

Build your Smart Cold Chain

Controllers for refrigerated units





About us

For more than thirty years, EVCO has provided standard and customized refrigeration, catering and air conditioning solutions, ensuring excellence, reliability and innovation.

We develop technologies capable of monitoring and controlling cold chains, cooking processes and climatization of environments, thus optimizing the system efficiency, duration and reliability. The result is not only energy saving and reduced environmental impact; but also an increased safety, in compliance with regulatory standards in the respective sectors.

EVCO lends a helping hand to the businesses engaged in the digitalisation of processes, offering solutions for the remote management through laptops, tablets and smartphones.

Our products are manufactured based on waste-reducing production processes and perfection is pursued through continuous improvements, according to the KAIZEN philosophy; our organization operates under the ISO 9001:2015 quality management system and the ISO 14001:2015 environmental management system, to achieve and increase customer satisfaction.

Working with industry 4.0

As part of the Italian "Transition 4.0 Plan" initiative, with funds extended for investment into tangible and intangible assets over the 2023-2025 three-year period, EVCO has developed a range of products and services to allow its clients to have a 4.0 upgrade of their refrigeration, Ho.Re.Ca., HVAC and automation equipment: controllers with optional or built-in connectivity and IoT functions, modules for wired and wireless connection and Bluetooth communication, signal converters for RS-485 networks, communication protocols for bidirectional data exchange, local or remote control and supervision systems with advanced data logging

functions, machine interaction and automatic alerts. EVCO 4.0 technology is designed to give clients the utmost flexibility when building integrated solutions in proprietary systems, hybrid solutions offering compatibility between EVCO and custom environments and 100% EVCO solutions, like the EPoCA® platform which is ready for use and tailored to meet the digitalisation needs of the food equipment, refrigeration and air conditioning sectors.

- ✔ Operation via electronic controllers (similar to PLCs)
- ✔ Bidirectional interconnection with standard protocols
- ✔ Integration with other machines in the production cycle, logistics systems or supply network
- ✔ Simple, intuitive human machine interface
- ✔ Compliance with the latest safety standards
- ✔ Telemaintenance, telediagnosics or remote control system
- ✔ Continuous monitoring of working conditions



Ready to use: EPoCA®

If you want to use functions specially designed to meet the needs of your sector, the EPoCA® cloud system is the solution for you. Just procure EVCO products with EPoCA® technology and built-in or optional connectivity and you're ready to go.

Hybrid: compatibility between third-party and EPoCA® systems

If you need the EPoCA® cloud platform, with its professional machine management functions, to work alongside your own local data control or acquisition system, the compatible EPoCA® devices equipped with connectivity can be set for hybrid control.



Integration: third-party systems

If you have your own system integrator or a control and data acquisition system or management software which allows bidirectional transmission of data and you simply want to add on EVCO products or connectivity to your devices, EVCO has a series of hardware products which are easy to configure and integrate into your system.



An opportunity for us all to grow

Using EVCO products, with their connectivity strategies and EPoCA® technology, means being able to choose from a wide range of digital transition solutions which meet the many needs of the refrigeration, food equipment and HVAC sectors.

It means making your life easier and also making savings, thanks to centralised digital storage for the conservation, analysis and sharing of data.

It means streamlining workflow and automating activities and procedures involving products and services, bringing actual improvements to many departments in your company: from marketing to sales, technical assistance and research and development.

It also means transforming physical places into virtual spaces where you can exchange data and interact remotely in real time, increasing efficiency, shortening response time and controlling workflow.

Manufacturers

Optimising marketing campaigns

Being able to gather, process and synchronize data on installed machinery allows manufacturers to map out more effective, targeted marketing activities.

Continuous innovation

Real time machine data are a precious source of information, enabling manufacturers to promptly implement improvements and plan future development strategies.



Installers and servicers

Control made easy

The cloud platform allows machines to be accessed remotely, providing an overview of all the installed units that are being monitored. The interface of the EPoCA® platform is also intuitive and has a responsive design.

Lower costs

Viewing data, diagnostics and changes to configurations can all be carried out remotely. Meaning maintenance can be performed promptly, without the need for costly, time-consuming visits.

Users

Savings and quality

Accessing data and monitoring processes is easy with EVCO and, as well as complying with HACCP regulations, also means savings are made and quality guaranteed. Product quality is kept consistently high and waste avoided, thanks to automatic alarm alerts, and production times are optimised by using remote machine setting and activation functions.



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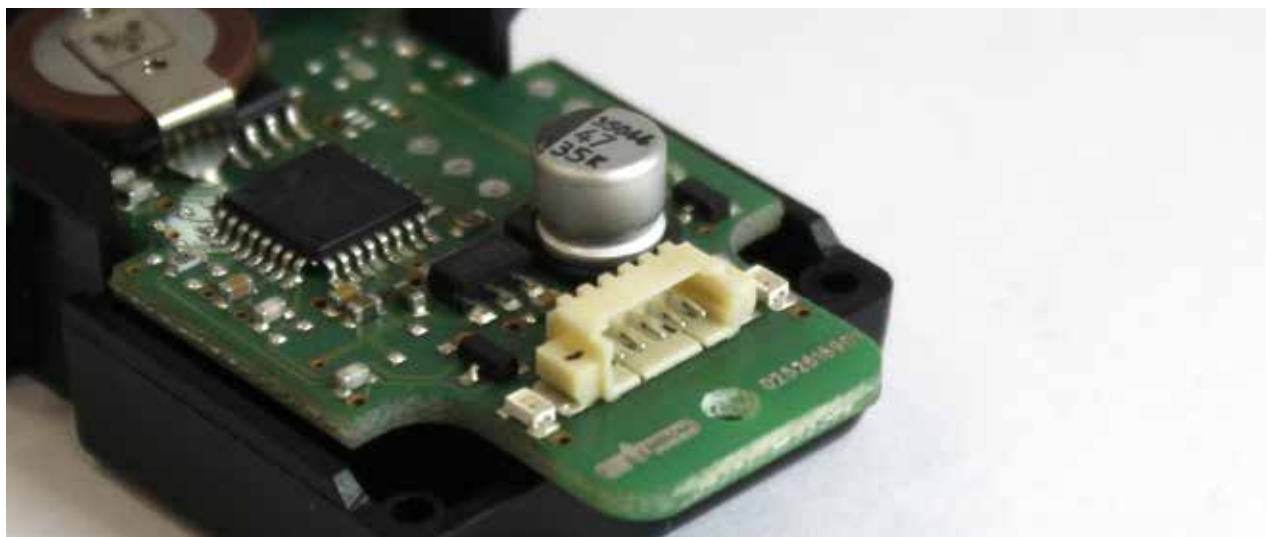
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EVlinking Series

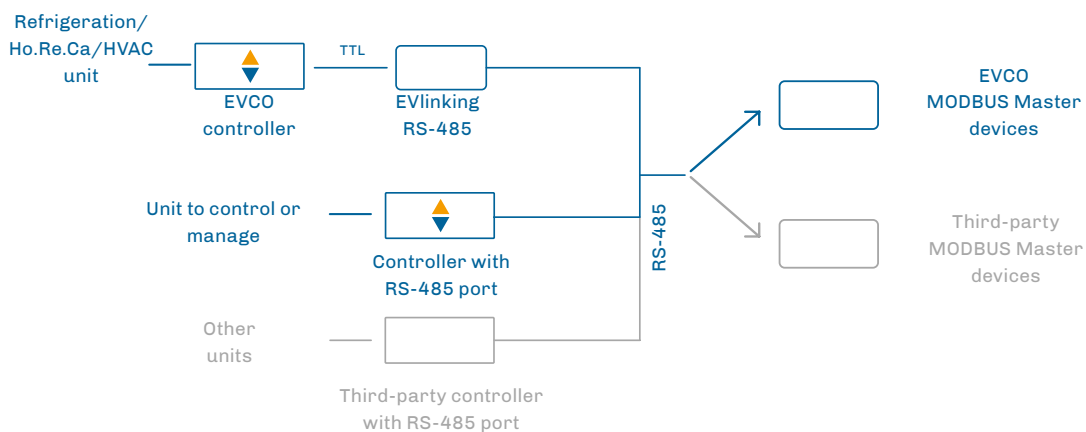


EVlinking RS-485

EVlinking RS-485 signal converters connect to the TTL port of EVCO devices, transforming it into an RS-485 port. The device can then be used in a network of devices with the MODBUS RTU communication protocol. The advantage of an RS-485 network is that data transmission between a MODBUS master device and a large number of slave devices is highly reliable, even over

long distances.

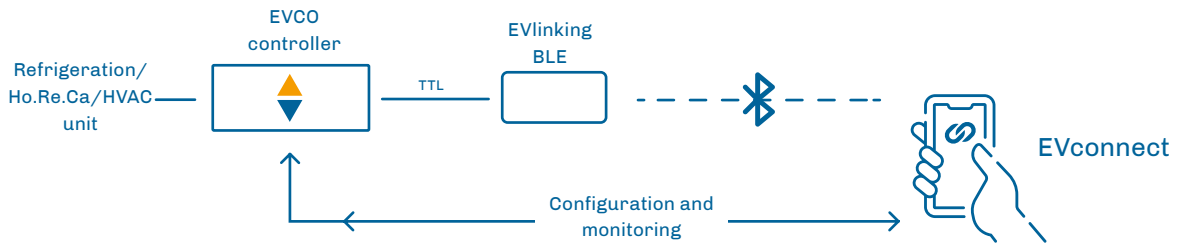
If the master functions are performed by software on a PC, the EVIF20SUXI signal converter will connect the network of devices to the PC through the USB port.



