

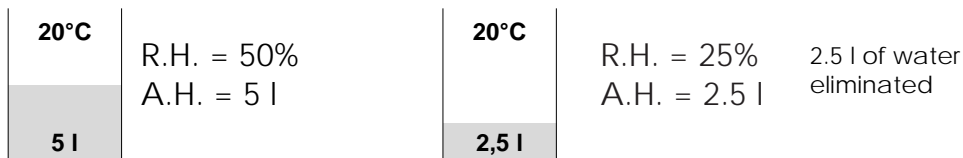
# Brief notes on humidity

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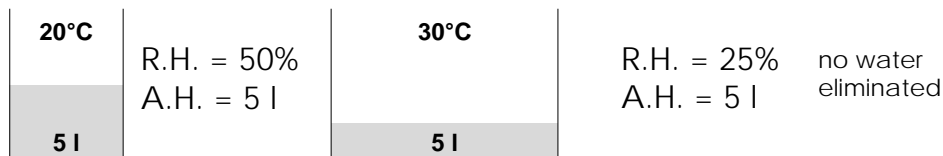
**A**ir naturally contains a certain amount of water in the form of water vapour and this determines its humidity level. However, the capacity of air to retain water vapour is limited and depends on the temperature. The higher the temperature, the greater the quantity of water vapour the air can retain. **The absolute humidity (A.H.)** value indicates the quantity of water vapour contained in 1 kg of air and is expressed in grams. **The relative humidity (R.H.)** value represents the actual quantity of water contained in 1 kg of air expressed as a percentage of the maximum quantity which can be contained under the same environmental conditions.

Experts have established that the optimum relative humidity for our organism and to preserve furniture and other objects varies between 45% and 60%. Ideally, rooms should therefore be kept within these values.

A dehumidifier is an appliance that eliminates the excess of moisture on the air (see below).



There is another way to decrease the relative humidity level. It is by increasing the room temperature. Increasing the temperature is equivalent to increasing the capacity of the container. When the air is at a temperature of 20°C, it is the equivalent of a 10 litre container, while at 30°C it is the equivalent of a 20 litre container. (see below).



Of course, just increasing the room temperature is not the solution to your excess moisture/condensation problem. Just warming the air means that you keep the moisture suspended in the air as vapour, but when the temperature drops, the water vapour forms condensation again.

However, heating combined with dehumidification (as in the combined mode) especially at low temperatures- e.g. below 10°C, or when drying washing is very useful. It changes condensation into water vapour, which can then be collected by the dehumidifier, in a fast and effective way.

