



SPR

Industrial dehumidifier for swimming pools with enhanced air renewal and high efficiency heat recovery system

**MAINTENANCE, INSTALLATION
AND USER MANUAL**

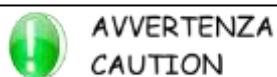
UNITS COMPLETE DOCUMENTATION:

- ☒ USER MANUAL
- ☒ REFRIGERANT DIAGRAM
- ☒ CONTORL MANUAL
- ☐ DECLARATION OF CONFORMITY
- ☐ WIRING DIAGRAM

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SPR

Industrial dehumidifier for swimming pools with high-efficiency heat recovery



BEFORE USING THE UNIT, READ CAREFULLY THIS MANUAL

Dear Customer,

thank you for having chosen one of our Products.

We are glad to provide this Maintenance, Installation and User Manual to you, in order to allow an optimum usage of the unit, for a better comfort and a higher safety

We strongly recommend a careful reading of the directions mentioned in the following pages and to let the present manual available to all the operators who will work for the management and the maintenance of the unit itself.

We remain at your disposal for any further information and explication you may need, whether in the first-starting phase and in every following moment-

For necessary ordinary and extraordinary maintenance operations, we remain at your disposal with our Technical support Service, to assist you and supply the spare parts.

For a quicker assistance, please contact us at the following reference:

HIDEW s.r.l.
info@hidew.it - www.hidew.it

HiDew
Dehumidifiers

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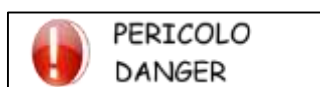
1 INTRODUCTION

The present manual indicates the uses of the unit and gives instructions for transport, installation, assembling and regulation of the machine. It gives directions about maintenance, spare parts request, residual risks presence and staff education.

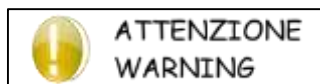
The User Manual should be read and used in the following way:

- each operator and person concerned with the use and maintenance of the unit should read it carefully and follow the instructions given;
- the employer has to verify that the operator has the required attitudes to conduct the unit and that he has carefully read the manual; the employer is also supposed to inform the operator about the risks of accidents, mainly risks deriving from the noise, the individual protection devices and the rules preview according to the law, both at an international level and at the destination country level;
- the manual should always be available for the user, the transport company, the operators for the placement, the maintenance, the reparation and the dismantling of the unit;
- the manual should be protected from humidity and hot zones and considered as an integrant part of the unit for all its lifetime; it has to be delivered to the next owner of the unit;
- please make sure that every update is included in the manual;
- do not damage, remove, strip or re-write the manual, neither part of it; in case it is lost or damaged, please contact the manufacturer for the request of a new User Manual and communicate the matriculation number of the unit (you find it on the data label).

Please, take care of the following symbols. Their function is to underline the following information:



It makes reference to dangerous situations that can occur when using the machine, in order to grant people safety.



It makes reference to dangerous situations that can occur when using the machine, in order to avoid damages to the unit itself and to things around it.



It makes reference to suggestions or additional integration for a correct use of the unit.

The manufacturer has the right to update products and relative manuals, without being obliged to update previous versions, with exception of particular cases.

This manual refers to the current technologies adopted at the moment of the selling of the unit and can not be considered inadequate according to following updating due to technology evolutions.

To ask for eventual manual updating or for integration, please forward your request to the previously indicated references.

Please contact the manufacturer for further information or suggestions.

In case of re-selling of the unit, please inform the manufacturer about the new owner references, in order to facilitate the communication between the both of us.

The manufacturer recommends, in case of lending of the unit, to signal him the address of the new owner, in order to facilitate the transmission of eventual integration.

1.1 RESPONSABILITIES

The unit is granted according to the contract clauses subscribed in the sales negotiation.

The manufacturer is not responsible for accidents that can occur because of:

- the non-following of the instructions given in this manual about the correct use, maintenance and first start of the machine
- changes made in the unit or in the safety devices without a written authorization from the manufacturer



- non-authorized attempts of repair;
- negligence in the constant maintenance or use of non-original spare parts.

Anyhow, if the user accuses the manufacturer for any fault of the unit, he has to demonstrate that the damage occurred has been a direct consequence of the supposed fault.

1.2 SERVICE RULES

The service rules described in this manual have to be considered as integral part of the unit supplied. Moreover, these rules are reserved to the operator, who has previously been instructed about the units in object and they provide necessary information about safety and correct use of the machine. Please consider that incorrect and incomplete education about the units can cause accidents.

Read carefully the following suggestions:



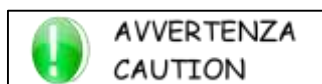
- the first start of the unit should be done only by a qualified and manufacturer-authorized operator;
- when installing the unit or when an intervention is required, it is fundamental to follow the rules described in this manual and to pay attention to the directions given by the control of the machine;
- accidents can be avoided by following these technical instructions, with reference to the machine-directive CE/42/2006 and its following revisions; in every case, keep attention to the national safety rules;
- do not remove or damage protections, labels and writings, especially those imposed by the law; in case they are no more readable, please substitute them.

The machine-directive CE/42/2006 gives the following definitions:

DANGER ZONE: *every zone internal or in the nearby of a unit where the presence of men is a risk for their safety or wealth.*

EXPOSED PERSON: *every person who stands within or nearby a danger zone.*

OPERATOR: *the person charged for the installation, the starting, the regulation, the maintenance, the cleaning, the reparation and the transport of the unit.*



All the operators should follow the accident prevention measures, both international and of the destination country, in order to avoid accidents.

The units have been realized in conformity with technical law, dispositions and rules in force.

Please remember that the European Community has issued several directives concerning workers' safety and wealth, such as CEE/391/89, CEE/686/89, CEE/654/89, CEE/655/89, CEE/656/89, CEE/188/89, CEE/58/92 and CEE/57/92 that employers are supposed to follow and to make them followed.

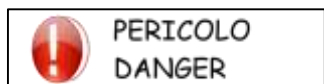
Used materials, equipment parts, production processes, quality warranty and control satisfy the required maximum safety standards.

The lifetime of the unit and its correct functioning can be granted by using it for the supposed usages, by moving them carefully and by following accurately maintenance and revisions.

1.3 USES

SPR units are industrial dehumidifiers with heat recovers, thought for swimming pools, which allow the dehumidification and/or the heating of the delivery air by renewing the expelled suction air from the ambience, with clean air aspired from the external.

The use is recommended within the limitations indicated in the present manual.



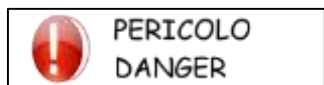
Place the unit where there are not explosion or fire dangers, neither in vibrating areas or in presence of electromagnetic fields. Furthermore, do not operate in ways which differ from those indicated and do not underestimate safety operations.



The unit is thought for swimming pools, that is to say places with high chlorine and other corrosive substances. It is really important to leave the unit on as much as possible, in order to avoid the dregs of corrosive substances and, as a consequence, its following damaging.

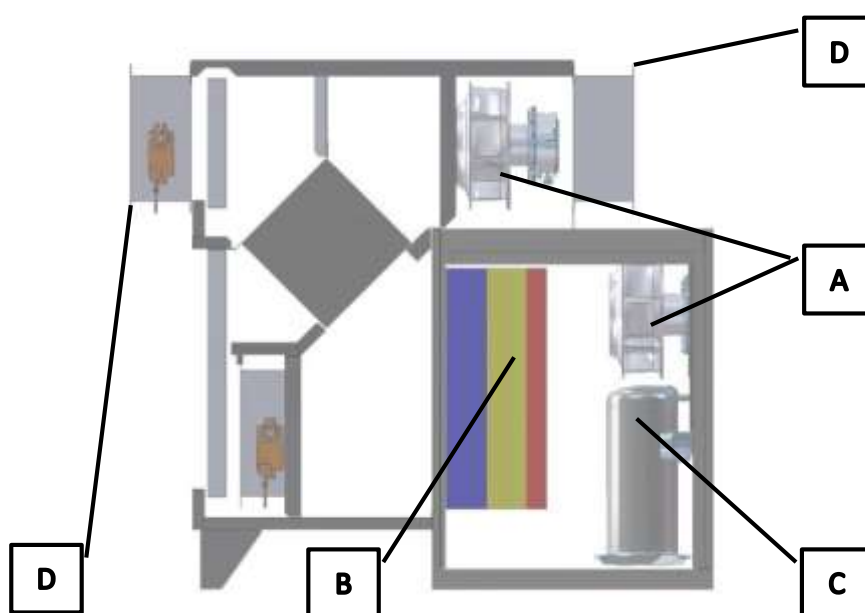
- The unit will be turned off for the ordinary and extraordinary maintenance; it is strongly suggested to turn the unit on as soon as possible after the maintenance.
- The unit should not be stopped during the seasonal pauses.

1.4 RESIDUAL RISK AREAS



Due to the peculiar functionality of the unit, in some areas of it there are residual risks which was not possible to elude during the project neither to reduce. Each operator should be aware of the residual risks in this unit, in order to avoid

accidents.



Residual risk areas:

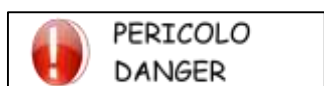
- A short circuit or fire caused by short circuit danger;*
- B explosion danger because of the presence of under pressure circuits or pollution due to the refrigerant gas in the circuit;*
- C burn danger because of high temperature pipes;*
- D slash danger.*

1.5 INTERVENTION AND MAINTENANCE

It is useful to remember that the manual can not substitute the suitable experience of the user; for some maintenance operations, the manual represents a reminder of the main activities for competent operators, who have attended, for instance, instructive courses promoted by the manufacturer.

