

Ref.  
122.30.000  
122.30.100  
122.30.000.EXP  
122.30.100.EXP

**Kalori**

*Electrik*





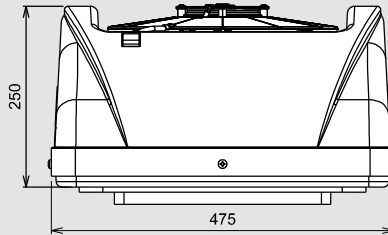
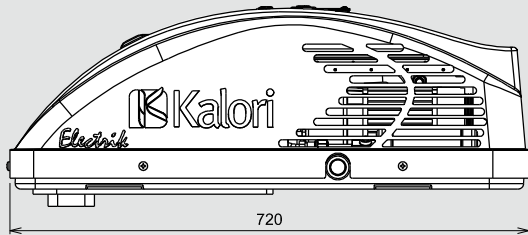


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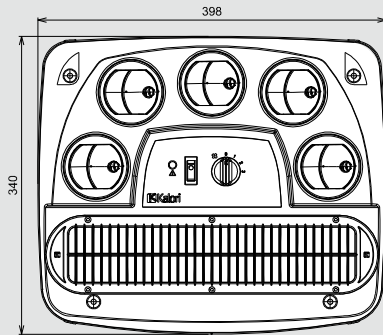
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**1- Presentation**

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 (except the references 122.30.000.EXP and 122.30.100.EXP)



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**Ref 122.30.000**

Cooling output	3.5kW
Air flow	440m <sup>3</sup> /h
Voltage	12V
Intensity	80A
Power consumption	960W
R134a charge	450g

**Ref 122.30.100**

Cooling output	3.5kW
Air flow	440m <sup>3</sup> /h
Voltage	24V
Intensity	73A
Power consumption	1760W
R134a charge	450g

## 2- Recommendation / Safety instruction

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The installation must be performed by a qualified professional.

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Switch off and disconnect the battery before mounting or maintenance.

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

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

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

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

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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 cab).

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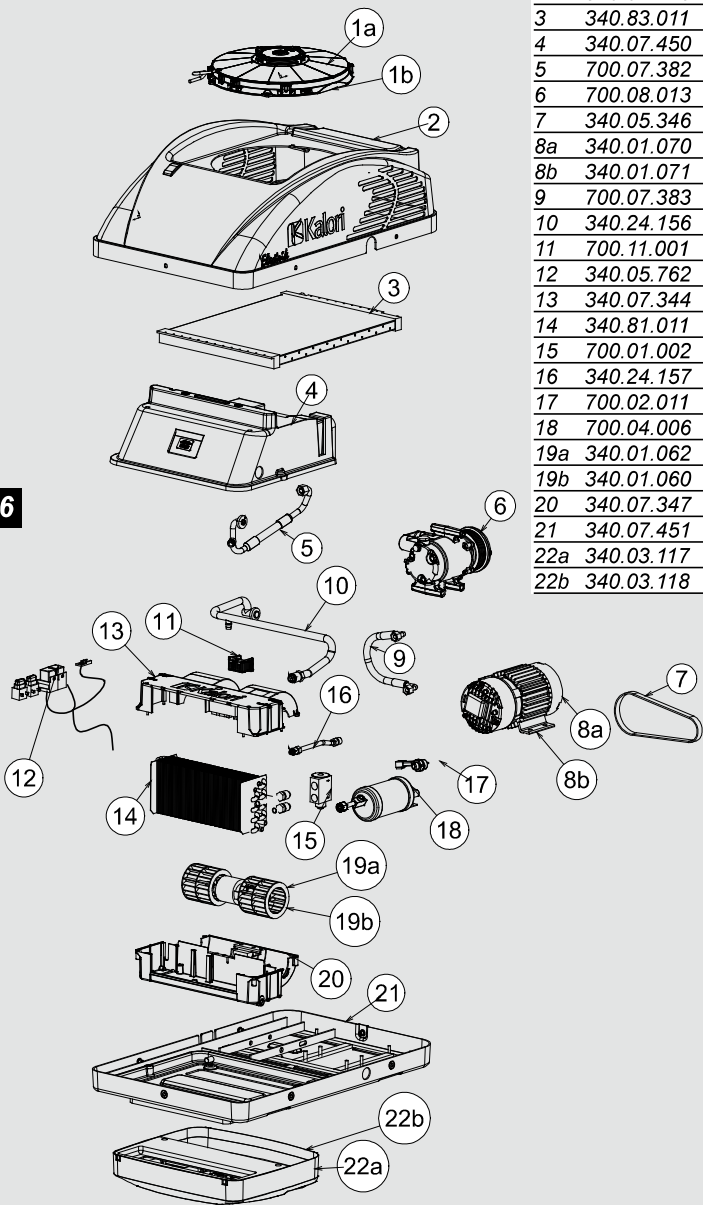


