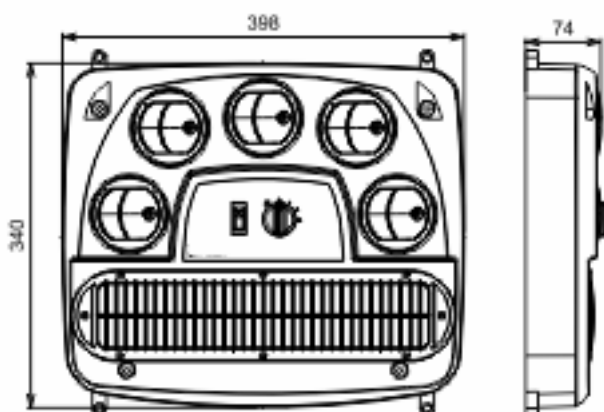
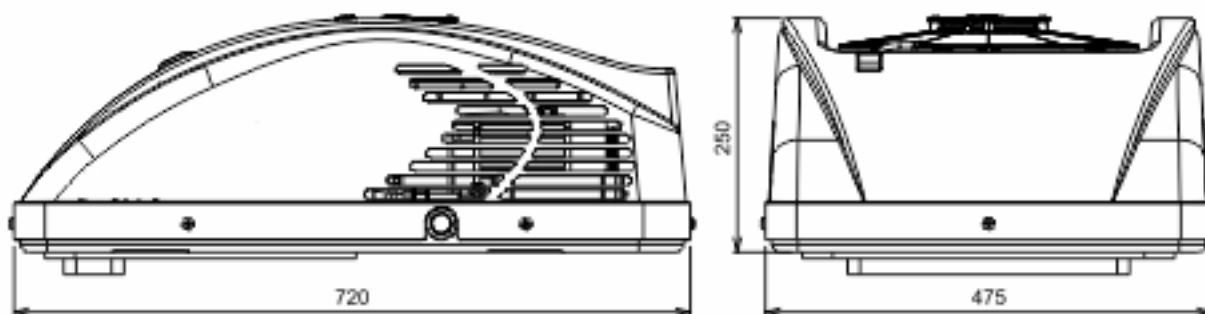


12V & 24V ROOFTOP AC



1. Presentation

Additional electric cooling roof for cabin of agricultural machinery, earthmoving equipment, municipal vehicles ...
Unit pre-charged with refrigerant and quick installation only electrical connection to the vehicle.



Ref 12v

Cooling output	3.5kW
Air flow	440m3/h
Voltage	12V
Intensity	80A
Power consumption	960W
R134a load	450g

Ref 24v

Cooling output	3.5kW
Air flow	440m3/h
Intensity	73A
Voltage	24V
Power consumption	1760W
R134a load	450g

2. Recommandation / Safety



The installation must be performed by a qualified professional.



Switch off and disconnect the battery before mounting or maintenance.



Wear goggles and gloves for the installation of this product or disassembly an item for repair.



Attention the unit must be cooled before any intervention. Some parts are hot and can cause burns.



Caution, do not remove the belt protection's or remove any protection provided on the unit. This could cause serious injury.



Attention, the unit is heavy. Do not handle or install the unit alone.