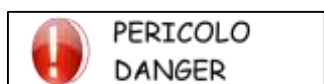
Please read carefully the following suggestions:

- a preventive and constant maintenance grants the high safety standard. Do not postpone the required reparations and make sure they will be done by qualified staff and by using exclusively original spare parts;
- schedule carefully every intervention;
- operators workplace should be clean and free from objects which could limit their movements;
- operators should avoid inaccurate operations and positions, in order not to compromise their balance;
- operators should pay attention to risks of trapping or cloths/hair entangling in moving parts; the use of a cap is strongly recommended for people with long hair;
- necklaces, bracelets and rings could be dangerous;
- the place should be suitably lit up; an inadequate lighting can be dangerous;
- wait approximately half an hour after the turning off of the machine, before intervene for any maintenance, in order to avoid burns;



- do not repair high-pressure damaged pipes with welding;
- during installation and maintenance, fluids in the refrigerant circuit and electric parts, can generate dangerous situations;

- reduce as much as possible the opening time of the refrigerant circuit: this because, even for a short time, the air exposition of oil causes the absorption of high humidity quantities and this leads to the creation of weak acids;
- each intervention on the unit should be made by qualified staff;
- before starting a maintenance intervention, make sure the power supply has been turned off;
- make sure the safety devices work correctly; if not, do not turn on the unit;
- use only equipment suggested by the manufacturer of the unit, in order to reduce the possibility of accidents due to low quality equipment;



- after the cleaning of the unit, the operator should verify that there are not damaged parts; in case he finds out something wrong, he should ask for the intervention of a maintenance technician;

- the place should be always clean, because smearing of oil or grease could cause sliding or fallings;
- the use of inflammable fluids during cleaning operations is forbidden.

During the cleaning operations, do not use gas oil, oil or solvents because while the first leave an oily patina which leads to dust attraction, the latter can damage the paint and leads to the creation of rust. If some water seeps into the electrical devices, it will produce oxidation, which can cause the dysfunction of the unit. You should not use water or steam spout on sensors, connectors and other electrical parts.

Please pay attention to the integrity of pipes and other devices which could wear out. Check that there are not leaks of fluids and other dangerous substances. If something like this occurs, the operator should not turn on the unit before the reparation.

1.6 GENERAL SAFETY RULES

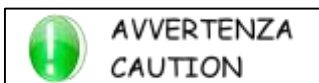
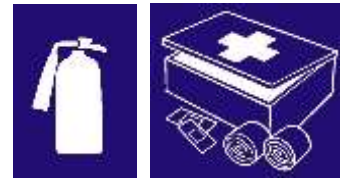
1.6.1 SAFETY CLOTHES

Operators should wear safety equipment such as gauntlet, helmet, safety glasses, safety footwear and cap for protection from the noise.



1.6.2 FIRE EXTINGUISHER AND FIRST AID

Place a first aid box and a fire extinguisher near the unit.
Check regularly that fire extinguishers are charge and that you have understood how to use them.
In case of fire use it according to the regulations in force and contact the firemen.
Check regularly that the first aid box is fully equipped.
Verify to have nearby the useful emergency phone numbers.



The owner of the place where the unit is installed is responsible for the fire extinguisher and the first aid box.

1.6.3 REMARKS FOR INSPECTIONS AND MAINTENANCE

Put a "UNDER MAINTENANCE" notice on all the sides of the unit.
Check carefully the unit by following the list of operations suggested in the present manual.



1.6.1 SAFETY LABELS



General danger



High voltage danger



Burn danger



Equipment in movement danger



Slash danger

2 PRODUCT DESCRIPTION

SPR units with heat recovery system are thought for the usage in small, medium and big swimming pools, where the modulation of humidity level is required with / without the prevention of condensation processes, also in a 24h/day functioning mode with constant air renewal granted.

SPR units combine avant-garde technical solutions with pleasant design; brushless EC fans engine with permanent magnets and inverter grant a high head reducing electric wastes.

The use of high quality refrigerant, hydraulic, aerodynamic components make SPR units the state-of-the-art in terms of efficiency, reliability and emitted sound power.



2.1 SERIES

This series offers 11 models, here classified by range and dehumidifying capacity:

2.1.1 FRAME 2

0130	0160	0190
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2.1.2 FRAME 3

0210	0260	0300
-------------	-------------	-------------

2.1.3 FRAME 4

0350	0450	0580
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2.1.4 FRAME 5

0750	0950
-------------	-------------

2.1.5 FRAME 6

1100	1400
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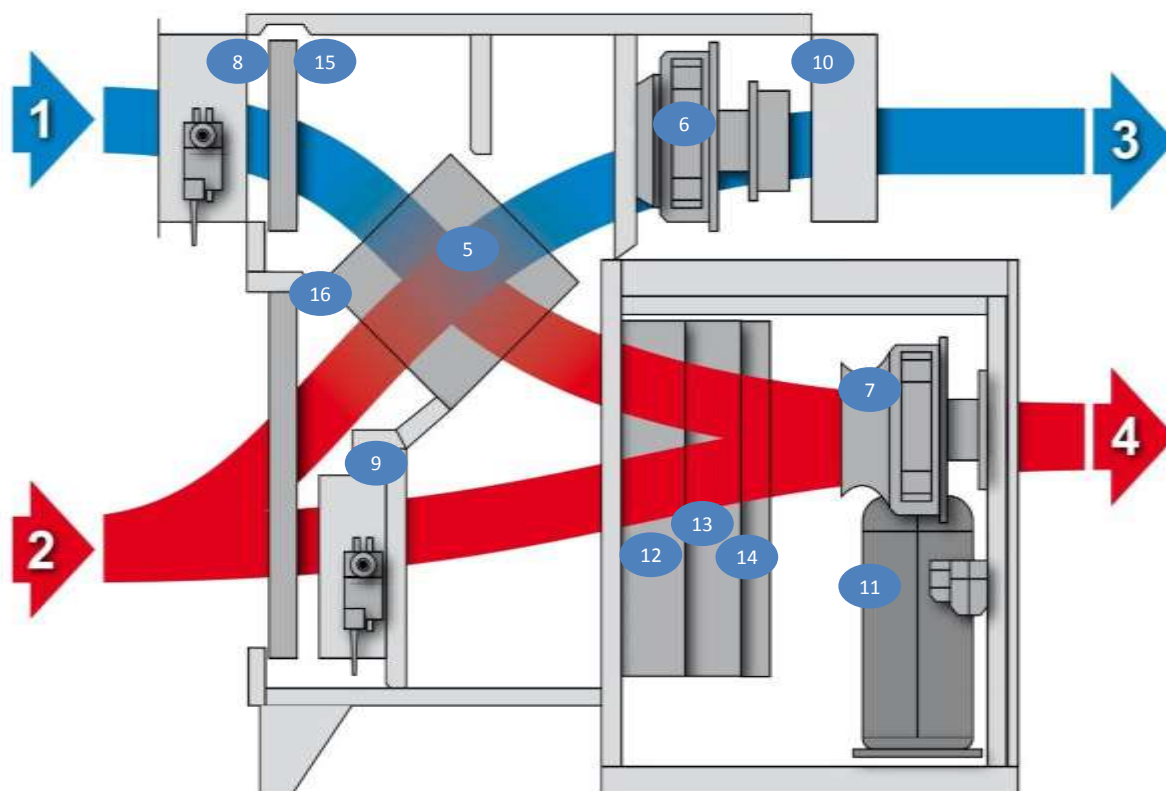
Units belonging to the same frame, have the same external dimensions.

The number value is an indication of the dehumidification capacity, expressed in L/day.

2.2 AIR FLUXES

SPR dehumidifiers have been thought to dehumidify, heat and renew the air (recovering the heat of the outlet air)

2.2.1 DISPOSITION SCHEME



1. EXTERNAL AIR SUCTION FLOW
2. AMBIENT AIR SUCTION
3. EXHAUSTED AIR EJECTION
4. SUPPLY FRESH AIR IN AMBIENT
5. High efficiency crossed-fluxes heat recover
6. Exhausted air suction fan
7. Supply air fan
8. External air suction damper
9. Recirculation air damper
10. Expulsion air gravity damper
11. Compressor
12. Evaporative coil
13. Condensing coil
14. Post-heating water coil (optional)
15. Renewal external air filter
16. Recirculation internal air filter

Here below you find the demonstration of the unit functioning in winter mode, with highlighten air fluxes ad the thermal exchange through the heat recover.

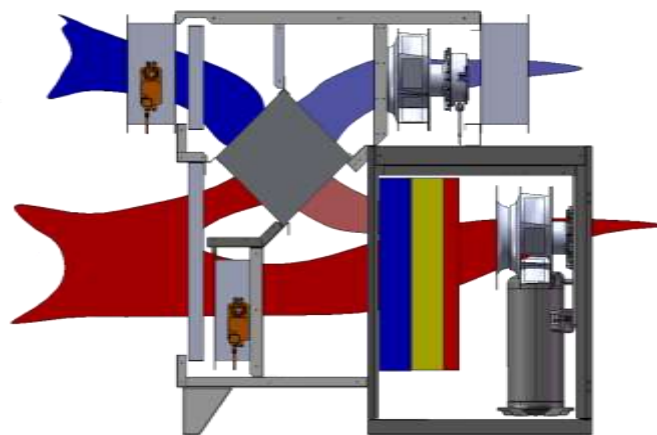
2.2.2 RECIRCULATION AND RENEWAL

In this case, the recirculation damper is partially open, the suction fan is turned on and the supply air will be dehumidified and renewed.

