Click on "Load control".

In this page you can display the load status and, if one of the loads has been disconnected because of an overload, force its reactivation for a given time.
It is also possible to display the consumptions.

A - LOAD STATUS:

- the load is controlled by the load management control unit
- (flashing) the load has been forced and is not controlled by the load management control unit
- the load is disconnected.

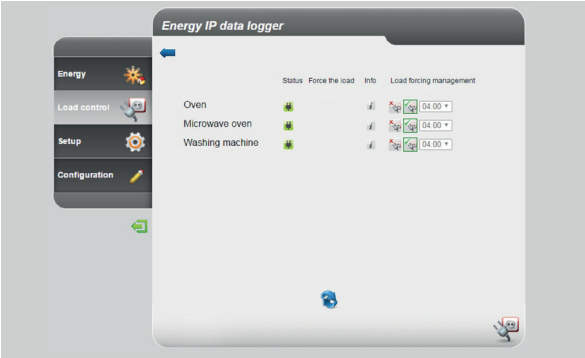
B – FORCE LOAD – appears when one of the loads is disconnected. Touch to reactivate it by force

C – INFO – opens the page where you can display the consumptions and zero the counter

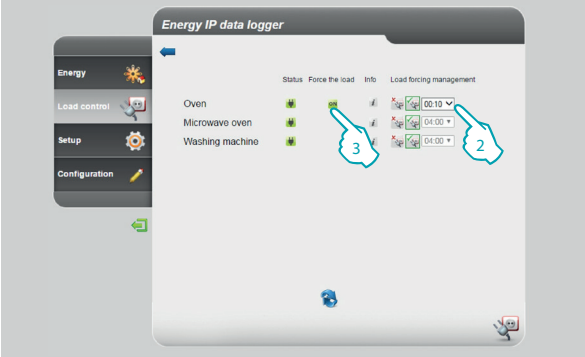
D – FORCING STATUS:

- the load is active
- the load is not active

E – FORCING TIME – time when the loads will be made active by force

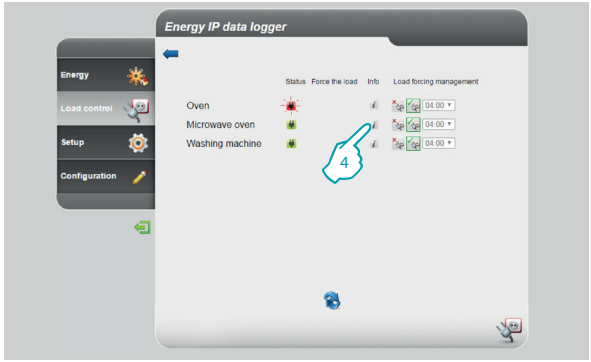


When the control unit detects an overload on the system, the load with lesser priority is disconnected. At this point you can reactivate the load by force.



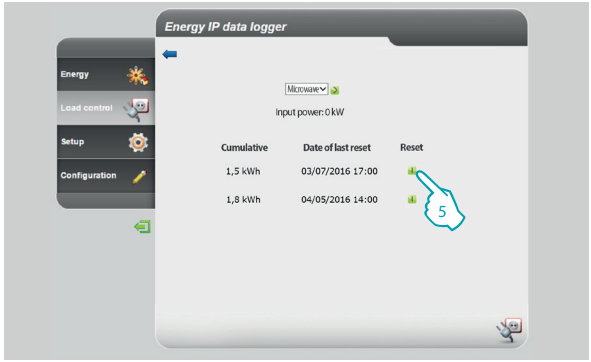
2 - Select the time in which the load will be reactivated by force.

3 - Click to force the reactivation



The status icon flashes and the load will remain active and out of the control unit's control for the set time

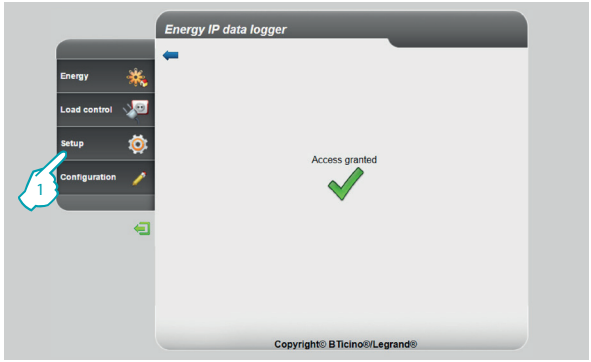
4 - Click to display the instantaneous consumption