The flat roof area required should be 400 x 400  
The device requires electrical power of 80 amps at 12 volts. Check your alternator is enough sized for all your electrical accessories. In the case of replacement of your alternator, you should check or replace the section of wire between the device and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

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**3- Parts list / Scope of delivery**

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	Diffuser Electrik 12V	1
22b	340.03.118	Diffuser Electrik 24V	1



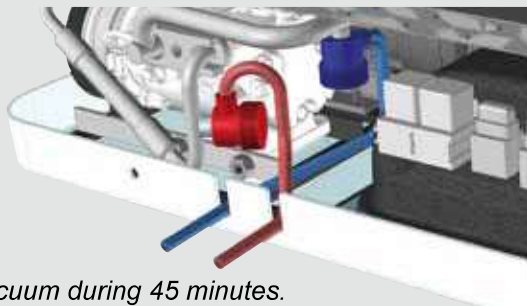
## 4- Filling of the unit- Only for exports versions (ref 122.30.000.EXP et 122.30.100.EXP)

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

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



- b. 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



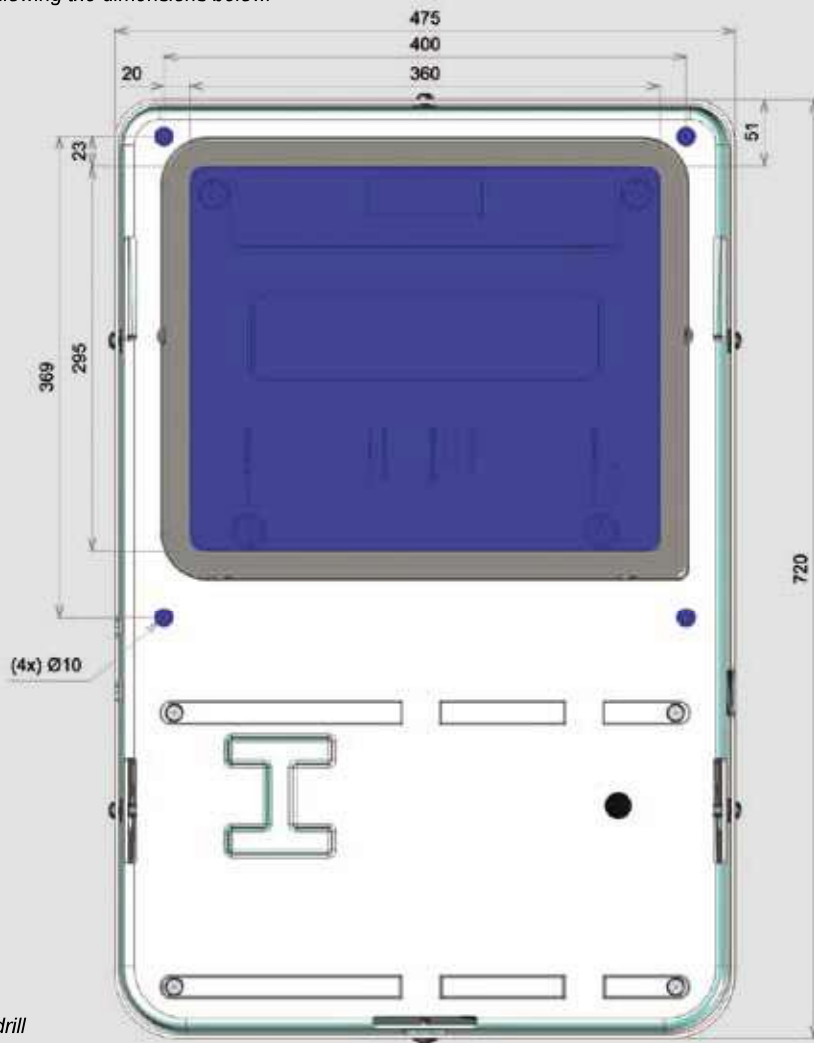
- f. Disconnect the charging center.

