



MICROWELL



User's and installation manual

DUCTED SWIMMING POOL DEHUMIDIFIER

Model:

DRY 800 HORIZON

DRY 1200 HORIZON



Manual version 2024v01

Date: 24.05.2024



Thank you for purchasing Microwell swimming pool dehumidifier. You have exceptional piece of device and you chose the best and the most energy efficient dehumidifier for your pool. Before you use this device, it is necessary to carefully read the entire User's manual. Please keep the User's manual available in the case of any future reference is required. Please provide this information also to each user of the device. Please mind local regulations in your country regarding installation and usage of this dehumidifier which are valid in addition to this User's manual.

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1. WASTE DISPOSAL INFORMATION

When using this dehumidifier in the European countries, the following information must be followed:

DISPOSAL: Do not dispose this product as unsorted municipal waste. It is prohibited to dispose this dehumidifier in domestic / household waste. It is prohibited to dispose this appliance into forests or natural landscape. This could lead into local soil pollution. Collection of such waste must be treated individually.



DISPOSAL POSSIBILITIES:

1. The municipality has established a collection system where electronic waste can be disposed.
2. When buying a new product, the retailer or the manufacturer may take back the old appliance free of charge.
3. As old appliance may contain valuable resources which could be sold to scrap material dealers.
4. Disposal of packaging materials such as carton box or plastic / bubble foil can be recycled. Please use your local waste separation services.



2. SAFETY MEASURES

This device is primarily designed for use in indoor swimming pool, sauna or spa. Alternative use is in laundries, drying rooms or other humid areas requiring dehumidification.

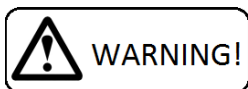
Microwell **DRY 800 HORIZON** is designed for halls with swimming pool surface of up to 80m².

Model Microwell **DRY 1200 HORIZON** is designed for halls with swimming pool surface of up to 110m².



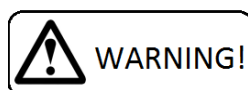
For proper and optimal operations of the device it is necessary to maintain the air temperature in the swimming pool room / hall 2-3°C higher than actual water temperature in the pool. It is also necessary to keep the air temperature in the swimming pool room / hall in operational temperature range of the dehumidifier (specified in Technical data section) based on particular choice of Operational Temperature Accessories chosen for your particular device. Lower air temperature than operational temperature range may cause damage to the unit resulting from freezing. Higher temperatures than operational temperature range may cause damage to the unit resulting from overheating of the unit.

It is necessary to follow instructions in this User's manual and local regulations in your country that regulate the installation and usage of this device. Incorrect, improper or operations contradictory to this User's manual may lead to an injury or property damage and will lead to loss of warranty. To prevent injury or property damage the following instructions must be followed:



2.1 ELECTRICAL SAFETY

- The device operates at dangerous electrical current.
- Only authorized person with particular electro-technical qualification can manipulate with unit.
- Danger of electrical shock.
- Do not exceed the required power supply.
- Do not turn the device on that shows signs of possible damage such as broken packaging, broken or otherwise damaged unit's chassis or cover, smoke, smell, etc.
- It is necessary to use appropriate Residual current circuit breaker (RCD) for connection of the dehumidifier to main power supply.
- Do not manipulate with the device with wet hands.
- Do not clean the device with water.
- Before cleaning the device, switch off the circuit breaker of the unit's power supply.
- Installation, service or repair must be performed by qualified technician.
- When the device is not intended to be used for a longer time, we recommend switching the circuit breaker of the unit's power supply off.
- Unit must be installed in vertical position to avoid condensate water to enter electrical part of the unit.
- It is forbidden to install the unit close to devices that may cause electrical or frequency disturbance such as welding machines, motors or rotors, WIFI/WLAN routers or repeaters.
- It is forbidden to alter electrical installation of the device. It is also forbidden to alter any other part or functionality of the device.

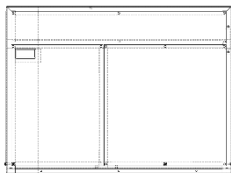


2.2 USAGE PRECAUTIONS

- Air outlet (exhaust) and air inlet (intake) are designed for connection to air ducting system.
- Do not cover or block the intake or exhaust openings. It is forbidden to block or cover the intake or exhaust openings with clothes, towels, buckets, canoes, ceiling beams, etc.

- **Do not install or place any heating appliances close to intake grilles / louvers. It could continually overheat the dehumidifier and result in its malfunction or damage.**
- Do not climb up on or sit on the unit.
- Do not place any objects on the top of the unit (e.g. boxes, flower vases, etc.).
- Do not spray any flammable substances into the equipment; this might lead to fire.
- Do not clean the equipment with aggressive cleaning agents, this might lead to damage or deformations.
- When cleaning plastic parts do not use any cleaning agents unsuitable for the cover of the dehumidifier (household cleaning agents, solvents, bleaching agents, benzene, diluents, rough cleaning powder, cresol, chemical agents). Instead, sweep the dehumidifier cover with a soft cloth or a sponge.
- Never throw or insert any objects into any hose or opening.
- The cover is made from powder coated metal. Do not manipulate with lighted cigarette, cigarette ashes, or any other kind of fire in vicinity to this part.
- Use this device exclusively for the intended purpose, as described in the attached instruction manual. Do not use parts which are not recommended.
- Do not drink or use the condensate water drained from the unit. Do not return the water back to the swimming pool. The water may be contaminated with bacteria.
- Children are not allowed to operate, touch or play with the unit.
- **Children are not allowed to manipulate with packaging, plastic / bubble foil. Risk of suffocation!**
- **Prevent the children from injury or harm caused by any manipulation with the unit, its parts or its packaging. Small parts like screws may be swallowed and cause suffocation or harm to health.**
- Do not leave the children in the swimming pool hall unattended.

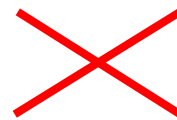
2.3 HANDLING PRECAUTIONS



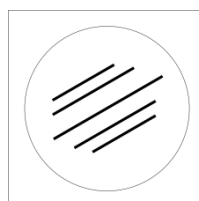
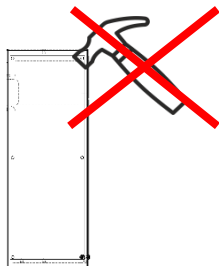
Keep in horizontal position for 2 hours



Leave the unit in a horizontal position for at least 2 hours before mounting. It is necessary to stabilize the refrigerant charge and especially to return the oil to the compressor tray. Oil could get out of the tray during transport and handling, and this could adversely affect the function of the dehumidifier.

