

REMKO ASF 100

*Portable dehumidifier
with adsorption rotor*

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 near to the site of installation or on the unit.

Subject to changes; errors and typographical errors excepted!

REMKO ASF 100

Unit description

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 adsorption principle and are provided with ioniser, low noise and maintenance recirculation fans as well as a power cord with plug.

The fully automatic control, the condensate container with integrated overflow protection and the drain connection for direct condensate discharge 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 dehumidification is necessary and consequential damage (e.g. due to mould formation) is to be avoided.

The units are also suitable for drying and dehumidification of:

- Living rooms, bedrooms, shower or cellar rooms, lofts
- Utility rooms, weekend homes, caravans
- Museums, archives, laboratories
- Wellness areas, washrooms and changing rooms, etc.
- Garages, store rooms

Operation

The units can be switched on and off with the ON/OFF button. The LED of the last selected mode lights up in the control panel. The recirculation fan draws in the humid room air via the inlet grille with filter, condenser and following adsorption rotor.

In the internal regeneration circuit, the air flows across a heating element, dries the adsorption rotor and passes the humid air through the condenser.

On the cooler condenser, heat is removed from the room air and cooled to below dew-point. The water vapour contained in the room air deposits as condensate.

Depending on the room air temperature and relative humidity, the condensed water constantly drips through the integrated drain connection into the condensate container located below.

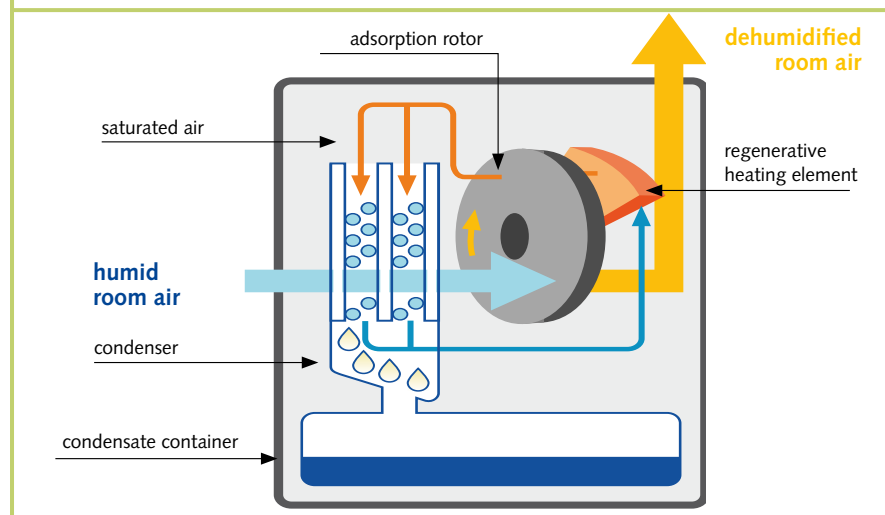
The conditioned drier air continuously mixes with the room air. Due to the constant circulation of the

room air through the unit, the relative humidity in the room is gradually reduced to the required humidity (45% relative humidity).

A float switch in the condensate container interrupts dehumidification via a microswitch when the container is full. The units switch off with an audible signal (5x) and the „FULL TANK“ indicator light illuminates on the control panel. This does not extinguish until the emptied condensate container is refitted. The units return to the previously selected mode.

In an unsupervised continuous mode with external condensate connection, the produced condensate is continuously drained via a hose connection on the condensate container.

The air flow is cooled on its way through or via the condenser to below the dew point. The water vapour condenses and is collected in a condensate trap and discharged.



Installation

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

- The units must be installed stable and horizontal to ensure unhindered condensate drainage.
- The units should be placed in the centre of the room if 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 40 cm to walls and 60 cm above the unit must be maintained in any event.
- The units must 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 the 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.

Electrical connection

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



NOTE

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.

- Cables must only be extended depending on the cable length, unit rating and taking local use into account.

