CLIVET Home

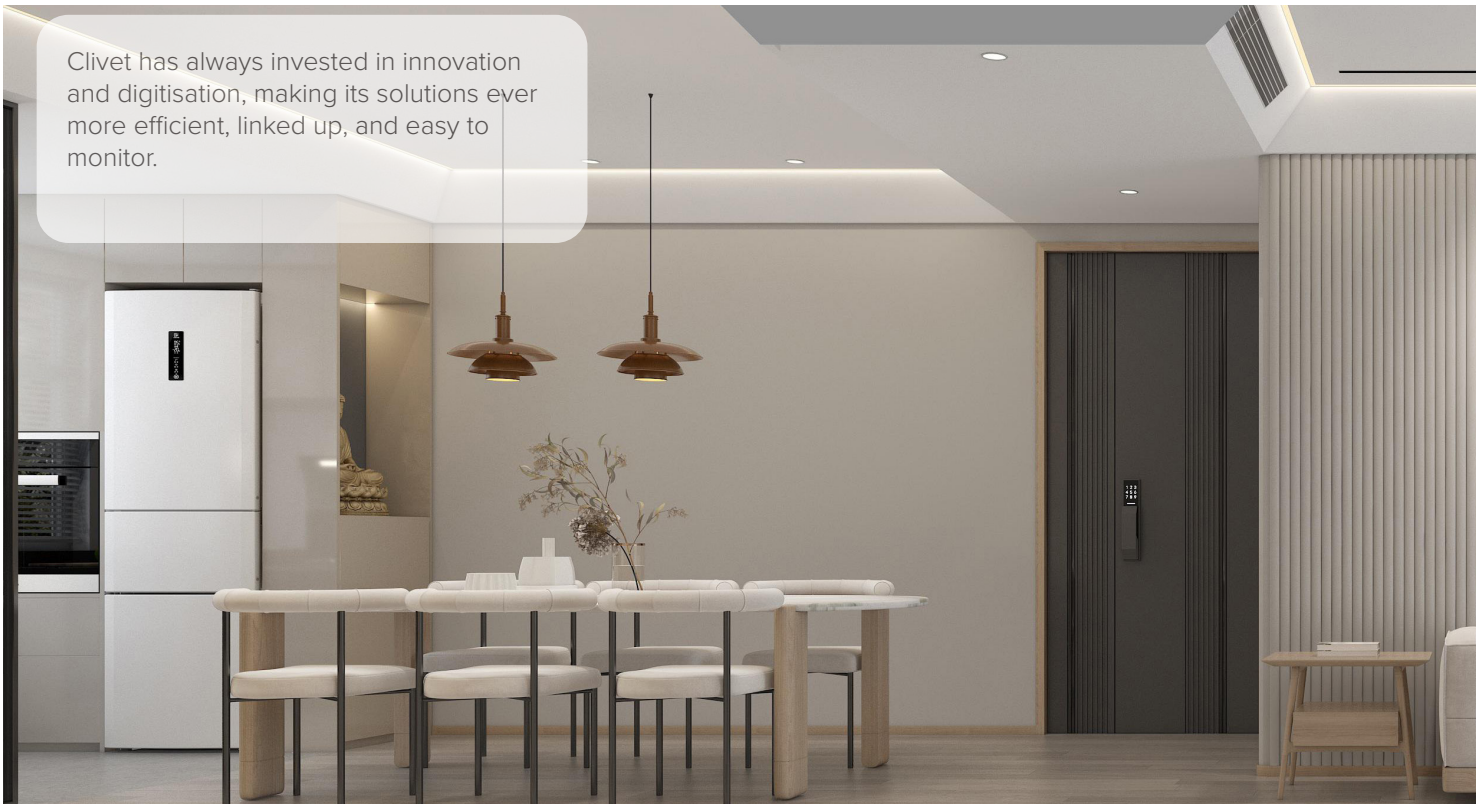
INNOVATION AND DIGITALISATION
IN YOUR HOME

Clivet Smart Living

CLIVET | AIR CONDITIONING AND AIR QUALITY PARTNER

Inspiring Solutions since 1989

Clivet Smart Living



Clivet Smart Living is a complete package for managing the comfort and energy efficiency of individual homes, apartments and small businesses. It incorporates cutting-edge technologies, and focuses on the well-being of people in the settings where they live and work.