The external air, sucked from the recirculation fan, passes through the damper and, then, is cleaned by the filter. In the lower part, the ambient air sucked by both the fans, enters the section pf heat recover passing through the filter and is divided in two directions: a part goes through the calibration damper and goes till the dehumidification and the post-heating coil; while the other part (sucked by the suction fan) passes through the heat recover and then is rejected through the damper. Both the air fluxes, passing through the heat recovery invert their temperature: in reality, it is the cold air flux which absorb the heat of the ward air flux and this phenomenon is proportional to the degree of efficiency of the heat recovery: efficiency for all the SPR range is very high, around 85%.

The result is that the external fresh air, when entering in the unit and passing through the heat recovery, is warmed while part of the internal air, that has to be rejected, is cooled: this grants a significant energy saving for the heating/cooling of the ambient.

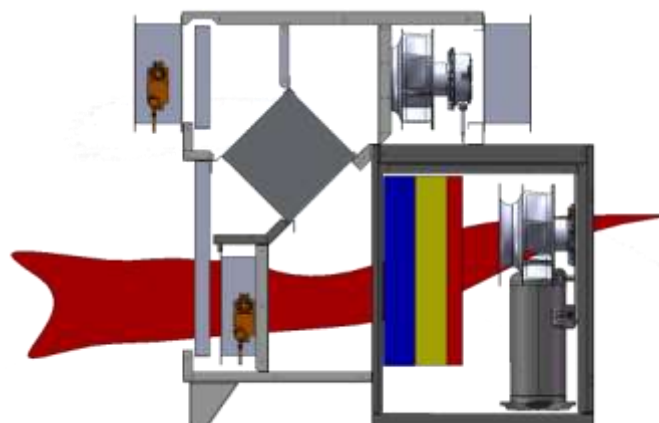
The air which has to enter in the ambient is always filtered, dehumidified and, eventually, heated.



2.2.3 ONLY RECIRCULATION

In this case, the recirculation damper is completely open, the suction fan is turned off and the supply air is only dehumidified.

In case you wish to stop the air renewal, the suction fan will be turned off, the suction damper will be closed, while the recirculation damper will be completely open and all the recirculation air aspired by the supply fan, will goes directly towards the coils



2.3 INTERNAL COMPONENTS

2.3.1 REFRIGERANT CIRCUITS

The refrigerant circuit is completely realized within HiDew, by using only components of principal international brands, copper pipes of DHP-CU quality, qualified processes and staff for brazing and testing, according to the Directive 97/23/CE. All the units are realized with single or double refrigerant circuit with ecological gas R410a.

Refrigerant components:

- Compressors: only scroll compressors of principal international brands are used. Engines are thermally protected in the internal part, in order to control working temperature and to disable them, if necessary.
- Dehydrator filter
- Thermostatic valve
- Liquid indicator
- Electro-valve
- Schrader valve for control and/or maintenance
- Thermal exchange coil with anti-corrosion treatment
- Copper pipe with aluminium fin

2.3.2 VENTILATION

Fans are radial kind with reversed blades, directly coupled to the engine with brushless, and grant lower consumptions and lower sound emitted level.

With these fans, you have the possibility to install the ACF (automatic control flow) option, which allows the auto-calibration of the unit to the air flow set, without the necessity of a manual regulation with dampers.

2.4 STRUCTURE

The unit is realized with an exclusive design, granting both a pleasant esthetic and the complete inaccessibility (when the unit is closed) to all the components: this aspect, combined with the use of high-quality equipment, grant a sensible reduction of the sound level emitted.

The majority of the panels is removable, in order to grant a complete accessibility to the unit. For ordinary maintenance, you need the access to filters, fans, compressor vane and heat recovery vane. All the screws and the fixing systems are realized in INOX or carbon steels with superficial anti-passivation treatments. The lay-out of components grants a easy accessibility and also a great distribution of the weights on the unit bases.

2.5 AVAILABLE OPTIONS

2.5.1 ACF: AUTOMATIC CONTROL FLOW

This option allows setting a constant air flow rate in the unit; in the event of pressure drops along the ducts other than those foreseen by the system designer, the unit will adapt to maintain the set air flow rate, regardless of the shape, length and pressure drop of the duct.

2.5.2 WATER POST-HEATING COIL

It consists of a water post-heating coil and its purpose is to heat the supply air through hot water coming from a boiler or a heat pump.

2.5.3 WATER POST-HEATING COIL WITH 3-WAYS VALVE

It consists of a water post-heating coil and a valve, and their purpose is to heat the environment through hot water coming from a boiler or a heat pump, tracking a set temperature set on the user command.

2.5.4 DE-SUPERHEATER

It is composed by an equipment which can dump the compressor thermal load; it is suggested for the installation in public/private swimming pools, where you want to heat the water of the pool.

The de-superheater can not be in direct contact with the water of the pool, but need an intermediate exchanger.

2.5.5 DIRTY FILTER SENSOR

It is a differential manostat which reveals when the filters are dirty and this can lead to a non-correct functioning of the unit.

With this option, the filters are supposed to be cleaned when indicated, and not according to a constant period of time.

2.5.6 SOFTSTART

It consists of a soft-start device for every compressor, in order to reduce inrush current upon start-up, following a pre-set ramp.

2.5.7 RS 485 SERIAL BOARD

Connection to RS485 bus is made available for unit supervision by remote or by automation system. Further info available from our Technical Dept.

2.5.8 EU4 HIGH-EFFICIENCY AIR FILTER

This type of filter, replacing the polyurethane model in the dehumidifier, increases air purification and holds dust particles more effectively.

2.5.9 CONDENSE DRAIN PUMP

It is composed by a pump which collect and drain the condense produced by the dehumidifier. This option is particularly useful when the dehumidifier does not have the possibility of drainage through drop (for instance, it is placed underground). The pump is equipped with a double-contacts float which has the function to activate the pump and, in case of overpassing, to turn off the compressors and signal the alarm.

2.5.10 CLOCK CARD – TIME BANDS

It is a clock card completed with a regulation software, which allows the dehumidification functioning on time bands, after having set humidity, temperature, fresh air and on/off unit values.

2.5.11 INOX STEEL CARPENTRY

All the SPR units can be supplied with INOX steel carpentry.

2.5.12 ELECTRICAL COILS

Multi-steps electrical coils which allow the supply air heating when there is no hot water available. Safety is granted by a thermostat that, in case of overheating, suddenly turns the coils off and signals an alarm.

2.5.13 REMOTE USER TERMINAL

It is an external device to be mounted on wall and which manages all the functions of the dehumidifier. The electronic control on board and the remote user terminal are the same ones.

2.5.14 OUTDOOR VERSION

Thanks to special modification on carpentry and electrical parts, the unit can be installed outdoor.

2.5.15 MANOMETERS

The units can be supplied with manometers (on for high pressure and one for low pressure) for each refrigerant circuit. They allow the immediate displaying of pressure levels in the circuits.

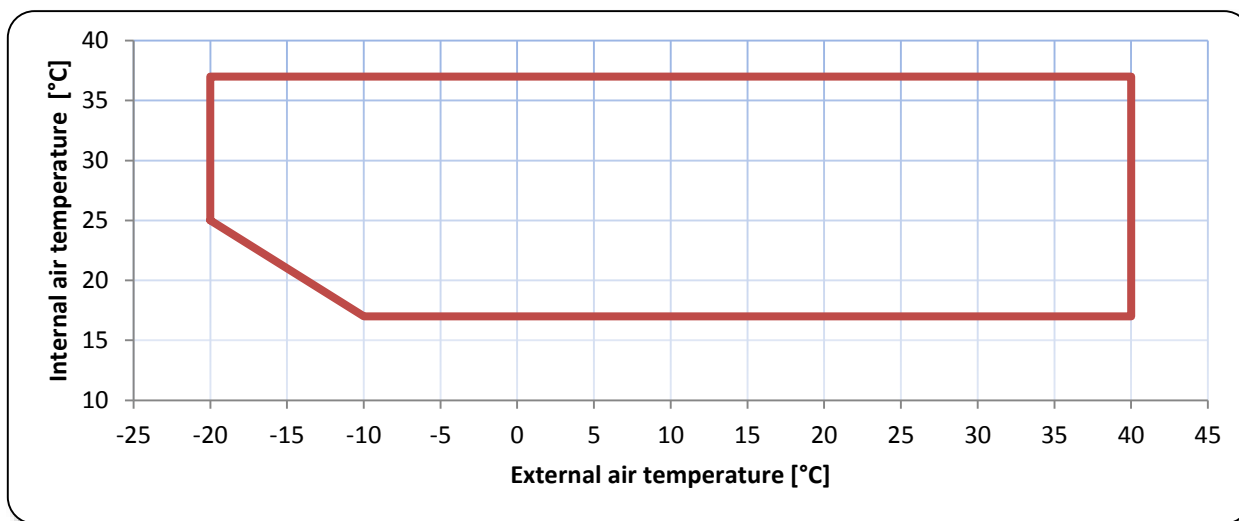
2.5.16 SUMMER/WINTER MODE

This function allows to do the following:

- In winter: heating (with hot water)
- In summer: cooling (with cold water)

This option has to be combined with the post-heating hot water coil with 3-ways valve.

2.1 OPERATING LIMITATIONS



The optimal functioning of the unit is granted only within the limitations indicated above

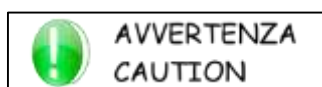
2.2 ELECTRICAL CIRCUITS

The electrical panel is realized and wired following the EN 60204-1 directions. The control circuit is protected by a magneto-thermal switch.

