

# PANDA



	MOE	DELS	
H2	05	H2	25
P100	P115	P100	P115
	L1	25	
	L2	50	
	L3	75	

#### ISA S.r.I. Division TASSELLI

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



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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
4	Danger: Live electrical parts	Ø	Requests for maintenance or operations must be carried out by qualified staff or technical after-sales centres.
	Attention / Danger		Important information
	Information	İİ	Operations that must be performed by two persons.
٢	Visual observation	<b>1</b>	Notes / Important notes
UCB	Condensing unit on board	UCR	Remote condensing unit

PANDA USE AND MAINTENANCE MANUAL

ΕN



## 1. NOTES / IMPORTANT NOTES

The content of this manual is of technical nature and is owned by **ISA S.r.I. divisionTASSELLI** 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 equipment 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 equipment itself. Keep this manual in a safe place. It should be available for consultation near the equipment at all times. If lost or destroyed, you can request a copy of the manual from **ISA S.r.I. division TASSELLI** by specifying the exact model, serial number and year of manufacture. The manual reflects the manufacturing technology at the time of supply. The manufacture 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 to be intended as directly usable by a final general user: it is intended to be installed and incorporated in one or more plants by an installer, who will use suitable specialised staff for the purpose Before commissioning, it is necessary that the installer supplies the relative certificate of conformity to the applicable national and international legislation. The appliance can be used only at this point.

In all cases, 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 equipment. Children should be supervised to ensure that they do not play with the equipment. Always refer to this manual before going ahead with any operation. Before doing any type of work, disconnect the equipment from the power supply. Any work on electric and electronic parts or cooling system components 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 equipment 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 equipment
- installation and use of the equipment 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 equipment, who should ensure that authorised personnel:

- are 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 equipment.

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



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.

PANDA USE AND MAINTENANCE MANUAL



## 1.1 Introduction

**ISA S.r.I. division TASSELLI** 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. division 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 safety systems, operations, how to use the instruments and the interpretation of any diagnostics reports, main procedures and information relating 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

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## 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 cooling system components 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

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 guards

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



#### 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.

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## 2.2.3 Isolating the electricity supply

Before conducting any maintenance work on the equipment 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 end user 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 or other events.

Before connecting the electricity supply, make sure there is no ongoing maintenance work.



#### 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 and move as far away as possible from the appliance.



## 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



Generally untidy deposits of material may constitute a tripping hazard and a total or partial obstruction of emergency exit routes.

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.

## 2.3.7 Falling objects

Positioning of the cabinet display parts (i.e. counters, rods and hooks), as also product arrangement inside the cabinet can be the source of potential hazards if not properly performed.

Follow the positioning instructions described in this Manual before you place products inside the cabinet, check that the counters are properly fastened, as also the hooks, etc. Do not exceed the maximum load limit. Do not tilt the shelves.

Do not place any goods and in general, do not load the tank sliding element closing devices with any load, while open or closed.

## 2.3.8 Cooling

During different operations to perform on the counter, such as cleaning or loading goods, it is necessary to handle products and/or counter parts at a low temperature with the risk of "cold injury" for the operators and/or accidental slipping hazard.

Follow the safety regulations in the place where the cabinet is installed; more specifically, be sure to always use the right PPE (especially gloves).

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## 2.3.9 Foodstuffs safety

The refrigerator cabinet described herein is meant to be used to display packaged products. As such, it is not designed for direct contact between the foodstuffs and display surfaces. If the foodstuffs do accidentally make contact with the surfaces and for a rather long time, the product may be contaminated.

Follow the guidelines on how to use the cabinet. If a product package breaks, remove it from the cabinet and clean, if necessary.

## 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.



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## 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)

#### Foreword

During the period of use, the appliance subject of this manual, is an integral part of a cooling plant, an electric plant and a hydraulic plant (drain lines). At the end of the life cycle, the appliance must first be completely disconnected from all plants mentioned above, in compliance with methods and procedures that are the responsibility of the operator of the plants and whose description lies outside this manual.

Once disconnected, perform the following procedures:

1. Check that the appliance is disconnected from the electric plant (cables disconnected)

- and from the cooling plant (piping cut and opened on the input and output sides).
- 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**. Disconnect the evaporator, condenser, compressor, pipes and fans. These are made of copper, aluminium, steel and plastic and should therefore disposed of separately.

**7**. 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.

In order to dispose of foamed assemblies, remember that the polyurethane foams used are CFC, HFC and HCFC free.



USE AND MAINTENANCE MANUAL



## 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.

For the specifications to follow regarding the lifting truck and for the unpacking operations, refer to the instructions attached.

All packaging materials are recyclable and should be disposed of in accordance with local regulations. Please destroy "plastic" bags to prevent them from becoming hazardous to children (suffocation).

## 4.2 Installation, positioning and ambient conditions

#### Attention

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.

## 4.3 Electrical connection

#### Attention

Remember that the electric connection of this appliance and its connection as a utility in an entire electric plant must be performed by a qualified installer, who must produce suitable certification of compliance. Check that the voltage indicated on the appliance is the same as the value on the appliance identification label and in the table provided in paragraph 1 of this manual, and check that the required voltage is suitable.

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.

Attention

This cabinet is fitted with antisweat heaters, mainly placed in the doorframe, which have been designed and sized to work under continuous power supply. The use of "on/off economizer" devices in the upstream lines of the heaters may bring to malfunztions and/or early damages: **we therefore strongly advise not to use them**.



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## 5. TECHNICAL SPECIFICATIONS

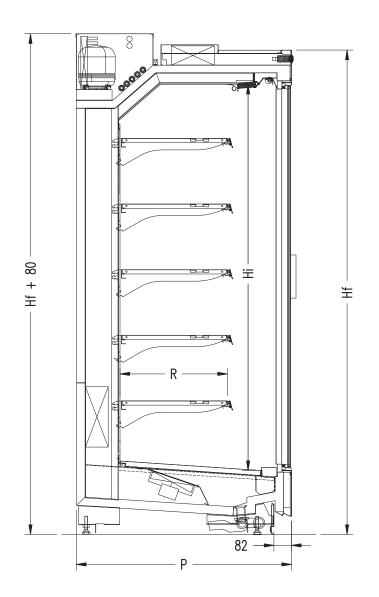
This appliance is exclusively intended to display and sell cheeses, milk products and/or fresh pre-packed products.

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.



## Uses not allowed: - Food preservation.

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



			Р	Hf	Hi	R max
				m	m	
P100	H205	mm	1000	2050	1590	500
P100	H225	mm	1000	2250	1790	500
DAAF	H205	mm	1145	2050	1590	600
P115	H225	mm	1145	2250	1790	600

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TECHNICAL SPECIFICATIONS	FICATIONS		Dimensions (PxH)	Length (without ends)	Thickness back	TDA (Total Display Area)	Net weight (without ends)	Climatic Class	Environmental conditions	Performance	Defrost
equipment		shelves	mm	ш	mm	m2	Kg		% / 3°		
PANDA 100/205	125	5x500	1000 × 2050	1250	40	1,65	348	3	25° / 60	M1/M2/H	off-cycle
PANDA 100/205	250	5×500	1000 × 2050	2500	40	3,31	597	3	25° / 60	M1/M2/H	off-cycle
PANDA 100/205	375	5×500	1000 × 2050	3750	40	4,96	861	3	25° / 60	M1/M2/H	off-cycle
PANDA 100/225	125	6x500	1000 × 2250	1250	40	1,84	373	3	25° / 60	M1/M2/H	off-cycle
PANDA 100/225	250	6×500	1000 × 2250	2500	40	3,69	640	с	25° / 60	M1/M2/H	off-cycle
PANDA 100/225	375	6x500	1000 × 2250	3750	40	5,53	919	е	25° / 60	M1/M2/H	off-cycle
PANDA 115/205	125	5x600	1145 × 2050	1250	40	1,71	361	с	25° / 60	M1/M2/H	off-cycle
PANDA 115/205	250	5x600	1145 x 2050	2500	40	3,42	622	е	25° / 60	M1/M2/H	off-cycle
PANDA 115/205	375	5x600	1145 x 2050	3750	40	5,13	899	е	25° / 60	M1/M2/H	off-cycle
PANDA 115/225	125	6x600	1145 x 2250	1250	40	1,90	386	e	25° / 60	M1/M2/H	off-cycle
PANDA 115/225	250	6x600	1145 x 2250	2500	40	3,80	665	e	25° / 60	M1/M2/H	off-cycle
PANDA 115/225	375	6x600	1145 × 2250	3750	40	5,70	957	3	25° / 60	M1/M2/H	off-cycle
TECHNICAL SPECIFICATIONS	FLCATIONS				aloctrical montoolo	r standard [M/]			alactrical mouraer defractions [W]	dofracting [W1	
			Power supply	1 +4~1		stallua	otondorol	- + 4~ 1	BIECH ICAL POWER		light LED standard
(LEU light)		colour/minohor licht 7#	- [V / ph / Hz]	Vocion ADIA		IIGNT LEU	IIGht LEU standard	Viencies APLA		IIGNT LEU	standard
PANDA 100 - 115	125		230~ / 1N / 50		450	691	441	50	50	41	41
PANDA 100 - 115	┢	R 1L 5R	230~ / 1N / 50	750	500	736	486	100	100	86	86
PANDA 100 - 115	-	1L 6F	230~	760	510	745	495	110	110	95	95
PANDA 100 - 115	125	R 1L 6R 1S	230~ / 1N / 50	770	520	754	504	120	120	104	104
PANDA 100 - 115	125 \	M 1L	230~ / 1N / 50	711	461	691	441	61	61	41	41
PANDA 100 - 115	125 \	W 1L 5R	230~ / 1N / 50	191	541	716	466	141	141	66	66
PANDA 100 - 115	125 \	W 1L 6R - 1L 5R 1S	230~ / 1N / 50	807	557	721	471	157	157	71	71
PANDA 100 - 115	125 \	W 1L 6R 1S	230~ / 1N / 50	823	573	726	476	173	173	76	76
PANDA 100 - 115	250	R 1L	230~ / 1N / 50	1386	886	1368	868	86	86	68	68
PANDA 100 - 115		R 1L 5R	230~ / 1N / 50	1486	986	1458	958	186	186	158	158
PANDA 100 - 115		R 1L 6R - 1L 5R 1S	230~ / 1N / 50	1506	1006	1476	976	206	206	176	176
PANDA 100 - 115	250	R 1L 6R 1S	230~ / 1N / 50	1526	1026	1494	994	226	226	194	194
PANDA 100 - 115	250 \	W 1L	230~ / 1N / 50	1408	908	1368	868	108	108	68	68
PANDA 100 - 115	250 \	W 1L 5R	230~ / 1N / 50	1568	1068	1418	918	268	268	118	118
PANDA 100 - 115	250 \	W 1L 6R - 1L 5R 1S	230~ / 1N / 50	1600	1100	1428	928	300	300	128	128
PANDA 100 - 115	250 \	W 1L 6R 1S	230~ / 1N / 50	1632	1132	1438	938	332	332	138	138
PANDA 100 - 115	375	R 1L	230~ / 1N / 50	2086	1336	2059	1309	136	136	109	109
PANDA 100 - 115	375	R 1L 5R	230~ / 1N / 50	2236	1486	2194	1444	286	286	244	244
PANDA 100 - 115	375	R 1L 6R - 1L 5R 1S	230~ / 1N / 50	2266	1516	2221	1471	316	316	271	271
PANDA 100 - 115	375	R 1L 6R 1S	230~ / 1N / 50	2296	1546	2248	1498	346	346	298	298
PANDA 100 - 115	375 \	W 1L	230~ / 1N / 50	2119	1369	2059	1309	169	169	109	109
PANDA 100 - 115	375 \	W 1L 5R	230~ / 1N / 50	2359	1609	2134	1384	409	409	184	184
PANDA 100 - 115	375 \	W 1L 6R - 1L 5R 1S	230~ / 1N / 50	2407	1657	2149	1399	457	457	199	199
PANDA 100 - 115	375 \	W 1L 6R 1S	230~ / 1N / 50	2455	1705	2164	1414	505	505	214	214
(#V:    : fromto	doll verses	-+ C luce coeffitte co	C table	tiniono obolf licht		ot colour: W/ biono	c bito				

Tasselli

 PANDA 100 - 115
 375
 W
 1L 5R
 230- / 1N / 50
 2359
 1609
 2134
 138

 PANDA 100 - 115
 375
 W
 1L 6R - 1L 5R 1S
 230- / 1N / 50
 2407
 1657
 2149
 139

 PANDA 100 - 115
 375
 W
 1L 6R 1S
 230- / 1N / 50
 2407
 1657
 2149
 139

 PANDA 100 - 115
 375
 W
 1L 6R 1S
 230- / 1N / 50
 2455
 1705
 2164
 141

 (#): L = luce fronte - canopy light, S = luce soffitto - celling light, R = luce ripiano - shelf light; R = rosata - meat colour; W = blanca - white

## 5. TECHNICAL SPECIFICATINS

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## 5.1 Installation and Levelling

The installation of the apparatus involves the formation of channels as that described in figure, typically consisting of one or more counters and from the shoulders of the ends.

If the channel were to be installed against walls, the minimum distances of:

- 100 mm / 300 mm posterior versions respectively for water / air; to meet this distance for • versions air is advisable to mount the rear spacer as shown in the annex to this manual.
- 500 mm between the back and side walls.

Once unpacked and placed in the ground equipment, approach and level them taking them at the same height.

Channeling then adjoining equipment (1-2 and 2-3) by following the instructions laid down in annex.

If they were not already pre-assembled, mount the shoulders S and D according to the instructions attached.

Once installation is complete, ensure stability and leveling using the adjustable feet (all of which must touch the ground).



#### Warning:

It is absolutely necessary after placement level I' equipment to the floor.



