VEX500 (Everest XH)

Installation instructions **EN**

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1. RECOMMENDATIONS AND SAFETY SETPOINTS

Read the instructions in the manual carefully before starting to install the apparatus and keep the manual in good condition close to the apparatus throughout its working life.

1.1 Individuel protection

- This apparatus can be used by children aged over aged 8 years and people with reduced physical, sensory or mental capabilities, or lacking in experience or know-how, (providing they) are properly monitored or are instructed in the safe use of the apparatus, and if any possible risks are clearly understood.
- Children should not be allowed to play with the apparatus. User cleaning and maintenance must not be carried out by unsupervised children.

1.2 Installation and maintenance precautions

- Installation of an VEX unit can be dangerous due to moving or powered up components. This equipment should be installed, commissioned and serviced by trained and qualified personnel, observing Standards and standard good practices.
- All servicing or maintenance operations requiring the access doors to be opened or one or more components to be removed must be carried out by a qualified technician.
- All electrical connections to the equipment must carried out by a technician in accordance with requirements laid down in the NF C 15-100 Standard.
- In particular, a contact separation device with an opening of at least 3mm on each pole as well as a protection device with an appropriate rated current should be installed in the inbuilt raceways (circuit breaker). Copper conductor sections are defined in sections 2.9.3, 2.9.4 and 2.9.5 of the installation manual.
- The product must be powered down before any maintenance or cleaning operation.
- Make sure that the unit cannot be accidentally started up.
- To avoid any risk of accident, if a power cable is damaged it must be replaced by the technician who installed the product, or another qualified technician.
- In the event that the motor overheats, its linear modulation will be reduced. When it exceeds its maximum internal temperature, the controller powers down the motor and restarts it automatically after cooling. In the event of motor failure (motor integrated circuit failure signal, phase failure, motor stalled, shorted to ground or internal short circuit, intermediary or network reduced or excessive voltage, peak current fault) an alarm triggers apparatus power down. Disconnect power supply (circuit breaker on the electrical panel), check that nothing is restricting unit operation (e.g. blocking, friction, clogged wheel, abnormal noise...) and wait one hour before powering up again.
- If the problem persists, contact your installer or dealer.
- Use only manufacturer's original parts.
- For units fitted with an electric heating coil: in the event of multiple failures in electrical coil power control (at least two sensors failed) and in case of overheating in the air input chamber (Ambient temperature > 80°C), an automatic rearming thermostat triggers electrical coil shutdown. In addition, the electrical coil is fitted with a manual reset thermostat which triggers at 120°C and is located in a sleeve between the resistors.
- To maintain the guarantee, no modifications must be made to the apparatus.
- To ensure correct operation, the apparatus must be regularly maintained.

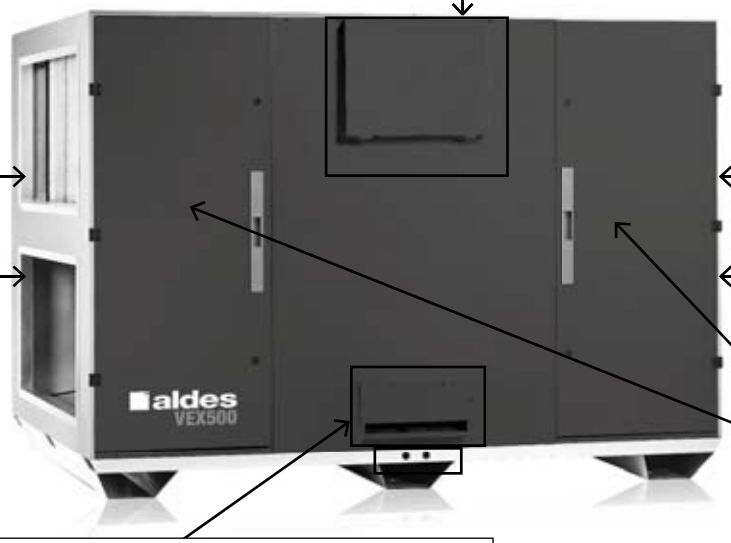
2. INSTALLATION

2.1 General information

Attention: the purpose of this document is to help in installing the unit. To attain complete installation compliance, please refer to the legislation in force in the country of installation (e.g.: NF DTU 68-3 section 1.1.4).

• **Access points**

Access to controls
Switches, PLC's of settings



Side panel:
2 opening frames

Side panel:
2 opening frames

Access door to internal components protected by a CHC 8mm key

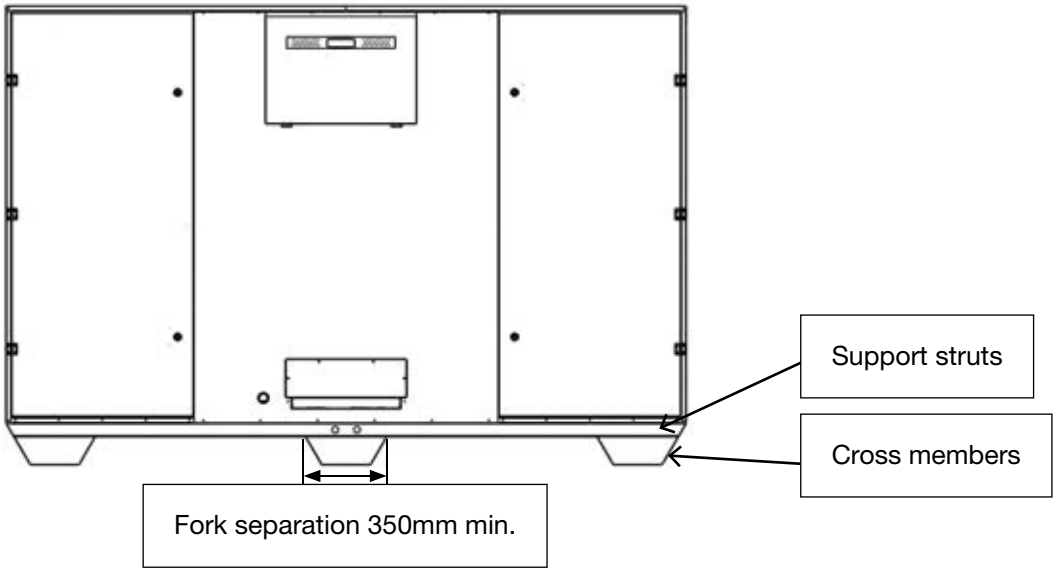
Terminal block:
power supplies, ducts, signals etc.
unit power supply:
Single phase 230VAC to VEX520-VEX580
Three phase 400VAC+N+T for the others
Battery power supply:
Three phase 400VAC +N +T

The unit's identification plate is located on the side panel.
The unit is supplied shrink-wrapped and protected with cardboard corners.
All accessories ordered with the unit are supplied unassembled. See section 2.7 for installing accessories.

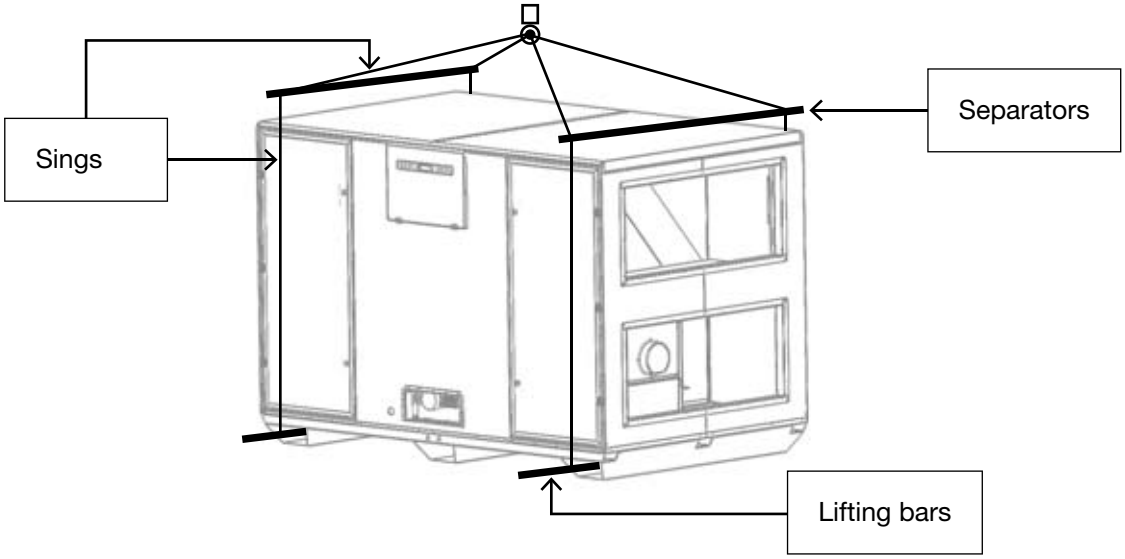
Caution: do not pierce the surface between the two access doors and dividers because they integrate wiring systems!

2.2 On-site transportation

The unit is mounted on cross members. During transport by forklift, make sure forks are long enough so that all support struts are resting upon them. Be careful not to damage the cross members when passing the forks under the unit (allow a minimum space of 350mm).



Handling using slings: Use the lifting bars placed inside the cross members. The bars' flexural rigidity must be appropriate for the weight of the unit. Place the sling loops around the lifting bars and place spacers above the unit so as not to damage the casing. See Diagram below.



2.3 Parts included in the package

2.3.1 Air input temperature probe

A 3m long wire probe is provided, connected inside the lower connection box . It must be placed in the air input duct. The probe is equipped with a metal support rod and a PG 9 cable gland, for installation see section 1.6.

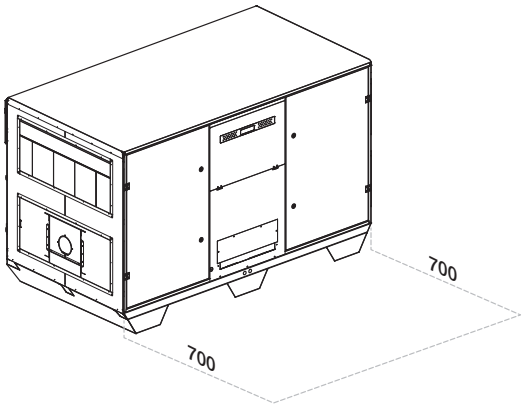
2.3.2 Documentation envelope

All documents relating to using the unit are located behind the black door.
A SD card with a USB adapter containing the control and software configuration instructions are included in the documentation envelope.

2.4 Unit Assembly

2.4.1 General information

Assemble the unit's cross members on a flat, stable surface (flat surface for condensates).
It is advisable to install an anti-vibration device between the Unit's legs and the frame (e.g.: pads or mats) and between the pipe fittings and the duct system (e.g.: flexible cuff) to dampen any vibration generated by the motorised fans.
During unit installation and connection of ducts and electrical cables, make sure not to block the access points so that internal operational components can be easily extracted, thus enabling electrical connection of the unit.
Space required for maintenance: to enable filter replacement, the 2 side doors must be able to open to a min. of 90°. The central black door must be able to open to 180° for access to switches and controls.
Provide the space and height required for connecting a siphon to drain the condensates from the exchanger and cooling coil. See section 2.8.1.



