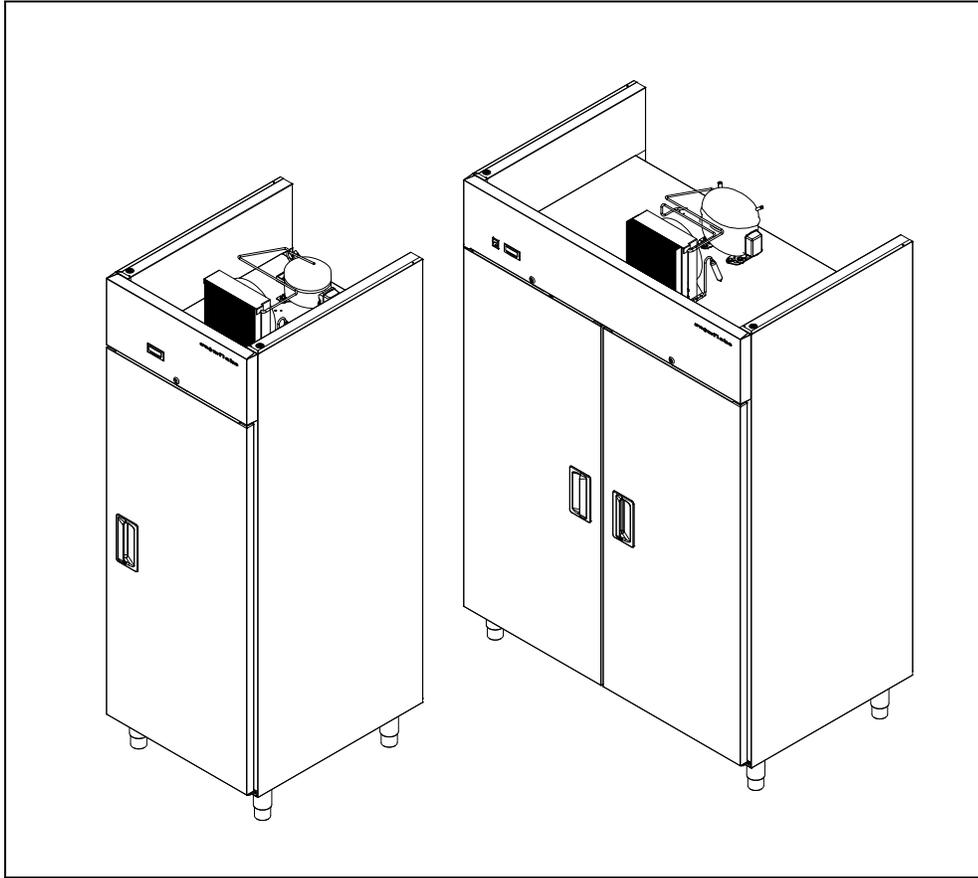


# SNOWFLAKE K/F 605/1305



Operating instructions

s n ❄ w f l a k e



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## **ENGLISH**

Thank you for choosing a Snowflake product.

This manual will advise you how to install, use and maintain your new product.

Before our products leave the factory, they undergo a full function and quality test. Should you nevertheless experience problems with the product, then contact your local dealer.

Changes in installation and other use of the product than described in this manual, might affect the operation and durability of the product.

The manual is written according to our current technical knowledge. We constantly work on updating this information, and we reserve ourselves the right to make technical changes.

## **Application**

This cabinet is designed for storage of foodstuffs, maintaining a uniform temperature. Not for chilling hot food. Not suitable for chilling/freezing of products.

The cabinet is only to be used for the purpose for which it has been expressly designed for. Any other use should be considered improper and therefore dangerous. The manufacturer will not be held liable or responsible for any damage caused by improper, incorrect or unreasonable use.

## Safety information

### ***Important***

Description of symbols used in this manual.



**Warning** Not complying with these instructions might lead to accidents resulting in personal injury.



**Important** If these instructions are not complied with, the product might be damaged or destroyed.

Be aware that we have taken precautions to ensure that the safety of the product is in order.

### ***Please read carefully the following information regarding safety.***



It is important, that everyone who are to use or install the product, have access to this manual.



This appliance is not intended for use by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.



Children should be supervised to ensure that they do not play with the appliance.



The appliance might contain parts with sharp edges in the compressor compartment, and in the inside compartment.



The appliance is not to be transported on a sack truck, there is a danger of losing the balance, causing danger to persons.



Do not pull the power cord to disconnect the appliance, or when moving the appliance.

## Location

When receiving the cabinet, check the packaging material for damage.

If any damage occurs at the packaging material, it should be considered if the cabinet might have been damaged too. If the damage is substantial, please contact your dealer.

The transport pallet can be removed by loosening the screws that fasten the pallet to the cabinet.



This task requires at least 2 persons. The heaviest part of the cabinet is the top. Be aware of this, when removing the transport pallet.

