

REMKO ETF 360 / ETF 460

Mobile dehumidifiers

Operation · Technology · Spare parts



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These operating instructions must be read carefully before commissioning/using the unit!

These instructions are part of the unit and must always be kept in the direct vicinity of the site of installation or at the unit.

We reserve the right to make changes; no liability for errors and misprints!

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Dehumidification

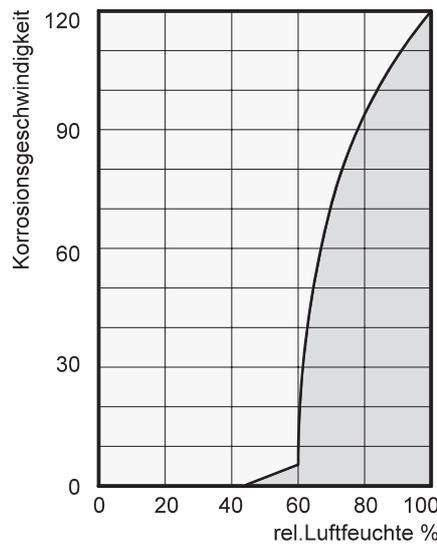
The interrelated processes occurring during dehumidification are based on physical laws. These are illustrated here in simplified form in order to explain the principle of dehumidification.

Using REMKO dehumidifiers

- No matter how well windows and doors are insulated, damp and moisture can penetrate even through thick concrete walls.
- The water volumes required for binding concrete, mortar, plaster, etc. are diffused out initially after 1-2 months under certain circumstances.
- Even moisture that has penetrated masonry following high water or flooding is released very slowly.
- This applies similarly, e.g. to the moisture contained in stored materials.

The moisture (water vapour) escaping from buildings or materials is absorbed by the ambient air. This increases its moisture content and ultimately results in corrosion, mould, rot, peeling of paint coatings and other unwanted moisture damage.

The diagram opposite shows an example of the rate of corrosion, e.g. for metal at different humidity levels.



It can be seen that the rate of corrosion below 50% relative humidity is insignificant and can be disregarded below 40% relative humidity.

The rate of corrosion increases considerably from 60% relative humidity. This humidity damage limit applies also to numerous other materials, e.g. powders, packaging, wood or electronic equipment.

Buildings can be dried out in different ways:

1. Heating and air exchange:

The room air is heated to absorb moisture to subsequently be discharged to the atmosphere. The total input energy is lost with the discharged, moist air.

2. Dehumidification:

The moist air in an enclosed room is continuously dehumidified according to the condensation principle.

In terms of energy consumption, dehumidification has one decisive advantage:

Energy expenditure is restricted solely to the existing room volume. The mechanical heat released through the dehumidification process is returned to the room.

With correct use, the dehumidifier consumes only about 25% of the energy required for the "heating and ventilation" principle.

Relative humidity

Ambient air is a gas mixture and always contains a certain amount of water in the form of water vapour. This water volume is expressed in g per kg dry air (absolute water content).

1m³ air weighs about 1.2 kg at 20°C

Depending on the temperature, each kg of air is only able to absorb a certain amount of water vapour. When this absorptive capacity is reached, reference is made to "saturated" air; this has a relative humidity of 100%.

Relative humidity is therefore understood to be the ratio between the amount of water vapour currently contained in the air and the maximum water vapour volume at the same temperature.

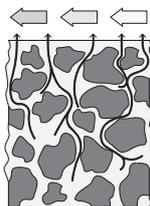
The ability of air to absorb water vapour increases with increasing temperature. This means that the maximum (= absolute) water content increases with increasing temperature.

Temp. °C	Water vapour content in g/m ³ at a humidity of			
	40%	60%	80%	100%
-5	1.3	1.9	2.6	3.3
+10	3.8	5.6	7.5	9.4
+15	5.1	7.7	10.2	12.8
+20	6.9	10.4	13.8	17.3
+25	9.2	13.8	18.4	23.0
+30	12.9	18.2	24.3	30.3

Drying materials

Building materials or structures can absorb substantial amounts of water, e.g. bricks 90-190 l/m³, heavy concrete 140-190 l/m³, lime-sand bricks 180-270 l/m³. The drying out of moist materials, e.g. masonry, takes place as follows:

- The contained moisture moves from the inside of the material to its surface

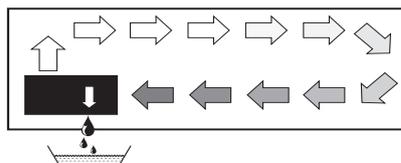


- Evaporation takes place on the surface = transition as water vapour to the ambient air

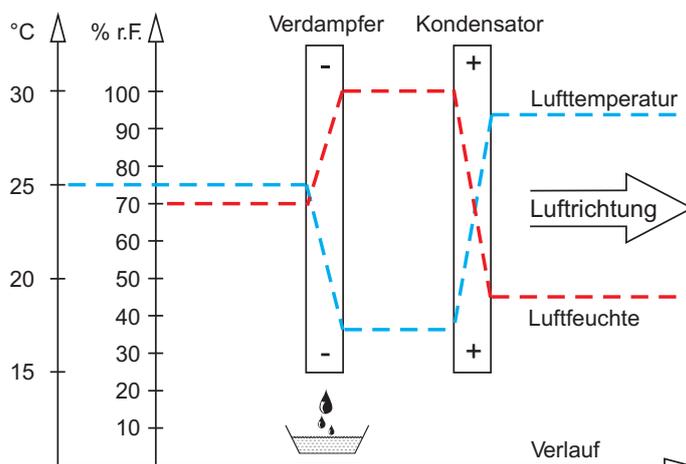
- The air enriched with water vapour continuously circulates through the REMKO dehumidifier. It is dehumidified and leaves the unit at a slightly higher temperature to absorb water vapour from anew

- In this way, the moisture contained in the material is gradually reduced
The material dries!