2.4.2 Exterior version

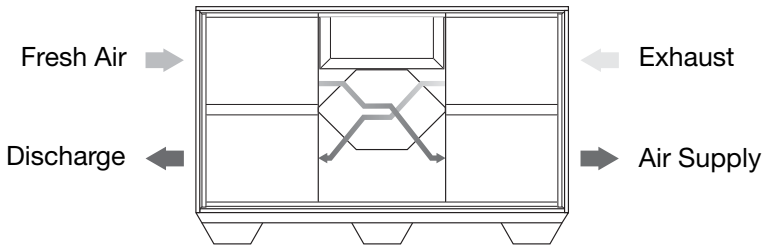
The Everest units have IPX4 protection against water damage and pitting. units destined for exterior use are equipped with a weatherproof cover. To ensure protection against rain entering into the unit's internal compartments, it is necessary to install a rain canopy (sold as an option) on the air inputs and exhausts, if they are not equipped with gutters. Alternatively, we recommend installing on the exterior version, insulation dampers on the air input and exhaust orifices.

Caution: Installation of the weatherproof cover must comply with DTU 43.1, Chap. 5.4. The overall size of the unit is greater with the weatherproof cover and canopy! To install the canopy, see section 2.7.2, for dimensions see section 3.2.

2.5 Direction of flow

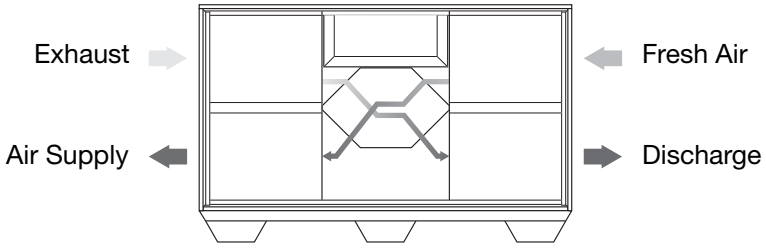
There are right and left air flow versions

2.5.1 Right Version



Fresh air flow to the right

2.5.2 Left Version



Fresh air flow to the left

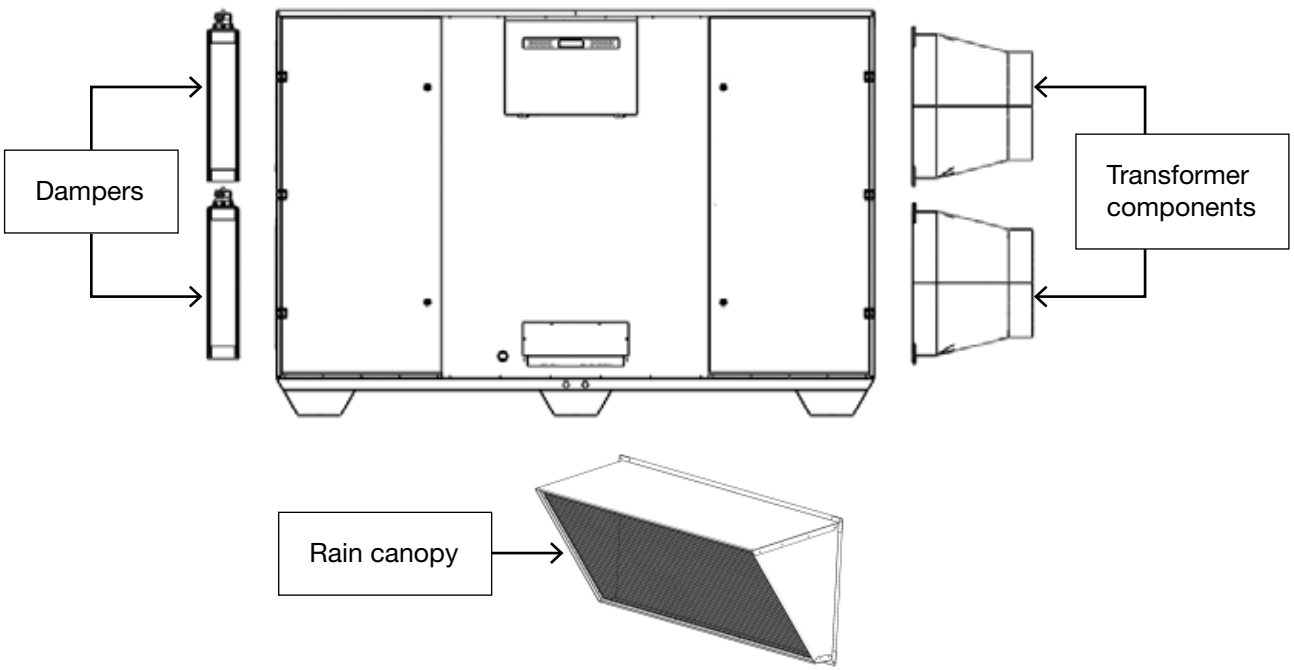
2.6 Installing the temperature probe (air input sensor)

The air input temperature probe is delivered connected to the control terminal, terminals M16-M17. It must be located in the input duct. The probe must pass through the connection terminal cable gland in order to ensure an IP54 seal.

Important: When the system includes heating or cooling coils, the probe must be placed after these heat components at a minimum distance of 1.5 metres – in order to ensure an even temperature on the section.
In terms of the duct, the probe, passes through a PG 9 cable gland, ensuring that the duct is sealed. It is maintained the entire length by a metal rod.

2.7 Installation options/accessories

The 2 side panels are equipped with M8 inserts at each corner of the opening frame in order to accommodate external accessories (transformer components-dampers–Canopies).



2.7.1 Transformer component connection

Provide M8 screws and a EPDM foam self adhesive seal for installing transformer components on the unit. Glue the seal on the flange of the transformer component to ensure that the structure is sealed. Then screw each transformer component into the inserts of the frame. To connect the circular ducts, these must be fitted with a rubber O-ring. See diameters per machine in Section 3.3.

Insulate ducts and shaped parts in accordance with the Standards and regulations in force.

2.7.2 Canopy installation

Canopies are supplied with M8 screws and a 5x10mm thick EPDM self adhesive seal.
Glue the seal onto the flange of the canopy to ensure that the structure is sealed.
Canopies help protect the unit from rainwater intrusion. They can be attached to the opening frame, on a damper or a rectangular sleeve.

Caution: To prevent the recirculation of exhausted air towards the the fresh air, allow a minimum distance of 4m between the air input and exhaust outlet (See for DTU 68-3 section 1-1-4 residential buildings). For commercial buildings the RSDT requires that «the exhaust air extracted from the rooms must be ejected at least eight metres from any window or fresh air input».

For canopy dimensions see section 3.2.2

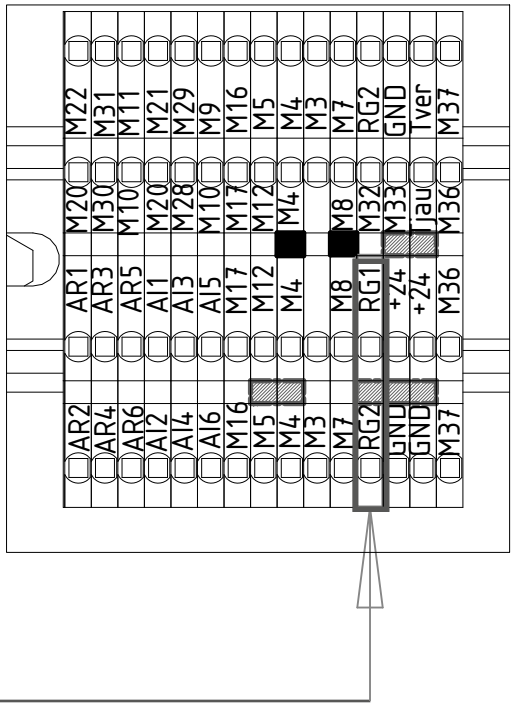
2.7.3 Installing air input/exhaust dampers

Dampers are supplied with pre-wired actuators, an "RG" linking cable (whether there are one or two dampers), a junction box, self tapping screws, M8 screws and a 5x10mm thick EPDM self adhesive seal. Glue the seal onto the flange of the damper to ensure that the structure is sealed. Then screw each damper in the inserts of the opening frame.

Connect the "RG" cable to the terminals RG1-RG2 terminals of the terminal block (see diagram below). For technical details on the terminals, see section 2.9.2

Air input-exhaust damper connection

Labels	Definition	Comments
M17	Air input temperature probe	Factory connected probe to be placed in the air input duct
M16		
M12	CO_2-0-10V Probe	active if option has been
M4	GND	Closed by default on the terminal
M5	External unit stop	
M4	GND	NO
M3	High speed	
M8	Fire Alarm contact	Closed by default on the terminal
M7	GND	
RG1	ON/OFF- insulation damper relay	NO (active if option has been selected)
RG2		
+24	24V AC	actuator damper
GND		
+24	24V AC	CO_2 probe
GND		
M36	unit Alarm return relay	NO
M37		



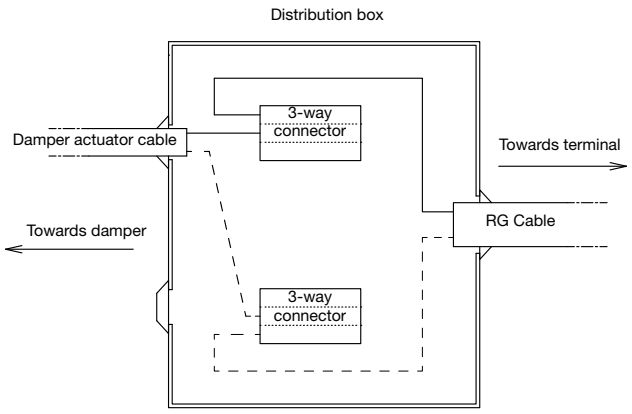
Fast connector terminal-cable section 0.14
1.5mm ²-rigid or crimped contacts recommended.