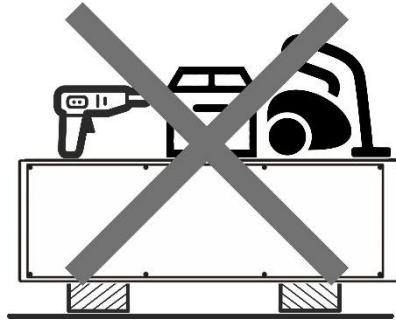


- Transport in a horizontal position or overturning the unit may damage the compressor, which may result in malfunction or damage to the unit and will void the warranty.
- The device must be handled carefully and with special care to avoid mechanical damage.

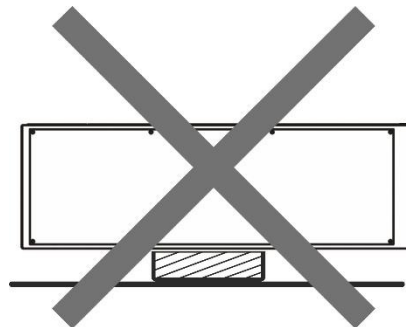
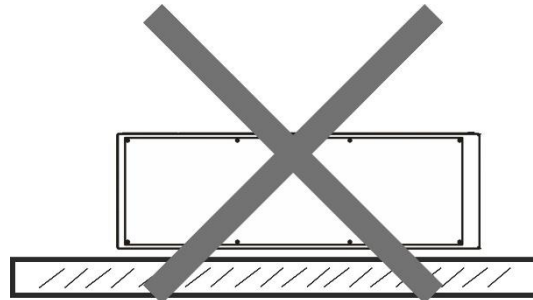
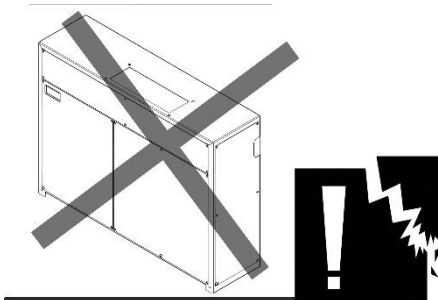


Beware of scratches. Handle the device carefully. Avoid contact with surfaces that may scratch the device.

- It is forbidden to exert any unsuitable mechanical force on the unit, which may cause mechanical damage to the device

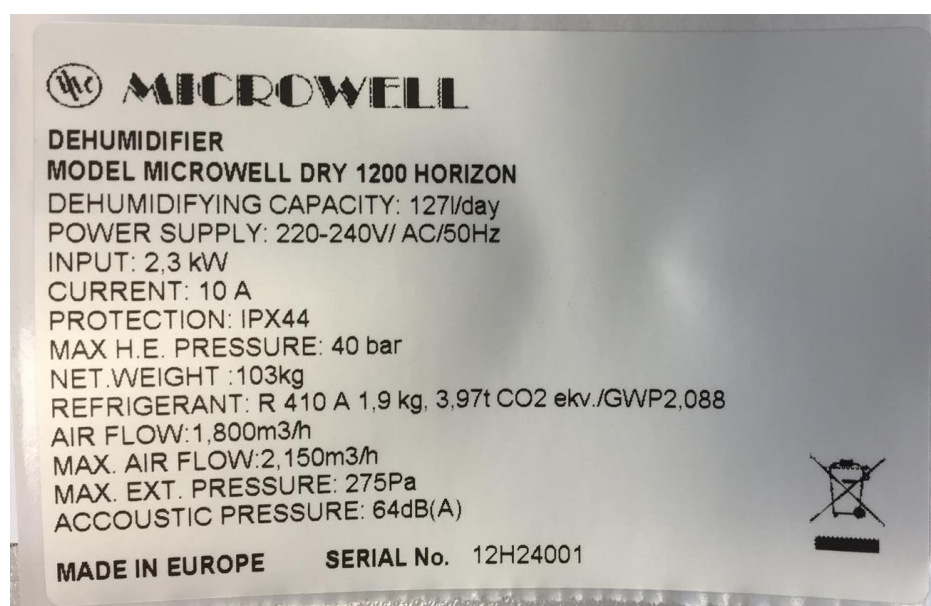


- It is forbidden to freely drop the device on the ground or any hard or rough surface that can lead to a hard impact of the device and scratch the cover. As the owner of the area make sure that your installer does not damage the cover or a part of the device during handling and installation.



- Please notify your reseller or distributor if the delivered unit had been damaged. The unit may appear to work fine at first, but minor damage may cause the unit to stop working properly in a short time. In this case the unit must be inspected and its further use must be approved by the seller.
- Please notify your reseller or distributor if you notice immediately after installation that the unit is not working properly.
- In case of device failure resulting from improper handling or mechanical damage (impact, hit, fall, etc.), the manufacturer reserves the right to evaluate the continuity of warranty.



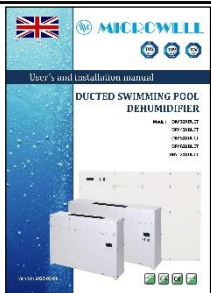
NAME PLATE

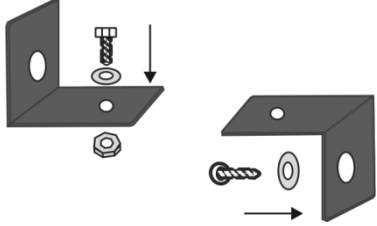



3. PRODUCT DESCRIPTION



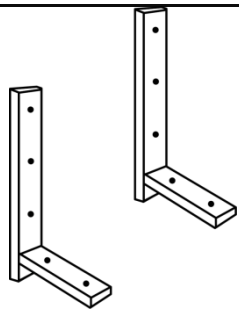

The unit was delivered in carton box on a wooden palette. Please unpack the unit and check the content. It should include the following:

Package:

Name/ code	Image	Name/ code	Image
1 – Dehumidifier 1x	<p>DRY800/1200 HORIZON</p> 	2 – Metal feet / adjustable screw with plastic heel / 2x	
3 – Condensate drain hose (illustration photo) 1x		4 - Installation and user manual 1x	



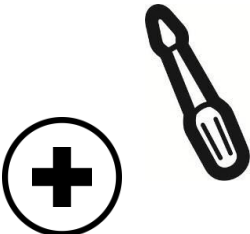




<p>5 – Adjusting "L" piece 2x</p> <p>+ screw M6 – 2x + nut MC – 1x + washer D7 – 2x</p>		<p>6- Built-in digital humidistat and thermostat</p>	
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Additional accessories (to order):

Name/code	Image	Name/ code	Image
<p>1 - External wireless humidistat and thermostat DRY EASY 300</p> <p>1x</p> <p>Part of packaging (white box) located on the fan plate on the left</p> <p>In this case the “Built-in digital humidistat and thermostat” is not installed.</p>		<p>2 - External wired humidistat EBERLE /picture may differ/</p> <p>Separate small box glued to the device (cardboard box) see picture 1</p> <p>In this case the “Built-in digital humidistat and thermostat” is not installed.</p>	
		<p>3B – Wall console 2x</p> <p>Compatibility: DRY800/1200 DUCT</p>	
		<p>5 - Solenoid valve - valve and coil</p> <p>1x</p> <p>Part of packaging (white box) located under the main cover on the fan plate on the left, see. picture point. 1</p>	

Please note that pictures may differ.

