# XB500/800

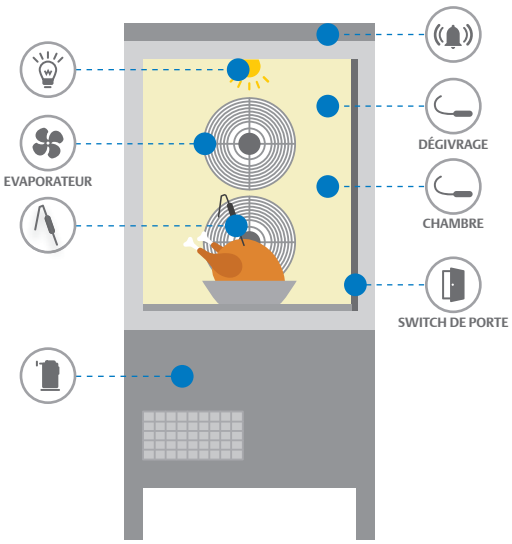
## SOLUTIONS pour CELLULES DE REFROIDISEMENT RAPIDE

La série XB est une gamme innovante de régulateurs digitaux et de terminaux utilisateurs avec afficheur graphique pour la gestion optimisée des cellules de refroidissement rapide. Ils sont conçus pour gèrer le refroidissement rapide, la congélation rapide et la conservation des aliments de la meilleure façon possible. Ils se distinguent par leur configurabilité et la facilité d'utilisation des cycles de refroidissement rapide. L'interface utilisateur, hautement personnalisable et les performances élevées, ne sont que quelques-unes des caractéristiques permettant à cette série XB d'être pleinement satisfaisante, même pour les utilisateurs les plus exigeants.

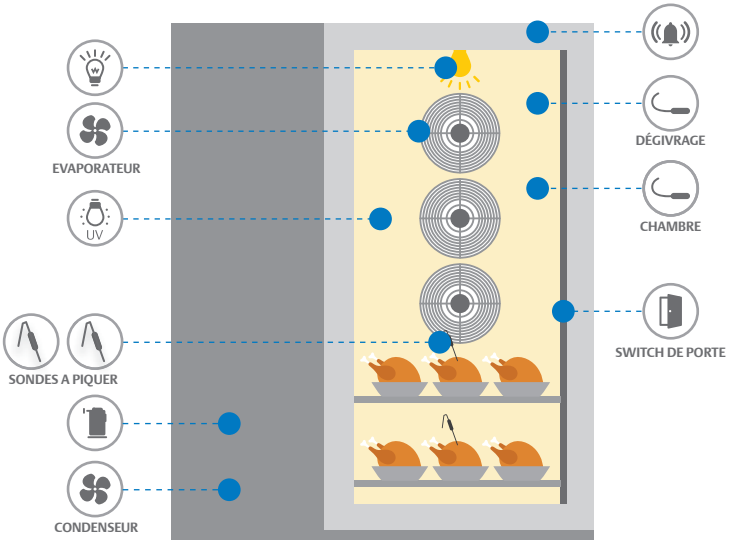
- Interface personnalisable
- 8 cycles standards prédéfinis et modifiables et possibilité d'en créer de nouveaux
- Niveau de protection IP65 pour une hygiène élevée
- Qualité alimentaire
- Des fonctions spéciales garantissent la sécurité maximale de l'unité dans toutes les situations.
- Menu détaillé et possibilité de gérer les paramètres depuis un PC
- Gestion optimisée des cycles pour une consommation d'énergie maîtrisée