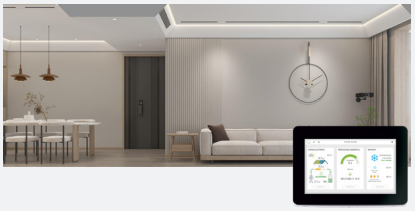
Ventilation and air quality

Real-time air quality monitoring for air exchange with heat recovery

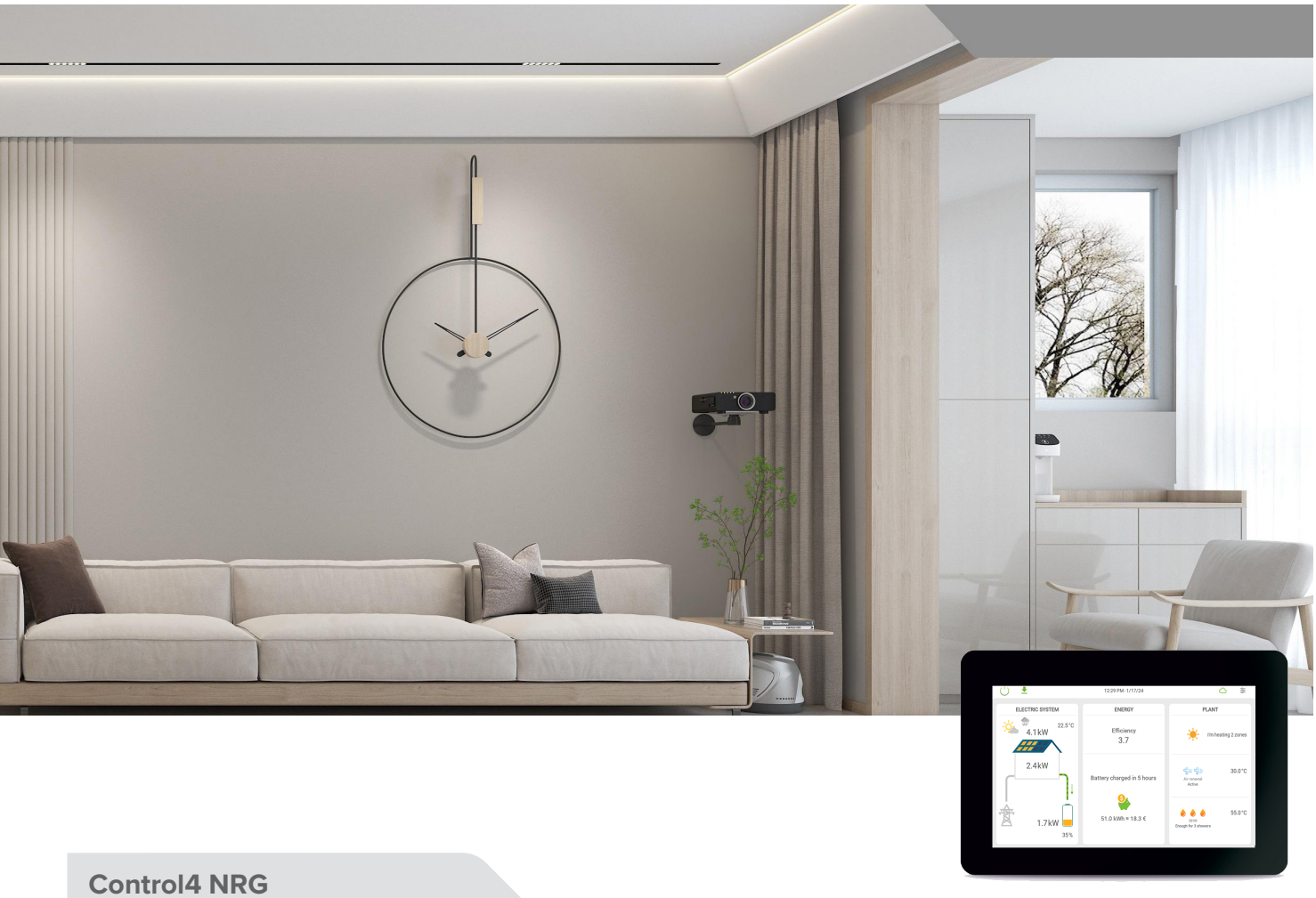
Heating & air conditioning

You can set the ideal temperature in every room, managing up to 24 independent zones with heat fittings, fan coils and radiant panels

Energy management



With the use of Sinergy and a photovoltaic system, you can have a totally sustainable home, optimising energy use and always keeping an eye the levels of energy produced and absorbed



Control4 NRG
lie at the heart of Clivet Smart Living

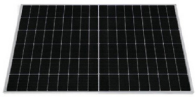
The system allows you to control all the interconnected parts to provide maximum comfort and efficiency, generating just the right amount of energy for every room when required, and to suit the particular needs of all the occupants.

