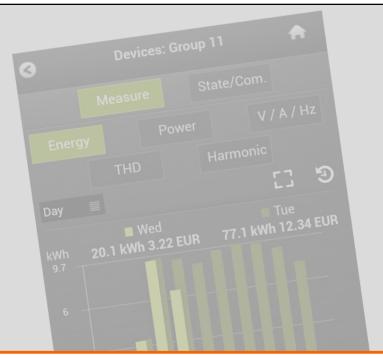


User guide







l <u>Licence Agreements</u>	6
2 System requirements	10
3 Catalogue numbers	12
1 Compatible devices	14
4.1 Measuring / metering devices	14
4.2 Devices without measuring / metering data	15
4.3 Charging stations for electric vehicles	16
5 <u>Languages available</u>	18
5 Implementation	20
7 <u>Use</u>	22
7.1 Access	22
7.1.1 Access rights	22
7.1.2 Login procedure	23
7.1.3 Changing of the display language	24
7.1.4 Logout procedure	24
7.2 Data display pages	25
7.2.1 My panel board	25
7.2.2 Consumptions: data & diagrm.	27
7.3 Green'Up	35
BFAQ	40







IMPORTANT:

Please read the terms and conditions of this license agreement carefully before using the software (as defined below).

This is a license agreement between you and BTicino SpA. (BTicino) which is located in viale Borri 231, 21100 Varese, Italy.

By opening this package, breaking the seal, clicking the "i agree" or "yes" button or otherwise indicating assent electronically, or loading the software, you agree to the terms and conditions of this license agreement.

If you do not agree to these terms and conditions, make no further use of the software, and contact your vendor or Bticino customer service for information on how to obtain a refund of the money you paid for the software in accordance with the general conditions of sale of BTicino.

1. DEFINITIONS

"Software" means:

- (a) all of the contents of the files of the software delivered either with a file and a key ("Energy Management Software") either with a Web server ("Energy manager Web Server");
- (b) related explanatory written materials or files
- ("Documentation"), fonts and the packaging of the product;
- (c) upgrades, modified versions, updates, additions, and copies of the foregoing, provided to you by BTicino at any time (collectively, "Updates").

"Use" means to access, install, download, copy, or otherwise benefit from using the functionality of the Software

2. GENERAL USE OF THE SOFTWARE

2.1 License

This contract is a license Agreement.

BTicino grants you a right not exclusive and not transferable to use the Software according to the conditions ant terms defined below

2.2 Rights and obligations

You may:

- use one copy of the Software on a single computer. If a greater number of copies and/or number of computers is specified within the Documentation or the applicable transaction documentation from the authorized distributor or reseller from which you obtained the Software, you may use the Software in accordance with such specifications:
- make one copy of the Software for back-up or archival purposes, or copy the Software onto the hard disk of Your computer and retain the original for back-up or archival purposes;
- use the Software on a network, provided that you have a licensed copy of the Software for each computer that can access the Software over that network;
- permanently transfer all of your rights in the Software granted under this License Agreement to another person or entity, provided that you retain no copies of the Software and the transferee agrees to the terms of this License Agreement. Partial transfer of your rights under this License Agreement shall not be permitted. For example, if the applicable documentation grants you the right to use multiple copies of the Software, only a transfer of the rights to use all such copies of the Software would be valid:



2.2 Rights and obligations (continued)

- use the Software in accordance with any additional permitted uses which may be set forth below.

You may not, nor may you permit any other person to:

- sublicense, rent or lease any portion of the Software;
- reverse engineer, decompile, disassemble, modify, translate, make any attempt to discover the source code of the Software or create derivative works from the Software;
- use the Software as part of a facility management, timesharing, service provider or service bureau arrangement;
- use the Software in any manner that is not permitted pursuant to this License Agreement

3. COPYRIGHT

The Software is the property of BTicino or his licensers and is protected by law.

4. LIMITED WARRANTY

Warranty period for Products shall be 12 (twelve) months from delivery date.

BTicino guarantees the smooth running of this software only with the use of products BTicino. He cannot be held responsible in case of malfunction due to the use of products others than products BTicino.

5. LIMITATIONS OF LIABILITY

BTicino cannot be held liable for any damages of any kind, including without limitation any consequential, operating loss, data loss, malfunction of other softwares installed on your computer or any lost profits resulting of the impossibility to use the software, even if BTicino has been aware of the possibility of such damage.

