Utek

indoor air quality and energy saving

GUIDE FOR INSTALLATION, USE AND MAINTENANCE

DEH

HEAT RECOVERY VENTILATION UNITS with INTEGRATED
AIR/AIR HEAT PUMP (CLIMATIZATION and DEHUMIDIFICATION

Dear Customer
Thanks for your attention to the product UTEK , designed and manufactured to ensure the real values to the User :
Quality, Safety and Savings on working.

INDEX

SAFETY STANDARDS AND "CE" MARKING

Our technicians are steadily engaged in research and development of more and more efficient products in compliance with the safety "standards" in force. The standards and suggestions contained herein reflect the safety standards in force and, therefore, are mainly based on the compliance of said general regulations. Consequently, we would suggest all people exposed to risks to comply the accident prevention regulations in force in their respective countries.UTEK s.r.l. are exempted from any responsibility attributable to damage caused to persons and things resulting from the non-compliance with the safety standards and any product modifications. The CE marking and the relevant declaration of conformity prove the conformity to the applicable community regulations. Products which are not provided with the CE marking must be certified by the purchaser who shall have to certify the conformity of the whole plant.

Units are as prescribed by:
- Machinery directive 2006/42/EC
- Low Voltage Directive EEC 2014/35/EU
- Electromagnetic compatibility directive 2014/30/EU

GENERAL

Safety protection devices may not be removed if this is not absolutely necessary. In this case, suitable measures to point out the possible danger shall be immediately taken. The restoration of said protection devices on the product shall take place as soon as the reasons for the temporary removal cease. All (ordinary and extraordinary) maintenance interventions shall be carried out with disconnected machine and electrical and pneumatic supply. In order to avoid the risk of possible accidental starts, provide the electric panels, the central units and the switchboards with warning signals with the following reading "caution: control disconnected for maintenance works". Before connecting the electrical supply cable to the terminal board make sure that the line voltage is in compliance with the voltage stated on the machine plate. Replace the product labels if, with the passing of time, they should become illegible.

MAINTENANCE REGULATIONS

The personnel maintenance is subject to the prevention devices must keep to the accident prevention regulations in force and to the following instructions:
- wear suitable accident prevention clothes
- when the noise exceeds the admissible levels, use protection headsets
- machine must be provided with an interlock which prevents of the machine by non-authorized persons

INSTALLATION CONDITIONS

Installation allowed inside the buildings or outdoor, with temperature between 0° to +45° C
To avoid:
- areas near sources of heat source, steam, flammable and/or explosives gases, dusty areas
To consider:
- consider an area where the air flow and noise of the unit don't disturb the neighbors;
- minimum space required for the maintenance (as defined below);
- the floor or wall must be suitable to the weight of the unit and don't cause vibrations;
- a position that does not block passageways or entrances;
- the unit must be canalized
- measures to protect the fan vents with special protection to prevent contact with moving mechanical parts; The protection degree is IP20. In case of outdoor installation, place the unit in a place sheltered from the weather.

REMAINING RISKS

The risks of the products have been analyzed according to the Machine Directive. (all. I of Directive 2006/42/CE) The present handbook contains information for all persons in charge and has the purpose to avoid possible damages to persons and/or things attributable to remaining risks.

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MACHINE SIGNALS

The machine can be provided with several signalling pictograms which may not be removed. Said signals can be subdivided into:

- PROHIBITION SIGNALS
Do not repair or adjust during motion 

- DANGER AND INFORMATION SIGNALS
. Attention to the presence of electric current 

. Automatic start Danger 

. Attention to the instruction manual 

. Grounding the machine 

- IDENTIFICATION SIGNALS
Serial number plate: it states the product data and the manufacturer address.

REMARK: other signals can be added to the product according to the analysis carried out on the remaining risk.

GOODS RECEPTION

Each product is carefully checked before shipping. On goods reception, it is necessary to make sure that products have not suffered any damages during transport. If goods have been delivered da maged, send a complaint to the forward. The forwarder agent is responsible for any transport damages.Products are wrapped and tied or packed in self-supporting cardboard boxes which are fastened to pallets.

HANDLING

Goods must be displaced by the correct means of transport witha suitable carrying capacity. For pallet lifting use forklifts. According to the standard 89/391/CEE and following standards, manual lifting is admissible up to a max. weight of 20 kg under shoulders level, but over floor level.

STORAGE

Store the unit in a sheltered spot, without excessive moisture and not subject to sudden changes of temperature in order to avoid the formation of condensation inside the unit.

EXTENDED DOWNTIME

In case of extended downtime with the unit connected to the ventilation system, close the suction/ injection and periodically check the absence of humidity inside the machine. In case of condensation, dry it immediately.

STARTING

Before starting it is opportune to carry out some checks: (follow the safety instructions
in section DISASSEMBLY AND ASSEMBLY):
- Make sure there is no condensation inside the unit, and if necessary,wiipe
it dry before attempting to operate the unit;
- Check the filters status;
- Make sure the product does not contain any foreign matters and that all components are fastened in their seats;

DISASSEMBLY AND ASSEMBLY

Before starting any operation, make sure the product is excluded from any electrical connection and the impeller is switched off. Disassembly and assembly are extraordinary maintenance operations and must be carried out by qualified personnel.

DISPOSAL

Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE).

The WEEE symbol on the product or on its packaging indicates that the product must not be disposed of with normal household waste. Instead, such marked waste equipment must be disposed of by arranging to return to a designated collection point for the recycling of waste electrical and electronic equipment. By separating and recycling this waste equipment at the time of disposal will help to conserve natural resources and ensure that the equipment is recycled in a manner that protects human health and the environment. The final user will provide to deliver the product no longer in use in municipal electrical and electronic waste collection, or return it to the retailed as ollows:

- distributors provide for the collection, at retail shops with sales areas relating to EEE of at least 400 m2, or in their immediate proximity of very small

WEEE (no external dimension more than 25 cm) free of charge to end-users

and with no obligation to buy EEE of an equivalent type;

- for products with external dimension more than 25 cm, distributors are responsible for ensuring that such waste can be returned to the distributor at least free of charge on a one-to-one basis as long as the equipment is of equivalent type and has fulfilled the same functions as the supplied equipment. The Member States shall lay down the rules on penalties applicable to infringements of the national provisions adopted pursuant to

this Directive and shall take all measures necessary to ensure that they are implemented. The penalties provided for must be effective, proportionate and dissuasive.

ENVIRONMENTAL PROTECTION - Troubleshooting

The law on the regulation of the use of substances that damage the ozone in the atmosphere state that it is forbidden to release coolant gases into the atmosphere, obliging the users to recover these gases and return them at the end of their useful life to dealers or special collection centers. The coolant used by this unit is listed among the substances that require special handling as foreseen by current laws and that must therefore comply with the above-mentioned provisions. It is therefore highly recommendable to perform all maintenance operations with maximum care in order to minimize coolant leaks.

ENSURING PROPER INSTALLATION, MAINTENANCE OR SERVICING OF THE EQUIPMENT

Installation and maintenance or servicing of equipment should be carried out by personnel and companies holding an appropriate certificate.

PREVENTING AND REPAIRING LEAKAGES

All operators of stationary refrigeration, air conditioning and heat pump applications, regardless of the amount of the quantity of refrigerant contained, must:

- prevent leakage
- repair leakages as soon as possible once they have been detected, through all measures technically feasible and not entailing disproportionate costs.

CHECKING FOR LEAKAGE

Working and temporarily out of operation applications containing 3kg or more (6kg or more in case of hermetically sealed systems labeled as such) of F-Gas refrigerant, have to be checked for leakage at regular intervals. The operator of the application is responsible for ensuring that this check is carried out by certified personnel.

RECOVERING THE REFRIGERANT

Operators must make arrangements for the proper recovery, i.e. the collection and storage, by certified personnel of F-Gas refrigerants from the cooling circuits of stationary refrigeration, air conditioning and heat pump equipment to ensure their recycling, reclamation or destruction. This activity must take place before the final disposal of the equipment and when appropriate during maintenance or servicing work.

NOTE

· This product is classified as a non-hermetically sealed unit containing fluorinated greenhouse gases governed by the Kyoto protocol, on which its operation depends.

· For the type of refrigerant contained and the relative quantity, refer to the product label.

· The maintenance, assistance and repair of the product can only be carried out by qualified personnel according to the laws in force.

· The disposal and demolition of the product can only be carried out by qualified personnel in accordance with the laws in force.

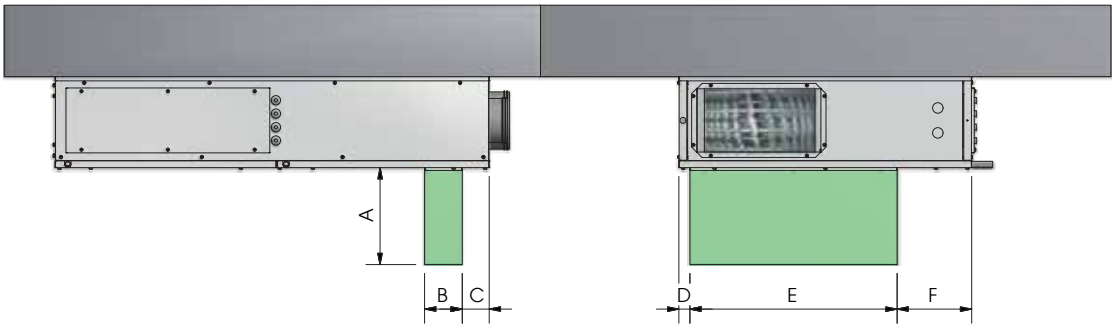
· In no case should the user try to intervene on the cooling circuit or to disassemble the product.

· In relation to the quantity of refrigerant present in the product, an annual verification of the system may be necessary, aimed at ascertaining the absence of leaks and filling in a special register where the checks and activities carried out are noted.

INSTALLATION DEH

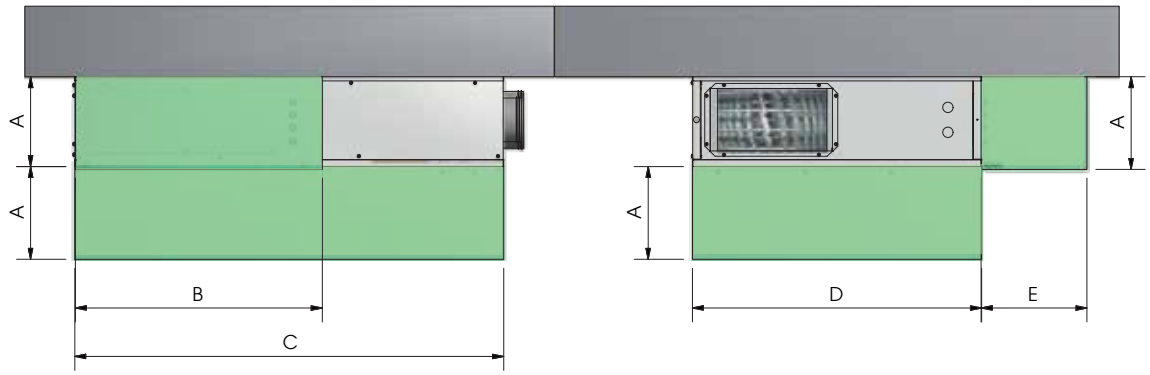
CEILING INSTALLATION

Minimum space required for the maintenance (mm)



MODEL	A	B	C	D	E	F
DEH 1	270	110	76	30	580	210
DEH 2	330	110	73	30	650	275

Minimum space required for the maintenance (mm)



MODEL	A	B	C	D	E
DEH 1	260	700	1220	820	300
DEH 2	330	700	1220	960	300

N.B .: DEH and DEH-HYDRONIC: provide 2 siphons, the 2 condensate drains must each have their own siphon; DEH-ENTALPICO and DEH-ENTALPICO-HYDRONIC provide 1 siphon

*This operation must be performed **ONLY BY QUALIFIED STAFF***

Install the unit through appropriate means (weight from 85 kg to 103 kg) in order to avoid risks during the load handling procedures. Do not stand under the unit until it is completely attached to the ceiling. During installation you may need to work at height (over 2m H). Therefore evaluate the risks of falling, inert suspension or generic injury and take the necessary precautions

PPE: Personal Protective Equipment

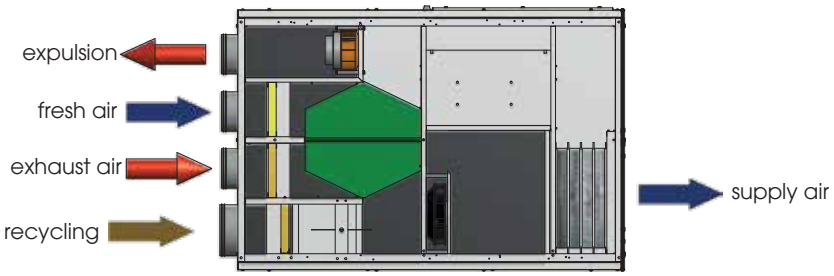
BRACKETS POSITIONING

Fix the fixing brackets on the most suitable profile for the installation of the unit. Use screws or rivets to fix the brackets supplied. Then use a suitable dowel or a threaded bar for anchoring the unit to the wall.

AREAULIC CONNECTIONS

The unit has circular attacks for the connection of the air ducts except the air introduced into the environment which provides a rectangular connections. We recommend the installation of at least 500mm of flexible pipe to avoid vibrations ,annoying noises due to installation

DEHUMIDIFICATION CONFIGURATION



VMC CONFIGURATION

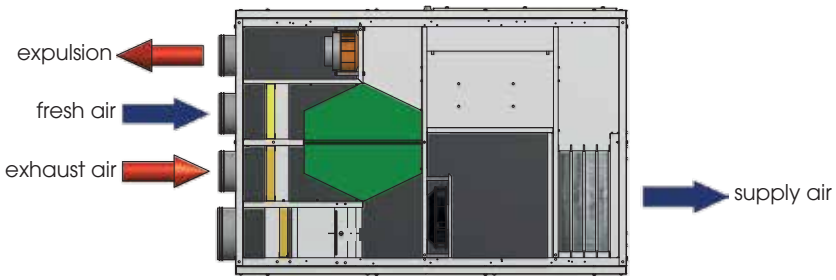


Table Diameter area connections to units

SIZE	30/15	50/20
expulsion/fresh air/exhaust air Ø (mm)	125	160
recycling Ø (mm)	160	200
fresh air (mm)	300X200	500X250

This operation must be performed ONLY BY QUALIFIED STAFF

CAUTION: Before performing any procedure on the unit make sure that there is no voltage

PPE: *Personal Protective Equipment*

HYDRAULIC CONNECTIONS

The units are equipped with hydraulic circuits that can vary depending on the different versions and applications. The connections on the unit, even in different applications and versions, are always common to all units.
- Before that the water enters in to the unit (both user side, both dissipation side), install always a thick mesh filter (max. 1 mm)
- Be sure to observe the flows shown on the plates: IN (incoming water to the unit), OUT (outgoing water from the unit)
- Make sure that the weight of the pipes doesn't go to damage the predisposed attacks
- Provide shutoff valves in the pipes flow and return pipes to the system
- All chilled water piping shall be insulated to minimize the undesirable interchange of heat and condensation.
- Before performing the filling of pipes, make sure the same does not contain extraneous materials: such as sand, stones, rust, weld spatter, slag, etc. Otherwise make a washing of the hydraulic circuit by-passing the unit.
- Absolutely avoid cavitation of the pump and the consequent presence of air in the hydraulic circuit.

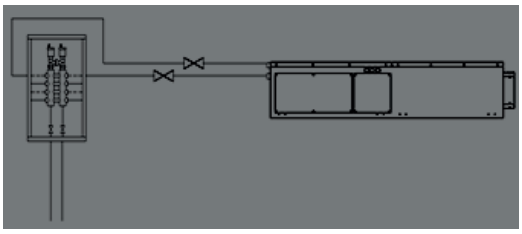
Chemical and physical properties of water
chemical and physical properties are not compatible could prejudice the integrity 'of the hydraulic parts of' Geosin units. Check the water characteristics, especially in the case of direct application W with ground water on the heat exchanger.

