Use and maintenance manual

EVERLASTING

BAKING ROOM

RETARDER-PROOFER
DOUGH-RETARDER

EN

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Thank you for choosing this product.

Please read the warnings contained in this manual carefully, as they provide important information regarding safe operation and maintenance.
Make sure to keep this manual for any future reference by the various operators.

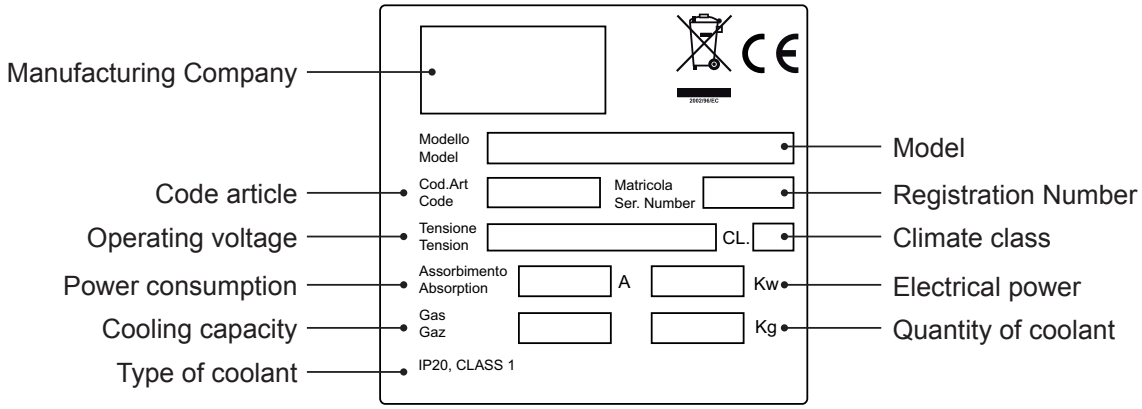
In some parts of the manual, the ⚠ symbol appears, indicating an important warning that must be observed for safety purposes.

CHAPTER 1 BOUNDARY CHARACTERISTICS OF OPERATION

The retarder-proofer/dough-retarder Refrigerated Room have been designed and built to operate in optimal conditions at temperatures from +10°C to +40°C (CL5), with adequate air circulation. In places with characteristics that are different from the requirements, the stated performance cannot be guaranteed. The supply voltage must be 400N/3Ph/50Hz as standard, or as indicated on the EC label.

The retarder-proofer/dough-retarder Refrigerated Room complies with the European directives as described in detail in the Annex **"EC Declaration of Conformity".**

The technical specifications of the fermalievita/fermabiga Baking room are listed on the CE label placed on the external side of the control panel.



ATTENTION: any request for intervention, technical support and spare part must refer to the **SERIAL NUMBER** on the CE label, on the manual cover or on the external side of the control panel. The producer declines any responsibility for any improper or not reasonably foreseen usage of the fermalievita/fermabiga Baking room and for any operation carried out by neglecting the indications listed on the manual.

The manufacturer declines any liability for improper use of the retarder-proofer/dough-retarder Refrigerated Room as well as use that could not have been reasonably foreseen, and for all operations performed on it that disregard the instructions in the manual.

The main general safety standards are listed below:
- **Do not** use or place electrical devices inside the refrigerated compartments if they are not of the type recommended by the manufacturer
- **Do not** touch the the retarder-proofer/dough-retarder Refrigerated Room with damp or wet hands or feet
- **Do not** use the the retarder-proofer/dough-retarder Refrigerated Room barefoot
- **Do not** insert screwdrivers or other objects between the guards or moving parts
- **Do not** pull the power cord to unplug the the retarder-proofer/dough-retarder Refrigerated Room from the electricity network

- Fermalievita/fermabiga Baking room is not suitable for usage by people (children included) with physical or mental problems or lacking know-how and knowledge, unless they are supervised or instructed on the usage of the fermalievita/fermabiga Baking room by a person responsible for their safety. Children must be supervised to ensure they will not play with the fermalievita/fermabiga Baking room.
- before carrying out any cleaning or maintenance operation, disconnect the fermalievita/fermabiga Baking room from the power supply by turning off the main switch and unplugging it
- in case of damage a/o malfunction of the fermalievita/fermabiga Baking room, turn it off and do not try to repair or intervene directly. It is necessary to revert exclusively to qualified personnel.

The retarder-proofer/dough-retarder Refrigerated Room are composed of a modular panels coated with different materials and insulated with polyurethane foam of density 42 kg/m3.
In the design and construction, all measures have been adopted to ensure the retarder-proofer/dough-retarder Refrigerated Room comply with safety and hygiene requirements, such as: rounded interior corners, deep drawing with drain on the outside for the condensate liquids, no rough surfaces, fixed guards on moving or dangerous parts.

⚠ **The installation must be performed exclusively by a qualified technician**

1.1 It is prohibited to remove the guards and safety devices
It is absolutely forbidden to remove safety guards.

The manufacturer disclaims any liability for accidents due to failure to comply with this obligation.

1.2 Information on emergency operations in the event of fire
- disconnect the retarder-proofer/dough-retarder Refrigerated Room from the electrical outlet or cut off the main power supply
- do not use water jets
- use dry chemical or CO2 extinguishers

CHAPTER 2 CLEANING

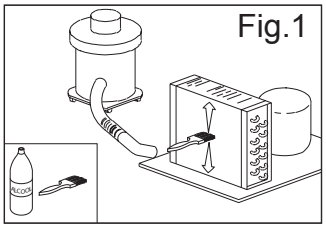
Since the retarder-proofer/dough-retarder Refrigerated Room will be used to store food, cleaning is necessary for hygiene and health protection purposes.
The cleaning of the retarder-proofer/dough-retarder Refrigerated Room have already been carried out at the factory. It is suggested, however, to carry out an additional cleaning of the internal parts before use, making sure that the power cord is unplugged.

2.1 Cleaning the interior and exterior room
For this purpose the following are indicated
- the cleaning products: water and mild, non-abrasive detergents. DO NOT USE SOLVENTS AND THINNERS
- methods for cleaning: wash the interior and exterior parts with warm water and mild soap or with a cloth or sponge with suitable products
- disinfection: avoid substances that can alter the organoleptic characteristics of the food
- rinsing: cloth or sponge soaked in warm water. DO NOT USE WATER JETS
- frequency: weekly is recommended, the user can set different frequencies depending on the type of food being stored.

REMARK: Clean frequently the door seals.
Some preserved products could release some enzymes that could damage the seals causing its quick deterioration.
For the cleaning, use only specific products for this purposes, available also on request on our sales network.

2.2 Cleaning the condenser

The efficiency of the retarder-proofer/dough-retarder Refrigerated Room is compromised by the clogging of the condenser, therefore it is necessary to clean it on a monthly basis. Before carrying out this operation, switch off the retarder-proofer/dough-retarder Refrigerated Room unplug the power cord and proceed as follows:



With the aid of a jet of air or dry brush, eliminate, in a vertical movement (Fig. 1), the dust and lint deposited on the fins. In the case of greasy deposits, we recommend using a brush moistened with special cleaning agents.
When the operation is completed, restart the retarder-proofer/dough-retarder Refrigerated Room. Evaporators installed above the appliances are cataphoresis-treated to reduce corrosion problems.

During this operation, use the following personal protective equipment: goggles, respiratory protection mask, chemically resistant gloves (gasoline-alcohol).

CHAPTER 3 PERIODIC CHECKS TO BE CARRIED OUT

IMPORTANT: The following are the points or units of the retarder-proofer/dough-retarder Refrigerated Room that require periodic checks:
- integrity and efficiency of door seals
- integrity of the fixing hinges of the doors
- integrity of the power cord

3.1 PRECAUTIONS IN CASE OF LONG PERIODS OF INACTIVITY

A long period of inactivity is defined as a stoppage of more than 15 days.
It is necessary to proceed as follows:
- switch off the retarder-proofer/dough-retarder Refrigerated Room and disconnect it from the power supply
- carry out a thorough cleaning of the interior Refrigerated Room, paying special attention to critical points such as the joints and magnetic gaskets, as indicated in Chapter 2.
- leave the door partly open to prevent air stagnation and residual humidity

CHAPTER 4 PREVENTIVE MAINTENANCE

4.1 Restarting after a long period of inactivity

Restarting after long inactivity is an event that requires preventive maintenance.
It is necessary to perform a thorough cleaning as described in chapter 2.

4.2 Control of the warning and control devices

We recommend that you contact your dealer for a service or maintenance contract that includes:
- cleaning of the condenser
- verification of the coolant load
- verification of the full cycle operation
- electrical safety

⚠ CHAPTER 5 EXTRAORDINARY MAINTENANCE AND REPAIR

All maintenance activities that have not been described in previous chapters are considered "Extraordinary Maintenance." Extraordinary maintenance and repair are tasks reserved exclusively to the specialist personnel authorized by the manufacturer.
No liability is accepted for actions carried out by the user, by unauthorized personnel, or with the use of non-original replacement parts.

CHAPTER 6 TROUBLESHOOTING

In case of any malfunction or anomaly, check the chart here below before asking for technical assistance.

TROUBLE DESCRIPTION	POSSIBLE CAUSES	HOW TO REPAIR IT
the retarder-proofer/dough-retarder Refrigerated Room do not turn on	no power supply	check the plug, socket, fuses, line
	other	fuses, line
the refrigeration unit does not start	the set temperature has been reached	set new temperature
	defrosting in progress	wait until the end of cycle / turn power off and on again
	control panel failed	contact technical support
	other	contact technical support
the refrigeration unit runs continuously but does not reach the set temperature	location is too hot	aerate more
	condenser is dirty	clean the condenser
	insufficient coolant	contact technical support
	stop the condenser fan	contact technical support
	insufficient sealing of doors	check the seals / provision of goods
	evaporator completely frosted	manual defrosting
	other	contact technical support
the refrigeration unit does not stop at the set temperature	command panel failed	contact technical support
	Pr1 temperature sensor failed	contact technical support
block of ice on the evaporator	misuse	see chapter 1.
	defrost heater fault	contact technical support
	defrost probe Pr2 damaged	contact technical support
accumulation of water or ice in the drip tray	drain clogged	clean the pipette and the drain
	Refrigerated Room are not levelled	check levelling

CHAPTER 7 INSTRUCTIONS FOR REQUESTING ASSISTANCE

For any technical problem and for intervention, assistance and spare-part requests it is necessary to exclusively revert to one's dealer, providing the code and the serial number indicated on the specification label attached to the appliance.

CHAPTER 8 SAFETY AND ACCIDENT PREVENTION

The retarder-proofer/dough-retarder Refrigerated Room have been built with suitable measures to ensure the safety and health of the user.
The following are the measures taken to protect against mechanical risks:

- **stability:** The retarder-proofer/dough-retarder Refrigerated Room , even with the grilles removed, have been designed and built in such a way that under the intended operating conditions, its stability is suitable for use without risk of overturning, falling or unexpected movement

- **surfaces, edges, corners:** the accessible parts of the retarder-proofer/dough-retarder Refrigerated Room are, within the limits allowed by their functions, free of sharp angles and sharp edges, as well as rough surfaces likely to cause injury

- **moving parts:** were designed, constructed and arranged to avoid risks. Certain parts are equipped with fixed guards so as to prevent risks of contact which may result in injury

The following are the measures taken to protect against other risks:

- **electricity:** The the retarder-proofer/dough-retarder Refrigerated Room have been designed, built and equipped so as to prevent risks from electricity, in accordance with the specific legislation in force

- **noise:** The retarder-proofer/dough-retarder Refrigerated Room have been designed and built in such a way that risks resulting from the emission of airborne noise are reduced to the minimum level

8.1 safety devices adopted

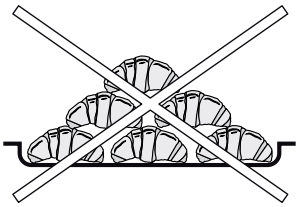
It is absolutely forbidden:
- to tamper with or remove the closing panels of the motocondensing unit
- remove the labels applied describing the technical characteristics (1) and the warnings for grounding of the Refrigerated Room
- remove the labels applied describing the technical characteristics and the warnings for grounding of the motocondensing unit
- remove the label of Refrigerated Room which warns the user to turn off the power supply before working on the unit
- remove the label of the remote motocondensing unit which warns the user to turn off the power supply before working on the unit
- to remove the labels applied on the Refrigerated Room indicating grounding
- to remove the labels applied on the remote motocondensing unit indicating grounding
- to remove the label applied on the power cord, indicating the type of power supply (2)

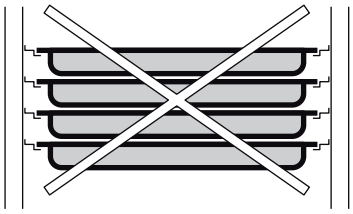
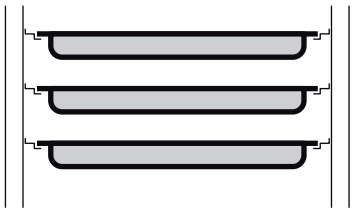
The manufacturer declines any responsibility for the safety of the Refrigerated Room if this were to happen.