Diagram showing installation of the REMKO dehumidifier



ATTENTION

All extension cables must only be used uncoiled.

ATTENTION

The unit must not be disconnected from the supply before the after-running time of 2 minutes has elapsed.

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Safety information

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

However, the units may constitute a hazard if used by untrained personnel, improperly or not for the intended purpose.

The following information must be observed:

- The units must not be installed and operated in hazardous areas.
- The units must not be installed and operated in oil, sulphur, chlorine or salt containing atmospheres.
- The units must be installed up-right and stable.
- The units must not be exposed to direct water jets.
- The air openings must always be kept free.
- The air inlet grilles must always be kept free of dirt and loose objects.
- The units must not be covered during operation.
- Never insert foreign objects into the units.
- The units must not be transported during operation.
- The units must only be transported upright.
- The condensate containers must be emptied prior to each change of location.

Commissioning

Prior to each commissioning or as required, the air inlet and outlet grilles must be checked for clogging.



NOTE

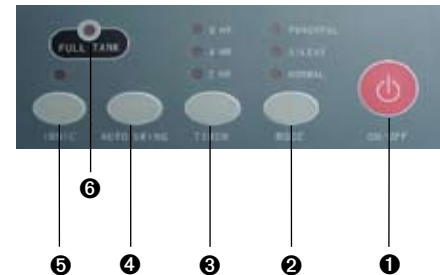
Clogged grilles and filters must immediately be cleaned or replaced.

Important information prior to commissioning

- All electrical extension cables must have a sufficient cross-section and only be used fully uncoiled.
- Do not pull at the power cord.
- After switching on, the units operate fully automatically until switched off controlled by the timer or float switch of the full condensate container.
- The condensate container must be fitted correctly.
The unit will not function if the condensate container is not fitted correctly!
- For safety reasons, the units are fitted with a tilt switch which prevents operation of a unit that has toppled over or is lying vertically.
The unit can only be restarted when it is placed upright!
- In an unsupervised continuous mode with external condensate connection, the produced condensate is continuously drained via a hose connection on the condensate container.

Control panel

The control panel contains control buttons and indicator lights.



1 ON / OFF

The unit is switched on and off with this button.

Note switch off delay of about 2 minutes.

2 MODE

This button is used for selecting the 3 modes "POWERFUL", "SILENT" and "NORMAL".

3 TIMER

This button is used to activate the switch off timer for 2, 4 or 8 hours.

4 AUTO SWING

This button is used to activate the automatic swing mode of the air directing flap.

5 IONIC

This button is used to switch on the ioniser for enriching the room air with negatively charged ions.

6 "FULL TANK" indicator light

This indicator light shows when the condensate container is full and requires emptying. When the unit is switched off via the float switch, the unit generates 5 audible signals.

Unit commissioning

1. Connect the units to a properly fused power socket.
2. Press the ON/OFF button on the control panel.



NOTE

As long as the unit is not disconnected from the power supply, the last selected mode (MODE, IONIC, and AUTO SWING) is active when the unit is switched on.

3. The air directing flap at the top of the unit opens fully. The unit is the „NORMAL“ mode and the ioniser and timer are not activated.
4. Select the required mode with the „MODE“ button.

NORMAL

This is the comfort mode. The unit regulates according to time (12 hours) or on reaching the preset humidity, the dehumidification capacity and fan setting.

relative humidity above 55%
 - max. dehumidification capacity
 - moderate fan setting
relative humidity 45 – 55%
 - min. dehumidification capacity
 - min. fan setting
relative humidity below 45%
 - dehumidification off
 - min. fan setting

SILENT

This is the most silent mode. Optimal for night operation.

Relative humidity above 45%
 - min. dehumidification capacity
 - min. fan setting
relative humidity below 45%
 - dehumidification off
 - min. fan setting

POWERFUL

This is the most powerful mode.

relative humidity 45 – 55%
 - max. dehumidification capacity
 - max. fan setting
relative humidity below 45%
 - dehumidification off
 - max. fan setting



ATTENTION

After 12 hours operation at maximum power, the control automatically selects the min. power setting.