#### Warning:

E' assolutamente necessario dopo il posizionamento livellare l' apparecchiatura a pavimento.







PANDA USE AND MAINTENANCE MANUAL

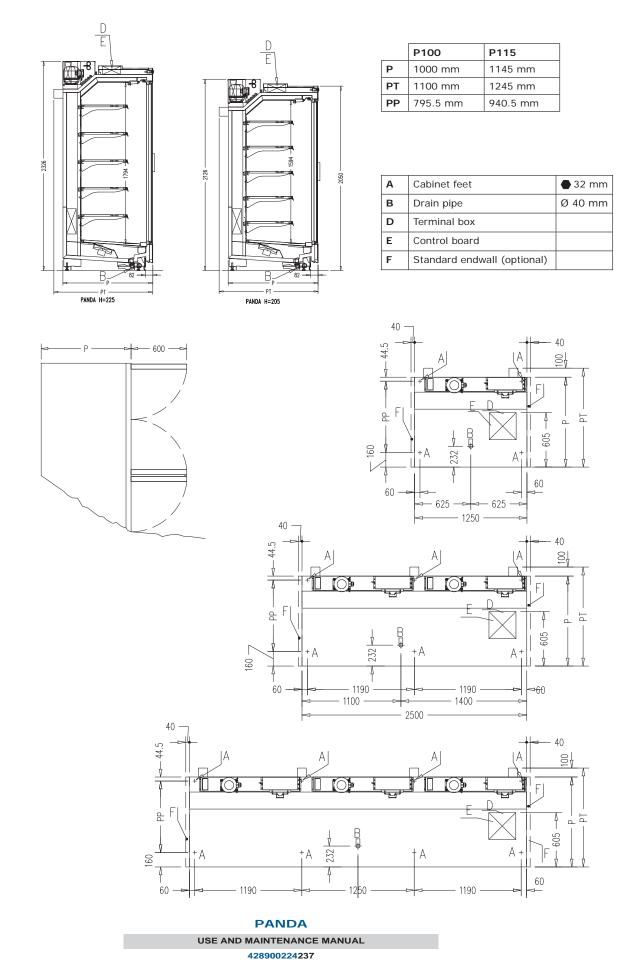
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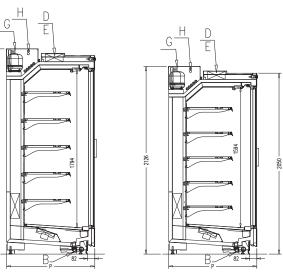


## 5.2 Technical plan - AIR cooled





## 5.2 Technical plan - WATER cooled



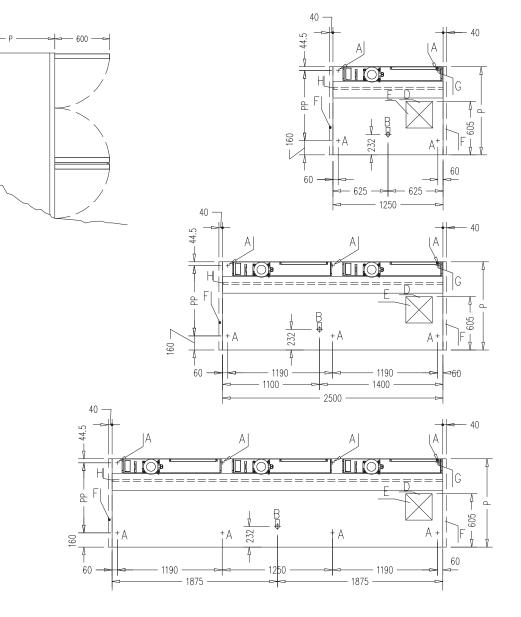
	P100	P115
Р	1000 mm	1145 mm
PP	795.5 mm	940.5 mm

Α	Cabinet feet	🖨 32 mm
в	Drain pipe	Ø 40 mm
D	Terminal box	
E	Control board	
F	Standard endwall (optional)	
G	H20 IN / H20 OUT	1/2″ F
н	Piping H20	

PANDA H=225

2326 -

PANDA H=205



PANDA USE AND MAINTENANCE MANUAL

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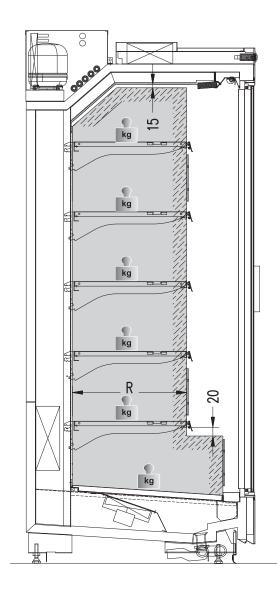


## 5.3 Load limits

### 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.

The limits indicated refer to a static and evenly distributed load. Therefore dynamic overloads due to violent loading operations are excluded, which must be prevented foe safety reasons.





## 5.4 Shelf load limits (max)

Shelves: **165** Kg/m2 Bottom plates: **165** Kg/m2

The maximum number of shelves is that represented in the silhouette shown in the manual



kg

#### 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.

PANDA

USE AND MAINTENANCE MANUAL



## 5.5 Connecting the water line (water cooled)

If provided in the condensation water, the device provides for the connection to an external line with water at Pmax < 4 bar.

The following table shows the data required for the sizing of the line and the external cooling system.

		Panda water coo	led condensation
version	-	chilled water	air-cooled water
Tin (min/max)	[°C]	5 / 15	25 / 35
Toutdoor (min/max)	[°C]	n/a	20 / 30
Tin (nominal)	[°C]	13	33
Tout (nominal)	[°C]	20	40
Flow rate L=125	[m3/h]	0,1	0,1
Flow rate L=250	[m3/h]	0,2	0,2
Flow rate L=375	[m3/h]	0,3	0,3
Pressure drop	bar	0,5	0,5



#### Attention

The unit on board equipment is not equipped with a control system of the water freezing. In the case of water-cooled chiller is equipped to ensure that the controls anti-freeze.



USE AND MAINTENANCE MANUAL

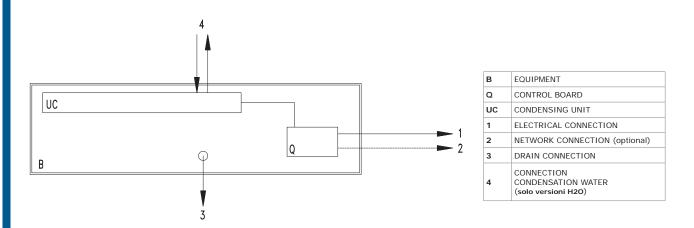


## 6. DESCRIPTION OF THE APPLIANCE

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

Once the appliance is installed, it is an integral part of the electric plant, a cooling plant and a hydraulic plant and can be schematized according to the following layout.



The appliance is made up from:

- an external support structure.
- insulation in ecological polyurethane.
- an internal support structure.
- internal display sheets.
- an electric plant that refers to a connection terminal board to the electric plant.
- a control board.
- a condensing unit to R744 (CO<sub>2</sub>) which, in the case of versions to water, is connected to a circulation system and cooling water.
- a system for collecting condensation water that ends on a drain connection to the hydraulic.

## 6.2 Refrigerant R744 (CO<sub>2</sub>)

The refrigerant **R744** (**CO**<sub>2</sub>) is a gas that is compatible with the environment.

Pay close attention during transport, installation and that the destruction not to damage the refrigerant pipelines.

#### IN THE EVENT OF DAMAGE:

Keep away from the flame or ignition sources. Properly ventilate the premises for a few minutes. Turn the unit off, pull the plug. Inform customer support service.

#### WARNING

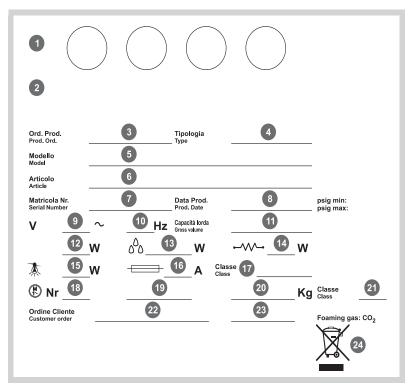
The refrigerant system is **High Pressure**. Do not tamper with the system, but call a specialised and qualified technician before disassembly. Maintenance must be performed exclusively by qualified staff.



PANDA USE AND MAINTENANCE MANUAL



## 6.3 Identification



1	Symbols of Compliance
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 - Voltage and Frequency
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

PANDA

USE AND MAINTENANCE MANUAL

## 7. CONTROL PANEL



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The counter subject of this manual, can be fitted with an electronic command and supervision unit which, even being an integral part of the appliance, is provided with a separate manual to be consulted for all details.



USE AND MAINTENANCE MANUAL



## 8. CLEANING

## 8.1 Inside the cabinet

**a**) Remove the product contained in the cabinet and put it immediately in a relevant cold storage container in order to guarantee correct preservation.

**b**) Switch the appliance off.

Wait at least 4 to 6 hours, until the ice on the evaporator has melted completely, before proceeding with cleaning operations. We recommend waiting until the following day to make sure the product has been completely defrosted.

c) 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.

**d**) Whenever the appliance is fitted with drain, allow warm water to run through containing a suitable sanitizing solution. The amount of solution to use must be such to ensure perfect removal of any product residues and correct sanitization along the entire drainage route.

If the appliance is not connected to a drain channelled into the ground, follow the procedure described in the previous paragraph. The water used to rinse the solution should be collected in the tray located inside the base of the appliance. Clean and disinfect the collection tray.

## 8.2 External

The following 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**

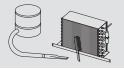
Only use products specifically designed for cleaning glass. We do not recommend using tap water, which may leave calcium deposits on the surface of the glass.

## 8.3 Condenser (air)

To access the condenser, turn off the device, wait a few hours until the equipment of condensing unit has reached a temperature close to that of the environment; then remove the top cover and proceed to clean.



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



PANDA USE AND MAINTENANCE MANUAL



## 9. MAINTENANCE

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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		FREQ	JENC	r			AUTHORI SED PERSONNEL
	Depending on the Use and Necessity	Monthly	six-month	Annual	ORDINARY	EXTRAORDINARY	
CLEANING THE EXTERNAL SURFACES	x				x		
CLEANING THE ACCESSIBLE INTERNAL PARTS (without the use of tools)	x				x		
CONTROL POWER SUPPLY CABLE, PLUGS AND / OR ELECTRICAL SOCKETS			x		x		USER
INTEGRITY CONTROL SEAL		x			x		
FILTER CLEANING CONDENSING UNIT (whenever present)			x		x		
CLEANING THE DEFROSTING WATER COLLECTION TRAY	x				x		
CONDENSER CLEANING	x			x	x		
CHECK COMPRESSORE OIL LEVEL (whenever present)			x		x		
AIR TANK DRAINING (whenever present)			x		x		
CONTROL PNEUMATIC CONNECTIONS (whenever present)			x		x		Y
INTEGRITY CONTROL PIPE COOLING SYSTEM			x		x		TECHNICAL ASSISTANCE SERVICE
INSPECTION OF CABLES INTERNAL CONNECTIONS AND POWER			x		x		
CLEANING CONDENSATE DRYING SPONGES (whenever present)			x		x		
LAMP / LED REPLACEMENT (whenever present)						x	
CONTROL PANEL REPLACING (electronic control unit - thermostat - etc)						x	
REPLACEMENT POWER SUPPLY CABLE, PLUGS AND / OR ELE	ECTRICAL	SOCH	ETS			x	
Attention							

After all maintenance it is **mandatory** to perform all electric safety tests in agreement with the IEC EN 50106 Standard.

PANDA USE AND MAINTENANCE MANUAL



## **10. FAULTS - TECHNICAL AFTER-SALES ASSISTANCE**

If the appliance is not working properly or stops working, **before contacting** the **Customer support centre**, check the following:

FAULT	CAUSE	SOLUTION	AUTHORI SED PERSONNEL
THE APPLI- ANCE IS	Blown protective fuse	Previously find the cause of the intervention of the switch, and then re-introduce the new fuse.	USER
NOT WORK- ING	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 INTER- NAL TEM-	Evaporator/s obstructed com- pletely by ice	Carry out an additional defrosting cycle.	USER
PERATURE IS NOT LOW ENOUGH	Wrong setting temperature	Set the appropriate temperature.	
	The appliance is affected by draughts or is exposed to direct or reflected sunlight	Remove any draughts and prevent any direct or reflected sunlight.	
	Insufficient cooling air flow rate of the air condenser	Remove anything that may affect air flow inside the condens- ing unit (paper sheets, cardboard, grids with an insufficient number of holes, etc.).	
	Internal fans at standstill or with	n fans damage	TECHNICAL
	Internal ventilation is too high		ASSISTANCE
	Thermostat / Electronic control unit is not efficient	Replace the electronic control board. If the control unit is set up especially for must <b>R290</b> refrigerant, it must only be replaced with an original replacement from ISA. Replace the temperature probes only after checking which of the two is not operating efficiently.	
	Air condenser blocked by dust or dirt in general	Clean the condensing unit thoroughly. The air condenser or MAINTENANCE FREE, in particular heavy environments (eg presence of dust, the presence of excessive moisture, oiled vapours etc) in order to avoid performance loss, needs accurate cleaning.	
	Insufficient refrigerant load in the cooling system	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	No electric power supply to the appliance	Check if there is a power cut. Close the various switches on the power supply line.	USER
DOES NOT START-UP OR OPER-	The power supply voltage is too low	Check that the network voltage of the power supply cable is 220V +/- 10%.	
ATES FOR A FEW MOMENTS	Temperature set too high	If the set temperature is higher than that of the air in the dis- play area, the compressor does not activate itself. Set a more suitable temperature if the current value is not low enough	
	The pressure switch (if any) was activated at maximum pressure	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.	TECHNICAL ASSISTANCE

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USE AND MAINTENANCE MANUAL



## **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



USE AND MAINTENANCE MANUAL



#### Attachment 1 - DECLARATION OF CONFORMITY

### **DECLARATION OF CONFORMITY**

#### We: ISA S.r.I.

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

declare under our own responsibility, that the product:

#### Product: PANDA

Serial number: .....