EVlinking BLE

EVlinking BLE is a hardware module with Bluetooth Low Energy connectivity that can be connected to EVCO controllers to access the functions of the EVconnect app for point-to-point control and monitoring of individual machines. EVlinking BLE is easy to install and has

a compact footprint. It acts as a data logger, automatically storing historical data, needs no programming and is powered by the controller, which it is connected to through the TTL port.



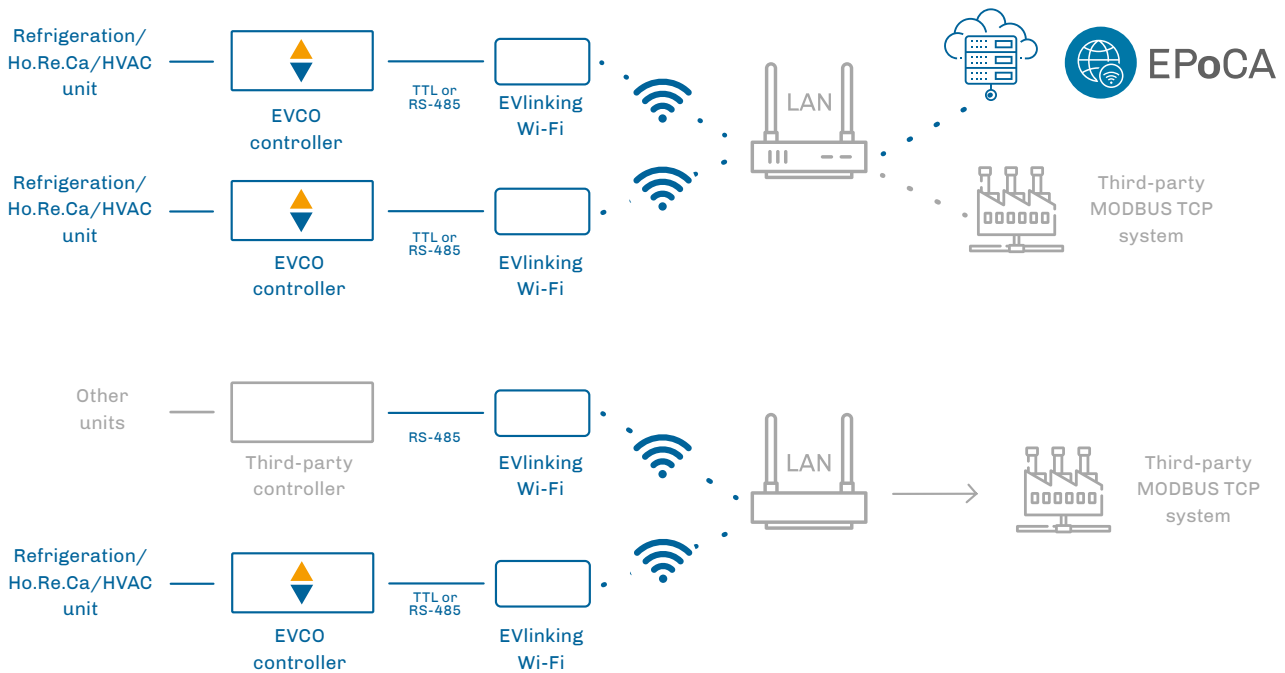
EVlinking Wi-Fi

EVlinking Wi-Fi is a hardware module with Wi-Fi connectivity that can be connected to our EPoCA® compatible controllers to access the functions of the EPoCA® cloud platform or those of other control or data acquisition systems using the MODBUS TCP protocol.

The EVlinking Wi-Fi module can also be connected to third-party devices using the MODBUS RTU protocol on the RS-485 port to allow integration with client systems.

EVlinking Wi-Fi is easily configured from a web browser or the dedicated EPoCA Start app which is available in the Google Play Store.

It is compact, available with a TTL or RS-485 communications port and can be powered by the controller or the mains, depending on the type and power of the controller.



For available codes, technical features and the wiring diagram, please visit the product section @ www.evco.it



EV3 200 Web



The smallest on the market

EV3 200 Web is the first temperature controller on the market which, despite its compact size (74 x 32 mm), has a built-in Ethernet port with native IP connectivity and full IoT potential.

Controller + IoT gateway

As well as being a controller for static or ventilated units, refrigerated at normal or low temperature, EV3 200 Web also works as a data logger and an IoT gateway. It acts as a bridge for a further 10 electronic controllers, connected in an RS-485 MODBUS RTU network, to manage refrigeration, Ho.Re.Ca. or HVAC machinery.

Flexible configuration

If a network is made up entirely of EPoCA®-compatible devices, it can be controlled remotely using the EPoCA® cloud platform. The MODBUS TCP protocol provides even more flexibility, as it supports third-party control and data acquisition systems alongside EPoCA®. If, on the other hand, the presence of the MODBUS TCP protocol is only a requirement for integration in client systems, third-party devices can also be connected to the network.

Plug and play

The network of devices can easily be configured by a PC or the EPoCA Start mobile app.



EVD Web



IoT gateway for the EPoCA® system

EVD Web is a gateway with Ethernet connectivity and data logging functions which allows users to remotely monitor and control up to 19 EVCO devices with EPoCA® technology using the EPoCA® cloud platform. It has been designed for use in the Ho.Re.Ca, refrigeration and air conditioning sectors. EVD Web can also send the current time to controllers which do not have a clock.

Master of several serial ports

Equipped with 3 RS-485 master serial ports, each for a line of up to 6 controllers with the MODBUS RTU protocol, EVD Web also has a TTL serial port to connect another EVCO controller. Its three additional analogue inputs can be used for temperature sensors, which are also useful as a redundant detection system.

Shared supervision systems

Data from the controllers in the network can be shared with third-party supervision systems using the MODBUS TCP protocol. Systems of this kind can also be

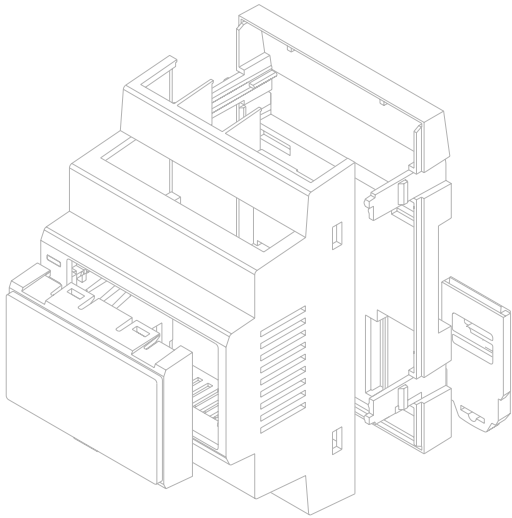
used to gain information or interact with the machinery which work alongside it or with EPoCA®.

Flexible use

If third-party controllers are among the devices connected to EVD Web, the network controlled by EVD Web can be managed exclusively with the MODBUS TCP protocol. It is possible to connect controllers of different parties, even if they have incompatible communication parameters, as each of the three RS-485 ports can be configured separately.

Easy to install

EVD Web comes in the 4-module DIN format for installation on electrical panels and is available with low (24 Vac/dc) or high voltage (230 Vac) power supply and 5 LEDs which indicate communication status. Thanks to the dedicated desktop application, EVD Web can be configured from a PC via Ethernet or USB.