„AUTO SWING“ button

This button is used to activate the oscillating function of the air directing flap. Pressing the button again stops the flap at the respective position. The most favourable air flow position can be selected in this way. The swing function serves to improve the air distribution within the room.

Electronic program sequence

Mode	Power consumption	Fan setting	Relative humidity
NORMAL	2. Setting / 560W	medium	above 55%
	1. Setting / 340W	min.	45 - 55%
	—	min.	below 45%
SILENT	1. Setting / 340W	min.	above 45%
	—	min.	below 45%
POWERFUL	2. Setting / 560W	max.	45 - 55%
	—	max.	below 45%

After 12 hours continuous operation at max. power setting, the control automatically selects the min. power setting. If the relative humidity subsequently falls below 45%, the dehumidification function is switched off.

The fan continues to run at minimum speed for moisture measurement. If the relative humidity subsequently rises above a value of 45% again, the minimum dehumidification setting is activated. Return to the maximum power setting can only take place via the ON/OFF button manually.



The following information must also be observed:

- Free air flow must be ensured. **This ensures optimal unit operation!**
- It must be ensured that sensitive items, e.g. indoor plants are not placed directly in the air flow.

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IONISER

The unit has an ioniser generator for the generation of negative ions.

A high concentration of negative ions occurs, e.g. in mountainous regions, at waterfalls and in forests and the air we inhale is „pure“. Only a small ion concentration is present in rooms.

Here, the ion generator is able to enrich the oxygen molecule ions in the circulated air and provide a pleasant atmosphere.

Also, suspended and dust particles in the air are bound so that natural air purification can take place.

As a result of ionisation, the dust is able to deposit on smooth surfaces and removed manually.

This function is active in all modes after selection.



NOTE

The housing and filter cleaning intervals reduce when using the ioniser.

TIMER

This button is used to program a decremental switch off timer. The timer can be set to 2, 4 or 8 hours by pressing the button repeatedly. Pressing the button again switches off the timer.

Empty condensate container

The installed condensate container must be emptied from time to time.

When the condensate container is full, dehumidification is interrupted with the generation of an audible signal.

The “Tank full” indicator light shows that the unit has switched off.

1. Carefully pull out the full tank.



2. Open the slider in the corner of the container and pour out the water into a drain.



NOTE

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

3. Carefully place the emptied condensate container with closed slider in the unit.

The “Tank full” indicator light extinguishes and the unit continues to operate fully automatically.



NOTE

The unit will only start with a correctly fitted condensate container.

Continuous operation with external condensate connection

The condensate containers are provided with a special connection at the back.

After removing the sealing plug, a suitable drainage hose can be connected.



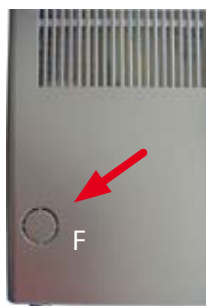
Connection external diameter = 11mm



NOTE

Also when using an external condensate hose, the condensate container initially fills up to the level of the connection before condensate discharges from the hose.

1. Remove the cover [F] from the rear wall of the unit with a suitable tool.



2. A suitable drainage hose of sufficient length can be routed to the outside through the free opening.



The condensate must preferably be discharged to a lower located outlet in unsupervised continuous duty.
When using an external container (tub, bucket, etc.) the unit must be placed in a raised position.

⚠ 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!

Decommissioning

Switch off the unit with the ON/OFF button on the control panel.



The mode LED extinguishes. The unit initially switches off completely after lapse of a preset after-running time of 2 minutes.

⚠ ATTENTION

*Never disconnect the unit from the power supply during operation by pulling out the mains plug. This can damage the control electronics. **Damage of this kind is not covered by the warranty.***

If the units are not used for extended periods of time, they must be disconnected from the power supply.



