

## **CRISTAL TOWER**







**725** 

925

925 LH

MODELS				
725	925	925 LH		
RV TN	RV TN	RV TN		
RV TN RG	-	-		
RV CH	RV CH	RV CH		
RS TB	RS TB	RS TB		
RV TB/TN	RV TB/TN	RV TB/TN		

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CRISTAL TOWER
USE AND MAINTENANCE MANUAL

428000402037





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The manual contains symbols to attract the reader's attention and highlight particularly important aspects. The table below illustrates the meaning of the various symbols used.



Read the instructions manual



Use of protective clothing



Danger: Live electrical parts



Requests for maintenance or operations must be carried out by qualified staff or technical after-sales centres



Attention/Danger



Important information



Information



Operations that must be performed by two persons



Visual check



Notes/Important Notes





### 1. NOTES / IMPORTANT NOTES



The content of this manual is of technical nature and is owned by **ISA S.r.I.** It is forbidden to reproduce, circulate or modify all or part of its content without written consent. Any infringement will be legally pursued.

The manual and the conformity certificate are an integral part of the appliance and should always accompany the product in the event of a transfer to a new location or to a new owner. The user is responsible for the integrity of these documents, for their consultation and during the whole life cycle of the appliance itself. Keep this manual in a safe place. It should be made available near the appliance for consultation at any time. If lost or destroyed, you can request a copy of the manual from **ISA S.r.I.** by specifying the exact model, serial number and year of manufacture. The manual reflects the manufacturing technology at the time of supply. The manufacturer reserves the right to modify its products in any way it deems necessary, with no obligation to update manuals and machines relating to previous manufacturing batches.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or by persons lacking the necessary experience and knowledge, unless they are supervised by a person responsible for their safety who has instructed them on how to use the cabinet. Children should be supervised to ensure that they do not play with the appliance. Always refer to this manual before going ahead with any operation. Before doing any type of work, disconnect the appliance from the power supply. Any work on electric, electronic parts or components of the cooling system should only be carried out by trained personnel in compliance with current laws.

The Manufacturer cannot be held liable for any injury to persons or animals, or damage to the product itself in the event of:

- improper use of the appliance or use of the appliance by unqualified or unauthorised personnel;
- failure to comply with current legislation;
- incorrect installation and/or power supply faults;
- failure to observe the instructions contained in this Manual;
- failure to follow the maintenance programme;
- · unauthorised modifications;
- installation of non-original spare parts in the appliance;
- installation and use of the appliance for purposes other than those for which the appliance was designed and sold;
- tampering with or damage to the power supply cable.

Liability for applying the safety instructions contained in this manual is held by the technical personnel responsible for the intended use of the appliance, who should ensure that authorised personnel:

- is qualified to carry out the requested activity
- are aware of, and carefully comply with, the instructions contained in this document;
- are aware of, and apply, the general safety standards applicable to the appliance.

Failure to comply with safety standards may result in injury to personnel and damage to the appliance components and control unit. The user can, at any time, contact the dealer to request additional information not contained in this document, as well as propose any improvements.



Before the product is delivered to the customer, it is essential that a trained technical member of staff checks that the appliance is operating correctly in order to achieve maximum performance.







### 1.1 Introduction

**ISA S.r.I.** employs materials of the best quality and as they enter the company, we constantly monitor their storage and the use as part of the manufacturing process to prevent damage, deterioration and failure. All manufacturing elements are designed and manufactured in order to guarantee reliability and high safety standards. All appliances are subjected to a strict testing procedure before delivery. However, please bear in mind that product performance over time depends on correct use and adequate maintenance. This manual contains the necessary instructions to maintain the appliance's initial appearance and functions over time.

#### Note

In order not to compromise functionality and safety of the appliance, the particularly complex installation and maintenance activities are not documented in this manual and are performed by specialised ISA s.r.l. technicians.

The Use and Maintenance manual contains the necessary information for understanding how the appliance works and how to use it properly, namely: the technical description of the various operational units, equipment and security systems, operations, how to use of the instruments and the interpretation of any diagnostics reports, main procedures and information related to routine maintenance. For correct use of the appliance, the working environment should comply with current health and safety standards.

The safety requirements, indications, standards and notes illustrated in the various chapters of the manual are aimed at establishing a code of conduct and a series of obligations to be observed when performing the various activities, in order to create safe conditions for personnel, the equipment and the surrounding environment. The safety standards reported in this document are intended for trained, authorised personnel responsible for:

- transport
- installation
- operations
- management
- maintenance
- cleaning, putting out of service and disposal that constitute the only methods of use envisioned for the appliance in question



#### **Attention**

Reading this manual, albeit in full, is no substitute for adequate user experience. therefore it should only be considered a useful reminder of the technical features and the main operations to perform.



### Warning

The installers and users MUST read and understand the instructions contained herein before any operation on the appliance.

### 1.2 Manufacturer's contact details

### ISA S.r.I.

Via del Lavoro, 5 06083 - Bastia Umbra - Perugia - Italy Tel. +39 075 80171 Fax +39 075 8000900

www.isaitaly.com







#### 2. SAFETY

The buyer is responsible for training personnel using the appliance on the risks, safety devices and general health and safety rules required by the laws of the country where the appliance is installed.

Users/operators should be aware of the position of all the controls and how they work, as well as of the features of the appliance.

They should also read this manual in its entirely.

Maintenance work should be conducted by qualified personnel after the appliance has been prepared adequately.



#### Danger

Unauthorised tampering or replacement of one or more parts of the appliance, use of accessories that modify the use of the same and use of spare parts different to those recommended, can become the cause of injury.



#### Danger

Before doing any type of work, disconnect the appliance from the power supply.

Any work on electric parts or components of the cooling system should only be carried out by trained personnel in compliance with current laws.

### 2.1 Staff training

The buyer is responsible for ensuring personnel who will use the appliance and maintenance technical staff are instructed and trained adequately.

The manufacturer is available for advice, clarifications, etc. so that the operator and technical staff can use the appliance correctly.



#### **Attention**

The appliance is intended for professional use.

### 2.2 Safety devices applied

The appliance is equipped with the following safety devices:

#### 2.2.1 SAFETY DEVICES PRESENT

### 2.2.2 FIXED GUARDS

#### 2.2.3 ISOLATING THE ELECTRICITY SUPPLY

### 2.2.1 Safety devices present

Devices whose operation prevents the occurrence of risk situations in operating conditions (e.g. fuses, pressure switches, protections, magnet circuit breakers, etc.).

### 2.2.2 Fixed protections

Fixed protective devices consist of fixed perimeter shields, which are used to prevent external parts from entering the appliance.



#### Danger

It is prohibited to re-start the appliance following maintenance without having correctly restores the panels.



#### **Attention**

You should check the integrity of fixed panels and corresponding fixings to the frame, focussing in particular on the protective panels.









### 2.2.3 Isolating the electricity supply

Before conducting any maintenance works on the appliance or part of it, it is necessary to section the power supply that powers it.



#### **Danger**

Therefore remember, in the event of maintenance operations in which the operator cannot prevent accidental closure of the circuit by others, to totally disconnect the appliance from the mains electricity.

### 2.3 Residual risks

During design the manufacturer examined all the areas or parts at risk. Therefore, all necessary precautions have been taken to prevent risks to persons and damage to the appliance as mentioned earlier.



#### **Attention**

Periodically check that all safety devices are operating correctly.

Do not remove the fixed guards.

Do not introduce objects or tools into the work area.