## APPLICATIONS

### Petite/moyenne




### Moyenne/Grande



# XB

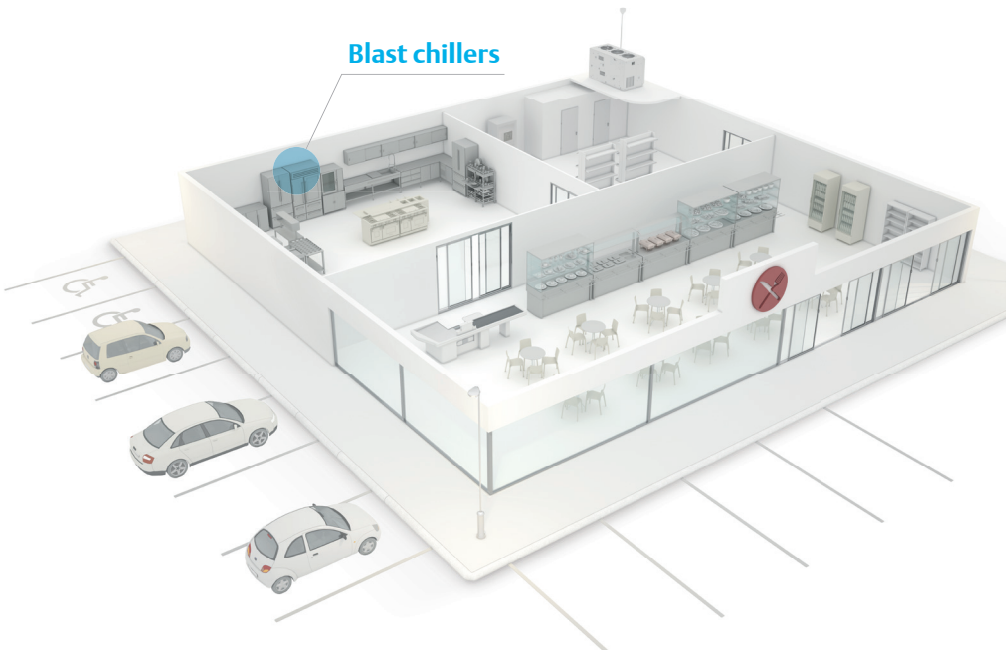
## Blast chiller & freezer controllers
## *Controllori per abbattitori di temperatura*

XB series is the innovative range of digital controllers and user terminals with graphic display for the optimized management of blast chillers. They are designed to manage blast chilling, quick freezing and preservation of food in the best possible way. They distinguish themselves by their configurability and the ease of use of blast chilling cycles. The highly customizable user interface and the elevated performances are only a couple of the features that allow the XB series to be fully satisfying even for the most demanding customers.

*XB è l'innovativa gamma di controllori digitali e terminali utente, con display grafico, per la gestione ottimizzata degli abbattitori di temperatura. Ideati per gestire al meglio l'abbattimento, il surgelamento e la conservazione dei cibi, si contraddistinguono per la configurabilità e la semplicità d'uso dei cicli di abbattimento. Interfaccia utente altamente personalizzabile ed elevate performances sono solo alcune delle caratteristiche che permettono alla famiglia XB di soddisfare appieno anche i clienti più esigenti.*

### A complete range of solutions for the kitchens of:
### *Un range completo di soluzioni per le cucine di:*

- RESTAURANTS - *RISTORANTI*
- HOTEL - *ALBERGHI*
- BAKERIES - *PASTICCERIE*
- PIZZERIAS - *PIZZERIE*
- SUPERMARKETS - *SUPERMERCATI*
- CANTEENS - *MENSE*



## Customizable interface - *Interfaccia personalizzabile*

The customer can choose among 3 highly customizable interfaces (Inox/Polycarbonate LED and Touch Screen Graphic Display). This guarantees the perfect integration between the device's aesthetic and the final design of the application.

*La possibilità di scegliere fra 3 interfacce altamente personalizzabili (Inox/Policarbonato a LED e display grafico TOUCH) garantisce la perfetta integrazione dell'estetica dello strumento con il design dell'applicazione finale.*

## Customizable blast chilling cycles - *Cicli di abbattimento personalizzabili*

8 preset and editable standard cycles and the possibility of creating new ones make the user able to optimize and reduce working time, guaranteeing the most appropriate processing technique for each product.

*8 cicli standard predefiniti e modificabili e la possibilità di crearne di nuovi permettono all'utente di ottimizzare e ridurre i tempi di lavoro garantendo il tipo di lavorazione più consona al prodotto.*

## Protection and hygiene - *Protezione e igiene*

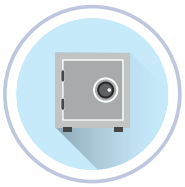
The flat surface is easy to clean and guarantees an IP65 front protection level for a high hygiene.