## 5- Electrik installation

### a. Materials required but not included in the kit

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

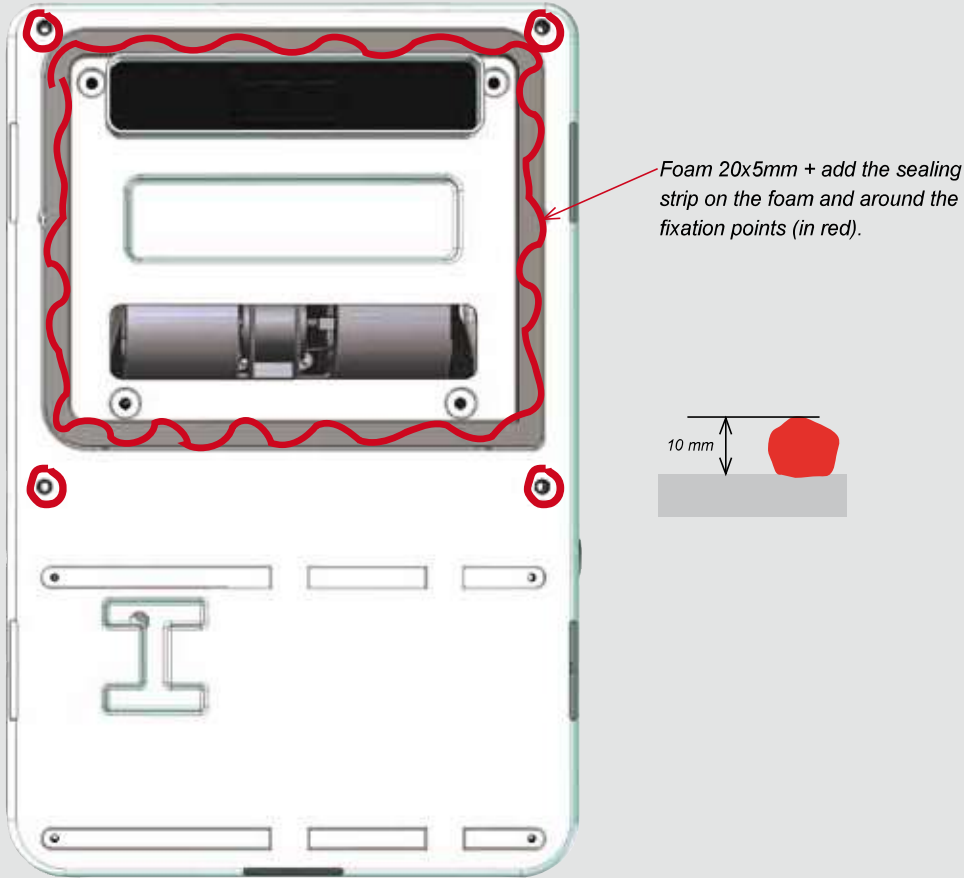
### b. Cut the roof following the dimensions below.





**5- Electrik installation**

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



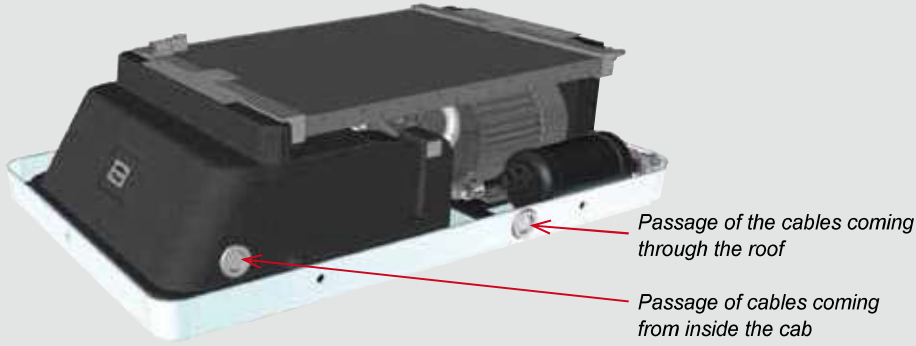
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d. Install the unit on the roof and fix it with 4 screws M8 (not provided).