6. TERMINATION

BTicino has the right to terminate this Agreement by rights immediately by a written notification if you fail to comply with any term of this Agreement and in particular with the provision of article 2.2.

Upon termination of the license, you accept to destroy all copies of the Software and his Documentation.

7. GOVERNING LAW

This Agreement will be governed by Italian Law.

In the event of issues relating to the construction, validity and/or execution of this agreement the Parties undertake to find an amicable settlement.

Failing such a settlement, the disputes shall be submitted to the exclusive jurisdiction of the Court of Milan.







Display possible on: (Device, Operating system, Web Browser)

- iPhone:
 - 5 and following, iOS 10 and following, Safari





PM1WS10: "Mini Energy Web Server 10"

Management up to 10 Modbus addresses or 10 pulse counters

PM1WS32: "Mini Energy Web Server 32"

Management up to 32 Modbus addresses or 32 pulse counters

Software version 3.9.0





4.1 Measuring / metering devices

- Range BTDIN
 - Multifunction measuring devices:
 - Modular Cat.Nos F3N200, F4N200
 - Standard Cat.Nos F3N300, F4N300
 - Top Cat.Nos F3N400, F3N500, F4N400
 - · Energy counters RS485:
 - Single-phase direct connection (MID) Cat.No F21DM63, F21DM63N
 - Three-phase direct connection (MID) Cat.Nos F41DM63, F41DM63N, F41DM125
 - Three-phase connection with CT (MID) Cat.No F41TMA, F41TMAN
 - Energy counters pulse output (with the Concentrator Cat.Nos F80Bl*, F4CON12* or F4CON*):
 - Single-phase direct connection Cat.Nos F20D32 (Standard), F20DM63 (MID) , F20DM63N (MID)
 - Three-phase direct connection (MID) Cat.Nos F40DM63, F40DM63N
 - RCD add-on module with integrated counting Cat.Nos G47XM63, G47XM125 and with integrated measuring-Cat.Nos G47XCM63, G47XCM125
 - via the communication module Cat.No M7COM

- Range EMS BTDIN

- · Multifunction measuring devices:
 - Single-phase connection via Closed Rogowski coil(s) -Cat.Nos F80BM3M63 and F80BMM63
 - Three-phase connection via Closed Rogowski coil(s) Cat.Nos F80BMT63 and F80BMT125

 Cinals allows as Three phase (configurable) connection via
 - Single-phase or Three-phase (configurable) connection with CT - Cat.No F80BMT
 - Three-phase connection via Open Flexible Rogowski coils -Cat.Nos F80BMR630, F80BMR1600, F80BMR3200 and F80BMR6300
- · State and Control modules:
 - Signalling Auxiliary Contact (CA + SD) Cat.Nos F80BCR
 - Universal State Module Cat.Nos F80BVS
 - State & Control Module for Latching relays and Contactors -Cat.Nos F80BCS
 - Universal Control Module Cat.Nos F80BC
- via Modbus RS485/EMS BTDIN interface Cat.No F80BIM1

- Range MEGATIKER

- M2 250 electronic, M4 630 electronic, M5 1600 electronic only versions with integrated measurement unit
 - via the communication module Cat.No M7COM
- Range MEGABREAK with protection unit touchscreen (Cat.Nos MP6SH/TH)
 - via the communication module Cat.No M8COM

- Gas counters
 - Any device with pulse output via the Concentrator Cat.Nos F80Bl*. F4CON12* or F4CON*
- Water counters
 - Any device with pulse output via the Concentrator Cat.Nos F80Bl*. F4CON12* or F4CON*
- * Note: Pulse Concentrator must be properly programmed to be compatible with the type of counter (Refer to the pulse concentrator's user manual)
- "Generic" Measurement/Counting Devices with Modbus RS485 output
 - Any "other manufacturers" meter or counter with Modbus RS485 output, limited only to positive active energy

- 4.2 Devices without measuring / metering data
- Range MEGATIKER
 - M2 250 electronic, electronic with integrated RCD and thermal-magnetic with integrated RCD
 - M4 630 electronic
 - M5 1600 electronic
 - via the communication module Cat.No M7COM
- Range MEGABREAK with protection unit LCD screen (Cat.Nos MP6BA/SA/TA)
 - via the communication module Cat.No M8COM
- Range RS485 power supervision system devices
 - Signalling and control interface Cat.No M7TIC/IO
 - Module programmable output Cat.No M7TICPROG