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

#### MACHINERY SAFETY

General electric safety Standard EN 60335-1/Ed.2002+Modifications A11:2004,A1:2004,A1:2006,A2:2006 + A13:2008 A15:2011. Particular requirements for commercial refrigerating appliances EN 60335-2-89/Ed.2010. Standard for Measuring Electromagnetic Fields (EMF) of Electrical Appliances EN 62233:2008, Directive 2006/95/EC 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 Photo-biologic 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+Modification 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=16A 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 into 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 2011/95/EC of the European Parliament and of the Council of 8th June 2011 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 REDUCE THE 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)

Minelli Maurizio

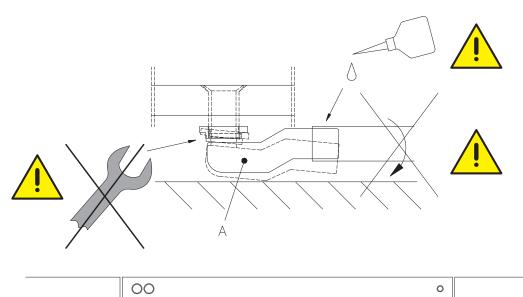
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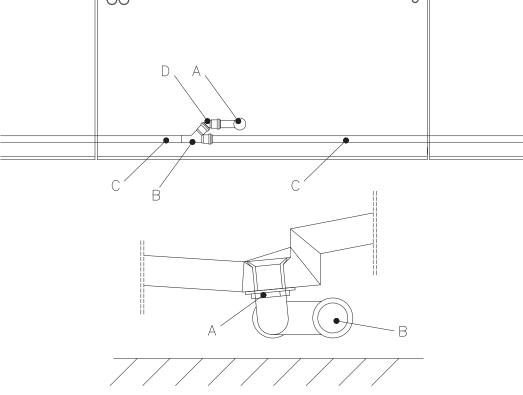
PANDA USE AND MAINTENANCE MANUAL 428900224237

Bastia Umbra: **04** / **08** / **2014** (place and date of issue)



## Attachment 2 - DISCHARGE





Α	Discharge	Ø 40 mm
В	Braga - <b>Z</b> max: 45°	Ø 40 mm
С	Quick connections pipes	Ø 40 mm
D	Curved tube 45°	Ø 40 mm

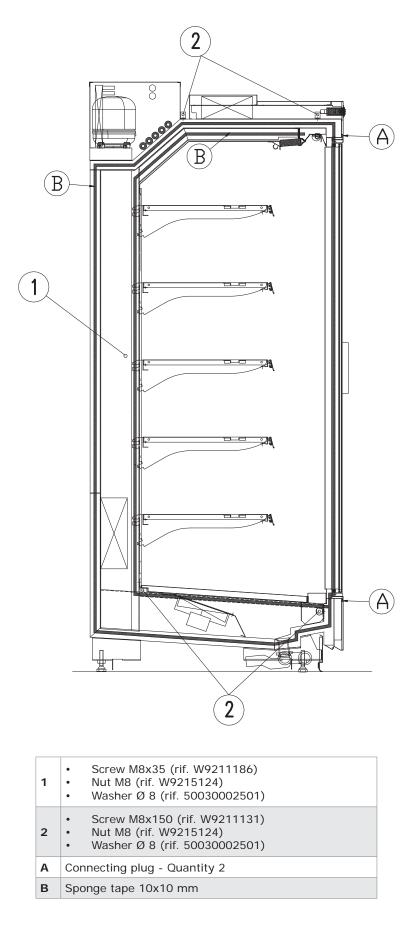


USE AND MAINTENANCE MANUAL

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#### Attachment 3 - DUCTING

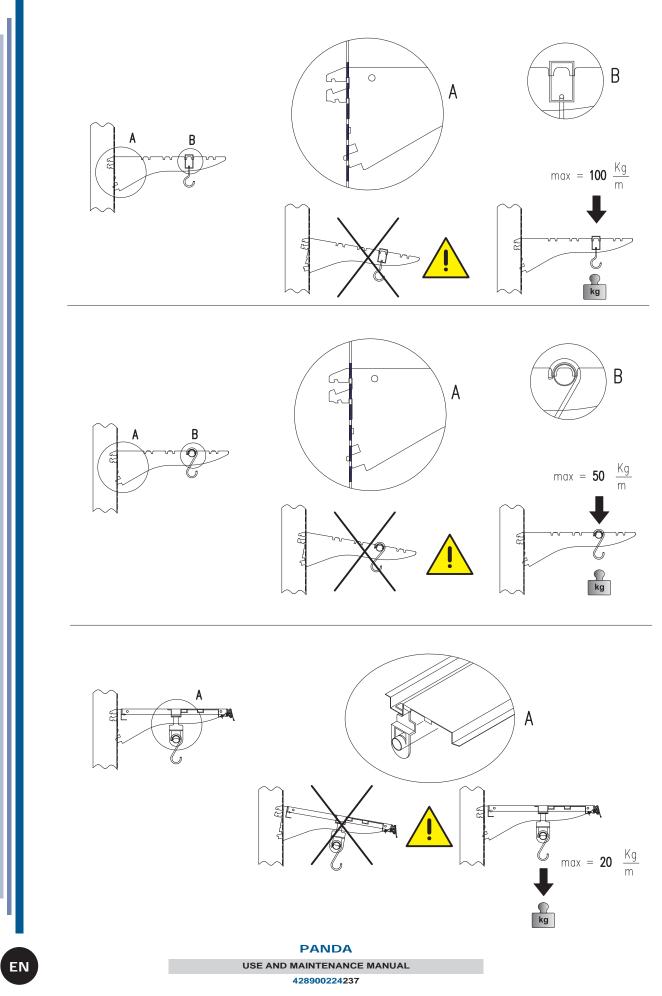


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#### USE AND MAINTENANCE MANUAL

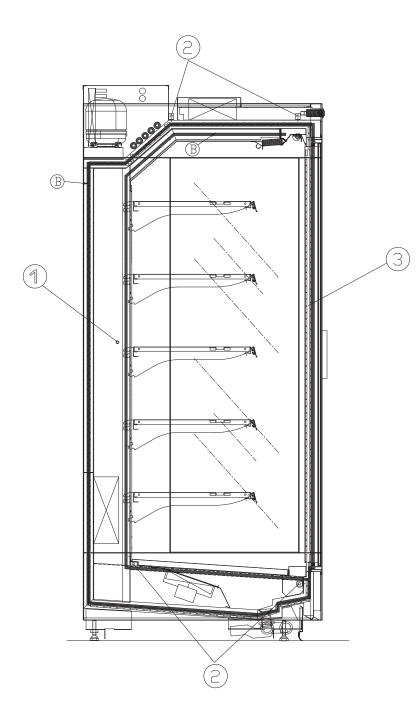


## Attachment 4 - BRACKETS





## Attachment 5 - SIDE ASSEMBLY



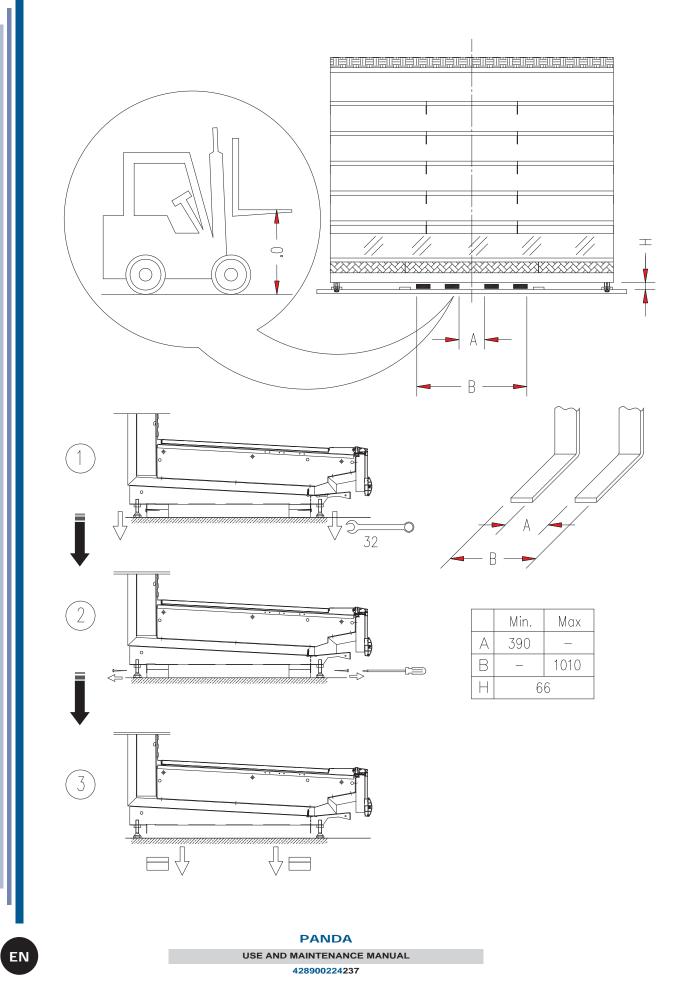
1	• Screw M6x30 (rif. 50010804709)	
2	<ul> <li>Screw A-FOR M5x70 (rif. W9211983)</li> <li>Nut M8 (rif. W9215124)</li> <li>Washer Ø 8 (rif. 50030002501)</li> </ul>	
3	Bolts included frame doors	
в	Sponge tape 10x10 mm	

#### PANDA

#### USE AND MAINTENANCE MANUAL

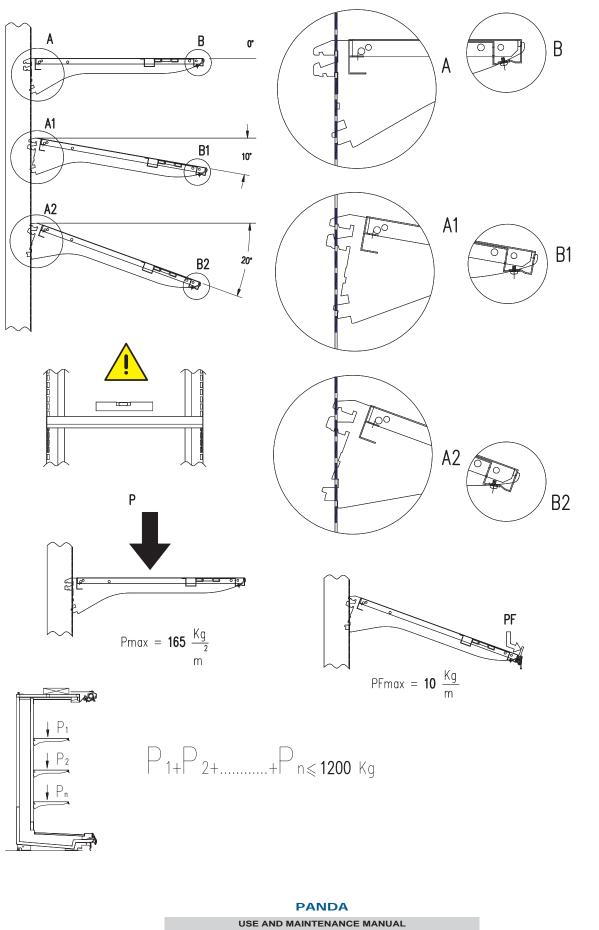


Attachment 6 - UNPACKING AND HANDLING





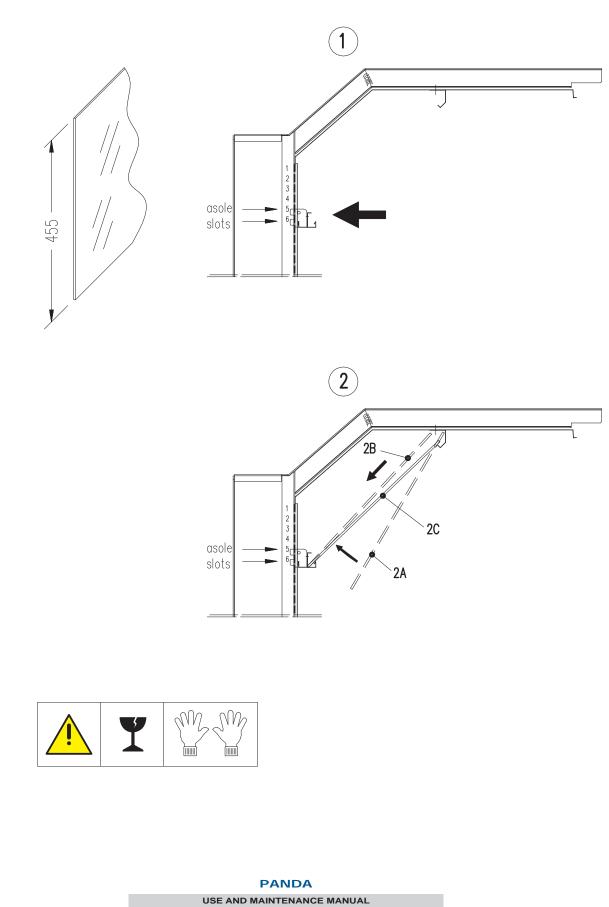
### Attachment 7 - BRACKETS



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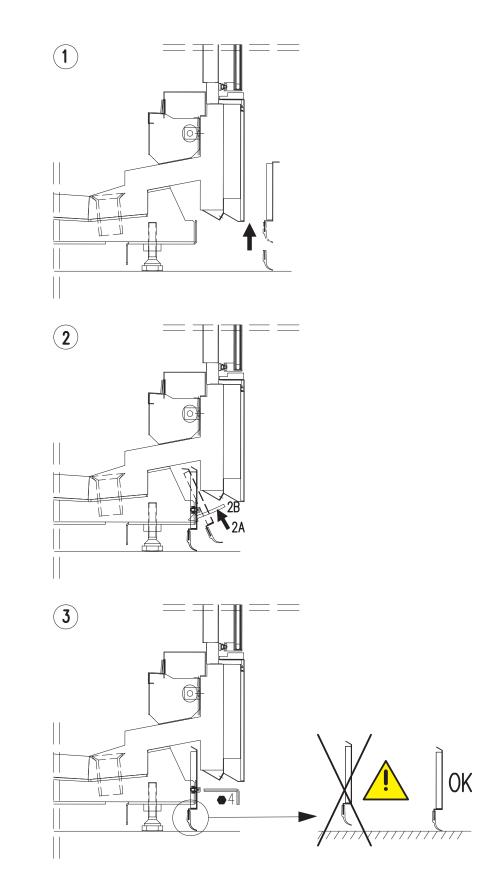
Attachment 8 - MIRROR