*La superficie piana è facile e veloce da pulire e garantisce un livello di protezione frontale IP65 per un'igiene assicurata.*

## HACCP conformity - *Conformità HACCP*

HACCP reports are easily accessible for a complete and immediate food control. Thanks to the internal database, all events such as high temperature alarms, power fail and maximum cycle time exceedance will be saved.

*I report HACCP sono facilmente consultabili per un controllo completo e immediato degli alimenti. Il database interno garantisce il salvataggio degli eventi come gli allarmi di alta temperatura, la mancanza di tensione e il superamento del tempo massimo del ciclo.*



## Safety - *Sicurezza*

Special functions, such as "compressor crankcase heating delay" or minimum/maximum condenser temperature management, guarantee the unit's maximum security in any situation.

*Speciali funzioni, come "il ritardo riscaldamento carter compressore" o la gestione della minima/massima temperatura del condensatore, garantiscono la massima sicurezza dell'unità in qualsiasi situazione.*

## User friendliness and simplicity - *Intuitività e semplicità*

The detailed menu and the possibility of managing parameters from PC assure a fast and safe use of the XB series.

*Un menù dettagliato e la gestione dei parametri anche da PC, assicurano velocità e sicurezza di utilizzo di tutta la famiglia XB.*

## Remote accessibility - *Accessibilità da remoto*

It is possible to connect controllers to XWEB systems and therefore to monitor and analyze the functioning of the blast chiller also from remote.

*La possibilità di connettere i controllori ai sistemi XWEB permette di monitorare ed analizzare in tempo reale il funzionamento dell'abbattitore anche da remoto.*

## Energy saving - *Risparmio energetico*

The optimized management of cycles with the possibility of personalization guarantees energy consumption containment, thus contributing to cost reduction and respecting the environment.

*La gestione ottimizzata dei cicli con possibilità di personalizzazione garantisce il contenimento dei consumi energetici contribuendo alla riduzione dei costi e al rispetto ambientale.*

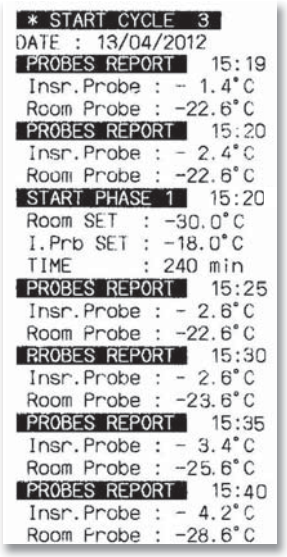
## XB CONTROLLER GUIDE - *GUIDA ALLA SCELTA DEI CONTROLLORI XB*

| | XB590L | XB887D - VTIPB |
|---|---|---|
| | | |
| Applications<br>*Applicazioni* | small and medium<br>*piccole e medie* | medium and big<br>*medie e grandi* |
| Interface<br>*Interfaccia* | LED-polycarbonate/inox<br>*LED-policarbonato/inox* | graphic LCD touch screen<br>*touch screen LCD grafico* |
| High interface customization<br>*Elevato grado di personalizzazione* | | ● |
| Remote monitoring<br>*Monitoraggio remoto* | ● | ● |
| Remote configuration, cycles and recipes update<br>*Configurazione remota, aggiornamento cicli e ricette* | | ● |
| Cycle by temperature and time<br>*Cicli in temperatura e temporizzati* | ● | ● |
| Multipoint needle probe<br>*Sonde a spillone multipoint* | ● | ● |
| Needle probe heating<br>*Sonde a spillone riscaldanti* | | ● |
| Compressor cranckcase heating<br>*Riscaldamento carter compressore* | ● | ● |
| Condenser high temperature alarm<br>*Allarme temperatura condensatore* | ● | ● |
| Compressor maintenance alarm<br>*Allarme manutenzione compressore* | | ● |
| Variable speed fans<br>*Ventole a velocità variabile* | | ● |
| UV lamp cycle<br>*Ciclo UV* | | ● |
| Continuos cycle<br>*Ciclo continuo* | | ● |
| Fish cycle<br>*Ciclo pesce* | | ● |
| Door frame heating<br>*Cornice porta riscaldata* | | ● |
| HACCP and alarm datalogger<br>*Storico cicli e allarmi* | ● | ● |
| HACCP and alarm reports export via USB port<br>*Report cicli e allarmi scaricabili su USB* | | ● |
| Customizable cycles<br>*Cicli personalizzabili* | ● | ● |
| Custom functions<br>*Funzioni personalizzate* | | ● |
| Web server<br>*Web server* | | ● |