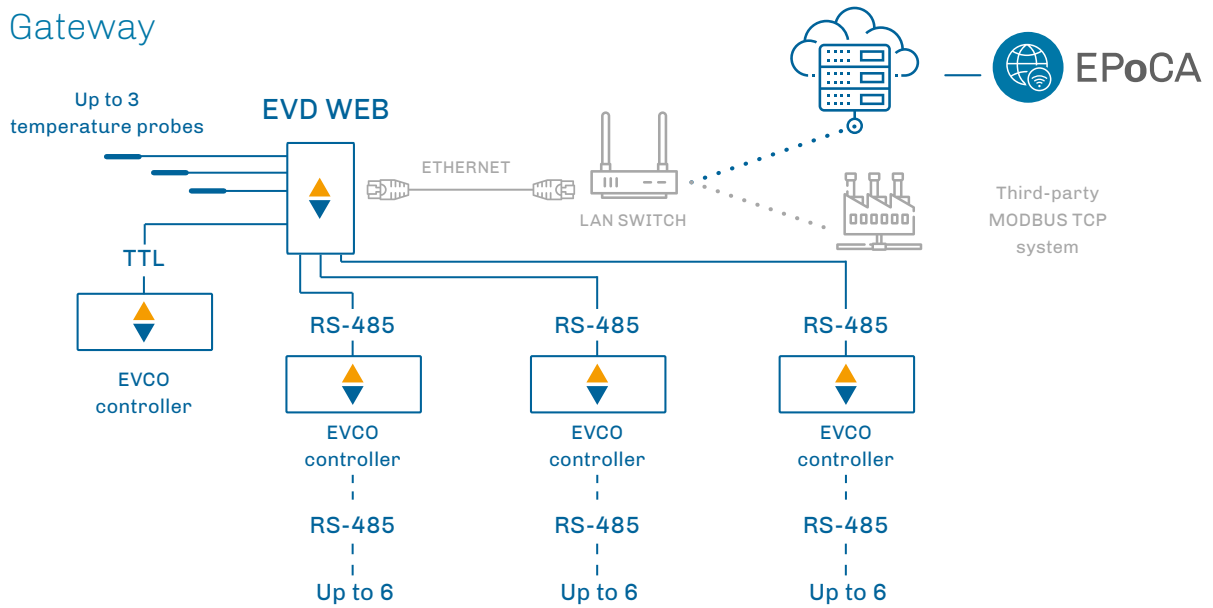
Features

- 4-module DIN, 5 LEDs, IP40

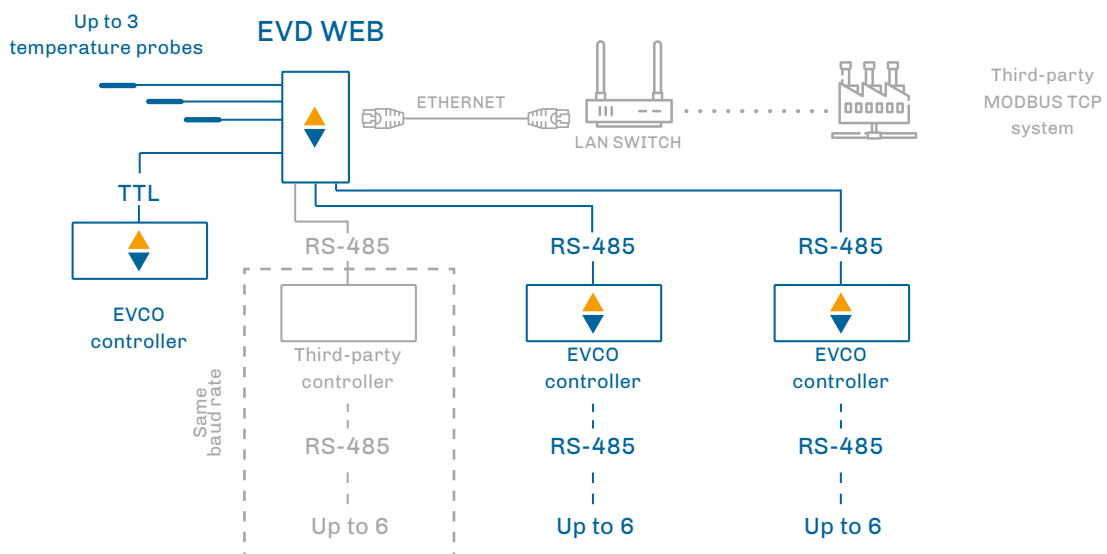
Technical data

- Power supply 230 Vac or 24 Vac/dc
- 3 analogue inputs for temperature NTC (range -40°... + 110°C)
- 1 Ethernet port
- 3 RS-485 MODBUS master serial ports
- 1 TTL serial port
- 1 micro USB port
- Real time clock

IoT Gateway



Data concentrator



Available soon on www.evco.it



EPoCA®



Cloud Platform

EPoCA® is a remote control and monitoring system based on a cloud platform. Originally developed to meet the management needs of the food preservation and cooking sector, it has been expanded to HVAC units in response to market demand.

Ready-to-use system

The responsive design and graphic interface developed to offer a pleasant user experience make EPoCA® a “ready-to-use” solution. All the control and monitoring functions, commonly found on professional platforms, are highly intuitive, even for entry-level users.

Optimised for all devices

To connect to the cloud system and remotely control machinery from a PC, tablet or smartphone, all users need is an EVCO controller with native EPoCA® technology and connectivity which is either built-in or provided by external hardware modules. The devices can be easily configured using the dedicated EPoCA Start mobile app.

Remote control

With the appropriate protection measures for access and data, the EPoCA® system allows one or more enabled users to operate remotely on the unit to configure its parameters, activate cycles, receive automatic alerts, view data (even in graph form) and download records in the most popular formats, such as XLSX, CSV and PDF.



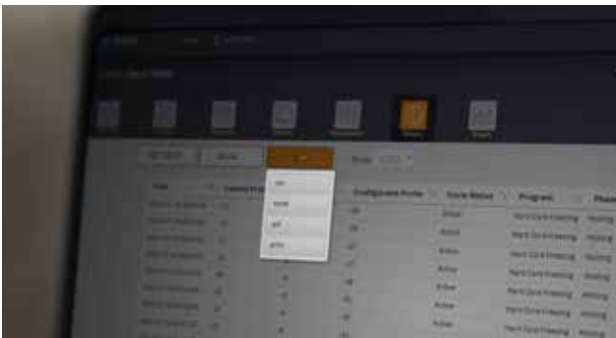
Monitoring and alerts

Events in progress can be monitored 24/7 from the cloud platform and alerts can be set which are automatically sent by email to selected recipients.



Installation and service

Being able to interact remotely to configure the machine's parameters (with partial or total access according to the credentials assigned) means telemaintenance and installation can be performed promptly without physically having to be on-site.



Diagnostics and statistics

As well as being displayed in graph and table form, data can be exported and aggregated for statistical and tele-diagnostic purposes. This feature is especially useful when planning improvements and developing future projects.



Programmes

Being able to set, start up and stop programmes remotely is a great advantage for operators of machinery with working cycles. Not only does it save time, it also improves the quality of the product and reduces waste.

Easy configuration with the app

Depending on the EVCO hardware used, devices are configured from a browser or PC using the dedicated software. Alternatively, the EPoCA Start mobile app, which is available in the Google Play Store for all devices, makes configuration even easier.



For further information please visit the product section @ www.evco.it



EVconnect®



Ideal for the food service industry

In sectors like food service, the transformation and refrigerated preservation of food (transport, storage and display), as well as the monitoring of its quality, are all of prime importance. The EVconnect® mobile app for Android and iOS now enables users to manage food safety from their smartphone.

The app allows wireless access to EVCO controllers equipped with the built-in Bluetooth Low Energy module or controllers which can be expanded using a compact external module (EVlinking BLE) which needs no programming and is powered by the controller.

Point-to-point BLE technology

Thanks to point-to-point BLE connection with the EVCO controller, users can receive instant food status updates on their smartphone or tablet (in graph or table form). Active and logged alarm events, such as open

door and power failure, are automatically stored on the BLE module (which acts as a data logger) to help identify failures and irregular trends. The information can be exported in CSV format and then, for example, attached to an email and sent to the service team.

Besides facilitating data monitoring and technical support, with EVconnect® users can have machine settings at their fingertips. Multi-level password protection ensures secure access to unit configuration (probe values, machine status, fans, compressor, etc.) and setpoint adjustment. A list of parameters, together with a full description of each one, makes configuration even simpler.

Ideal for refrigerated transport

The BLE module, which can either be built-in or external, acts as a data logger and can also record the data of low voltage mobile refrigerated units.

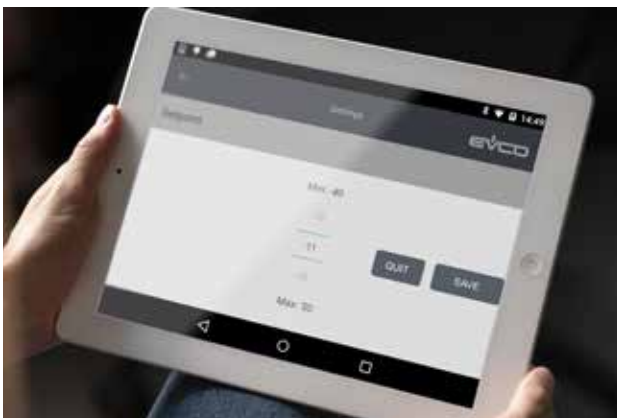


Data in graph form

The historical data and alarm events downloaded from the app can be viewed in both table and graph form.

Sending service information by email

Information on events and machine status is downloaded in CSV format, making it quick and easy to send by email, should an intervention by the service team be needed.



Changing parameters and setpoints

Configuration operations, like setting parameters and changing setpoints, can be performed easily and securely from the user's smartphone.



For further information please visit the product section @ www.evco.it



EV3 200



Controller for refrigerated units

EV3 200 is a wide range of controllers, measuring 74 x 32 mm, for optimised management of static or ventilated refrigerated units which work at normal or low temperature (as low as -50°C), like bottle coolers, cabinets, counters, islands or refrigerated display units.

A model for all needs

Equipped with up to 4 inputs and 4 electro-mechanical relay outputs, the range has energy-saving features (adaptive defrost and setpoint adjustment) and a wide variety of models to meet any need, depending on the machine's functions and the space available for on-board installation. The range includes models with a built-in or slim-line remote user interface with digits in four different colours (red, blue, green and white) and low or high voltage power supply, and models with additional outputs to control modulating loads and frequently

activated loads or to manage LED lights.

Compliant with EN 60079-15

All the controllers can be supplied with electro-mechanical relays in the sealed HC version, allowing them to be used with equipment which uses hydrocarbons (R290 and R600A).

Connectivity

- RS-485 with the MODBUS RTU protocol (built-in or optional with the EVlinking RS-485 module)
- Bluetooth Low Energy (optional with the EVlinking BLE module)
- Wi-Fi with the MODBUS TCP protocol (optional with the EVlinking Wi-Fi module)
- Ethernet with the MODBUS TCP protocol (optional with EV3 200 Web or EVD Web)



Wide-range power supply

The controllers, which have 1 - 4 relays, are available with low or high voltage power supply: 12-24 Vac/dc or 115-230 Vac or 230 Vac.