Although the appliance is fitted with the aforementioned safety devices, there are still some risks that cannot be eliminated, but reduced via corrective actions by the final integrator and correct operational procedures.

Below is a summary of the remaining risks associated with the appliance during:

- Normal operation
- Adjustments and tweaking
- Maintenance
- Cleaning

### 2.3.1 Risk of contact with live parts

Risk of breaking or damaging the electrical components of the appliance, with a possible reduction in safety levels, following a short circuit.

Before connecting the electrical power supply, ensure there are no ongoing maintenance works.



### **Attention**

Before making the connection, check that the d.c. current in the installation point does not exceed that indicated on the protections switches present in the electric control board. If this is not the case, the user must envision the relevant limiting devices.

It is strictly forbidden to conduct any electrical modification, in order to prevent additional unforeseen hazards and risks.

### 2.3.2 Fire



### Danger

In the event of a fire, immediately disconnect the master switch from the main power supply line.







### 2.3.3 Explosive atmosphere

The equipment must not be located in an area classified as an explosion risk according to 1999/92/EC such as:

#### Zone 0

An area in which there is a permanent, long-lasting or frequently explosive atmosphere made up of a mixture of air and flammable substances in the form of gases, fumes or steam.

#### Zone 1

An area in which the formation of an explosive atmosphere, made up of a mixture of air and flammable substances in the form of gases, fumes or steam is occasionally probable during normal activities.

#### Zone 20

An area in which there is a permanent, long-lasting or frequently explosive atmosphere in the form of clouds of combustible dust in the air.

#### Zone 21

An area in which the formation of an explosive atmosphere in the form of clouds of combustible dust is occasionally probable during normal activities.

### 2.3.4 Slipping



Any leaks in the areas surrounding the appliance may cause personnel to slip. Check that there are no leaks and keep these areas clean at all times.

### 2.3.5 Tripping

In general untidy deposit of material may represent a tripping hazard and a total or partial limit of escape routes.



You should ensure that operating and transit areas and emergency exit routes are free from obstacles in compliance with current legislation.

### 2.3.6 Circuit faults

Owing to potential faults, safety circuits may become less effective, which results in lower safety levels.

You should check the operational condition of the appliance devices regularly.

### **2.4 Warning signs** (if any)

Depending on the residual risks of various nature, identify the equipment with warning danger, warning and obligation signs defined in agreement with the Standard relative to the graphical signs to be used on plants.

The signs are located in clearly visible positions.



#### **Attention**

The warning plates present on the appliance must not be removed.

The user is responsible for replacing warning signs that, owing to wear, become unreadable.







### 3. DISPOSAL OF WASTE MATERIAL

During normal operation, the appliance does not generate any environmental contamination. At the end of its life cycle, or if it is necessary to proceed to permanent decommissioning, we recommend following the procedures below:

#### **DISPOSAL** (User)



The symbol, applied to either the product or its packaging, indicates that the product should not be considered as normal domestic waste, but should be taken to a waste collection point for the recycling of electrical and electronic appliances. The correct disposal of this product helps to prevent potential negative consequences that might derive from inadequate product disposal. For detailed information about recycling this product, contact your council, your local waste collection service or the store where you purchased the product.

### PROCEDURE FOR DISPOSAL and RECYCLING AT THE END OF APPLIANCE LIFE SPAN

(Authorised Bodies)

- 1. Turn the appliance off and disconnect the power supply plug.
- 2. Remove the lamps (if installed). These should be disposed of separately.
- **3**. Remove the power units and the electronic cards. These should be disposed of separately.
- **4**. Remove all the independent parts (grids, casings, profiles, etc.) and group them according to shared features in order to access the heat exchangers, pipes, cables, etc. and be careful not to damage the cooling circuit.
- **5**. Remove all mobile parts (doors, sliding doors, glass parts, etc.) and group the various materials according to their features.
- **6**. Check the type of coolant on the label located inside the counter. Remove the refrigerant and dispose of it via authorised services.
- **7**. Disconnect the evaporator, condenser, compressor, pipes and fans. These are made of copper, aluminum, steel and plastic and should therefore disposed of separately.
- **8**. On removal of all guards and the various components from the frame, separate the different types of material making up the appliance (plastic, sheet steel, polyurethane, copper, etc) and collect them separately.



All recyclable materials and waste should be processed and recycled by professionals, in compliance with the laws in the country in question.

The company responsible for recycling the materials should be registered and certified as a waste disposal service in accordance with the country in question



#### Attention

Illegal disposal of the product by the owner will result in administrative sanctions as required by current laws

Disposal of the product should comply with current laws on the disposal of coolant liquids and mineral oils.



#### **Important**

If the crossed wheelie bin sign is not present on the appliance, it means that the disposal of the product is not the manufacturer's responsibility. In this case, the Regulations regarding the disposal of waste in force are valid.



#### **Additional information**

Further information on the disposal of liquid coolant, oils and other substances is available on the safety data sheet corresponding to the substance itself.







### 4. INSTALLATION

This manual supplies the information necessary for correct unpacking, procedures for positioning and connection to mains electricity.

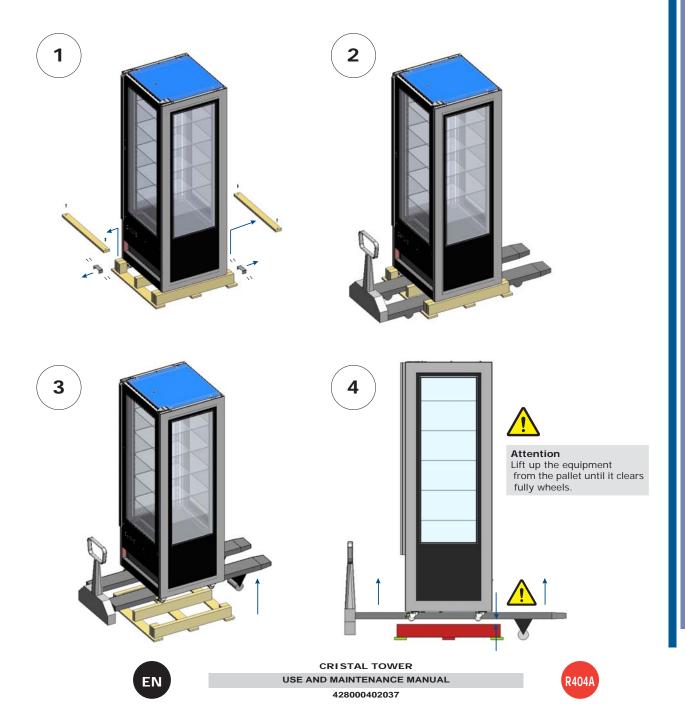
### 4.1 Storage and unpacking

The appliance, with or without the packaging, should be carefully stored inside warehouses or in areas away from the elements and direct sunlight, at a temperature between 00 and +40 °C.



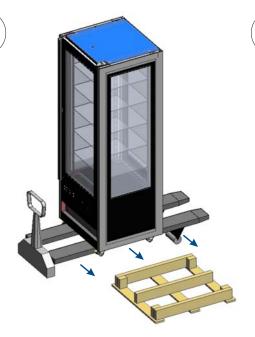
The appliance should only be moved by qualified personnel operating forklift trucks, the power of which should be suited to handling the weight of the product: during this operation the appliance MUST placed on the special pallet supplied.

Unpack the appliance by removing the screws fixing it to the pallet. All packaging materials are recyclable and should be disposed of in accordance with local regulations. Please destroy "plastic" bags to prevent them from becoming a hazard (suffocation).