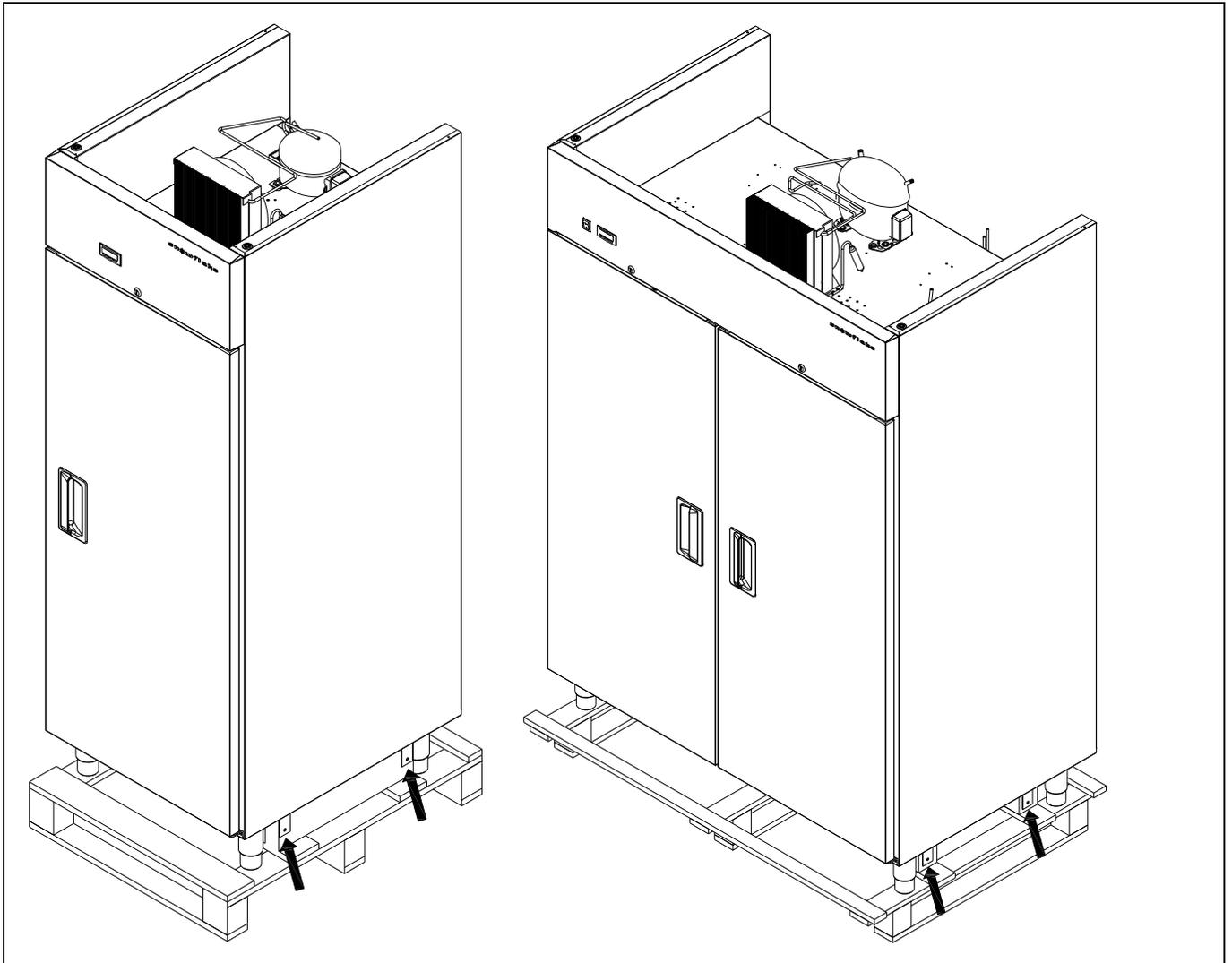


Fig.1



If the cabinet has been transported in horizontal position it must stand upright for at least 2 hours before it is turned on, to allow the oil from the compressor to run back.



Because of the heavy weight of the cabinet, the floor might be damaged or scratched when moving the cabinet.

Correct set up gives the most effective operation.

The cabinet should be located in a dry and adequately ventilated room.

To ensure efficient operation, it may not be placed in direct sunlight or against heat-emitting surfaces. The cabinet is designed to operate in an ambient temperature of up to +43°C.

Avoid placement of the cabinet in a chlorine/acid-containing environment (swimming bath etc.) due to risk of corrosion.

The cabinet and parts of the interior is equipped with a protecting film, which should be removed before use.

Clean the cabinet with a mild soap solution before use.

The set up place must be level and horizontal.



For cabinets with legs, adjust these to ensure that the cabinet stands level.

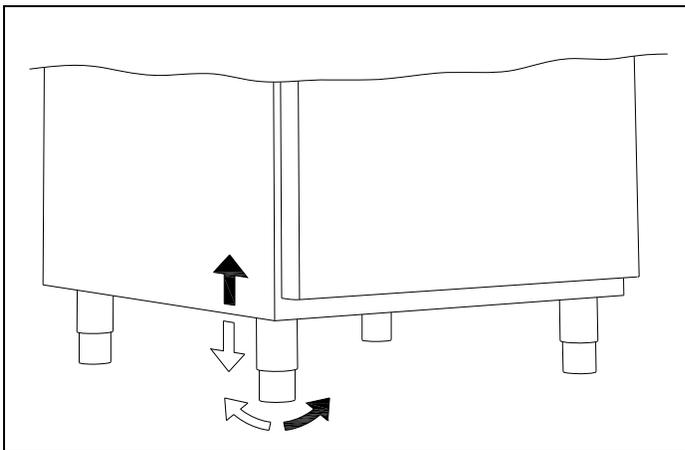


Fig.2



For cabinets with castors, the locking devices of the two front castors must be activated, when the cabinet is in place. The base must be level.

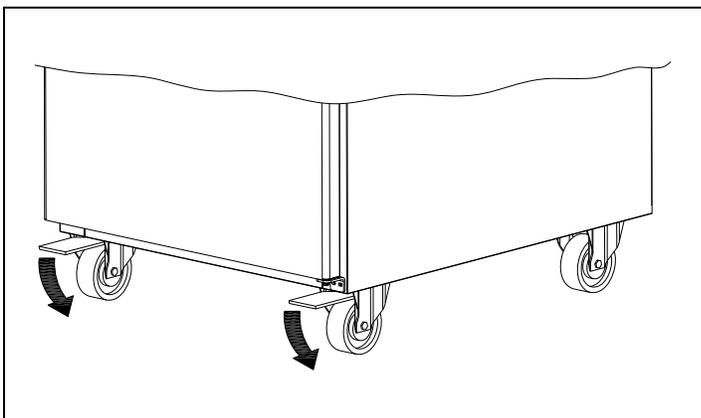


Fig. 3

It is ideal to install the cabinet as close as possible up against the wall, however max. 75 mm from the wall.

