



# Operation Manual

## Dehumidifier MK200



Valid from 15.10.2018

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# 1. Important user information

## 1.1 Intended use of equipment

Munters dehumidifiers are intended to be used for the dehumidification of air. All other uses of the equipment, or use which is contrary to the instructions given in this manual, can cause personal injury and/or machine damage.

## 1.2 Warranty and obligations

The warranty period is valid from the date the equipment left our factory, unless otherwise advised in writing. The warranty is limited to a free exchange including free freight to delivery address of the faulty unit or components, which have failed as a result of faulty quality or defects in manufacture. Munters guarantees that the unit supplied has undergone thorough testing to ensure that it meets the specifications given here. All warranty claims must include proof that the fault has occurred within the warranty period and that the unit has been used in accordance with the specifications. All claims must specify the unit type and manufacturing number. This information is stamped on the unit identification plate, see the section Marking.

It is a condition of the warranty that the unit for the full warranty period is serviced and maintained by a qualified Munters engineer or Munters approved engineer. Access to specific and calibrated test equipment is necessary. The service and maintenance must be documented for the warranty to be valid. Always contact Munters for service or repair. Operating faults can occur if the unit is maintained insufficiently or incorrectly.

### 1.2.1 Note

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### 1.2.2 Safety

In this publication hazardous activities are indicated and preceded by the common hazard symbol.



#### **WARNING!**

*is used in this publication to indicate a possible danger that could lead to personal injury. An instruction is normally given, followed by a short explanation, plus the possible effects if the instruction is not followed.*



#### **CAUTION!**

*is used in this publication to indicate a possible danger that could lead to damage to the machine or other equipment and/or cause environmental damage. An instruction is normally given, followed by a short explanation, plus the possible environmental effect if the instruction is not followed.*

## 2. Installation

Before the installation and use of the appliance, carefully read the supplied instructions. The manufacturer is not responsible if an incorrect installation and use causes injuries and damages. Always keep the instructions with the appliance for future reference.



### **WARNING!**

*Flammable material. This appliance contains R290/Propane a flammable refrigerant.*

Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.

The appliance shall not be stored in a room with continuously operating ignition sources (for example; open flames, an operating gas appliance or an operation electric heater). Do not pierce or burn.

Be aware that refrigerants may not contain an odour.

Do not use water spray and steam to clean the appliance. Clean the appliance with a moist soft cloth. Only use neutral detergents. Do not use abrasive products, abrasive cleaning pads, solvents or metal objects.

If the supply cord is damaged, it must be replaced by the manufacturer, Munters Service or similarly qualified persons in order to avoid a hazard.



### **CAUTION!**

*Only a qualified person must install this appliance. Remove all the packaging. Do not install or use a damaged appliance.*

The appliance shall be installed, operated and stored in a room with a floor area larger than 4m<sup>2</sup>. Obey the installation instruction supplied with the appliance.

Always be careful when you move the appliance because it is heavy. Always wear safety gloves.

Make sure the air can circulate around the appliance.

Wait at least 4 hours before connecting the appliance to the power supply. This is to allow the oil to flow back in the compressor. Do not install the appliance close to radiators or other heat sources. Do not install the appliance where there is direct sunlight.

### 2.1 Electrical connection



#### **WARNING!**

*Risk of fire and electrical shock. The appliance must be connected to a grounded outlet.*

Make sure that the electrical information on the rating plate agrees with the power supply. If not, contact an electrician.

Always use a correctly installed shockproof socket and make sure that the power supply is sufficiently fused. Do not use multi-plug adapters and extension cables.

Make sure not to cause damage to the electrical components (e.g. mains plug, mains cable).

Contact the Munters Service or an electrician to change the electrical components.

The mains cable must stay below the level of the mains plug. Connect the mains plug to the mains socket only at the end of the installation. Make sure that there is access to the mains plug after the installation.

Do not pull the mains cable to disconnect the appliance. Always pull at the mains plug.

## 2.2 Operation



### **WARNING!**

*Risk of injury, burns, electrical shock or fire. Do not change the specification of this appliance.*

Be careful not to cause damage to the refrigerant circuit. It contains propane (R290), a natural gas with a high level of environmental compatibility. This gas is flammable.

