

# What's new

Future-proof solutions for a smarter world



**DIXELL™**



**EMERSON™**

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# WELCOME TO

## One Emerson

integrity

safety & quality

support our people

customer focus

continuous improvement

collaboration

innovation





A completely new structure connected to the main Dixell building with new offices, an innovative new application laboratory and testing area and several technologic conference and training rooms that will support growth and increase interactions with customers and distributors.

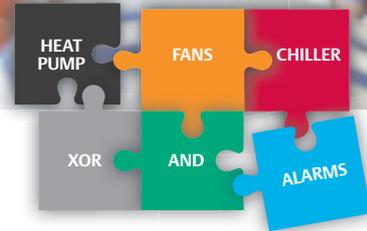
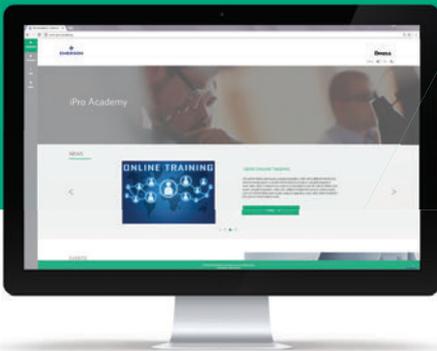


The production department is now even more competitive and flexible, thanks to new SMD pick & place assembly machines, Kardex units, and more, which means they can respond quickly to any specific customer requirement.

Highly sophisticated equipment is employed in the development and control of manufacturing, such as new AOI inspection machines and in-line testing. At Dixell delicate and repetitive tasks are carried out by “state of the art” automatic systems.



# iProAcademy WORLD



## Smart approach to develop applications

- Worldwide developer network and new and advanced training customized to reduce application development time
- New development suite and new function block structure designed to create fast and easy final applications
- Multiple templates available to develop applications with preset configurations and fast time-to-market
- [ipro.academy](http://ipro.academy) web site with: FAQ, Forum, Newsletter, Calendar, Documentation download, Function block libraries, Templates

## Function blocks

NEW FUNCTION  
BLOCK STRUCTURE



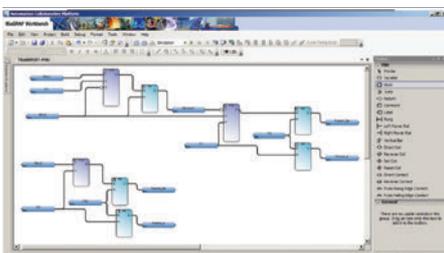
### ➤➤➤➤ EASIER WAY TO MODIFY OR ADAPT AN APPLICATION

All applications can be developed starting from the same template, then we can use different libraries depending on the kind of application.

### ➤➤➤➤ FASTER AND EASIER DEVELOPMENT

For example, the HVAC application already developed can be used for simple chiller units, or it can be modified to create a more complex application.

## New development tool



The ISaGRAF 6 tool contains a modern philosophy of an open-environment, based on the concept that each element is a plug-in.

- Modular architecture that allows the highest level of customization
- Possibility to work on different projects at the same time
- Reduced writing-time of the code thanks to:
  - automatic creation of the block instance
  - auto-completion of the code in ST editor
  - block coloration, regions creation, manually setting of execution order, and document overview

## Interactive on-line training

To guarantee a continuous growth and efficiency of the iPro Platform, the iProAcademy Team has developed a new concept of training. Now all iPro users can attend specific online trainings directly from their desk, reducing significantly the related costs of time and travel.

- 2 hours session time
- Advanced method to check the progress using interactive software
- Tailored efficiency trainings



# iPro v. 2.0



## Enhanced programmable controllers with more connectivity options

The new iProGENIUS programmable controller family has been extended with new, high-level hardware that increases the performance and connectivity capabilities in order to allow users to create even larger applications for both HVAC/R and general purpose markets. The new controller, one of the most current and innovative on the market, allows you to develop your own applications for any type of system thanks to the new ISaGRAF® development environment.



### Powerful CPU

- New CPU to increase the application size and performances
- RAM memory increased 64MB
- Flash memory increased 512MB (10DIN and iProLINK) and 32MB (4DIN)



### Up to 4 RS485 ports

The 10DIN controllers allow the OEMs to enlarge this application through the flexibility of the 2 additional RS485 communication ports. They can be used to connect additional ModBUS actuators (probes, fans, transducers and more) in order to extend the application I/O capability for larger solutions.

### Increased connectivity

The 10DIN controllers have 2 USB (host) ports for managing upgrades, external converters, or nano devices. 1 USB (device) port is available for PC connection.



### HMI range extension

Now the 4DIN controllers can also support the new IPCH keyboard.

This new interface is completely programmable via iPro and is designed for small units for the HVAC/R world.

# XWEB EVO v. 5.0



## New web interface for supervisor and monitoring systems

The well-known XWEB EVO family for the optimum management of Retail field and HVAC/R applications, is even more enhanced today thanks to the new web user interface developed to allow easier and faster access to information.

The new look displays immediate and clear information; the unique interface allows the user to have the same, rich user experience even for local (XWEB3000/5000), remote (via PC) or mobile (via tablet and smartphone) access.

Furthermore, systems are provided with a customizable web user interface for navigation without any additional software. XWEB EVO is designed to obtain energy savings, thereby reducing running costs and helping preserve the environment. Our solutions are synonymous with quality, user-friendliness, and efficiency because they are focused to meet end user needs.

### Unique interface

The new XWEB EVO web interface automatically adapts to each kind of device. The same look is available for PC, tablet, smartphone and XWEB3000/5000 local interface, ensuring the same completeness of information for mobile devices.

