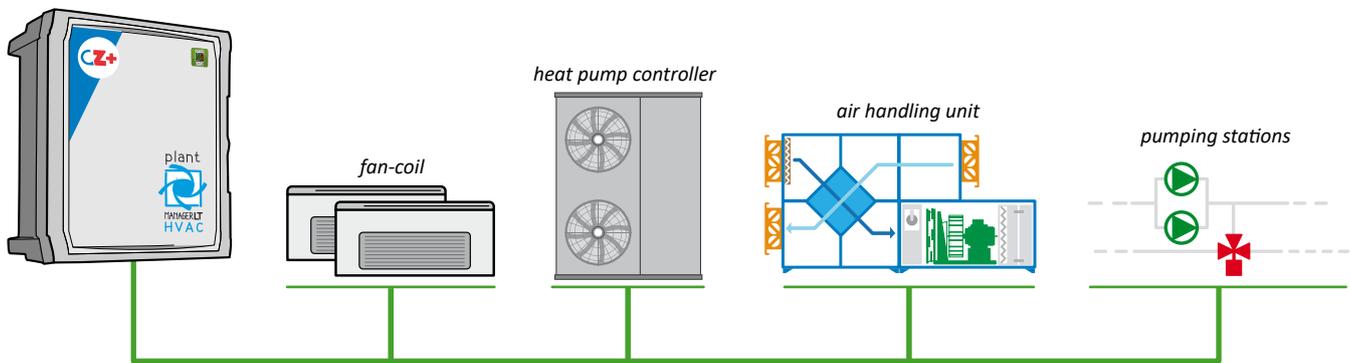


# plantMANAGER LT HVAC

Solutions for supervision and remote control of HVAC systems



**plantMANAGER LT HVAC** represents the CZ+ proposal for the supervision and remote control of small and medium-sized HVAC systems.

The solution suitable for the **supervision of technical systems and consumers such as supermarkets, hotels, shopping centers, hospitals, service areas, professional kitchens and restaurants**, allows authorized personnel to manage plants and devices located throughout the territory.

In combination with various field controllers it allows centralized and remote management of:

- heat pumps
- pumping station
- fan-coil
- air handling units

Thanks to the **web server platform**, the various synoptics can be viewed simply by using common browsers available on desktops, tablets and smartphones without install any additional software on the device used to connect to the system.

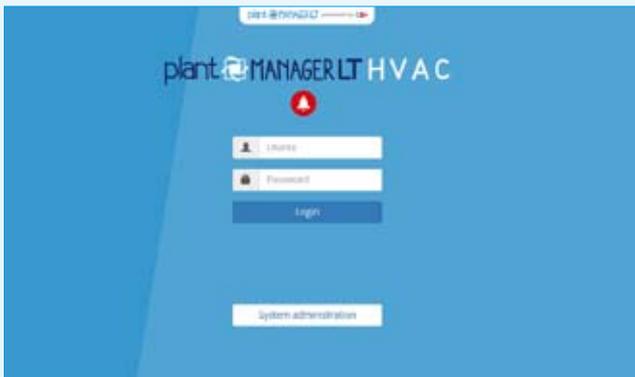
Provides real-time **data acquisition, alarm management** and **multi-user interaction** with field equipment, offering tools for online technical support such as **time monitoring** and **analysis of acquired data**.

It provides **status and alarm notifications** of the system through the most common way (mail and SMS), accompanied by historical reports available in different formats.

It allows the **scheduling of events** through customizable and easy to use calendars, managing repetitive planning periods and possible exceptional days.

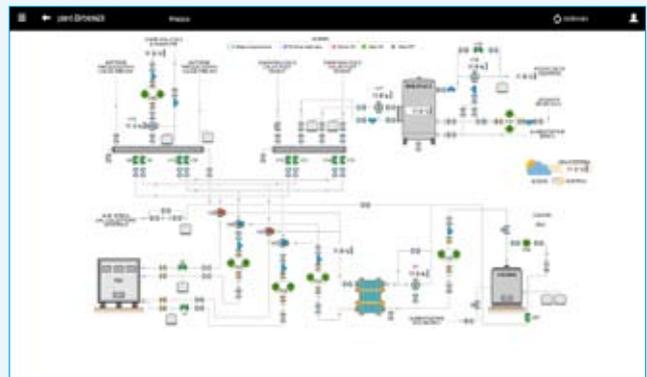
It is open to the **integration of third-party equipment**, having communication protocols typical of the HVAC world such as MODBUS and BACNET.





### LOGIN

Access to the system through a personalized profile and relative password, to allow the use of the various features based on the individual user.



### PLANT MAPS

They allow a global view of the system and facilitate detailed access to every single device in the field (thermostat, acquisition device, controller, etc.).