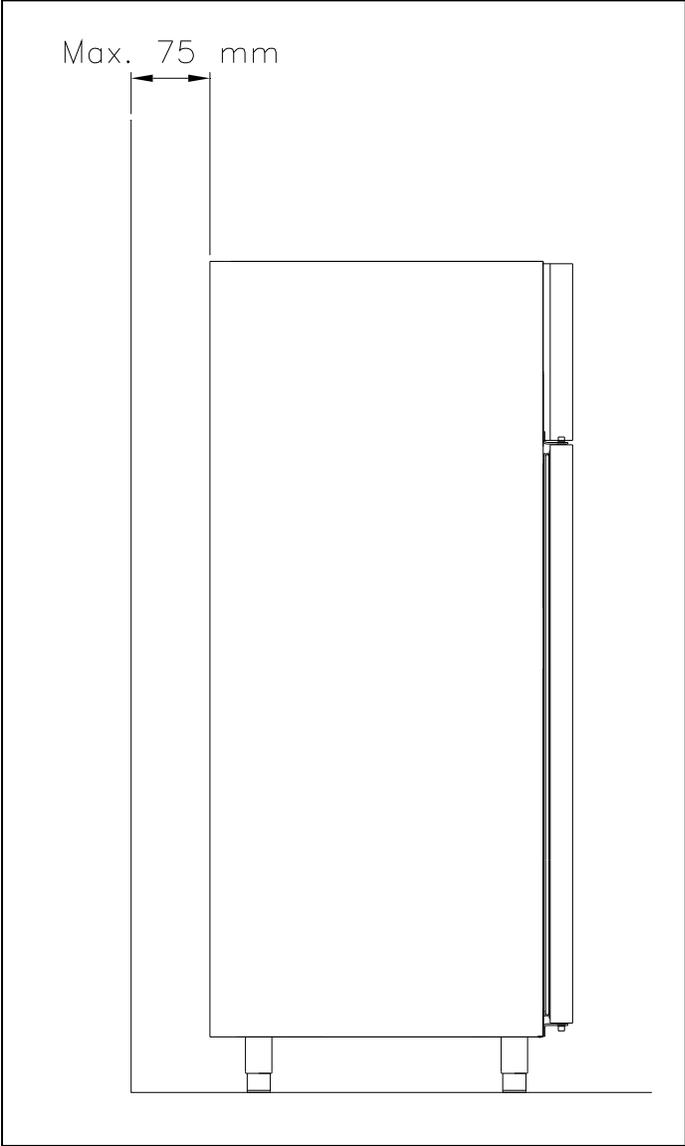


Fig. 4

# General description

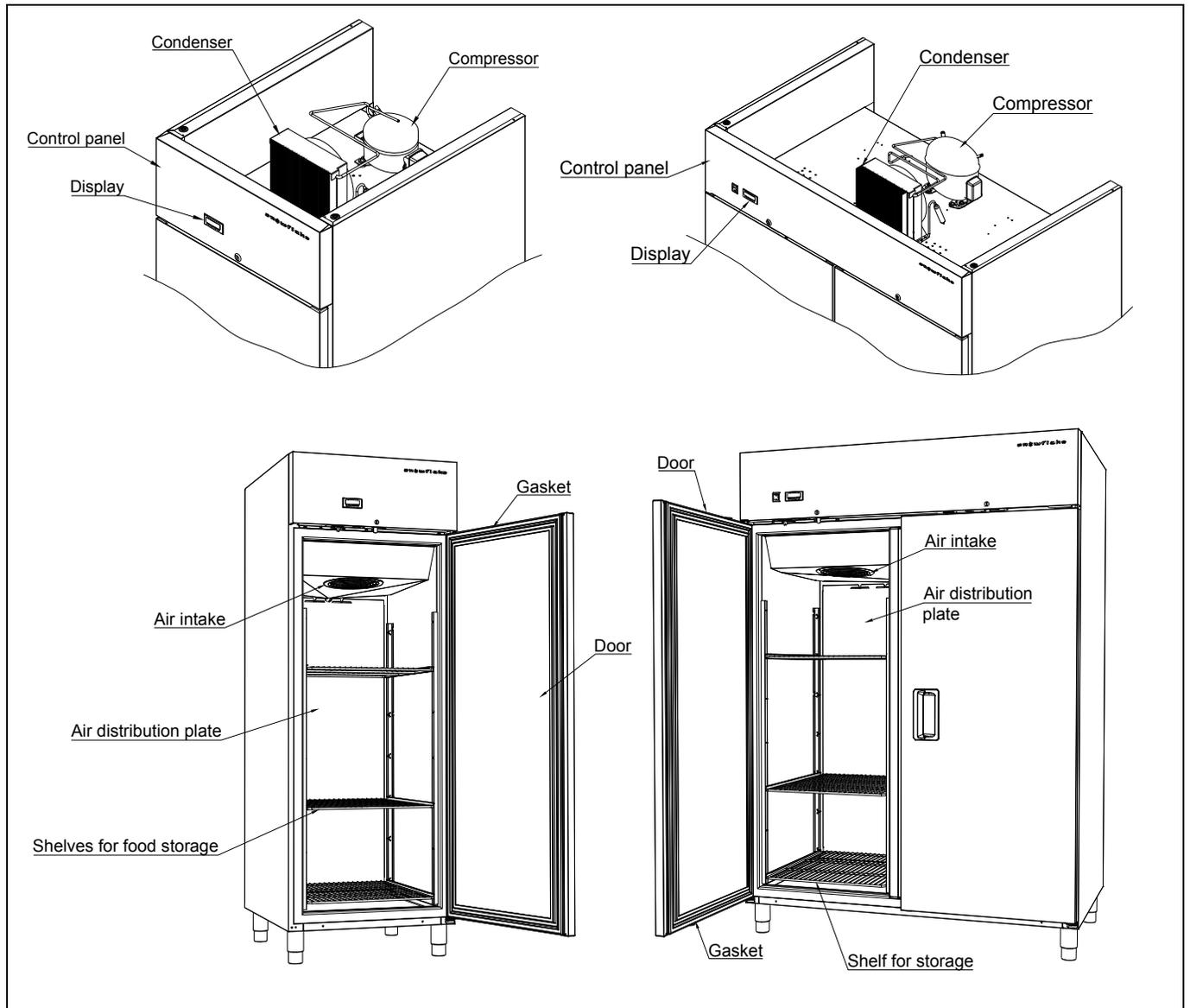


Fig. 5

## Electrical connection

Read the text below thoroughly before connecting the cabinet to the power supply.



The cabinet is intended for connection to alternating current. The connection voltage (V) and frequency (Hz) are shown on the name plate in the cabinet (see Fig.8 ).



Never use an extension cord for this appliance!  
If a wall socket is placed further away than the length of the supplied power cord, contact an electrician to establish a wall socket within the range of the supplied power cord.



If the cabinet is defective, the cabinet must be examined by a properly skilled person or an authorised refrigeration company.

Always disconnect the power supply when servicing, and before cleaning and maintenance of the cabinet.

Repair of electrical/technical parts may only be performed by properly skilled persons.

Do not use the appliance before all coverings are re-installed after servicing, so that live or rotating machine parts cannot be touched.

The cabinet is not to be used outdoor.

All earthing/grounding requirements stipulated by the local electricity authorities must be observed. The cabinet plug and wall socket should then give correct grounding. If necessary, contact an electrician.



Make sure the appliance is switched off at the socket before service is performed on electrical parts. It is not sufficient to switch off the cabinet by the START/STOP key as some components will still be connected to the power supply.

## General use



Do not damage the refrigeration system.