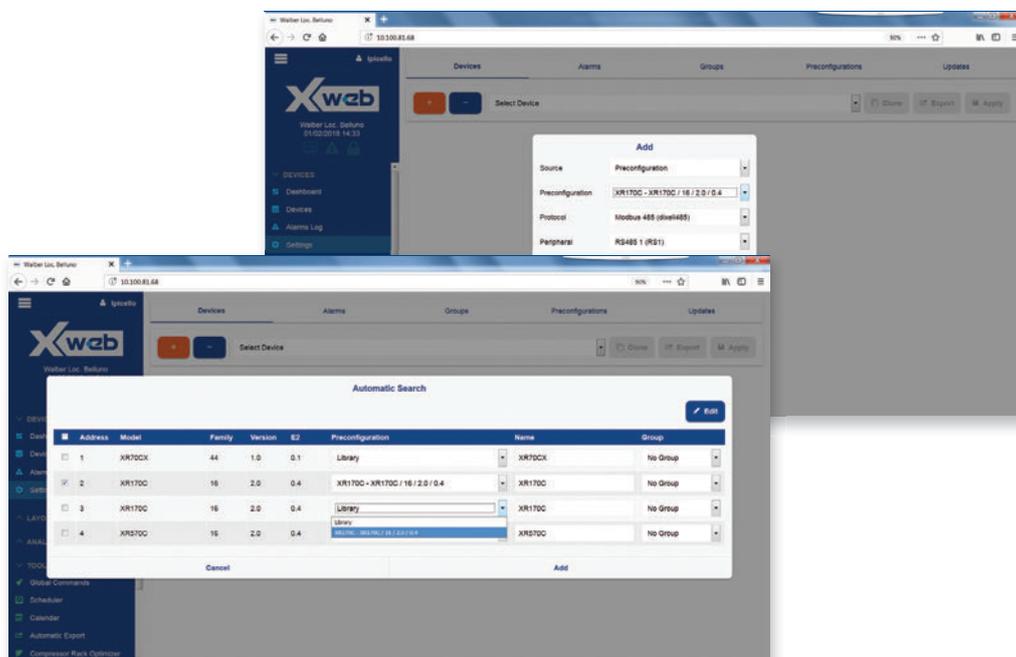




## The main screens

### EASIER INSTRUMENT INSTALLATION

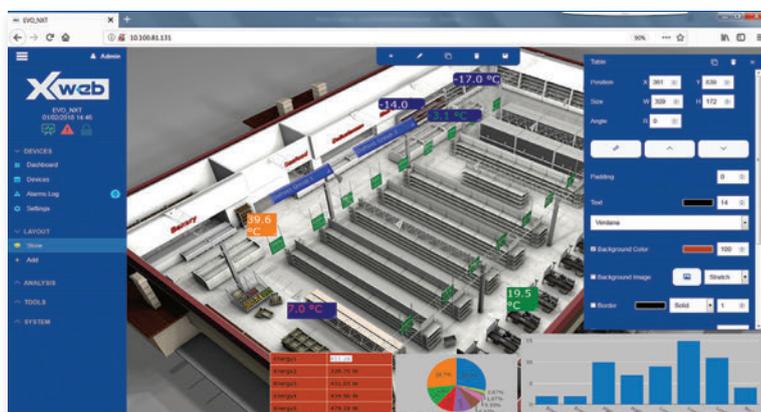
This new function is sought after and appreciated by OEMs because it allows quick access of instrument preconfigurations during the installation time.



### LAYOUT

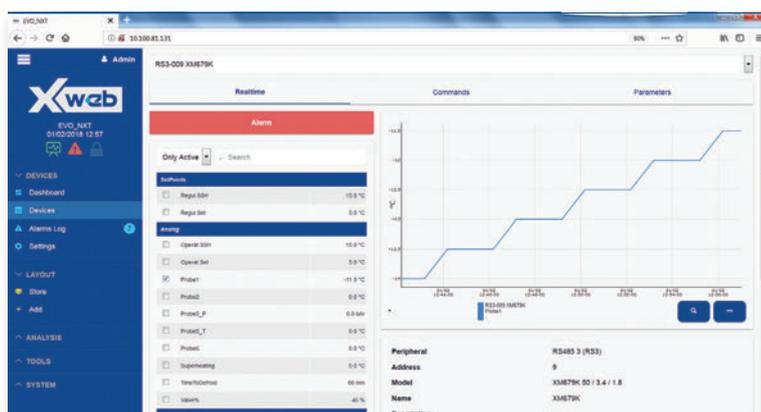
A new powerful graphic editor makes XWEB layout the ideal solution to create tailored floorplans according to customer needs.

Using this function, the user can quickly access controller data and even send a command to a controller.



### DEVICE VIEW

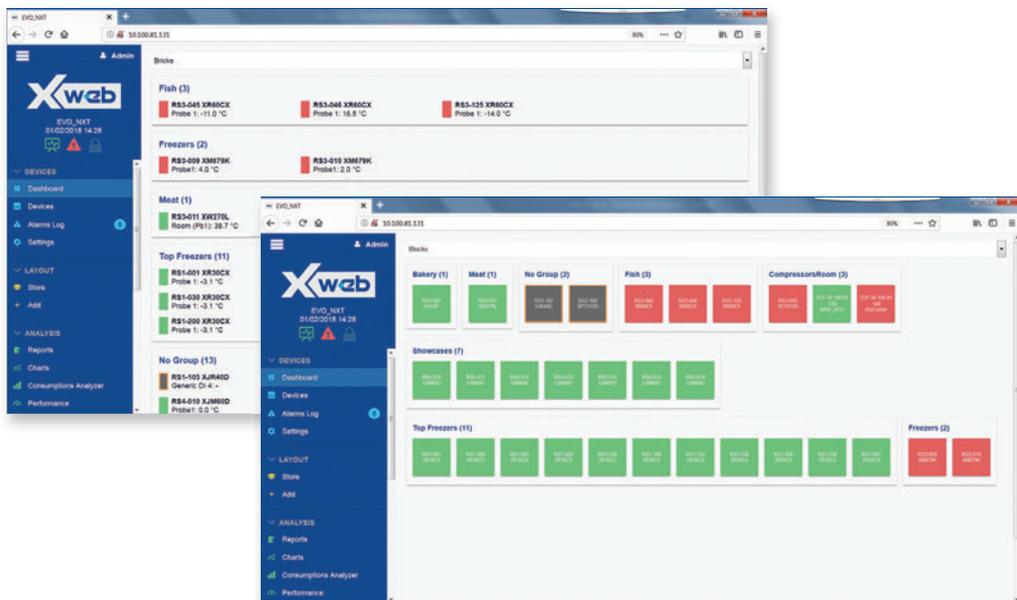
This powerful tool allows the user to have access to the recent status of the single controller updated in real time, send commands to the controller (for example, force a defrost), adjust the set point, or modify its parameters. The parameter map can be exported into various formats: CVS/XLS/WIZMATE and can be reused with other controllers within the same system or a different system.





## DASHBOARD

The new Dashboard allows the user to choose among different layout options that are available on XWEB for an easier and even more responsive navigation.