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## Attachment 9- BASE BOARDS

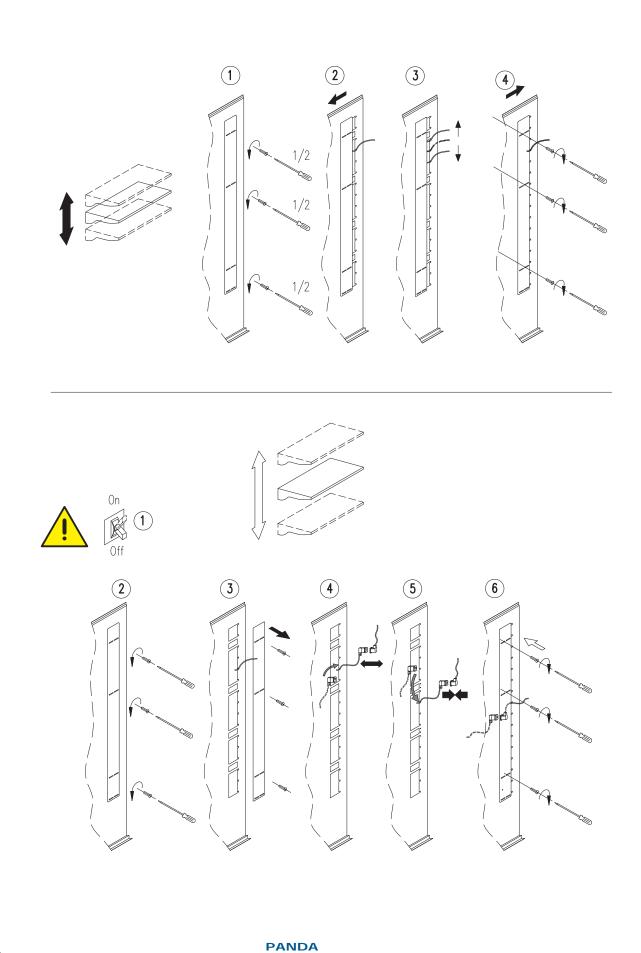


PANDA USE AND MAINTENANCE MANUAL

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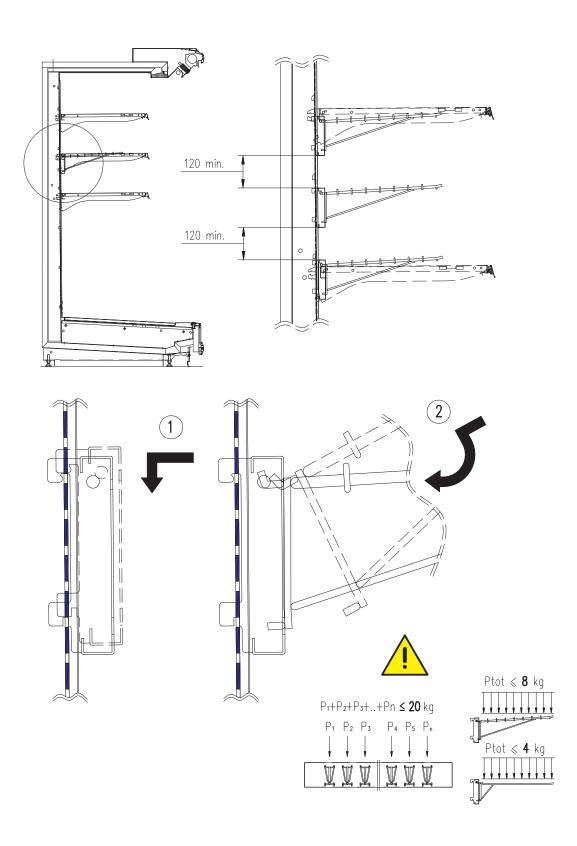
Attachment 10 - CHANGE IN SHELVES



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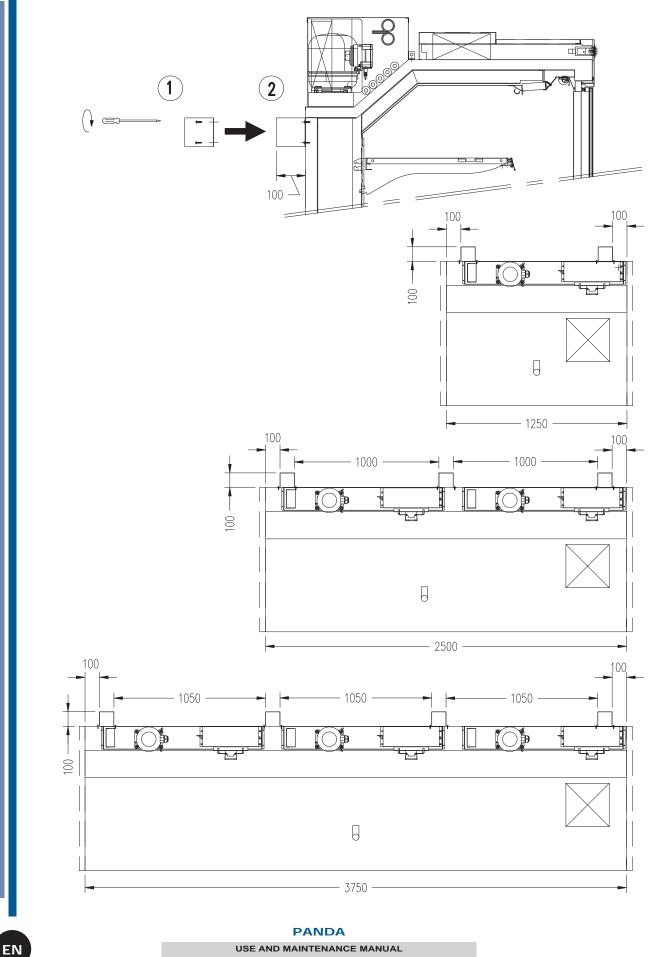


#### Attachment 11 - HOOKS





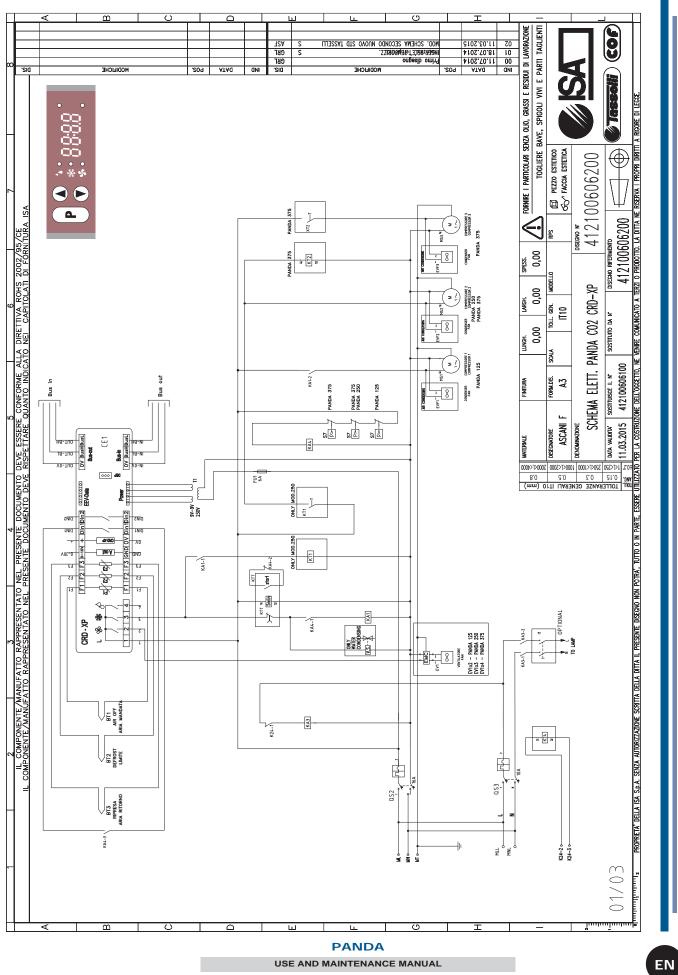
### Attachment 12 - SPACERS REAR



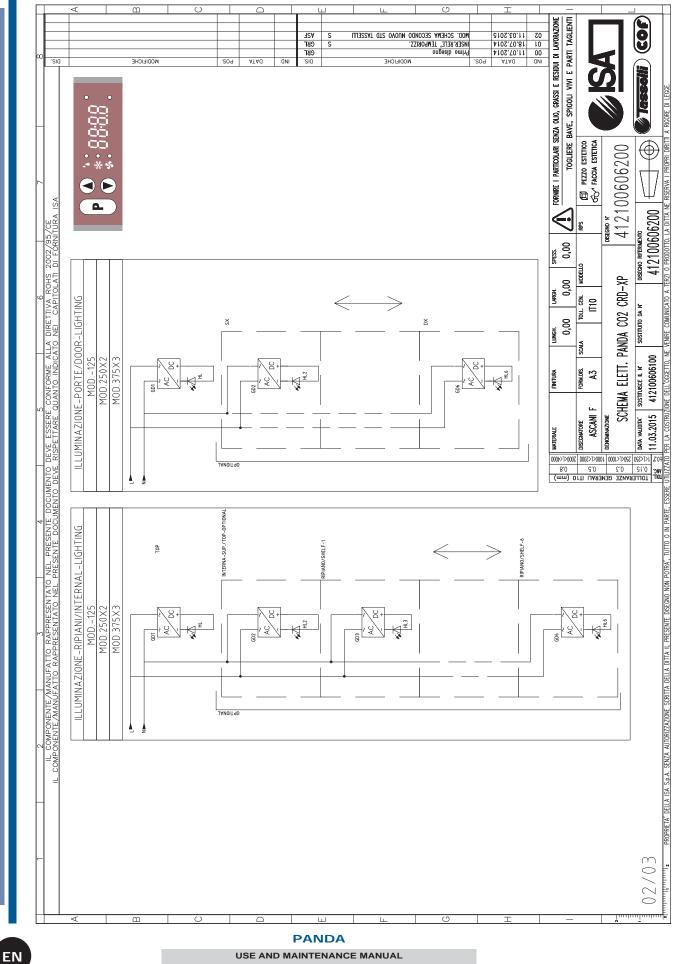
USE AND MAINTENANCE MANUAL



Attachment 13 - WIRING DIAGRAM - 412100606200 - Sheet 1 of 3

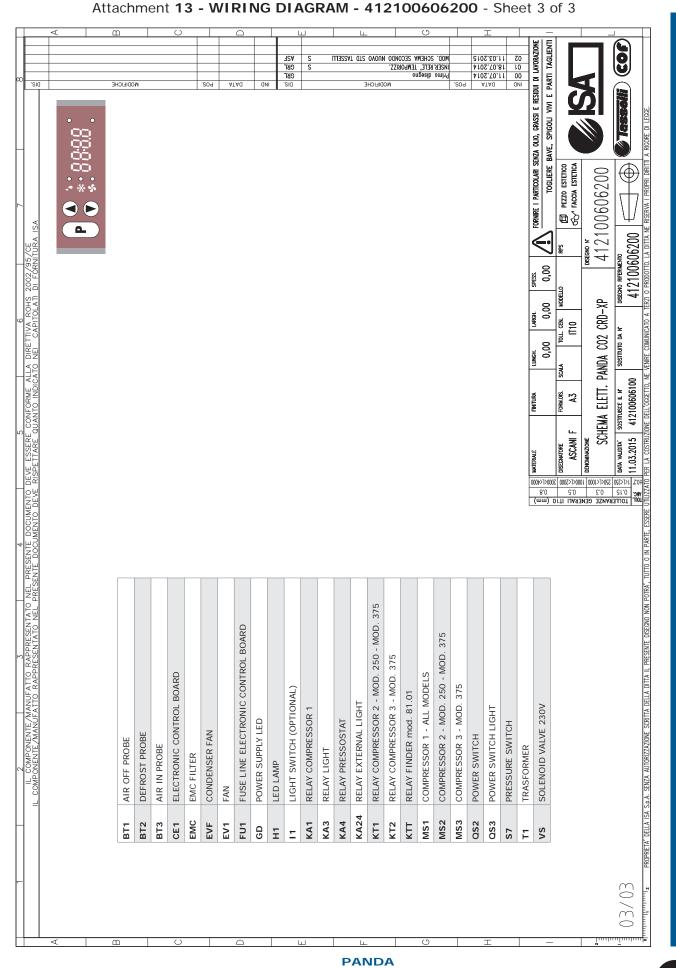






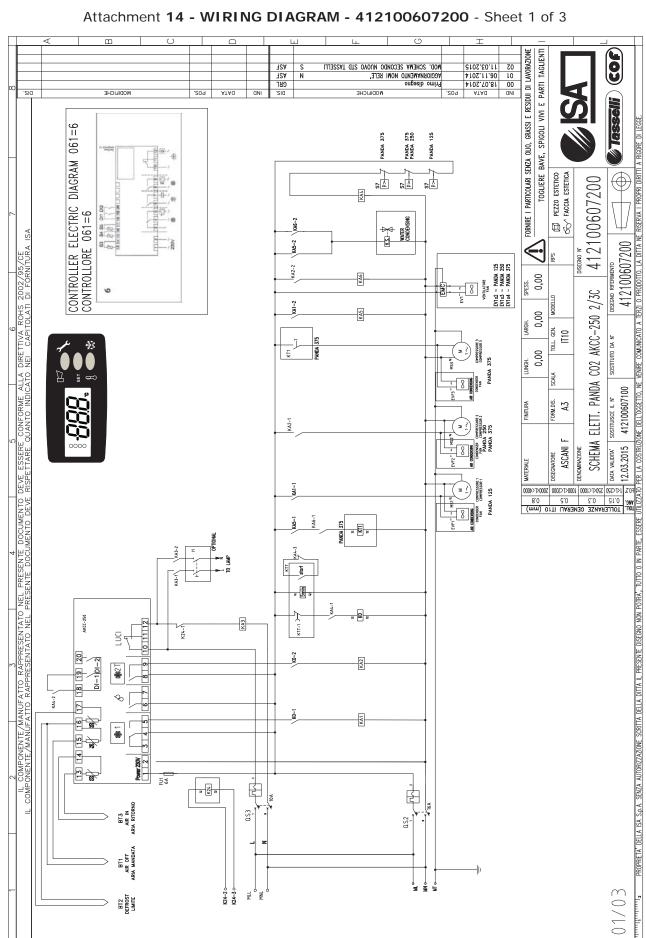
#### Attachment 13 - WIRING DIAGRAM - 412100606200 - Sheet 2 of 3