2 or 3 horizontal terminal jumper

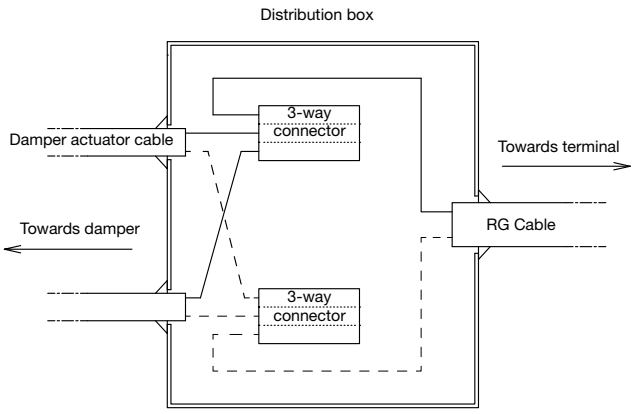
2 vertical terminal jumper

Thread the cable through the junction box cable gland to ensure that the terminal is sealed. Thread the cable into the raceway, and through the grommet provided, and pull it out onto the side panel containing the insulation dampers. Attach the distribution box using self tapping screws between two dampers, on the side panel. Thread the "RG" cable through the grommets of the distribution box.
The distribution box is used to connect the damper actuator cable to the "RG" linking cable. When there are 2 dampers (input and exhaust), the 2 actuator cables are connected in parallel. Installing cables (see diagram below) depending on your configuration-one or two dampers.

Only one damper
Air input or exhaust



Two dampers in parallel
input and air exhaust



Black

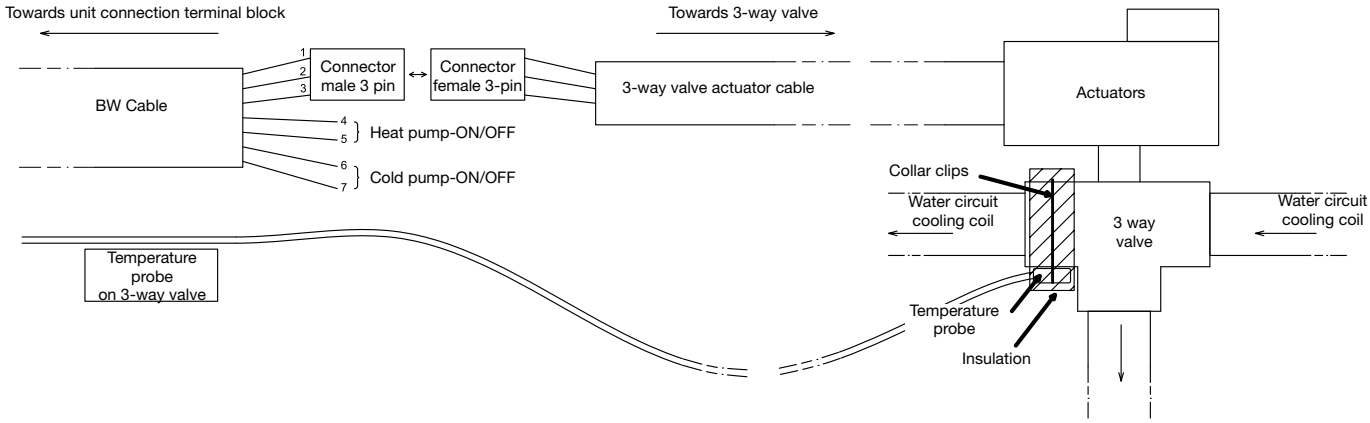
Red

2.7.4 Internal water cooling coil option

The internal water cooling coils are supplied with a motorised 3 way and pre-wired valve, "BW" control cable and a temperature probe (for measuring the temperature of the fluid circulating in the cooling coil). The "BW" cable and temperature probe are connected on one side of the control terminal. On the other side, they are located in the raceway, ready to be connected by the installer.

Hydraulic connection of the 3-way valve and the cooling coil collectors (see section 2.8.4). When the hydraulic connections are completed, carry out the cable connections for the internal water cooling coil (see wiring diagram below).

Internal water cooling coil 3-way valve actuator connection drawing



Connect the male "BW" cable plug to the actuator female socket ("BW" cable wires 1, 2, 3).
If required, connect the 4 free wires of the of the "BW" cable enabling the cooling coil water circuit pump (hot or cold) to be switched on or off. In the event of a reversible cooling coil, the two pumps can be switched on or off ("BW" cable wires 4 and 5. power supply to hot water pump; "BW" cable wires 6 and 7 Power supply to cold water pump). Wires 4-5 and 6-7 are non-voltage relays.

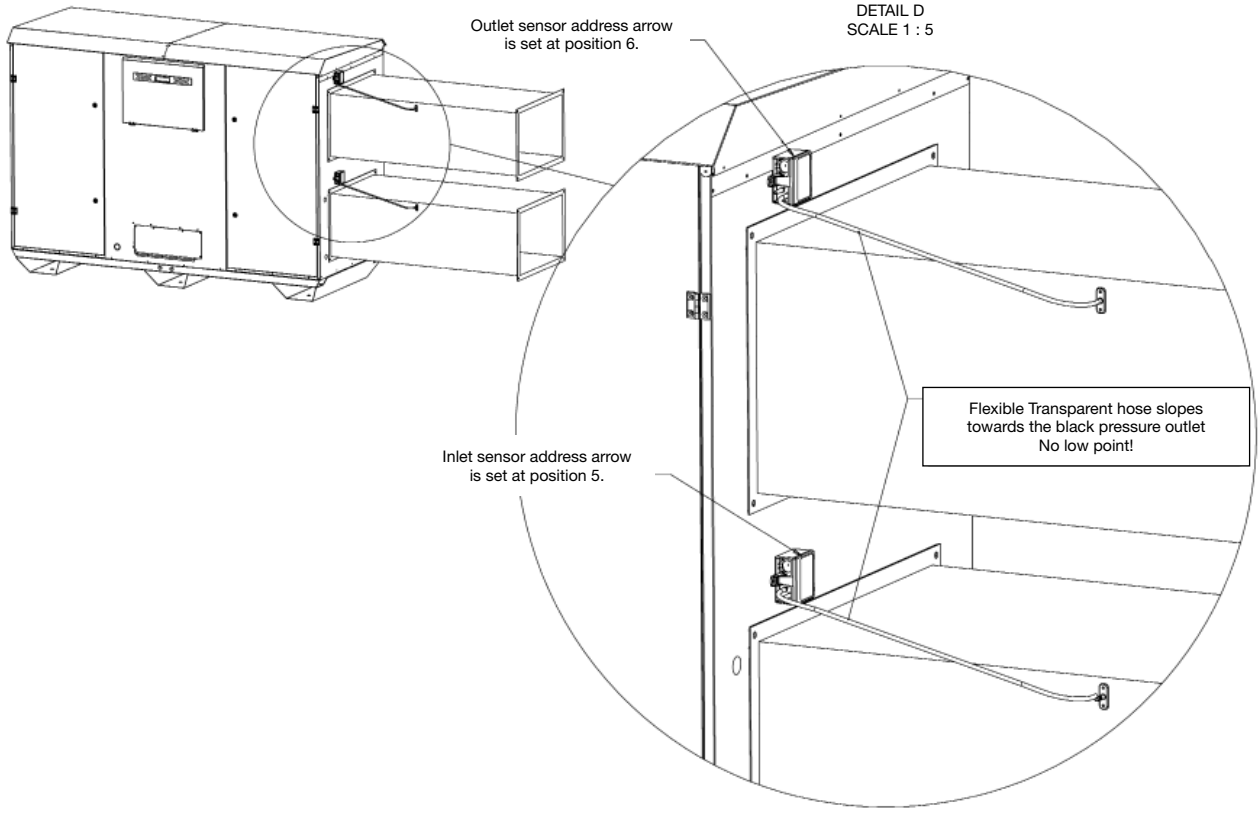
Caution: electrical connections of external appliances or those used in a damp environment must be watertight. It is recommended to protect the connections between the actuator cable and the «BW» cable to a minimum of protection class of IPX5.
Locate the temperature probe on the 3-way valve of the internal cooling coil using a plastic snap fastener. To increase the accuracy of fluid temperature measurement, insulate the probe and 3-way valve.

2.7.5 Constant pressure option

The kit consists of three RJ12 cables (labelled R8, R9 and R10) connected to the two PTH pressure sensors. Each sensor is linked to two metres of transparent flexible tube which is connected to 1 black pressure outlet. 4 self-tapping screws are provided in a plastic bag. The assembly is wired up and constructed in the Factory and placed on the air input and output sidewall. Only the black pressure outlets are to be installed in ducts.

The upper PTH sensor should measure the pressure difference between the air outlet and the ambient air outside the unit. Its address arrow is set at position “6”. The transparent hose is connected to the «-» sensor terminal (depressurised duct). Leave the «+» terminal exposed to fresh air. Drill a 10mm Ø hole in the outlet duct in order to insert the pressure outlet. Secure the pressure outlet, using two self-tapping screws. Remember to carefully seal around each pressure outlet.

The lower PTH sensor should measure the pressure difference between the air inlet and the ambient air outside the unit. Its address arrow is set at position “5”. The transparent hose is connected to the «+» sensor terminal (pressurised duct). Leave the «-» terminal exposed to fresh air. Drill a 10mm Ø hole in the outlet duct in order to insert the pressure outlet. Secure the pressure outlet, using two self-tapping screws. Remember to carefully seal around each pressure outlet.



Warning: the transparent tube must descend from the PTH pressure sensor to the duct’s black pressure inlet without allowing a low point beneath it. Under certain conditions the air in the hose could condense. Water stagnation in the hose causes incorrect measurement leading to poor unit control!

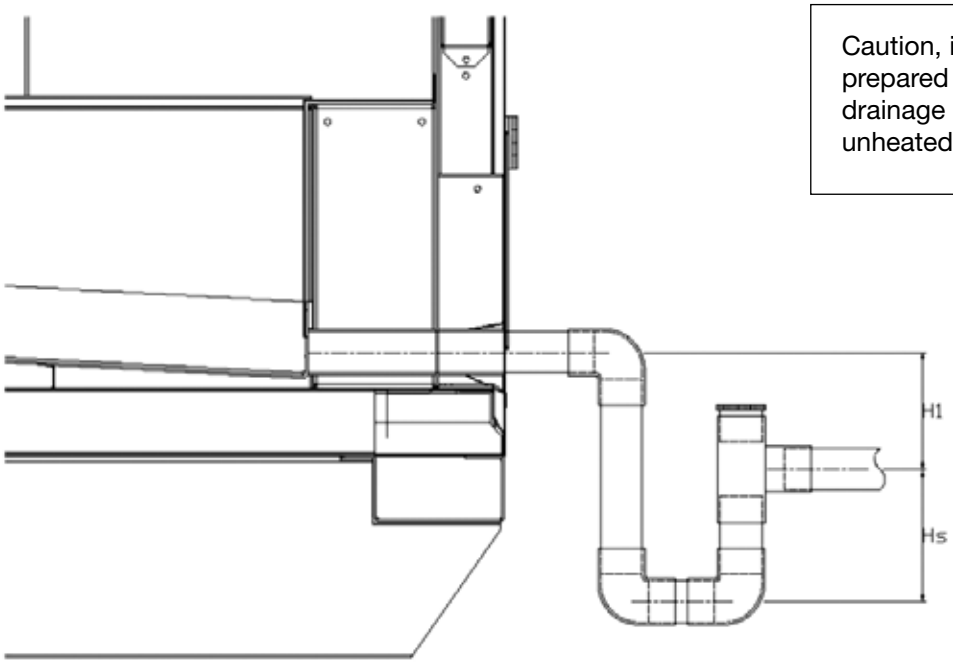
Warning: for the best results, pressure should be measured where there is less risk of turbulence, that is to say, on a straight length of duct. The minimum distance to be maintained from any turbulence is at least twice the diagonal of a rectangular cross section, and at least twice the diameter of a circular section.