DESCRIPTION	LIMIT VALUE	POSSIBLE CONSEQUENCES WITH VALUE OUT OF LIMIT
HARDNESS	< 10°F	Possible corrosion of stainless steel and rupture exchanger dissipation
PH VALUE	7,5/9	
OXYGEN	< 2 mg/l	
CONDUCTIVITY	< 500 uS/cm	
IRON	< 2 mg/l	
MANGANESE	< 1 mg/l	
NITRATE	< 70 mg/l	
SULPHATE	< 70 mg/l	
COMPOUNDS OF CHLORINE	<300 mg/l	
CARBON DIOXIDE RADICAL FREE	<10 mg/l	
AMMONIUM	< 20 mg/l	

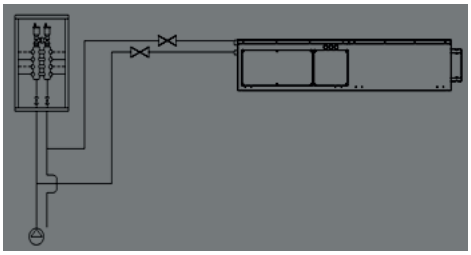
ATTENTION: The water entering the coil must NOT exceed 45 ° C

WIRING

COLLECTOR CONNECTION
RADIANT SYSTEM
The unit is powered by a radiant system collector circuit. Ensure that there is the required flow on the circuit.



COLLECTOR CONNECTION
RADIANT SYSTEM - RECOMMENDED -
The unit is supplied in parallel to the radiant system collector, having so 'guaranteed the necessary water flow for the correct operation.
N.B.The miss to flow nominal water in to the unit, blocks the unit



POSITIONING AND PROCEDURES OF CONNECTIONS

The hydraulic connections are positioned in the front of the unit on side of the entrances of the air inlet ducts.

Connections are a diameter 1/2 "for Let compressor version, while 3/4" for the hydronic version.
Observe the IN as the unit water inlet and OUT as the water exits the unit.

This operation must be performed ONLY BY QUALIFIED STAFF

CAUTION: Before performing any procedure on the unit make sure that there is no voltage

PPE: *Personal Protective Equipment*

ELECTRICAL CONNECTIONS

The unit is equipped with a series of auxiliary commands for various functions, which can be enabled or disabled depending on the needs. The functions are located in the terminal strip of x2 'units. Below are listed the individual functions in detail.

Temperature required

The temperature required contact, enable the unit in summer or winter integration operation. it is possibile to connect a room thermostat that enables the function at the time of request. If you use the remote control panel to set the set of comfort, leave the jumper in the terminal strip X2.

Humidity request

The request Humidity contact, will enable the unit in the operation of summer or winter dehumidify. it is possible connect an ambient humidistat that will enable the function at the time of request.

On-Off Remote

The on-off remote, allows you to turn on or turn off the unit with a clean electrical contact. It can 'be useful to turn off the entire unit in moments of inactivity avoiding energy consumption.

Change Summer-Winter remote

The summer - winter remotely, allows you to change the season and the work logic of the unity through a dry contact.

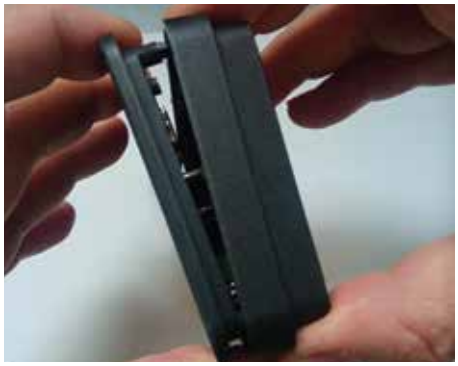
Operation Only Ventilation

Through the only opening of the contact of the fan, the unit will exclude out any type of adjustment on dehumidification and integration.

REMOTE PANEL CONNECTION

The installation must be done by trained personnel. For optimum operation, the remote panel must be fixed to a Internal wall, about 1.5 m above the floor, away from heat sources (radiators, stoves etc.) and should not be exposed to direct sunlight. Not should be installed near doors slamming may destroy the electronics.

The connection of the remote control panel is through the connection with 3-wire cable and Belden 8772 cable (3xawg20) The maximum distance between the controller and interface is mt.150. The 31-32-33 terminals are for the terminal connection (see wiring diagram).



MAINTENANCE AND CLEANING OF FILTERS

1

2

3

View the video about maintenance in our website *www.utek-air.it*

This operation must be performed ONLY BY QUALIFIED STAFF

CAUTION: Before performing any procedure on the unit make sure that there is no voltage

PPE: *Personal Protective Equipment*

MAINTENANCE AND CLEANING OF HEAT EXCHANGER

ATTENTION! Handle the heat exchanger carefully to avoid accidents. It is strongly recommended the use of gloves and glasses

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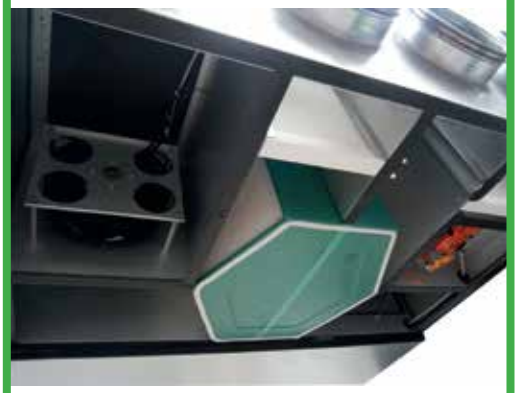

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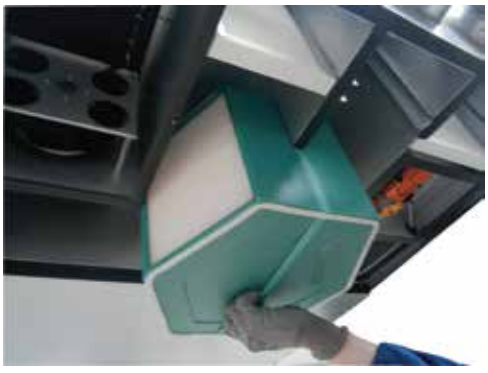


This operation must be performed **ONLY BY QUALIFIED STAFF**

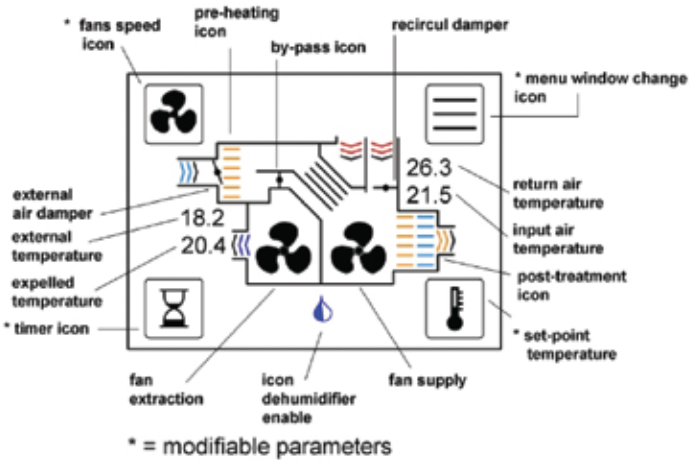
CAUTION: Before performing any procedure on the unit make sure that there is no voltage

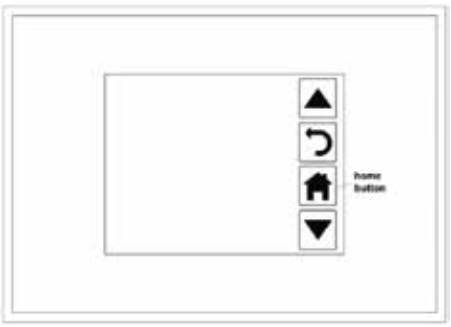
PPE: Personal Protective Equipment

REMOTE PANEL

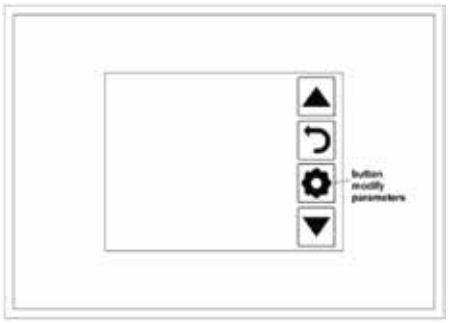
MAIN WINDOW

The touch-screen control panel has been designed to control Controlled Mechanical Ventilation units with Heat Return (VMC-RC) and Dehumidifier in a simple and intuitive way. The user controls the unit by slightly pressing the graphic display icons; the arrow keys that appear after pressing a changeable parameter enable the user to interact with the unit by scrolling menu items and changing values. All changes or selections must be confirmed by pressing save button. When an icon is pressed, its color turns green and the relevant parameter can be changed. When an item in a submenu is highlighted, it looks white on a black background: if modify parameters is pressed, the writing turns green and changes can be made using the arrow keys. By the return icon it is possible to come back to the previous screen, by the home icon to the main screen.

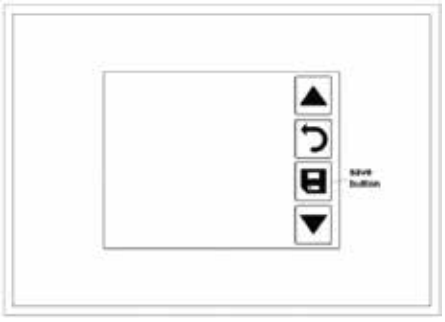




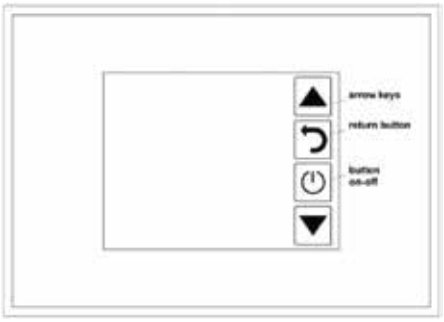
Home button



Button modify parameters

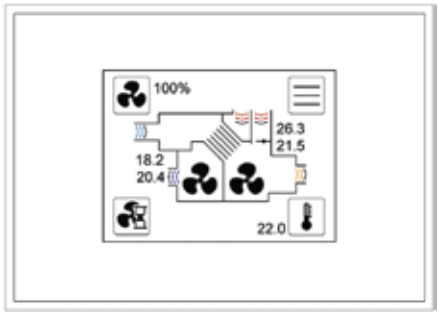


Save button

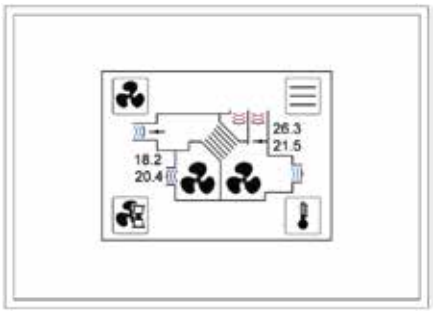


Various button

The main window is a detailed graphic representation of the machine status, from which all available functions can be activated. Press the menu window change icon to change window and access the other menus. The control enters a stand-by mode (the screen goes off) after one minute of inactivity. When any point of the screen is touched, the display restarts automatically. In case of alarms, instead, the display lights up for about half a second every ten seconds.

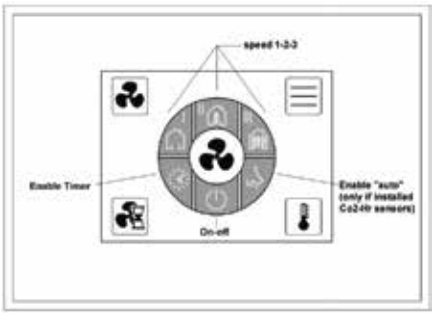


Main screen : Unit without by-pass



Main screen : Unit with by-pass

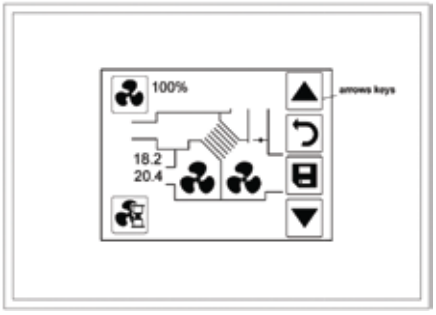
If desired, it is possible to enable a simplified display of the main screen (see par. Air unit) :



In the simplified, the synoptic is replaced by a series of more commonly used icons: speed change (1-2-3), on-off, enabling of operation via Timer, enabling of operation via external sensors (air quality, humidity). This last function is only available if the foreseen devices are installed. When pressed, the relative icon changes color indicating the choice made, the color assumed depends on the status of the machine: green if it is working in VMC, red in heating, blue in cooling.

Fan Speed Control

Through this parameter is possible to manage fans settings. In order to change it, press the top left icon in the synoptic display to select it (it will turn green and the arrow keys will appear). Then, press the up arrow key icon to increase or the down arrow key to reduce the value on its side; once the desired value is found, press save to confirm your selection. At first is possible turn off the unit directly by pressing the center button, it automatically disappears by pressing the arrow keys.



Changing fan speed as a percentage

In detail, the possible options are as follows:

- **off**: fans are motionless with this option, but watch out that the unit is live anyway; this value is achieved by going below the minimum speed value that can be set;

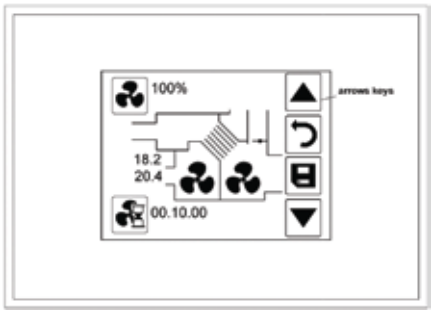
- **xxx%**: if the unit is equipped with continuously variable speed fans, a fan speed percentage, value can be set starting from the minimum value (factory setting) up to 100% of the available speed with 5% steps (1% on request);

- **timer**: with this option, the fan speed is controlled according to the weekly schedule (see Program menu). This value is achieved by selecting a greater value than the maximum speed (100% or 3);

- **auto**: this option is only available when a sensor (CO2, CO2-VOC or RH relative humidity) is available on whose measure depends the fan speed. If an external signal (0-10V) is used to control the fan speed, this value is obtained by selecting a greater value than clock.

Booster Function

The booster function is accessed when the bottom left icon is selected; a time period (from minimum 1 minute to maximum 4 hours) can be selected, in which the unit can run at the maximum power. The booster function has the priority over any other fan speed control method.

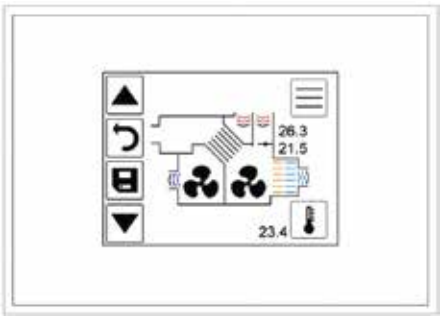


Booster

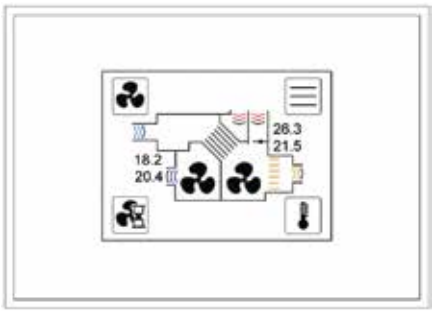
After you select the function, a digital chronometer is displayed (hours.minutes.seconds), which is preset on a 10 minute value. This value can be changed by means of the arrow keys on the right side of the screen: up to increase the booster time and down to reduce that time. After selecting the desired time, press save to start the functionality: the display shows the remaining time to the end of the procedure. When the 00.00.00 value is reached, fans return to be controlled in the previously selected way. When you want to stop the procedure, just repeat the booster setting operations and select a 0-minute time and press save.

