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Service Manual

Manufacturer:
Le Postillon 64034 Castiglione MR (TE) Italia
http:/www.lepostillon.com

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1 Reguarding this document

1.1 Using this document

The operating manual is a component of the product. It describes the machine as it was at the time of first delivery after manufacture.

- Keep the operating manual in a safe place throughout the life of the machine.
- Supply any successive owner or user with this operating manual.
- Please insert any amendment or revision of the operating manual sent to you.

1.2 Further documents

Together with this operating manual, you receive a further document relating to machine operating safety:

- Declaration of Conformity in accordance with applicable directives

Make sure all documents are complete and observe the instructions contained in them.

1.3 Copyright

Queries regarding use or duplication of the documentation should be refferred to Le Postillon. Correct use of information will be fully supported.

1.4 Symbols and labels

Please note the symbols and labels used in this document.

1.4.1 Warnings

Warning notices indicate dangers that may result in injury when disregarded.
Warning notices indicate three levels of danger identified by the corresponding signal word:

Signal term	Meaning	Consequences of non-compliance
DANGER	Warns of an imminent threat of danger	Will result in death or severe injury
WARNING	Warns of possible danger	May result in death or severe injury
CAUTION	Warns of a potential dangerous situation	May result in a moderate physical injury

TAB 1

DANGER
These show the kind of danger and its source.
The possible consequences of ignoring a warning are shown here. If you ignore the warning notice, the «DANGER» signal word indicates a lethal or severe injury will occur.

Warning notes referring to a sub-section or the subsequent action are integrated into the procedure and numberred as an action..

Example:

1. WARNING!
These show the kind of danger and its source.
The possible consequences of ignoring a warning are shown here. If you ignore a warning notice, the «WARNING» signal word indicates that a lethal or severe injury may occur.

➡The measures required to protect yourself from danger are shown here.

2. Always read and comply with warning instructions.

1.4.2 Potential damage warnings

Contrary to the warnings shown above, damage warnings do not indicate a potential personal injury.

Warning notices for damages are identified by their signal term.

Signal term	Meaning	Consequences of non-compliance
NOTE	Warns of a potential dangerous situation	Damage to property is possible

Example:

1. NOTICE
These show the kind of danger and its source
Potential effects when ignoring the warnings are indicated here.

➡The protective measures against the damages are shown here.

2. Carefully read and fully comply with warnings against damages.

1.4.3 Other alerts and their symbols

This symbol identifies particularly important information.

Here you will find details on special tools, operating materials or spare parts.

Information referring to potential problems are identified by a question mark..

This symbol identifies important information or measures regarding the protection of the environment.

2 Technical Specifications

2.1.1 Mass

The Mass shown is the maximum mass. The actual mass of individual machines depends on equipment fitted.

	Massa (kg)
Static cold	155
Ventilated fresh	125

TAB 2

2.1.2 Ambient conditions

Maximum elevation AMSL* (m)	1000
Permissible ambient temperature (°C)	3 - 35
Cooling air temperature (°C)	3 - 30

TAB 3

*Higher elevation permissible only after consultation with the manufacturer.

2.1.3 Refrigerant system

The refrigeration dryer contains a refrigerant that is classified by the Kyoto Protocol as a fluoridised global warming gas.

Emissions of carbon dioxide: 1kg di R404A = +/- 3 800 kg di CO_2

Refrigerant	R404A
Global warming potential (GWP)	0,94
230V/50Hz Maximum charge quantity (kg)*	0,350
carbon dioxide	+/- 1330 kg
115V/60Hz Maximum charge quantity (kg)*	0,350
carbon dioxide	+/- 1330 kg

TAB 4

2.1.4 Noise emission

Noise emission [dB(A)]	< 70

TAB 5

Noise pressure level as EN ISO 11203 and the basic standard ISO 9614-2, tolerance: +/- 3dB(A) at maximum machine working pressure

2.1.5 Electrical connection

The machine is designed in accordance with the conditions for an electrical power supply specified by EN 60204-1 (IEC 60204-1 section 4.3).
If no other conditions are specified by the operator, the thresholds described in this standard must be adhered to.
It's recommended that the user and the supplier reach an agreement on the basis of EN 60204-1, annex B.

See electrical diagrams in chapter 14 for further information.

2.1.6 Power supply specifications

The following supply cable (copper multi-core) and the fuse ratings (slow blow class gG) are specified according to German DIN VDE 0100-430 (IEC 60364-4-43) and DIN VDE 0298-4 (HD 384.5.523 S2) for ambient temperatures of 30° and wiring type C.

➡For other application conditions, check conductor diameters and change accordingly.
Other conditions would include, for example:
- Higher temperature
- Other cable installation method (generator...)
- Conduit length >20m.

2.1.7 Mains frequency

	230V+/-10%/50Hz	**115V+/-10%/60Hz**
Power consumption (kW)*	0,31	0,395
Max. power consumption (kW)	0,77	0,66
supply cable (mm2)	3x1,5	3x1,5
Full load current (A)	1,91	4,91

TAB 6

* Output data for reference conditions according to DIN ISO 7183 option A1: Ambient temperature 25°.

2.2 Technical Specifications - Ventilated fresh

- Before placing the food in the appliance, the machine must be started at least half an hour with the tank closed.
- Regularly load the products in the device so as to avoid a sudden and massive loading.
- Remember that the products must be at a close temperature of the device.
- Place the refrigerator in a perfectly horizontal position, if necessary by adjusting the leg screw feet to adjust the level, The machine must be placed perfectly flat to operate properly and allow the evacuation of condensation water defrosting, and to avoid further noisy engine vibrations.
- Do not place the cabinet with direct sunlight and other forms of radiation, such as high-density incandescent lighting, cooking ovens, or radiant-type radiators for heating.
- Do not place the cabinet next to openings outside in drafts, such as doors and windows or in direct contact with airflow from fans, air conditioning vents.
- Do not place the refrigerator inside a room with high relative humidity (possible formation of condensation) Do not place the refrigerator in a closed recess because if there is no air circulation, the refrigerant unit may not work.

The opening of the doors of the machine causes a cold exit, for this reason, it is recommended to limit the opening of the latter to the time strictly necessary for the loading of the products. For the proper functioning of the machine, it is necessary that the arrangement of the product does not hinder the flow of refrigerated air.

2.2.1 Mass

The Mass shown is the maximum mass. The actual mass of individual machines depends on equipment fitted.

Massa (kg)	110 - 140

TAB 2

2.2.2 Ambiant Conditions

Maximum elevation AMSL* (m)	1000
Permissible ambient temperature (°C)	3 - 25
Cooling air temperature (°C)	3 - 30

TAB 3

* Higher elevation permissible only after consultation with the manufacturer..

2.2.3 Refrigerant System

The refrigeration dryer contains a refrigerant that is classified by the Kyoto Protocol as a fluoridised global warming gas.

Emissions of carbon dioxide: 1kg di R404A = +/- 3 800 kg di CO_2

Refrigerant	R404A
Global warming potential (GWP)	0,94
230V/50Hz Maximum charge quantity (kg)*	0,480
carbon dioxide	+/- 1824 kg
115V/60Hz Maximum charge quantity (kg)*	0,480
carbon dioxide	+/- 1824 kg

TAB 4

2.2.4 Noise Emission

Noise Emission [dB(A)]	< 70

Noise pressure level as EN ISO 11203 and the basic standard ISO 9614-2, tolerance: +/- 3dB(A) at maximum machine working pressure

2.2.5 Electrical Connection

The machine is designed in accordance with the conditions for an electrical power supply specified by EN 60204-1 (IEC 60204-1 section 4.3).
If no other conditions are specified by the operator, the thresholds described in this standard must be adhered to.
It's recommended that the user and the supplier reach an agreement on the basis of EN 60204-1, annex B.

See electrical diagrams in chapter 14 for further information.

2.2.6 Power Supply Specifications

The following supply cable (copper multi-core) and the fuse ratings (slow blow class gG) are specified according to German DIN VDE 0100-430 (IEC 60364-4-43) and DIN VDE 0298-4 (HD 384.5.523 S2) for ambient temperatures of 30° and wiring type C.

➡For other application conditions, check conductor diameters and change accordingly.

Other conditions would include, for example:

- Higher temperature
- Other cable installation method (generator...)
- Conduit length >20m.

2.2.7 Mains Frequency

	230V+/-10%/50Hz	115V+/-10%/60Hz
Power consumption (kW)*	0,31	0,395
Max. power consumption (kW)	0,77	0,66
supply cable (mm2)	3x1,5	3x1,5
Full load current (A)	1,91	4,91

TAB 6

* Output data for reference conditions according to DIN ISO 7183 option A1: Ambient temperature 25°.