- ✓ Comfort and well-being for the occupants
- ✓ Energy efficiency and low consumption
- ✓ Self-consumption to obtain energy independence

The ideal solution for the residential sector is Clivet Smart Living, a system that combines energy management and comfort, and which includes:

- ✓ Heat pump for heating, cooling and domestic hot water production
- ✓ An air renewal and purification system with active thermodynamic recovery and electronic filtration
- ✓ Clivet Sinergy: the Clivet eletrical energy storage unit can be connected to photovoltaic panels, powering a system focused on comfort and supplying energy to every user, and so giving you a home that is totally reliant on renewable energy
- ✓ HID-TSmart thermostats in every zone/room
- ✓ Quiet, compact room terminals, with stylish design

Clivet Smart Living



PHOTOVOLTAIC PANELS*

Energy production through a photovoltaic system

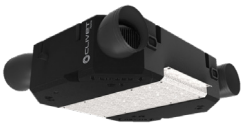
SINERGY ESS

Electrical energy storage, to ensure maximum efficiency of independent supply during evening hours

HEAT PUMP

Smart modulation of the heat pump and domestic hot water tank charging based on the energy available from the photovoltaic system

GAS BOILER

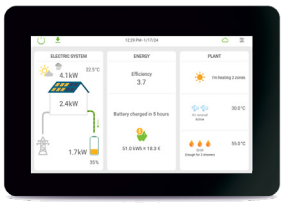


AIR RENEWAL UNIT

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

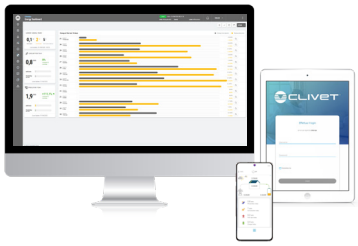
CONTROL4 NRG

System energy assistant with electricity and thermal storage management. Remote automatic software updates to keep the system in line with new available functions



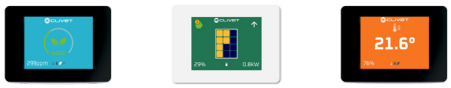
CLIVET EYE

Cloud solution for remote system control and management from a single App with display of energy levels produced and consumed by the home



SMART THERMOSTATS

These provide simple, intuitive and immediate access to the home system's main operating parameters (temperature and humidity, air quality, coil charge level, electricity produced by the photovoltaic system)



AIR QUALITY SENSOR

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

FAN COILS, RADIANT PANELS

Quiet, efficient fan coils, with slimline design

*not supplied by Clivet

The importance of air quality in inside space

To ensure a comfortable environment, the new **z-IAQ** sensor monitors air quality in real time, providing readings of the temperature and the levels of humidity, noise, VOCs, carbon monoxide, carbon dioxide and methane providing an air quality index for each monitored zone to inform occupants about the health status of the environments.

VOC Volatile organic compounds	CO Carbon monoxide	NO_2 Nitrogen dioxide	CO_2 Carbon dioxide
CH_4 Natural methane gas	dB Ambient noise	%RH Humidity internal air quality	°C Temperature

Relative

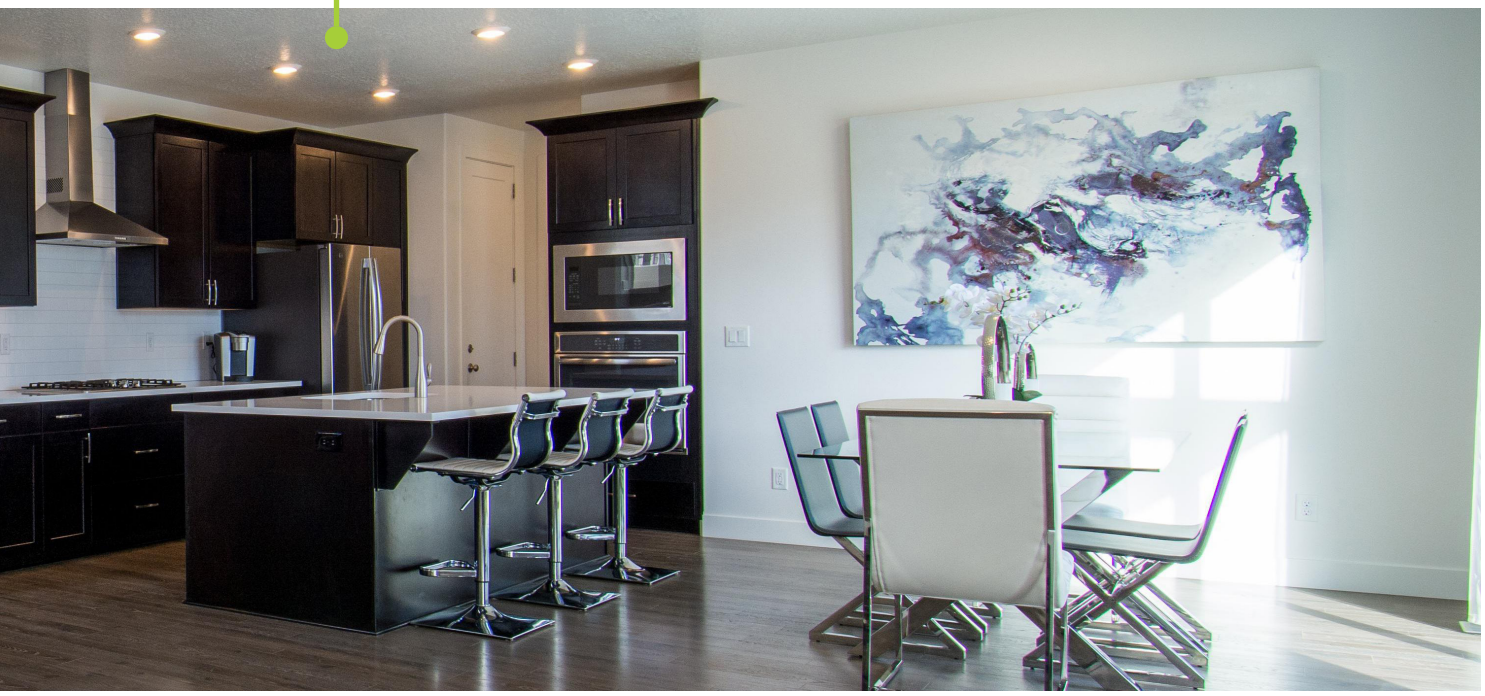
This latest advance in technology allows us to monitor the safety of our homes in real time. The z-IAQ sensor can tell us about the quality of the air we breathe, monitoring it for such things as a gas leak, a high level of CO_2, or the abnormal presence of carbon monoxide.