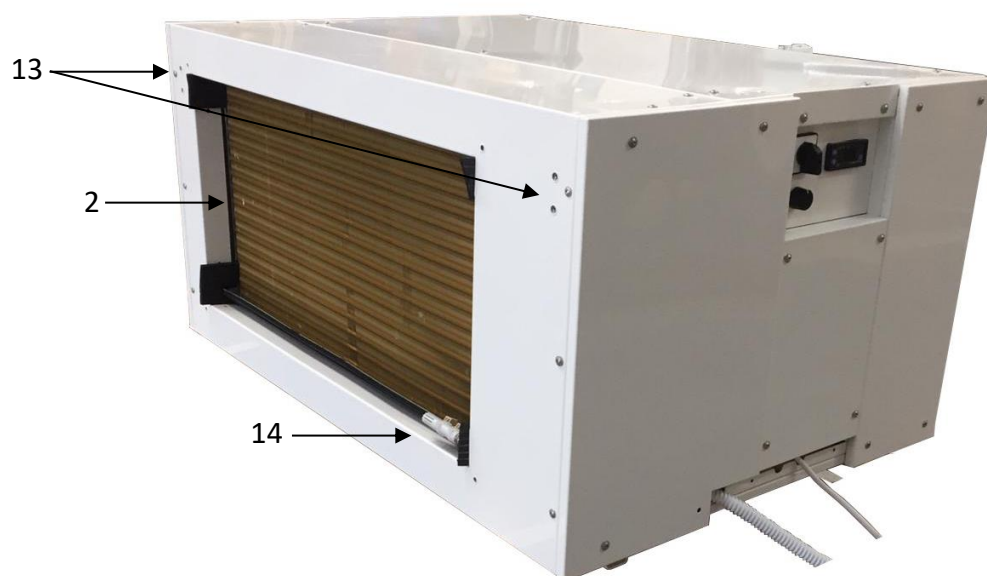
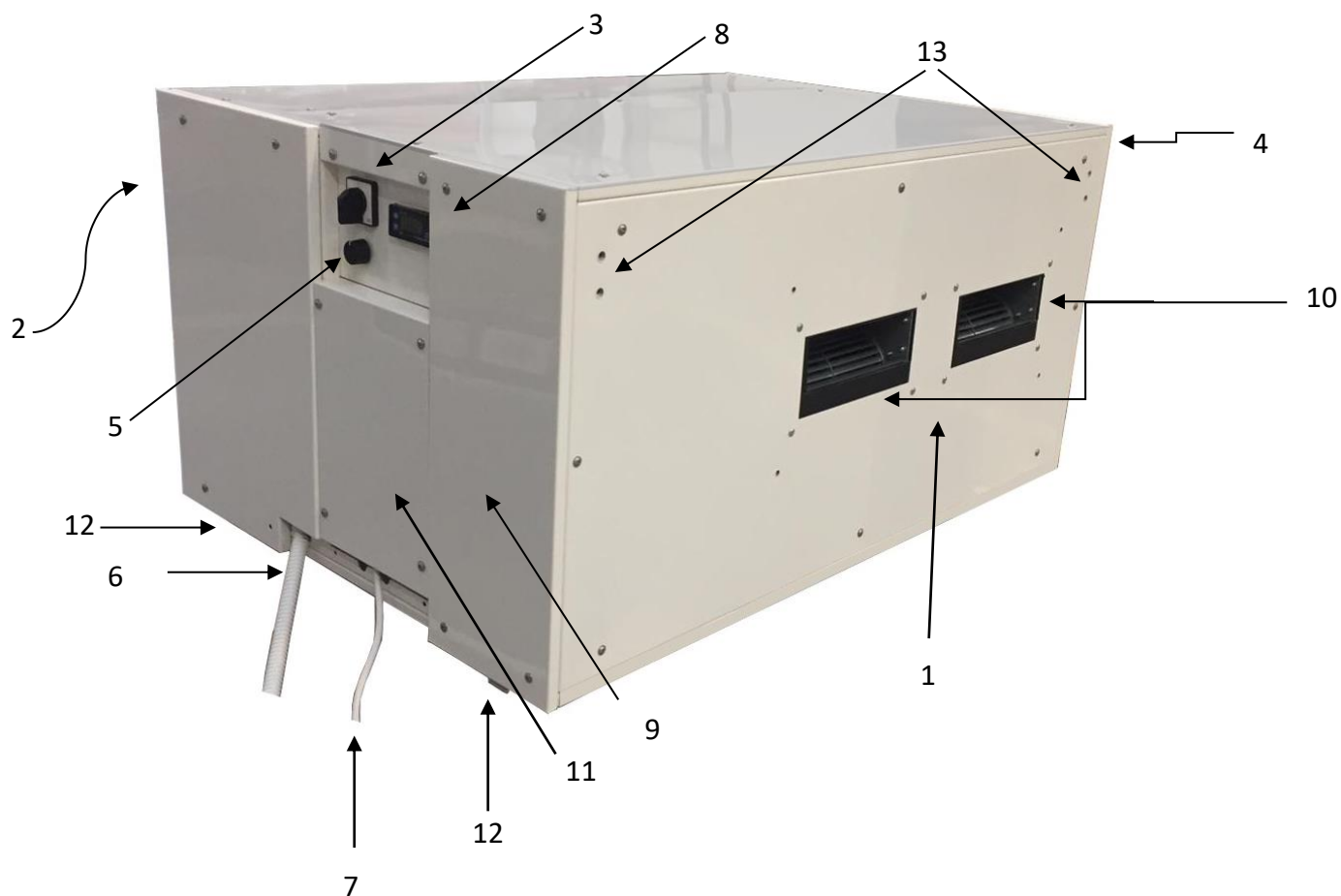
List of necessary tools (is not part of packaging):

