



DATA EASY

Datalogger for CONTECA heat meters 7504-7507-7554-7557 series

Quick guide

CALEFFI S.P.A.



TECHNICAL SPECIFICATIONS

DATA EASY is a hardware device made in compliance with industrial standards without moving parts and designed for

ELECTRIC SPECIFICATIONS

| | |
|---------------------------|---|
| Electric supply | 24Vdc +/- 10%, 24Vac (min 20Vac, max 40Vac), alternatively PoE (IEEE 802.3) |
| Installation category | Class II |
| Maximum power consumption | 7.5W |
| Ethernet | N°2 (1 MAC): ETH1: Ethernet 1(PoE), ETH2: Ethernet 2 |
| Communication standard | RS485 |
| Communication protocol | M-bus |

MECHANICAL SPECIFICATIONS

| | |
|-------------------|---|
| Temperature range | Operation: -10°C to +55°C / Warehouse: -25°C to +65°C |
| Dimensions | 90x71x62 mm (HxWxD) – DIN |
| Mounting | 35mm DIN rail (EN60715) |
| Protection class | IP20 (EN60529) |

WIRED M-BUS INTERFACE

| | |
|---|--|
| Baud rate | 9600bps |
| Number of meters supported | max 250 |
| Readout interval | 15 min / 60 min* / 6 hours / 12 hours / 1 day (*factory setting) |
| Acknowledge collisions on M-Bus network | Yes |
| Devices search / acquisition | Via Primary and/or Secondary address |
| Devices supported | *7554 - *7557 - *75525 - 7504 -7507 Series Conteca Meter *With year of production from 2015 |
| Supported configuration | For two-pipe systems |

DATALOGGING

| | |
|-----------------------------|---|
| Data retention | 1 year for intra-day data arriving from wired meters |
| Reports | XLS or CSV format |
| Transmission method | SMTP, FTP (Client), Webserver (Report creation and download) |
| Reports generation planning | Daily / Monthly / Two-monthly / Three-monthly / Four-monthly / Six-monthly / Annual |

USER INTERFACE

| | |
|---------|---|
| Display | Graphic, backlit, 16-bit grayscale, multilingual |
| HTTP | Multilingual webserver for consultation of data and configuration |

LOGIC / ALARMS / PLANNING

| | |
|--|--|
| Alarms notification from M-Bus network | Meter faults/alarms, communication anomalies, thresholds surpassed |
| Scheduled actions | Send readouts report |

DIN rail mounting in an electrical cabinet. The salient technical specifications of the device are shown below:

INSTALLATION

To install the device we recommend complying with the following instructions to ensure optimal commissioning of the system.

Installation must be carried out by specialised personnel authorised to install electrically live equipment.

Mechanical installation

The device is designed exclusively for DIN rail mounting; no other forms of installation are permitted.

DIN rail mounting consists of the following steps:

- Mount the DIN rail to the bottom of the electrical cabinet or in the position planned for installation
- Remove all the device terminals before attaching the device to the DIN rail
- Place the recess in the base of the device on the top of the rail, keeping the device inclined by 45° with respect to the rail. Rotate the device until it engages with the rail.

Electrical installation

Read carefully

To avoid high levels of mechanical stress on the terminals that may damage the device, make all the necessary wiring with the terminals disconnected from the device. Proceed as follows:

- Extract the terminals from the device by pulling them outwards
- Clamp the wires to the extracted terminals, observing the correct polarity
- Refit the terminal with the wires, observing the correct position of the terminal

Before commissioning the device check the following points:

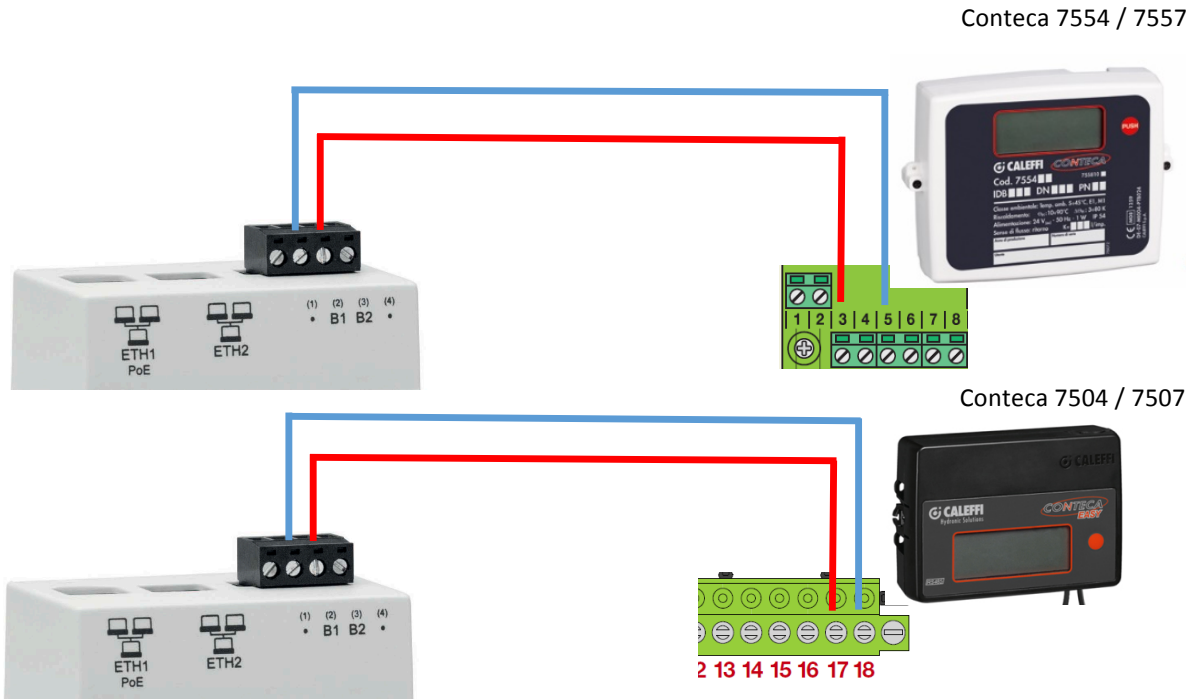
- Make sure the electrical cabinet in which the device is installed is de-energized
- Check for the presence of the general protection devices for the electric supplies (fuses, circuit breakers, RCDs)
- Make sure the electric supply voltage is in compliance with the device operating limits and that the power supply unit power rating is sufficient to assure operation of all the devices connected to it, checking the maximum power consumption of each device (24Vdc +/- 10%, 24Vac (min 20Vac, max 40Vac)
- If using a PoE supply (Power Over Ethernet) make sure the network cable is connected to ETH1 and that the PoE switch is compatible with the device



24Vdc +/- 10%, 24Vac (min 20Vac, max 40Vac)

RS485 network connection

- Connect the heat meter bus network to terminals B1(2) and B2(3), with reference to the manufacturer's guide

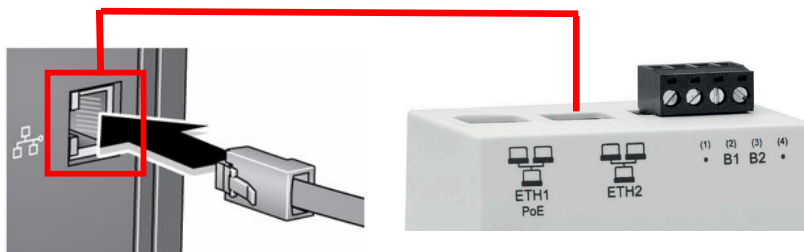


Connecting to a LAN/ADSL network or GPRS-UMTS modem/router

To allow the device to be interrogated from a remote location with transmission of consumption reports and notification e-mails, the device must be able to connect to the Internet via a LAN/ADSL connection or using a modem/router

Connection to a LAN/ADSL network

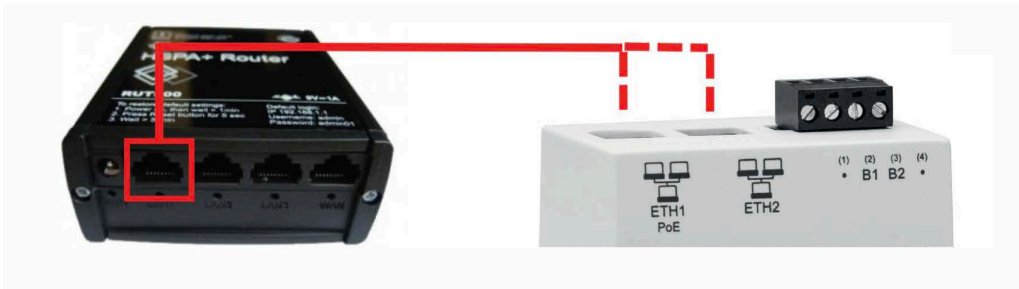
Using a T568A or T568B Ethernet cable (straight through or crossover) connect DATA EASY port ETH1 or ETH2, without distinction, to a LAN socket.



- Always consult a company or home network administrator to obtain information on the LAN network class and associated data for correct configuration (port 80 is used to consult the web server)

Connection to a GPRS-UMTS modem/router

- Use a network cable to connect router port LAN1 to DATA EASY port ETH1 or ETH2



- Secure the two antennas, GSM MAIN and AUX to guarantee a sufficiently strong transmission signal. Keep the antennas at least 1.5 m apart.