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### 4.2 Installation, positioning and ambient conditions



#### Attention

There should be a good air flow around the compressor and condensing unit. Therefore the area around the unit should not be obstructed by boxes or other objects.

Position the appliance away from heat sources (radiators, stoves of all types, etc.) and away from the effects of continuous currents of air (e.g. caused by fans, air conditioning vents, etc.).

Also avoid exposure to direct sunlight; all of this causes the temperature inside the refrigerated compartment to rise with negative consequences on operation and energy consumption. Do not use the appliance outdoors and do not leave it exposed to rain.

#### 4.2.1 Condensation



#### **Attention**

Walls, door and shelves of the refrigerated cabinet have glass surfeces.

These can have condensation during and after door opening.

This phenomenon can last some minute depending on environmental conditions and frequency/period of door openings.

With automatic defrost (ventilated version) condensation could appear during and after defrosting for 10 minutes.

#### 4.3 Electrical connection



#### **Attention**

Check that the voltage indicated on the appliance is the same as that on the appliance's identification label and in the table described in paragraph 1 of this manual and check that the required voltage is adequate.

Check on the socket that the power supply voltage provides rated voltage ( $\pm 10\%$ ) when you start up the compressor.

The plug should be directly connected to the electrical socket. It is forbidden to connect the plug to the socket by means of multiple socket extensions or adaptors.

The plant power supply socket must be fitted with a disconnection device from the mains electricity (dimensioned to the load and in compliance with Standards in force), which guarantees complete disconnection in category III (3) over-voltage conditions and therefore protects the circuits against earth faults, overloads and short circuits.

Do not route the electricity cable in passageways.



#### Attention

Earthing is necessary and mandatory by law.







### 5. TECHNICAL SPECIFICATIONS - MOD. 725

This appliance is exclusively intended to display and sell:

mod. RV TN: Pastry

mod. RV CH: Pralines and Chocolaterie

mod. RS TB: Parfaits, Ice-cream prepacked and Ice-cream cakes

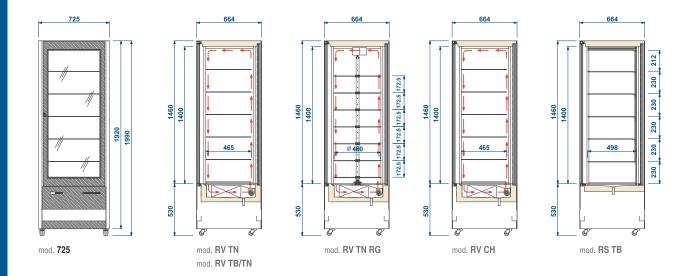
mod. RV TB/TN: Parfaits, Ice-cream prepacked, Ice-cream cakes, Pastry

The manufacturer is not liable for injury to persons or damage to property or the appliance itself caused by the displaying of products other than those described above.



### Unauthorized use

- Food preservation.
- Displaying and/or preserving non-food products (chemicals, pharmaceuticals, etc...).



TECNICAL				725		
FEATURES		RV TN	RV TN RG	RV CH	RS TB	RV TB/TN
External dimensions	lxpxh - mm	725 x 664 x 1990	725 x 664 x 1990	725 x 664 x 1990	725 x 664 x 1990	725 x 664 x 1990
Refrigeration		Ventilated	Ventilated	Ventilated	Static	Ventilated
Defrosting		Stop Compressor	Stop Compressor	Stop Compressor	Manual	Hot Gas
Climate class	N°	4	4	4	4	4
Environmental conditions	°C / % RH	30 / 55	30 / 55	30 / 55	30 / 55	30 / 55
Classe prodotto		H1	H1	M1	L1	L1 / H1
Safety class (CELEN 60335-2-89)	N° / °C (amb.)	5 / 43 ± 2°C	5 / 43 ± 2°C	5 / 43 ± 2°C	5 / 43 ± 2°C	5 / 43 ± 2°C
Refrigerant		R404A	R404A	R404A	R404A	R404A
Power supply	V / ph / Hz	230 / 1 / 50	230 / 1 / 50	230 / 1 / 50	5 / 43	5 / 43
Electrical absorption (standard)	W / A	630 / 4.5	630 / 4.5	630 / 4.5	650 / 3.2	920 / 4.5
Electrical absorption (defrosting)	W / A	150 / 1	150 / 1	150 / 1	-	1500 / 7.2
Weight (net)	Kg	245	245	245	236	245







### 5. TECHNICAL SPECIFICATIONS - MOD. 925

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mod. RV TN: Pastry

mod. RV CH: Pralines and Chocolaterie

mod. RS TB: Parfaits, Ice-cream prepacked and Ice-cream cakes

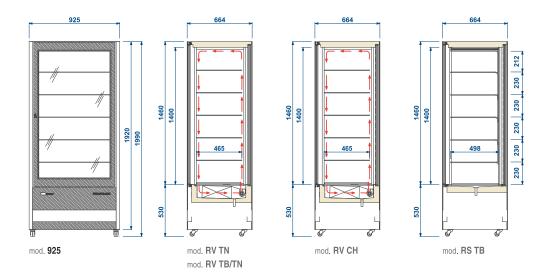
mod. RV TB/TN: Parfaits, Ice-cream prepacked, Ice-cream cakes, Pastry

The manufacturer is not liable for injury to persons or damage to property or the appliance itself caused by the displaying of products other than those described above.



### Unauthorized use

- Food preservation.
- Displaying and/or preserving non-food products (chemicals, pharmaceuticals, etc...).



TECNICAL FEATURES		925			
		RV TN	RV CH	RS TB	RV TB/TN
External dimensions	lxpxh - mm	925 x 664 x 1990	925 x 664 x 1990	925 x 664 x 1990	925 x 664 x 1990
Refrigeration		Ventilated	Ventilated	Static	Ventilated
Defrosting		Stop Compressor	Stop Compressor	Manual	Hot gas
Climate class	N°	4	4	4	4
Environmental conditions	°C / % RH	30 / 55	30 / 55	30 / 55	30 / 55
Classe prodotto		H1	M1	L1	L1 / H1
Safety class (CELEN 60335-2-89)	N° / °C (amb.)	5 / 43 ± 2°C	5 / 43 ± 2°C	5 / 43 ± 2°C	5 / 43 ± 2°C
Refrigerant		R404A	R404A	R404A	R404A
Power supply	V / ph / Hz	230 / 1 / 50	230 / 1 / 50	5 / 43	5 / 43
Electrical absorption (standard)	W / A	650 / 4.5	650 / 4.5	850 / 4.4	1500 / 5.2
Electrical absorption (defrosting)	W / A	160 / 1	160 / 1	-	1700 / 9
Weight (net)	Kg	305	305	275	305







### 5. TECHNICAL SPECIFICATIONS - MOD. 925 LH

This appliance is exclusively intended to display and sell:

mod. RV TN: Pastry

mod. RV CH: Pralines and Chocolaterie

mod. RS TB: Parfaits, Ice-cream prepacked and Ice-cream cakes

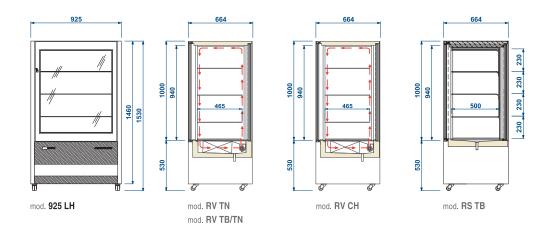
mod. RV TB/TN: Parfaits, Ice-cream prepacked, Ice-cream cakes, Pastry

The manufacturer is not liable for injury to persons or damage to property or the appliance itself caused by the displaying of products other than those described above.



