FRIAX INDUSTRIE

TECHNICAL INSTALLATION MANUAL





Evaporator EVA2 Céos

PRODUCT REGISTRATION

Register your products now to validate your installation and benefit from improved support if needed.

La FRENCH FAB

FABRIQUÉ EN FRANCE

LAURÉAT Réseau Entreprendre SAVOIE

EN-NT-SPC-EVA2-VTX-0726

Specifications may change without prior notice to reflect product improvements.

Warning

Read the manual carrefully before using the device and
keep it for futur reference.



This symbol indicates that the installation manual should be read carrefully.



This symbol indicates that a technician must handle this equipment in referring to the installation manual.



This symbol indicates that information are available, such as the manual operating instructions or installation manual.

- Improper installation or use can result in personal injury, property damage, and voiding of the manufacturer's warranty. Failure to comply with safety instructions and local standards during the installation releases the manufacturer from all liability.

- Make sure to install the device in a place protected from the elements and frost-free.

- The equipment should be installed in a room without a permanent source of fire, such as open flame, a combustion device, an electric heater, etc..

- The possible stagnation of refrigerant gas leaks in unventilated rooms can create a risk of fire or explosion if the refrigerant comes into contact with an ignition source.

- Be aware that some refrigerant gases can be odorless.

- Any intervention on a refrigeration circuit must be carried out by a professionnal authorized by an accredited body certifing the competence to handle refrigerant fluids.

- The appliance must be free of obstructionsat all times to ensure proper operation and reduce safety risks.

- Do not puncture any component of the refrigerant circuit.
- Use care when handling the equipment to avoid malfunction.

- The device must be installed in accordance with local wiring regulations.

- Make sure that the characteristics of the device are compatible with those of electrical installation.

- Make sure the AC outlet is grounded.

- Do not use the device if it is damaged.

- Do not connect the power supply until the entire installation is complete.

- Always switch off the appliance and unplug it from the mains for cleaning and maintenance.

- Do not put your hands or objects in the air inlets and outlets.

- Do not try to repair the device yourself.

- Any use and / or modification not approved by the manufacturer may be dangerous for your safety and your health.

- This appliance must not be used by children.

- The user should understand and be aware of the potential dangers associated with the use of the device.

- Use only the means and / or tools recommended by the manufacturer for defrosting or cleaning.

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Presentation

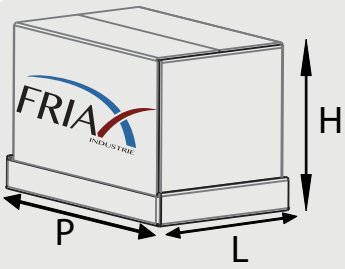
Thank you for choosing a Friax cellar system to control the aging of your wines. Take the time to read this user manual. It will allow you to understand and master the operations to install and adjust your device.

Receipt of the package

We invite you to examine the package upon receipt for possible damage to the cardboard or missing items. Please note your comments regarding the condition of the package on the carrier's delivery note: they will be used in the event of damage noted upon unpacking.

Your package contains the following items:

- 1 EVA2 evaporator
- 1 control box + 6-m RJ12 probe extension
- 1 box containing a remote control with its holder + batteries + fixing screws
- 3 installation manuals
- 1 bag containing a Pump Down EV (model 170 only)
- 1 bag equipped with distributor (model 122-170 only)
- **1 to 2 bags of accessories depending on the model, consisting of:**



Dimensions excluding pallet : P x L x H

780mm x 400mm x 410mm

Model 30-48-82 : 1 bag
Model 122-170 : 2 bags

- 1 grille riser + grille
- 2 M5x16 screws for fixing the grille alone
- 2 M5x40 screws for fixing riser + grille
- 1 power cord, 6 m long, equipped with connectors
- 1 control cable for 0–10 V control, 6 m long, equipped with connectors
- 2 nylon nuts for fixing the probe on the front panel
- 2 crosshead screws 3.9 x 9.5 for probe fixing

Model 122-170 : 1 bag

- 1 x 3P pink distributor
- 1 x 5P black distributor

Evaporator EVA2



a control box



a control box



6m RJ12 cable



Remote control box + probe

Technical data

+32°C EXT		SPC	30	48	82	122	170
Fluid			R513A	R513A	R513A	R513A	R513A
Cooling capacity		W	780	1130	1470	2370	2750
Cold power consumption	GCH	W	544	697	885	1266	1433
	GCG		554	730	919	1350	1574
	GCW		490	643	831	1196	1374
Maximum current Cooling	GCH	Amax	6.09	6.19	9.59	11.84	13.56
	GCG		5.99	6.09	9.49	11.74	15.36
	GCW		4.6	4.7	8.1	10.35	12.07
Air conditioner COP	GCH	W/W	1.43	1.62	1.66	1.87	1.92
	GCG		1.41	1.55	1.60	1.76	1.75
	GCW		1.59	1.76	1.77	1.98	2.00

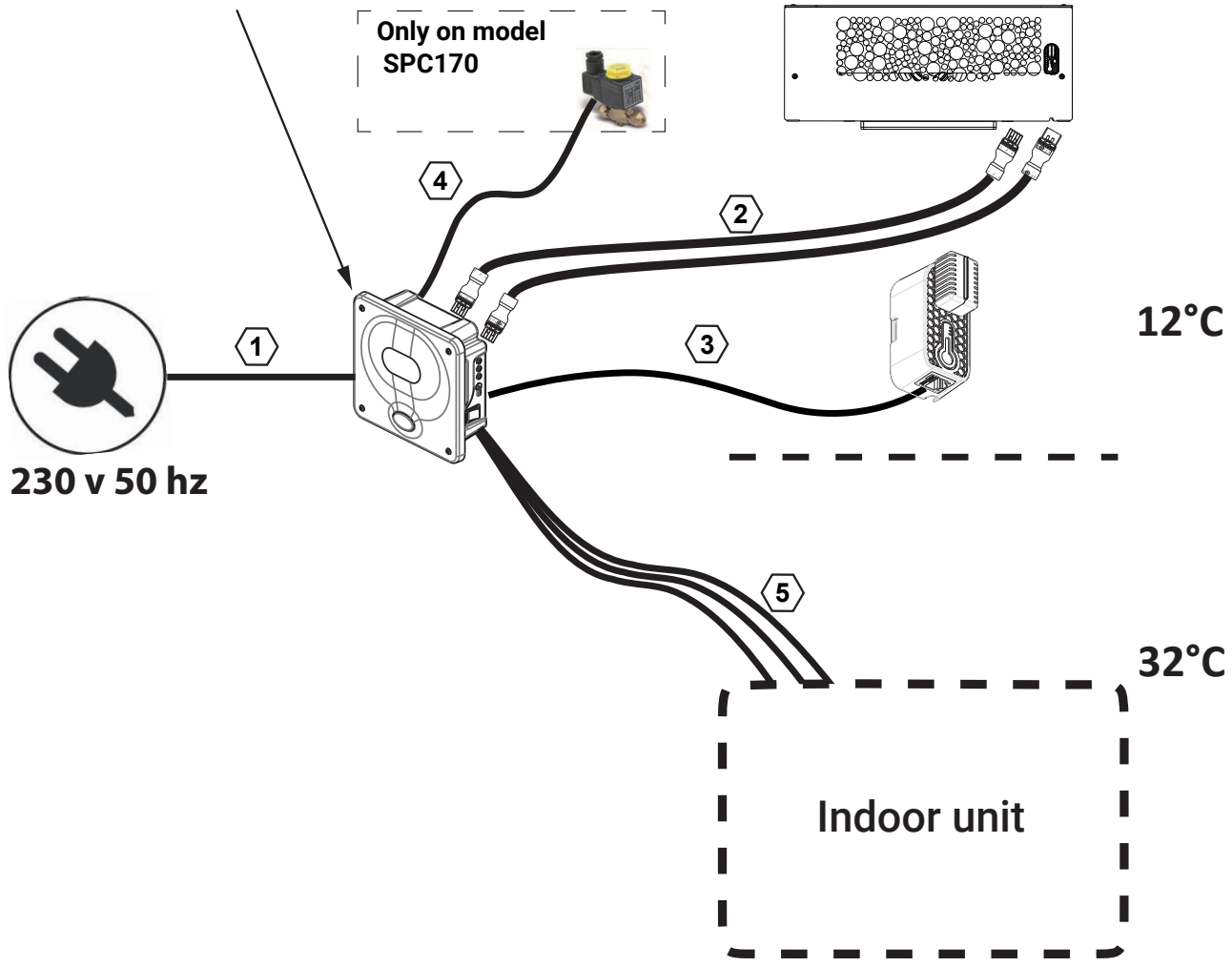
Indoor unit	SPC	30	48	82	122	170
Ø Fan		1	1	1	2	2
Air flow	m3/h	310	490	560	2 x 490	2 x 560
IMax. evaporator current cool mode	Amax	0.8	0.8	0.8	1.6	1.8
Max. evaporator current Hot mode	Ø	3/8"	3/8"	3/8"	2 x 3/8"	2 x 3/8"
Gas connections Suction line	Ø	1/4"	1/4"	1/4"	2 x 1/4"	2 x 1/4"
Net weight	Kg	9	9	10	2 x 9	2 x 10
Body color		Black Bright	Black Bright	Black Bright	Black Bright	Black Bright

Electrical connections

SPC EVA2	30-48-82	122	170
Voltage/Frequency	230V / 50Hz	230V / 50Hz	230V / 50Hz
Protection	10A	10A	16A
1 Power supply to control Box	3g1.5²	3g1.5²	3g2.5²
2 Indoor Unit ==> Control box (Cables supplied with connectors)	1× 5G1.5 mm² cable 6 m with connectors 1× 3 × 1 mm² cable 6 m with connectors	2× 5G1.5 mm² cable 6 m with connectors 2× 3 × 1 mm² cable 6 m with connectors	2× 5G1.5 mm² cable 6 m with connectors 2× 3 × 1 mm² cable 6 m with connectors
3 Cellar probe ==> Control box	Câble RJ12 6m provided	Câble RJ12 6m provided	Câble RJ12 6m provided
4 EV Pump Down only on SPC170	/	/	1 x (3 x 1mm²)
5 Outdoor Unit ==> Control box Max length 20 meters	1x (5g1.5²) 1 x (3 x 1mm²) 1 x (2 x0.5mm²)	1x (5g1.5²) 1 x (3 x 1mm²) 1 x (2 x0.5mm²)	1x (5g2.5²) 1 x (3 x 1mm²) 1 x (2 x0.5mm²)

Schematic diagram

The regulation box must be less than 6m from the evaporator for the probe to function properly.