Názov/ kód	Obrázok	Názov/ kód	Obrázok
1 - Drill 1x		3 – Drill bit 10mm 1x	
2 - Phillips screwdriver 1x		Vacuum cleaner and ladder	
5 – Small hammer 1x		6 - Meter 1x	
7- Spirit level 1x			

1.1. Description of basic parts**Legend:**

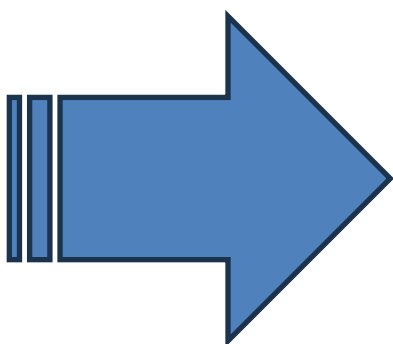
- 1 – Air exhaust / AIR OUT/ = supply for pool hall
- 2 – Air suction /AIR IN/ = exhaust from pool hall
- 3 – Main ON / OFF switch
- 4 – Metal cover
- 5 – Fan speed control
- 6 – Condensate drain Ø 16 mm (from the back)
- 7 – Main power supply connection box 230V (under the main cover)
- 8 – Built in digital controller
- 9 – Compressor (under the cover)
- 10 – Fan(s) / Ventilator (s)
- 11 - Electro-wiring box
- 12 - Floor feet
- 13 – Ceiling hooks position
- 14 – Air humidity and temperature SHT sensor

DRY800/1200 HORIZON



Please note that your dehumidifier may differ from here pictured units.

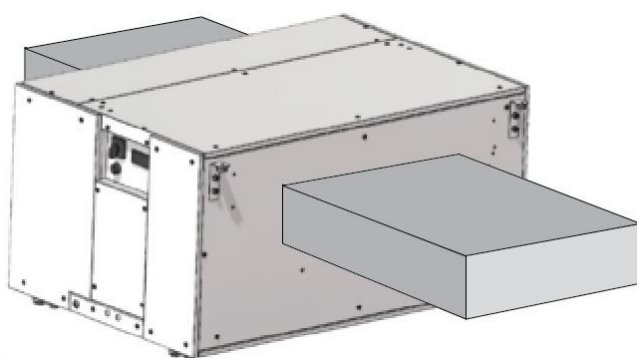
Air connection options



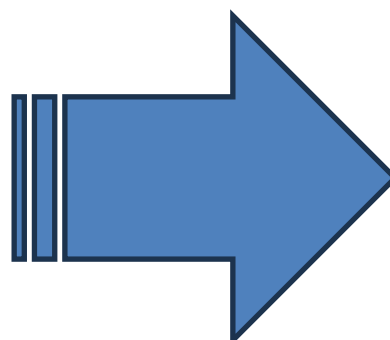
AIR INLET 800x400mm

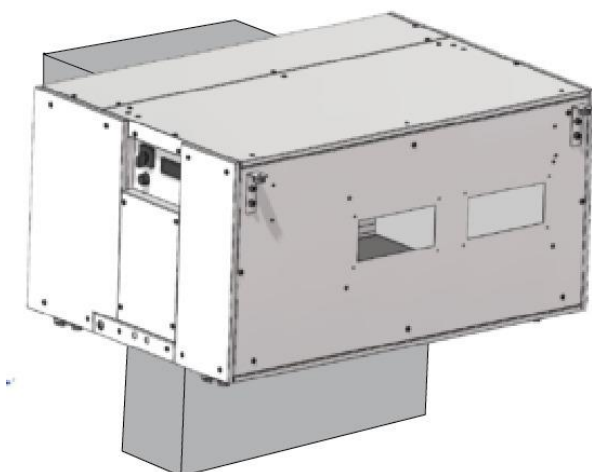
HORIZONTAL AIR DIRECTION

AIR OUTLET 600x200mm

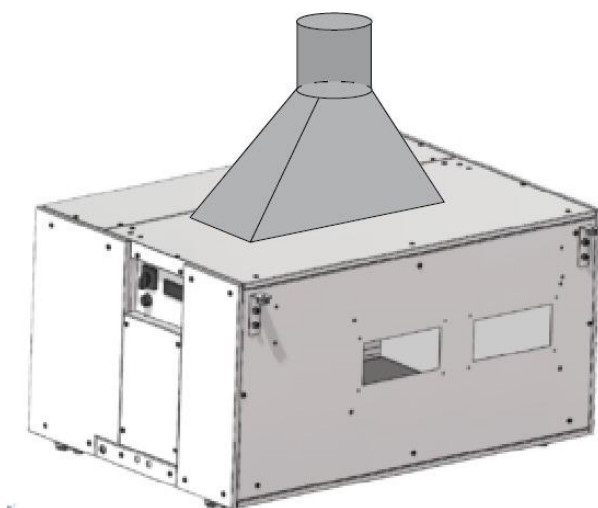


BOTTOM DISCHARGE



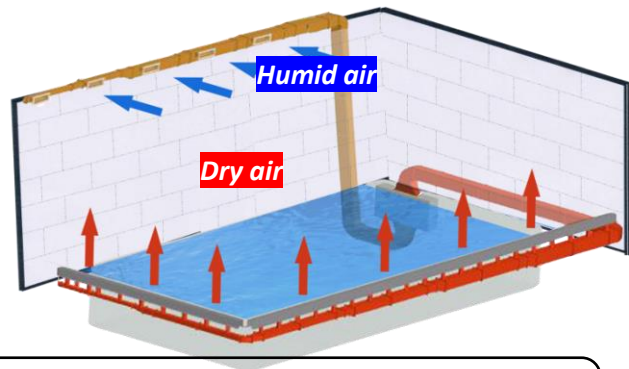


TOP DISCHARGE



Connection marking	Connection type	Opening dimensions	Flange connection for air ducting	Thread
AIR INLET	Air inlet from the side	800x400mm	820x420mm	M6
AIR OUTLET	Air outlet to the side/bottom/top	600x200mm	620x220mm	M6

Humid air is brought into the dehumidifier. It leaves the dehumidifier dried and warmer by 5-20° than inlet air depending on air temperature, humidity and LPHW performance.



RECOMMENDATION: Cover your pool when not used. It will reduce the amount of vapor in the air and energy costs needed to operate your dehumidifier.

1.2. Humidity control by remote controller – on demand

An external wireless humidistat and the DRY EASY 300 thermostat can be ordered for the pool dehumidifier which is equipped with a built-in mechanical humidistat as standard.