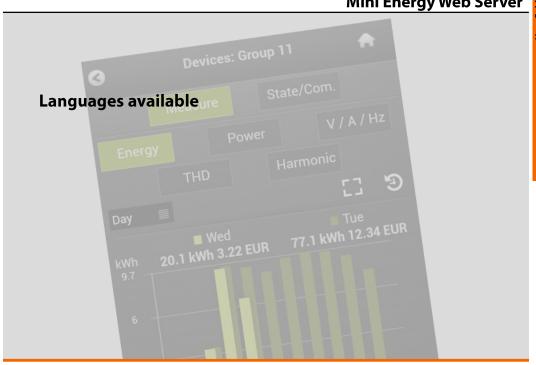


4.3 Charging stations for electric vehicles

- Range Green'Up™"Premium" (New range)
 - Single-phase stations Mode 3 (Cat.Nos 0 590 00/01)
 - Single-phase stations Modes 2 and 3 (Cat.Nos 0 590 30/35/41/42/43/44)
 - Three-phase stations Mode 3 (Cat.Nos 0 590 02)
 - Three-phase stations Modes 2 and 3 (Cat.Nos 0 590 48/49)
 - via the communication kit Cat.No 0 590 56 (1 Modbus address for a single side station, 2 Modbus addresses for a double side station)

Range Green'Up™ (Old range)

- "One-side" Stations, single-phase without RFiD (Cat.Nos 0 590 31/33/37/76/91/93)
- "Two-sides" Stations, single-phase without RFiD (Cat.Nos 0 590 32/34/38/77/78)
- "One-side" Stations, single-phase with RFiD (Cat.Nos 0 590 61/63)
- "Two-sides" Stations, single-phase with RFiD (Cat.Nos 0 590 40/57/58)
- "One-side" Stations, three-phase without RFiD (Cat.Nos 0 590 45/94/95)
- "Two-sides" Stations, three-phase without RFiD (Cat.Nos 0 590 96/97)
- "One-side" Stations, three-phase with RFiD (Cat.Nos 0 590 46/64/65)
- "Two-sides" Stations, three-phase with RFiD (Cat.Nos 0 590 47/66/67)

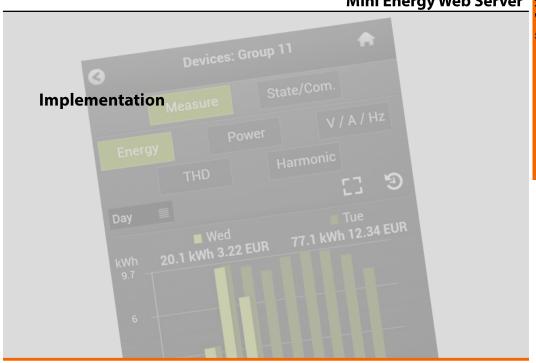






· Languages:

- 中国
- Deutsch
- English
- Español
- Français
- Français (Belgique)
- Ελληνικά
- Italiano
- Nederlands (Belgïe)
- Nederlands
- Polski
- Portuguese
- Русский





ATTENTION!

The procedures for configuring the Web Server (Web Server configuration) and the System (System configuration) are only possible by accessing the Web server by a computer. (refer to the "User manual")

By working locally on Smart-phones are available all display pages of devices and of consumptions.





7.1 Access

The access to the Web Server's data is protected by identification codes (PIN and PUK codes).

Three types of "default" users are configurated:

- "administrator"
- "installer"
- "user"

The home page ("home") will be different depending on the type of user that access to the device.

7.1.1 Access rights

• "administrator"

Access to the pages:

- My panel board

99999 (5 characters)

- Consumptions: data & diagrm.

Default access PIN code:

Default access PUK code:

00000 9999 00000 (14 characters)

"greenUp"

Access to the pages:

- My panel board
- Consumptions: data & diagrm.
- Green'Up

Default access PIN code: 88888 (5 characters)

Default access PUK code: 00000 8888 00000 (14 characters)

"installer"

Access to the pages:

- My panel board
- Consumptions: data & diagrm.

Default access PIN code:

55555 (5 characters)

Default access PUK code:

00000 5555 00000 (14 characters)

"user"

Access to the pages:

Consumptions: data & diagrm.
 Default access PIN code:

11111 (5 characters)

Default access PUK code:

00000 1111 00000 (14 characters)

7.1.2 Login procedure

Connect to the Web Server from your smart-phone by typing in the web browser the IP address set in the configuration procedure (refer to the "User manual" § 7.5)



Web Server's login page appears



Type the access PIN code 88888 (default PIN) then press on "OK".