In relation to the SIM card to use (the router is factory configured for use of a **Vodafone** SIM card):

- Check that the SIM card is of the data type and bidirectional Machine-To-Machine (M2M), meaning it allows access to port 80 for consultation of the web server
- The SIM card must be enabled for GPRS/UMTS traffic

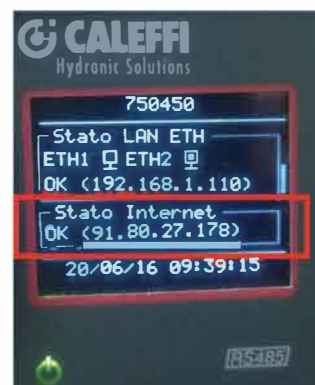
If the operator is not in possession of a Vodafone data SIM card the router settings must be changed (see extended manual)

In this case the operations to be carried out by the user are as follows:

- Remove the front panel with SIM card insertion symbol
- Make sure the SIM card PIN number is disabled
- Insert the data SIM card in the correct direction



Close the front panel



- Power on the router
- Wait for the router to connect to the mobile network
- Check the **INFO** section on the display to ensure the Internet connection is OK (the procedure could take several minutes)

COMMISSIONING

When the installation procedure is completed, after having checked that all connections have been made correctly, to make DATA EASY operational commission the plant by performing the steps described below:

- Fill in the building details form (see page 11).

If meters are found with the same primary address (IDB), proceed with the primary address setup operations (see page 10)

The presence in the system of even one incorrectly connected module or of modules with duplicated primary address, will make it impossible to transfer data.

- Check the correct connection of Conteca heat meters and additional services by referring to the technical datasheets attached to the meter.
- Check that the voltage on terminals (15) and (16) complies with the electrical specifications (24Vdc +/- 10%, 24Vac (min 20Vac, max 40Vac) or, alternatively, PoE (IEEE 802.3)
- Power on DATA EASY
- Set the system Date by selecting the [SETTINGS > General > System date](#) page in the main menu or by accessing the web server (see DATA EASY WEB SERVER manual)
- Start the meters search by clicking [OK](#) in correspondence with the [SEARCH icon](#) or by accessing the web server. (see DATA EASY WEB SERVER manual)
- When the search is completed a list of recognised meters will be displayed with an indication of the communication status ([OK](#) or [ERROR](#))

If some or all of the devices are not detected



- **Re-check correct connection of the bus between DATA EASY and meters and the communication settings (BAUD RATE and address).**

Click [OK](#) to save the recognised meters to the device

On completion of the phases described above we recommend accessing the DATA EASY web server to complete the configuration and set up the necessary parameters for correct operation of the system (see DATA EASY WEB SERVER manual)

LANGUAGE SELECTION

The language choice can be made both via the keypad provided and via the WEB interface.

In the first case, once the security password has been entered, to change the language simply press  or  in the main menus: [INFO](#), [METERS LIST](#), [SEARCH](#) and [SETTINGS](#). The available languages are English and Italian.

DESCRIPTION

The DATA EASY device is shown below with all the main parts identified:



- A. Display
- B. Navigation keypad
- C. Operating status LED
- D. Ethernet port 1 (PoE)
- E. Ethernet port 2
- F. RS485 Bus connector
- G. Electric supply connector
- H. Relay output connector 1 (Normally open contact)
- I. Relay output connector 2 (Normally open contact)
- L. Digital inputs connector
- M. Auxiliary voltage output connector

Display

To access the main menu press any button to open the LCD password input page. Enter the current password (default:000000) using the **UP** and **DOWN** buttons to select the number from 0 to 9 in the position shown by the blinking cursor, press **OK** to confirm the current position and switch to the next one until all six numbers have been entered.

Main menu

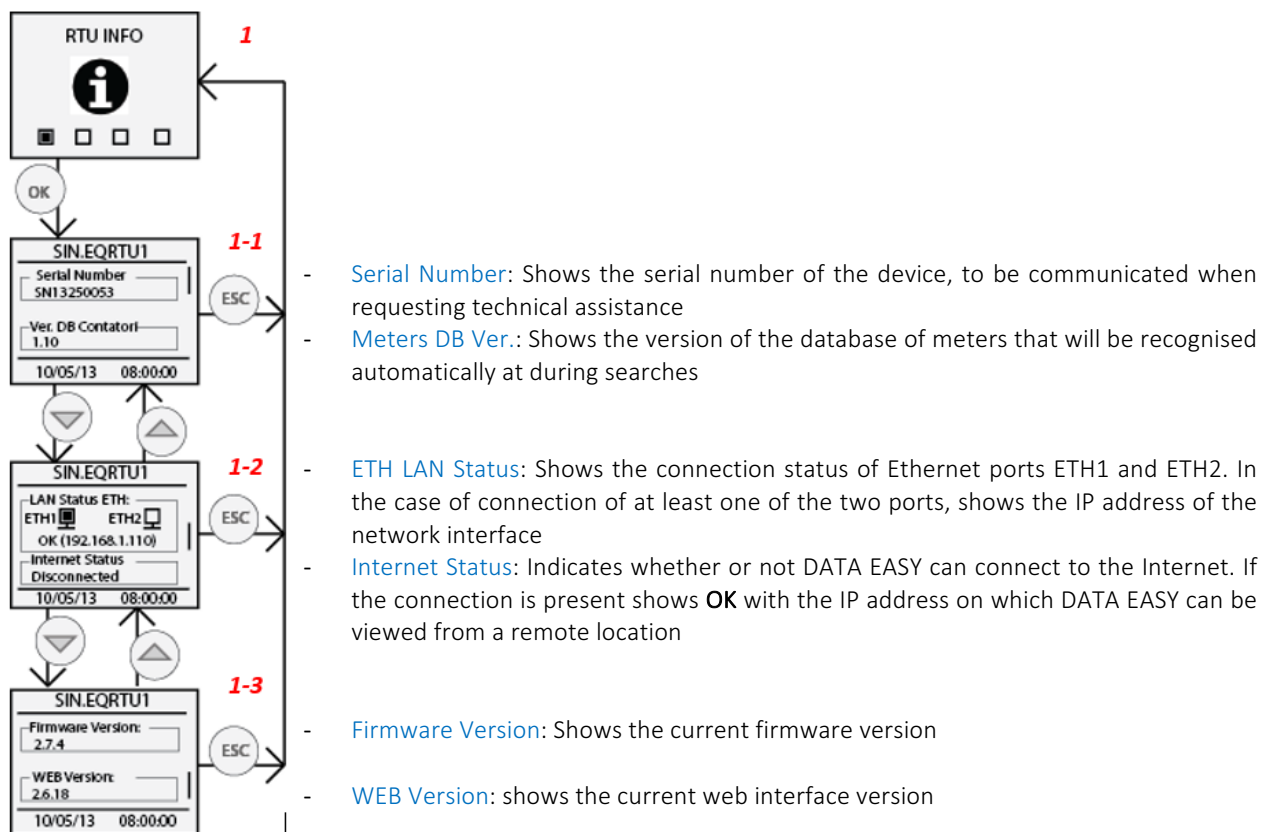
If the correct password has been entered, the main menu (composed of 4 pages) will be displayed:

- **INFO**: summary of all the main information
- **METERS**: list displayed of all meters entered with the possibility of readout access
- **SEARCH**: starts the meters search in accordance with the latest saved settings
- **SETTINGS**: provides access to the settings menu in which the essential parameters can be edited

Pressing **OK** in correspondence with one of the pages opens the submenus, which allow the display and setting of the network parameters as shown in the figure:

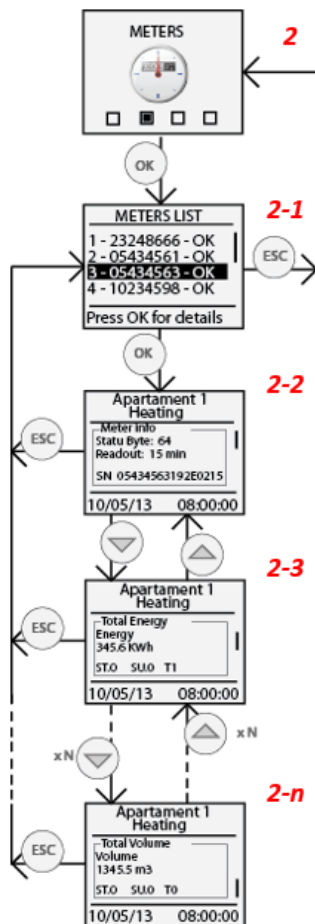
Info

Pressing **OK** in correspondence with the main **INFO** menu opens a submenu that allows display of the network parameters, as shown in the figure:



Meters list

Press the **OK** button on the **METERS LIST** menu to access a submenu in which you can view a list of all meters with details of the latest readout for each meter.

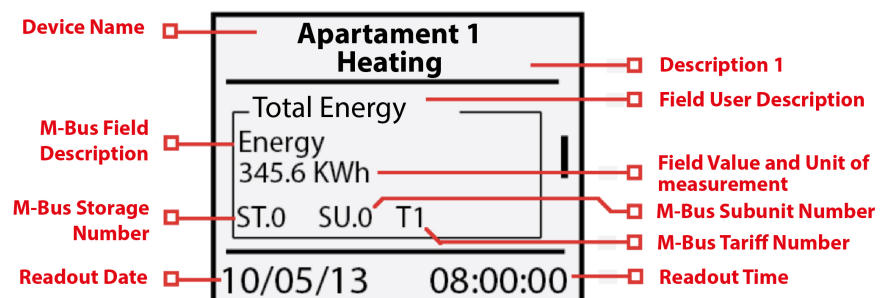


Shows a list of all the previously saved meters identified with the first 8 digits of the meter serial number (e.g. 05434563). Also the communication status is shown for each meter, indicating **OK** if the last readout was performed correctly or **ERROR** if a communication error occurred at the time of the last readout.