3.1 Basic instructions

The machine is manufactured to the latest engineering standards and acknowledged safety regulations . Nevertheless, dangers can arise through its operation:
• danger to life and limb of the operator or third parties.
• impairments to the machine and other material assets.

Disregard of warning or safety instructions can cause serious injuries!

- Use this machine only if it is in a technically perfect condition and only for the purpose for which it is intended; observe all safety measures and the instructions in the service manual.
- Immediatly rectify (have rectified) any faults that could be detrimental to safety.

3.2 Specified use

The machine is intended solely to present ice-creams, food or beverages*. Any other use is considered incorrect. The manufacterer is not liable for any damages that may result from incorrect use. The user alone is liable for any risks incurred.
- Comply with the specifications shown in this service manual.
- Operate the machine only within its performance limits and under the permitted ambient conditons.
- Food should not be in direct contact with the cart (use of ice-cream basins are necessary both in the fridge and on the surface of the cart).

* For the fridge incuded cart.

3.3 Improper use

Improper usage can cause damage to property and/or (severe) injuries.
- Only use machine as intended.
- Do not allow the machine to take in toxic, acidic, flammable or explosive gases or vapours.
- Do not operate the machine in areas in which specific requirements with regard to explosion protection are in force.

3.4 User’s responsabilities

3.4.1 Observe statutory and universally accepted regulations

This includes, for example, nationally implemented European directives and/or applicable national legislation, safety and accident prevention regulations.
➡Observe relevant statutory and accepted regulations during installation, operation and maintenance of the machine.

3.4.2 Determining personnel

Suitable personnel are experts who, by virtue of their training, knowledge and experiences as well as their knowledge of relevant regulations can assess the work to be done and recognize the possible dangers involved.

Authorised operators possess the following qualifications:

- are of legal age
- are conversant with and adhere to the safety instructions and sections of the service manual relevant to operation.
- have received adequate training and authorisation to operate electrical devices.

Authorised installation and maintenance personnel have the following qualifications:

- are of legal age
- must have read, be conversant with and adhere to the safety instructions and sections of the service manual applicable to installation and maintenance.
- are fully conversant with the safety concepts and regulations of electrical and refrigeration engineering.
- are able to recognise the possible dangers of electrical and refrigeration devices and take appropriate measures to safeguard persons and property.
- have received adequate training in and authorization for the safe installation and maintenance of this machine.

➡Ensure that operating, installation and maintenance personnel are qualified and authorised to carry out their tasks.

3.5 Dangers

Information concerning the various forms of danger that can arise during machine operation are found here. Basic safety instructions are found in this service manual at the beginning of each chapter in the section entitled «safety».
Warning instructions are found before a potentially dangerous task.

3.5.1 Safety dealing with sources of danger

The following describes the various forms of danger that can occur during machine operation.

Electricity

Touching voltage carrying components can result in electric shocks, burns or death.
➡Allow only qualified and authorised electricians or trained personnel under the supervision of a qualified and authorised electrician to carry out work on electrical equipment according to electrical engineering regulations.

➡ Before commissioning or re-commissionnig the machine, the user must make sure there is adequate protection against electric shock from direct or indirect contact.
➡ Switch off any external power sources These may include devices connected to the floating relay contacts.
➡ Use fuses corresponding to machine power.
➡Check regularly that all electrical connections are tight and in proper condition.

Forces of compression

The following information concerns work on components that could be under pressure.
➡Do not carry out welding, heat treatment or mechanical modifications to pressurized components (e.g. pipes and vessels) as this influences the component's resistance to pressure.
The safety of the machine is then no longer ensured.

Rotating components

Touching the fan while the machine is switched on can result in serious injury.

Temperature

Touching hot components may cause injuries.
➡Avoid contact with hot components. These include, for example, the refrigerant condenser.
➡Wear protective clothing.
➡If welding is carried out on or near the machine take adequate measures to ensure that no parts of the machine can ignite because of sparks or heat.

Operating fluids/materials

The used operating fluids and material can cause adverse health effects.
Suitable safety measures must be taken in order to prevent injuries.
➡Strictly forbid fire, open flame and smoking.
➡Follow safety regulations when dealing with refrigerant and chemical substances.
➡Avoid contact with skin and eyes.
➡Do not inhale refrigerant mist and vapours.
➡Do not eat or drink while handling refrigerant.
➡Keep suitable fire extinguishing agents ready for use.
➡Allow only qualified specialists to work on refrigerants circuits.
➡Use only HPC approved operating materials.

Unsuitable spare parts compromise the safety of the machine

➡Use only spare parts approved by the manufacturer for use in this machine.
➡Use only genuine HPC pressure components.

Conversion or modification of the machine

Modifications, additions or conversions to or of the machine can result in unpredictable hazards.

➡Do not convert or modify the machine.
➡Prior to any technical modification and expansions of the machine, obtain the written approval of the manufacturer.

3.5.2 Safe machine operation

The following is information supporting you in the safe handling of the machine during individual product life phases.

Transport

The mass and size of the machine require safety measures during its transport to prevent accidents.

➡Use suitable lifting gear that conforms to local safety regulations.
➡Allow transportation only by personnel trained in the safe movement of loads.
➡Attach lifting gear only to suitable lifting points.
➡Be aware of the center of gravity to avoid tipping.
➡Make sure the danger zone is clear of personnel.
➡Do not step onto machine components to climb up the machine.

Installation

A suitable installation location for the machine prevents accidents and faults.

➡Ensure sufficient and suitable lighting such that the display can be read and work carried out comfortably and safely.
➡Ensure accessibility so that all work on the machine can be carried out without danger or hindrance.
➡The machine must be protected from frost.
➡Do not operate in areas in wich specific requirements with regard to explosion protection are in force. For instance, the requirements of ATEX directive 94/9/EC «Equipment and Protective Systems intended for use in Potentially Explosive Atmospheres»
➡Ensure adequate ventilation.
➡Place the machine in such a manner that the working conditions in its environment are not impaired.
➡Comply with limit values for ambient temperature and humidity.

➡Do not position the machine in the warm exhaust air flow from other machines.
➡Keep suitable fire extinguishing agents ready for use.

Commissioning, operation and maintenance

During commissioning, operation and maintenance you may be exposed to dangers resulting from, e.g., electricity, pressure and temperature. Careless actions can cause accidents with severe adverse effects for your health.

➡Allow maintenance work to be carried out only by authorised personnel.
➡Switch off and lock out the power supply disconnecting (isolating) device and check that no voltage is present.
➡Check that the floating relay contacts are voltage-free.
➡Allow the machine to cool down.
➡Do not open the cabinet while the machine is switched on.
➡Do not open or dismantle any valves.
➡Use only spare parts approved by HPC for use in this machine

De-commissioning, storage and disposal

Improper handling of old operating fluids and components represent a danger for the environment.
➡Drain all fluids from the machine, e.g. refrigerant, and dispose off in accordance with local environmental regulations.
➡Do not damage the refrigerant circuit.
➡Give refrigerant only to authorised bodies for disposal.
➡Dispose of the machine in accordance with local environmental regulations.

3.5.3 Organisational Measures

➡Designate personnal and their responsabilities.
➡Give clear instructions on reporting faults and damage to the machine.
➡Give instructions on fire reporting and fire-fighting measures.

3.5.4 Danger areas

The table gives information on the areas dangerous to personnal.
Only authorised personnal may enter these areas.

Activity	Danger area	Authorised pesonnel
transport	Within a 3m radius of the machine.	Installation personnel for transport preparation. No personnel during transport.
	Beneath the lifted machine	No personnel!
Installation	Within 1m radius of the machine and its supply cables.	Installation personnel
Operation	Within a 1m radius of the machine	operating personnel
Maintenance	Within a 1m radius of the machine.	Maintenace personnel

TAB 7

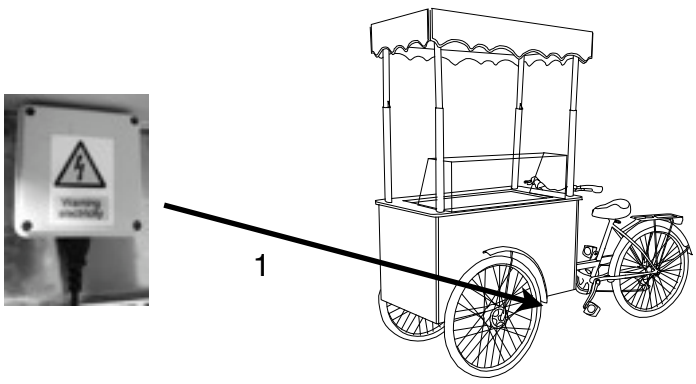
3.6 Safety devices

Various safety devices ensure safe working with the machine.

➡Do not change, bypass or disable safety devices
➡Check safety devices for correct function regularly
➡Do not remove or obliterate labels and notices
➡Ensure that labels and notices are clearly legible.