Integration-Set point temperature

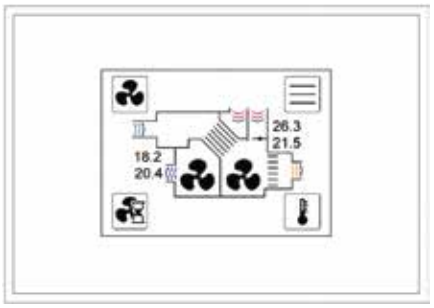
The control can run an air post-treatment system with a water coil . The temperature set-point is given by the thermometer icon (located at the bottom right of the screen like images next paragraph). When the bottom icon is selected, the desired interior temperature set-point (Ts) function is accessed: the user can increase the Ts value by the up arrow key or, vice versa, reduce it by the down arrow key. With the central button, which appears at first, is possible to deactivate the set-point (and so treatment air). Once the desired value is achieved, the selection is confirmed by pressing save. Ts can take values between 5.0°C and 30.0 °C with 0.2°C steps. The orange colour indicates heating, blue indicates cooling:



Change of temperature set-point



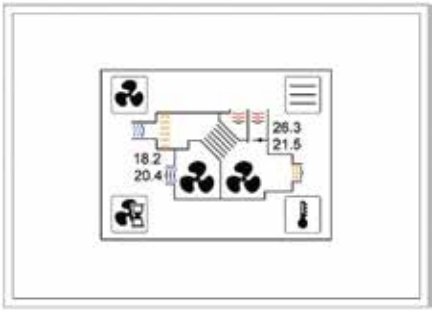
Post-heating on



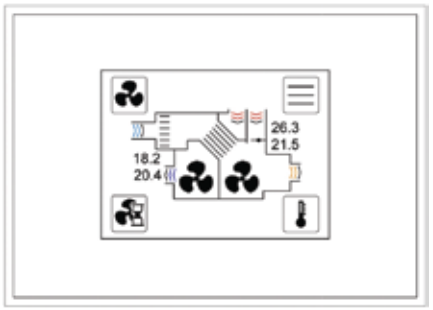
Post-heating off

Pre-heating Control (Optional)

In addition to post-heating, the EVO-PH control can run an electric pre-heating system to prevent the formation of ice in the heat exchanger. The control starts the anti-frost procedure automatically when the temperature detected by the expelled probe (Tx) drops below 3°C. The heater is powered at the minimum power, if the Tx temperature keeps dropping, the pre-heater power is increased step-by-step up to 100% if Tx reaches 1°C. When Tx exceeds 3°C, the procedure stops. The main window shows the preheating status: the preheating status is displayed in the main window:



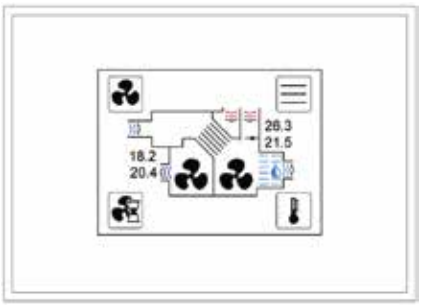
Pre-heating on



Pre-heating off

Dehumidify Control

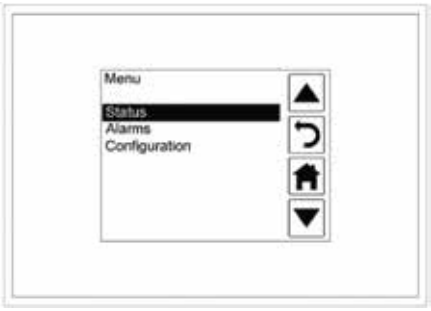
The control manages a dehumidification system by enabling the compressor and, during the summer season, by completely opening the water valve connected to the cooling floor. During the winter season, on the other hand, the hydronic part is excluded to avoid the passage of hot water in dehumidification. In summer, dehumidification will take precedence over temperature integration, while in winter integration will take precedence. In both cases the control increase speed fans (set it is in menu Factory) to reach 1 vol.\hour expected. The humidity set point is given by the relative parameter (see point "Air units").



Dehumidify active

Menu Selection Window

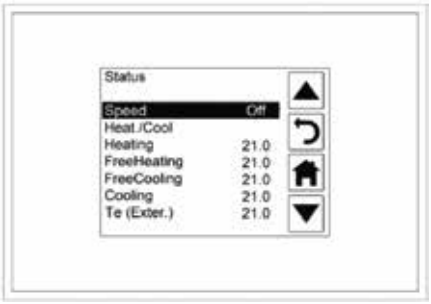
The menu window is accessed from the main window by touching the specific icon (window change icon). When the menus are selected (press the down arrow key up to highlight the desired option and press save to confirm the selection), the various detailed information of the system is accessed. To return in previous menu press the return button.



Menu selection window

The functions listed here below can be accessed from the menu window:
- Status;
- Alarms;
- Configuration

STATUS MENU: OPERATING STATUS



Display of the Status menu

The functions listed here below can be accessed from the menu window:
- Status;
- Alarms;
- Configuration

STATUS MENU: OPERATING STATUS

The status of the unit can be seen right away and the values of the characterizing parameters are displayed; all parameters can be scrolled by using the up and down arrow keys.

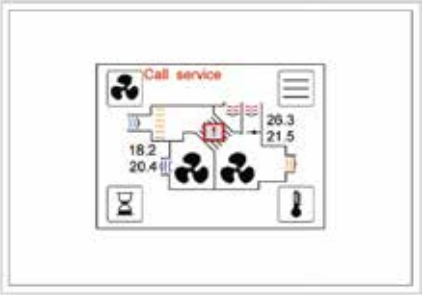
Speed	Set speed
Freeheating	Threshold temperature free-heating
Freecooling	Threshold temperature free-cooling
Te (exter.)	Temperature of external air in °C
Tr (return)	Temperature of return air in °C
Tx (expelled)	Temperature of expelled air in °C
Ti (input)	Temperature of input air in °C
Tw(water)	It is on if water coil post-heating is available: it shows the temperature of the water coil in °C.
Wat.nofrost	It is on if post-heating is set through water coil and indicates whether the **anti-frost** mode is active. The **anti-frost** function for the water coil starts when the temperature detected by the Tw probe (located on the water coil) drops below 3°C and then goes off when the temperature returns above 3°C. When a temperature lower than 3° C is detected, the control valve (hot water) is fully opened in order to prevent ice formation in the elements. If this temperature remains and Tw drops below 1°C, also the fans will be stopped and an alarm will be notified (see **ALARMS** paragraph).
Anti-frost	**Anti-frost** function status (ON-OFF). The anti-frost function starts automatically when the temperature detected by the Tx probe drops below 1°C and then goes off when the temperature rises above 3°C. The purpose is to avoid ice formation in the heat exchanger. It can be managed by unbalancing fans(default),from a resistance, or by modulating by-pass.

Integration	Indicates whether or not the unit is working in integration mode (hot-cold request)
Dehumidif.	Indicates whether or not the unit is working in dehumidified mode
Fansupply	Supply fan speed value, which is expressed in: - **revolutions per minute (RPMs)** if fans with tachometric signal are installed; - **percentage** if variable speed fans without tachometric signal are installed (Off when the fan is off); - **Off, 1 ,2 or 3** for 3-speed fans.
FanS. Remote	Only Evo-d. If "on" indicates active the independent regulation from Modbus of supply fan (see table 54 reg)
Press. Switch	Indicates the intervention (on) of the high pressure sensor.
Compressor	Indicates whether the compressor is active or not.
ExtAirDamp.	Only for dehumidifier version. It indicates, if installed, the percentage of the total recirculation damper accessory positioned on the outside air.
Fan (exhau.)	Expulsion fan speed, see above.
Fan hours	Unit operation hours.
By-pass	It is on if the by-pass is configured: - **On** By-pass open; - **Off** By-pass closed. - **Mod** By-pass modulated (only if set in factory).
Heating\ Cooling On\Off	It is on if the water or electric air post-treatment is configured: - **Heating on\off :** post-heating on\off ; - **Cooling on\off :** post-cooling on\off.
CO_2 \VOC ppm	It is on if a CO_2 or CO_2\VOC probe is present: it indicates the CO_2 or CO_2\VOC concentration in parts per million (ppm) detected by the air quality probe: it can take values between 0 and 2000.
RH Sensor %	It is on if a relative humidity probe is present: it indicates the percentage relative humidity value detected by the probe. It can take values between 0 and 100.
Ext. signal %	It is on if the automatic operation of fans is configured through a 0-10V external signal. It indicates the percentage value of the external signal (10V corresponds to 100%).
Remote	It is on if one digital input (DI) is configured as ***remote*** (this parameter can be set in the factory): - **Off** if the DI is open the fans are stopped - **On** if the DI is closed the fans run at the speed set on the remote panel;
Boost	It is on if one digital input (DI) is configured as ***booster*** (this parameter can be set in the factory): - **end** the DI is open and a longer time than *Boost min.* has lapsed after the last change of DI status (from closed to open), booster off (fans at the speed set by the control); - **Max** the DI has been closed with a pulse or the *Boost min.* time (1→ 240 minutes) has not lapsed yet since the DI has received the pulse, booster on (fans at the maximum speed).
PIR	It is on if one digital input (DI) is configured as ***PIR*** (this parameter can be set in the factory): - **min** the DI is open (fans at minimum speed); - **max** the DI is closed (fans at the maximum speed) and the *PIR min.* time (1→ 240 minutes) fixed in the installer menu has not lapsed yet ; - **off** the DI is closed (fans at the speed set by the user on the control) and the *PIR min.* has lapsed after the DI input has closed.
Summer	It is on if one digital input is configured as **summer** (from the factory). - **No** the DI is open, the *winter* season is set; - **Yes** the DI is closed, the *summer* season is set.
Humidity	It is on if one digital input is configured as **humidity** (from the factory). - **Yes** the DI is open, the humidity threshold of the hygrostat has been overcome; - **No** the DI is closed, the hygrostat humidity threshold has been not overcome.
Fire	It is on if one digital input is configured as **fire** (from the

	factory). - **Yes** the DI is open (exhaust fan at the maximum speed and supply fan off). - **No** the DI is closed (fans at the speed set).
PFanSupply	It is on if fan alarm is configured as **2Press** (from the factory). - **off** the alarm contact is open, fan supply is stopped or not running; - **on** the alarm contact is closed, fan supply is running;
PFanExhau.	It is on if fan alarm is configured as **2Press** (from the factory). - **off** the alarm contact is open, fan exhaust is stopped or not running; - **on** the alarm contact is closed, fan exhaust is running;
Recircul.Req. Off\On	It is on if one digital input is configured as **Ricircul** (from factory, when recirculation dampers are installed) - **off** the contact is open, standard management air recirculation - **on** the contact is closed, maximum recirculation air
DWat. NoFrost Off\On	- It is active if the post-treatment is set by water coil. Indicates if ***nofrost*** mode detected by an on-off thermostat (set to 1 °C and connected to a digital input) is running. In this case the control valve is fully open and stopped both fans. At the same time an alarm appears in its menu.
StopExt.	It is active if is configured as **StopExt.** one of the digital input (factory) - **off** the contact is open, standard management air **on** the contact is closed : fan extraction turned off, fan supply run at speed set
Security	It is active if a digital input (DI) is configured as **Security** (factory setting parameter): - **On** if DI closed (fans operate at the speed set on the remote panel); - **Off** if DI open (fans stopped). To reactivate them you need a reset from the alarms menu.

ALARMS MENU: DISPLAY OF THE ALARM STATUS

If the control detects an abnormal status, the latter is indicated in the main control screen by a specific flashing icon and a red writing at the top of the screen (Call service o DirtyFilters). If the alarm is detected when the screen is in stand-by mode, the display flashes at about 10-second intervals.



Signaling an alarm

If an alarm is being signaled, you can reach the specific menu directly by touching the screen. Otherwise you must select the Alarms item in the menu selection page and press OK. If the control is interlocked to several units (master/slave mode), you must select the unit you want to monitor (see Status menu), otherwise you direct access to the detail alarms page.

List of alarms		
Parameter	Val	Status
Configuration	ok	The configuration is ok
	ko	The configuration of the digital inputs or Hardware is wrong. Check if in the factory menu is configured the same function for multiple DI. Check Hardware configuration (Hw Compact-> evo- el.water).
Communication/ Unit presence	ok	The communication between the machine cards and the remote control panel works properly
	ko	Problem with the communication among cards and remote panel: 1) check electrical connections between electric panel and remote panel (see wiring diagram); 2) if the problem is not solved, check electrical connections between the cards (see wiring diagram); 3) if the problem is not solved, check the dip switches position card X542 : 3=ON ; all the others = OFF 4) if the problem is not solved, replace the electronic cards.
Communication (9)	ok	The communication between the machine cards and the bus sensor humidity work properly.
	ko	Problem with the communication among cards. check electrical connections between cards. If the problem it is not solved replace bus sensor.
Compressor	ok	The frigo circuit is ok
	ko	High pressure sensor trigger. Problem in the frigo circuit. Check air-flow, filters, recirculation damper, gas.
Te (external)	ok	The external air temperature sensor works properly
	ko	Problem with the external air temperature sensor: 1) check electrical connections of the temperature probe (see wiring diagram); 2) if the problem is not solved, replace the temperature probe 3) if the problem is not solved, replace the electronic card.
Tr (return)	ok	The return air temperature sensor works properly
	ko	Problem with the return air temperature sensor: 1) check electrical connections of the temperature probe (see wiring diagram); 2) if the problem is not solved, replace the temperature probe 3) if the problem is not solved, replace the electronic card.
Tx (expelled)	ok	The exhaust air temperature sensor works properly
	ko	Problem with the expelled air temperature sensor: 1) check electrical connections of the temperature probe (see wiring diagram); 2) if the problem is not solved, replace the temperature probe 3) if the problem is not solved, replace the electronic card.
Ti (input)	ok	The input air temperature sensor works properly
	ko	Problem with the input air temperature sensor: 1) check electrical connections of the temperature probe (see wiring diagram); 2) if the problem is not solved, replace the temperature probe 3) if the problem is not solved, replace the electronic card.
Tw (water)		It is present only if the air after-treatment control is equipped with a water coil(*Factory* menu)
	ok	The water coil temperature sensor works properly
	ko	Problem with the water coil temperature sensor: 1) check electrical connections of the temperature probe (see wiring diagram);

		2) if the problem is not solved, replace the temperature probe 3) if the problem is not solved, replace the electronic card.
Tw (water) low	It is present only if the air after-treatment control is equipped with a water coil(*Factory* menu)	
	ok	The temperature of the water from the water coil is higher than a safety threshold, there is no risk of water freezing in the battery
	ko	Risk of liquid freezing in the water coil
Filters	It is present only if the filter status alarm with differential pressure switch is configured or if it is based on the machine operation hours (*Factory* menu). In case of hours based, when the internal counter will achieve the threshold, the alarm can be reset pressing on the written.	
	ok	Clean filters. We recommend periodically (at least every 3 months) to set the machine at maximum speed to check for any alarms not detected by too low flow rates.
	ko	Clogged filters: Replace filters. If the filters alarm is based on the machine operation hours, you must reset the alarm.
Fans	It is present only if the fan status alarm is configured with differential pressure switch, with tachometric signal of fans or with fan Digital Output (*Factory* menu)	
	ok	
	ko	
CO2 VOC	It is present only if the fan speed automatic control is configured with a CO_2 o CO_2-VOC sensor (*Installer* menu)	
	ok	
	ko	
RH sensor	It is present only if the fan speed automatic control is configured with a relative humidity sensor (*Installer* menu)	
	ok	
	ko	
Ext.signal	It is present only if the fan speed control is configured with an external 0-10V analog signal (*Installer* menu)	
	ok	The external signal source works properly
	ko	External signal not present (voltage at the clamps = 0V): 1) check electrical connections of the external source (see electric diagram); 2) if the problem is not solved, check whether the external signal is present (tester) and its value is greater than 0V; 3) if the problem is not solved, replace the electronic card.
Autominutes	It is present only if the automatic control of fan speed with CO2 or CO2-VOC sensor is configured (Installer menu).	
	ok	The sensor works properly
	ko	Possible anomaly of the sensor or too much CO2 in the ambiance
Anti-frost	It is present if the unit cannot exit from anti-frost modality after then two minutes are elapsed.	
	ok	The unit works properly
	ko	Two minutes are elapsed from anti-frost heat exchanger modality and expelled temperature does not rise up to 3 C°. For speed management the control stops fan supply and set to max speed fan exhaust .For heat stops fan supply ,fan exhaust runs at speed set in control panel. For by-pass stop fan exhaust and leave by-pass in its modulated position.
Min speed	It is present only if a digital input is configures ad Min speed (Factory)	
	ok	DI open, unit works normally.
	ko	DI closed, unit works at min speed.