L: 38x185mm

# XB500: BLAST CHILLER and TEMPERATURE MAINTENANCE APPLICATIONS

- Blast chiller controllers that comply with the rules concerning preparation and chilling of foodstuffs (HACCP)
- Four configurable cycles pre-set
- Output for remote display to monitor the core temperature of goods
- Printer output (XB07PR) for temperature and blast chiller cycles reports
- All different phases monitorated and shown on the display
- Real time clock
- Hot Key 128 or Prog Tool Kit connector for quick and easy programming
- Serial connection to monitoring systems
- 5VA max power absorption
- Dual display with red LED (8.0mm high) and yellow LED (5.6mm high) and 14 icons




## HOW to ORDER

**XB500** | X | B | 5 | 7 | 0 | L | - | A | B | C | D | E |

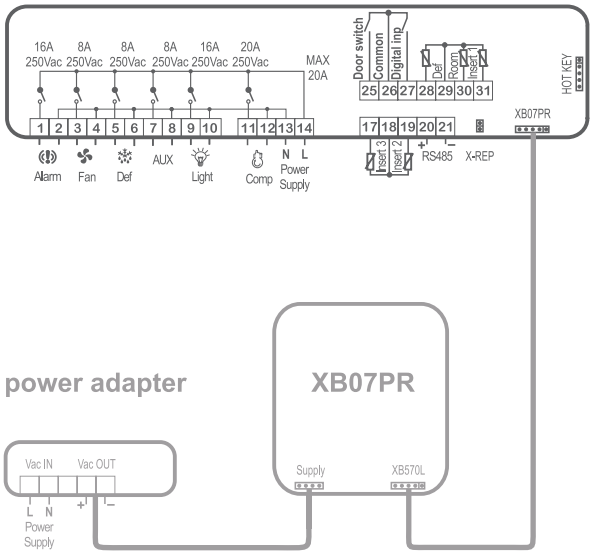
For blue display please contact Dixell

| A | B | C | D | E |
|---|---|---|---|---|
| **Power supply** | **Inputs** | **X-REP** | **Measurement unit** | **Printer output** |
| **2** = 24Vac | **N** = NTC | **0** = No | **C** = °C | **0** = No |
| **4** = 110Vac | **P** = PTC | **1** = Yes | **F** = °F | **1** = Yes |
| **5** = 230Vac | | | | |

**XB570L** | Blast chiller controller with four configurable cycles, RTC, printer output and serial output

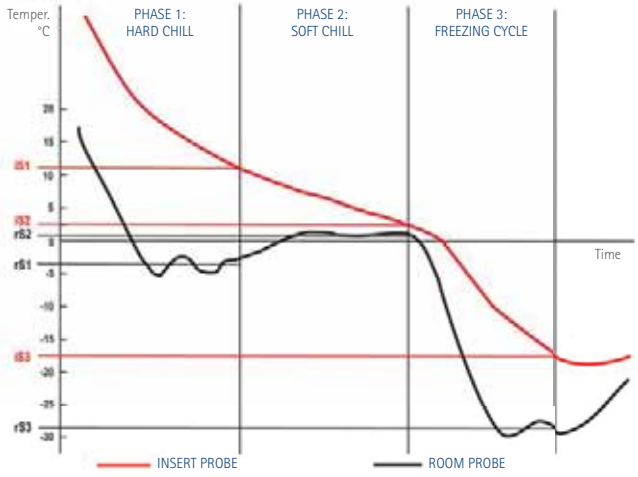
L: 38x185mm

| FEATURES | XB570L |
|---|---|
| **First display: n° digits** | ± 3 d.p. |
| **Second display: n° digits** | ± 4 d.p. |
| **Power supply** | 24, 110, 230Vac |
| **Probe inputs** | |
| Thermostat | NTC, PTC |
| Defrost | NTC, PTC |
| Insert 1 | NTC, PTC |
| Insert 2 | NTC, PTC |
| Insert 3 | NTC, PTC |
| **Digital inputs** | |
| Alarm | config |
| Door switch | pres |
| **Relay outputs** | |
| Compressor | 20A |
| Defrost | 8A |
| Fans | 8A |
| Light | 16A |
| AUX | 8A |
| Alarm | 16A |
| **Other** | |
| Hot Key 128/Prog Tool Kit output | pres |
| Remote display output | X-REP opt |
| Printer output | XB07PR opt |
| Serial output | RS485 |
| Buzzer | pres |
| Real time clock | pres |