Press **OK** in correspondence with a meter in the list in order to consult the values related to the latest readout performed (if present). The first frame displayed is a summary of the main meter information, such as the meter readout interval and the complete serial number.

Press the **UP** and **DOWN** navigation buttons to consult the value of the meter fields related to the readout date and time. The meter fields shown on the display are those in which the option “*Display Value*” is enabled in the “*Meters Data Setup*” section in the “*Devices*” page of the “*Settings*” menu

The information given for each displayed field is as follows:



- **Device Name:** Shows the reference of the meter specified in Device Name of the Devices web page in the Settings menu.
- **Description 1:** Shows the value entered in Description 1 of the Devices web page in the “Settings” menu.
- **Field User Description:** Shows the detailed description entered in the meters database, which describes the displayed field in detail
- **M-Bus Field Description:** Shows a description of the field as defined in the M-Bus standard.
- **Field Value and Unit of measurement:** Shows the value and unit of measurement of the displayed field with reference to the readout being viewed.
- **M-Bus Storage Number:** Shows the Storage Number related to the displayed field. Refer to the meter manual for detailed information.
- **M-Bus Subunit Number:** Shows the Subunit Number related to the displayed field. Refer to the meter manual for detailed information.
- **M-Bus Tariff Number:** Shows the Tariff Number related to the displayed field. Refer to the meter manual for detailed information.
- **Readout Date:** Shows the date to which the displayed readout refers
- **Readout Time:** Shows the time to which the displayed readout refers

Search

Press **OK** in correspondence with the **SEARCH** icon to start scanning the bus to acquire the connected meters.

The default search settings are:

- Speed: 9600bps
- Search type: Primary ID + Secondary ID
- Primary ID scanning range: 1-250

Once the meters search is complete, press **OK** to save all the meters returned by the search, otherwise press **ESC** to quit without saving any of the meters returned by the search.

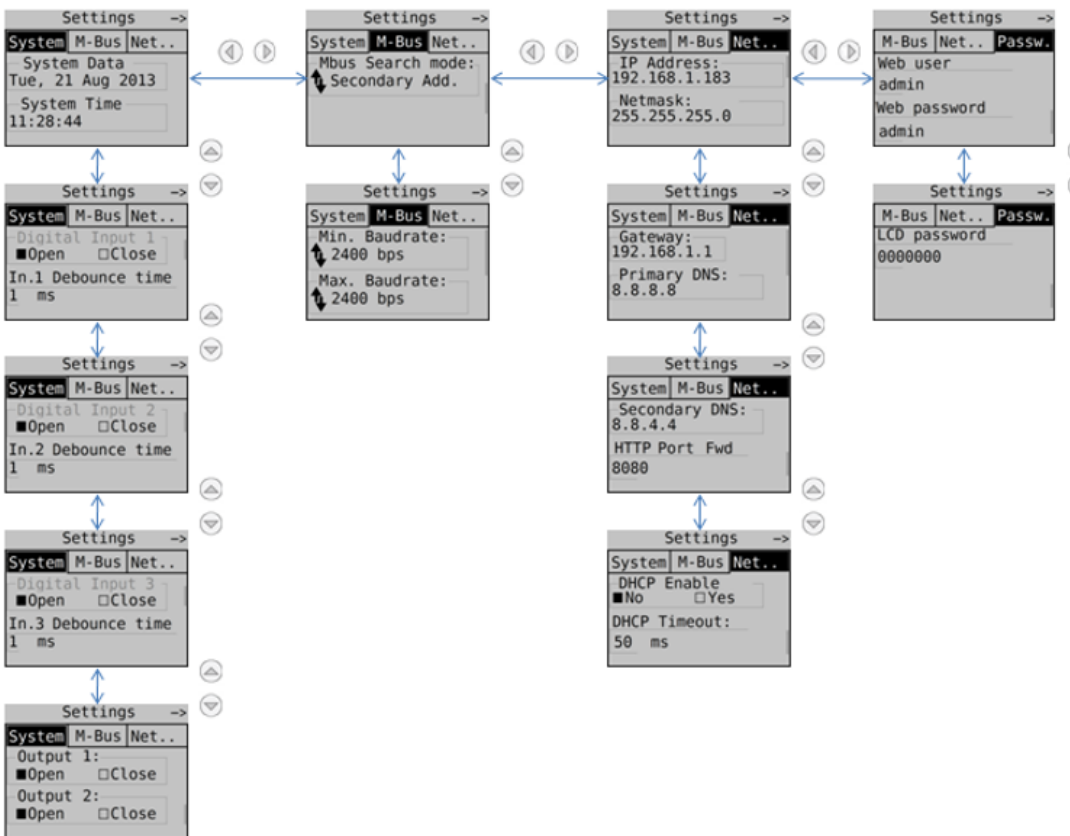
Settings

Press **OK** in correspondence with the **SETTINGS** icon to access the submenu, which is divided into four sub-sections.


General Password


M-Bus

Network



For each field reached by means of the navigation buttons press **OK** to select the field to be edited and then press **OK** again to edit the values, which are to be entered using the navigation arrows.



Plant Status > General
caleffidivale | English

Plant Status

01 System Status

02 Wired Devices

03 I/O Devices

04 Groups

Settings

Export Data

User Account

System Status
Event Reports

General Status:

Model: 750450

Controlled Devices: Wired Devices

System clock: 28/09/18 14:55

RTU Firmware Revision: 2.17.39 (16.18)

Web Interface Revision: 2.15.13

Meter database version: 1.71

Serial Number: SN15240341

Internet connection: Check in progress....wait!

Last Public IP: 83.224.128.5



DATA EASY WEB SERVER



Admin User Account Manual

CALEFFI S.P.A.

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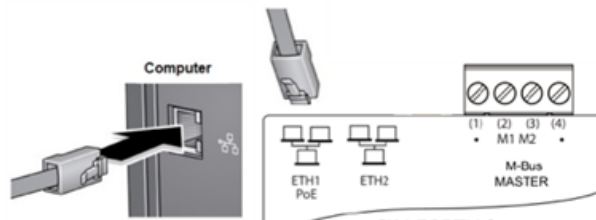
Pay attention to the following important notes

- Install the system behind a firewall and isolate it from the company Intranet
- For remote access to the device we recommend adopting high security Virtual Private Network (VPN) technology, which is deemed to be the safest method of connecting to the device

CONNECTING TO THE WEB SERVER

PC > DATA EASY direct connection

Use a T568A or T568B Ethernet cable (straight through or crossover) to connect DATA EASY port ETH1 or ETH2, without distinction, to the PC.



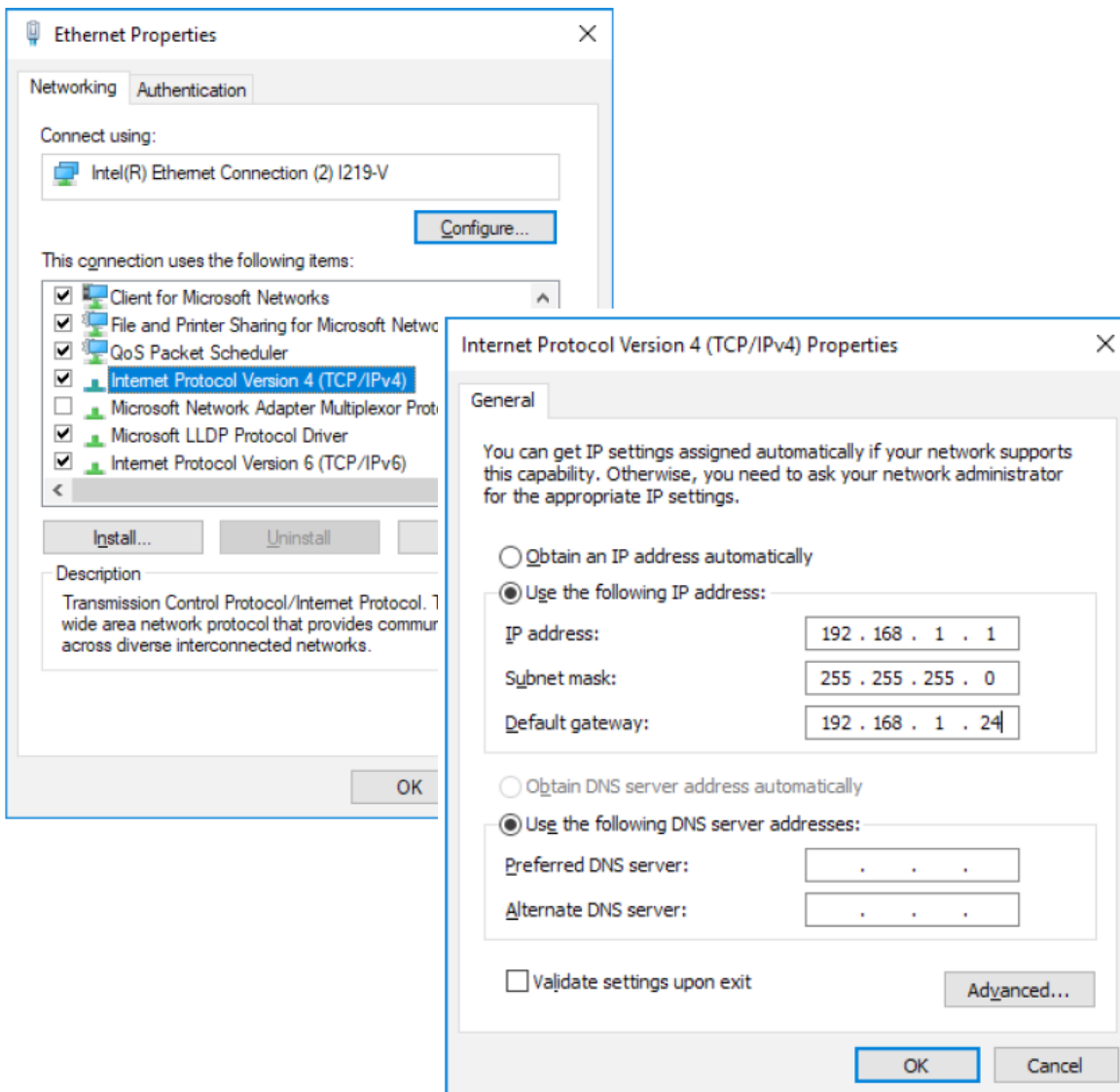
Set up your PC network card to allow communication between the two devices.