All the remote drives are realized with low tension and supplied by an insulation transformer.



When stopping the group, do not turn the tension off through the basic protection of the unit, because this device should be used to dissect the unit in its whole, for maintenance. Use the remote terminal.



If you completely remove the power supply, the dampers will block without completing their processes of opening / closure.

2.3 REFRIGERANT AND HYDRAULIC CIRCUITS

All the copper pipes are realized under our specifications, in order to control the whole construction process and increase, in this way, the quality of our products. Each pipe responds to the 97/23PED directions and is verified through the FEM calculation code on the more stressed point of the 180° bending.

All the units mount, at the basis of the exchangers, inox condense collection box.

3 USER TERMINAL



All the software for the management of refrigerant circuit, electronic and mechanical components is developed in HiDew thanks to a high-qualified staff.
Here below you find a list of the available functions:

- Unit ON/OFF;
- Dehumidification ON/OFF;
- Set of the desired temperature value;
- Set of the desired humidity value;
- Alarms display;
- Components status display;
- Fresh air ON/OFF;
- Time bands management [OPTIONAL];
- Summer / winter mode choice [OPTIONAL];
- Dirty filter display [OPTIONAL];

3.1 KEYBOARD



3.1.1 UP/DOWN KEYS'

From the main screen, it allows to slide to other screens or change the selected value.

3.1.2 PRG KEY

It allows to enter the displaying screens and to modify the advanced parameters: the password is required to change the parameters.

3.1.3 ESC KEY

It allows to return to the main screen.

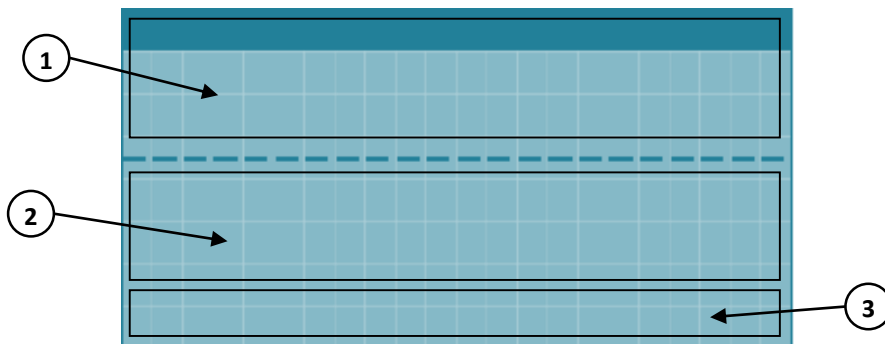
3.1.4 ENTER KEY

From the first screen, it allows to turn on/off the dehumidifier.
It allows to modify and confirm a value on the regulations screen.

3.1.5 ALARM KEY

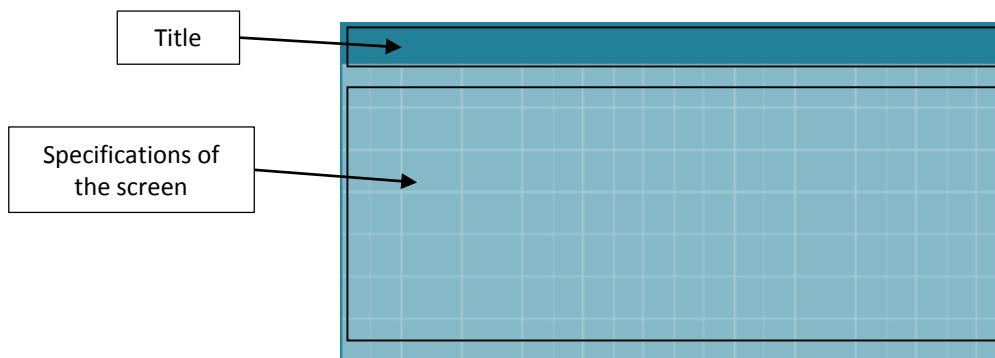
It is red lighted in case of grave alarm (high pressure, low pressure, thermal protection of the fan..).
By pushing it, you can enter the alarm description screen and, with another pushing,, you reset the alarm: this operation should be done only after having checked/verified the origins of the alarm.

3.2 MAIN SCREEN



- 1 Indications about the dehumidifier's status (unit on/off) and about the operations to do in order to change the status (turn the unit on/off)
 - Unit on
 - Unit off from keyboard
 - Unit off from contact
 - Unit off from time bands
- 2 Indications about the current functioning status of the unit (when on) and eventual anomaly signal:
 - Unit starting: starting and diagnostic process before the dehumidification starts;
 - dehumidification: the dehumidifier is normally functioning;
 - ventilation: the compressor is stopped and the unit is functioning only in ventilation;
 - compressor's stop because of ____: anomaly on the refrigerant circuit, automatic timed intervention (automatic restore), signalled cause to verify and control (the operation require a manual RESET)
- 3 Indications of one among the below anomalies:
 - change air filter: the air filter is dirty or clogged; check and, eventually, substitute it as soon as possible (if the option is present);
 - fault probe __: fault of a probe present within the unit;
 - phases wrong sequence: the phases have been faulted connected and have to be re-connected correctly.

3.3 OTHER SCREENS



3.3.1 UNIT STATUS

It is a only-displaying screen and allows to control the status of the dehumidifier's components. Pushing the ↓ key from the starting screen, this screen will appear and it will display the status of:

- Compressor;
- Supply fan;
- Suction fan;
- Fresh air damper.

If the option has been chosen, the screen will also display information about:

- Hot water valve, open or closed, or 3-ways, where you will display the % of opening;
- Electrical heaters, partially/totally active.

3.3.2 PROBES

La schermata è di sola visualizzazione e permette di controllare i valori letti dalle sonde collegate alla scheda di controllo.

Premendo il tasto ↓ dallo stato unità si entrerà nella schermata sensori dove sarà possibile leggere i valori delle sonde:

- Ambient air;
- Ambient humidity;
- Supply air temperature;
- External air temperature;
- Coil temperature (defrost).

3.3.3 REGULATIONS

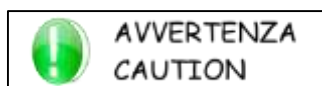
The screen allows to modify the dehumidifier's settings. Pushing ↓ from the probes' screen, you enter the regulations where with the ENTER ↵ key it is possible to highlight values and with the arrow key it is possible to modify them:

- Dehumidification, active or not;
- Temperature set;
- Humidity set;
- Fresh air, active or not.

In this screen it is possible to activate also the advanced display which allows the display of other screens, reporting other datas of the unit.

3.3.4 CLOCK/TIME BANDS

The screen is present only if the option has been chosen. Pushing the **PRG** key it is possible to regulate the date and the hour, and to set the value of the unit on time bands.



The following screens can be displayed only if the advanced displaying mode has been activated and they can not be modified.

3.3.5 DIGITAL INPUTS

This screen allows to control the devices connected to the control card.

3.3.6 AIR FLOW

This screen is present only if combined with the ACF option (Automatic control flow). It allows to display the air flow and the instant pressure of supply and suction fans.

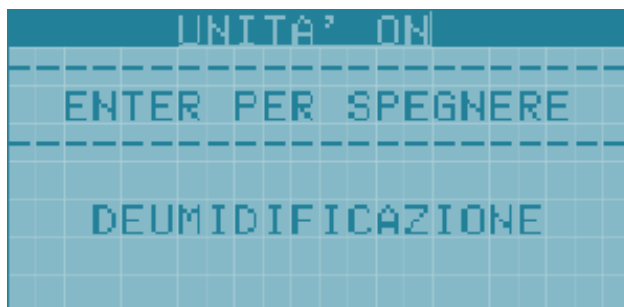
3.3.7 SOFTWARE INFO

This screen gives information about the software version, for maintenance.

3.4 DEHUMIDIFIER COMMAND

3.4.1 TURNING ON/OFF THE UNIT

- When the unit receives power supply, the user terminal signals UNIT OFF. To turn it on, it is sufficient to push the ENTER ↵ key in the main screen. The writing "starting" appears and, after few seconds, the unit will turn on and the following screen will appear: UNIT ON.



- To turn off the unit, from the same screen, push the ENTER ↵ key, and the unit will turn from UNIT ON to UNIT OFF.

3.4.2 SETTING OF THE DESIRED VALUES

From the main screen, push repeatedly the ↓ key till you enter the regulations' screen.



In this screen you can set several values:

- Dehumidification: to activate / inactivate the dehumidification, push ENTER ↵ . the dehumidification status will be highlighted and with the ↑ ↓ keys, it is possible to activate or inactivate it. The choice is automatically saved. Pushing again ENTER ↵ you go to the next set, while pushing ESC you come back to the main screen.
- Temperature set: to set the temperature of the air inlet, push ENTER ↵ till the flashing cursor reach this set. With the ↑ ↓ keys, it is possible to set the desired temperature; the value will be automatically saved. Pushing again ENTER ↵ you go to the next set, while pushing ESC you come back to the main screen.
- Humidity set: to set the humidity in ambient, push ENTER ↵ till you arrive on this parameter with the flashing cursor. Using the ↑ ↓ keys, set the desired %. The value is automatically saved. Pushing again ENTER ↵ you go to the next set, while pushing ESC you come back to the main screen.
- Fresh air: to activate / inactivate the fresh air, place the cursor on this parameter, pushing ENTER ↵ . Using the ↑ ↓ keys, it is possible to activate / inactivate the option; the choice will be automatically saved. Pushing again ENTER ↵ you go to the next set, while pushing ESC you come back to the main screen.
- Advanced displaying: the last option of the screen allows to display other screens concerning unit's specifications. With the ENTER ↵ key, place the cursor on this option; using ↑ ↓ it is possible to activate it or not. Pushing again ENTER ↵ you go to the unit title, while pushing ESC you come back to the main screen.