In this page it is possible to display the load instantaneous consumption and the date of the last counter-reset

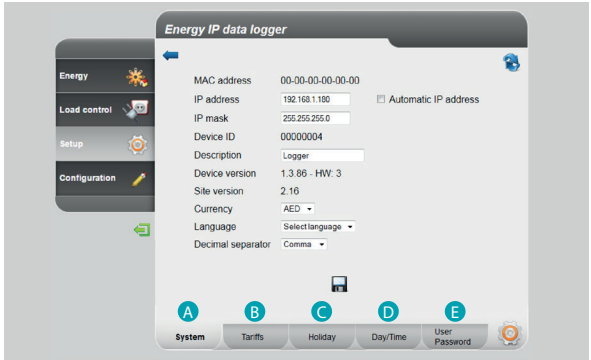
5 - Click to reset the meter

2.3 Setup



This function can be used to set certain parameters of the Energy IP data logger address.

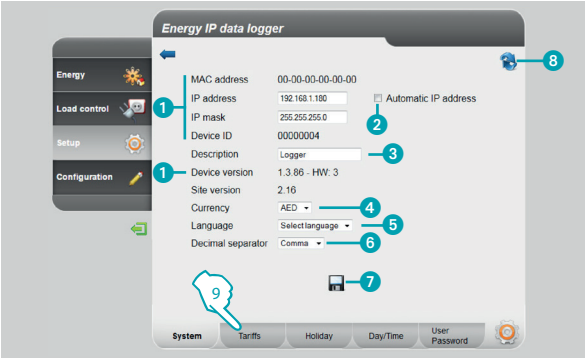
1 - Click "**Setup**".



The browser loads the "**Setup**" page.

The Web page is split into 5 tabs: "**System**" (A), "**Tariffs**" (B), "**Holiday**" (C), "**Day/Time**" (D), "**User Password**" (E).

2.3.1 Setup - System

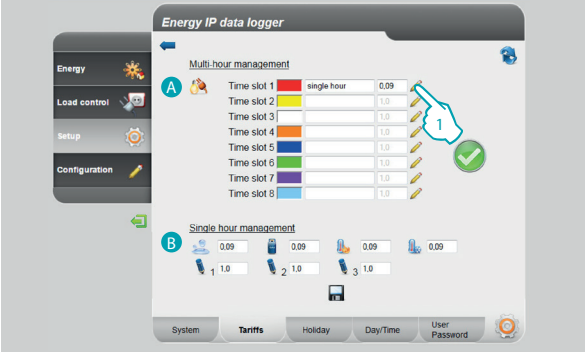


This page can be used to display some device parameters, enter a customised description for the device, select the currency of your country, and your language.

1. Display the Energy IP data logger parameters.
2. Select if the IP address of the Energy IP data logger must be assigned automatically.
3. Customise the description of the Energy IP data logger.
4. Select the currency for the calculation of consumptions.
5. Select the language for the display of the web pages.
6. Select the decimal separator (full stop or comma).
7. Click to confirm the operations.
8. Click to update the page.

9 - Click to go to the **"Tariffs"** setup.

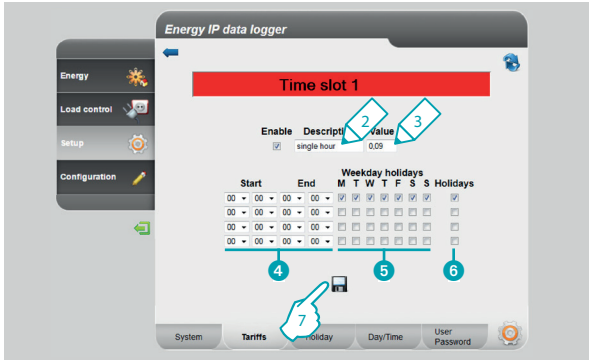
2.3.2 Setup - Single-hour tariff



The **"Tariffs"** web page is split in two areas:
the top (A) is used to set the electricity tariff (single-hour tariff in the example);
the bottom (B) can be used to set a tariff for the consumptions of Water, Gas, Heating, and Air conditioning, as well as a Customised tariff (single-hour only).

Setting the tariffs and the time slots for "ELECTRICITY" consumptions.

1 - Click to set the tariff.



2 - Enter a customised description to identify the tariff.

3 - Enter the value associated to the tariff.