Clock	ok	The battery is ok.
	ko	Battery is ko

Configuration menu / Configuration
In this menu it is possible to set the configuration for the touch panel, for an ethernet card (if present) and for the main card.

TouchPanel (Installer)

Language / Language
In this item it is possible to set the current language for the touch panel

BusAddress
In this item it is possible to set the bus address of the touch panel.

About
In this item it is possible to view information on the system parameters relating to the touch.

Ethernet & 485 (Installer)

Language / Language
In this item it is possible to set the current language for any Ethernet card.

BusAddress
In this item it is possible to set the bus address of the Ethernet card.

Ip address
In this item it is possible to set the IP address of the Ethernet card (default = 192.168.1.243 editable).

Netmask
In this item it is possible to set the subnet mask address of the Ethernet card (default = 255.255.255.0 modifiable).

Gateway
In this item it is possible to set the gateway address of the Ethernet card (default = 192.168.1.1 editable).

Default
With this parameter it is possible to restore default settings.

Apply
Each change is made effective through the apply function.

About
In this item it is possible to view information about the system parameters relating to the Ethernet card.

AirUnit
In this menu it is possible to set the configuration of the main card.

Simply View
Through this parameter it is possible to enable the simplified view of the main screen.

Speed 1
Through this parameter, if the simplified view is set, it is possible to associate the fan speed percentage to selection 1.

Speed 2
Through this parameter, if the simplified view is set, it is possible to associate the fan speed percentage to selection 2.

Speed 3
Through this parameter, if the simplified view is set, it is possible to associate the fan speed percentage to selection 3. .

Season
Through this parameter it is possible to set the current season.

Humidity
Through this parameter it is possible to set the humidity threshold above which the compressor is activated.

Dehumidif.
Through this parameter it is possible to enable or not the dehumidification function. It can be useful to disable the feature during the winter season.

Clock	ok	The battery is ok.
	ko	Battery is ko
Security	Security Alarm. It is possible to reset the alarm from this point by pressing on the wording that appears, then pressing the modify parameters button. The digital input assigned must be closed before reset.	
	ok	Security ok
	ko	Security ko, check Digital input

Configuration

In this menu you will find the settings for configuring the touch panel, the Ethernet\rs485 cards (if present) and the main card.

TouchPanel

Dark mode: Through this parameter it is possible to set the "dark" display mode (black background).

Installer

Language: Through this parameter it is possible to set the current language for the touch panel.

Localbus

Address: Through this parameter it is possible to set the bus address of the touch panel.

Termination: Through this parameter it is possible to set the software termination of the remote panel. It may be useful to activate it when communication errors are often encountered.

Ethernet (Optional)

Language: Through this parameter it is possible to set the current language for the Ethernet card.

Localbus

Address: Through this parameter it is possible to set the bus address of the Ethernet card.

Termination: Through this parameter it is possible to set the software termination of the Ethernet card. It may be useful to activate it when communication errors are often encountered.

Modbus

Type: Through this parameter it is possible to set the Modbus type. Your choices are none (you only want to use the web server) or TCP.

Conn.to: This value indicates the maximum time after which, if there is no access to the registers from the master device, the changes made by Modbus are reset. It is possible to deactivate it (=never), but for security reasons, once the machine is turned off, the reset will still take place.

Default settings: Through this parameter it is possible to set the default values.

IP

Host name: Through this parameter it is possible to set a host name for the connection, typing the assigned one in the address bar opens the main web server screen directly.

DHCP: Through this parameter it is possible to enable the DHCP network service. Once enabled, the IP address will be automatically assigned by the server\router.

Ip address: Through this parameter it is possible to set the IP address of the unit (default=192.168.1.243 editable).

Netmask: Through this parameter it is possible to set the unit subnet mask address (default=255.255.255.0 editable).

Gateway: Through this parameter it is possible to set the unit gateway address (default=192.168.1.1 editable).

DNS: Through this parameter it is possible to set the DNS server address (Domain name server).

Default settings: Through this parameter it is possible to set the default values.

Apply: Each change must be made effective by selecting apply.

About: Through this parameter it is possible to set to view system parameter information.

AirUnit

In this menu it is possible to set the configuration of the main card.

Simply View: Through this parameter it is possible to enable the simplified view of the main screen.

Speed 1: Through this parameter, if the simplified view is set, it is possible to associate the fan speed percentage to selection 1.

Speed 2: Through this parameter, if the simplified view is set, it is possible to associate the fan speed percentage to selection 2.

Speed 3: Through this parameter, if the simplified view is set, it is possible to associate the fan speed percentage to selection 3. .

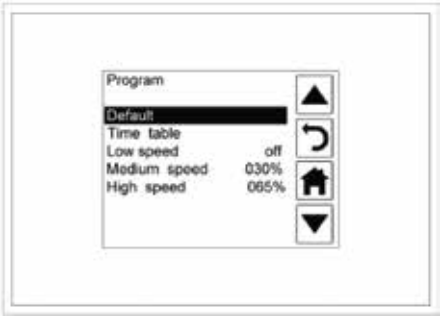
Season: Through this parameter it is possible to set the current season.

Humidity: Through this parameter it is possible to set the humidity threshold above which the compressor is activated.

Dehumidif: Through this parameter it is possible to enable or not the dehumidification function. It can be useful to disable the feature during the winter season.

Program

This menu controls the fan speed (on three levels), which is expressed as a percentage for variable speed machines (or full-scale pressure or flow machines without cop/cav kit), in pascal for constant pressure machines, and in m3/h for constant flow machines with kit. Moreover, the air after-treatment (if available) can be enabled/disabled in a different way for each day of the week, by time period (1 to 8 time periods that can be defined by the user in 30-minute steps). To access the program control functions, select the Program item by the arrow keys, highlight it and press OK.



Program menu with fan speed

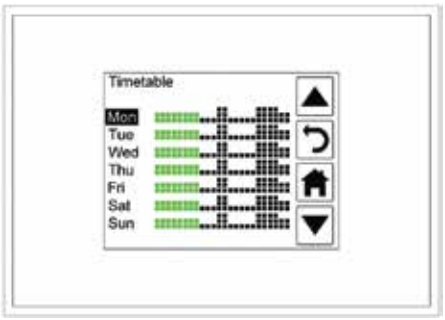
Default

When this menu item is selected and OK is pressed, unit control parameters are automatically assigned default values:

Time table			
Program valid Monday through Friday			
	Time period	Fan speed/ flow/pressure	Air after-treatment status: (ON / OFF)
C1	00:00 → 06:29	Medium	OFF
C2	06:30 → 07:59	Medium	ON
C3	08:00 → 11:29	Low	ON
C4	11:30 → 12:59	High	ON
C5	13:00 → 17:59	Low	ON
C6	18:00 → 21:59	High	ON
C7	22:00 → 00:00	Medium	OFF
C8	Not used	-	-
Program valid Saturday and Sunday			
	Time period	Fan speed/ flow/pressure	Air after-treatment status: (ON / OFF)
C1	00:00 → 07:29	Medium	OFF
C2	07:30 → 07:59	Medium	ON
C3	08:00 → 11:29	Medium	ON
C4	11:30 → 12:59	High	ON
C5	13:00 → 17:59	Medium	ON
C6	18:00 → 21:59	High	ON
C7	22:00 → 00:00	Medium	OFF
C8	Not used	-	-
Speed levels			
Low speed:		**OFF**	
Medium speed:		**030%** if the unit is equipped with variable speed fans; **1** if the unit is equipped with 3-speed fans; **auto** if the unit is equipped with a CO_2 or relative humidity probe, or is controlled through a 0-10V external signal.	
High speed:		**065%** if the unit is equipped with variable speed fans; **2** if the unit is equipped with 3-speed fans; **auto** if the unit is equipped with a CO_2 or relative humidity probe, or is controlled through a 0-10V external signal.	

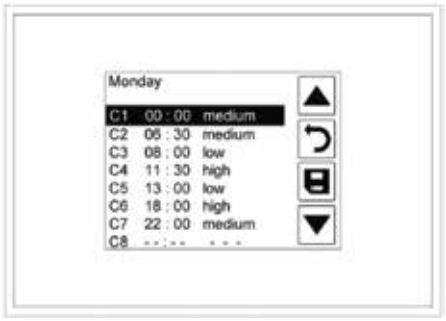
Timetable

When this menu item is selected and OK is pressed, the summary display of each day of the week subdivided into 24 hours is accessed.



Time table: summary display

In order to change the settings of each day, just select the day in the summary display window and press OK; now, the detail screen of the selected day is displayed with the list of the eight possible time periods (C1 C8), while the selected day of the week is displayed in the top left corner of the screen.



Selecting the time period to be changed

Changeable parameters in the selected time period

You can change the content of a time period by selecting the period and pressing OK in the time period change screen; the graphic summary of the program for the entire day is displayed in addition to the selected day (top left corner).
The parameters that can be changed are as follows:

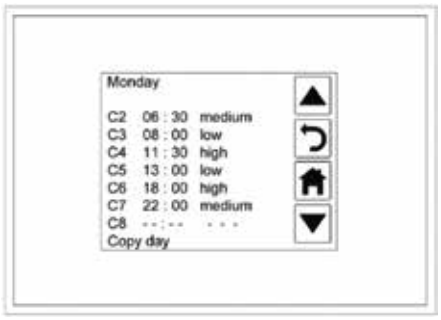
-**Change**: change the time period you are working on without returning to the previous page by selecting this line and pressing OK: scroll the several time periods (1 8) using the arrow keys and just press OK when you reach the desired period.

-**Time hh.mm**: set the starting time of the current time period by selecting this line and pressing OK: the arrows keys increase (up arrow) or decrease (down arrow) the time by 30-minute steps; press OK when you find the desired value; the value of this parameter can be comprised between the beginning of the previous time period and the beginning of the next time period.

-**Fan speed xxx**: set the fan speed , required for the current time period by selecting this line and pressing OK: scroll the three possible values (low, medium and high) using the arrows keys; press OK when you find the desired value. These values match the settings according to next paragraph (Speed level setting).

-**Heat/Cool/Deh on/off**: this parameter is only visible if the control is configured to run an air post-treatment device; enable (on) or disable (off) the air post-treatment device by selecting this line and pressing OK. Scroll the two possible values (on and off) using the arrow keys: press OK when you find the desired value.

After customizing one day of the week according to your need (for instance, Monday), you can copy your program to another day without repeating the procedure described above. In the time period summary window, select the day you want to copy the previous program to (for instance, Tuesday), and press OK. Now, the detail window of the time periods of the selected day is displayed. Scroll all of the time periods using the down arrow key and reach the Copy day line (it will be after the C8 time period): highlight this line and press OK.



Selecting the copy day function

Copy day: selecting the day to be copied

After accessing the Copy day page (as displayed in the top left corner of the screen), you can select the day you want to copy the program from using the arrow keys to scroll the various days. After identifying the selected day (Monday in our example), press OK to confirm the copy and you are automatically taken to the simplified display page of the time periods (in our case, the Monday program will have been copied to Tuesday). This operation can be repeated for other days of the week.

Setting Speed Levels

To change the preset values for the three speed levels (low, medium and high) used for the weekly program, reach the main page of the Program menu, highlight the speed level to be changed (for example, Low-speed) using the arrow keys and press OK. Scroll the possible values by using the arrow keys and, after finding the desired value, confirm your choice by pressing OK. Possible values for these three parameters are as follows:

-off: fans off. It can be set by pressing the down arrow key for a few seconds (off is below the minimum speed value that can be set);

- xxx%: for units equipped with variable speed fans, you can select a percentage value between the minimum (factory setting) and 100%;

-1, 2 or 3: for units equipped with 3-speed fans, you can choose among speed 1, 2 or 3;

- auto: for units equipped with an air quality or relative humidity probe or controlled through a 0-10V external signal, the fan speed will be automatically controlled by one of these devices. It can be reached by pressing the up arrow for a few seconds (auto is above the maximum speed value that can be set).

MENU CLOCK: CLOCK CONFIGURATION

You can set the day of the week and the current time for the proper control of the weekly time program through this menu.

Setting the Day

Select the day line and press OK: the color of the writing of the current day configured will turn green. Scroll by means of the arrow keys to find the desired day. Press OK to confirm your choice: the color of the day will turn from green to black.

Setting the Hour

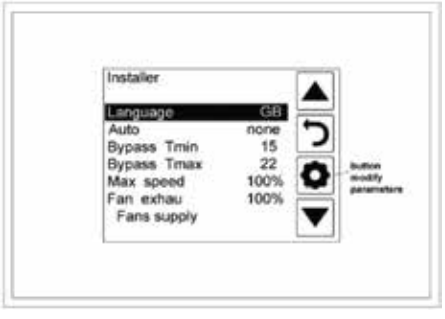
Select the hours line and press OK: the color of the writing of the current hour configured will turn green. Scroll by means of the arrow keys to find the desired day. Press OK to confirm your choice: the color of the day will turn from green to black.

Setting the Minutes

Select the minutes line and press OK: the color of the writing of the minutes will turn green. Scroll by means of the arrow keys to find the desired day. Press OK to confirm your choice: the color of the day will turn from green to black.

INSTALLER MENU: CONFIGURATION OF SYSTEM PARAMETERS

You must enter a password (5678) to access this menu: this is a measure to prevent inexperienced users from unintentionally changing parameters, an event that may jeopardize the proper operation of the system. The parameters relevant to flows/pressure coefficients and values are our only available for machines with kit.



Installer menu

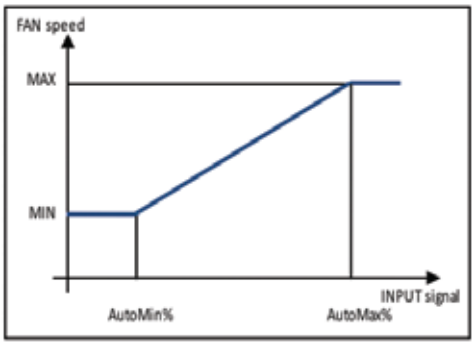
PARAMETERS AVAILABLE IN THE INSTALLER MENU

Language
With this parameter, you can select the language (except for the Factory always GB):

GB: English language (default)
FR: French language
ES: Spanish language
IT: Italian language
NL: Dutch language
DE: German language
HU: Hungary language
DK: Danish language
PT: Portuguese language
SI: Slovenian language
CZ: Czech language
PL: Polish language

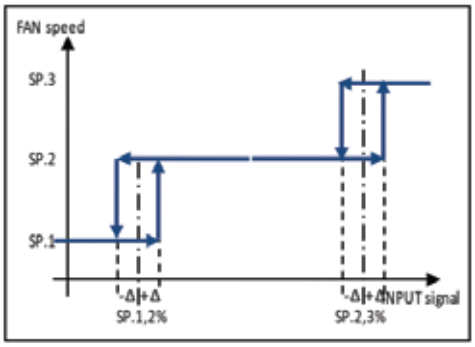
Auto1\2
With this parameter, you can configure one or two device that automatically adjusts the fan speed. The input and the related parameters in use are marked with 1 or 2 after the wording Auto. For the connections, (input AN6(1)-AN7(2) X541 card)see the wiring diagram.

External signal
The fan speed will be controlled through an external 0-10V analog signal (default value); if the external signal takes the 0V value, the control will indicate a problem with the source of the external signal.
For a unit equipped with adjustable speed fans:



AutoMin% corresponds to the input signal percentage value for which fans must run at the minimum speed, **AutoMax%** corresponds to the input signal percentage value for which fans must run at the maximum speed.