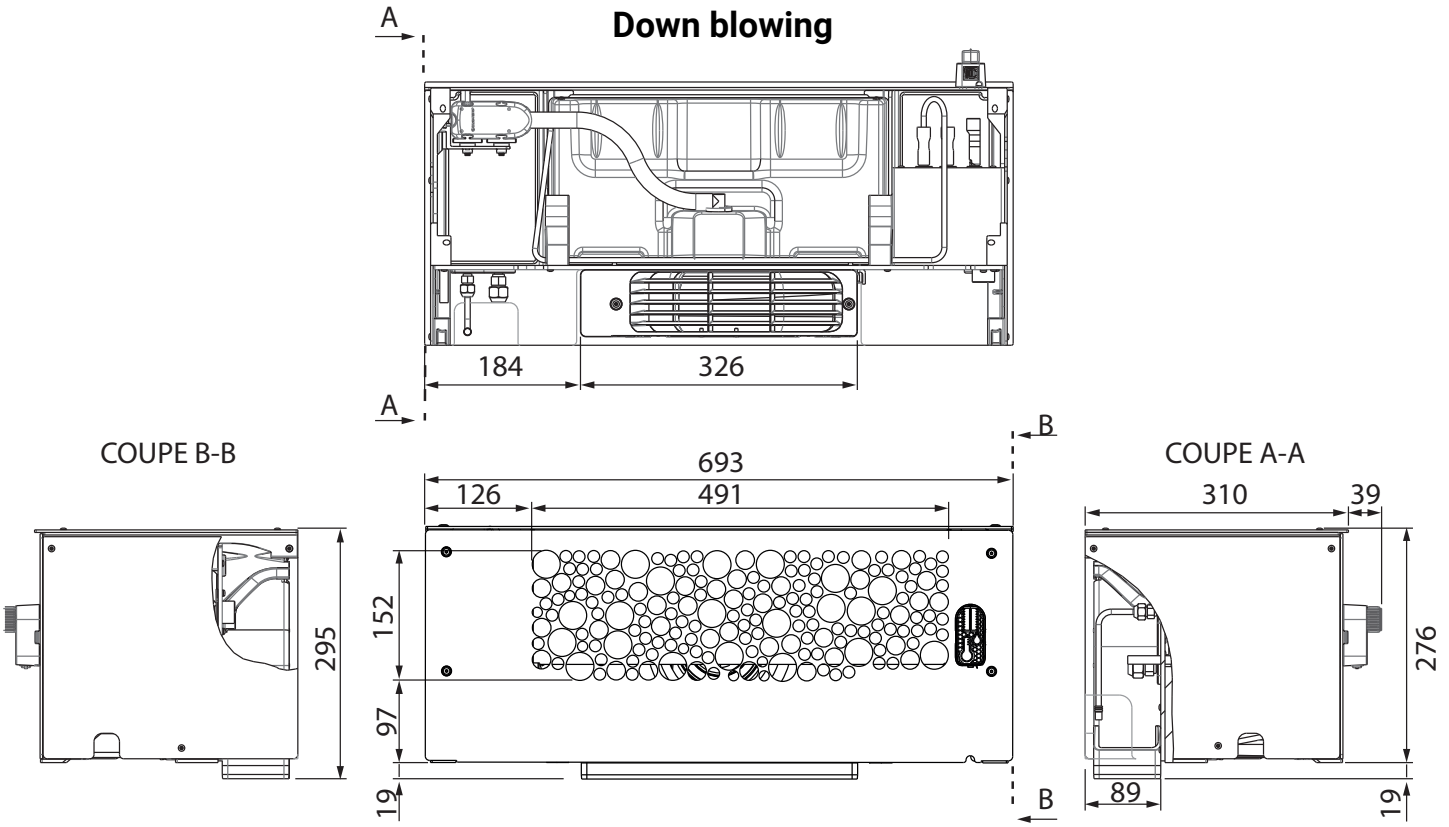


Indoor unit

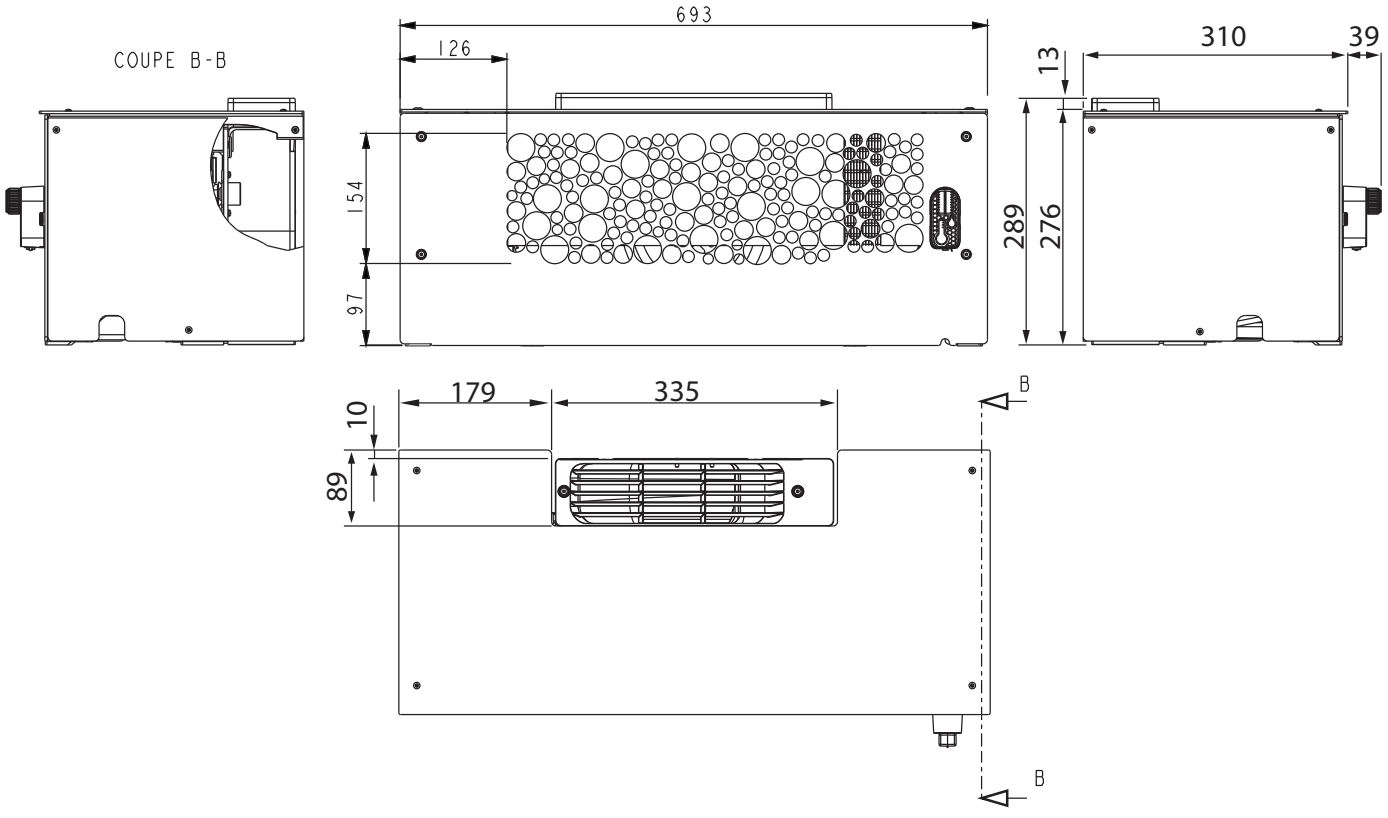
1. Dimensions

	SPC 30	SPC 48	SPC 82	SPC 122	SPC 170
Number of evaporators	**1**	**1**	**1**	**2**	**2**

Down blowing



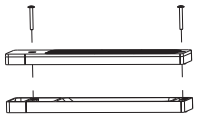
Upward blowing



2. Product presentation

Blowing side view

Extension, grille and screws delivered in a bag



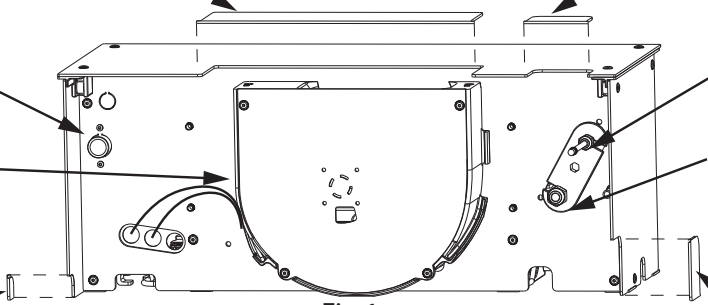
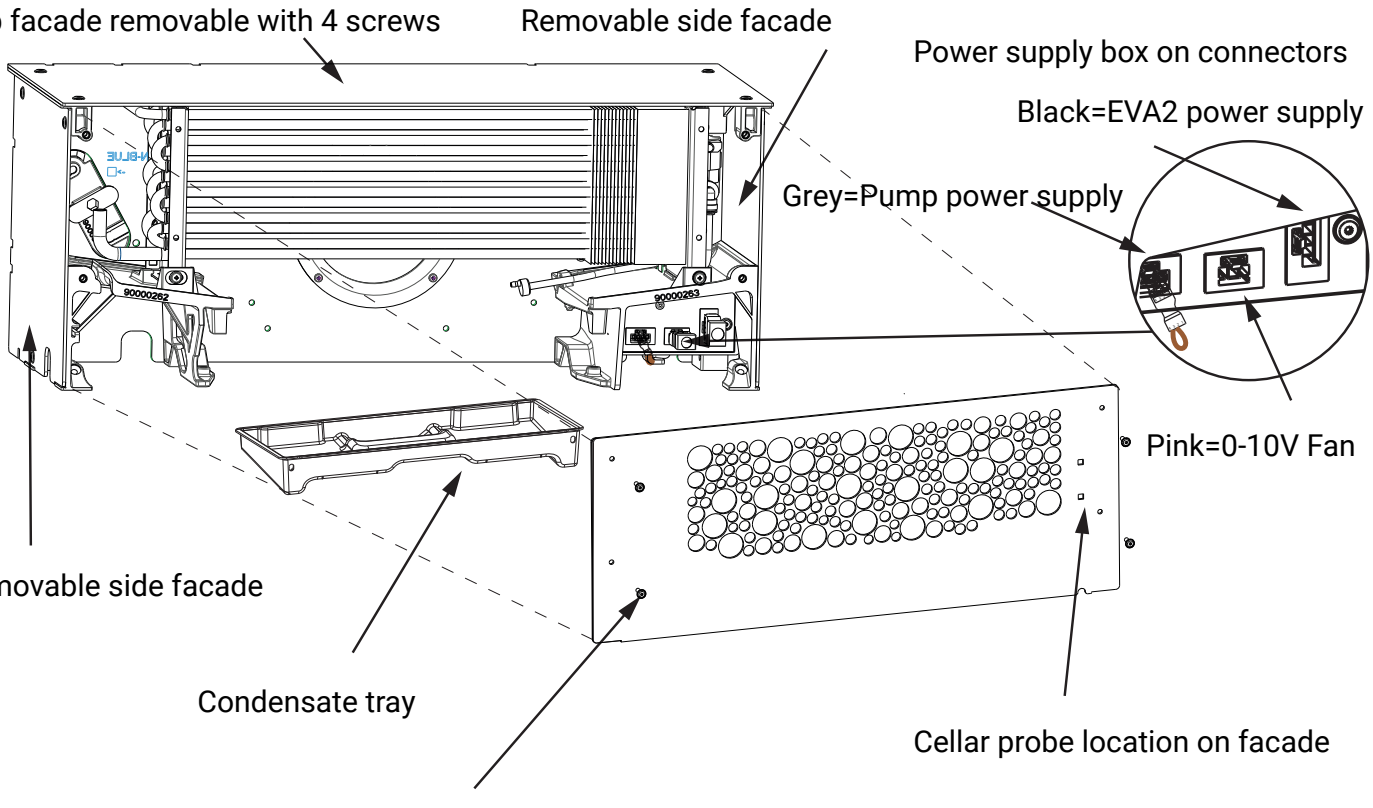


Fig 1

Suction side view



3. Installation of the fan

Your EVA2 evaporator is delivered to you in the UP version without the assembly of the grid and its extension.

A. Upward Installation (air blowing upwards)

For an UP mounting it will first be necessary to break the breakable part No. 1 (Fig1) by hand and fix the grid and it raises with the screws provided (Fig2))

2 size screws are provided
the small ones to fix the grid.
the large ones to fix the grille + extension.