You can also:

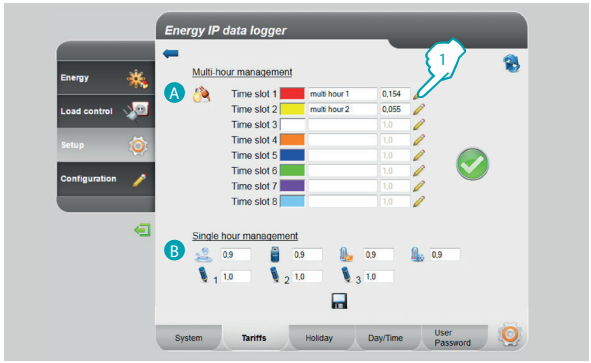
4 Select the start and the end of the time slot during which to apply the selected tariff (if 00.00 is set both as start and end date, the selected tariff will apply to the whole day).

5 Select the days during which the tariff is active.

6 Select if the tariff should also be applied for holidays (see corresponding section).

7 - Click to confirm the operation.

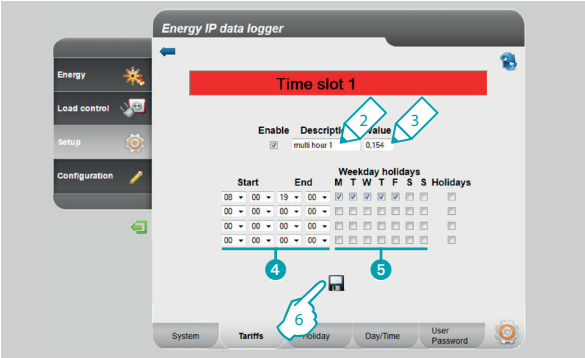
2.3.3 Setup - Multi-hour tariff



The **"Tariffs"** web page is split in two areas:
the top (A) is used to set the electricity tariff (e.g. multi-hour tariff); the bottom (B) can be used to set a tariff for the consumptions of Water, Gas, Heating, and Air conditioning, as well as a Customised tariff (single-hour only).

Setting the tariffs and the time slots for "ELECTRICITY" consumptions.

1 - Click to set the tariff.



2 - Enter a customised description to identify the tariff.

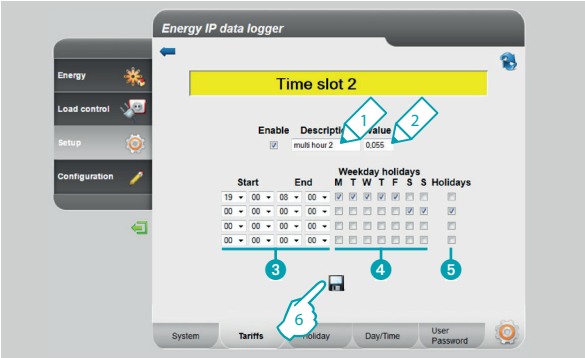
3 - Enter the value associated to the tariff.

You can also:

4 Select the start and thae end of the time slot during which to apply the selected tariff.

5 Select the days during which the tariff is active.

6 - Click to confirm the operation.



1 - Enter a customised description to identify the tariff.

2 - Enter the value associated to the tariff.

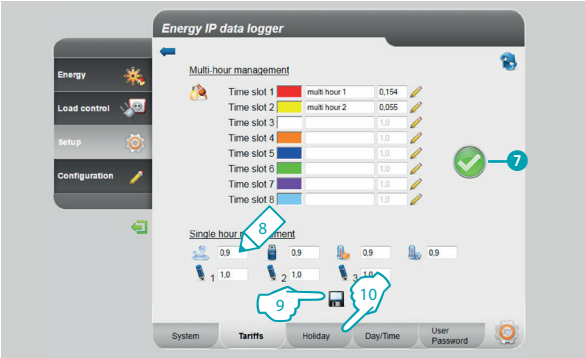
You can also:

3 Select the start and the end of the time slot during which to apply the selected tariff.

4 Select the days during which the tariff is active.

5 Select if the tariff should also be applied for holidays (see corresponding section).

6 - Click to confirm the operation.



7 If this symbol is displayed, it means that the configuration correctly covers the whole 24 hours of the day, for all the days of the week, including holidays.