The produced condensation is collected in the unit and discharged.



The air flow is cooled on its way through or via the evaporator to below the dew-point. The water vapour condenses and is collected in a collection tray and discharged.



Condensation of water vapour

Since the maximum water vapour volume increases when the air is heated, but the contained water vapour volume remains the same, this results in a reduction of the relative humidity.

In contrast, when the air is cooled, the capacity to absorb the maximum water vapour volume reduces, the water vapour volume contained in the air remains the same and the relative humidity increases.

If the temperature falls further, the capacity to absorb the maximum water vapour volume is reduced until it is equal to the contained water vapour volume.

This temperature is called dew-point temperature. When the air is cooled below the dew-point temperature, the contained water vapour volume is larger than the maximum possible water vapour volume.

Water vapour is discharged. This condenses to water, moisture is removed from the air.

Examples of condensing are misted windows in winter or misting of a cold drinks bottle.



The higher the relative humidity, the higher the dew-point temperature, which is easier to fall below.

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Heat of condensation

The energy transferred from the condenser to the air is composed of:

1. Heat energy previously removed in the evaporator.
2. Electrical motive energy.
3. Heat of condensation released during liquefaction of the water vapour.

For the change from a liquid to a gaseous state, energy is necessary. This energy is called heat of evaporation. It does not cause any rise of temperature, it is only necessary for the change from a liquid to a gaseous state.

Vice versa, energy is released during the liquefaction of gas, which is called heat of condensation.

The amount of heat of evaporation and condensation is the same.

**For water, this is:
2250 kJ/kg (4.18 kJ = 1kcal)**

This shows that a relatively large amount of energy is released through the condensation of water vapour.

If the moisture to be condensed is not introduced through evaporation in the room itself, but from outside, e.g. via ventilation, the heat of condensation released in the process contributes towards room heating. In drying processes,

the heat energy is recirculated, which is consumed during evaporation and released during condensation. The supplied air during dehumidification creates a large amount of heat energy, which is expressed as a rise of temperature.

The time necessary for drying normally does not depend only on the unit capacity, but is rather determined by the rate at which the material or parts of the building release their moisture.

Safety notices

The units were subjected to extensive material, function and quality inspections and tests prior to delivery.

However, the units may constitute a hazard if used by persons who have not been instructed in their use, improperly or not for the intended purpose.

The following information must be observed:

- The units must not be installed or operated in locations subject to explosion hazards
- The units must not be installed and operated in oil, sulphur, chlorine or salt containing atmospheres.
- The units must be installed upright and stable.

- The units must not be exposed to a direct jet of water.
- The air inlet and outlet must always be kept free.
- The air intake grilles must always be kept free from dirt and loose objects
- The units must not be covered whilst in operation.
- Never insert foreign objects into the units
- The units must not be transported during operation.
- The units must only be transported upright (water spillage).
- All electric cables outside the units must be protected against damage, e.g. by animals, etc.

- The condensation collectors must be emptied prior to each change of location.

ATTENTION

Only qualified electricians may extend the connecting cable taking into account the rating of the unit, cable length and use locally.

ATTENTION

All work on the refrigeration system and electrical equipment must be referred to an authorised specialist company!

Description of the unit

The units are designed for universal and problem-free dehumidification.

Owing to their compact size, they are easy to transport and install.

The units operate according to the condensation principle and have a hermetically sealed refrigeration system, hot gas defrosting, low-noise and low-maintenance circulating fan as well as connecting cable with plug.

The fully automatic control, condensation collector with integrated overflow protection and drain connection for direct condensation drainage or condensation pump connection ensure trouble-free operation.

The units comply with the fundamental safety and health requirements of the pertinent EU directives.

The units are reliable and easy to operate.

The units are used wherever it is important to have dry rooms and consequential damage (e.g. through mould formation) is to be avoided.

The units are also suitable for drying and dehumidification of:

- Living areas, bedrooms, shower or cellar rooms
- Utility rooms, weekend homes, caravans
- Warehouses, archives, laboratories
- Bathrooms, washrooms and changing rooms, etc.
- Cellar rooms, store rooms

Operation

The circulation fan can be started by pressing the Power button. The installed moisture sensor controls compressor operation.

The circulation fan draws in the humid room air via the air inlet grille with filter, evaporator and following condenser.

At the cold *evaporator*, heat is extracted from the room air and cooled to below the dew-point. The water vapour contained in the room air deposits as condensation or frost on the evaporator fins.

At the *condenser* (heat exchanger), the cooled and dehumidified air is reheated and blown back into the room via the air outlet grille at a slightly increased temperature of about 5°C to 10°C above room temperature.

The conditioned drier air continuously mixes with the room air.

Due to the constant circulation of the room air through the unit, the relative humidity in the installation room is gradually reduced to the required humidity (% RH).

Depending on the room air

temperature and relative humidity, the condensed water drips constantly or only during the defrost phase into the collection tray and subsequently into the condensation collector located below.