3.7 Safety signs

The diagram shows the positions of safety signs on the machine. The table lists the various safety signs used and their meanings.



item	Sign	Meaning
1		Danger of fatal injury from electric shock! Before starting any work on electrical equipment: Switch off and lock out the power supply disconnecting device and check that no voltage is present.

3.8 Emergencies

3.8.1 Correct fire fighting

Suitable measures

Calm and prudent action can safe lives in the event of a fire.
➡Keep calm.
➡Give the alarm.
➡Shut off supply lines if possible.
➡Warn and move endangered personnel to safety.
➡Help incapacitated persons.
➡Close the doors.
➡When trained accordingly: Attempt to extinguish the fire.

Extinguishing substances

➡Suitable extinguishing media: Fiam, Carbon dioxide, Sand or soil.
➡Unsuitable extinguishing media: Strong jet of water.

3.8.2 Injury from Handling Refrigerant

Eye contact:

Severe eye irritation, watering, reddening and swelling of the eyelids. Risk of caustic burns and frostbite.
➡Open eyelids wide to allow product to evaporate.
➡Hold the eyelid wide and rinse the eye with running water.
➡Consult an ophthalmologist if you experience lasting pains.

Skin contact:

Initially a sensation of chill, skin may redden subsequently. Risk of frostbite.
➡Allow the product to evaporate.
➡Rinse with lukewarm water.
➡Consult a physician if experiencing lasting pain or reddened skin.

inhalation:

At high concentrations, risk of cardiac irregularity (arrhythmia). At very high concentration, risk of asphyxia caused by oxygen deficiency.
➡Remove victim to the fresh air.
➡If necessary Respiration with respirator or administration of oxygen.
➡Consult a physician if experiencing breathing or nerve complaints.

3.9 Warranty

This service manual contains no independant warranty commitment. Our general terms and conditions of business apply with regard to warranty.
A condition of our warranty is that the machine is used for the purpose for wich is it intended under the conditions specified.
Due to the multitude applications for wich the machine is suitable the obligation lies with the user to determine its suitability for his specific application.

In addition, we accept no warranty obligation for:
➡the use of unsuitable parts or operating materials.
➡unauthorised modifications
➡incorrect maintenance
➡incorrect repair

Correct maintenance and repair includes the use of original spare parts and operating materials.
➡Obtain confirmation from HPC that your specific operating conditions are suitable.

3.10 Environment protection

The operation of this machine may cause dangers for the environment.
➡Do not allow refrigerants to escape into the environment or the sewage system.
➡Store and dispose of operating materials and replaced parts in accordance with local environment protection regulations.
➡Observe national regulations. This applies in particular to parts contaminated with refrigerant.

4.1 Enclosure

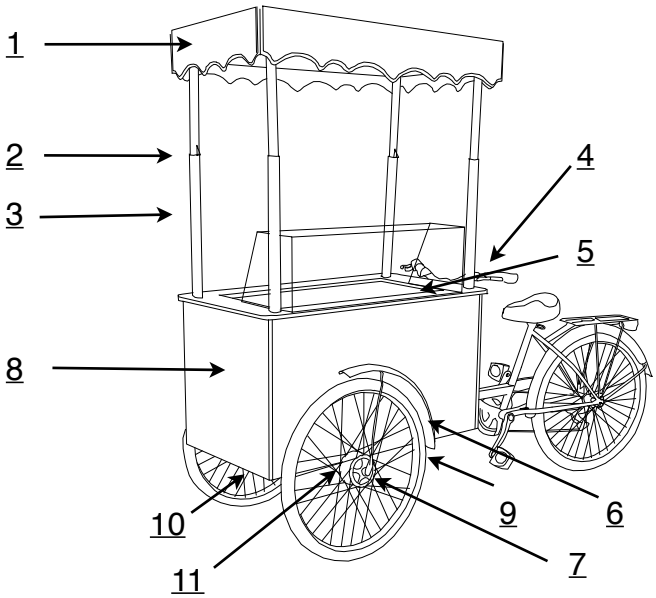


Fig 1

(1)roof
(2)up and down clip
(3)amounts
(4)handles
(5)worktop
(6)mudguards
(7)brakes
(8)encosure
(9)wheels
(10)hot air exit
(11)fresh air intrance

4.2 Machine function (for static refrigerant system unit)

The car has a buildt-in refrigerant unit for fresh (5°c) or fridged temperature (-18°c). This unit can be used in autonomy mode or into main (24/7 mode). The tank included is designed especially for this purpose. No battery is necessary.

Using for a prolonged period the negative cold module at positive temperatures causes an anticipated aging of the compressor by overheating.

The tank is not intended for heating food but only for its maintenance temperature.

4.3 Keys and leds

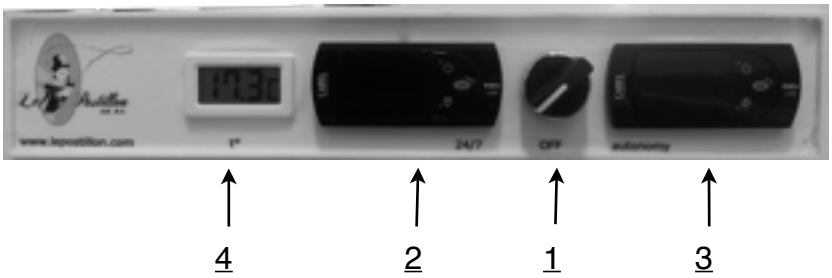


Fig 2

(1)switch
(2)termostat 24/7
(3)termostat autonomy
(4)termometer

4. Design and function

number	description	purpose	note
1.	switch	allows you to choose the program (autonomy or 24/7) or to switch off.	
2.	termostat «24/7»	indicate the temperature of the tank	programmed to go down to -18°. We recommend to ask to a specialist for any modification.
3.	termostat «autonomy»	indicate the temperature of the tank	programmed to go down to -26°. We recommend to ask to a specialist for any modification.
4.	termometer	indicate the temperature of the tank in autonomy mode	

TAB 8

5 Insallation and operating conditions

5.1 Ensuring safety

The conditions in which the machine is installed and operated have a decisive effect on safety.
Warning instructions are located before a potentially dangerous task.

Disregard of warning instructions can cause serious injuries!

Complying with safety notes

Disregard of safety notes can cause unforeseeable dangers!
➡Strictly forbid fire, open flame and smoking.
➡If welding is carried out on or near the machine take adequate measures to ensure that no parts of the machine can ignite because of sparks or heat.
➡Do not store inflammable material in the vicinity of the machine.
➡The machine is not explosion-proof. Do not operate in areas in which specific requirements with regard to explosion protection are in force. For instance, the requirements of ATEX directive 94/9/EC «equipment and protective systems intended for use in potentially explosive atmospheres»
➡Ensure sufficient and suitable lighting such that the display can be read and work carried out comfortably and safely.
➡Keep suitable fire extinguishing agents ready for use.
➡Ensure that required ambient conditions are maintained.

Required ambient conditions may be:
- clean with no damaging contaminants.
- free of explosive or chemically unstable gases or vapours
- free of acid/alkaline forming substances, particularly ammoniac, chlorine or hydrogen sulphide
- ambient temperature and humidity

5.2 Installation conditions

5.2.1 Determining location and clearances

The distance quoted are recommanded distances and ensure unhindered access to all machine parts. Please consult HPC if they cannot be kept to.

Precondition

The floor must be level, firm and capable of bearing the weight of the machine.

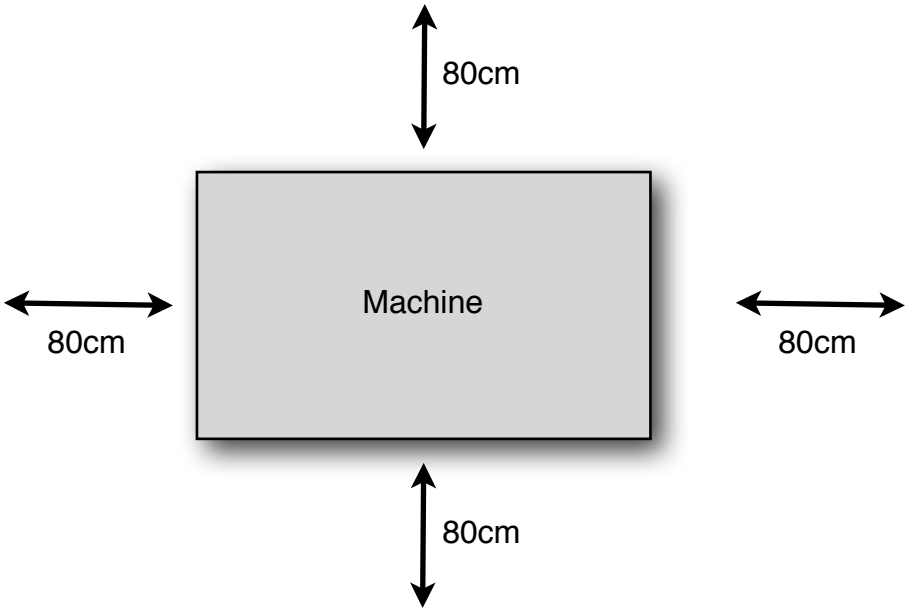


Fig 3

NOTICE!
Ambient temperature too low
Frozen condensate can damage the machine when starting.
➡Swith the machine on only when the switch-on temperature is reached.
➡Consult HPC for measures where there is danger of frost.
➡Ensure adequat lighting so that all work on the machine can be carried out without danger or hindrance.