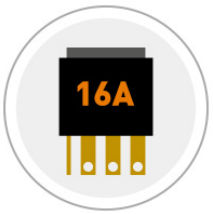

## HARD CHILL, SOFT CHILL, FREEZING, HOLDING

The XB570L has 4 different soft and hard chill cycles in it's memory. These can also be modified by the User.
Each cycle is defined with independent time and temperature parameters to set each control phase and can be combined even with the hold phase. The four cycles are directly selectable from the keyboard. The control of each cycle is carried out using the insert probe or by time duration.



# XB887D - CONTROLLER FOR BLAST CHILLERS

## Dixell introduces the new controller for Blast Chiller and Freezer with power relay and graphic Touch interface.



**XB8870D** is the innovative controller for the optimized management of **blast chillers**. Designed to better manage blast chilling, freezing and food storing, it is characterized by its configurability and easiness of use of the chilling cycles. The **highly customizable user interface** and the high performances are just some of the features that allow the controller to fully satisfy even the most demanding customers.
The strong points of this device are the **relays with higher capacity suited to directly drive the loads and the connections with screw disconnectable connectors**.
The controller is available in **10 DIN Rail** size, and, thanks to **Visotouch graphic display**, it allows the user to instantly obtain complete information on the status of the machine (room temperature, product temperature, remaining cycle time, etc...).

Dixell™ FRANCE

# 1 MAIN APPLICATIONS

Thanks to the hardware completeness and the optimization of its many functions, the new XB887D is the ideal solution for all types of blast chillers used in restaurants, hotels, bakeries, pizzerias, supermarkets and canteens.

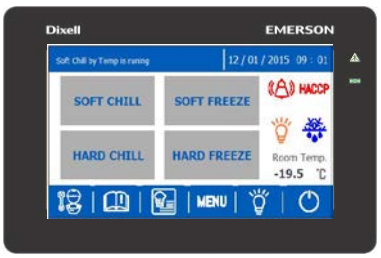
# 2 MAIN FEATURES

## 2.1 CHILL AND FREEZE CYCLES

Cycles can be split into two categories:

**CHILL:** when it is necessary to reduce the temperature with immediate impact, below 10°C (from 35°C to 65°C is the critical temperature zone for the higher bacterial proliferation).

**FREEZE:** normally preceded by a CHILL cycle, it is used to freeze food in a faster way in order to preserve its organoleptic properties and to avoid icing inside of it.

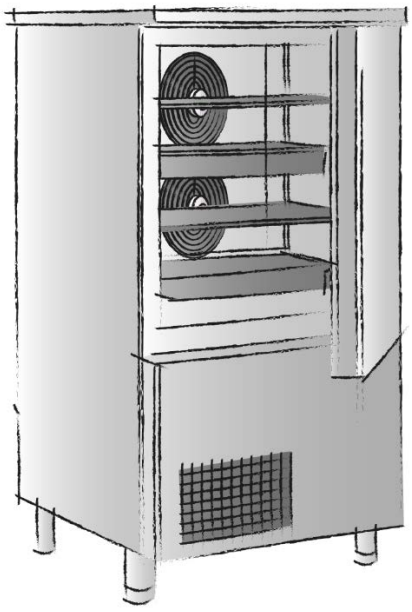


## 2.2 FUNCTIONING

The cycles can be set according to **TIME** or **TEMPERATURE**. If the cycle is set by **time**, its duration will be the selected time (the food temperature is not considered); if the cycle is set by **temperature**, it will finish once the product (through the needle probe) will reach the selected temperature. In both cases the temperature of the room is controlled by the room probe, which is also used for the compressor control. Cycles can be **SOFT** or **HARD.**

**SOFT CHILL cycles:** the blast chiller works with a room temperature that usually is positive.
**HARD CHILL cycles:** the blast chiller works with different room temperatures; usually the first one is negative while the second one is positive.
**SOFT FREEZE cycle**: the blast chiller works at different room temperatures. Usually the first is positive (around 0° C), while the second is negative (usually around -35°C)
**HARD FREEZE cycle:** the chiller works at a room temperature that is usually around -35 °C.