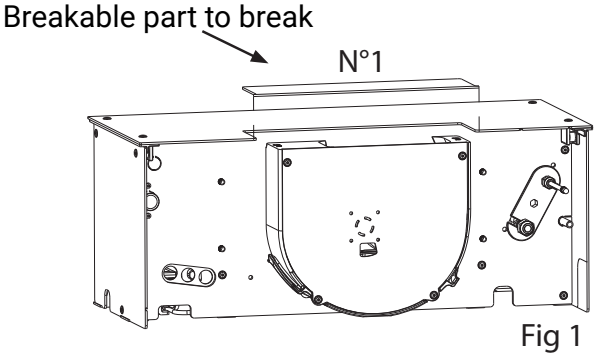
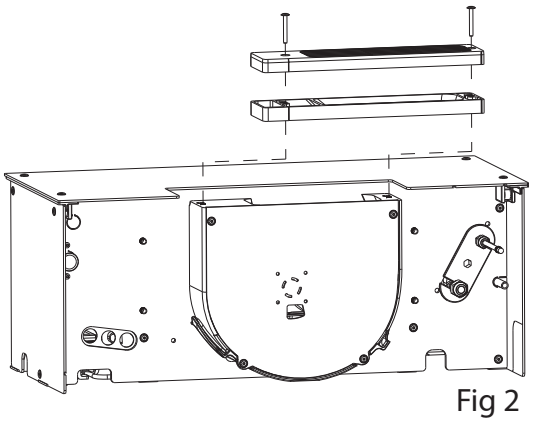
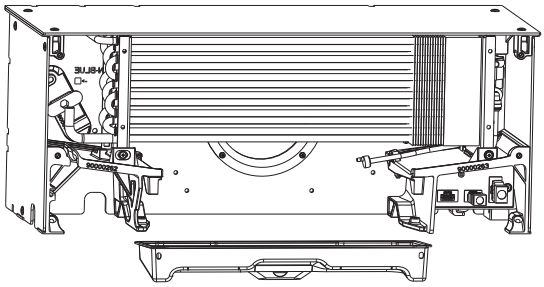


Fig 1

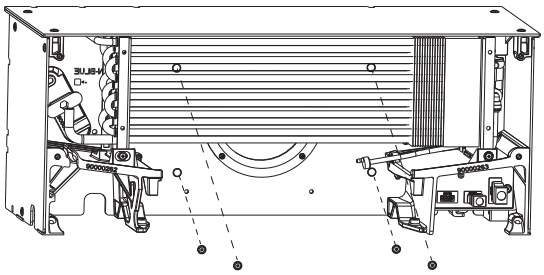

Fig 2

B. Downward Installation (air blowing downwards)

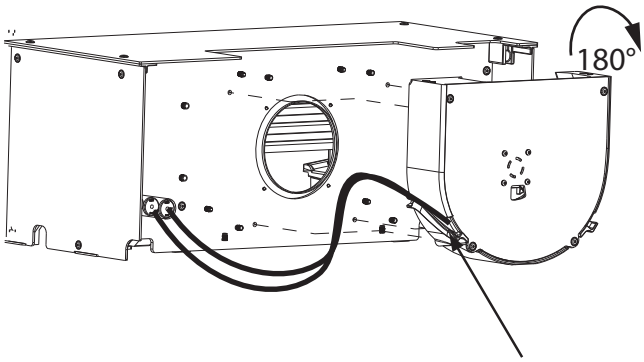
For a Down Mount, be careful not to break the breakable part No. 1 (Fig 1)
Follow the following steps for fan positioning



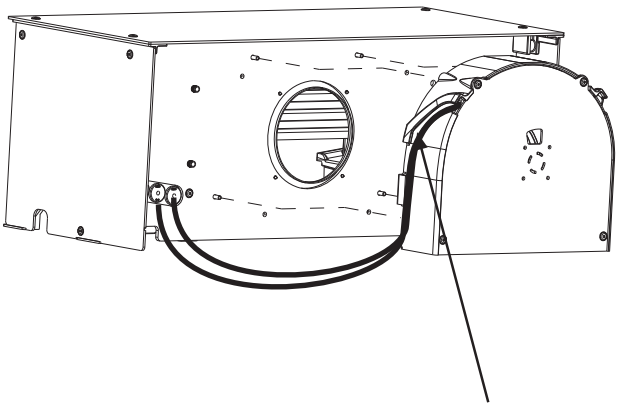
1. Remove the tray by applying light pressure upwards and pull it out towards you.



2. Unscrew the 4 screws that hold the fan located behind the battery

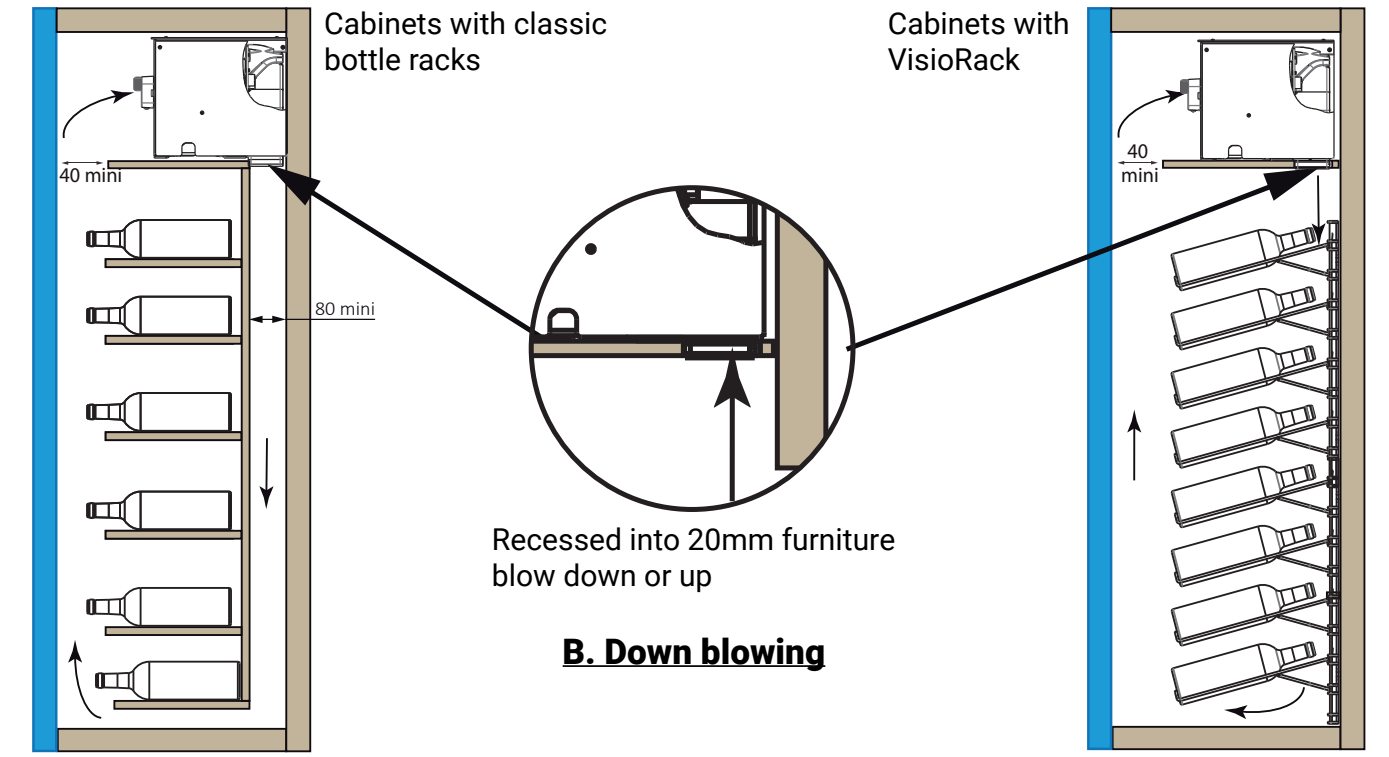


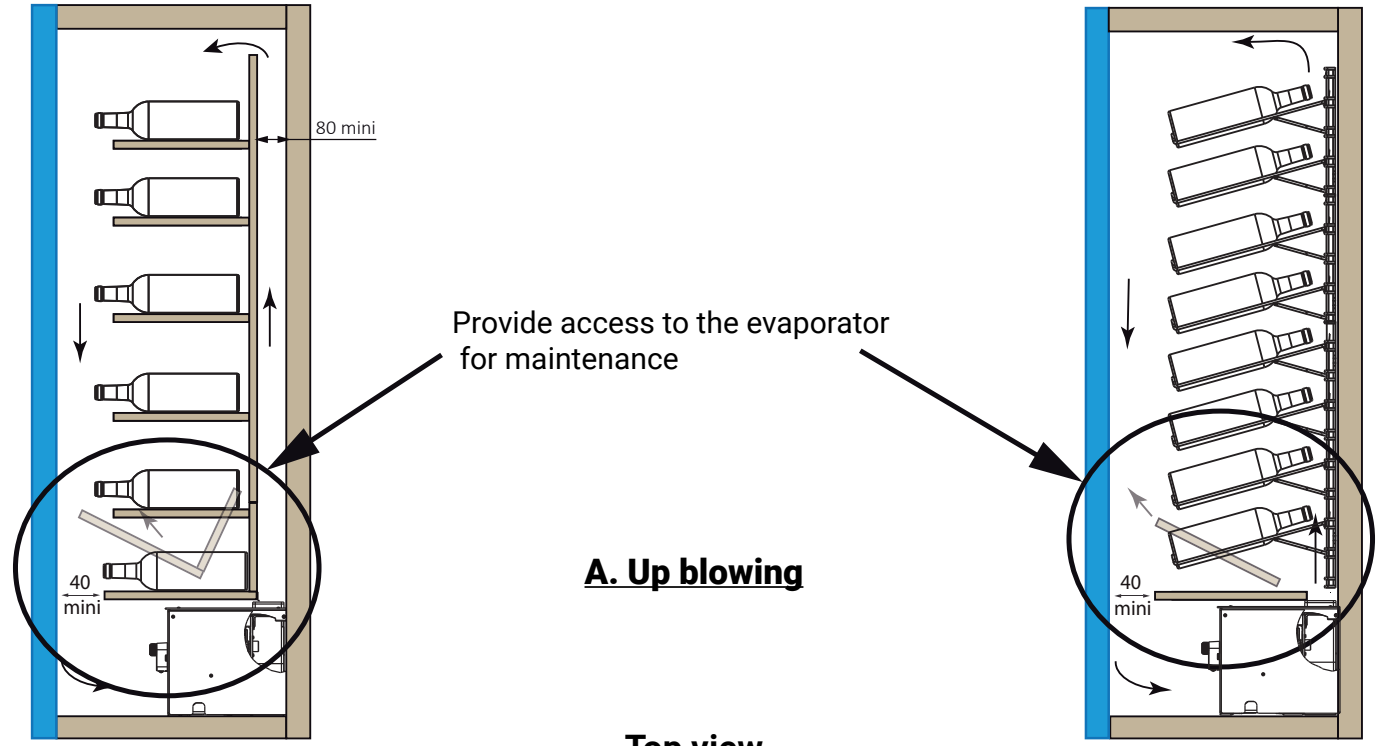
3. Uncouple the fan then turn it over 180° for downward blowing, taking care to route the cable by removing it from its housing



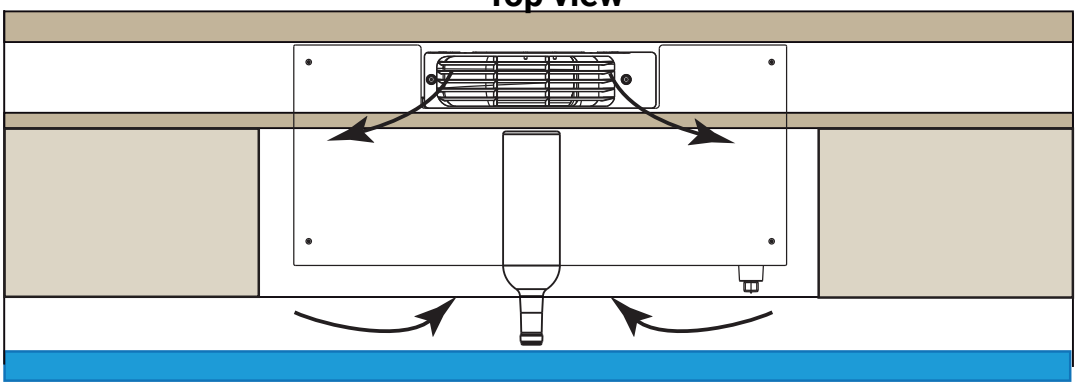
4. Reposition the 4 screws, then secure the cable in its new location.