5.2.2 Ensuring the machine room ventilation

The machine can only overcome the air resistance at the cooling air inlet and exhaust determined by the duct design. Any additional air resistance will reduce airflow and deteriorate machine cooling.

➡Do not install the machine in the exhaust air flow from other machines.
➡Keep the inlet and exhaust apertures free of obstructions so that the cooling air can flow freely through the room.

6 Installation

6.1 Ensuring safety

Follow the instructions below for safe installation.
Warning instructions are located before a potentially dangerous task.

Disregard of warning instructions can cause serious injuries!

Complying with safety notes

Disregard of safety notes can cause unforeseeable dangers
➡Follow the instructions in chapter 3 «safety and responsability»
➡Have the installation carried out only by personnel trained in refrigeration engineering.
➡Make sure that no one is working on the machine.
➡Ensure that all service doors and panels are locked.

When working on live components

Touching voltage carrying components can result in electric shocks, burns or death.
➡Work on electrical equipment may only be carried out by authorised electricians.
➡Switch off and lock out the power supply disconnecting device and check that no voltage is present.
➡Check that the floating relay contacts are voltage-free.

When working on the drive system

Touching voltage carrying components can result in electric shocks, burns or death.
Touching the fan while the machine is switched on can result in serious injury.
➡Switch off and lock out the power supply disconnecting (isolating) device and check that no voltage is present.
➡Do not open the cabinet while the machine is switched on.

6.2 Reporting transport damage

1. Check the machine for visible and hidden transport damage.
2. Inform the carrier and the manufacturer in writing of any damage without delay.

6.3 Connecting the machine with the power supply

Precondition

- The power supply is switched off.
- the absence of any voltage has been verified,

The tolerance limits of the mains voltage (power supply) are within the permissible tolerance limits of the nominal voltage (machine)

1. The power supply must only be connected by authorised installation personnel or an authorised electrician.
2. Carry out protection measures as stipulated in relevant regulations (e.g. IEC 364 or DIN VDE 0100) and in national accident prevention regulations. In addition, observe the regulations of the local electricity supplier.
3. Select supply cable conductor diameters and fusing in accordance with local regulations.
4. DANGER!

   Danger of fatal injury from electric shock!

   ➥Switch off and lock out the power supply disconnecting device and check the absence of any voltage.

6. Connect the machine to the power supply.

7 Initial start-up

7.1 Ensuring safety

Here you will find instructions for a safe commissionning of the machine.
Warning instructions are located before a potentially dangerous task.

Disregard of warnings instructions can cause serious injuries!

Complying with safety notes

Disregard of safety notes can cause unforeseeable dangers!
➡Follow the instructions on chapter 3 «safety and responsability"
➡Commissioning tasks may only be carried out by authorised personnel.
➡Make sure that no one is working on the machine.
➡Ensure that all service doors and panels are locked.

When working on live components

Touching voltage carrying components can result in electric shocks, burns or death.
➡Work on electrical equipment may only be carried out by authorised electricians.
➡Switch off and lock out the power supply disconnecting (isolating) device and check that no voltage is present.
➡Check that the floating relay contacts are voltage-free.

When working on the drive system

Touching voltage carrying components can result in electric shocks, burns or death.
Touching the fan while the machine is switched on can result in serious injury.
➡Switch off and lock out the power supply disconnecting (isolating) device and check that no voltage is present.
➡Do not open the cabinet while the machine is switched on.

7.2 Instructions to be observed before commissioning or re-commissioning

Incorrect or improper commissionning can cause injury to persons and damage to the machine.
➡Commissionning may only be carried out by authorized installation and service personnel who have been trained on this machine.

Special measures for re-commissioning after storage:

Storage period	Remedy
12 months	➡Check the refrigerant condenser. ➡Check the electrical equipment. ➡Check all pipes, hoses and fittings for leaks and any visible damage. Correct any defects immediately.
36 months	➡Have the overall technical condition checked by an authorised HPC Service Technician.

TAB 9

7.3 Checking installation and operating conditions

➡Check and confirm all the items in the checklist before commissioning the machine.

To be checked	see chapter	done ?	date	done ?	date
The ventilation is working properly?	/				
Are the operators fully conversant with safety regulations?	/				
Have all the positioning conditions been fulfilled?	5				
The tolerance limits of the mains voltage (power supply) are within the permissible tolerance limits of the nominal voltage (machine)?	2.1				
Are the power supply cable conductor cross-sections and fuse ratings adequate?	2.9				
Have all electrical connections been checked for tightness?	/				
Has the inspection been repeated after 50 operating hours following the initial commissionning?	/				
Canopy and removable panels are closed?	/				

TAB 10

7.4 Starting the machine for the first time

Precondition

No personnel are working on the machine
All removable panels are in place and secured.
➡Switch on the machine: The refrigerant compressor starts after 3 seconds.
➡Watch for any faults occuring in the first hour of operation.

Normal processing timetable of the machine*

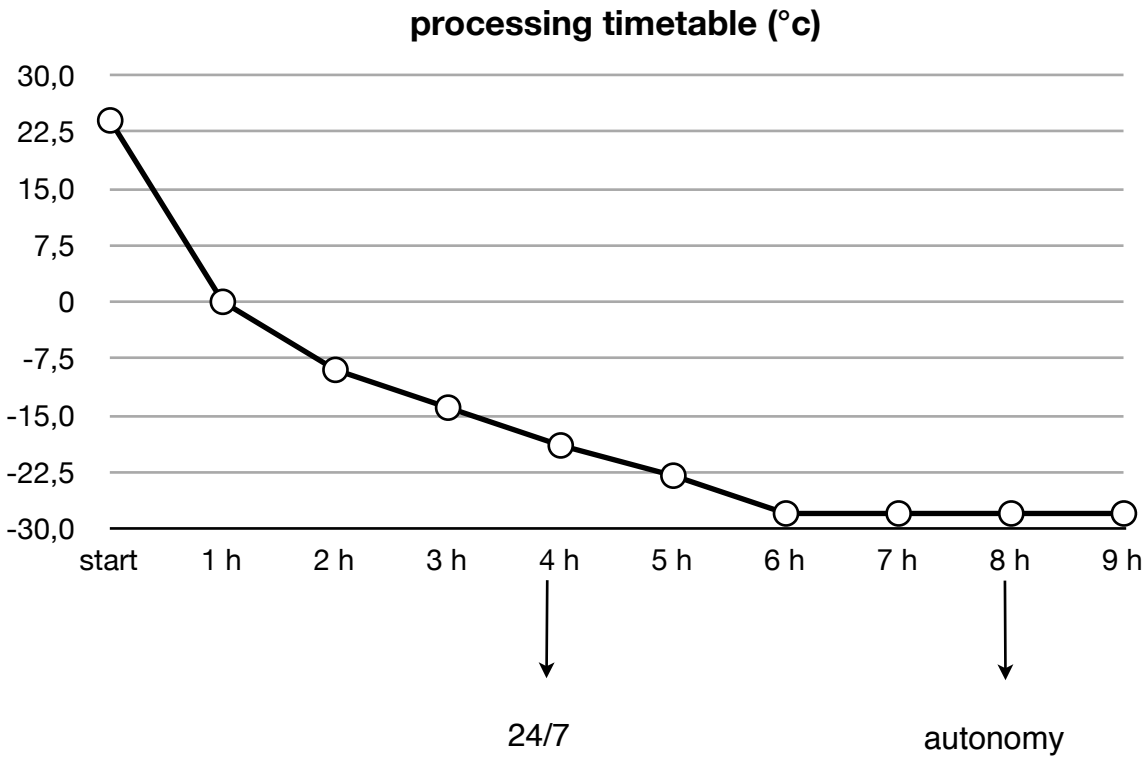


Fig 4

	start	1 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	9 h
t° (c)	24	0	-9	-14	-19	-23	-28	-28	-28	-28

Tab 11

- Because the atmospheric and positioning conditions strongly influence the timetable, this graph is only indicative.
- For this unit, our tests, conducted at 28°, provide 6 hours of autonomy. Because the atmospheric and positioning conditions strongly influence autonomy, this period is only indicative.
- For the positive ventilated fresh unit, switch on the machine half an hour before use.

