REFRIGERAZIONE

gelateria

Deeva

MANUALE D'USO E MANUTENZIONE
TECHNICAL BOOK

CE

english

CLABO Spa

INDEX

Dear Customer

. This Manual or Technical Guide is a part of the Product and its target is to show use and maintenance of the cabinet. The operators have the responsibility of reading it and following the instruction reported on it. No other use of the display cabinet is allowed other than indicated in this manual.

This manual must be kept in good conditions and follow the cabinet during its entire operative life until dismissing, in order to have all the information needed for maintenance of the qualitative and safety standards.

The Firm will not assume any responsibility for damage to people, animals or things, caused by failure to observe the indications reported on the present Manual or by uses of the equipment for any purposes other than the ones for which it has been designed and sold.

For operator's safety, all equipment devices must be kept in constant efficiency.

1. STANDARDS AND REGULATIONS

1.1 IDENTIFICATION

The SERIAL NUMBER on the plate positioned on the back (operator side) of the display cabinet (fig.1) must be given when contacting the manufacturer or customer services.

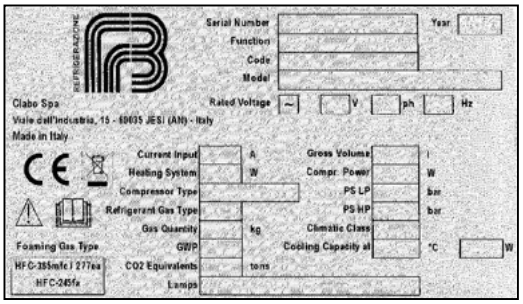


Fig.1

WARNING:
Maintenance of the good conditions and legibility of the label applied to the cabinet is recommended. Don't tamper with the label.

1.2 TECHNICAL ASSISTANCE

In case of malfunctioning of the machine, before contacting technical assistance, try to fix the problem following the troubleshooting guide reported in the chapter n.6.

If the problem cannot be fixed using the troubleshooting guide, contact the authorized technical assistance using one of the following references:

- Phone: +39 0731 6153 1
- Fax: +39 0731 6153 413
- Email: info@clabo.it
  Or using Internet web site: www.clabo.it

It is necessary to communicate to the technical assistance:

- Cabinet serial number (as described in the previous paragraph)
- Cabinet Model, as reported in the label
- A detailed description of the problem encountered and of all the interventions made to fix it.

ATTENTION:
Don't contact non-authorized technicians.

2. DATA AND TECHNICAL CHARACTERISTICS

2.1 MAIN CHARACTERISTICS

Deeva Ice Cream Cabinet is designed for display and marketing of Ice Cream and so to reach in the refrigerated zone temperature not below -18/-20°C, achievable in environmental conditions not above Class 4 (ambient temperature 30°C, Relative Humidity 55%), defined on the European standard UNI EN 23953-2 par. 5.3.1.3.

Cabinet thermal insulation with external ambient is obtained by Polyurethane Foam.

1-phase power supply

Cooling system is equipped with ***Hermetic*** compressor; Condensing Unit is installed on the machine, in a vane housed in the basement. The condensing unit installed on the following models:

- Deeva G9 – Supply 230/1/50
- Deeva G12 – Supply 230/1/50

are equipped with a *twin* compressor system that guarantees an efficient cooling power.

3-phases power supply

Cooling System is equipped with ***Semi-hermetic*** compressor; condensing unit is installed on the machine in a compartment of the base

The machine has an automatic defrosting cycle, regulated by an electronic control and by cooling cycle inversion.

Refrigeration is ventilated: inside the refrigerated zone there are fans that create air flow, responsible for ice cream cooling.

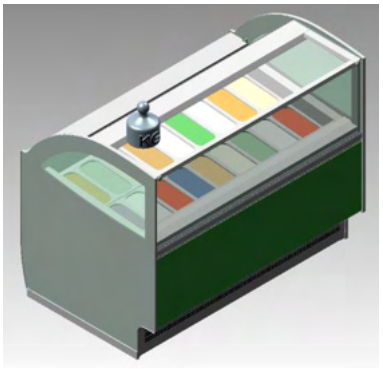
In order to guarantee the correct air flow for the refrigerated zone, the basin is equipped with an evaporator on the internal front side of the cabinet, that reduce turbulent flows inside the cabinet, but it is not responsible for the refrigeration.

The machine is equipped with an electronic control board that manages the cooling system and the automatic defrosting and heating elements (to avoid water condensation problems).

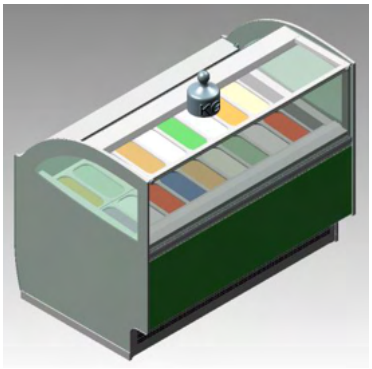
All glass surfaces are heated in order to avoid condensation problems. Front glass opens down in order to permit cleaning operation.

The aluminium roof is supported by metallic painted pillars that can resist a maximum weight of 10 kg.

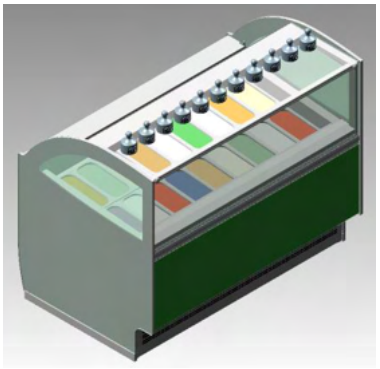
WARNING:
Don't put concentrated weight on the glass roof: *risk of Break.*
To avoid damages, distribute the weight evenly on the glass surface.



NO



NO



OK

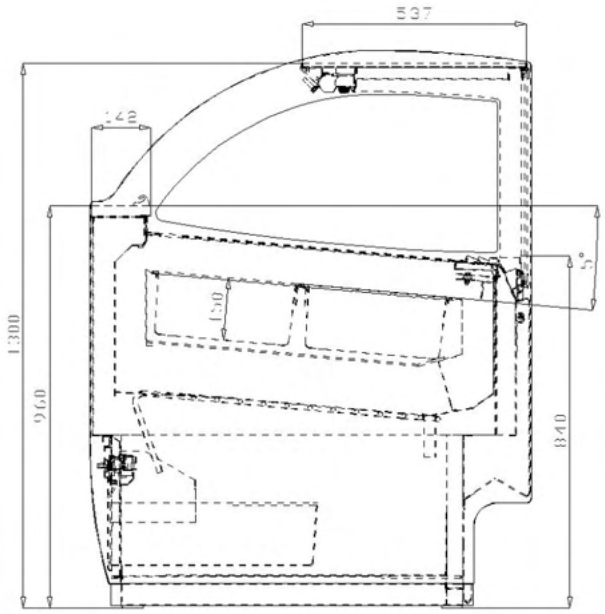
The lighting of the cabinet is provided by LED bars with aluminium profile, fixed on a proper metal support on the rooftop.

2.2 TECH DATA

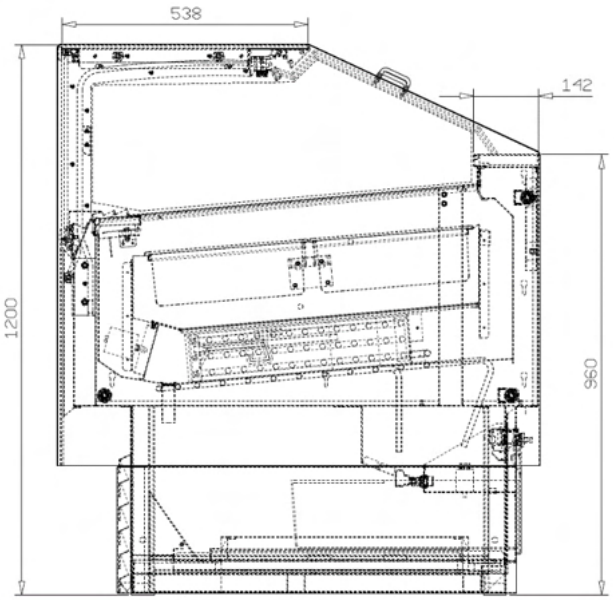
	Weight [Kg]	Working Temp. [°C]	Gas	Electrical Supply	Total Absorbed Power [W]	Cooling capacity [W]
G6 230V	230	-18/-20	R452a	230/1/50	1500	889
G9 230V	340	-18/-20	R452a	230/1/50	2000	1282
G12 230V	450	-18/-20	R452a	230/1/50	2500	1760
G6 400V	230	-18/-20	R452a	400/3/50	1500	1550
G9 400V	340	-18/-20	R452a	400/3/50	2000	1750
G12 400V	450	-18/-20	R452a	400/3/50	2500	2160

THE WORKING TEMPERATURE REFERS TO THE FOLLOWING ENVIRONMENTAL CONDITIONS: +30°C/55% RELATIVE HUMIDITY (CLASS 4).
VALUES ARE REFER TO THE INTERNAL UNIT VERSIONS.

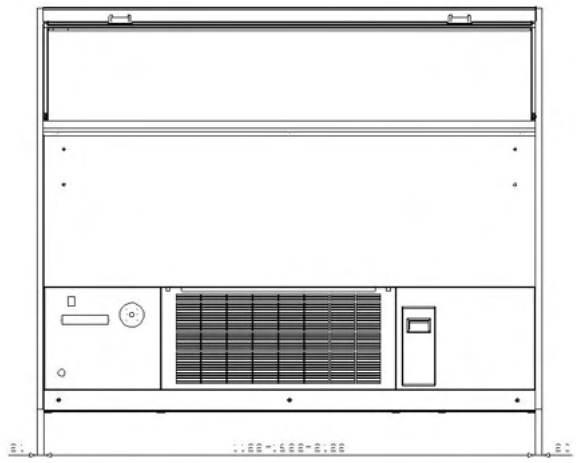
2.3 TECHNICAL DRAWING



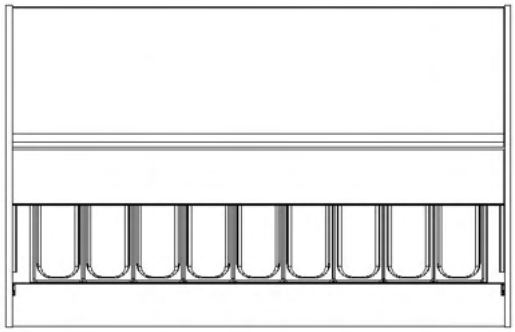
H1300 MODEL



H1200 MODEL



CUSTOMER SIDE



OPERATOR SIDE

3. RECEIPT AND INSTALLATION

WARNING:
Before acceptance of the equipment, control the following:

- the package must be intact and the products haven't to be damaged during transport;
- the shipped goods correspond to the order specifications;
- the presence and integrity of accessories;
- possible damages occurred on products must be reported on the transport document for the compensation by the transport agency.

WARNING:
This product must be installed by qualified personnel. During installation the operators involved must wear individual protection devices.

WARNING:
The installation of Remote Condensing Units (where available), must be performed by qualified personnel, following the instruction reported on manual delivered with the condensing unit itself and supplied by the factory.

3.1 LIFTING AND MOVEMENT

The product is to lifted by a transport vehicle using transport pallets, in the following manner:

- Position the forks at the level of the vehicle (e.g. lorry).
- Move forward with the transport pallet so as to insert the forks under the cabinet.
- Ensure that the cabinet is perfectly balanced on the forks before lifting it (fig.2).

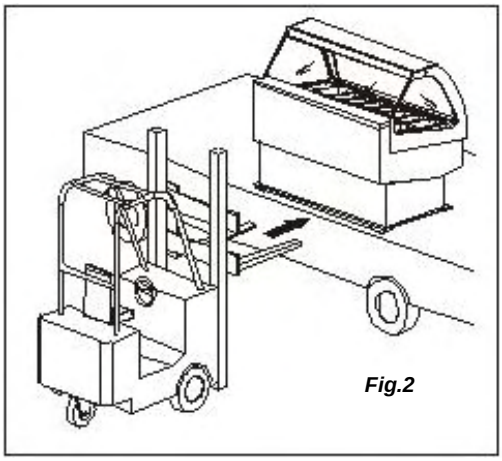


Fig.2

WARNING:
During the package wasting, using devices such as cutter could cause injuries to people or damages to product.
In addition, avoid to smear against the product with metallic parts such as watches, buckles, chains, rings and so on that could produces scratches.