The condensate container must be emptied completely and dried with a clean cloth.

Pay attention to subsequently dripping condensate!

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

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

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

Unit transport

The units are provided with a handle for easy and convenient transport.



- The unit must be switched off and the plug removed from the power socket each time before the unit is moved to a different location.
- The condensate container must be emptied completely.

💡 NOTE

Attention must be paid to dripping condensate. Condensate can still drip after switching off the unit.

- As long as residual moisture is still present in the unit or water is present in the condensate container, the units must only be transported upright.

⚠ ATTENTION

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

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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.



ATTENTION

Before carrying out all work on the units, the mains plug must be disconnected from the power 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, however 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 if necessary!

Filter cleaning

The unit is provided with an 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 once a week and cleaned if necessary.

1. Switch off the unit with the button. **Note the after-running time!**
2. Disconnect the plug from the power socket.
3. Pull the air inlet grille out of the unit at the recessed grip [G].



ATTENTION

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

4. Clean the air inlet grille with warm water or a vacuum cleaner.



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



6. It must be ensured that the grille with filter is completely dry and undamaged prior to refitting.



NOTE

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

Troubleshooting

Cleaning internal components



NOTE

Only authorised specialists may carry out adjustments and maintenance.

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

- Clean the components either by blowing out, suction, inlet grille or with a soft brush. Do not use a jet of water!



NOTE

Particular care must be taken when cleaning the adsorption rotor as the surface must not be subjected to any mechanical load.

- Carefully clean the internal surfaces of the unit, condensate trap with hose connection, 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.

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

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



NOTE

Only authorised specialists may carry out adjustments and maintenance.

The unit does not start:

- Check unit installation (tilt switch)
The unit will only operate in an upright position!
- Check the supply connection and system fuse 230V/1~/50 Hz on-site
- Check the mains plug and power cord for damage
- Check the condensate container for level and correct seating
The "FULL TANK" indicator light must not light up!
- Check the microswitch of the condensate container
- Check for free air flow
Overheating!
- Check the miniature fuse on the control pcb

The unit operates, but with no condensate formation:

- Check the room temperature
The operating range of the unit is between 1°C and 40°C
- Humidity has not reached the fixed value (45% relative humidity)
- Check the air inlet and outlet grilles for fouling
Clean or replace if necessary!
- Have the exchanger surface of the absorption rotor checked for fouling.
This work makes it necessary to open the unit and must be carried out only by an authorised specialist!

The unit is loud or condensate discharges:

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

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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.

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 for perfect functioning at the factory.

If malfunctions should occur that cannot be remedied by troubleshooting, your specialised dealer or contract partner should be contacted.



Environmental protection and recycling

Disposal of packaging

Think of the environment when disposing of the packaging material.

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.



NOTE

Any other operation other than that described in these operating instructions is not permitted.

Non-observance will result in all liability being disclaimed and render warranty entitlements null and void.



NOTE

Only authorised specialists may carry out adjustments and maintenance.

Disposal of 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.

Reusing or recycling materials and old appliances makes an important contribution towards protecting the environment.

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



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Maintenance report

Type of unit: 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 blade cleaned																				
Fan housing cleaned																				
Condenser cleaned																				
Adsorption rotor cleaned																				
Fan function tested																				
Air inlet grille with filter cleaned																				
Unit checked for damage																				
Protective devices checked																				
All fixing screws checked																				
Checked for electrical safety																				
Test run																				

Remarks:

.....