**5- Electrik installation**

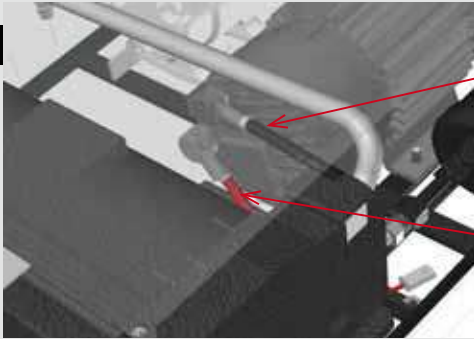
e. Disconnect the axial fan connector and remove the cover to access to the electrical connection.



Connect the unit as described below:

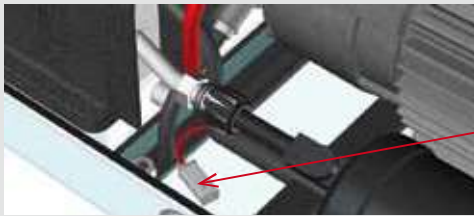
- Connect 2 power cable of 16mm<sup>2</sup> on the electrical motor + 2x ring eyelets Ø6 (not provided).
- The red power cable of 16mm<sup>2</sup> will be connected to a fuse of 100A (not provided).
- The black power cable of 16mm<sup>2</sup> will be connected to the ground battery.

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- Unscrew the nut M6
- Connect the black 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

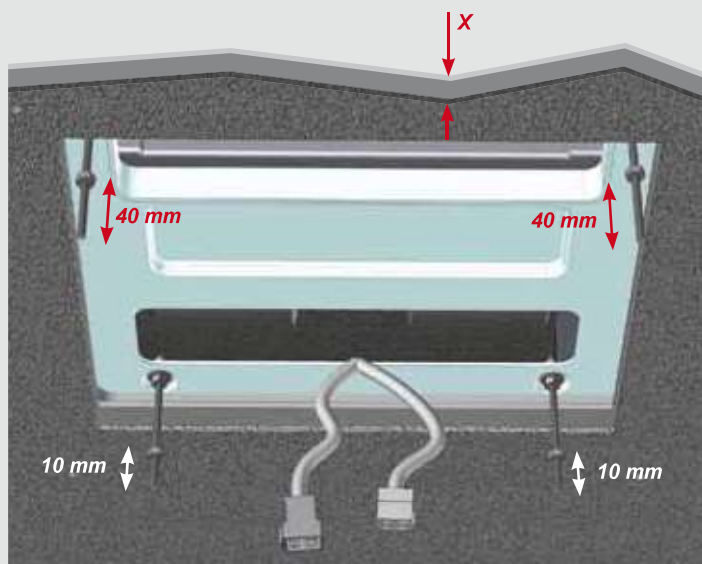
- Connect a power cable of 1.5mm<sup>2</sup> on the female connector.
- The red power cable of 1.5mm<sup>2</sup> will be connected to the D+ (signal engine running) of the alternator.



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:

$$\text{lengths of threaded rod} = X + 87 \quad (X = \text{thickness of the roof})$$

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b. Screw with a length of 19mm threaded rods on the insert.

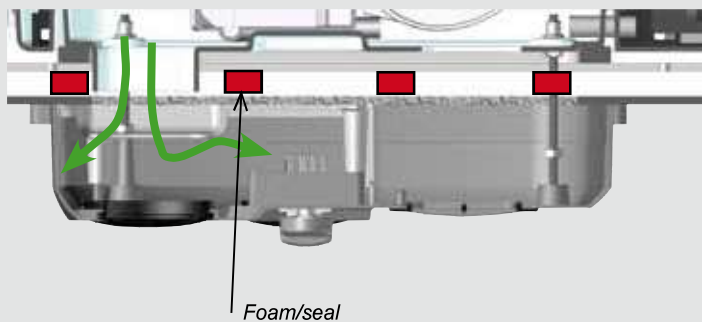
c. Block threaded rods with a washer and nut M6

