

INTELLIPLANT

INTELLIAIR

Clivet Smart Building solutions



COMFORT FOR THE
PLANET & PEOPLE

Contents

Our numbers

Clivet Smart Building

INTELLIPLANT

INTELLIPLANT CORE

INTELLIAIR

Graphic interface

The data contained in this document are not binding and may be changed by the manufacturer without prior notice.

Images may vary depending on the system layout.

No part of this publication may be reproduced.

Clivet, in compliance with Regulation 517/2014, informs that its products contain or operate with the use of fluorinated greenhouse gases

NATURAL COMFORT

Reasons to believe in a more comfortable future, thanks to Clivet

Over 35 years of expertise in heat pumps.

Clivet has been leading heat pump innovation since 1989. We were among the first to recognise the technology's potential for efficient and sustainable comfort .

Purpose-built solutions.

Clivet engineer its solutions from the ground up to offer specialised systems designed for a diverse range of applications and environments. Boasting the widest range of heat-pump solutions, our flexible, adaptable approach ensures a perfect fit for your specific requirements.

Crafted in Europe.

We understand the unique needs and demands of this market. Our heat pump solutions are designed with your comfort in mind, considering everything from climate variations to specific building requirements.

A simplified product experience.

Clivet systems streamline every step, from simplified design and installation to effortless operation and control. Engineered for efficiency from the ground up, Clivet delivers unparalleled ease of use, lower operating costs, and a lasting commitment to sustainability.



COMFORT FOR THE
PLANET & PEOPLE

OUR NUMBERS

More than **1000 employees** in Italy and abroad

53.500m² of plants in Feltre - (Belluno) and Verona

8 branches: UK, Germany, India, Russia, UAE, China, Balkans and France

More than **100 countries** we export to

More than **700** professionals worldwide

- Rete di vendita
- Distributori e grossisti
- Installatori
- Centri di assistenza

MideaGroup
humanizing technology

2016: strategic alliance with Midea Group

277° of the fortune global 500 in 2024

53,12 BN € of Midea Turnover

2023: Clivet first sustainability report



Clivet Smart Building

HYDRONIC SYSTEM

INTELLIPLANT CORE

Management and control system for centralised hydronic systems consisting of Clivet units such as: chillers, medium and high temperature heat pumps, multi-purpose units for simultaneous comfort and domestic hot water production



CHILLER AND HEAT PUMPS

Dynamic management of unit activation according to load distribution and saturation logic.

- Automatic rotation
- Working time balancing



EFFICIENT MANAGEMENT

For both applications

- Comfort
- Process

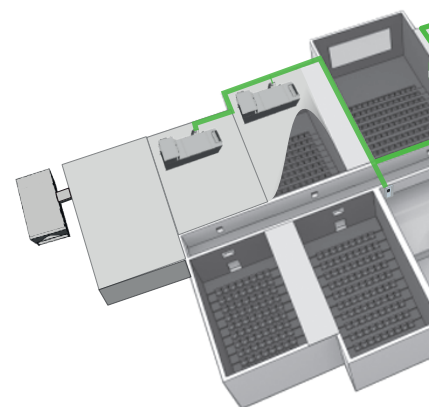
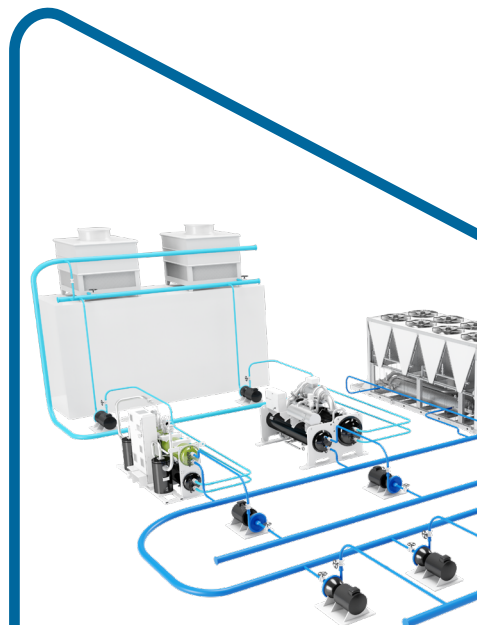


IDEAL FOR ANY SYSTEM CONFIGURATION

It also allows the management of pumping units (integrated into the unit, primary, secondary and source), even at variable speed exploiting the advanced Intelliplant logic to minimise the system's electricity consumption.