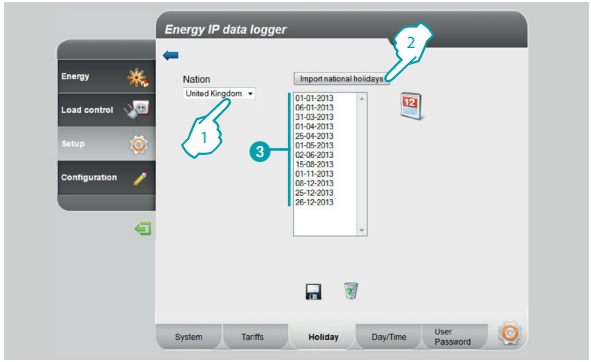
Setting tariffs for other consumptions.

8 - Enter the value associated to the tariff.

9 - Click to confirm the operation.

10 - Click to go to the "**Holiday**" setup.

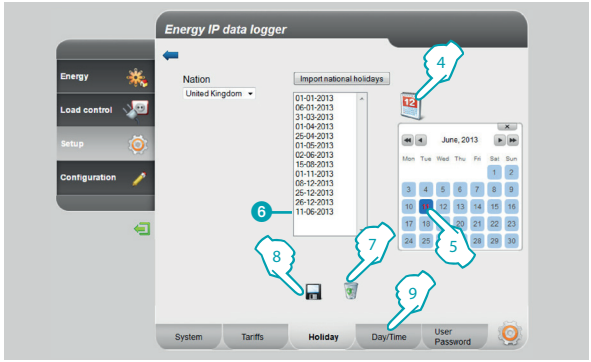
2.3.4 Setup - Holiday



This page can be used to load the preset list of national holidays. It is also possible to customise this list by adding other days, based on the calendar of application of the "Holiday" tariff by the electricity provider.

When the year changes, the holidays with variable days are updated; however, all customisations made by the user are lost

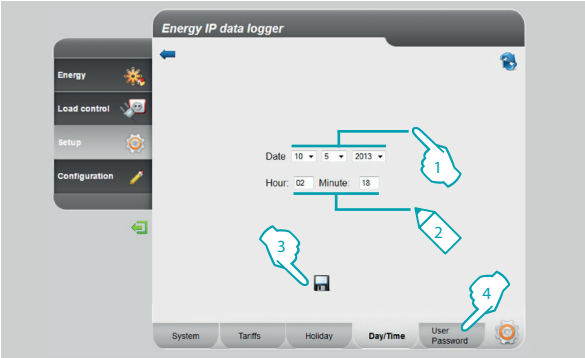
1 - Select the country.
2 - Click to enter the preset holidays.
3 The preset days are displayed inside the area.



You can add extra days at your discretion using the calendar.

4 - Click to open the calendar.
5 - Select the day to add.
6 The selected day is added to the list of holidays.
7 - Click to delete the list. To only delete one day, this must be selected before clicking the icon.
8 - Click to confirm the operation.
9 - Click to go to "**Day/Time**" setup.

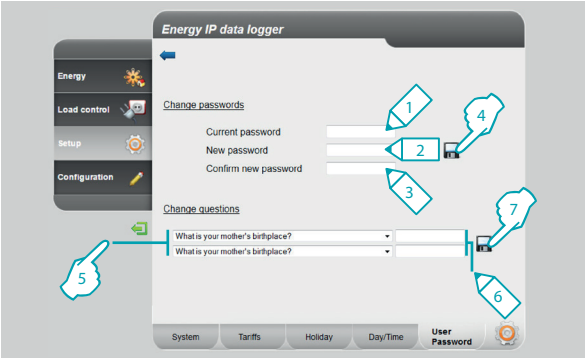
2.3.5 Setup - Day/Time



This page can be used to set the date and the time.

1 - Select the date.
2 - Enter the time.
3 - Click to confirm the operation.
4 - Click to go to "**User password**" setup.

2.3.6 Setup - User password



This page can be used to change the user password by entering a new one (8 to 12 characters) at your discretion (default: datalogger).

