# **Dehumidifier Demecto 20**



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Dear Customer,

Thank you for buying the Demecto 20 from Comedes GmbH.

You have purchased a powerful dehumidifier, which has been developed in accordance with the latest technical standards. To ensure that your device offers you faithful service for a long time, please study these operating instructions in detail, especially the safety information.

If you still have any questions about the device after you have read the operating instructions, please do not hesitate to contact us:

E-mail address: service@comedes.com If you give us your telephone number, we shall call you back free of charge.

We look forward to all customer feedback and would be delighted to hear from you.

Yours sincerely,

R PL

Philipp Thannhuber Managing Director

Comedes GmbH

#### WARNING:

Be sure to read the instructions before using for the first time. Any errors made in following the safety information and instructions may result in an electric shock, fire and/or serious injury. Keep all the safety information and instructions in a safe place for future use. **Important:** Make sure that the power plug is removed from the socket outlet before opening the device. Electric shock can cause fatal injury. Have repairs carried out only by an authorized workshop.

## Safety information

- Please note that the operating voltage is 230V 50Hz.
- Use the ON/OFF switch to switch the device "ON and OFF". Do not under any circumstances use the plug to switch the device "ON and OFF".
- Do not insert any objects (screwdrivers, etc.) into the inside of the device.
- Place the machine on a stable, horizontal and dry surface.
- Do not clean the dehumidifier with water. Never spray the device with water.
- Do not clean the device with inflammable liquids or cleaning agents.
- Keep children away from the device.
- Never place any objects on the device and don't sit on the device.
- Do not touch the air vents.
- Never cover the air inlet or outlet vents. Make sure that sufficient clearance to surrounding walls or objects (minimum 50 cm to the sides and rear, and 50 cm to the top and bottom) is maintained.
- Do not use the device if the power cable is damaged.
- Do not use the device in a washing room.
- Do not use the device in hermetically sealed spaces.
- Do not use the device in enclosed spaces smaller than 5m<sup>2</sup>.
- Do not use the device outside the operating temperature range of 5°C 32°C.
- Always run the device for at least 35 minutes (risk of damage to the compressor). The fact that the device switches automatically in automatic mode is perfectly normal.
- Before you move the device, switch it off with the Off/On switch first, then pull out the power plug and empty the condensate collector.
- Clean the air filter before it becomes heavily soiled. The device works most effectively with a clean filter.
- Keep the water tank free of foreign bodies.
- Set up the device well clear of heaters or other heat-generating units.
- The device must not be used in environments containing lots of dust or chlorine.
- Use the device only if your socket outlet is fitted with a residual current protective device (earth-leakage circuit-breaker) circuit-breaker.
- The device is allowed to be used only by persons who are physically and mentally capable of operating it in accordance with these operating instructions, or by persons who have been given training on the use of the device by a responsible person.
- Never switch the device on or off with wet hands.
- Never attempt to carry out any repairs or modifications, either of an electrical or a mechanical nature, on the device yourself.
- Do not allow children to play with any of the packaging such as sheets of plastic.
- Keep a sufficient distance to the air outlet of the device.
- Do not operate the appliance near explosive, flammable or corrosive materials.
- Plug the power cord firmly and securely into the socket.
- Operate the unit only to a grounded socket.
- Do not operate the dehumidifier on a power strip.
- If the device switches off, also wait at least 10 minutes before restart.

## Intended use

#### The dehumidifier is designed only for use for dehumidifying in privately used rooms

(e.g. living rooms, bedrooms, storage areas or basements). The user must observe all the operational parameters specified in this manual.

The device is allowed to be used only for its prescribed purpose. Any other use is deemed to be a case of misuse. The user/operator and not the manufacturer will be liable for any damage or injuries of any kind resulting from such misuse.

## **Operating instructions**

The device is designed for a temperature range of between 5°C and 32°C. At below 5°C the humidity level tends to be very low, such that there is no need for a dehumidifier. At above 32°C it is possible that the overheating guard will shut the device down automatically. The device does not have approval for operation outside the given temperature range. To enable the dehumidifier to dehumidify the air to optimum effect, it warms the air. The room temperature may therefore rise by 1-2 degrees. This is perfectly normal and increases the efficiency of the device.