To change the PC network card IP address refer to the user manual of the Operating System installed on your PC.

- If using **Windows 10**, right-click on the **Start** > icon at the bottom left of the screen and select **Control panel** > **Network and Sharing Center** > **Change adapter settings** (in the left-hand menu) and select the **Ethernet** icon; now right-click the mouse and click on **Properties**
- If using **Windows 8**, right-click on the **Start** screen image at the bottom left of the screen and select **Control panel** (in metro-style mode: Right-click the mouse on the Start screen image; an All Apps icon will appear at the bottom of the screen, select Control panel) > **Network and Sharing Center** > **Change adapter settings** in the left-hand menu and select the **Ethernet** icon, then right-click the mouse and click on **Properties**
- If using **Windows 7**, click on **Start** > **Control panel** > **View network status and tasks** > **Change adapter settings** (in the left sidebar), right-click on **Local area connection (LAN)** and select **Properties** in the menu that appears.
- If using **Windows XP**, go to **Start** > **Control panel** > **Network and internet** > **Network connections**, right-click on **Local area connection (LAN)** and select **Properties** in the menu that appears.

In the window that now opens, scroll through the menu entitled **This connection uses the following items** and double click on **Internet Protocol Version 4 (TCP/IPv4)** to enter computer network properties. Select the **Use the following IP address** box and type the IP address you wish to assign to the computer in the **IP address** box. The IP address must be entered in the format **192.168.1.xxx** where, in place of the xxx, a number must be entered from 1 to 255 (excluding 110).

The **Subnet mask** value is assigned automatically for all PCs with value 255.255.255.0, while the address of the DATA EASY device, i.e. **192.168.1.110** must be typed in the **Default gateway** box. The **Preferred DNS server** and **Alternate DNS server** boxes should be left blank. When the configuration procedure is concluded, first click on **Apply** and then on **OK** to save the settings.

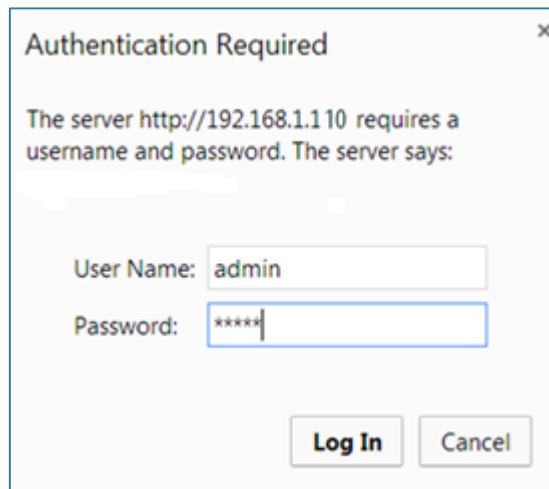


Open a Web browser such as Chrome, Safari, or Firefox (Google Chrome recommended) and type the address 192.168.1.110 or the address assigned to the device.

When the authentication form is displayed enter the web server access credentials

Remote connection via GPRS-UMTS modem/router or COMPANY LAN/ADSL network

- Open a web browser (Google Chrome recommended) and type the following address: **caleffi.snps.com/redirect.php/SNXXXXXXXX** where XXXXXXXX is the serial number of DATA EASY as shown on the nameplate
- When the authentication form is displayed enter the web server access credentials



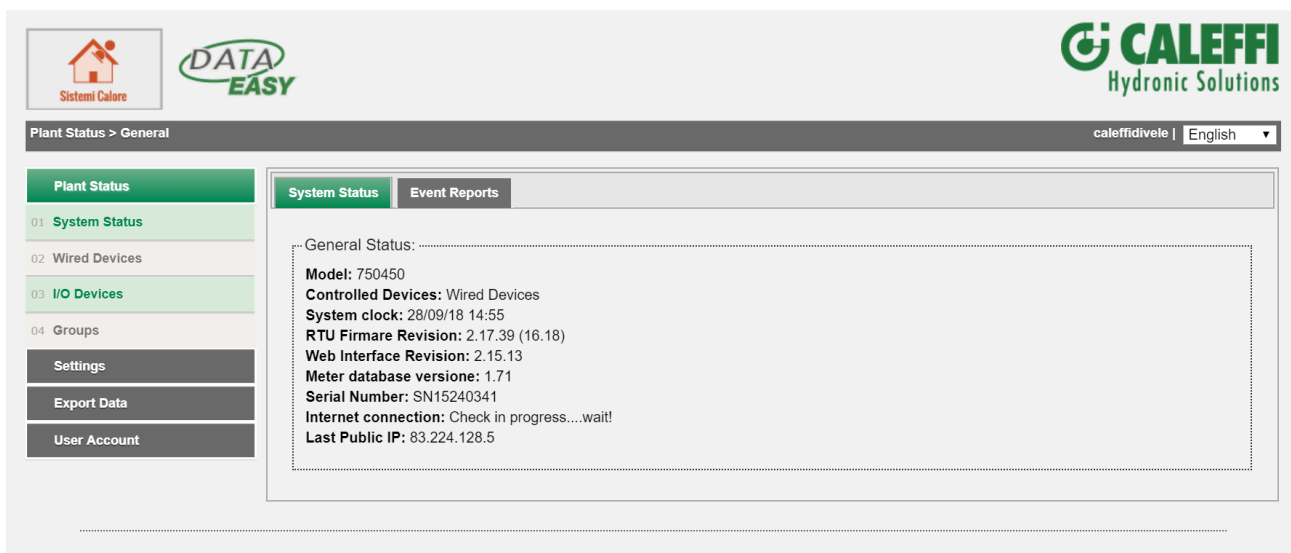
The image shows a dialog box titled "Authentication Required" with a close button (X) in the top right corner. The text inside reads: "The server http://192.168.1.10 requires a username and password. The server says:". Below this text are two input fields: "User Name:" with the value "admin" and "Password:" with the value "*****". At the bottom of the dialog are two buttons: "Log In" and "Cancel".

The credentials for the first access are

- **User Name:** admin
- **Password:** admin

Press the [Access](#) button to enter

The [Home Page](#) is as shown in the figure:



The image displays the CALEFFI DATA EASY web interface. At the top left, there is a logo for "Sistemi Calore" (a house icon) and the "DATA EASY" logo. At the top right, the "CALEFFI Hydronic Solutions" logo is visible. Below the logos, a navigation bar shows "Plant Status > General" and a language dropdown set to "English". On the left side, there is a vertical menu with options: "Plant Status", "System Status", "Wired Devices", "I/O Devices", "Groups", "Settings", "Export Data", and "User Account". The "System Status" option is selected. The main content area has two tabs: "System Status" and "Event Reports". The "System Status" tab is active, showing a "General Status" section with the following information: Model: 750450, Controlled Devices: Wired Devices, System clock: 28/09/18 14:55, RTU Firmware Revision: 2.17.39 (16.18), Web Interface Revision: 2.15.13, Meter database version: 1.71, Serial Number: SN15240341, Internet connection: Check in progress...wait!, and Last Public IP: 83.224.128.5.

Plant status

Section for quick consultation of the plant status.

Plant Status > Status of the system

The following data are displayed:

Plant Status > Status of the system > System Status

The screenshot shows the 'System Status' page in the Caleffi DATA EASY web interface. The page is titled 'Plant Status > General' and includes a language dropdown set to 'English'. The left sidebar contains navigation options: Plant Status, System Status (highlighted), Wired Devices, I/O Devices (highlighted), Groups, Settings, Export Data, and User Account. The main content area displays the following information:

- General Status:
- Model: 750450
- Controlled Devices: Wired Devices
- System clock: 28/09/18 14:55
- RTU Firmware Revision: 2.17.39 (16.18)
- Web Interface Revision: 2.15.13
- Meter database version: 1.71
- Serial Number: SN15240341
- Internet connection: Check in progress...wait!
- Last Public IP: 83.224.128.5

- **Model:** shows the device model
- **Controlled Devices:** shows the type of controlled devices
- **System date and time:** current date and time
- **Firmware Version:** shows the firmware version
- **Web Interface Version:** shows the web interface version
- **Serial number:** shows the device serial number
- **Internet connection:** shows the Internet connection status

Plant Status > Status of the system > Events log

Contains a list of all events that occurred in the year selected in the drop-down menu

The screenshot shows the 'Event Reports' page in the Caleffi DATA EASY web interface. The page is titled 'Plant Status > General' and includes a language dropdown set to 'English'. The left sidebar contains navigation options: Plant Status, System Status (highlighted), Wired Devices, I/O Devices, Groups, Settings, Export Data, and User Account. The main content area displays the following information:

- Buttons: Erase Event, 2018 (dropdown), Update
- Filters: All, Email, I/O, M-Bus, FTP Report
- Table:

| System Date | System Clock | Event Type | Description |
|-------------|--------------|------------|---------------|
| 23/07/2018 | 15:09:15 | Email | Send Email OK |
| 23/07/2018 | 15:08:42 | Email | Send Email OK |
| 23/07/2018 | 15:08:10 | Email | Send Email OK |
| 23/07/2018 | 15:07:33 | Email | Send Email OK |
| 23/07/2018 | 15:06:58 | Email | Send Email OK |

- **Delete Events:** allows events that occurred in the selected year to be deleted
- **Update:** updates the events view
- ✓ **All:** shows all events when checked
- ✓ **Email:** shows/hides events with mail type notification
- ✓ **I/O:** shows/hides Input/Output type events
- ✓ **M-Bus:** shows/hides M-Bus type events
- ✓ **M-Bus:** shows/hides FTP type events
- ✓

Shows all the meters linked to the DATA EASY device. Each meter is shown with the serial number, model, device name, description, and the main value set.