Discover all the EV3 200 models

Space saving

Equipped with 2 or 4 configurable digital outputs, the EV3 200 controllers have an open frame board and a slim remote user interface, making them ideal when space is limited.



Discover all the EV3 Basic Split models



Variable capacity compressors

The EV3254 model has inputs for probes which can read up to -99°C, 4 configurable relays and a further output which can be configured as a PWM to control variable capacity compressors or as 12 Vdc for an external solid-state relay command.



Discover all the EV3 254 models



EV3 200 LED

With 3 relay outputs and one 12 Vdc output, EV3 200 LED can manage all the normal regulations for refrigerated units while also controlling LED standard and strip lights up to 3 W. The low voltage LED light is powered directly by the controller without the need for an external power supply.



Available soon
on www.evco.it





EVJ 200

Controller for refrigerated units

The EVJ 200 range of controllers has a stylish design and versatile installation options. Its firmware can manage the most modern and efficient static or ventilated refrigerated units which work at temperatures as low as -50°C . The electro-mechanical relays can be supplied in all the models in the sealed HC version as standard or on request, allowing the controllers to be used with equipment which uses hydrocarbons (R290 and R600A).

A model for all needs

EVJ 200 has 3 analogue inputs for PTC/NTC probes (one of which can be set as digital), 1 digital input, up to 6 highly configurable digital outputs and low or high voltage power supply. It has energy-saving (adaptive defrost and setpoint adjustment) and HACCP data recording (SD card extension) features and can control modulating loads and frequently activated loads. The wide variety of models in the range caters for the many preservation and display needs of refrigerated products.

Stylish, with different installation options

The controllers are available with a built-in or remote user interface. The extra-large, stylish interface has a red LED display (other colours available on request), 6 capacitive keys and an IP65 front with a continuous surface. The controller can be fitted to the panel in the conventional way, semi-recessed into the front or concealed under the panel (if made of glass or methacrylate), ensuring easy cleaning and greater hygiene. For even greater customisation, it can be installed with a membrane keypad flush with the panel and customised by the client with its artwork.

Connectivity

- RS-485 with the MODBUS RTU protocol (optional with the EVlinking RS-485 module)
- Bluetooth Low Energy (built-in or optional with the EVlinking BLE module)
- Wi-Fi with the MODBUS TCP protocol (optional with the EVlinking Wi-Fi module)
- Ethernet with the MODBUS TCP protocol (optional with EV3 200 Web or EVD Web)



Wide-range power supply

Fitted with up to 6 relays, 1 or 2 of which are 30A, the range has models with low or high voltage power supply (12-Vac, 115-230 Vac or 230 Vac) and models which store data on an SD card. The controllers can have a built-in user interface or a remote interface with a LED display. There is also a version with a 2.8" LCD graphic display.



Discover all the EVJ 200 models

Maximum performance, minimum footprint

The controllers in this range have a high voltage power supply (115... 230 or 230 Vac) and are fitted with 4 configurable relays. One model also has two further outputs: one for modulating loads (0... 10 V or PWM) and a 12 VDC to control frequently activated loads. The design with the open frame board and remote user interface mean the interface can be easily housed on the machine.



Discover all the EVJ Basic Split models



Great savings, silent operation

The EVJ 254 with 230 Vac power supply has 4 configurable relays and a further PWM output to manage variable capacity compressors or external solid-state relays, therefore saving energy and ensuring silent operation. There is also a model which stores data on an SD card.



Discover all the EVJ 254 models





Vcolor 229/249

Controller for temperature/humidity units and cold rooms

The controller, with its 5" or 7" TFT glass graphic display and 9 HC relays which can be expanded to 13, can be configured for hot, cold and neutral zone preservation of products, as well as controlling humidity. A further output can be configured to modulate the compressor or the fan speed. A back-up module can also be integrated to manage emergencies in the event of a power failure.

Humidity management

Humidity is managed either through on-off evaporator fan cycles or an external humidifier or dehumidifier. The controller can be programmed to measure relative humidity through the combined T/RH EVHTP520 probe or a high-precision RH 4... 20 mA transducer such as EVHP523.

Usability, efficiency and protection

Access to the controller is protected by multi-level passwords and features intuitive navigation with graphs reporting trends, alarms and HACCP events which can be viewed on the display. It has 3 energy-saving levels, 72 OEM programmes for food preservation, a further memory slot for 48 programmes which can be customised by the user and 4 special cycles (pull-down, continuous cycle, sanitation and thawing). A testing cycle can be performed and the outputs can also be tested.

Highly customisable

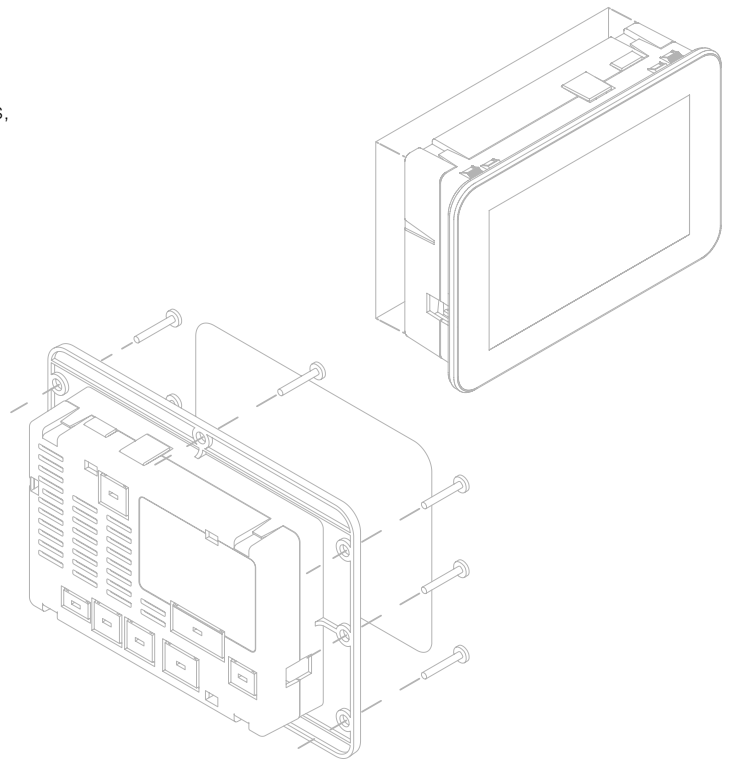
The controller's innovative programmable platform gives manufacturers the freedom to personalise the graphic skin and OEM programmes and add new languages. All they have to do is compile an ODS file and upload it to the oven's controller using a flash drive, thanks to the USB port on the user interface.

Features

- Open frame board + 5" or 7" remote user interface with colour TFT touch-screen graphic display in glass, IP65, for flush fit or semi-recessed installation
- T + RH EVHTP520 probe (optional)
- EVHP523 RH 4... 20 mA transducer (optional)
- I/O expansion module with 4 unsealed or HC relays (optional)
- Backup module (optional)
- Phase cutting speed regulator (optional)
- EVCO inverter (optional)

Technical data

- Power supply 115... 230 Vac
- 3 analogue inputs for PTC/NTC/PT1000
- 1 analogue input for T + RH EVHTP520 probe
- 1 analogue input for 4... 20 mA transducer
- 4 digital inputs
- 1 PWM (Vcolor 229) or 0... 10 V (Vcolor 249) output
- 9 electro-mechanical relay digital outputs, configurable
- 1 USB port on the user interface



Connectivity

- Built-in RS-485 with the MODBUS RTU protocol
- Wi-Fi with the MODBUS TCP protocol (optional with the EVlinking Wi-Fi module)
- Ethernet with the MODBUS TCP protocol (optional with EV3 200 Web or EVD Web)



Vcolor 229/249: controlling cabinets, counters and cold rooms has never been so simple, safe and efficient.



PREVIEW

Available soon on www.evco.it



EVBOX1



Controller for single-phase cold rooms

EVBOX1 is a range of frontal electrical panels with IP65 protection and a LED display which are designed to manage single-phase cold rooms working at temperatures as low as -99° C.

No additional hardware

EVBOX1 has up to 6 relay outputs, two of which are 30 A res. @ 250 VAC, allowing it to directly control compressors of up to 2 HP and the evaporator fan without having to use contactors.