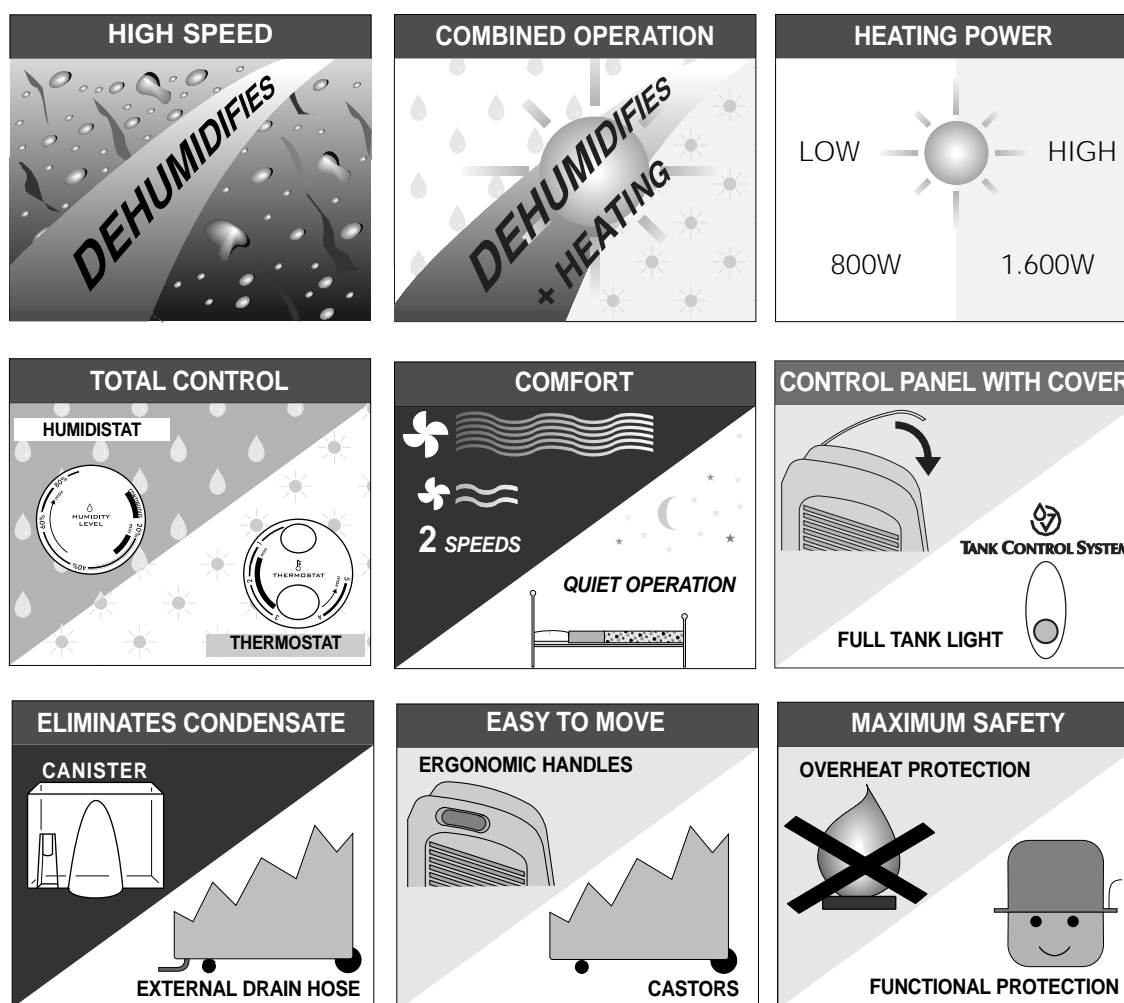
Dehumidifiers are the only real answer to controlling condensation and damp in the home.

# Introduction

This new dehumidifier is a combined function appliance (dehumidifying and heating) able to quickly and efficiently reduce the relative humidity in a room. Its combined function is particularly suitable for obtaining a rapid effect at low temperatures (below 10°C). In these conditions, the heater evaporates the condensation formed by the water vapour on walls, furniture and objects, allowing the humidity to then be eliminated efficiently by the dehumidifier. The compact unit is fitted with handles making it easy to transport. The combined operation is particularly suitable for drying clothes (COMBI DRYER function).

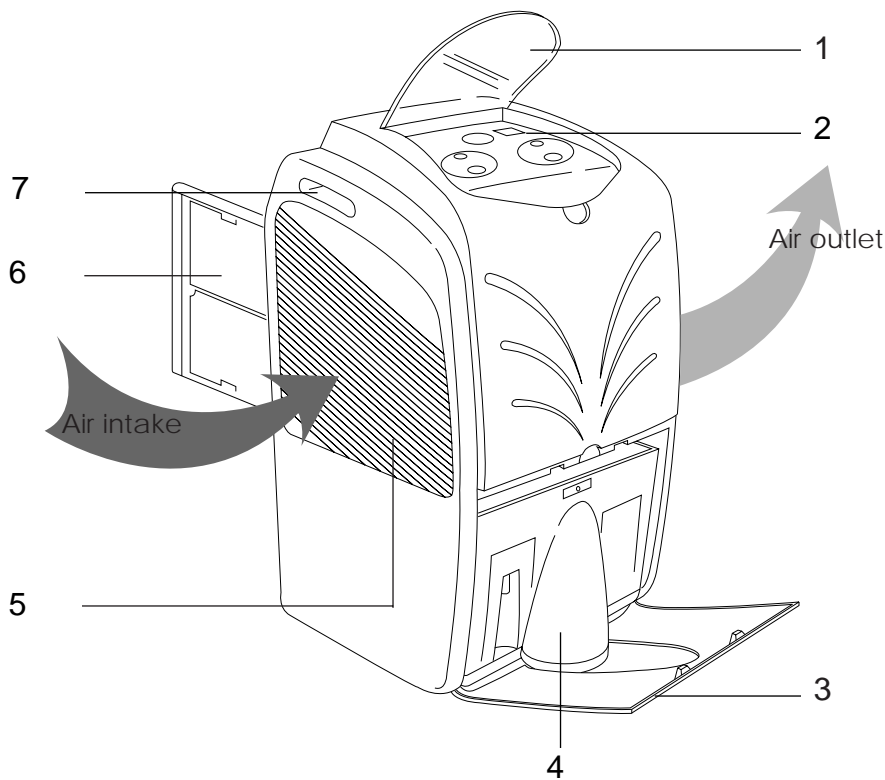
To ensure optimum results and maximum safety, read this instruction manual carefully before installing and using the appliance.