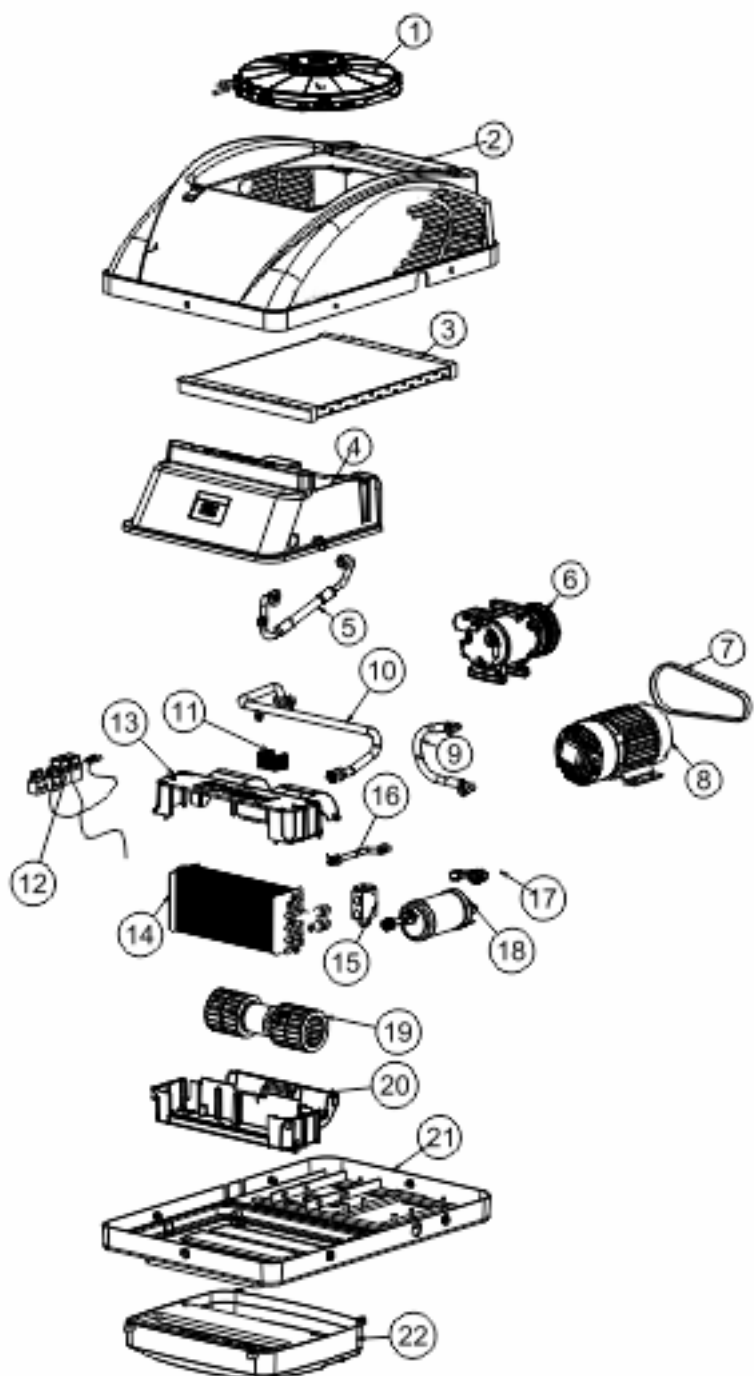


Do not make cuts on the roofs of vehicles certified «FOPS ROPS. Check roof strength (the weight of the unit is 30 kg), we suggest a reinforcement if it is plastic or polyester (the reinforcement must not change the structure of the cabin).



The fl at roof area required should be 400 x 400. The device requires electrical power of 80 amps at 12 volts. Check your alternator is enough sized for all your electrical accessories. In the case of replacement of your alternator, you should check or replace the section of wire between the device and the battery.

3. Spare Parts

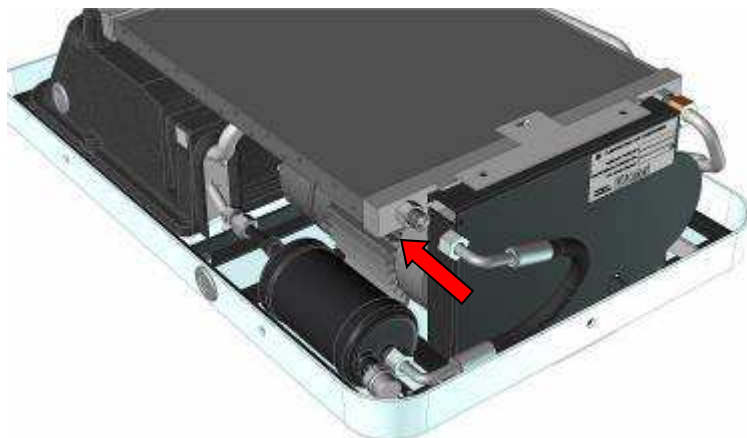


Rep	Reference	Designation	Qty
1a	121.40.572	Condenser fan 12V	1
1b	121.40.573	Condenser fan 24V	1
2	340.07.448	Cover	1
3	340.83.011	Condenser	1
4	340.07.450	Internal cover	1
5	700.07.382	Hose M08	1
6	700.08.013	Compressor	1
7	340.05.346	Belt	1
8a	340.01.070	Electrical motor 12V	1
8b	340.01.071	Electrical motor 24V	1
9	700.07.383	Hose M06	1
10	340.24.156	Tube M10	1
11	700.11.001	Thermostat	1
12	340.05.762	Electrical harness	1
13	340.07.344	Casing Super K	1
14	340.81.011	Evaporator	1
15	700.01.002	Block valve	1
16	340.24.157	Tube M06	1
17	700.02.011	Pressure switch	1
18	700.04.006	Receiver drier	1
19a	340.01.062	Ventilation motor 12V	1
19b	340.01.060	Ventilation motor 24V	1
20	340.07.347	Casing Super K	1
21	340.07.451	Base+frame	1
22a	340.03.117	Plenum 12V AC	1
22b	340.03.118	Plenum 24K AC	1

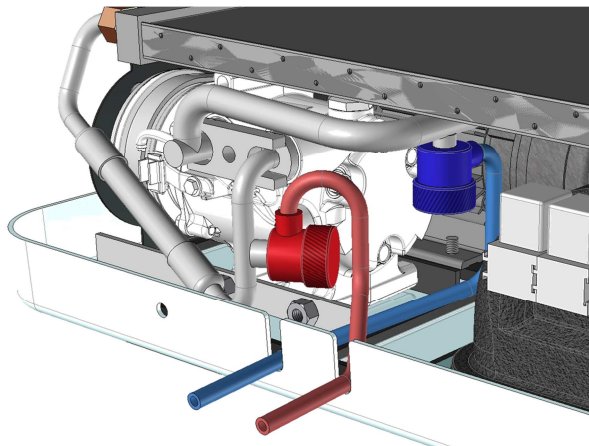
4. Filling of the unit- Only for exports versions

Proceed with the gas charge of the unit before installation on the vehicle.

- f. Screw the M06 condenser nut. Torque of 16Nm
Be careful not to bend the hose.



- f. Connect a R134a charging center to the unit.