During normal operation, some parts of the refrigeration system in the compressor compartment might reach high temperatures, and could therefore cause burns if touching these components.



Do not use electrical devices inside the cabinet.



To ensure correct and efficient air flow in the cabinet, the shaded areas must be kept free of products. (see Fig. 6)



All products to be stored, that are not wrapped or packed, must be covered in order to avoid unnecessary corrosion of the inner parts of the cabinet.



If any controller parameters are changed from default, this could cause that the appliance is not functioning normally, and harmful temperatures could damage products that are stored inside the cabinet.



If the cabinet is turned off, wait for at least 3 minutes before turning the cabinet back on, in order to protect the compressor from overloading.

Be aware, if bottles are stored near the lower air outlet, they may freeze up and break, causing a risk of injury.

When putting items into the cabinet, allow some space between them to ensure a good ventilation.

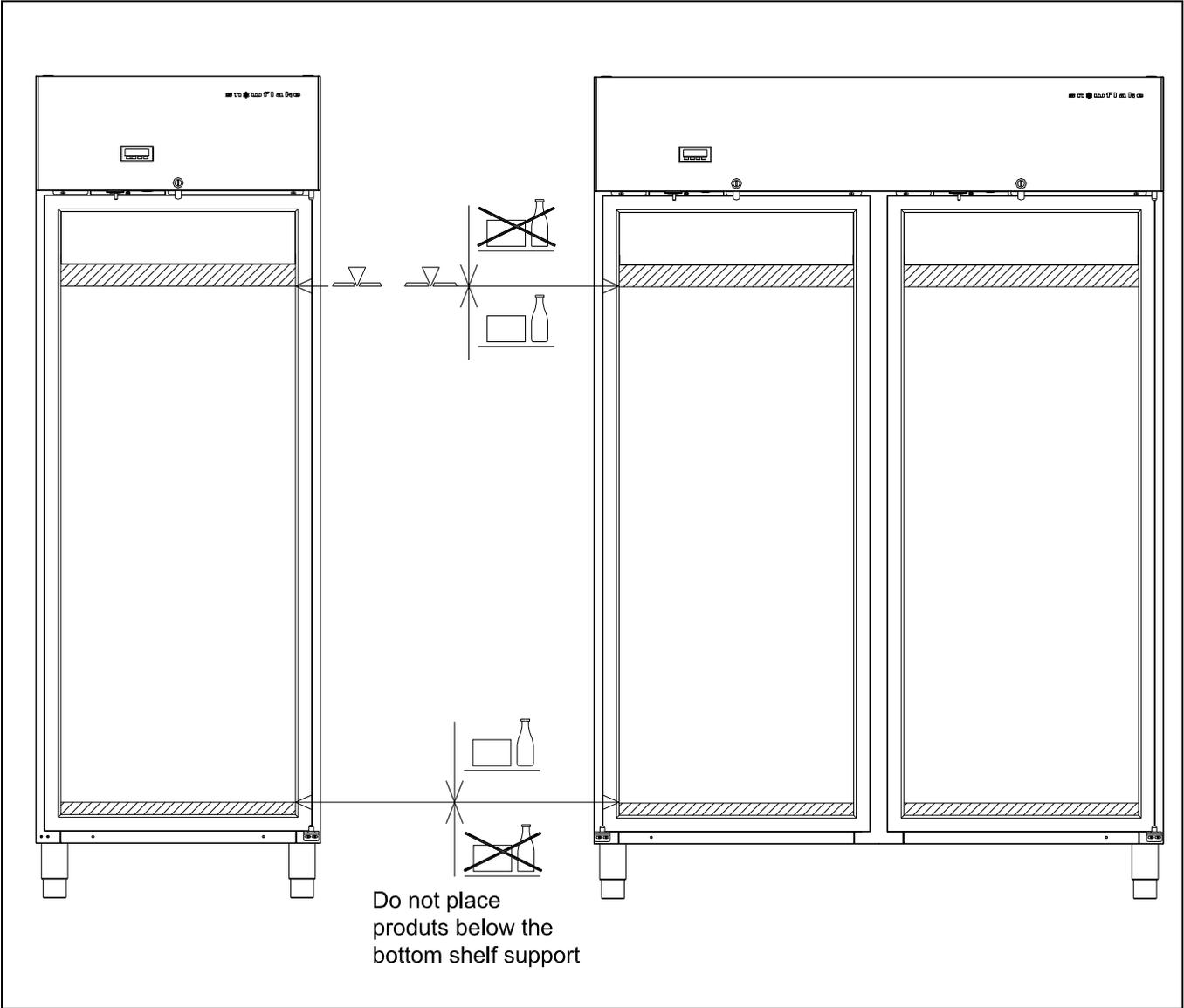
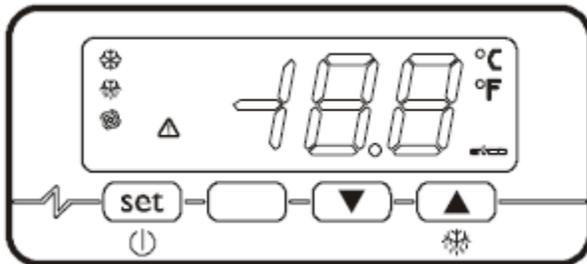


Fig. 6

## Starting up

Display overview:



Connect the cabinet to power supply.

To turn on the cabinet, push **set** for 4 seconds.

The display shows the actual cabinet temperature, and indicates that power is connected.

The cabinet is turned off likewise, by pushing **set** for 4 seconds.

### Control lights

The following control lights are located at the display:



Compressor. This lamp is on while the compressor is running. Flashes during temperature setting, or if a compressor start is delayed.



Defrosting. This lamp is turned on during the defrost cycle. Flashes during dripping time.



Evaporator fan. This lamp is turned on while the evaporator fan is running. Flashes during fan delay after defrost/dripping.



Alarm. This lamp is turned on if an alarm occurs. See chapter on temperature alarm and errors.

## Temperature setting

The cabinet temperature is set as follows:

Push the  button, the compressor lamp  flashes.

Push  or  to adjust the set temperature.

Push  again to save the set value. The compressor lamp  is turned off, unless the compressor is running.

Alternatively, do not operate any buttons for 15 seconds, the controller switches back to temperature display, and the set value is saved automatically.

If there is a power failure, the controller will remember the settings. When the power returns, the cabinet will start up again.