### Unauthorized use

- Food preservation.
- Displaying and/or preserving non-food products (chemicals, pharmaceuticals, etc...).



TECNICAL FEATURES		925 LH			
		RV TN	RV CH	RS TB	RV TB/TN
External dimensions	lxpxh - mm	925 x 664 x 1530	925 x 664 x 1530	925 x 664 x 1530	925 x 664 x 1530
Refrigeration		Ventilated	Ventilated	Static	Ventilated
Defrosting		Stop Compressor	Stop Compressor	Manual	Hot gas
Climate class	N°	4	4	4	4
Environmental conditions	°C / % RH	30 / 55	30 / 55	30 / 55	30 / 55
Classe prodotto		H1	M1	L1	L1 / H1
Safety class (CEI EN 60335-2-89)	N° / °C (amb.)	5 / 43 ± 2°C	5 / 43 ± 2°C	5 / 43 ± 2°C	5 / 43 ± 2°C
Refrigerant		R404A	R404A	R404A	R404A
Power supply	V / ph / Hz	230 / 1 / 50	230 / 1 / 50	5 / 43	5 / 43
Electrical absorption (standard)	W / A	630 / 4.5	630 / 4.5	850 / 3.2	920 / 4.5
Electrical absorption (defrosting)	W / A	150 / 1	150 / 1	-	1500 / 7.2
Weight (net)	Kg	218	218	196	218





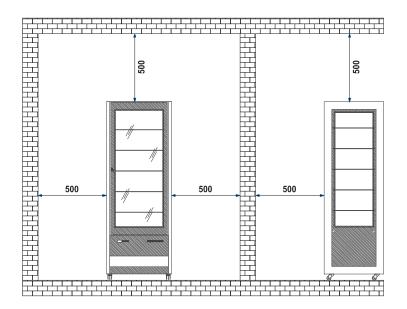


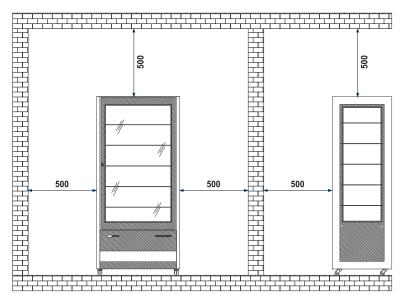
### 5.1 Installation (mm)

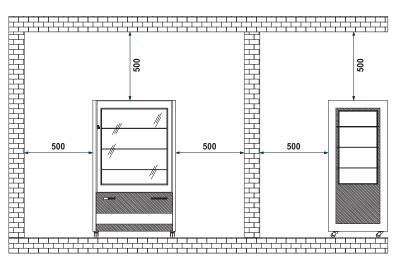


### **Attention**

It is fundamental to respect the distances indicated for correct installation of the appliance.







EN



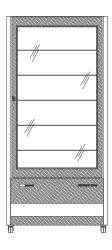


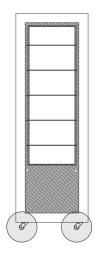
### 5.2 Positioning



### Warning

The appliance is provided with four (4) pivoting wheels (two with brakes) to facilitate handling. After positioning, stabilise the appliance to the floor.









### 5.3 Load limits



#### **Attention**

It is fundamental not to exceed the load limits indicated in order not to alter the correct air circulation and thus prevent a high product temperature.









### 5.4 Shelf load limits (kg max) - MOD. 725

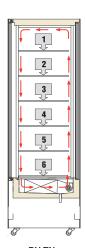


### Attention

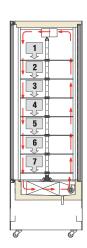
It is absolutely necessary to respect the weight limits indicated for each shelf in order to prevent the deformation or breakage of the shelves themselves.



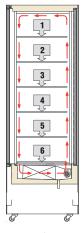




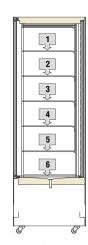
mod. **RV TN** mod. **RV TB/TN** 



mod. RV TN RG



mod. RV CH



mod. RS TB

SHELF N°			725					
эп	ELF IN	RV TN	RV TN RG	RV CH	RS TB	RV TB/TN		
1	kg max	25	16	25	32	25		
2	kg max	25	16	25	32	25		
3	kg max	25	16	25	32	25		
4	kg max	25	16	25	32	25		
5	kg max	25	16	25	32	25		
6	kg max	18	16	18	32	18		
7	ka max		16					



EN



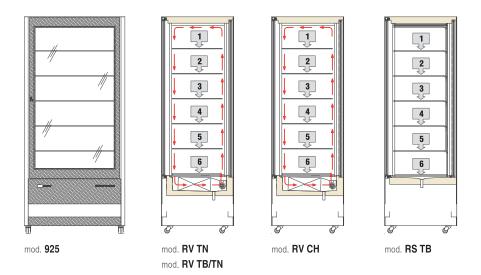


### 5.4 Shelf load limits (kg max) - MOD. 925



### **Attention**

It is absolutely necessary to respect the weight limits indicated for each shelf in order to prevent the deformation or breakage of the shelves themselves.



SHELF N°			92	25	
ЭПІ	LLF IN	RV TN	RV CH	RS TB	RV TB/TN
1	kg max	34	34	43	34
2	kg max	34	34	43	34
3	kg max	34	34	43	34
4	kg max	34	34	43	34
5	kg max	34	34	43	34
6	kg max	24	24	43	24



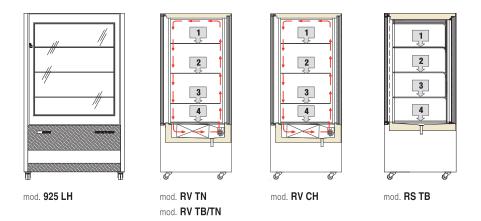


### 5.4 Shelf load limits (kg max) - MOD. 925 LH



### Attention

It is absolutely necessary to respect the weight limits indicated for each shelf in order to prevent the deformation or breakage of the shelves themselves.



SHELF N°			925	LH	
ЭПІ	LLF IN	RV TN	RV CH	RS TB	RV TB/TN
1	kg max	34	34	43	34
2	kg max	34	34	43	34
3	kg max	34	34	43	34
4	kg max	24	24	43	24







### 5.5 Door opening TOUCH PAD (equipment)

Press and release the point indicated.

At full power indicator lights, the door opens automatically. The door is equipped with torsion bar booster (self closing).





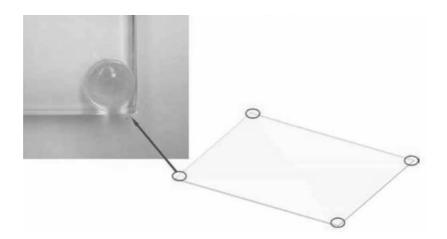
#### Attention

The **automatic opening** of the door may not occur in this case has been closed a few seconds before, this is due to the internal depression that is formed for the's entry air.

In such an eventuality will be necessary to wait at least 10 seconds to allow the equalizing valve installed to restore the condition of optimal pressure.

### **5.6 Glass shelves** (OPTIONAL)

Positioned to apply the suction cups to the four corners of the shelf as shown.



EN





### 6. DESCRIPTION OF THE APPLIANCE

To ensure the operator's safety, appliance devices should be kept in constant working order. Regarding this, the manual has the purpose of illustrating use and maintenance of the appliance and the operator has the responsibility and the duty to respect it scrupulously.