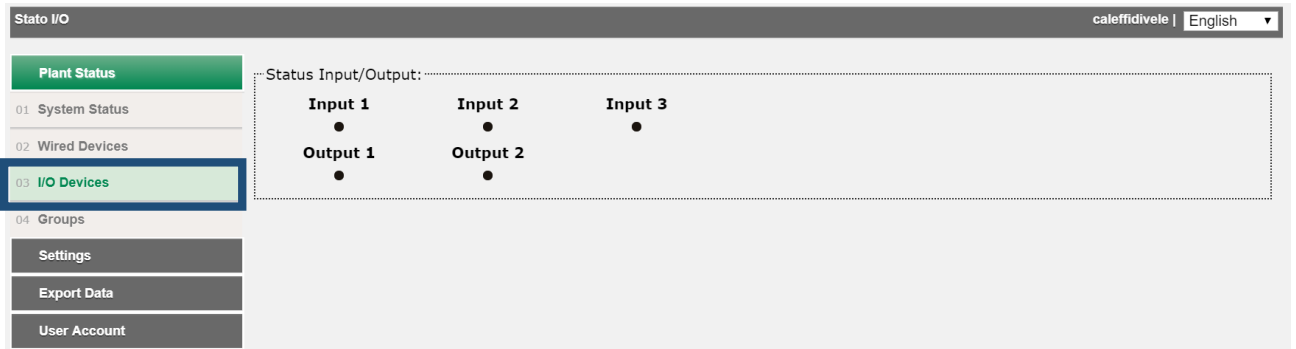
Selecting a line corresponding to a meter will open a window showing the information in detail. If shown in Red, the meter is in Error status.

Tick "In Error" to display exclusively meters in communication error status.

The screenshot displays the 'Wired Devices' section of a software interface. On the left, a sidebar contains navigation options: 'Plant Status', 'Wired Devices' (highlighted), 'I/O Devices', 'Groups', 'Settings', 'Export Data', and 'User Account'. The main content area shows a list of devices, with one selected: '00000000 - DEV_00000000 (Heat)'. The device's status is 'Heat energy 0 kWh'. Below this, there is a 'Read Now' button and a 'Device Information' section. The 'General' information includes: User description: PA_001, Communication Status: OK, Last readout timestamp: 02/10/2018 08:00, Device clock: 15/02/2000 12:40, Medium: Heat(outlet), and M-Bus byte status: 0. The 'Advanced information' section is a table with columns for 'User description', 'M-Bus Description', and 'Value'.

| User description | M-Bus Description | Value |
|------------------------|------------------------|------------------|
| Bus address | Bus Address | 1 |
| Heat energy | Energy | 0 kWh |
| Power | Power | 0 kW |
| Flowrate | Volume Flow | 0 l/h |
| Flow temperature | Flow Temperature | 66.4 °C |
| Return temperature | Return Temperature | 44.8 °C |
| Temperature difference | Temperature Difference | 21600 mK |
| Device date time | Time Point | 15/02/2000 12:40 |
| 1st pulse input | Volume - Sub: 2 | 0.3 m3 |
| 2nd pulse input | Volume - Sub: 3 | 0.2 m3 |
| 3rd pulse input | Volume - Sub: 4 | 0.2 m3 |
| Cooling energy | Energy | 0 kWh |

Shows the current status of digital inputs and outputs.



Click on the . symbol linked to the digital output (Output 1 or Output 2) to force contact opening or closing. Green dot means closed contact.

Settings

Dedicated section for master data, communication and events planning settings. The selectable items are as follows:

Settings > System

Settings > System > Plant master data

The screenshot shows a web application interface for 'Settings > System'. The breadcrumb trail is 'Settings > System > Plant master data'. The page title is 'Settings > System' and the user is 'caleffidivele' in 'English'. The main content area has three tabs: 'Plant Data' (highlighted with a red box), 'System Setup', and 'Maintenance'. On the left, there is a sidebar menu with 'Plant Status', 'Settings', '01 System' (highlighted with a blue box), '02 Network', '03 Wired Devices', '04 Events', '05 Groups', 'Export Data', and 'User Account'. The 'Plant Data' form contains the following fields: 'Plant Name:' (text input), 'Address:' (text input), 'Installer's Name:' (text input), 'Customer's Name:' (text input), and 'Install Date:' (date picker with '01/01/2018' and a calendar icon). A 'Save' button is located below the 'Install Date' field.

- **Plant Name:** enter a plant name
- **Plant Address:** enter the plant address
- **Installer Name:** enter the installer's name
- **Customer Name:** enter the customer's name
- **Installation Date:** if no value is entered, this field will default to the current date

The screenshot shows the 'System Setup' page. The left sidebar contains a menu with 'System' selected. The main content area has two tabs: 'Plant Data' and 'System Setup' (highlighted in red). The 'System Clock' section shows 'System clock: 28/09/2018 15:02:56' and a checked checkbox for 'Synchronize date and time from your pc'. Below this, 'System Date' is set to '28/09/2018' and 'System Clock' is set to '15:02:42'. A 'Set' button is present. The 'System Configuration' section includes an 'LCD Password' field, a 'Save' button, and 'Reboot' and 'Reset' buttons.

The System settings page has two sections:

1. **Date and Time:** choose between manual setting and automatic setting. In this case the date and time will be set by synchronisation with your PC
2. **System configuration:**
 - **LCD Password:** used to change the password to access the commands on the device display. The default password is 000000
 - **Restart system:** allows the device to be restarted
 - **Reset to factory settings:** to initialize the device in accordance with the factory settings

Select **Reset to factory settings** to reset DATA EASY configurations in the **System** and **Network** sections. To clear all the data saved by devices you must manually delete all the previously configured devices.

The Service screen page is composed of

1. Software Update

- **Firmware Version:** shows the firmware version in use
- **Web Interface Version:** shows the web interface version in use
- **SW/FW update:** allows automatic online or manual updating; manual updating is only possible if you have the binary file. The update will include both the firmware and the web interface

The system transmits information in relation to the update status, specifying, if available, the possibility of downloading a new update (the system must be connected to the Internet to use this service).

AFTER A SYSTEM UPDATE, RELOAD THE WEB PAGE.

2. Backup/Restore Configuration:

- **System configuration backup:** tick if you wish to make a system configuration backup.
- **Meter configuration backup:** tick if you wish to make a backup of already configured meters.
- **Restore configuration:** select this item if you wish to restore the configuration and/or previously configured meters; the operation can be performed only if a previously created backup file is available

3. Update meter database: update the database of the meters automatically recognised by DATA EASY

The system must be connected to the Internet to use this service

Section dedicated to DATA EASY device network settings

The screenshot shows the 'Settings > Network' interface. On the left, a sidebar lists various settings categories: Plant Status, Settings (highlighted), 01 System, 02 Network (highlighted with a blue box), 03 Wired Devices, 04 Events, 05 Groups, Export Data, and User Account. At the top, the 'General Setup' tab is highlighted with a red box, alongside 'Advanced Setup', 'Email Setup', and 'DynDNS'. The main area is titled 'Network settings' and contains the following fields:

| | |
|---------------------|--------------------------|
| MAC Address: | 70-b3-d5-fc-65-c6 |
| Enable DHCP | <input type="checkbox"/> |
| IP Address: | 192.168.1.110 |
| Gateway IP Address: | 192.168.1.1 |
| Netmask: | 255.255.255.0 |
| Primary DNS: | 8.8.8.8 |
| Secondary DNS: | 8.8.4.4 |

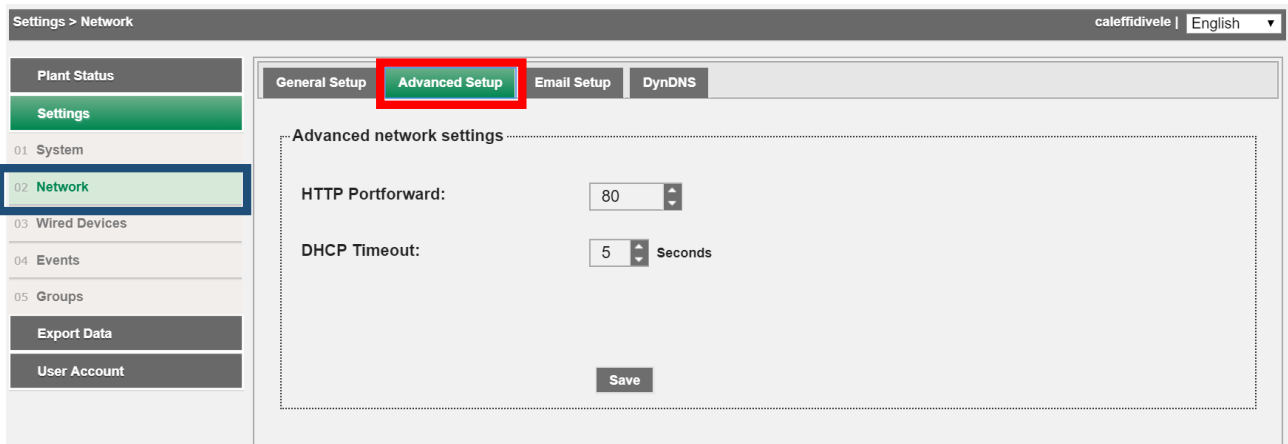
A 'Save' button is located at the bottom center of the configuration area.