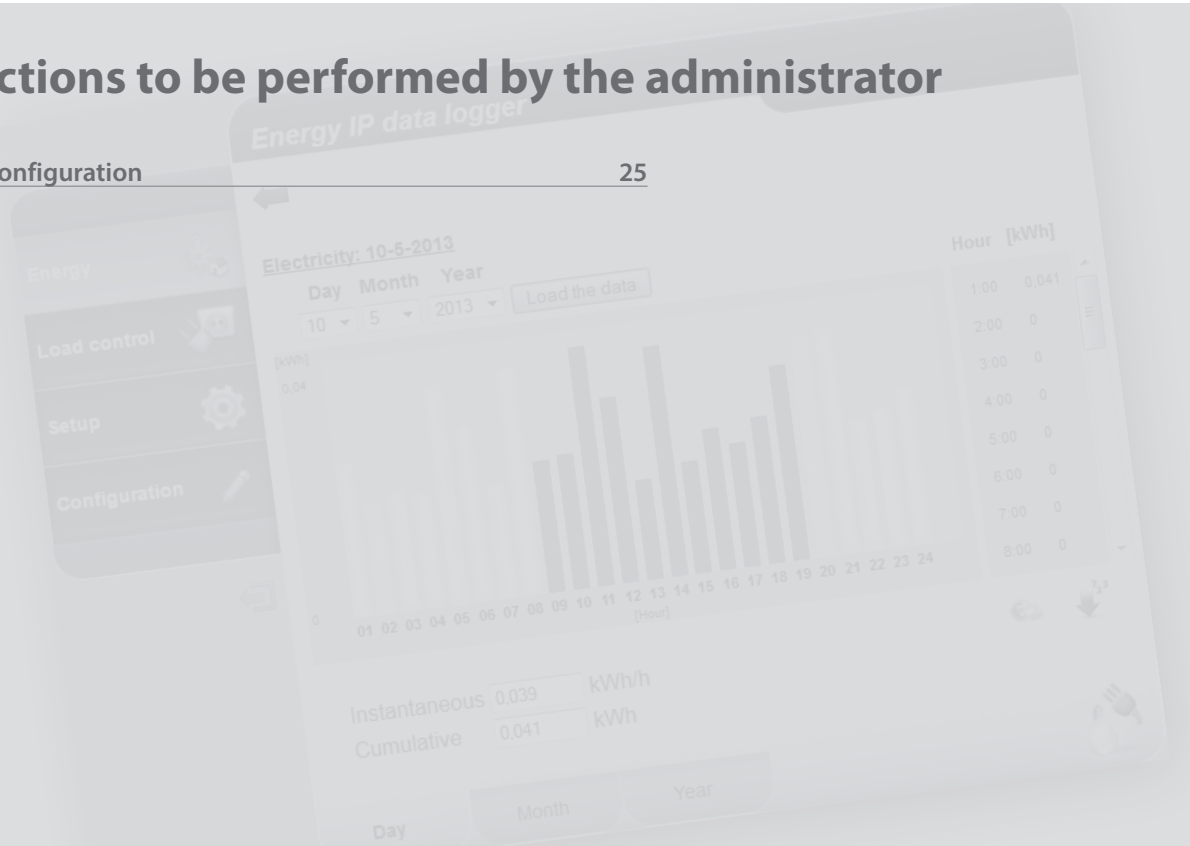
1 - Enter the current password.
2 - Enter a new password.
3 - Re-enter the new password to confirm.
4 - Click to confirm the operation.

It is also possible to set security questions and answers: if the password is lost, you will be asked to answer to these questions; if the questions are answered correctly, the password will be reset to the default password, and you will be able to set a new one

5 - Select the questions.
6 - Enter the answers.
7 - Click to confirm the operation.

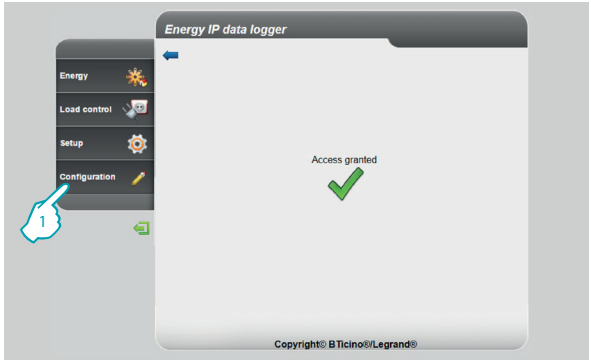
Functions to be performed by the administrator

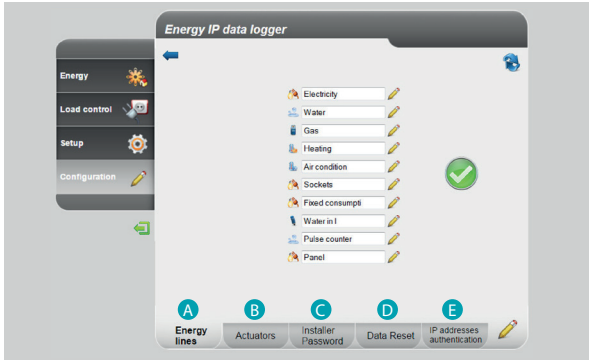
3.1 Configuration 25



3 Functions to be performed by the administrator

3.1 Configuration





Access to this area is only permitted to users with administrator password.