4 TECHNICAL DATA

4.1 TECHNICAL DATA SHEET

4.1.1 FRAME 2

MODEL		130	160	190
Compressor	Type	Rotative		scroll
Refrigerant circuits	nr	1		
Refrigerant	Type	R410A		
Dehumidifying capacity	L/24h	128	157	190
Heat recovery efficiency in winter	%	70		
Thermal power recovered in winter	W	8700	11600	
Nominal power consumption	kW	1,5	2,4	3,7
Nominal current absorbed	A	7	11	18
Max power consumption	kW	3,2	4,3	6
Max current absorbed	A	14	19	27
Inrush current	A	43	68	103
Power supply	V / Ph / Hz	230/1~+N/50		
Thermal power hot water coil	kW	9,8		
Nominal flow water coil	m³/h	0,84		
Water load losses	kPa	38		
Supply fans	nr	1		
Expulsion fan	nr	1		
Recirculation air flow rate	m³/h	1200	1600	
Suction air flow rate	m³/h	0 – 1200		
Recirculation static pressure	Pa	400	350	
Suction static pressure	Pa	400		
Max available pressure High pressure side (PS)	bar-r	42		
Dimensions (base x depth x height)	mm	550 x 1452 x 1320		
Weight	Kg	155	160	165

The dehumidifying capacity is declared at the following conditions: 30°C 80% R.H. (the fresh air is not considered).
 The power supply and the absorbed current are declared at the following conditions: 30°C 80% R.H., fresh air 30%.
 The efficiency of the heat recovery is declared at the following winter external air conditions: -5°C / 80% R.H.; internal air 26°C / 60%R.H.; max fresh air. With lower fresh air. The efficiency of the heat recovery increases.
 The thermal power recovered is declared with the max fresh air.
 The absorbed power from the recirculation fan is declared at nominal air flow and 50 Pa pressure.
 The absorbed power from the extraction fan is declared with fresh air set at 30% and 50 Pa pressure.
 The power of the hot water coil is declared with ambient at 30°C and water 80/70°C
 The fresh air flow is set in HiDew, and defined at the moment of the order.
 The static available pressure of the recirculation fan is declared at nominal air flow.
 The static available pressure of the extraction fan is declared with a fresh air of 30%.

4.1.2 FRAME 3

MODEL		210	260	300
Compressor	Type	scroll		
Refrigerant circuits	nr	1		
Refrigerant	Type	R410A		
Dehumidifying capacity	L/24h	210	268	302
Heat recovery efficiency in winter	%	70		
Thermal power recovered in winter	W	14500	20350	
Nominal power consumption	kW	3,7	4,8	5
Nominal absorbed current	A	6	8	8
Max power consumption	kW	6,5	7,7	7,9
Max absorbed current	A	10	12	13
Inrush current	A	51	66	66
Power supply	V / Ph / Hz	400 / 3~+N / 50		
Thermal power hot water coil	kW	16,5	17	
Nomnal flow water coil	m³/h	1,42	1,46	
Water load losses	kPa	30	31	
Supply fan	nr	1		
Expulsion fan	nr	1		
Recirculation air flow	m³/h	2000	2800	
Suction air flow	m³/h	0 - 2000		
Recirculation static pressure	Pa	400	200	
Suction static pressure	Pa	430	400	
Max available pressure High pressure side (PS)	bar-r	42		
Dimensions (base x depth x height)	mm	850 x 1452 x 1320		
Weight	Kg	200	210	220

The dehumidifying capacity is declared at the following conditions: 30°C 80% R.H. (the fresh air is not considered).
The power supply and the absorbed current are declared at the following conditions: 30°C 80% R.H., fresh air 30%.
The efficiency of the heat recovery is declared at the following winter external air conditions: -5°C / 80% R.H.; internal air 26°C / 60%R.H.; max fresh air. With lower fresh air. The efficiency of the heat recovery increases.
The thermal power recovered is declared with the max fresh air.
The absorbed power from the recirculation fan is declared at nominal air flow and 50 Pa pressure.
The absorbed power from the extraction fan is declared with fresh air set at 30% and 50 Pa pressure.
The power of the hot water coil is declared with ambient at 30°C and water 80/70°C
The fresh air flow is set in HiDew, and defined at the moment of the order.
The static available pressure of the recirculation fan is declared at nominal air flow.
The static available pressure of the extraction fan is declared with a fresh air of 30%.

4.1.3 FRAME 4

MODEL		350	450	580
Compressor	Type	scroll		
Refrigerant circuits	nr	1		
Refrigerant	Type	R410A		
Dehumidifying capacity	L/24h	358	452	581
Heat recovery efficiency in winter	%	70		
Thermal power recovered in winter	W	27500	29000	35000
Nominal power consumption	kW	4,8	5,7	8,7
Nominal absorbed current	A	8	10	15
Max power consumption	kW	9,6	11,2	14,4
Max absorbed current	A	15	17	23
Inrush current	A	68	71	101
Power supply	V / Ph / Hz	400 / 3~+N / 50		
Thermal power hot water coil	kW	26,5		27
Nominal flow water coil	m³/h	2,28		2,32
Water load losses	kPa	40		
Supply fan	nr	1		
Expulsion fan	nr	1		
Recirculation air flow	m³/h	3800	4000	4800
Suction air flow	m³/h	0 - 2000		
Recirculation static pressure	Pa	460	440	400
Suction static pressure	Pa	500	480	420
Max available pressure High pressure side (PS)	bar-r	42		
Dimensions (base x depth x height)	mm	850 x 1682 x 1769		
Weight	Kg	250	270	300

The dehumidifying capacity is declared at the following conditions: 30°C 80% R.H. (the fresh air is not considered).
 The power supply and the absorbed current are declared at the following conditions: 30°C 80% R.H., fresh air 30%.
 The efficiency of the heat recovery is declared at the following winter external air conditions: -5°C / 80% R.H.; internal air 26°C / 60%R.H.; max fresh air. With lower fresh air. The efficiency of the heat recovery increases.
 The thermal power recovered is declared with the max fresh air.
 The absorbed power from the recirculation fan is declared at nominal air flow and 50 Pa pressure.
 The absorbed power from the extraction fan is declared with fresh air set at 30% and 50 Pa pressure.
 The power of the hot water coil is declared with ambient at 30°C and water 80/70°C
 The fresh air flow is set in HiDew, and defined at the moment of the order.
 The static available pressure of the recirculation fan is declared at nominal air flow.
 The static available pressure of the extraction fan is declared with a fresh air of 30%.

4.1.4 FRAME 5

MODEL		750	950
Compressor	Type	scroll	
Refrigerant circuits	nr	1	
Refrigerant	tipo	R410A	
Dehumidifying capacity	L/24h	760	955
Heat recovery efficiency in winter	%	70	
Thermal power recovered in winter	W	51000	60000
Nominal power consumption	kW	9,9	13,2
Nominal absorbed current	A	18	24
Max power consumption	kW	19	22,7
Max absorbed current	A	31	37
Inrush current	A	155	205
Power supply	V / Ph / Hz	400 / 3~+N / 50	
Thermal power hot water coil	kW	48	55
Nominal flow water coil	m³/h	4,13	4,73
Water load losses	kPa	36	38
Supply fans	nr	2	
Expulsion fans	nr	1	
Recirculation air flow rate	m³/h	7000	8200
Suction air flow	m³/h	0 - 6000	
Recirculation static pressure	Pa	650	600
Suction static pressure	Pa	480	450
Max available pressure High pressure side (PS)	bar-r	42	
Dimensions (base x depth x height)	mm	1400 x 2331 x 1950	
Weight	Kg	350	400

The dehumidifying capacity is declared at the following conditions: 30°C 80% R.H. (the fresh air is not considered).
The power supply and the absorbed current are declared at the following conditions: 30°C 80% R.H., fresh air 30%.
The efficiency of the heat recovery is declared at the following winter external air conditions: -5°C / 80% R.H.; internal air 26°C / 60%R.H.; max fresh air. With lower fresh air. The efficiency of the heat recovery increases.
The thermal power recovered is declared with the max fresh air.
The absorbed power from the recirculation fan is declared at nominal air flow and 50 Pa pressure.
The absorbed power from the extraction fan is declared with fresh air set at 30% and 50 Pa pressure.
The power of the hot water coil is declared with ambient at 30°C and water 80/70°C
The fresh air flow is set in HiDew, and defined at the moment of the order.
The static available pressure of the recirculation fan is declared at nominal air flow.
The static available pressure of the extraction fan is declared with a fresh air of 30%.