A float in the condensation collector interrupts dehumidification via a microswitch when the collector is full.

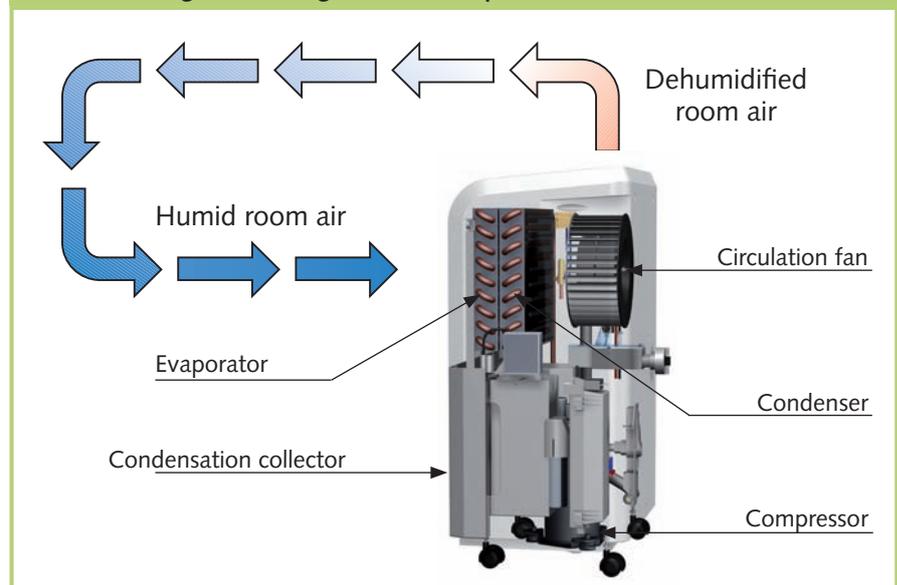
The units switch off and the "Collector full" indicator light on the control panel flashes.

This does not extinguish until the emptied condensation collector is refitted.

Dehumidification then restarts as required, possibly with a delay of about 3 minutes.

In unsupervised continuous operation with external condensation connection, the produced condensation is continuously drained via a hose connection or pumped out by the installed condensation pump as required.

Schematic diagram showing the mode of operation of the REMKO dehumidifier



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Installation

For optimal, economical and reliable operation of the unit, the following information must be observed in any event:

- The units must be installed stable and horizontal to ensure unhindered condensation drainage.
- The units should be placed in the centre of the room where possible to ensure optimal air circulation.
- It must be ensured that the room air can be sucked in and blown out freely.
- A minimum distance of 50 cm to walls must be maintained in any event.
- The units should not be installed in the immediate vicinity of radiators or other heat sources.
- Optimal room air circulation is achieved when the units

are installed about 1 m above ground.

- The room to be dried or dehumidified must always be closed from the ambient atmosphere.
- Open windows, doors, etc., as well as frequently entering and leaving the room should be avoided as far as possible.
- The units must not be used in dusty, chlorine or ammonia containing atmospheres.
- The unit output depends solely on the room conditions, room temperature, relative humidity and observance of the installation instructions.

Commissioning

Prior to each commissioning or depending on the local conditions, the air inlet and outlet grilles must be checked for clogging.



NOTE

Clogged grilles and filters must immediately be cleaned or replaced.

Important information prior to commissioning

- Do not pull at the power cord.
- After switching on, the units operate fully automatically until switched off controlled by the hygostat or float switch of the full condensation collector.
- The condensation collector must be fitted correctly.
The unit will not function if the condensation collector is not fitted correctly!
- If the units are to operate continuously with an external condensation connection, the respective chapter on page 11 must be observed.

Diagram showing installation of the REMKO dehumidifier



NOTE

*In order to prevent compressor damage, the units are provided with reclosing protection, which prevents immediate reconnection of the compressor after disconnection.
The compressor initially switches on again after a delay of about 3 minutes!*

Electrical connection

- The units operate on 230 V AC/50Hz
- Electrical connection takes place using the fitted power cord with safety plug.



NOTE

Electrical connection must take place to supply points using a residual-current protective unit according to VDE 0100, part 704. For installation of the units in damp areas such as utility rooms, shower rooms or similar, the units must be protected with a residual-current-operated circuit-breaker complying with the requirements.

- Extension of the connecting cable must only take place by qualified electricians, taking into account the cable length, unit installed load and local use.

ATTENTION

All cable extensions must only be used uncoiled or unwound.

NOTE

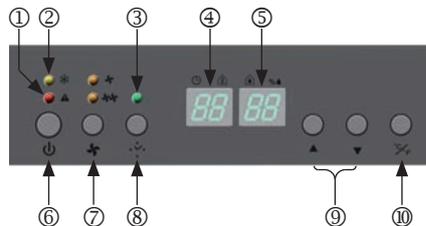
At room temperatures below 10 °C and a relative humidity below 40 %, economical/ efficient use of the unit is not ensured.

ATTENTION

To avoid overheating, the air outlet grille must not be covered when the unit is in operation.

Control panel

The control panel contains all controls and respective indicator lights.



- “Container full” indicator
- “Hot gas defrost” indicator
- “Timer activated” indicator
- Temperature indication and time setting display
- Relative humidity indication and setting display
- “Power ON/OFF” button
- Fan speed button
- “1 to 24 hour” timer button (in 1 hour steps)
- Button for setting hygostat 30 to 90% RH in 5% steps
- Button for indication in °C or °F

Switching on the units

- Connect the mains plug to a correctly fused mains socket-outlet.