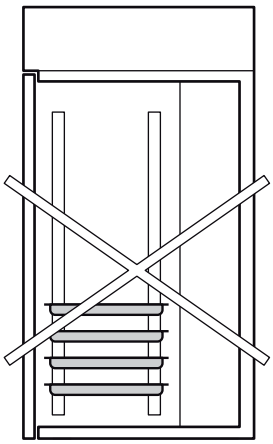
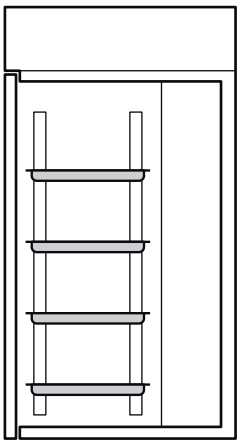
8.2 Indications for optimal operation

- do not obstruct the condensing unit air intakes
- place the foodstuffs on the appropriate shelves or containers. Do not place them directly on the bottom, or leaning against the walls, doors or fixed guards

- close the doors carefully
- always keep the defrost water drain hole clear of obstructions
- limit, to the extent possible, the frequency and duration of door opening. Each opening causes a change in the internal temperature
- perform periodically current maintenance (see chapter 3)

Avoid overloading the Refrigerated Room beyond the set limits shown in the table	
NO	**OK**
	

Do not place the trays too close to each other so as to avoid uneven air circulation inside the Refrigerated Room	
NO	**OK**
	

Do not concentrate the trays in one area of the Refrigerated Room in case the load is not complete; distribute its height evenly	
NO	**OK**
	

In case of interruption or failure of the power supply circuit, prevent the opening of the doors in order to maintain a uniform temperature inside the Refrigerated Room. If the problem persists longer than a few hours it is recommended to move the material to a suitable place.

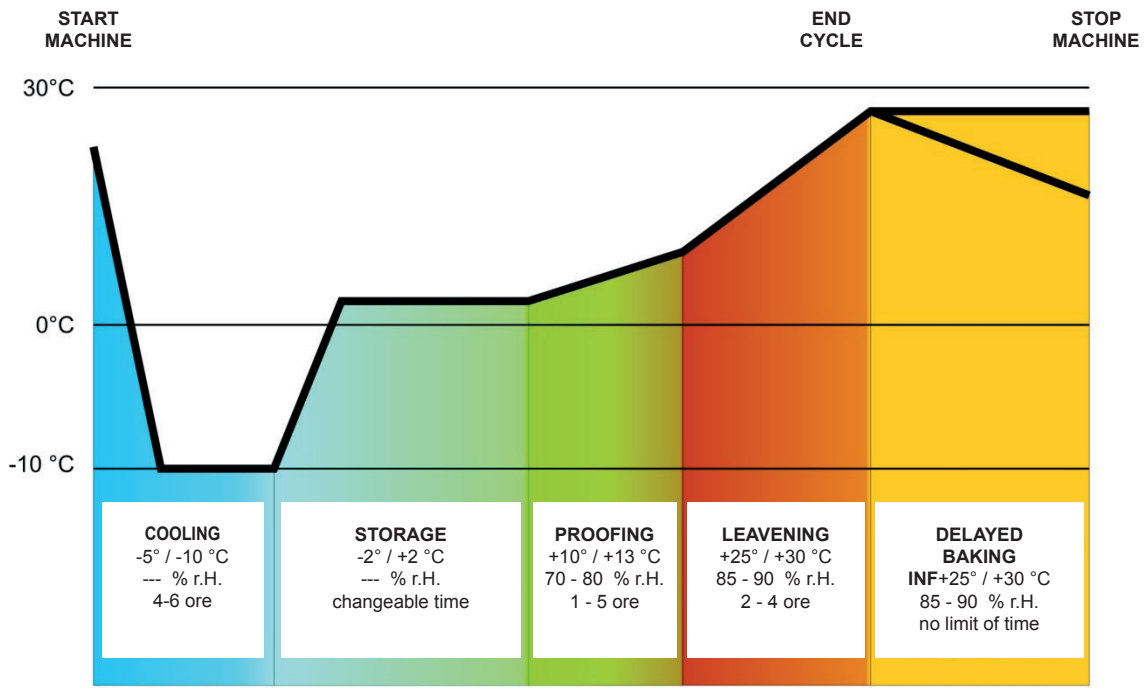
USEFUL SUGGESTIONS

Before starting a RETARDER-PROOFING cycle it is advisable to pre-cool the empty cell at -5 ° C, thus allowing more effective action of the Retarder-proofing action during the introduction of the product (see par.10.6 page 30)
For cycles longer than 48 H increase yeast of 0.5% speeding as possible the loading phase of the product.
Do not bake the product once it has been taken out from the retarder proofer, leave at least 10 minutes at room temperature in order to avoid an excess of moisture in the surface that could cause defects in the crust formation during cooking.

The formation of bubbles on bread does not imply a system malfunction. The cause of this is mainly due to bakery problems, such as too soft or too cold dough, flour type and quality, too much humidity during leavening, too hot oven, too much steam during baking, etc.
Avoide too hot temperatures and too short times during PROOFING and LEAVENING PHASES: the thermal shock would cause problems to gluten and yeast, thus damaging the quality of the finished product.
In case of productions needing storage times above 72 hours it is advisable to freeze the products with a shock freezer (see our catalogues). Such appliances are designed to freeze bread at temperatures of -20°C to the core in the shortest time possible, thus preserving its original features until proofing, leavening and baking will be carried out.
The storage phase will also have to be carried out in a suitable cold room, constantly kept at -20°C.

PRELIMINARY NOTES

The control panels provides complete control for retarder-proofer cold rooms for pastry and bakery by automatically managing all the set functions and visualizing all the retarder-proofer cycle phases.



An automatic retarder-proofer cycle is composed of 5 different phases with different temperatures, relative humidities, fan speeds and durations. All these phases are automatically carried out one after the other, as per following details:

AUTOMATIC CYCLE

An automatic retarder-proofer cycle is composed of 5 different phases with different temperatures, relative humidities and durations. All these phases are automatically carried out one after the other, and precisely:

☞ 1. COOLING Phase

The block phase is the first phase of the automatic cycle.
► Temperature adjustment : ACTIVE AND ADJUSTABLE
It quickly cools the dough to stop the leavening process by inhibiting the natural process of fermentation by means of temperature.
► Duration (Hours/Minutes): ADJUSTABLE
► Fan speed : AUTOMATIC

☞ 2. PRESERVATION Phase

The preservation phase is the second phase of the automatic cycle.
► Temperature adjustment: ACTIVE AND ADJUSTABLE
► Duration : (Hours-Minutes): AUTOMATIC
► Fan speed : AUTOMATIC
The duration of this phase is automatically calculated by the controller on the basis of the duration of the cooling , the proofing and the leavening processes as well as the day and the time the end of the dough leavening process is required to stop.

☞ 3. PROOFING Phase

The proofing phase is the third phase of the automatic cycle.
► Temperature adjustment : ACTIVE AND ADJUSTABLE
► Humidity Adjustment : ACTIVE AND ADJUSTABLE
► Duration (Hours-Minutes): ADJUSTABLE
► Fan speed : AUTOMATIC

☞ 4. LEAVENING Phase

The leavening phase is the fourth phase of the automatic cycle.
► Temperature adjustment : ACTIVE AND ADJUSTABLE
► Humidity adjustment : ACTIVE AND ADJUSTABLE
► Duration (Hours-Minutes): ADJUSTABLE
► Fan speed : AUTOMATIC

☞ 5. DELAYED BAKING Phase

The delayed baking phase is the fifth phase of the automatic cycle.
The delayed baking phase may be either enabled or disabled both during the cycle setting and also during a processing cycle by the final user.
► Temperature adjustment :ACTIVE AND ADJUSTABLE
► Humidity adjustment : ACTIVE AND ADJUSTABLE
► Fan speed : AUTOMATIC
► Duration (Hours-Minutes): The duration of this phase is virtually infinite , that is : it only stops when you interrupt the cycle by pressing the stop button for 3 seconds.

MANUAL CYCLES

☞ **MANUAL COOLING PROCESS :** (equivalent to storage but with infinite duration)
☞ **HEATING MANUAL PROCESS :** (equivalent to a never-ending leavening process)

Besides the automatic and manual cycles management, the controller also provides you to control other functions such as :
- Cell pre-cooling management system
- “Delayed baking” activation/deactivation management system
- 100 User’s Programmes management
- WiFi connection for remote management (optional)

CHAPTER 9 CONTROLS

Control panel description:

The control panel is a digital thermoregulator with 7-inch TFT touch-screen graphic display.

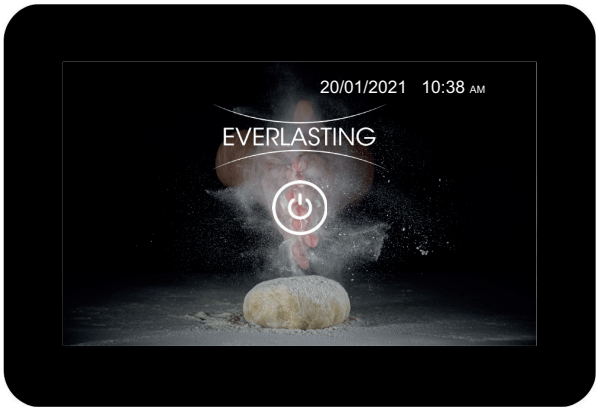
HOME SCREEN

Home screen represents the “starting point” to navigate the user interface. HOME screen shows date and time ①, enabled functions ②, light key (models with glass doors) and ON/Standby key ③ to turn on the retarder-prover.

9.2 INSTRUCTIONS FOR USE

9.2.1 Start-up

Before starting up, make sure that the electrical connections have been carried out as indicated on chapter 14. Connect to the power source: the display will turn on completely after 10 seconds; then, it will be on STAND-BY.

	Stand-by screen
ON/OFF key	

☞ **Power on / off:** To turn on, push the central key from the On/stand-by screen; to turn off the device, push the key on the lower area of the Home screen.
Push the settings key on the On/stand-by and Home screen to access the menu:

- DATE/TIME SETTING
- SERVICE
- MANUAL DEFROSTING
- INPUT/OUTPUT STATUS
- LANGUAGES.

☞ 9.2.2 Current date and time setting

Push the settings key from the Stand-by menu; push DATE AND TIME setting; touch on the data to be modified and confirm with .

Note: If the duration of the power source interruption has been long enough to cause a clock error (RTC alarm), it will be necessary to reset the current date and time.

☞ 9.2.3 Language setting

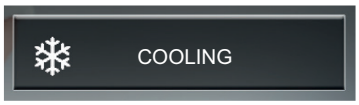
Push the settings key from the Stand-by menu; push LANGUAGES and select the desired language.

To exit the procedure, and in general to return to the previous level of navigation, press the BACK button

CHAPTER 10 OPERATION

HOME screen

The “interactive” keys allow access to the following functions:

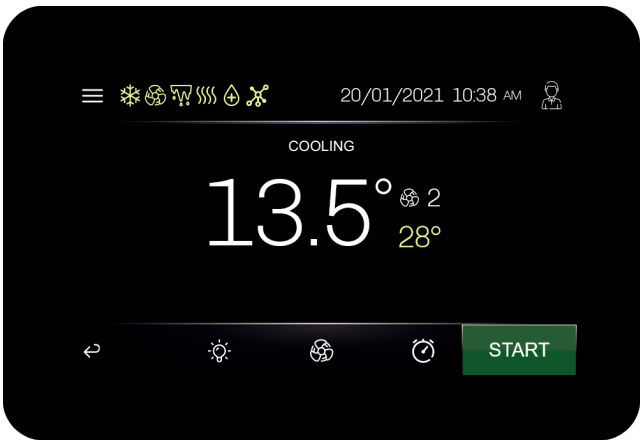
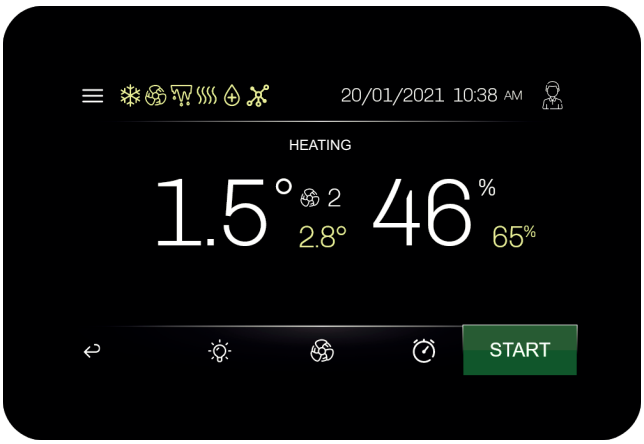
RETARDING-PROVING	FUNCTIONS
	Selection and/or modification and/or saving of automatic retarder-prover or leavening cycles as included in the recipe book; start from the default recipe to select, set up and run a complete cycle.
	Setting up and running a manual cooling cycle.
	Setting up and running a manual pre-cooling cycle.
	Setting up and running a manual heating cycle.

☞ 10.1 Setting and execution of a manual COOLING OR HEATING cycle:

From this menu it is possible to select every aspect and to execute a manual cooling or heating / leavening cycle, i.e. a cycle that is manually started and stopped by the user by means of the ON/ OFF key.

☞ 10.2 Setting and execution of a manual cycle:

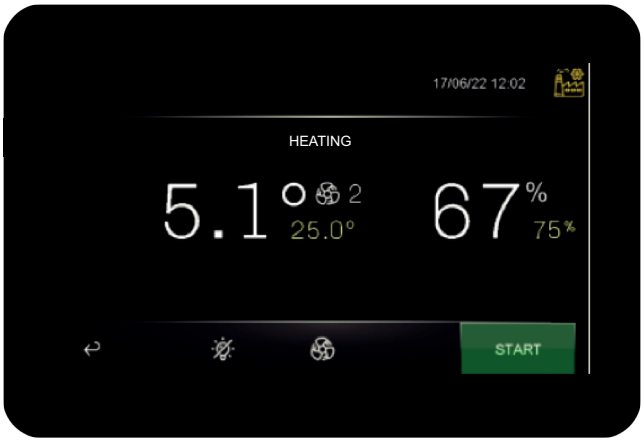
Before starting the desired cycle, push inside the COOLING/PRE-COOLING area for REFRIGERATION or HEATING for HEATING to access the setpoint modification functions by pushing on the relevant temperature and humidity value.