Different models

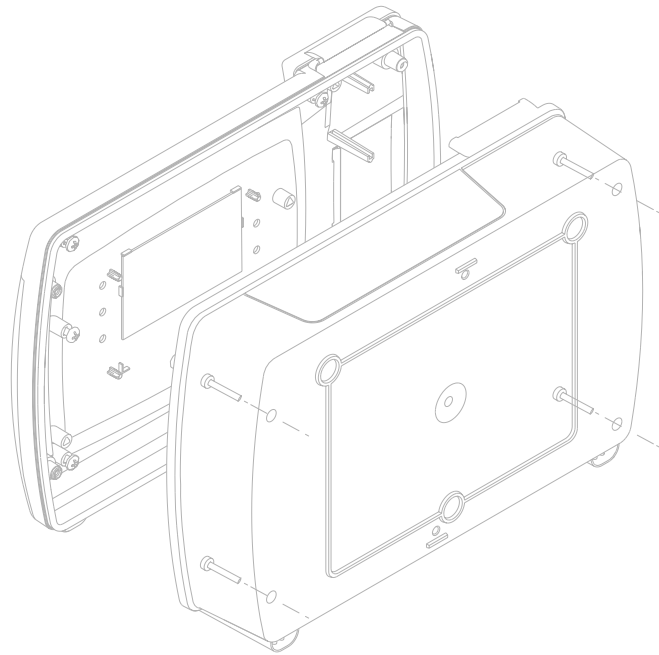
The range includes models with a magnetothermal switch or a magnetothermal differential and models with a driver for unipolar stepper-type electronic expansion valves. With energy-saving features, like adaptive defrost, some models also control three-phase defrost, while some have a data logging extension on an SD card to store HACCP data, in compliance with EN 12830 concerning the preservation of temperature-sensitive goods.

Features

- Controller with built-in user interface and single-line LED display and 6 keys housed in an IP65 electrical panel with a slot for an SD card in some models, front installation

Technical data

- Power supply 115... 230 Vac
- 3 to 5 analogue inputs for PTC/NTC/Pt 1000
- 1 analogue input for 4... 20 mA
- 3 digital inputs
- 4 to 6 electro-mechanical relay digital outputs, 1 or 2 of which can be configured
- Built-in driver for unipolar EEV
- Unipolar magnetothermal switch
- Unipolar magnetothermal differential



Connectivity

- Built-in RS-485 with the MODBUS RTU protocol
- Built-in Wi-Fi with the MODBUS TCP protocol
- Ethernet with the MODBUS TCP protocol (optional with EV3 200 Web or EVD Web)



Complete management of single-phase cold rooms with direct control of the compressors, three-phase defrost control, control of electronic expansion valves, magnetothermal switches supplied as standard and EN 12830 compliant.

For available codes, technical features and the wiring diagram, please visit the product section @ www.evco.it



EVBOX1



EVBOX1
three-phase
defrost



EVBOX1
Datalogging



EVBOX LightJ200

Controller for single-phase cold rooms

EVBOX Light J200 is a range of frontal electrical panels designed to manage single-phase cold rooms with an on-board or remote moto-condensing unit.

Slim size

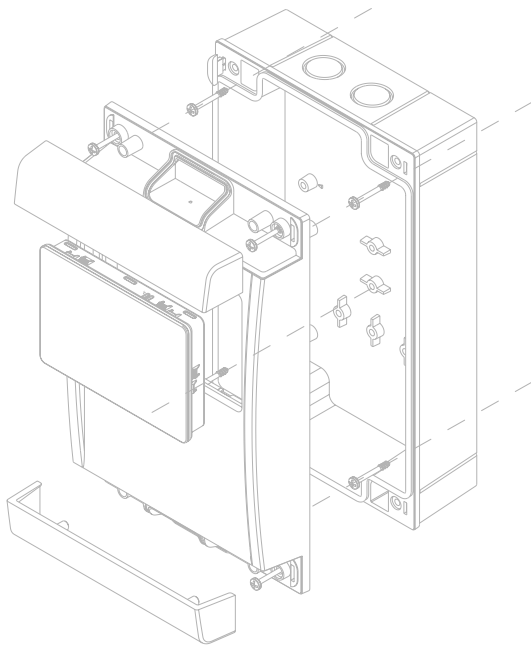
Designed to guarantee IP65 protection, the panel houses a controller with a LED display and 6 capacitive keys. In the case of the remote moto-condensing unit, it is possible to choose the EVBOX Light JS200 (Split) model with its ultra-slim design, with onboard fitting of the user interface only.

Flexible configuration

Equipped with up to 5 configurable relay outputs, including two which are 30 A for direct control of loads up to 2 HP, the electrical panels can regulate the most varied equipment configurations on the market with great flexibility and energy savings.

Compliant with EN 60079-15

All the controllers can be supplied with electro-mechanical relays in the sealed HC version, allowing them to be used with equipment which uses hydrocarbons (R290 and R600A).



Connectivity

- RS-485 with the MODBUS RTU protocol (optional with the EVlinking RS-485 module)
- Bluetooth Low Energy (optional with the EVlinking BLE module)
- Wi-Fi with the MODBUS TCP protocol (optional with the EVlinking Wi-Fi module)
- Ethernet with the MODBUS TCP protocol (optional with EV3 200 Web or EVD Web)



Features

- Standard format: controller with built-in user interface and a single-line LED display with 6 keys housed in an IP65 electrical panel for frontal installation
- Split format: controller with open frame board + remote user interface and a single-line LED display with 6 keys housed in a slim IP65 electrical panel for frontal installation
- EVJKEY to clone parameters (optional)

Technical data

- Power supply 115... 230 Vac or 230 Vac
- 3 analogue inputs for PTC/ NTC, one of which can be set as digital
- 1 digital input
- 4 to 5 electro-mechanical relay digital outputs, configurable
- TTL MODBUS slave port



Manage all types of single-phase cold rooms flexibly and efficiently with EVBOX Light electrical panels with their modern design and compact footprint.



For available codes, technical features and the wiring diagram, please visit the product section @ www.evco.it



EVDRIVE

Drivers for bipolar stepper, unipolar stepper and pulse electronic expansion valves

Main features



Remote interaction via the web platform EPoCA®



It can work on a stand-alone basis or can be embedded in a control solution



Bipolar EEV models available in 4-DIN format, also with built-in LCD graphic display



Compatibility with the most diffused electronic expansion valves on the market



Unipolar and pulse EEV models available in open-frame format

Compatible user interfaces



EPJgraph

16 colours LCD graphic display, 6 capacitive keys and CAN port

Available on demand



EVIF25TWX

Connectivity modules
EVlinking TTL/Wi-Fi



EVIF20TUXI

Signal converters
EVlinking TTL/USB



EVIF20SUXI

Signal converters
EVlinking RS-485/USB



EPS4B

Backup module



EVTP

Temperature probes



EVPT

Pressure transducers



ECTSF

Transformer series



Available soon on www.evco.it



EV3S 554



Controller for temperature/humidity units

EV3S 554 is a controller for all applications which require temperature and humidity control, such as pastry and praline displays.

Versatility and performance

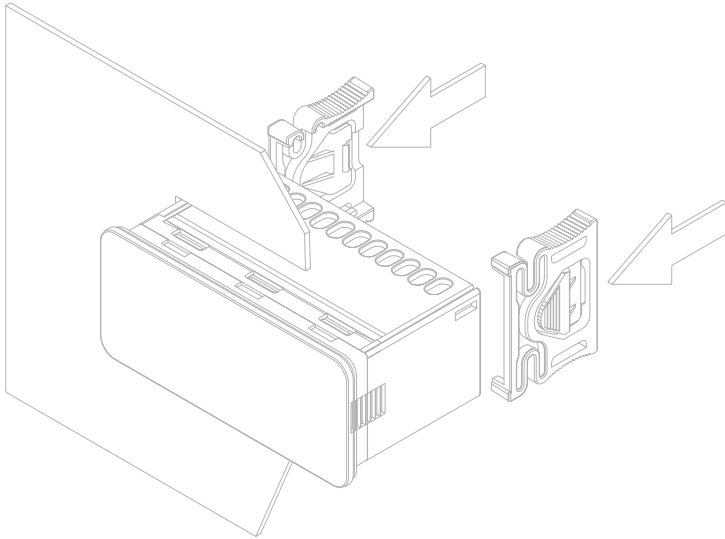
The controller has a proprietary EVHTP520 probe which reads relative humidity from 5 to 95% and temperature from -10° to 70°C. It has 4 fully configurable outputs for managing temperature in heating/cooling mode with a neutral zone too, as well as humidity with dehumidification. Ventilation can be controlled in modulating mode or, alternatively, variable capacity compressors managed. It also has a 12 Vdc output which can be configured to control another external relay.

Compliant with EN 60079-15

The controller is supplied with electro-mechanical relays in the sealed HC version, allowing them to be used with equipment which uses hydrocarbons (R290 and R600A).

Compact footprint

EV3S 554 consists of a control board with an extra-small remote user interface measuring 74 x 32 x 39.5 mm, which makes onboard installation easy in restricted spaces. It has a double-line LED display, 4 capacitive touch keys and IP65 front protection.



Connectivity

- RS-485 with the MODBUS RTU protocol (optional with the EVlinking RS-485 module)
- Bluetooth Low Energy (optional with the EVlinking BLE module)
- Wi-Fi with the MODBUS TCP protocol (optional with the EVlinking Wi-Fi module)
- Ethernet with the MODBUS TCP protocol (optional with EV3 200 Web or EVD Web)



Features

- Open frame board + remote user interface measuring 74 x 32 mm, with double-line LED display, 4 capacitive touch keys, IP65, semi-recessed installation
- Dedicated T + RH EVHTP520 probe
- EVJKEY to clone parameters (optional)

Technical data

- Power supply 230 Vac
- 3 analogue inputs for PTC/NTC/EVHTP520, 1 of which can be set as digital
- 1 digital input
- 1 0... 10 V or PWM output
- 1 x 12 Vdc output
- 4 HC electro-mechanical relay digital outputs, configurable
- 1 TTL MODBUS slave port



Ensure optimal, efficient temperature and humidity control in your pastry display units with this extra-small solution with its own dedicated temperature/humidity probe and HC relays.