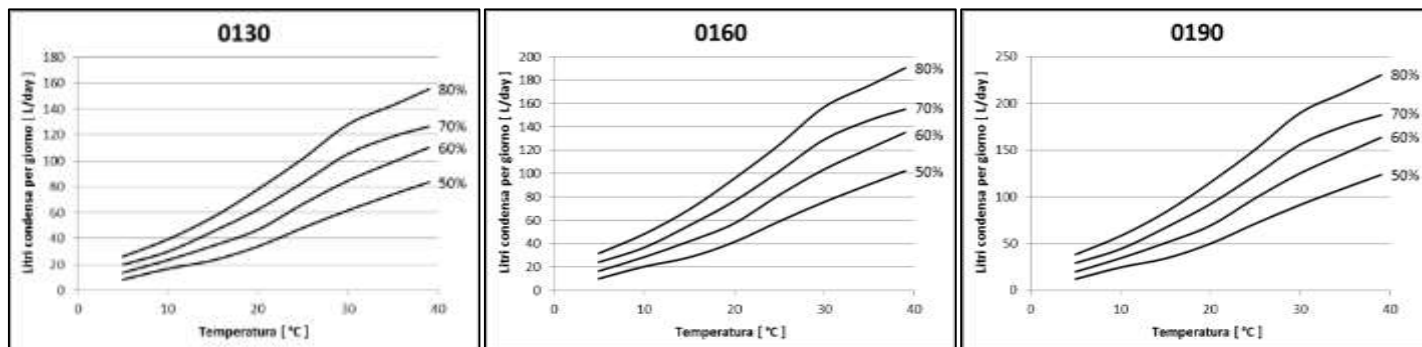
4.1.1 FRAME 6

MODEL		1100	1400
Compressor	Type	scroll	
Refrigerant circuits	nr	2	
Refrigerant	Type	R410A	
Dehumidifying capacity	L/24h	1.120	1.380
Heat recovery efficiency in winter	%	70	
Thermal power recovered in winter	W	80.000	90.800
Nominal power consumption	kW	15	18,1
Nominal absorbed current	A	25,5	32
Max power consumption	kW	31	33,4
Max absorbed current	A	49	56
Inrush current	A	132	197
Power supply	V / Ph / Hz	400 / 3~+N / 50	
Thermalpower hot water coil	kW	76	83
Nominal flow water coil	m³/h	6,53	7,13
Water load losses	kPa	47	55
Supply fans	nr	2	
Expulsion fans	nr	2	
Recirculation air flow rate	m³/h	11.000	12.500
Suction air flow	m³/h	0 / 11.000	0 / 12.500
Recirculation static pressure	Pa	750	600
Suction static pressure	Pa	1050	950
Max available pressure High pressure side (PS)	bar-r	42	
Dimensions (base x depth x height)	mm	2700 x 1950 x 2340	
Weight	Kg	870	1060

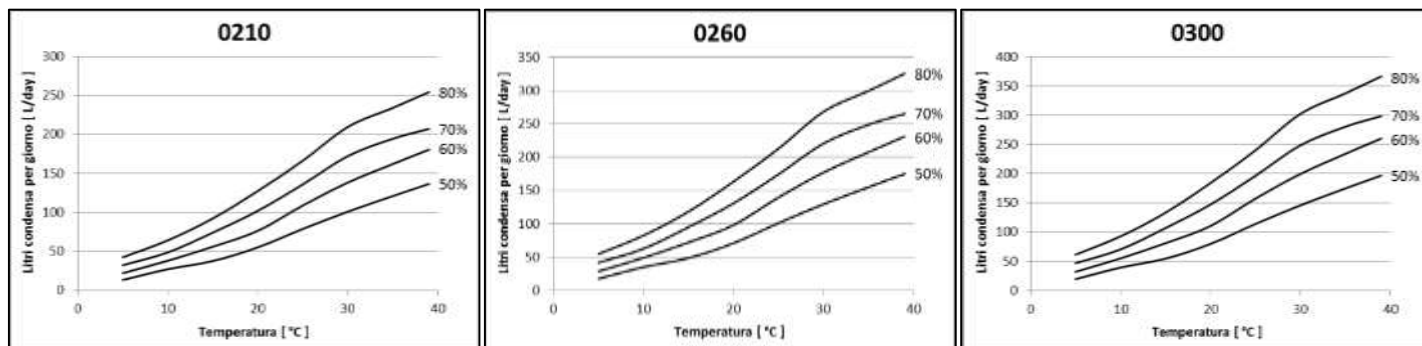
The dehumidifying capacity is declared at the following conditions: 30°C 80% R.H. (the fresh air is not considered). The power supply and the absorbed current are declared at the following conditions: 30°C 80% R.H., fresh air 30%. The efficiency of the heat recovery is declared at the following winter external air conditions: -5°C / 80% R.H.; internal air 26°C / 60%R.H.; max fresh air. With lower fresh air. The efficiency of the heat recovery increases. The thermal power recovered is declared with the max fresh air. The absorbed power from the recirculation fan is declared at nominal air flow and 50 Pa pressure. The absorbed power from the extraction fan is declared with fresh air set at 30% and 50 Pa pressure. The power of the hot water coil is declared with ambient at 30°C and water 80/70°C. The fresh air flow is set in HiDew, and defined at the moment of the order. The static available pressure of the recirculation fan is declared at nominal air flow. The static available pressure of the extraction fan is declared with a fresh air of 30%.