NOTE

The units generate a short beep on connection to the mains supply and all indicators flash once.

- Press the Power button [⑥].
- Select the required air volume (min/max) by pressing the button [⑦].

Set the humidity

The dehumidification capacity depends solely on the room conditions, room temperature, relative humidity and observance of the information in the chapter “Installation”.

The higher the room temperature and relative humidity, the greater the dehumidification capacity.

For use in living areas, a humidity of about 45 to 60% is recommended.

In warehouses, archives, etc., a humidity of 40 to 45% should not be exceeded.

- Select the required humidity (% RH) with the buttons [⑨]. The set value is indicated for about 10 seconds on the display [⑤].
- The humidity can be set in steps of 30 - 90% RH.
- In a normal operating mode, the current humidity is indicated on the display [⑤] in % RH.

- The current room temperature is indicated on the display [④] in °C or °F.

Indication selection can be made by pressing the button [⑩].

NOTE

After reaching the required humidity, the compressor switches off and air circulation continues..

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Activate timer

With the timer function, automatic "ON/OFF" switching functions can be preselected up to 24 hours (in a one hour cycle).

Timer switching functions

Adjustment during operation:
The unit switches OFF depending on the selected number of hours.

Adjustment must be made with the unit switched off (the mains plug must be connected to a mains socket).

The unit switches ON depending on the selected number of hours.

- The timer function can be activated with the [Ⓢ] button and the required time selected in hour steps (max. 24 hours).

The entered value flashes in the display [④] for about 10 seconds.

An activated timer is indicated constantly by the indicator light [Ⓢ] at the control panel.

⚠ ATTENTION

All programmed values/ settings are deleted when the unit is disconnected from the mains.

💡 NOTE

The unit cannot be controlled via an external timer.

Automatic defrost

The moisture contained in the room air condenses on cooling and covers the evaporator fins with frost or ice depending on the air temperature and relative humidity (% RH).

The automatic defrost function integrated in the unit activates the defrost cycle as required.

The frost or ice on the exchanger surfaces can be defrosted using hot gas as necessary.

This particularly fast and effective defrost method guarantees a high dehumidification capacity.

Dehumidification is interrupted only briefly during the defrost phase.

The indicator light [Ⓢ] shows that the hot gas defrost cycle is active.

💡 NOTE

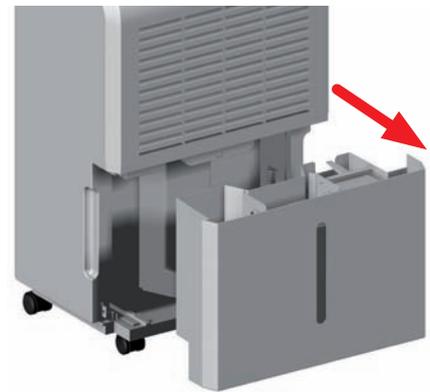
At a sufficiently high room temperature, no frost normally forms on the fin surface, obviating the need for defrosting. This makes the dehumidifier operate highly efficiently.

Emptying condensation collector

The installed condensation collector must be emptied from time to time depending on the amount of condensation produced.

When the condensation collector is full, operation is interrupted and the "Collector full" indicator light [①] flashes to show this status.

1. Carefully pull out the full collector.



2. Empty the collector at a suitable place.

💡 NOTE

After each emptying, the condensate container including float must be checked for possible damage, fouling, etc.

3. Carefully place the emptied and checked condensation collector back in the unit.

💡 NOTE

The unit will only start when the condensation collector is correctly seated.

The "Collector full" indicator light extinguishes and the unit continues to operate fully automatically.

Continuous operation with external condensation drain

The units have a condensation connection at the rear. A supplied (1m) special drain hose can be connected at this point.

1. Unscrew the screw cap [A] (turn counter-clockwise).
2. Pull the sealing plug [B] out of the connection.
3. Push the smooth end of the drain hose through the back of the screw cap [A].



4. Screw the drain hose with the screw cap [A] to the connection..



The condensation should preferably be discharged to a lower drain in unsupervised continuous operation.

When using an external collection container (tray, bucket, etc.), the unit must be raised appropriately.

ATTENTION

It must be ensured that the drainage hose is routed to the drain with a gradient to ensure that the condensate is able to flow out freely!

Continuous operation via the internal condensation pump

For uses at locations with no drain, the units are provided with a condensation pump specifically for this purpose.

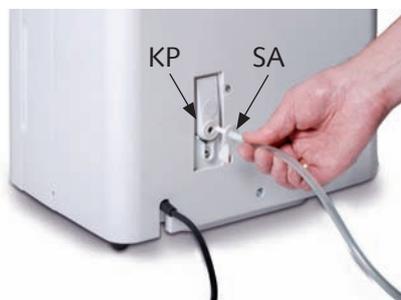
This allows various condensation drains to be provided to suit the conditions locally.

The patented condensation pump connection panel [KP] is located at the rear of the units.

Insert the supplied connection adapter [SA] here.

NOTE

The pump will only function when the supplied connection adapter [SA] is correctly connected.



The factory supplied hose length is 5 metres.

This can be extended on site to max. 10 metres if required.

A height different of up 5 metres can be bridged with the installed condensation pump.