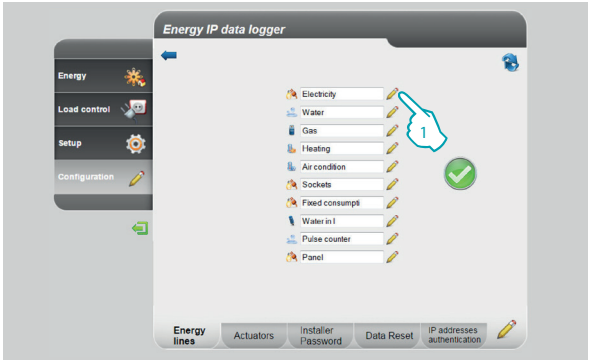
This function enables the user to configure the energy lines associated to the meters of the systems, setting the unit of measure used (m3, l, kWh, etc.), and the SCS address of the meter.

1 - Click "**Configuration**".

The browser loads the "**Configuration**" page.

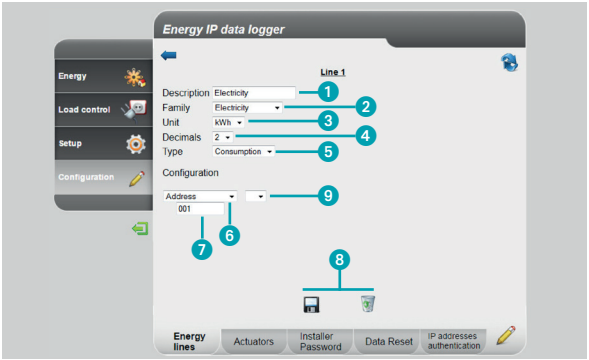
The Web page consists of four tabs: "**Energy lines**" (A), "**Actuators**" (B), "**Installer Password**" (C), "**Data Reset**" (D), "**IP addresses authentication**" (E).

3.1.1 Configuration - Energy lines



This page can be used to configure the energy lines of the system, or to create new ones in virtual mode.

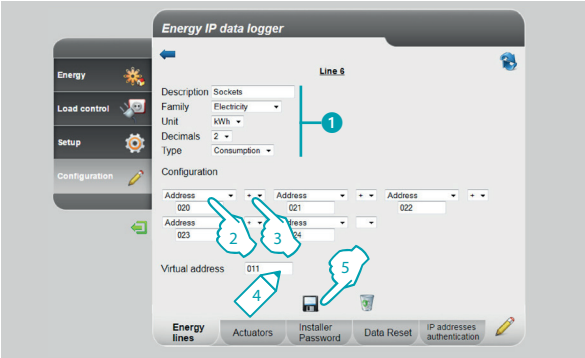
1 - Click to create/modify a line.



Thanks to the use of the operators, it is possible to add or subtract the lines to obtain total or partial data; it is also possible to use the multiplying operator to go from one unit of measure to another, and more.

1 - Enter a customised description.
2 - Select the family it belongs to.
3 - Select the unit of measure.
4 - Select the number of decimals for the economic values.
5 - Select the type (consumption of production).
6 - Select the address of the pulse counter, or meter.
7 - If you have selected the address, enter the value (from 1 to 127).
8 - Save or delete the line.
9 - Click to create virtual lines using the sum, subtraction, and multiplication operators.

Example of line sum



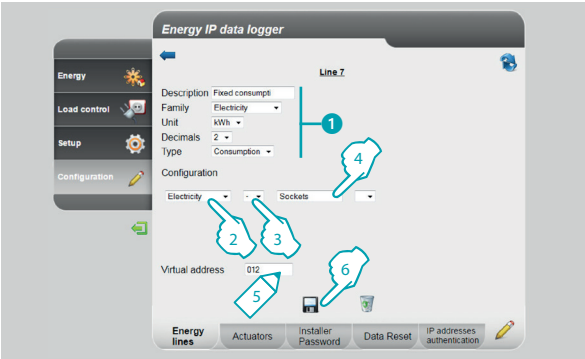
This example shows how to create a virtual line (011) to display the total consumption of the sockets.

1 - Enter the parameters of the virtual line.
2 - Click to enter the first line that will make up the sum.
3 - Click [+] to add another line.

Repeat point 3 to add the lines making up the sum; select the empty cell to delete them.

4 - Enter a virtual address to recall to display the sum.
5 - Click to save the line.