To operate efficiently in energy terms, the device switches off automatically once the set humidity level has been reached. If the humidity level increases again, the device switches on again automatically.

The device switches off automatically when the water tank is full.

# **Technical data**

Product name: Voltage: Power rating: Power consumption: Dehumidifying capacity: (30°C 80% humidity)	Comedes Demecto 20 220~240V 50 Hz 480W 2,2 A 20 I / day
Weight:	13,7 kg
Permissible operating temperature:	5-32°C
Humidity operating range:	20-80% RH
Coolant / Quantity:	R134a/135g
Refrigerant group:	L1
Size of water tank:	2,1 l
Room size:	approx. 40m <sup>2</sup>
Dimensions:	340 x 220 x 495 mm
Noise:	< 46 dB

# Layout

Figure 1:

- Control panel Air outlet 1.
- 2.
- Carry-handle 3.
- Front cover 4.

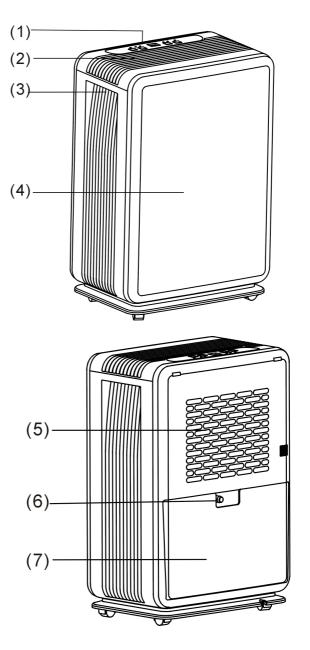
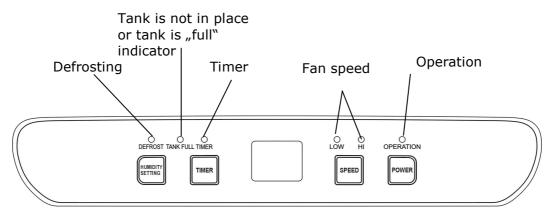


Figure 2:

- 5. Air inlet / Back side
- 6. Opening for hose drainage
- Water tank 7.

## **Control Panel**

Figure 3:



# Setting up instructions

Remove all the strips of adhesive tape which were used as transport braces. Make sure that the device is stood securely on a dry surface.

Ensure that the device cannot cause any water damage if water were to escape from the water tank.

Before you start the device, always let it stand in its final position for at least 2 hours to allow the refrigerant to settle and ensure that there is no risk of damage to the compressor.

Make sure that the device is not exposed to direct sunlight.

Check that the float is correctly positioned and moves easily.

Make sure that the water tank is correctly positioned.

Make sure that the socket outlet is fitted with a residual current protective device circuitbreaker (earth-leakage circuit-breaker).

If you are unsure whether this is the case, ask your electrician or use a personal protection plug (available from your DIY store).

To save power and to avoid potential danger, disconnect the device when it is not operated.

# Starting up

Check the cable for damage before you insert the power plug. The device may only be used if the power cable is in flawless condition. Plug in the power cable and switch the unit with the ON/OFF switch.

**IMPORTANT:** Always allow the device to run for at least 35 minutes before you switch it off, and never switch it on and off continuously in quick succession. Otherwise there is a risk of damage to the compressor.

The higher the humidity in a room and the higher the temperature in that room, the more effectively the Comedes Demecto 20 can dehumidify the air.

The compressor therefore generates heat and warms up the air in the room. This is perfectly normal and is no cause for alarm.

When the product shut down, please wait at least 3 minutes before moving the unit, so that all water can run into the water tank.

## **ON-/OFF Button:**

Press the ON-/OFF button to turn the unit on and off.

If the unit is switched on, the "operation"-LED flashs continuous.

If the unit is in defrost mode, the "operation"-LED flashs on and off.

After starting up the unit, it will start in "CO" mode.

## Speed:

Use the "Speed" button to switch between high (HI) and low (LOW) fan speed.

## Timer:

With the timer you can set the start- and run-time of the unit. You can set the time between 1 and 24 hours.