### DEVICE DETAIL

Accessible from the list or from the plant map, it allows real-time display of states, alarms and significant quantities (temperature, pressures, humidity, etc.) as well as the modification of the functional parameters (set-point, alarm thresholds, etc.).



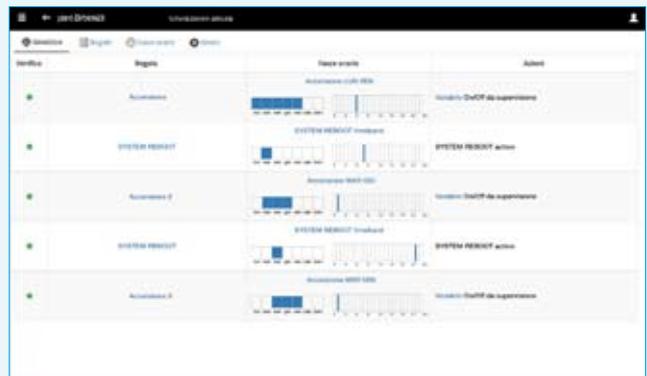
### TREND

They are available for the single device or in aggregate form, and thanks to different functionalities they allow the selection of tracks, the modification of the scales, the centering of the trend and a detailed analysis of the period.

| Process  | Data Date | Description                            | Severity   | Ack | Clear Alarm |
|----------|-----------|----------------------------------------|------------|-----|-------------|
| 21780308 | 16/09/18  | Alarma temperatura DPH LIM             | Impianto 1 |     |             |
| 21780308 | 16/09/18  | Alarma antigelo                        | Impianto 1 |     |             |
| 21780308 | 16/09/18  | Alarma grado zero temperatura antigelo | Impianto 1 |     |             |
| 21780308 | 16/09/18  | Alarma CO2                             | Impianto 1 |     |             |
| 21780308 | 16/09/18  | Alarma grado zero qualità aria         | Impianto 1 |     |             |
| 21780308 | 16/09/18  | Alarma grado zero qualità ambiente     | Impianto 1 |     |             |
| 21780308 | 16/09/18  | Alarma CO2                             | Impianto 1 |     |             |
| 21780308 | 16/09/18  | Alarma grado zero qualità aria         | Impianto 1 |     |             |
| 21780308 | 16/09/18  | Alarma antigelo                        | Impianto 1 |     |             |
| 21780308 | 16/09/18  | Alarma grado                           | Impianto 1 |     |             |
| 21780308 | 16/09/18  | Alarma grado zero qualità ambiente     | Impianto 1 |     |             |
| 21780308 | 16/09/18  | Alarma grado zero temperatura antigelo | Impianto 1 |     |             |
| 21780308 | 16/09/18  | Alarma temperatura                     | Impianto 1 |     |             |

### ALARM LIST

It is possible to access the history of alarms and events detected on the system through a dedicated menu and various filtering possibilities to view and analyze what happened.



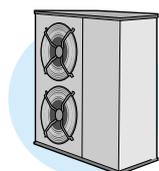
### SCHEDULER

It allows various action planning (eg device on/off, set-point and threshold change, etc.) according to time bands and according to settable rules, allowing flexibility and coordination to be added to the devices on the system.

## FIELD APPLICATIONS

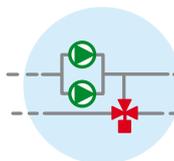
Combined with the supervision system, various field controllers are available, equipped with software specifically designed to manage:

- heat pumps
- pumping stations
- fan-coil
- air handling units



### Heat pump controller

Control unit for cumulative alarm acquisition and sending on/off and mode change (heating/cooling) commands to heat pumps. It also allows the acquisition of delivery and return temperatures to the users. Up to 2 heat pumps can be managed for each control unit. Available in stand-alone version or on electrical box equipped with electrical protections and decoupling relays.



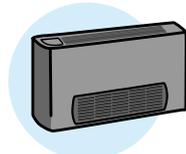
### Pumping station

Control unit for pump pair management (alternating operation with time switchover or in case of single pump block) and mixing valve with fixed point regulation or by climatic curve thanks to the availability of an external air temperature probe. It also allows the acquisition of delivery and return temperatures to the users. Available in stand-alone version or on electrical box equipped with electrical protections and decoupling relays.



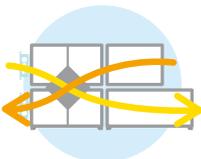
### Universal acquisition

Control unit for the acquisition of digital inputs (states and alarms) and generic analogue quantities (eg temperatures). It also allows the control of relays and analogue outputs 0..10 V for the eventual forcing of external devices. Available in stand-alone version or on electrical box equipped with electrical protections and decoupling relays.