8.1 Checking installation and operating conditions

Condition

8.1.1 Static Cold

➡Always use the «main switch» to switch the machine on and off. This switch is also the mains disconnect device

Fig 5

8.1.2 Ventilated Fresh

The start is done directly on the thermostat (on-off)

8.2 Switching on

Precondition

No personnel are working on the machine
All access doors and panels are closed and secure.

Switch on the machine at the «main switch» .The refrigerant compressor starts after 3 seconds.

8.3 Switching off

Switch off the machine using the «main switch»

result

The machine is switched off.

advice:

For an everydays use, Le Postillon advices you to keep the machine swiched on all the time, in 24/7 mode, even if the machine isn't used (during the night for instance). This will allow you to have a minor electrical consumption and a tank temperature cooled deeply.

9. Fault Recognition and Rectification

9.1 Basic instructions

The alarm indications valid for your machine are dependant on the individual equipment.

- Do not attempt fault rectification measures other than those given in this manual
- In all other cases, contact Le Postillon

9.2 Faults

Fault	possible cause	remedy
The machine doesn't switch on	not connected into mains	connect the wire
	main switch on OFF	choose your using mode
	The thermostats parameters where modified	see chapter 14
The tank does not arrive to temperature	le condizioni di avviamento della pagina 24 sono state rispettate?	controllare l'insieme dei punti indicati
	i parametri del termostato acceso sono stati modificati	ripristinare i parametri standard. cfr annexe n°
	mancanza di refrigerante	contattare un frigorista o Le Postillon
	sedimenti nel sistema di raffredamento	contattare un frigorista o Le Postillon

TAB 12

10 Maintenance

10.1 Ensuring safety

Here you will find instructions for a safe maintenance of the machine.
Warning instructions are located before a potentially dangerous task.

Disregard of warnings instructions can cause serious injuries!

Complying with safety notes

Disregard of safety notes can cause unforeseeable dangers!
➡Follow the instructions on chapter 3 «safety and responsability"
➡Commissioning tasks may only be carried out by authorised personnel.
➡Make sure that no one is working on the machine.
➡Ensure that all service doors and panels are locked.

When working on live components

Touching voltage carrying components can result in electric shocks, burns or death.
➡Work on electrical equipment may only be carried out by authorised electricians.
➡Switch off and lock out the power supply disconnecting (isolating) device and check that no voltage is present.
➡Check that the floating relay contacts are voltage-free.

When working on the drive system

Touching voltage carrying components can result in electric shocks, burns or death.
Touching the fan while the machine is switched on can result in serious injury.
➡Switch off and lock out the power supply disconnecting (isolating) device and check that no voltage is present.
➡Do not open the cabinet while the machine is switched on.

10.2 Regular maintenance tasks

The refrigerant circuit is fully hermetically sealed and needs no maintenance. Repairs may only be carried out by certified personnel.
➡Commissionning may only be carried out by authorized installation and service personnel who have been trained on this machine.

The table below lists maintenance tasks, or have them carried out, punctually as determined by ambient and operating conditions.

Interval	Maintenance task
Weekly	Check the ventilating system
	blow out the mechanicals parts.
Quarterly	Check lines, hoses and fittings for leaks
	Check that all electrical connections are tight.
Annualy	Have the refrigerant circuit checked and documented by an authorised HPC service Technician.

Tab 13

10.3 Cleaning the refrigerant condenser

10.3.1 Cleaning the refrigerant condenser

Regular cleaning of the condenser ensures reliable cooling of the machine. The frequency is mainly dependant on local operating conditions.

Material

Compressed air for blowing out
Brush and cleaning cloths
Aspirator
Water with cleaning agent additive.

Precondition

Machine is switched off.
The switch is locked in the off position.
A check has been made that no voltage is present.

10.3.2 Cleaning the tank

Be careful not to wet the existing electrical and electronic parts.
STAINLESS STEEL SURFACES:
Do not clean with bleach - risk of deterioration of the stainless steel surface.
Wash with lukewarm water and neutral soap, rinse well and dry with a soft cloth.
Avoid steel wool that will damage the surface.
SURFACES OF ACRYLIC AND / OR POLYCARBONATE:
Wash with lukewarm water using a soft cloth or chamois leather. Use as needed an aqueous solution of neutral soap; rinse with water and wipe with a soft cloth.
Do not use abrasives, alcohol, acetone or solvents that could cause scratches or corrosion.
GLASS SURFACES:
Use only products for window cleaning. With water we could have limestone stains on the glass surfaces. Clean the defrosting water hoses regularly. Do not leave residues inside the appliance for a long time, especially blood, meat and milk, to avoid the formation of odors and corrosion.

11. Decommissioning, Storage and Transport

11.1 Decommissioning

De-commissioning is necessary, for example, under the following circumstances:
- The machine is temporarily not needed.
- The machine is to be moved to another location
- The machine is to be scrapped.

Temporary de-commissioning

1. Switch the machine off and shut off all connecting lines.
2. Protect the machine from dust and moisture.

Long-term de-commissioning

1. The power supply isolating device is switched off.
2. Protect the machine from dust and moisture.
3. Disconnect all supply lines.

11.2 Storage

Moisture can lead to corrosion.
Frozen moisture can damage components such as diaphragms, valves and gaskets.

Please consult Le Postillon if you have questions to the appropriate storage and commissioning.

NOTICE

1. Prevent ingress of moisture and formation of condensation.
2. Maintain a storage temperature >0°C
3. Maintain the machine in a dry, frost-proof room.

11.3 Transport

11.3.1 Safety

Mass and centre of gravity determine the most suitable method of transportation. The centre of gravity is shown in the dimensions drawing (chapter 12)

Please consult Le Postillon if you intend to transport the machine in freezing temperatures.

Precondition

Transport only by forklift only by personnel trained in the safe transportation of loads.

➡Make sure the danger area is clear of personnel.

11.3.2 Transport with a forklift truck

Precondition
- The machine is safely fixed to a palette (EUR).
- The whole machine is over the forks

Drive the forks completely under the machine or palette and lift carefully

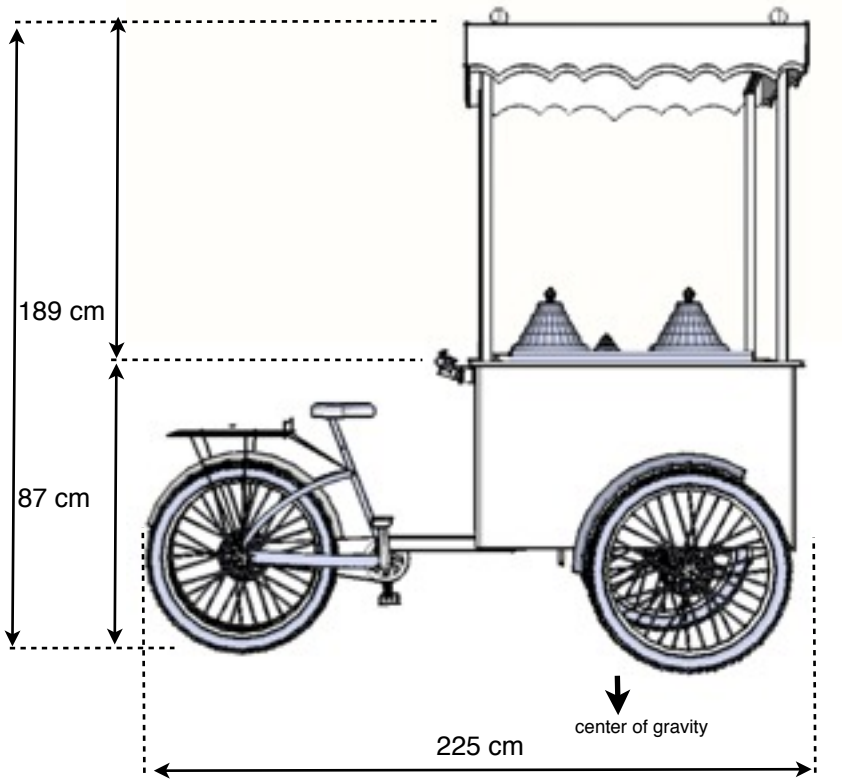
11.4 Disposal

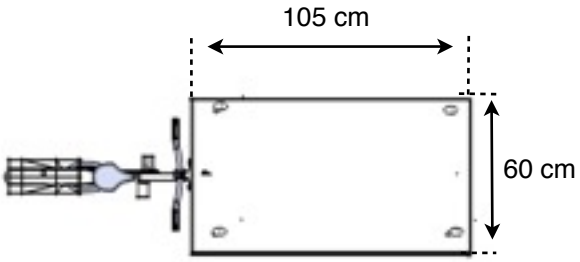
The sealed refrigerant circuit still contains both refrigerant and oil.
1. De-commission the machine.
2. Hand the machine over to an authorized disposal expert.