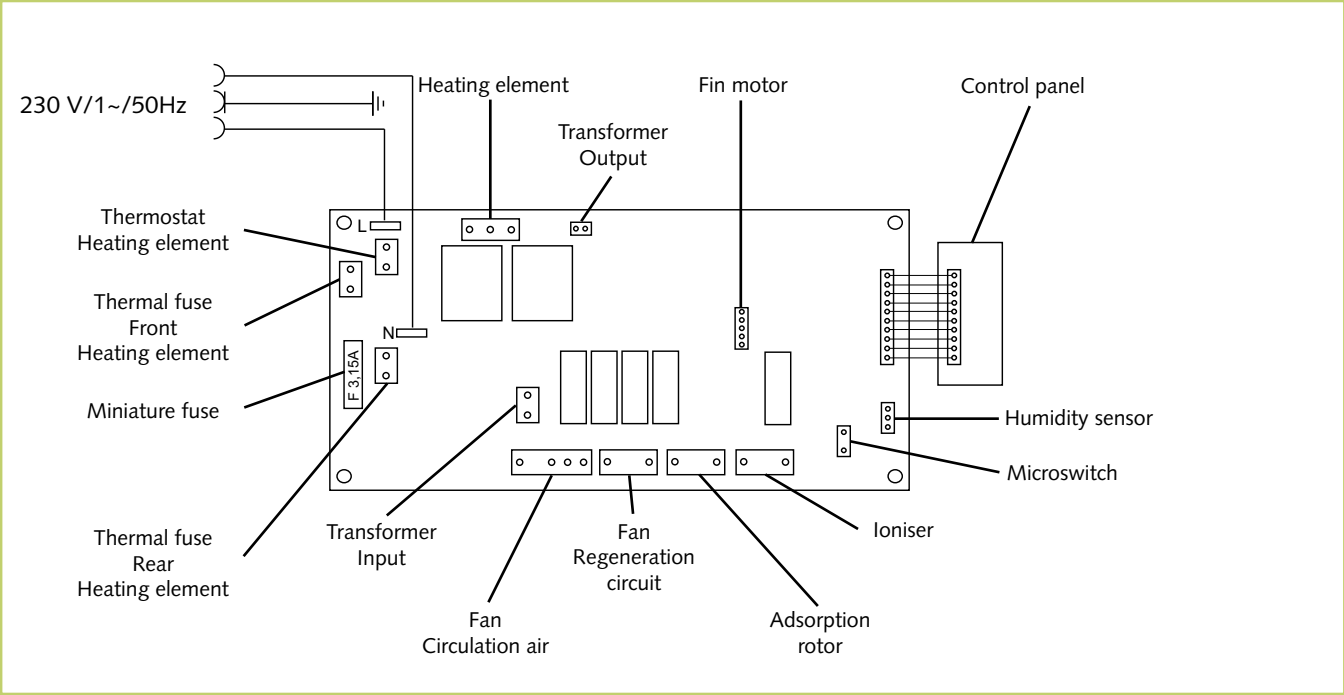
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1. Date: Signature	2. Date: Signature	3. Date: Signature	4. Date: Signature	5. Date: Signature
6. Date: Signature	7. Date: Signature	8. Date: Signature	9. Date: Signature	10. Date: Signature
11. Date: Signature	12. Date: Signature	13. Date: Signature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