## 2.3 COMPLETE CONTROL OF THE BLAST CHILLER



| | |
|---|---|
| **Probes** | **Pb1**= Needle, **Pb2**= Room, **Pb3**= Evaporator, **Pb4**= Condenser<br><br>**Other available configurations:** Room2, Room3, Needle2, Needle3, Multipoint Needle 1÷3 |
| **Digital Inputs** | **DI1**= Door Switch<br><br>**Other available configurations:** Low Pressure, High Pressure, Defrost Enablement, Defrost Cycle, External alarm |
| **Relais** | **LD1(16A)**= Alarm, **LD2(8A)**= Condenser Fan, **LD3(8A)**= Door Frames Resistances, **LD4 (8A)**= Evaporator Fan, **LD5(16A)**=Cell light, **LD6(16A)**= Defrosting Resistance, **LD7(16A)**=Compressor, **LD8(16A)**= Heated Probe Resistance<br><br>**Other available configurations:** Compressor 2, UV Lamp, Auxiliary Output, 2° Evaporator Fan Speed, 2° Condenser Fan Speed |

# 3 BENEFITS

## 3.1 LANGUAGES

There are 7 standard languages available, but additional ones can be implemented according to customer needs.

## 3.2 DEFAULT BLAST CHILLING CYCLE AND FREEZING PROCESS

The blast chilling (+3°C) and quick-freezing (-18°C) phases can be Soft or Hard. At the end of the cycle, the controller automatically switches to the preservation mode (+2°C for blast chilling, -20°C for quick-freezing).

## 3.3 CYCLES CUSTOMIZATION

Every cycle can be customized depending on the user needs; product or room temperature can be modified before and during the cycle execution in order to optimize and reduce working times. Each cycle can be split into 3 different phases in order to ensure the best results.

## 3.4 SPECIAL CYCLES

In addition to the standard cycles there are 3 special cycles for particular conditions:

- **CONTINUOUS CYCLE:** for the cooling of the room before inserting the food;
- **FISH CYCLE:** to kill the bacteria present in raw fish;
- **UV CYCLE:** designed for sanitizing the cell before inserting the food.

## 3.5 MULTIPOINT INSERT PROBE

The application was designed to work with standard needle probes, but it can also work with multipoint probes (3 points) for a more accurate product temperature measurement.

## 3.6 HEATED PROBE

The application allows the management of a heated probe. The heating can be activated through a dedicated key, according to a preset temperature or to timeout; the deactivation is automatic or manual.

## 3.7 HIGH FOOD QUALITY (HACCP)

The HACCP reports can be easily consulted for a complete and immediate control on the food status. The internal database ensures the storage of the events data such as the high temperature alarms, the lack of tension and the exceeding of the maximum cycle time. The alarms can be viewed directly on VISOTOUCH or downloaded in .txt format on a USB pen.

```
HACCP LOG FILE
START Chill +3 C by temperature Soft
       Date:16/05/2016
       Time:16:57
Start Phase 1, 16:57
         Needle Probe:19.5C
         Room Probe:44.4C
Probes report, 16:57
         Needle Probe:19.5C
         Room Probe:44.4C
End  Phase 1, 16:58
         Needle Probe:9.5C
         Room Probe:20.6C
         Duration:0mins
END Chill +3 C by temperature Soft
       Duration:1mins
       by temperature
```

USB

## 3.8 CONDENSER TEMPERATURE ALARM

It is possible to manage the high-temperature and low-temperature alarm of the condenser through the signal on the display or, for a higher safety, by enabling the blocking function of the compressor.

## 3.9 SIMPLIFIED PARAMETER MANAGEMENT

Thanks to the **WIZMATE** software it is now possible to manage the parameters map from PC. In addition, all parameters, protected by password, can be changed directly on VISOTOUCH.