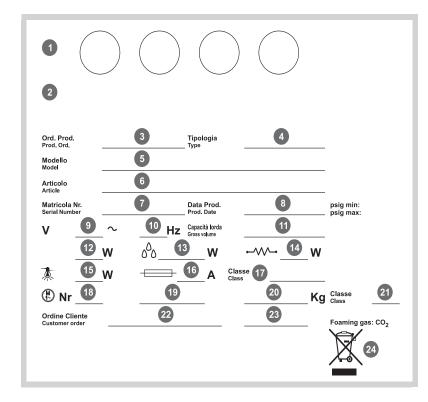
### 6.1 Composition

The equipment consist of a single piece of furniture which contains all the operational devices necessary to make it a professional and efficient product for its intended use.

The equipment consists of:

- Insulated structure in ecological polyurethane
- Cooling system (ventilated refrigeration mod. RV)
- Cooling system (static refrigeration mod. RS (fixed evaporating shelves)
- LED lighting
- Glass door
- Electronic commands panel
- Electrical system
- On board condensing unit
- Pivoting wheels

### 6.2 Identification



1	Conformity marks
2	Identification of the Company Product Manager
3	Production Order
4	Туре
5	Model Name
6	Article
7	Serial Number
8	Production Date
9 - 10	Power supply and frequency tension
11	Gross Capacity
12	Absorption at Rated Capacity
13	Absorption during Defrosting
14	Absorption of Heating Elements
15	Lamp Power
16	Fuse Value
17	Climate Class
18	Number of Motors
19	Type of Coolant
20	Amount of Coolant
21	Safety Class
22 - 23	Customer order
24	WEEE Mark







### 7. CONTROL PANEL





### Attention

The electronic control board is installed already programmed. Any changes to the control board settings can be carried out exclusively by qualified technical personnel.



### 7.1 Start-up

Plug the appliance in at the socket supplied by the customer, ensuring that the plug is fitted with an earth contact and that there are no multiple sockets connected to it.

The equipment automatically starts otherwise press



### 7.1.1 User Interface - XM470K Touch

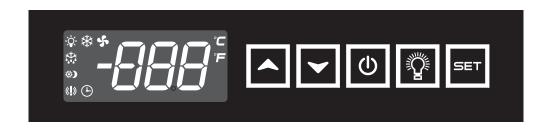
	KEYS				
•	In programming mode it browses the parameter codes or increases the displayed value. If pressed for 3 seconds start a manual defrost.				
~	In programming mode it browses the parameter codes or decreases the displayed value. If pressed for 3 seconds displays the time and the current day and enables the input in programming time slots.				
山	Switch ON and Off the equipment.				
	Switch ON and Off the light (It can be used also when the instrument is Off).				
SET	To display or change the set point. in programming mode it selects a parameter or confirm an operation. By pressing it when the current time is displayed, it allows the User to re-set the current time and three holidays.				







### 7.1.1 User Interface - XM470K Touch



**KEYS COMBINATION** 

KEYS COMBINATION				
•	+	Pressed for 3 seconds to lock and / or unlock the keyboard. With the keyboard locked, it is possible to the following operations:  - Change the SET POINT - Switch on/off the light - Switch on/off the equipment		
SET	+	To enter programming.		
SET	+	To leave programming.		
		LED		
LED		FUNCTION / SIGNIFICATION		
×1.*.k	ON	Solenoid valve activated attivata		
***	BLINKING	Programming phase (together with LED flashing \$\infty\$). Delay anti oscillation.		
45	ON	Ventilation on.		
	BLINKING	Programming phase (together with LED flashing ).		
	ON	Defrosting on.		
	BLINKING	Dripping time in progress.		
	ON	Energy saving in progress.		
-:0-	ON	Lighting on.		
	ON	Alarm signal. In programming Pr2 indicates that the parameter is present in Pr1.		







### 7.1.2 IUser Interface mod CH - XM470K Touch - IC 912 LX







	KEYS (IC 912 LX)		
	Scrolls menu options. Increases the values .		
<b>\rightarrow</b>	Scrolls menu options. Decreases the values.		
fnc	ESC function (exit).		
set	Accesses the setpoint and menu options. Activates the functions. Confirms the commands. Displays the alarms.		
LED (IC 912 LX)			

LED (IC 912 LX)		
LED	FUNCTION / SIGNIFICATION	
out	ON for relay on (activated). Blinking for delay, protection and activation is blocked.	
<b>(((●))</b> )	ON for active alarm. Blinking the alarm is silenced.	
$\bigcirc$	ON to reduced setpoint. Blinking for soft-start function active.	







### 8. ROUTINE MAINTENANCE and REGULAR CHECKS

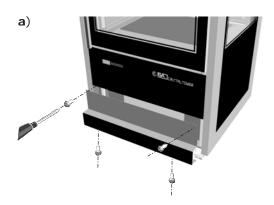
### 8.1 Cleaning inside the cabinet

- a) Remove the product contained in the chiller compartment and place it immediately in a freezer to ensure it is preserved correctly.
- **b**) Switch off the equipment by pulling the plug from the coupling point voltage.
- **c**) Wait at least 4 to 6 hours until the ice on the evaporator has melted completely, before proceeding with cleaning the equipment. We recommend waiting until the following day to make sure the product has been completely defrosted.
- **d**) Remove the cap that covers the discharge outlet drain hole place in the bottom of the tank (mod. RS TB).
- It is recommended to apply in the drain hole of a rubber tube or other suitable material so as to facilitate the output of liquids and to use a plastic tray for the Deposits of liquids.
- **e**) Wash the bottom of the tank and the sides with a mild detergent, warm water and a cloth or a non-abrasive sponge. Rinse well and dry using a cloth.

### 8.2 Access to and cleaning the condensing unit

#### **FRONT**

Remove the front housing by unscrewing the fixing screws specific as indicated.









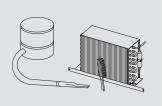




#### Attention

Clean the condensing unit using a suction brush.

Clean the **CONDENSING UNIT** using a soft bristle brush; make sure you do not bend the condensing unit springs whilst cleaning it.





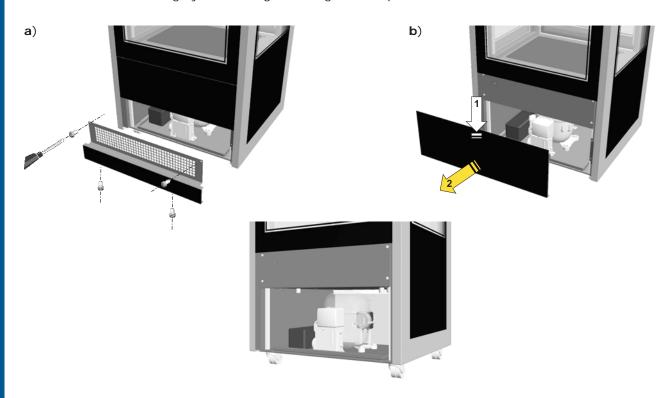




### 8.2 Accessing and cleaning the Condensing Unit

#### **REAR**

Remove the front housing by unscrewing the fixing screws specific as indicated.



### 8.3 External cleaning operations

The external surfaces must be cleaned as follows:

#### STAINLESS STEEL

Only use warm water and non-aggressive detergents and then rinse and dry using a soft cloth.

### ACRYLIC OR POLYCARBONATE SURFACES

Wash with lukewarm water, using a soft cloth or a chamois cloth.

Do not use detergents, alcohol, acetone or solvents.

Do not use abrasive cloths or sponges.

### **GLASS SURFACES**

Only use products specifically designed for cleaning glass.