4. Set up





Top view

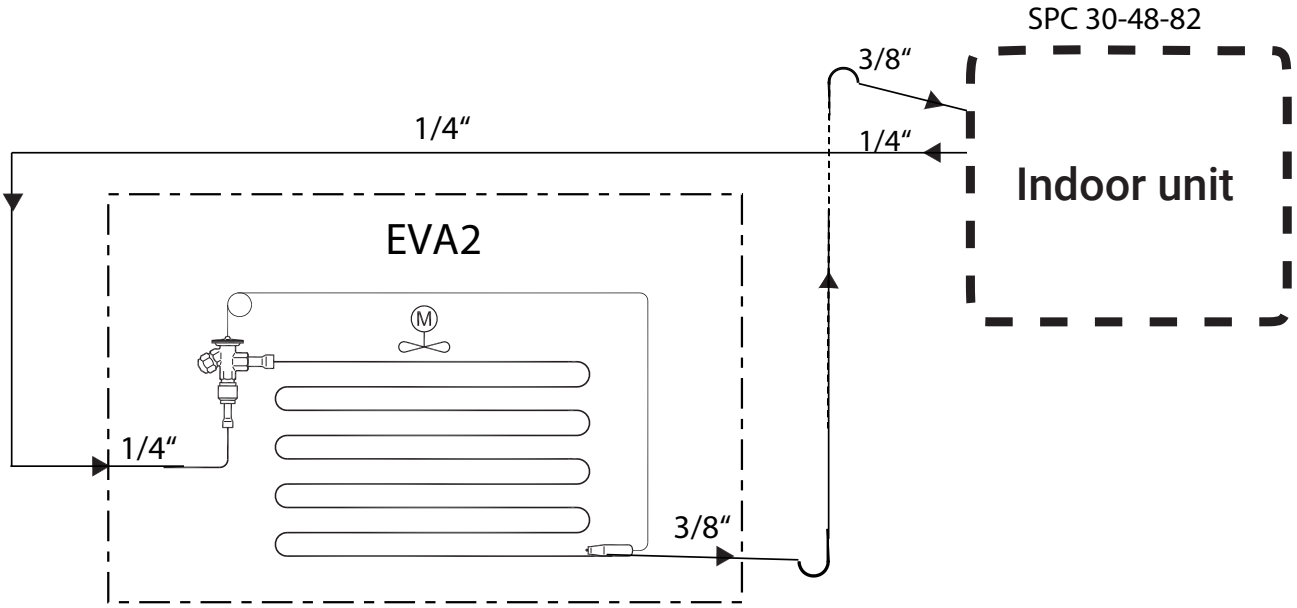


Glass door

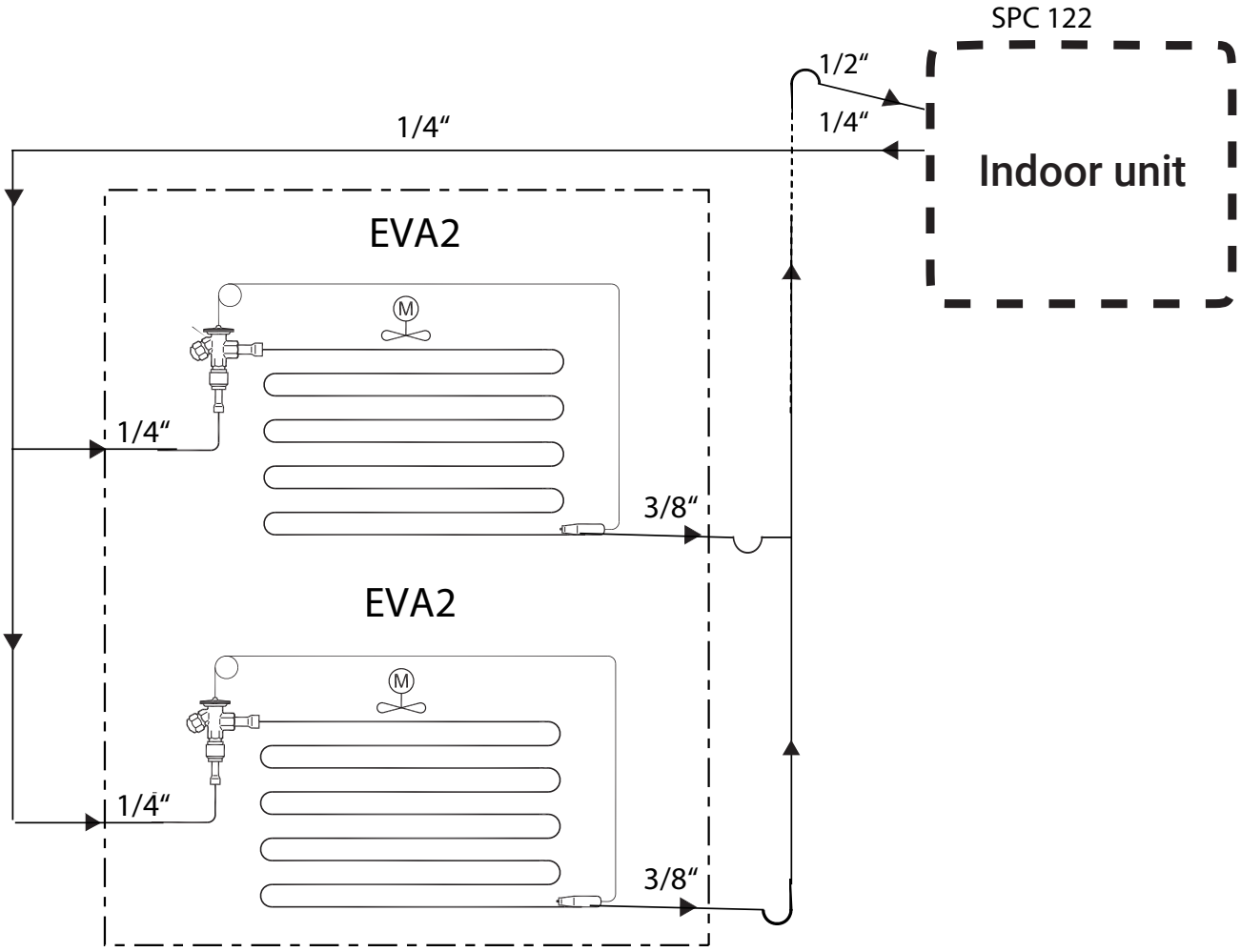
5. Connections of the Indoor Unit

- Connect the liquid line to the smaller diameter connection and the suction line to the larger diameter connection inside the evaporator.
- Refer to the condensing unit manual to complete the refrigeration installation.

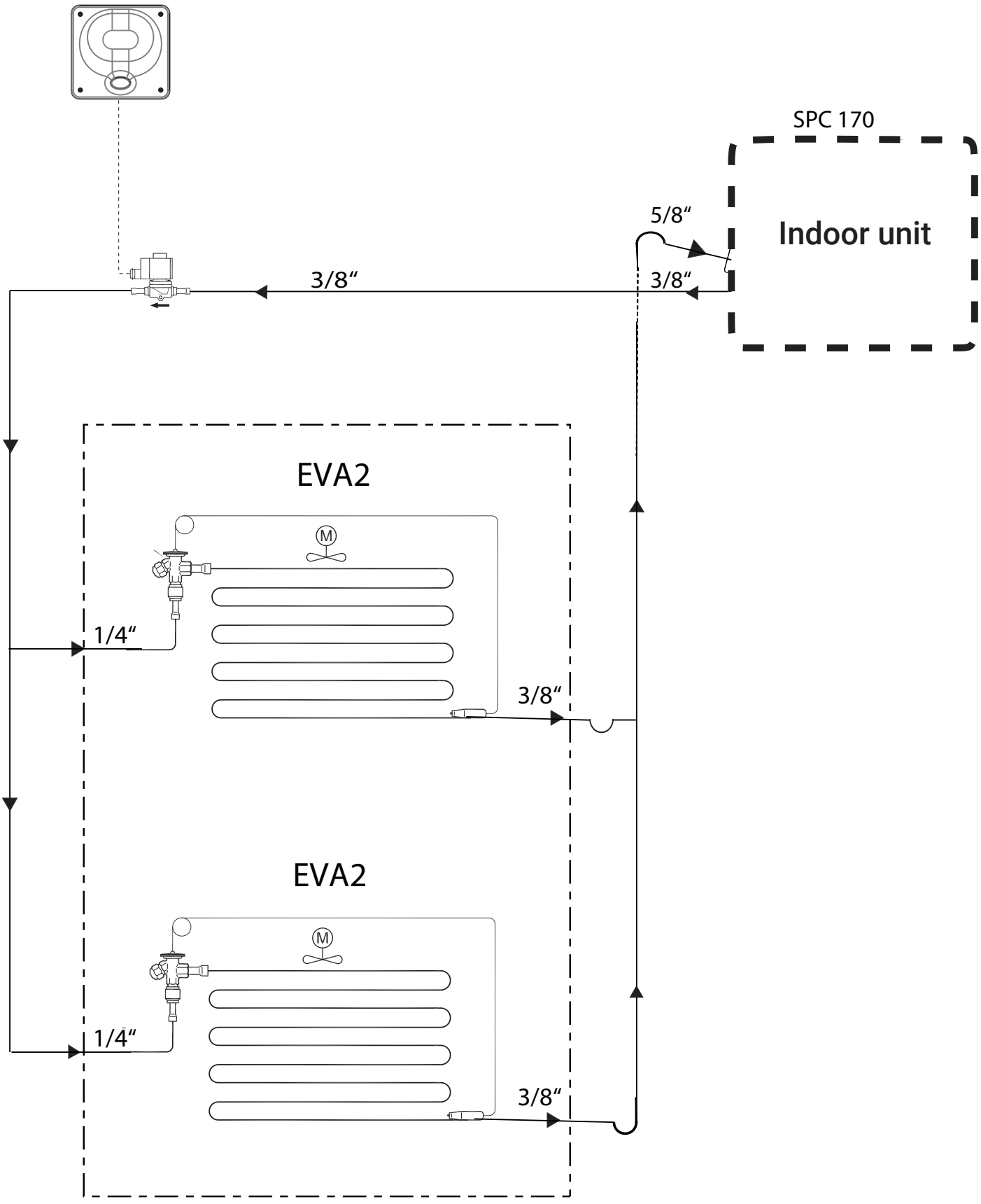
A. Refrigeration diagram SPC 30-48-82 EVA2