- c. Proceed to a vacuum during 45 minutes.
d. Fill the unit with 450g of R134a.
e. Fill in the sticker



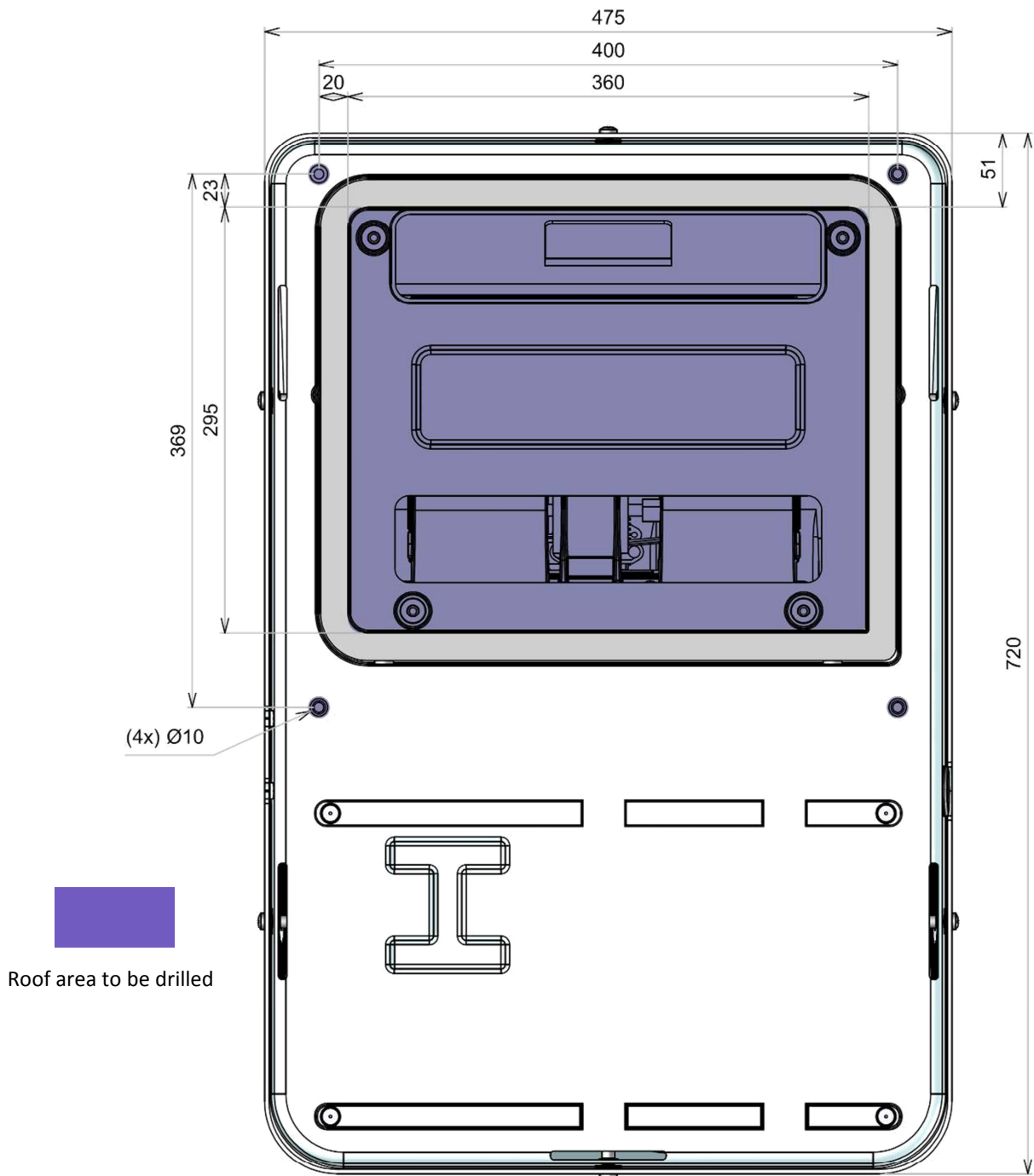
- f. Disconnect the charging center.