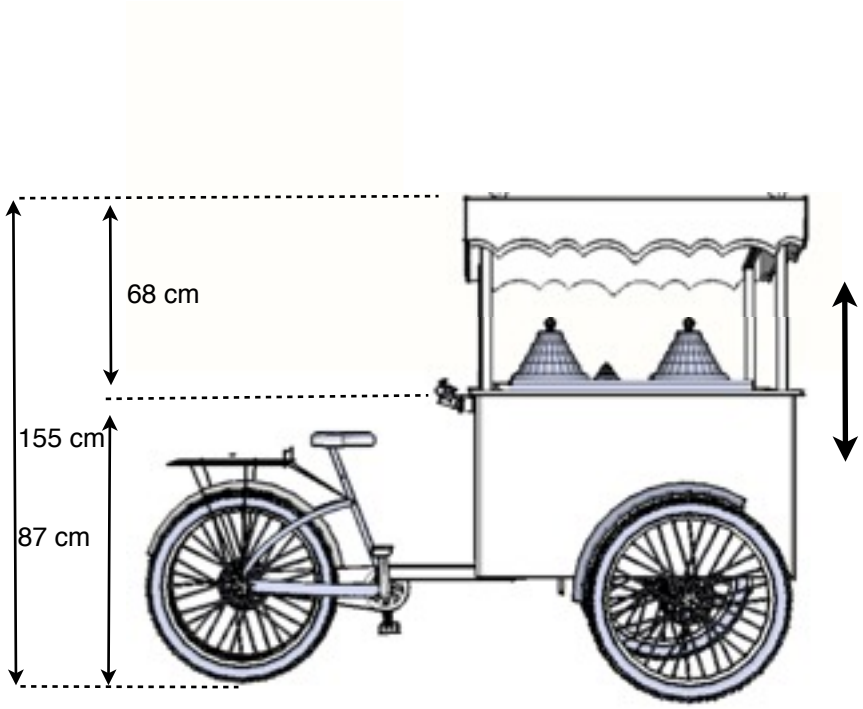
Refrigerant and oil must be drained and disposed of by an authorized body.

12. Dimensional drawing

12.1 External dimensions







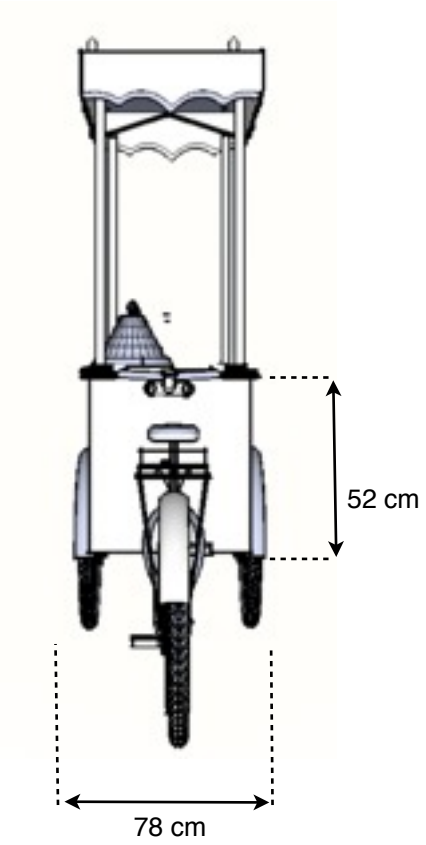


Fig 6

12.2 Internal dimensions

- Internal dimensions of the tank: cm 81X33X11,5
- 5 X 5L capacity

12.2.2 Fresh ventilated unit

- internal dimensions of the tank: cm 80X36X25

13. Unpacking

Do not force, at any stage, the components: They fit effortlessly.
Installation should be done carefully, at the risk of damaging certain parts.

Precondition

All safety conditions described in paragraph 7 are followed:
Disregard of safety notes can cause unforeseeable dangers!

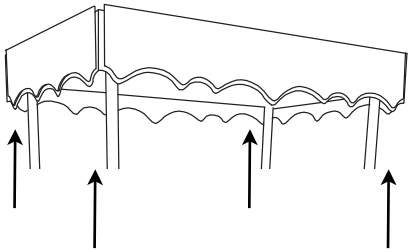
- ➡Follow the instructions on chapter 3 «safety and responsability"
- ➡Commissioning tasks may only be carried out by authorised personnel.

first step

1

<u>Do not remove the protective film from the roof before the end of editing !!</u>

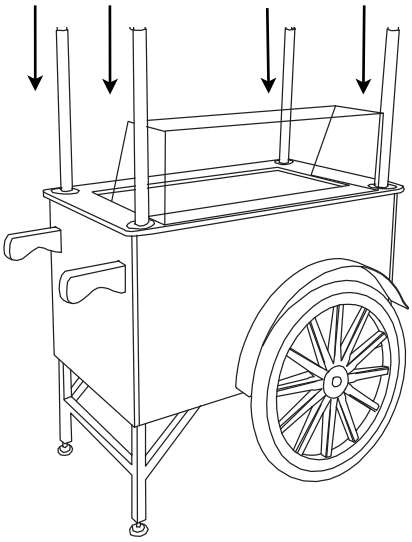
Insert the amounts (equipped with clips) in the upper part of the roof.



2

Second step

Screw the uprights onto the worktop

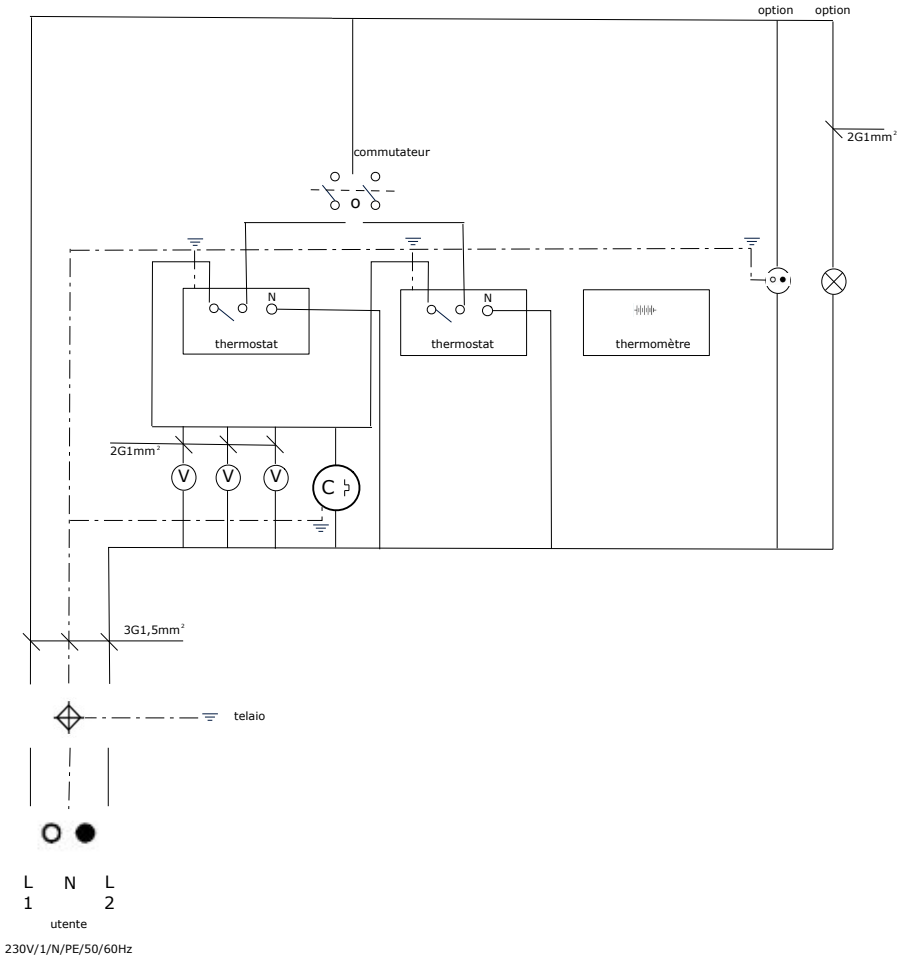


3

Third step
Insert the uprights of the upper part (previously inserted in Step 1) into the uprights of the lower part. Remove the protective film.
Once assembled, the clips allow you to raise and lower the awning for the passage of the doors or transport.

14. Electrical Diagram

14.1 220V 50HZ



14. Electrical Diagram

14.2 110V 60HZ

15.1 Static cold Unit

The Postilion recommends not to change the settings,only by a professional.