If damage occurs to the refrigerant circuit, make sure that there are no flames and sources of ignition in the room. Ventilate the room. Do not put flammable products or items that are wet with flammable products near or on the appliance.

## 2.3 Disposal



### **WARNING!**

*Risk of injury. Disconnect the appliance from the mains supply. Cut off the mains cable and discard it.*

The refrigerant circuit of this appliance is ozone-friendly. Contact your municipal authority for information on how to discard the appliance correctly.

Do not cause damage to the part of the cooling unit that is near the heat exchanger.

## 3. Placement of dehumidifier

MK200 dehumidifiers are easy to move around, all you need to have is a power source for 220/240V, but bear in mind the following:

- The dehumidifier should not be placed near radiators or other heat sources or exposed to direct sunlight, as it will reduce performance.
- It is beneficial to use a radiator or heating fan to keep the temperature above +2°C.
- The dehumidifier should stand at least 25cm from a wall or other obstruction, for maximum air flow.
- Ideal is to put it in the center of the room / area.

### 3.1 Operation of dehumidifier

If the dehumidifier is transported horizontally, oil may have run out of the compressor and into the closed piping system. In such a case, let the dehumidifier stand for a few hours before being used. It is very important that the oil runs back into the compressor, otherwise the dehumidifier may be seriously damaged.

1. Check that the water reservoir is correctly placed and the float moves freely in the reservoir.
2. Connect the dehumidifier to a grounded power source.
3. Select fan speed.
4. Set the desired humidity level by means of the humidity control. See the section on the humidity control.

## 3.2 Automatic shut off and float switch

When the water tank is full, the dehumidifier is shut off automatically. The indicator light at the front of the dehumidifier will switch to red to show that the water tank should be emptied.

The float consists of a white plastic cylinder which hangs on two arms. The float rests on the surface, so it is lifted when the water level rises. When the float reaches a certain height, the dehumidifier responds to this and shuts down automatically to prevent overflow from the tank.

Please proceed as follows:

1. Disconnect the dehumidifier from the power supply.
2. Empty the water tank.
3. Push the water tank in until it touches the float.
4. Raise the forward edge of the water tank from below so that the whole water tank is slightly slanted.
5. Push the water tank home. The float should now be in the tank instead of being stuck behind it.
6. Reconnect the dehumidifier to the power supply.

## 3.3 Drainage of water

The dehumidifier is fitted with a hose connection. By attaching a hose to the dehumidifier the condensed water can be drained directly away.

### 3.3.1 Using the hose:

1. Disconnect the dehumidifier from the power source and remove the water reservoir to give access to the drip tray.
2. Attach the hose coupling to the thread on the dehumidifier and lead the hose to a drainage outlet. Check that the hose is not above the level of the drip tray.
3. Connect the dehumidifier to the power source.

### 3.3.2 Without hose, directly to a drain outlet:

1. Disconnect the dehumidifier from the power source and remove the water reservoir.
2. Place the dehumidifier directly over the drain so that the dehumidified water can drip through the hole at the base of the dehumidifier and into the drain.
3. Connect the dehumidifier to the power source.

### 3.4 Humidity Control

MK200 dehumidifier is fitted with a built in humidity control, which is set to the desired level of humidity. The control registers the current level of humidity and ensures that the dehumidifier is turned on and off automatically.

#### How to set the humidity control:

1. Set the humidity control switch to maximum position (Max Dry).
2. Set fan to position II (●●).
3. When the desired level of humidity is reached, the hygrostat knob is turned counterclockwise until the dehumidifier is turned off.

### 3.5 Air filter

The air filter at the rear of the dehumidifier ensures that the cooling coils are kept free from dust. It is important that the filter is kept clean so that air can flow freely through the dehumidifier. The filter should thus be changed when required.

Your dehumidifier is equipped with a SMF-filter that enhances the capacity of the dehumidifier and cleanses the air further. Please refer to the separate filter leaflet for installation and maintenance instructions.