2.8 Hydraulic connection

2.8.1 Generalities on condensate connection

Fit all condensate drains with a siphon (plate heat exchanger and cooling coil optional). Siphon height is calculated according to the under or excess pressure in the apparatus, in order to enable the evacuation of condensates and prevent leakage of air from the unit.

Caution: the siphon must always be filled with water before the unit is started up. Risk of water evaporation during summer months. In order to have greater water capacity, it is advisable to use a minimum of a Ø32mm diameter siphon (for VEX520-525-530 sizes, use a Ø20 to Ø32 reducing sleeve).



Caution, if risk of freezing in winter, be prepared to insulate the siphon and the drainage components if they are in an unheated atmosphere.

Siphon calculation

"P" being the maximum pressure in Pa inside an operating unit, with a safety factor increase of 20 % (10 Pa=1mm of water column). Warning, be prepared for more load reductions, (higher or lower pressure) with clogged filters!

Section of the unit with low pressure (at exchanger connection):
H1(mm) >= P/10
Hs >= Px0,075

Example: calculating a low pressure of 500 Pa, i.e. P=600 Pa with safety coefficient.
H1 >= 600/10 → H1 >= 60 mm et
Hs >= 600x0,075 → Hs >= 45mm

In terms of exchanger condensates, the following, maximum total fan pressure can be safely used:

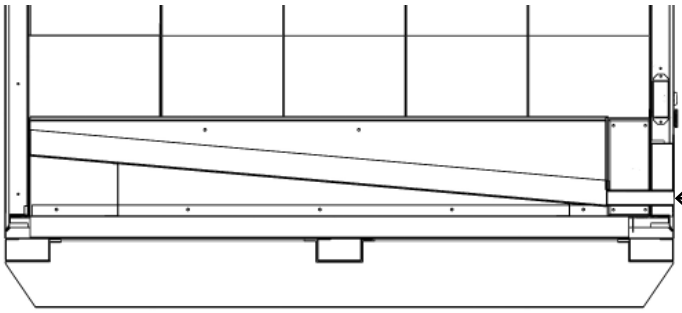
VEX520 à VEX540 (Everest XH 1000 à 2300)	P max. = 800 Pa
VEX550 (Everest XH 3500)	P max. = 1100 Pa
VEX560 à VEX580 (Everest XH 4500 à 7000)	P max. = 1400 Pa

Section of the unit under pressure (at cooling coil connection):
H1 >= 35 mm
Hs(mm) >= P/10
Example: calculating a pressure of 500 Pa, i.e. P=600 Pa with safety coefficient. H1 >= 35 mm et Hs >= 600/10 → Hs >= 60 mm

In terms of internal cooling coil condensates, the aerolic blower system pressure can be used.

2.8.2 Condensate exchanger connection

Our condensate tanks are equipped with an aluminium diameter female tube.
Glue a corresponding male diameter PVC tube (for siphon connection) (see diagram below).



Ø20 mm inside dia.(female) Aluminium tube, model VEX520 to VEX530
Ø32 mm inside dia. (female) Aluminium tube, model VEX540 to VEX580

2.8.3 Condensate cooling coil connection

Our cooling coil condensate tanks are fitted with a drain plug connected to a flexible extensible tube opening at the front at the height of the raceway, and under the cooling coil. The end of the flexible PVC has an Ø32 male fitting. Connect the exhaust outlet to a siphon (see section 2.8.1) by gluing on an Ø32 female PVC cap.

2.8.4 Internal cooling coil water collector connection

For collector diameters and their location, see section 3.4

Collectors have a standard thread. Connect the cooling coil water collector's water inputs and exhaust outlets.
The water input and outlet collectors are marked on the side panels of the unit (the water circuit is always counter to the air flow, for a cooling coil of at least two rows). It is advisable to hold the collector with pair of pliers during connection in order to avoid damaging which can cause leakage.
Br sure to seal the collector connectors and provide either an expansion joint or flexible connector in order to absorb any possible expansion or contraction.

For nominal diameters of 3-way valves, see section 3.4

Caution: The cooling coils accept a maximum pressure of 8 bars.

2.9 Connection to the mains power supply

Caution: electrical connections must be carried out by qualified electrician, wearing appropriate Personal Protective Equipment. Never work on the unit when it is powered up. Electrical connection must be carried out in compliance with the NF C 15-100 Standard. Each power supply network must be protected by an omnipolar circuit breaker with a contact opening distance of 3mm. For a single-phase power supply, use a Type A leakage current differential circuit breaker. For a three-phase phase power supply, use a Type B leakage current differential circuit breaker. For these two types of power supply, we recommend a differential sensitivity of 300mA. The recommended amperage for each circuit breaker, depending on size of unit, is defined in sections 2.9.3, 2.9.4 and 2.9.5. Maximum recommended ambient temperature <45°C. Do not forget to connect the Earth.

2.9.1 Main Control – Power

The unit has an electric mains power circuit and a electric battery circuit. Each circuit has its own built-in "control - switch" in a compartment located behind the black door at the top of the unit.
Electrical connections are carried out in the terminal block located in the lower part of the front of the unit (see diagram below).

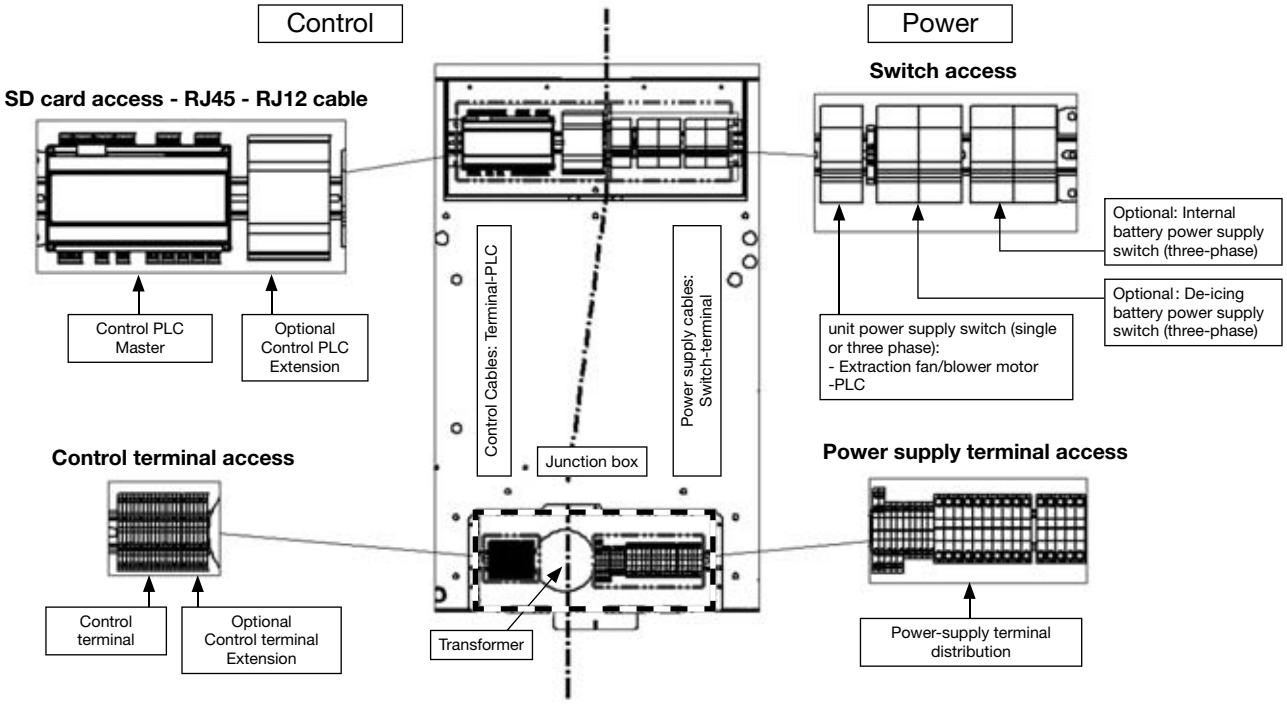
- **Access points**

Access to controls
Switches, control PLCs

Terminal block:
power supplies, ducts, signals etc.

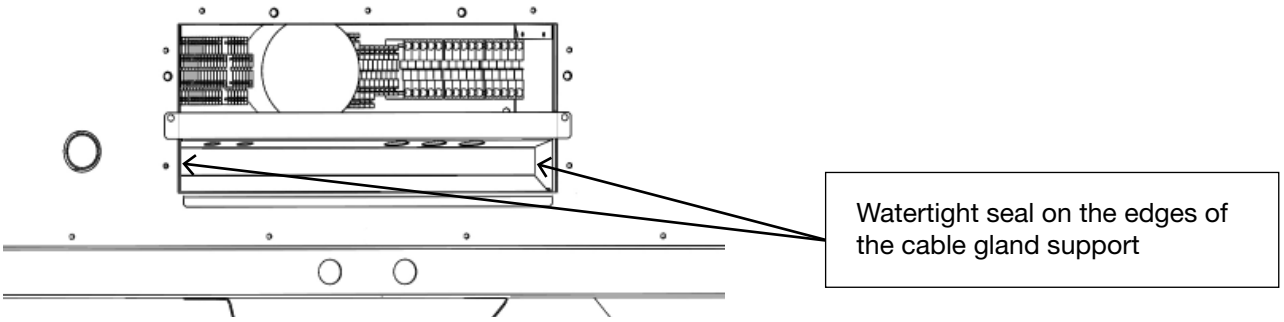
unit power supply:
Single phase 230VAC to VEX520-VEX580
Three phase 400VAC+N+T for the others

Battery power supply:
Three phase 400VAC +N + T



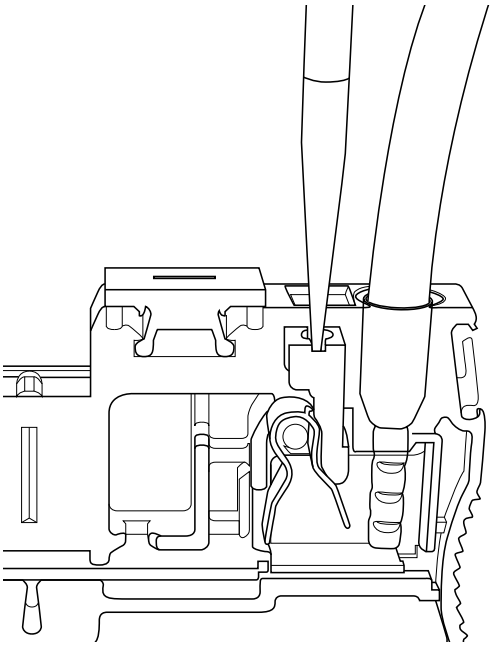
2.9.2 Connections Electrical cables-power and control connections

Unscrew the cruciform screw of the access door to the terminal block. Then unscrew the 2 cable gland support screws. Thread the cables through cable glands in order to ensure they are sealed. After connecting the power and control cables, install a seal between the edges of the cable gland support and the junction box.