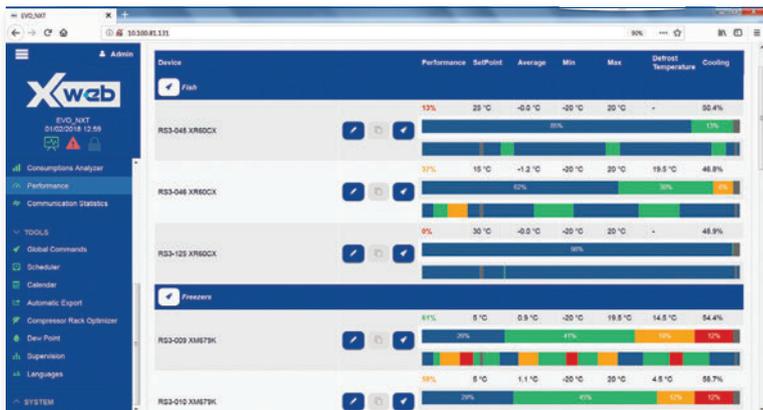


## PERFORMANCE METER

This highly appreciated function allows users to verify the right temperature for single devices (wall cabinets, rooms, and more).

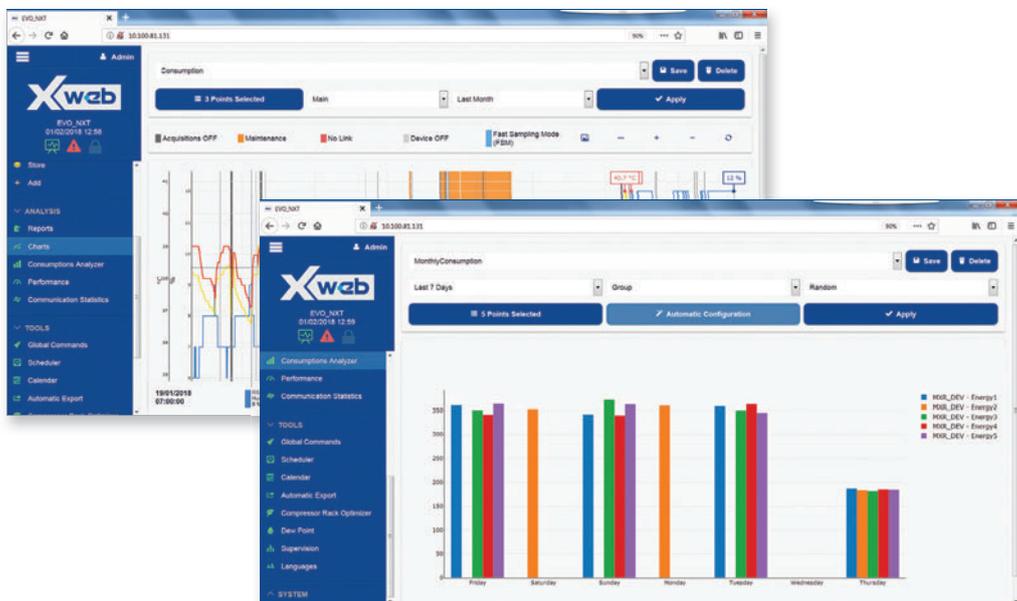
The graphical layout offers a complete view of the plant operating mode.

The new automatic configuration makes the use of this function faster and easier.



## ENERGY CONSUMPTION

The user can easily retrieve the consumption data thanks to the bar charts and quickly analyze the plant energy efficiency.



# iPro APPLICATION for HVAC



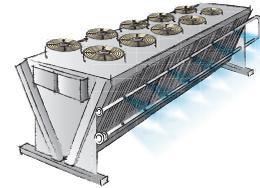
## Advanced applications for air handling units & dry coolers

Thanks to our extensive experience gained by developing the Chiller and Heat Pump applications, Dixell has developed new applications based on iPro platform for the HVAC field. The new AHU & DRY COOLER applications, with their high configurability, made easy by the new user interface and the integrated web server, makes it usable both by machine builders and installers. The new applications with the Dixell controller can be easily integrated into a system network thanks to native connectivity to the proposed hardware.



### AHU APP

The application for AHU ensures optimal control of the temperature, humidity, pressure, air quality and flow, for accurate regulation both in conditioning and in process. The complete management of the most advanced construction technologies (heat exchanger, variable flow rate, and more...) ensures high energy efficiency performance.



### DRY COOLER APP

The new application for the control of DRY COOLER units add to the regulation of ventilation a high-performing management of pump stations, adiabatic cooler, and heat exchanger. The flexibility of the application allows to use it in several application combinations.

## Optimized management of the unit

The high connectivity and simplified configurability allow an efficient, quick and intuitive management of the unit even by remote. The application is based on function blocks and is customizable in an easy and fast way.



USB to download data and update the application



It is possible, for more advanced users, to customize the product by adding special features, changing logics, or simply adapting it to family business feeling



Remote accessibility for:

- Configuration
- Supervision
- Control
- Maintenance



The control application has all the main functions grouped into intelligent function blocks placed in an editable library available to the programmer