For a unit equipped with 3-speed fans:



SP.1,2% SP.2,3% and Δ values depend on the values of parameters AutoMin% and AutoMax% according to the following formulas:

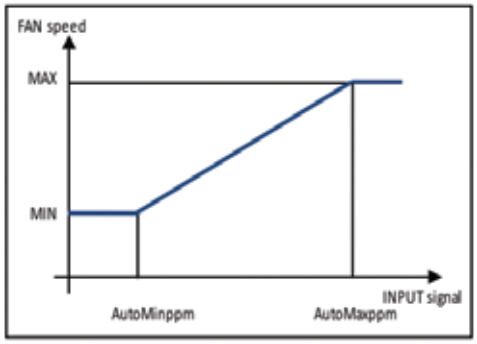
$$SP.1{,}2\% = \frac{AutoMax\% - AutoMin\%}{5} + AutoMin\%$$

$$SP.2{,}3\% = \frac{7}{10} \times (AutoMax\% - AutoMin\%) + AutoMin\%$$

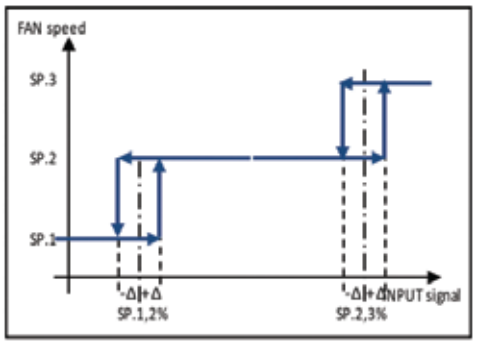
$$\Delta = \frac{AutoMax\% - AutoMin\%}{12}$$

UR sensor
The fan speed will be controlled by a relative humidity (RH) sensor with 0-10V output and will have a linear trend between 0 and 100% RH (0V corresponds to 0% RH and 10V corresponds to 100% RH); if the external signal of the RH sensor takes the 0V value, the control will display a problem with the sensor. See graphs of the segnale es parameter. In this case, AutoMin% corresponds to the relative humidity value for which the air quality is held to be excellent , AutoMax% corresponds to the relative humidity value for which the air quality is held to be very bad.

CO2 VOC
The fan speed will be controlled by a CO2 (or CO2-VOC) sensor with a 0-10V output and will have a linear trend between 0 and 2000 ppm (0V corresponds to 0% ppm and 10V corresponds to 2000 ppm); if the external signal of the CO2 sensor takes the 0V value, the control will display a problem with the sensor. For a unit equipped with adjustable speed fans.



Where AutoMin ppm corresponds to the CO2 (CO2-VOC) concentration for which the air quality is held to be excellent, AutoMax ppm corresponds to the CO2 (CO2-VOC) concentration for which the air quality is held to be very bad.
For a unit equipped with 3-speed fans.



SP.1,2% SP.2,3% and Δ values depend on the values of both parameters AutoMin ppm and AutoMax ppm according to the following formulas:

$$SP.1{,}2\% = \frac{AutoMax\ ppm - AutoMin\ ppm}{5} + AutoMin\ ppm$$

$$SP.2{,}3\% = \frac{7}{10} \times (AutoMax\ ppm - AutoMin\ ppm) + AutoMin\ ppm$$

$$\Delta = \frac{AutoMax\ ppm - AutoMin\ ppm}{12}$$

None
(Default value) no device is installed for the automatic operation of the fan speed.

AutoMin %
This parameter is only available if the auto parameter is set on ext. signal or UR sensor. It can take values between 0 and 99% (1% steps) with the following limit: AutoMin%<AutoMax%. For a unit equipped with variable speed fans:

If **auto ext. signal**
Corresponds to the input signal percentage value for which fans turn at the minimum speed; below this value, fans remain set at the minimum speed. For instance, the value AutoMin% 030 corresponds to a 3V (30% of 10V) input signal.

If **auto UR sensor**
corresponds to the (percentage) relative humidity for which fans turn at the minimum speed; below this value, fans remain set at the minimum speed.

For a unit equipped with 3-speed fans, referring to the second image of the auto ext. signal parameter, after fixing the SP.1,2% and SP.2,3% values (the nominal values at which speed changes from 1 to 2 and from 2 to 3), the appropriate value to be assigned to the parameter can be obtained as follows:

$$AutoMin\% = \frac{7 \times SP.1{,}2\% - 2 \times SP.2{,}3\%}{5}$$

AutoMax%
This parameter is only available if the auto parameter is set on ext. signal or UR sensor. It can take values between 0 and 99% (1% steps) with the following limit: AutoMin%<AutoMax%. For a unit equipped with variable speed fans:

If **auto ext. signal**, corresponds to the input signal percentage value for which fans turn at the maximum speed; above this value, fans remain set at the maximum speed. For instance, the value AutoMin% 080 corresponds to an 8V (80% of 10V) input signal.

If **auto UR sensor,** corresponds to the (percentage) relative humidity for which fans turn at the maximum speed; below this value, fans remain set at the maximum speed.
For a unit equipped with 3-speed fans, referring to the second image of the auto ext. signal parameter, after fixing the SP.1,2% and SP.2,3% values (the nominal values at which speed changes from 1 to 2 and from 2 to 3), the correct value to be assigned to the parameter can be obtained as follows:

$$AutoMax\% = \frac{8 \times SP.2{,}3\% - 3 \times SP.1{,}2\%}{5}$$

AutoMin ppm
This parameter is only available if the auto parameter is set on CO2 VOC. It can take values between 0 ppm and 1980 ppm (20ppm steps) with the following limit: AutoMin ppm<AutoMax ppm For a unit equipped with variable speed fans, it corresponds to the CO2 (CO2-VOC) concentration, expressed in ppm. Below this value, fans remain set at the minimum speed. For a unit equipped with 3-speed fans, referring to the second image of the auto CO2 VOC parameter, after fixing the SP.1,2% and SP.2,3% values (the nominal values at which speed changes from 1 to 2 and from 2 to 3), the correct value to be assigned to the parameter can be obtained as follows:

$$AutoMin\ ppm = \frac{7 \times SP.1{,}2\% - 2 \times SP.2{,}3\%}{5}$$

AutoMaxppm
This parameter is only available if the auto parameter is set on CO2 VOC. It can take values between 20 ppm and 2000 ppm (20ppm steps) with the following limit: AutoMin ppm<AutoMax ppm

UserPassword
With this parameter it is possible to enable a password for modifying the set-points, value is 1234.
Yes/NO: Setting the parameter to yes you must enter the code in the installer menu access screen to make changes to the sets. The time available for modifies is 5 minutes, elapsed this password must be entered again.
For a unit equipped with variable speed fans, it corresponds to the CO2 (CO2-VOC) concentration, expressed in ppm.Over this value, fans remain set at the maximum speed. For a unit equipped with 3-speed fans, referring to the second image of the auto CO2 VOC parameter, after fixing the SP.1,2% and SP.2,3% values (the nominal values at which speed changes from 1 to 2 and from 2 to 3), the correct value to be assigned to the parameter can be obtained as follows:

$$AutoMax\ ppm = \frac{8 \times SP.2{,}3\% - 3 \times SP.1{,}2\%}{5}$$

AutoMinutes
This parameter is only available if the auto is set at a value different from none.
No
(default value) it does not affect the system operation.
000->240
Its value is expressed in minutes and represents the interval lapsed from the time when the signal of the extern device for the auto mode has achieved or exceeded the AutoMax%, or Auto Max ppm value, without dropping below this value, beyond which an anomaly to the external device (CO2, HR probe or external signal) is notified.

AutoOn %
This parameter is only available if the auto parameter is set on ext. signal or UR sensor and the digital output is configured as auto cmp (Factory menu)
000->100
Default value 050, is expressed in %; for values of HR% as read by the relative humidity sensor (or for values of the 0-10V external signal expressed as a percentage) higher than the set value, the digital output changes its status.

AutoOff%
This parameter is only available if the auto parameter is set on ext. signal or UR sensor and the digital output is configured as auto cmp (Factory menu).
000->100
Default value 050, it is expressed in %; for values of HR% as read by the relative humidity sensor (or for values of the 0-10V external signal expressed as a percentage) higher than the set value, the digital output dedicates returns to its standard status.

AutoOn ppm
This parameter is only available if the auto parameter is set on CO2 VOC and the digital output is configured as auto cmp (Factory menu).
0000->2000
Default value 1000, it is expressed in ppm; for ppm values as read by the CO2 probe higher than the set value, the digital output dedicated changes its status.

Filter hours
This parameter is on when the clogged filters alarm is based on the hours of operation of the unit (Factory menu)
00000->99999
Default value 02000, it is expressed in hours. It represents the number of operation hours of the unit after which the clogged filters alarm is triggered. In order to reset the alarm, the installer will have to set the new limit at which the alarm must be signaled (check the current operation hours in the parameters status menu Fan hours): **Filters hours = Fan hours + hours for a new alarm**

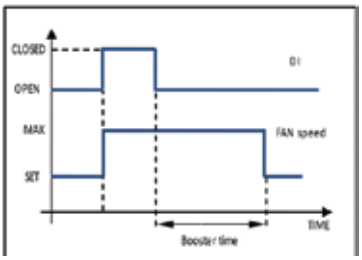
Max speed
This parameter is available if the control is set to run variable speed fans (Factory menu)

Fan exhau.= XXX%Fan supply
067%->150%
Default value 100%, it expresses, in a percentage format, the desired ratio between the exhaust fan speed and the input fan speed that generates an unbalance between the air flows.The maximum speed that can be set in the main window will always be 100%, what changes is the minimum speed value that can be set by the final user (see Max. speed).

Valv.sec.
This parameter is available if the control is set to run a modulated water-based post heating/cooling system.
60->600
Default value 120, it is expressed in seconds; it indicates the opening/closing time of the solenoid valve 3 points, it is adjustable in 10-second steps.

Pir min.
This parameter is available if one digital input is configured at the PIR value (presence detector, see Factory menu)
001->240
Default value 10, it is expressed in minutes; it is the time during which the fans run at the maximum speed after the pulse (closing of a NO contact) from a presence detector. After this lapse, the fans will return to run at the speed set from the control panel until the pulse from the presence detector is lost; since now on, the fans will run at the minimum speed.

Boost min.
This parameter is available if one digital input is configured at the booster value (Factory menu)
001->240
Default value 10, is expressed in minutes; after the pulse from an external contact (closing of a NO contact) the fans run at the maximum speed (booster). When the pulse from the external contact is lost (external contact open), the fans keep running at the maximum speed for the time fixed by this parameter. When the booster function is off, the fans run at the speed set on the control panel.

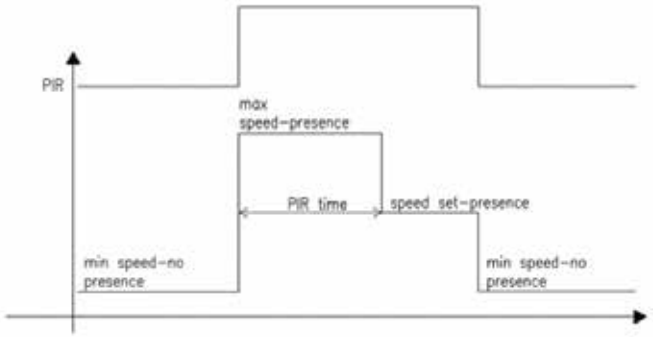


Ext. DI (Digital Input)
The EVO control has four digital inputs programmable from factory menu (pass 0342) . The incorrect programming of these may cause a malfunction of the unit. By programming these parameters, several functions can be implement as the result of the closing/opening of an external contact. The correspondence between control panel and physical terminals on card is indicated from the writing "on board" and correspond to:

CARD	CONTROL PANEL
DI1	EXTDI5 (available if no fan alarm set)
DI2	EXTDI1 (available if no fan alarm set)
DI3	EXTDI6
DI4	EXTDI2
DI5	EXTDI3
DI6	EXTDI4
AN5(DI7)	EXTDI7 (available if no water sensor Tw)
AN9(DI8)	EXTDI8 (available if no Td sensor)

unused
Unused digital input

Pir
It is set whenever you want to use a presence detector to control the unit. If no presence is detect (contact NO)in the room you want to monitor, the system sets the fans to the minimum speed. When a presence is detect, the fans are set to the maximum speed for a time that can be set in the "installer" menu (PIR time). After the above-mentioned time has elapsed, the fans will work at the speed set in the main screen of the control panel, and then will return to the minimum speed when the presence is no longer detect.

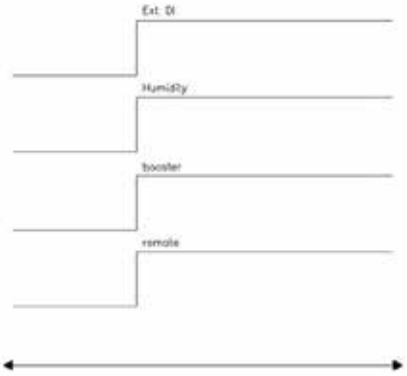


booster
If selected, the digital input is used to force (through an impulse given by a button) the fans to work at the maximum speed for a time adjustable in the installer menu (boost min).

remote
If selected, the digital input is used to force (through the opening of a contact) the fans to stop.

humidity
If selected, the digital input is used to force the fans to work at the maximum speed if the humidity threshold detected by an NC humidistat is exceeded. When humidity returns below the humidistat threshold value, the fan speed will return to the value set in the control panel.

Integration
If selected, the digital input is used to force the integration function (temperature request).



Summer
If selected, the external contact NO connected to the digital input is use to notify the control of the season change: open = winter, closed = summer.

fire
If selected, the external contact NO connected to the digital input is use to force the exhaust fan to work at the maximum speed and at the same time to switch off the delivery fan.

w. frost
If selected, the digital input is use to implement an anti-frost protection of the water coil through a bulb thermostat. The latter will have to be position on the water coil return pipe, set on the temperature of 1°C and with an NC connection. If the detected temperature drops below the set value (and consequently the contact opens), the control will stop the fans and at the same time fully open the valve to let more hot water in.

Ricircul
If selected, the external NO contact is used to force maximum recirculation (if installed) when the external contact connected to the digital input is closed.

Dehumid
If selected, the external NO contact is used to force the dehumidify function (if present, otherwise not displayed).

StopExt. If selected, the external NO contact connected to the digital input is used to force the return fan off. At the same time the supply fan continues to run at the speed set by the main screen.

MinSpeed
If selected, the external NO contact connected to the digital input is used to force the fan speed to the minimum. If the unit is off, it has no effect.

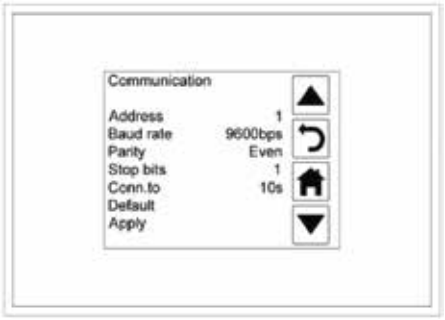
Security
If selected, the external NO contact connected to the digital input switches the machine off (following the opening of a contact). To restart it will be necessary to reset the security alarm from the alarms menu. It can be used if you want to restart the machine manually following a forced shutdown

Communication
In this item of menu installer is possible to change configuration parameters of serial card (if installed on the main card):

Local bus
Address
It is the address that you want to assign to the local drive.

Termination
Represents whether or not the bus software termination is inserted. Put it on if you have problems with communication error.

Modbus RTU



Default
Restore the factory default values.

Address
It is the address of the unit (default=1).

Baud rate
It is the baud rate of serial communication (default =9600).

Parity
Only for RS485 protocol. It is the parity value of the serial communication (default=even).

Stop bits
Only for RS485 protocol. It is the bits stop value of the serial communication (default=1).

Conn . to (s) 10sec
It is the reading time of the modbus registers. This value indicates the maximum time after which, if no registers are accessed from the master device, the changes made by the modbus are reset. You can disable it, but for safety reasons the reset will take place anyway once the machine is switched off.

Default
Restore the factory default values.

Apply
Each change is made effective through the apply function, thus avoiding restarting the machine.

Protocol Modbus specification
Modbus Tcp-ip: (Ethernet card)
Baud Rate: 10/100 Mbit/s,
Automatic baud rate negotiation,
Auto –MDIX (automatic swap for crossed cables),
Disconnection after 10 seconds without accessing the registers (changeable via MODBUS)
Maximum number of simultaneous connections: 8
Default address:
IP: 192.168.1.243
MASK: 255.255.255.0
GATEWAY: 192.168.1.1
Modbus-Rtu:(Serial card)
Baud Rate: 9600 bit/s,
1 stop bit, parity even
disconnection after 10 sec without access to the registers. (modifiable via MODBUS)
close jumper on rs485 card ,insert if the unit is at the end of bus line.