When ordering the DRY EASY 300, there will be no digital humidistat and thermostat 1401F on the cover. The hole in the cover will be covered.

Wireless communication takes place in the 868 MHz band, where the emphasis is on the reliability and range of the controller. The dehumidifier is controlled primarily by a remote humidistat, provided that the built-in humidity controller in the dehumidifier is set to a higher desired humidity value than the remote humidistat.

External wireless humidistat and thermostat DRY EASY 300



1. TRANSMITTER



2. RECEIVER

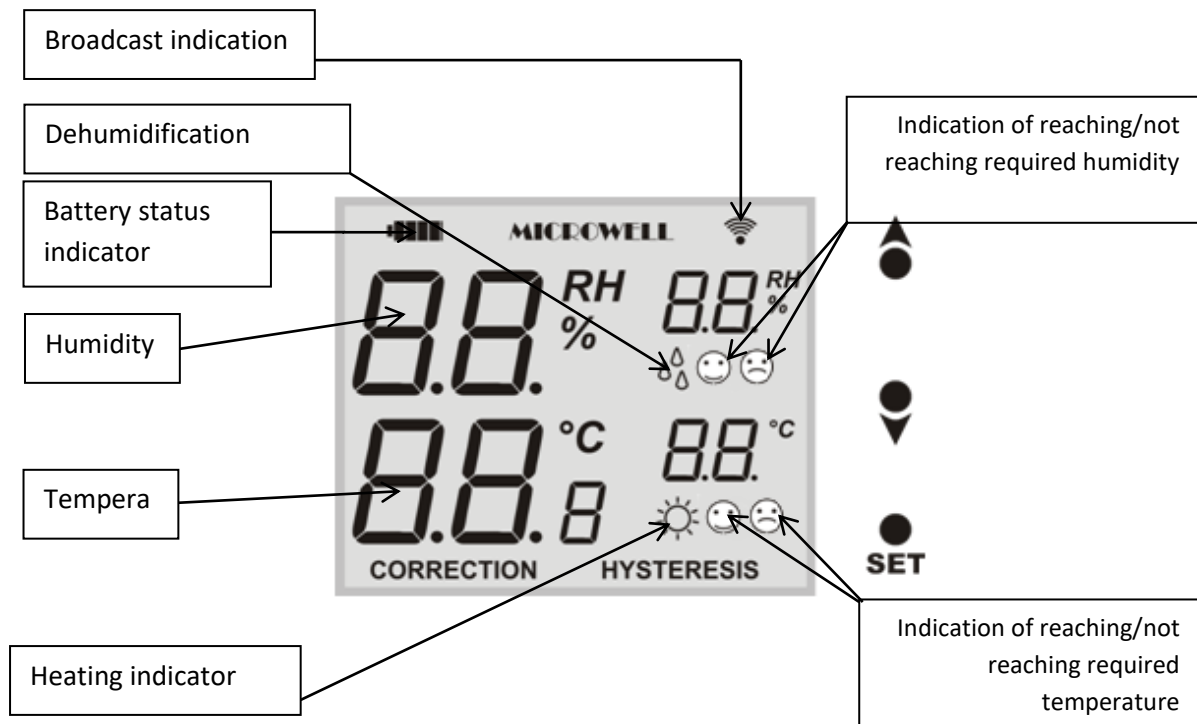


3. ANTENNA



The manufacturer recommends setting the required humidity value on the DRY EASY 300 in the range of 55 to 65% RH.

If the backup humidistat had been set to a lower value than the DRY EASY 300 remote humidistat, the backup humidistat will take over the room humidity control and in this case the dehumidifier will not respond to signals from the DRY EASY 300 remote humidistat.



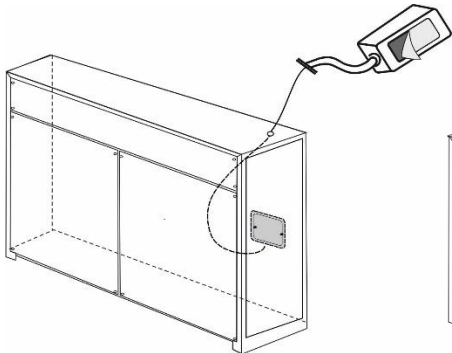
Additional functions and operation of the remote humidistat are described in the separate enclosed instructions.

Location of receiver and antenna

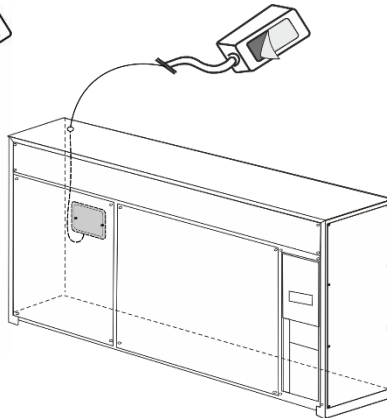
A: The receiver is located inside the electrobox and the antenna is located on the outside of it.

B: For TTW version / through the wall / we recommend pulling the antenna into the pipe in the wall. Follow the picture below.

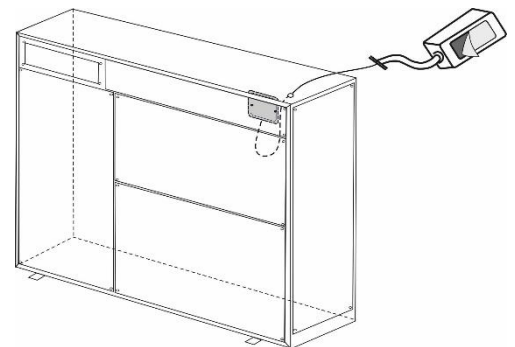
DRY300/400 DUCT



DRY500 DUCT



DRY800/1200 DUCT



1.3. Humidity control by external wired humidistat EBERLE

If your device is equipped with an EBERLE wired remote humidity controller, pay attention to this section of the installation manual.



Wired humidistat EBERLE HYG6001



When ordering EBERLE HYG6001/7001, there will be no digital humidistat and thermostat 1401F on the covers and the hole in the cover will be covered with a cover.

The dehumidifier can be equipped with a remote humidistat on request. In this case, the dehumidifier has two humidity controllers. One of them is a built-in mechanical humidistat inside the pool dehumidifier, the other is an external wired humidistat. The dehumidifier is controlled primarily by the remote humidistat, provided that the built-in humidity controller inside the dehumidifier is set to a higher desired humidity value than the remote humidistat.