# IC100 EVO

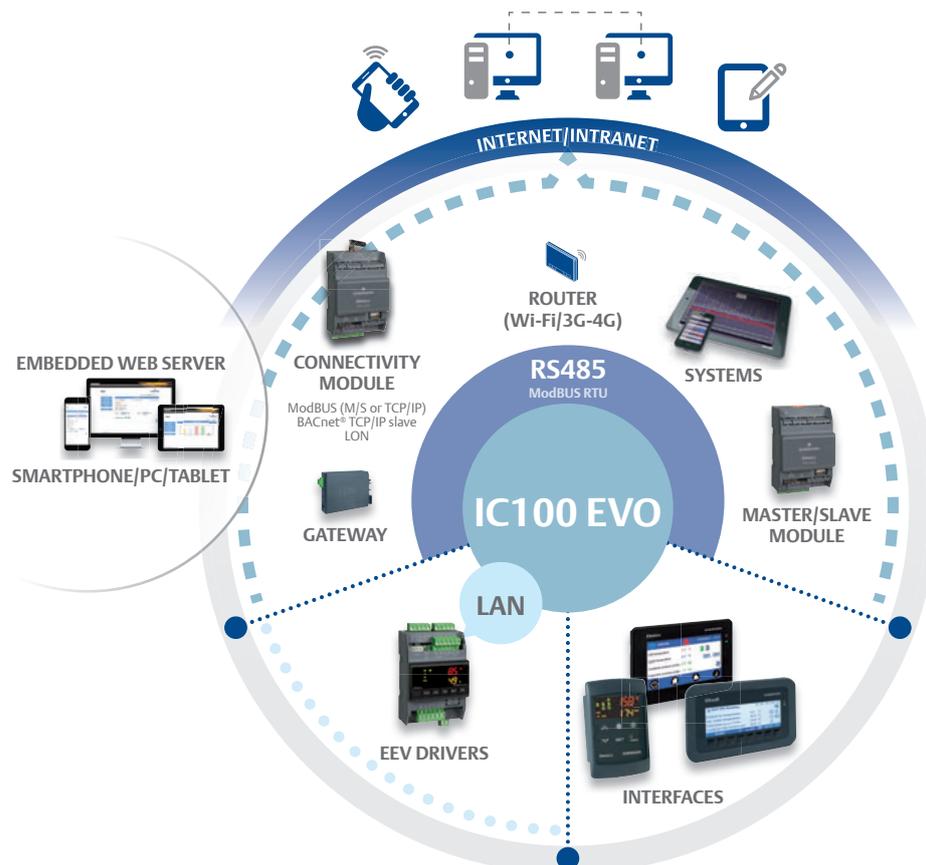


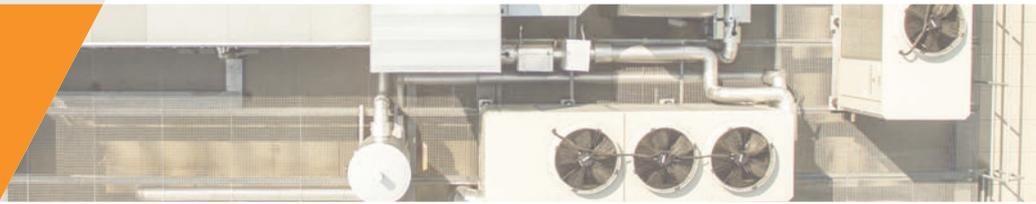
## Solutions for chillers and heat pumps with domestic hot water management

IC100 EVO is the new series of controllers dedicated to chiller and heat pump with one gas circuit. Compactness, extreme flexibility, the possibility to control electronic expansion valves (connection to an IEV driver is required) and advanced features such as free cooling and domestic hot water, are the main characteristics of this new series. Air/air, air/water, water/water, motor-condensing, geothermal heat pump, and dryer units with a maximum of three compressors can be controlled by the new IC100 EVO.

### High connectivity

The new series ensures a high level of connectivity: to expand the system, it is possible to connect it to an IEV electronic expansion valve driver, or a several kinds of external keyboards, or an IPM500D for a Master-Slave solution; in addition, the serial output allows the connection to an XWEB for the remote control and monitoring or an IPL500D (programmable connectivity module).





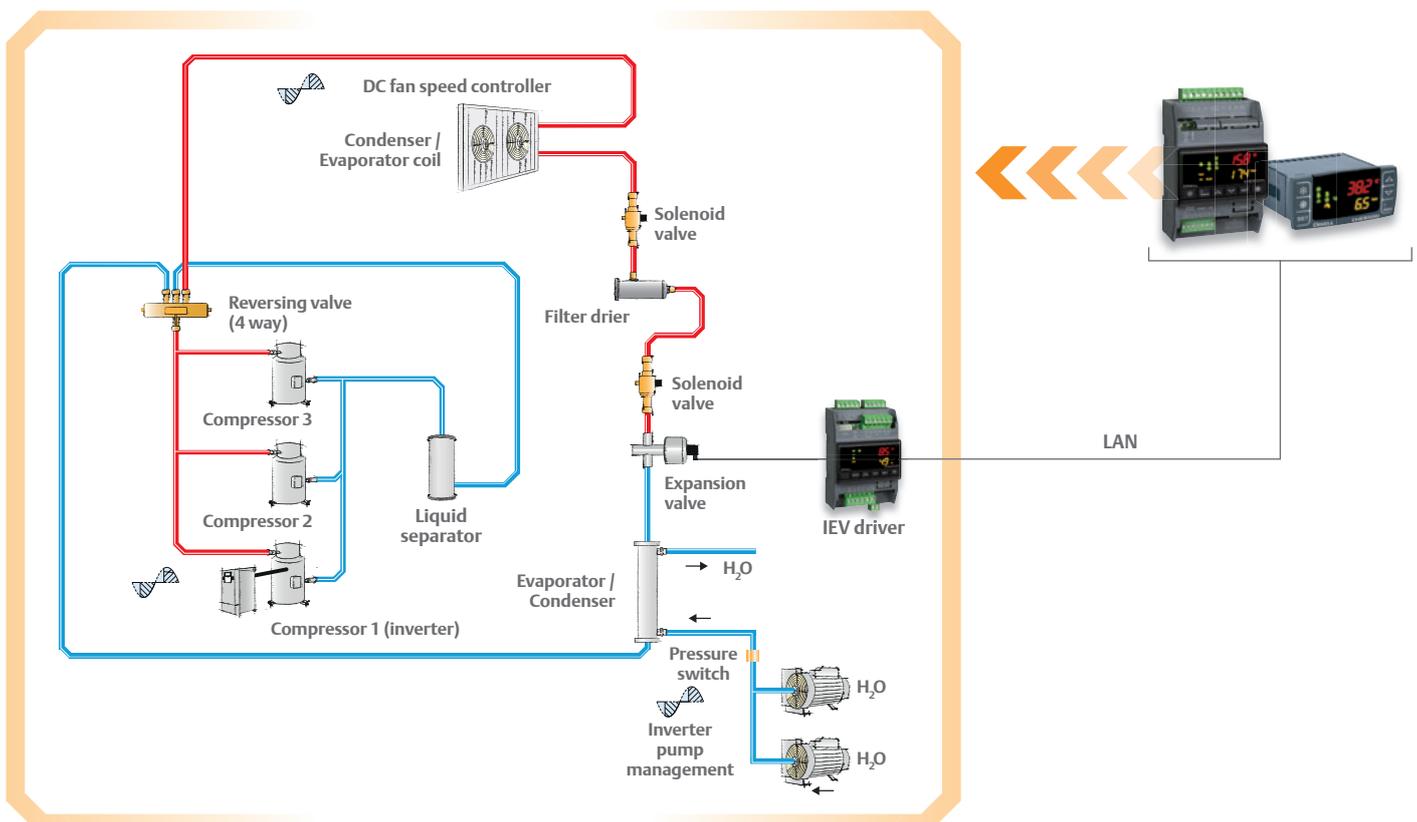
## Main features

- The new IC100 EVO series greatly improves the already remarkable performance of the current IC100 series.
- Main type of compressors (scroll, screw, and inverter) can be managed, fan and water pump can be controlled in ON/OFF or modulation mode, and several new functions have been added to optimize the regulation and the management of the heat pump.
- With the large number of input and outputs and the possibility to connect the electronic expansion driver IEV, it is possible to manage optimally one circuit chiller and heat pumps.