5. Installation

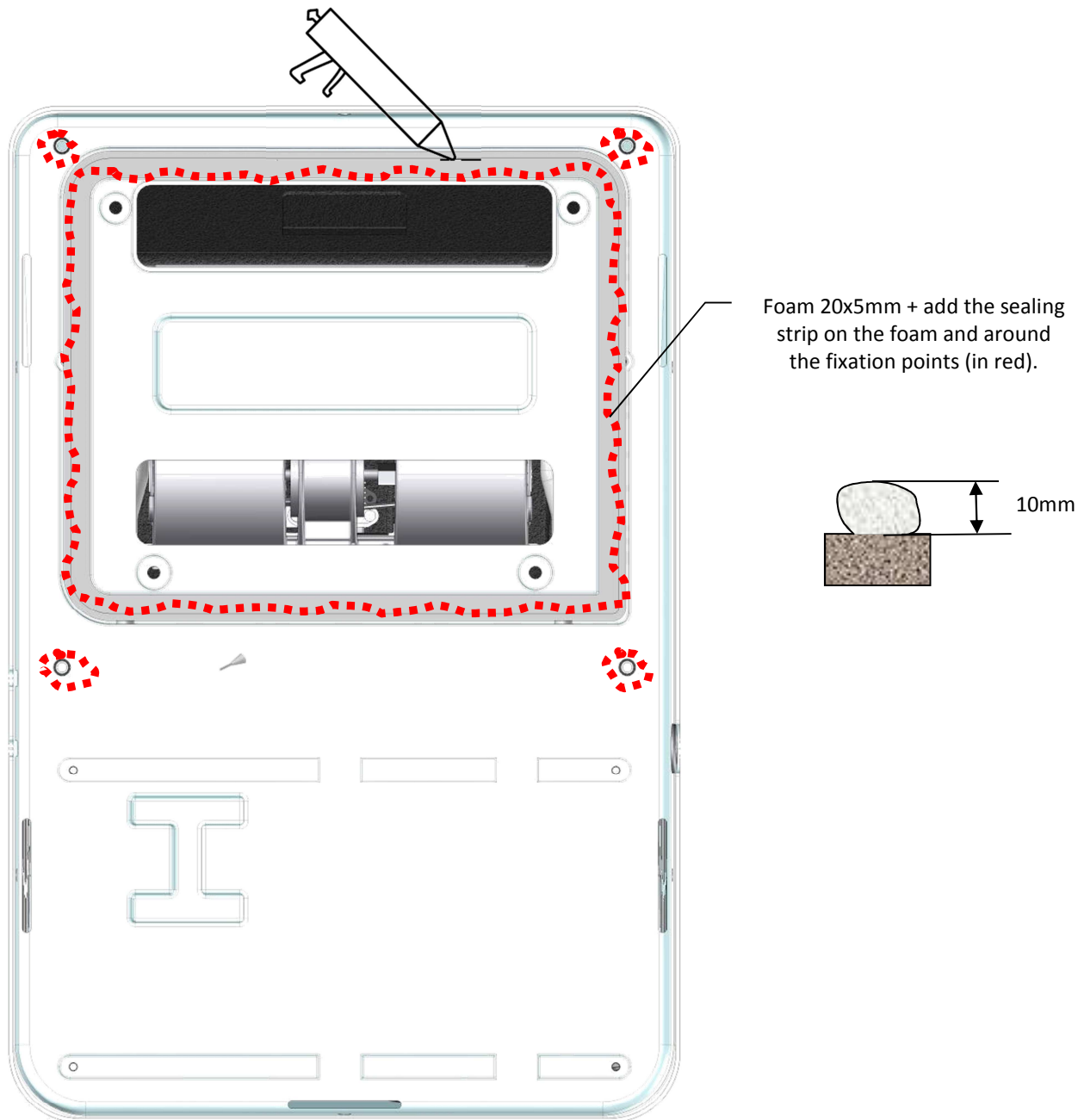
a. Materials required but not included in the kit

- Red power cable (16mm²) length connecting the unit to battery
- Black power cable (16mm²) length connecting the unit to battery
- Red power cable of 1.5mm² length connecting the unit to the alternator / engine running protection
- (1x) Fuse of 100A general protection unit
- (2x) ring eyelets Ø6 16mm² + (1x) Faston male connector 6.35
- (1x) Sealant tube
- (4x) screw M8 for the unit fixation

b. Cut the roof following the dimensions below.



c. Stick the foam provided in the kit on the base to the location described below.



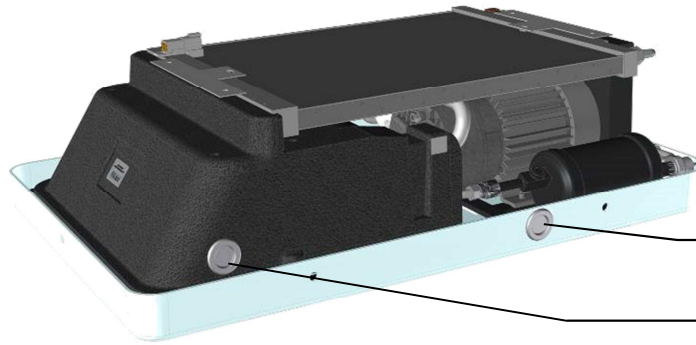
d. Install the unit on the roof and fix it with 4 screws M8 (not provided).



Caution: 180mm max of cantilever

	Instructions / note		

e. Disconnect the axial fan connector and remove the cover to access to the electrical connection

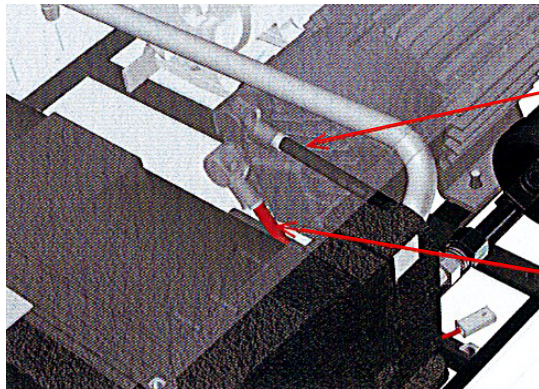


Passage of the cables coming through the roof

Passage of cables coming from inside the cab

Connect the unit as described below:

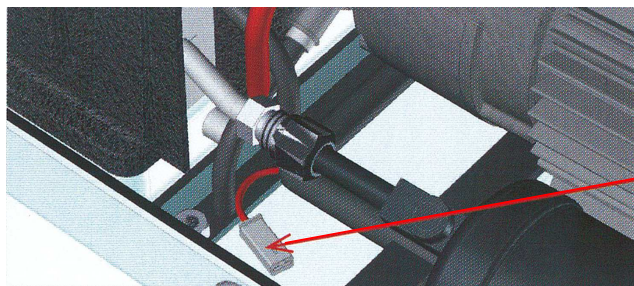
Connect 2 power cable of 16mm² on the electrical motor + 2x ring eyelets Ø6 (not provided).
 The red power cable of 16mm² will be connected to a fuse of 100A (not provided).
 The black power cable of 16mm² will be connected to the ground battery.