### 3.6 Automatic defrosting

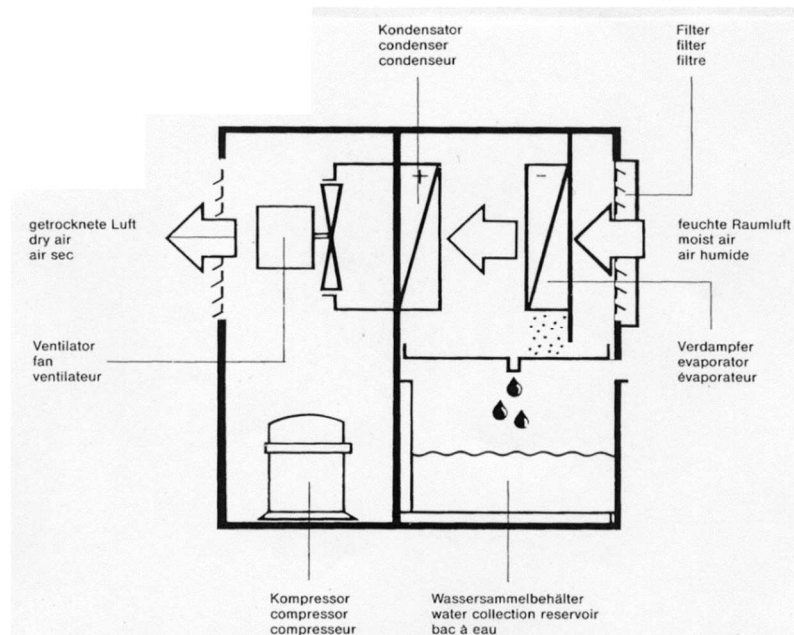
MK200 dehumidifiers are fitted with a control unit which ensures that the cooling coils are defrosted automatically when needed. The control shuts down the compressor, which causes the cooling of the coils to stop. The fan continues to draw the air at room temperature through the dehumidifier and thus melts the ice, and the water runs down into the tank. This defrosting system means that the dehumidifier works at temperatures as low as +2°C.

### 3.7 Fan

The fan ensures that air flows through the dehumidifier. Moist air is sucked in from the rear and goes via the cooling coil and the vaporizer to come out dry and warm at the front of the dehumidifier. Wood's dehumidifiers are fitted with two fan speeds.

- Position II (●●): gives a high airflow with maximum dehumidifying of air.
- Position I (●): gives a lower air flow which causes quieter operation and somewhat lower dehumidifying capacity.

## 4. Operation principle



### 4.1 Maintenance and cleaning



#### **WARNING!**

*Always disconnect the dehumidifier from the mains before cleaning!*

#### **General**

The dehumidifier requires very little service for continuous and undisturbed operation. Compressor and fan motor are maintenance-free..

#### **Filter cleaning**

As the dehumidifying capacity is decreasing with a dirty filter it should be cleaned regularly. This could be done either by using a vacuum cleaner washing with a mild detergent. Replacement filters are available from your Munters Service.

#### **Dehumidifier cleaning**

The front grill could be cleaned using a rap or vacuum cleaner. If the inside of the unit is dirty it has to be cleaned immediately. In this case please contact your Munters customer service.