# USE AND MAINTENANCE MANUAL





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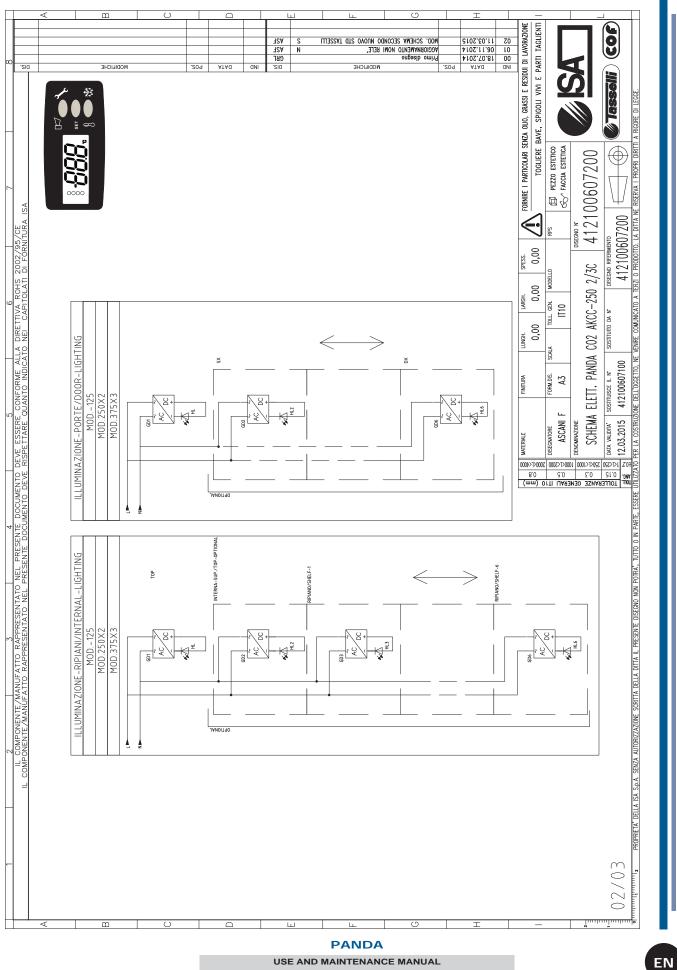
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#### USE AND MAINTENANCE MANUAL

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Attachment 14 - WIRING DIAGRAM - 412100607200 - Sheet 2 of 3

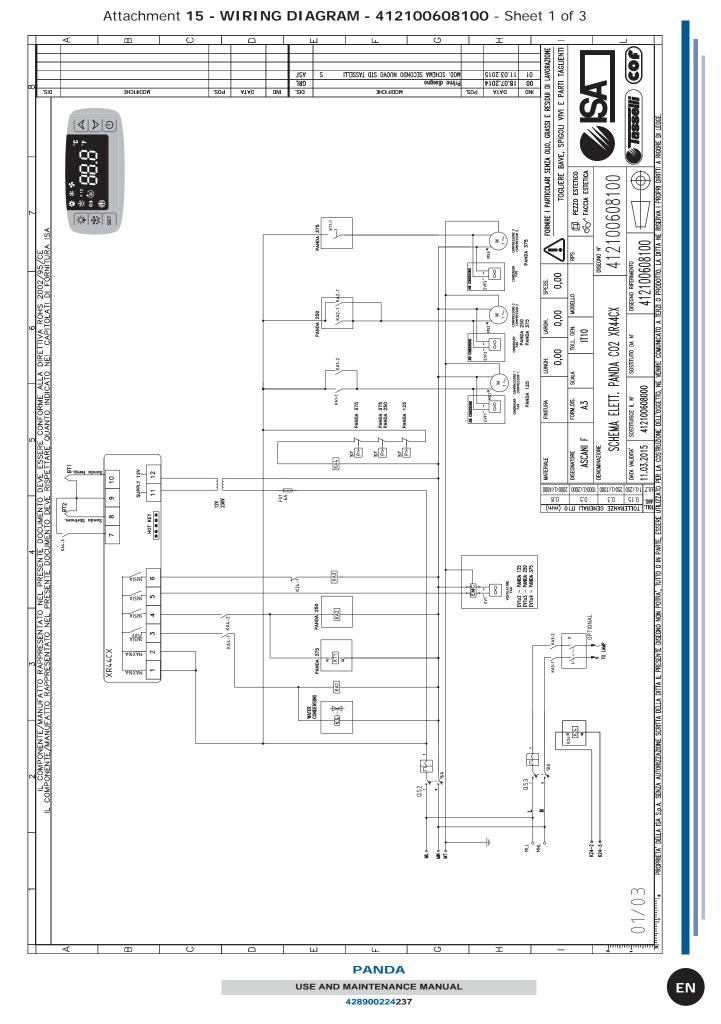




# Attachment 14 - WIRING DIAGRAM - 412100607200 - Sheet 3 of 3

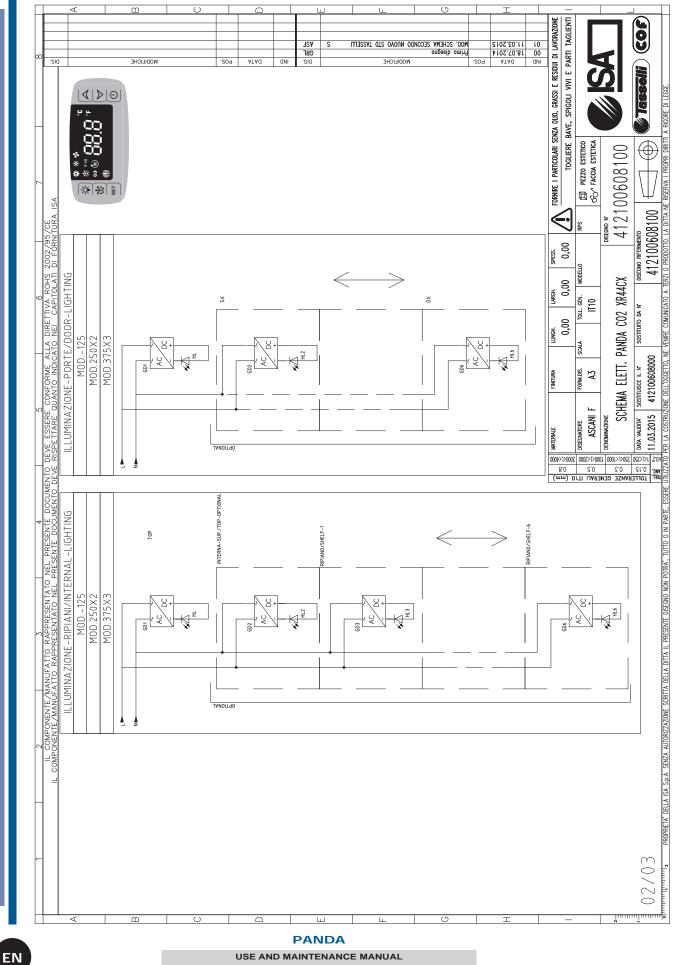
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PRESENTATO					IL BOARD				IC CONTROL BOARD			ONAL)		1	2		ІТСН	-ENOID VALVE	2	HT	250 - MOD.		31.01		- MOD.	D. 375		Т		λ		
3 /MANUFATTO RAPPRESENTATO JFATTO RAPPRESENTATO NEL					NTROL BOARD				FRONIC CONTROL BOARD	ED		OPTIONAL)	×	SOR 1	SOR 2		E SWITCH	Y SOLENOID VALVE	SOR 2	- LIGHT	250 - MOD.		nod. 81.01		- MOD. 250 - MOD.	- MOD.		LIGHT	СН	E 230V		
3 /MANUFATTO RAPPRESENTATO JFATTO RAPPRESENTATO NEL		DBE	ROBE	3E	C CONTROL BOARD		r fan		ELECTRONIC CONTROL BOARD	PLY LED		CH (OPTIONAL)	LIARY			Т	SURE SWITCH	LIARY SOLENOID VALVE	PRESSOR 2	RNAL LIGHT	250 - MOD.		ER mod. 81.01		- MOD. 250 - MOD.	- MOD.	TCH	TCH LIGHT	SWITCH	/ALVE 230V		
3 /MANUFATTO RAPPRESENTATO JFATTO RAPPRESENTATO NEL		F PROBE	ST PROBE	PROBE	ZONIC CONTROL BOARD	LTER	NSER FAN		INE ELECTRONIC CONTROL BOARD	SUPPLY LED	MP	SWITCH (OPTIONAL)	AUXILIARY			LIGHT	PRESSURE SWITCH	AUXILIARY SOLENOID VALVE	COMPRESSOR 2	EXTERNAL LIGHT	250 - MOD.		FINDER mod. 81.01		- MOD. 250 - MOD.	- MOD.	SWITCH	SWITCH LIGHT	JRE SWITCH	OID VALVE 230V		
PRESENTATO		R OFF PROBE	EFROST PROBE	R IN PROBE	ECTRONIC CONTROL BOARD	AC FILTER	DNDENSER FAN	Z,	JSE LINE ELECTRONIC CONTROL BOARD	DWER SUPPLY LED	D LAMP	GHT SWITCH (OPTIONAL)	elay auxiliary			егау ціднт	ELAY PRESSURE SWITCH	ELAY AUXILIARY SOLENOID VALVE	ELAY COMPRESSOR 2	ELAY EXTERNAL LIGHT	250 - MOD.		ELAY FINDER mod. 81.01		- MOD. 250 - MOD.	- MOD.	DWER SWITCH	DWER SWITCH LIGHT	RESSURE SWITCH	DLENOID VALVE 230V		
3 /MANUFATTO RAPPRESENTATO JFATTO RAPPRESENTATO NEL		AIR OFF PROBE	DEFROST PROBE	3 AIR IN PROBE	ELECTRONIC CONTROL BOARD	C EMC FILTER	CONDENSER FAN	I FAN	FUSE LINE ELECTRONIC CONTROL BOARD	POWER SUPPLY LED	LED LAMP	LIGHT SWITCH (OPTIONAL)	D RELAY AUXILIARY	RELAY COMPRESSOR	RELAY COMPRESSOR	3 RELAY LIGHT	4 RELAY PRESSURE SWITCH	5 RELAY AUXILIARY SOLENOID VALVE	RELAY COMPRESSOR	24 RELAY EXTERNAL LIGHT	RELAY COMPRESSOR 2 - MOD. 250 - MOD.	RELAY COMPRESSOR 3 - MOD.		COMPRESSOR 1 - ALL MODELS	COMPRESSOR 2 - MOD. 250 - MOD.	COMPRESSOR 3 - MOD.	2 POWER SWITCH	POWER SWITCH LIGHT	PRESSURE SWITCH	SOLENOID VALVE 230V		
2 IL COMPONENTE/MANUFATTO RAPPRESENTATO COMPONENTE/MANUFATTO RAPPRESENTATO NEL		BT1 AIR OFF PROBE	BT2 DEFROST PROBE	BT3 AIR IN PROBE	CE1 ELECTRONIC CONTROL BOARD	EMC EMC FILTER	EVF CONDENSER FAN	EV1 FAN	FU1 FUSE LINE ELECTRONIC CONTROL BOARD	GD POWER SUPPLY LED	H1 LED LAMP	11 LIGHT SWITCH (OPTIONAL)	KAO RELAY AUXILIARY			KA3 RELAY LIGHT	KA4 RELAY PRESSURE SWITCH	KA5 RELAY AUXILIARY SOLENOID VALVE	KA6 RELAY COMPRESSOR 2	KA24 RELAY EXTERNAL LIGHT	RELAY COMPRESSOR 2 - MOD. 250 - MOD.			COMPRESSOR 1 - ALL MODELS	COMPRESSOR 2 - MOD. 250 - MOD.	COMPRESSOR 3 - MOD.	OS2 POWER SWITCH	QS3 POWER SWITCH LIGHT	S7 PRESSURE SWITCH	VS SOLENOID VALVE 230V		
2 IL COMPONENTE/MANUFATTO RAPPRESENTATO COMPONENTE/MANUFATTO RAPPRESENTATO NEL														RELAY COMPRESSOR	RELAY COMPRESSOR				RELAY COMPRESSOR		RELAY COMPRESSOR 2 - MOD. 250 - MOD.	RELAY COMPRESSOR 3 - MOD.		COMPRESSOR 1 - ALL MODELS	COMPRESSOR 2 - MOD. 250 - MOD.	COMPRESSOR 3 - MOD.						
2 IL COMPONENTE/MANUFATTO RAPPRESENTATO COMPONENTE/MANUFATTO RAPPRESENTATO NEL														RELAY COMPRESSOR	RELAY COMPRESSOR				RELAY COMPRESSOR		RELAY COMPRESSOR 2 - MOD. 250 - MOD.	RELAY COMPRESSOR 3 - MOD.		COMPRESSOR 1 - ALL MODELS	COMPRESSOR 2 - MOD. 250 - MOD.	COMPRESSOR 3 - MOD.						
2 IL COMPONENTE/MANUFATTO RAPPRESENTATO COMPONENTE/MANUFATTO RAPPRESENTATO NEL	4					EMC					H1	2	KAO	RELAY COMPRESSOR	KA2 RELAY COMPRESSOR	KA3	KA4		RELAY COMPRESSOR		RELAY COMPRESSOR 2 - MOD. 250 - MOD.	KT2 RELAY COMPRESSOR 3 - MOD.		COMPRESSOR 1 - ALL MODELS	COMPRESSOR 2 - MOD. 250 - MOD.	COMPRESSOR 3 - MOD.					<u></u>	