- Position the cabinet on the ground.
- Lift the cabinet using the pallets as shown in figure 3.
- Unscrew the screws that anchor the lists to the base (fig.3 pos. A) and remove the base (fig.3 pos. B).
- Proceed in the same way to remove the other base.
- The cabinet must be moved manually when on the ground.

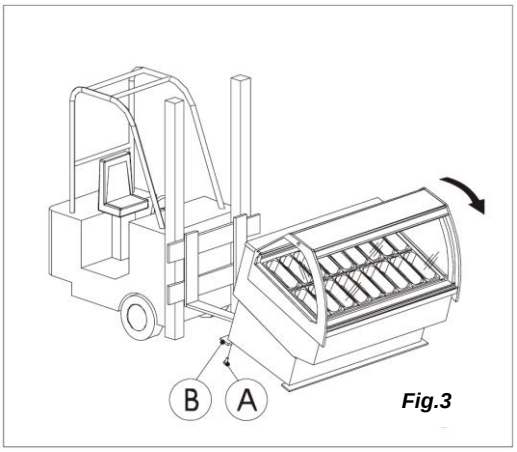


Fig.3

WARNING:
TURN OVER OR SLIP DANGER
Don't lift the cabinet more than 10 cm above the ground.

3.2 POSITIONING

For a correct positioning follow these instructions:

- Position the cabinet in such a way as to leave sufficient space for use and maintenance in conditions of safety as foreseen by the UNI EN 12100-2010.
- Ensure the existence of a suitable earthing plant as foreseen by the European Norms.
- Once the cabinet is placed in the desired area, it must be put horizontally through the adjustable feet (fig.4).

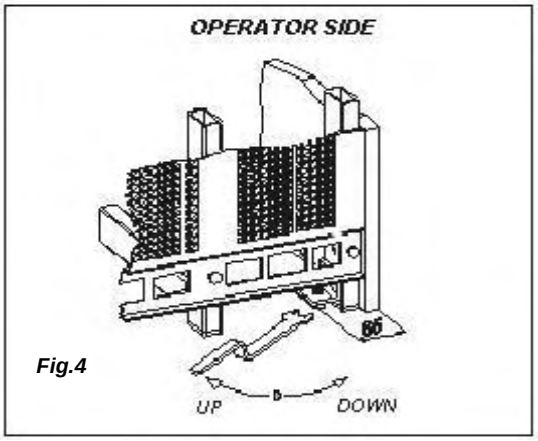


Fig.4

WARNING:
Before positioning the cabinet, assure that the floor is suitable for supporting its weight.

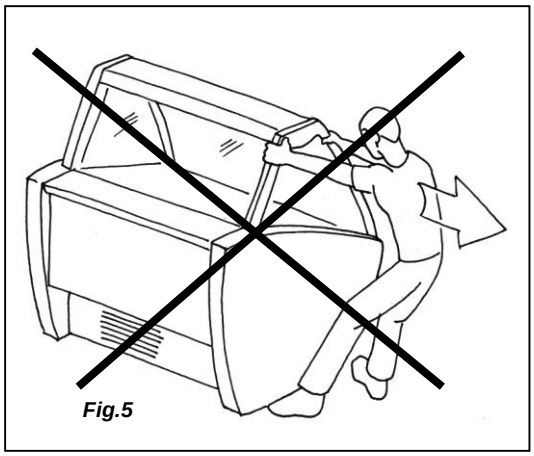


Fig.5

WARNING:
During positioning do not lean on or pull front and side glasses, front and side panels: *risk of damage* (see fig.5).

WARNING:
The showcase is designed for use with a decking with minimum height 80mm. If you do not use a decking be sure to buy the proper back closure of the base, to prevent accidental access to electrical or sharp parts.

3.3 OPTIONAL WHEELS


Fig.6

The display case is available with optional wheels that permit an easily moving of the machine. In that case on operator side the wheels are equipped with a brake system in order to avoid an undesired moving when positioning.

Press the lever in order to stop the wheels, as showing in Figure 6.

WARNING:
Positioning and stopping of the wheels must be done on a flat surface only.

3.4 ENVIRONMENTAL CONDITIONS

When positioning the display cabinet take into consideration that its operability is guaranteed in the following environmental conditions: temperature <30°C and relative humidity <55%. (class 4, UNI EN 23953-2).

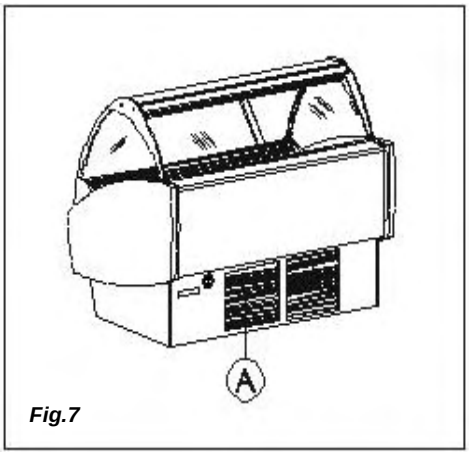


Fig.7

It must also be checked that:

- there is sufficient circulation of air around the display cabinet but not strong currents;
- the display cabinet is not near any hot air sources;
- the display cabinet is not exposed to direct sunlight;
- the cooling air grills of the condenser are not blocked (fig. 7 , pos.A);
- air conditioning or heating in the room are not directed onto the display cabinet.

WARNING:
To guarantee the proper functioning of the cabinet, let the air flow in a proper way to the customer side through the specific grid under the front covering panel.

The above-mentioned indications must be respected to prevent malfunctioning, which will not be covered by the warranty.

WARNING:
During working operations, there is an air exchange between the cabinet refrigerating system and the surrounding environment. For this reason don't install the cabinet in ambient subjected to pollution or having atmospheres with substances in concentration or quantity out of the limits regulated by actual law for health care.

3.5 PLUMBING CONNECTIONS

Only for cabinets having water-cooled condenser or mixed condensation, it is necessary to connect the pipes of water inlet and outlet to the water supply. It is possible to recognize the inlet pipe because it is covered with black thermal insulation.

WARNING:
Before switching the cabinet on, be sure that the manual taps in the water line are open and the water flows regularly. Then calibrate the pressure-static water valve in function of the water external net pressure and temperature.

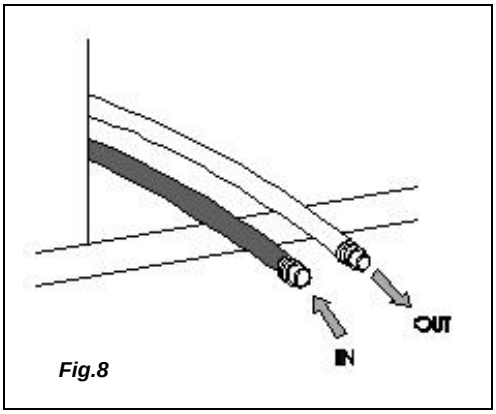


Fig.8

WARNING:
Use of not-decalcified water could case irreparable damages to the system.
Use exclusively filtered and decalcified water.

WARNING:
Inlet water pressure can't exceed 10 bar.
Inlet water temperature shouldn't exceed 20°C in order not to decrease machine's performances.

3.6 ELECTRICAL CONNECTIONS

Before installation, check that a suitable earth plant is present as envisioned by the regulations in force in the country of sale. Check that the mains voltage is compatible with the features stated on the plate positioned on the operator side of the display cabinet (see fig. 1). Also check that the line upstream from the display cabinet is appropriately dimensioned to support the load of the display cabinet itself.

WARNING:
Voltage fluctuation above 10% of the nominal voltage stated on the plate can cause permanent damage to the compressor and other electro-mechanical equipment. In this case they are not covered by the warranty.

Respect national regulations for electrical installations.
Position the master switch in the OFF position.

1-phase power supply
The display cabinet is supplied with a 3-wire cable;

- Yellow-green = Earth
- Blue = Neutral
- Brown = Live (phase)

3-phases power supply
The display cabinet is supplied with a 5-wire cable;

- Yellow/Green = Grounding wire
- Blue = Neutral Line
- Brown = Live n.1 (phase)
- Grey = Live n.2 (phase)
- Black = Live n,3 (phase)

WARNING:
Never cut or remove the yellow-green cable mentioned above: *risk of Electrical Shock*

The supply cables must be connected to the main network, which must be equipped with an efficient earthing network, in accordance with the national and local norms (where existent) for electrical installations and they must be suitable for the electrical absorption of the display cabinet. Please refer to the table in correspondent chapter of the present manual, absorption column.

Please ensure that means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules.

WARNING:
If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified person in order to avid a hazard.

WARNING:
The electrical connection to the network must be carried out by means of the three wires included, the central plant to which the cabinet is connected must also have a switch with contact openings measuring at least 3mm and protected by fuses.

WARNING:
Apply an adequate anchoring method to the supply cable in the connection box, making reference to the table outlined below.

NOMINAL CURRENT [A]	NOMINAL SECTION [mm^2]	
	FLEXIBLE CABLES [mm^2]	CABLES FOR EARTHING [mm^2]
3	0,5 ÷ 0,75	1 ÷ 2,5
3 ÷ 6	0,75 ÷ 1	1 ÷ 2,5
6 ÷ 10	1 ÷ 1,5	1 ÷ 2,5
10 ÷ 16	1,5 ÷ 2,5	1,5 ÷ 4
16 ÷ 25	2,5 ÷ 4	2,5 ÷ 6
25 ÷ 32	4 ÷ 6	4 ÷ 10
32 ÷ 40	6 ÷ 10	6 ÷ 16
40 ÷ 63	10 ÷ 16	10 ÷ 25

3.7 WATER DRAINAGE

The cabinet is supplied with condense water holder tub that can be extracted from the operator side.

WARNING:
To prevent water leakage, check the ice cream level in the tub and make sure to empty it periodically.

WARNING:
In case of water leakage, make sure to dry all the wet parts, included the floor: *risk of injury*.

If the cabinet is supplied with external drain pipes for collecting water deriving from defrosting cycles or periodic cleaning, be sure to predispose adequate pipes connection to main sewer.

3.8 END OF SERVICE AND DISPOSAL

Packaging

Do not throw away of part of the display cabinet packaging but separate it according to the type of material in question (cardboard, wood, steel, polyester, etc…) and dispose of it according to the current laws in vigour in the country of use.

End of service of display cabinet

When the display cabinet has reached the end of its life span:

- Remove the refrigerant from the refrigerator circuit of the display cabinet.
- Empty it of all of the oil it contains.
- Remove all of the rubber parts (e.g. O-ring, rubber trimming).
- Send it off to be scrapped.

Important information for the User for the Purpose and effect of the WEEE Directive 2002/96/CE and subsequent amendments 2003/108/CE concerning Waste Electrical and Electronic Equipment: this equipment has been marked with the above crossed waste bin symbol.

The symbol of crossed waste basket reported on the machine or on the crate indicates that the product at the end of its life must be picked up separately from other waste. The dispose of machine must be done by specifically authorized WEEE disposal centre. User can find out information by its dealer / agent / manufacturer.

Disposal of the product without respecting the mentioned directives and standards means the application of sanctions provided for actual law.

4. FUNCTIONING

4.1 GENERAL USE RULES

The machine is designed for display of ice-cream at a temperature set by the customer but not below -18/-20°C.

Before introducing ice-cream in the cabinet it is necessary to wait **60 minutes** from the cooling start-up, in order to permit to the system to reach setpoint temperature. This interval of time could vary depending on environmental condition around the machine.

WARNING:
Displayed temperature is the value read by the cabinet probe: so this is the temperature of the air used for refrigeration. For this reason it could be different than the temperature of the displayed product.

WARNING:
It is very important to consider that the optimal temperature of the air varies considerably with the composition of ice-cream (in particular with the percentage of fats and sugars).

WARNING:
Before inserting the displayed product in the cabinet, it must be conserved in proper blast chillers.

WARNING:
The displayed product must be introduced in the refrigerated region using suitable alimentary containers. If the displayed products exits from their containers, this cannot be sold or used: it must be removed and wasted.

WARNING:
To prevent the deviation of the air flow on refrigerating area and the condensation or the melting of ice cream, we suggest to keep the maximum level of the ice cream under the cold line (see figure of the sticker on the cabinet). We also remind that objects obstructing the air flow inside the tub, such as flavour tags or scoops, can sometimes cause condensation, ice cream melting or ice formation.