- Unscrew the nut M6
- Connect the red power cable with the cap on it
- Screw the nut M6
- Put the isolant cap

- Unscrew the nut M6
- Connect the red power lead with the cap on it
- Screw the nut M6
- Put the isolant cap

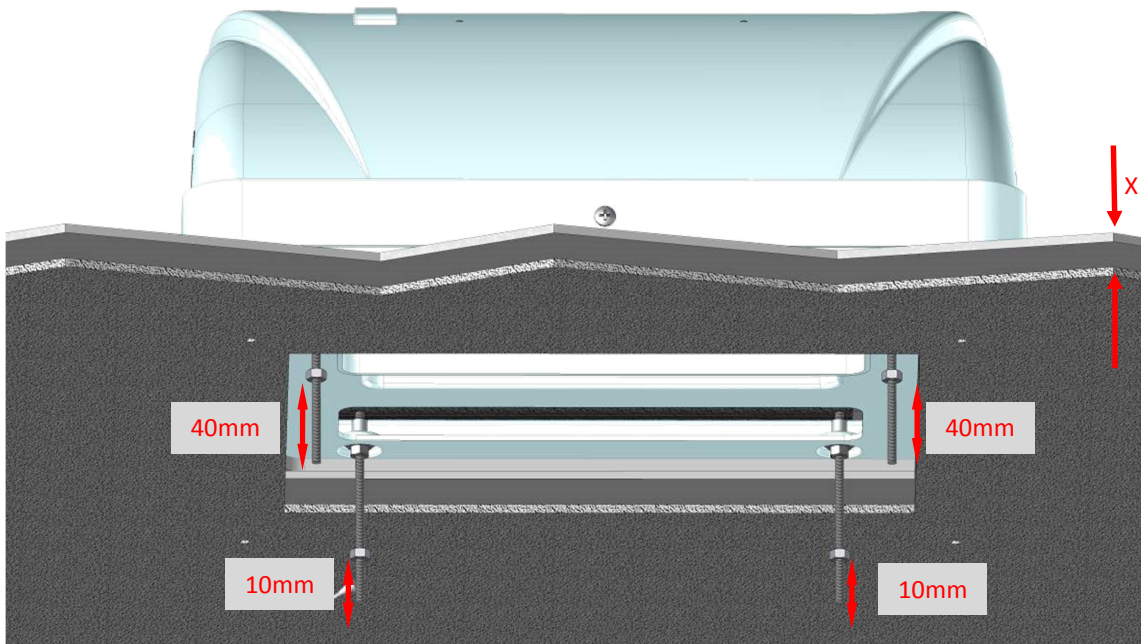
Connect a power cable of 1.5mm² on the female connector.
 The red power cable of 1.5mm² will be connected to the D+ (signal engine running) of the alternator.



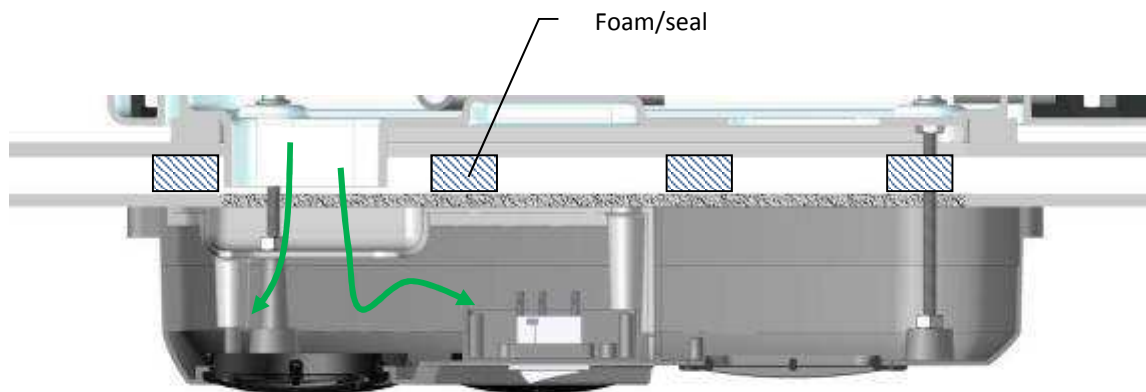
Connect the power cable of on the female connector.

Put the cover on the unit and plug the axial fan connector.