## Temperature alarm

The controller is able to display temperature alarms, which are related to the cabinet temperature. The  lamp lights and AL or AH is flashing in the display, if an alarm is present. If/when the temperature gets back within the limits, the temperature alarm is reset automatically.

The following alarms can be displayed:

- AL** low temperature alarm
- AH** high temperature alarm

## Error codes on the display

- P1** If P1 is displayed, it means that the cabinet sensor has an error.  
Request service assistance.  
In the meantime, the cabinet will aim to maintain the set temperature.
- P2** If P2 is displayed, it means that the defrost sensor has an error.  
The sensor should be replaced as soon as possible.  
Request service assistance.

## Keylock

The controller keys can be locked to prevent unauthorised changes to the controller settings.

### To lock the keys:

Press  and  at the same time for 1 second, "Lo" is shown to indicate the keys are locked.

### To unlock the keys:

Press  and  at the same time for 1 second, "Un" is shown to indicate the keys are unlocked.

## Troubleshooting

### Noise:

- If abnormal noise occurs, request service assistance.
- Operating sounds from compressor, condenser fan and interior fan are normal.
- If the panel in front of the compressor compartment is making noise, this might not be fitted properly.

### Frosting inside compartment:

- Ambient humidity too high.
- The door is opened too often.
- The door is left open for too long.
- Damaged door gasket.

### Poor cooling performance:

- Ambient temperature too high.
- The door is opened too often and/or open for too long.
- The door is left open.
- Damaged door gasket.
- Cabinet temperature setting too high.
- Cabinet too packed with foods - air inlet/outlet blocked.
- Warm or hot foods inside.
- Defrost in progress. The cabinet temperature may rise temporarily during the defrost cycle, but it will not affect the foods inside.
- Dirty condenser.

### Some of the foods are frozen:

- Cabinet too packed with food - air inlet/outlet blocked.
- Cabinet temperature setting too low.

### Condensation around the door:

- Ambient humidity too high.
- The door is not closed tightly.
- Damaged door gasket.

### Too high energy consumption:

- Ambient temperature too high.
- The door is opened too often and/or open for too long.
- The door is left open.
- Damaged door gasket.
- Cabinet temperature setting too low.
- Cabinet too packed with foods - air inlet/outlet blocked.
- Warm or hot foods are brought into the cabinet.
- Cabinet placed in direct sunlight or close to heat-emitting surfaces.
- The default settings have been changed.
- Dirty condenser.

## Defrosting

### K 605/1305:

Defrosting is automatically performed 4 times every 24 hours, by circulating the air inside the cabinet during a forced standstill of the compressor. The defrost LED  lights to indicate the defrosting cycle is running.

### F 605/1305:

Defrosting is automatically performed 4 times every 24 hours, by a defrost heating element.

### Manual defrosting:

If the cabinet is operating under severe load (frequent door opening and frequent replenishment), manual defrosting can become necessary.

Manual defrosting is performed as follows:

Push  for 4 seconds, and defrosting is started. The defrost LED  lights to indicate the defrosting cycle is running.



Do not use sharp or pointed objects to accelerate the defrosting process.

## Defrost water

The cabinet expels defrost water during defrosting, which is led into a tray on the cabinet backside (see Fig. 7).

A hot gas pipe from the refrigeration system, or an electrical heating element, placed in the tray, re-evaporates the water.



It is recommended to clean the tray when necessary or at least once a year.

Remember to disconnect the cabinet before cleaning.

Be careful not to damage the hot gas re-evaporation pipe and heating element during cleaning.

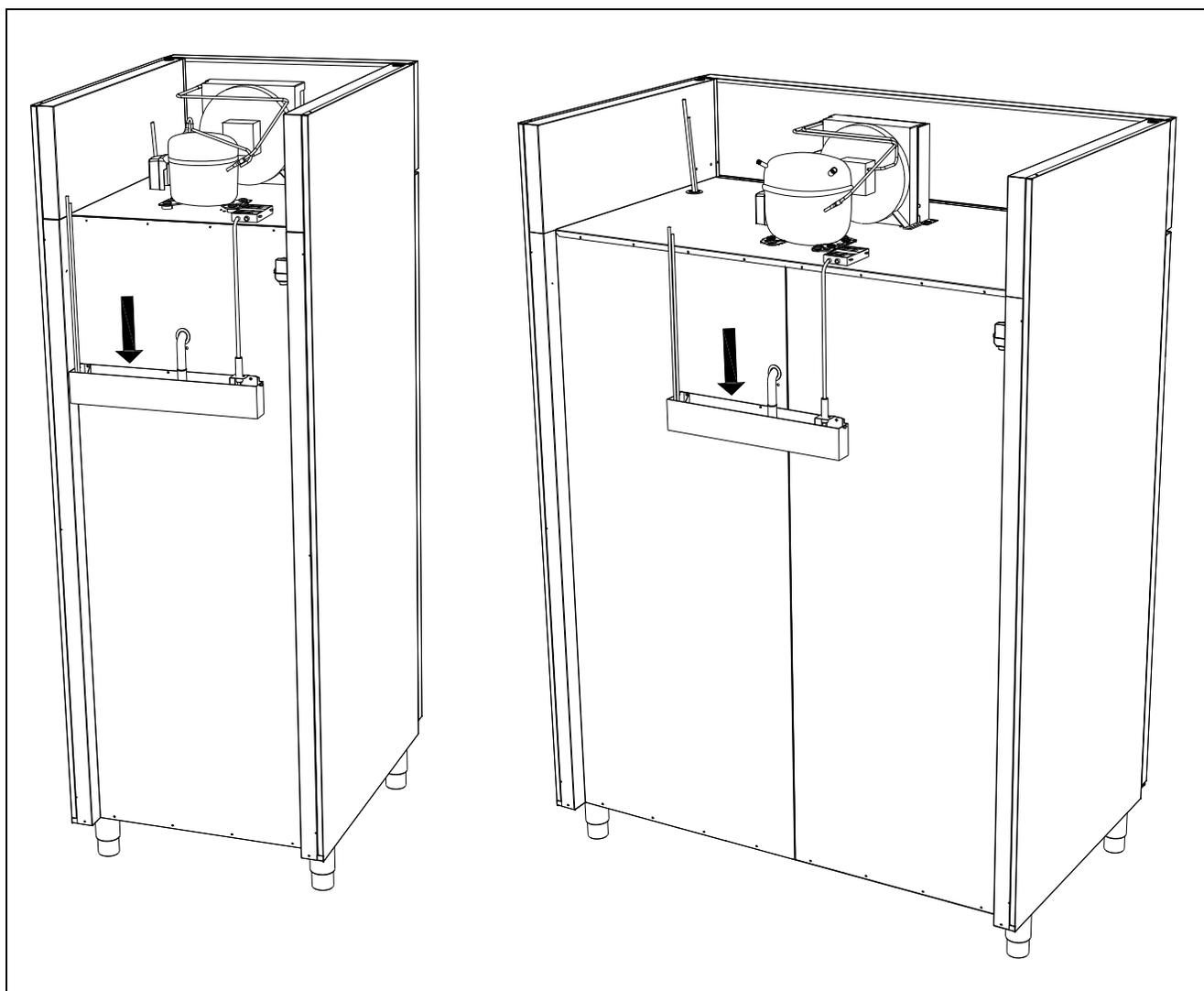


Fig. 7

## Power failure

In the event of a power failure, the control remembers the temperature setting and restarts the cabinet when power is restored.