- [MAC address](#): shows the device's MAC-Address
- [Enable DHCP](#): tick if you wish to use the DHCP protocol for IP assignment
- [IP address](#): set the device static LAN address
- [IP Gateway address](#): set the static Gateway address of the LAN
- [Network mask](#): set the LAN network subnet mask
- [Primary DNS](#): set the primary DNS address
- [Secondary DNS](#): set the secondary DNS address

Use caution when entering/editing LAN parameters. Always consult a company or home network administrator for information on the LAN network class and associated data for correct configuration.

Settings > Network > Advanced

Section dedicated to the configuration of DATA EASY device advanced network configuration parameters. Editing of the parameters in this section should be carried out only by a specialised technician.



Section dedicated to set-up of the parameters required to send emails.

The page is divided into

1. Mail server settings
 - **SMTP Hostname:** enter the address of the SMTP server you wish to use
 - **SMTP port:** set the SMTP server communication port.
 - **SMTP Username:** enter the username for SMTP server access
 - **SMTP password:** enter the password for SMTP server access
 - **Email Sender:** enter an email address to define the sender
 - **Email recipient n.1:** enter recipient email addresses. Press **+** to add a recipient. Do not enter more than 4 recipients.

Press **Save** to save the configuration. Press **Test** to check correct operation with the entered parameters

2. Mail communication management
 - ✓ **Enable alarms notification by email:** enables notification by email of the alarms present on the plant, as acquired by the DATA EASY device. The system will also manage automatic signalling of **Communication Error** alarms if one or more of the field devices fails to answer the interrogation correctly. Recovery from the error will be confirmed by sending an 'alarm ended' email. All notifications can always be consulted in the section [System Status](#) → [Events Log](#).
 - **Number of alarms awaiting notification:** shows the number of alarms awaiting notification. Press the pending notifications **Delete** button to delete alarms that have yet to be notified and check the network and email management configuration settings

Do not edit the parameters entered in this section

Settings > Wired devices

Section dedicated to search/configuration of meters present in the plant

Settings > Wired devices > Meters setup

This section provides access to a list of saved meters. The first time the device is used the section will be completely empty.

The screen page is divided as follows:

The screenshot displays the 'Meters Setup' interface. At the top, there are two tabs: 'Meters Setup' (highlighted in red) and 'Search Setup'. Below the tabs is a table listing meters:

| Model | Device Name | Description | Delete |
|----------|--------------|-------------|--------------------------|
| 00000000 | DEV_00000000 | Heat | <input type="checkbox"/> |
| 18070000 | DEV_18070000 | Heat | <input type="checkbox"/> |

Below the table, there are configuration fields for the selected meter (DEV_18070000):

- Device Name: DEV_18070000
- Description 1: Heat
- Description 2: PA_002
- Installation Date: 01/10/2018
- Scan interval: 60 min
- Primary Address: 2
- Baudrate: 9800 bps
- Read by: Primary Address
- ID Device: 18070000
- Manufacturer Code: CAL
- Medium: Heat(outlet)
- Version (Hex): 20

A 'Save' button is located below these fields. To the right, the manufacturer information is displayed: 'Manufacturer: Caleffi Model: CAL75504', accompanied by an image of the meter device.

Below the configuration fields is the 'Meter Data Block Settings' section, which contains a table for configuring data blocks:



| User description | M-Bus Description | Configuration standard report. [Data matching] | Configuration of report with data elaborated. [Type of elaboration] | Configuration of report data. [Favorites data] | Main Field |
|--------------------|--------------------|--|---|--|-----------------------|
| Bus address | Bus Address | none | None | <input checked="" type="checkbox"/> | <input type="radio"/> |
| Fabrication number | Fabrication Number | fabrication_ | None | <input checked="" type="checkbox"/> | <input type="radio"/> |
| Heat energy | Energy | heat_energ_ | Consumptic | <input checked="" type="checkbox"/> | <input type="radio"/> |
| Inst. power | Power | none | Average | <input checked="" type="checkbox"/> | <input type="radio"/> |
| Flowrate | Volume Flow | none | Average | <input checked="" type="checkbox"/> | <input type="radio"/> |
| Flow temperature | Flow Temperature | none | Average | <input checked="" type="checkbox"/> | <input type="radio"/> |

A 'Save' button is located below this table.

At the bottom is the 'Meter alarm settings' section, which contains a table for configuring alarms:


| Log | Email | Event Name | Event Type | Status |
|--------------------------|--------------------------|-------------------------|---------------------------|------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Probe flow temp error | M-Bus status notification | NOT ACTIVE |
| <input type="checkbox"/> | <input type="checkbox"/> | Probe return temp error | M-Bus status notification | NOT ACTIVE |

1. Meters table

| Model | Device Name | Description | Delete |
|----------|--------------|-------------|---|
| 00000000 | DEV_00000000 | Heat |  |
| 18070000 | DEV_18070000 | Heat |  |

- **Model:** shows the model of the selected meter
- **Device name:** name of the meter
- **Description:** description of the meter
- **Del.:** click on the symbol to delete the meter

2. Meter data: the white fields are editable

| | | |
|-------------------------------------|-----------------|--|
| Device Name: | DEV_18070000 | <p>Manufacturer: Caleffi Model: CAL75504</p>  |
| Description 1: | Heat | |
| Description 2: | PA_002 | |
| Installation Date: | 01/10/2018 | |
| Scan interval: | 60 min | |
| Primary Address: | 2 | |
| Baudrate: | 9600 bps | |
| Read by: | Primary Address | |
| ID Device: | 18070000 | |
| Manufacturer Code: | CAL | |
| Medium: | Heat(outlet) | |
| Version (Hex): | 20 | |
| <input type="button" value="Save"/> | | |

- **Device name:** shows the name of the device
- **Description 1:** if blank, enter the first description for identification of the meter
- **Description 2:** if blank, enter the first description for identification of the meter
- **Installation date:** shows the meter installation date.
- **Readout interval:** frequency of meter readouts: 15 minutes, 1 hour, 6 hours, 12 hours, 1 day, 1 month.
- **Primary Address:** shows the meter address (uneditable).
- **Baud rate:** shows the speed with which the meter communicates with DATA EASY.
- **Readout by:** allows readout by primary address or secondary address
- **Serial number:** shows the serial number of the selected meter (uneditable)
- **Manufacturer Code:** shows the name of the manufacturer
- **Measured parameter:** shows the type of parameter read by the meter (uneditable)
- **Version (HEX):** shows the meter version (uneditable)
- **Save:** to save any changes





3. Meter data setup: the fields highlighted in green are editable

| User description | M-Bus Description | Configuration standard report. [Data matching] | Configuration of report with data elaborated. [Type of elaboration] | Configuration of report data. [Favorites data] | Main Field |
|--------------------|--------------------|--|---|--|----------------------------------|
| Bus address | Bus Address | none | None | <input checked="" type="checkbox"/> | <input type="radio"/> |
| Fabrication number | Fabrication Number | fabrication_nu | None | <input type="checkbox"/> | <input type="radio"/> |
| Heat energy | Energy | heat_energy | Consumption | <input checked="" type="checkbox"/> | <input checked="" type="radio"/> |
| Volume C1 | Volume | none | None | <input type="checkbox"/> | <input type="radio"/> |
| Power | Power | none | None | <input checked="" type="checkbox"/> | <input type="radio"/> |
| Flowrate | Volume Flow | none | None | <input checked="" type="checkbox"/> | <input type="radio"/> |

Save

- **User description:** value originating from the device in accordance with the protocol standard, editable
- **M-Bus description:** value originating from the device in accordance with the protocol standard, uneditable
- **Summary data:** select the calculation type for the end of day summary data.
- Once of the following may be selected:
 - **Disable:** no data displayed
 - **Consumption:** generates value as end of day maximum and the corresponding delta
 - **Minimum:** generates the value as the day minimum
 - **Maximum:** generates the value as the day maximum
 - **Average:** generates the value as the day average
- **Display value:** tick the data to be displayed in the **Devices** section
- **Main value:** main value to be displayed in the **Devices** section
- **Save:** to save any changes

4. Meter alarm settings: each meter has a series of alarms that can be set individually. All the alarms managed will be shown as in the table below, and the management options can be customized for each alarm. By default, all check boxes will be disabled from each alarm. Once the alarm has been selected

| Meter alarm settings | | | | |
|---|---|-------------------------|---------------------------|------------|
| Log | Email | Event Name | Event Type | Status |
|  |  | Probe flow temp error | M-Bus status notification | NOT ACTIVE |
|  |  | Probe return temp error | M-Bus status notification | NOT ACTIVE |

Settings > Meters

caleffidivele | English

Plant Status

Settings

01 System

02 Network

03 **Wired Devices**

04 Events

05 Groups

Export Data

User Account

Meters Setup

Search Setup

Automatic Search Manual Search

Use Default settings:

Search by ID

First ID to scan: 1

Last ID to scan: 250

Search by Secondary ID

Search Baudrate:

300 bps 600 bps 1200 bps

2400 bps 4800 bps 9600 bps

Start Search

The section offers two different search types: automatic and manual. We recommend always using the automatic meters search function, using the manual search option only when one or more devices is not recognised by the automatic search function; this may occur if collisions occur during the automatic search that make it impossible to recover all the devices present in the field automatically, or if certain devices have a non-standard baud rate (always consult the meter datasheet to obtain this information).