Tableau des paramètres

	Paramètre	Min.	Max.	Def.	M.E.
PS	MOT DE PASSE	0	99	22	-
/	PARAMETRES DE LA SONDE				
/5	Sélection °C / °F (0 = °C; 1 = °F)	0	1	0	-
/6	Désactivation du point décimal (1 = désactivé)	0	1	0	-
/C1	Etalonnage de la sonde	-50.0	50.0	0.0	°C/°F
r	PARAMETRES DU REGULATEUR				
St	Température de réglage	-50.0	90.0	3.0	°C/°F
rd	Différentiel de réglage (hystérésis)	0.0	19.0	2.0	°C/°F
c	PARAMETRES DU COMPRESSEUR				
c0	Ret. démarrage comp. après l'allumage	0	100	0	min
c1	Temps min. entre demarrages successifs du comp. 2	0	100	1	min
c4	Sécurité compresseur (duty setting)	0	100	15	min
d	PARAMETRES DU DEGIVRAGE				
d0	Type de dégivrage (2= résist. en temps; 3= gaz chaud en temps)	2	3	2	-
dI	Intervalle entre deux dégivrages	0	199	6	h/min
dP	Durée max. ou durée effective du dégivrage	1	199	20	min/s
d4	Dégivrage à l'allumage de l'instrument (1= activé)	0	1	0	-
d6	Blocage de l'affichage de la température lors du dégivrage (1= affichage bloqué)	0	1	1	-
A	PARAMETRES D'ALARME				
A0	Différentiel alarmes	-20.0	20.0	2.0	°C/°F
AL	Seuil/Ecart alarme de basse température (AL= 0; alarme exclue)	-50.0	250.0	50	°C/°F
AH	Seuil/Ecart alarme de haute température (AH= 0; alarme exclue)	-50.0	250.0	50	°C/°F
Ad	Retard de l'alarme de basse et de haute température	0	199	0	min
H	AUTRES PREDISPOSITIONS				
H2	Activation du clavier: 0= clavier désactivé, 1= clavier activé; 2= clavier activé, sauf ON/OFF	0	2	1	-
EZY	Rétablissement de la configuration par défaut	0	1	0	-

Tab. 5

Tableau alarmes

Code alarme	buzzer et relais alarme	LED	Description de l'alarme	Par. impliqués
E0	activés	ON	erreur sonde 1= réglage	-
LO	activés	ON	alarme basse température	[AL] [Ad]
HI	activés	ON	alarme haute température	[AH] [Ad]
EE	non activés	ON	erreur paramètres machine	-
EF	non activés	ON	erreur paramètres de fonctionnement	-
dF	non activés	OFF	dégivrage en cours d'exécution	[d6=0]

Tab. 6

15.2 Ventilated Fresh

The Postilion recommends not to change the settings,only by a professional.

Tableau des paramètres

	Paramètre	Min.	Max.	Def.	M.E.
PS	MOT DE PASSE	0	200	22	-
/	PARAMETRES DE LA SONDE				
/S	Sélection °C / °F (0 = °C; 1 = °F)	0	1	0	-
/6	Désactivation du point décimal (1 = désactivé)	0	1	0	-
/C1	Etalonnage de la sonde 1 - ambiance	-50.0	50.0	0.0	°C/°F
/C2	Etalonnage de la sonde 2 - dégivrage	-50.0	50.0	0.0	°C/°F
r	PARAMETRES DU REGULATEUR				
St	Point de consigne	-50.0	90.0	-18.0	°C/°F
rd	Différentiel de réglage (hystérésis)	0.0	19.0	2.0	°C/°F
c	PARAMETRES DU COMPRESSEUR				
c0	Ret. démarrage comp. et ventilateur après l'allumage	0	100	0	min
c1	Temps min. entre successifs du comp. démarrages	0	100	1	min
c4	Sécurité compresseur (duty setting)	0	100	15	min
d	PARAMETRES DU DEGIVRAGE				
d0	Type de dégivrage (0= résistance; 1= gaz chaud; 2= résist. en temps; 3= gaz chaud en temps; 4= résist. thermostaté en temps)	0	4	0	-
dI	Intervalle entre deux dégivrages	0	199	6	h/min
dt	Température de fin de dégivrage	50.0	150.0	8	°C/°F
dP	Durée max. ou durée effective du dégivrage	1	199	25	min/s
d4	Dégivrage à l'allumage de l'instrument (1= activé)	0	1	0	-
d6	Blocage de l'affichage de la température lors du dégivrage (1= affichage bloqué)	0	1	1	-
dd	Temps d'égouttage après le dégivrage	0	15	1	min
d/	Affich. temp. sonde de dégivrage	-	-	-	°C/°F
A	PARAMETRES D'ALARME				
A0	Différentiel alarmes et ventilateurs	-20.0	20.0	2.0	°C/°F
AL	Seuil/Ecart alarme de basse température * (AL= 0; alarme exclue)	-50.0	250.0	50	°C/°F
AH	Seuil/Ecart alarme de haute température * (AH= 0; alarme exclue)	-50.0	250.0	50	°C/°F
Ad	Retard de l'alarme de basse et de haute température	0	199	0	min
F	PARAMETRES DES VENTILATEURS				
F0	Gestion des ventilateurs: 0= ventilateur allumés sauf phases spécifiques; 1= ventilateurs activés en fonction du paramètre F1, sauf phases spécifiques	0	1	1	-
F1	Température de cuopure des ventilateurs	50.0	150.0	2	°C/°F
F3	Etat des ventilateurs pendant le dégivrage: 0= ventilateurs allumés; 1= ventilateurs arrêtés	0	1	1	-
H	AUTRES PREDISPOSITIONS				
H2	Activation du clavier: 0= clavier désactivé; 1= clavier activé; 2= clavier activé, sauf ON/OFF	0	2	1	-
EZY	Rétablissement de la configuration par défaut	0	1	0	-

Tableau alarmes

Code alarme	buzzer et relais alarme	LED	Description de l'alarme	Paramètres impliqués
E0	activés	ON	erreur sonde 1= réglage	-
E1	non activés	ON	erreur sonde 2= dégivrage	(d0 = 0 / 1)
LO	activés	ON	alarme basse température	(AL) (Ad)
HI	activés	ON	alarme haute température	(AH) (Ad)
EE	non activés	ON	erreur paramètres machine	-
EF	non activés	ON	erreur paramètres de fonctionnement	-
Ed	non activés	ON	dégivrage terminé pour timeout	(dP) (dt) (d4) (Ad)
dF	non activés	OFF	défrost en cours d'exécution	(d6=0)

Tab. 5

Comment rétablir la configuration par défaut (se référant au Tableau des paramètres fourni sur cette notice technique)

1) Accéder au paramètre EZY (saisir le mot de passe 22 et parcourir la liste des paramètres)
2) Sélectionner la configuration désirée:
   - EZY = 0 → Aucune modification;
   - EZY = 1 → Rétablissement de la configuration par défaut (se référant au Tableau des paramètres fourni sur cette notice technique);
3) Sortir de la modification des paramètres (en maintenant le bouton SET enfoncé pendant plus de 3s);
4) Eteindre la régulateur puis le rallumer en maintenant enfoncé le bouton SET;
5) L'écran affichera l'inscription **"CE" pour indiquer le rétablissement de la configuration.**

ON/OFF de l'instrument

Appuyer sur UP pendant plus de 3 s. Dans cette condition, les réglage et le dégivrage sont désactivés et l'écran de l'instrument alterne l'affichage du message „OFF" et de la température de la sonde configurée.

Dégivrage manuel

Appuyer plus de 3 S sur DOWN (il s'active uniquement si les conditions de température l'autorise).