According to a report by the EEA (European Environment Agency), the vast majority of Europe's city-dwellers are exposed to levels of air pollutants which exceed the new guidelines issued by the World Health Organisation (WHO).
In this context, indoor air quality has become increasingly important for people's health.

* Source: https://www.eea.europa.eu/themes/air/urban-air-quality/european-city-air-quality-viewer

ELFOFresh EVO

Better indoor air quality, and greater energy efficiency and comfort with the electronic filtration system and inverter technology.



Air renewal and purification

An innovative heat recovery system that will meet more than 85% of your home's heating requirements
Humidity control
Air purification with high-efficiency electrostatic filter
Management using CONTROL4 NRG system

Electricity and energy independence

The advanced control system allows you to maximise energy consumption and achieve energy independence for your home.
The operating principle is based on using two available forms of storage.

- ✓ Electrical energy storage, available with Clivet Sinergy
- ✓ Thermical energy storage, using the heat pump intelligently during sunlight hours

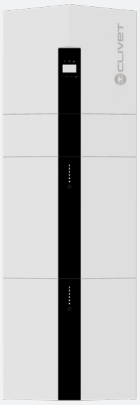
Electrical energy storage

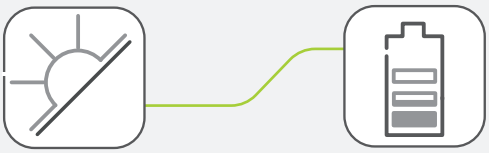
Sinergy

It allows you to store electricity for use with electrical appliances

Modular electric energy tank system with inverter for combination with solar photovoltaic system, compact and stylish, ideal for residential installations.

- 5 kW single-phase 230Vac hybrid inverter or 400Vac three-phase 10kW
- Modular system with up to 4 storage tanks for capacities of 5/10/15/20 kWh single-phase and 10/20/30/40 kWh three-phase
- Dual MPPT input for 6.5 kW photovoltaic system single-phase and up to 20 kW three-phase
- On-grid function and integrated 4.6 kW back-up output for connecting loads in the event of a power failure and 9.2 kW three-phase
- “Anti-islanding” protection system