Attachment 15 - WIRING DIAGRAM - 412100608100 - Sheet 2 of 3



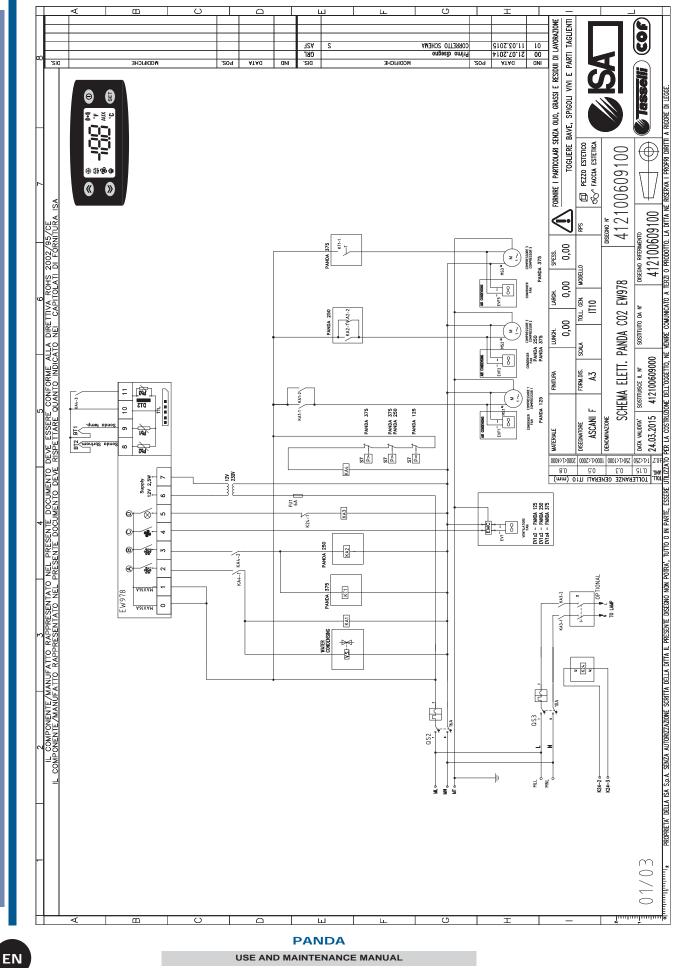


## Attachment 15 - WIRING DIAGRAM - 412100608100 - Sheet 3 of 3

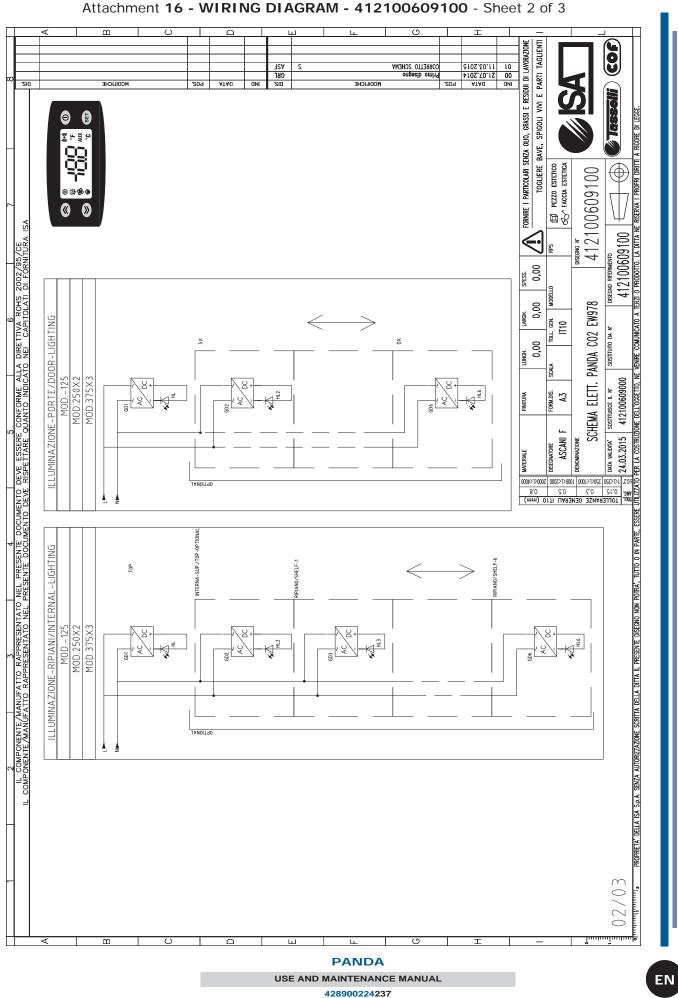
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atı di fórnítura isa	4 € 00.00 • 5 € • 5 € • 6 € • 6 € • 6 €	٦																								-	O,00 FORNIRE I PA		DISECNO N	X   412100608100	DISERVIC RIFERIMENTO
INDICATO NEI CAPITOLATI																										-	ка UNGH. UARGH. 0,00 0,00	SCALA TOLL. GEN.		SCHEMA ELETT. PANDA CO2 XR44CX	L N° SOSTITUTO DA N° 08000
RISPETTARE QUANTO INDICATO																											MATERALE FUNTURA	DISEGNATORE FORM.DIS.	AOUAINI F DENOMINAZIONE	SCHEMA ELE	DATA VALIDITA'         SOSTITUISCE IL N           11.03.2015         412100608000
COMPONENTE/MANUFATTO RAPPRESENTATO NEL PRESENTE DOCUMENTO DEVE						OARD				CONTROL BOARD				- MOD 250		Т		MOD. 375	DELS	250 - MOD. 375	375	AL)					(uuū)	<u>011   1</u>	<u>Genera</u>	<u>- 32NV2</u>	
IL COMPONENTE/MANÚFATTO			AIR OFF PROBE	DEFROST PROBE	AIR IN PROBE	ELECTRONIC CONTROL BOARD	EMC FILTER	CONDENSER FAN	FAN	FUSE LINE ELECTRONIC CONTROL BOARD	POWER SUPPLY LED	LED LAMP	RELAY COMPRESSOR 1	RELAY COMPRESSORE 2 -	RELAY LIGHT	RELAY PRESSURE SWITCH	RELAY EXTERNAL LIGHT	RELAY COMPRESSOR 2 - MOD. 375	COMPRESSOR 1 - ALL MODELS	COMPRESSOR 2 - MOD. 250 - MOD.	COMPRESSOR 3 - MOD. 375	LIGHT SWITCH (OPTIONAL)	POWER SWITCH	POWER SWITCH LIGHT	PRESSURE SWITCH	TRANSFORMER	SOLENOID VALVE 230V				
			BT1	BT2	BT3	CE1	EMC	EVF	EV1	FU1	GD	H	KA1	KA2	KA3	KA4	KA24	KT1	MS1	MS2	MS3	QS1	QS2	QS3	S7	T1	NS				
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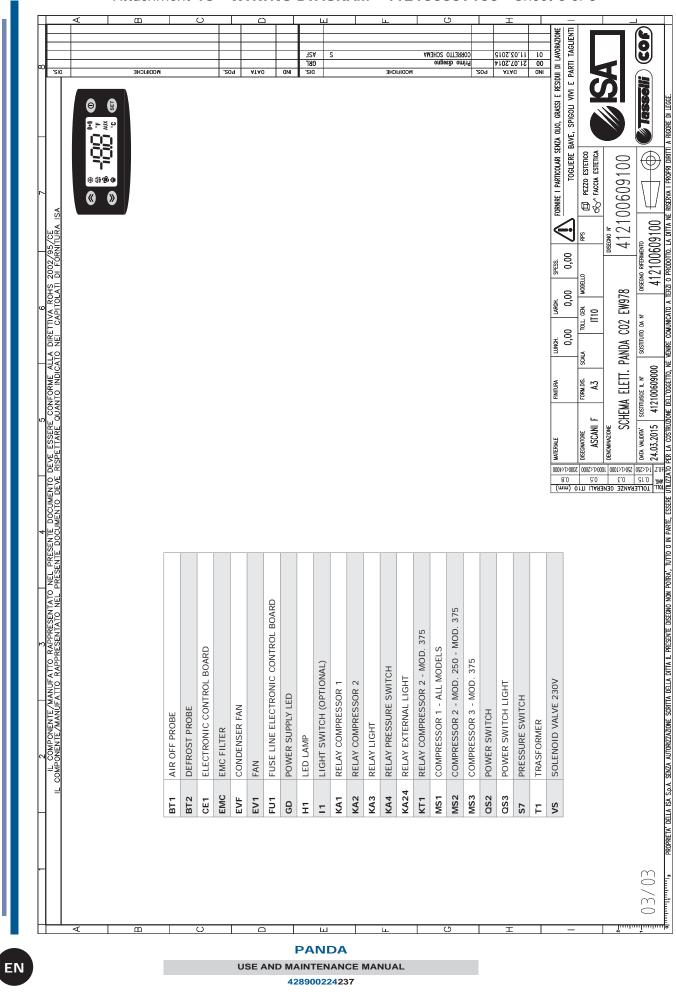
Attachment 16 - WIRING DIAGRAM - 412100609100 - Sheet 1 of 3





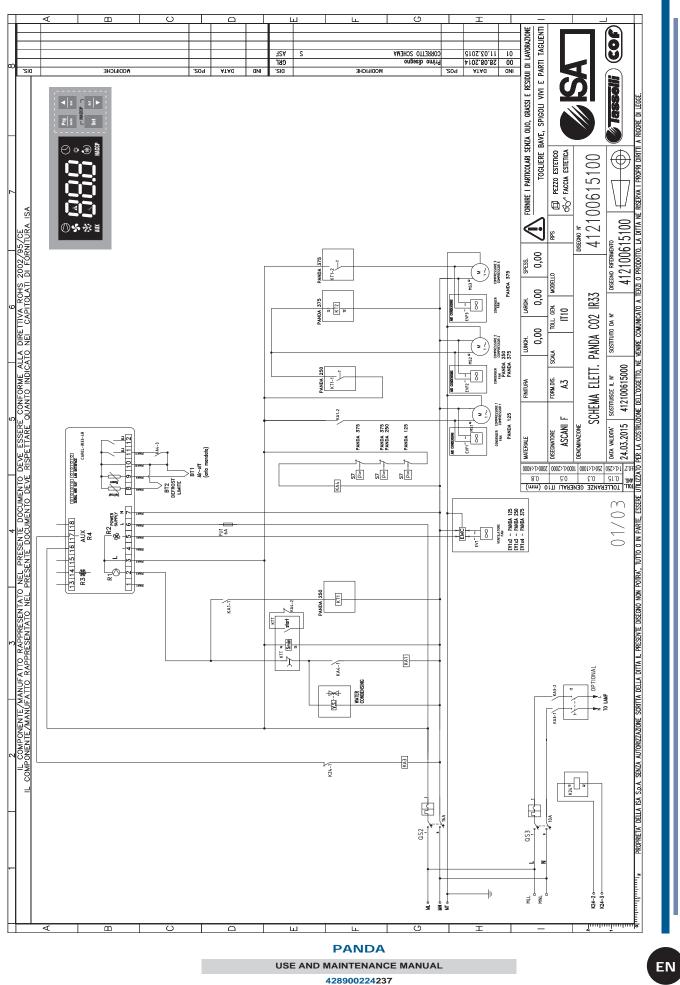






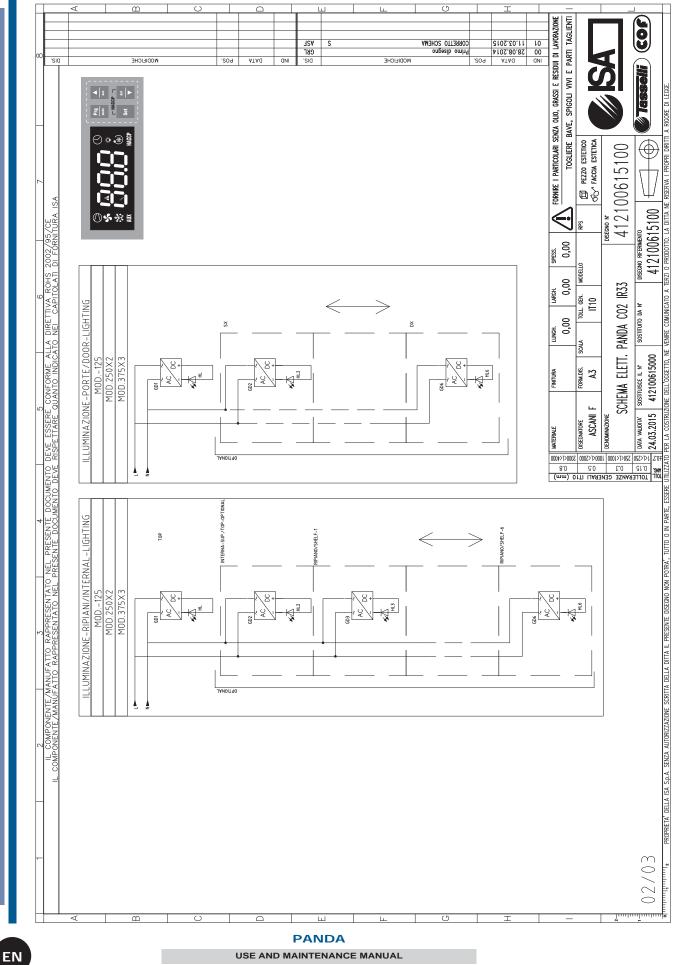


Attachment 17 - WIRING DIAGRAM - 412100615100 - Sheet 1 of 3



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#### Attachment 17 - WIRING DIAGRAM - 412100615100 - Sheet 2 of 3



