

INSTRUCTIONS FOR USING HEAT-PUMP DRYERS

Model: RE-192H; RE-300H; RE-500H
RE-600H; RE-900H; RE-1200H



This product is manufactured and distributed by DeAir Joint Stock Company

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Thank you for choosing our product! This manual is essential for the installation, operation and maintenance of the device. Please follow all instructions in this manual to maximize the dehumidification efficiency, and to overcome any problems that may occur to extend the life of the device.

PRODUCT REGISTRATION

Record the dehumidifier serial number in the space provided below for future maintenance purposes.

Serial number:

IMPORTANT: Please keep a copy of your sales receipt and warranty card for DeAir warranty service.

WARRANTY POLICY

The warranty period is 24 months from the date of purchase.

Warranty is limited to free replacement of any defective part, or manufacturing defect occurring within the warranty period.

All warranty claims must state the model/serial number. These details are printed on the unit identification plate.

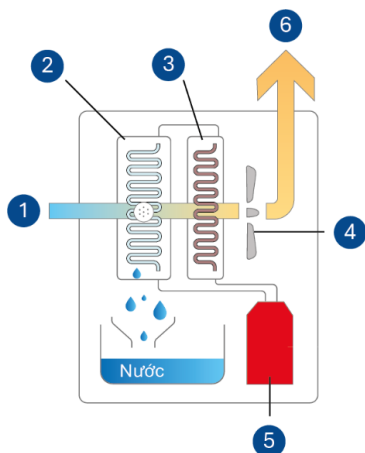
Read all instructions before using this dehumidifier. To reduce the risk of fire, electrical shock to persons when using the dehumidifier, follow basic precautions.

In case of any defect or damage to the product, please contact DeAir immediately at

Hotline: 0925 977 579

1. Working principle

1.1. Heat-Pump drying technology principle



Humid air

1. Evaporator (cooling system)
2. Condenser (hot coil)
3. Working fan
4. Compressor
5. Dry air

DeAir.RE-H heat-pump dryer series designed to remove moisture and dry materials using cold compression technology. In addition to the main equipment listed above, dryers can be equipped with other auxiliary components such as water carriers, electrical cabinets, etc.

1.2. The Necessity of Heat-Pump Drying

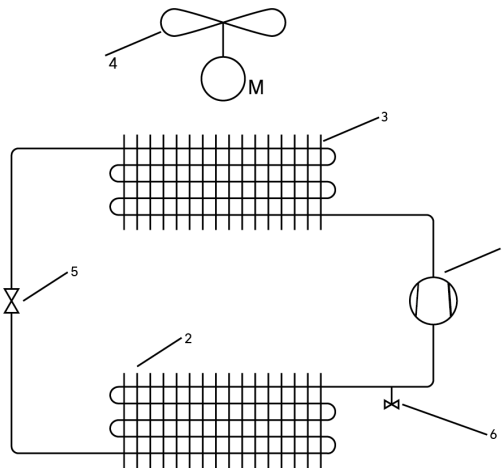
High humidity in the air is the main cause of problems such as mold, rust, product damage and extended production time. Especially in industries such as garment, agricultural and food processing, controlling humidity and drying products effectively is a must.

DeAir.RE-H Dryer Specially designed for humidity control needs in high temperature environments or specialized drying applications, such as garment drying. Heat-Pump technology not only effectively removes moisture but also recycles heat energy, resulting in significant savings in electricity costs compared to traditional drying methods using resistance.



2. Device Features

2.1. Schematic diagram



- | | |
|--------------------------------|------------------------|
| 1. Compressor | 4. Working fan |
| 2. Evaporator (cooling system) | 5. Throttle cable |
| 3. Condenser (hot coil) | 6. Low pressure switch |

The refrigerant cycle is the heart of the dryer:

Compressor (1) compresses refrigerant gas into a gaseous state of high temperature and pressure.

Hot gas passes through the condenser (3), is cooled by the fan (4) and condensed into liquid form, releasing heat to heat the drying air.

The liquid gas passes through the throttle cable (5) to reduce pressure and temperature.