Refrigeration Setpoint	Heating and humidity Setpoint
	
Only the TEMPERATURE can be adjusted	Adjustable TEMPERATURE and HUMIDITY

Modify the set values wit numbers keys; then, push to confirm the modification . The fan speed regulation function is deactivated, thus not visible.

The desired cycle is started by pushing the corresponding START area. To interrupt the cycle, keep the STOP key .

NB: Fan speed is automatic and not adjustable for both selections.

Refrigeration cycle	Heating cycle
	

Note: manual cycle does not include duration settings; it can only be ended manually by pushing the STOP key.
During manual cycle operation it is possible to modify the operating values in progress by pushing the temperature and humidity value placed in the background; the new values will be saved only for the current cycle.

☞ 10.3 Visualization of the icons on the display

During the execution of a cycle (be it manual or automatic), the statuses are visualized by means of icons on the upper part of the screen.
When on, their meaning is as follows:

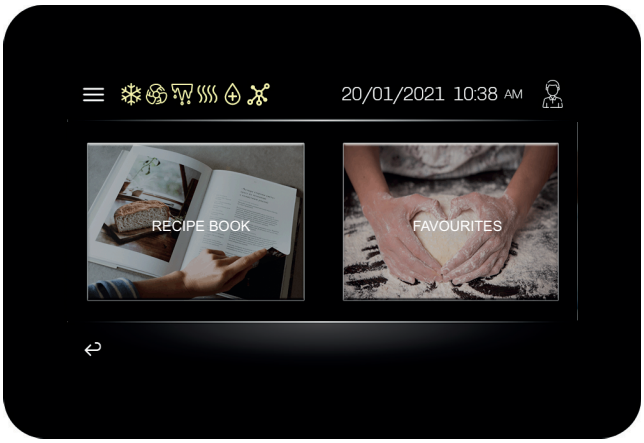
	Steady on: active compressor; flashing: delay time compressor start in progress. Note: only present in the retarder-prover configuration.
	On: fans running: flashing: during an ON-OFF cycle, OFF time.
	Steady on: defrost in progress; flashing: dripping time in progress. Note: only present in the retarder-prover configuration.
	On: active heating.
	Steady on: humidification in progress.
	Steady on: dehumidification in progress.
	Steady on: remote connection connected; flashing: remote connection disconnected.
ALARM	Steady on: alarm in progress.

During the execution of a cycle (be it manual or automatic), the following keys will be visualized on the lower part of the screen.

	To turn the light on and off (models with glass door).
	To select fan speed (if configured with two speeds).
	To access additional functions.
	To exit additional functions.
START	To start the selected cycle or recipe.
STOP	To end the current recipe cycle.
	To switch from Stand-by to On and from On to Stand-by.
	To confirm the new set value.
	To confirm the selected operation.
	To cancel the selected operation.
	To delete the recipe.
	To save the new recipe.
	To overwrite the recipe.
	To set the recipe as favourite.
	To return to the Home screen.
	To return to previous page.

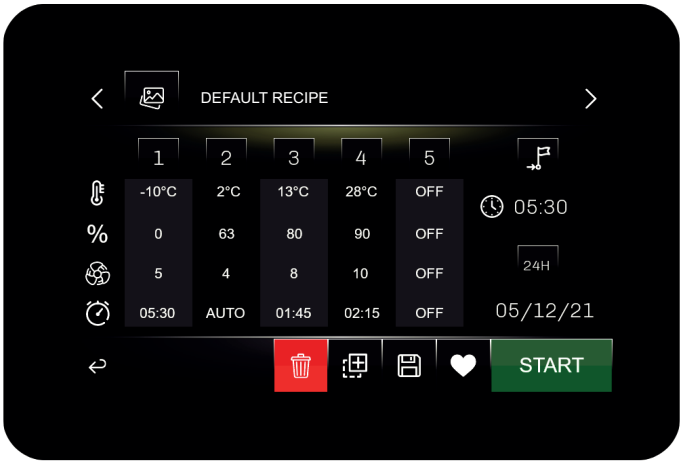
10.4 Execution and setting of an AUTOMATIC cycle:

Press the “PROOFING CYCLES” area on the Home screen, then select the RECIPE BOOK area and select the desired recipe on the following screen.

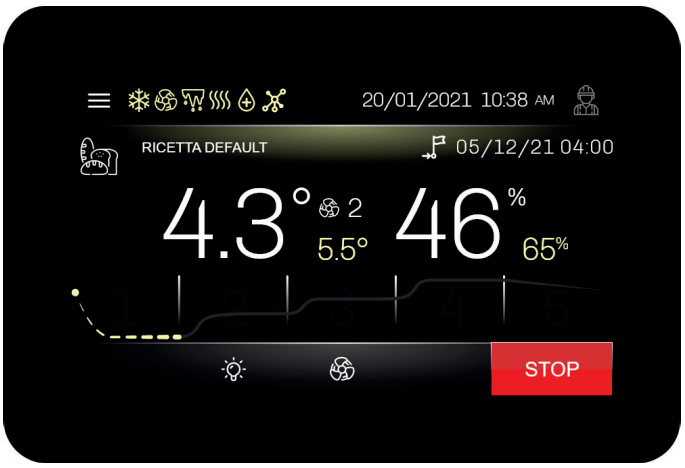
RETARDING-PROVING CYCLES	RECIPE BOOK
	

From this area it is possible to access the following screen, where the phases composing a RETARDER PROOFER cycle are visualized:

1- BLOCK
2- STORAGE
3- PROOFING
4- LEAVENING
5- BAKING DELAY



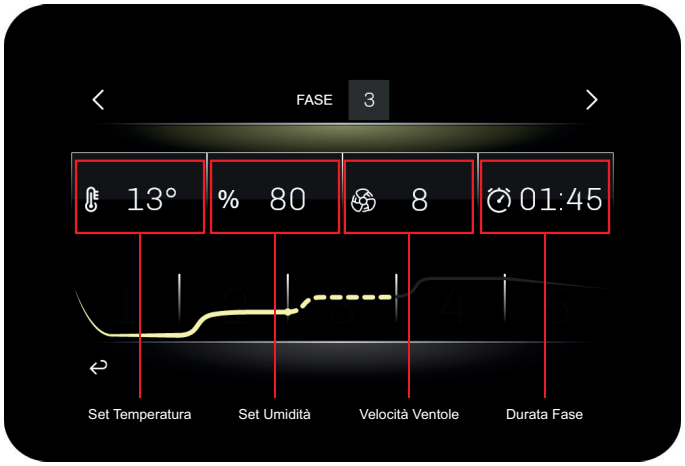
The automatic cycle starts by pushing the START key and ends automatically, at the end of phase 4 and according the to set cycle end time, with a sound signal.
Storage time of phase 2 is automatically set by the system by adding the times of the respective phases in consideration of the end cycle time.



Manual interruption of the cycle can be carried out at any stage by pushing the STOP key.
Note: Depending on needs, end users can act on Baking delay phase 5 both in the cycle setting phase and with the cycle in progress as follows: disabled (the cycle stops automatically at the end of the leavening phase) or enabled with a preset (the cycle stops automatically at the end of the counting) or endless duration (the cycle is interrupted manually by pushing the button STOP key).
During the operation of the automatic cycle it is possible to modify the operating values of the phase in progress by pushing on the temperature/humidity value present in the recipe. The new values will be saved only for the current cycle and not in the Recipe menu.

☞ 10.4.1 Editing an automatic cycle

Before starting a cycle, you can access the setpoint setting menu for each of the retarding-proving phases by pressing on the fields highlighted in the red rectangles.

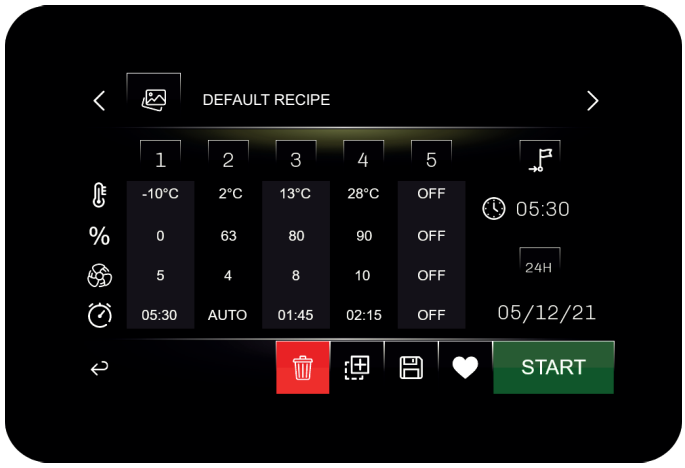


Once confirmed by pushing on , the changes made will be saved automatically as default auto cycle settings.

☞ 10.4.2 Time and date of cycle completion

On the right side of the display, when the recipe grid is displayed, the time and date of cycle end considering the date and time when the recipe was selected and the total time set on each phase from 1 to 4 (except phase 2 where the duration is calculated automatically and phase 5 of “baking delay”) is displayed.
To postpone the cycle end date and/or time, push on the corresponding field.

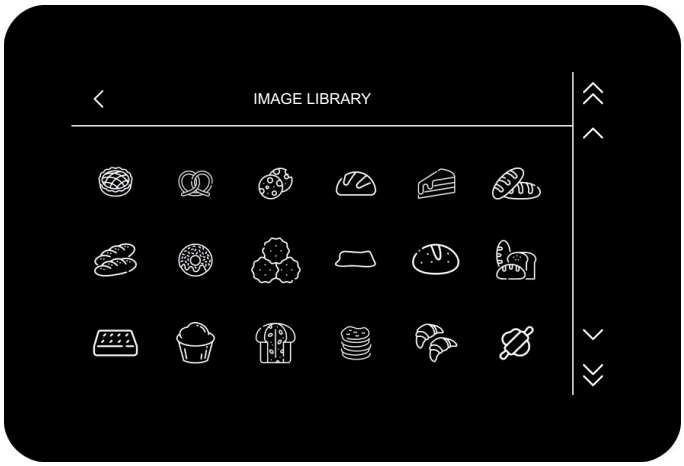
Note: if you want to postpone the end of the cycle to a day after the proposed one, press first the “24H” key, then proceed with changing the time.

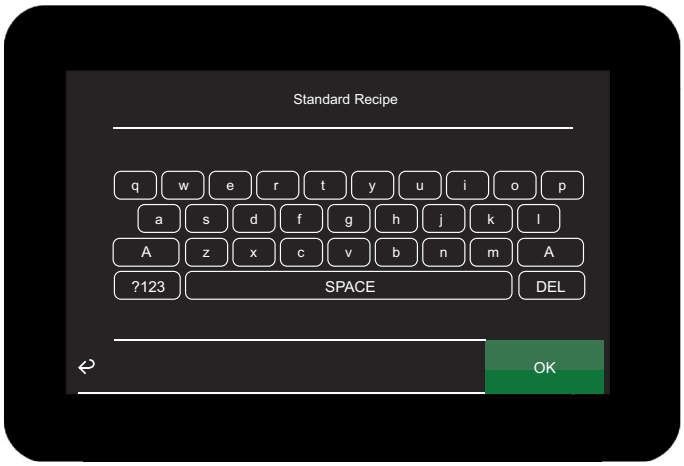


The automatic cycle starts by pushing the START button. **START**.

☞ Storing an automatic cycle (RECIPE-PROGRAMS)

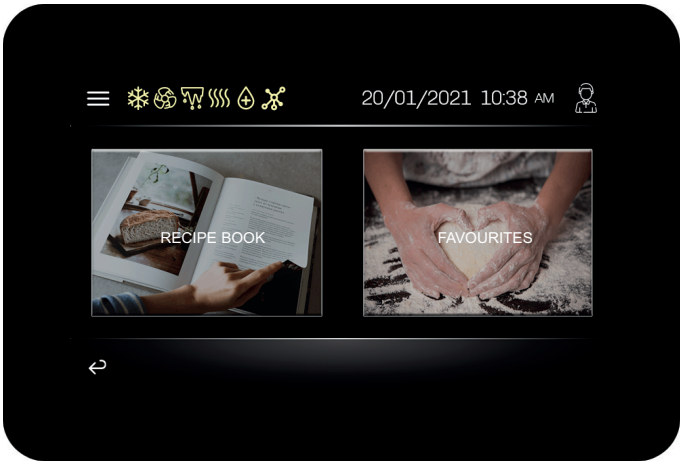
To save as the cycles set before their execution, press on the icon on the bar at the bottom right of the recipe screen. From this screen it is possible to set or modify the image/description of the recipe; by touching the image in the recipe at the top left, an image library will open.
Instead, pushing the description of the recipe will open the keyboard screen with which it is possible rename the recipe.



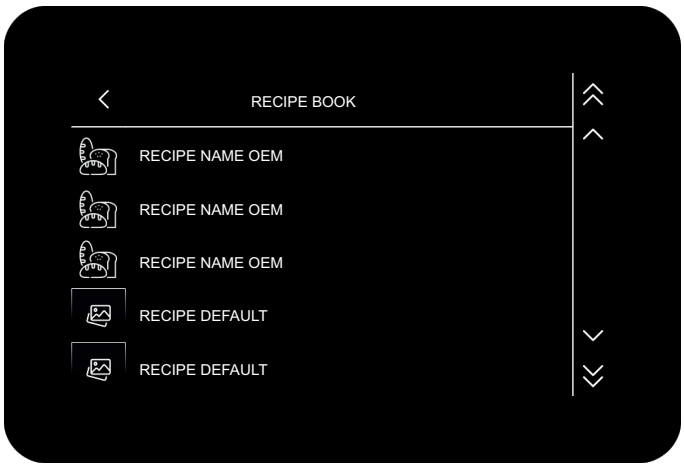


☞ 10.5 RECIPES-PROGRAMS

Push the “Proofing cycles” area on the Home screen to access the screen where there are two areas called “Recipe book” and “Favourites”.