CLIVET CLOUD

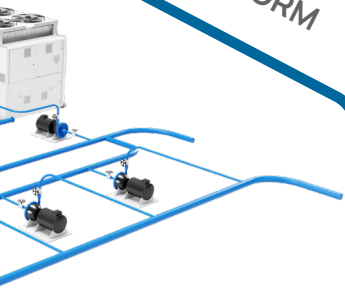
- Local and remote management by administrators via Cloud connection
- Multi-site platform that allows administrators and technical staff to manage and monitor their facilities throughout Italy



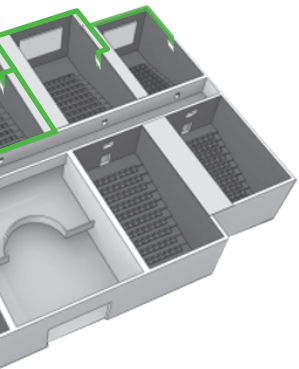
CENTRALISED AIR CONDITIONING



SINGLE PLATFORM



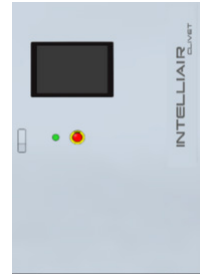
HYDRONIC SYSTEM



CENTRALISED AIR CONDITIONING

INTELLIAIR

Supervision system for air conditioning systems and centralisation of all units.



ROOF-TOP

Smart modulation of the heating pump and domestic hot water tank charging



AIR RENEWAL UNIT

Active thermodynamic recovery ventilation system to ensure the maximum level of indoor air quality



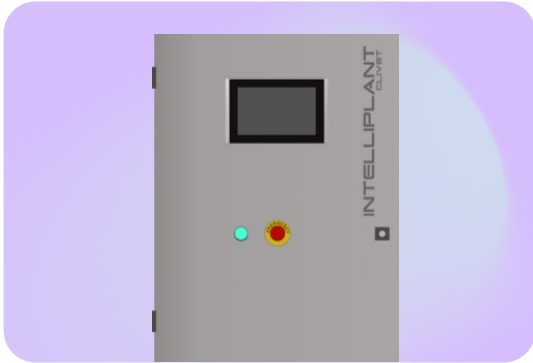
AIR QUALITY

Acquisition of temperature, humidity, noise, VOC carbon monoxide, carbon dioxide and methane values



INTELLIPLANT

Management and optimisation system for centralised residential systems



- Control and optimisation of heat pumps in centralised systems
- Backup boiler management
- Central heating plant and individual user consumption metering
- Housing unit management with CONTROL4 NRG
- Local and remote management by administrators via cloud connection
- Multi-site platform for the remote management of different systems located across the country

Safety and professionalism

The INTELLIPLANT system separates the management of centralised systems by professionals from the management of residential environments by private users via two separate cloud platforms.

This allows condominium administrators and personnel to access the central heating plant without being given access to individual homes, while maintaining data protection privacy levels in accordance with the most stringent provisions of the GDPR (Global Data Protection Regulation).

At the same time, the owners and tenants of the various housing units can manage their own flat but not the centralised system, thus avoiding tampering or management problems of professional systems.

System managers

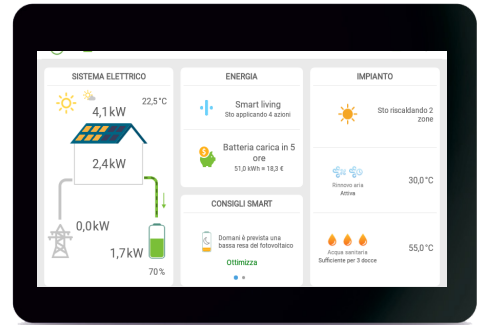
The INTELLIPLANT system allows you to efficiently and continuously manage the system on the local operator panel and the remote interface on a computer, smartphone or tablet.