When the time is up, the unit will switch on or off.

When the timer LED is off, the unit is running in continuous mode.

To set a start time, press the timer button when the unit is in standby.

To set the run time of the dehumidifier, press the timer button when the unit is switched on.

After setting the run time, the time will be shown for about 5 seconds on the display, then the current humidity is displayed again.

If you press the timer button again, the current run time will be displayed again for 5 seconds.

## Humiditiy setting:

The device is equipped with a modern hygrostat (humidistat) and turns off automatically after reaching the desired humidity, to save power.

If the humidity increase in the room again, the Comedes Demecto 20 will automatically restart. Repeatedly pressing the humidity setting button, to set a target humidity of CO, 50%, 60%, 70%, 80% and AU.

The hysteresis of the device is approximately 3%.

During operation, the current humidity is displayed on the display. If the actual humidity is below 35% the display will show "LO". When the humidity is above 95% the display will show "HI".

## Continuous operation (CO):

With the setting "CO", the unit will dehumidify with maximum capacity and won't switch off till the the water tank is full.

## Comfort mode (AU):

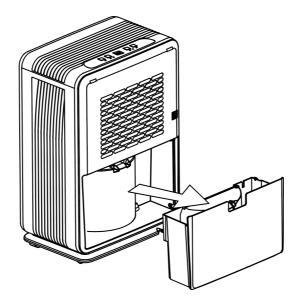
With this setting, the unit operates in a automatic mode, which is influenced by temperature.

- 1. At a temperature below 5 ° C, the compressor stops.
- 2. At a temperature between 5 ° C and 20 ° C, a target humidity of 60% is automatically set.
- 3. At a temperature between 20 ° C and 27 ° C, a target humidity of 55% is automatically set.
- 4. At a temperature above 27 ° C, a target humidity of 50% is automatically set.

**Important:** After setting a value, don't press any other button within 5 seconds, to the save setting.

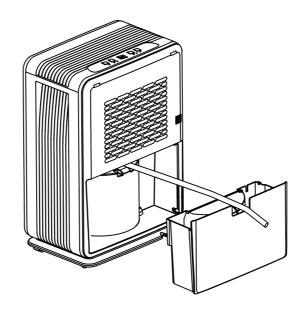
## **Emptying the water tank:**

When the water tank is full, the Comedes Demecto 20 switches off automatically and the red LED (tank "full" indicator, Fig. 3) will light up. You need to empty the water tank before you can continue using the Demecto 20.



# Hose drainage

The Comedes Demecto 20 can also be operated with a drainage hose. To do so, remove the water tank and fix a drainage hose  $\emptyset$ 12mm (not included). Put the hose into the recess on the tank, insert the tank again and guide the hose into a drain channel. Make sure that the drain is not higher than the connection on the device, to ensure that the water can drain off unhindered.



# **Recommendations for drying with the Comedes Demecto 20**

To achieve the best possible dehumidifying results with the Demecto 20 while using as little energy as possible, we offer the following tips: Since this manual can only offer a limited amount of advice, we would recommend that you consult the more detailed information available at: <a href="https://www.luftentfeuchter-tipps.de">www.luftentfeuchter-tipps.de</a>

## Basic principles of dehumidifying with the Comedes Demecto 20

The dehumidifier works in a similar way to a refrigerator with a refrigeration machine. This generates a cold surface (on the vaporizer) on which water condenses. Depending on the humidity and ambient temperature the water condenses at dew point temperature. To enable the dehumidifier to dehumidify, the temperature of the cold surface must be below the dew point temperature. Given that the water would freeze if the dew point temperature was negative, the dehumidifier only works if the dew point temperature is positive. To ensure that this is the case, the dehumidifier is equipped with a modern, temperature-controlled automatic defroster which maintains the vaporizer temperature between approximately 0°C and 5°C. For effective dehumidifying the dew point temperature for the Demecto 20 needs to be above 5°C. If the dew point temperature is below this level, dehumidifying will either not be possible at all or only very inefficiently. Refer to the following table to determine the dew point temperature in your particular case. Where dew point temperatures are too low it is advisable to turn on the heating. Gas radiant heaters are not suitable therefore.