4.2 YIELD CURVES

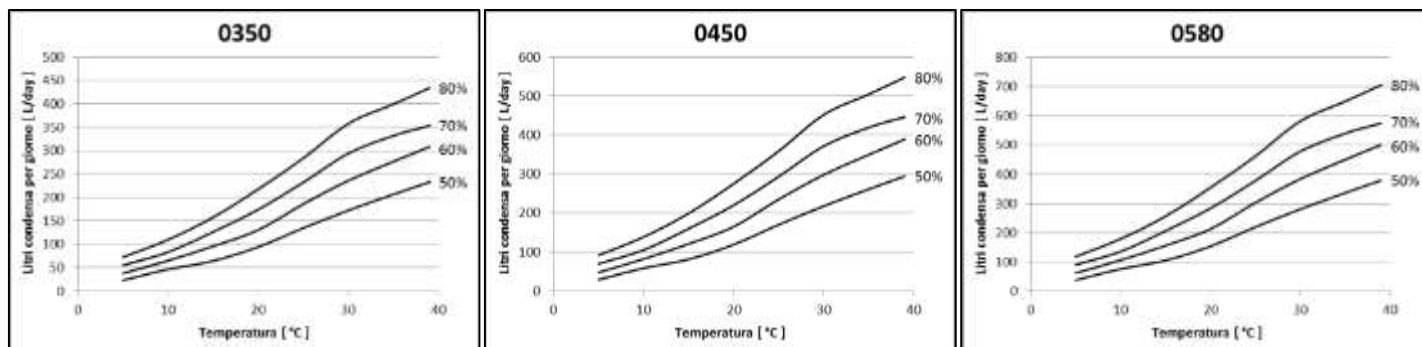
4.2.1 FRAME 2



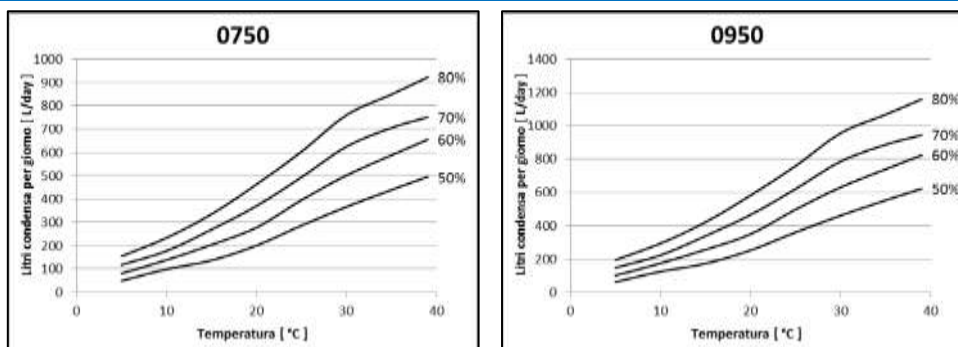
4.2.2 FRAME 3



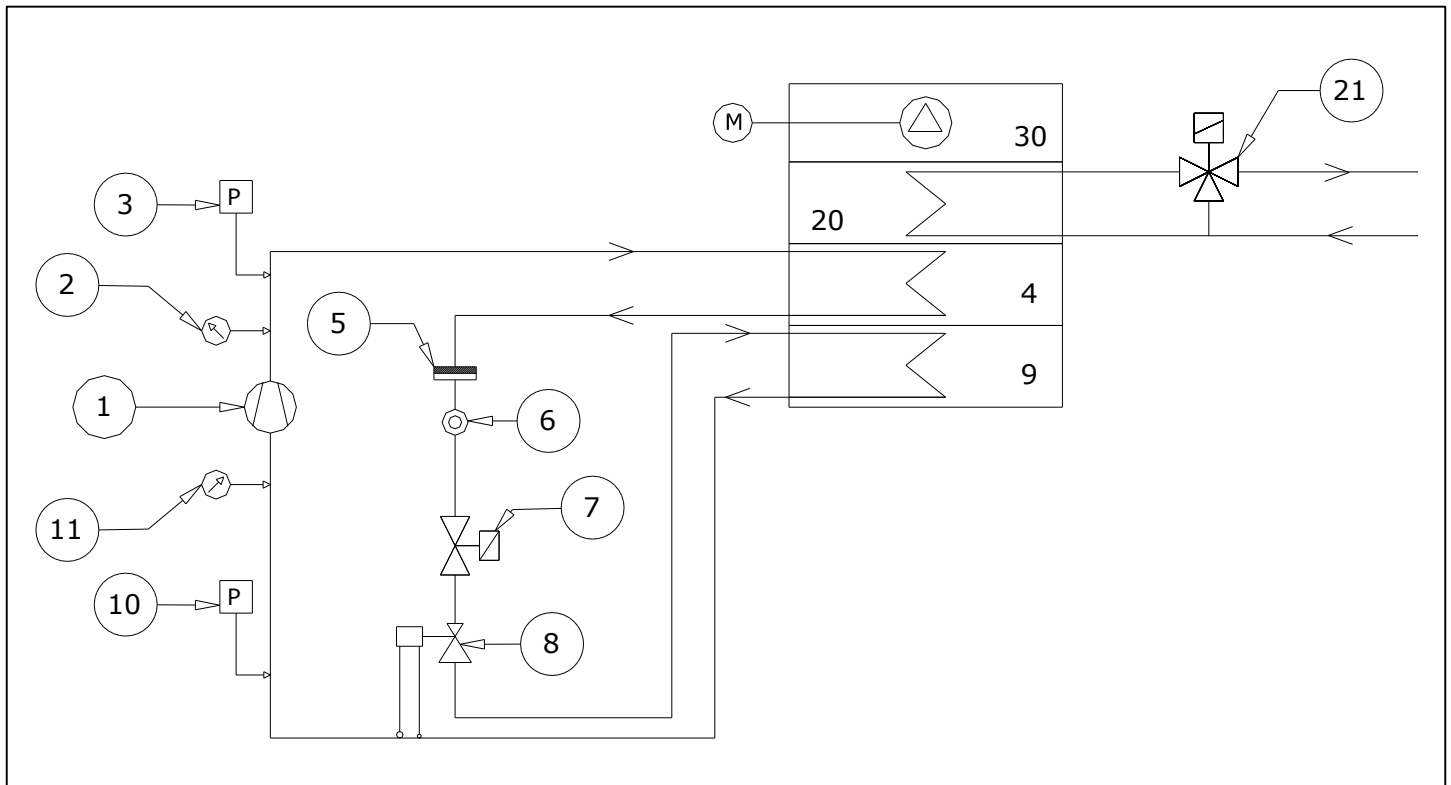
4.2.3 FRAME 4



4.2.4 FRAME 5



4.3 FUNCTIONAL DIAGRAM

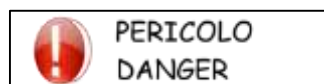


- 1 compressor
- 2 high pressure manometer
- 3 high pressure manostat
- 4 condensing coil
- 5 dehydrator filter
- 6 flux light
- 7 electro-valve
- 8 thermostatic valve
- 9 evaporating coil
- 10 low pressure manostat
- 11 low pressure manometer
- 20 hot water post-heating coil [optional]
- 21 3-ways water valve [optional]
- 30 fan/fans

5 AFTER-SALES

5.1 FAULTS RESEARCH

In the following pages there is a list of the most common causes which could lead to the block of the unit, or to an anomalous functioning. The subdivision is made according to easy-to-identify symptoms.



When executing the operations suggested to solve the problem, be careful: an excessive self-confidence can be dangerous. It is recommended to contact the manufacturer or a qualified technician, after having identified the failure.

NR	ANOMALY	POSSIBLE CAUSES ANALYSIS	WHAT TO DO
1	The unit can not start	There is no power supply to the unit	See if there is power supply on the feeding clamps
		There is no power supply to the electrical card	See if there is power supply on the card clamps
		There are some alarms on	See on the terminal the presence of alarms, remove the cause and make it start again
2	The compressor can not start	Intervention on the internal thermal protector	Turn the unit supplying off, wait for the compressor to be cooled, turn the supplying on again and see if the unit starts. Identify the cause of the intervention and remove it
		High pressure protection intervention on the refrigerant circuit	Make reference to the failure 4
		The values of temperature set and humidity set do not allow the turning on	Set different values
3	The fan is too noisy	You have set a too high air flow	Check the air flow set and, if necessary, reduce it
		Ducts are too short or tortuous	Check the ducts and, if necessary, execute them correctly
4	High pressure anomaly	The air flow is not sufficient	Check that all the fans are turning correctly
			Check the cleaning status of thermal exchange coils, heat recovery and filters

5.2 PERIODICAL MAINTENANCE

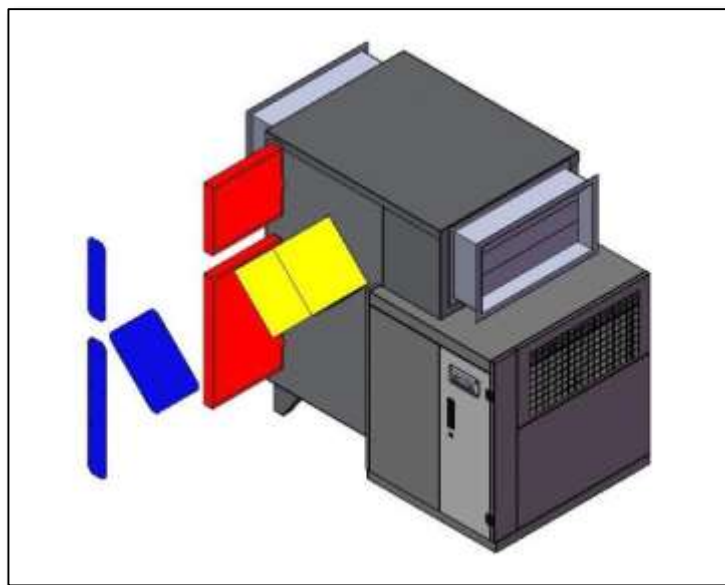
5.2.1 EXPLODED VIEW OF THE UNIT

For the ordinary periodical maintenance, it is sufficient to open the panels as shown in the picture, by unscrewing the screws.

From the left, you find the following devices: ambient air filter, external air filter, heat recovery.

5.2.2 HEAT RECOVERY CLEANING

Open the dedicated panel and remove the heat recoveries. Clean them with water or compressed air, trying not to damage them. Mount them again on the unit.



5.2.3 AIR FILTERS CLEANING / REPLACEMENT

Open the panel containing the filters, remove them and wash in running water, trying not to damage them. A ruined or damaged filter must be replaced.



It is top important always to insert the suction filters on the unit. Their lack compromises the correct functionin of the unit.

5.2.4 MAINTENANCE TABLE

To grant the performance of the unit, it is strongly suggested to make reference to the following table for maintenance done and to be done.

YEAR	4° quarter															
	3° quarter															
	2° quarter															
	1° quarter															
YEAR	4° quarter															
	3° quarter															
	2° quarter															
	1° quarter															
YEAR	4° quarter															
	3° quarter															
	2° quarter															
	1° quarter															
YEAR	4° quarter															
	3° quarter															
	2° quarter															
	1° quarter															
YEAR	4° quarter															
	3° quarter															
	2° quarter															
	1° quarter															
MAINTENANCE		Control and safety equipment functioning	Fans status, fixing and balance	Compressor status and fixing	Sound level emitted	No oil losses from the compressor	No refrigerant gas losses from the refrigerant circuit	No water losses from the hydraulic circuit	Clamps control in the electrical panel	Heat recovery cleaning	Air filter cleaning / replacement	Condense collector cleaning	Thermal exchange coil cleaning			

6 DISMANTLING OF THE UNIT

When dismantling the unit, please take note of the following advices:

- the refrigerant gas should be recovered from qualified staff and sent to the proper collection centers
- the compressors lubricating oil should be recovered and sent to the proper collection centers;
- the structure and the components, if no more usable, should be demolished and divided according to their material: this is particularly true for copper and aluminium.



Please follow the mentioned dispositions, in order to facilitate the collection, dismantling and recycling centers, and to reduce as much as possible the environmental impact required by these operations.



- If the unit, or part of it, has been dismantled, its susceptible components should be made inoffensive, in order to avoid any danger.

When substituting components subjected to differentiate dismantling, it is necessary to make reference to the current dispositions.

Please remember that it is compulsory to register the charge and discharge of special wastes.

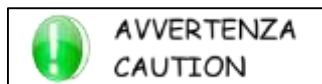
The collection of special / toxic wastes has to be led by dedicated staff.

The dismantling of special and toxic wastes should be led according to the law dispositions of the user Country.

For the dismantling of the unit, follow the regulations of the user Country.

Before proceeding with the demolition, ask for the inspection and the report of dedicated Entity.

Proceed with the scraping, following the law dispositions of the user Country.

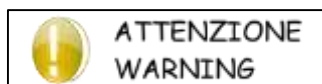


Dismantling operations should be led by qualified staff.

6.1 ENVIRONMENTAL PROTECTION

The law concerning the directions [reg. CE 2037/00] about the use of ozone damaging substances and gases responsible for the greenhouse effect, affirms the prohibition of refrigerant gases dispersion in the environment: owners are obliged to recover and deliver them to the reseller or to the dedicated collecting centers.

The R410A refrigerant gas, even if not damaging the ozone, is mentioned within the substances responsible for the greenhouse effect; so, it has to follow these directions.



Please be careful during maintenance operations, in order to reduce, as much as possible, the risk of refrigerant leaks.

7 INSTALLATION

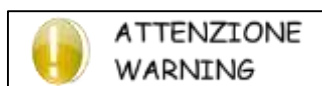
7.1 INTRODUCTION

7.1.1 INSPECTION

When receiving the unit, please check it: the unit has left our factory after having been controlled; damages should be immediately protested to the forwarder and noted on the Delivery Paper before signing it. The manufacturer or his agent should be informed as soon as possible about the entity of the damage. The Customer is supposed to fulfill a written report for every relevant damage.

7.1.2 LIFTING AND TRANSPORT

Please be careful when moving the unit and avoid sudden or harsh working during the unloading and placement of it. Indoor transports should be carefully conducted and the components of the unit should never be used as point of support.



**When lifting the unit, make sure you have well fixed it, in order to avoid overturning or accidents.
Do not use the removal panel as point of lift.**

7.1.3 DEPACKING

The package of the unit should be carefully removed, trying to avoid every possible damage to the machine; the package can be of wood, paper, nylon and other materials. It is a good habit to preserve the different packages and deliver them separately for both the draining or the recycling, in order to reduce the environmental impact.

