Clivet Smart Living

Innovation and digitisation in your home

COMFORT FOR THE
PLANET & PEOPLE

Contents

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 the way in heat pump innovation since 1989. We were among the first to recognise the technology's potential for efficient and sustainable comfort — and our dedication to innovation hasn't wavered since.

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.

As a European company from the start, 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 countrie** we export

to More than **700 professionals** worldwide

- Sales network
- Distributors and wholesalers
- Installers
- Service Centres

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 Living

Clivet has always invested in innovation and digitisation, making its solutions ever more efficient, linked up, and easy to monitor.

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 and 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 SINERGY2 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

Ventilation | Fresh Air | Heating | Cooling | Energy management | Comfort

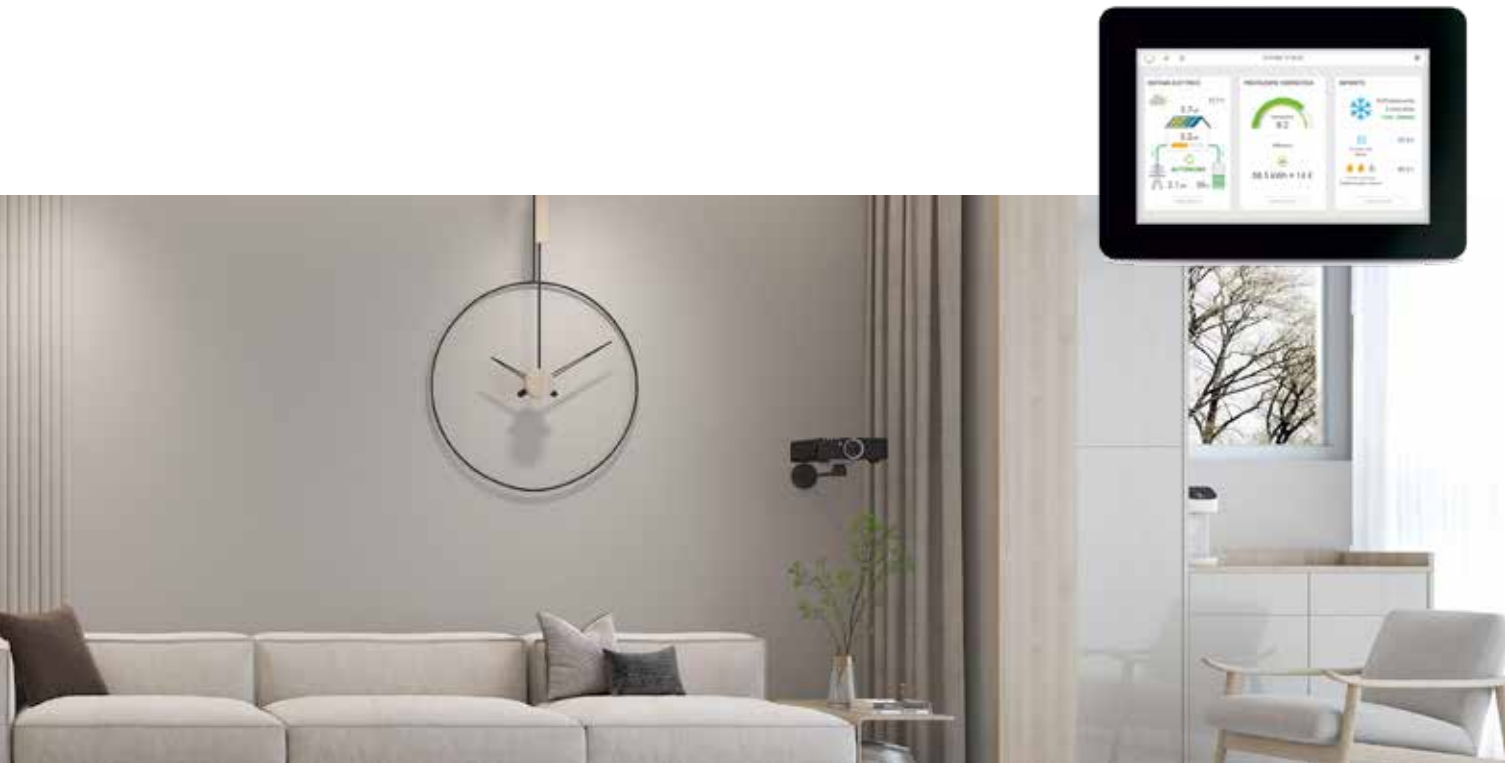
CONTROL4 NRG - lie at the heart of Clivet Smart Living

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.