- ✓Secure management by connection to the Clivet cloud for professional environments
- ✓Management of operating parameters such as temperature and seasonal mode change
- ✓Scheduled and manual system switch-on
- ✓Wear check of the main components
- ✓Management of scheduled and preventive maintenance
- ✓Online management of system documentation
- ✓Lower maintenance costs, prevention of system downtime due to faults
- ✓Management of thermal energy produced by the central heating plant and electricity consumption
- ✓Calculation of system efficiency
- ✓Consumption metering via connection to the CONTROL4 NRG energy assistants of the housing units

Private users

Each housing unit is managed by the CONTROL4 NRG energy assistant, which optimises room comfort while reducing energy consumption.

- ✓ Safe management by connection to CLIVET EYE for private-use residential environments
- ✓ Remote system management via the App for iOS and Android devices
- ✓ Separate management of zones and their comfort levels
- ✓ Compatibility with HID-TSmart thermostats to display the home operating parameters such as temperature, humidity, electricity consumption, air quality, SINERGY2 coil charge level (when present)
- ✓ Consumption metering via connection to the CONTROL4 NRG energy assistants of the housing unit



INTELLIPLANT

STX - Well temperature probe

Temperature probe for monitoring water temperature on common supply, return and by-pass manifolds.

- Hot/cold circuit for 2-pipe systems (3 sensors)
- Hot and cold circuits for 4-pipe systems (6 sensors)



General	
Code	PEIP00001
NTC probe measuring range	-10...+120°C
Signal	4~20 mA 2-wire
Power supply voltage	11...33 VDC

PZT100X - Temperature probe well

- Allows housing of the temperature sensor



General	
Code	PEIP00019
Length (R)	100 mm
Diameter	9 mm

STAEX - Outdoor temperature probe

- Temperature probe for outside air monitoring



General	
Code	PEIP00002
NTC probe measuring range	-50...50°C
Signal	4~20 mA 2-wire
Power supply voltage	11...33 VDC
Protection	IP65

MEAX - Electric energy consumption meter

- Three-phase electric energy meter with RS-485 Modbus communication port



General	
Code	PEIP00014
Including 50A/5A openable current transformers (CT)	

SPX - Pressure transducer

- Pressure transducer for measuring water pressure



General	
Code	PEIP00003
Range di misura	0...10 bar
Signal	4...20 mA a 2 fili
Power supply voltage	11...33 VDC
Connector	M12x1
External thread: G ¼ sealed on the back DIN	
EN ISO 1179-2 with profiled FPM seal	

PEIP00010 - Measuring control box

General	
Code	PEIP00010
Signal	4...20 mA a 2 fili
Power supply voltage	12...24 VAC
Measuring control box to be combined with a measuring tube in a ratio of 1:1	



PDX - Differential pressure transducer

- Differential pressure transducer for measuring
- water pressure differences.



General	
Code	PEIP00004
Signal	4...20 mA a 2 fili
Power supply voltage	11...33 VDC
Max pressure	12 bar
Connector	DIN EN 175301-803-A
Pipe fitting	CuZn nickel-plated for external pipe Ø 6 mm

INTELLIPLANT

METX - Thermal energy output meter



General	
Code	PEIP00012
Accessory included in the supply:	
2x PT500 temperature probes (Hot pipe/Cold pipe)	
2x 50 mm probe wells	
M-BUS communication board	

Flow meter

- Available in flanged versions with various sizes as shown below
- Measuring range: -20 .. +60 °C
- Power supply voltage: 230VAC



PEIP00005	measuring tube DN50 "2
PEIP00022	measuring tube DN65 "2.5
PEIP00021	measuring tube DN80 "3
PEIP00016	measuring tube DN100 "4
PEIP00006	measuring tube DN125 "5
PEIP00007	measuring tube DN150 "6
PEIP00017	measuring tube DN200 "8

