

# humidry®

Ceiling Mounted Desiccant Rotor  
Multifunctional Dehumidifier

Bathroom / Walk-in Closet / Cloakroom / Storage

Solution to  
Your Humidity  
Problem for  
Small Spaces



### **Exclusive Cool Air Dehumidification Technology**

Traditional humidifiers have an undesired effect of increasing the indoor air temperature, this is especially uncomfortable during hot and humid days. HumiDry® excels with revolutionary Cool Air Dehumidification Technology that effectively dehumidifies while keeping the air at a comfortable temperature.

### **Smart Room Heating**

Incorporates high safety dual channel PTC ceramic heaters, and environmental condition awareness Smart Temperature Control to keep your room at a comfortable temperature during the cold days.

### **Automatic 24-hr Monitoring**

Exclusive smart temperature and humidity monitoring technology for 24-hr protection from mold and mildew.

### **DC Inverter Brushless Motor**

High efficiency and reliability, providing a quieter experience while lowering your energy bills.

### **Multiple Safety Features**

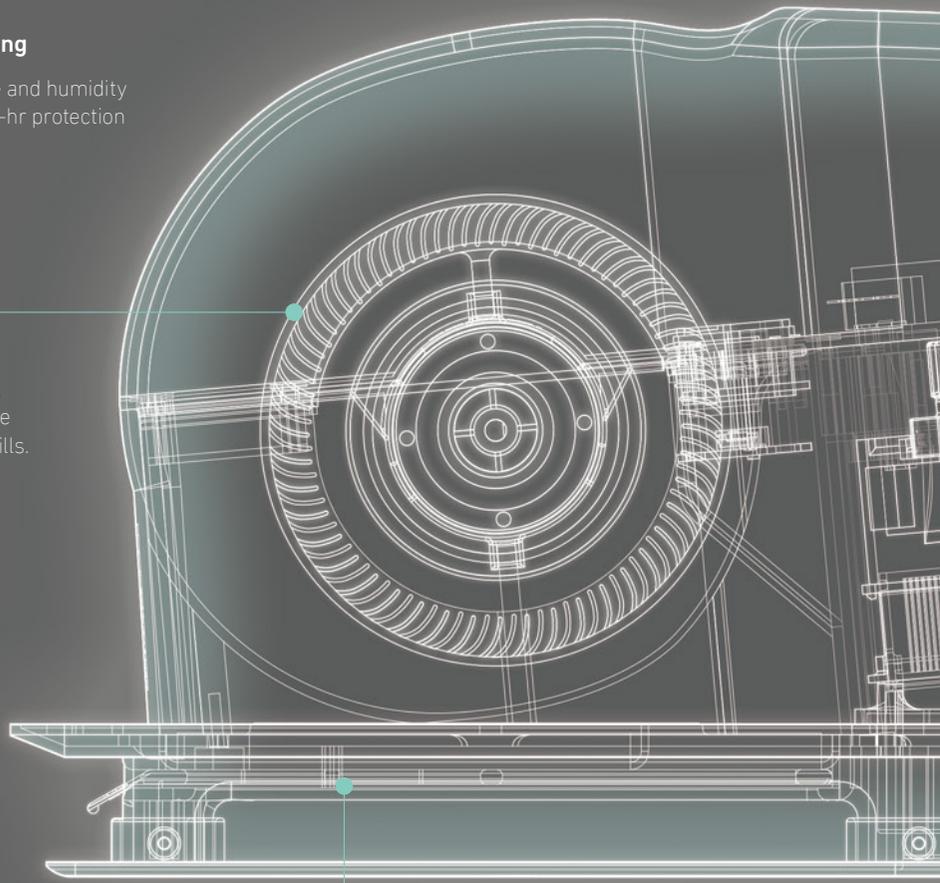
Heat resistant thermoplastic unit body, PTC and multiple layers of software/ hardware protection, resettable thermal fuse, OVP and OCP protected Power Supply for worry-free safety operation.

### **Omnidirectional Air Recirculation Design**

Effectively circulates the indoor air to shorten operation time, increase efficiency and ventilation.

### **Filter Cleaning Reminder**

Washable filter for keeping dust and lint out and is easy to disassemble. Built-in reminder to help you keep your room fresh and clean.