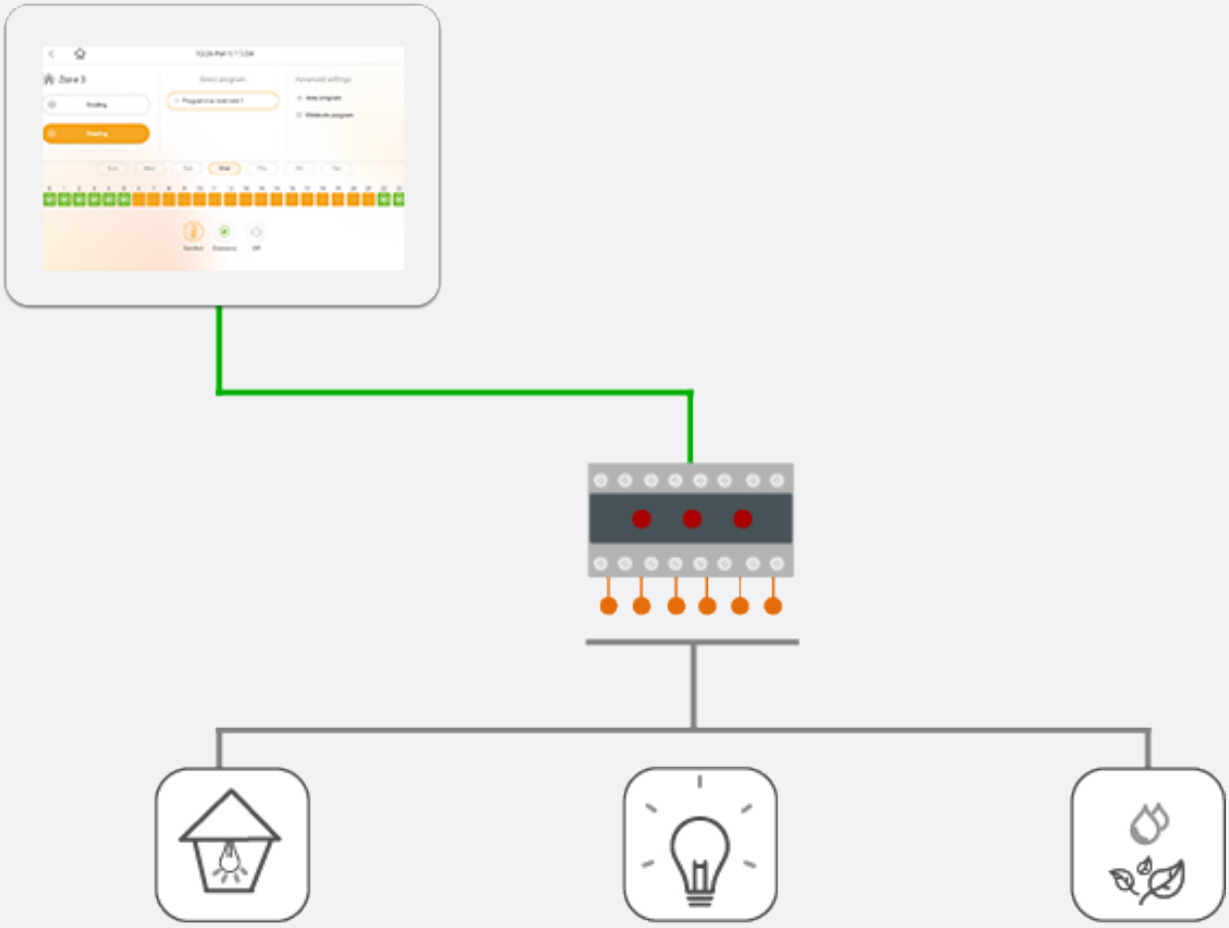
Thermical energy storage

Surplus electricity can be used for

- ✓ Storing domestic hot water

Management of lighting and small electrical loads

The versatility provided by the multiple zone module allows you to activate electrical loads such as outdoor lights or watering systems, also setting times for them to switch on and off.

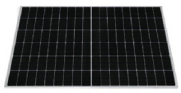


Improve your comfort

The Sinergy storage system is Clivet's solution for storing the electricity produced by the photovoltaic system during daylight hours and using it to power the air-conditioning and domestic hot water production system during the night or in the event of a grid power failure. The photovoltaic system consists of panels that produce electric energy in direct current and an **inverter** that transforms it into alternating current, allowing it to be used at the same time it is produced **(direct self-consumption)**. The energy that is produced but not used is instead fed into the power mains. However, an accumulator system allows you to defer self-consumption, avoiding any waste of energy and maximising the benefits of the whole production system.
In general, a photovoltaic system with an accumulator works following these simple steps:

- **Morning:** the energy produced is **self-consumed**, and **any excess is stored** in the batteries
- **Afternoon:** the accumulator reaches its maximum capacity, and any excess **energy** produced **is fed** into the power mains
- **Evening:** with the absence of the sun, **the system stops producing energy.** So the electricity stored in the batteries can be used;
- **Night:** once the electric energy stored in the accumulator is all used up, **you go back to using the electric energy from the power mains.**

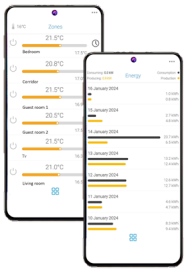
Combined with the Control4 NRG energy assistant, the Sinergy series of electric accumulators ensures maximum self-consumption and energy independence in the home.



Check of energy produced by the photovoltaic system

Management via Control4NRG, the assistant for centralised energy and comfort management

Check of energy available in the storage coils



Clivet Eye

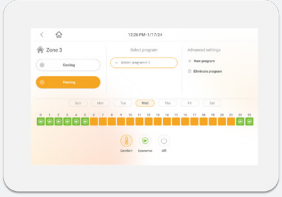
Optimisation of ventilation systems to ensure room comfort

Comfort management in the individual home zones (temperature, humidity and air quality)

Management of the operating status of the centralised heat pump and central heating plant elements

Control4 NRG: the evolution of ELFOControl³ EVO

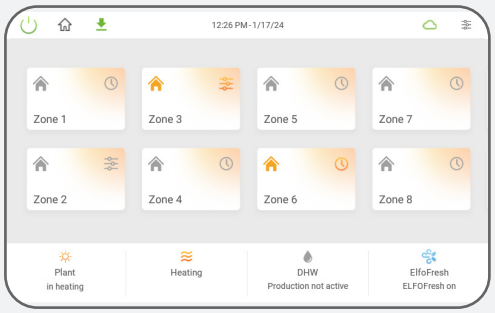
The new hardware and software release makes it possible to change from managing the air-conditioning system to managing the comfort and energy in the home or office: it integrates the solar photovoltaic system, simplifies and improves management via the App and introduces numerous other new features.
In addition, it is still fully compatible with previous versions of ELFO CONTROL, making retrofitting a very viable solution.