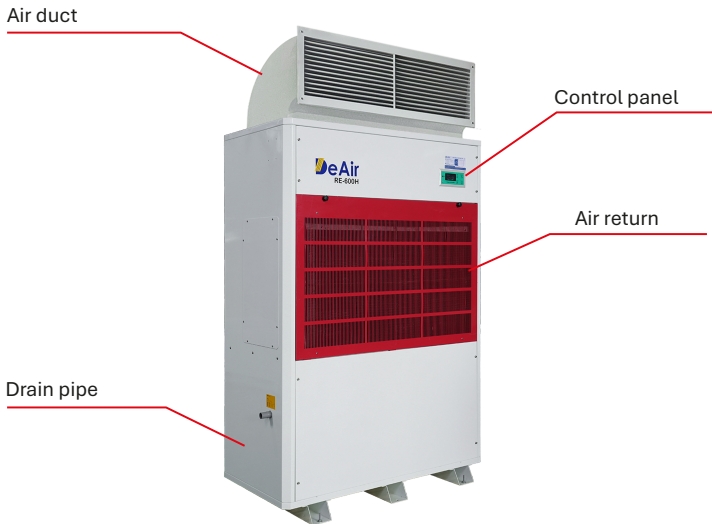
The refrigerant gas enters the evaporator (2), it boils and vaporizes again, in the process it absorbs heat from the humid air, causing the water vapor to condense.

The system is protected by a pressure switch (6) to detect problems such as gas leaks.

2.2. Device specifications

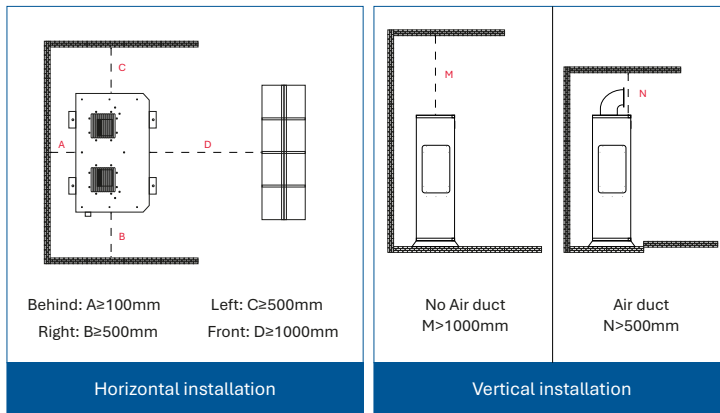
Model	DeAir.RE -192H	DeAir.RE -300H	DeAir.RE -500H	DeAir.RE -600H	DeAir.RE -900H	DeAir.RE- 1200H
Operating temperature (°C)	15-60	15-60	15-60	15-60	15-60	15-60
Dehumidification capacity (kg/day) @30°C/70%	192	300	500	600	900	1,200
Airflow (CMH)	2,500	3,000	4,500	6,000	9,000	12,000
Noise level (dBA)	59	59	65	65	72	72
Gas type	R410A					
Gas filling weight (kg)	1.9	1.9	3.2	4.3	6.4	8.6
Power supply (V/Ph/Hz)	380/3/50					
Power consumption (kW)	4.6	4.6	7.6	9.2	13.8	18.4
Additional resistive power (kW)	4.5	4.5	8.4	8.4	16.8	16.8
Width (mm)	780	780	1,250	1,250	1,400	1,750
Depth (mm)	480	480	600	600	720	800
Height (mm)	1,650	1,650	1,800	1,800	1,800	1,800
Weight (kg)	160	160	200	250	450	500

2.3. Device structure



3. Operating Instructions

3.1. Installation space

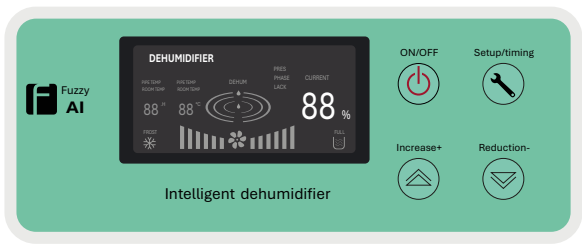


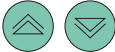
When installing the machine, it is necessary to ensure the minimum dimensions as above to ensure easy and safe operation, maintenance and repair.

3.2. Note

- The compressor in the body must be placed upright for operation. If transporting the machine over long distances, the machine must be placed upright for at least 3 hours before starting and running the machine.
- When the compressor operates for a long time at temperatures below 15°C , the radiator fins will become covered with snow, affecting the dehumidification efficiency and lifespan of the machine.
- Dehumidifier is not air conditioner, when the machine runs the fan will blow out hot air, in a closed environment the room temperature will increase.
- Make sure the external connection pipe or water fitting is securely installed.
- Make sure the machine is installed with the minimum space recommended.