## 3.10 REMOTE ACCESSIBILITY

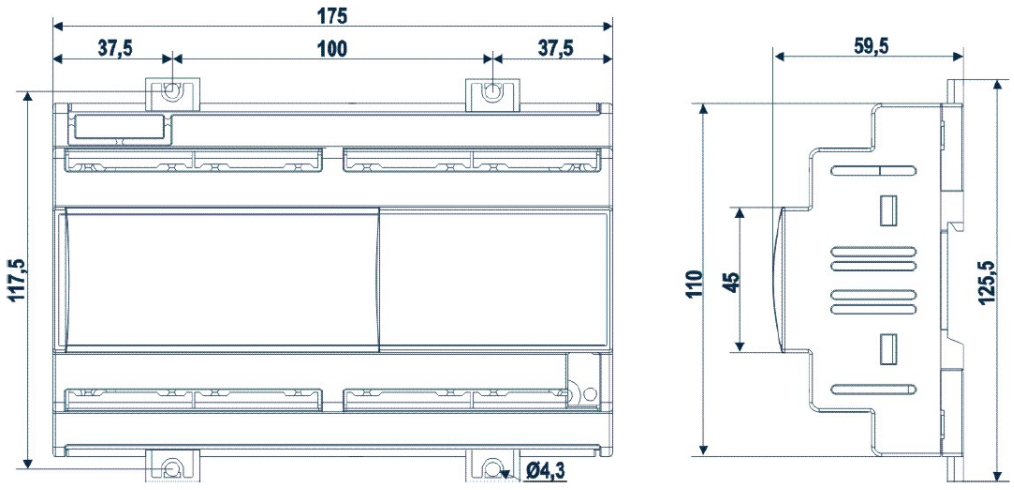
It is possible to connect the controllers to the XWEB monitoring systems. In this way all functioning data of the blast chiller will be accessible from remote.

# 4 TECHNICAL DATA

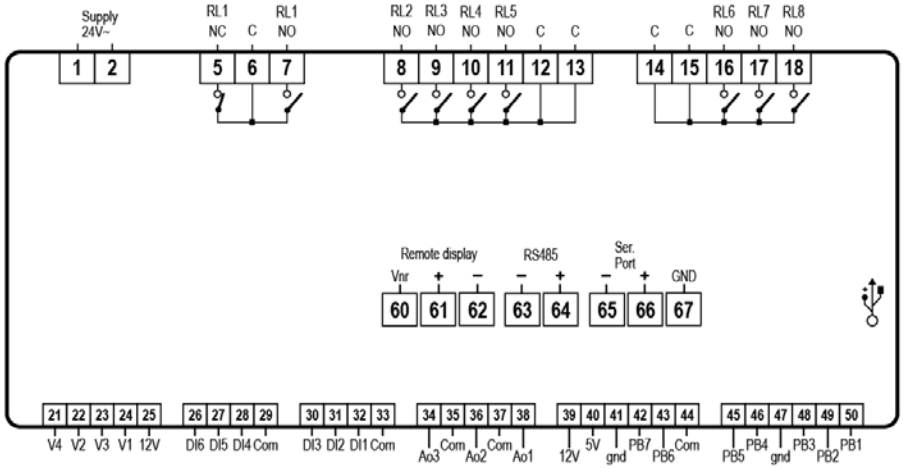
| | |
|---|---|
| **Housing:** | Self extinguishing ABS, white, 10DIN, 175x110x59.5mm (WxHxD) |
| **Mounting:** | DIN rail |
| **Connections:** | Screw disconnectable connectors |
| **Power supply:** | 24 Vac |
| **Power absorption:** | 20VA (for applications with unipolar electronic valve: 40VA) |
| **Analog Inputs:** | 5 x NTC, PTC, PT1000<br>2 x NTC, PTC, PT1000, 4÷20mA, 0÷10V |
| **Digital Input:** | 6 x free contact |
| **Digital Output:** | 4x 16(8)A, 1x 16A In-Rush (for led lights), 3x 8(5)A |
| **Analog Output:** | 1x 0÷10V, 4÷20mA o PWM<br>2x 0÷10V o 4÷20mA |
| **Other:** | RS485 Slave<br>USB<br>ETHERNET (by converter USB-ETH-CONV)<br>Connection for remote Touch keyboard<br>Internal Clock |