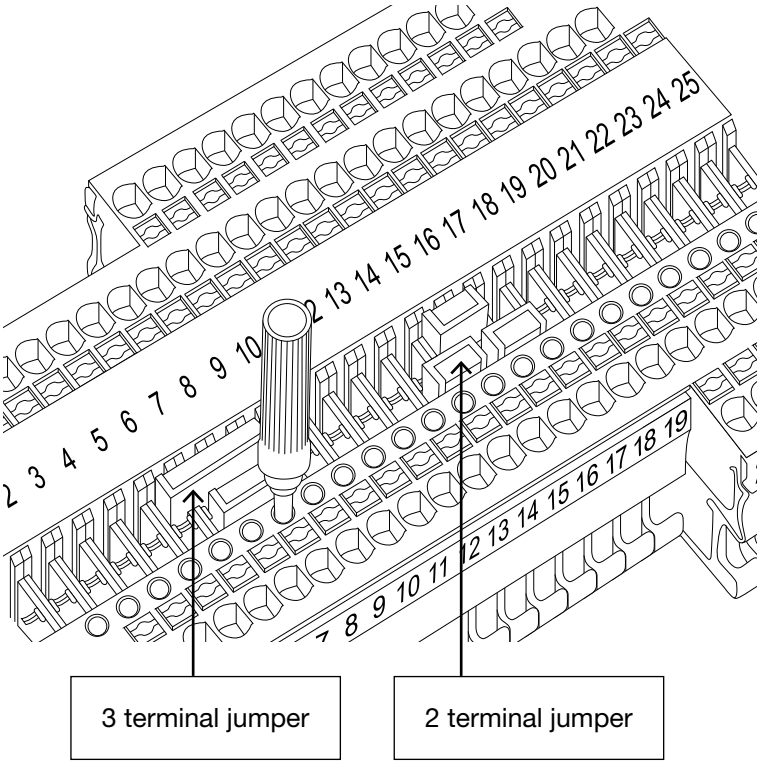


The rigid power cable conductors fitted with connectors can be plugged directly into the spring terminals (no tools required). Conductors can be released using a screwdriver and turning the orange latch located in front of the conductor's insertion hole.
Flexible conductors without connectors must be inserted by pressing the latch to release the spring (see photo below).
By applying a very light force on the latch, you can check that the conductor is correctly inserted if the latch goes in without resistance by 1mm.
The jumpers plug into the holes in the terminal provided for this purpose (see photo below).

Conductor to terminal connection



Jumper connection to terminal (for input/exhaust dampers)

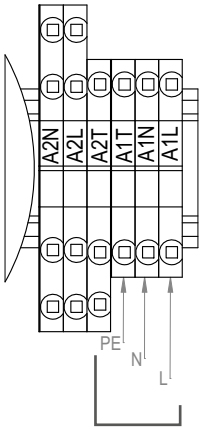


2.9.3 Unit General power supply

We recommend a 20A circuit breaker with a sensitivity differential of 300mA and a 1.5mm² section cable for the general power supply.

Caution: three-phase power supply from the VEX560 (4500 XH) unit.

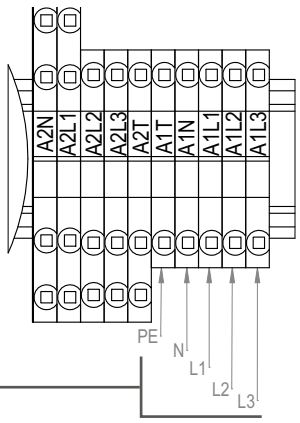
Connection
power supply terminals
VEX520 - 525 - 530
VEX540 - 550



unit single phase 230V+T:
- 2 Motorised-Fans extraction/blowing
- PLC

Unit power supply				
Models	Power supply	Frequency	Max. power consumption (W)	Type of terminal
VEX520	1 ~ 230VAC +T	50Hz	1000	Snap-lock connector terminal - cable section 0.14 to 4 mm ² - rigid conductor or crimped contacts recommended
VEX525	1 ~ 230VAC +T	50Hz	1000	
VEX530	1 ~ 230VAC +T	50Hz	1000	
VEX540	1 ~ 230VAC +T	50Hz	1420	
VEX550	1 ~ 230VAC +T	50Hz	2720	
VEX560	3 ~ 400VAC +N +T	50Hz	4420	
VEX570	3 ~ 400VAC +N +T	50Hz	5020	
VEX580	3 ~ 400VAC +N +T	50Hz	7220	

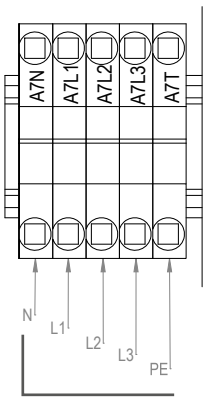
Power supply terminal connection
VEX560 - 570 - 580



unit three phase power supply
3 x 400V +N +T :
- 2 Motorised-Fans extraction/blowing
- PLC

2.9.4 De-icing battery pack power supply (optional)

De-icing battery power supply to terminal connection



De-icing battery three phase power supply 3x400V+N+T

VEX520 à VEX550 unit: We recommend a 20A circuit breaker with a sensitivity differential of 300mA and 4mm² section cable for the general power supply.
VEX560 à VEX580 unit: We recommend a 40A circuit breaker with a sensitivity differential of 300mA and 6mm² section cable for the general power supply.

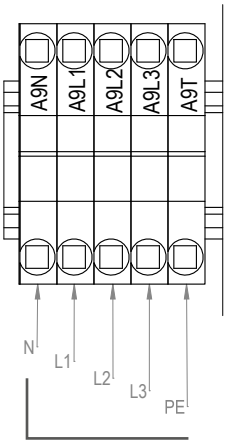
Caution: three-phase power supply for all sizes.

Battery power supply				
Models	Power supply	Frequency	Max. power consumption (W)	Type of terminal
VEX520	3 ~ 400VAC +N +T	50Hz	2620	Snap-lock connector terminal - cable section 0.5 to 10 mm² - rigid conductor or crimped contacts recommended
VEX525	3 ~ 400VAC +N +T	50Hz	3740	
VEX530	3 ~ 400VAC +N +T	50Hz	5610	
VEX540	3 ~ 400VAC +N +T	50Hz	7480	
VEX550	3 ~ 400VAC +N +T	50Hz	11220	
VEX560	3 ~ 400VAC +N +T	50Hz	14960	
VEX570	3 ~ 400VAC +N +T	50Hz	18700	
VEX580	3 ~ 400VAC +N +T	50Hz	22440	

Caution: Each coil is controlled by a solid state relay. The solid state relay may cause radio interference. The use of mains filters can be necessary in the event the user has to meet CEM (EN/IEC 55011 Standard) requirements.
- Unit VEX520 à VEX550 (XH1000 to XH3500):220nF/760V/X1 filter
- Unit VEX560 à VEX580 (XH4500 to XH7000):330nF/760V/X1 filter

2.9.5 Connection electric heater battery power supply (optional)

Internal battery power supply to terminal connection



Three phase power supply internal electric battery 3 x 400V +N +T

VEX520 à VEX550 unit: We recommend a 20A circuit breaker with a sensitivity differential of 300mA and 4mm² section cable for the general power supply.
VEX560 à VEX580 unit: We recommend a 40A circuit breaker with a sensitivity differential of 300mA and 6mm² section cable for the general power supply.

Caution: three-phase power supply for all sizes.

Battery power supply				
Models	Power supply	Frequency	Max. power consumption (W)	Type of terminal
VEX520	3 ~ 400VAC +N +T	50Hz	2620	Snap-lock connector terminal - cable section 0.5 to 10 mm² - rigid conductor or crimped contacts recommended
VEX525	3 ~ 400VAC +N +T	50Hz	3740	
VEX530	3 ~ 400VAC +N +T	50Hz	5610	
VEX540	3 ~ 400VAC +N +T	50Hz	7480	
VEX550	3 ~ 400VAC +N +T	50Hz	11220	
VEX560	3 ~ 400VAC +N +T	50Hz	14960	
VEX570	3 ~ 400VAC +N +T	50Hz	18700	
VEX580	3 ~ 400VAC +N +T	50Hz	22440	

Caution: Each coil is controlled by a solid state relay. The solid state relay may cause radio interference. The use of mains filters can be necessary in the event the user has to meet CEM (EN/IEC 55011 Standard) requirements):
- Unit VEX520 to VEX550: 220nF/760V/X1 filter
- Unit VEX560 to VEX580: 330nF/760V/X1 filter

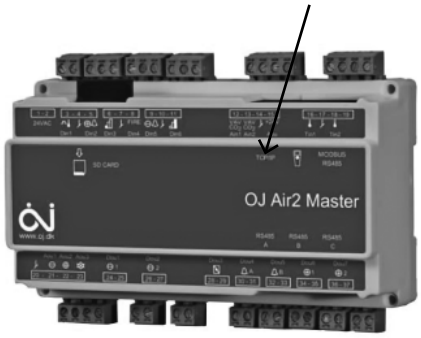
2.10 Filter maintenance

Caution: filter cleaning must be carried out by a qualified electrician and with the unit powered down (BT conductor powered up)

It is advisable to change the filters when the following final load losses occur:
G4 filters: 250 Pa max.
F7 filters Drawing: 250 Pa ECO - 450 Pa max.
HE F7 filters: 250 Pa ECO - 450 Pa max.
Consult the parameters notice for resetting the load loss when changing filters in dynamic alarm.