3.3. Control Panel



Button	Description
	(1) Press the ON/OFF button to turn the
	(2) Press the Increase+ / Reduction- button to change humidity within the range of 10% - 95% (change 1% each time you press) or the corresponding time within the range of 24 hours (change 1 hour each time you press).
	Press the Setup/timing button to set the running and stopping time for the machine. Use the Increase+ / Reduction- button to change the setting time. The maximum setting time is 24 hours. • Press once to enter the humidity mode. • Press twice in a row to set the running timer. • Press three times in a row to set the shutdown timer.

3.4. User manual

Power on: After turning on the machine's CB, the LCD control panel lights up and displays the actual temperature and humidity.

Press ON/OFF button: Press ON/OFF to start the machine. The device will run the fan first, then the compressor will start running.

Humidity Control: Press the up/down button to start setting the desired humidity. This dehumidifier does not have a temperature setting.

- **NOTE:** The operating humidity difference of the machine is 3%. When reaching the humidity, the compressor will turn off, the fan will continue to run until the machine is turned off.
- If the humidity value is set below 30%, the dryer will run continuously in dehumidifying mode. In cases of force majeure, the customer has foreseen the damage and is responsible for the possible losses, then set the humidity value below 30%. A technician must operate to monitor the operation of the device at the set humidity below 30%.

4. Maintenance

4.1. Safety indications

- Do not handle electrical cords, plug or unplug with wet hands.
- Do not stop the device by disconnecting the power directly.
- Do not use power source with high voltage.
- Do not insert sticks or fingers into the air vent.
- Do not drop or dent the device.
- Do not use wastewater from the machine for drinking or feeding livestock.
- Do not open the case while the machine is in operation.
- Do not use the dehumidifier in the following environments: flammable gas environment, dusty environment, sunny environment, and slanted, rough surface.
- Stop the machine and disconnect the power before cleaning and maintenance.

4.2. Maintenance content

Maintenance and servicing must be done periodically and in compliance with the manufacturer's regulations to ensure the machine operates durably and efficiently. Perform maintenance and servicing promptly to avoid interrupting the production process.

STT	Content	Day	Month	Quarter	Year
1	Cleaning the surface of the device	✓	✓	✓	✓
2	Clean the dust filter		✓	✓	✓
3	Compressor cleaning		✓	✓	✓

4	Compressor flow measurement		✓	✓	✓
5	Copper pipe inspection			✓	✓
6	Cleaning gutters		✓	✓	✓
7	Check the water pipes		✓	✓	✓
8	Check the surface of the rack		✓	✓	✓
9	Cleaning the fan		✓	✓	✓
10	Clean electrical cabinets and check electrical equipment		✓	✓	✓
11	Check the screws securing the device in the machine.			✓	✓
12	Check the overall equipment in the machine		✓	✓	✓
13	Replacement equipment provisioning			✓	✓

5. Error checking and troubleshooting

5.1. Error message board

Error code	Phenomena	Treatment
E1	Temperature sensor error	Replace temperature sensor
E2	Humidity sensor error	Replace humidity sensor
E3	High pressure error	Check high pressure switch, gas pressure
E4	Low pressure error	Check low pressure switch, gas pressure
Pres	Compressor error	Check the compressor
Phase	Phase error	Phase change
Lack	Phase loss error	Check phase, supply enough phase
E9	Board error	Replace board

5.2. Troubleshooting

Phenomena	Reason	Solution
Dryer not working	➤ No power supply ➤ Out of phase, phase loss ➤ Fuse blown	➤ Check power supply ➤ Replace fuse
Ineffective moisture separation	➤ Dust clogged filter ➤ Obstructions to the air inlet and outlet ➤ The main door or window of the room is open or the room has a large gap ➤ The refrigerant gas system in the dehumidifier is leaking, in this case the air in the dry air supply line is not warm.	➤ Clean the dust filter ➤ Check and remove obstructions from the air inlet and outlet ➤ Check and close all doors, seal gaps ➤ Contact supplier for support
Water Leak	➤ The machine is tilted. ➤ Drain pipe is clogged	➤ Adjust the machine to balance. ➤ Drain pipe cleaning
Other unusual phenomena	➤ The machine should not be placed on a hard, solid surface. ➤ Filter is disabled	➤ Place the machine on a stable surface. ➤ Clean the filter

**FOR ANY QUESTIONS, PLEASE CONTACT
OUR CUSTOMER SERVICE CENTER**



Hotline: +84 925 977 579