If your dehumidifier is equipped with a hot water insert and/or a solenoid valve also, you must use a humidistat with an EBERLE HYG7001 thermostat to activate the dehumidifier's air heating function, or you must have an external thermostat connected.

4.3 Compressor control

Start-up of the compressor is due to its protection delayed by 3 minutes. Depending on the humidity of the environment, it may take even longer for compressor to start operating. Once the compressor stops operating, the operation is renewed automatically at the earliest after three minutes. The user must not alter the preset delay-action relay.



After longer time without operations when compressor attempts to turn itself on, it is normal to take up to 4-6 turning-on attempts to finally turn the compressor on. This depends also on current air temperature. Lower temperature environment (app. 22°C) requires more attempts. Higher temperatures (30°C) less and typically 1 attempt.

4.4 Maintenance

At least once a year it is necessary to have the unit checked and cleaned by a qualified service specialist. This will ensure long and reliable service life of the unit.

1x / month	check air filter
1x / 6 months	exchange air filter
1x / year	Unit fixation – unit holding OK? No released screws?
1x / year	Condensate drain – Visual check - does it drain OK? Clean of dust? No waving? No leakage? No water on the stain on the ceiling or the wall?
1x / year	air ducting connection ok? No released screws?

5. INSTALLATION GUIDE



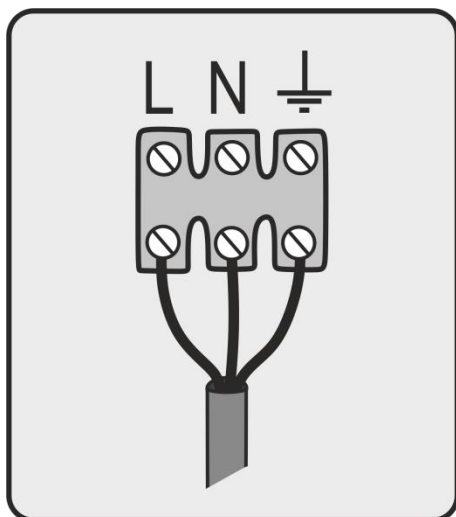
The unit must be installed in compliance with the local installation and electrical installation regulations!

5.1 Location of the equipment

Pool dehumidifiers DRY 800 HORIZON and DRY 1200 HORIZON are designed to be installed in technical rooms. All models are IP44 protected. For maintenance purposes it is essential to have min 200mm of a free space on both sides of the unit and min 750mm from the front side of the unit. In technical chamber or adjacent room it is necessary to have 2.25x1m² of a floor surface.



5.2 Electrical connection



Standard terminal block -
L, N, ground

MAIN ELECTRICAL CONNECTION OF THE DEHUMIDIFIER

230V/50Hz/1f

3x 2.5mm² CYSY

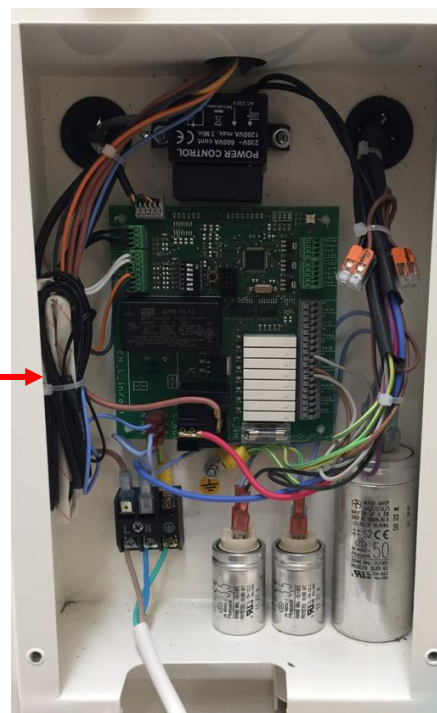
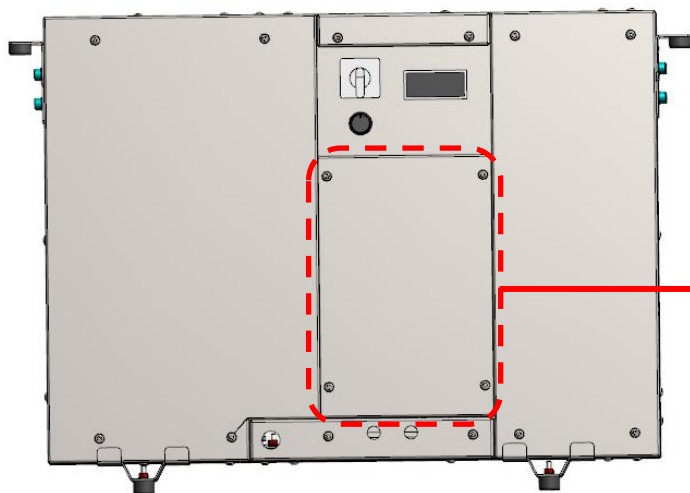
Circuit breaker 16-20A type C

RCD 30mA

Main power supply		
Dehumidifier type	El. cable	Circuit breaker
DRY 800	CYSY 3x 2,5 mm ²	16 A typ C
DRY 1200	CYSY 3x 2,5 mm ²	20 A typ C

El. connection of wire humidistat and thermostat	
Model	El. cable
HYG6001	CYSY 4x 1,0 mm ²

HYG7001	CYSY 5x 1,0 mm ²
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6. TECHNICAL DATA

6.1 Technical data table *

DATA	UNIT	DRY 800 HORIZON	DRY 1200 HORIZON
For swimming pools with max. water surface	m ²	90	120
Extraction rate at 30°C and 60 % RH	l/24hrs	94	127
Extraction rate at 30°C and 80 % RH	l/24hrs	141	194
Operational temperature - standard	°C	15-35	15-35
Operational temperature - antifreeze stat	°C	15-35	15-35
Operational humidity range	% RH	20-100	20-100
Air flow	m³/h	1400	2150
EXTERNAL PRESSURE	Pa	275	275
Noise level (in 1m distance)	dB (A)	58	64
Heat output	W	5100	5300
Energy consumption	W	2000	2300
Voltage	V/ph/Hz	220-240/1/50	220-240/1/50
Operating / Starting current	A	8.7/50	10/50
Protection	A	16	20
Conductor	mm ²	CYSY 3C x 2.5	CYSY 3C x 2.5
Condensed water pipe	mm	d 16	d 16
Dimensions netto (width x height x depth)	mm	1048 x 540 x 740	1048 x 540 x 740
Dimensions brutto (width x height x depth)	mm	1200 x 600 x 800	1200 x 600 x 800
Weight netto / brutto	kg	102/135	103/136
Amount of refrigerant - R 410 A	kg	1.7 (3.5t CO ₂ ekv.)	1.9 (3.97t CO ₂ ekv.)
Max. pressures in the system HP/LP	bar	40/12	40/12