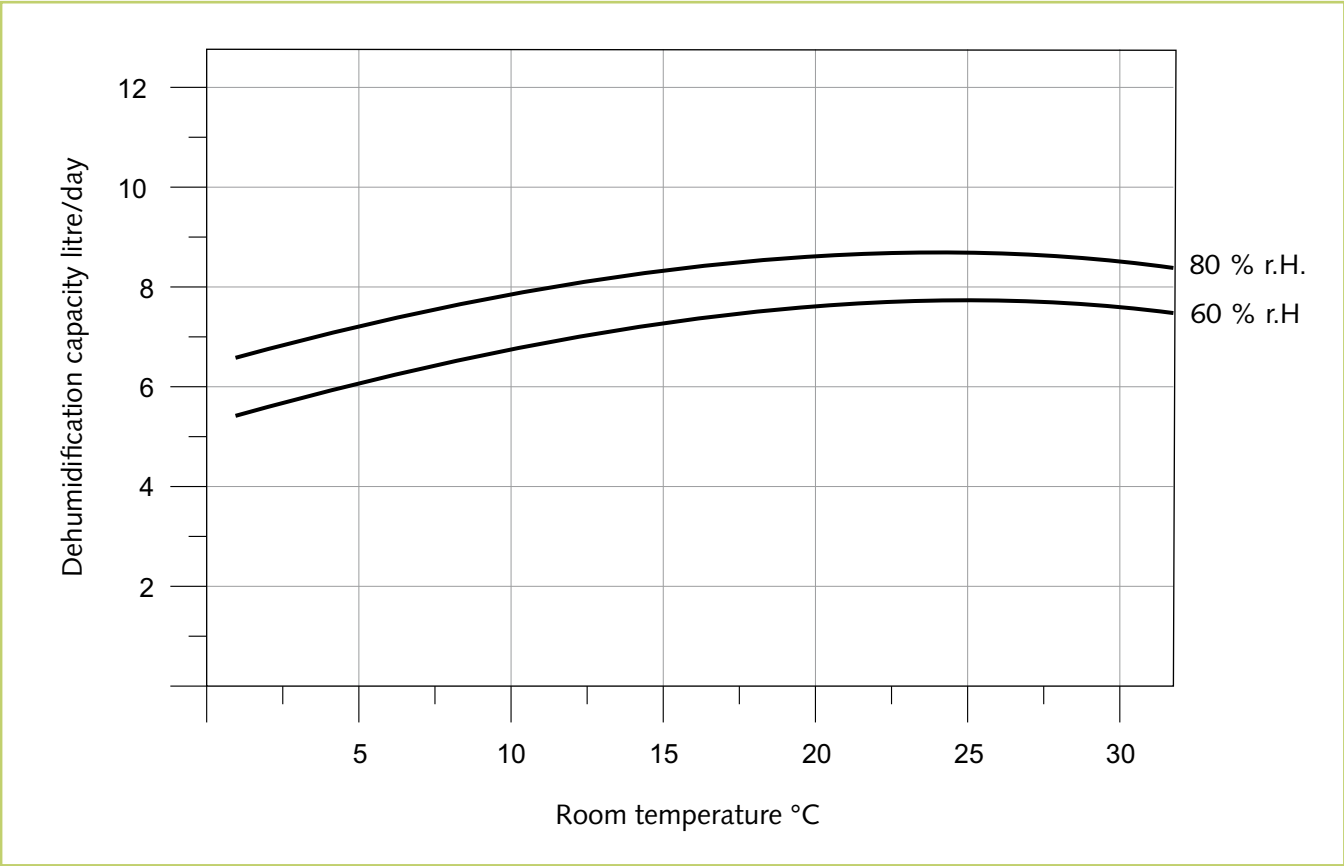
The unit must only be serviced by authorised specialists in compliance with the statutory requirements.

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Electrical wiring diagram



Capacity graph



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

Technical Data

Series			ASF 100
Operating temperature	°C		1 bis 40
Operating humidity	% r. H.		45 - 100
Max. dehumidification output	l/day		8.7
at 20°C/70% relative humidity	l/day		8.0
at 15°C/60% relative humidity	l/day		7.0
Max. air volume flow	m ³ /h		150
Condensate container capacity	Litre		3.0
Power supply	V		230/1~
Frequency	Hz		50
Max. rated power consumption	A		2.6
Max. power input	kW		0.60
Sound pressure level L _{pA} 1m ¹⁾	dB (A)		34 - 48
Depth	mm		300
Width	mm		195
Height	mm		500
Weight	kg		6.5

¹⁾ Dependent upon the respective mode.

REMKO EUROPE-WIDE

... and somewhere near you!

Take advantage of our experience and consulting services



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 must also be customer consultants in 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 specialist retailers guarantees our customers a fast and reliable service at all times.

REMKO GmbH & Co. KG
Klima- und Wärmetechnik

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