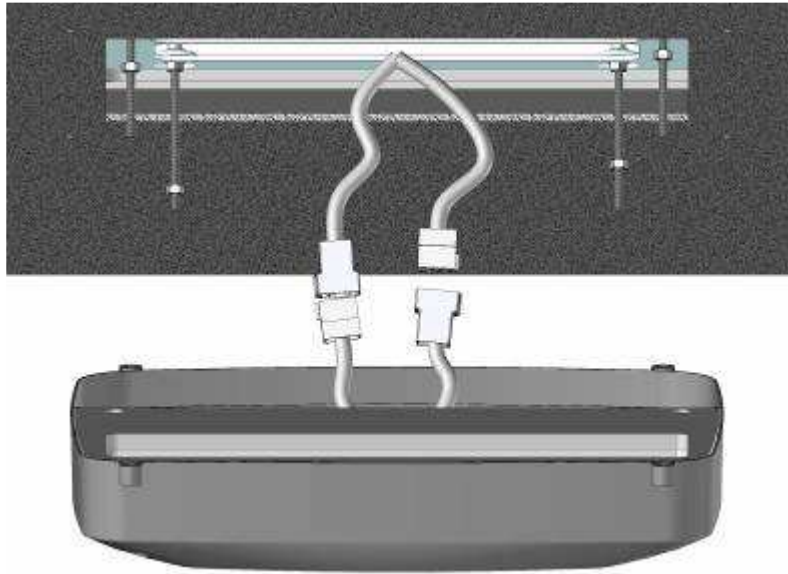
6. Diffuser installation



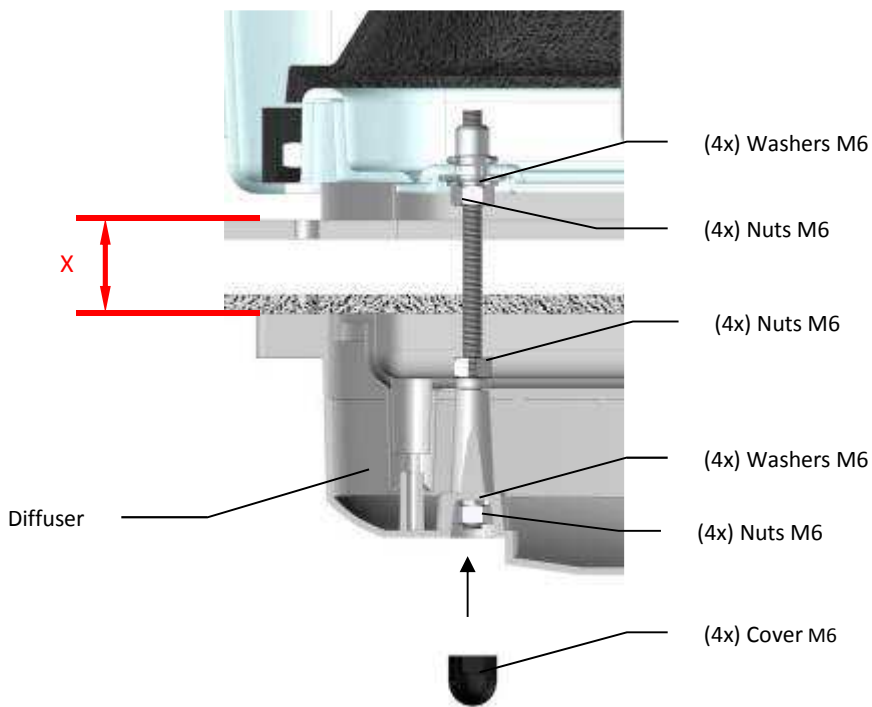
- a. Cut 4 lengths of threaded rod using the following formula:
 lengths of threaded rod = $X + 87$ (X= thickness of the roof)
- b. Screw with a length of 19mm threaded rods on the insert.
- c. Block threaded rods with a washer and nut M6
- d. Screw 2 nuts M6 at the front with a depth of 40 mm
- e. Screw 2 nuts M6 on the back of a depth of 10 mm
- f. Check it did not bypass air between the unit and its diffuser.
 As appropriate, put foam around the air inlet of the diffuser to prevent bypass



- g. Connect the diffuser with the 2 plugs Faston type from the unit.



h. Put the diffuser on the 4 threaded rod and secure with 4x nuts + washers + covers

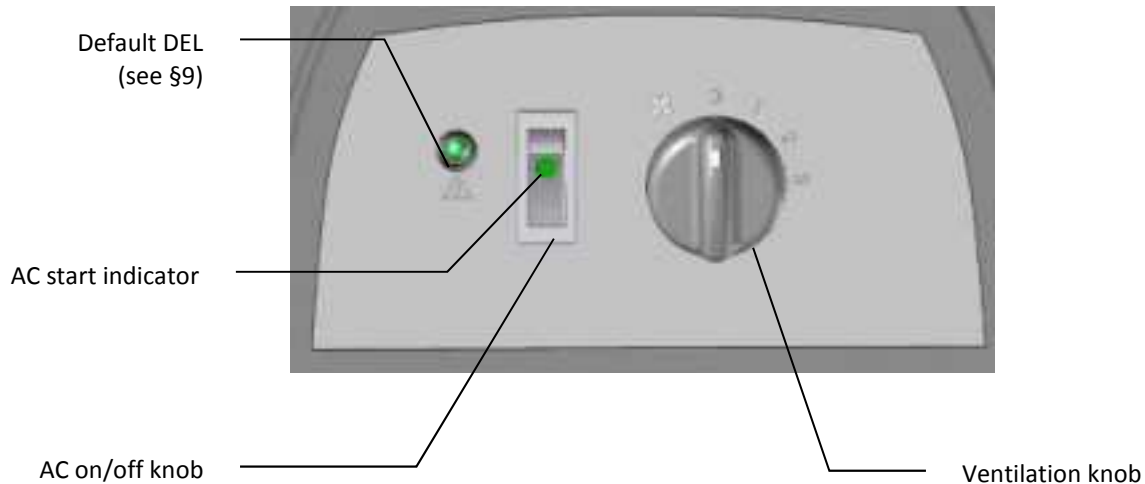


7. Finalizing the installation

- Connect the red cable 16mm² from the unit to the 100A fuse connected to the battery.
- Connect the black cable 16mm² from the unit to the battery ground.
- Connect the red wire 1.5mm² from the unit to the terminal D + alternator
- Check the unit following the instructions for use.