2.11 Configuring TCP/IP communication

Connect the RJ45 cable to the TCP/IP plug of the Master PLC:

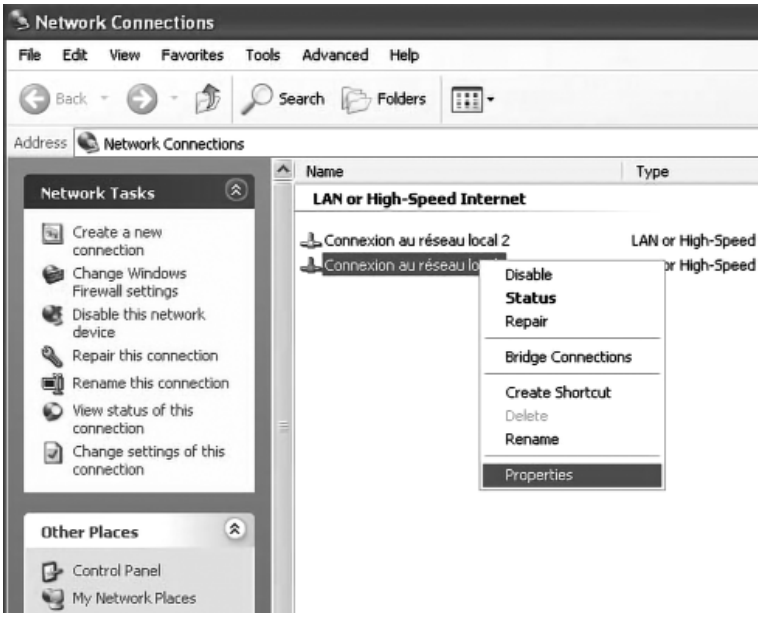


(1) Using the remote control, find the IP control address, subnet mask, gateway and DNS server as follows:
- User/Internet
- (To change the window: turn the control wheel. To change a value: press the centre button and rotate the control wheel to the value required).
- Static/Dynamic IP:
  - Set «Static» if direct PC/unit connection
  - Set «Dynamic» if connection via a router
- Examples :
  - IP address, e.g.: Default 172.20.20.3
  - Default Subnet Mask, e.g.: 255.255.255.0
  - Default Gateway, e.g.: 172.20.20.1
  - DNS server required, e.g.: 172.20.20.3 (same IP address)
  - Alternative DNS server: 0.0.0.0

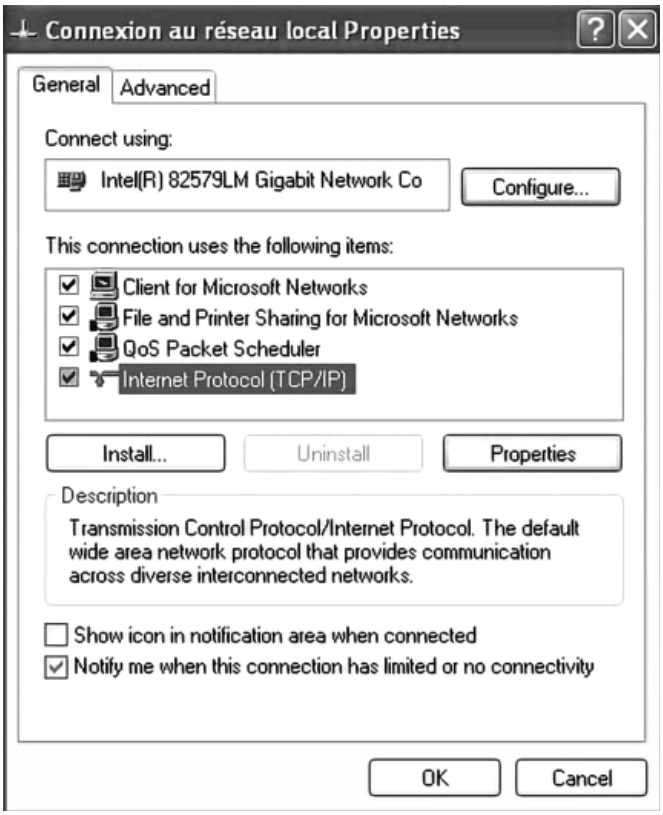
2) On your PC, configure the IP address and DNS server address. Depending on the version of Windows, these are the 2 access paths:

a. With Windows XP

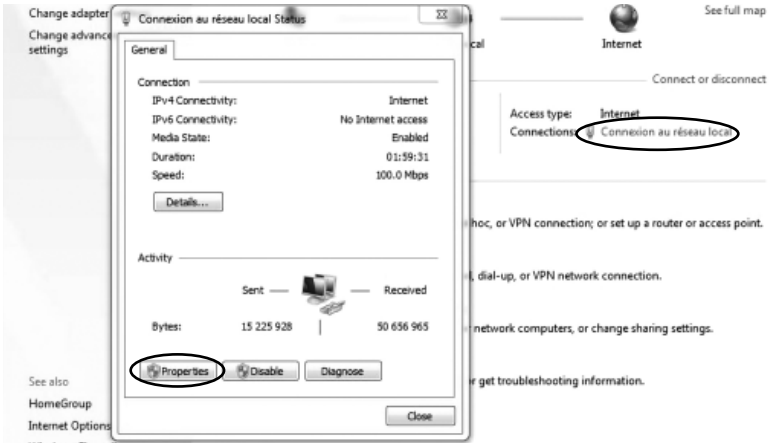
- Start/Connections/Show All Connections/Right click "local area connection"/properties:



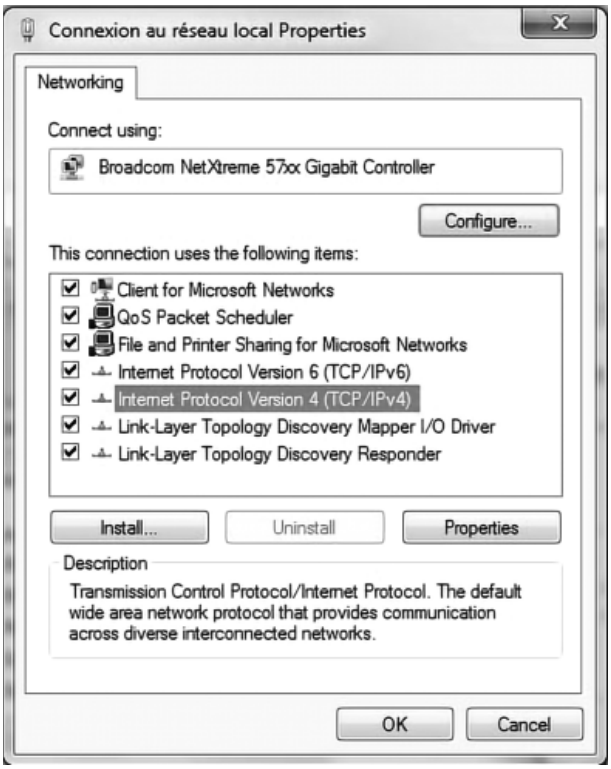
- Internet Protocol/Properties:



b. With Windows 7

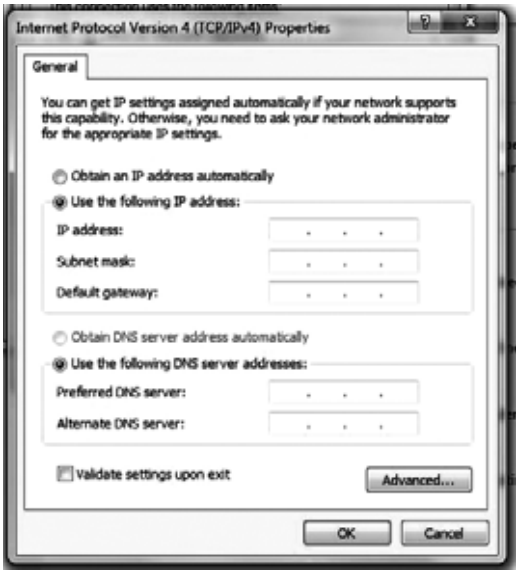


- Control Panel\Network and Internet\Network and Sharing Centre
- Local network connection/Properties



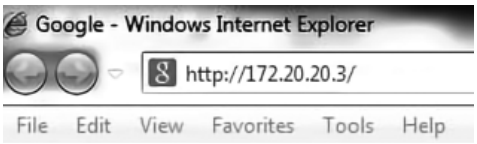
- Click on Internet Protocol Version 4/Properties

c. Configure IP address parameters (Windows XP and 7)



- IP address: Create a different PC IP address from the PLC IP address. Caution: this PC IP address should be similar to the first three parts of the PLC IP address, e.g. PLC IP address = 172.20.20.3; PC IP address = 172.20.20.4.
- Subnet Mask: Identical Subnet mask to that of the PLC: 255.255.255.0 (identical to the PLC).

3) Open a web page with Internet Explorer and enter the PLC's IP address:



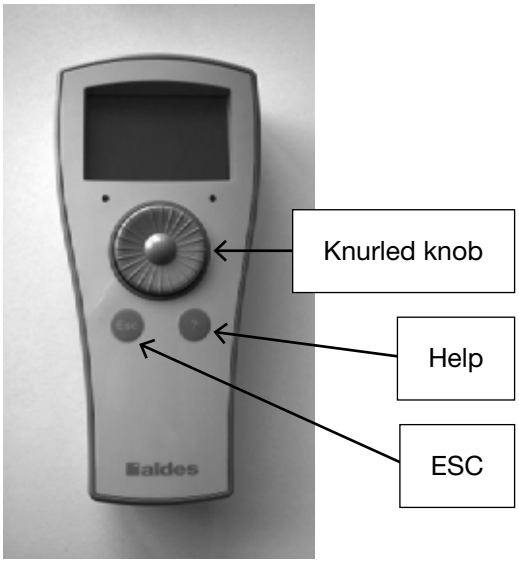
- The following page is displayed :

- Enter usernames and passwords according to your profile:

User:
• Name: USER
• Password: 111
Installer:
• Name: INSTALLED
• Password: 222
Service:
• Name: SERVICE
• Password: 333
- For more information on control settings, please refer to the settings manual.

2.12 Remote control communication

2.12.1 Using the remote control



Turn the knurled knob to navigate through a menu. Press on the knurled knob to select a menu. Press ESC to exit a menu.