B. Refrigeration diagram SPC 122 EVA2

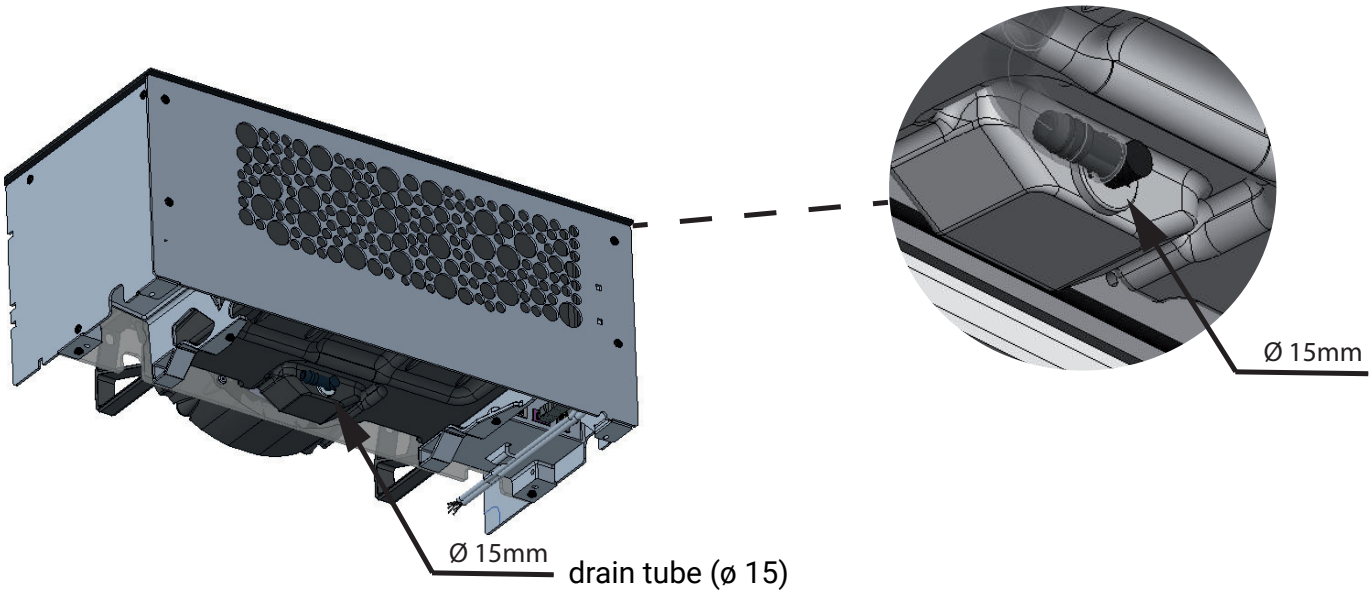


C. Refrigeration diagram SPC 170 EVA2



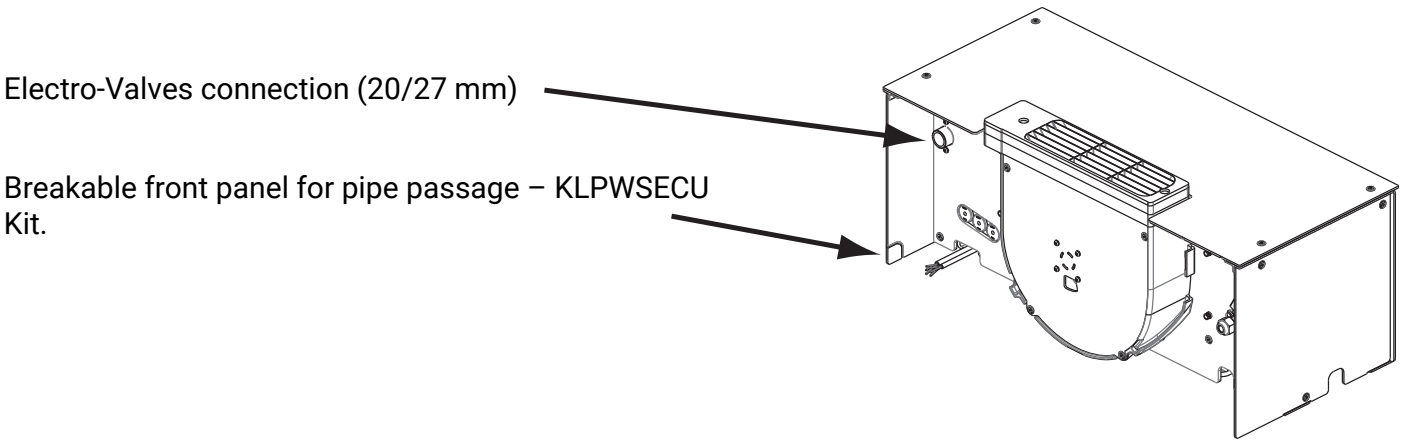
6. Drain connection

Connect the drain tube (ø 15) to the end of the elbow and tighten with a stainless steel collar.



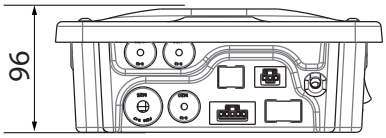
7. Water connection for Vintage

Connect the water supply to the HGR% humidifier.

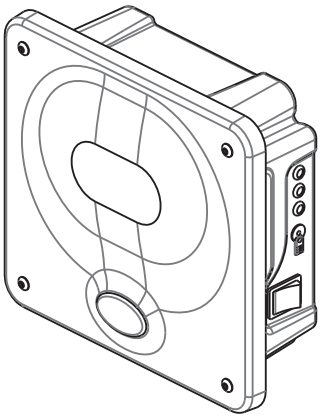


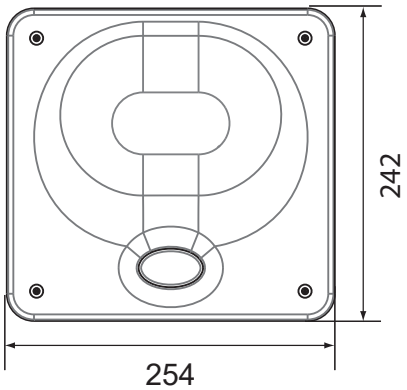
In case of water pressure greater than 2.8 bars, the use of a pressure limiter kit is essential.

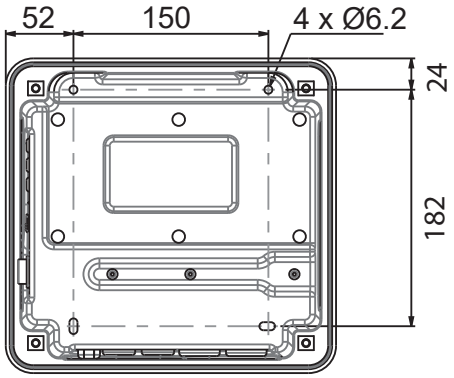
Control box electrical connection

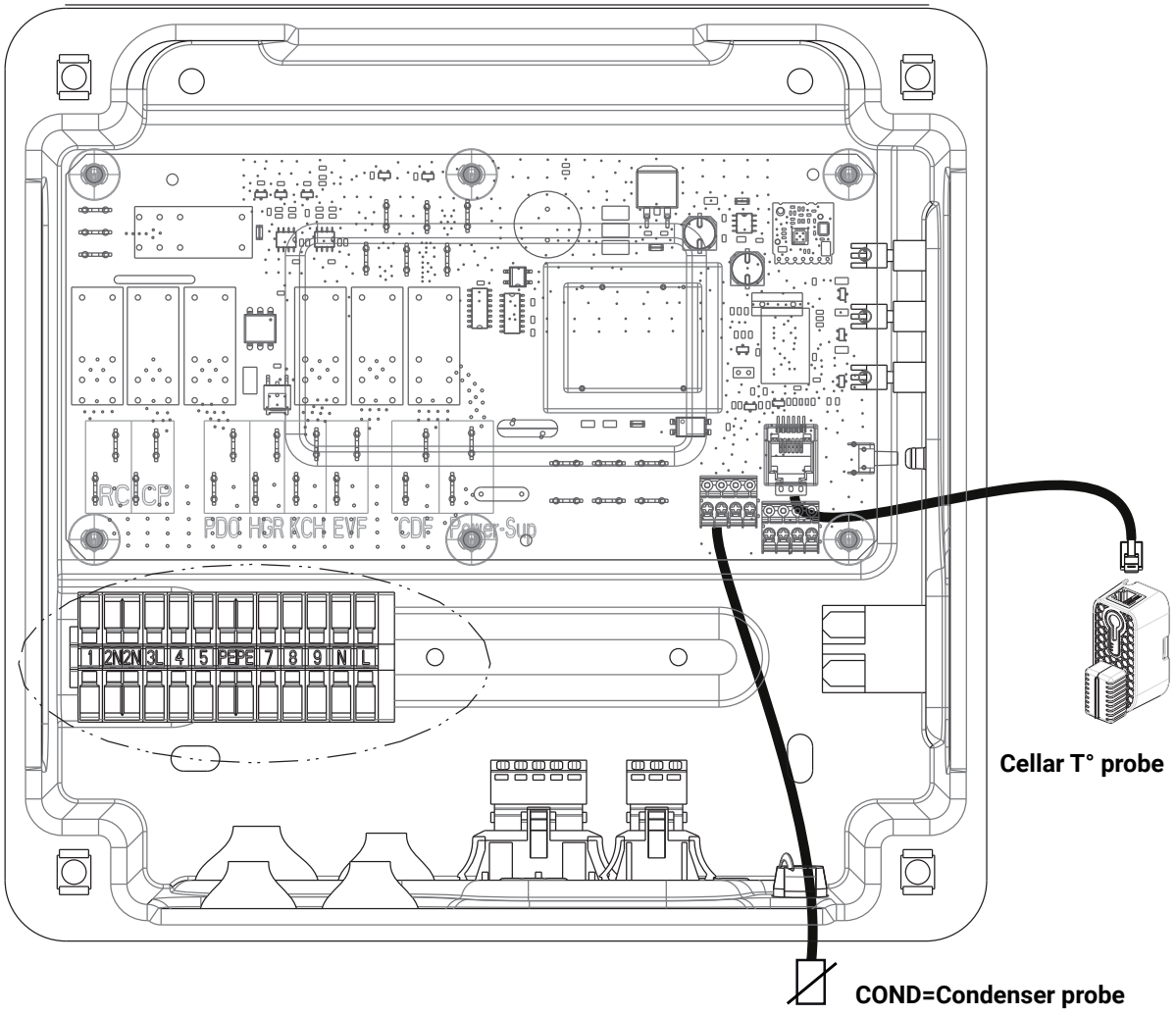










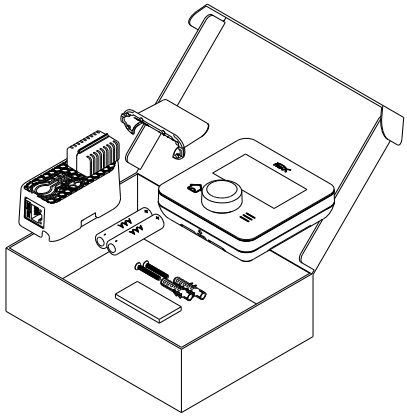


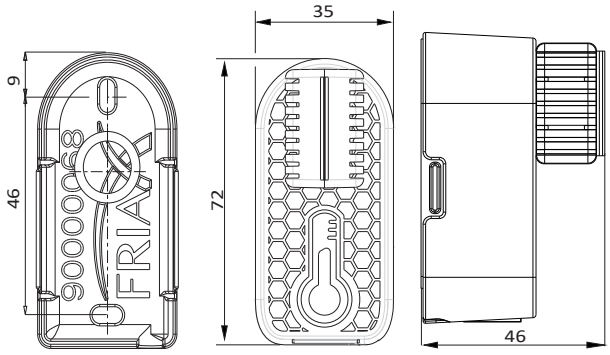
1=Casing resistance	**3L= EV Pump Down SPC170-230**	**3 pole connector Evaporator fan control**
2N=Neutral EXT group	**5=Compressor supply spc170-230**	
4=Condenser fan	**7-8-9 = Condenser fan control**	**5 pole connector evaporator supply**
3L=Compressor spc 30-48 82-122	**N-L 230V box power supply**	