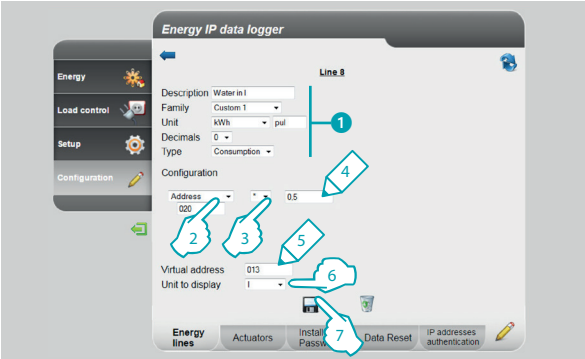
Example of line difference



This example shows how to create a virtual line (012) to display the total consumption that does not include the consumption of the sockets.

1 - Enter the parameters of the virtual line.
2 - Click to select the line that measures the total consumption.
3 - Click to select the subtraction operator [−].
4 - Click to select the line created in the previous example (sum of the consumptions of the sockets).
5 - Enter a virtual address to recall to display the total consumption less the sockets.
6 - Click to save the line.

Example of multiplication factor

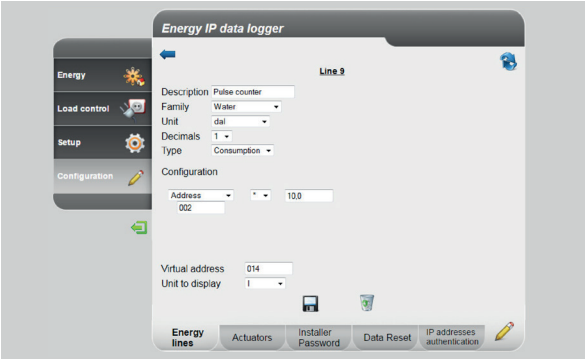


This example shows how to create a virtual line to display the value measured in a different unit of measure (example measured in pulses/0.5 l displayed in l).

1 - Enter the parameters of the virtual line.
2 - Click to enter the address of the pulse counter interface.
3 - Select the multiplication factor [*].
4 - Enter the value (it must not be <0.001) to multiply to obtain the new unit of measure.
5 - Enter a virtual address to recall to display the total consumption il l.
6 - Enter the unit of measure displayed.
7 - Click to save the line.

The multiplication factor can be used to create many more types of virtual lines.
Here are some examples.

Extension of the limits of the pulse counter interface



Let's presume that we have a consumption of 280 l/h; it is not possible to measure the consumption using a pulse counter interface, because this would only allow a maximum of 254 pulses/hour. Using the multiplication operator we can resolve this problem:

1 - We can configure the interface with SM=1: in this way we will measure 28 decalitres instead of 280 litres (Water line)

2 - We can then create a virtual line (14) as shown on the example on the left.

In this way the consumption in l will be displayed.

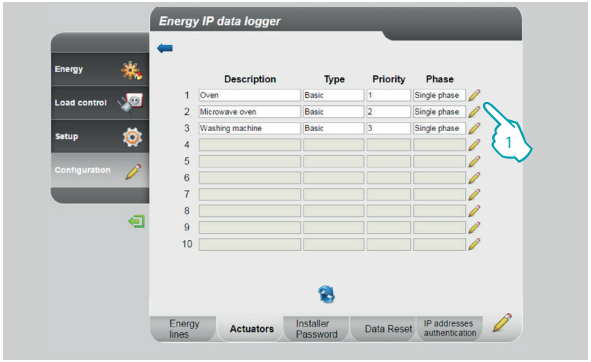
Consumption of hot water measured in volume but displayed in energy spent

The consumption of domestic hot water is measured in number of litres consumed (volume); using the multiplication factor we can estimate the consumption in Wh (energy).
Example:

Line measure	Multiplier	Multiplication factor*		Measure in Wh
25 l	*	34.86	=	871.5 Wh

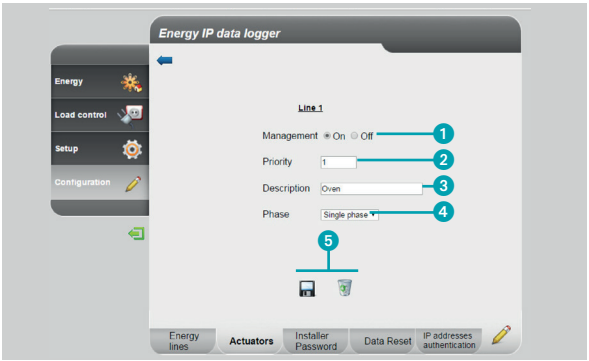
* The factor depends on the boiler input and output temperatures.