Web server

A Web server installed allows us to monitor the machine status and change its parameters permanently through the PC. In order for the connection with the Web server to be successful, the initial three fields of the IP address must match. For instance, if your address is 192.168.1.243, the PC address must be 192.168.1.xxx. To start the web server after connecting the unit to the web, start your browser and type http\\192.168.1.243 (or the address modified) in the address bar. The main screen will appear like the screen of the control panel. For the description of the several menus, refer to the previous items.

Modbus Interaction table

				Function Code
Data access	Bit access	Physical Discrete Inputs	Read Discrete Inputs	02
		Internal Bits Or Physical coils	Read Coils	01
			Write Single Coil	05
			Write Multiple Coils	15
	16 bits access	Physical Input Registers	Read Input Register	04
		Internal Registers Or Physical Output Registers	Read Holding Registers	03
			Write Single Register	06
			Write Multiple Registers	16
			Read/Write Multiple Registers	23
			Mask Write Register	22
			Read FIFO queue	24
	File record access		Read File record	20
			Write File record	21
Diagnostics			Read Exception status	07
			Diagnostic	08
			Get Com event counter	11
			Get Com Event Log	12
			Report Slave ID	17
			Read device Identification	43
Other			Encapsulated Interface Transport	43

Modbus function codes

Configuration parameters, set-points, and input signals, statuses and alarms are in format word 16 Bit and are accessible as:

Read Holding Registers	03
Write Single Register	06
Write Multiple Registers	16
Read/Write Multiple Registers	23

BXX is the XXth bit of a word (XX is a value comprised between 00 and 15). R indicates the word is just readable, while R/W indicates the word is readable and writable. R/W values are reset to the values set by the Web server or if the register access time is exceeded or the unit is switched off. The most significant bit is characterized by the highest value: for instance, between B00 and B15 the latter is the most significant one. Standard addressing (Gould) is zero based in the protocol message. That means that if you want to read the first register, holding register 1, the starting register field in the message will be 0000.Below the Modbus table, for parameter names, refer to the preceding paragraphs and the factory manual.

REG	TYPE	HREG ID	DESCRIPTION	UNIT
30005	R/W	INSTALLER_Language	Language	GB FR ES IT NL DE HU DK PT SI CZ PL
30101	R/W	FACTORY_AirUnit	AirUnit	Custom
30102	R/W	FACTORY_PT_REG_TYPE	Fans	3 Speed Modulation Mod.Dp Mod.2Dp Mod.Flow Mod.2Flow SupDpExhFl ExhDpSupFl
30103	R/W	FACTORY_sp_mod_speed_min_abs	Min. Speed	%
30104	R/W	FACTORY_sp_mod_speed_step	Speed Step	% %
30105	R/W	FACTORY_sp_dp_min	Min. Dp	Pa
30106	R/W	FACTORY_sp_dp_max	Max. Dp	Pa
30107	R/W	FACTORY_sp_flow_min	MinFlow	m3/h
30108	R/W	FACTORY_sp_flow_max	MaxFlow	m3/h
30109	R/W	FACTORY_PT_TWO_EXTRA_DP_FLOW	ExtraFlowSens.	
30110	R/W	FACTORY_flow_diameter	Flow Dia.	mm
30111	R/W	FACTORY_sup_flow_k	SupFlow K or Flow K	0.001
30112	R/W	FACTORY_exh_flow_k	ExhFlow K	0.001
30113	R/W	FACTORY_heat_fan_off_delay	HeatFanOff	s
30114	R/W	FACTORY_PT_3_SPEEDS_RELAYS_EN	3Sp.RelaysEn	No Yes
30115	R/W	FACTORY_PT_BYPASS	Bypass	None Universal AllSeason AllSeas.M
30116	R/W	FACTORY_sp_bypass	If |Tr-Te|<	-0.1 Off °C 0.1 On °C
30117	R/W	FACTORY_PT_FAN_OFF_BYPASS_ON	FanOffBypass	Off On
30118	R/W	FACTORY_kp_bypass	Kp Mod.	0.001

30119	R/W	FACTORY_tau_bypass	Tau Mod.	s
30120	R/W	FACTORY_bypass_actuator_time	Actuat.	s
30121	R/W	FACTORY_PT_BYPASS_ON_L1_L2	ActuatOnL1L2	No Yes
30122	R/W	FACTORY_rotary_min_speed	MinRotary	%
30123	R/W	FACTORY_PT_ANTI_ICE	AntiFrost	None Speed Heat. Bypass
30124	R/W	FACTORY_PT_ANTI_ICE_MOD	Mode	OnOff Mod.
30125	R/W	FACTORY_sp_pre_heat_min_speed	Pre-Heat. Speed >=	%
30126	R/W	FACTORY_sp_no_frost_inf	Tx(Expelled)<	0.1 °C
30127	R/W	FACTORY_sp_no_frost_sup	Tx(Expelled)>	0.1 °C
30128	R/W	FACTORY_kp_anti_ice	Kp Anti-F.	0.001
30129	R/W	FACTORY_tau_anti_ice	TauA.F	s
30130	R/W	FACTORY_anti_ice_ti_min	Min Ti	0.1 °C
30131	R/W	FACTORY_PT_FILTERS_ALARM	Filters	None Pres. Hours
30132	R/W	FACTORY_PT_FANS_FAIL	Fans	None Pressure Tachim. 2Press 2Tach.
30133	R/W	FACTORY_sp_fan_en_min_speed	Fan Alarm Enable Speed >=	%
30134	R/W	FACTORY_PT_HEAT	Heating	None El.OnOff W.OnOff El.Mod W.Mod ElW.Mod. W.ElSum.
30135	R/W	FACTORY_temp_w_low_value	Tw Nofrost	0.1 °C
30136	R/W	FACTORY_temp_w_low_alarm	Tw Low Alarm	0.1 °C
30137	R/W	FACTORY_PT_COOLING	Cooling	No Yes
30138	R/W	FACTORY_sp_heat_min_speed	Enable Speed >=	%
30139	R/W	FACTORY_kp_ti	Kp Ti	0.001
30140	R/W	FACTORY_tau_ti	Tau Ti	s
30141	R/W	FACTORY_kp_tr	Kp Tr	0.001
30142	R/W	FACTORY_tau_tr	Tau Tr	s
30143	R/W	FACTORY_delta_heat_tr	Max dTr Mod.	0.1 °C
30144	R/W	FACTORY_min_post_out	MinPost.Out.	%

30145	R/W	FACTORY_PT_TEMP_SETS_IN_INST	T.SetsInInst.	No Yes
30146	R/W	FACTORY_PT_EXT_DI_IN_INST	DI In Inst.	No Yes
30147	R/W	FACTORY_PT_EXT_DO_IN_INST	DO In Inst.	No Yes
30148	R/W	FACTORY_PT_EXT_AO	Ext.AO	None Recircul Cooling
30149	R/W	FACTORY_recircul_in_a	An.In.A	%
30150	R/W	FACTORY_recircul_out_a	An.Out.A	%
30151	R/W	FACTORY_recircul_in_b	An.In.B	%
30152	R/W	FACTORY_recircul_out_b	An.Out.B	%
30153	R/W	FACTORY_PT_DEHUM_AI	Dehumid.AI	None AI1 AI2
30154	R/W	INSTALLER_Auto1	Auto1	None CO2 VOC RH Sensor Ext.Signal
30155	R/W	INSTALLER_Auto1Min	Auto1Min	PPM %
30156	R/W	INSTALLER_Auto1Max	Auto1Max	PPM %
30157	R/W	INSTALLER_Auto1To	Auto1	s No
30158	R/W	INSTALLER_Auto1On	Auto1On	PPM %
30159	R/W	INSTALLER_Auto1Off	Auto1Off	PPM %
30160	R/W	INSTALLER_Auto2	Auto2	None CO2 VOC RH Sensor Ext.Signal
30161	R/W	INSTALLER_Auto2Min	Auto2Min	PPM %
30162	R/W	INSTALLER_Auto2Max	Auto2Max	PPM %
30163	R/W	INSTALLER_Auto2To	Auto2	s No
30164	R/W	INSTALLER_Auto2On	Auto2On	PPM %
30165	R/W	INSTALLER_Auto2Off	Auto2Off	PPM %
30166	R/W	INSTALLER_BypassTMin	Bypass TMin	0.1 °C
30167	R/W	INSTALLER_BypassTMax	Bypass TMax	0.1 °C

30168	R/W	INSTALLER_MaxFiltersWorkingTime	Filters	h
30169	R/W	INSTALLER_MaxSpeed	Max Speed Max Press. MaxFlow	% Pa m3/h
30170	R/W	INSTALLER_Balance	FanExhau./Supply	%
30171	R/W	INSTALLER_ValveTime	Valve	s
30172	R/W	INSTALLER_PIR_Time	PIR Time	s
30173	R/W	INSTALLER_BoostTime	Booster	s
30174	R/W	INSTALLER_kp_dps	Kp	0.001
30175	R/W	INSTALLER_tau_dps	Tau	s
30176	R/W	INSTALLER_kp_dpe	KpDpE	0.001
30177	R/W	INSTALLER_tau_dpe	TauDpE	s
30178	R/W	INSTALLER_DehumDTd	Dehum.DTd	0.1 °C
30179	R/W	INSTALLER_DehumDFans	DFans	 % Pa m3/h
30180	R/W	INSTALLER_DoubleSpTemp	Doubletemp.	No Yes
30181	R/W	INSTALLER_UserPsw	UserPassword	Off On
30182	R/W	TEMP_SETS_W_Enabled	Enabled	Off On
30183	R/W	TEMP_SETS_W_Ti_Min	Ti(In)Min	0.1 °C
30184	R/W	TEMP_SETS_W_Ti_Max	Ti(In)Max	0.1 °C
30185	R/W	TEMP_SETS_W_TrRegulator	TrRegulator or TaRegulator	Off On
30186	R/W	TEMP_SETS_W_Heating	TrHeating or TaHeating	Off 0.1 °C
30187	R/W	TEMP_SETS_W_FreeHeating	TrFreeHeating	Off 0.1 °C
30188	R/W	TEMP_SETS_W_FreeCooling	TrFreeCooling	Off 0.1 °C
30189	R/W	TEMP_SETS_W_Cooling	TrCooling or TaCooling	Off 0.1 °C
30190	R/W	TEMP_SETS_S_Enabled	Enabled	Off On
30191	R/W	TEMP_SETS_S_Ti_Min	Ti(In)Min	0.1 °C
30192	R/W	TEMP_SETS_S_Ti_Max	Ti(In)Max	0.1 °C
30193	R/W	TEMP_SETS_S_TrRegulator	TrRegulator	Off On
30194	R/W	TEMP_SETS_S_Heating	TrHeating	Off 0.1 °C
30195	R/W	TEMP_SETS_S_FreeHeating	TrFreeHeating	Off 0.1 °C

30196	R/W	TEMP_SETS_S_FreeCooling	TrFreeCooling	Off 0.1 °C
30197	R/W	TEMP_SETS_S_Cooling	TrCooling	Off 0.1 °C
30198	R/W	EXT_DI1	Ext.DI1 (Board DI2) (Può essere usato solo se fas alarm = none)	Unused PIR Booster Remote Summer Fire W.Nfrost Ricircul Dehumid. StopExt. MinSpeed Integration Tach.ex Security
	R/W	EXT_DI2	Ext.DI2 (Board DI4)	Unused PIR Booster Remote Summer Fire W.Nfrost Ricircul Dehumid. StopExt. MinSpeed Integration Security
30200	R/W	EXT_DI3	Ext.DI3 (Board DI5)	Unused PIR Booster Remote Summer Fire W.Nfrost Ricircul Dehumid. StopExt. MinSpeed Integration Security
30201	R/W	EXT_DI4	Ext.DI4 (Board DI6)	Unused PIR Booster Remote

				Summer Fire W.Nfrost Ricircul Dehumid. StopExt. MinSpeed Integration Security
30202	R/W	EXT_DO1	Ext.DO1	Heat. Nofrost Fan 1 Fan 2 Service AnyAlarm Auto1Cmp Auto2Cmp Season Dehumid. Nofrost2 Recircul Compr. Int compr.
30203	R/W	EXT_DO2	Ext.DO2	Heat. Nofrost Fan 1 Fan 2 Service AnyAlarm Auto1Cmp Auto2Cmp Season Dehumid. Nofrost2 Recircul Compr. Int compr.
30204	R/W	EXT_DO3	Ext.DO3	Heat. Nofrost Fan 1 Fan 2 Service AnyAlarm Auto1Cmp Auto2Cmp Season Dehumid. Nofrost2 Recircul

				Compr. Int compr.
30205	R/W	EXT_DO4	Ext.DO4	Heat. Nofrost Fan 1 Fan 2 Service AnyAlarm Auto1Cmp Auto2Cmp Season Dehumid. Nofrost2 Recircul Compr. Int compr.
30206	R/W	EXT_DO5	Ext.DO5	Heat. Nofrost Fan 1 Fan 2 Service AnyAlarm Auto1Cmp Auto2Cmp Season Dehumid. Nofrost2 Recircul Compr. Int compr.
30207	R/W	EXT_DO6	Ext.DO6	Heat. Nofrost Fan 1 Fan 2 Service AnyAlarm Auto1Cmp Auto2Cmp Season Dehumid. Nofrost2 Recircul Compr. Int compr.
30208	R/W	EXT_DO7	Ext.DO7	Heat. Nofrost Fan 1 Fan 2 Service AnyAlarm

				Auto1Cmp Auto2Cmp Season Dehumid. Nofrost2 Recircul Compr. Int compr.
30209	R/W	EXT_DO8	Ext.DO8	Heat. Nofrost Fan 1 Fan 2 Service AnyAlarm Auto1Cmp Auto2Cmp Season Dehumid. Nofrost2 Recircul Compr. Int compr.
30210	R/W	EXT_DO_DoFan1On	DoFan1On	s
30211	R/W	EXT_DO_DoFan1Off	DoFan1Off	s
30212	R/W	EXT_DO_DoFan2On	DoFan2On	s
30213	R/W	EXT_DO_DoFan2Off	DoFan2Off	s
30216	R/W	FACTORY_PT_TEMP_IN_INST	Temp.InInst.	Off On
30217	R/W	FACTORY_PT_TePresent	Te(Exter.)	Off On
30218	R/W	FACTORY_PT_TiPresent	Ti(Input)	Off On
30219	R/W	FACTORY_PT_TrPresent	Tr(Return) or Ta(Ambient)	Off On
30220	R/W	FACTORY_PT_TxPresent	Tx(Expel.)	Off On
30221	R/W	FACTORY_PT_TwPresent	Tw(Water)	Off On
30223		EXT_DI5	Ext.DI5(Board DI1)	Unused press tach. ex
30224	R/W	EXT_DI6	Ext.DI6 (Board DI3)	Unused PIR Booster Remote Summer Fire W.Nfrost Ricircul

				Dehumid. StopExt. MinSpeed Integration Security
30225	R/W	EXT_DI7	Ext.DI7(Board AN5)	Unused Tw PIR Booster Remote Summer Fire W.Nfrost Ricircul Dehumid. StopExt. MinSpeed Integration Security
30226	R	EXT_DI8	Ext.DI8 (Board AN9, press switch)	Off On
30253	R/W	Switch_On_Post	Enable Integration only by digital input	Off On
30254	R/W	DI_Winter_Dehum	Enable winter dehumidification	Off On
30255	R/W	Switch_On_Dehum	Enable Dehumidification only by digital input	Off On
39222	R/W	FACTORY_PT_TdPresent	Td(Dehum.)	Off On
37101	R/W	COMM_MbUnitAddress	Address	1
37102	R/W	COMM_BaudRate	BaudRate	100 bps
37103	R/W	COMM_Parity	Parity	None Odd Even
37104	R/W	COMM_StopBits	StopBits	1 1,5 2
37105	R/W	COMM_MbConnTimeOut	Conn.to	s s s s Never
38101	R/W	MON_CHANGE_1_time	Monday C1 Time	10s
38102	R/W	MON_CHANGE_2_time	Monday C2 Time	10s
38103	R/W	MON_CHANGE_3_time	Monday C3 Time	10s
38104	R/W	MON_CHANGE_4_time	Monday C4 Time	10s
38105	R/W	MON_CHANGE_5_time	Monday C5 Time	10s
38106	R/W	MON_CHANGE_6_time	Monday C6 Time	10s
38107	R/W	MON_CHANGE_7_time	Monday C7 Time	10s