Push the “Proofing cycles” area on the Home screen to access the screen where there are two areas called “Recipe book” and “Favourites” ♥ .



By pushing on the desired recipe name, the summary grid from which it is possible to start the cycle/recipe is displayed.

Stored Retarder Proofer Programs (Recipes)

			PHASE 1 Cooling	PHASE 2 Storage	PHASE 3 Proofing	PHASE 4 Leavening	PHASE 5 Delayed Baking
P01	H24 WHITE BREAD 80-120GR	Temperature (°C)	-5	2	18	26	15
		Humidity (%)	NOT ACTIVATED	NOT ACTIVATED	80	85	75
		Time (hh:mm)	3:00	AUTOMATIC	1:00	2:30	INFINITE
		Fan speed (%)	100	100	100	100	100

			PHASE 1 Cooling	PHASE 2 Storage	PHASE 3 Proofing	PHASE 4 Leavening	PHASE 5 Delayed Baking
P02	H24 WHITE BREAD 300-500GR	Temperature (°C)	-5	0	16	26	15
		Humidity (%)	NOT ACTIVATED	NOT ACTIVATED	80	85	75
		Time (hh:mm)	4:00	AUTOMATIC	1:30	3:00	INFINITE
		Fan speed (%)	100	100	100	100	100

			PHASE 1 Cooling	PHASE 2 Storage	PHASE 3 Proofing	PHASE 4 Leavening	PHASE 5 Delayed Baking
P03	H24 MILK BREAD 80-120GR	Temperature (°C)	-5	2	18	28	15
		Humidity (%)	NOT ACTIVATED	NOT ACTIVATED	80	80	75
		Time (hh:mm)	3:00	AUTOMATIC	1:00	2:30	INFINITE
		Fan speed (%)	100	100	100	100	100

			PHASE 1 Cooling	PHASE 2 Storage	PHASE 3 Proofing	PHASE 4 Leavening	PHASE 5 Delayed Baking
P04	H24 MILK BREAD 300-500GR	Temperature (°C)	-5	0	16	26	15
		Humidity (%)	NOT ACTIVATED	NOT ACTIVATED	80	80	75
		Time (hh:mm)	4:00	AUTOMATIC	1:30	3:00	INFINITE
		Fan speed (%)	100	100	100	100	100

			PHASE 1 Cooling	PHASE 2 Storage	PHASE 3 Proofing	PHASE 4 Leavening	PHASE 5 Delayed Baking
P05	H24 EVOO BREAD 80-120GR	Temperature (°C)	-5	2	18	28	15
		Humidity (%)	NOT ACTIVATED	NOT ACTIVATED	80	80	75
		Time (hh:mm)	3:00	aut.	1:00	2:30	INFINITE
		Fan speed (%)	100	100	100	100	100

			PHASE 1 Cooling	PHASE 2 Storage	PHASE 3 Proofing	PHASE 4 Leavening	PHASE 5 Delayed Baking
P06	H24 EVOO BREAD 300-500G	Temperature (°C)	-5	0	16	26	15
		Humidity (%)	NOT ACTIVATED	NOT ACTIVATED	80	80	75
		Time (hh:mm)	4:00	aut.	1:30	3:00	INFINITE
		Fan speed (%)	100	100	100	100	100

			PHASE 1 Cooling	PHASE 2 Storage	PHASE 3 Proofing	PHASE 4 Leavening	PHASE 5 Delayed Baking
P07	H24 BAGUETTE	Temperature (°C)	-5	0	22	28	15
		Humidity (%)	NOT ACTIVATED	NOT ACTIVATED	75	80	75
		Time (hh:mm)	4:00	aut.	1:30	2:30	INFINITE
		Fan speed (%)	100	100	100	100	100

			PHASE 1 Cooling	PHASE 2 Storage	PHASE 3 Proofing	PHASE 4 Leavening	PHASE 5 Delayed Baking
P08	PIZZA & FLATBREAD	Temperature (°C)	-5	0	25	28	15
		Humidity (%)	NOT ACTIVATED	NOT ACTIVATED	80	80	75
		Time (hh:mm)	4:00	aut.	1:00	2:30	INFINITE
		Fan speed (%)	100	100	100	100	100

P09	BURGER BREAD		PHASE 1 Cooling	PHASE 2 Storage	PHASE 3 Proofing	PHASE 4 Leavening	PHASE 5 Delayed Baking
		Temperature (°C)	-5	2	22	30	15
		Humidity (%)	NOT ACTIVATED	NOT ACTIVATED	80	80	75
		Time (hh:mm)	4:00	aut.	2:00	2:00	INFINITE
		Fan speed (%)	100	100	100	100	100

P10	CROISSANTS		PHASE 1 Cooling	PHASE 2 Storage	PHASE 3 Proofing	PHASE 4 Leavening	PHASE 5 Delayed Baking
		Temperature (°C)	-5	2	20	26	15
		Humidity (%)	NOT ACTIVATED	NOT ACTIVATED	75	80	75
		Time (hh:mm)	4:00	aut.	1:30	2:30	INFINITE
		Fan speed (%)	100	100	100	100	100

P11	BRIOCHES & CREAM BUNS		PHASE 1 Cooling	PHASE 2 Storage	PHASE 3 Proofing	PHASE 4 Leavening	PHASE 5 Delayed Baking
		Temperature (°C)	-5	2	16	28	15
		Humidity (%)	NOT ACTIVATED	NOT ACTIVATED	80	80	75
		Time (hh:mm)	4:00	aut.	1:30	3:00	INFINITE
		Fan speed (%)	100	100	100	100	100

P12	COMBINED PROGRAM		PHASE 1 Cooling	PHASE 2 Storage	PHASE 3 Proofing	PHASE 4 Leavening	PHASE 5 Delayed Baking
		Temperature (°C)	-5	0	18	28	15
		Humidity (%)	NOT ACTIVATED	NOT ACTIVATED	80	85	75
		Time (hh:mm)	5:00	aut.	1:30	2:30	INFINITE
		Fan speed (%)	100	100	100	100	100

P13	FROZEN PRODUCTS		PHASE 1 Cooling	PHASE 2 Storage	PHASE 3 Proofing	PHASE 4 Leavening	PHASE 5 Delayed Baking
		Temperature (°C)	-5	5	18	28	15
		Humidity (%)	NOT ACTIVATED	NOT ACTIVATED	75	75	75
		Time (hh:mm)	1:00	aut.	2:00	2:00	INFINITE
		Fan speed (%)	100	100	100	100	100

P14	PANETTONE & EASTER CAKE		PHASE 1 Cooling	PHASE 2 Storage	PHASE 3 Proofing	PHASE 4 Leavening	PHASE 5 Delayed Baking
		Temperature (°C)	10	12	18	26	15
		Humidity (%)	NOT ACTIVATED	NOT ACTIVATED	80	80	75
		Time (hh:mm)	2:00	aut.	3:00	3:30	INFINITE
		Fan speed (%)	100	100	100	100	100

P15	LONG FERMENTATION		PHASE 1 Cooling	PHASE 2 Storage	PHASE 3 Proofing	PHASE 4 Leavening	PHASE 5 Delayed Baking
		Temperature (°C)	0	7	12	18	10
		Humidity (%)	NOT ACTIVATED	NOT ACTIVATED	70	70	75
		Time (hh:mm)	1:00	aut.	2:00	2:00	INFINITE
		Fan speed (%)	100	100	100	100	100

P16	H48 WHITE BREAD 80-120GR		PHASE 1 Cooling	PHASE 2 Storage	PHASE 3 Proofing	PHASE 4 Leavening	PHASE 5 Delayed Baking
		Temperature (°C)	-10	-2	16	28	15
		Humidity (%)	NOT ACTIVATED	NOT ACTIVATED	80	80	75
		Time (hh:mm)	5:00	aut.	2:00	2:30	INFINITE
		Fan speed (%)	100	100	100	100	100

P17	H48 WHITE BREAD 300-500G		PHASE 1 Cooling	PHASE 2 Storage	PHASE 3 Proofing	PHASE 4 Leavening	PHASE 5 Delayed Baking
		Temperature (°C)	-10	-2	14	26	15
		Humidity (%)	NOT ACTIVATED	NOT ACTIVATED	80	80	75
		Time (hh:mm)	5:00	aut.	2:30	3:00	INFINITE
		Fan speed (%)	100	100	100	100	100

P18	H48 MILK BREAD 80-120 GR		PHASE 1 Cooling	PHASE 2 Storage	PHASE 3 Proofing	PHASE 4 Leavening	PHASE 5 Delayed Baking
		Temperature (°C)	-10	0	16	28	15
		Humidity (%)	NOT ACTIVATED	NOT ACTIVATED	80	80	75
		Time (hh:mm)	4:00	aut.	2:00	2:30	INFINITE
		Fan speed (%)	100	100	100	100	100

P19	H48 MILK BREAD 300-500 GR		PHASE 1 Cooling	PHASE 2 Storage	PHASE 3 Proofing	PHASE 4 Leavening	PHASE 5 Delayed Baking
		Temperature (°C)	-10	-2	14	28	15
		Humidity (%)	NOT ACTIVATED	NOT ACTIVATED	80	80	75
		Time (hh:mm)	5:00	aut.	2:30	3:00	INFINITE
		Fan speed (%)	100	100	100	100	100

P20	H48 EVOO BREAD 80-120GR		PHASE 1 Cooling	PHASE 2 Storage	PHASE 3 Proofing	PHASE 4 Leavening	PHASE 5 Delayed Baking
		Temperature (°C)	-10	0	16	28	15
		Humidity (%)	NOT ACTIVATED	NOT ACTIVATED	80	80	75
		Time (hh:mm)	4:00	aut.	2:00	2:30	INFINITE
		Fan speed (%)	100	100	100	100	100

P21	H48 EVOO BREAD 300-500G		PHASE 1 Cooling	PHASE 2 Storage	PHASE 3 Proofing	PHASE 4 Leavening	PHASE 5 Delayed Baking
		Temperature (°C)	-10	-2	14	28	15
		Humidity (%)	NOT ACTIVATED	NOT ACTIVATED	80	80	75
		Time (hh:mm)	5:00	aut.	2:30	3:00	INFINITE
		Fan speed (%)	100	100	100	100	100

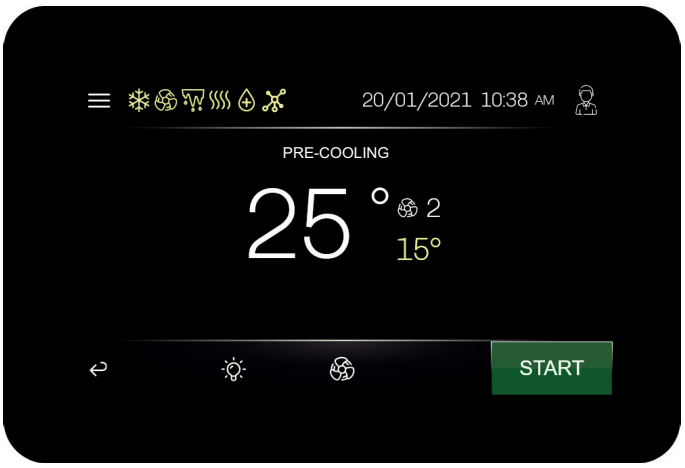
P22	H48 BAGUETTE		PHASE 1 Cooling	PHASE 2 Storage	PHASE 3 Proofing	PHASE 4 Leavening	PHASE 5 Delayed Baking
		Temperature (°C)	-10	-2	20	28	15
		Humidity (%)	NOT ACTIVATED	NOT ACTIVATED	75	80	75
		Time (hh:mm)	5:00	aut.	2:30	2:30	INFINITE
		Fan speed (%)	100	100	100	100	100

The remaining 78 positions, out of 100 available, can be customized by the user.

☞ 10.6 PRE-COOLING:

It is possible to activate a pre-cooling cycle waiting to select an automatic cycle by pushing on the area

on the Home screen. Push on the pre-cooling area to open the screen allowing to adjust the temperature set point and start the function by pushing the START button.



When the function is active, the corresponding area will turn blue and the temperature detected inside as the set point to be reached is displayed. When the set temperature is reached, an acoustic signal will start.
The pre-cooling function has an endless duration, i.e. it ends when a cycle is started.

Press the blue key that displays the temperatures to manually end the pre-cooling cycle.

☞ 10.8 ALARMS

When an alarm occurs, a red bar will appear on the top part of the display of the current cycle screen with indication of the alarm in progress and the buzzer, if enabled, will start to sound; if multiple alarms are in progress simultaneously, they will be indicated on the bar alternately, each for 3 seconds.

Push the alarm bar to silence the buzzer; the controller will automatically switch to the “ALARM LIST” screen where only the active ones will be visible.
On the other hand, if you want to view the list of active alarms at any time, push the settings key from the Stand-by or Home screen, then press “Alarms”.
The following page indicates the alarms that can occur, the possible causes and the possible solutions.