## 4.2 Trouble shooting

Problem	Solution
Dehumidifier does not start	<ul style="list-style-type: none"> <li>- Check that dehumidifier is connected to power supply and fuse has not blown</li> <li>- If alarm light is on, check that water tank is empty and correctly placed in the dehumidifier. Also check that the float is not blocked.</li> <li>- Check that humidity control is working. Dehumidifier should start when humidity control is in “Max Dry” position.</li> </ul>
No dehumidification	<ul style="list-style-type: none"> <li>- Check that the fan is spinning</li> <li>- Check that air can flow through the dehumidifier. Front grid and filter should be clean and dehumidifier should stand 20-30 cm from walls.</li> <li>- Listen for sound of the compressor. But keep in mind that the dehumidifier might be in “defrost” cycle. Then the compressor is not working. Defrost cycle can take 35 minutes.</li> <li>- Check that there is no thick coating of ice forming on the cooling coils.</li> </ul>
High noise level	<ul style="list-style-type: none"> <li>- Increase distance between dehumidifier and surrounding objects.</li> <li>- Cooling coils may be touching each other and cause a ringing noise due to vibration. Disconnect dehumidifier from power supply and separate coils.</li> </ul>
Ice formation on cooling coils	<ul style="list-style-type: none"> <li>- Remove air filter at rear of dehumidifier and check that no dust or objects block the airflow.</li> </ul>