Advantages:



# Description/Accessories

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1. Control panel cover



2. Control panel

3. Canister door

4. Water collection tank
5. Air intake grille

6. Dust filter

7. Lifting handle

Accessory	Description	No. provided
	condensate drain hose	1 (2 m)
	rubber bung	1

## Important

- This appliance is designed to dehumidify and heat domestic rooms and must not be used for other purposes.
- It is dangerous to modify or alter the characteristics of the appliance in any way.
- If the appliance requires repair, always contact a Technical Service Centre authorised by the manufacturer. Always insist on original spare parts. Repairs carried out by unauthorised personnel may be dangerous and invalidate the guarantee.
- This appliance must be used exclusively by adults. Do not allow children to play with the appliance.
- The appliance must be connected to an efficient earth installation. Have your electrical circuit checked by a qualified electrician.
- The use of extension leads is not recommended, however if it is necessary then follow carefully the extension lead's instructions, and most importantly ensure that the extension lead is correctly rated in accordance with the heater being used and NEVER overloaded.
- The cable must be replaced by approved service personnel only.
- Before cleaning or maintenance operations, always unplug the appliance from the mains.
- Do not move the appliance by pulling the power cable.
- Do not install the appliance in rooms containing gas, oil or sulphur. Do not install near sources of heat.
- Keep the unit at least 50 cm away from inflammable substances (alcohol etc) or pressurised containers (eg. aerosol cans).
- Do not rest heavy or hot objects on top of the appliance.
- Clean the air filter regularly.
- Always transport the appliance upright or resting on one side. Remember to drain the tank before moving the appliance.
- R134a is a refrigerant gas which complies with the EEC ecological directives anyway do not pierce the refrigerant circuit used in this appliance. Therefore at the end of the working life of the appliance the unit should be taken to a recycling centre for disposal of the refrigerant.
- The materials used for packaging can be recycled. You are therefore recommended to dispose of them in special differentiated waste collection containers.

As with any electrical appliance, whilst the instructions aim to cover as many eventualities as possible, caution and common sense should be applied when operating your appliance, particularly in the vicinity of young children.

## Technical assistance

Keep the list of Technical Service Centres and identify the Centre nearest you.

## Electrical connections

**After moving the appliance, wait at least an hour before turning it on again.**

Before plugging the appliance into the power socket, check that:

- The mains power supply corresponds to the power supply indicated on the rating plate.
- The power socket and electrical circuit are adequate for the appliance.
- The power socket matches the plug. If this is not the case, have the plug replaced by a qualified electrician;
- The power socket must be adequately earthed;

Failure to respect this safety rule absolves the manufacturer from all liability.

This appliance is manufactured in compliance with EEC standard EN 55014 on the suppression of radio interference.

# Installation

**P**lace the dehumidifier in a suitable position, a hallway or landing are generally good sites. The appliance must be positioned so that the air intake and air outlet grills are at least 50 cm away from any wall or obstacle to ensure adequate ventilation.