Note 1: to be combined with a measuring control box in a ratio of 1:1

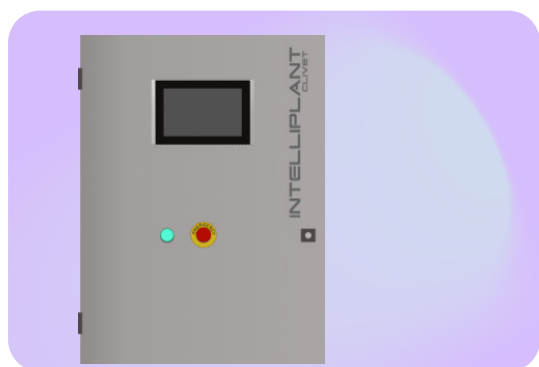
Note 2: Observe the following quantities for thermal energy meters:

TYPE OF UNIT	QUANTITY OF COMPONENTS
CHILLERS	measuring control box 1 measuring tube 1
HEAT PUMPS	
MULTIFUNCTION UNITS	measuring control boxes 2 measuring tubes 2

INTELLIPLANT CORE

INTELLIPLANT CORE

Management and optimisation system for centralised residential systems



- Monitoring and control of hydronic chiller units, reversible heat pumps and multifunctional units
- Workload distribution: the heating and cooling load is equally distributed between the various units, making the most of their operation in partial load mode.
- Centralised management: professional multi-site cloud platform for unified and simplified control. This allows the various systems to be monitored and managed from a single interface.

System manager

The INTELLIPLANT system allows you to efficiently and continuously manage the hydronic units on the local operator panel and on the remote interface on a computer, smartphone or tablet. INTELLIPLANT CORE consists of a main control panel that manages the connection to the various hydronic units (chillers, reversible heat pumps and multifunctional units) equipped with both serial and Ethernet communication. Thanks to the values acquired in real time from the system, advanced control logics enable efficient management of thermal loads based on real system demand, constantly monitoring the system conditions and selecting unit activation, either based on the most performing activation sequence or by balancing the operating hours.

- Monitoring and control of hydronic chiller units, reversible heat pumps and multifunctional units
- Primary circuit management of 2-pipe and 4-pipe systems with Clivet air source units with integrated hydronic unit
- Integration with BMS/BAS through open protocols
- Management of operating parameters such as temperature and seasonal mode change
- Scheduled and manual system switch-on
- Wear check of the main components
- Lower maintenance costs, prevention of system downtime due to faults
- Management of scheduled and preventive maintenance
- Online management of system documentation

Safety and professionalism

The INTELLIPLANT CORE system ensures centralised multi-site monitoring via a cloud platform that adheres to data protection privacy levels in accordance with the most stringent interpretations of the GDPR (Global Data Protection Regulation).

Aimed at operators such as facility managers, system operators and plant managers.

Control panel

Control and monitoring of hydronic units (ATW type only) for 2-pipe and 4-pipe systems

- Chiller
- Reversible heat pumps
- Multifunction units

Unit management by sequencing and balancing unit operating hours

Local and remote management via professional cloud platform for facility managers, system operators and plant managers.

General	
Dimensions	L: 600, A:800, P:300
Weight:	50 kg
Power supply:	230Vac / 50 hz
Wall-mounted installation	

STX - Well temperature probe

Temperature probe for monitoring water temperature on common supply, return and by-pass manifolds.

- Hot/cold circuit for 2-pipe systems (3 sensors)
- Hot and cold circuits for 4-pipe systems (6 sensors)



General	
Code	PEIP00001
NTC probe measuring range	-10...+120°C
Signal	4~20 mA 2-wire
Power supply voltage	11..33 VDC

PZT100X - Temperature probe well

- Allows housing of the temperature sensor



General	
Code	PEIP00019
Length (R)	100 mm
Diameter	9 mm

STAEX - Outdoor temperature probe

- Temperature probe for outside air monitoring



General	
Code	PEIP00002
NTC probe measuring range	-50...50°C
Signal	4~20 mA 2-wire
Power supply voltage	11...33 VDC
Protection	IP65

MEAX - Electric energy consumption meter

- Three-phase electric energy meter with RS-485 Modbus communication port



General	
Code	PEIP00014
Including 50A/5A openable current transformers (CT)	

INTELLIAIR

INTELLIAIR

Air conditioning supervision system



- Centralised control and supervision of ventilation and air conditioning systems
- Advanced scheduler for the activation of energy profiles
- Local and remote management by administrators via professional cloud platform
- Integration with BMS/BAS for alarm notification and supervision
- Diagnostic survey system for preventive maintenance management

System managers

INTELLIAIR is the specialised solution for the supervision and control of air conditioning systems in all applications where comfort and energy efficiency are paramount. Thanks to the integration with autonomous rooftop air conditioning units, a high level of consumption optimisation in air treatment can be achieved while ensuring the maximum comfort in the rooms.