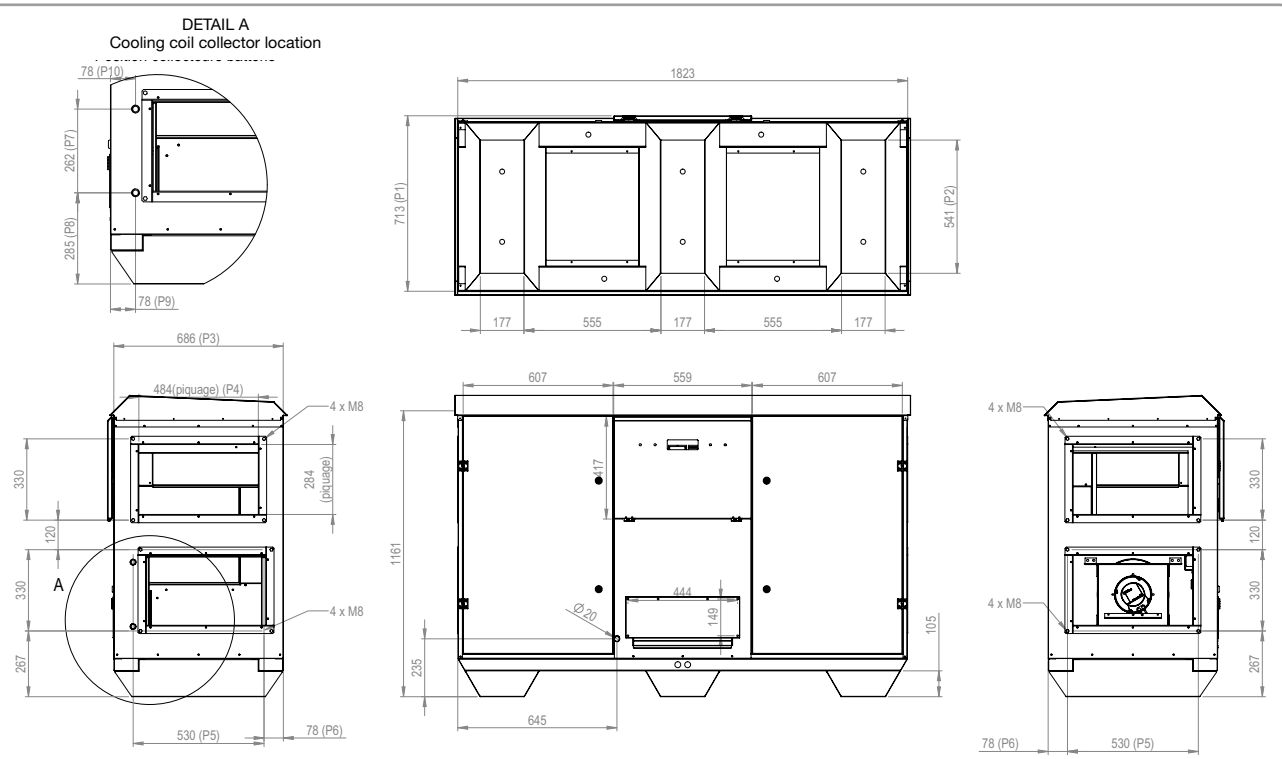
2.12.2 Menu access

- To access User level, no password is required.
- To access Installer level, enter the password: 1 1 1 1.
- To access Service level, enter the password: 1 1 1 2.

3. DIMENSIONS

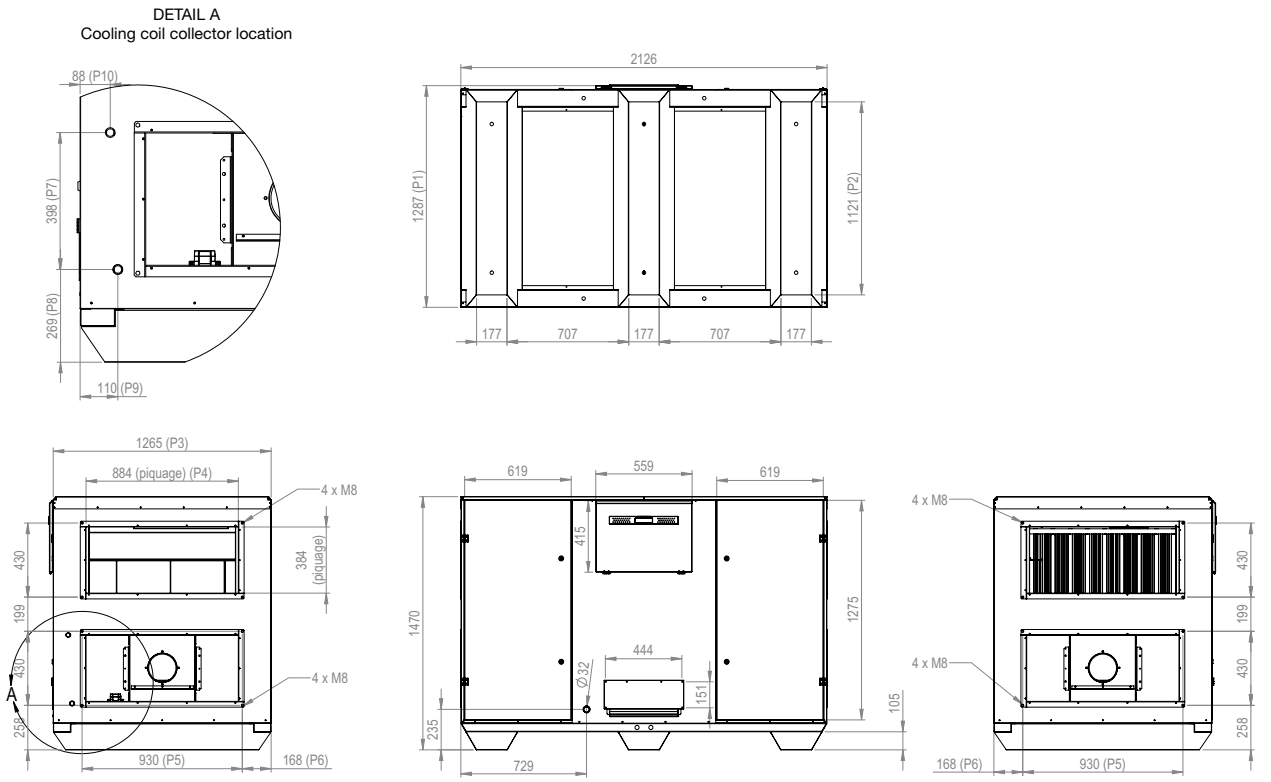
3.1 Unit dimensions

3.1.1 VEX520 - 525 - 530



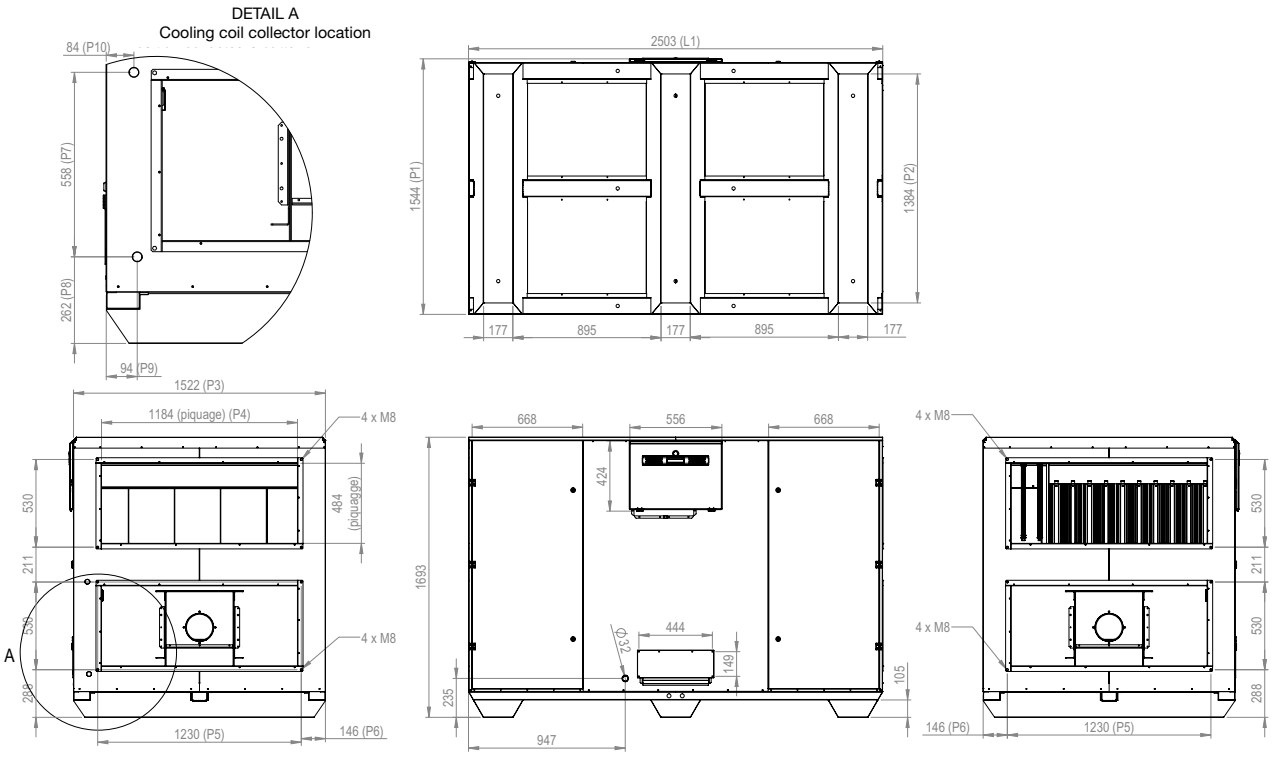
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Weight [kg]	Volume [m³]
VEX520	589	416	561	430	430	66	262	285	75	75	205	1.25
VEX525	714	541	686	484	530	78	262	285	78	78	239	1.51
VEX530	917	744	889	730	730	80	262	285	85	75	291	1.94

3.1.2 VEX540 - 550



	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Weight [kg]	Volume [m³]
VEX540	913	742	886	584	630	128	361	287	87	77	366	2.85
VEX550	1292	1121	1265	884	930	168	398	269	110	88	494	4.04