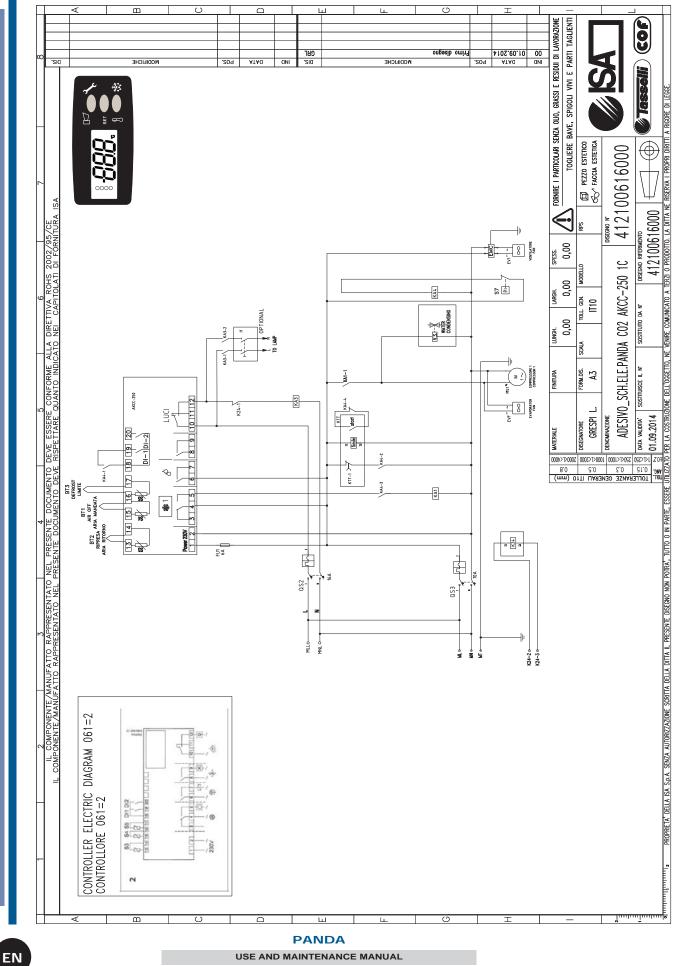


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L PRESENTE DOCUMENTO DEVE RISPETTARE QUANTO INDICATO NEL CAPITOLATI DI FORNITURA ISA								-																	WITERME FINITIERA LUNGH. LUNGH. SPESS. REPORTED I PARTICOLARI SENZA OLIO, GRASSI E RESIDI	B DESENVIORE FORUDE. SOUL TOLL ERI. MODELLO RPS TO PIZZ	ASCANI F A3 IT10 Prevantations	BERNAMMAZONE SCHFMA FIFTT. PANDA CO7 1R33	рих иллиги sostitutose L и sostitutio da и ресемо внетаме 24.03.2015 412100615000 412100615000 41210000
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IL COMPONENTE/MANUFATTO RAPPRESENTATO NEL PRESENTE	AIR OFF PROBE	DEFROST PROBE	AIR IN PROBE	ELECTRONIC CONTROL BOARD	EMC FILTER	CONDENSER FAN	FAN	FUSE LINE ELECTRONIC CONTROL BOARD	POWER SUPPLY LED	LED LAMP	RELAY COMPRESSOR 1	RELAY LIGHT	RELAY PRESSURE SWITCH	RELAY EXTERNAL LIGHT	RELAY COMPRESSOR 2 - MOD. 250 - MOD. 375	RELAY COMPRESSOR 3 - MOD. 375	RELAY FINDER mod. 81.01	COMPRESSOR 1 - ALL MODELS	COMPRESSOR 2 - MOD. 250 - MOD. 375	COMPRESSOR 3 - MOD. 375	LIGHT SWITCH (OPTIONAL)	POWER SWITCH	POWER SWITCH LIGHT	PRESSURE SWITCH	SOLENOID VALVE 230V				
COMPONENTE/MANUFATTO RAPPRESENTATO NE	BT1 AIR OFF PROBE	BT2 DEFROST PROBE	BT3 AIR IN PROBE		EMC EMC FILTER		EV1 FAN	FU1 FUSE LINE ELECTRONIC CONTROL BOARD	GD POWER SUPPLY LED	H1 LED LAMP		KA3 RELAY LIGHT	KA4 RELAY PRESSURE SWITCH	KA24 RELAY EXTERNAL LIGHT	250 - MOD. 37		KTT RELAY FINDER mod. 81.01		- MOD. 250 - MOD.	MS3 COMPRESSOR 3 - MOD. 375	QS1 LIGHT SWITCH (OPTIONAL)	QS2 POWER SWITCH	OS3 POWER SWITCH LIGHT	S7 PRESSURE SWITCH	VS SOLENOID VALVE 230V				
COMPONENTE/MANUFATTO RAPPRESENTATO NE	BT1						EV1				RELAY COMPRESSOR	KA3			RELAY COMPRESSOR 2 - MOD. 250 - MOD. 37	RELAY COMPRESSOR 3 - MOD.		COMPRESSOR 1	COMPRESSOR 2 - MOD. 250 - MOD.			QS2			NS				03/03

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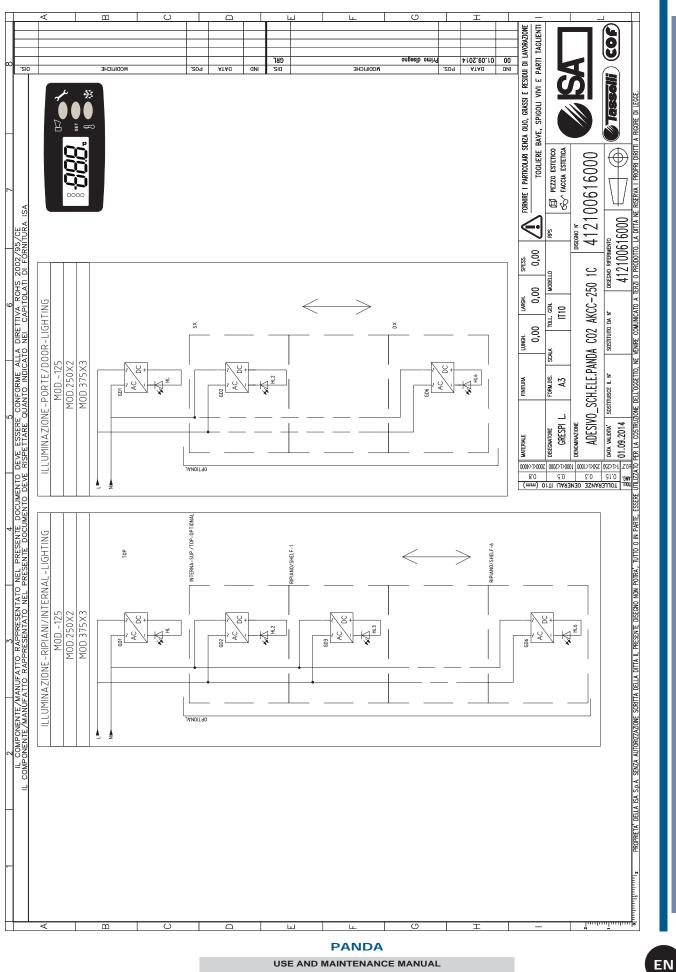


Attachment 18 - WIRING DIAGRAM - 412100616000 - Sheet 1 of 3





Attachment 18 - WIRING DIAGRAM - 412100616000 - Sheet 2 of 3





#### **UO** FORNIRE I PARTICOLARI SENZA OLIO, GRASSI E RESIDUI DI LAVORAZIONE TOCLIERE BAVE, SPIGOLI VIVI E PARTI TAGLIENTI OBC SIQ ongesib omin<sup>o</sup> морігісне MODIFICHE 'SOd ATAO 'SOd **Tasselli** ÷ PEZZO ESTETICO ¢ 412100616000 Õ ISA 412100616000 <DISEGNO N ŝ DISEGNO RIFERIMENTO 2002/95/ SPESS. 0,00 ADESIVO\_SCH.ELE.PANDA CO2 AKCC-250 1C DIRETTIVA ROHS 0,00 LARGH. ß IT10 SOSTITUITO DA N TOLL 0,00 CALA CONFORME SOSTITUISCE IL N ORM.DIS. A3 INITURA GRESPI L. DATA VALIDITA' DENOMINAZIONE 01.09.2014 DISEGNATORE MATERIAL DEVE TOLLERANZE GENERALI IT10 (mm) 0.15 0.3 0.5 0.8 1(4,250 2564(<1000</td> 10064(<2000</td> 20064(<4000</td> DOCUMENTO PRESENTE NEL ESENTATO 375 FUSE LINE ELECTRONIC CONTROL BOARD RELAY COMPRESSOR 2 - MOD. 250 - MOD. 375 COMPRESSOR 2 - MOD. 250 - MOD. RELAY COMPRESSOR 3 - MOD. 375 MANUFATTO ELECTRONIC CONTROL BOARD COMPRESSOR 1 - ALL MODELS COMPRESSOR 3 - MOD. 375 LIGHT SWITCH (OPTIONAL) RELAY FINDER mod. 81.01 RELAY PRESSURE SWITCH RELAY EXTERNAL LIGHT SOLENOID VALVE 230V **RELAY COMPRESSOR 1** POWER SWITCH LIGHT PONENTE / POWER SUPPLY LED PRESSURE SWITCH EVAPORATOR FAN PROBE DEFROST POWER SWITCH PROBE AIR OFF **RELAY LIGHT** EMC FILTER COMPONE LED LAMP PROBE FAN KA24 MS3 KA1 KA3 KA4 KT2 MS2 BT2 BT3 EMC E۷1 KT1 **MS1** OS2 QS3 BT1 CE1 EVF FU1 Ę GD Ŧ ٧S Ξ **S**7 ш PANDA ΕN USE AND MAINTENANCE MANUAL 428900224237

#### Attachment 18 - WIRING DIAGRAM - 412100616000 - Sheet 3 of 3



#### Attachment 19 - CONTROL PANEL - IR33 - Sheet 1 of 2





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

KEY	PRESSURE SINGLE KEY	PRESSURE COMBINED WITH OTHER KEYS
Prg mute	<ul> <li>If pressed for more than 5 seconds, accesses the menu 'parameter setting of type "f" (frequent).</li> <li>In case of an alarm silence the audible alarm (buzzer) and deactivates the relay d 'alarm.</li> </ul>	<ul> <li>If pressed for more than 5 s, together with the key set, gives access to the menu 'parameter setting of type "c" (configuration) or downloading parameters.</li> <li>If pressed for more than 5 s, together with the key up / aux resets any alarms alarms with manual reset default serial.</li> <li>Start-up: if pressed for more than 5 s, together with the key up / aux resets any alarms alarms with manual reset default serial.</li> <li>Start-up: if pressed for more than 5 s, together with the key up / aux resets any alarms alarms with manual reset default serial.</li> </ul>
aux	<ul> <li>If pressed for more than 1 s, enables / disables the 'auxiliary output.</li> </ul>	<ul> <li>If pressed for more than 5 seconds with the key DOWN / DEF, activates / deactivates the continuous cycle operation.</li> <li>If pressed for more than 5 seconds with the SET button, activates the procedure for printing the report.</li> <li>If pressed for more than 5 seconds with the PRG / MUTE, resets any alarms with manual reset.</li> </ul>
def V	<ul> <li>If pressed for more than 5 seconds, activates / deactivates a manual defrost.</li> </ul>	<ul> <li>If pressed for more than 5 seconds with the button UP / AUX, activates / deactivates the continuous cycle operation.</li> <li>If pressed for more than 1 s with the SET button, the display shows the submenu A 'with the parameters HACCP alarm (HA, HAn, HF, HFn).</li> </ul>
Set	<ul> <li>If pressed for more than 1 s, displays and / or sets the set point.</li> </ul>	<ul> <li>If pressed for more than 5 seconds with the PRG / MUTE, gives access to the menu 'parameter setting of type "C" (configuration) or downloading documents.</li> <li>If pressed for more than 1 s with the key DOWN / DEF, A submenu appears on the display 'with the parameters HACCP alarm (HA, HAn, HF, HFn).</li> <li>If pressed for more than 5 seconds with the button UP / AUX, activates the procedure for printing the report.</li> </ul>



#### Attention:

The pressure of each text is signaled by a short beep can not be disabled.