For available codes, technical features and the wiring diagram, please visit the product section @ www.evco.it



EVJ 500



Controller for temperature/humidity and food processing units

The EVJ 506 and EVJ 526 models in the EVJ 500 range have been designed for applications requiring temperature and humidity control, such as pastry and praline displays, while the EVJ536 models from the EVJ 500 series are designed for processes requiring temperature and humidity control, mainly when curing charcuterie and maturing cheese.

Optimised regulation

The controllers operate with the proprietary EVHTP520 probe which reads relative humidity from 5 to 95% and temperature from -10 to 70°C, and which is suitable for critical environments. They have 6 fully configurable outputs for managing temperature in hot/cold mode also with a neutral zone, as well as humidity with humidifying/dehumidifying settings using fans and defrosting cycles.

Design and hygiene

The remote user interface has a stylish, modern design with a 2.8" LCD colour graphic display, 6 capacitive keys and IP65 front protection with a continuous surface. The controller can be fitted to the panel in the conventional way, semi-recessed into the front or concealed under the panel (if made of glass or methacrylate), ensuring easy cleaning and greater hygiene.

Connectivity

- RS-485 with the MODBUS RTU protocol (optional with the EVlinking RS-485 module)
- Bluetooth Low Energy (built-in or optional with the EVlinking BLE module)
- Wi-Fi with the MODBUS TCP protocol (optional with the EVlinking Wi-Fi module)
- Ethernet with the MODBUS TCP protocol (optional with EV3 200 Web or EVD Web)



Features

- Controller (111.4 x 76.4 mm) with built-in user interface, 2.8" LCD colour graphic display, 6 capacitive touch keys, IP65, semi-recessed installation or under glass or methacrylate panel
- Dedicated T + RH EVHTP520 probe
- EVJKEY to clone parameters (optional)

Technical data

- Power supply 12 Vac/dc
- 3 analogue inputs for PTC/NTC/EVHTP520, 1 of which can be set as digital
- 1 digital input
- 6 electro-mechanical relay digital outputs, configurable
- 1 TTL MODBUS slave port

Temperature/humidity control for cabinets, counters and display units

Choose to ensure maximum food quality and safety for your T/RH unit, choose the models of the EVJ 500 models which offer cabinet sterilization and food sanitation cycles using technologies such as UV lamps and ozone.



Food processing

Make sure your product is always of the highest quality with the EVJ 536 controllers with their air exchange cycles (manual or scheduled), pause-work function and 6 intuitive programmes (each with 8 phases) designed to optimise dripping, drying and aging.



For available codes, technical features and the wiring diagram, please visit the product section @ www.evco.it



Vcolor 539



Controller for food processing cabinets and rooms

The Vcolor 539 controller, with 9 fully configurable outputs (which can be expanded to 13), delivers complete management of food processing cabinets and rooms, even when powered by heat pumps, for a wide variety of products such as meat, charcuterie and cheese.

Enhance the quality of your products

Higher levels of flavour and preservation and standardised product shape and size are now possible, thanks to manual preservation cycles, automatic air exchange and pause/work cycles. The controller also has over 10 automatic processing cycles (with 30 sequential phases in each cycle) whose duration, temperature, humidity and ventilation can all be fully configured. The optional sterilisation, oxygenation and smoking processes can be managed either automatically or manually.

Precise readings

Standard 4...20 mA transducers (such as EVHP523) may be used to manage humidity or read the acidity level of a product; alternatively humidity can be controlled using the dedicated T+RH EVTHP520 probe which is suitable for critical environments (RH 5-95% / T -10/70°C).

Stylish, with different installation options

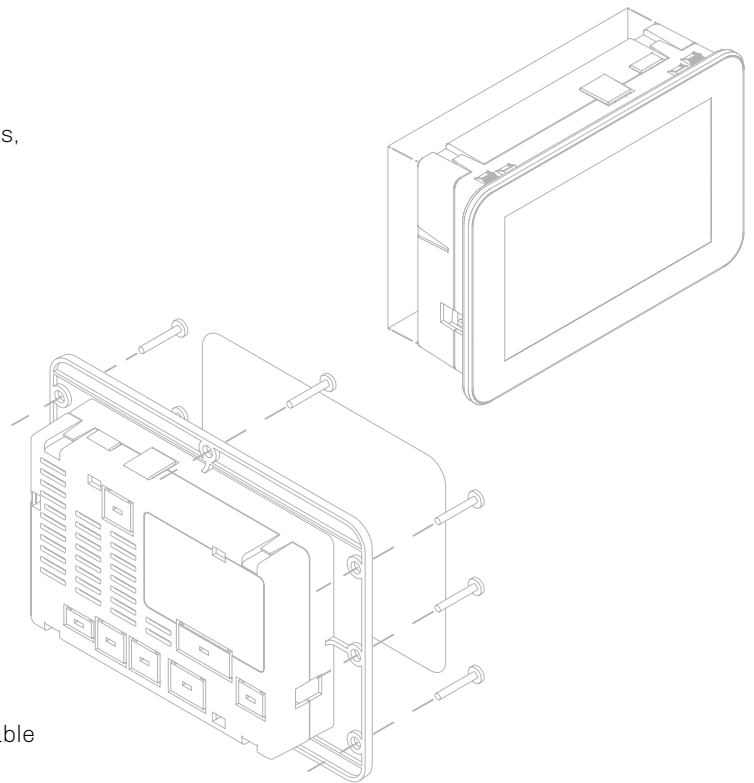
The controller has an open frame board and a remote user interface which consists of a 5-inch (M) or 7-inch (L) capacitive TFT touch-screen graphic display in glass which is installed horizontally. The user interface can be semi-recessed into the front or installed flush with the panel, fitting in perfectly with the design of the unit.

Features

- Open frame board + 5" or 7" remote user interface with colour TFT touch-screen graphic display in glass, IP65, for flush fit or semi-recessed installation
- T + RH EVHTP520 probe (optional)
- RH 4...20 mA EVHP523 transducer (optional)
- I/O expansion module with 4 relays (optional)
- Phase cutting speed regulator (optional)

Technical data

- Power supply 115... 230 Vac
- 3 analogue inputs for PTC/NTC
- 1 analogue input for T+RH EVHTP520 probe
- 1 analogue input for 4... 20 mA transducer
- 4 digital inputs
- 1 PWM output
- 9 electro-mechanical relay digital outputs, configurable
- 1 USB port on the user interface



Connectivity

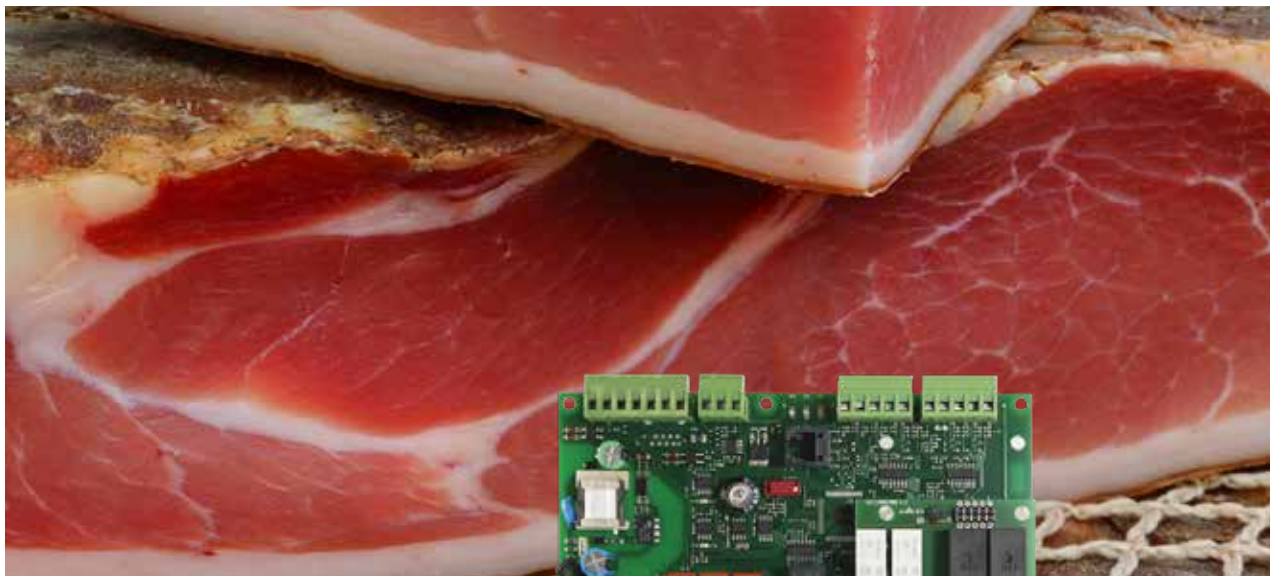
- Built-in RS-485 with the MODBUS RTU protocol
- Wi-Fi with the MODBUS TCP protocol (optional with the EVlinking Wi-Fi module)
- Ethernet with the MODBUS TCP protocol (optional with EV3 200 Web or EVD Web)



Enhance the quality of your processed products in terms of flavour, preservation and standardised shape and size with Vcolor 539.