No water enters tank	<ul style="list-style-type: none"> <li>- Check for obstruction in drip tray above water tank.</li> </ul>
No automatic shut off when water tank is full	<ul style="list-style-type: none"> <li>- It is important that the float can move freely in the water tank. If it is blocked it might not respond to rising water levels and prevent dehumidifier from shut off.</li> </ul>
LED flashing green	<ul style="list-style-type: none"> <li>- There is a too low temperature in the room – heat the room</li> </ul>

If none of the above works, please get in contact with Munters-Service.

Tel.: +49 40 879 690-0

E-Mail: [service.dh@munters.de](mailto:service.dh@munters.de)

## 5. Technical data and warranty

### 5.1 Technical data

Moisture removal capacity at 20°C 60% r.H.:	6.8 L/24h
Operating range	Temperature: 2 – 35 °C
	Humidity: 30 – 90 % r.H.
Fan steps:	2
Airflow, Pos I (●) / Pos. II (●●):	ca.196 / 342 m <sup>3</sup> /h
Water tank:	11.4 Litre
Power supply:	1x230V, 50 Hz
Power consumption, max.:	250 Watt
Current, max.:	1.1 A
Refrigerant:	R290 (Propane)
Filling weight:	0,100 kg
Noise level:	38 / 60 dB
Dimensions, width / depth / height:	345 x 495 x 527 mm
Weight:	23 kg

#### Features:

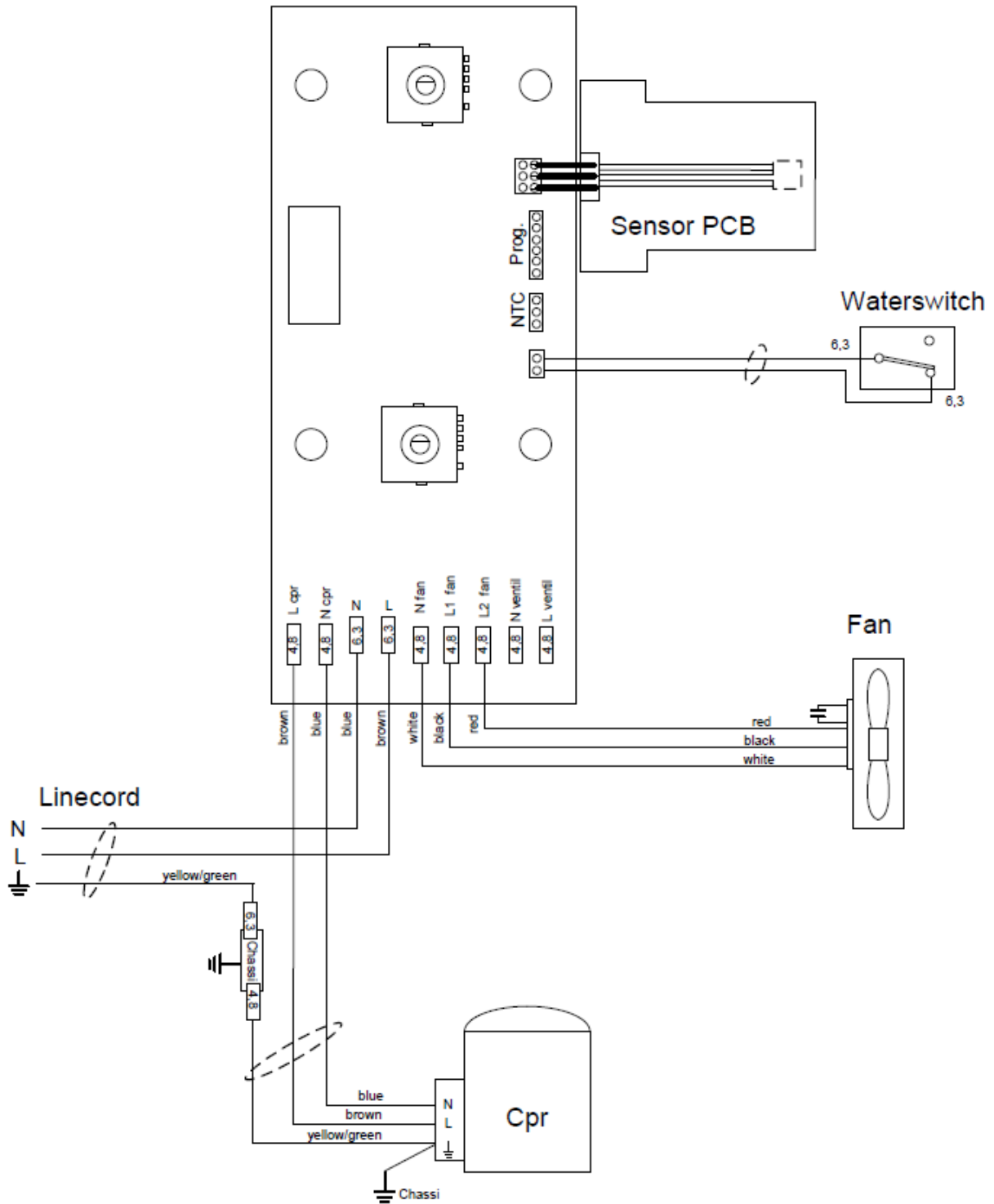
Casing:	metal, coated in white
Transport:	movable, 4 wheels
Defrost:	automatically
Electric control:	built in humidistat
Display:	indication “full water tank”
Condensate drain	into water tank
alternatively directly through:	drain connection 3/4”