## Special functions

- Power reduction on critical working conditions (detected by temperature or pressure sensors)
- Power reduction via digital input (to reduce consumption during high cost time band)
- Compressor management to equalize working hours or starts-up
- Humidity control
- Pump down
- Heat recovery
- Geothermal free cooling
- Second set point (by scheduled time band or digital input)
- Dynamic set point
- Data logger up to 100 alarms (alarm code, date, hour/min, machine status)
- Easy parameters programming via Wizmate software

## 1-circuit up to 3-compressors



# IPM500D



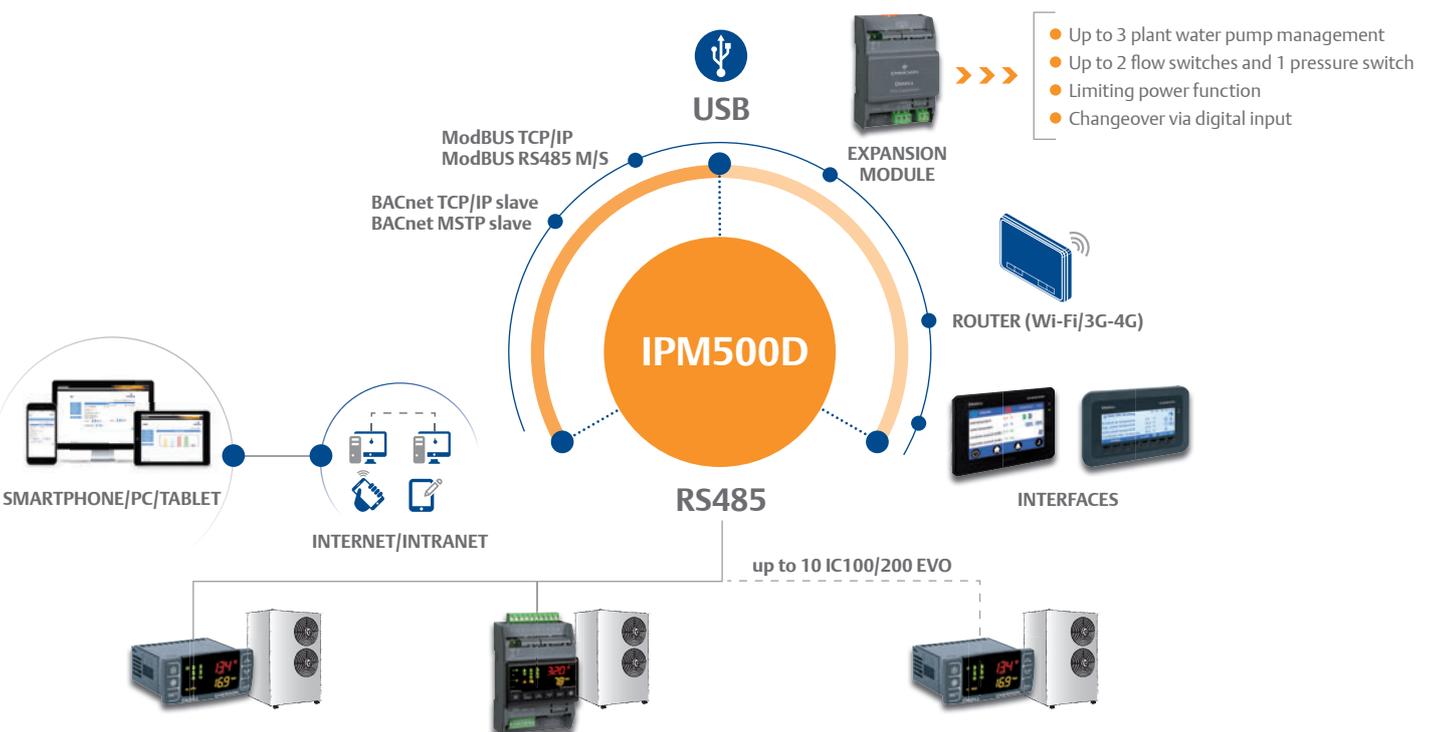
## Master/slave solution

Nowadays a part of HVAC world is moving from big units to small/medium modular multi-compressor units. The new IPM500D master/slave module, combined with IC100 EVO or IC200 EVO, represents the solution for integrated systems when the communication between the units and the optimization of the resources are fundamental requirements. Master controller analyzes the needs of the plant and sends the power-on request to the slaves; each slave manages the local resources and, in case of lack of communication with the master, can work in stand-alone mode. IPM500D can be connected to graphic keyboard and touch display, ensuring an immediate and comprehensive overview of the status of the system.

- Up to 10 slave units (max. 40 steps) management
- Back-up unit management
- Power request re-distribution in case of unit local alarm
- Slave unit defrost synchronization
- Over-boost
- Energy saving by scheduler
- Proportional or neutral zone regulation
- Adjustment made by plant temperature or by the average of the local unit temperature

## Connectivity

Thanks to IPM500D all the benefits of the iPro connectivity are available to the plant.



# XR-LE



## Wireless communication solution for bottle coolers, horizontal/vertical cabinets and cold rooms

Dixell presents a useful connectivity solution with the introduction of the proximity wireless communication system. Through the new BLUECOOL App, available both for iOS and Android, you can control bottle coolers, refrigerated cabinets, cold rooms, and more in real time. All common control tasks of the instrument are now replicated on your smartphone with all the usability of this technology. Last but not least, the BLUECOOL App features a complete report by graphs and statistics: a very useful diagnostic tool for all “service operations”. The App also gives the possibility to see functional status messages (presence of alarm conditions) related to the cabinets status.