For available codes, technical features and the wiring diagram, please visit the product section @ www.evco.it



Vcolor 579



Controller for food processing (aging and meat dry-aging)

The Vcolor 579 controller, with 9 fully configurable outputs (which can be expanded to 13), 3 analogue outputs for temperature and one for 4... 20 mA humidity transducers (also suitable for PH reading), can be set through a parameter for managing aging processes only, meat dry-aging only or for both processes.

Quality within reach

Versatility and ease of use is ensured by intuitive user interfaces which are pre-set for 5 food categories and can be personalized based on your needs. Users can rely on a total of 30 meat dry-aging and aging programmes (the latter have 30 phases each, whose duration, temperature, humidity and ventilation can all be configured). The controller also has manual preservation cycles, automatic air-exchange and pause-work functions as well as optional sanitation (through UV or ozone) and smoking cycles which can be managed either automatically or manually.

Highly customisable

The controller's innovative programmable platform gives manufacturers the freedom to personalise the graphic skin and OEM programmes and add new languages. All they have to do is compile an ODS file and upload it to the controller using a flash drive, thanks to the USB port on the user interface.

Stylish, with different installation options

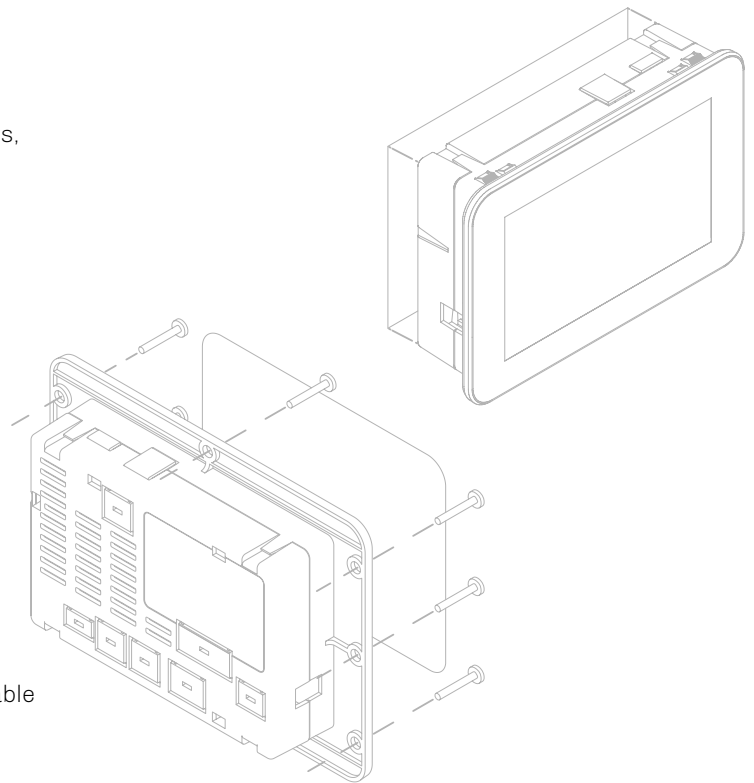
The controller has an open frame board and a remote user interface which consists of a 5-inch (M) or 7-inch (L) apacitive TFT touch-screen graphic display in glass which is installed horizontally. The user interface can be semi-recessed into the front or installed flush with the panel, fitting in perfectly with the design of the unit.

Features

- Open frame board + 5" or 7" remote user interface with colour TFT touch-screen graphic display in glass, IP65, for flush fit or semi-recessed installation
- RH 4...20 mA EVHP523 transducer (optional)
- I/O expansion module with 4 relays (optional)
- Phase cutting speed regulator (optional)

Technical data

- Power supply 115... 230 Vac
- 3 analogue inputs for PTC/NTC
- 1 analogue input for 4... 20 mA transducer
- 4 digital inputs
- 1 PWM output
- 9 electro-mechanical relay digital outputs, configurable
- 1 USB port on the user interface



Connectivity

- Built-in RS-485 with the MODBUS RTU protocol
- Wi-Fi with the MODBUS TCP protocol (optional with the EVlinking Wi-Fi module)
- Ethernet with the MODBUS TCP protocol (optional with EV3 200 Web or EVD Web)



The versatile and easy technology of Vcolor 579 make it fit to small meat dry-aging and aging units.

PREVIEW

Available soon on www.evco.it



EVBOX LightJ500



Controller for temperature/humidity and food processing rooms

EVBOX Light J500 is a range of frontal electrical panels offering control solutions for temperature/humidity and food processing rooms.

Optimal preservation

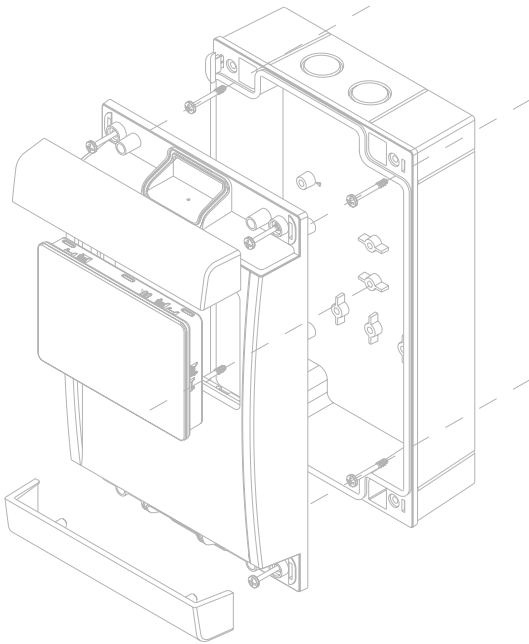
The panels operate with a proprietary temperature/humidity probe which reads relative humidity from 5 to 95% and temperature from -10... 70°C, and which is suitable for critical environments. They have 6 fully configurable outputs for managing temperature in hot/cold mode also with a neutral zone, as well as humidity with humidifying/dehumidifying settings using fans and defrosting cycles.

Six processing programmes

The firmware provides 6 programmes, each with 8 phases whose time, temperature and humidity can be configured, to control dripping, drying and aging. Regulation options also include manual or scheduled air exchange cycles, as well as a pause-work function.

Ready to install

The solution has a controller with a 2.8" LCD colour graphic display, housed in an IP65 electrical panel with a cable gland, which is quick and easy to install on the room.



Features

- Controller with built-in user interface and a 2.8" LCD colour graphic display with 6 capacitive keys housed in an IP65 electrical panel for frontal installation
- Dedicated T + RH EVHTP520 probe
- EVJKEY to clone parameters (optional)

Technical data

- Power supply 12 Vac/dc
- 3 analogue inputs for PTC/NTC/EVHTP520, 1 of which can be set as digital
- 1 digital input
- 6 electro-mechanical relay digital outputs, configurable
- 1 TTL MODBUS slave port

Connectivity

- RS-485 with the MODBUS RTU protocol (optional with the EVlinking RS-485 module)
- Bluetooth Low Energy (built-in or optional with the EVlinking BLE module)
- Wi-Fi with the MODBUS TCP protocol (optional with the EVlinking Wi-Fi module)
- Ethernet with the MODBUS TCP protocol (optional with EV3 200 Web or EVD Web)



EVBOX Light J500 is quick and easy to install, it optimises preservation at controlled temperature and humidity and improves processing thanks to its intuitive and configurable programmes.



For available codes, technical features and the wiring diagram, please visit the product section @ www.evco.it



EV 200 Lab

Control solution for refrigerated storage and transport of laboratory products

Equipped with inputs for temperature readings as low as -99°C , the controllers in the EV 200 Lab range are the ideal control solution for preserving laboratory products in refrigerated units. With low voltage power supply, they are also suitable for controlling refrigerator groups for continuous use in vehicles.

Power failure strategy

In mains-powered refrigerated units, power failures are handled by a backup module which acts as a battery charger and auxiliary power supply, allowing the controller to measure temperature and signal the alarm situation, should there be no electric current.

Logging and monitoring data

HACCP data logging is guaranteed by a data acquisition module (EVlinking BLE or EVlinking Wi-Fi) which is powered directly by the controller which it is connected to via the TTL port. Access to data and telemaintenance are possible thanks to Bluetooth (EVlinking BLE) and Wi-Fi (EVlinking Wi-Fi) connectivity which enable interaction respectively from mobile devices through the EVconnect® app for Android and iOS or from the Internet using the EPoCA® cloud platform, with alarm alerts sent automatically by email. The MODBUS TCP protocol present in EVlinking Wi-Fi also allows the product to be integrated with third-party data control and monitoring systems.

Care for the environment

The controllers have energy-saving features, such as adaptive defrost, and are also supplied in the EN 60079-15-compliant version for systems which use hydrocarbons (R290).