For the correct functioning of the cabinet, it is necessary to verify that, during its operations, no ambient elements have an effect on its functioning; in particular it is necessary to control the follow:

- Air circulation around the cabinet should be sufficient to guarantee the correct functioning of the condenser (in case of inner condensing unit);
- For the same reason take care not to obstruct the back grid (staff's side) and the front one (if unit is on-board).
- No strong air currents or sources of hot air near the cabinet, that should interfere with inner ventilation, direct responsible for ice-cream cooling and maintenance at low temperature: this could lead to product melting.

- For the same reason eventual air conditioning or heating vents of the shop have not to be directed to the cabinet and interfere with inner ventilation.
- Direct sun light shouldn't hit the cabinet in any time. Sun radiation could damage the displayed product.

WARNING:
In case of damage of the displayed product, this one cannot be used or sold: it must be removed from the cabinet.

WARNING:
Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.

4.2 START UP

1. Operate the central electrical equipment's main switch.
2. Operate the showcase's main switch behind the back protection board. Remove the fixing screws from the back board, as shown in Picture 9 position B, and set the main switch on the "1" position (picture 9 position A) by activating the showcase's electrical power supply.

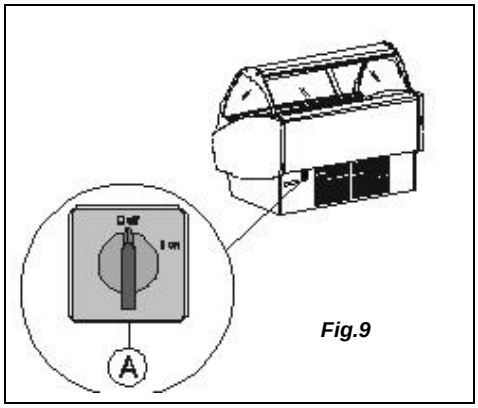


Fig.9

4.3 CONTROL BOARD - EWPLUS 974 RTC (OPTION "A")

EWPlus 974 RTC
(74x32 mm)

set To visualize or change the set point. In programming mode allows the selection of a parameter or the confirm of a value.

This button is used for going through the parameter codes or for increasing their value.
If pressed continually for 5 sec. allows the start of a manual defrost cycle.

This button is used for going through the parameter codes or for decreasing their value.

If pressed and released this button allows the access to the above section menu and the confirm of a value.
Keep pressed this button for 5 sec. to enter in Stand-by mode.

There are a series of luminous points on the display, the meaning of which you will find in the table below:

LED	Modalità	Funzione
❄	ON	Compressor on
❄	FLASHING	Delay, Protection or Blocked Activation
	ON	Evaporator Fans on
°C	ON	Temperature Set up on °C
°F	ON	Temperature Set up on °F
	ON	Defrosting Active
	FLASHING	Manual/D.I. Defrosting Active
	ON	ALARM Signal
	FLASHING FAST	Level 2 Parameter Access
AUX	ON	AUX Output Active

4.4 ACCESS TO MACHINE STATUS MENU (OPT."A")

set Press and release the SET button to access to Machine Status Menu. If alarm condition does not exist, the display will visualize the label "SEt". Press the keys ⌃ or ⌄ for going through the other labels:

- AL: alarm folder;
- SEt: Set point temperature folder;
- rtC: Clock Parameters:
  - dAy: day of the week (da 0-6, 0 is Sunday)
  - h: hour (0 to 23h)
  - **'** : Minutes (0 to 59 minutes
- Pb1: thermostat probe value folder;
- Pb2: evaporator probe value folder.

4.5 MODIFY THE SET POINT TEMPERATURE (OPT."A")

set Press and release the SET button to access to Machine Status Menu. If alarm condition does not exist, the display will visualize the label "SEt". Press and release the SET button again for entering the folder: the display will visualize the value. Use the keys ⌃ and ⌄ within 15 sec. for changing the Set Point value. Press and release SET button to confirm and exit from the label.

4.6 VIEW AND EDIT THE CLOCK (RTC) (OPT. "A")

set To display the clock, press the SET button when "rtC" appears
When you enter the menu, the display will show the first parameter (day).
Press ⌃⌃ and ⌄⌄ to scroll through all the parameters of the folder rtC. Select the desired parameter by pressing SET. Press ⌃⌃ and ⌄⌄ to change the value, and:

- Press the button set to save the change
- Wait for 15 seconds without doing anything
- Press the key ⏻ once to confirm the last displayed value and return to the previous screen

4.7 START A MANUAL DEFROSTING CYCLE (OPT."A")

⌃⌃ Keep pressed the key ⌃⌃ more than 5 sec. for starting the manual defrosting cycle: the LED ❄ on display will be on. If temperature condition for starting defrost cycle does not exist, the display will flash 3 times, indicating the failure of defrost cycle start.

4.8 STAND-BY FUNCTION (OPT."A")

⏻ Keep pressed the ESC button for entering on "Stand-By" Mode: the display will visualize "**OFF**".
When **OFF** is displayed and the machine enters the "Stand-by" mode all loads and regulation are disabled. Keep pressed again the ESC button for 5 sec. in order to exit from "Stand-by" Mode and return on normal functioning.

Note: *During Stand-by Mode the condense electric pan is working.*

4.9 LOCAL ALARMS (OPT."A")

Display	Cause	Output Status
E1	Thermostat Probe Failure	Output according to " Ont " e " OFt "parameters
E2	Evaporator Probe Failure	Evaporator Fans Regulation according to parameter
P3	Auxiliary Probe Failure	Unchanged
AH1	High Temperature Alarm	Unchanged
AL1	Low Temperature Alarm	Unchanged
EA	External Alarm	Unchanged
Ad2	Time-out End for Derosting Cycle.	Unchanged

4.10 CONTROL BOARD – KEYBOARD T640 (OPTION "B")

Keyboard T640
(183x38 mm)

set To visualise or change the set point. When programming this button is used to select a parameter or to confirm a value.

This button is used during programming for going through the parameter codes or for increasing their value.
If pressed and then released you will visualise the controlled section (LOC, SE2, ALL).
If pressed continually for 3 seconds this button allows you to gain access to the sections menu.

This button is used during programming for going through the parameter codes or decreasing their value.

Keep this button pressed for 3 seconds to start the manual defrosting cycle.

Use this button to turn the display cabinet lights on and off.

Turn the cooling system on/off.

Keys Combinations:

set + Press and hold together for three seconds: enter the programming mode

set + Press and release together: exit from programming and return to temperature visualization

There are a series of luminous points on the display, the meaning of which you will find in the table below:

LED	Mode	Function
❄	ON	Compressor on
❄	FLASHING	Programming phase (flashing with LED ✣)
✣	ON	Evaporator fans active
✣	FLASHING	Programming phase (flashing with LED ❄)
❄	ON	Defrosting active
❄	FLASHING	Dripping time underway
(!)	ON	ALARM SIGNAL - In the "Pr2" programme it indicates that the parameter is also present in "Pr1"

4.11 SETPOINT VISUALIZATION AND CHANGE (OPT. "B")

Press and release the **SET** key: Setpoint temperature will be immediately visualized. Wait 15 second to come back to normal visualization.
Press and hold the **SET** button for more than 3 seconds to change setpoint value: the ❄ led starts to flash.
Modify the value using ▼ and ▲ keys.
Memorize the new set value pressing again **SET** button. The value will flash. Wait at least 15 seconds to exit from setpoint programming mode.

4.12 MANUAL DEFROSTING CYCLE (OPT. "B")

Press and Hold Defrosting Button for more than 3 seconds: the label "dF1" will appear on display; push SET button to start defrosting.

4.13 STAND-BY FUNCTION (OPT. "B")

Pressing **ON/OFF** key, "**OFF"** will be displayed.
When **OFF** is displayed the machine enters the "Stand-by" mode and all loads and regulation are disabled. Press again **ON/OFF** button to exit the Stand-by mode.

Note: *During Stand-by mode the light switch is active.*

4.14 LOCAL ALARMS (OPT. "B")

Display	Cause	State of Outputs
P1	Thermostat probe failure	Output according to " Con " and " COF " parameters
P2	Evaporator probe failure	Unchanged
P3	Auxiliary probe failure	Unchanged
HA	High temperature alarm	Unchanged
LA	Low temperature alarm	Unchanged
EE	Memory anomaly	
EAL	Digital input alarm	Unchanged
BAL	Blockage alarm from digital input	Regulation outputs deactivated
rtc	Clock alarm	Unchanged
rtF	Clock alarm failure / not present	Alarm output active, other outputs unchanged.

4.15 CONTROL BOARD – XR60CX (OPTION "C")

XR60CX

SET To display target set point; in programming mode it selects a parameter or confirm an operation

(DEF) To start a manual defrost

(SU) To see the max. stored temperature; in programming mode it browses the parameter codes or increases the displayed value.

(GIU') To see the min stored temperature; in programming mode it browses the parameter codes or decreases the displayed value.

To switch the instrument off, if onF = oFF.

Not enabled.

KEY COMBINATIONS:

+ To lock & unlock the keyboard.

SET + To enter in programming mode.

SET + To return to the room temperature display.

There are a series of luminous points on the display, the meaning of which you will find in the table below:

LED	Mode	Function
	ON	Compressor enabled
	FLASHING	Anti-short cycle delay enabled
	ON	Fans enabled
	FLASHING	Fans delay after defrost in progress.
°C	ON	Measurement unit

°C	FLASHING	Programming phase
°F	ON	Measurement unit
°F	FLASHING	Programming phase
❄	ON	Defrost enabled
❄	FLASHING	Drip time in progress
	ON	An alarm is occurring
	ON	Continuous cycle is running
	ON	Energy saving enabled

4.16 MAX & MIN TEMPERATURE MEMORIZATION (OPT. "C")

How to see the Min temperature

1. Press and release the ▽ key.
2. The "Lo" message will be displayed followed by the minimun temperature recorded.
3. By pressing the ▽ key again or by wayting 5s the normal display will be restored.

How to see the Max temperature

1. Press and release the △ key.
2. The "Hi" message will be displayed followed by the maximum temperature recorded.
3. By pressing the △ key again or by wayting 5s the normal display will be restored..

How to reset the MAX and MIN temperature recorded

1. Hold press the SET key for more than 3s, while the max. or min temperature is displayed. (rSt message will be displayed)
2. To confirm the operation the "rSt" message starts blinking and the normal temperature will be displayed.

4.17 HOW TO SEE THE SETPOINT (OPT. "C")

1. Push and immediately release the **SET** key: the display will show the Set point value.
2. Push and immediately release the SET key or wait for 5 seconds to display the probe value again.

4.18 HOW TO CHANGE THE SETPOINT (OPT. "C")

1. Push the **SET** key for more than 2 seconds to change the Set point value;
2. The value of the set point will be displayed and the "**°C" or "°F"** LED starts blinking;
3. To change the Set value push the △ or ▽ arrows within 10s.

4. To memorise the new set point value push the **SET** key again or wait 10s.

4.19 HOW TO START A MANUAL DEFROST (OPT. "C")

Push the ❄ key for more than 2 seconds and a manual defrost will start.

4.20 HOW TO CHANGE A PARAMETER VALUE (OPT. "C")

To change the parameter's value operate as follows:

1. Enter the Programming mode by pressing the SET + ▽ keys for 3s (the "**°C" or "°F"** LED starts blinking.
2. Select the required parameter. Press the "**SET**" key to display its value.
3. Use △ and ▽ to change its value.
4. Press "**SET**" to store the new value and move to the following parameter.

To Exit: Press SET + △ or wait 15s without pressing a key.
NOTE: The set value is stored even when the procedure is exited by waiting the time-out to expire

4.21 STOPPING THE MACHINE

To stop the cooling system operate the switch, which is located behind the rear protection panel. Position the master switch at "0" (fig.9) disconnecting the display cabinet power supply.

5. CLEANING AND MAINTENANCE

WARNING:
All maintenance operations must be performed by expert qualified personnel.
Before performing any maintenance operation be sure that the cabinet is disconnected from electrical supply.

WARNING:
Wait until hot parts have cooled down and reached ambient temperature to avoid burning risk.

WARNING:
Wear suitable gloves during maintenance and cleaning operations to avoid contact with metallic parts which could cause injuries.