## Cleaning

Insufficient cleaning will cause the cabinet not to work at optimum performance, or it can even lead to mechanical breakdown.



Before cleaning the cabinet, the power supply should always be disconnected.



Do not flush the cabinet with water, do not use water jet or steam hose as this may cause short-circuits in the electrical system.



Cleansing agents containing chlorine or compounds of chlorine as well as other corrosive means, **are not to be used**, as they might cause corrosion to the stainless panels of the cabinet and the evaporator.



The compressor compartment and in particular the condenser must be kept free from dust and dirt. This is best done with a vacuum cleaner and a brush.



For the external maintenance – use stainless steel polish.



The cabinet should be cleaned internally with a mild soap solution at suitable intervals and checked thoroughly before it is put into operation again.

## Door gaskets

This chapter deals with the importance of a well-functioning door gasket.

Gaskets are an important part of a refrigerator/freezer. Gaskets with reduced functionality, reduces the tightness of the cabinet. Reduced tightness might cause increased humidity, internal icing, an iced up evaporator (leading to reduced refrigeration capacity), and in worst case reduced lifecycle of the cabinet.

Therefore it is important to be aware of the condition of the gasket. Regular inspection is recommended.

The gasket should be cleaned regularly with a mild soap solution.

If a gasket needs replacement, contact your supplier.

## Long term storage

If the cabinet is taken out of operation, and need to be prepared for long-term storage, clean the inside compartment, the door and door gasket thoroughly with a hot soapy damp cloth and let it dry.

Eventual remnants of food could create mold.

## Service

If refrigeration fails, first investigate whether the unit has been unintentionally disconnected or switched off at the socket, or whether a fuse has blown.

The second thing to check, is if the condenser is blocked, due to insufficient cleaning intervals.

If it is not possible to find the cause of the refrigeration failure, please contact your supplier.

When contacting your supplier, please inform about the product type/name and serial number (S/N) / (WWYY) of the cabinet. This information is stated on the name plate, see Fig. 8.

Location of the name plate:

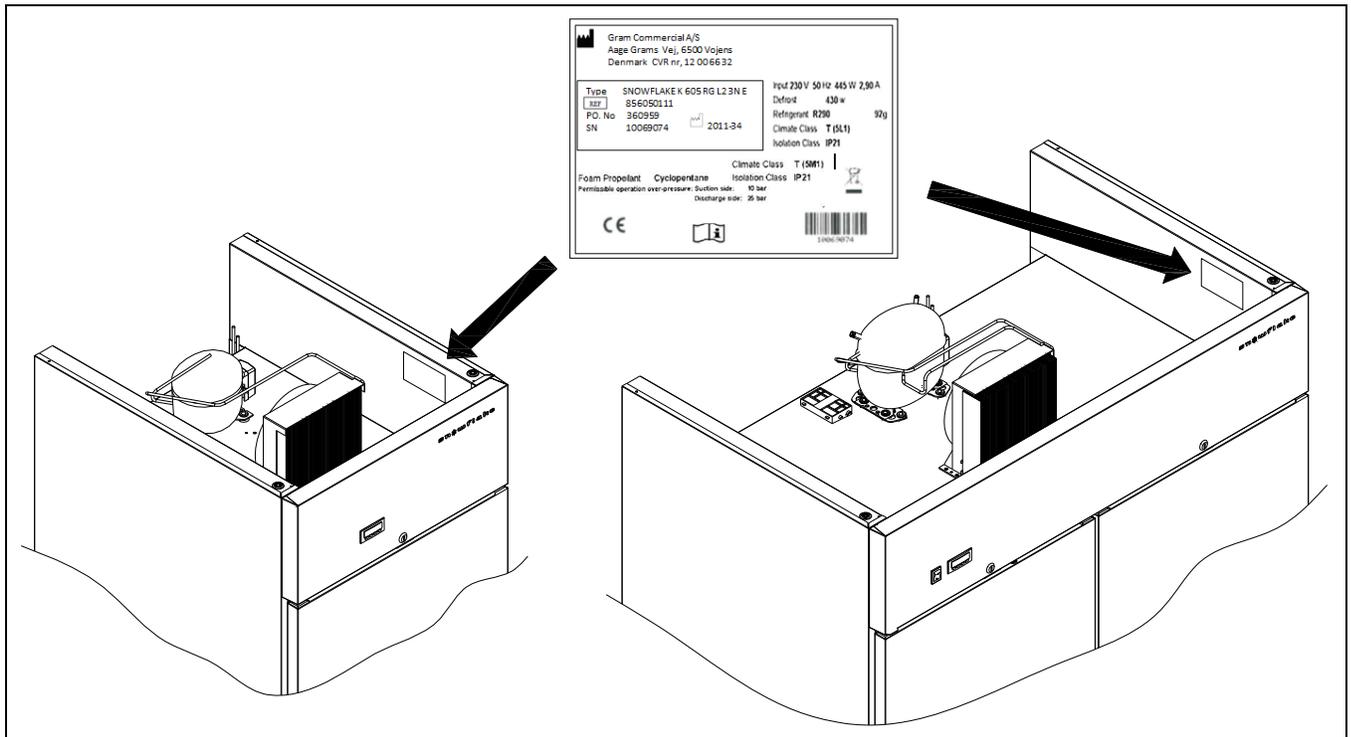


Fig.8

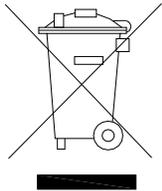
## Disposal

The below only concerns the United Kingdom.

Disposal of an old cabinet is only available when we are delivering a new one at the same time. Cabinets must be fully defrosted and emptied prior to collection.