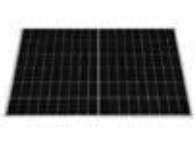
- Comfort and well-being for the occupants
- Energy efficiency and low consumption
- Self-consumption to obtain energy independence

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 SINERGY2: 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

SINERGY2

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

AIR RENEWAL UNIT

Active thermodynamic recovery ventilation system to ensure the maximum 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, battery charge level, electric energy produced by the photovoltaic system)

AIR QUALITY SENSOR

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

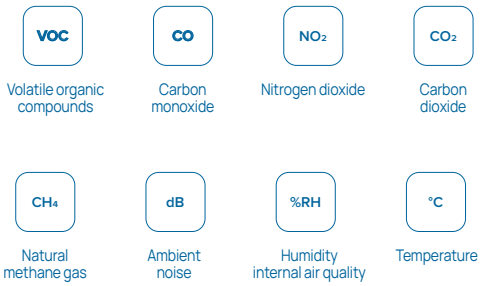
FAN COILS, RADIANT PANELS

Silent, 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.



Indoor air quality

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.

Indoor air quality | Wellness | Ventilation | Fresh Air

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
- Air quality management via CONTROL4 NRG for indoor air renewal

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 SINERGY2
- Thermical energy storage, using the heat pump intelligently during sunlight hours

Electrical energy storage

SINERGY2

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.

- Hybrid inverter

  3,68/5/6 kW single-phase

  8/10/12/15 kW three-phase
- Modular system

  Single-phase: up to 6 storage units for capacities of 5/10/15/20/30 kWh
  Three-phase: up to 8 storage units for capacities of 10/15/20/30/40 kW
- Dual MPPT input photovoltaic system
- High-voltage LiFePO4 batteries, 6,000 charge/discharge cycles
- Stackable modular design, no cables required.
- On-grid function and back-up output for connecting loads in the event of a power failure

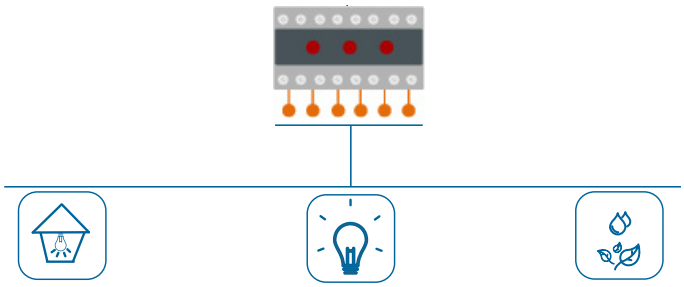
Thermical energy storage

Surplus electricity can be used for

Fill the storage tanks with 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

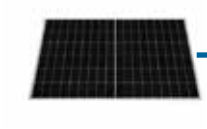
The SINERGY2 storage system is Clivet's solution for storing the electricity produced by the photovoltaic system during daylight hours and using it to power the air-conditioning and domestic hot water production system during the night or in the event of a grid power failure.

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 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 SINERGY2 series of electric accumulators ensures maximum self-consumption and energy independence in the home.



Check of energy produced by the photovoltaic system

Management via CONTROL4 NRG, 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

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.

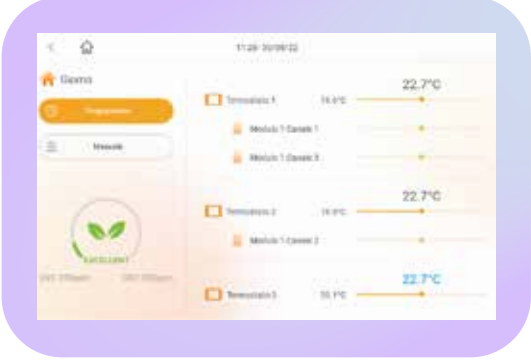
CONTROL4 NRG

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.

It manages up to 24 elements simultaneously

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 SINERGY2 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.

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.

Home page

Display of the status of all devices connected to CONTROL4 NRG.
Energy dashboard shows:

- Photovoltaic system with real time power output value
- Energy consumed by the building
- Charge and discharge levels of the SINERGY2 storage system

"Climate Centre"

For each of the 24 independent climate areas, the relevant setpoint can be set so as to always obtain the ideal comfort levels.