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

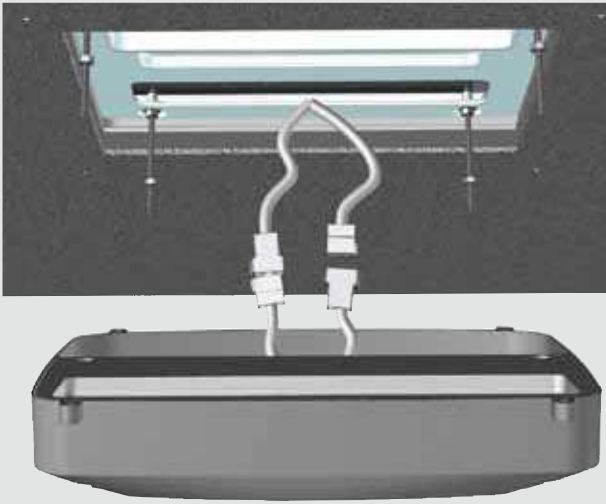
f. Check it did not bypass air between the unit and its diffuser.

As appropriate, put foam around the air inlet of the diffuser to prevent bypass



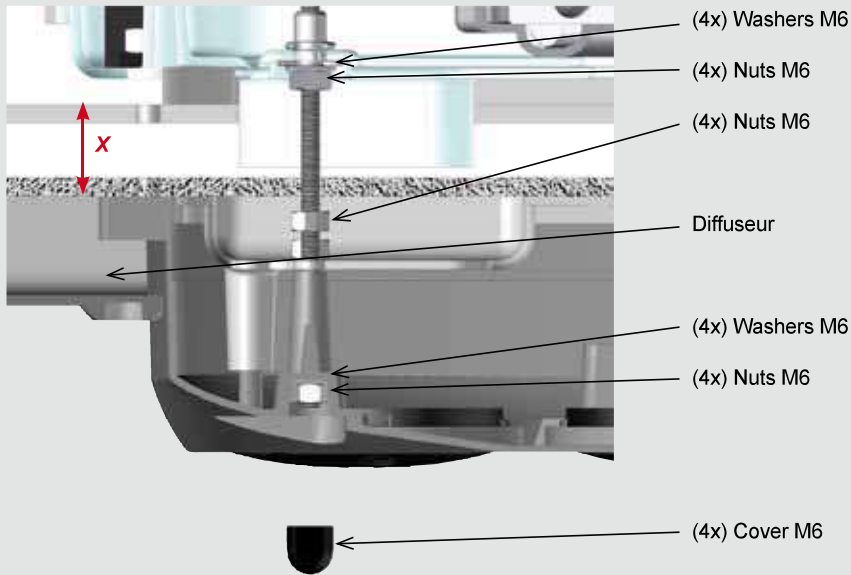
**6- Diffuser installation**

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



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

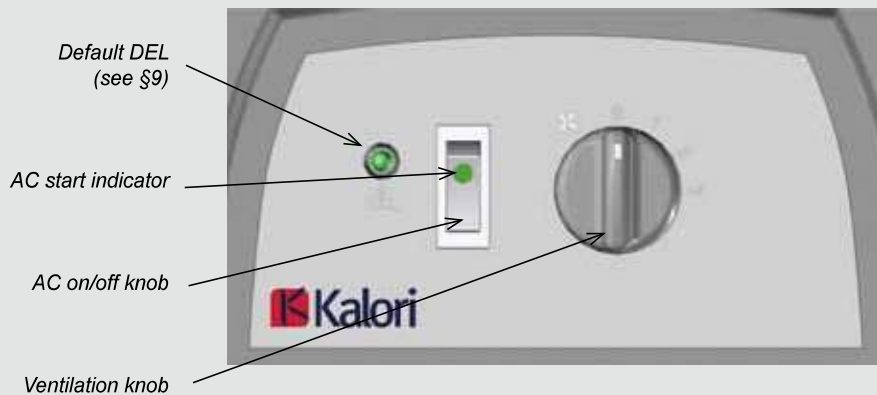


## 7- Finalizing the installation

- Connect the red cable 16mm<sup>2</sup> from the unit to the 100A fuse connected to the battery.
- Connect the black cable 16mm<sup>2</sup> from the unit to the battery ground.
- Connect the red wire 1.5mm<sup>2</sup> 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



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b. Put the AC knob to ON, the green indicator switch ⇒ the air conditioning start

c. Adjust the fan speed (1, 2 or 3) depending on the level of comfort.