Type the access PUK code $00000\,8888\,00000$ (default PUK) then press on "OK".

Web Server's home page appears



7.1.3 Changing of the display language



In the Web Server's Login page or in the Home page, touch on the list box in the lower part of the page to choose the proper language.

Note: this operation doesn't change the default language. To change the default language follow the procedure described in the User manual (§ 7.8.1)

7.1.4 Logout procedure

The Logout icon 🚺 appears in the Web Server's home page.





Touch "Logout" or "Lock" to confirm the exit from the web server.

Note:

Logout → closing the session; reconnection with the PIN code.

Lock → temporary disabling of the application; reconnection with the codes PIN + PUK.

7.2 Data display pages

7.2.1 My panel board

"Devices" page allows to view the consumption of each device added by the users.



In the Web Server's home page press on "Devices"

Devices list's page appears.
This page shows the devices
added with their characteristics
and status icons.

Possibility to choose a device per "Gateway", "Panel board" or "All devices".



· Description of the device selection button



- Modbus Address (Modbus Address Position for counters with pulse output or Modbus Address - Side for charging stations "two" sides or Modbus Address - Indication of the virtual device type for the Master/Slave function)
- 2. Name of the device
- 3. Symbols of the functions associated to the Device
 - Measure
 State
 Command
 Link Fur
- Command Link Functionality
 4. This symbol appears only if the Device integrates the state function related to a protection device and shows the circuit-breaker state:
 - Open
 - Closed
 - Tripped
- 5. Device status
 - S On Off
 - Communication error
 - Charging station failure (for charging stations only). The detailed list of the errors is displayed in the Devices menu (see page 27)

The procedure to switch ON/OFF a device is described in the "User Manual" (§ 7.15.1).





Devices: Group 11

Active Power [kW]

V/A/Hz

30.23

Harmonic

Details page of the selected device appears.

The page is divided into two parts:

section A is the area where is possible to select two pages:

- •Measure: display of the quantities measured by a device:
- Electricity measuring device:
 Energy, Power, Voltages/Currents
 /Frequency, THD (if available on the Device) and Harmonics (if available on the Device)

Note: for "generic" measurement/counting devices and "Virtual" devices created with the Master/Slave function, only the table with the value of positive active energy is available.

- Water Counters: Water consumptions
- Gas Counters: Gas consumptions
- •State/Com.: page dedicate to EMS BTDIN devices; display of devices status, control buttons... for each EMS BTDIN device/group of devices

section B shows the values measured by the selected device.



Touch the two arrows in the lower part of the page to view the different tables for the selected quantity (e.g. for Power: Active, Reactive and Apparent power).

For Green'Up users, the details page is the following:



Devices: Station Left side

Charge errors

NO

NO

Stati : rors

Main power railure

Hardware error (recoverable)

Hardware error (unrecoverable)

Charge error

Low battery voltage

In the Devices list's page press on a Charging station's button.

Details page of the selected station appears.

The page is divided into two parts:

section A is the area where it's possible to select which maintenance page of the selected charging station display:

- Station errors
- Charge errors
- Commands

section B shows the status of the charging station or of the charging process and offer the

possibility to enable or disable the EV plug or Domestic plug.

For "Power Supervision System Devices", page "My panel board" it is structured as follows:



section A is the area where is possible to select:

- a page showing the status of digital and analogue inputs (for M7TIC/IO)
- a page showing the status and for command of the digital outputs (for M7TIC/IO and M7TICPROG)
- section **B** shows inputs/outputs status and command buttons of outputs





7.2.2 Consumptions: data & diagrm.

"Consumptions" page allows to view the global or detailed consumptions of the devices added by the users.



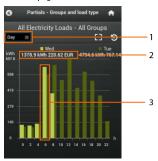
Consumptions page appears.