PANDA

USE AND MAINTENANCE MANUAL

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### Attachment 19 - CONTROL PANEL - IR33 - Sheet 2 of 2





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

ICONA	FUNCTION	ON	OFF	FLASHING	START-UP
$\bigcirc$	COMPRESSOR	Compressor ON	Compressor OFF	Compressor required	
\$	FAN	Fan ON	Fan OFF	Fan required	
X	DEFROSTING	Defrosting in progress	Defrosting not required	Defrosting required	-
AUX	AUX	Auxiliary output AUX ON	Auxiliary output AUX OFF	Function anti-sweat heater ON	
	ALARM	Delayed external alarm (before the end of time "A 7")	No alarm present	Alarms in nominal function (eg. High / low temperature) or alarm from external digital input, immediate or delayed	
	CLOCK	If you have set at least one defrost temporizzato	There is not any timed defrost	Alarm clock	ON if this Real-Time Clock
-\.	LIGHT	Auxiliary output Light ON	Auxiliary output Light OFF	Function anti-sweat heater ON	,
2	TECHNICAL ASSISTANCE	/	No malfunction	Malfunction	
HACCP	НАССР	Function not enabled	Function enabled (HA e/O HF)	Allarme HACCP memorizzato	-
*	CONTINUOS CYCLE	Function activated	Function not activated	Function required	-
88.8	DISPLAY				



USE AND MAINTENANCE MANUAL

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### Attachment 20 - CONTROL PANEL - AK CC 250 - Sheet 1 of 1

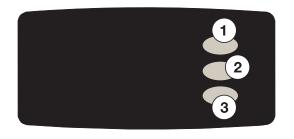




Attention

The electronic control board is installed already programmed.

Any changes to the control board settings can be carried out exclusively by qualified technical personnel.



	KEYS
1	Down for 5 seconds to enter the programming. In navigation allows you to change the values and scroll through the parameters.
2	Down for 5 seconds to display the set point. In the navigation tool to select the parameter and enter the parameter.
3	Down for 5 seconds to perform a manual defrost. In navigation allows you to change the values and scroll through the parameters.

To enter programming mode and make changes / checks the parameters through the parameters until you reach the parameter r12, r12 = 0 then set to proceed. Once completed, any changes / inspections set the parameter r12 = 1

PANDA

USE AND MAINTENANCE MANUAL

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### Attachment 21 - CONTROL PANEL - EW 978 - Sheet 1 of 3





litention

The electronic control board is installed already programmed.

Any changes to the control board settings can be carried out exclusively by qualified technical personnel.

At start-up, the instrument conducts a  $\ensuremath{\mathsf{LAMP}}$   $\ensuremath{\mathsf{TEST}}$  for a few seconds. The display and LEDS flash

to verify their integrity and to ensure they are working correctly.

	KEYS
	UP Scrolls menu options Increases the values Activates manual defrosting
*	DOWN           Scrolls menu options           Decreases the values           Press to turn on the internal lighting
0	<b>STAND-BY (ESC)</b> Goes back up one level with respect to current menu Confirms parameter value Activates the Stand-by function
SET	SET (ENTER) Accesses the Set-point Accesses the programming menu Confirm the commandsIt displays any alarms (if present)
	LED
₩	<b>COMPRESSOR or RELAY 1</b> ON for compressor on Flashing for delay, protection or blocked activation.
xtk ••	ADDITIONAL ON for defrosting in progress Flashing for manual activation
(((•)))	ALARM ON for active alarm Flashing for silenced alarm
F	FANS ON for operating fans

### PANDA USE AND MAINTENANCE MANUAL

ΕN



#### Attachment 21 - CONTROL PANEL - EW 978 - Sheet 2 of 3





#### 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.

At start-up, the instrument conducts a  $\ensuremath{\mathsf{LAMP}}$   $\ensuremath{\mathsf{TEST}}$  for a few seconds. The display and LEDS flash

to verify their integrity and to ensure they are working correctly.

SETPOINT SETTING										
SET	Press the <b>SET (ENTER)</b> button and release immediately. The " <b>Set</b> " label will appear. To view the Set point value, press the <b>SET (ENTER)</b> button again. The Set-point value will appear on the display.									
	To change the Set point value, press the <b>UP</b> and <b>DOWN</b> buttons within 15 seconds.									
SET	To confirm the new Set-point value set, press the <b>SET (ENTER)</b> key again.									
0	By not operating on the keyboard for more than 15 seconds (time-out) or pressing the <b>STAND-BY (ESC)</b> key once, the last value displayed is confirmed and you go back to the previous display.									

	CHECK UP
(((•)))	Alarm conditions are always signalled by the buzzer (if present) and by the corresponding alarm icon LED. The alarm signal deriving from a faulty probe (probe 1) appears directly on the instrument display with the indication E1. The alarm signal deriving from a faulty evaporator probe (probe 2) appears directly on the instrument display with the indication E2.

#### MANUAL ACTIVATION OF THE DEFROSTING CYCLE



To manually activate the defrosting cycle, press and hold the **UP** key for 5 seconds. If defrosting conditions are not present (for instance the temperature of the evaporator probe is higher than the temperature at the end of the defrosting process), the display will flash three (3) times to indicate that the operation will not be performed.

PANDA USE AND MAINTENANCE MANUAL



#### Attachment 21 - CONTROL PANEL - EW 978 - Sheet 3 of 3





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.

At start-up, the instrument conducts a **LAMP TEST** for a few seconds. The display and LEDS flash

to verify their integrity and to ensure they are working correctly.

ALARM DESCRIPTION

ΕN

OUTPUTS



AUTHORISED

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

PANDA

USE AND MAINTENANCE MANUAL



### Attachment 22 - CONTROL PANEL - XR 44 CX - Sheet 1 of 2





#### 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.

KEY	KEY SINGLE PRESS	KEYS COMBINE	ED PRESSION
-\\$-	Not applicable.	$\stackrel{\texttt{A}}{\succcurlyeq}$	To block and release the keyboard. Lock keyboard Hold both keys down for a few seconds until flashing "POF" ap- pears. The keyboard is blocked. Only the set-point of the maximum and minimum temperature can be displayed. "POF" appears if a key is pressed for more than 3 seconds. Unlock keyboard Hold both keys down for a few seconds until flashing "POn" ap- pears.
*	To start a <b>manual defrosting</b> cycle, press for at least 2 seconds.	SET	To enter programming mode.
SET	To display or modify the set-point. Press and release the key to display the temperature. To go back to viewing the temperature set, wait 5 seconds or press the key again In programming mode, selects a pa- rameter or confirms a value.	SET	To exit programming mode.
<b>A</b>	UP In programming mode, scrolls the codes of the parameters or increases its value. Activates the Continuous Cycle func- tion when present. Maximum temperature display Press and release the key (the "Hi" message will be displayed followed by the maximum temperature reached). Press the key or wait 5 seconds to go back to displaying normal tempera- ture.		
$\triangleleft$	DOWN In programming mode, scrolls the codes of the parameters or decreases its value. Activates the High and Low Humidity function when present. Minimum temperature display Press and release the key (the "Lo" message will be displayed followed by the minimum temperature reached). Press the key or wait 5 seconds to go back to displaying normal tempera- ture.		
Ú	Switches the instrument on or off. Pressed for at least 2 seconds, it displays " <b>OFF</b> " In this configuration the loads and all adjustments are disabled; to take the instrument back to <b>ON</b> press again for at least 2 seconds.		

PANDA

USE AND MAINTENANCE MANUAL



### Attachment 22 - CONTROL PANEL - XR 44 CX - Sheet 2 of 2





The electronic control board is installed already programmed.

Any changes to the control board settings can be carried out exclusively by qualified technical personnel.

ICONA	FUNZIONE	ON	LAMPEGGIANTE
襋	COMPRESSOR	Compressor ON	Delay with close start- ups
\$	FAN	Fan ON	Fan OFF
**	DEFROSTING	Defrosting in progress	Dripping in progress
	ALARM	Alarm temperature	/
<b>Þ</b>	/	Energy saving in progress	/
°C / °F	/	Unit of measurement	Programming
	CONTINUOS CYCLE	Function ON	/
88.8	DISPLAY	/	/

PANDA

USE AND MAINTENANCE MANUAL

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### Attachment 23 - CONTROL PANEL - CRD XP - Sheet 1 of 3

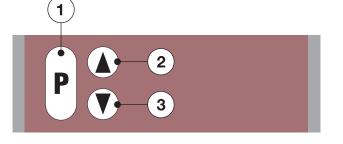




#### Attention

The electronic control board is installed already programmed.

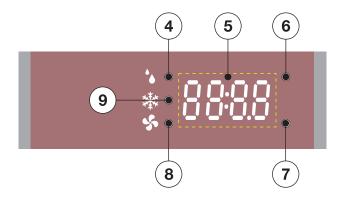
Any changes to the control board settings can be carried out exclusively by qualified technical personnel.



1	KEY PARAMETER
---	---------------

2 FORWARD KEY

3 BACK BUTTON



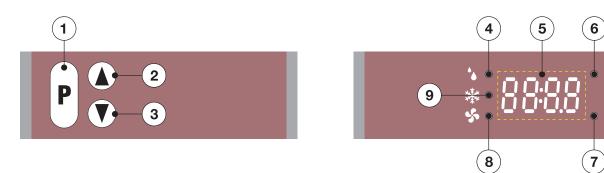
4	DEFROSTING LED
5	DISPLAY
6	LED MODE 'SET ENABLED
7	LED SETTING FOR EXPERTS
8	STATUS LED FAN
9	STATUS LED COOL

#### PANDA

USE AND MAINTENANCE MANUAL



## Attachment 23 - CONTROL PANEL - CRD XP - Sheet 2 of 3



BASIC SETTINGS (parameters P00-P09)						
Procedure	Description			Result		
Display number parameter.	Press and hold the 1 key.			The display shows the number of display.		
Display number parameter prior.	Press and hold the 1 key	Press the 2 key.				
Display number the previous parameter.	Press and hold the 1 key	Press the 3 key.				
Display of para- meter value.	Press and hold the 1 key	Use the buttons 2 or 3 required parameters.	Release the 1 key.	The display shows the value of the parameters.		
Enabling the setting mode.	Hold for 5 seconds the buttons 1, 2 and 3.			The LED flashes 6. Note: actual values can not be set even when the LED flashes		
Change para- meter value.	Use the buttons 2 or 3 the desired parameters.			The change is saved directly.		
Lock mode setting.	Hold for 5 seconds the buttons 1, 2 and 3.			The parameters can no longer be set. Displays the most recently selected parameters.		
	Automatic if you do not press any button for 2 minutes.			The parameters can no longer be set. Appears IL parameter P00 or P61 temperature set in "Standard view".		

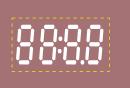
PANDA

USE AND MAINTENANCE MANUAL

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#### Attachment 23 - CONTROL PANEL - CRD XP - Sheet 3 of 3



ALARM SIGNIFICATION





۶:	Sensor fault F1.	In the case of adjusting the supply air: Operation di'emergenza. In the case of weighted adjustment: Determining the actual value adjustment only with F2.
	Sensor fault F1 and F2.	In the case of weighted adjustment: Operation di'emergenza.
88	Sensor fault F2.	In the case of adjustment of the return: Operation di'emergenza. In the case of weighted adjustment: Determining the actual value adjustment only with F1.
۶3	Sensor fault F3.	The electric defrost, defrost hot gas or cold gas will not start.
F( X	Probe plausibility check.	During the cooling mode, the supply air is warmer return or limiting probe is warmer than the air flow sensor. Note only in day mode; disappears into night mode.
88	Data error in nonvolatile memory	In the event of a power failure at high energy, is possibileche the rated values are corrupted. On the disturbed parameter overwrites the value of defaults. Check out all the storage space and possibly make new entries! Insert the controller without power.
988u	EEV Pressure, pressure transmitter module EEV but faulty transmitter reflected ok	Pressure transmitter for superheat control module EEV defective. If P89 is set to a valid connection number or an address bus CAN, the suction pressure is reported by the CAN bus.
toEr	Error, no information on the suction pressure.	Pressure transmitter for adjustment of superheat defective and no signal from the pressure transmitter reflection; EEV opens the degree of emergency opening. (P102)
۶ ٤۶	Temperature probe error suction gas.	EEV opens with openness di'emergenza. (P102)
COLL	Address in bus collision CAN.	The set address is already assigned. Set another address for the device. The message will disappear about 20 seconds after the fault is cleared.
6US	Error CAN bus. No CAN communication bus.	Check the CAN bus connection or set to 0, the address.
rte	Clock time is not valid. (Real-Time-Clock)	Create a CAN bus connection to the gateway or enter the time and date (P16, P67, P68) and set the address to 0 (P64)
door	Cell door open too long.	Close the door of the cell, which may increase P76 "door alarm delay.
Viewing flashing	Overtemperature or temperature below the actual value adjustment.	Control probe too hot or too cold. Check le'impostazione the overtemperature threshold P47 or P48 under tempe- rature.
[EEu	Failure of communication with the module EEV.	EEV module failure or connection to CD-XP interrupted. When the EEV form is not working, EEV opens with the degree of openness of an emergency. (P102) When there is no EEV form, select the thermostatic expansion valve. (P86 = th)

PANDA

USE AND MAINTENANCE MANUAL



Via del Lavoro, 5 06083 Bastia Umbra (PG) - Italy Tel. +39 075 80171 - Fax +39 075 8000900 www.isaitaly.com