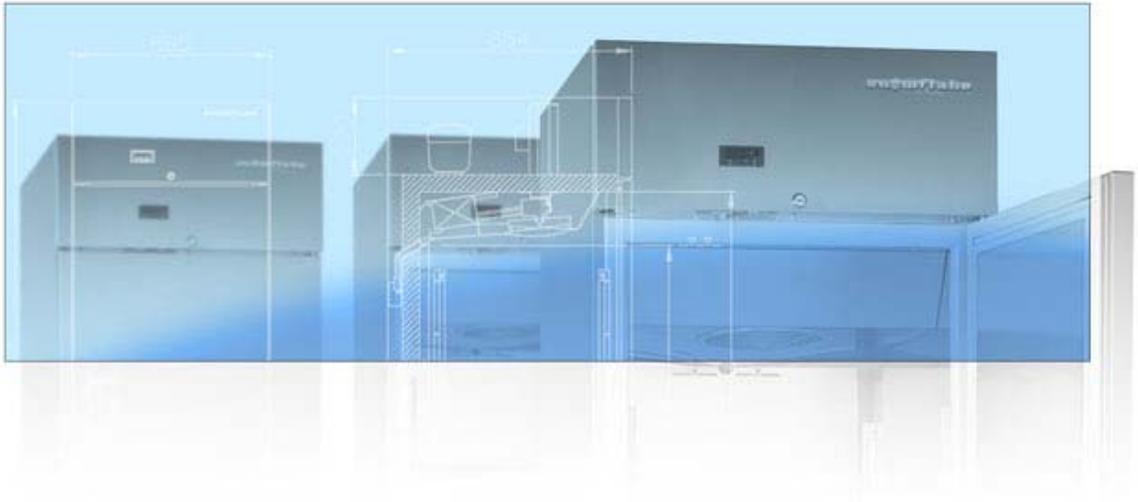
We recognise that our products for the catering market are considered as WEEE when they become obsolete. To ensure that our responsibilities are handled correctly and environmentally friendly, we are signed up the largest Business to Business compliance scheme in the UK – B2B Compliance  
<http://www.b2bcompliance.org.uk>

B2B Compliance will on our behalf deal with all areas of our responsibilities when collecting and disposing of equipment which fall under the UK WEEE regulations. B2B Compliance can be contacted on telephone number 01691 676124.



Gram Commercial A/S  
Aage Grams Vej  
6500 Vojens  
+45 73 20 12 00  
[www.gram-commercial.com](http://www.gram-commercial.com)

# EC-Declaration of conformity



We, **Gram Commercial A/S**, declare under sole responsibility that the following products:

Name: **SnowFlake**  
Model: K/F 605/1305  
Refrigerant: R134a, R404A, R290

To which this declaration relates, is in compliance with all the applicable essential requirements, and other provisions of the European Council Directive.

## Directive of the European Parliament and of the Council:

- Directive for Machinery 2006/42/EF
- Low voltage Directive 2006/95/EF
- EMC Directive 2004/108/EF
- RoHS Directive 2011/65/EU
- WEEE Directive 2002/96/EF

## Gram Commercial A/S

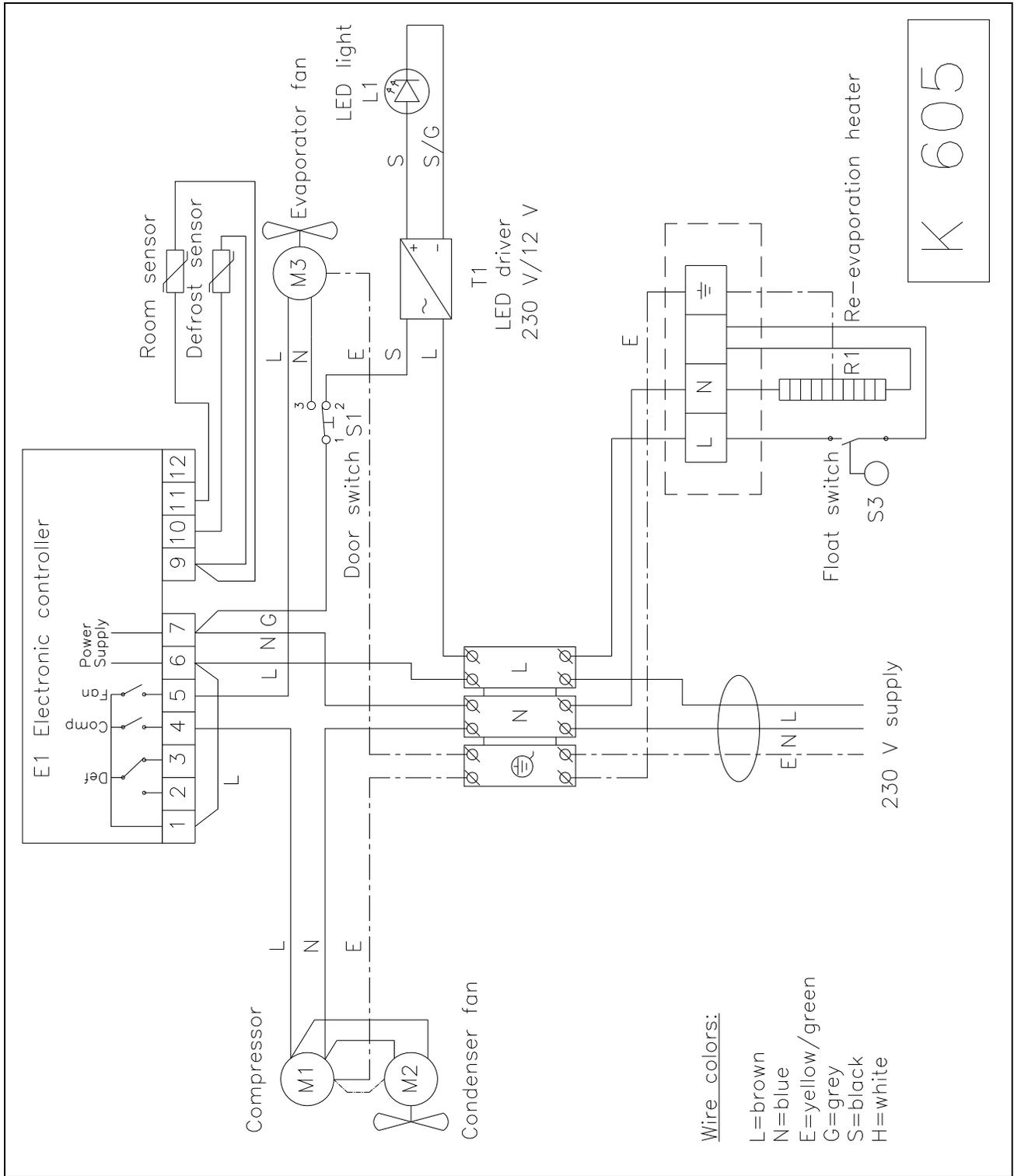
Aage Grams Vej  
DK-6500 Vojens  
Telephone: + 45 73 20 12 00