ATTENTION

After connecting the adapter [SA], the pump is ready to use and can immediately pump water.

Decommissioning

Press the Power button [Ⓞ].

-All indicators and unit functions are now switched off-

The units must be disconnected from the supply if they are not going to be used for extended periods of time.



The condensation collector must be emptied completely and dried with a clean cloth.

Pay attention to subsequently dripping condensation!

Prior to possible storage, the units must be cleaned thoroughly and dried.

The internal collection tray must be emptied of residual condensation prior to each change of location.

To do this, open the condensation connection with the screw cap [A] and the sealing plug [B].

Tilt the unit back slightly and empty the residual condensation into a suitable container.

The condensation connection must subsequently be carefully closed again in reverse order.

For storage purposes, the units should be covered with plastic sheeting/foil or cotton cloth and stored in an upright position in a protected and dry location.

NOTE

The units must only be stored in upright in a suitable location protected from dust and direct sunlight.

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Transporting the unit

For easy and convenient transport, the units are provided with four transport rollers and additional recessed grips.

- The unit must be switched off and the plug disconnected from the mains socket prior to each change of location.
- The condensation collector must be emptied completely.

NOTE

Attention must be paid to dripping condensation. After switching off the unit, the evaporator can continue to defrost under the influence of the ambient temperature.

- As long as residual moisture is still present in the evaporator or water is present in the condensation collector, the units must only be transported upright.



- The transport rollers are only suitable for use on even and level surfaces.
- The units must be carried if surfaces are uneven.

ATTENTION

The power cord must never be used for pulling or fixing purposes.

Care and maintenance

NOTE

Regular care and maintenance is a basic precondition for a long useful life and trouble-free operation of the unit.

All moving parts are provided with low-maintenance permanent lubrication. The entire refrigeration system is hermetically sealed and must only be repaired by authorised specialist companies.

ATTENTION

Before carrying out work on the units, the mains plug must be disconnected from the mains socket.

- Observe regular care and maintenance intervals
- Depending on the particular operating conditions, the units should be tested by an expert for reliable operation as necessary, but at least once a year
- Only clean the units dry or with a moist cloth.
Do not use a jet of water!
- Do not use caustic cleaning agents or those containing solvents
- Only use suitable cleaning agents to remove heavy fouling
- Regularly check the air inlet and outlet grilles for fouling.
Clean or replace as necessary!

Cleaning the condenser and evaporator

For cleaning the interior of the unit and to gain access to the electrical components, it is necessary to open the unit housing.

NOTE

Only authorised specialists may undertake repairs and maintenance.

- Clean the condenser and evaporator by either blowing out with air, vacuuming or using a soft brush.
Do not use a jet of water!

NOTE

The fin exchanger must be cleaned with particular care as the delicate aluminium fins bend easily.

- Carefully clean the internal surfaces of the units, collection tray with condensation pump float, fan and fan housing.
- Check all unit components for possible damage and repair if necessary.
- Carefully refit all previously removed components in the reverse order.

ATTENTION

After carrying out all work on the units, an electrical safety test must be carried out in accordance with VDE 0701.

Filter cleaning

The unit is provided with an air inlet grille with integrated air filter to prevent damage.

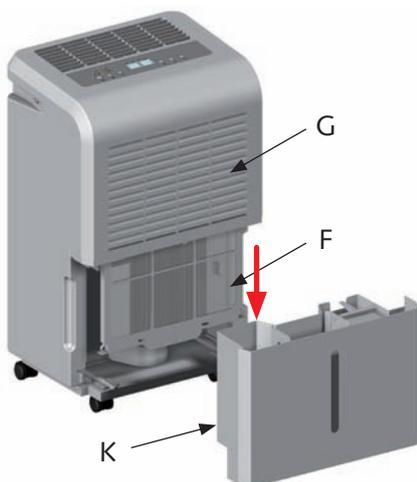
To prevent a reduction in performance and faults, the air inlet grille with filter must be checked as required, however at least every two weeks and cleaned if necessary.

1. Switch off the unit at the control panel (button [Ⓢ]).
2. Disconnect the mains plug from the mains socket.

⚠ ATTENTION

All programmed values/ settings are deleted when the unit is disconnected from the mains.

3. Remove the condensation collector [K].

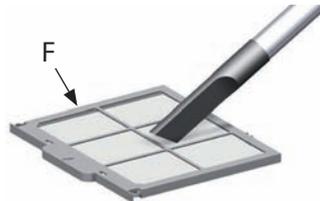


4. Pull out the air filter [F] located behind the air inlet grille from below.

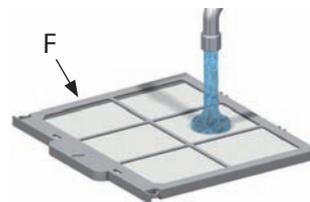
⚠ ATTENTION

The units must not be used without air inlet grille and air filter fitted!

5. Carefully clean the air filter [F] with a soft brush or vacuum cleaner.



6. A heavily clogged filter [F] can be washed in a warm (maximum 40°C) soap solution. Subsequently rinse thoroughly with clear water and allow to dry!



7. The air inlet grille [G] must also be checked for clogging and cleaned if necessary.

8. Prior to refitting, it must be ensured that the air inlet grille [G] and air filter [F] are completely dry and undamaged.

💡 NOTE

Heavily fouled or damaged air filters must be replaced with new ones. Only original spare parts must be used.