The correct sizing of the systems, together with favourable climatic conditions, allows Control4 NRG to manage home comfort and domestic hot water production storage completely free of charge, thereby achieving the goal of an energy-independent home.

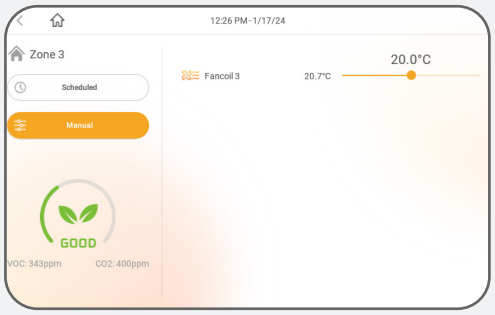
Simultaneous management of up to 24 different climate zones

Based on the availability of electricity produced by the photovoltaic system, the system provides living spaces with superior comfort and at the same time prevents peaks in electricity absorption typical of the evening hours, due to the heat pump being switched on, while also exploiting the Sinergy electrical storage to power domestic consumers



The right comfort for each area

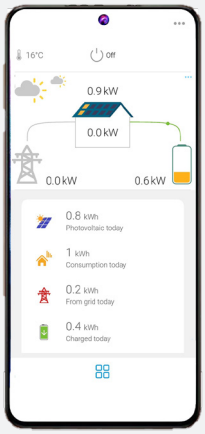
Fast control for every area, or use of automatic programming or manual control that can be set at any time.



Improve your comfort

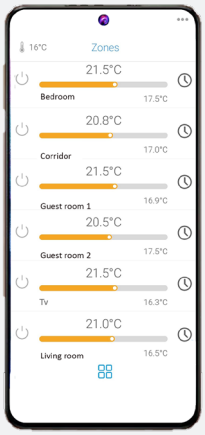
Clivet Eye for remote monitoring
Improve your comfort level and save energy. With the Clivet Eye App and the Control4 NRG energy assistant, you can view details of heat pump consumption and the various electrical loads - such as household appliances; as well as production by the photovoltaic system.

Overall system view



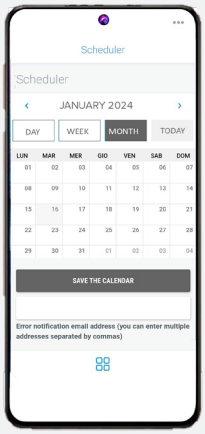
Display of the status of all devices connected to Control4 NRG

Climate zone management



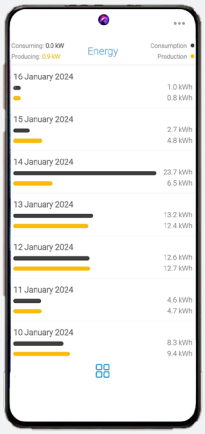
Management of the 24 independent zones, with the option of changing the temperature and setting the "energy saving" function, as well as the option of switching the zone on and off

Scheduler



Allows you to schedule comfort in different zones of the house from the App

Energy page

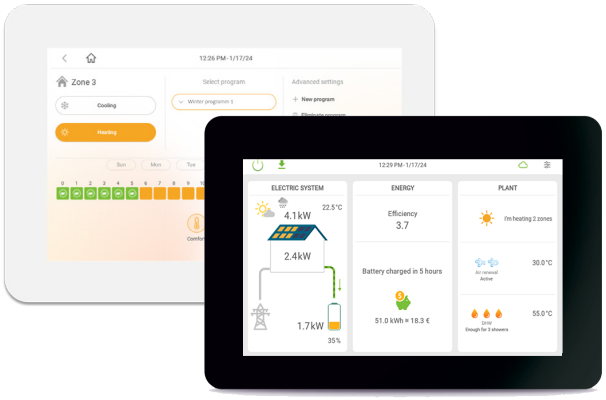


Designed to display the energy data of the last 7 days. Data are acquired by the electricity meters located in the system for the photovoltaic system

Smart controller

Control4 NRG

Energy assistant for Clivet Smart Living



7.0" high definition touch screen | Stylish frame in black or white | Direct communication with Clivet Cloud | Communication with Clivet Smart Living Devices | Wi-Fi | Ethernet | Modbus RTU

Versions	
S-W	Ethernet port, no Wi-Fi connectivity. White color
S-B	Ethernet port, no Wi-Fi connectivity. Black color
WIFI-W	Ethernet port and Wi-Fi connectivity. White color
WIFI-B	Ethernet port and Wi-Fi connectivity. Black color