ALARM	DESCRIPTION	CAUSE	SOLUTION
RTC	Internal clock alarm	Settings were lost	Set the clock
HIGH EVAP. TEMP.	High evaporator temperature	Evaporator temperature has exceeded the maximum set value	-Control internal fan operation -Service
HIGH CHAMBER TEMP.	High evaporator temperature	Evaporator temperature has exceeded the maximum set value	-Control internal fan operation -Service
OPEN DOOR	Open door alarm	Door has remained open for a longer time than set.	-Close the door -Check microswitch operation
POWER FAILURE	Power failure alarm	Power interruption alarm	Check electrical connections
CHAMBER PROBE	Chamber probe damage alarm	Chamber probe is damaged	Replace probe
EVAPORATOR PROBE	Evaporator probe damage alarm	Evaporator probe is damaged	Replace probe
HUMIDITY PROBE	Humidity probe damage alarm	Humidity probe is damaged	Replace probe
INCOMP. POWER BASE	User interface-control module compatibility error	Interface-control module compatibility problems	Service
LACK OF COMMUNICATION	User interface-control module communication error	Interface- control module communication problems	Service

CHAPTER 10 NOISE LEVEL

The noise threshold of the retarder-proofer/dough-retarder Refrigerated Room is lower than 70 dB (A).

CHAPTER 11 MATERIALS AND FLUID USED

The materials in contact or which may come into contact with foodstuffs comply with the relevant directives.
The retarder-proofer/dough-retarder Refrigerated Room have been designed and built in such a way that these materials can be cleaned before each use.
The refrigerant fluids used R452A conform with the new EU regulation 517/2014 F-Gas
R452A is a fluorinated gas, it has a GWP potential of 2141

The symbol indicates that this product must not be treated as household waste.

To prevent potential negative consequences for the environment and human health, make sure that this product is properly disposed of and recycled.

For more information regarding the disposal and recycling of this product, please contact your Distributor, after sale Service, or waste treatment Service.

CHAPTER 13 TRANSPORT AND HANDLING

⚠ The transport and handling of the retarder-proofer/dough-retarder Refrigerated Room must only be done while maintaining the vertical position, observing the markings on the packaging.

The manufacturer disclaims any liability for problems resulting from transport performed under conditions other than those specified above.
The accessories of the retarder-proofer/dough-retarder Refrigerated Room are packaged separately and placed inside the unit.

The retarder-proofer/dough-retarder Refrigerated Room it is disassembled and mounted on a wooden base with screws and packaged with polyethylene, carton, crate or boxes.

Regarding the disposal of the packaging it is necessary to refer to current regulations in your country.

⚠ The movement of the retarder-proofer/dough-retarder Refrigerated Room shall be performed using a fork lift or pallet trucks equipped with suitable forks (length of at least 2/3 of the unit).

The limits of stackability and the centre of gravity are indicated on the label of the package.

13.1 Positioning operations

Since the incorrect positioning of the retarder-proofer/dough-retarder Refrigerated Room can cause damage to the same, jeopardizing its proper functioning and cause risks to the personnel, the installer must comply with the following general rules:

- position the retarder-proofer/dough-retarder Refrigerated Room keeping a minimum distance of 3 cm from any wall
- the environment must be sufficiently ventilated
- position the retarder-proofer/dough-retarder Refrigerated Room away from heat sources
- avoid direct exposure to the sun or bad wheather without suitable protection covering
- remove the polyethylene, cardboard or wood packaging

⚠ Polyethylene is dangerous for children

- remove any accessories with external connections

⚠ use protective gloves when handling the wooden packaging and the wooden base.

The presence of splinters may cause damage to your hands
- remove the PVC film applied as a protection to the outer surfaces of he retarder-proofer/dough-retarder Refrigerated Room
- position the retarder-proofer/dough-retarder Refrigerated Room using a level with possible adjustment of the feet of the metal base (Fig. 5)

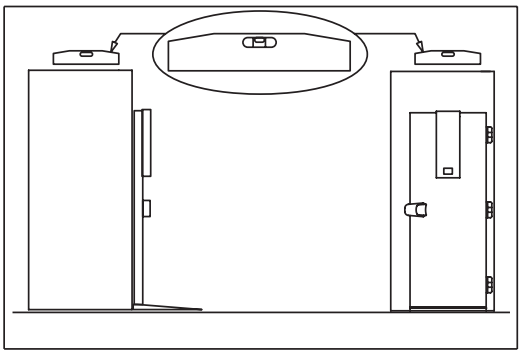


Fig.5

- place the access ramp (Fig. 6)

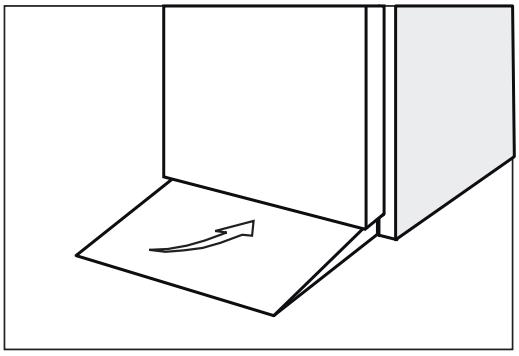


Fig.6

13.2 Retarder-proofer/dough-retarder Refrigerated Room REM (Fig. 7)

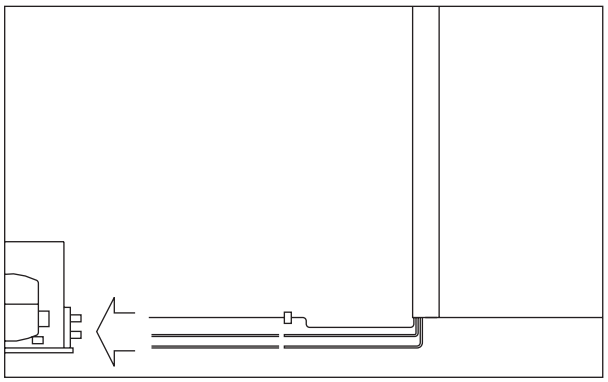


Fig.7

- position the retarder-proofer/dough-retarder Refrigerated Room as described above (Fig. 5)
- N.B.: the condensing unit is pre-loaded with refrigerant by the manufacturer
- prepare the two pipes that protrude from the Refrigerated Room for the connection to the respective pipes of the condensing unit
- connect the pipes of the condensing unit to the pipes of the Refrigerated Room
- make the electrical connection of the Refrigerated Room to the condensing unit

CHAPTER 14 ELECTRICAL WIRING AND CONNECTIONS

The electrical system and connection must be carried out by qualified personnel. Before installation, measure the impedance of the network, the impedance value for the connection to the network must not exceed 0.075 ohm.

For safety reasons you must follow these guidelines:
- verify that the sizing of the electrical system is suitable for the power consumption of the Refrigerated Room and that it provides for a differential switch (circuit breaker)
- in case of incompatibility between the outlet and the plug of the Refrigerated Room, replace the outlet with another of a suitable type provided that it is in accordance with regulations

⚠ The power cord has the connection type “Y” and it can be replaced exclusively by the manufacturer or authorized technical service

⚠ It is essential to correctly connect the Refrigerated Room to an efficient earthing system carried out as specified by the applicable provisions of law.

14.1 Connection to the water supply (retarder-proofer solely)

All models of retarder-proofer/dough retarder Refrigerated Room need to be connected to a water supply to perform the functions of management and control of humidity. The connection to water supply must be made according to the manufacturer’s instructions and by professionally qualified personnel. The fitting of 3/4 for the connection to the water supply is located in the condensing unit of the retarder-proofer Refrigerated Room, in the rear, close to the housing of the power supply cable at an height from the ground of cm 190. This unit must only be supplied with cold water, not distilled or demineralized. The operating pressure should be between 0.1 and 0.5 MPA. Between the water network and the load connection of the equipment 3/4 should be installed a tap to interrupt the passage of water in case of need. In the case the water is hard it is advisable to install a water softener, the presence of solids such as sand can be eliminated by installing a mechanical filter to be inspected and cleaned periodically.

CHAPTER 15 INSTALLATION OPERATIONS

It is important, in order to prevent errors and accidents, to perform a series of checks before starting up the the retarder-proofer/dough retarder Refrigerated Room in order to identify any damage incurred during transport, handling and connection.
Checks to be performed:
- check the integrity of the power cord (it must not have suffered abrasions or cuts)
- check the solidity of the legs, door hinges, shelf supports
- check the integrity of the internal and external parts (pipes, heating elements, fans, electrical components, etc.) and their fixing
- check that the seals of the doors and drawers have not been damaged (cuts or abrasions) and close with an airtight seal
- check the integrity of the pipes and fittings

CHAPTER 16 REINSTALLATION

It is necessary to comply with the following procedure:
- disconnect the power cord from the power outlet
- the handling should be carried out as described in chapter 13
- for a new placement and connection, please refer to par. 13.1
- proceed to the possible recovery of the coolant gas in accordance with the regulations in force in your country

ATTENTION!

INSTRUCTIONS RESERVED SOLELY TO TECHNICAL PERSONNELL

Users are adviced that any work performed by non-technical staff or unauthorized personnel will produce the voiding of the warranty rules.

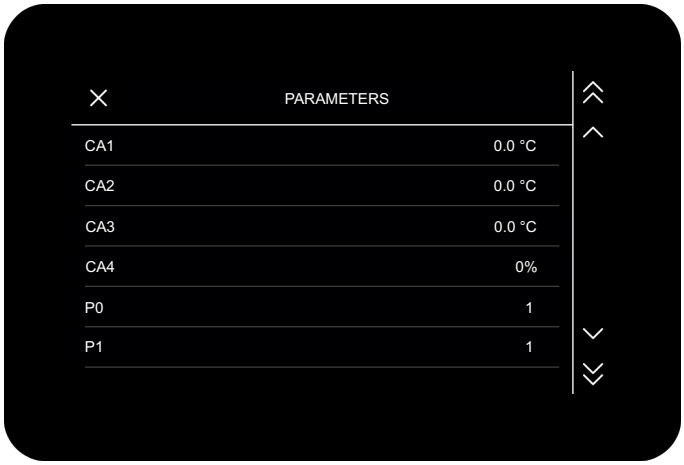
PARAMETER VISUALIZATION AND ADJUSTMENT

Push on the settings key from the Home screen to enter the “SERVICE” menu.

Stand-by (Fig.1)	Menù (Fig.2)

Push on SERVICE (Image 2), then on the next screen push on Parameters (Image 3):

Enter the password -19 to view the list of configured parameters.

Parameters (Fig.5)	Modify parameter (Fig.6)
	

To modify the INTERNAL PARAMETERS (Image 5) select the parameter and modify the value by entering it on the keyboard (Image 6).

Push the key to confirm.

Use the ∧ and ∨ keys to scroll through all the parameters and the key to exit from programming and return to the previous menu.

TABLE PARAMETERS

N.B.: Only the highlighted parameters can be modified by service; the others only after consultation/authorization by our technical department

Par.	Min	Max	Unit	Default	Retarder-proofer	Dough-retarder	Analogue inputs
CA1	-25.0	25,0	°C	0,0	0,0	0,0	probe 1 offset
CA2	-25.0	25,0	°C	0,0	0,0	0,0	probe 2 offset
CA3	-25.0	25,0	°C	0,0	0,0	0,0	probe 3 offset
CA4	-25	25	% r.H.	0	0	0	humidity probe offset (probe set by parameter P12)
P0	0	1	- - - -	1	1	1	type of temperature probe 0= PTC 1= NTC
P1	0	1	- - - -	1	1	1	decimal point when displaying temperature and setting the setpoint: 0 = disabled 1= enabled
P2	0	1		0	0	0	temperature measurement unit
							0= °C
							1= °F
							N.B.: if this parameter is changed, the device will automatically start up again
P3	-1	240	min	10	10	10	duration of power failure during a cycle due to start of recording of power failure alarm
							P3 = -1 alarm disabled
P5	0	60	min	15	60	60	duration of power failure above which the cycle is interrupted
							N.B.: P5 must be greater than P3
							if P3 = -1, the cycle is not interrupted, irrespective of the value of P5
P7	0	P8	% r.H.	0	5	5	lower calibration limit of the humidity transducer (corresponding to 4 mA)
							only if P12=1
P8	P7	100	% r.H.	100	100	100	upper calibration limit of the humidity transducer (corresponding to 20 mA) only if P12=1
P12	0	3	- - - -	1	1	0	type of humidity probe
							0 = no probe
							1 = 4-20 mA transducer
							2 = EVHTP500 probe (NTC temperature sensor)
							3 = EVHTP520 probe (NTC temperature sensor)
P13	0	1	- - - -	0	0	0	temperature and humidity setpoint lock
							0= no
							1= yes
Pr1	0	3	- - - -	1	1	1	probe 1 configuration
							0 = disabled
							1 = cabinet
							2 = evaporator
							3= condenser
Pr2	0	3	- - - -	2	2	2	Probe 2 configuration (See Pr1)
Pr3	0	3	- - - -	0	0	0	Probe 3 configuration (See Pr1)
Par.	**Min**	**Max**	**Unit**	**Default**	**Retarder-proofer**	**Dough-retarder**	**Cooling regulator**
rC0	1,0	15,0	°C	2,0	2,0	2,0	parameter rC3, rC4, rC5 differential
rC1	-99.0	rC2	°C	-20.0	-10	-10	minimum setpoint that can be set for the blocking, holding,manual cooling and pre-cooling phases
rC2	rC1	99,0	°C	20,0	20	20	maximum setpoint that can be set for the blocking, holding,manual cooling and pre-cooling phases
rC3	0,0	10,0	°C	1,0	1,0	1,0	value of cooling neutral zone for the blocking, holding and manual cooling phases
rC4	0,0	10,0	°C	1,0	1,0	1,0	value of cooling neutral zone for the re-awakening, proofing and manual heating phases
rC5	0,0	10,0	°C	1,0	1,0	1,0	value of cooling neutral zone for the baking delay phase
rC6	-99.0	99,0	°C	2,0	-5,0	-5,0	pre-cooling setpoint
rC7	1	3	- - - -	1	1	1	number of regulation steps for the holding phase
rC8	1	100	%	20	100	100	percentage increase for the 1st holding step (out of a total of 100%)
rC9	1	100	%	50	50	50	percentage increase for the 2nd holding step (out of a total of 100%)
rC10	1	100	%	100	100	100	percentage increase for the 3rd holding step (out of a total of 100%)
Par.	**Min**	**Max**	**Unit**	**Default**	**Retarder-proofer**	**Dough-retarder**	**Heating regulator**
rH0	1,0	15,0	°C	2,0	2,0	2,0	parameter rH3, rH4, rH5 differential
rH1	-99.0	rH2	°C	0,0	0,0	0,0	minimum possible setpoint for the re-awakening, proofing,baking delay and manual heating phases
rH2	rH1	99,0	°C	40,0	40,0	40,0	maximum possible setpoint for the re-awakening, proofing,baking delay and manual heating phases