16.1 220V, 50HZ

COMPRESSOR DEFINITION

Designation	EM T212SGK
Nominal Voltage/Frequency	220-240 V 50 Hz
Engineering Number	912DA67

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	220-240 / 50	[V / Hz]	
4 Application type	Low Back Pressure R404A		
4.1 Evaporating temperature range	-40°C to -10°C	(-40°F to 14°F)	
5 Motor type	CSIR		
6 Starting torque	HST - Hight starting torque		
7 Expansion device	Capillary tube or Expansion valve		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32°C Ambient temperature)	-	-	-
8.2 LBP (43°C Ambient temperature)	-	-	-
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	25.7	[kgf/cm²] (365 psig)	/ °C - °F
9.2 Peak (gauge)	28.7	[kgf/cm²] (408 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/3+	[hp]
2 Displacement	5.96	[cm³] (0.364 cu.in)
2.1 Bore [mm]	22.500	
2.2 Stroke [mm]	15.000	
3 Lubricant charge	160	[ml] (6.09 f.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	7.8	[kg] (17.20 lb.)
5 Nitrogen charge	-	[kgf/cm²]

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	220-240 V 50 Hz 1 ~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRP-36	
3 Start capacitor	64-77(330)	[uF/(VAC minimum)]
4 Run capacitor	-	[uF/(VAC minimum)]
5 Motor protection	T0571/06	
6 Start winding resistance		[at 25°C (77°F)] +/- 8%
7 Run winding resistance		[at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (50 Hz)	9.80	[A] - Measured according to UL 984
9 FLA - Full load amperage LMBP (50 Hz)	-	[A]
10 FLA - Full Load Amperage HBP (50 Hz)	-	[A]
11 Approval boards certification	VDE	

UPDATE: 16APR2015 912DA67

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @220V50Hz			ASHRAELBP32 Fan		Evaporating temperature (Condensing temperature	-23.3°C (-9.94°F) 54.4°C (129.92°F)		
Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
1196	302	351	251	1.57	8.12	4.77	1.20	1.40

E - PERFORMANCE - CURVES

TEST CONDITIONS: @220V50Hz		ASHRAE32 Fan			(Condensing temperature 35°C (+95°F))					
Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	(-40)	599	151	176	155	1.29	4.03	3.87	0.97	1.13
-35	(-31)	783	197	229	174	1.35	5.28	4.49	1.13	1.32
-30	(-22)	1001	252	293	195	1.41	6.77	5.14	1.29	1.51
-25	(-13)	1260	318	369	217	1.48	8.56	5.82	1.47	1.71
-20	(- 4)	1566	395	459	239	1.55	10.69	6.55	1.65	1.92
-15	(+ 5)	1924	485	564	262	1.62	13.22	7.33	1.85	2.15
-10	(+14)	2340	590	686	286	1.70	16.19	8.19	2.06	2.40

TEST CONDITIONS: @220V50Hz		ASHRAE32 Fan			(Condensing temperature 45°C (+113°F))					
Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	(-40)	552	139	162	158	1.29	3.70	3.50	0.88	1.03
-35	(-31)	730	184	214	180	1.36	4.92	4.05	1.02	1.19
-30	(-22)	942	237	276	204	1.43	6.38	4.61	1.16	1.35
-25	(-13)	1191	300	349	230	1.51	8.08	5.19	1.31	1.52
-20	(- 4)	1485	374	435	256	1.60	10.12	5.79	1.46	1.70
-15	(+ 5)	1830	461	536	285	1.70	12.55	6.42	1.62	1.88
-10	(+14)	2230	562	653	314	1.80	15.39	7.10	1.79	2.08

TEST CONDITIONS: @220V50Hz		ASHRAE32 Fan			(Condensing temperature 55°C (+131°F))					
Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	(-40)	486	122	142	156	1.29	3.25	3.12	0.79	0.91
-35	(-31)	662	167	194	182	1.37	4.44	3.63	0.92	1.06
-30	(-22)	867	219	254	210	1.45	5.85	4.13	1.04	1.21
-25	(-13)	1109	280	325	240	1.55	7.51	4.63	1.17	1.36
-20	(- 4)	1393	351	408	272	1.66	9.48	5.12	1.29	1.50
-15	(+ 5)	1725	435	505	306	1.78	11.80	5.64	1.42	1.65
-10	(+14)	2110	532	618	342	1.91	14.54	6.17	1.55	1.81

UPDATE: 16APR2015 912DA67

embraco | COMPRESSOR TECHNICAL DATA

F - EXTERNAL CHARACTERISTICS

1 Base plate	European Standard		
2 Tray holder	Yes		
3 Connectors			
3.1 SUCTION	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42°		
3.2 DISCHARGE	4.86 +0.07/+0.00	[mm]	(0.191" +0.003"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Straight		
3.3 PROCESS	6.1 +0.10/+0.00	[mm]	(0.240" +0.004"/+0.000")
3.3.1 Material	Copper		
3.3.2 Shape	Slanted 42°		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		

16.2 110V, 60HZ

COMPRESSOR DEFINITION

Designation	**NE K2125GK**
Nominal Voltage/Frequency	**115 V 60 Hz**
Engineering Number	**957EG71**

A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	115 / 60	[V / Hz]	
4 Application type	Low Back Pressure R404A		
4.1 Evaporating temperature range	-40°C to -10°C	(-40°F to 14°F)	
5 Motor type	CSIR		
6 Starting torque	HST - Hight starting torque		
7 Expantion device	Capillary tube or Expansion valve		
8 Compressor cooling		Operating voltage range	
		50 Hz	60 Hz
8.1 LBP (32°C Ambient temperature)	-	-	-
8.2 LBP (43°C Ambient temperature)	-	-	-
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	25.7	[kgf/cm²] (365 psig)	/ °C - °F
9.2 Peak (gauge)	28.7	[kgf/cm²] (408 psig)	/ °C - °F
10 Maximum winding temperature	130	[°C]	

B - MECHANICAL DATA

1 Commercial designation	1/3+	[hp]
2 Displacement	6.20	[cm³] (0.378 cu.in)
2.1 Bore [mm]	20.873	
2.2 Stroke [mm]	18.120	
3 Lubricant charge	350	[ml] (11.84 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	10.4	[kg] (22.93 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm²] (2.84 to 4.27 psig)

C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	115 V 60 Hz 1~ (Single phase)	
2 Starting device type	Current Relay	
2.1 Starting device	MTRPH-0019	
3 Start capacitor	145-175(165)	[µF(VAC minimum)]
4 Run capacitor	-	[µF(VAC minimum)]
5 Motor protection	T0060/G9	
6 Start winding resistance	6.14	[at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.24	[at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	26.50	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	4.20	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	UL	

UPDATE: 14MAY2013 957EG71

16. technical data of compressor - Static Cold

D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS:			ASHRAELBP32		Evaporating temperature	-23.3°C (-9.94°F)		
@115V60Hz			Fan		(Condensing temperature	54.4°C (129.92°F))		
Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
1458	367	427	323	4.28	9.88	4.51	1.14	1.32

E - PERFORMANCE - CURVES

TEST CONDITIONS:		ASHRAE32				(Condensing temperature 35°C (+95°F))				
@115V60Hz		Fan								
Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	(-40)	718	181	210	200	3.63	4.83	3.57	0.90	1.05
-35	(-31)	902	227	264	228	3.74	6.08	3.97	1.00	1.16
-30	(-22)	1147	289	336	255	3.86	7.76	4.50	1.14	1.32
-25	(-13)	1453	366	426	282	3.99	9.87	5.16	1.30	1.51
-20	(- 4)	1820	459	533	308	4.14	12.43	5.91	1.49	1.73
-15	(+ 5)	2247	566	658	334	4.30	15.44	6.73	1.69	1.97
-10	(+14)	2735	689	801	360	4.47	18.92	7.59	1.91	2.23

TEST CONDITIONS:		ASHRAE32				(Condensing temperature 45°C (+113°F))				
@115V60Hz		Fan								
Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	(-40)	680	171	199	204	3.60	4.56	3.34	0.84	0.98
-35	(-31)	864	218	253	234	3.75	5.82	3.70	0.93	1.08
-30	(-22)	1105	278	324	265	3.91	7.48	4.18	1.05	1.23
-25	(-13)	1401	353	411	297	4.09	9.50	4.71	1.19	1.38
-20	(- 4)	1754	442	514	329	4.28	11.95	5.32	1.34	1.56
-15	(+ 5)	2163	545	634	362	4.48	14.83	5.97	1.51	1.75
-10	(+14)	2626	662	769	395	4.70	18.13	6.65	1.67	1.95

TEST CONDITIONS:		ASHRAE32				(Condensing temperature 55°C (+131°F))				
@115V60Hz		Fan								
Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	(-40)	641	162	188	208	3.58	4.29	3.11	0.78	0.91
-35	(-31)	826	208	242	239	3.77	5.55	3.45	0.87	1.01
-30	(-22)	1062	268	311	274	3.98	7.16	3.87	0.98	1.14
-25	(-13)	1349	340	395	310	4.19	9.13	4.35	1.10	1.27
-20	(- 4)	1687	425	494	348	4.42	11.48	4.86	1.22	1.42
-15	(+ 5)	2077	525	609	389	4.68	14.31	5.38	1.36	1.58
-10	(+14)	2517	634	738	427	4.91	17.34	5.89	1.48	1.73

F - EXTERNAL CHARACTERISTICS

1 Base plate	Universal		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	8.03 +0.07/+0.00	[mm]	(0.316" +0.003"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Slanted 42°		
3.2 DISCHARGE	6.45 +0.10/+0.00	[mm]	(0.254" +0.004"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Straight		
3.3 PROCESS	6.45 +0.10/+0.00	[mm]	(0.254" +0.004"/+0.000")
3.3.1 Material	Copper		
3.3.2 Shape	Slanted 42°		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		

17. technical data of compressor - Ventilated Fresh

17. technical data of compressor - Ventilated Fresh

18. Notes