We do not recommend using tap water, which may leave calcium deposits on the surface of the glass.







### 9. MAINTENANCE

Any work conducted on the on the appliance **MUST** involve disconnection from the power socket and in any case, none of the protective elements (grid, casing) should be removed by non-qualified staff. The appliance should not be operated when these protective elements have been removed.

The **Staff in charge of the appliance** must control and respect the expiry dates for maintenance, given in the table below, calling the authorised **Technical After-sales assistance** when indicated.

OPERATION	FREQUENCY	AUTHORISED PER- SONNEL
Cleaning the external surfaces	Depending upon Use and Necessity	User
Cleaning the accessible internal parts (without the use of tools)	Depending upon Use and Necessity	User
Control power supply cable, plugs and/or electric sockets	Monthly/Every 6 months	User
Check integrity of sealing gaskets	Monthly	User
Condenser cleaning	Monthly/Every 6 months	Technical Assistance
Check the compressor oil level (whenever present)	Every 6 months	Technical Assistance
Air tank draining (whenever present)	Every 6 months	Technical Assistance
Check pneumatic connections (whenever present)	Every 6 months	Technical Assistance
Check the integrity of chiller system piping	Every 6 months	Technical Assistance
Inspect cables and internal power connections	Every 6 months	Technical Assistance
Cleaning condensate drying sponges (whenever present)	Every 6 months	Technical Assistance

EXTRAORDINARY	
OPERATION	AUTHORISED PER- SONNEL
Bulb/LED replacement (whenever present)	Technical Assistance
Control panel replacement (electronic control unit - thermostat - etc.)	Technical Assistance
Replace the power supply cable, plugs and/or electric sockets	Technical Assistance







### 10. ASSISTANCE

### 10.1 Faults

In the event of uncertain or no operation, **before requesting the intervention of the service Technical After-sales**carry out the following controls:

FAULT	CAUSE	SOLUTION
The appliance is not	Blown protective fuse	Previously find the cause of the intervention of the switch, and then re-introduce the new fuse.
working	The master switch is open	Close the master switch.
	The plug is not inserted	Insert the plug.
	Electric black-out	If the black-out should be prolonged, transfer the product into an appropriate cold storage container.
The internal temperature	Evaporator/s obstructed completely by ice	Carry out an additional defrosting cycle.
is not low enough	The wrong temperature has been set on the electronic control board	Set the appropriate temperature.
	The appliance is affected by draughts or is exposed to direct or reflected sunlight	Remove any excessive draughts and prevent any direct or reflected sunlight.
	Insufficient cooling air flow in the air condensing unit	Remove anything that may affect air flow inside the condensing unit (paper sheets, cardboard, grids with an insufficient number of holes, etc.).
	Internal fans at standstill or with fans damage	Contact the <b>Technical Assistance</b> service
	Internal ventilation is too high	Contact the <b>Technical Assistance</b> service
	Low electronic control board efficiency	Contact the <b>Technical Assistance</b> service Replace the electronic control board. Replace the temperature probes only after checking which of the two is not operating efficiently.
	Air condensing unit blocked by dust or debris	Contact the <b>Technical Assistance service</b> . Clean the condensing unit thoroughly.
	Insufficient coolant in the cooling system	Contact the <b>Technical Assistance</b> service Find the cause behind the lower amounts of coolant and eliminate it. Top up the coolant. If necessary, empty the system before topping up.
The com- pressor does	No power supply	Check if there is a power cut. Close the various switches on the power supply line.
not start-up or operates for a few	The power supply voltage is too low	Check that the network voltage of the power supply cable is 220V +/- 10%.
moments	The temperature set on the thermostat is too high	If the set temperature is higher compared to the air in the display area, the compressor does not activate itself. Set a more suitable temperature if the current value is not low enough
	The pressure switch operated at maximum pressure (where present)	Contact the <b>Technical Assistance service.</b> Check the reasons why the pressure switch is operating at maximum pressure levels, such as: air condensing unit blocked, condensing unit fan stopped, ambient temperature too high, pressure switch broken.







### 10.2 Electronic controller alarms list (where present)



ALARM	DESCRIPTION	OUTPUTS
P1 E0	Broken thermostat probe. Compressor exit with "CON" e "COF" parameters	Contact the <b>Technical Assistance service.</b> The alarm starts a few seconds after the probe breaks down; it stops a few seconds after the probe starts working again properly. We recommend checking the probe connections before replacing it.
P2 E1	Broken evaporator probe. Set time for defrosting	Contact the <b>Technical Assistance service</b> . The alarm starts a few seconds after the probe breaks down; it stops a few seconds after the probe starts working again properly. We recommend checking the probe connections before replacing it.
HA HI	High temperature alarm	Contact the <b>Technical Assistance service</b> . The alarm stops automatically on reaching the temperature set. Check programming.
LA LO	Low temperature alarm	Contact the <b>Technical Assistance service</b> . The alarm stops automatically on reaching the temperature set. Check programming.
EA IA CB	External alarm	Contact the <b>Technical Assistance service</b> . The external alarm stops after the digital infeed is deactivated. It should be restarted automatically. The alarm is linked to the intervention of the pressure switch and/or the compressor circuit breaker, when present.
ETc RTF	Real time clock is broken	Contact the <b>Technical Assistance service</b> . Reset the clock. If the alarm does not stop, replace the clock.
EE	Machine parameter error	Contact the <b>Technical Assistance service.</b> The instrument is damaged. It should be replaced
EF	Operating parameters error	Contact the <b>Technical Assistance service.</b> The instrument is damaged. It should be replaced

### 11. WARRANTY TERMS AND CONDITIONS



The seller's warranty on the equipment is valid for **12** (TWELVE) **months from the date of delivery**.

The warranty includes repairs or replacements of any faulty parts due to manufacturing processes or installation after written communication has been received, stating the appliance serial number and date of installation.

All defects caused by incorrect use of the appliance, inappropriate electrical connection, normal wear (for instance compressor failure and fluorescent lamp malfunctioning that is not due to manufacturing defects), as well as calls for installation, technical instructions, adjustments and cleaning, are not included in the warranty.

If the seller's technical staff detect any tampering, unauthorised repairs or inappropriate use of appliance the warranty will be invalidated.

Shipment of components covered by the warranty is freight collect only.

Any damage to the appliance detected at the time of delivery due to transport must be reported on the same shipping note to claim compensation from the carrier.

The seller cannot be held liable in the event of damage to the preserved product due to appliance failure.