5.1 ORDINARY MAINTENANCE: DAILY CLEANING

Daily cleaning operations can be performed by generic not-trained personnel. Glass and working surfaces should be cleaned every day, at the end of the daily service of the shop.

WARNING:
During daily cleaning operations, remove completely the displayed product from the cabinet. In case of possible contacts between the displayed products and not-alimentary chemicals, the product should be removed and wasted: it can't be used or sold.

Glass surfaces:

Clean glass surfaces (back door, front and side glasses, shelves and roof top) using a humid sponge and a specific cleaner for glasses. Remove with care any residual of cleaners or chemicals, drying with a soft cloth.

WARNING:
During moving glass cleaning operation, open and close them with great care accompanying them until end of movement. Avoid to lean on movable glasses during cleaning operations.

Plastic / Stainless Steel / Wood / Marble / Chromate surfaces:

Clean with a sponge or humid cloth, using water and/or neutral specific cleaners; wash and dry with care using a soft cloth.

5.2 ORDINARY MAINTENANCE : WEEKLY CLEANING

Weekly cleaning operations can be performer by generic not-trained personnel.

Cabinet must be completely cleaned at least once a week, in order to eliminate dirt and to defrost it completely. If the environment is hot and humid a more frequent cleaning is advised.

Remove bottom panel for performing weekly cleaning, in order to get access to the bottom of the basin.

Do the following:

1. Remove containers or trays with displayed product from the cabinet.
2. Turn off the cabinet and disconnect it completely from the electrical net.

WARNING:
Before performing any weekly cleaning operation, be sure that the cabinet is turned off and completely disconnected from electrical net.

3. Remove internal movable panels. Clean the with care using neutral cleaners; wash them with water and dry using a soft cloth.

WARNING:
Removing bottom panels you will get free access to the evaporators surfaces which are sharp and could injury the staff: wear always suitable gloves when performing weekly cleaning.

4. Use a humid sponge to remove any residual of displayed product and dirt from the basin. Avoid using too much water that could damage electric components.

WARNING:
Don’t tamper or damage electrical connections and wires or the refrigerating system piping, inside and below the basin.

5. Clean the basin with a dry cloth and let it dry completely.
6. Put all the bottom panels back in place as they where positioned before.
7. Turn on the cabinet again.

WARNING:
Use of abrasive, corrosive products, solvents , acids that could cause irreparable damages on surface and start corrosion must be avoided.
Don’t pour flammable products on hot parts such as lamps, LEDs, ballasts and so on.
Don’t pour water on electric components such as fan motors, lights and so on..

WARNING:
In case of Electric water-evaporating pans optional don’t use too much water during cleaning operations in order to avoid water spillage on floor.

WARNING:
During cleaning operations of movable glasses, be careful in opening and closing the glass, accompanying it until its final position. Avoid to lean on the open glass during cleaning phases.

5.3 PROGRAMMED MAINTENANCE – CONDENSER CLEANING

Condenser cleaning must be performer by an expert and qualified operator, for it is considered a programmed maintenance operation.

The deposit of dust and dirt in general on the condenser fins (air) reduces the efficiency of the plant until functioning is prevented and causing damage to the compressor. It is therefore absolutely necessary to periodically clean the condenser (every 20-30 days) as indicated below:

1. Turn off the cabinet and disconnect it from the electrical net.
2. Remove the back protection grid.
3. Remove dust and dirt present on the condenser fins using a brush or a vacuum cleaner (fig.10)

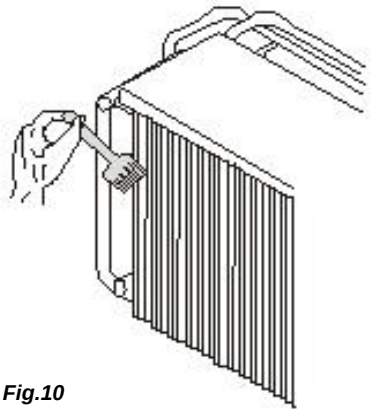


Fig.10

WARNING:
During condenser cleaning operations don't use rigid or metallic objects that could damage it.

5.4 SUMMARY OF SCHEDULED MAINTENANCE

Ordinary Maintenance				
	Generic Operator	**Qualified Operator**	**Frequency**	**Tools**
External glass surfaces	**X**		Daily	Suitable cleaner,, Humid sponge
Internal Glass surfaces	**X**		Daily	Suitable cleaner,, Humid sponge
Other External surfaces	**X**		Daily	Suitable cleaner,, Humid sponge
Inner basin surfaces	**X**		Weekly	Humid Sponge

Programmed Maintenance				
	Generic Operator	**Qualified Operator**	**Frequency**	**Tools**
Condenser Cleaning		**X**	Monthly	Brush / Vacuum Cleaner

6. PRACTICAL TROUBLESHOOTING GUIDE

1) Temperature of the display area not low enough (i.e. ice cream too soft)

Probable Cause	***Probable Solution***
Evaporator closed by ice	Perform a complete defrost as follow: Remove the displayed product and put inside another refrigerated cabinet. Turn off main switch for 10/12 hours in order to permit the complete melting of frost inside the cabinet.
Condenser blocked by dust or other.	Clean the condenser. Remove everything that obstructs regular air flow to the condenser.
The ventilators are not working and / or their blades are damaged.	Request the intervention of the assistance service for the replacement of the same.
The display cabinet is exposed to air currents or direct sunlight	The display cabinet does not function in these conditions; remove the display cabinet from the air currents and/or direct sunlight
The thermostat is not working properly. With a perfectly functional refrigerating plant, the thermostat maintains a higher temperature in the air than that set.	Call the technical assistance service.
The refrigerated airflow (the “sheet of air”) on the ice-cream is irregular.	Check the air circuit (ventilator area, area beneath the evaporator) and remove any obstacles to the circulation of cold air.
Lack of water	Check if there is a water flow, if there is, call the technician for possible water valve rupture, pressure-stat problems or other causes.

2) The defrosting water does not drain off properly (that is, the water obtained from the melting of ice during the automatic or manual defrosting phases).

Probable Cause	***Probable Solution***
The defrosting water drainage tube that goes from the cold tub to the tub in which such water is channelled (for evaporation) is blocked.	Open up the drainage tube
The display cabinet is positioned on the ground in such a way that the drainage water is not directed towards the outlet hole.	Ensure that the display cabinet is level on the ground. It must be completely level.

3) The compressor never stops or it works for very long periods of time.

Probable Cause	***Probable Solution***
The room temperature is very high (e.g. above +32°C).	If it is not possible to lower the room temperature (e.g. by means of air conditioning) the compressor will work almost constantly.
The air condenser is blocked	Clean the condenser
The thermostat is set too low.	Regulate the thermostat to a higher temperature
The ventilators are off.	Call the assistance service to individualise the cause and replace them if necessary.

4) The display cabinet does not work

Probable Cause	***Probable Solution***
The cabinet is not plugged in.	Plug it in
The trip switch has gone off.	Reinsert the trip switch.
The general switch of the display cabinet is off.	Turn on the general switch of the display cabinet

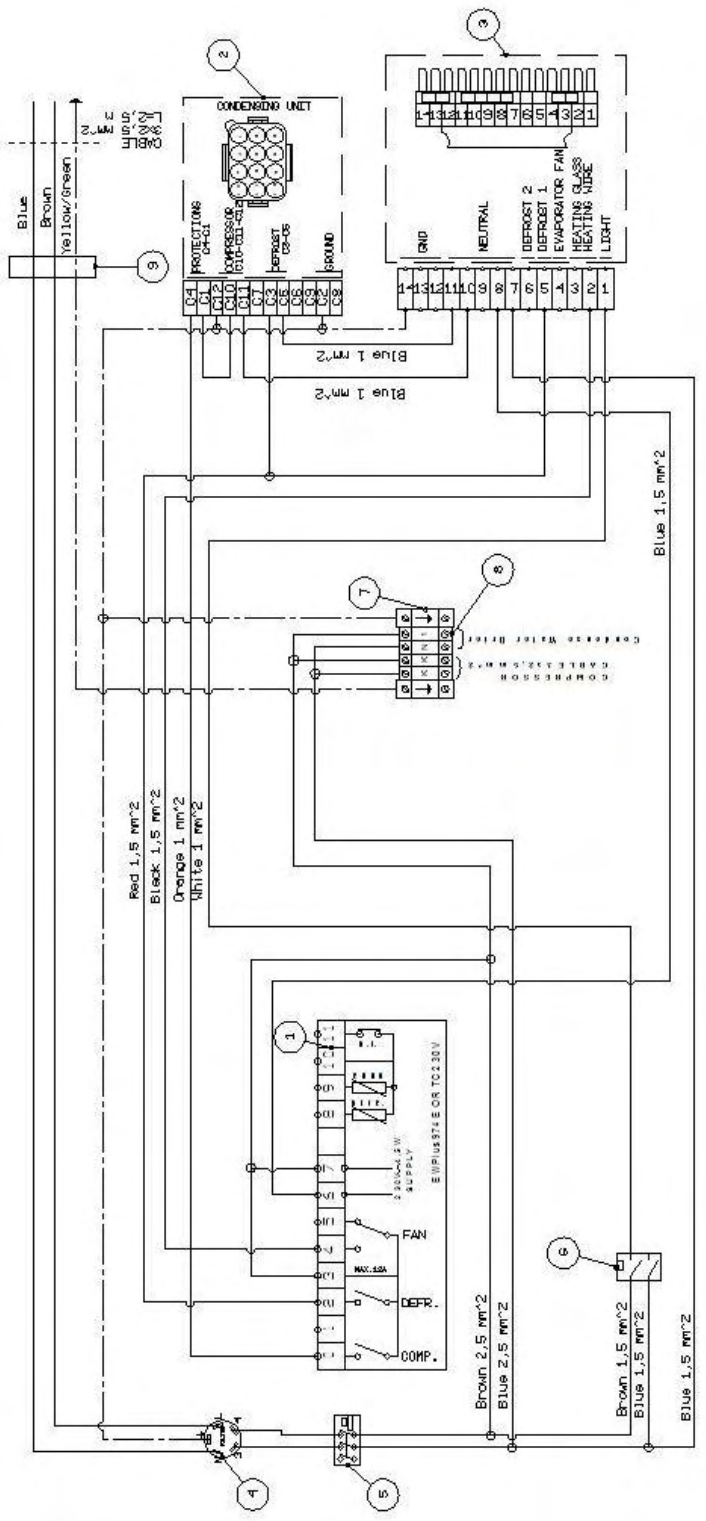
5) The light is not working

Probable Cause	***Probable Solution***
The light switch is not turned on.	Turn on the light switch.
The LED bars are not connected properly.	Verify that the 4-pin connector between two LED bars is inserted properly.
The LED bar is blown.	Replace the LED bar.
The LED supplier is blown.	Replace the LED supplier.