rH3	0,0	10,0	°C	1,0	1,0	1,0	value of heating neutral zone for the blocking, holding and manual cooling phases
rH4	0,0	10,0	°C	1,0	1,0	1,0	value of heating neutral zone for the re-awakening, proofing and manual heating phases
rH5	0,0	10,0	°C	1,0	1,0	1,0	value of heating neutral zone for the baking delay phase
rH6	1	600	s	60	60	60	cycle time for heater switch-on if heating is required (see also rH7)
rH7	1	600	s	45	60	60	heater switch-on time within the rH6 cycle time
rr0	1	10	- - - -	4	1	1	number of regulation steps for the re-awakening phase
rr1	1	100	%	25	100	100	percentage increase for the 1st re-awakening step (out of a total of 100%)
rr2	1	100	%	50	50	50	percentage increase for the 2nd re-awakening step (out of a total of 100%)
rr3	1	100	%	75	75	75	percentage increase for the 3rd re-awakening step (out of a total of 100%)
rr4	1	100	%	100	100	100	percentage increase for the 4th re-awakening step (out of a total of 100%)
rr5	1	100	%	1	1	1	percentage increase for the 5th re-awakening step (out of a total of 100%)
rr6	1	100	%	1	1	1	percentage increase for the 6th re-awakening step (out of a total of 100%)
rr7	1	100	%	1	1	1	percentage increase for the 7th re-awakening step (out of a total of 100%)
rr8	1	100	%	1	1	1	percentage increase for the 8th re-awakening step (out of a total of 100%)
rr9	1	100	%	1	1	1	percentage increase for the 9th re-awakening step (out of a total of 100%)
rr10	1	100	%	1	1	1	percentage increase for the 10th re-awakening step (out of a total of 100%)
rL0	1	10	- - - -	4	1	1	number of steps for heater regulation for the proofing phase
rL1	1	100	%	25	100	100	percentage increase for the 1st proofing step (out of a total of 100%)
rL2	1	100	%	50	50	50	0 percentage increase for the 2nd proofing step (out of a total of 100%)
rL3	1	100	%	75	75	75	5 percentage increase for the 3rd proofing step (out of a total of 100%)
rL4	1	100	%	100	100	100	percentage increase for the 4th proofing step (out of a total of 100%)
rL5	1	100	%	1	1	1	percentage increase for the 5th proofing step (out of a total of 100%)
rL6	1	100	%	1	1	1	percentage increase for the 6th proofing step (out of a total of 100%)
rL7	1	100	%	1	1	1	percentage increase for the 7th proofing step (out of a total of 100%)
rL8	1	100	%	1	1	1	1 percentage increase for the 8th proofing step (out of a total of 100%)
rL9	1	100	%	1	1	1	percentage increase for the 9th proofing step (out of a total of 100%)
rL10	1	100	%	1	1	1	percentage increase for the 10th proofing step (out of a total of 100%)
Par.	**Min**	**Max**	**Unit**	**Default**	**Retarder-proofer**	**Dough-retarder**	**Humidity regulator**
rU0	0	0	- - - -	0	0	1	humidity management mode:
							0 = with humidity probe/transducer (only if P12≠0) 1 = without humidity probe/transducer, time intervals based on the percentage set
rU1	-99.0	99,0	°C	0,0	7,0	7,0	minimum cabinet temperature for inhibiting humidification control
rU2	1	600	s	60	60	60	cycle time for humidifier switch-on (only for rU0 = 1, see also rU3)
rU3	1	600	s	30	60	60	humidifier switch-on within rU2 cycle time to generate 100% humidity in cabinet (only for rU0 = 1, see also rU2)
rU4	0	2	- - - -	0	2	2	enable humidification/dehumidification control during the blocking, holding and manual cooling phases
							0 = humidification/dehumidification control is disabled but the value of the humidity probe is displayed (only if P12≠0, otherwise dashes are displayed)
							1= humidification/dehumidification control is enabled (the value of the probe is displayed only if P12≠0, otherwise the setpoint is displayed)
							2= humidification/dehumidification control is disabled, the value of the humidity probe is not displayed, only three dashes
rU5	1	100	%r.H.	5	5	5	dehumidification differential
rU6	0	100	%r.H.	2	5	5	dehumidification neutral zone value
rU7	0	255	s	10	0	0	duration of dehumidification attempt with pump-down solenoid valve
rU8	1	100	%r.H.	5	5	5	humidification differential

rU9	0	100	%r.H.	2	5	5	humidification neutral zone value
rU10	0	50	%r.H.	10	10	10	humidification proportional band value (only for E3=0 and E6=0)
rU11	0	255	s	30	60	60	cycle time for humidification proportional regulation (only for E3=0 and E6=0)
rU12	0	1	- - - -	0	1	1	time base for humidification proportional regulation cycle time (only for E3=0 and E6=0): 0 = seconds 1 = minutes
rU13	0	100	%	80	100	100	maximum humidity setpoint that can be set
rU14	-99.0	99,0	°C	0,0	5,0	5,0	minimum cabinet temperature for inhibiting dehumidification control
rU15	0	300	s	0	0	0	humidifier pause time (only if E3=0 and E6=1)
rU16	0	60	s	3	60	60	humidifier activation time (only if E3=0 and E6=1)
rU17	0	1	- - - -	0	0	0	Enable heaters during dehumidification
rU18	0	100	%	20	55	55	Minimum humidity setpoint that can be set
Par.	**Min**	**Max**	**Unit**	**Default**	**Retarder-proofer**	**Dough-retarder**	**Compressor protection**
C0	0	240	min	0	0	0	compressor switch-on delay from device switch-on
C1	0	240	min	2	0	0	delay between two compressor switch-ons
C2	0	240	min	0	5	5	minimum compressor-off duration
C3	0	240	s	0	0	0	minimum compressor-on duration
C4	0	240	min	0	0	0	forced compressor-on time at the beginning of the reawakening, proofing and baking delay phases
C6	0,0	164,0	°C	70,0	60,0	60,0	condensation temperature above which the condenser pre-alarm overheat message is displayed
C7	0,0	164,0	°C	80,0	65,0	65,0	condensation temperature above which the condenser overheat alarm is triggered
C8	0	15	min	1	1	1	compressor locked alarm delay
C9	0	99	ore	5	0	0	cabinet temperature consecutive time within proportional band (parameter VC1 for VSC compressors) to operate compressor at max. power C9=0 disabled
C10	0	999	giorni	0	0	0	operating time of compressor due to maintenance warning C10=0 function disabled
Par.	**Min**	**Max**	**Unit**	**Default**	**Retarder-proofer**	**Dough-retarder**	**Variable speed compressor protection**
VC1	0,0	99,0	°C	10,0	10,0	10,0	proportional band (relative to setpoint)
VC2	0	99	min	10	10	10	integral action time
VC3	1	7	- - - -	3	3	3	type of compressor 1 = Embraco VEM – VES 2 = Embraco VEG 3 = Embraco VNEK – VNEU – FMFT 4 = Secop VNL 50…150 Hz (40Hz in OFF) 5 = Secop 33…133 Hz 6 = Tecumseh 85…150 Hz 7 = Tecumseh 68…150Hz
VC4	0	100	secx10	0	0	0	85 Hz compressor time from power-on
VC5	0	100	%	0	0	0	% to increase minimum compressor frequency. If VC5=0, the minimum operating frequency is that set by the compressor manufacturer
VC6	0	100	%	100	100	100	% to decrease maximum compressor frequency. If VC6=100, the maximum operating frequency is that set by the compressor manufacturer
Par.	**Min**	**Max**	**Unit**	**Default**	**Retarder-proofer**	**Dough-retarder**	**Defrost**
d0	0	99	h	6	6	6	automatic defrost interval 0 = defrost at intervals is never activated
d1	0	2	- - - -	0	0	0	type of defrost 0=electrical (during defrosting the compressor is switched off, the defrost output is activated and the evaporator fan checks parameter F26) 1= hot gas (during defrosting the compressor is switched on, the defrost output is activated and the evaporator fan checks parameter F26) 2= air (during defrosting the compressor is switched off and the evaporator fan checks parameter F26); in this case, the defrost output is not used, even if it is configured
d2	-99.0	99,0	°C	8,0	8,0	8,0	defrost end threshold (evaporator temperature); see also parameter d3
d3	0	99	min	30	30	30	if parameter P3 is set to 0, defrost duration if parameter P3 is set to 1, maximum defrost duration; see also parameter d2 0 = defrost is never activated
d5	0	99	min	30	30	30	defrost delay from the start-up of holding/manual cooling (also for type “b” defrost) 0 = defrost will be activated once the time set by parameter d0 has elapsed

d7	0	15	min	2	2	2	drip time (during dripping the compressor and evaporator fan will remain off and the defrost output will be deactivated)
d15	0	99	min	0	0	0	minimum consecutive compressor-on duration for starting hot gas defrost when defrost interval elapses, only if parameter d1 is set to 1 (also for type “b” defrost)
d00	0	1	- - - -	0	0	0	enable type “b“ defrost parameters on setpoint threshold (0= no , 1=yes)
d01	-99.0	99,0	°C	1,0	1,0	1,0	setpoint threshold to activate type “b” parameters (activated if setpoint>d01)
d0b	0	99	hours	6	6	6	automatic defrost interval for type “b” same meaning as parameter d0
d1b	0	2	- - - -	2	2	2	type of type “b” defrost same meaning as parameter d1
d2b	-99.0	99,0	°C	4,0	4,0	4,0	threshold of type “b” defrost; see also parameter d3b same meaning as parameter d2
d3b	0	99	min	20	20	20	type “b” defrost duration same meaning as parameter d3
d7b	0	15	min	0	0	0	type “b” dripping time same meaning as parameter d7
Par.	**Min**	**Max**	**Unit**	**Default**	**Retarder-proofer**	**Dough-retarder**	**Temperature alarms**
A1	0,0	99,0	°C	70,0	50,0	50,0	evaporator temperature above which the evaporator high temperature alarm is activated; see also parameter A2
A2	-1	240	min	1	1	1	delay evaporator high temperature alarm 1 = yes -1 = alarm not enabled
A3	0,0	99,0	°C	70,0	50,0	50,0	cabinet temperature above which the cabinet high temperature alarm is activated; see also parameter A4
A4	-1	240	min	1	1	1	delay high cabinet temperature alarm 1 = yes -1 = alarm not enabled
A16	0	900	sec	300	300	300	buzzer reactivation time if alarm(s) still active 0 = not enabled
A17	0	1	- - - -	0	0	0	alarm output activation 0= with alarm active 1= with alarm not active
Par.	**Min**	**Max**	**Unit**	**Default**	**Retarder-proofer**	**Dough-retarder**	**Evaporator and condenser fan**
F0	0	1	- - - -	0	1	1	evaporator fan activity during the blocking phase 0 = parallel function with the compressor 1 = continuous function
F1	0	1	- - - -	0	0	0	evaporator fan activity during the holding, cooling and pre-cooling phases 0 = parallel function with the compressor 1 = continuous function
F2	0	1	- - - -	0	1	1	evaporator fan activity during the re-awakening phase 0 = parallel function with the main loads 1 = continuous function
F3	0	1	- - - -	0	1	1	evaporator fan activity during the proofing phase 0 = parallel function with the main loads 1 = continuous function
F4	0	1	- - - -	0	0	0	evaporator fan activity during the baking delay phase 0 = parallel function with the main loads 1 = continuous function
F5	0	1	- - - -	0	1	1	evaporator fan activity during the heating phase 0 = parallel function with the main loads 1 = continuous function
F10	1	10	- - - -	10	7	7	fan speed during the dehumidification phase
F11	1	10	- - - -	10	10	10	fan speed during the pre-cooling phase
F12	0	15	min	2	1	1	fan stop after the dripping phase
F13	0	250	s	0	0	0	evaporator fan switch-off delay from main load switch-off
F14	1	600	s	0	0	0	evaporator fan cycle time if=0, cyclical fan switch-on will be deactivated
F15	1	600	s	0	0	0	evaporator fan switch-on time within the F14 cycle time
F16	0,0	99,0	°C	20,0	40,0	40,0	condenser fan threshold (if condenser probe is configured)
F17	0	240	s	5	5	5	condenser fan switch-off delay from compressor switch-off (if condenser probe is disabled)
F18	0	3	- - - -	2	2	2	condenser fan activation mode (if condenser probe is configured) 0 = temperature adjusted (with compressor ON or OFF) 1 = temperature adjusted only if compressor is OFF (on if compressor is ON) 2 = temperature adjusted only if compressor is ON (OFF if compressor is OFF) 3 = temperature adjusted if compressor is OFF, OFF during defrost
F19	0	240	s	15	5	5	evaporator fan switch-on delay from when the door is closed,or the door switch input is deactivated
F21	0	100	- - - -	80	100	100	evaporator fan start-up speed
F22	1	240	s	5	10	10	start-up time when the evaporator fan is switched on