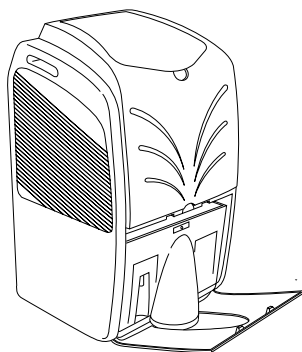
Condensate (collected water) can be drained in one of two ways:

## A) Draining into the tank

The condensate can be drained directly into the tank located inside the appliance (fig. 1).

The tank can be easily removed and has a handle making it simple to carry and empty.

fig. 1



## B) Continuous external draining

If the appliance is to be operated for long periods of time but you are unable to empty the tank, you are recommended to use the continuous drain facility.

- 1) Remove the rubber bung from the spout (Fig. 2).
- 2) Make a hole in the tank inside the spout using a fine drill bit (8mm) (Fig. 2).
- 3) To fit the rubber hose to the spout, open the door, remove the tank, pass the drain hose provided through the space between the door (at a slight angle) and the bottom of the appliance, reposition the tank and fit the hose onto the spout (Fig. 3).
- 4) Close the door.
- 5) Make sure the hose is on the level otherwise the water will remain in the tank. Check there are no kinks in the hose.

**N.B.:** Keep the rubber bung. You will need it to plug the hose or close the spout if you revert to draining into the tank (see point A).

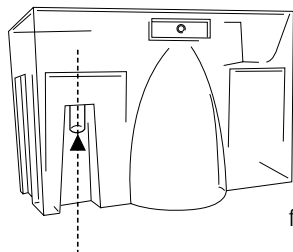


fig. 2

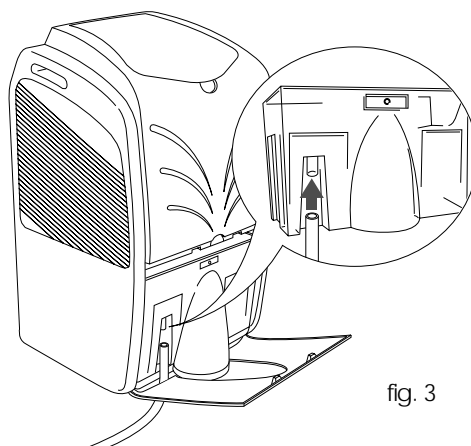
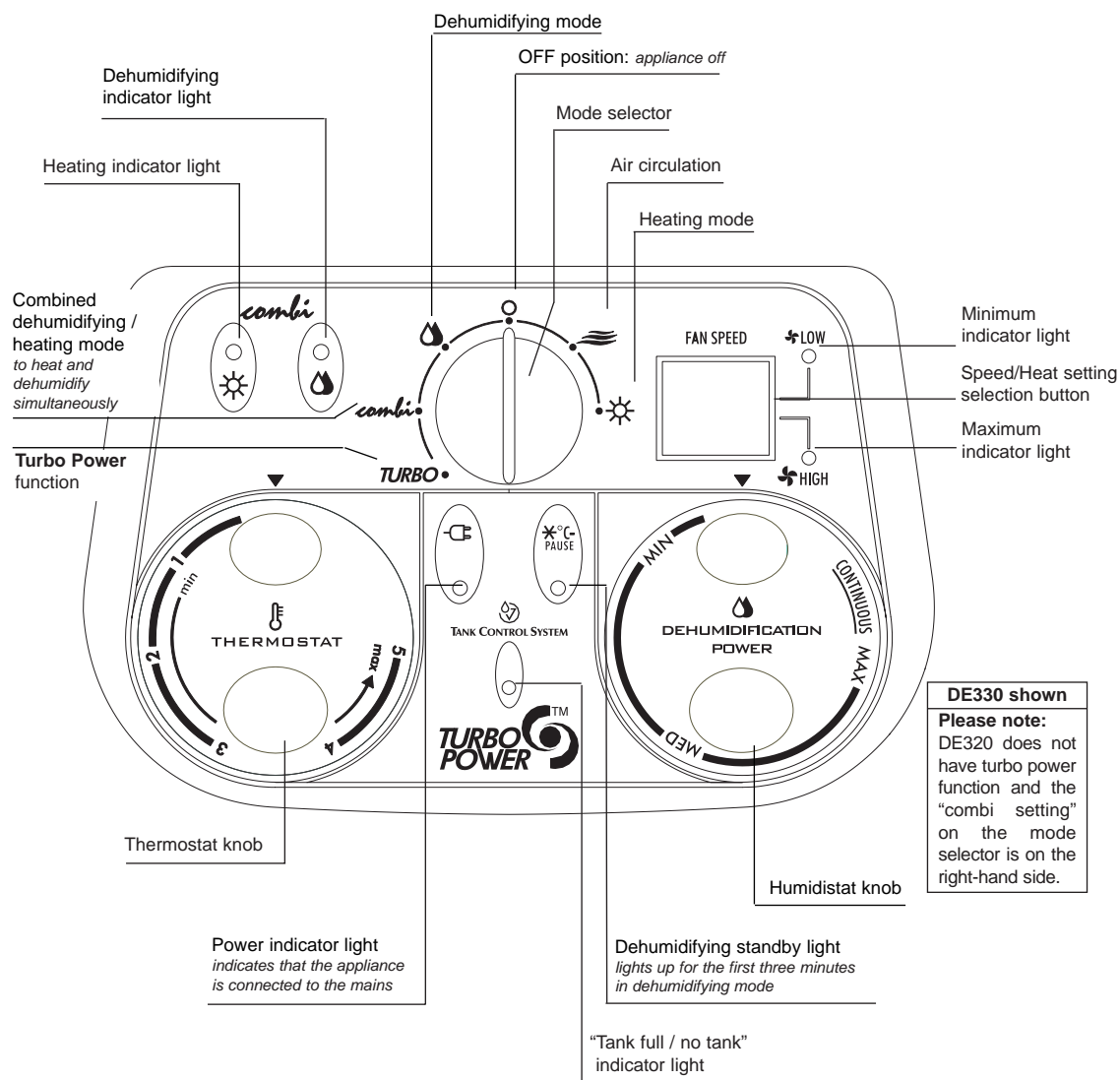