7. ELECTRICAL DRAWINGS (*STANDARD VERSION)*

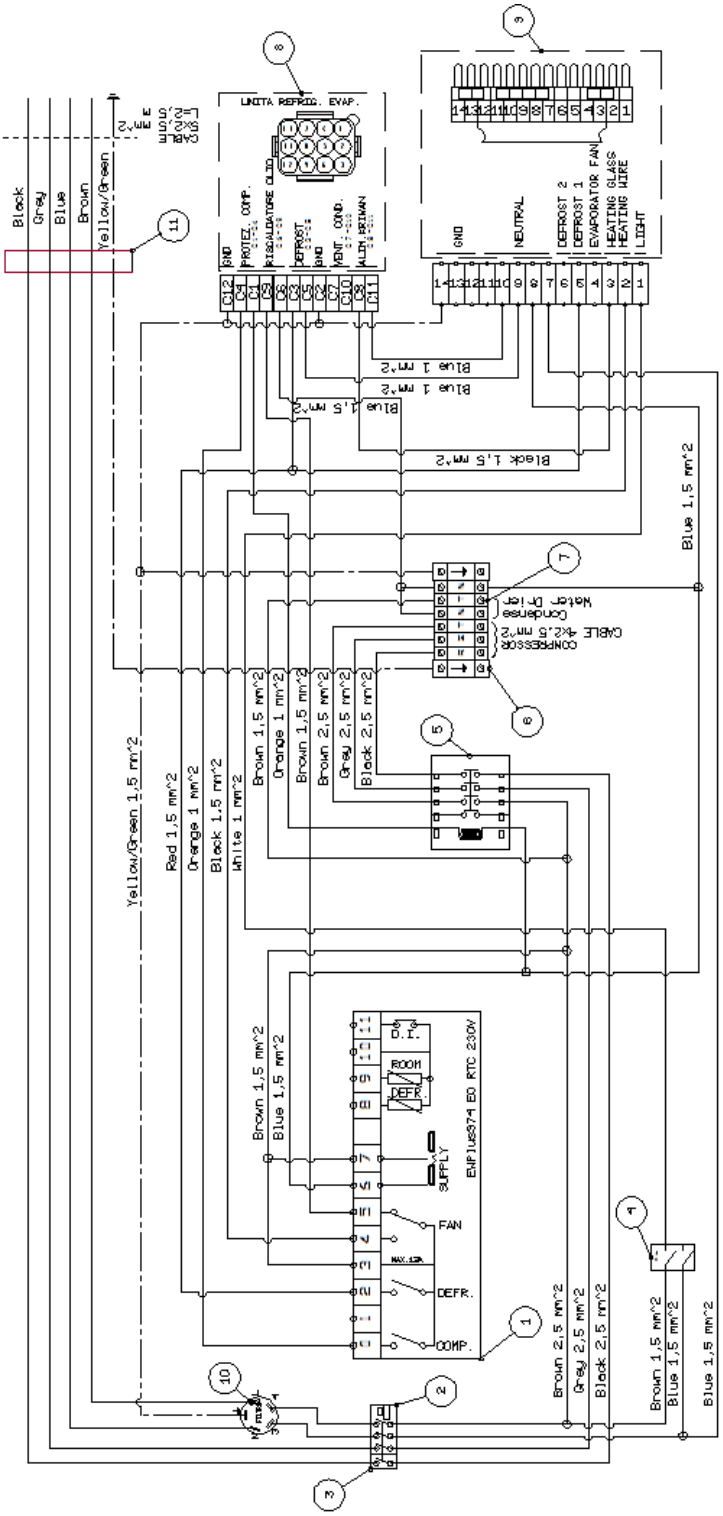
7.1 ELECTRICAL DIAGRAM DEEVA G6-G9-G12 - EWPLUS 974 RTC

Version 230/1/50 – Hermetic compressor



POS	CODICE	DESCRIZIONE	QTA'	UM
9	41015321605	PRESSACAVO BM 4913 PG13,5 UL	1	NR
8	41015281510	MORSET.BIGUIDA SIEMENS 4MMQ	4	NR
7	41015281206	MORSET.TERRA MMQ.6 SIEM.1PH00	2	NR
6	20310103144	INTER.B/22X30 LUMI. GIALLO 0-1	1	NR
5	20370202940	INTERR.3X25 A 3HP/230 UL	1	NR
4	20308101005	FILTRO ANTIDISTURBO	1	NR
3	41015270030	CONNETTORI WAGO 14 POLI-KIT	1	NR
2	41015080039	CONNET.FEMMINA 12 POLI INARCA	1	NR
1	20258200133	CONTR.EWPLUS 974 EO RTC 230V	1	NR

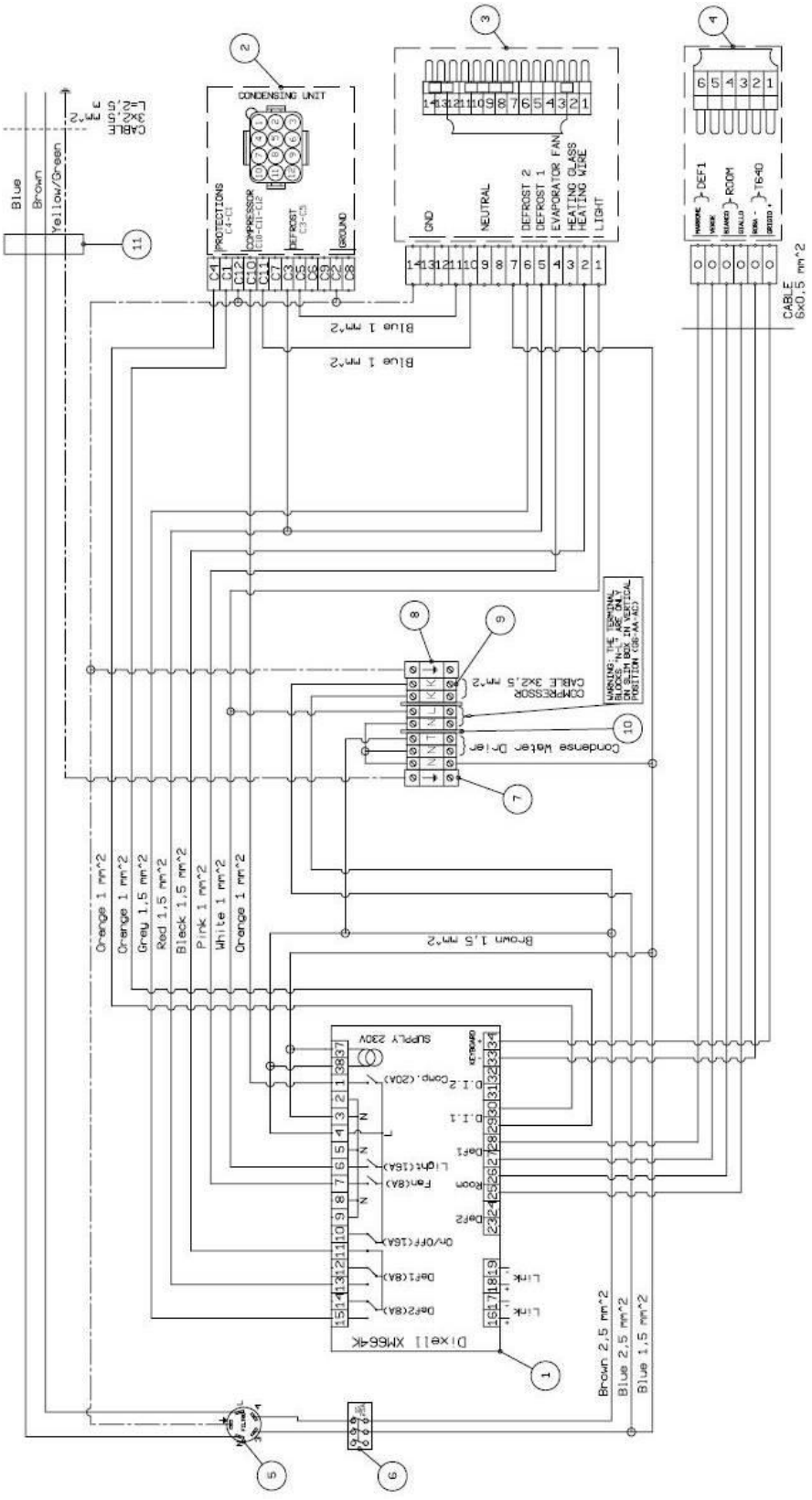
Version 400/3/50 – Semi hermetic compressor



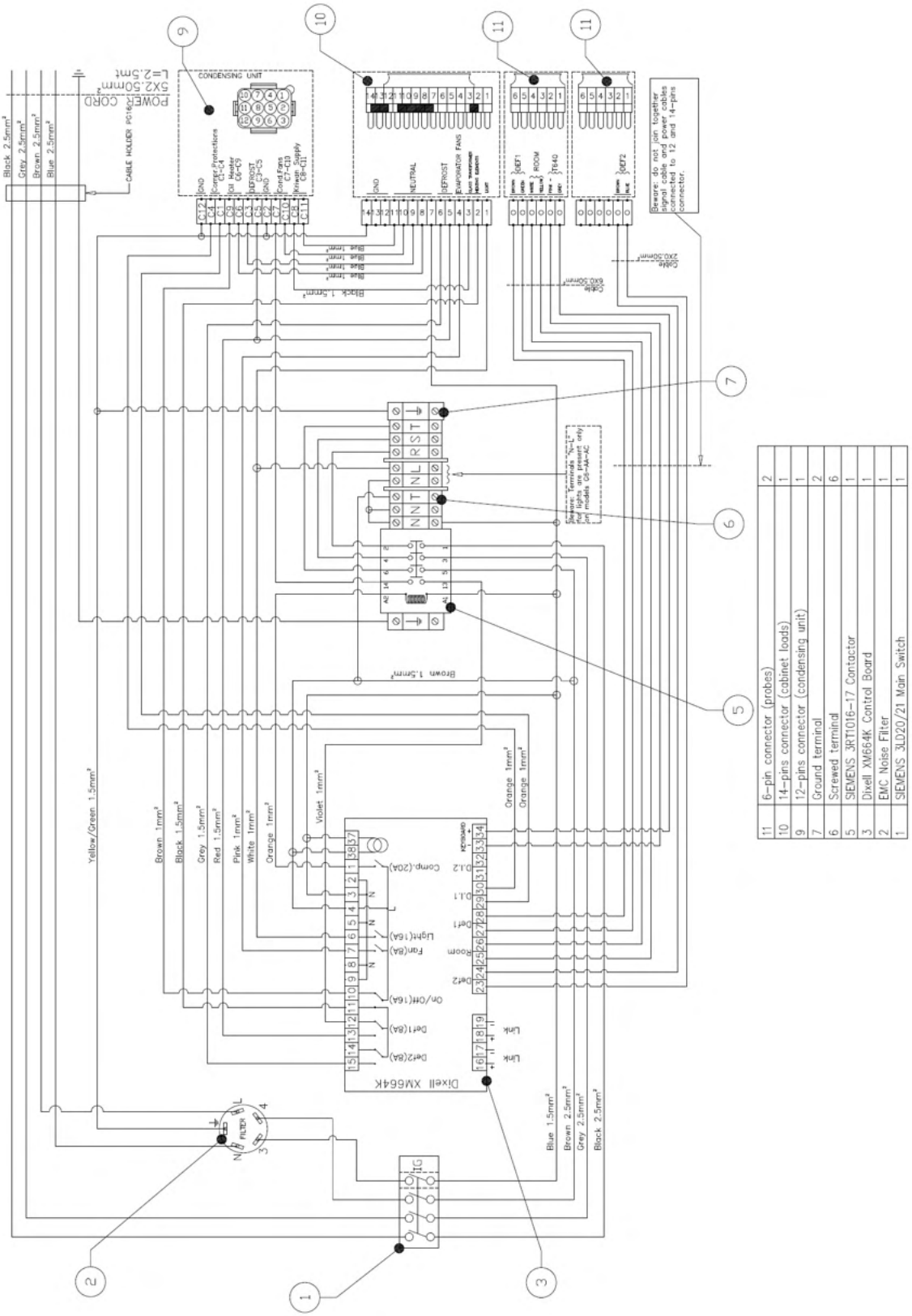
POS	CODICE	DESCRIZIONE	QTA'	UM
11	41015321605	PRESSACAVO BM 4913 PG13,5 UL	1	NR
10	20308101005	FILTRO ANTIDISTURBO	1	NR
9	41015270030	CONNETTORI WAGO 14 POLI-KIT	1	NR
8	41015080039	CONNET.FEMMINA 12 POLI INARCA	1	NR
7	41015281510	MORSET.BIGUIDA SIEMENS 4MMQ	6	NR
6	41015281206	MORSET.TERRA MMQ.6 SIEM.1PH00	2	NR
5	20370102003	TEL.TRIF.SIMENS 3RT10 16-1AP01	1	NR
4	20310103144	INTER.B/22X30 LUMI. GIALLO 0-1	1	NR
3	20370202945	4 POLO N M.32A 3LD9220-0B INT	1	NR
2	20370202940	INTERR.3X25 A 3HP/230 UL	1	NR
1	20258200133	CONTR.EWPLUS 974 EO RTC 230V	1	NR