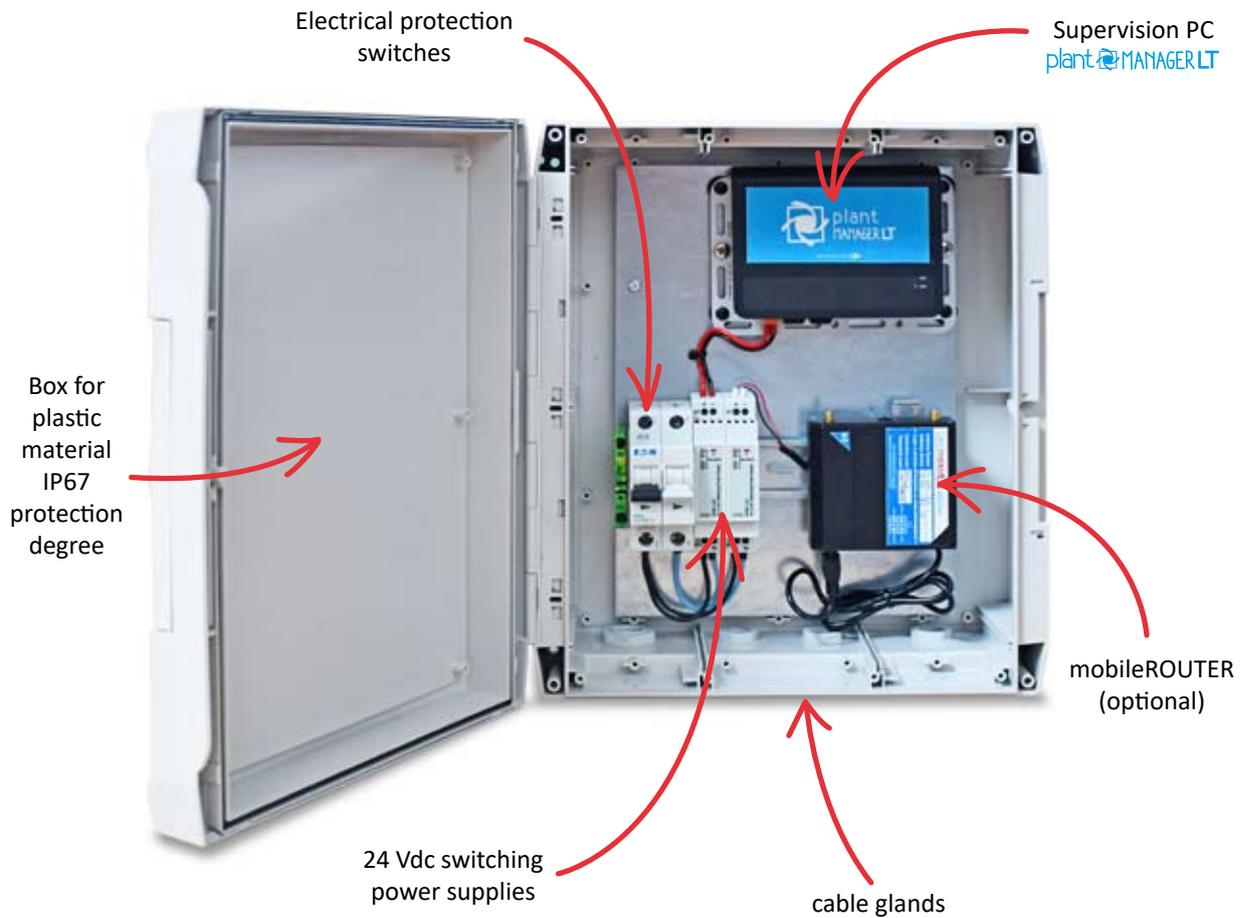
### Fan-coil

Electronic cards and local displays for the control of fan coils with AC motor (3 speed) or brushless on 2 or 4 pipes systems (1 or 2 valves on/off).



### AHU (Air Handling Units)

Line of electrical panels and control units for the management of air handling units. Available in various sizes and formats to meet the various control requirements for these types of systems.



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|                        |                                   |
|------------------------|-----------------------------------|
| <b>BOX DIMENSIONS</b>  | 28,5 cm x 32 cm x 13x5 cm         |
| <b>POWER SUPPLY</b>    | 230 Vac                           |
| <b>SERIAL DOORS</b>    | 2 (of which 1 optically isolated) |
| <b>ETHERNET PORTS</b>  | 2                                 |
| <b>PORTE USB</b>       | 1                                 |
| <b>SD CARD</b>         | 1 slot                            |
| <b>N. DEVICES</b>      | 30 or 50 depending on the models  |
| <b>ANTENNA Wi-Fi</b>   | (option)                          |
| <b>Micro HDMI PORT</b> | (option)                          |
| <b>mobileROUTER</b>    | (option)                          |