7.1.4 UNIT IDENTIFICATION

Each unit is characterized by an identification label, placed on the internal side of the electrical panel space. Here you find all the necessary data for installation, maintenance and traceable of the unit.

Take note of the model, the matriculation number, the definitive refrigerant charge of the unit, as reported in the table.

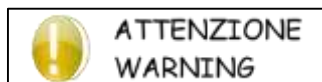
Modello - Model	
Matricola - Serial number	
Data di produzione - Date of production	
Categoria PED/ CE 97/23 Category	
Procedura di valutazione conformità - Conformity module	
Max temp. di stoccaggio - Max storage temperature [°C]	
Max temp. funzionamento - Max ambient working temperature [°C]	
Min. temp. ambiente di funzionamento - Min. ambient working temp. [°C]	
Potenza frigorifera nominale - Nominal Cooling Capacity [kW]	
Potenza nominale in riscaldamento - Nominal Heating Capacity [kW]	
Refrigerante - Refrigerant [ASHRAE 15/1992]	
Carica refrigerante - Refrigerant charge [kg]	
Peso a vuoto - Empty weight [kg]	
Alimentazione - Power supply	
Potenza assorbita Nominale - Nominal power input [kW]	
Corrente nominale - Nominal absorbed current [A]	
Corrente massima - Full load ampere FLA [A]	
Corrente di spunto - Starting Current LRA [A]	
Schema elettrico - Wiring diagram	
Schema frigorifero - Refrigeration diagram	

7.2 PLACEMENT

Please pay attention to the following advices when decidine the most suitable place for the installation of the unit and its connections:

- hydraulic pipes dimensions and origin;
- power supply placement;
- accessibility for maintenance or repair operations;
- point of support firmness.

All SPR models are thought for internal installation.



Do not install the unit externally and make sure it is not exposed to atmospheric agents such as rain, hail, humidity and frost.

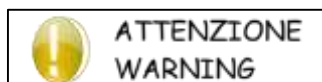
It is fundamental to grant the complete accessibility to the unit.

The installation of anti-vibration material for each point of support is strongly recommended in order to avoid the transmission of noise and vibrations.

7.3 HYDRAULIC AND ELECTRICAL CONNECTIONS

7.3.1 HYDRAULIC CONNECTIONS

When realizing a hydraulic circuit it is fundamental to observe both the national and the local regulations.



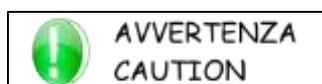
Do not make any torsion on the unit connections. With a key block the connection and with another one fix the junction.

Realize the connections without making any torsion directly on the hydraulic connections of the unit. Block the connections of the unit with a spanner, and with another one, rotate the connection pipe fitting.

Join the pipes through flexible couplings, in order to avoid the transmission of vibrations and compensate the thermic expansion.

It is recommended to install on the pipes, the following components:

- zone valve (only if it is not already included in the dehumidifier);
- temperature and pressure indicators for the standard maintenance and control. Pressure control allows an evaluation of the expansion tank correct functionality and also the anticipated signal in case of water loss from the plant;
- interception valves (dampers) to insulate the unit from the hydraulic circuit in case of maintenance interventions;
- net metallic filter (ingoing pipe) with mesh of less than 1 millimeter, to protect the exchanger from slag or impurities typical of pipes. This suggestion is very important for the first start;
- leaking valve, to be placed in the higher parts of the hydraulic circuit, in order to permit the air purging. On the internal pipes, there are leaking manual valves, to permit the air purging on board: this operation has to be done when the tension is off;
- drain tap and, if necessary, draining tank, to permit the emptying of the machine for the maintenance;
- in case of process applications, the installation of a de-coupling exchanger is recommended, in order to avoid the dirtying of the exchanger.



It is fundamental that the incoming of water is realized in the correct connections, according to the label "Water incoming". If not, the circulation is not respected and this leads to possible bad workings, blocks or breaks of the unit.

Dimensions and placements of the hydraulic connections are indicated in dimensional tables and general drawings.



The hydraulic circuit has to be realized in order to grant a constant nominal air flow rate (+/-15%) in the different functioning conditions.

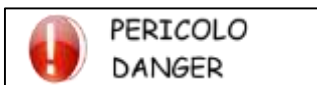
7.3.2 CONDENSE DRAINAGE CONNECTIONS

Use a flexible rubber with an internal diameter of 16 mm.
On the drain pump there is already a siphon, within the unit.



**The inclination of the drain pump should permit the water down flow outside.
If not, the bulb collection will fill up and there will be water loss.**

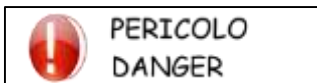
7.3.3 ELECTRICAL CONNECTIONS



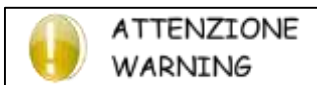
The wiring has to be realized when the current is off.

DEATH DANGER

Open the electrical panel, introduce the feed cable and other necessary cables in the dedicated holes; proceed with the connections on the clamps and on the disconnecting switch; then, close the panel.



The grounding connection is compulsory. The installer should connect the ground cable with the suitable clamp situated within the electrical panel, with a yellow-green indication.

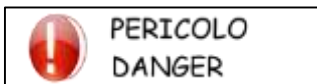


Electrical connection, feed cables and protections should be realized according to the attached wiring diagram and following local and international directions.

Make always reference to the wiring diagram.
These indications are general and non- sufficient to the electrical installation of the unit.

7.4 FIRST STARTING

Before proceeding with the start of the unit, check that all the closing panels are placed and closed properly.
For the first start follow carefully these directions:



Check that all the connections (hydraulic, electric and aeraulic) are properly installed and that all the directions indicated on labels, user manual and electric drawing are followed.

Check that the refrigerant circuit taps, if present, are open and that the hydraulic plant is cracked, by eliminating any residual air, charging it gradually and opening the cracking devices on the top side.
Check that there is any water loss.

All the units are provided with an user terminal which supervises to the general management of the unit.

7.5 AIR FLOW, PREVALENCE AND CANALIZATION

7.5.1 AIR FLOW CALIBRATION WITH OPTION ACF



**AVVERTENZA
CAUTION**

If the unit is equipped with the option ACF (Automatic air flow control), there is no need to calibrate the dehumidifier.

Thanks to the option which includes two transducers and their applicatory, the unit automatically sets the delivery and the eduction capacities on the bases of nominal values according to the technical data tables (see previous pages); anyway, it is possible to increase or decrease these values in order to set a different capacity.

7.5.2 AIR FLOW CALIBRATION WITHOUT OPTION ACF



**ATTENZIONE
WARNING**

If there is not the ACF option, it is suggested to measure both the ambience and the external air suction of the unit, in order to calibrate properly the ventilation.

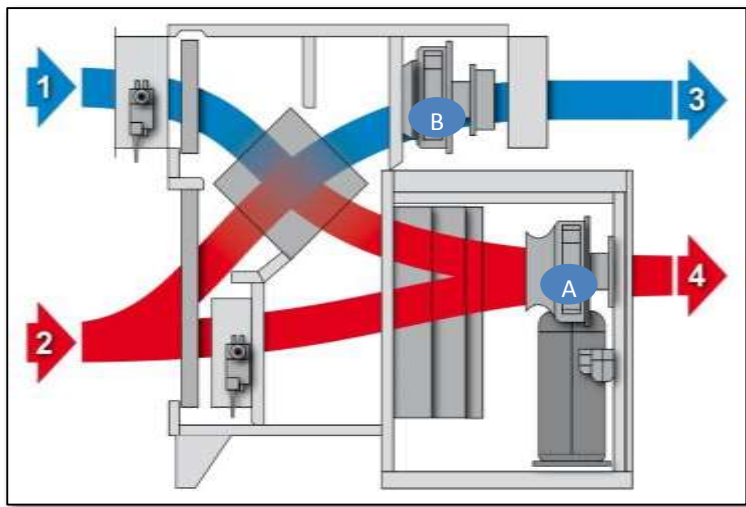
If the rates are more 10% higher or lower than those indicated on our technical data tables, it is compulsory to modify the speeds from the user terminal on board. This function is fundamental for the correct unit functioning.



**ATTENZIONE
WARNING**

It is strongly recommended to properly calibrate the unit: that is the reason why a qualified staff (with anemometer) is suggested for this operation.

- From the main screen, push the PRG key;
- You enter in the password's screen;
- Insert the password 005 and press ENTER;
- You enter in the installer screen;
- Pushing the DOWN key, you arrive on **CALIBRATION** and push the ENTER key;
- You enter the calibration screen;
- Push the ENTER key till you arrive on the value you want to modify;
- With the UP and DOWN keys it is possible to modify the air flow;
- Measure the air flow on the point 1 (external air suction) and modify the supply fan's speed (A), in order to reach, as much as possible, the value of nominal air flow indicated in technical data table;
- The supply air fan (A) is regulated;
- Measure the air flow on the point 2 (suction ambient air) and modify the extraction fan speed's (B), in order to reach, as much as possible, the value of fresh air required when the unit has been ordered;
- The extraction fan speed's (B) is regulated;
- Push the ENTER key till the flashing cursor comes back on the left top;
- Push the ESC key to come back to the installer screen;
- Push the ESC key to come back to the main screen.



7.5.3 UNIT CANALIZATION

The external air suction and the exhausted air expulsion are predisposed to be ducted.

To duct the ambient air suction and the supply air, use flanged junctions of the external holes dimensions.



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