1. Automatic Search

We recommend always performing an automatic search using the default settings

2. **Manual Search**: use this option only if one or more devices if not automatically recognised by the automatic search function.

This may occur if collisions occur during the automatic search that make it impossible to recover all the devices present in the field automatically, or if certain devices have a non-standard baud rate (always consult the meter datasheet to obtain this information).

Start the search by pressing the **Start** button. The search can be interrupted at any time by pressing **Stop**.

When the search is completed you can view and save the meters returned by the search.

M-Bus Device Search

100%

Search Finished

Total devices found: 2 New devices found: 1

| Serial Num. | Device Name | Description |
|--|--------------|-------------|
| 18070000 | DEV_18070000 | Heat |
| <input checked="" type="checkbox"/> 00000000 | DEV_00000000 | Heat |

Device Name:

Description 1:

Description 2:

Scan interval:


ID Device:

Manufacturer Code:

Medium:

Version (Hex):


Manufacturer: Caleffi
Model: CAL75504



When the search is terminated, the first four fields can be filled in, namely:

- **Device name** (editable): shows the name of the device automatically associated by DATA EASY
- **Description 1** (editable): if blank, enter the first description to allow identification of the meter
- **Description 2** (editable): if blank, enter the first description to allow identification of the meter
- **Readout interval** (editable): frequency of meter readouts: 15 minutes, 1 hour, 6 hours, 12 hours, 1 day, 1 month.
- **Serial number**: shows the serial number of the selected meter
- **Manufacturer Code**: shows the manufacturer's name, if the meter is present in the database and recognised
- **Measured parameter**: shows the type of parameter measured by the meter
- **Version (HEX)**: shows the meter version
- **Manufacturer**: shows the manufacturer's name, if the meter is present in the database and recognised
- **Model**: shows the meter model, if present in the database.

If the meter is not recognised among those in the database, choose one of the available options.

| | | |
|---------------------------|--------------|--|
| Device Name: | DEV_18070000 | Manufacturer: Caleffi Model: CAL7504  |
| Description 1: | Heat | |
| Description 2: | PA_002 | |
| Scan interval: | 60 min ▼ | |
| ID Device | 18070000 | |
| Manufacturer Code: | CAL | |
| Medium: | Heat(outlet) | |
| Version (Hex): | 20 | |
| | Save | |

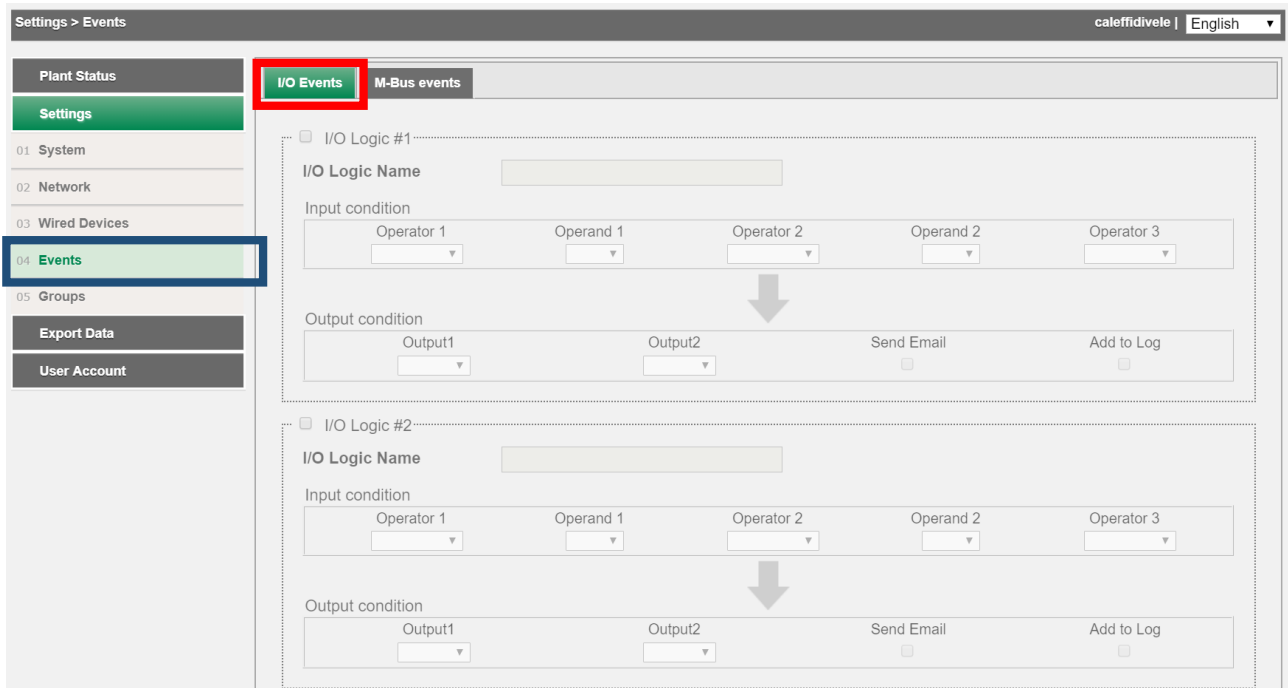
Press [Save](#) to add the meter.

To edit previously saved meters go to the [Meters Setup](#) option

In this section you can set up to four logical conditions linked to the status of the digital inputs (I1, I2 and I3)

Occurrence of the condition can be followed by transmission of an email or, by means of digital outputs O1 and O2, control of external devices.

Important: use digital outputs O1 and O2 only to control visual or audible signalling devices



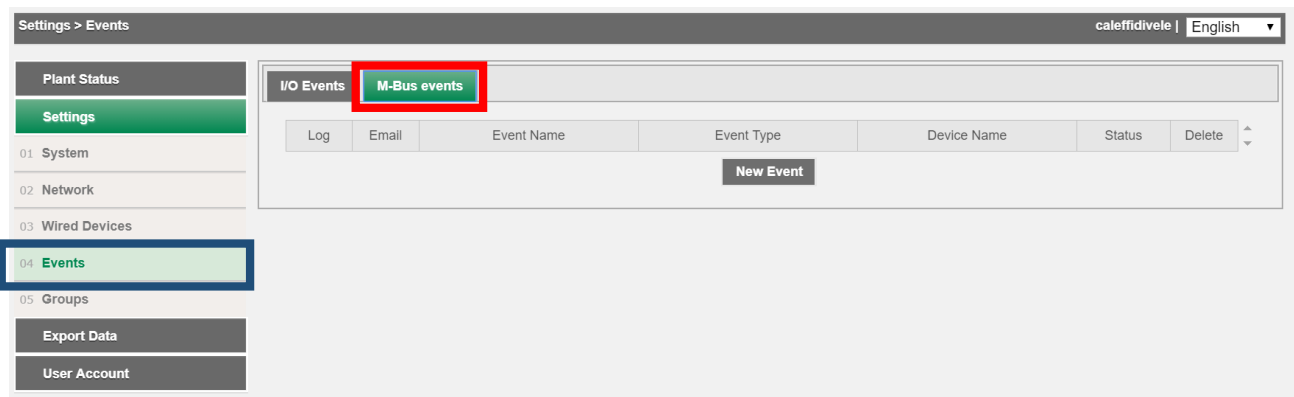
The following options can be selected in the logic set-up section

- ✓ [Send mail](#): send an email to the recipients set in the mail section
- ✓ [Add to Log](#): add to the [Log](#) table.

Press [Save](#) to save the settings configured so far.

Settings > Events > M-Bus Events

In this section you can set conditions with data input from meters in the plant to control outputs [O1](#) and [O2](#). Press the New Event button to create a new event



Select the meter of interest from which to obtain the event setting value

The 'Add New M-Bus Event' dialog box contains a table titled 'Select M-Bus Device' with the following data:

| ID Device | Description 1 | Description 2 |
|-----------|---------------|---------------|
| 00000000 | DEV_00000000 | Heat |
| 18070000 | DEV_18070000 | Heat |

Below the table is a 'Select Event' dropdown menu and 'Ok' and 'Exit' buttons.