	R H in %															
Temp. In ℃	20%	25%	30%	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%	85%	90%	95%
30°C	4,6	7,8	10.5	12,9	14,9	16,8	18,4	20	21,4	22,7	23,9	25,1	25.2	27,2	28.2	29,1
29°C	3,8	7,2	2,7	12	14	15,9	17,5	19	20,4	21,7	23	24,1	25,2	26,2	27,2	25,1
28°C	3	6,1	5,5	11,1	13,1	15	16,6	18,1	19,5	20,8	22	23,2	24,2	25,2	26,2	27,1
27°C	2,1	5.3	8	50,2	12,2	14,1	15,7	17,2	18,6	19,9	21,5	22,2	23,3	24,3	25,2	26,1
26°C	1.3	4.5	7,1	9,4	11,4	13,2	14,8	16.3	17,6	18,9	20.1	21,2	22,3	23,3	24,2	25,1
25°C	0,5	3,6	6,2	8,5	10,5	12,2	13,9	15,3	16,7	18	19.1	20,3	21,3	22,3	23,2	24,1
24*C	-0,3	2,8	5,4	7,6	9,6	11,3	12,9	14,4	15,6	17	18,2	19,3	20,3	21,3	22,3	23,1
23°C	1,1	1,9	4,5	6,7	8,7	10,4	12	13,5	14,8	16,1	17,2	18,3	19,4	20,3	21,3	22,2
22°C	-2	1.1	3,6	5,9	7,8	9,5	11,1	12,5	13,9	15,1	16,3	17,4	18,4	19,4	20,3	21,2
21°C	-2,8	0,2	2,8	5	6,9	8,6	10,2	11,6	12,9	14,2	15.3	16,4	17,4	18,4	19,3	20,2
20°C	-3,5	-0,3	1,9	4,1	5	7,7	9,3	10,7	12	13,2	14,4	15,4	16,4	17,4	18,3	19,2
19°C	-4,4	-1,4	1	3,2	5,1	6,8	8,3	9,8	11,1	12,3	13,4	14,5	15,5	16,4	17,3	18,2
18°C	-5,3	-2,3	0,2	2,3	4,2	5,9	7,4	8,8	10,1	11,3	12,5	13,5	14,5	15,4	16,3	17,2
17°C	-6,1	-3.1	-0,6	1,4	3.3	5	6,5	7,9	9,2	10,4	11.5	12,5	13.5	14,5	15,3	16,2
16°C	-6,9	-4	-1,4	0,5	2,4	4,1	5,6	7	8,2	9,4	10,5	11,6	12,6	13,5	14,4	15,2
15°C	-7,7	-4,8	-2,2	-0,3	1,5	3,2	4,7	6,1	7,3	8,5	9,6	10,6	11,6	12,5	13,4	14,2
14°C	-8,6	-5,7	-2,9	-1	0,6	2,3	3,7	5,1	6,4	7,5	8,6	9,6	10,6	11,5	12,4	13,2
13°C	-9,4	-6,5	-3,7	-1,9	-0,1	1,3	2,8	4,2	5,5	6,6	7,7	8,7	9,6	10,5	11,4	12,2
12°C	-10,2	-7,4	-4,5	-2,6	-1	0,4	1,9	3,2	4,5	5,7	6,7	7,7	8,7	9,6	10,4	11,2
11°C	-11,1	-8,2	-5,2	-3,4	-1,8	-0,4	1	2,3	3,5	4,7	5,8	6,7	7,7	5,5	9,4	10,2
10°C	-11,9	-9,1	-6	-4,2	-2,6	-1,2	0,1	1,4	2,6	3,7	4,5	5,8	6,7	7,6	8,4	9,2
8°C	-13.6	-10,8	-8,5	-6,5	-4,8	-3,2	-1,8	-0,5	0.67	1,8	2,83	3,82	4,77	5.66	6,48	7,32
6°C	-15.2	-12.5	-10.2	-6,3	-6,6	-4,49	-3,07	-2,1	-1.05	-0.08	0,85	1,86	2,72	3,62	4,48	5.38
4°C	-16,9	-14,2	-12	-10	-5,4	-6,11	-4,55	-3,69	-2,61	-1,79	-0,85	-0,09	0,78	1,62	2,44	3,2
2°C	-18,6	-15,9	-11,7	-11,9	-10,2	-7,77	-6,56	-5,43	-4,4	-3,16	-2,45	-1,77	-0,95	-0,26	D,47	1,2
0°C	-20,2	-17,6	-15,5	-13,6	-12	-10,5	-9,2	-7,9	-6.8	-5,8	-4,8	-3,9	-3	-2,2	-1,4	0,7