Probe mounting

Probe placement and connection

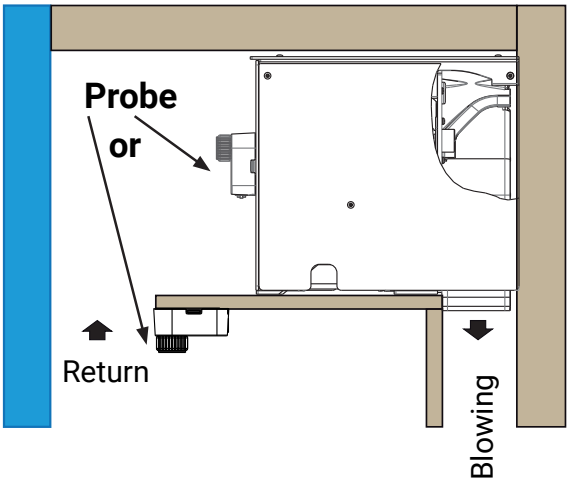
The remote control box comes with:
- a remote control and its support
- 2 LR03 batteries
- a probe installed in its support supplied with:
- screws and their plugs (Remote control wall mounting)
- double-sided strips (Remote control mounting on the evaporator)



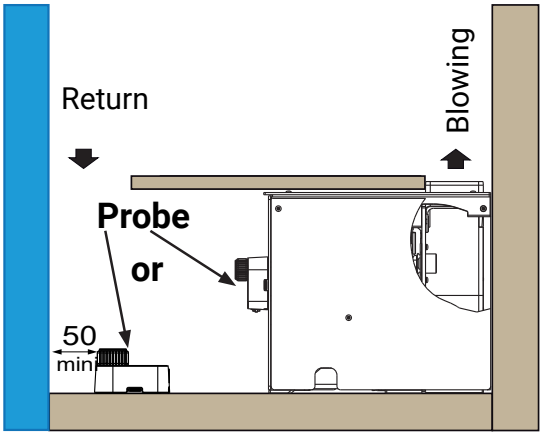


Attach the probe to the evaporator or to the wall, near the return air, in order to measure the ambient temperature of the cellar. A 6-meter RJ12 (class 6) cable is provided with the control unit for the connection.

Down blowing

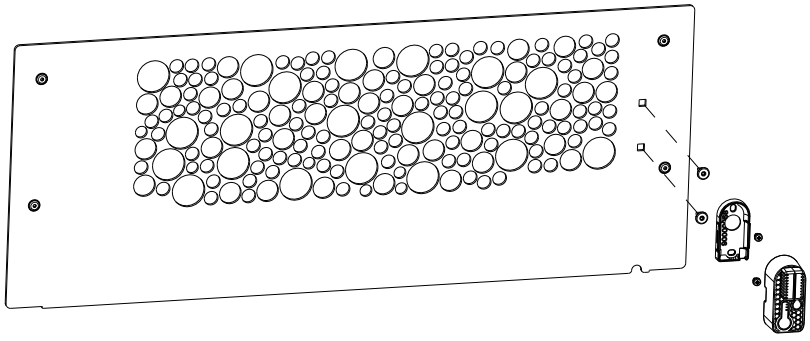


Up blowing



- Fixing to a surface : use screws and anchors suitable for the surface (not supplied).

- Fixing to the front of the evaporator : use the 2 nylon nuts and the 2 screws (3.9 x 9.5) provided in the evaporator accessory bag.

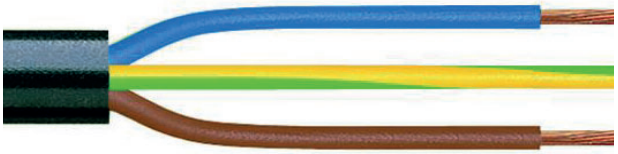


Electrical connection

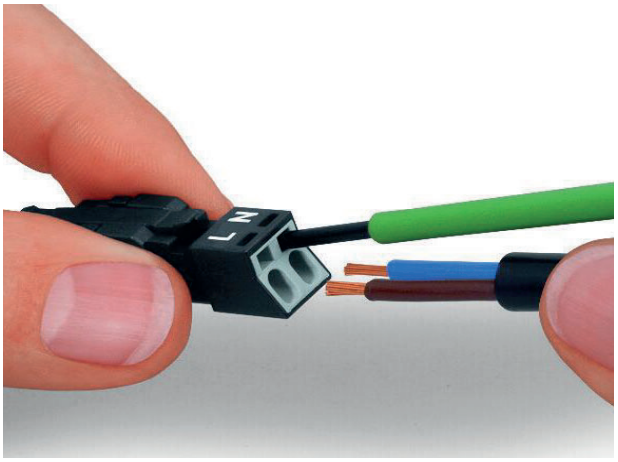
Installing the connectors

3 connectors are delivered to you in a bag in the evaporator box, for be connected to your cables following the assembly below.

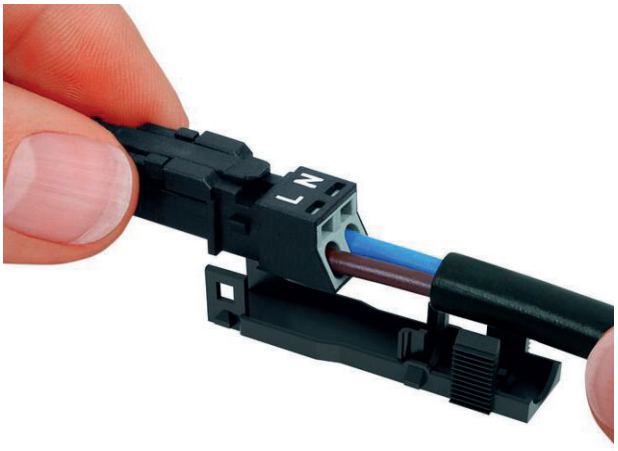
- Stripping length = 30 mm (2 poles), 37 mm (3 poles), 45 mm (4 and 5 poles)
- Wire stripping length = 9 mm
- Ground wire advance = 8 mm



1. Actuate the tension spring using a handling tool with blade width is 2.5 mm and insert the stripped wire as far as it will go to connect flexible conductors. The connection of the rigid cables is carried out by direct insertion.



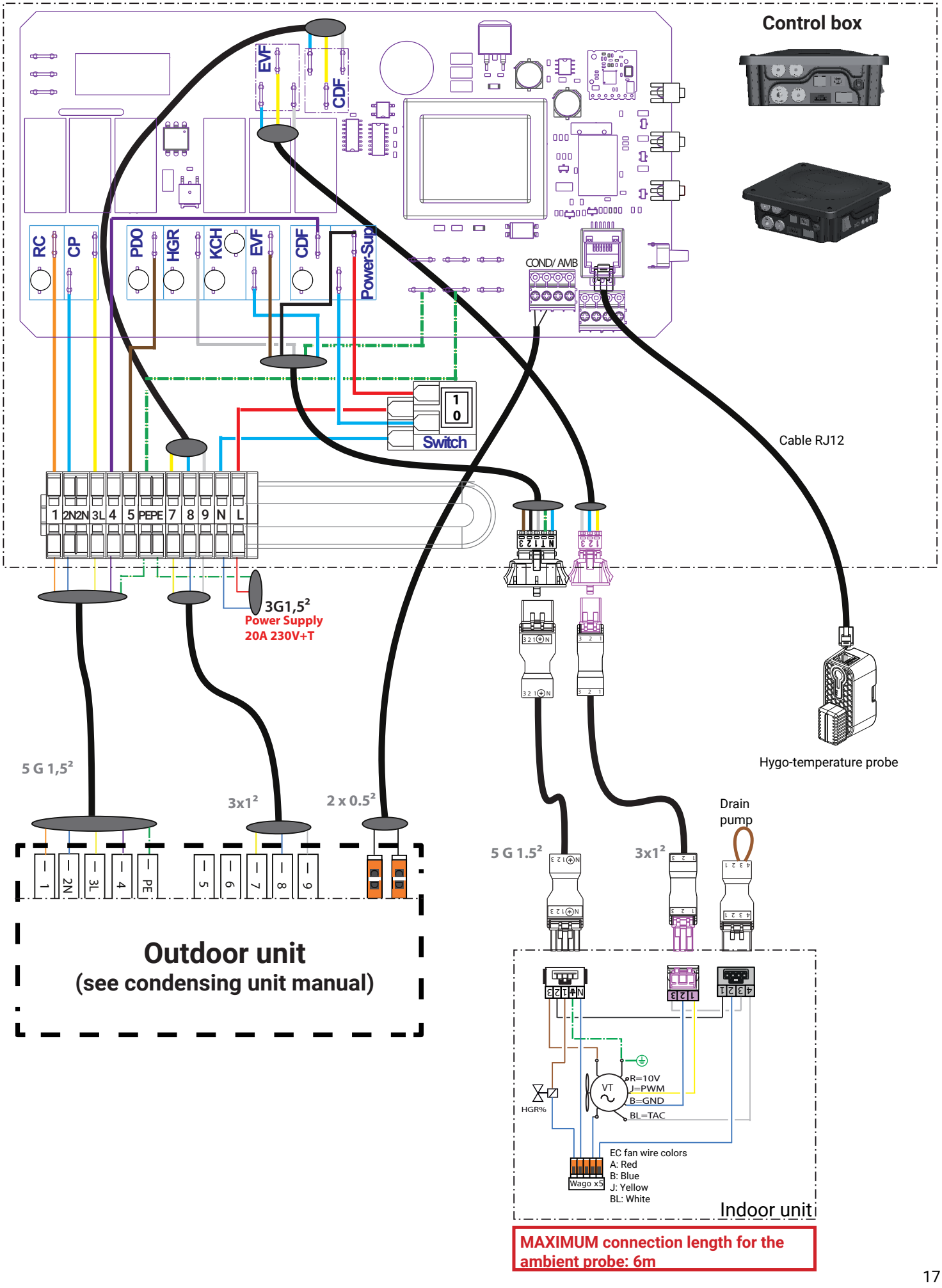
2. Snap the wired connector into the lower part of the discharge housing traction.