7.2 ELECTRICAL DIAGRAM DEEVA G6-G9-G12 - T640 KEYBOARD

Version 230/1/50 – Hermetic compressor

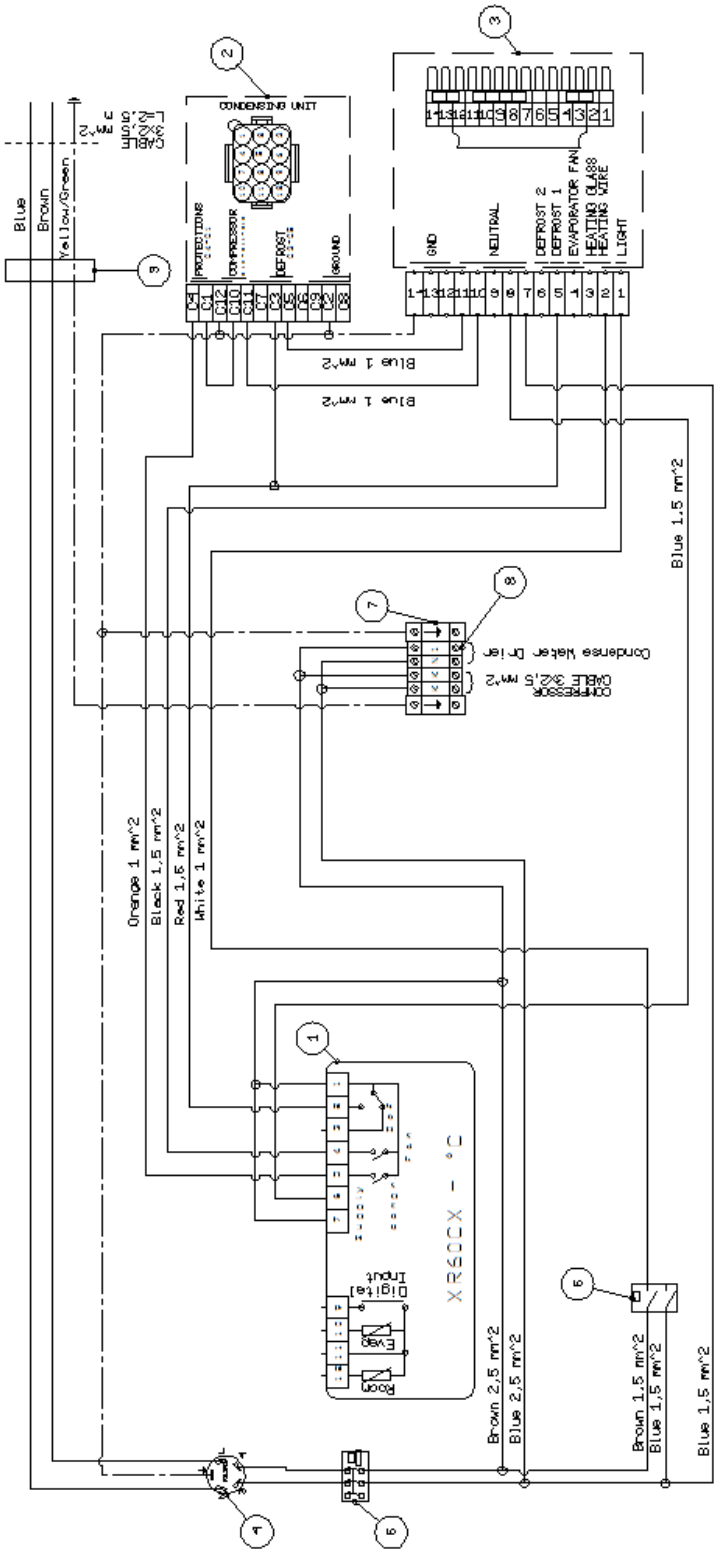


Version 400/3/50 – Semi hermetic compressor



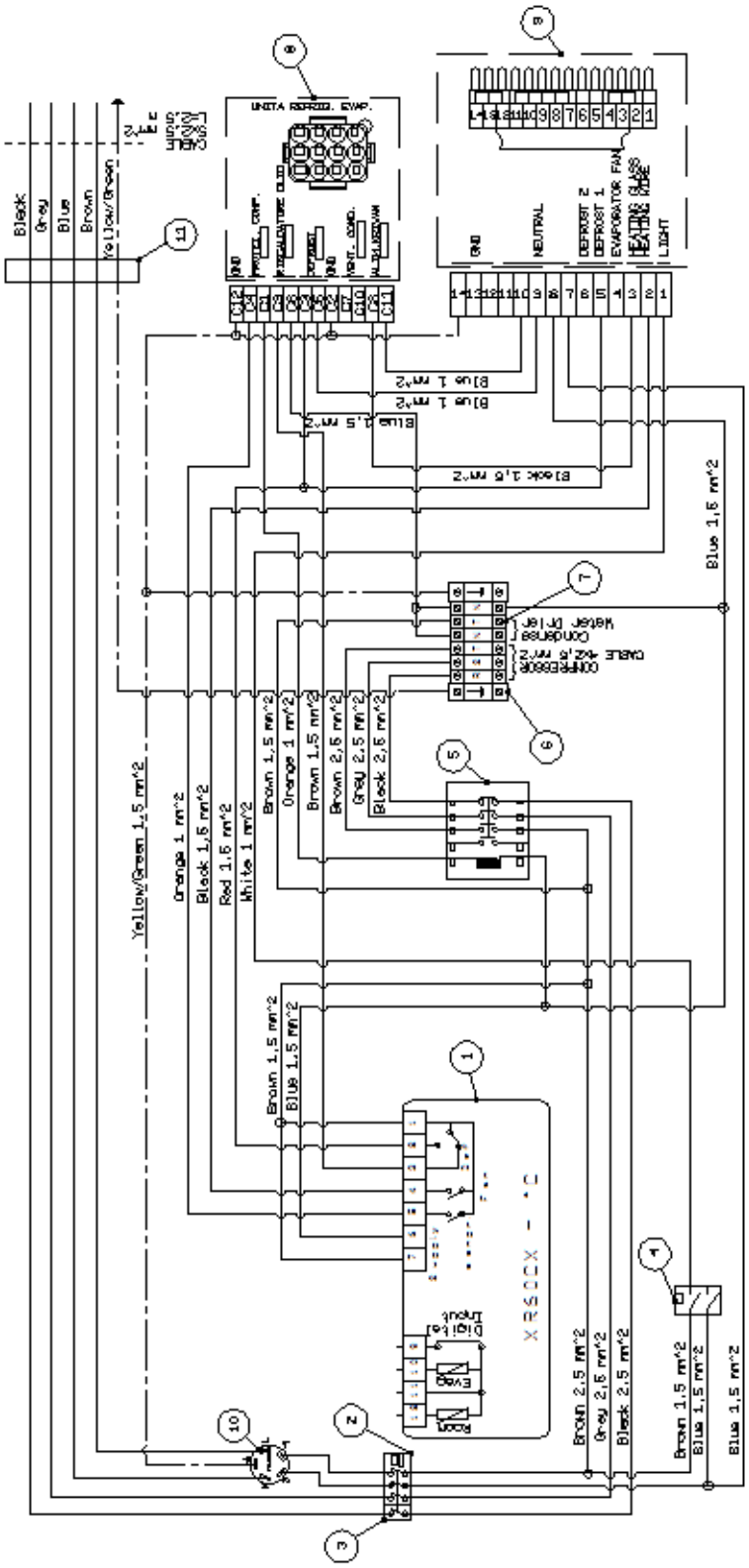
7.3 ELECTRICAL DIAGRAM DEEVA G6-G9-G12 - XR60CX

Version 230/1/50 – Hermetic compressor



POS	CODICE	DESCRIZIONE	UM'A	UM
9	4101532160S	PRESSACAVO BM 4513 PG13,5 UL	1	NR
8	4101628151O	MORSET.BIGUIDA SIEMENS 4MMQ	4	NR
T	4101528120S	MORSET.TERRA MMQ.6 SIEM.1PHOO	2	NR
6	2030101031A4	INTER.B/22X30 LUMI. GIALLO O-1	1	NR
5	2037020294O	INTERR.3X25 A 3HP/230 UL	1	NR
4	2030610100S	FILTRO ANTIDISTURBO	1	NR
3	4101627003O	CONNETTORI WAGO 14 POLI-KIT	1	NR
2	4101508003S	CONNET.FEMMINA 12 POLI INVARGA	1	NR
1	2026820016S	CONTROL.DIXELL XR60CX 230V °C	1	NR

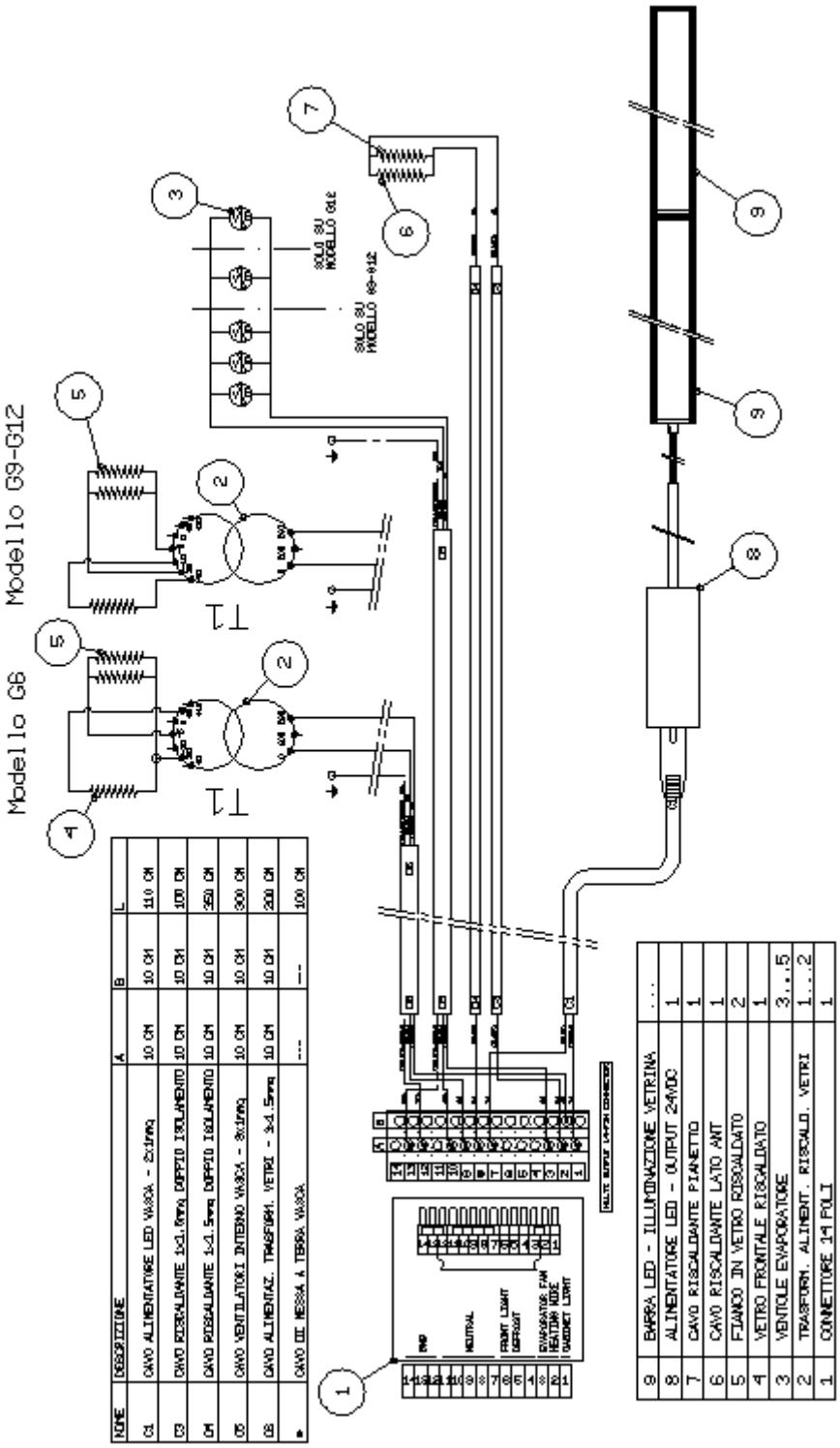
Version 400/3/50 – Semi hermetic compressor



P08	CODICE	DESCRIZIONE	QTA'	UM
11	41015321605	PRESSACAVO BM 4913 PG13,5 UL	1	NR
10	20308101005	FILTRO ANTIDISTURBO	1	NR
9	41015270030	CONNETTORI WAGO 14 POLI-KIT	1	NR
8	41015080039	CONNET.FEMMINA 12 POLI INARCA	1	NR
7	41015281510	MORSET.BIGUIDA SIEMENS 4MQ	6	NR
6	41015261206	MORSET.TERRA MMQ.6 SIEM.1PH00	2	NR
5	20370102009	TEL.TRIF.SIEMENS 3RT10 16-1AP01	1	NR
4	20310103044	INTER.B/22X30 LUMI. GIALLO 0-1	1	NR
3	20370202945	4 POLO N M.22A 3LD6220-0B INT	1	NR
2	20370202940	INTERR.3X25 A 3HP/230 UL	1	NR
1	20258200155	CONTROL.DIXELL XR30CX 230V °C	1	NR