Are available 5 ways of displaying data:

- Grand Total Electricity (Electrical Consumptions of the entire installation)
- Grand Total Overall (Overall Consumption of the installation)
- Partials (Consumptions per Load and/or Measure group)
- Compare (Comparison of the Global Consumptions between two Devices)
- Details (Consumptions of a single Device)

For each page are available:



- 1. Histograms of the consumptions divided per:
- Day (per hours)
- Month (per days)
- Year (per months)
- 2. Values in:
- Wh (and multiples of Wh), dm^3 (and multiples of dm^3) of water, dm^3 (and multiples of dm^3) of gas and 'Wh (and multiples of Wh) equivalent" of gas. Note: displayed values (resolution , decimal values, etc.) depend only on the quantities read by the measuring instruments.
- EUR (or other configured currency)
- 3. Comparison between the actual and the previous value (ex. today/yesterday, etc.) $\,$

Grand Total - Electricity



Visualization of Total Energy (Ea+) Consumptions on histograms.

Press "Day", "Month" or "Year" to view consumptions on a different time period (Day (per hours) / Month (per days) / Year (per months)). Press "Data" to view the table with the values (in Whand Currency) of global consumptions in different time periods.

Histograms

divided per Load



Note: in this visualization, consumption data for "virtual" devices not excluded from Total are also taken into account.

Grand Total - Overall



In the Consumptions menu page press or "Grand Total - Overall".

Visualization of Overall Consumptions of the system on tables and on a pie chart showing:

- -consumptions subdivided per type:
- Electricity (orange area) Gas (green area) Water (blue area)
- consumptions valued according to the measurement unit and the currency set

Press "Day", "Month" or "Year" to view consumptions on a different time period (Day (per hours) / Month (per days) / Year (per months)).



The percentage shown in the pie chart is calculated based on the currency set

Note: in this visualization, consumption data for "virtual" devices not excluded from Total are also taken into account.



Partials - Groups and Loads



In the Consumptions menu page press on "Partials-Groups and Load type".

Loads list's page appears.
This page shows "pre-defined" loads and loads added by the

users:

Possibility to choose a load filtering the research per "Measure Group".





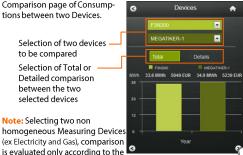
Pressing on a load button the partials consumptions page appears.

Press the drop-down menu to view histograms over a different time period (Day/Month/Year).

Compare



in the Consumptions menu page press on "Compare".



currency (EUR or other currency) and not according to the measurement units. It is not possible to compare kWh of energy and "Equivalent kWh" of gas.

Touch the two arrows in the lower part of the page to view the comparison histograms on a different time period (Day / Month / Year).

Details



Devices list's page appears.
This page shows the devices added by the users with their characteristics and status icons.

Possibility to choose a device per "Group", "Load" or "All devices".



· Description of the device selection button



- Modbus Address (Modbus Address Position for counters with pulse output or Modbus Address - Side for charging stations "two" sides or Modbus Address - Indication of the virtual device type for the Master/Slave function)
- 2. Name of the device
- 3. Symbols of the functions associated to the Device
 - Measure
 Command
- State

 Link Functionality
- This symbol appears only if the Device integrates the state function related to a protection device and shows the circuit-breaker state:
 - Open
 - Closed
 - Tripped
- Device status
 - On
 On
 - ₹ Off
- Communication error

The procedure to switch ON/OFF a device is described in the "User Manual" (§ 7.15.1).





In the Devices list's page press on a Device button.

Details page of the selected device appears.

The page is divided into two parts:

section A is the area where is possible to select two pages:

- •Measure: display of the quantities measured by a device:
- Electricity measuring device:
 Energy, Power, Voltages/Currents
 /Frequency, THD (if available on the Device) and Harmonics (if available on the Device)



Note: for "generic" measurement/counting devices and "Virtual" devices created with the Master/Slave function, only Energy histograms are available.

- Water Counters: Water consumptions
- Gas Counters: Gas consumptions
- •State/Com.: page dedicate to EMS BTDIN devices; display of devices status, control buttons... for each EMS BTDIN device/group of devices

section B shows histograms of the consumptions, values measured by the selected device, status icons (if available).



Press the drop-down menu to view energy histograms over a different time period (Day/ Month/Year).

Press on one of the buttons to view the other measured electrical quantities.

Use two arrows in the lower part of the page to display the different tables for the selected electrical quantity (e.g. for the Power: Active, Reactive and Apparent power and Power factor).

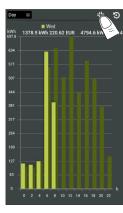


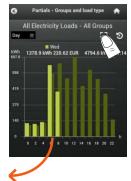
Advanced histograms display

For consumptions histograms of the menus "Partial – Groups and Load types" and "Details", an advanced display mode is available.