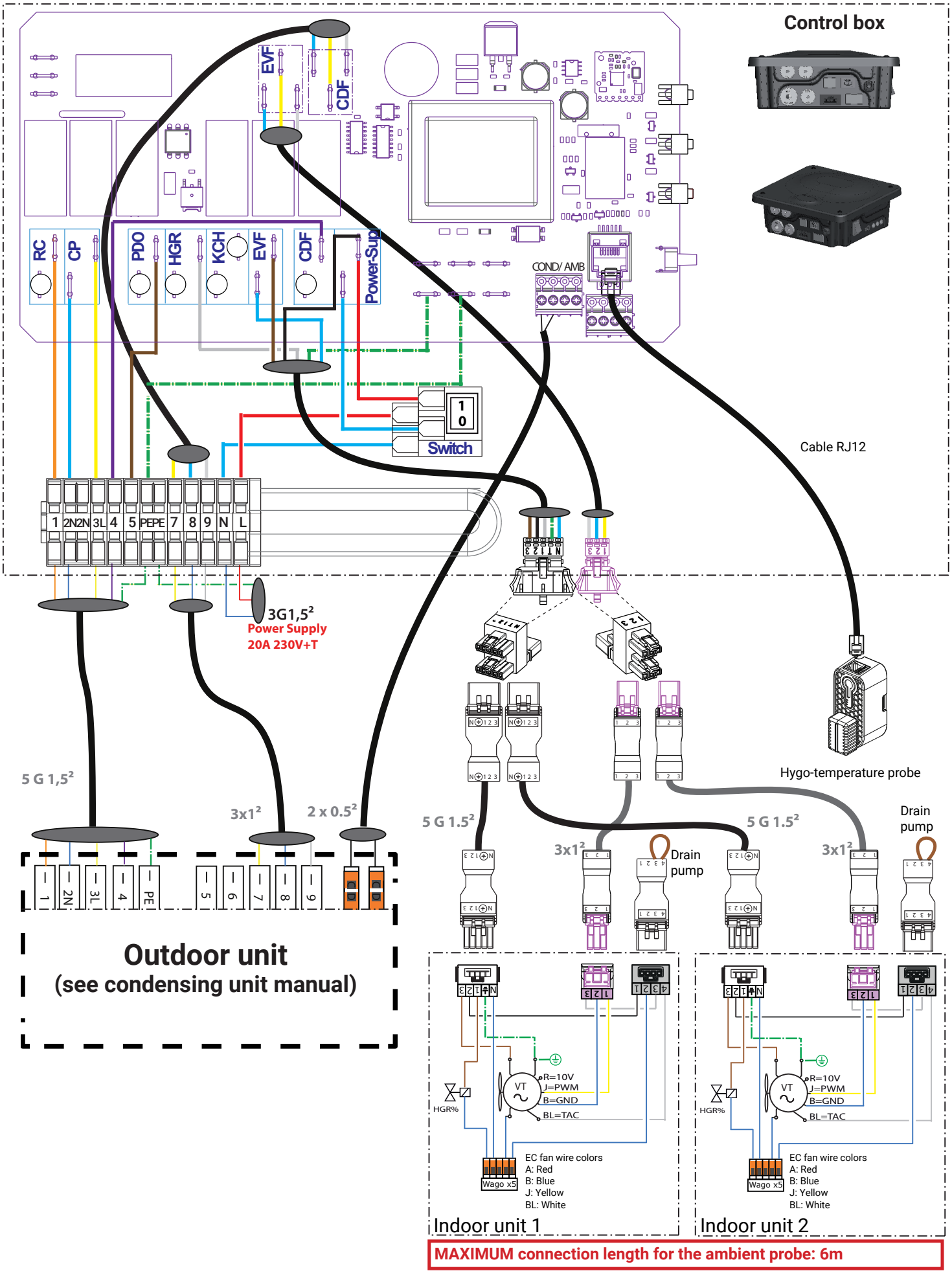
3. Snap the upper part of the housing strain relief.



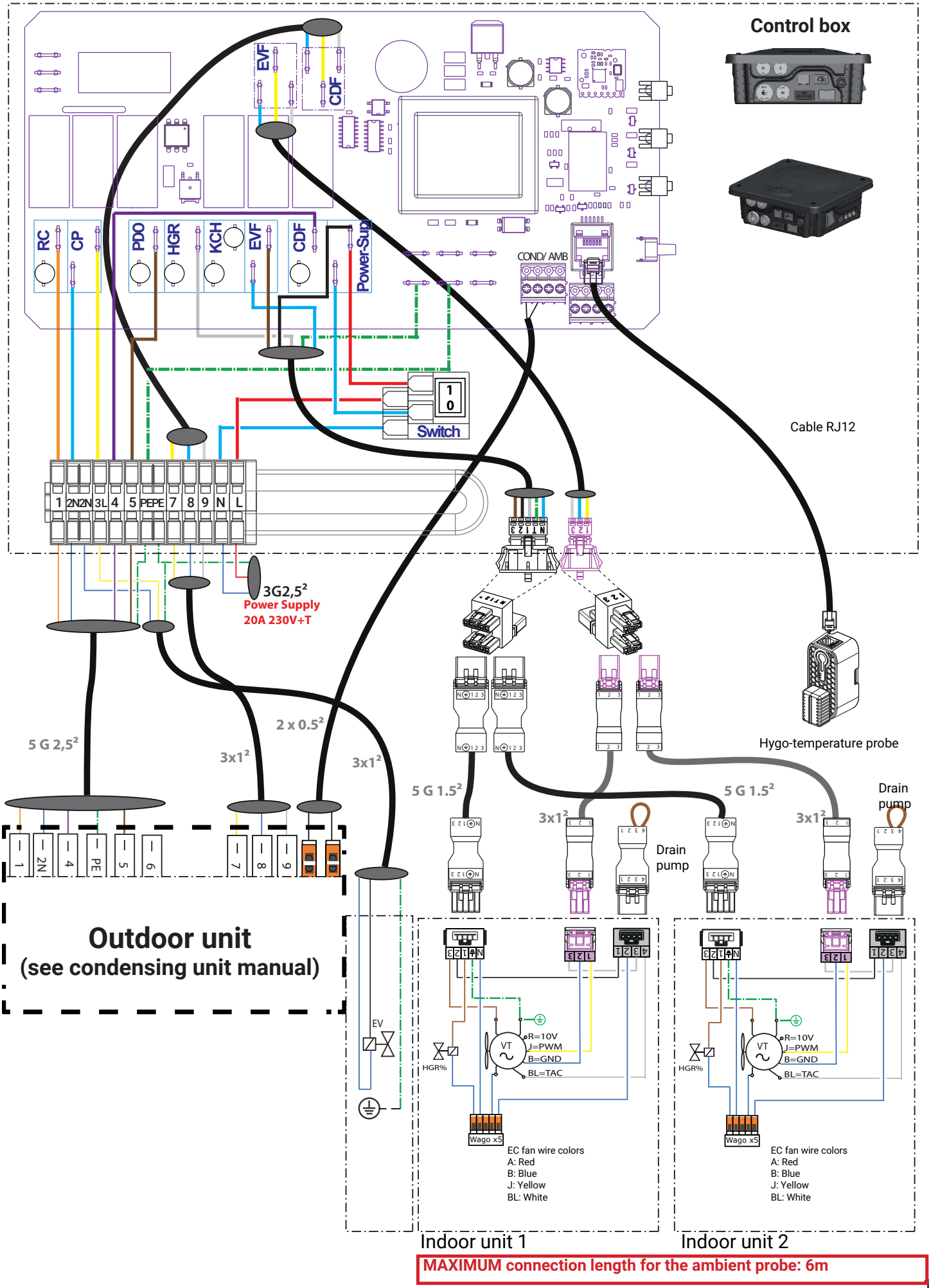
Electrical connection | SPC GCH/GCG | Size 30/48/82