Once the meter has been selected, specify the type of condition, from among:

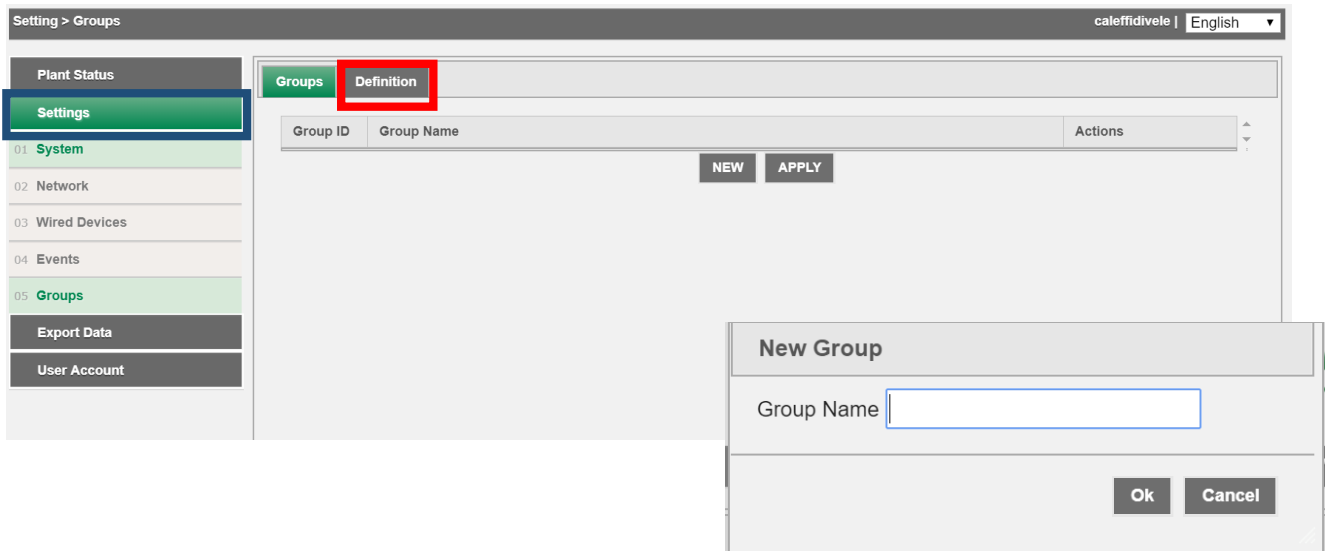
- **Maximum value:** condition set in accordance with the maximum value acquired by the parameter
- **Minimum value:** condition set in accordance with the minimum value acquired by the parameter
- **Out of range:** condition set in accordance with the range acquired by the parameter
- **M-Bus status indication:** condition set in accordance with the creation of a new meter event. Refer to the meter documentation to enable this condition

Settings > Groups

Section dedicated to creating and managing virtual groups in which to insert, for example, all meters on the same staircase or all meters on the same floor of the building. The system can manage up to a maximum of 250 separate groups. Each group can have from one device up to a maximum of 250.

Settings > Groups > Groups

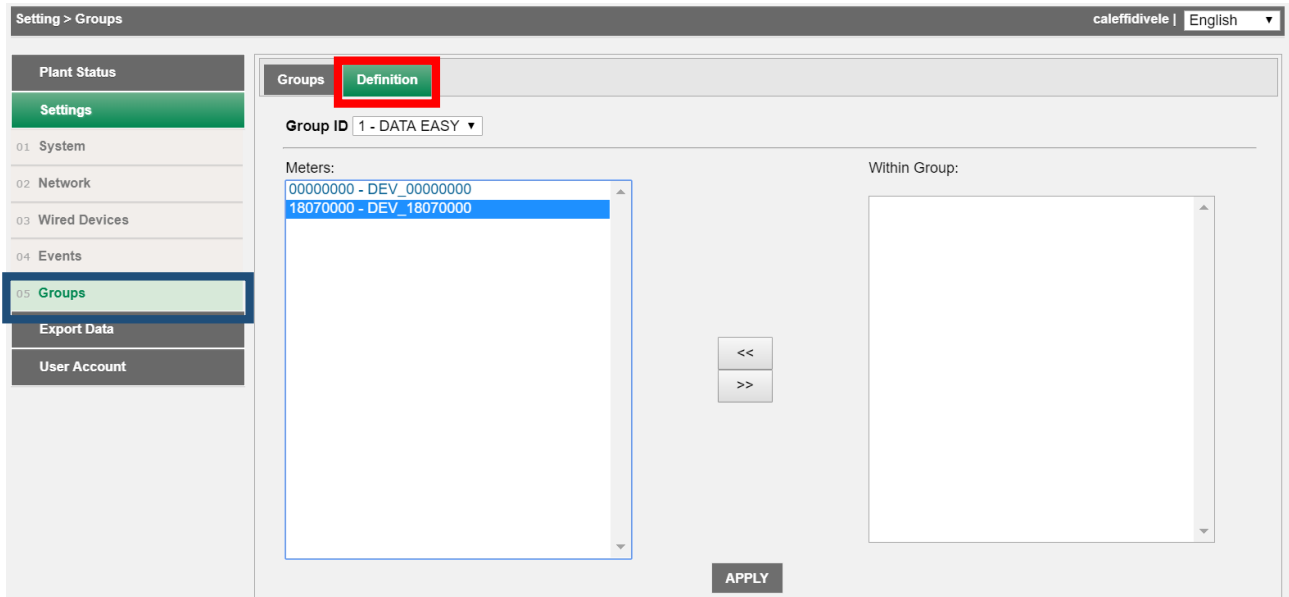
To create a group simply select **NEW**, type a name and then press **OK**:



After creating the group press the **APPLY** button.

Settings > Groups > Definition

Once a group has been created the components to be included in the group can be defined. The window is divided into two boxes:



- Meters: shows all devices linked to DATA EASY
- In Group: shows all the devices linked to DATA EASY and already in the selected group
- A single device can be positioned either in the right-hand box or in the left-hand box using the direction arrows between the two boxes (<< >>)

1. Select the group of interest in the Group ID box
2. Select the device to be included in the group
3. Press the left arrow to include the device

On terminating the operations press the **APPLY** button to save the changes.

Data export

This section is dedicated to processing/export of the data logged in DATA EASY.

Data Export > Create report

Data Export > Create report > Meters

Export Data > Create Report caleffidivele | English

Plant Status
Settings
Export Data
01 Create Report
02 Planning
03 Repository
User Account

Meters Groups

Select device (one or more) from the list

| | Name | Serial Num. | Description 1 | Description 2 |
|--------------------------|--------------|-------------|---------------|---------------|
| <input type="checkbox"/> | DEV_00000000 | 00000000 | Heat | PA_001 |
| <input type="checkbox"/> | DEV_18070000 | 18070000 | Heat | PA_002 |

Cable [2]

Report type: Standard Report File type: CSV

Select day: 1/10/2018

Create Report

%

Select one or all of the devices present in the list. To select this latter option, simply tick the box at the top left of the table.

Meters Groups

Select device (one or more) from the list

| | Name | Serial Num. | Description 1 | Description 2 |
|--------------------------|--------------|-------------|---------------|---------------|
| <input type="checkbox"/> | DEV_00000000 | 00000000 | Heat | PA_001 |
| <input type="checkbox"/> | DEV_18070000 | 18070000 | Heat | PA_002 |

Cable [2]

You can select between various types of export and three types of file format

The screenshot shows a web interface for creating a report. At the top, there are two dropdown menus: 'Report type' is set to 'Standard Report' and 'File type' is set to 'CSV'. Below these is a 'Select day' section with a date input field containing '1/10/2018' and a calendar icon. A 'Create Report' button is centered below the date field. At the bottom, there is a progress bar that is currently empty, followed by a percentage sign '%'. The entire interface is enclosed in a light gray border.

Press the Create Report button: the file will be created automatically and the name will refer to the selected dates

The screenshot shows the progress bar from the previous step, now displaying '0 %'. Below the progress bar, a green-bordered box contains the text '01072018_15082018.xls | Send file by email and/or by FTP if configured' followed by a small icon of a document with an arrow pointing up. The background is a light gray color.

Mouse over the newly created file and left-click on it to open it

Data Export > Create report > Groups

Do not use this export type

Data Export > Planning

From this section you can select the frequency of report creation and activate data transfer via FTP (File Transfer Protocol) to an external server.

Export Data > Report Plan caleffidivele | English

Plant Status

Settings

Export Data

01 Create Report

02 Planning

03 Repository

User Account

| Serial Num. | Device Name | Description | Planning |
|-------------|--------------|-------------|----------|
| 00000000 | DEV_00000000 | Heat | monthly |
| 18070000 | DEV_18070000 | Heat | monthly |

Report file settings

Report type
Report with all daily readouts [Favorites data]

Report generation time
08:00

File type
CSV

Send Report to FTP Server

Enable FTP push

FTP Server address:

Username:

Password:

Save



Planning refers to each single device and the document created will always be consultable in the Reports Archive section.

The report will be generated at 08:15 AM of the current day in the case of daily planning, or at 08:15 AM of the last day of the selected period in consideration.

To conclude the settings press [Save](#) to save the entered configuration.

Data Export > Reports archive

The [Reports Archive](#) section is a repository of all the planning documents created manually or in accordance with a plan. When any file is selected for consultation the file will be downloaded automatically.

| ↑↓ Nr. | ↑↓ File Name | ↑↓ File Size | ↑↓ Creation time | |
|--------|-----------------------|--------------|------------------|---|
| 4 | 01072018_15082018.xls | 4.278 | 01.10.18-16:40 |   |

User accounts

The User Accounts section allows editing of web server access data or exit from the web server.

User Account > Login

There are two account types available: admin and user.

A user account allows read-only access to the data contents

An admin account allows read and edit access to all the data contents

The default credentials for the user account are:

- **User Name:** user - **Password:** user

The default credentials for the admin account are:

- **User Name:** admin - **Password:** admin

The screenshot shows a web interface for 'User Configuration'. The top navigation bar includes 'User > Login' and 'caleffidivele | English'. A sidebar on the left contains menu items: 'Plant Status', 'Settings', 'Export Data', 'User Account', '01 Login', and '02 Exit'. The '01 Login' item is highlighted with a blue border. The main content area is titled 'User Configuration' and contains the following text: 'This page allows you to change the system. default password: admin. Enter the new settings for the board below:'. There are two form sections: 'User Account' and 'Administrator Account'. Each section has three input fields: 'Username', 'Password', and 'Re-type password', followed by a 'Save' button. The 'User Account' section has 'user' entered in the Username field. The 'Administrator Account' section has 'admin' entered in the Username field.

User Account > Exit