## 4.1 DIMENSIONS

10 DIN module



## 4.2 CONNECTIONS

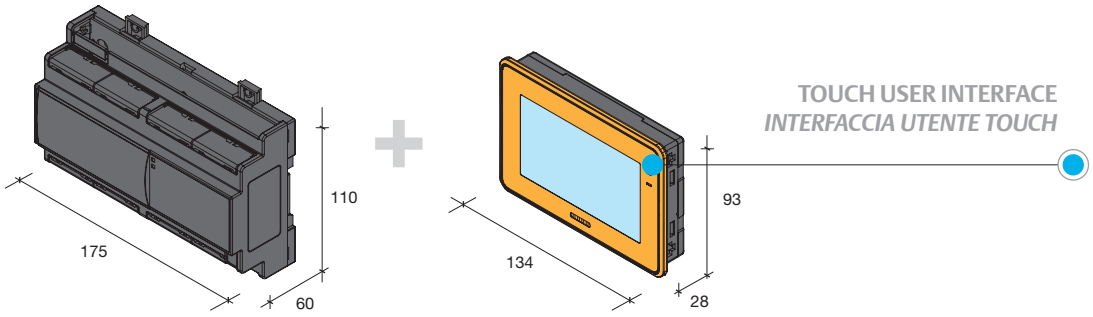



# 5 MAIN ACCESSORIES

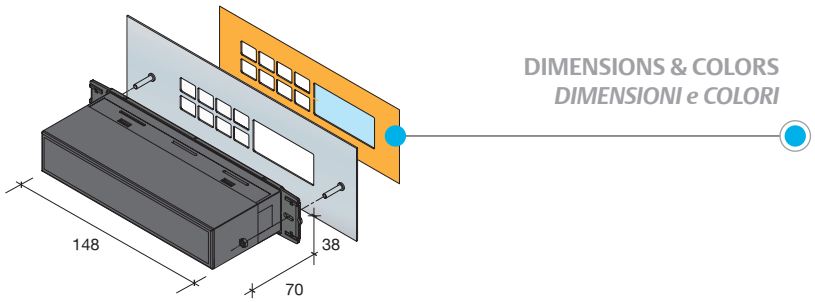
| | |
|---|---|
| | **XJ485USB-KIT**<br>USB to RS485 serial converter (2-wires) that allows to monitor one or more controllers networked to a computer equipped with an USB port and with WIZMATE software |
| | **USB-ETH-CONV**<br>USB-ETHERNET adapter |
| | **TF20D**<br>Transformer with of 20VA power and it is available in 230/24Vac and 110/24Vac versions |
| | **VTIPB - 00000B TOUCH V4.3" P.O.**<br>Touch screen graphic interface |
| | **IP-FCXB800**<br>Connector kit |

## DIMENSIONS - *DIMENSIONI*

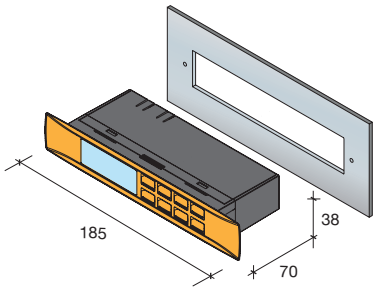
### XB887D




### XB590L - Polycarbonate




### XB590L - Inox




CUSTOMIZATION LEVEL

## PROBES - *SONDE*

A complete series of insert probes for the measurement of the inner temperature of the product guarantees to the final user, for every single application, the right level of precision.

*Una serie completa di sonde a infilzaggio per rilevare la temperatura al cuore del prodotto garantisce all'utilizzatore finale, per ogni singola applicazione, il giusto grado di precisione.*

PTC/NTC insert probe (also heated), 1 point with plastic/inox steel handle, steel cap and silicone cable (also alimentary).

*Sonde spillone dritte, PTC/NTC (anche riscaldate) a 1 punto con impugnatura in plastica/acciaio, puntale in acciaio e cavo in silicone (anche alimentare).*

PTC/NTC 90° insert probe (also heated), 1 or 3 points with plastic/inox steel handle, steel cap and silicone cable for a more accurate measurement of the product's temperature.

*Sonde spillone a 90°, PTC/NTC (anche riscaldate) a 1 o 3 punti con impugnatura in plastica, puntale in acciaio e cavo in silicone per una misura ancora più accurata della temperatura del prodotto.*