Physical	
Product part number	Control4 NRG
Installation	Wall mounted by using mounting box and bracket included
Operating temperature	-5~45°C
Operating humidity	5~90 %RH
Network interface	Wi-Fi 2.4GHz/ Ethernet
Max consumption	7 W
Connecting cables	+/- power supply RJ-45 Ethernet port Serial EIA-485 connection 1x USB 2.0

Display Panel	7.0" capacitive touch screen
Resolution	800×480
Power supply	12 Vcc
Colour	White / Black
Dimensions	Dimensions = 193 x 132 x 53 mm (L x W x D) Recessed = 192 x 132 x 5 mm (L x W x D)
Weight	1260g (with accessories)

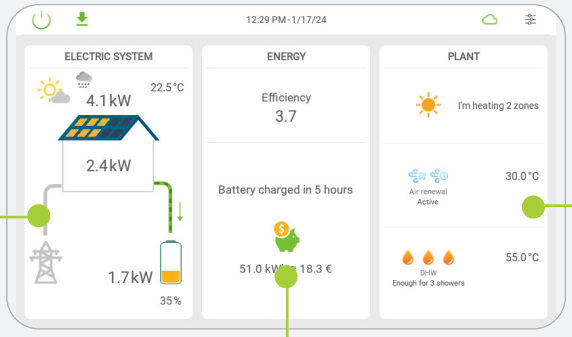
A brand new home page

All the information about the system is provided on one page, from the battery charge level to the operating status of the heat pump.

It will also inform you if you are in a state of energy self-sufficiency, making it easier to make full use of your energy savings.

ELECTRICAL SYSTEM SECTION

- Production of the photovoltaic system
- Power consumption
- Entry / withdrawal from the network
- Sinergy charge/discharge level



SYSTEM SECTION

- Renewing the air in the rooms
- Heating / cooling the house
- Storing domestic hot water

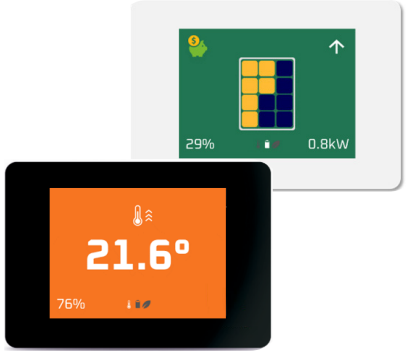
ENERGY SECTION

- Heat pump efficiency
- Tips to improve your energy consumption and behaviour

Smart thermostat

HID-TSmart

HID-TSmart provides simple, intuitive and immediate access to the system's main operating parameters. Combined with Control4 NRG, you can acquire different types of information from all the electrical elements such as temperature, humidity, electricity consumption, electricity produced by the photovoltaic system, and the Clivet Sinergy electrical energy storage charge level.



3.5-inch full colour touch screen with no physical keys

Integrated temperature and humidity sensor

Option of configuring up to 5 operating contexts

Modern gesture navigation for moving between contexts and setting parameters

Modbus RTU

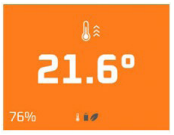
Communication with Control4 NRG

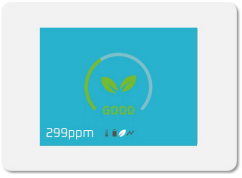
General	
Device name	HID-TSmart
Installation	Wall-mounted with mounting box
Operating temperature	-5~45°C
Operating humidity	5~90%
Power supply	12V cc
Typical consumption	1.5 W

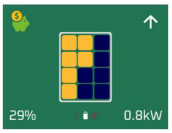
Communication protocol	Modbus RTU
Connecting cables	Power supply +/-, Serial EIA-485
Display Panel	3.5-inch
Resolution	320*240
Temperature sensor	0 ~ 50°C, Accuracy ± 0.5°C
Buzzer	Yes

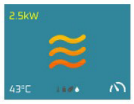
Versions	
HTSBWX	White HID-TSmart thermostat with temperature sensor
HTSBBX	Black HID-TSmart thermostat with temperature sensor
HTSPWX	White HID-TSmart thermostat with temperature and humidity sensor
HTSPBX	Black HID-TSmart thermostat with temperature and humidity sensor

Features	
Colour	White/Black
Dimensions	Outside dimensions: 112 x 77 x 18 mm (LxWxD)

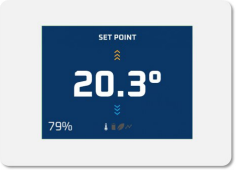








Scroll across to move between "context" screens



Scroll up/down to change temperature setting

Indoor air quality sensor

Z-IAQ

Wall Air Quality Detector is an internal air quality monitor that provides real-time reading of temperature, humidity, noise, VOC, carbon monoxide, carbon dioxide, methane

High-precision sensors | Real-time values | Detection | Modbus RTU | Communication with Control4 NRG

General	
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, CO2, NO2, CH4, ambient noise, relative humidity and temperature

Features	
Colour	White
Dimensions	110 x 70 x 28 mm (LxWxD)
Weight	172g

Room sensor

HID-UR

Temperature and humidity sensor, installed in rooms without attachment to any thermostat.