38108	R/W	MON_CHANGE_8_time	Monday C8 Time	10s
38109	R/W	TUE_CHANGE_1_time	Tuesday C1 Time	10s
38110	R/W	TUE_CHANGE_2_time	Tuesday C2 Time	10s
38111	R/W	TUE_CHANGE_3_time	Tuesday C3 Time	10s
38112	R/W	TUE_CHANGE_4_time	Tuesday C4 Time	10s
38113	R/W	TUE_CHANGE_5_time	Tuesday C5 Time	10s
38114	R/W	TUE_CHANGE_6_time	Tuesday C6 Time	10s
38115	R/W	TUE_CHANGE_7_time	Tuesday C7 Time	10s
38116	R/W	TUE_CHANGE_8_time	Tuesday C8 Time	10s
38117	R/W	WED_CHANGE_1_time	Wednesday C1 Time	10s
38118	R/W	WED_CHANGE_2_time	Wednesday C2 Time	10s
38119	R/W	WED_CHANGE_3_time	Wednesday C3 Time	10s
38120	R/W	WED_CHANGE_4_time	Wednesday C4 Time	10s
38121	R/W	WED_CHANGE_5_time	Wednesday C5 Time	10s
38122	R/W	WED_CHANGE_6_time	Wednesday C6 Time	10s
38123	R/W	WED_CHANGE_7_time	Wednesday C7 Time	10s
38124	R/W	WED_CHANGE_8_time	Wednesday C8 Time	10s
38125	R/W	THU_CHANGE_1_time	Thursday C1 Time	10s
38126	R/W	THU_CHANGE_2_time	Thursday C2 Time	10s
38127	R/W	THU_CHANGE_3_time	Thursday C3 Time	10s
38128	R/W	THU_CHANGE_4_time	Thursday C4 Time	10s
38129	R/W	THU_CHANGE_5_time	Thursday C5 Time	10s
38130	R/W	THU_CHANGE_6_time	Thursday C6 Time	10s
38131	R/W	THU_CHANGE_7_time	Thursday C7 Time	10s
38132	R/W	THU_CHANGE_8_time	Thursday C8 Time	10s
38133	R/W	FRI_CHANGE_1_time	Friday C1 Time	10s
38134	R/W	FRI_CHANGE_2_time	Friday C2 Time	10s
38135	R/W	FRI_CHANGE_3_time	Friday C3 Time	10s
38136	R/W	FRI_CHANGE_4_time	Friday C4 Time	10s
38137	R/W	FRI_CHANGE_5_time	Friday C5 Time	10s
38138	R/W	FRI_CHANGE_6_time	Friday C6 Time	10s
38139	R/W	FRI_CHANGE_7_time	Friday C7 Time	10s
38140	R/W	FRI_CHANGE_8_time	Friday C8 Time	10s
38141	R/W	SAT_CHANGE_1_time	Saturday C1 Time	10s
38142	R/W	SAT_CHANGE_2_time	Saturday C2 Time	10s
38143	R/W	SAT_CHANGE_3_time	Saturday C3 Time	10s
38144	R/W	SAT_CHANGE_4_time	Saturday C4 Time	10s
38145	R/W	SAT_CHANGE_5_time	Saturday C5 Time	10s
38146	R/W	SAT_CHANGE_6_time	Saturday C6 Time	10s
38147	R/W	SAT_CHANGE_7_time	Saturday C7 Time	10s
38148	R/W	SAT_CHANGE_8_time	Saturday C8 Time	10s
38149	R/W	SUN_CHANGE_1_time	Sunday C1 Time	10s
38150	R/W	SUN_CHANGE_2_time	Sunday C2 Time	10s
38151	R/W	SUN_CHANGE_3_time	Sunday C3 Time	10s
38152	R/W	SUN_CHANGE_4_time	Sunday C4 Time	10s
38153	R/W	SUN_CHANGE_5_time	Sunday C5 Time	10s

38154	R/W	SUN_CHANGE_6_time	Sunday C6 Time	10s
38155	R/W	SUN_CHANGE_7_time	Sunday C7 Time	10s
38156	R/W	SUN_CHANGE_8_time	Sunday C8 Time	***10s
38157	R/W	MON_CHANGE_1_speed_id	Monday C1 Fan Speed	Low Medium High
38158	R/W	MON_CHANGE_2_speed_id	Monday C2 Fan Speed	Low Medium High
38159	R/W	MON_CHANGE_3_speed_id	Monday C3 Fan Speed	Low Medium High
38160	R/W	MON_CHANGE_4_speed_id	Monday C4 Fan Speed	Low Medium High
38161	R/W	MON_CHANGE_5_speed_id	Monday C5 Fan Speed	Low Medium High
38162	R/W	MON_CHANGE_6_speed_id	Monday C6 Fan Speed	Low Medium High
38163	R/W	MON_CHANGE_7_speed_id	Monday C7 Fan Speed	Low Medium High
38164	R/W	MON_CHANGE_8_speed_id	Monday C8 Fan Speed	Low Medium High
38165	R/W	TUE_CHANGE_1_speed_id	Tuesday C1 Fan Speed	Low Medium High
38166	R/W	TUE_CHANGE_2_speed_id	Tuesday C2 Fan Speed	Low Medium High
38167	R/W	TUE_CHANGE_3_speed_id	Tuesday C3 Fan Speed	Low Medium High
38168	R/W	TUE_CHANGE_4_speed_id	Tuesday C4 Fan Speed	Low Medium High
38169	R/W	TUE_CHANGE_5_speed_id	Tuesday C5 Fan Speed	Low Medium High
38170	R/W	TUE_CHANGE_6_speed_id	Tuesday C6 Fan Speed	Low Medium High
38171	R/W	TUE_CHANGE_7_speed_id	Tuesday C7 Fan Speed	Low Medium High

38172	R/W	TUE_CHANGE_8_speed_id	Tuesday C8 Fan Speed	Low Medium High
38173	R/W	WED_CHANGE_2_speed_id	Wednesday C1 Fan Speed	Low Medium High
38174	R/W	WED_CHANGE_2_speed_id	Wednesday C2 Fan Speed	Low Medium High
38175	R/W	WED_CHANGE_3_speed_id	Wednesday C3 Fan Speed	Low Medium High
38176	R/W	WED_CHANGE_4_speed_id	Wednesday C4 Fan Speed	Low Medium High
38177	R/W	WED_CHANGE_5_speed_id	Wednesday C5 Fan Speed	Low Medium High
38178	R/W	WED_CHANGE_6_speed_id	Wednesday C6 Fan Speed	Low Medium High
38179	R/W	WED_CHANGE_7_speed_id	Wednesday C7 Fan Speed	Low Medium High
38180	R/W	WED_CHANGE_8_speed_id	Wednesday C8 Fan Speed	Low Medium High
38181	R/W	THU_CHANGE_2_speed_id	Thursday C1 Fan Speed	Low Medium High
38182	R/W	THU_CHANGE_2_speed_id	Thursday C2 Fan Speed	Low Medium High
38183	R/W	THU_CHANGE_3_speed_id	Thursday C3 Fan Speed	Low Medium High
38184	R/W	THU_CHANGE_4_speed_id	Thursday C4 Fan Speed	Low Medium High
38185	R/W	THU_CHANGE_5_speed_id	Thursday C5 Fan Speed	Low Medium High
38186	R/W	THU_CHANGE_6_speed_id	Thursday C6 Fan Speed	Low Medium High
38187	R/W	THU_CHANGE_7_speed_id	Thursday C7 Fan Speed	Low Medium High

38188	R/W	THU_CHANGE_8_speed_id	Thursday C8 Fan Speed	Low Medium High
38189	R/W	FRI_CHANGE_2_speed_id	Friday C1 Fan Speed	Low Medium High
38190	R/W	FRI_CHANGE_2_speed_id	Friday C2 Fan Speed	Low Medium High
38191	R/W	FRI_CHANGE_3_speed_id	Friday C3 Fan Speed	Low Medium High
38192	R/W	FRI_CHANGE_4_speed_id	Friday C4 Fan Speed	Low Medium High
38193	R/W	FRI_CHANGE_5_speed_id	Friday C5 Fan Speed	Low Medium High
38194	R/W	FRI_CHANGE_6_speed_id	Friday C6 Fan Speed	Low Medium High
38195	R/W	FRI_CHANGE_7_speed_id	Friday C7 Fan Speed	Low Medium High
38196	R/W	FRI_CHANGE_8_speed_id	Friday C8 Fan Speed	Low Medium High
38197	R/W	SAT_CHANGE_2_speed_id	Saturday C1 Fan Speed	Low Medium High
38198	R/W	SAT_CHANGE_2_speed_id	Saturday C2 Fan Speed	Low Medium High
38199	R/W	SAT_CHANGE_3_speed_id	Saturday C3 Fan Speed	Low Medium High
38200	R/W	SAT_CHANGE_4_speed_id	Saturday C4 Fan Speed	Low Medium High
38201	R/W	SAT_CHANGE_5_speed_id	Saturday C5 Fan Speed	Low Medium High
38202	R/W	SAT_CHANGE_6_speed_id	Saturday C6 Fan Speed	Low Medium High
38203	R/W	SAT_CHANGE_7_speed_id	Saturday C7 Fan Speed	Low Medium High

38204	R/W	SAT_CHANGE_8_speed_id	Saturday C8 Fan Speed	Low Medium High
38205	R/W	SUN_CHANGE_2_speed_id	Sunday C1 Fan Speed	Low Medium High
38206	R/W	SUN_CHANGE_2_speed_id	Sunday C2 Fan Speed	Low Medium High
38207	R/W	SUN_CHANGE_3_speed_id	Sunday C3 Fan Speed	Low Medium High
38208	R/W	SUN_CHANGE_4_speed_id	Sunday C4 Fan Speed	Low Medium High
38209	R/W	SUN_CHANGE_5_speed_id	Sunday C5 Fan Speed	Low Medium High
38210	R/W	SUN_CHANGE_6_speed_id	Sunday C6 Fan Speed	Low Medium High
38211	R/W	SUN_CHANGE_7_speed_id	Sunday C7 Fan Speed	Low Medium High
38212	R/W	SUN_CHANGE_8_speed_id	Sunday C8 Fan Speed	Low Medium High
38213	R/W	MON_CHANGE_1_temp_id	Monday C1 Heat./Cool.	Off On
38214	R/W	MON_CHANGE_2_temp_id	Monday C2 Heat./Cool.	Off On
38215	R/W	MON_CHANGE_3_temp_id	Monday C3 Heat./Cool.	Off On
38216	R/W	MON_CHANGE_4_temp_id	Monday C4 Heat./Cool.	Off On
38217	R/W	MON_CHANGE_5_temp_id	Monday C5 Heat./Cool.	Off On
38218	R/W	MON_CHANGE_6_temp_id	Monday C6 Heat./Cool.	Off On
38219	R/W	MON_CHANGE_7_temp_id	Monday C7 Heat./Cool.	Off On
38220	R/W	MON_CHANGE_8_temp_id	Monday C8 Heat./Cool.	Off On
38221	R/W	TUE_CHANGE_1_temp_id	Tuesday C1 Heat./Cool.	Off On
38222	R/W	TUE_CHANGE_2_temp_id	Tuesday C2 Heat./Cool.	Off On
38223	R/W	TUE_CHANGE_3_temp_id	Tuesday C3 Heat./Cool.	Off

				On
38224	R/W	TUE_CHANGE_4_temp_id	Tuesday C4 Heat./Cool.	Off On
38225	R/W	TUE_CHANGE_5_temp_id	Tuesday C5 Heat./Cool.	Off On
38226	R/W	TUE_CHANGE_6_temp_id	Tuesday C6 Heat./Cool.	Off On
38227	R/W	TUE_CHANGE_7_temp_id	Tuesday C7 Heat./Cool.	Off On
38228	R/W	TUE_CHANGE_8_temp_id	Tuesday C8 Heat./Cool.	Off On
38229	R/W	WED_CHANGE_1_temp_id	Wednesday C1 Heat./Cool.	Off On
38230	R/W	WED_CHANGE_2_temp_id	Wednesday C2 Heat./Cool.	Off On
38231	R/W	WED_CHANGE_3_temp_id	Wednesday C3 Heat./Cool.	Off On
38232	R/W	WED_CHANGE_4_temp_id	Wednesday C4 Heat./Cool.	Off On
38233	R/W	WED_CHANGE_5_temp_id	Wednesday C5 Heat./Cool.	Off On
38234	R/W	WED_CHANGE_6_temp_id	Wednesday C6 Heat./Cool.	Off On
38235	R/W	WED_CHANGE_7_temp_id	Wednesday C7 Heat./Cool.	Off On
38236	R/W	WED_CHANGE_8_temp_id	Wednesday C8 Heat./Cool.	Off On
38237	R/W	THU_CHANGE_1_temp_id	Thursday C1 Heat./Cool.	Off On
38238	R/W	THU_CHANGE_2_temp_id	Thursday C2 Heat./Cool.	Off On
38239	R/W	THU_CHANGE_3_temp_id	Thursday C3 Heat./Cool.	Off On
38240	R/W	THU_CHANGE_4_temp_id	Thursday C4 Heat./Cool.	Off On
38241	R/W	THU_CHANGE_5_temp_id	Thursday C5 Heat./Cool.	Off On
38242	R/W	THU_CHANGE_6_temp_id	Thursday C6 Heat./Cool.	Off On
38243	R/W	THU_CHANGE_7_temp_id	Thursday C7 Heat./Cool.	Off On
38244	R/W	THU_CHANGE_8_temp_id	Thursday C8 Heat./Cool.	Off On
38245	R/W	FRI_CHANGE_1_temp_id	Friday C1 Heat./Cool.	Off On
38246	R/W	FRI_CHANGE_2_temp_id	Friday C2 Heat./Cool.	Off On

38247	R/W	FRI_CHANGE_3_temp_id	Friday C3 Heat./Cool.	Off On
38248	R/W	FRI_CHANGE_4_temp_id	Friday C4 Heat./Cool.	Off On
38249	R/W	FRI_CHANGE_5_temp_id	Friday C5 Heat./Cool.	Off On
38250	R/W	FRI_CHANGE_6_temp_id	Friday C6 Heat./Cool.	Off On
38251	R/W	FRI_CHANGE_7_temp_id	Friday C7 Heat./Cool.	Off On
38252	R/W	FRI_CHANGE_8_temp_id	Friday C8 Heat./Cool.	Off On
38253	R/W	SAT_CHANGE_1_temp_id	Saturday C1 Heat./Cool.	Off On
38254	R/W	SAT_CHANGE_2_temp_id	Saturday C2 Heat./Cool.	Off On
38255	R/W	SAT_CHANGE_3_temp_id	Saturday C3 Heat./Cool.	Off On
38256	R/W	SAT_CHANGE_4_temp_id	Saturday C4 Heat./Cool.	Off On
38257	R/W	SAT_CHANGE_5_temp_id	Saturday C5 Heat./Cool.	Off On
38258	R/W	SAT_CHANGE_6_temp_id	Saturday C6 Heat./Cool.	Off On
38259	R/W	SAT_CHANGE_7_temp_id	Saturday C7 Heat./Cool.	Off On
38260	R/W	SAT_CHANGE_8_temp_id	Saturday C8 Heat./Cool.	Off On
38261	R/W	SUN_CHANGE_1_temp_id	Sunday C1 Heat./Cool.	Off On
38262	R/W	SUN_CHANGE_2_temp_id	Sunday C2 Heat./Cool.	Off On
38263	R/W	SUN_CHANGE_3_temp_id	Sunday C3 Heat./Cool.	Off On
38264	R/W	SUN_CHANGE_4_temp_id	Sunday C4 Heat./Cool.	Off On
38265	R/W	SUN_CHANGE_5_temp_id	Sunday C5 Heat./Cool.	Off On
38266	R/W	SUN_CHANGE_6_temp_id	Sunday C6 Heat./Cool.	Off On
38267	R/W	SUN_CHANGE_7_temp_id	Sunday C7 Heat./Cool.	Off On
38268	R/W	SUN_CHANGE_8_temp_id	Sunday C8 Heat./Cool.	Off On
38269	R/W	PROGRAM_LowSpeed	Low Sp/Low Pr./Low Fl. Low Speed Low Speed Low Press.	Off % Pa