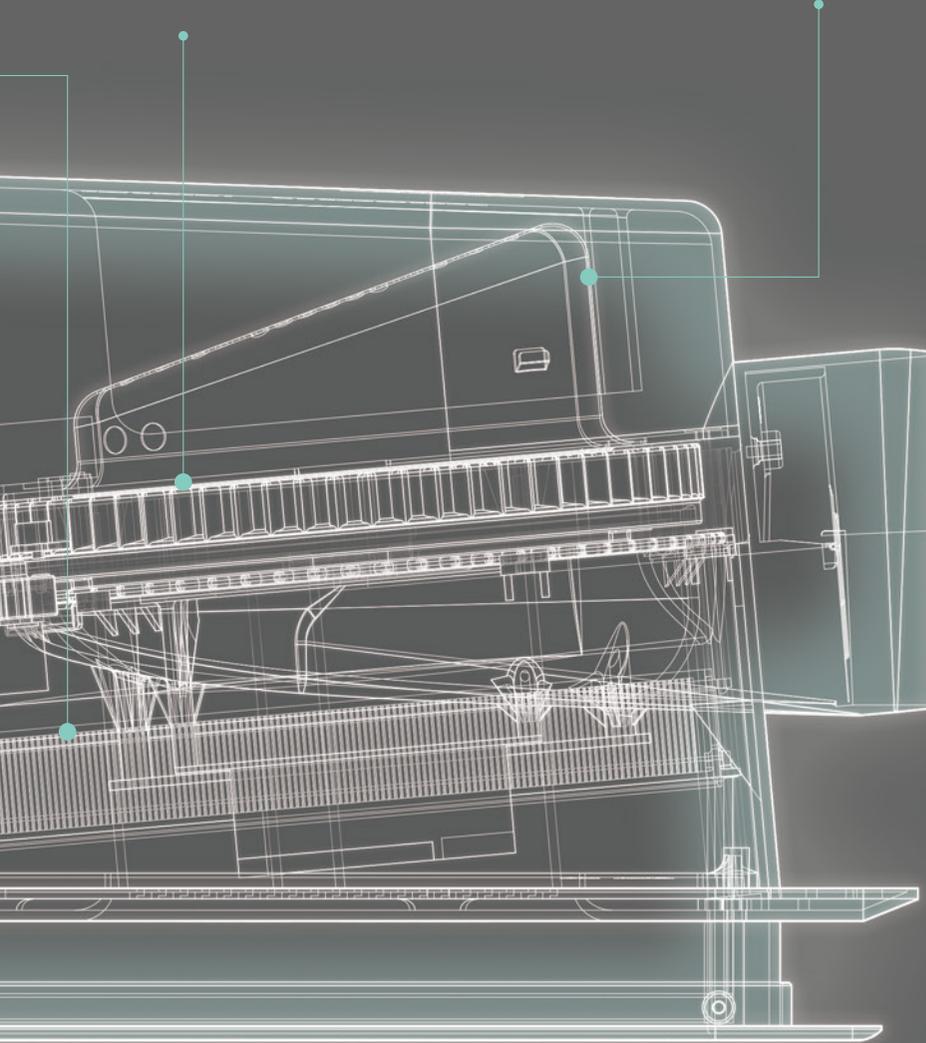


### High Capacity Dehumidification for a Peace of Mind

Japanese made Zeolite Desiccant Rotor with excellent dehumidification capability regardless of the ambient temperature. Zeolite also has great molecular adhesive properties which also improve air quality.

### True Dehumidification Without Decanting

Proprietary and patented Dew Point Control Technology, the exhaust moist air is processed so that it does not condense within the exhaust air duct.



### Excellent for Odor Control

Unique electronic rotary air valve for protection from foul odor leaking in from the exhaust air duct.

### Remote Control Option for Your Benefit

Designed for locations that do not have preinstalled wiring, for easier hassle-free installation.

### Clean Wall Touch Panel Design

Elegant and intuitive design for ease of control. Screen goes to sleep in standby and monitoring modes, wakes up to display current status.

### Smart Home Ready (Optional)

RS-485 protocol support for integration with Smart Home of future. WiFi and Smart Phone App management capability. (Currently in development, requires purchasing of additional hardware.)

# Stressing about mold and mildew in your bathroom?

Since we use our bathroom every day, it is the most likely place to have moisture buildup. This is most prevalent after showers when the room is filled with lots of water vapor, or when humid air is brought in during raining monsoon seasons. The resulting high relative humidity often contributes and exacerbates to mold and mildew growth if left unattended.

Maintaining the ideal indoor relative humidity is the best way to prevent unsanitary mold and mildew growth. **HumiDry® incorporates Japanese made Zeolite Desiccant Rotor and is equipped with multiple patented technologies, to keep your bathroom clean and comfortable with minimal effort.** Moreover, with functions such as Smart Room Heating, Smart Clothes Drying, Air Ventilation, Air Recirculation, HumiDry® is truly an all-in-one appliance your bathroom needs.