Temperature and humidity sensor | In wall with adapter for civil series RJ45 | Communication with Control4 NRG | Modbus RTU

Features	
Colour	Semi-transparent
Dimensions	22 x 45 x 50 mm (LxWxD)
Materials	Bottom Cover: PC, Top Cover: ABS+PC

General	
Model name	HID-URX
Installation	To use with RJ-45 Keystone adapter
Operating temperature	-5~45°C
Operating humidity	5~90%
Power supply	12V cc
Max consumption	0.3 W

Communication protocol	Modbus RTU
Connecting cables	12V power supply terminals RS-485 bus terminals (A-, B+)
Temperature sensor	-10 ~ 50°C, Accuracy ± 0.5°C
Humidity sensor	0 ~ 100% RH, Accuracy ± 5% RH

Electricity energy meters

M1NRGX

Single-phase electricity meter for monitoring the energy consumption and the energy produced by photovoltaic system

Installation on DIN bar | Communication with Control4 NRG | Modbus RTU

General	
Model name	M1NRGX
Installation	DIN rail
Operating temperature	-5~45°C
Operating humidity	5~90%
Power supply	12V cc

Max consumption	1.3 W
Communication protocol	Modbus RTU
Connecting cables	12V power supply terminals RS-485 bus terminals (A-, B+)

M3NRGX

Three-phase electricity meter for monitoring the energy consumption and the energy produced by photovoltaic system

Installation on DIN bar | Communication with CONTROL4 NRG | Modbus RTU

General	
Model name	M3NRGX
Installation	DIN rail
Operating temperature	-5~45°C
Operating humidity	5~90%
Power supply	12V cc

Max consumption	0.7 W
Communication protocol	Modbus RTU
Connecting cables	12V power supply terminals RS-485 bus terminals (A-, B+) 3x "split-core" current transformers are included

Modules for zone management

BMZRX

Module for managing up to 6 HID-UR thermostats and 6 shut-off valve control outputs supplying radiant panels, radiators or heated towel rails and generic input/output functionality.

Installation on DIN bar | Communication with Control4 NRG | Modbus RTU

General	
Device name	BMZRX
Installation	DIN rail
Operating temperature	-10~55°C
Operating humidity	≤95% (non-condensing)
Power supply	230 Vac
Typical consumption	8.5 W

Features	
Colour	White/grey
Dimensions	157 x 90 x 60 mm (LxWxD) 9 DIN modules
Outputs	6 x relay 5A max
Inputs	6 x potential-free contacts 2 x temperature sensors
Weight	570g

EMRSX

Mixing unit control module for managing a section of the circuit at a different temperature to that of the main system.

Installation on DIN bar | Communication with Control4 NRG | Modbus RTU

General	
Device name	EMRSX
Installation	DIN rail
Operating temperature	-10~55°C
Operating humidity	≤95% (non-condensing)
Power supply	230 V ca
Typical consumption	5.8 VA

Features	
Colour	White/grey
Dimensions	105 x 90 x 60 mm (LxWxD) 6 DIN modules
Outputs	2 x relay 5A 1 x 0-10V output
Inputs	1x temperature probe
Weight	370g

ALWAYS READY FOR THE FUTURE

INSPIRING SOLUTIONS

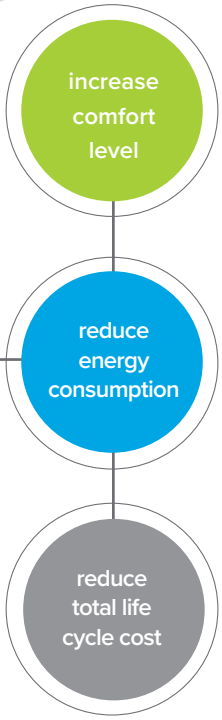
In over 30 years of working on the design, manufacturing and distribution of air conditioning and handling systems, combining high efficiency with minimal environmental impact, Clivet has developed solutions to ensure sustainable comfort and the well-being of people and the environment. Designing and developing year-round air conditioning solutions with innovative technologies are part of Clivet's DNA, which means the company has always been ready for the future.

COMFORT FOR THE PLANET & PEOPLE

OUR VALUES FOR THE SECTORS

IN THE RESIDENTIAL, COMMERCIAL AND INDUSTRIAL SECTORS

Increasing comfort, saving energy and providing customers with the best value for the entire life cycle of the system: these are the values that inspire our systems for the residential, services and industrial sectors.



FOR OVER 30 YEARS WE HAVE BEEN OFFERING SOLUTIONS TO ENSURE SUSTAINABLE COMFORT AND THE WELL-BEING OF PEOPLE AND THE ENVIRONMENT

www.clivet.com

MideaGroup
humanizing technology

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