fig. 3

# Description of controls



## Tank control system

This dehumidifier is fitted with a special intelligent device to ensure correct operation.

A red indicator light on the control panel comes on to warn the user when:

1. the tank is full → empty the tank
2. the tank is missing → replace the tank
3. the tank is in the wrong position → position the tank correctly
4. in continuous drain: the hose is obstructed or the difference in level is too great → remove the obstruction.

Once the cause has been eliminated, the light goes out and the appliance resumes operation.

# Indicator lights



## **D**ehumidification standby/low temperature operation light

The light comes on in the following two cases:

- 1) To signal a delay of around 3 minutes on start-up of the appliance. This is due to a safety device protects the compressor.
- 2) To signal low temperature operation. When the room temperature is too low, the electronic low temperature operation device is activated. This device makes the appliance operate by alternating dehumidification cycles and fan only cycles, this it to avoid the formation of frost. For frequent use in cold environments, it is recommended to heat the room at the same time. This allows the dehumidifier to operate in conditions that ensure better performance and faster dehumidification.



## **P**ower indicator light

Indicates that the appliance is connected to the mains.



## **D**ehumidification indicator light

This switches on when the machine is dehumidifying. The light remains on only when the appliance is effectively dehumidifying; if the humidity in the room is already low enough, the light will be off.



## **H**eating indicator light

The light switches on both in heating and in the combi function when the room temperature is lower than the one set on the thermostat. When the room temperature is higher than the set one, the heating light is off.

Please note that in the combi function, when the desired humidity level has been reached, the appliance switches off even if the desired room temperature has not been reached and the heating light switches off.

## **F**an speed/heating power lights

With the speed selection button you can choose between the **high** or **low** fan speed. The relevant light will switch on.