The INTELLIAIR supervision solution is perfect for:

- Shopping centres
- Multiplex cinemas, theatres, auditoriums
- Commercial premises and areas
- Ho.Re.Ca sector

Energy saving

The high energy savings achieved by INTELLIAIR are ensured by the automated management of independent areas. By programming power profiles and using intelligent algorithms to optimise the operation of the ventilation and air conditioning system, energy consumption can be reduced without compromising occupant comfort.

INTELLIAIR is designed to continuously monitor and optimise indoor air quality. It uses advanced sensors to detect levels of CO₂, humidity and other polluting particles, automatically controlling the ventilation system to ensure a healthy and comfortable environment.

Everything under control

Communication between INTELLIAIR, Clivet air conditioning units and field devices is via RS-485 serial line with RTU Modbus communication protocol, which simplifies wiring and ensures long operating distances. Furthermore, communication can be provided based on Ethernet protocol to extend the application range to Clivet units with TCP/IP Modbus communication protocol.

Control panel

Centralised control and supervision of ventilation and air conditioning systems

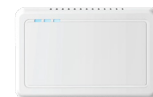
- Independent programming of zones
- Management and scheduling of power profiles

Local and remote management via professional cloud platform for facility managers, system operators and plant managers.

Physical	
Dimensions	L: 600, A:800, P:300
Weight:	50 kg
Power supply:	230Vac / 50 hz
Wall-mounted installation	

Z-IAQ

The wall-mounted internal air quality detector monitors the quality of the air, giving you real-time readings of temperature, humidity, noise, VOCs, carbon monoxide, carbon dioxide, and methane.

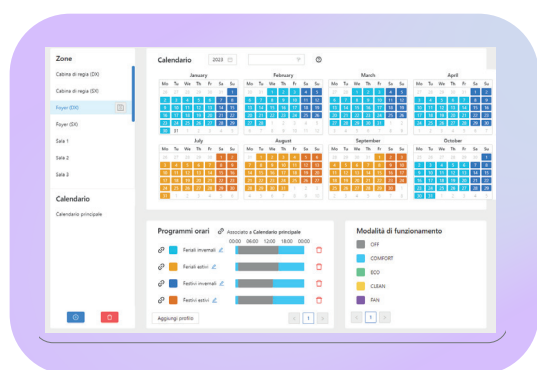


Physical	
Device name	Z-IAQX
Installation	Wall-mounted with mounting box
Operating temperature	-10~55°C
Operating humidity	≤95% (non-condensing)
Power supply	12V direct current
Max consumption	≤100mA
Detection type	VOC, CO, CO ₂ , NO ₂ , CH ₄ , ambient noise, relative humidity and temperature
Features	
Colour	White
Dimensions	110 x 70 x 28 mm (LxHxP)
Weight	172g

GRAPHIC INTERFACE

INTELLIAIR and INTELLIPLANT share the same platform and offer a fast and intuitive graphical interface that includes all information related to the system's operating mode as well as specific pages.

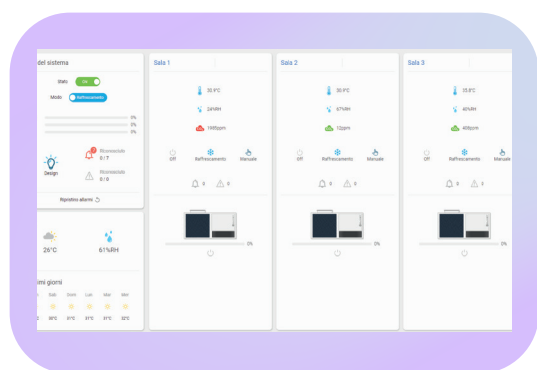
In detail, the user can access all parameters specific to the area or individual units and their operating parameters.