8. Operating instructions

- a. Put the knob on position 1 → the ventilation start



- b. Put the AC knob to ON, the green indicator switch → the air conditioning starts.
- c. Adjust the fan speed (1,2 or 3) depending on the required level of comfort.
- d. Recommendations:

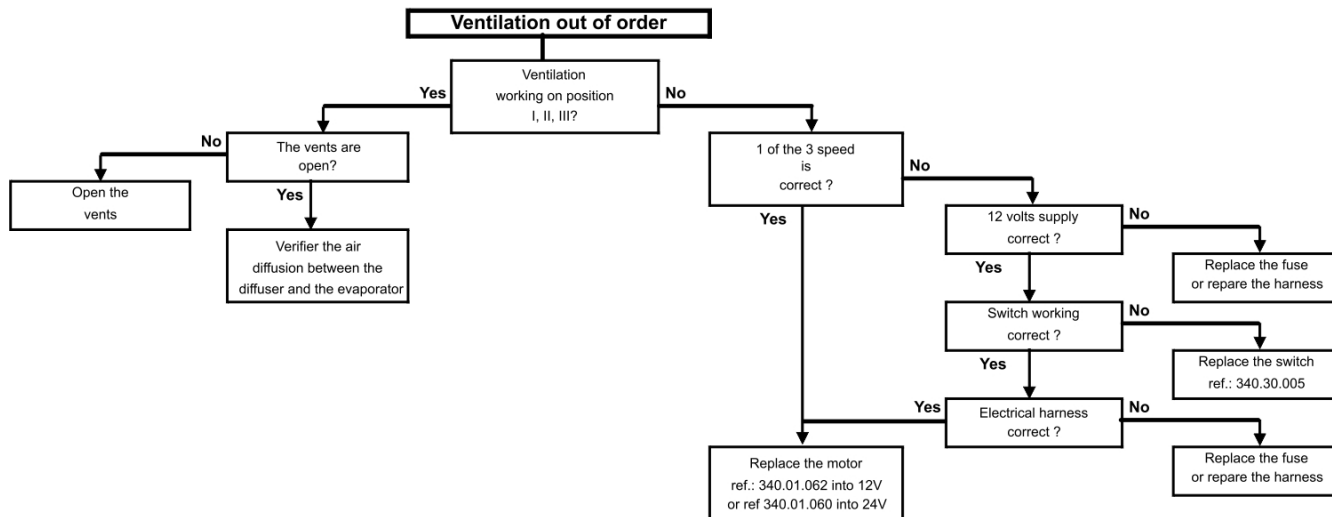
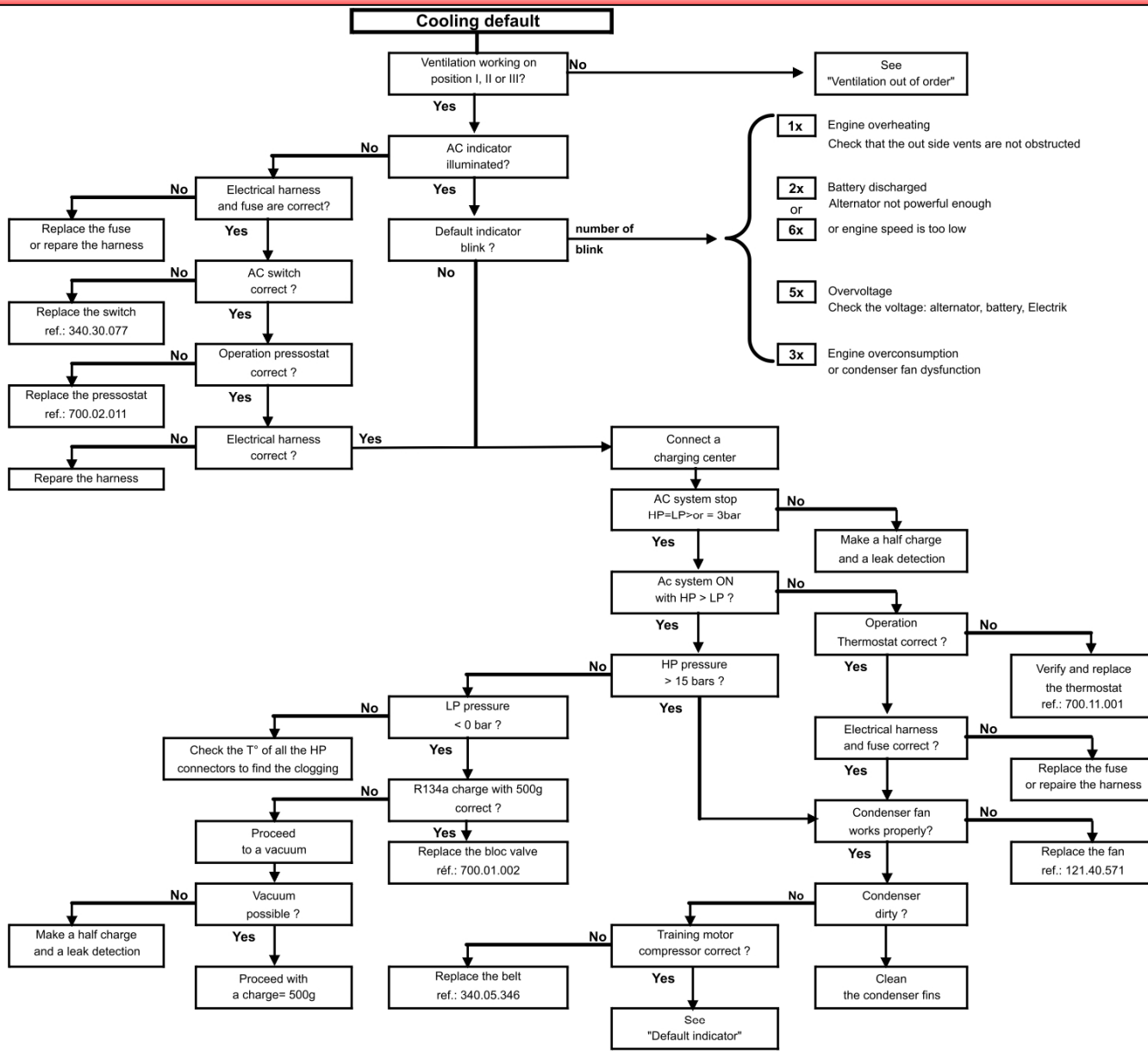
A vehicle with door closed in the sun can reach an internal temperature above 20 ° C compared to outside. Before the start of Elektrik, ventilate the vehicle to lower the indoor temperature. Then the air conditioning start, do not leave doors or windows open unnecessarily. For best performance, check that:

- : the condenser air vents are not obstructed,
- the air vents are not closed,
-

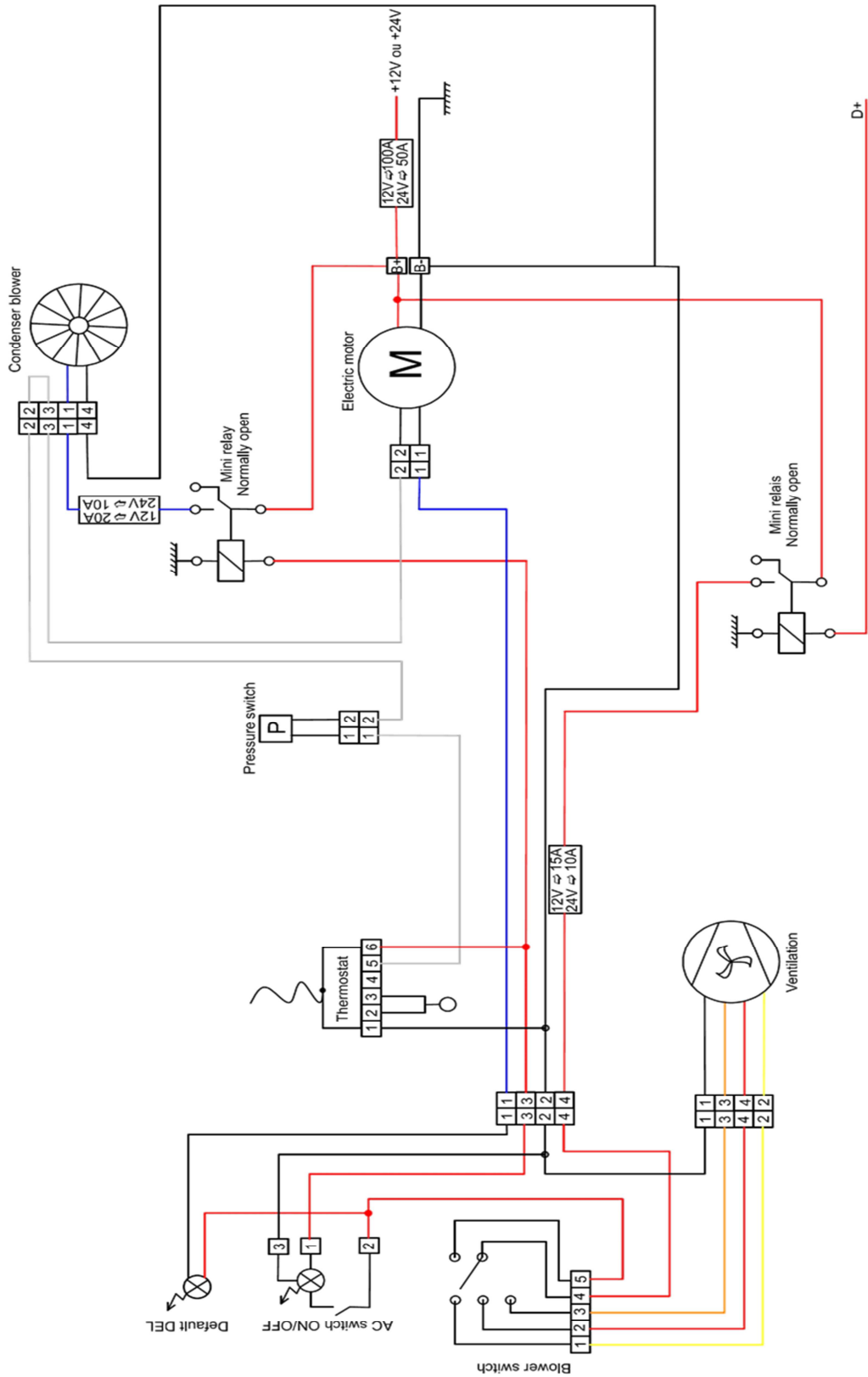
In winter, once a week, run the air conditioning a few minutes to preserve the circuit in good condition

9. Fault finding

Caution: only qualified personnel equipped with special tools can repair some malfunction.



10. Electrical diagram



11. Maintenance

	Notice / note		

- **Never work on the refrigerant circuit.**
- **The R134a, in the open air is a colorless, odorless gas heavier than air under certain conditions may cause risks to humans.**
- **Contact a qualified professional.**

Frenquency	Actions
All 50 hours of use	External cleaning of the condenser
All 200 hours of use	External cleaning of the condenser Verification of the belt tension
Every year	Control the gas charge of R134a (500g)
Every 2 years	Replace the receiver drier Cleaning of the inside of the AC circuit Oil SP20 and R134a charge Pressostat and thermostat control