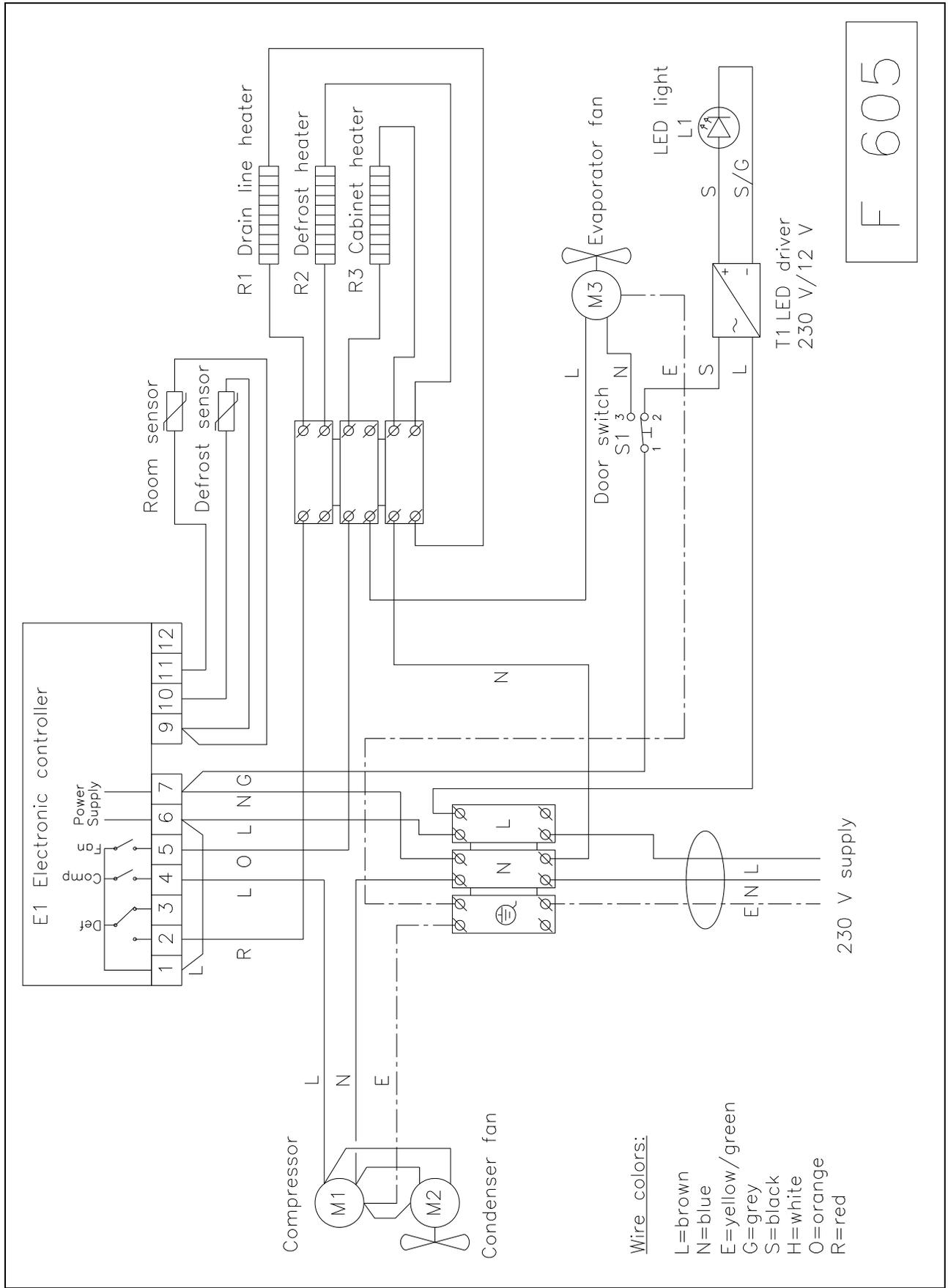
Vojens, 10. april 2012

John B. S. Petersen  
Approval Manager

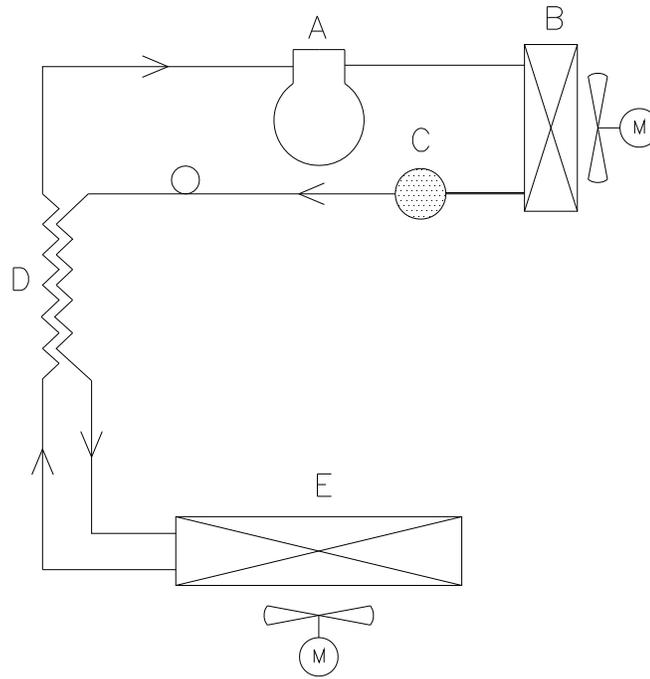


# Wiring diagram





# Piping diagram



	DK	GB	D
A	Kompressor	Compressor	Kompressor
B	Kondensator	Condenser	Verflüssiger
C	Tørrefilter	Filter drier	Trockenfilter
D	Varmeudveksler	Heat exchanger	Wärmeaustauscher
E	Fordamper	Evaporator	Verdampfer