# Selecting operating modes

## How to dehumidify

- 1) Plug the appliance into a mains socket. The power light comes on to show the appliance is connected to the mains.
- 2) Check that the "tank full/no tank" indicator light is off.
- 3) Turn the humidistat to the "DEHUMIDIFICATION" position (the dehumidification pause light comes on for the first 3 minutes due to the safety device).
- 4) The humidistat knob is used to adjust the dehumidification power and hence the level of humidity (MIN/MED/MAX + CONTINUOUS)

To easily select the right humidity level, we suggest you operate as follows:

Turn the humidistat to the "CONTINUOUS" position. When the humidity has reached the required level (this can take several weeks), slowly turn the humidistat knob anticlockwise until the dehumidifying light goes out. The dehumidifier will then keep the humidity in the room at the selected level automatically.

- 5) Select maximum or minimum fan speed (the relevant light comes on).

Note: When dehumidifying, the appliance not only dehumidifies but also slightly warms the air (1-2°C warmer than room temperature)

## How to heat

- 1) Plug the appliance into a mains socket.
- 2) Turn the mode selector to the "HEATING" position.
- 3) It is possible to adjust the room temperature by turning the thermostat knob on one of the available position (1-5). If you wish to heat the room, set the thermostat to the level of temperature desired.
- 4) Select the economy ( /1 = 800 W) or maximum ( /2 = 1600 W) heating level on the speed/heat selection button (the corresponding light comes on).

To easily select the right humidity level, we suggest you operate as follows:

Turn the mode selector to position 5

When the temperature in the room has reached the required level, slowly turn the thermostat knob anticlockwise until the heating light goes out.

The thermostat will then keep the temperature in the room at the selected level automatically.

## Combined mode, (dehumidifying + heating)

- 1) Plug the appliance into a mains socket.
- 2) Check that the "tank full/no tank" warning light is off.
- 3) Rotate the mode selector to the "COMBI" position. The ( ) light comes on together with the dehumidification pause light for the first three minutes (safety device), followed by the dehumidification light.
- 4) Select maximum or minimum fan speed (and consequently the electrical power). In this mode, the electrical power will be 1,990 W or 1.190 W.
- 5) It is possible to adjust the desired room humidity by turning the humidistat knob. and the thermostat, it is possible to adjust the desired room humidity (see chapters "How to dehumidify" and "How to heat")

Note: The appliance only stops completely when the level of humidity set is reached. If the tank is full, the tankfull warning light comes on and the refrigerant circuit stops however the heating function will continue to work.



## Selecting operating modes / Cleaning

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### Turbo power (DE330 only)

- 1) Plug the appliance into a mains socket.
- 2) Check that the "tank full/no tank" warning light is off.
- 3) Rotate the mode selector to the "TURBO" position. The heating light comes on together with the maximum, minimum and (for the first three minutes) dehumidifying standby lights; the heating function at maximum power (1600W) starts up; three minutes after (safety device) the dehumidifying light come on and the "continuous" dehumidifying function comes on. The electric power will be 1.990W.

With the Turbo Power function selected, the appliance automatically sets the maximum humidity level and temperature.

### Maintenance

Always remove the plug from the power socket before performing any cleaning or maintenance operations. For safety reasons, never wash the dehumidifier using a water jet.

### Cleaning the cabinet

- Clean the appliance using a damp cloth then dry with a dry cloth.
- Never use petrol, alcohol or solvents to clean the appliance.
- Never spray the appliance with insecticides or similar. These could cause the paint to flake or plastic parts to warp.

### Cleaning the air filter

If the filter is dirty, air circulation is compromised and the efficiency of the dehumidifying and air purifying functions decreases. It is therefore good practice to clean the filter at regular intervals. The frequency depends on the duration and conditions of operation. If the unit is used constantly or systematically, you are recommended to clean the filter once a week.

- It is good practice to clean the filter weekly.
- To remove the air filter, extract by pulling it as shown in fig. 4.
- Use a vacuum cleaner to remove dust accumulations from the filter. If the filter is very dirty, wash in warm water and rinse several times. The temperature of the water should not exceed 40°C. After washing the filter, allow to dry completely before putting it back in the appliance.