F23	0	100	%	35	0	0	evaporator fan min. speed calibration value
F24	0	100	%	65	100	100	evaporator fan max. speed calibration value
F25	-50.0	99,0	°C	1,0	99,0	99,0	evaporator temperature below which the evaporator fan is activated for the blocking, holding and manual cooling phases
F26	0	1	- - - -	0	0	0	Evaporator fan mode during defrost
							0 = off
							1 = on
F27	0	100	%	10	10	10	speed 1 evaporator fan, if E7=2 or 3
F28	0	100	%	20	20	20	speed 2 evaporator fan, if E7=2 or 3
F29	0	100	%	30	30	30	speed 3 evaporator fan, if E7=2 or 3
F30	0	100	%	40	40	40	speed 4 evaporator fan, if E7=2 or 3
F31	0	100	%	50	50	50	speed 5 evaporator fan, if E7=2 or 3
F32	0	100	%	60	60	60	speed 6 evaporator fan, if E7=2 or 3
F33	0	100	%	70	70	70	speed 7 evaporator fan, if E7=2 or 3
F34	0	100	%	80	80	80	speed 8 evaporator fan, if E7=2 or 3
F35	0	100	%	90	90	90	speed 9 evaporator fan, if E7=2 or 3
F36	0	100	%	100	100	100	speed 10 evaporator fan, if E7=2 or 3
Par.	**Min**	**Max**	**Unit**	**Default**	**Retarder-proofer**	**Dough-retarder**	**Setpoint of manual cooling and heating cycle**
MC1	-99.0	99,0	°C	-5.0	-5	-5	cabinet temperature setpoint in manual cooling
MC2	1	10	- - - -	10	10	10	fan speed in manual cooling
MC3	0	100	%	70	0	0	humidity setpoint in manual cooling
MC4	0	5999	min	120	120	120	duration manual cooling
MH1	-99.0	99,9	°C	25,0	30	30	cabinet temperature setpoint in manual heating
MH2	1	10	- - - -	10	10	10	fan speed in manual heating
MH3	0	100	%	80	80	80	humidity setpoint in manual heating
MH4	0	5999	min	180	180	180	duration manual heating
Par.	**Min**	**Max**	**Unit**	**Default**	**Retarder-proofer**	**Dough-retarder**	**Sanitation**
SA0	0	2	- - - -	0	0	0	type of sanitation
							0 = not present 1 = UV lamp 2 = ozone generator
SA1	-99.0	99,0	°C	0,0	0,0	0,0	cabinet temperature below which the sanitation cycle, if started, is suspended
SA2	0	240	min	10	10	10	duration of sanitation cycle only if SA0=2 (see parameter E21 for resting time)
SA3	0	240	min	5	5	5	resting time after sanitation cycle if SA0=2 (if SA3=0, resting time is not taken into consideration)
Par.	**Min**	**Max**	**Unit**	**Default**	**Retarder-proofer**	**Dough-retarder**	**Digital inputs**
i0	0	6	- - - -	2	4	4	effect of the door opening, or when the door switch input is activated
							0= no effect
							1= the compressor and evaporator fan are switched off (no effect on light status)
							2= the evaporator fan is switched off (no effect on the compressor or light status)
							3= only light switched on
							4= the compressor and evaporator fan are switched off, the cabinet light is switched on
							5= the evaporator fan is switched off, the cabinet light is switched on
							6= the evaporator fan is switched off, the cabinet light (if on) is switched off; when the door is closed, the light goes back to its status before the door was opened
							NOTE: if the door is opened, the humidifier, steriliser/oxygenator and heater are switched off. the light key has priority over the door switch; if the light has been switched on with the key, the door opening or closing will have no effect on light status
i1	0	1	- - - -	0	1	1	door switch input contact type
							0= normally open (input active with contact closed)
							1= normally closed (input active with contact open)
i2	-1	120	min	5	-1	-1	door open alarm signal delay -1 = alarm not signalled
i3	-1	120	min	15	-1	-1	compressor and evaporator fan inhibition time from door open -1= non considered

i4	0	9	- - - -	1	4	4	Multi-purpose input 1 configuration:
							0= DISABLED
							1= HIGH PRESSURE ALARM (the compressor and evaporator fan are switched off, the condenser fan stays on)
							2= LOW PRESSURE ALARM (the compressor and evaporator fan are switched off)
							3= PUMP-DOWN AND ALARM MANAGEMENT (while the compressor is being switched off, the digital input will switch off the compressor output to end the pumpdown phase; during the activation phases of the refrigeration plant, the digital input will switch off the compressor and evaporator fan)
							4= COMPRESSOR THERMAL SWITCH ALARM (the compressor is switched off)
							5= GENERIC ALARM (displayed only)
							6= THERMAL SWITCH ALARM (all loads are switched off)
							7= DEVICE SWITCH ON/OFF
							8= EVAPORATOR FAN THERMAL SWITCH ALARM (humidifier, steriliser/oxygenator, heaters are switched off)
							9= WATER LOAD LEVEL (activation water load output)
i5	0	1	- - - -	0	1	1	multi-purpose input 1 contact type
							0= normally open (input active with contact closed) 1= normally closed (input active with contact open)
i6	-1	240	s	5	5	5	multi-purpose input 1 alarm delay -1 = alarm not signalled
i7	0	9	- - - -	3	1	1	multi-purpose input 2 configuration (see configurations of parameter i4)
i8	0	1	- - - -	0	1	1	multi-purpose input 2 contact type
							0= normally open (input active with contact closed) 1= normally closed (input active with contact open)
i9	-1	240	s	10	5	5	multi-purpose input 2 alarm delay -1 = alarm not signalled
i10	0	9	- - - -	2	2	2	multi-purpose input 3 configuration (see configurations of parameter i4)
i11	0	1	- - - -	0	1	1	multi-purpose input 3 contact type
							0= normally open (input active with contact closed) 1= normally closed (input active with contact open)
i12	-1	240	s	5	10	10	multi-purpose input 3 alarm delay -1 = alarm not signalled
i13	0	240	s	40	40	40	reset time for the low pressure switch when the compressor is switched on (only if the digital input is configured = 3)
i14	0	240	sec x 10	30	0	0	time-out light off by door switch (no effect if lit by key). If i14=0, the light stays on until the door is closed
Par.	**Min**	**Max**	**Unit**	**Default**	**Retarder-proofer**	**Dough-retarder**	**Digital outputs**
u1	0	1	- - - -	1	1	1	enable light key
							0 = no
							1 = yes
							N.B.: if u1=0 and a relay is configured as the light, it will be controlled by the door switch.
u2	0	240	s	90	10	10	with multi-purpose digital input = 0 or 2: compressor deactivation delay from pump-down valve switch-off (pump-down being switched off)
							with multi-purpose digital input =3: maximum pumpdown duration in compressor switch-off mode without activating the low pressure input, causing the compressor to switch off and the pump-down alarm to sound (with u2=0 the alarm is not signalled)
u3	0	1	- - - -	1	1	1	dehumidification management type 0 = external dehumidifier/ extractor fan (with this setting parameters rU5 and rU6 are relevant)
							1 = by activating the refrigeration plant (not used if E12=0)
u4	0	1	- - - -	1	1	1	deactivation alarm output relay if buzzer silenced on keypad
							0= no 1= yes
u5	-99.0	99,0	°C	-5.0	-5	-5	cabinet temperature under which the door frame heater is activated
u6	0	1	- - - -	1	1	1	enable alarm buzzer
							0= no
							1= yes
u7	0	999	s	60	60	60	water load timeout

u1c	0	18	- - - -	1	1	1	load associated with output K1
							0 = not used
							1= compressor
							2= evaporator fan, max. speed (with both 1 or 2 speeds)
							3= condenser fan
							4= defrost
							5= cabinet light
							6= door frame heater
							7= alarm
							8= pump-down 9= on/stand-by
							10 =evaporator fan, min. speed (only if with 2 speeds) 11 =sanitation
							12 = heater 13 = humidity generator (boiler/mist maker) 14 = humidification/humidity injection 15 = dehumidification/extractor fan 16 = repeat buzzer events (alarms + machine status) 17 = water load 18 = dripping heater
u2c	0	18	- - - -	5	5	5	load associated with output K2 (see u1c)
u3c	0	18	- - - -	14	14	0	load associated with output K3 (see u1c)
u4c	0	18	- - - -	15	15	15	load associated with output K4 (see u1c)
u5c	0	18	- - - -	4	4	4	load associated with output K5 (see u1c)
u6c	0	18	- - - -	12	12	12	load associated with output K6 (see u1c)
u7c	0	18	- - - -	13	2	2	load associated with output K7 (see u1c)
u8c	0	18	- - - -	8	0	0	load associated with output K8 (see u1c)
u9c	0	18	- - - -	6	0	0	load associated with output K9 (see u1c)
u10c	0	18	- - - -	11	11	11	load associated with output K10 (see u1c), only with expansion
u11c	0	18	- - - -	9	9	9	load associated with output K11 (see u1c), only with expansion
u12c	0	18	- - - -	7	7	7	load associated with output K12 (see u1c), only with expansion
u13c	0	18	- - - -	3	3	3	load associated with output K13 (see u1c), only with expansion
Par.	**Min**	**Max**	**Unit**	**Default**	**Retarder-proofer**	**Dough-retarder**	**Automatic testing**
T1	-99.0	99,0	°C	35,0	35,0	35,0	cabinet temperature setpoint heating phase of testing cycle
T2	0	100	%	90	90	90	humidity setpoint heating phase of testing cycle
T3	0	999	min	60	60	60	maximum duration heating phase of testing cycle
T4	1	20	---	2	2	2	number of heater cycles (‘cycle’ means ON time + OFF time)
T5	-99.0	99,0	°C	-20.0	-5	-5	pulldown setpoint cooling phase
T6	-99.0	99,0	°C	-3.0	-3.0	-3.0	cabinet setpoint cooling phase of testing cycle
T7	0	999	min	60	60	60	maximum duration cooling phase of testing cycle
T8	1	20	- - - -	2	2	2	number of compressor cycles (‘cycle’ means ON time + OFF time)
T9	-99.0	99,0	°C	2,0	2,0	2,0	RECOVERY PHASE->CYCLE STOP setpoint
Par.	**Min**	**Max**	**Unit**	**Default**	**Retarder-proofer**	**Dough-retarder**	**Serial communication (serial port type RS-485 with MODBUS communication protocol)**
L1	1	240	min	15	15	15	internal data sampling time
LA	1	247	- - - -	247	247	247	device address
Lb	0	3	- - - -	3			baud rate (the parameter is relevant only if bLE = 0)
							0= 2.400 baud
					3	3	1= 4.800 baud
							2= 9.600 baud
							3= 19.200 baud
LP	0	2	- - - -	2	2	2	parity
							0= none 1= odd 2= even
PA1	-99	999	- - - -	426	426	426	EPoCA level 1 password
PA2	-99	999	- - - -	824	824	824	EPoCA level 2 password
bLE	0	99	- - - -	0	0 (1 with Wi-fi module)	0 (1 with Wi-fi module)	serial port configuration for connectivity
							0= free for MODBUS RTU
							1÷99 =EPoCA local network address (in this case the baud rate is automatically configured to 19,200 baud irrespective of the Lb value)
							N.B.: if connectivity comes from EVlinking Wi-Fi, the only value that can be set is 1
Par.	**Min**	**Max**	**Unit**	**Default**	**Retarder-proofer**	**Dough-retarder**	**Other**
E0	0	240	min	1	0	0	inactivity period for enabling screen-saver 0 = not enabled
E1	0	120	s	10	10	10	duration of buzzer at cycle end and on reaching pre-cooling setpoint
E2	0	240	min	0	10	10	duration of “cycle completed” display 0 = not enabled
E3	0	1	- - - -	0	0	0	humidifier type
							0= generic isothermal or adiabatic humidifier
							1= Mistral humidifier (set E6 and rU0=0, P12≠0)

E4	0	2	- - - -	0	0	0	humidity generator relay management
							0= always ON
							1 = ON only if the phase requires humidity and if the chamber probe<setpoint (of the phase in progress) 2 = ON only if the phase requires humidity
							3 = ON only if the phase requires humidity and if the cabinet humidity value is < of the setpoint (of the phase in progress; with P12≠0)
E5	0	99	min	0	0	0	advance time of humidity generator relay switch-on compared to the humidity phase (if E4=1 or 2) 0 = no pre-switch-on
E6	0	1	- - - -	0	1	1	type of humidification regulation
							0 = proportional (rU11, rU12)
							1 = ON-OFF cycles (rU15, rU16)
E7	0	4	- - - -	0	3	3	type of evaporator fan regulation 0 = 1 speed (with relay configured as “2”)
							1 = 2 speeds (with relays configured as “2” and “10”)
							2 = 10 steps 0-10V output or EVCO inverter on 485 serial port
							3 = 10 steps PWM output with EVDFAN 1 module or EVCO inverter on 485 serial port
							4 = as configuration E7=1 but with 2 relays active at the same time for maximum speed
							N.B.: if this parameter is changed, the device will start up again automatically.
E8	0	2	- - - -	0	0	0	output configuration 0÷10V in Vcolor 689 models
							0= not used
							1= evaporator fan (E7=2) 2= variable speed compressor (parameter VC3)
							N.B.: if this parameter is changed, the device will start up again automatically.
E9	0	1	- - - -	0	0	0	enable user management/login
							0= disabled
							1= enabled
							N.B.: if this parameter is changed, the device will start up again automatically.
E10	0	1	- - - -	0	0	0	enable additional modules
							0= none
							1= expansion module
							2= inverter
							3= expansion + inverter
							N.B.: if this parameter is changed, the device will start up again automatically.
E11	0	1	- - - -	1	0	0	enable manual cycle time
							0= disabled
							1= enabled
E12	0	1	- - - -	1	1	1?	enable cooling phases
							0 = disabled
							1 = enabled
E13	10	100	%	10	10	10	Display brightness
E14	1	300	s	60	60	60	display brightness timeout
E15	0	240	min	0	0	0	dripping heater deactivation delay from the end of defrost
E16	-99.0	99,9	°C	0	0	0	minimum cabinet temperature to enable water loading
Par.	**Min**	**Max**	**Unità**	**Default**	**Retarder-proofer**	**Dough-retarder**	**MISTRAL HUMIDIFIER (7)**
HS1	0	100	%	0	0	0	minimum humidity setpoint value (see r1 in Mistral manual)
HS2	0	100	%	95	95	95	maximum humidity setpoint value (see r2 in Mistral manual)
HS3	1	240	s	20	20	20	cycle time (see r3 in Mistral manual)
HS4	0	3	- - - -	2	2	2	fan speed (see F0 in Mistral manual)
							0 = fan off
							1 = 30%
							2 = 60%
							3 = 80%
HS5	70	1250	µS*cm	500	500	500	water conductivity (see P1 in Mistral manual)
HS6	0	250	h	12	12	12	no production of RH consecutive time due to tank emptying for health and hygiene management (see c0 in Mistral manual) 0 = function disabled
HS7	0	250	h	24	24	24	production of RH consecutive time due to tank emptying for health and hygiene management (see c1 in Mistral manual) 0 = function disabled