Zone operating status

- Current temperature
- Setpoint set
- Mode selected

Fast switching between areas to change operating status

Zone temperature setpoint

Temperature in the zone

Scheduler

Allows the comfort scheduling of each independent zone to be managed from the app

Application of existing schedules

Creating new schedules of a calendar event

Energy page

Designed to display the energy data of the last 7 days.

Energy produced by the photovoltaic system

Total energy consumed by the system (air conditioning system and domestic users)

Single day energy values

Smart controller

CONTROL4 NRG

Energy assistant for Clivet Smart Living

- Intelligent coordination of all Clivet devices such as heat pumps, fan coils, air renewal and air purification systems for optimal comfort
- Dynamic energy management through Smart Living logics towards energy independence
- Simultaneous and independent comfort management of up to 24 climate areas
- Temperature management, humidity control, air quality monitoring;
- Comfort management from anywhere, always connected with the CLIVET EYE APP
- Integration with the KNX (Konnex) system provides area comfort control using KNX thermostats

Comfort becomes smart

Control4 NRG is the energy and comfort assistant for your house that puts the Clivet Smart Living system at your fingertips. Specific features developed to make the electric house more intelligent and welcoming, optimise energy consumption and improve house comfort, customised to your needs

Voice assistants

Voice assistants, or more commonly known as Voice Skills, improve accessibility for people with visual or motor disabilities, allowing access to the system (or equipment) without having to physically interact with the devices. Thanks to Alexa voice skills, developed specifically for Clivet, it is possible to interact with the Clivet Smart Living system not only to set the best level of ambient comfort and well-being, but also to be kept up-to-date on energy trends and the level of independence.

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 2 x assembly)

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
- Charge and discharge levels of the SINERGY2 STORAGE SYSTEM

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 SINERGY2 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

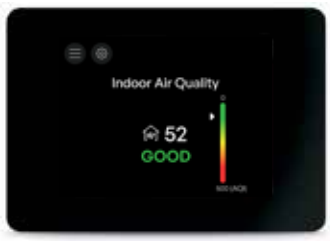
Communication with CONTROL4 NRG

Physical	
Device name	HID-TSmart
Installation	Wall-mounted with mounting box
Operating tempe-rature	-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, Deactivatable

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	112 x 77 x 18 mm (LxHxP)



Indoor air quality sensor

Z-IAQ - Indoor air quality sensor

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

Combined with CONTROL4 NRG, it enables indoor air quality monitoring and, through ELFO FRESH EVO, manages air renewal to restore health and well-being in all rooms

High-precision sensors | Real-time values | Detection | Modbus RTU | Communication with CONTROL4 NRG

Physical	
Device name	Z-IAQX
Installation	Wall-mounted with mounting box
Operating temperature	-10~55°C
Operating humidity	≤95% (non-condensing)
Power supply	12V cc
Max consumption	≤100mA
Detection type	VOC, CO, CO_2, NO2, CH4, ambient noise, relative humidity and temperature

Features	
Colour	White
Dimensions	110 x 70 x 28 mm (LxHxP)
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 with standard Keystone connection

Communication with CONTROL4 NRG

Modbus RTU

Physical	
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

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

Electricity meter

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

Physical	
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

Physical	
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

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

Physical	
Device name	BMZRX
Installation	DIN rail
Operating temperature	-10~55°C
Operating humidity	≤95% (non-condensing)
Power supply	230 V ca
Typical consumption	8,5 VA

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

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

Physical	
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 (LxHxP) 6 DIN modules
Outputs	1x relay 5A 1 x 0-10V output
Inputs	1x temperature probe
Weight	370 g

FCM010X

Module that enables the management of fan coil units equipped with a 0-10V port and 'low-limit thermostat' functionality

Installation on DIN bar

Communication with CONTROL4 NRG

Modbus RTU

Physical	
Device name	FCM010X
Installation	DIN rail
Operating temperature	-10~55°C
Operating humidity	≤95% (non-condensing)
Power supply	220 Vac
Typical consumption	8,5 VA

Features	
Colour	White/grey
Dimensions	210 x 155 x 80 (LxHxP)
Outputs	2x relay 5A 1 x 0-10V output
Inputs	2 probe NTC 10 kΩ a 25 °C 5mt.
Weight	570 g

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

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