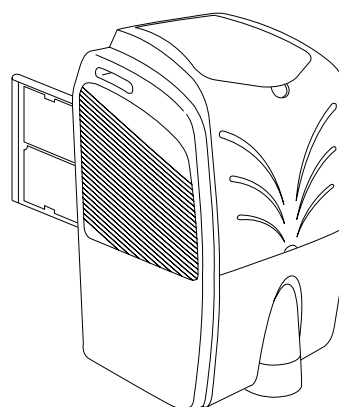


fig. 4

### If the appliance is not used for long periods

- Unplug from the mains socket and empty the tank.
- Clean and reposition the filter.
- Protect the appliance from dust by covering with a large plastic bag.

# Troubleshooting

Check the following points before calling your local Technical Service Centre.

Problem	Cause	Remedy
The appliance does not work in dehumidifying mode (indicator light off)	<ul style="list-style-type: none"> <li>•the appliance is not plugged in</li> <li>•there is no current</li> <li>•the humidistat is on minimum</li> <li>•the tank is full of water</li> <li>•the tank is incorrectly positioned</li> </ul>	<ul style="list-style-type: none"> <li>•plug into the mains</li> <li>•check the power supply</li> <li>•set the humidistat to the max or continuous position</li> <li>•empty the tank</li> <li>•gently place the tank in the correct position</li> </ul>
The appliance operates in dehumidifying mode (light on) but the humidity is not reduced	<ul style="list-style-type: none"> <li>•filter clogged</li> <li>•the temperature or humidity of the home is too low</li> <li>•the compressor is off because the defrosting device has cut in</li> </ul>	<ul style="list-style-type: none"> <li>•clean the filter</li> <li>•in certain conditions, it is normal for the appliance not to dehumidify. In these conditions we suggest you to heat the room to be dehumidified</li> <li>•switch the appliance off, wait 30 minutes then turn on again. If the problem is not solved, call the Technical Service Centre.</li> </ul>
The appliance does not operate in heating mode (light off)	<ul style="list-style-type: none"> <li>•the appliance is not plugged in</li> <li>•there is no current</li> <li>•the thermostat is set to minimum</li> </ul>	<ul style="list-style-type: none"> <li>•plug into the mains</li> <li>•check the power supply</li> <li>•set the thermostat to the required position</li> </ul>
The appliance operates in heating mode (light on), but does not heat	<ul style="list-style-type: none"> <li>•the area is too big</li> <li>•there are open windows</li> <li>•the electrical resistor protective device has cut in</li> </ul>	<ul style="list-style-type: none"> <li>•close the windows</li> <li>•to reset, turn the appliance off for several minutes, eliminate the cause of the overheating then turn on again</li> </ul>
The air conditioner doesn't work for about 3 minutes from turning on the appliance	<ul style="list-style-type: none"> <li>•the appliance's safety device has intervened</li> </ul>	<ul style="list-style-type: none"> <li>•wait for 3 minutes</li> </ul>

# Technical Characteristics

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Power supply voltage	See rating label
Absorbed power dehumidifying only	"
Absorbed power heating LOW:	"
HIGH:	"
Maximum absorbed power	"
Maximum absorbed current	"
Refrigerant	R134a
Air treated (min/max)	210/300 m <sup>3</sup> /h
Defrosting device	yes
Thermostat	yes
Humidistat	yes
Fan speeds	2
Electric resistor overheat protection device	yes
Compressor protection device	yes
Canister control	yes
Dust filter	yes
Dimensions LxHxD	365x610x375 mm
Weight (net)	21.5 kg.
Canister capacity	5.5 litres

Operating limits:	Heating	Dehumidifying
• temperature	Max. 27°C	5° - 32°
• relative humidity	Max. 95%	30 - 95%

Note: The quantity of water dissolved in the air drops as the temperature is reduced. For example, at 5°C and with 80% relative humidity, there are less than 5 grams of water vapour in every cubic metre of air.

In the event of humidity problems at low temperatures, you are therefore recommended to select the COMBI function.