- Automatic defrost management
- Pull down time
- Condenser monitor for maintenance management

- Service counters
- Firmware update
- Variable speed compressor management

- Proximity sensor for light control



- Advanced energy saving algorithms (Patented)
- Extra cooling for filling
- Anti-sweat heaters management
- Multi map
- Sales performance indication (with proximity sensor)



- Anti-sweat heaters management
- Multi map
- Data logger
- Dual compressor management
- Evaporator/condenser fan control
- Synchronized defrost

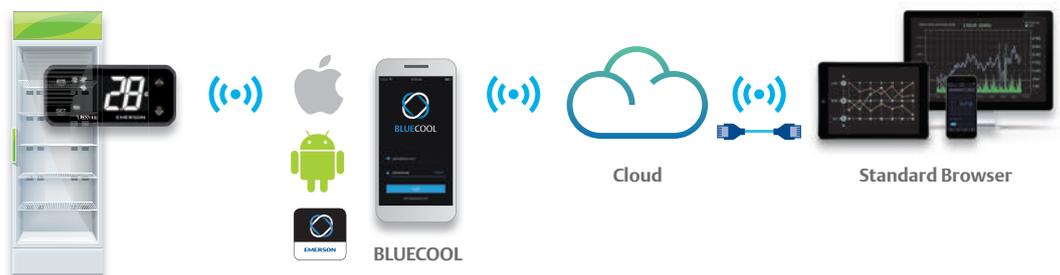


- Data logger
- Real time alarm signaling
- Dual compressor management
- Evaporator/condenser fan control

## Connectivity



Visit the new mobile app web site for more info (<http://dxapp.cloud/>)



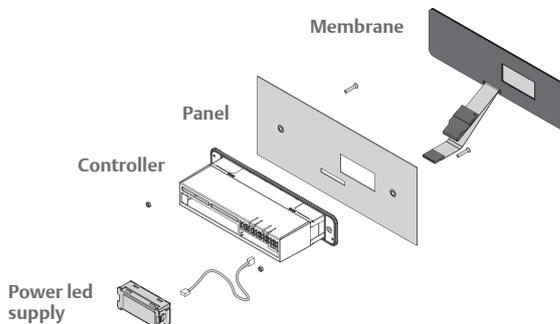
# INTERFACES for WING SERIES



## Visotouch, backlight membrane and V620H keyboard for refrigeration

Dixell completes the range of solutions for commercial refrigeration and food service with the introduction of three new interfaces that enhance the cabinet, expand the customization possibilities, and at the same time provide clearer and more complete information. Back panel mounting for HMI Visotouch and membrane make these solutions flexible and useful in every situation.

### Backlight membrane



- Brand visibility and high customization level
- IP65 protection
- Easy to clean



Dixell's new backlight membrane solution features a visually aesthetic design of lighted keys. The membrane solution is compatible with WING LH models (XW20LH, XW60LH, XW70LH and XW90LH) and it is designed for commercial refrigeration, food service, and catering applications. Thanks to its superior versatility, the membrane is available in different colors, shape and dimensions depending on the cabinet model; this allows the user to have an extensive level of customization ability.

### V620H



- Larger display
- Icon for energy saving status
- Display available in red, white, or blue color

V620H is the new keyboard designed for WING K controllers. A look that stands out for its elegance and sophisticated detail, a variety of color displays give the controllers an unmatched aesthetic appeal.

Keyboard has a wider display with integrated icons for the display of data in real time and provide measurement units for clear and continuous monitoring.



## Visotouch



- Horizontal and vertical versions
- Mounting: panel or wall, front or back panel
- Usable also with gloves
- Easy to clean
- IP65 protection
- Provides comprehensive information to the user
- High customization level
- High programmability thanks to VISOPROG 5 software

VISOTOUCH, the 4.3" programmable touch screen display is now available for refrigerated applications and in particular it is compatible with the WING K controllers with (RS485) ModBUS protocol. The VTIPF keyboard is designed to make Dixell controllers' user interface even easier, more complete, and intuitive. It is extremely versatile and perfect for any environment thanks to its elegant design and its compact and solid structure.

## HIGH CUSTOMIZATION POSSIBILITIES

The graphic TFT color display stands out thanks to its great brightness and provides real-time information in a clear and detailed way. Thanks to its many features available, you can quickly create user interfaces dedicated to specific customer's needs.



# XM600 v. 5.0



## Enhanced case controllers for multiplexed cabinets

The new version of the XM600 series for multiplexed cabinets is performance enhanced, efficient and flexible to satisfy the needs of the market. A strength of this new version is its easy installation thanks to pre-configured maps and backwards compatibility useful in existing installations. Now it's also possible to update the project directly from the field, by adding new refrigerants or updating the firmware with new functions.



### Ease & performances

All models have the same firmware platform to ensure the same robust performance whether using a stepper or a PWM valve. Ease of use and maintenance are guaranteed by common parameters and functions.



### Quick update

Today it's possible to easily reprogram all XM600 controllers directly in the field in order to be compliant with the market trend; new gas, advanced solutions, and more... they are always available for your controllers even if already installed.



### Clean mode function

This new function allows the cabinet to be washed safely without disconnecting it from the monitoring system.



### Fast communication

A faster communication between controllers and supervising systems allow the cabinet to be monitored in real time ensuring a prompt intervention of the service in case of alarms.



### Multi map

Controllers have different kinds of applications that have been optimized after several laboratory tests. The customer can choose the most suitable solution among: low temperature, normal temperature, plate heat exchanger, subcooler and more.