### d. Recommended use:

A vehicle with door closed in the sun can reach an internal temperature above 20 ° C compared to outside. Before the start of Electrik, 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:

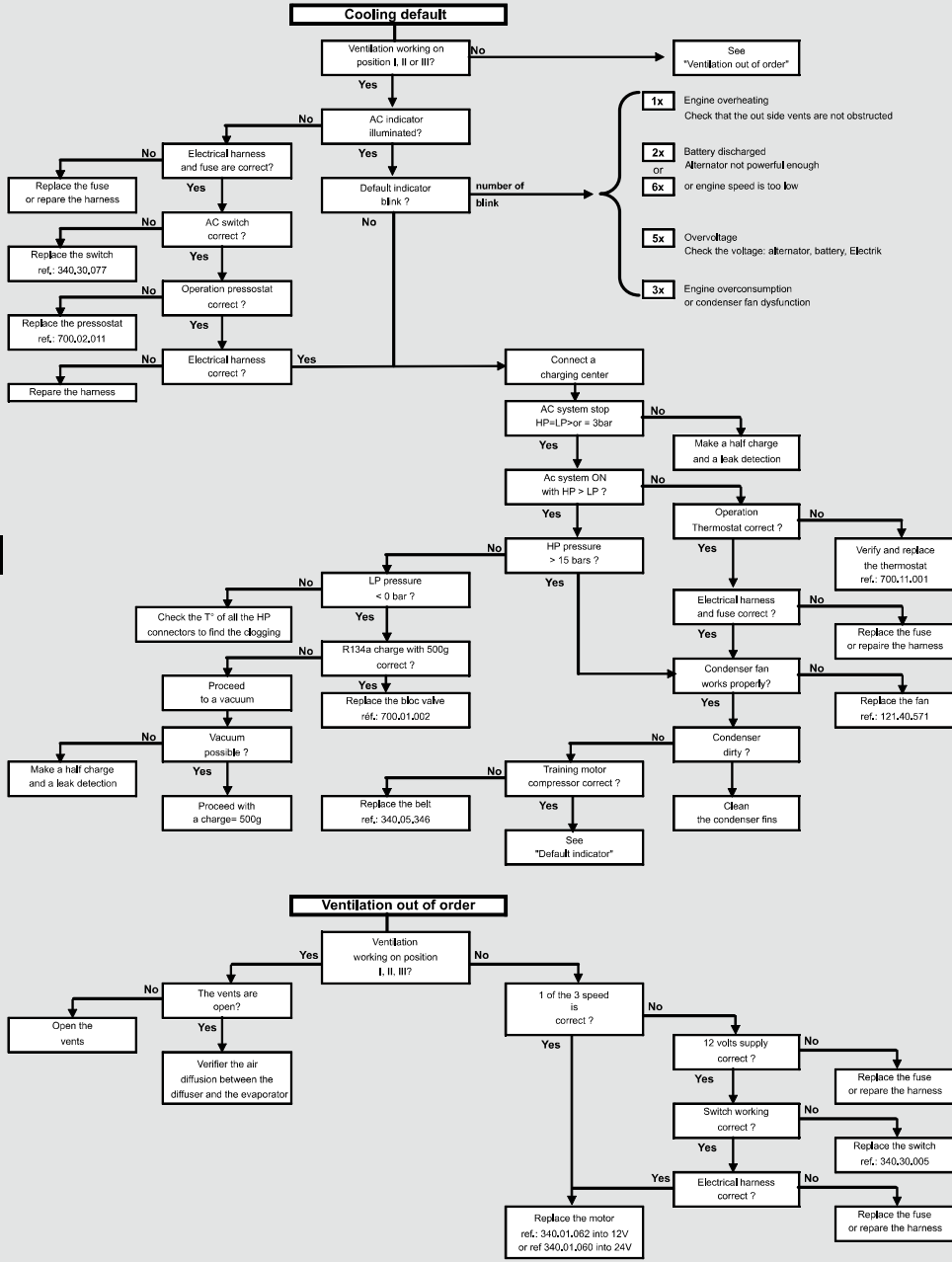
- the condenser air vents are not obstructed
- the air vents are not closed