Troubleshooting

The units were manufactured using the latest production methods and tested repeatedly for perfect function.

If faults should still occur, the unit must initially be checked against the following list.

💡 NOTE

Repairs must only be carried out by authorised specialists.

The unit does not start:

- Check The timer programming Indicator light [Ⓢ] lit?
- Check the mains connection and local mains fuse -230V/1~/50 Hz
- Check the mains plug and power cord for damage
- Check the level in the condensation collector Check for correct seating *The "Collector full" indicator light [Ⓢ] must not flash!*
- Test the function of the condensation collector microswitch [MS].
- Check for free air intake and discharge *Overheating!*
- Check fuse on the control board *This work makes it necessary to open the unit which must only be carried out by an authorised specialist company.*

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The unit operates, but without condensation

- Check the hygrostat setting
The setting must be lower than the relative installation room humidity!
- Check the air inlet grille and air filter for fouling.
Clean or replace if necessary!
- Have the exchanger fins checked for fouling.
This work makes it necessary to open the unit which must be carried out only by an authorised specialist company!

The unit is noisy or condensation discharges

- Check that the unit is standing on a level and firm surface.
- Check that the unit is standing upright and stable.
- Have the collection tray or connection checked for dirt deposits.
This work makes it necessary to open the unit which must be carried out only by an authorised specialist company!

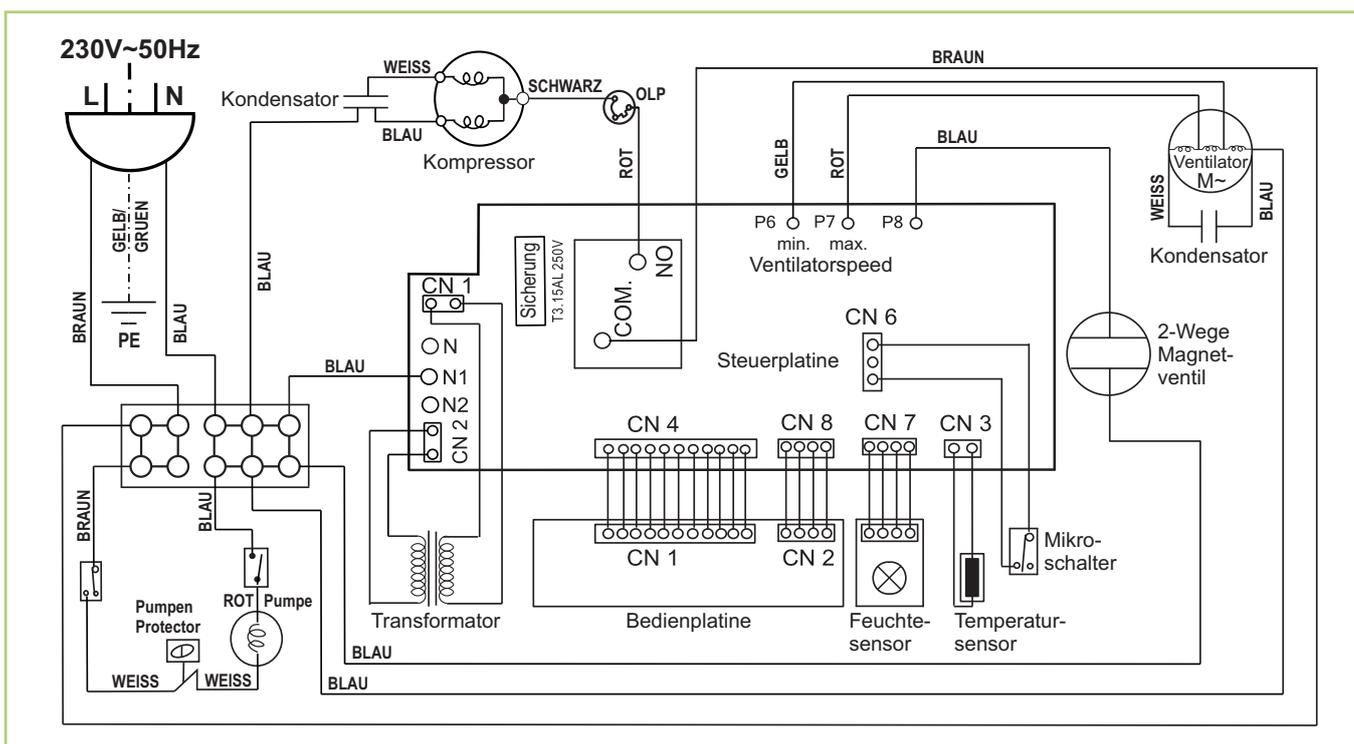
⚠ ATTENTION

All work on the refrigeration system and electrical equipment must be referred to an authorised specialist company!

💡 Note on refrigerant

The units are operated with environmentally-friendly and ozone neutral refrigerant R410a. According to statutory and local regulations, the refrigerant/oil mixture contained in the unit must be disposed of properly.

Electrical wiring diagram



Intended use

The units are designed and equipped for drying and dehumidification purposes. The units must not be used for any other purposes.

The units must only be operated by suitably trained persons who are familiar with the operation of the unit.

The manufacturer is not liable for any damage attributed to failure to observe the manufacturer's instructions or applicable statutory requirements or unauthorised changes to the unit.



NOTE

Operation for any other purpose than that described in these operating instructions is not permitted. Non-observance will result in all liability being disclaimed and invalidate the warranty.