* *Manufacturer reserves the right to change above data without notice.*

Gas circuit is filled with refrigerant R410A which is two-content refrigerant (R32/R125). Based on ES No. 842/2006 are these contents considered to be a fluorcarbon greenhouse gases. The unit contains fluorcarbo greenhouse gases included in Kyoto Protocol:

R410A with global warming potential (GWP) 2088:

(R-32/125 50/50)

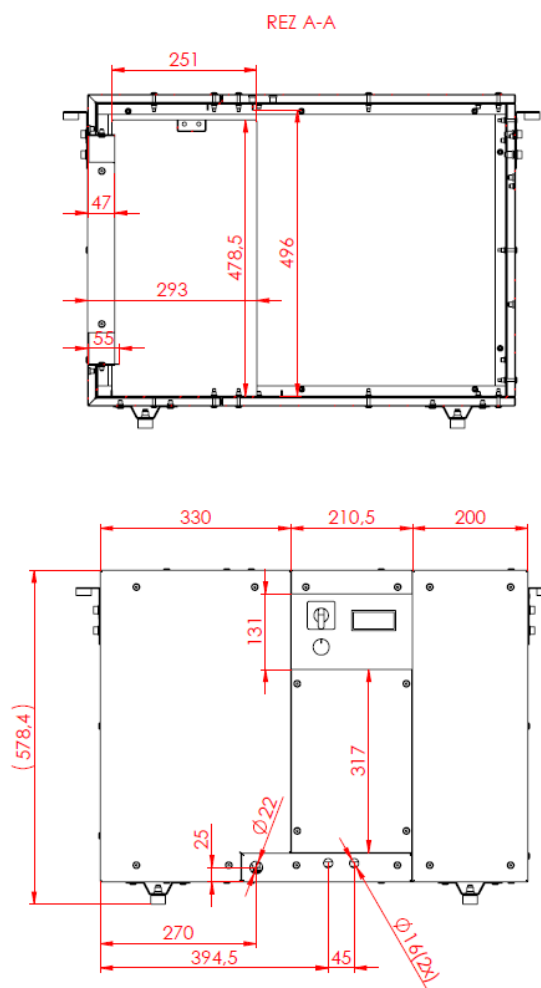
CH₂F₂ + CF₃CHF₂

This information is informatory, for exact amount of refrigerant in your device, please turn to serial number sticker (located in the upper right corner of the unit from the back).