## Drying to deal with problems with condensation damp

Condensation damp generally occurs in basements when moist air penetrates the basement in summer and condenses on the cold walls of the basement. We recommend that you dehumidify the basement, room by room, in continuous operation. To start, run the device in continuous operation mode until you see that the amount of water that you are emptying out of the tank each day starts to reduce. Then move the device to the next room. Once you have dried all the rooms in this way we recommend that you select a central location for the device and then run it in automatic mode. We recommend a humidity setting of arround 50% to 60%. This method of dehumidifying is more efficient in energy terms than dehumidifying in automatic mode from the start, because if you do the latter the device will switch on and off a lot.

## Drying to deal with building defects or water damage

In the case of building defects or water damage, the cause needs to be eliminated first. Once this has been done the rooms can be dried using condensation driers such as the Demecto 20. In this case the dehumidifier is run in continuous operation mode. The ambient temperature needs to be at least 20°C (but not above 27°C). Additional heating can be provided by an electric heater if necessary. Gas radiant heaters are not suitable! To generate the air

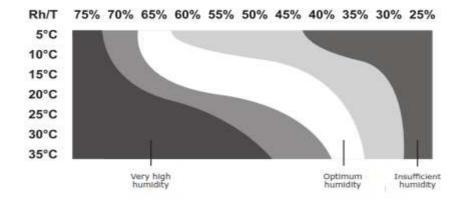
circulation required, fans can be used in the room. Please note that the insulation layer may also need to be dried, depending on the nature of the building defects. This will have to be undertaken by a specialist firm.

#### **Recommended humidity levels for rooms**

As a general rule this is dependent on the ambient temperature. The higher the temperature of the room, the lower the setting for the relative humidity needs to be, otherwise it will encourage the growth of fungus or mold in the room. A pleasant level

of humidity is between 35% and 65% relative humidity, depending on the ambient temperature.

The following diagram provides a point of reference for the optimum level of humidity at different ambient temperatures.



The diagram is based on the assumption that temperatures >=20 °C are for living quarters and temperatures <=20 °C are for basement quarters.

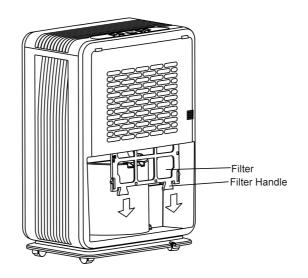
## Maintenance

The Comedes Demecto 20 is largely maintenance-free. To maintain the level of dehumidifying efficiency you need to clean the filter at least once a month, or more often if necessary.

#### To do this, switch off the device, pull the power cable

and remove the water tank at the back of the device. Now you can pull down the nylon filter. Rinse the filter with warm water and allow to dry.

You can then fit it back on the device.



Check the hose used for the drainage regularly for blockages and damage. If the hose is

blocked or damaged, replace it with a new one.

## Frequently asked questions (FAQ) For our latest operating instructions please go to: http://blog.comedes.com

## The device does not start.

- 1. Is the device plugged in correctly?
- 2. Is the water tank positioned correctly?
- 3. Is the red lamp on?
- 4. Is the fuse burned out?
- 5. If the above points are OK, try again in 10 minutes.
- 6. If the device is still not working, please contact service@comedes.com

## Inadequate dehumidifying results.

- 1. Is the dust filter soiled?
- 2. Is the air inlet or outlet vent blocked?
- 3. Is the temperature or humidity too low? (see the dew point table on page 10)

## The device does not switch off in automatic mode.

- 1. Are the doors and windows closed?
- 2. Is there a device in the room which generates vapor or steam?
- 3. Is the room too large?