Features

EV3 200 Lab

- Compact solution: controller (74 x 32 mm) with built-in user interface, LED display, 4 capacitive keys, IP65 front protection, semi-recessed installation

Options

- Backup module
- EVlinking BLE or Wi-Fi data acquisition module
- EV3KEY or EVJKEY to clone parameters

Technical data

EV3 200 Lab

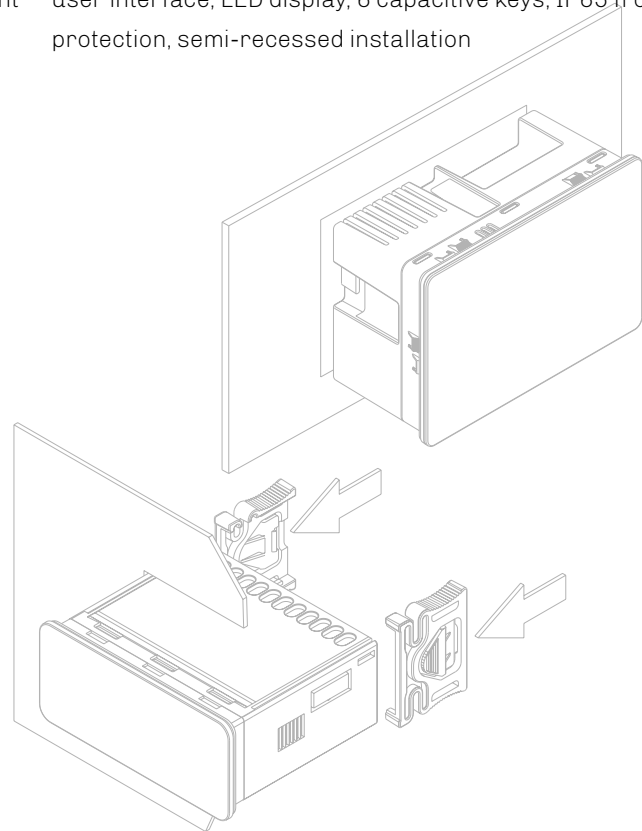
- Power supply 12... 24 Vac
- 3 analogue inputs for PTC/NTC/PT1000, 1 of which can be set as digital
- 1 digital input
- 4 electro-mechanical relay digital outputs

EVJ 200 Lab

- Power supply 12 Vac/dc
- 2 analogue inputs for PTC/NTC/PT1000
- 2 digital inputs
- 6 electro-mechanical relay digital outputs, configurable

EVJ 200 Lab

- Stylish solution: controller (111 x 76.4 mm) with built-in user interface, LED display, 6 capacitive keys, IP65 front protection, semi-recessed installation



Refrigerated transport and storage
at temperatures as low as -99°C



For available codes, technical features and the wiring diagram, please visit the product section @ www.evco.it



Vcolor 279

Controller for refrigerated storage of laboratory products

Vcolor 279 has a 5" or 7" TFT glass graphic display and 9 sealed relays (compliant with EN 60079-15), which can be expanded to 13 using an I/O expansion module. The controller meets the most sophisticated preservation needs for laboratory units such as freezers and ultrafreezers.

Logging historical data

The user interface, with its built-in data logger, can receive auxiliary power when needed from a backup module which acts as a battery charger and auxiliary probe reader. Temperature readings are always recorded, and the alarm in progress always signalled, even when there is a power failure.

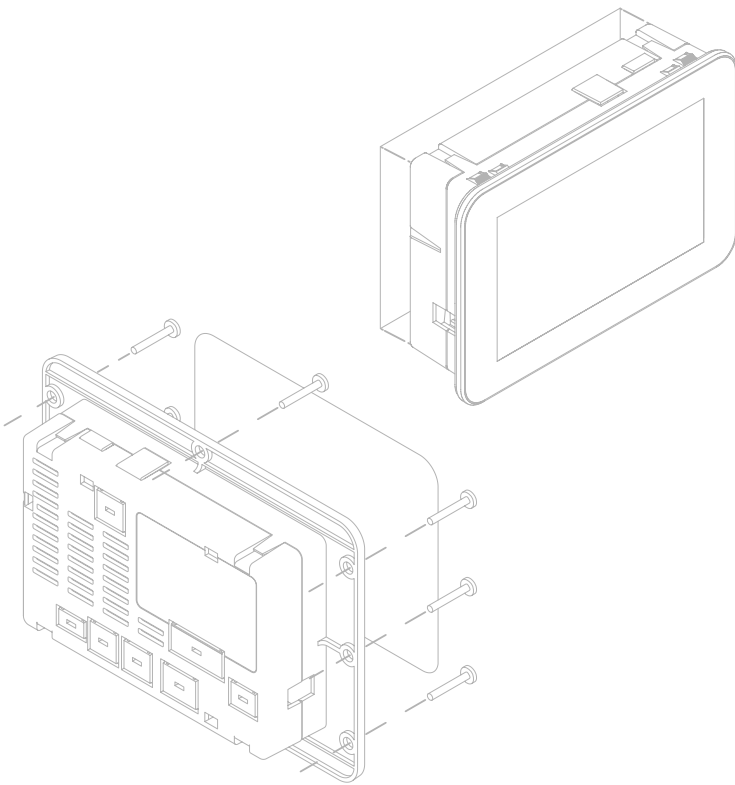
Usability and protected access

Featuring intuitive navigation with real-time trend graphs, the controller's innovative programmable platform allows the user to personalise the graphic

skin and add new machine interface languages. It also guarantees a high degree of protection, thanks to a hierarchical access system requiring user identification.

Monitoring options

Data can be downloaded onsite using a regular flash drive via the USB port. Alternatively, the controllers can be equipped with an optional module with Wi-Fi connectivity (EVlinking Wi-Fi) or connected to an RS-485 network which is controlled by hardware with built-in Ethernet connectivity, data logging and IoT gateway functions: EVD Web or EV3 200 Web (this second option also works as a controller). This enables the service team to interact remotely using the EPoCA® cloud platform, monitoring data, changing parameters and automatically sending email alerts. The MODBUS TCP protocol allows integration of the devices in third-party control and data acquisition systems.



Features

- Open frame board + 5" or 7" remote user interface with colour TFT touch-screen graphic display in glass, IP65, for flush fit or semi-recessed installation
- Backup module (optional)
- I/O expansion module with 4 relays (optional)

Technical data

- Power supply 115... 230 Vac
- 3 analogue inputs for Pt 1000, configurable
- 4 digital inputs
- 1 PWM output
- 9 electro-mechanical relay digital outputs, configurable
- 1 USB port on the user interface

Connectivity

- Built-in RS-485 with the MODBUS RTU protocol
- Wi-Fi with the MODBUS TCP protocol (optional with the EVlinking Wi-Fi module)
- Ethernet with the MODBUS TCP protocol (optional with EV3 200 Web or EVD Web)



Refrigerated storage at temperatures as low as -99°C



For available codes, technical features and the wiring diagram, please visit the product section @ www.evco.it



EVBOX1 Datalogging

Controllers for cold rooms

The frontal electrical panels in the EVBOX1 Datalogging series have up to 6 relay outputs and have the flexibility to manage the different types of configurations used in single-phase cold rooms, including those used to preserved sensitive products, such as laboratory products, at very low temperatures.

High performance and precision regulation

The controller has two 30 A res. @250 VAC relays, allowing direct control of compressors up to 2 HP and the evaporator fan. For greater precision regulation, it is possible to opt for a model with a built-in driver to manage electronic expansion unipolar stepper valves.

Safety

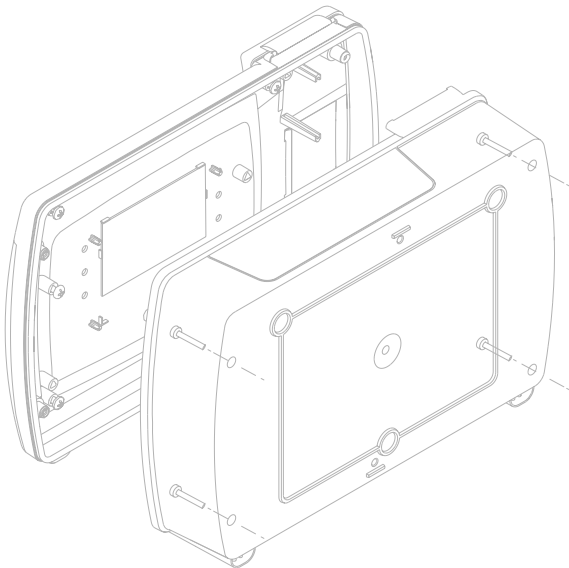
Some models have a magnetothermal switch to ensure protection against current overload.

Compliant with EN 12380

The control panel has a clock and a data logging extension on an SD card, as well as a built-in battery to record data in a power failure.

Monitoring options

Data can be downloaded onsite to a PC using an SD card. The devices can be integrated with third-party control and data acquisition systems using the MODBUS TCP protocol, by equipping the controllers with a module with a data acquisition function and Wi-Fi connectivity (EVlinking Wi-Fi) or by connecting them to an RS-485 network which is controlled by a data logger with built-in Ethernet connectivity: the EVD Web gateway or the EV3 200 Web controller.



Features

- Controller with built-in user interface and a single-line LED display and 6 keys housed in an IP65 electrical panel with a slot for an SD card, frontal installation

Technical data

- Power supply 115... 230 Vac
- 5 or 6 analogue inputs for PTC/NTC/Pt 1000
- 1 analogue input for 4... 20 mA
- 3 digital inputs
- 4 to 6 electro-mechanical relay digital outputs, 1 or 2 of which can be configured
- Built-in driver for unipolar EEV
- Unipolar magnetothermal switch

Connectivity

- Built-in RS-485 with the MODBUS RTU protocol
- Wi-Fi with the MODBUS TCP protocol (optional with the EVlinking Wi-Fi module)
- Ethernet with the MODBUS TCP protocol (optional with EV3 200 Web or EVD Web)



Refrigerated storage in cold rooms
at temperatures as low as -99°C



For available codes, technical features and the wiring diagram, please visit the product section @ www.evco.it

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