### 5.2 Warranty

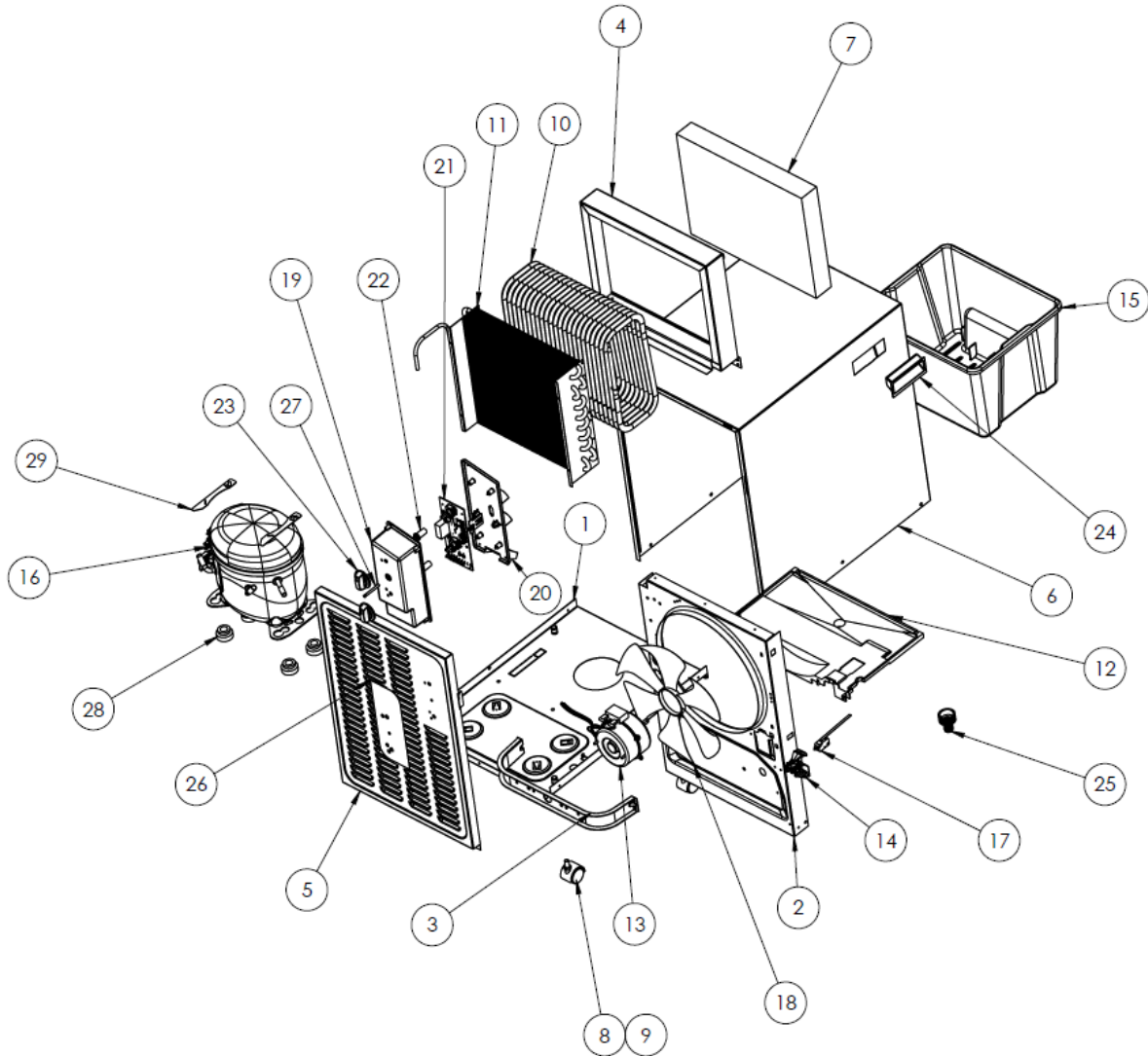
Warranty period is 24 months after delivery if nothing else has been agreed upon and documented. This warranty is limited to free of charge replacements and delivery to delivery address of parts which are faulty because of lack in quality or manufacturer failures. In case of any possible claim the customer has to prove that the fault occurred during the warranty period and the unit was operated within the given parameters.

In any warranty case the type description, serial number and order number has to be referred to and documented.

## 6. Wiring diagram



### 7. Explosion drawing



## 8. Spare parts list

Pos	Part	Article number
1	Bottom chassis	9073700400
2	Baffle	9073700401
3	Fan bracket	9073700402
4	Filter carrier	9073700403
5	Front grid	9073700404
6	Casing	9073700405
7	Permanent filter	9073700406
8	Wheel	9073700407
9	Axle	9073700408
10	Evaporator	9073700409
11	Condenser	9073700410
12	Drip tray	9073700411
13	Fan motor	9073700212
14	Float switch mounting clip	9073700412
15	Water tank	9073700413
16	Compressor	9073700414
17	Micro switch	9073700415
18	Fan blade	9073700233
19	Component carrier	9073700416
20	Carrier lid	9073700417
21	Circuit board + sensor	9073700418
22	Adapter	9073700419
23	Knob	9073700420
24	Handle	9073700421
25	Adaptor, 3/4" hose, Euro design	9073700422
26	Decor	9073700423
27	Light guide	9073700424
28	Compressor foot	9073700425
29	Compressor locking bracket	9073700426

## 9. CE Certificate

# EC – Declaration of Conformity

**MUNTERS**



**Munters GmbH  
Hans-Duncker-Straße 14  
D-21035 Hamburg  
Tel. +49 40 / 73 416 - 01**

hereby declares, that the units mentioned below,

**Dehumidifier type MK 200**


are in conformity with the following directives:

2014/35/EU:	Low Voltage Directive
2014/30/EU:	EMC Directive
2011/65/EU:	RoHS Directive

- and are manufactured in conformity with the following standards:

EN60335-1:	2010 Fifth edition
EN60335-2-40:	2002 + A1: 2005 + A2: 2005
EN62233:	2008
EN55014-2:	1997

Munters GmbH  
Hamburg, 15.10.2018  
Place and date

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P. Kruetzmann  
Head of order handling