7.4 LOAD AND LIGHT CONNECTIONS

Version 230/1/50

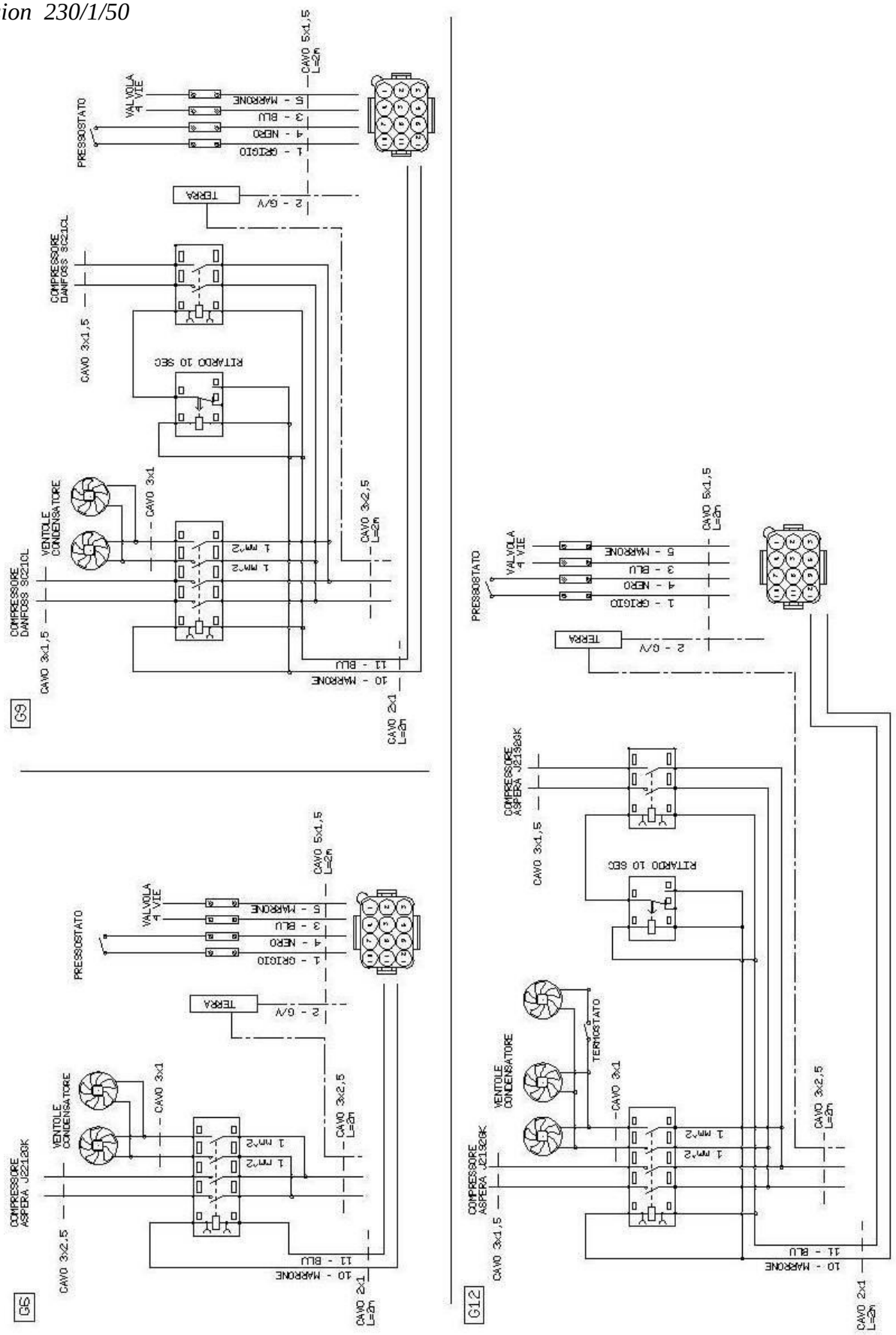


NOME	DESCRIZIONE	A	B	L
C1	CAVO ALIMENTATORE LED VASCA - 2x1mq	10 CM	10 CM	110 CM
C3	CAVO RISCALDANTE 1x1.5mq DOPPIO ISOLAMENTO	10 CM	10 CM	100 CM
C4	CAVO RISCALDANTE 1x1.5mq DOPPIO ISOLAMENTO	10 CM	10 CM	250 CM
C5	CAVO VENTILATORI INTERNO VASCA - 3x1mq	10 CM	10 CM	300 CM
C6	CAVO ALIMENTAZ. TRASFORM. VETRI - 3x4.5mq	10 CM	10 CM	200 CM
*	CAVO DI MESSA A TERRA VASCA	---	---	100 CM

9	BARRA LED - ILLUMINAZIONE VETRINA	...
8	ALIMENTATORE LED - OUTPUT 24VDC	1
7	CAVO RISCALDANTE PIANETTO	1
6	CAVO RISCALDANTE LATO ANT	1
5	FIANCO IN VETRO RISCALDATO	2
4	VETRO FRONTALE RISCALDATO	1
3	VENTOLE EVAPORATORE	3...5
2	TRASFORM. ALIMENT. RISCALD. VETRI	1...2
1	CONNETTORE 14 POLI	1