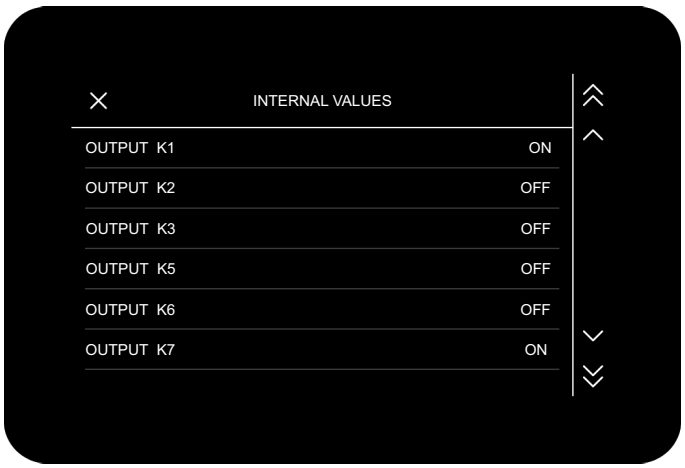
INTERNAL VALUE VISUALIZATION

On this page you can view the internal statuses and values.
By internal statuses and values we mean the temperature and humidity values detected by the probes and the status of all active relays on the electronic control unit.
Select the settings key on the Home screen (Image 1) or on the screen of any running manual or automatic cycle.

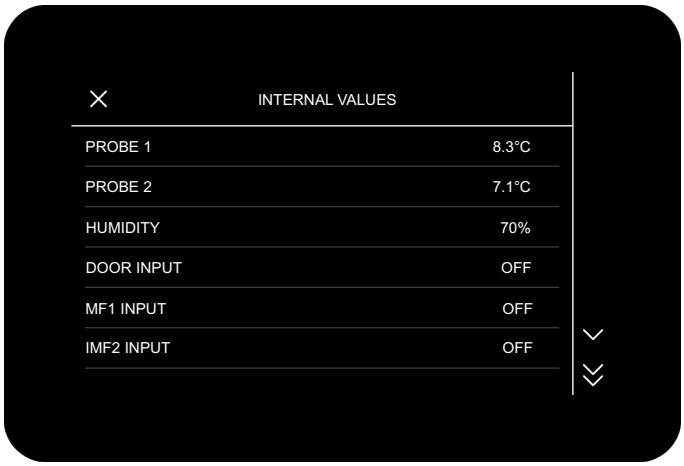
Push on INPUT AND OUTPUT STATUS (Image 7).

Settings screen (Image 7)

Input/output display screen

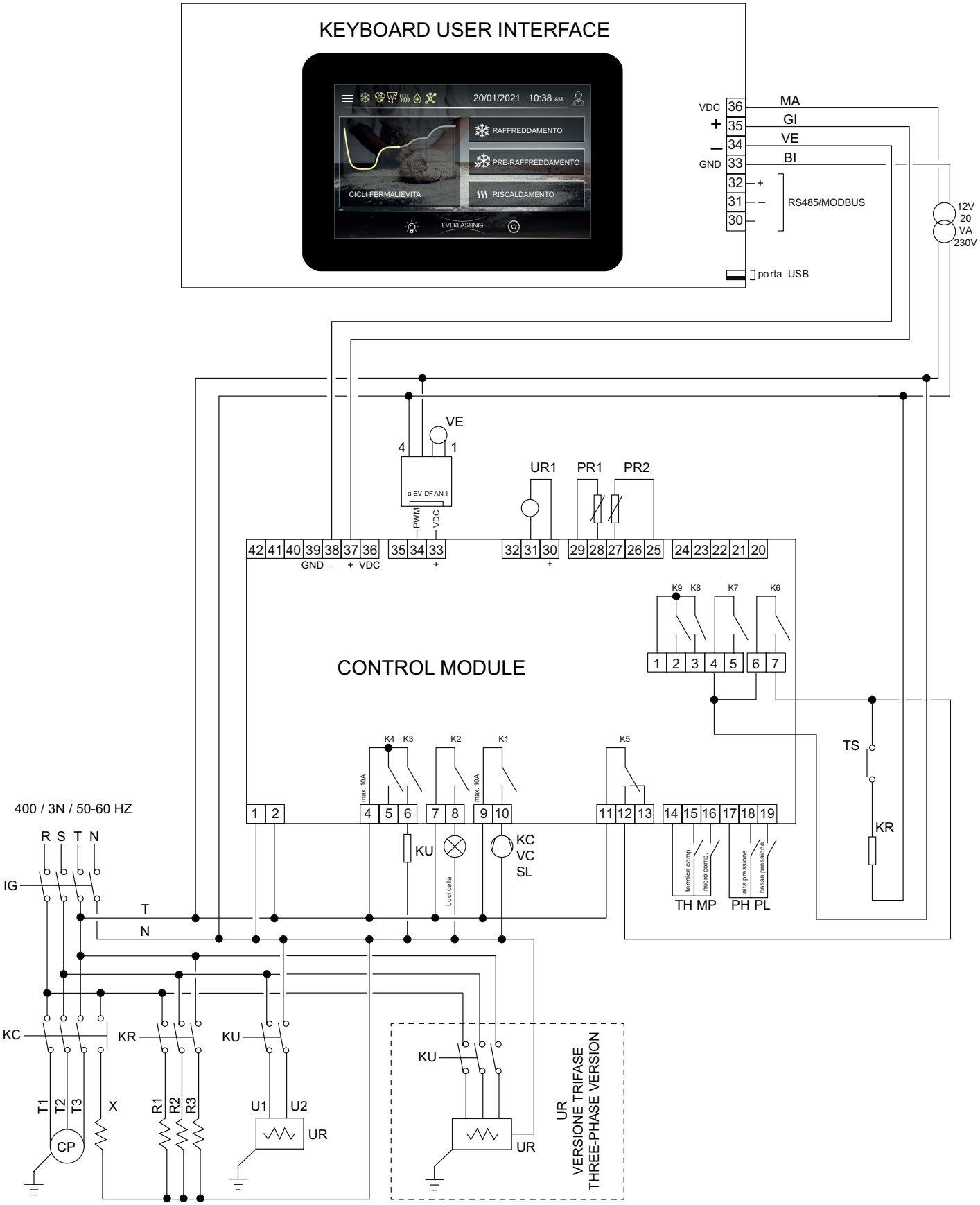


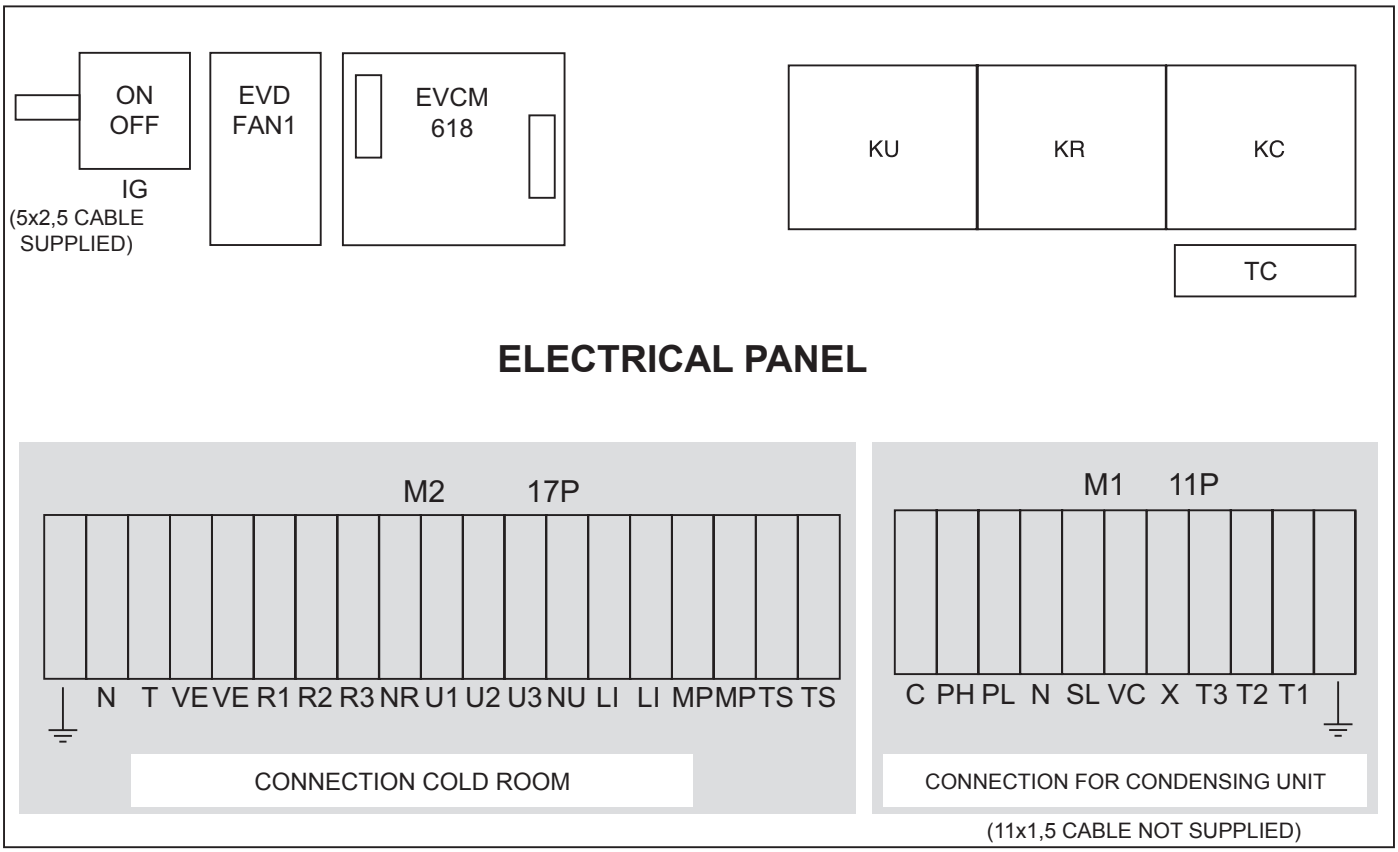
Probes display screen



You can view the thermo-hygrometric operating values of the appliance and which components are operating. These values are not editable.

Remote management and remote control (OPTIONAL)
There is a MODBUS port on the thermoregulator for connection to the EVlink module to be used with the EPoCA app. (see remote management and remote control manual)


KEYBOARD USER INTERFACE
20/01/2021 10:38 AM
RAFFREDDAMENTO
PRE-RAFFREDDAMENTO
CICLI FERMALIEVITA
RISCALDAMENTO
EVERLASTING
VDC
+
–
GND
36
35
34
33
32
31
30
MA
GI
VE
BI
RS485/MODBUS
porta USB
12V
20
VA
230V
VE
4
1
a EV DF AN 1
PWM
VDC
UR1
PR1
PR2
42 41 40 39 38 37 36
GND – + VDC
35 34 33
+
32 31 30
+
29 28 27 26 25
24 23 22 21 20
K9 K8 K7 K6
1 2 3 4 5 6 7
CONTROL MODULE
K4 K3 K2 K1 K5
max. 10A
max. 10A
1 2
4 5 6
7 8
9 10
11 12 13
14 15 16 17 18 19
KU
Luci cella
KC
VC
SL
termica comp.
micro comp.
alta pressione
bassa pressione
TH MP PH PL
TS
KR
400 / 3N / 50-60 HZ
R S T N
IG
T
N
KC
KR
KU
T1 T2 T3
X
CP
R1 R2 R3
U1 U2
UR
KU
UR
UR
VERSIONE TRIFASE
THREE-PHASE VERSION



Components key:
CL - Humidifier level control
CP - Compressor
EV1 - Water inlet electrovalve
IG - Main switch
MP - Door microswitch
KC - Compressor relay
KR - Defrost relay/heating
KU - Steam generator relay
L1 - Internal light
R1/2/3 - Heating resistance/defrost
PR1 - Room probe
PL - Minimum pressure switch
PH - Maximum pressure switch
SL - Liquid solenoid
SL1 - Level probe
PR2 - Evaporator probe
UR1 - Humidity probe
EVD FAN 1 - Evaporator fan module
VC - Condenser fan
VE - Evaporator fan
UR - Umidifier
TS - Safety thermostat

MAN0301 - REV.02 - 202601

EVERLASTING

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