- Full screen display

Pressing on the button , histograms can be enlarged to full screen on the device.





Note: image format and resolution will depend on the screen on which the data will be displayed (see example for a 4,5" screen).

To return to the standard format, press the button at the top right.

- Detailed view and direct download of data



Pressing on the button , it is possible to browse the histograms in detailed mode by:

- Day (per hours)
- Month (per days)
- Year (per months)
- -10 years (per years)

Press the drop-down menu to select the histogram viewing period (Day, Month, Year, 10 years).







Devices: Group 11

State/Com.

Harmonic

01 Apr 2019 101.8 kWh 16.29 EUR Example: display by "Day" and choice of a specific date in the selected period.



Pressing on the three points "...", another set of options is displayed.

Pressing on two arrows (or), it is possible to pass from one to another histogram in the selected period (e.g. today, yesterday, two days ago, ...).

Pressing on the button , it is possible to download a ".csv" file named "datalogger.csv" with the data saved by the web server in the selected period.

Pressing on the button , it is possible to return to the standard view.

Note: it is still possible to put in full screen this type of histogram by pressing the button.





7.3 Green'Up

"Green'Up" page allows to manage the Charging Stations for electrical vehicles.



In the Web Server's home page press on "Green'Up".

Green'Up page appears.
This page allow you to view the
Details and Manage several
options for the Charging
Stations added by the users.



Details



In the Green'Up menu page press on "Details".

Devices list's page appears. This page shows the charging stations added by the users with their characteristics and status icons.

Possibility to choose a stationper "Group", or "All devices".







Details: Station Left side

Station state

Mode

General error

Charge error

About

YES

Managed

NO

NO

In the Devices list's page press on a Charging station's button.

Details page of the selected device appears.

The page is divided into two parts:

section A is the area where is possible to select the details of the selected station that will be displayed in the section B:

- Station: shows <u>the</u> state of the selected station (station poweredon, managed, in error, etc.)
- Charge: shows the state of the charging process (station available or busy, etc.)
- About: shows the information about the station and its characteristics (rated current, firmware and hardware version, etc.)

Management

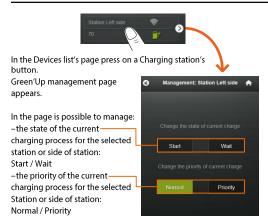


In the Green'Up menu page press on "Management".

Devices list's page appears. This page shows the charging stations added by the users with their characteristics and status icons.

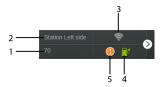
Possibility to choose a station per "Priority", "Group" or "All devices".





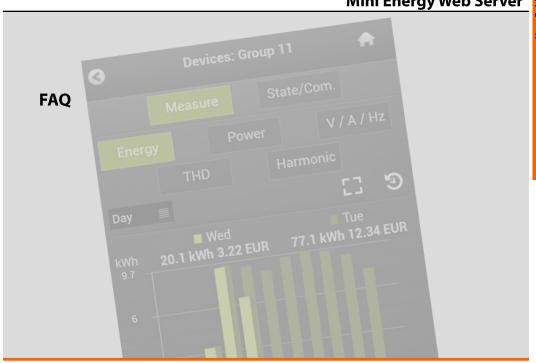
Note: these two settings affect only the current charging process. They don't change the default parameters of the stations! (refer to the "User manual" for set the default configuration of each Charging Stations added by the user)

· Description of the device selection button



- Modbus address (Modbus address Side for the "two-sided" charging stations of the old range)
- 2. Name of the Charging station
- 3. Device status:
 - 🛜 On
 - M Off
 - communication error
 - that ging station failure. The detailed list of the errors is displayed in the Devices menu (see § 7.2.1)
- 4. State of the charging station:
 - charging station available and ready to start a charging
 - charging in progress
 - ir charging station in wait mode
- Priority of the charging station/side of the charging station no symbol: Normal
 - Priority charging station







ATTENTION!

Downloading and management of files .CSV and all other functions (management of the database, network types, terms of access and Backup/Restore procedure) are possible only by accessing the Web server by a computer (refer to the "User manual")



BTicino SpA

Viale Borri, 231 21100 Varese - Italy www.bticino.com

BTicino SpA reserves at any time the right to modify the contents of this booklet and to communicate in any form and modality, the changes brought to the same.