## The device is very loud.

- 1. Is it stood on a firm, suitable surface?
- 2. Is the device in contact with the wall of the room?
- 3. If the floor is tiled, we recommend that you place a piece of carpet underneath.

#### The fuse constantly burns out.

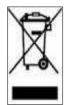
The RCD (earth-leakage circuit-breaker) constantly trips. Stop using the device and contact us at: service@comedes.com

#### The power cable or the plug get excessively warm.

Stop using the device and contact us at: <a href="mailto:service@comedes.com">service@comedes.com</a>

#### There are objects or water in the device.

Stop using the device and contact us at: service@comedes.com



Don't dispose this product with household waste. This dehumidifier must be returned to a collection station for electronic and electrical equipment. For further information on these collection station, please contact your local municipal administration, or the Comedes GmbH.

# EG Konformitätserklärung Comedes Demecto 20

EC Declaration of Conformity Declaration de Conformité CE EC Conformiteitsverklaring Declaración CE de Conformidad Declaración CE de Conformidad EC Konformitetsförklaring EC Yhdenmukalsuusilmoltus EC Konfirmitetserklæring EC Sananewie o конформности Dichlarazione di conformità CE Declaratje de conformitate CE AT Uyguniuk Deklarasyonu Dichlarazione di conformita CE EC Overensstemmelseserklæring EU pohlášení o konformitě EU Konformitjelentěs EU Izjava o skladnosti Ošwiadczenie o zgodności z normami Europejskiej Wspólnoty Vyhásenie EU o konformite



Der Unterzeichnende erklärt im Namen der Firma die Übereinstimmung des Produktes mit den folgenden Richtlinien und Standards. The undersigned declares in the name of the company that the product is in compliance with the following guidelines and standards.

Le soussigné déclare au nom de l'entreprise la conformité du produit avec les directives et normes suivantes. De ondertekenaar verklaart in naam van de firma dat het product overeensternt met de volgende richtlijnen en normen. El abajo firmante declara, en el nombre de la empresa, la conformidad del producto con las directrices y normas siguientes. O signatário declara em nome da firma a conformidade do produto com as seguintes directivas e normas. Undertecknad förklarar i firmans namn att produkten överensst ämmer med följande direktiv och standarder. Allekirioittanut ilmoittaa liikkeen nimissä, että tuote vastaa seuraavia direktiivelä la standardeta: Undertegnede erklærer på vegne av firmaet at produktet samsvarer med følgende direktiver og normer. Подлисавшийся лод'верждает от инени фирмыб что настояшее изделие соответствует требованиям следующих нормативных документов. Az alálró kijelenti, a cég nevében a termék megegyezését a következő irányvonalakkal és normákkal. Subsemnatul declară În numele firmei că produsul corespunde următoarelor directive și standarde. Imzalayan kiµi, firma adına ürünün aya@ida anılan yönetmeliklere ve normlara uygun olduµ@unu beyan eder. Il sottoscritto dichiara a nome della ditta la conformità del prodotto con le direttive e le norme seguenti. På firmaets vegne erklærer undertegnede, at produktet imødekommer kravene i følgende direktiver og normer. Níže podepsaný jménem firmy prohlašuje, že výrobek odpovídá následujícím směrnicím a normám. Az aláíró kijelenti, a cég nevében a termék megegyezését a következő irányvonalakkal és normákkal. Podpisani izjavljam v imenu podjetja, da je proizvod v skladnosti s sledec" imi smemicami in standardi. Niżej podpisany oświadcza w imieniu firmy, że produkt jest zgodny z następującymi wytycznymi i normami. Podpisujúci závázne prehlasuje v mene firmy, že tento výrobok je v súlade s nasledovnými smernicami a normami.

Haushaltsgeräte Norm

EN 60335-1:2012 EN 60335-2-40/A13:2012 EN 62233:2008

EMC Standard

EMF Standard

PAK

EN 55014-1/A2:2011 EN 55014-2/A2:2008 EN 61000-3-2/A2:2009 EN 61000-3-3:2008

ZEK 01.4-08

Landau a. d. Isar, 04.02.2015

Philipp Thannhuber

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