3.1.2 Configuration - Actuators



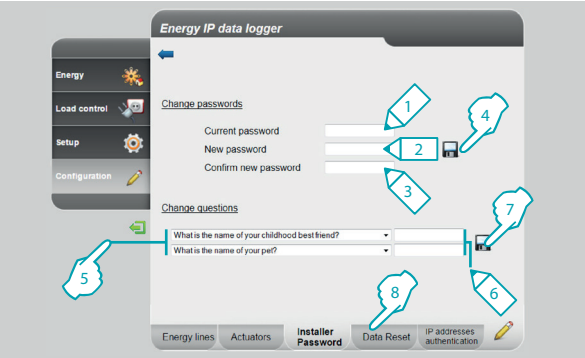
In this page it is possible to configure the loads on the system

1 - Click to create/modify an actuator



1 - select if the load is managed
2 - select the priority with which the load will be disconnected (1 high priority)
3 - enter a load description
4 - select the type of phase
5 - save or delete the actuator

3.1.3 Configuration - Installer password



This page can be used to change the installer password by entering a new one (8 to 12 characters) at your discretion.

When purchasing the product, the user and administrator passwords are the same (default: datalogger); it is recommended that the password is changed so that the user may not have access to the configuration pages.

1 - Enter the current password.

2 - Enter a new password.

3 - Re-enter the new password to confirm.

4 - Click to confirm the operation.

It is also possible to set security questions and answers: if the password is lost, you will be asked to answer to these questions; if the questions are answered correctly, the password will be reset to the default password, and you will be able to set a new one

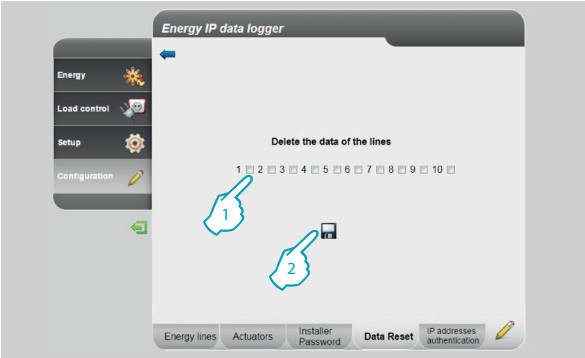
5 - Select the questions.

6 - Enter the answers.

7 - Click to confirm the operation.

8 - Click to go to "**Data Reset**" configuration.

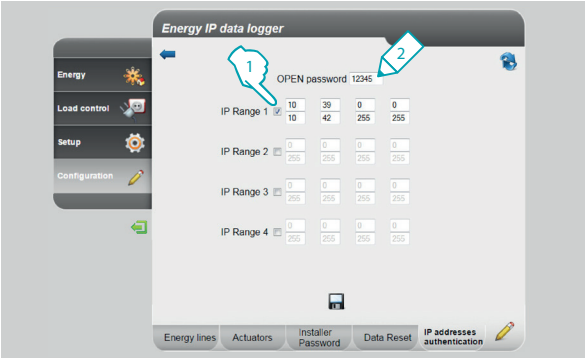
3.1.4 Configuration - Data reset



This page can be used to reset the lines previously configured.

1 - Select the line for which to delete the data (it is possible to delete more than one line at the same time).
2 - Click to confirm.

3.1.5 Configuration - IP addresses authentication



This page can be used to set the OPEN password and the range of IP addresses that can access the Data Logger without the need for the password.

1 - Select the range of IP addresses.
2 - Enter the OPEN password.

Troubleshooting

4 Troubleshooting

Problem	Solution
When directly connected to the PC, the device cannot be displayed among the system resources.	Reset until flashing of the red LED: the device will be initialised with the following parameters: IP address: 192.168.1.5 IP mask: 255.255.255.0 It will now be possible to connect to the device and reconfigure the parameters.
The device web pages are not correctly displayed	1. In the browser parameters enable "Compatibility mode"; 2. Delete the browser history, including, including "Temporary files/cache". 3. It may also be necessary to synchronize the time of the Data Logger with that of the PC.

Note: the device has been tested with the following browser versions:

Internet Explorer	7 (on windows XP) and 8 (on windows 7)
Google Chrome	26.0.1410.43 m
Safari	5.1.5
Mozilla Firefox	20.0

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