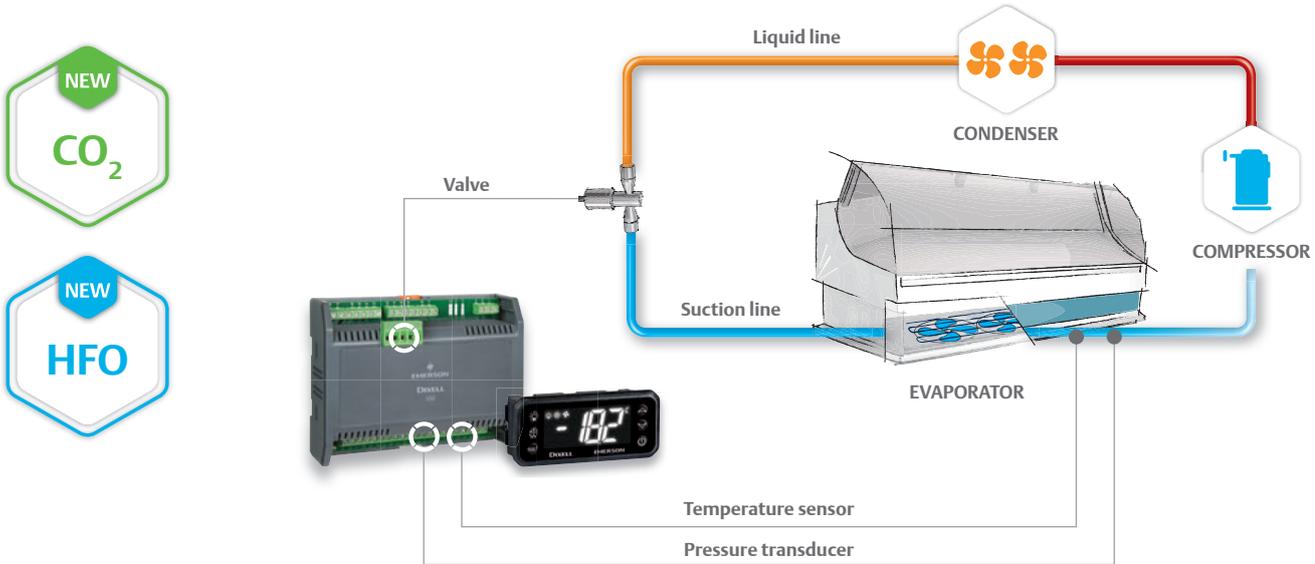
### High flexibility

The XM600 series is even more flexible to satisfy every need in the best possible way; the possibility to set 2 digital inputs as 2 probes allows the load safety monitoring of plug-in cabinets.



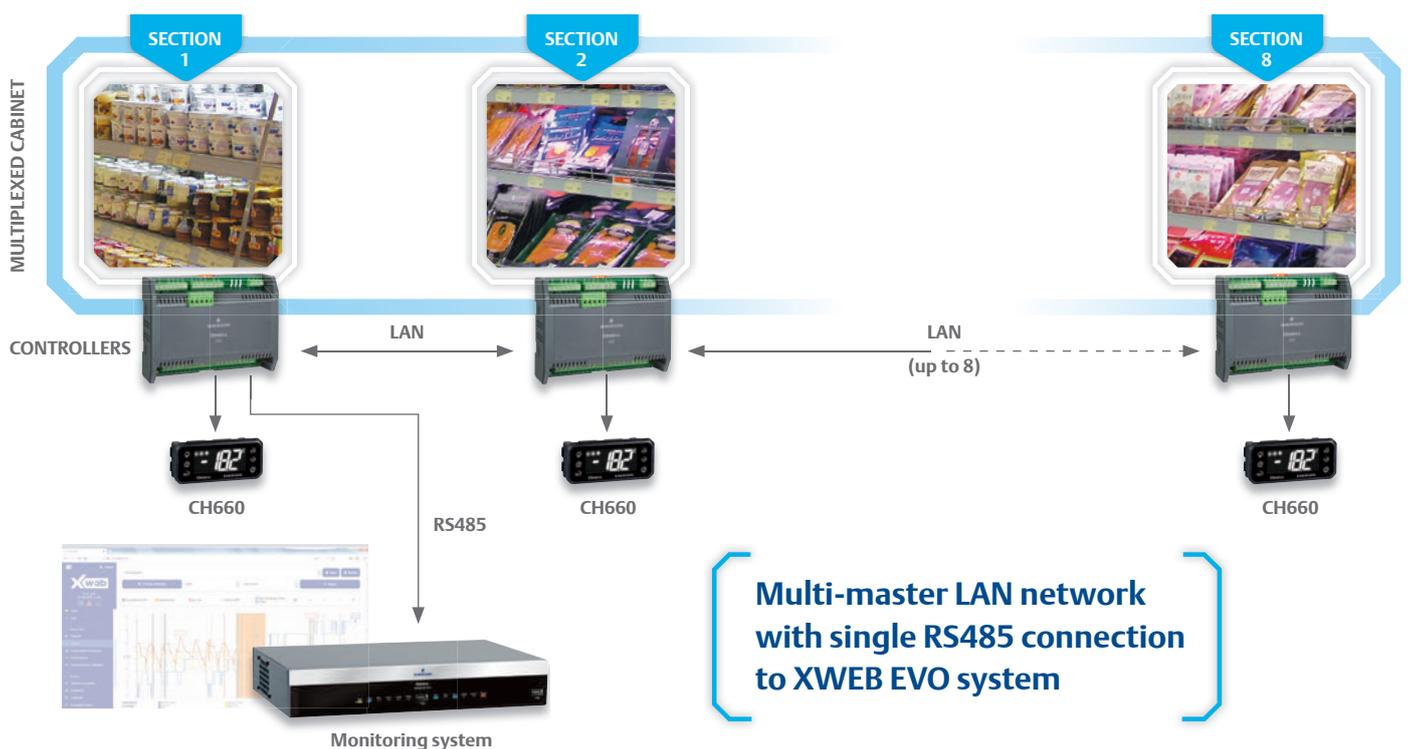
## Auto-adaptive superheat

The new auto-adaptive algorithm for the superheat management improves the cabinet performance in terms of ease of use and energy savings.



## High compatibility

The LAN, compatible with previous versions, allows new controllers to be installed in already existent networks receiving the same commands and sharing the same information.