Electrical connection | SPC GCH/GCG | Size 122

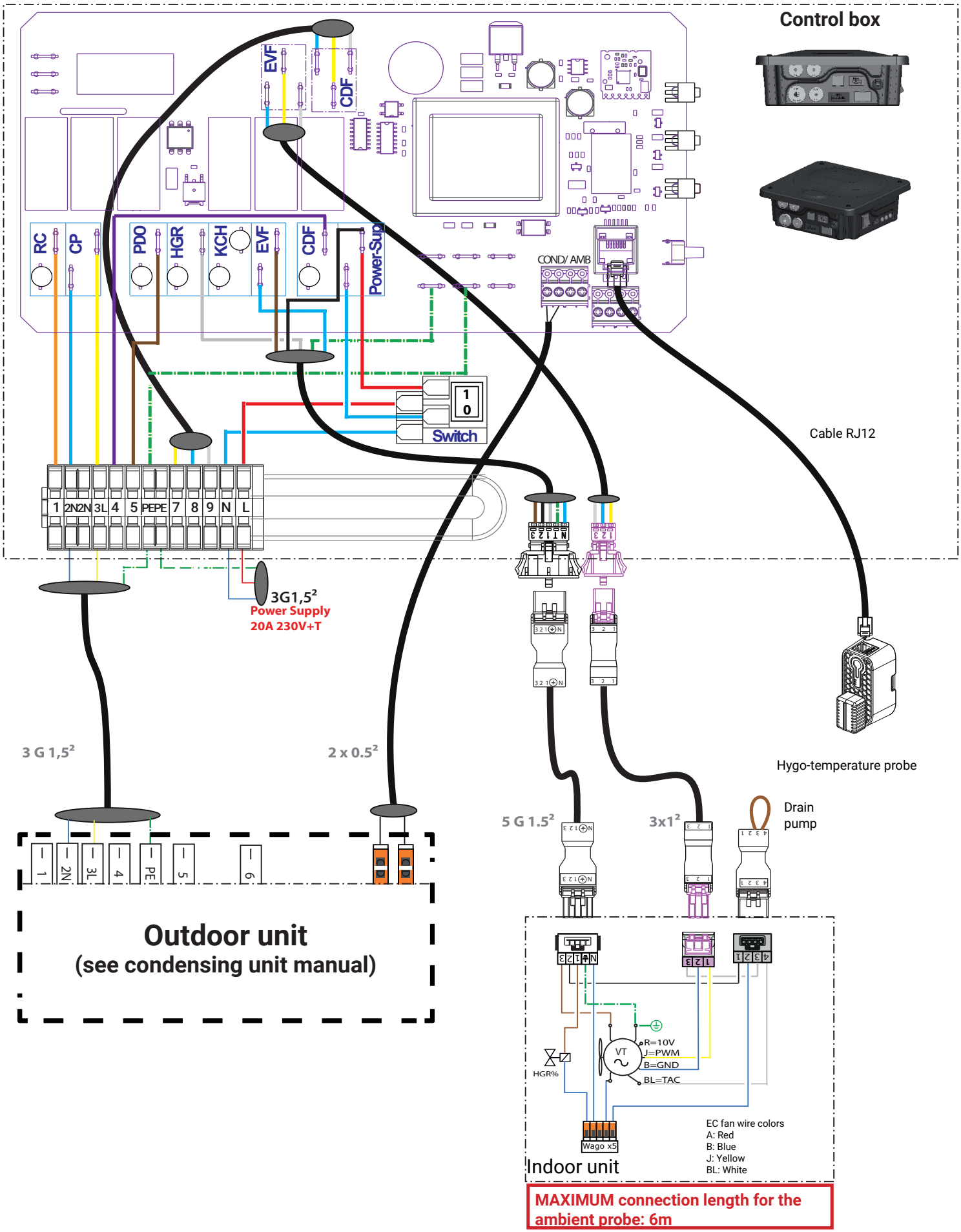


Electrical connection | SPC GCH/GCG | Size 170

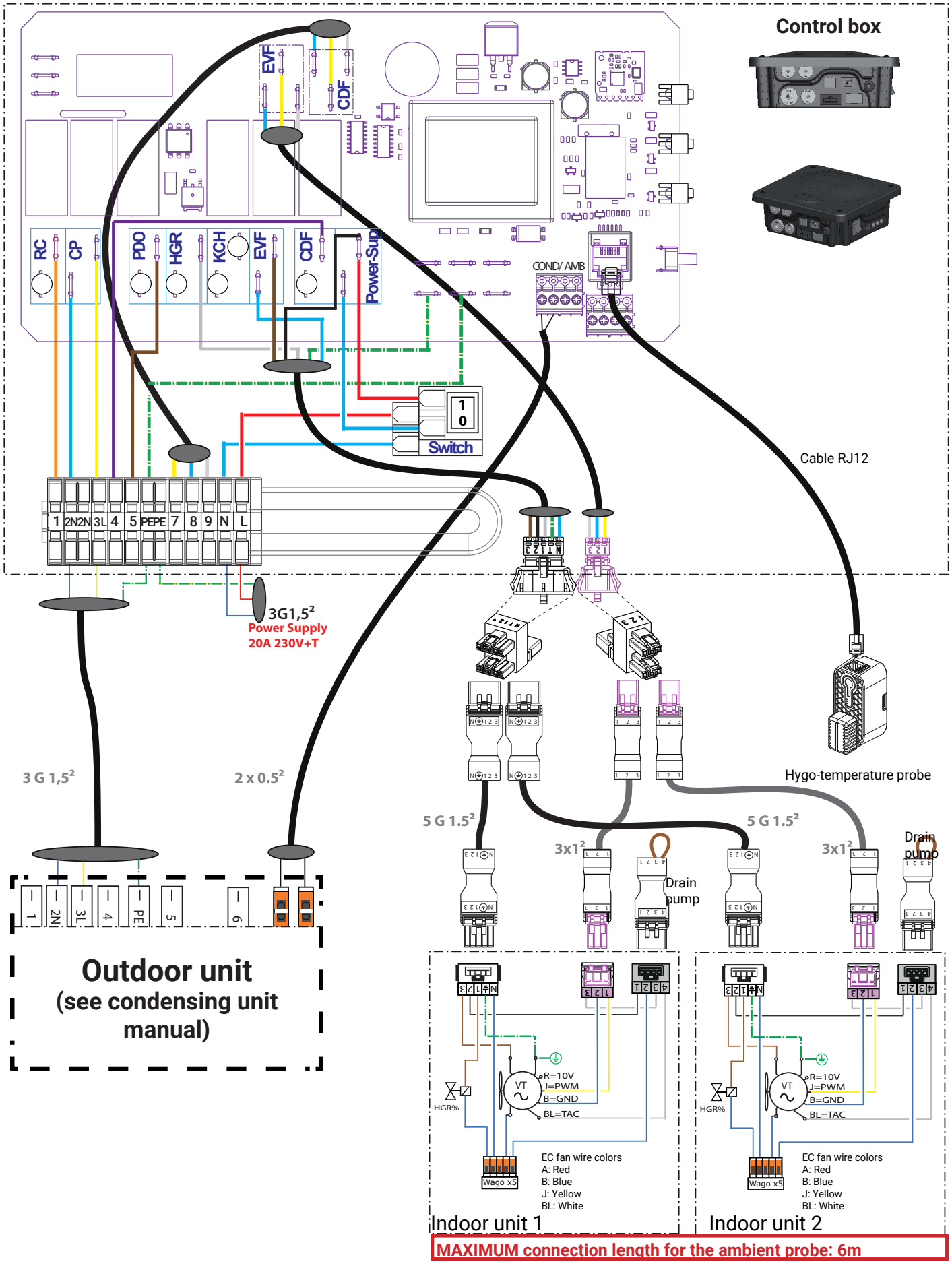


MAXIMUM connection length for the ambient probe: 6m

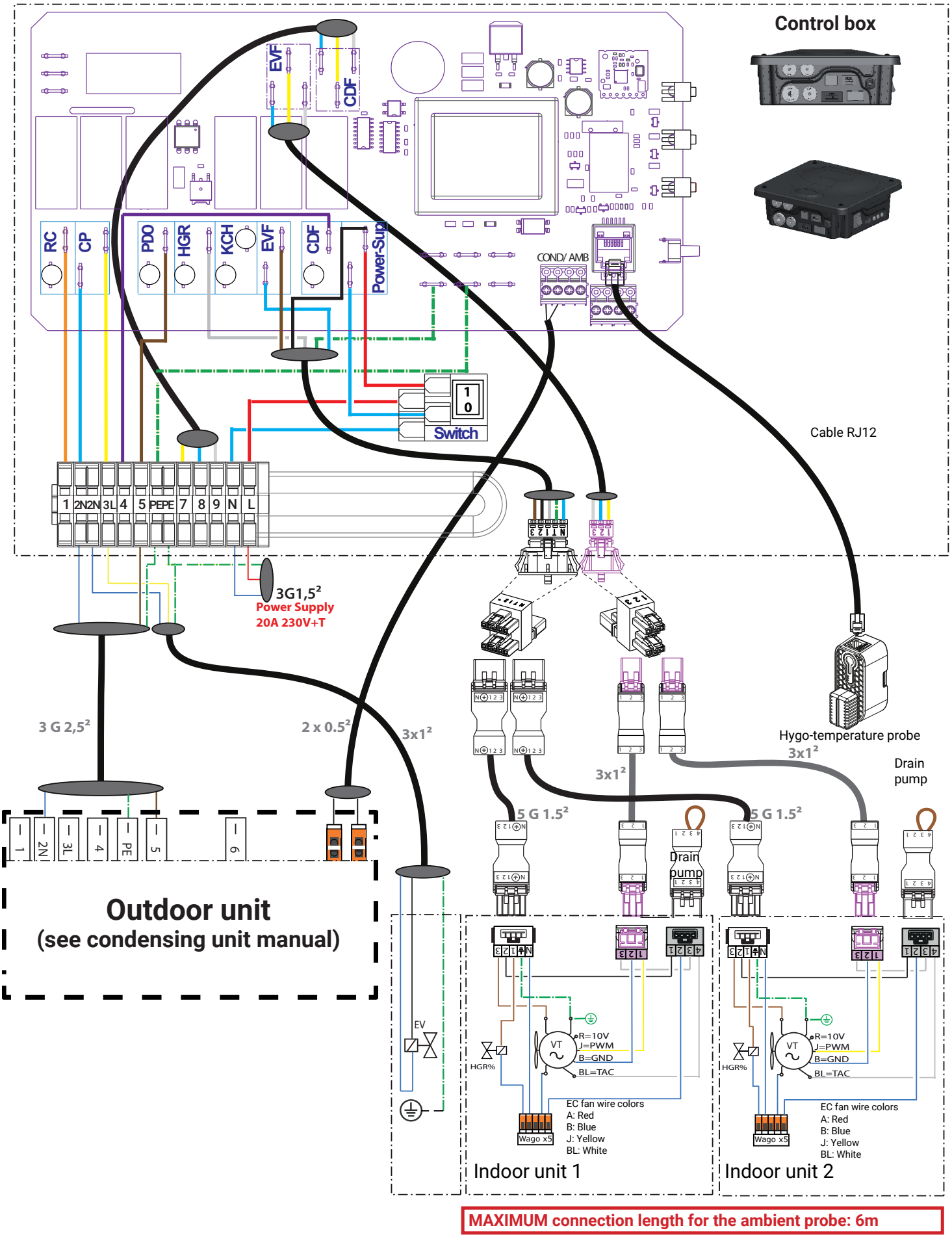
Electrical connection | SPC GCW | Size 30/48/82



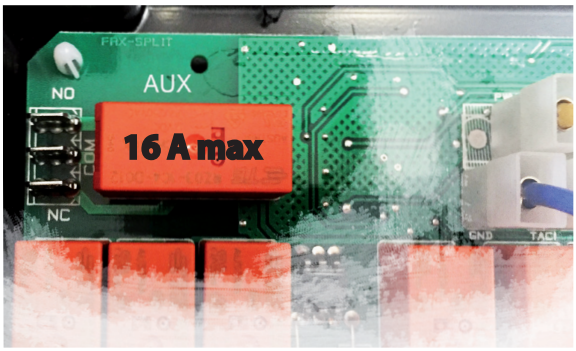
Electrical connection | SPC GCW | Size 122



Electrical connection | SPC GCW | Size 170



Auxiliary contact

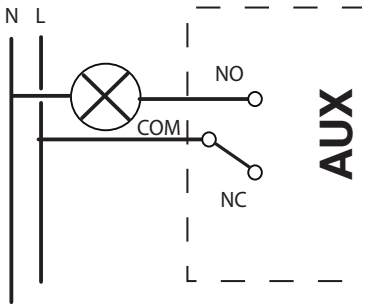


The card is equipped with an auxiliary contact COM-NO-NC
2 functions can be associated with the auxiliary contact:
- ECL lighting function
- Alarm reporting function

The card is basically programmed for lighting function.

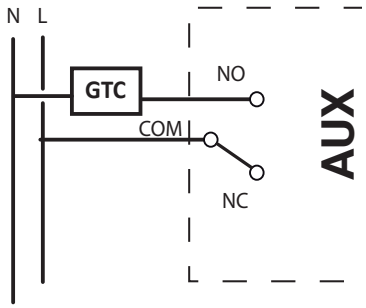
Lighting function:

To turn on the lighting, refer to the RSF2 Commissioning & Use instructions, ==>Summary==>Menu architecture==>Menu 3 FUNC Lig ON/OFF command.



Alarm report function:

To switch the alarm reporting relay, refer to the installer parameter instructions, Modify parameter 45:
1 = “type 1” alarms
2 = “type 2” alarms
1+2 = “type 1+2” alarms



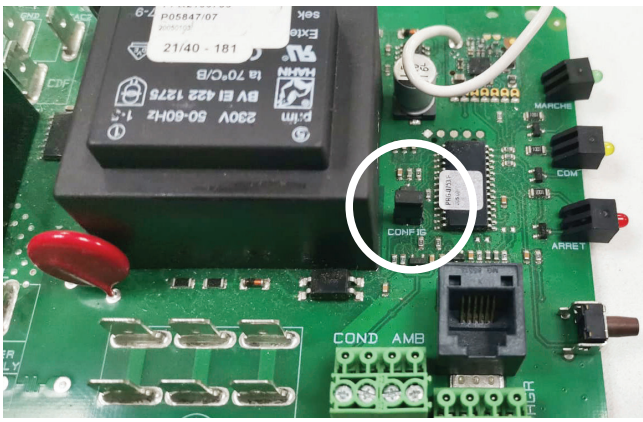
Electronic Board Configuration for 50°C Condensation:

By default, FRIAX air conditioners are designed for a nominal capacity with condensation at 45 °C (Configuration 1) and a maximum outdoor temperature of 35 °C.
It is possible to increase the condensation temperature to 50 °C (Configuration 2) in cases where the installation is located in a region or country where the outdoor temperature is between 35 °C and 43 °C.

Procedure to switch to Configuration 2:

- Locate the control board of the air conditioner.
- Move the corresponding switch on the board to activate Configuration 2.
- Perform a hard reset to apply the modification.

Note:
This modification allows the air conditioner to adapt to local climate conditions. However, a performance loss of approximately 10 % should be expected in this configuration.



Configuration 1 :



Configuration 2 :



Maintaining your cellar air conditioner

The following maintenance operations, repeated **every 6 months**, will ensure that your air conditioner retains its optimum performance and lasts as long as you and your wine.

Warning!

Before any maintenance operations, turn off the device using the remote control then cut off the power supply at the main circuit breaker to avoid any risk of electrocution.



Any intervention on a refrigeration circuit must be carried out by a professional authorized by an accredited body certifying the competence to handle refrigerant fluids.

Maintenance of the cellar evaporator:

1. Switch off the power supply of the evaporator.
2. Open the cabinet and disconnect the drain pipe. Beware of the water reserve accumulated in the tank.
3. Use a hoover and a compressor fitted with a blower to remove dust from the battery and fan. (Be careful not to damage the fins).
4. Wash the tray with clean water, taking care with the electrical connections, and apply an odourless bactericidal disinfectant such as KNET125 (sold separately) to treat biofilm bacteria.
5. Check that the drain hose is not blocked, then reconnect it to the drip tray.
6. Check that the drain is free-flowing and watertight by pouring a glass of water into the drip tray.
7. Check for refrigerant leaks using a leak detector.
8. Close the body.
9. Restore power at the main circuit breaker.

Maintenance logbook

DATE	COMMENTS	TECHNICIAN

NOTES

NOTES

FRIAX INDUSTRIE

231/233 Rue de la Prairie
F-73420 Voglans

Site web : www.friax.fr
Boite mail : info@friax.fr

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