Customer service and warranty

A precondition for any warranty claims is that the dealer or his customer has completed and returned the enclosed "warranty document" to REMKO GmbH & Co. KG.

The units were repeatedly tested at the factory to ensure that they function correctly.

Nonetheless, if the unit should have a fault that cannot be remedied by troubleshooting, your specialised dealer or contract partner should be contacted.



NOTE

Only authorised specialists may undertake repairs and maintenance.



Important information on recycling

The units are operated with environmentally-friendly and ozone neutral refrigerant R410a.

The refrigerant and oil mixture contained in the unit must be disposed of properly in accordance with the statutory and locally applicable regulations.



Environmental protection and recycling

Disposal of packaging

When disposing of the packaging material, please think of the environment. Our units are carefully packed for transport and delivered in sturdy cardboard packaging on a wooden pallet, if necessary. The packaging materials are environmentally-friendly and can be recycled. By reusing packaging material, you make a valuable contribution towards waste reduction and the conservation of raw materials. ***Only dispose of packaging material at the facilities provided.***

Disposal of the old unit

This unit must not be disposed of together with normal household waste, but must be taken to a special collection point for recycling electrical and electronic equipment.

The materials can be reused according to their marking.

The reuse or recycling of materials and old units makes an important contribution towards protecting the environment.

To find out about your nearest disposal facilities, contact your local authorities.



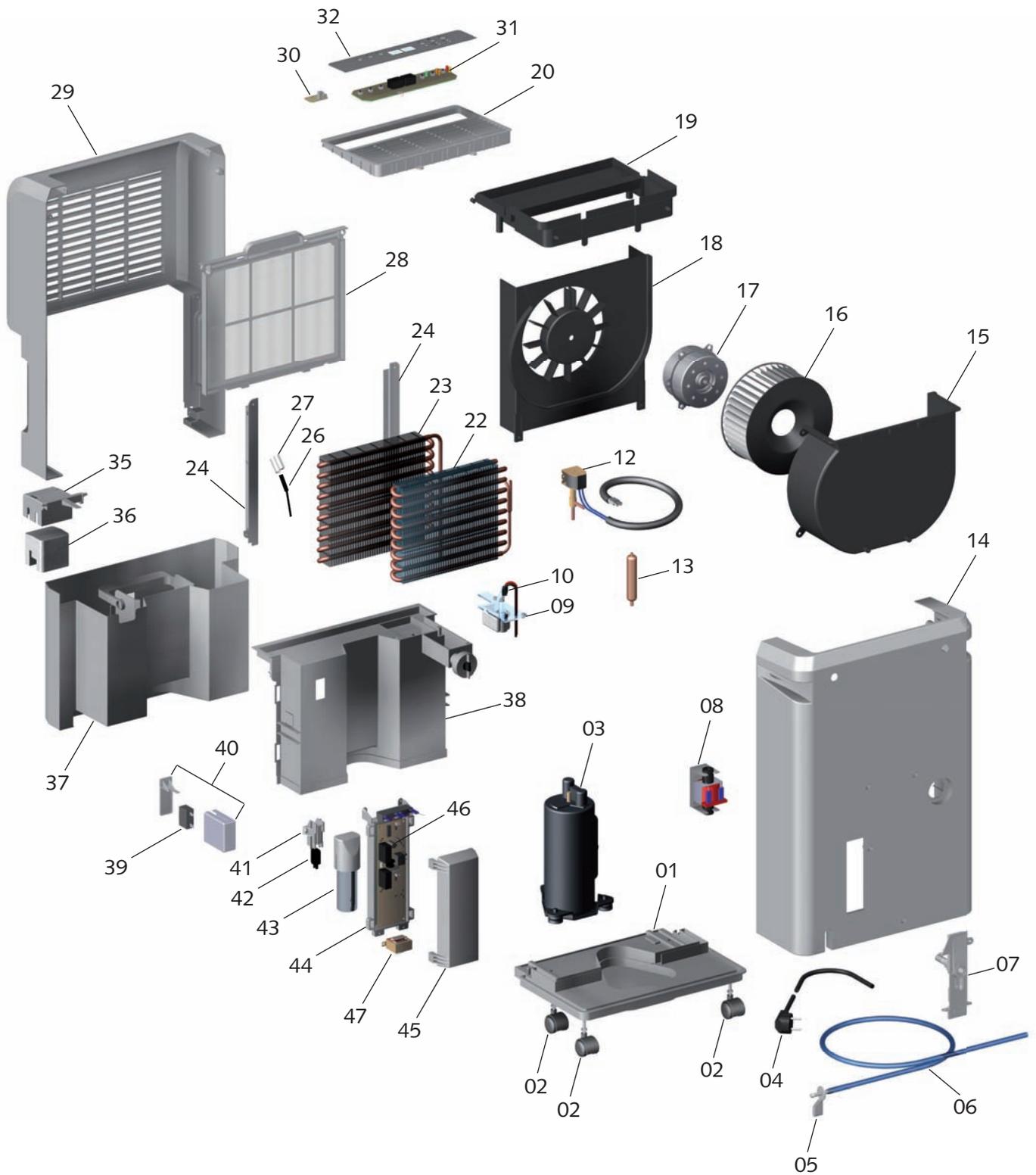
ATTENTION

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REMKO ETF 360/460

Exploded drawing



We reserve the right to make changes to dimensions and the design in the interest of technical advances.