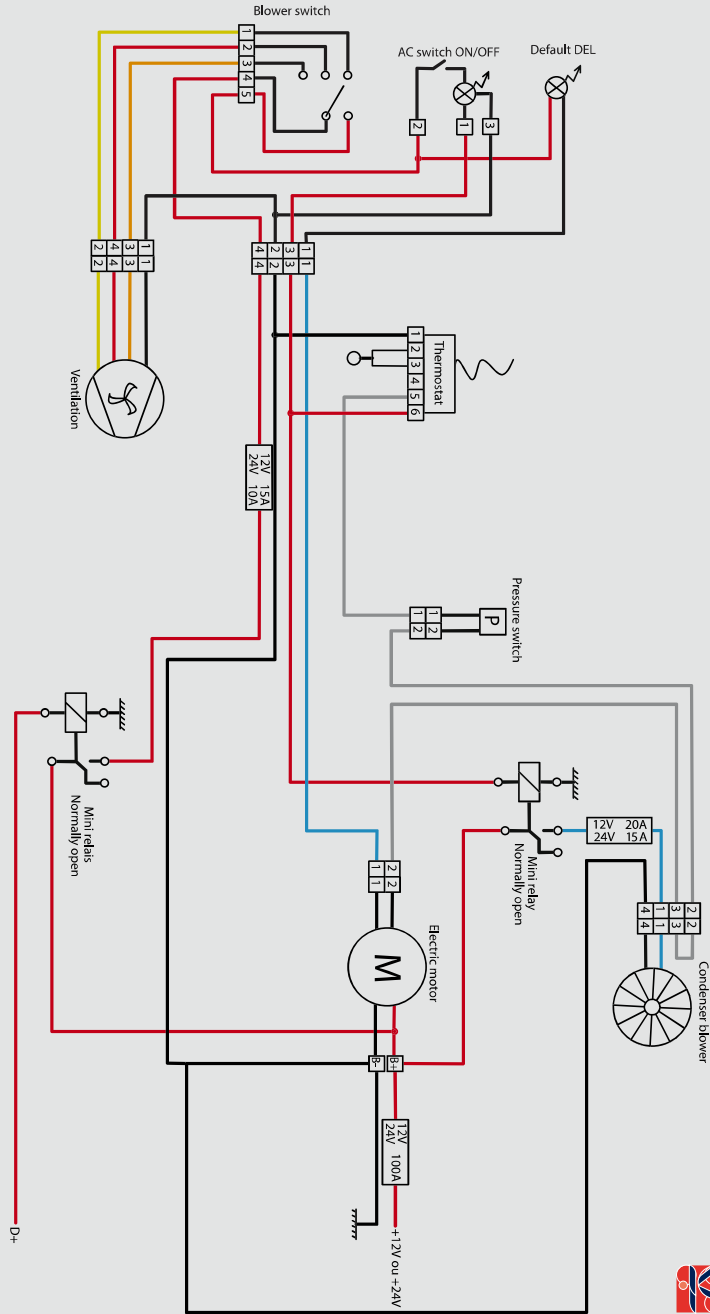
**In winter, once a week, run the air conditioning a few minutes to preserve the circuit in good condition.**

# 9- Fault finding

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



10- Electrical diagram



**11- Maintenance**

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- **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.**

<b>Frequency</b>	<b>Actions</b>
<b>All 50 hours of use</b>	<ul style="list-style-type: none"><li>• External cleaning of the condenser</li></ul>
<b>All 200 hours of use</b>	<ul style="list-style-type: none"><li>• External cleaning of the condenser</li><li>• Verify the belt tension</li></ul>
<b>Annually</b>	<ul style="list-style-type: none"><li>• Control the gas charge of R134a (450g)</li></ul>
<b>Every 2 years</b>	<ul style="list-style-type: none"><li>• Replace the receiver drier</li><li>• Cleaning of the inside of the AC circuit</li><li>• Oil SP10 and R134a charge</li><li>• Pressostat and thermostat control</li></ul>



**Revision**

<p><b>1<sup>st</sup> Installation</b></p>	<p>Date :</p> <hr/> <p>Operator :</p>	<p>Visa :</p>
<p><b>Revision after 2 years</b></p>	<p>Date :</p> <hr/> <p>Operator :</p>	<p>Visa :</p>
<p><b>Revision after 4 years</b></p>	<p>Date :</p> <hr/> <p>Operator :</p>	<p>Visa :</p>
<p><b>Revision after 6 years</b></p>	<p>Date :</p> <hr/> <p>Operator :</p>	<p>Visa :</p>