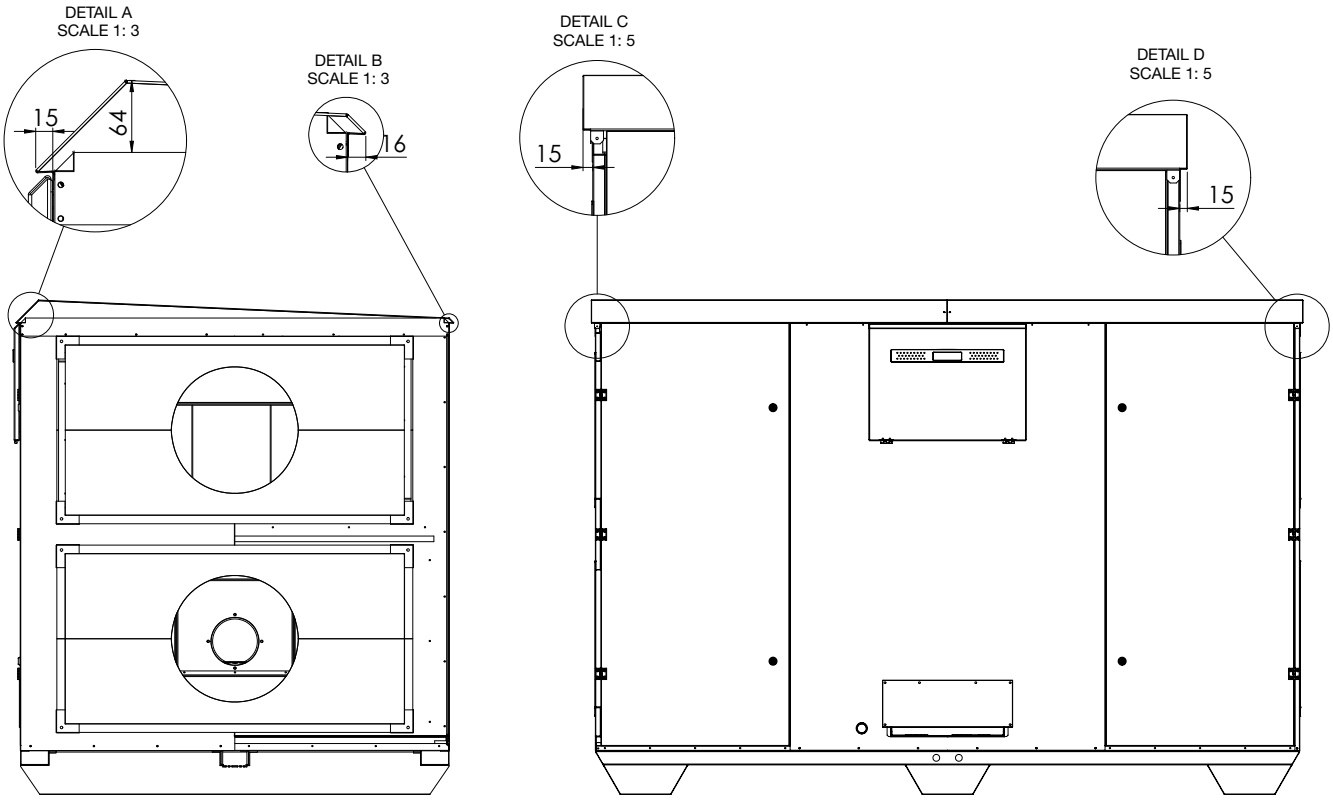
3.1.3 VEX560 - 580



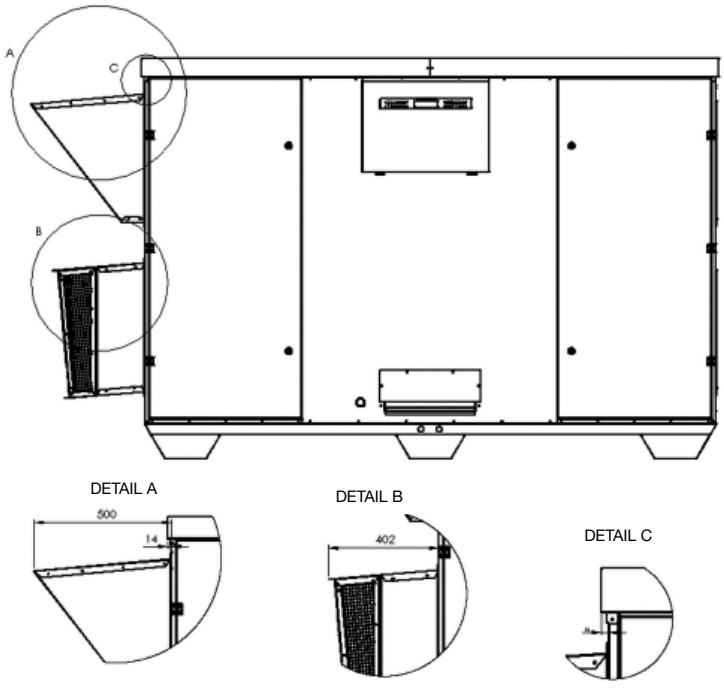
	L1	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Weight [kg]	Volume [m³]
VEX560	2503	1271	1106	1244	884	930	157	558	262	95	85	554	5.39
VEX570	2503	1271	1384	1522	1184	1230	146	558	262	94	84	660	6.56
VEX580	2628	1827	1662	1800	1384	1430	185	540	271	86	86	840	8.13

3.2 Exterior accessory dimensions

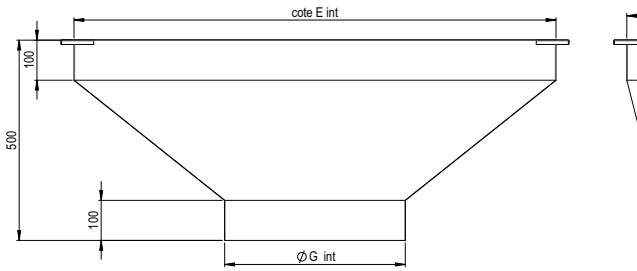
3.2.1 Roof

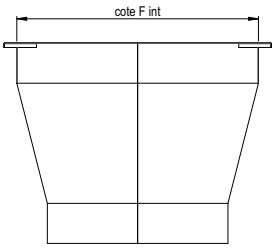


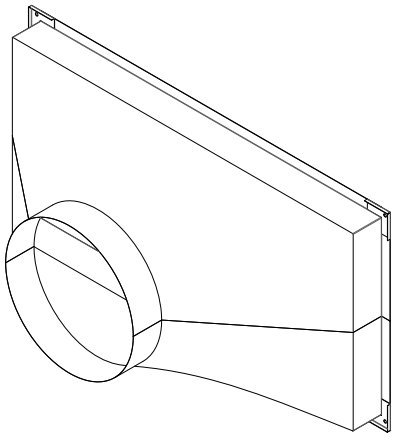
3.2.2 Rain canopies

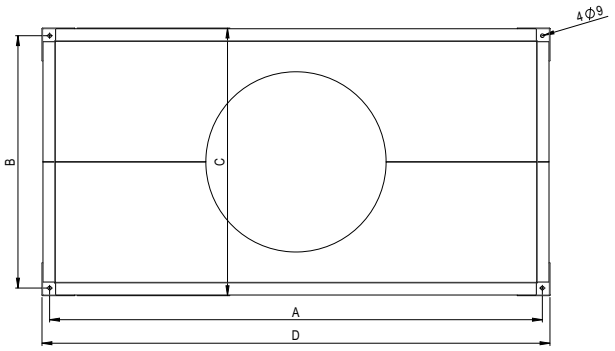


3.3 Transformer component drawings









VEX	SIDE	SIDE B	SIDE C	SIDE D	SIDE E	SIDE F	SIDE G
VEX520	430	330	370 max	470 max	384	284	Ø 313.85 ± 0.45
VEX525	530	330	370 max	570 max	484	284	Ø 353.8 ± 0.5
VEX530	730	330	370 max	770 max	684	284	Ø 353.8 ± 0.5
VEX540	630	430	470 max	670 max	584	384	Ø 498.75 ± 0.55
VEX550	930	430	470 max	970 max	884	384	Ø 498.75 ± 0.55
VEX560	930	530	570 max	970 max	884	484	Ø 628.8 ± 0.6
VEX570	1230	530	570 max	1270 max	1184	484	Ø 628.8 ± 0.6
VEX580	1430	530	570 max	1470 max	1384	484	Ø 708.65 ± 0.65

3.4 Diameter of internal water cooling coil collectors

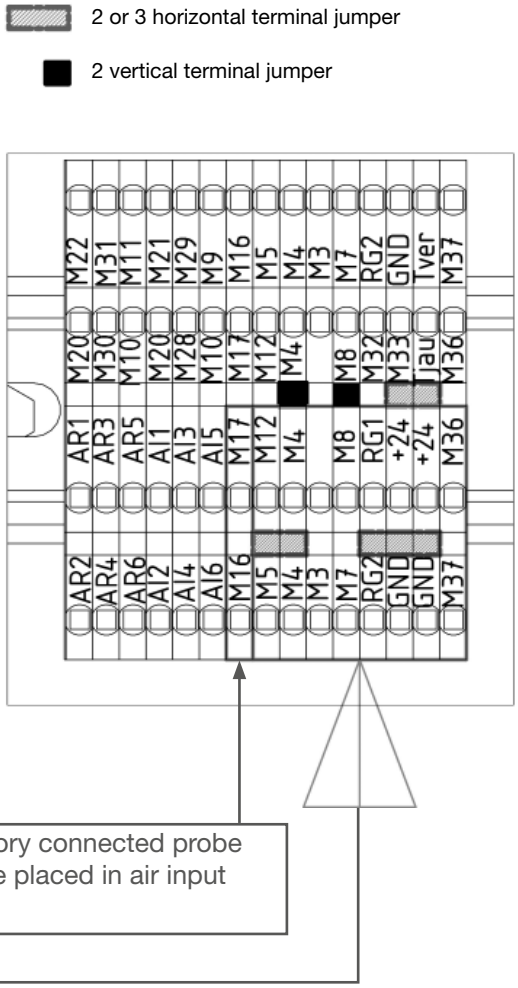
Caution: The cooling coils accept a maximum pressure of 8 bars.

	Water cooling coils		3-way valve female connector	
Models	Type of cooling coil	Ø Ext. copper collector (Inch GAS thread)	Kvs valve	DN (mm)
VEX520	1 row	1/2"	0.63	15
	2 rows	1/2"	1.6	15
VEX525	1 row	1/2"	0.63	15
	2 rows	1/2"	2.5	15
VEX530	1 row	3/4"	1.6	15
	2 rows	3/4"	4	20
VEX540	1 row	3/4"	1.6	15
	2 rows	3/4"	6.3	20
VEX550	1 row	3/4"	2.5	15
	2 rows	3/4"	10	25
VEX560	1 row	3/4"	4	20
	2 rows	1"	10	25
VEX570	1 row	3/4"	4	20
	2 rows	1"	10	25
VEX580	1 row	3/4"	4	20
	2 rows	1"1/2	25	40

4. CONTROL OPTIONS

Standard terminal connection controls

Labels	Definition	Comments
M17	Air input temperature probe	Factory connected probe to be placed in the air input duct
M16		
M12	CO_2 probe - 0-10 V	Active if option has been selected
M4	GND	Jumped by default on terminal
M5	unit external stop	
M4	GND	NO
M3	High speed	
M8	Fire Alarm contact	Jumped by default on terminal
M7	GND	
RG1	Insulation damper relay - ON/OFF	NO (active if option has been selected)
RG2		
+24	24V AC	Actuator dampers
GND		
+24	24V AC	CO_2 probe
GND		
M36	unit Alarm return relay	NO
M37		



Fast connector terminal-cable section 0.14
1.5 mm²-rigid wire crimped wire recommended

CO_2 probe: Control depending on level of CO_2 in the room.
- Connect M12-M4 for the return signal 0-10 V.
- Connect +24/GND for probe power supply.

unit external stop: set-up unit On/Off.
- Connect M5-M4 to set-up unit On/Off.

High speed : Forced operation at full speed for a given time period (software parameter to be set).
- Connect M4-M3 to set-up High speed.

Fire Alarm Contact: triggers forced ventilation at a given speed (software parameter to be set).
- Connect M8-M7 for fire alarm.
- **Caution:** under Article CH38 (ERP) for buildings receiving the public and which have one or more units processing in total over 10000m³/h for the same room or which are used solely as sleeping accommodation: a standalone external sensor must automatically trigger a fan power down in the event of a fire. To do this, adjust the speed to 0%. Refer to the manual for the parameter setting.

Input/exhaust damper: see section 2.7.3.

unit Alarm return: alarm return relay (potentially free).
- Connect M36-M37 (voltage max. 24VAC).
- Normally open.
- Contact closes in the following cases: fire alarm/water coil pump fault/motor fault.

NOTE

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