Spare parts list

No.	Bezeichnung	ETF 360	ETF 460
		EDP No.	EDP No.
01	Base plate	1111850	1111850
02	Transport roller	1111851	1111851
03	Compressor, complete	1111852	1111853
04	Power cord with plug	1111854	1111854
05	Connection adapter (for condensation pump operation)	1111855	1111855
06	Condensation hose, running metre (for condensation pump operation)	1111856	1111856
07	Connection panel, complete (for condensation pump operation)	1111857	1111857
08	Condensation pump	1111858	1111858
09	Float, complete (for condensation pump operation)	1111859	1111859
10	Microswitch (for condensation pump operation)	1111860	1111860
12	Solenoid valve, complete	1111861	1111861
13	Dry filter	1111862	1111862
14	Rear panel	1111863	1111863
15	Fan housing	1111864	1111864
16	Fan impeller	1111865	1111865
17	Fan motor	1111866	1111866
18	Fan supporting plate	1111867	1111867
19	Supporting plate, top	1111868	1111868
20	Air outlet grille	1111869	1111869
22	Fin condenser	1111870	1111871
23	Fin evaporator	1111872	1111872
24	Guide rails (set)	1111873	1111873
26	Temperature sensor	1111874	1111874
27	Retaining bracket for temperature sensor	1111875	1111875
28	Air filter	1111876	1111876
29	Housing front panel	1111877	1111877
30	Sensor board (humidity)	1111878	1111878
31	Control board	1111879	1111879
32	Control panel (membrane)	1111880	1111880
35	Float housing	1111881	1111881
36	Float	1111882	1111882
37	Condensation collector, complete	1111883	1111883
38	Centre panel	1111884	1111884
39	Capacitor (fan motor)	1111885	1111885
40	Protective housing (capacitor)	1111886	1111886
41	Microswitch holder	1111887	1111887
42	Microswitch	1111888	1111888
43	Capacitor (compressor)	1111889	11118990
44	PC board housing	11118991	11118991
45	Cover (PC board housing)	11118992	11118992
46	Control board	11118993	11118993
47	Transformer	11118994	11118994
Not shown	Fuse (on control board)	11118995	11118995

When ordering spare parts, please always quote the EDP No. and serial number (see rating plate!)

REMKO ETF 360/460



Maintenance report

Unit type: Serial number:

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Unit cleaned - externally -																				
Unit cleaned - internally -																				
Fan impeller cleaned																				
Fan housing cleaned																				
Condenser fins, cleaned																				
Evaporator fins, cleaned																				
Fan function tested																				
Air inlet grille with filter cleaned																				
Unit checked for damage																				
Protective devices checked																				
All fixing screws checked																				
Check for electrical safety																				
Test run																				

Remarks:

.....

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1. Date: Signature	2. Date: Signature	3. Date: Signature	4. Date: Signature	5. Date: Signature
6. Date: Signature	7. Date: Signature	8. Date: Signature	9. Date: Signature	10. Date: Signature
11. Date: Signature	12. Date: Signature	13. Date: Signature	14. Date: Signature	15. Date: Signature
16. Date: Signature	17. Date: Signature	18. Date: Signature	19. Date: Signature	20. Date: Signature

The unit must only be serviced by authorised specialists in compliance with the statutory requirements.

Technical data

Series		ETF 360	ETF 460
Operating temperature range	°C	6 to 32	6 to 32
Working area humidity	% relative humidity	40 to 100	40 to 100
Max. dehumidification capacity	l/day	36	46
at 30°C/80% RH	l/day	32.9	42.3
at 20°C/70% RH	l/day	17.4	24.6
at 15°C/60% RH	l/day	8.2	9.9
Hot gas defrosting unit	---	Series	Series
Air volume flow max./min.	m ³ /h	320 / 280	310 / 270
Condensation collector capacity	l	6.5	6.5
Condensation pump	---	incorporated	incorporated
Hose length (condensation pump)	m	5 (10*)	5 (10*)
Delivery head (condensation pump)	m	5	5
Refrigerant ¹⁾	---	R 410A	R 410A
Refrigerant quantity	g	210	320
Power supply	V	230/1~	230/1~
Frequency	Hz	50	50
Max. nominal current consumption	A	2.7	3.95
Max. power input	kW	0.55	0.89
Sound pressure level LpA 1m ²⁾	dB (A)	53 / 49	53 / 50
Depth	mm	280	280
Width	mm	390	390
Height	mm	600	600
Weight	kg	16.5	21
EDP No.	---	1610360	1610460

¹⁾ Contains greenhouse gas according to Kyoto Agreement

²⁾ Noise measurement DIN 45635 - 01 - Category 3

* max. permissible hose length (Ø 8x6)

REMKO INTERNATIONAL

... and somewhere near you!

Take advantage of our experience and consulting services



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Consulting

Through intensive training, we ensure that the expert knowledge of our consultants is always up-to-date. This has given us the reputation of being more than just a good, reliable supplier: REMKO, a partner that helps solve problems.

Sales

REMKO not only has an extensive sales network in Germany and abroad, but also unusually highly qualified sales experts. REMKO field representatives are more than just salesmen: they are also customer consultants in the area of air conditioning and heating technology.

Customer service

Our units operate precisely and reliably. If a fault should occur, REMKO Customer Service is there to help you. Our extensive network of experienced specialised dealers guarantees you a fast and reliable service.

