

DeAir.RE

Heat-Pump DeAir Dehumidifier

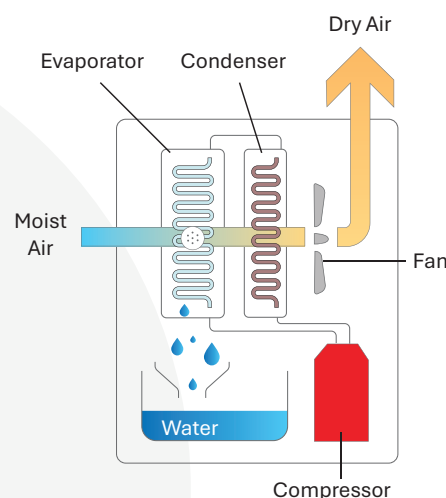


Impact of high humidity on production and preservation of goods:

- In production: Reduced quality (mold, rust, deformation, slow drying), process interruption (electronic errors), increased costs (error handling, extended time).
- In storage: Damage to goods (bacteria, mold, insects), reduced storage time, affected packaging (mold, rot).

Operating principle of condensing dehumidifier

- First, the centrifugal fan draws humid air into the unit. At the evaporator coil, the air is cooled below its dew point, causing moisture to condense and drain away. The now-cooled air then passes through the condenser coil to be reheated. Finally, the warm, dry air exits, enters the target area, and continues the dehumidification cycle.
- For enhanced efficiency and durability, integrate the following: a pre-filter before the evaporator to clean the air and prevent clogging; a defrost function to remove frost buildup on the coil in low temperatures; and an automatic humidity controller to self-regulate the dehumidifier and maintain the desired humidity.



Key Components



Hydrophilic E-coated evaporator coil

40% faster and more efficient dehumidification



High-performance compressor

Features internal circuit breaker and high/low pressure protection



Airtight centrifugal fan

Smooth, quiet, high-performance operation



Humidity control panel

Automatic and energy-saving operation

Energy-Saving Heat-Pump Technology in DeAir Dehumidifiers

The **Heat-Pump technology** in DeAir.RE dehumidifiers is a significant advancement over conventional condensing dehumidifiers. Instead of simply cooling to condense moisture, **Heat-Pump technology** utilizes the heat generated during condensation to warm the air after it has been dehumidified. This offers several benefits:

- **Higher Energy Efficiency:** Reusing heat reduces electricity consumption compared to standard dehumidifiers.
- **Better Low-Temperature Performance:** Heat-Pump dehumidifiers maintain stable dehumidifying efficiency even in low ambient temperatures.
- **Less Cooling of Surroundings:** Because the discharged air is gently warmed.



DeAir.RE Three-Phase Heat-Pump Dehumidifier



Model	Dehumidification Capacity
DeAir.RE-192	192 kg/day
DeAir.RE-300	300 kg/day
DeAir.RE-500	500 kg/day
DeAir.RE-600	600 kg/day
DeAir.RE-900	900 kg/day
DeAir.RE-1200	1200 kg/day



Technical Specifications

Model		DeAir.RE-192	DeAir.RE-300	DeAir.RE-500
Operating Temperature	°C	15-60	15-60	15-60
Dehumidification Capacity @30°C/70%	kg/day	192	300	500
Airflow	CMH	2,500	3,000	4,500
Noise Level	dBA	59	59	65
Refrigerant Type		R410A		
Refrigerant Charge	kg	1.9	1.9	3.2
Power Supply	V/Ph/Hz	380/3/50		
Power Consumption	kW	4.6	4.6	7.6
Dimensions (W x D x H)	mm	780x480x1,650	780x480x1,650	1,250x600x1,800
Weight	kg	160	160	200

Model		DeAir.RE-600	DeAir.RE-900	DeAir.RE-1200
Operating Temperature	°C	15-60	15-60	15-60
Dehumidification Capacity @30°C/70%	kg/day	600	900	1,200
Airflow	CMH	6,000	9,000	12,000
Noise Level	dBA	65	72	72
Refrigerant Type		R410A		
Refrigerant Charge	kg	4.3	6.4	8.6
Power Supply	V/Ph/Hz	380/3/50		
Power Consumption	kW	9.2	13.8	18.4
Dimensions (W x D x H)	mm	1,250x600x1,800	1,400x720x1,800	1,750x800x1,800
Weight	kg	250	450	500

* For dehumidifiers with a capacity of less than 150L/day, the duct must be less than 3m. For dehumidifiers with a capacity of over 150L/day, the duct must be less than 5m.

* Industrial dehumidifiers operating in an environment between 15-18°C must be equipped with an additional defroster for the dehumidifier to work properly.

Heat-Pump technology in dehumidifiers DeAir.RE superior to conventional condensers by taking advantage of the heat from the condensation process to reheat the dehumidified air.

Advantages: energy saving, good moisture absorption at low temperature, little change in ambient temperature.