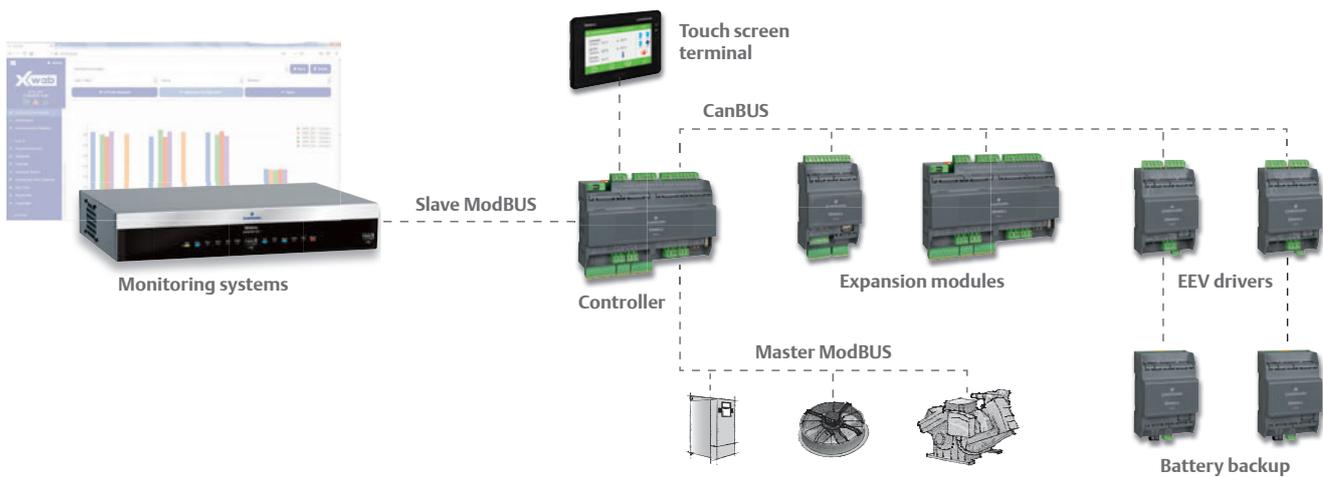


# iProRACK v. 2.5



## Solutions for advanced compressor racks

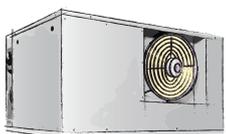
The iProRACK family is designed for the management of racks with standard refrigerants, CO<sub>2</sub> subcritical applications and transcritical CO<sub>2</sub> booster systems. It manages compressor racks with up to 2 circuits and 12 compressors per circuit. In transcritical applications it directly controls the high pressure valves, heat recovery systems, by-pass valve and parallel compression.



### New features

- Dual heat recovery for transcritical CO<sub>2</sub> rack with gas cooler by-pass and pump management
- Oil injection management
- Parallel compression for COP optimization
- Gas cooler optimization
- 3 de-superheater management
- Management of gas leak detectors
- Management of electronic fans or fans with inverter via ModBUS
- Coresense™ integration via ModBUS connection

### Available for



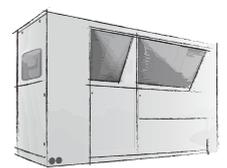
Condensing units



Compressor racks

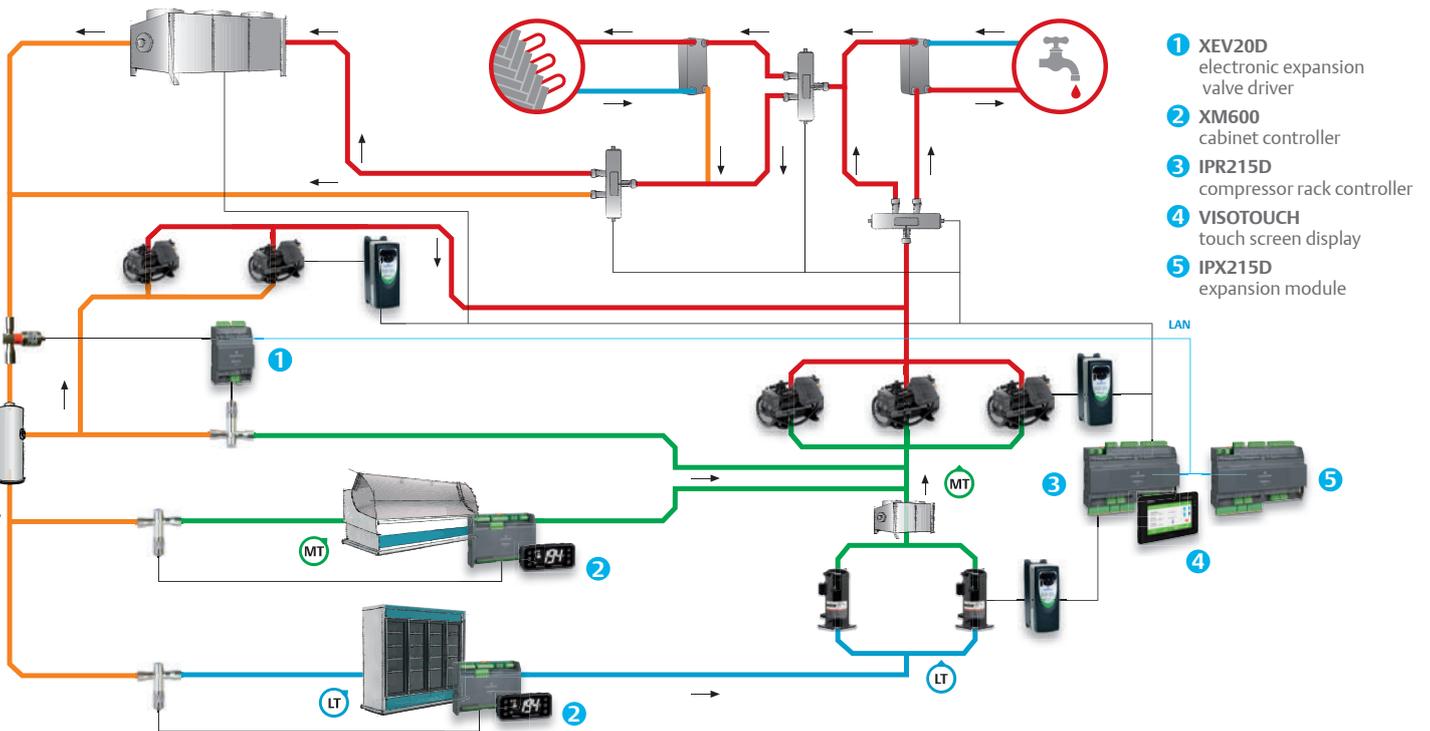


Advanced compressor racks



Compressor packs

## Transcritical solution-booster plant with dual heat recovery, gas cooler by-pass & parallel compression and de-superheater



## Worldwide presence

The complete Dixell solution for CO<sub>2</sub> transcritical installations today is present worldwide: Italy, Belgium, Germany, Finland, New Zeland, Australia, South Africa, Brazil and USA.

Installations with heat recovery and parallel compression guarantee the best performances.



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release 3.0 - 1582000400-GB

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