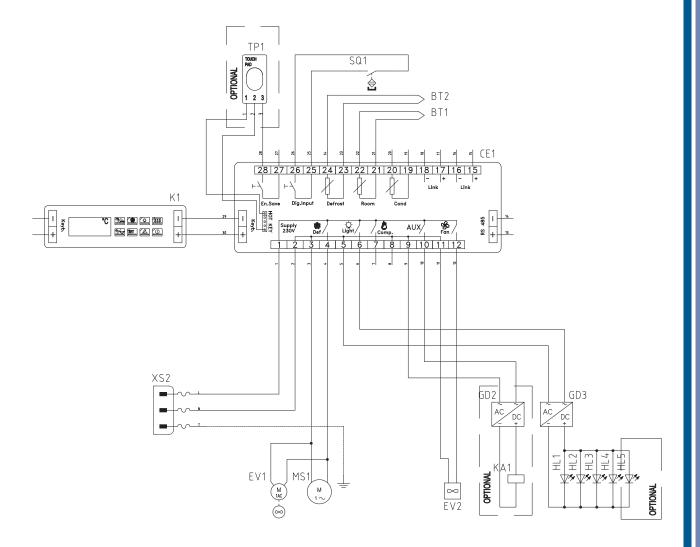


### 12. ATTACHMENTS

N°		Code	Model	Page
1	Wiring diagram	412100181000	725 RV TN 925 RV TN 925 LH RV TN	32
2	Wiring diagram	412100292000	725 RV TN RG	33
3	Wiring diagram	412100216000	725 RV CH 925 RV CH 925 LH RV CH	34
4	Wiring diagram	412100180100	725 RS TB 925 RS TB 925 LH RS TB	35
5	Wiring diagram	412100179100	725 RV TB/TN 925 LH RV TB/TN	36
6	Wiring diagram	412100220000	925 RV TB/TN	37
7	Declaration of conformity			38





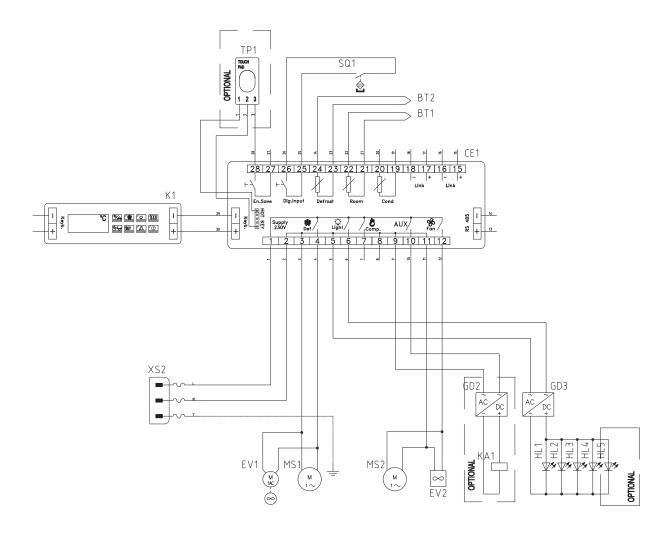


Code	412100181000		
Model	725 RV TN		
Model	925 RV TN		
Model	925 LH RV TN		
BT1	Temperature probe	HL3	Vertical light
BT2	Defrosting probe	HL4	Vertical light
CE1	Electronic control board	HL5	Shelf light
EV1	Condenser fan	К1	Display / Keyboard
EV2	Evaporator fan	KA1	Coil actuator
GD2	Power supply	MS1	Compressor
GD3	Power supply	SQ1	Door microswitch
HL1	Vertical light	TP1	Touch pad
HL2	Vertical light	XS2	Plug power supply







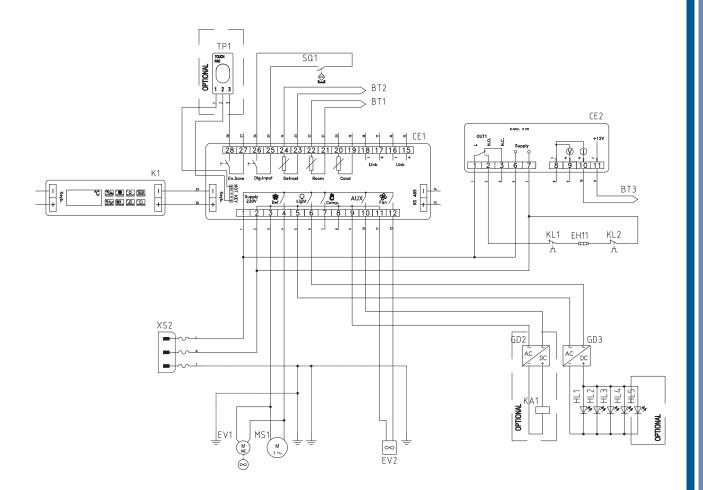


Code	412100292000		
Model	725 RV TN RG		
BT1	Temperature probe	HL4	Vertical light
BT2	Defrosting probe	HL5	Shelf light
CE1	Electronic control board	К1	Display / Keyboard
EV1	Condenser fan	KA1	Coil actuator
EV2	Evaporator fan	MS1	Compressor
GD2	Power supply	MS2	Shelves motor
GD3	Power supply	SQ1	Door microswitch
HL1	Vertical light	TP1	Touch pad
HL2	Vertical light	XS2	Plug power supply
HL3	Vertical light		







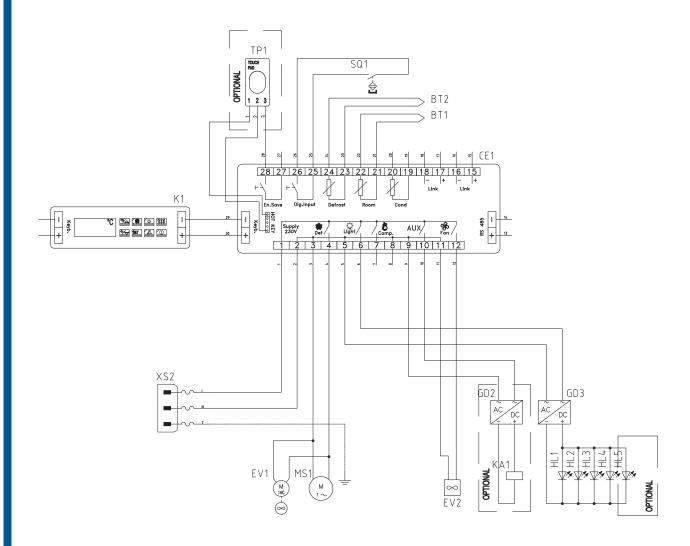


	I		
Code	412100216000		
Model	725 RV CH		
Model	925 RV CH		
Model	925 LH RV CH		
BT1	Temperature probe	HL3	Vertical light
BT2	Defrosting probe	HL4	Vertical light
ВТ3	Humidity probe	HL5	Shelf light
CE1	Electronic control board	К1	Display / Keyboard
CE2	Humidity electronic control board	KA1	Coil actuator
EH11	Electrical resistance humidity control	MS1	Compressor
EV1	Condenser fan	QS1	Switch antifogging
EV2	Evaporator fan	SQ1	Door microswitch
GD2	Power supply	T1	Glass transformer
GD3	Power supply	TP1	Touch pad
HL1	Vertical light	XS2	Plug power supply
HL2	Vertical light		







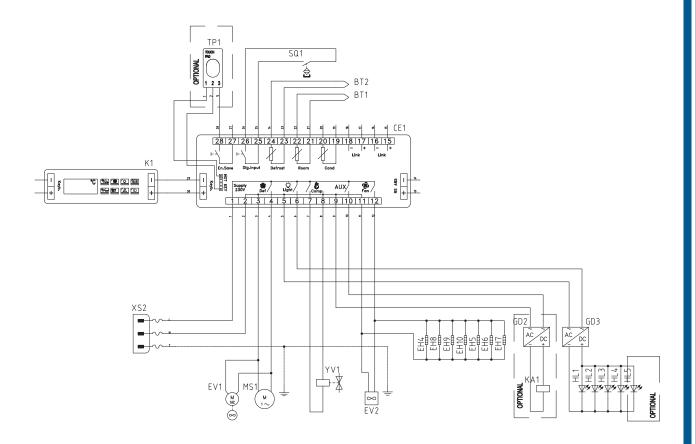


Code	412100180100		
Model	725 RS TB		
Model	925 RS TB		
Model	925 LH RS TB		
BT1	Temperature probe	GD3	Power supply
CE1	Electronic control board	HL1	Vertical light
EH5	Door heating resistor	HL2	Vertical light
EH6	Glass back heating resistor	HL5	Shelf light
EH7	Side glass heating resistor	K1	Display / Keyboard
EH8	Side heating resistor	KA1	Coil actuator
EH9	Side heating resistor	KT1	Relay time delay
EH10	Base heating resistor	MS1	Compressor
EV1	Condenser fan	TP1	Touch pad
GD2	Power supply	XS2	Plug power supply