			Low Flow Low Sp/Low Pr./Low Fl.	m3/h Auto
38270	R/W	PROGRAM_MediumSpeed	Med Sp/Med Pr./Med Fl. Medium Speed Medium Speed Medium Press. Medium Flow Med Sp/Med Pr./Med Fl.	Off % Pa m3/h Auto
38271	R/W	PROGRAM_HighSpeed	High Sp/High Pr./High Fl. High Speed High Speed High Press. High Flow High Sp/High Pr./High Fl.	Off % Pa m3/h Auto
38272	R/W	DASHBOARD_SpSpeedOn	Speed	Off On
38273	R/W	DASHBOARD_SpSpeedValue	Speed	 % Pa m3/h Timer Auto
38274	R/W	DASHBOARD_SpTempOn	Heat./Cool.	Off On
38275	R/W	DASHBOARD_SpTempValue	Heat./Cool.	0.1 °C
38276	R/W	PARAMETERS_Bypass	Bypass	Off On Automat.
38277	R/W	PARAMETERS_Season	Season	Winter Summer
38278	R/W	PARAMETERS_Humidity	Humidity	%
38279	R/W	PARAMETERS_Dehumidif	Dehumidif.	No Yes
39001	R/W	ROOT_PSW_LOGIN_Value	Insert Password	None
39002	R/W	ROOT_Save_Action	Save	Not Done Done
39003	W	ROOT_ResetDevice_Action	Reset	Action(==1)
39157	W	MON_CopyFrom_TUE_Action	Tue > Monday	Do Action
39158	W	MON_CopyFrom_WED_Action	Wed > Monday	Do Action
39159	W	MON_CopyFrom_THR_Action	Thu > Monday	Do Action
39160	W	MON_CopyFrom_FRI_Action	Fri > Monday	Do Action
39161	W	MON_CopyFrom_SAT_Action	Sat > Monday	Do Action
39162	W	MON_CopyFrom_SUN_Action	Sun > Monday	Do Action
39163	W	TUE_CopyFrom_MON_Action	Mon > Tuesday	Do Action
39164	W	TUE_CopyFrom_WED_Action	Wed > Tuesday	Do Action
39165	W	TUE_CopyFrom_THR_Action	Thu > Tuesday	Do Action

39166	W	TUE_CopyFrom_FRI_Action	Fri > Tuesday	Do Action
39167	W	TUE_CopyFrom_SAT_Action	Sat > Tuesday	Do Action
39168	W	TUE_CopyFrom_SUN_Action	Sun > Tuesday	Do Action
39169	W	WED_CopyFrom_MON_Action	Mon > Wednesday	Do Action
39170	W	WED_CopyFrom_TUE_Action	Tue > Wednesday	Do Action
39171	W	WED_CopyFrom_THR_Action	Thu > Wednesday	Do Action
39172	W	WED_CopyFrom_FRI_Action	Fri > Wednesday	Do Action
39173	W	WED_CopyFrom_SAT_Action	Sat > Wednesday	Do Action
39174	W	WED_CopyFrom_SUN_Action	Sun > Wednesday	Do Action
39175	W	THR_CopyFrom_MON_Action	Mon > Thursday	Do Action
39176	W	THR_CopyFrom_TUE_Action	Tue > Thursday	Do Action
39177	W	THR_CopyFrom_WED_Action	Wed > Thursday	Do Action
39178	W	THR_CopyFrom_FRI_Action	Fri > Thursday	Do Action
39179	W	THR_CopyFrom_SAT_Action	Sat > Thursday	Do Action
39180	W	THR_CopyFrom_SUN_Action	Sun > Thursday	Do Action
39181	W	FRI_CopyFrom_MON_Action	Mon > Friday	Do Action
39182	W	FRI_CopyFrom_TUE_Action	Tue > Friday	Do Action
39183	W	FRI_CopyFrom_WED_Action	Wed > Friday	Do Action
39184	W	FRI_CopyFrom_THR_Action	Thu > Friday	Do Action
39185	W	FRI_CopyFrom_SAT_Action	Sat > Friday	Do Action
39186	W	FRI_CopyFrom_SUN_Action	Sun > Friday	Do Action
39187	W	SAT_CopyFrom_MON_Action	Mon > Saturday	Do Action
39188	W	SAT_CopyFrom_TUE_Action	Tue > Saturday	Do Action
39189	W	SAT_CopyFrom_WED_Action	Wed > Saturday	Do Action
39190	W	SAT_CopyFrom_THR_Action	Thue > Saturday	Do Action
39191	W	SAT_CopyFrom_FRI_Action	Frie > Saturday	Do Action
39192	W	SAT_CopyFrom_SUN_Action	Sune > Saturday	Do Action
39193	W	SUN_CopyFrom_MON_Action	Mone > Sunday	Do Action
39194	W	SUN_CopyFrom_TUE_Action	Tue > Sunday	Do Action
39195	W	SUN_CopyFrom_WED_Action	Wed > Sunday	Do Action
39196	W	SUN_CopyFrom_THR_Action	Thu > Sunday	Do Action
39197	W	SUN_CopyFrom_FRI_Action	Fri > Sunday	Do Action
39198	W	SUN_CopyFrom_SAT_Action	Sat > Sunday	Do Action
39199	W	FACTORY_DefaultUnitConf_Action	DefaultUnitConf	Do Action
39200	W	PROGRAM_Default_Action	Default Program	Do Action
39201	W	INSTALLER_AdjZero_Action	AdjustZero	Do Action
39202	W	TEMP_SETS_W_Default_Action	Default	Do Action
39203	W	TEMP_SETS_S_Default_Action	Default	Do Action
39204	W	COMM_CONF_Default_Action	Default	Do Action
39205	W	COMM_CONF_Apply_Action	Apply	Do Action
39206	W	FACTORY_DefaultUnit_Action	DefaultUnit	Do Action
40028	R	APP_INT_Activities	Default	!=0 ==Action param./set(modif.)

				==0 no Action param./set(
40101	R/W	CLOCK_Year	Year	
40102	R/W	CLOCK_Month	Month	
40103	R/W	CLOCK_Date	Date	
40104	R/W	CLOCK_WeekDay	Day	Monday Tuesday Wednesday Thursday Friday Saturday Sunday
40105	R/W	CLOCK_Hours	Hours	
40106	R/W	CLOCK_Minutes	Minutes	
40107	R/W	CLOCK_Seconds	Seconds	
40108	R/W	DASHBOARD_SFanRemoteOn	FanS.Remote or Fan Remote	Off On
40109	R/W	DASHBOARD_SFanRemoteValue	FanS.Remote or Fan Remote	%
40110	R/W	DASHBOARD_EFanRemoteOn	FanE.Remote	Off On
40111	R/W	DASHBOARD_EFanRemoteValue	FanE.Remote	%
40112	R/W	DASHBOARD_Timer	Timer	s (Function end)
40113	R	ALARMS_Configuration	Configuration	Ok Ko Not Avail=-32768
40114	R	ALARMS_Communication	Communication	Ok Ko Not Avail.
40115	R	ALARMS_Te	Te(Exter.)	Ok Ko Not Avail.
40116	R	ALARMS_Tr	Tr(Return)	Ok Ko Not Avail.
40117	R	ALARMS_Tx	Tx(Expel.)	Ok Ko Not Avail.
40118	R	ALARMS_Ti	Ti(Input)	Ok Ko Not Avail.
40119	R	ALARMS_Tw	Tw(Water)	Ok Ko Not Avail.
40120	R	ALARMS_TwLow	Tw(Water)Low	Ok

				Ko Not Avail.
40121	R	ALARMS_Filters	Filters	Ok Ko Not Avail.
40122	R	ALARMS_Fans	Fans	Ok Ko Not Avail.
40123	R	ALARMS_PFanSupply	PFanSupply	Ok Ko Not Avail.
40124	R	ALARMS_PFanExhau	PFanExhau.	Ok Ko Not Avail.
40125	R	ALARMS_Auto1	Ext.Signal	Ok Ko Not Avail.
40126	R	ALARMS_Auto1to	Auto1	Ok Ko Not Avail.
40127	R	ALARMS_Auto2	Ext.Signal	Ok Ko Not Avail.
40128	R	ALARMS_Auto2to	Auto2	Ok Ko Not Avail.
40129	R	ALARMS_Dp	Dp	Ok Ko Not Avail.
40130	R	ALARMS_DpSupply	DpSupply	Ok Ko Not Avail.
40131	R	ALARMS_DpExhau	DpExhau.	Ok Ko Not Avail.
40132	R	ALARMS_Flow	Flow	Ok Ko Not Avail.
40133	R	ALARMS_FlowSupply	FlowSupply	Ok Ko Not Avail.
40134	R	ALARMS_FlowExhau	FlowExhau.	Ok Ko Not Avail.
40135	R	ALARMS_AntiFrost	Anti-Frost	Ok Ko Not Avail.

40136	R	ALARMS_Td	Td(Dehum.)	Ok Ko Not Avail.
40137	R	ALARMS_MinSpeed	Min.Speed	Ok Ko Not Avail.
40138	R	STATUS_SpSpeed	Speed	Off % Pa m3/h Timer Auto
40139	R	STATUS_BoostTimer	Booster	s (Function end)
40140	R	STATUS_SpTemp	Heat./Cool.	Off 0.1 °C
40141	R	STATUS_SpTempHeat	Heating	Off 0.1 °C
40142	R	STATUS_SpTempCool	Cooling	Off 0.1 °C
40143	R	STATUS_SFanRemoteOn	FanS.Remote	Off %
40144	R	STATUS_EFanRemoteOn	FanE.Remote	Off %
40145	R	STATUS_Te	Te(Exter.)	0.1 °C
40146	R	STATUS_Tr	Tr(Return)	0.1 °C
40147	R	STATUS_Tx	Tx(Expel.)	0.1 °C
40148	R	STATUS_Ti	Ti(Input)	0.1 °C
40149	R	STATUS_Tw	Tw(Water)	0.1 °C
40150	R	STATUS_WatNoFrost	Wat.NoFrost	Off On
40151	R	STATUS_AntiFrost	Anti-Frost	Off On
40152	R	STATUS_Dehumidif	Dehumidif.	Off On
40153	R	STATUS_Td	Td(Dehum.)	0.1 °C
40154	R	STATUS_FanSupply	FanSupply or Fan	Off % RPM
40155	R	STATUS_FanExhau	FanExhau.	Off % RPM
40156	R	STATUS_Dp	Dp	Pa

40157	R	STATUS_DpSupply	DpSupply	Pa
40158	R	STATUS_DpExhau	DpExhau.	Pa
40159	R	STATUS_Flow	Flow	m3/h
40160	R	STATUS_FlowSup	FlowSup	m3/h
40161	R	STATUS_FlowExh	FlowExh	m3/h
40162	R	STATUS_FansWorkingTime_H	Fan Hours	h
40163	R	STATUS_FansWorkingTime_L	Fan Hours	h
40164	R	STATUS_Bypass	Bypass	Off On Mod
40165	R	STATUS_CoolingHeating	Heating/Cooling	Off On
40166	R	STATUS_AUTO_1	Ext.Signal	PPM %
40167	R	STATUS_AUTO_2	Ext.Signal	PPM %
40168	R	STATUS_Humidity	Humidity	Off On
40169	R	STATUS_PIR	PIR	End Max Min
40170	R	STATUS_Boost	Booster	End Max
40171	R	STATUS_Remote	Remote	Off On
40172	R	STATUS_Summer	Summer	No Yes
40173	R	STATUS_Fire	Fire	No Yes
40174	R	STATUS_DWatNoFrost	DWat.NoFrost	Off On
40175	R	STATUS_RecirculReq	Recircul.Req.	Off On
40176	R	STATUS_StopExtract	StopExtract.	Off On
40177	R	STATUS_SFanRemoteValue	FanS.Remote or Fan Remote	%
40178	R	STATUS_EFanRemoteValue	FanE.Remote	%
40179	R	STATUS_SpTempFreeHeat	FreeHeating	0.1 °C
40180	R	STATUS_SpTempFreeCool	FreeCooling	0.1 °C
40181	R	ALARMS_Clock	Clock	Ok Ko Not Avail.
40182	R	ALARMS_Comm_X571_0	Communic.(xx)	Ok Ko Not Avail.

40183	R	ALARMS_Comm_X571_1	Communic.(xx)	Ok Ko Not Avail.
40184	R	ALARMS_Comm_X571_2	Communic.(xx)	Ok Ko Not Avail.
40185	R	ALARMS_Comm_X571_3	Communic.(xx)	Ok Ko Not Avail.
40186	R	APP_INT_ALARMS_Comm_ MSONDA9_Rh	Communic.(xx)	Ok Ko Not Avail.
40187	R	APP_INT_ALARMS_Sensor_ X571Rh	Communic.(xx)	Ok Ko Not Avail .
40188	R	APP_INT_ALARMS_ Compressor	Compressor	Ok Ko Not Avail.
40189	R	APP_INT_STATUS_Sensor_ MSONDA9_Rh	Sensor Hr	Off On
40190	R	APP_INT_STATUS_Integration	Integration	Off On
40191	R	APP_INT_STATUS_ PressSwitch	Pressure switch	Off On
40192	R	APP_INT_STATUS_ Compressor	Compressor	Off On
40193	R	APP_INT_STATUS_ExtDamper	Ext. Air damper	%

* Access limited by password, to modify write before it in register 39001 value 0342H o 834 decimal
** For save writing, set register 39002=1, alternatively web server or touch panel

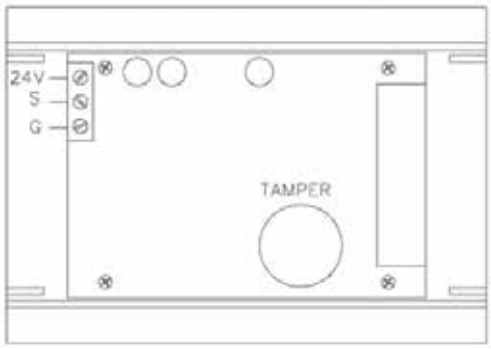
*** 3600/10*ora

Installation

Installation must be carried out by expert staff. For the best operation, the remote panel must be fixed to an indoor wall about 1.5 m above the floor, far from heating sources (radiators, stoves, etc.), and must be not exposed to direct sun rays. It must be not installed near doors, which might damage the electronics if slammed. The maximum distance from the main electric box is 70m.

Control panel wiring

Connect the power supply to the 24V and G terminals, matching the correct polarity. Connect the BUS to the S terminal. Using a min. 0.3 mm2 section shielded cable is recommended. In case of communication errors, check the connections between the remote panel and the electronic card. For panel with Modbus tcp-ip connect the Ethernet cable in the connector, with rs485 additional card use 3x0,3mm2 shielded cable.



Remote panel: rear view

Control characteristics

Power: 9 / 30 VDC 250mW, operating temperature between 0° and 50 °C; storage temperature between -20 °C and 70 °C.

Terms of Guarantee

The two-year (24-month) guarantee period starts from the receipt of the equipment: the date of receipt must be indicated in the purchase invoice. In the guarantee term, the manufacturer will repair all defects arising from manufacturing mistakes or material faults free of charge. It will replace defective parts or the whole equipment at its own discretion. Any other request for guarantee service is excluded. The manufacturer also waives any liability for subsequent damages. Goods that are claimed to be defective must be shipped to the manufacturer through the dealer, together with a detailed description of the fault written by the dealer. Shipment cost will be charged to the customer. The manufacturer shall bear the cost of returning the repaired goods. In no case will the manufacturer be responsible for defects caused by improper use that does not comply with the user manual provided, and natural catastrophic events like lightning, floods, earthquakes, fire, etc. The manufacturer also waives any liabilities for repairs or changes to the equipment made by any people foreign to the manufacturing company.

Gentile Cliente

Grazie per l'attenzione al prodotto UTEK, progettato e realizzato per garantire all'Utilizzatore valori reali: Qualità, Sicurezza e Risparmio sui consumi.

Dear Customer

Thanks for your attention to the product UTEK , designed and manufactured to ensure the real values to the User : Quality, Safety and Savings on working.

Made in Italy

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ISO 9001

AZIENDA CON SISTEMA DI GESTIONE AMBIENTALE CERTIFICATO DA DNV
ISO 14001

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