Scheduling

Programming is one of the most important features of INTELLIAIR for automatic system operation. With the scheduler, you can program the right comfort in the different zones of the building throughout the year so as to maintain their comfort independently of the others, thus eliminating the waste and inefficiency that can occur in centralised systems. The main features are:

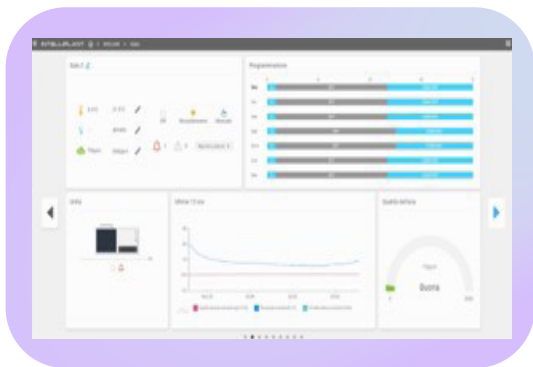
- Daily/annual programming of temperature, humidity, CO₂ setpoints
- Sharing set-points with all the units belonging to that zone
- Maintenance planning



From an overall view to the individual detail

The main system page provides direct access to the various zones and displays the following main information:

- Operating status of the system and buttons for quick actions
- Percentage and operating mode of single units, by area
- Maintenance status following the preventive analysis of each individual unit
- Priority and second-level alarms
- Current day's weather and forecast for the next 7 days



Percentage and operating mode of single units, by area:

- 7-day scheduling of units connected to the area
- Display and modification of the room temperature setpoint, relative humidity and air quality
- Alarm status and specific warnings for the area
- Room temperature, relative humidity and air quality trends over the last 12 hours



The following basic information is displayed for each unit:

- Operating mode (heating/cooling/Auto) and performance of the unit
- Operating status (comfort/Eco/ ff)
- Current temperature, relative humidity and air quality values
- Detailed component status (fans, compressors, etc.)

Note: the pages and information reportable vary depending on the functions in the managed units. The screens shown above are for demonstration purposes only

For 35 years we have been offering solutions to ensure sustainable comfort and the well-being of people and the environment

CLIVET S.p.A.

Via Camp Lonc 25, Z.I. Villapaiera 32032
Feltre (BL) - Italy
Tel. +39 0439 3131 - info@clivet.it

CLIVET LLC

Office 508-511, Elektrozavodskaya st. 24,
Moscow, Russian Federation, 107023
Tel. +7495 6462009 - info.ru@clivet.com

CLIVET GROUP UK LTD

Units F5 & F6 Railway Triangle,
Portsmouth, Hampshire PO6 1TG
Tel. +44 02392 381235 - Enquiries@Clivetgroup.co.uk

CLIVET GMBH

Hummelsbütteler Steindamm 84,
22851 Norderstedt, Germany
Tel. +49 40 325957-0 - info.de@clivet.com

CLIVET MIDEAST FZCO

Dubai Silicon Oasis (DSO) Headquarter Building,
Office EG-05, P.O Box-342009, Dubai, UAE
Tel. +9714 3208499 - info@clivet.ae

CLIVET SOUTH EAST EUROPE

Jaruščica 9b 10000, Zagreb, Croatia
Tel. +3851 222 8784 - info.see@clivet.com

CLIVET FRANCE

6 Allée Kepler,
77420 Champs-sur-Marne - France
mail: info.fr@clivet.com
Tel: +33 1 88 60 99 40

CLIVET AIRCONDITIONING SYSTEMS PVT LTD

Office No.501 & 502,5th Floor, Commercial -I,
Kohinoor City, Old Premier Compound, Off LBS Marg, Kiroli Road,
Kurla West, Mumbai Maharashtra 400070, India
Tel. +91 22 30930200 - sales.india@clivet.com

clivet.com

Inizio validità: Marzo 2025
DF24M038I-02