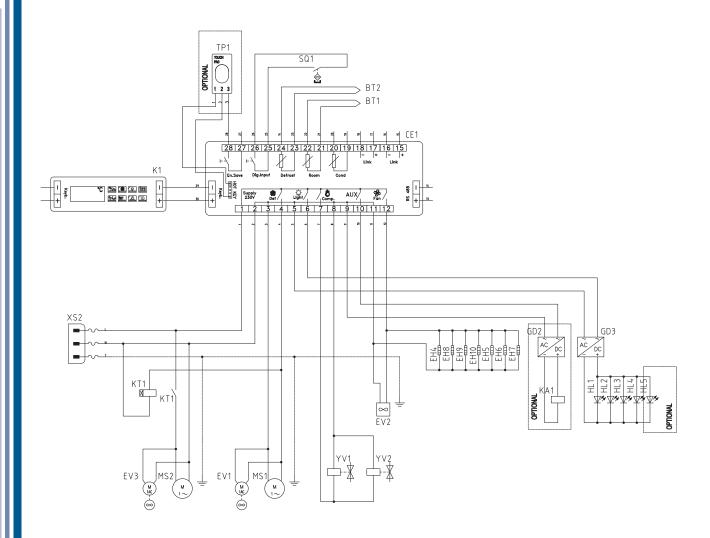


Code	412100179100		
Model	725 RV TB/TN		
Model	925 LH RV TB/TN		
BT1	Temperature probe	GD3	Power supply
BT2	Defrosting probe	HL1	Vertical light
CE1	Electronic control board	HL2	Vertical light
EH4	Door glas heating resistor	HL3	Vertical light
EH5	Door heating resistor	HL4	Vertical light
EH6	Glass back heating resistor	HL5	Shelf light
EH7	Side glass heating resistor	K1	Display / Keyboard
EH8	Side heating resistor	KA1	Coil actuator
EH9	Side heating resistor	MS1	Compressor
EH10	Base heating resistor	SQ1	Door microswitch
EV1	Condenser fan	TP1	Touch pad
EV2	Evaporator fan	XS2	Plug power supply
GD2	Power supply	YV1	Defrosting solenoid valve









Code	412100220000		
Model	925 RV TB/TN		
BT1	Temperature probe	GD3	Power supply
BT2	Defrosting probe	HL1	Vertical light
CE2	Electronic control board	HL2	Vertical light
EH1	Glass back heating resistor	HL3	Vertical light
EH2	Side glass heating resistor	HL4	Vertical light
EH3	Side glass heating resistor	HL5	Shelf light
EH4	Door glas heating resistor	K1	Display / Keyboard
EH5	Door heating resistor	KA1	Coil actuator
EH6	Glass back heating resistor	MS1	Compressor
EH7	Side glass heating resistor	MS2	Compressor
EH8	Side heating resistor	QS1	Switch antifogging
EH9	Side heating resistor	SQ1	Door microswitch
EH10	Base heating resistor	T1	Glass transformer
EV1	Condenser fan	TP1	Touch pad
EV2	Evaporator fan	XS2	Plug power supply
EV3	Condenser fan	YV1	Defrosting solenoid valve
GD2	Power supply		

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### **DECLARATION OF CONFORMITY**

We: ISA S.r.l.

Via del Lavoro, 5 - 06083 - Bastia Umbra (PG)

declare under our own responsibility, that the product:

To which this declaration refers, is in compliance with e following:

#### **MACHINERY SAFETY**

General Electric safety Standards EN 60335-1/Ed.2002+Modifications A11:2004,A1:2004,A1:2006,A2:2006,A13:2008 Particular Safety requirements for commercial refrigerating appliances EN 60335-2-89/Ed. 2010 Standard for the measurement of Electromagnetic Fields (EMF) of Electric Appliances EN 62233:2008 Directive, 2006/95/EC Directive of the European Parliament and the Council of 12th December 2006 on the harmonisation of the Laws of Member States relating to electrical equipment for use within certain voltage limits EN 62471/Ed.2009 Photobiological Safety of Lamps and Lamp Systems

#### **ELECTROMAGNETIC COMPATIBILITY (EMC)**

Limits and methods of measurement of radio interference characteristics of household appliances and similar motor-operated and thermal appliances, of equipment, electrical appliances and similar equipment EN 55014-1 (valid until 2009: Ed.2000+Amendments A1:2001, A2:2002 - or Ed.2006)

Minimum requirements for household appliances, tools and similar electrical appliances EN 55014-2 (Ed.1997+Amendment A1:2001)
Part 3: Limits – Section 2: Limits for harmonic current emissions (equipment input current=16A per phase)

EN61000-3-2 (valid until 2009:Ed.2000+Modifications A2:2005-or Ed.2006) Part 3:Limits - Section 3: Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current = 16 A

EN61000-3-3 (Ed.1995+Modifications A1:2001,A2:2005) Part 4:Testing and measurement techniques Section 2:Electrostatic discharge immunity test EN61000-4-2 (Ed.1995) Part 4:Testing and measurement techniques Section 4:Electrical fast transient/burst immunity test EN61000-4-4 (Ed.1995)

#### PRESSURE EQUIPMENT DIRECTIVE (PED) 97/23/EC

As the equipment falls under a class lower than I it is excluded from the PED's application field (art.1 par.3.6)

#### foodstuff compatibility

Regulation (CE) N.1935/2004 of the European Parliament and of the Council dated 27 October 2004 Regulation (CE) N.2023/2006 of the Council dated 22 December, Directive 2008/39/CE of the Council dated 6 March 2008 Directive 2007/19/CE of the Council dated 30 March 2007 Directive 2005/79/CE of the Council dated 18 November 2005 Directive 2004/19/CE of the Council dated 10 March 2004 Directive 2004/1/CE of the Council dated 6 January 2004 Regulation (UE) 10/2011 of the Council dated 14 January 2011

#### **ROHS and WEEE**

Directive 2002/95/EC of the European Parliament and of the Council of 27th January 2003 Directive 2002/96/EC of the European Parliament and of the Council of 27th January 2003

#### REACH

Regulation (CE) n. 1907/2006 of the European parliament and council dated 18 December 2006 concerning the recording, evaluation, authorisation and restriction of the chemical substances (REACH), which establishes a European Agency regarding chemical substances, which modifies the Directive 1999/45/CE and that repeals the Regulation (CEE) n. 793/93 of the Council and the regulation (CE) n. 1488/94 of the Commission 91/155/CEE, 93/105/CE and 2000/21/CE

### SUBSTANCES THAT REDUCETHE OZONE LAYER

Regulation (CE) N. 1005/2009 dated 16 September 2009 (Official Journal (OJ) of the European Union 31/10/2009 L286) According to the requirements set by Directives: 2006/95/EC, 2004/108/EC, 2006/42/EC, 97/23/EC

The person authorised to draw-up the Technical Folder is Mr. **Minelli Maurizio** (Technical Department Manager)
Via del Lavoro 5 - 06083 Bastia Umbra (PG)

Bastia Umbra: 18 / 04 / 2012

(place and date of issue)

Minelli Maurizio







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