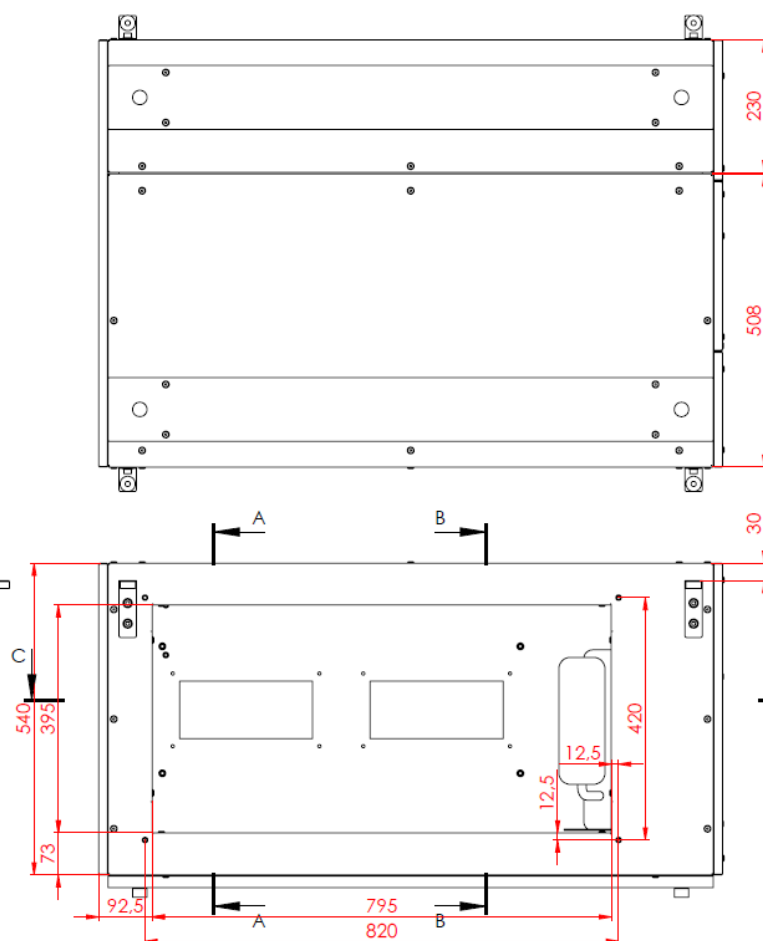
6.3 Unit's dimensions

DRY 800/1200 HORIZON

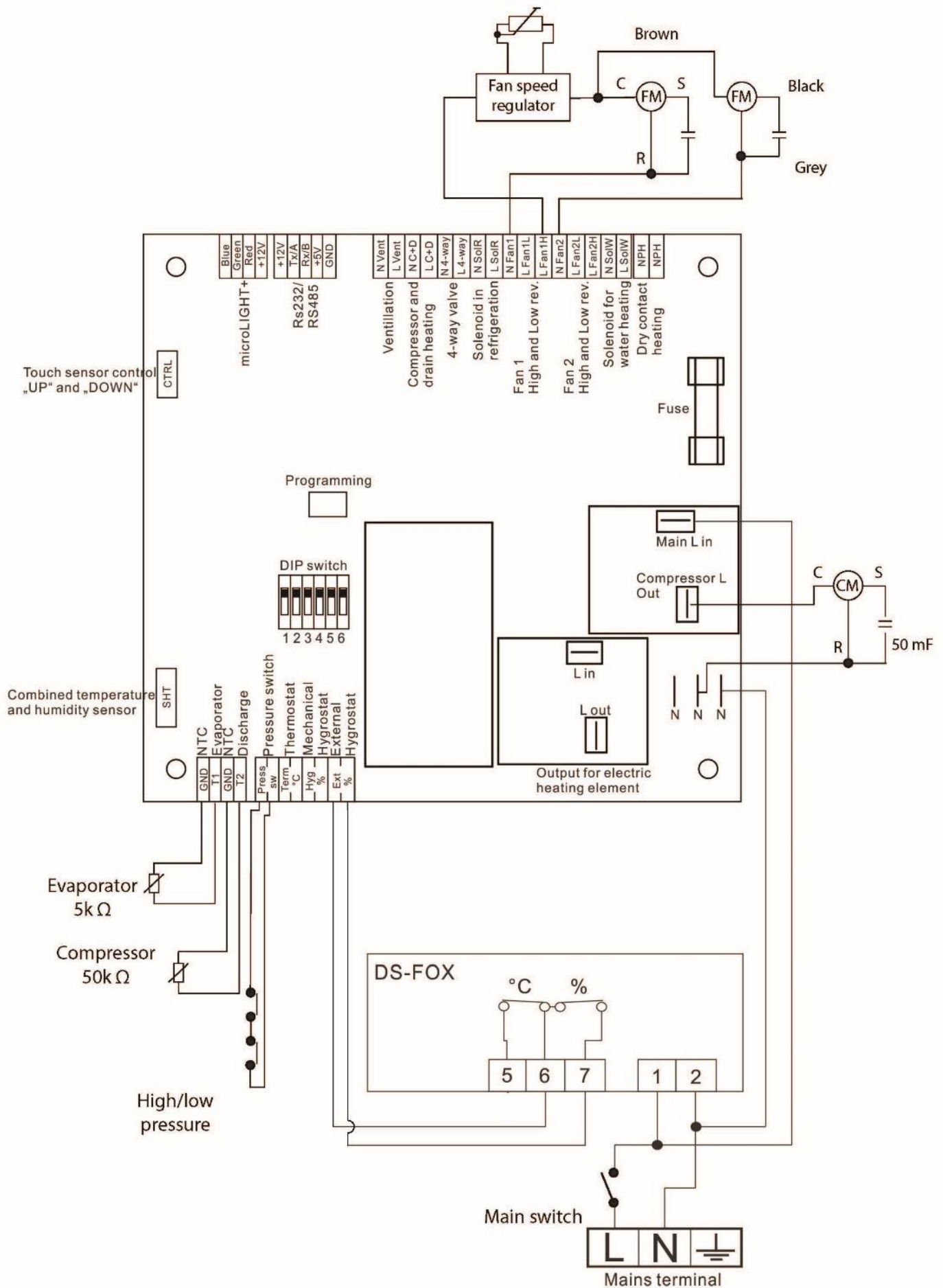
Boční pohled



Horní pohled



6.4 Wiring diagram



7. SUMMER SHUT-DOWN

Some swimming pool users use to shut the dehumidifier for summer down. This is mainly due to favourable weather conditions with dry and warm weather. In such case, good air ventilation / natural air exchange does the job of humidity control for few weeks/months of the year. Although following rapid change in weather (e.g. into rainy days) may result in high humidity in your pool.

In this case please make sure that:

1. Dehumidifier's circuit breaker is off (i.e. dehumidifier does not have any power supply)
2. Dehumidifier is cleaned of duct, fluff or other dirt that may harden / stiffen its structure during the shut down period making it hard to remove afterwards.
3. Make sure air inlets and outlets are covered properly so no chlorine or other chemicals are not input into dehumidifier body, especially ventilator bearings. Failing to do so may result in bearings corrosion and failure of the dehumidifier.
4. **Please be advised that during shut down of the system the dehumidifier does not provide humidity control at all.**

8. WARRANTY

This dehumidifier is subject to a warranty period of 2 years. It may have been prolonged in your country or by your distributor or reseller. Please contact your reseller or distributor in the case a warranty should be claimed for this dehumidifier.

Please note that no claims will be accepted (warranty void) if:

1. The dehumidifier has been used in an incorrect way, not as described in this manual or in contrary to this User's manual or against Safety measures of this User's manual.
2. The dehumidifier is installed in an incorrect way, not as described in this User's manual or in contrary to this User's manual.
3. The dehumidifier was put to operation by an unauthorized person.
4. The air flow through the dehumidifier is out of the defined borders.
5. The unit has been exposed to a mechanical damage / force or any unauthorized action was performed on construction of a unit - welding, brazing or has been mechanically damaged resulting in scratches, blends, compressions, pipe rupture, etc. No mechanical damage is accepted as warranty claim unless a written claim had been made with transporting agent delivering the device.
6. Chemical conditions in the pool or pool hall have not been within the defined borders (*please see below table Allowed chemical conditions*).
7. The dehumidifier suffered frost or overheating damage resulting from ambient air temperatures out of Temperature operational range.
8. The electric tension source is insufficient or improper in any other way.



When applying for warranty, please contact your distributor and indicate dehumidifier model, serial number and date of purchase. Please describe the genesis of the failure.

Acidity / pH level:	pH	7,4 +/- 0,4
Total alkalinity, as CaCO ₃	ppm	80-120
Total hardness, as CaCO ₃	ppm	100-300
Total melted dry mass	ppm	max. 3000
Maximum salt content (standard dehumidifier)	wt/wt	0.3% (3,000 ppm, 3 kg of salt per 1 m ³ of water)
Maximum salt content (dehumidifier with SALT+/SULPHUR+ treatment)	wt/wt	3% (30,000 ppm, 30 kg of salt per 1 m ³ of water)
Free chlorine range	ppm	1,0-3,0
Superchlorination	ppm	max. 30 ppm/max. 24 hours
Bromine	ppm	2-3
Baquacil	ppm	25-50
Ozone	ppm	0,8-1,0
Maximum copper content	ppm	max. 2
Aquamatic single purifier	ppm	max. 2
Tarn clean purifier	ppm	max. 2
Sherwood purifier	ppm	max. 2

Table: Allowed chemical conditions

TRANSPORT INSTRUCTIONS



*The dehumidifier must be transported in the original packaging only and **in a horizontal position**. Make sure that the dehumidifier cannot turn over or fall down during transport. Never put the dehumidifier aside! It may lead to serious compressor damage!*

No mechanical damage is accepted as warranty claim unless a written claim had been made with transporting agent delivering the device. When receiving the product please check whether the package is not damaged. Please make a proper documentation of any damage immediately after delivery and claim all transport damage in written form with the forwarding agent at the delivery.

Distributor:

Microwell CZ, s.r.o.

Pobočky Brno, Praha

Manufacturer:

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Made in: EUROPEAN UNION (SLOVAK REPUBLIC)

Country of Origin: EUROPEAN UNION (SLOVAK REPUBLIC)