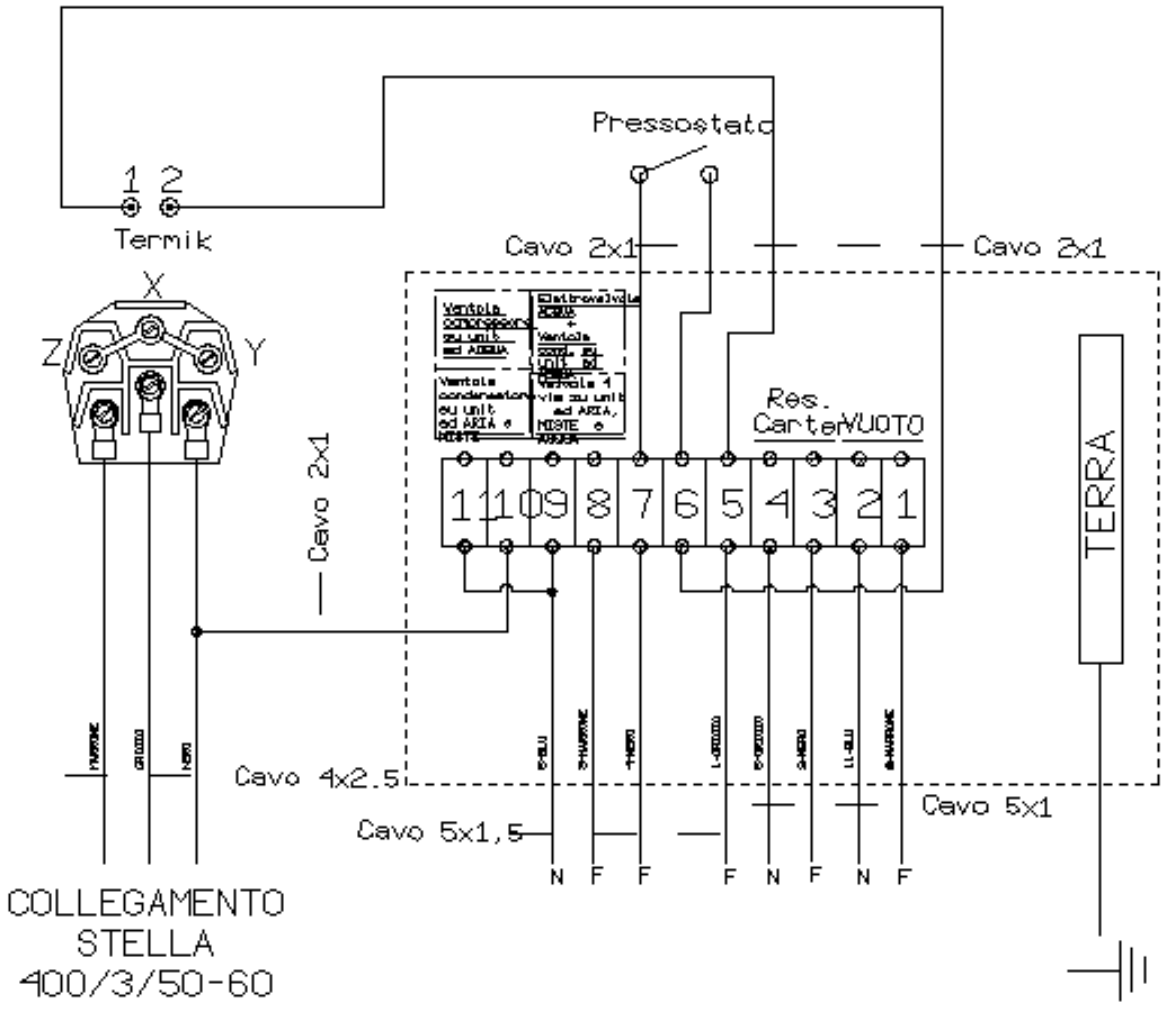
7.5 CONDENSING UNIT CONNECTION BOX – HERMETIC COMPRESSOR - SUPPLY 50 HZ

Version 230/1/50



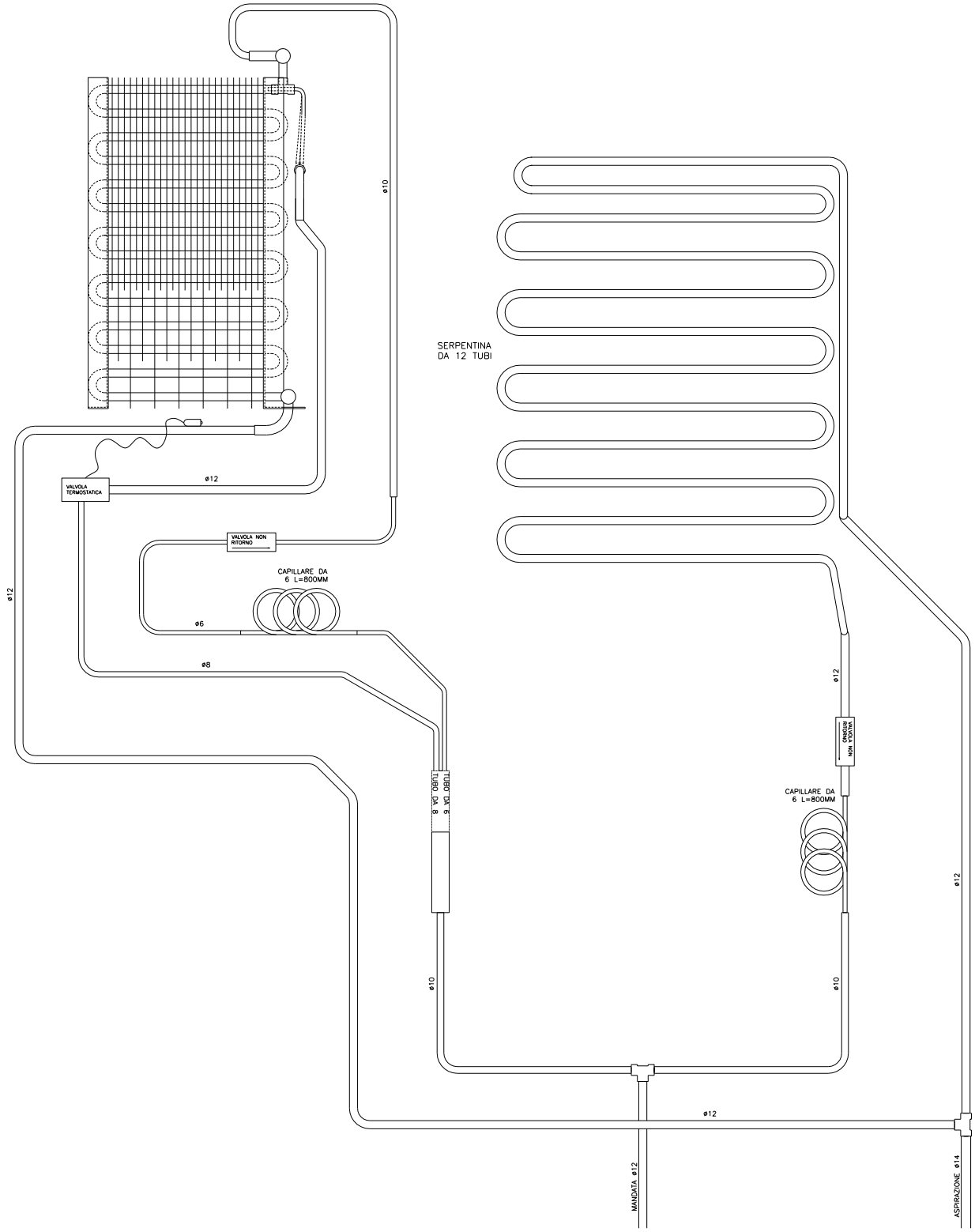
7.6 CONDENSING UNIT CONNECTION BOX – SEMI HERMETIC COMPRESSOR - SUPPLY 50 HZ

Version 400/3/50

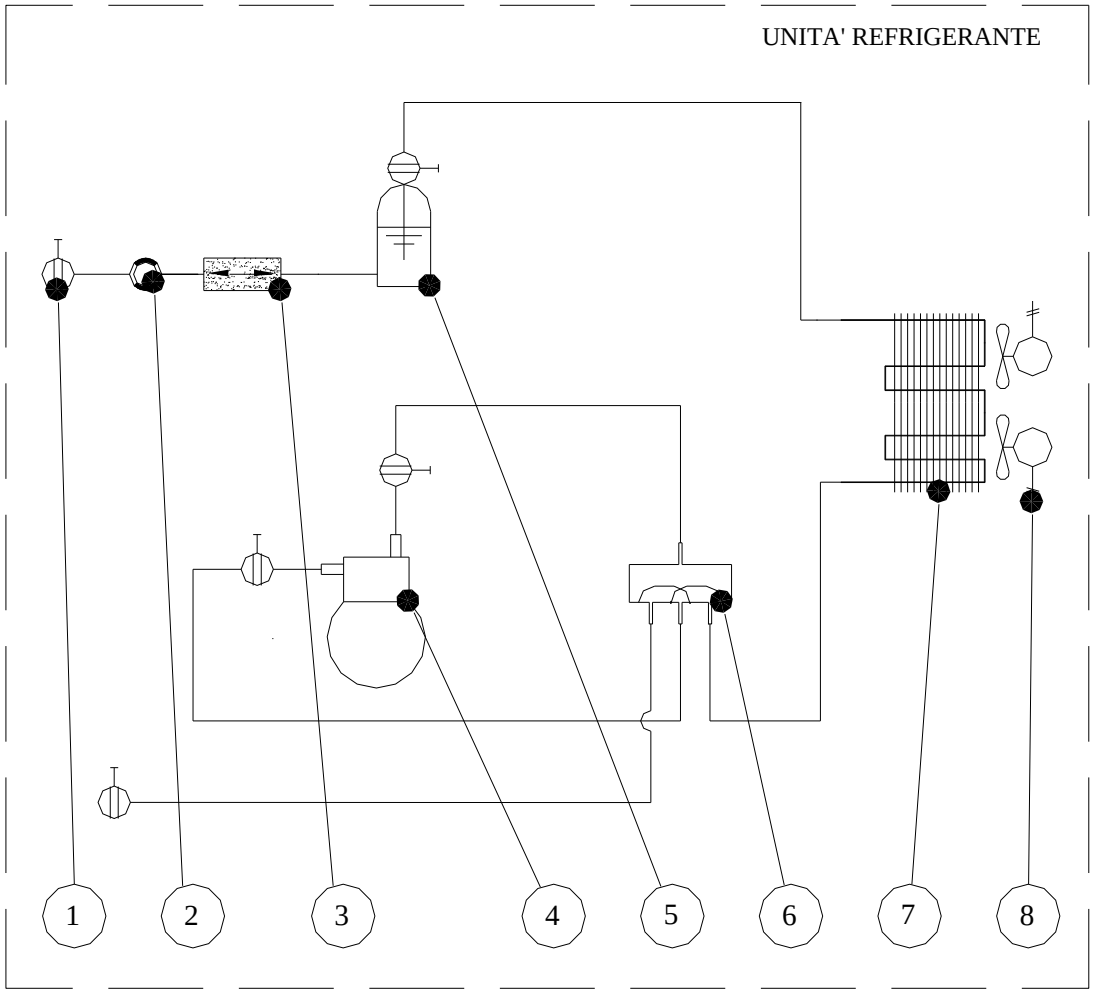


8. COOLING SYSTEMS DIAGRAMS

8.1 COOLING SYSTEM W/ CYCLE INVERSION DEFROST – G6-G9-G12

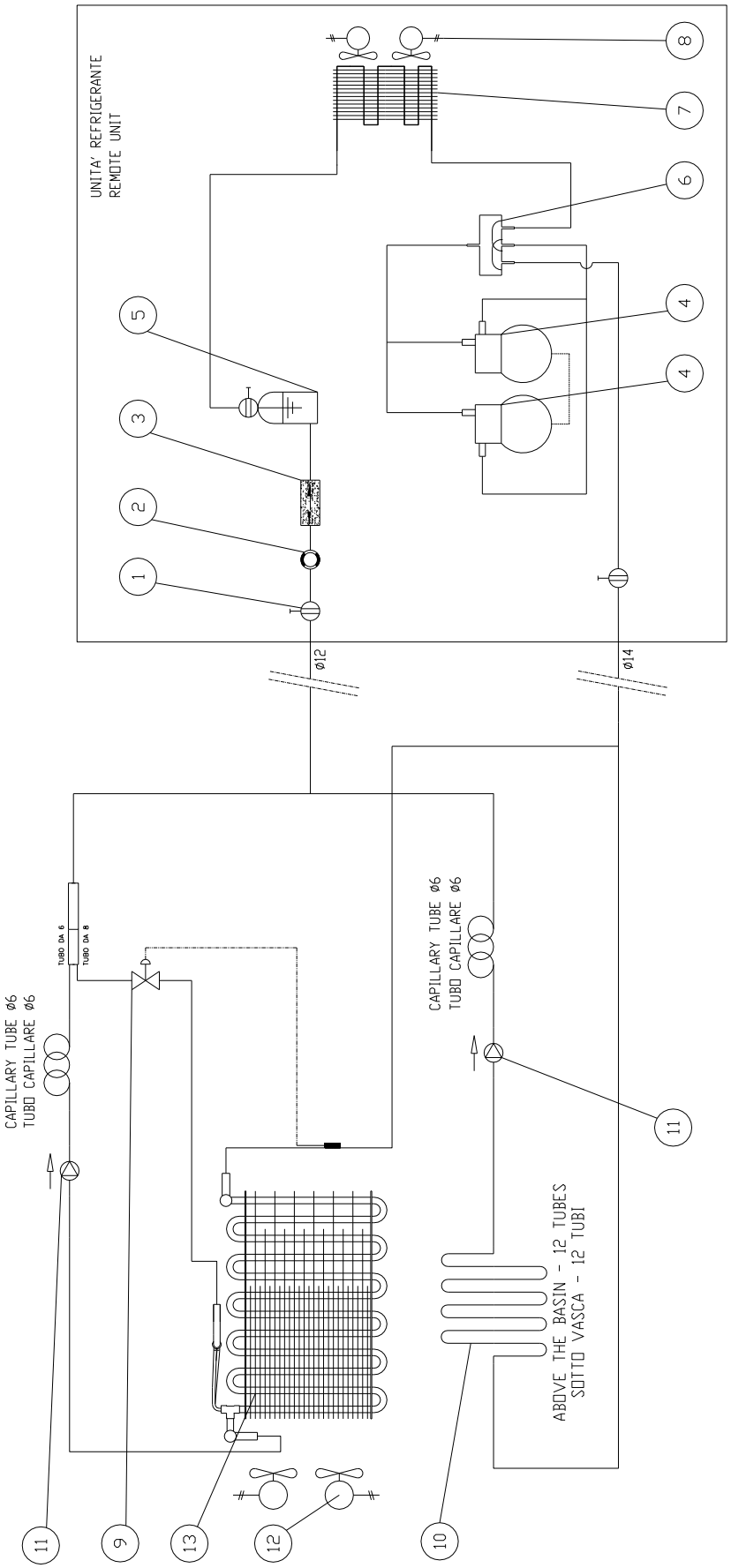


8.2 CONDENSING UNIT SCHEME – 1 HERMETIC COMPRESSOR



1		BALL VALVE	2
2		SPY GLASS (OPTIONAL)	1
3		DRY FILTER	1
4		COMPRESSOR	1
5		LIQUID RECEIVER	1
6		4-WAY VALVE (DEFROST)	1
7		CONDENSER	1
8		CONDENSER FANS	2

8.3 COOLING SYSTEM W/ CONDENSING UNIT – TWIN COMPRESSOR SYSTEM



1	BALL VALVE	2
2	SPY GLASS (OPTIONAL)	1
3	DRY FILTER	1
4	COMPRESSOR	2
5	LIQUID RECEIVER	1
6	4-WAY VALVE (DEFROST)	1
7	CONDENSER	1
8	CONDENSER FANS	2-3
9	THERMOSTATIC VALVE	1
10	DEFROST PIPES	1
11	NOT DELIVERY VALVE	2
12	EVAPORATOR FANS	2-3
13	EVAPORATOR	1

NORME DI GARANZIA

I prodotti sono coperti da garanzia per una durata di 14 mesi dalla data di consegna dalla Clabo Spa al cliente, inteso come primo acquirente.
La validità della garanzia è certificata dal documento di consegna e dall'etichetta attaccata al prodotto riportante la matricola.

Tale documentazione dovrà essere conservata a cura del cliente e citata o esibita in caso di richiesta di intervento in garanzia.

La mancata esibizione di tali documenti o la presentazione di tali documenti alterati o illeggibili comporta la decadenza automatica della garanzia.
Non sono coperte da garanzia eventuali danni o malfunzionamenti causati dal trasporto effettuato da terzi, da erronea installazione e manutenzione, da negligenza o trascuratezza nell'uso, da usura dei componenti, da manomissione, da modifiche effettuate senza la preventiva autorizzazione da parte della Clabo Spa.

Per ottenere l'intervento tecnico in garanzia, dovrà essere inoltrata richiesta scritta alla Direzione Commerciale o al concessionario di zona.

La Clabo Spa a proprio insindacabile giudizio, deciderà se riparare o sostituire i componenti o l'intero prodotto.

È esclusa qualsiasi diversa ed ulteriore responsabilità della Clabo Spa, e così anche per danni diretti e/o indiretti. L'eventuale sostituzione del prodotto non comporta il prolungamento o il rinnovo delle condizioni di garanzia.

Tutte le spese di spedizione e/o trasporto dei componenti o dei prodotti inviati in garanzia o dei componenti difettosi sostituiti da rendere a Clabo Spa sono a carico del cliente.

WARRANTY TERMS

Clabo Spa undertakes to provide warranty on its products to the first purchaser of the product for a period of 14 months running from delivery date.
The warranty acknowledgement is based both on the date of the delivery note and the serial number tag shown on the product.

Such documentation will have to be kept by the customer. The documentation will have to be mentioned or shown should there be a request of intervention during the warranty coverage.
Loss of such documentation or any modification thereof which might render it illegible, will lead to immediate warranty termination.
Any damage or malfunctioning determined during transportation by third parties, by incorrect installation or maintenance, by negligence or carelessness of use and tampering by third parties, by components wear, modifications made without previous authorization by Clabo Spa, will not be covered by warranty.
In order to obtain a technical intervention under warranty, a written request will have to be sent to the Sales Management Division or to the local distributor.
Clabo Spa will unquestionably decide whether it would be necessary to repair or replace the components or the product at issue.
Clabo Spa will not accept any further/ different responsibility and/or liability and this would include direct and/or indirect damages. Cases of replacement of the equipment will not lead to extension or renewal of the warranty period.

Transportation costs of components or products delivered under warranty or replaced faulty components returned to Clabo Spa are to be covered by customer.

REFRIGERAZIONE

FB
IS A TRADEMARK OF CLABO S.P.A.

VIA DELL'INDUSTRIA, 15
60035 JESI (AN) ITALY
T. +39 0731 61531
F. +39 0731 6153413
INFO@FBSTYLE.IT
WWW.FBSTYLE.IT