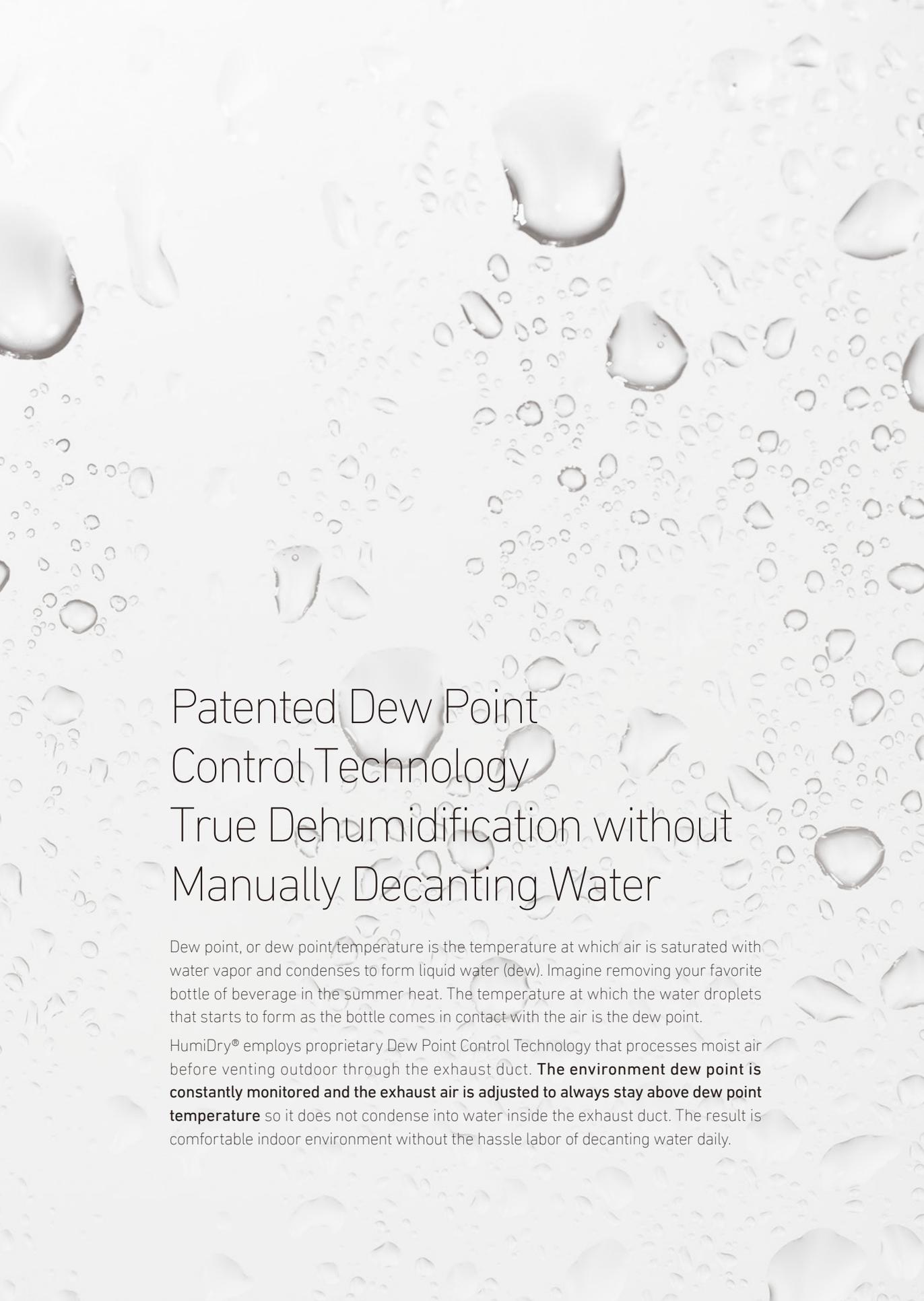


MADE IN JAPAN

# Zeolite Desiccant Rotors are Excellent for Wide Temperature Range! Environmental Friendly & Safe

Zeolite is a natural mineral with superior absorbing property of water and pollutants. **Combining with the ability to be reactivated, zeolite is also an effective medium for purifying the air.**

HumiDry® uses Japanese made Zeolite to absorb moisture from the air. After heating, air is separated into water vapor and dry air. The hot water vapor is expelled, while comfortable dry air is recirculated back into the room. Zeolite Desiccant Rotors do not deteriorate over time, thus, do not need service or replacement.



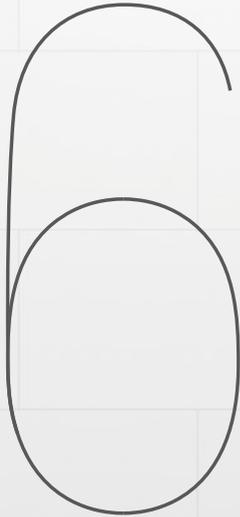
# Patented Dew Point Control Technology True Dehumidification without Manually Decanting Water

Dew point, or dew point temperature is the temperature at which air is saturated with water vapor and condenses to form liquid water (dew). Imagine removing your favorite bottle of beverage in the summer heat. The temperature at which the water droplets that starts to form as the bottle comes in contact with the air is the dew point.

HumiDry® employs proprietary Dew Point Control Technology that processes moist air before venting outdoor through the exhaust duct. **The environment dew point is constantly monitored and the exhaust air is adjusted to always stay above dew point temperature** so it does not condense into water inside the exhaust duct. The result is comfortable indoor environment without the hassle labor of decanting water daily.



**humidry**® Ceiling Mounted Desiccant Rotor  
Multifunctional Dehumidifier



# POWERFUL FUNCTIONS

For  
Protecting Your Living Spaces





## Cool Air Dehumidification

Dehumidification while maintaining ambient room temperature and conserving energy. Suitable for all seasons, but a must for hot humid summers!

 **AUTO\* + Five Preset Off Timers**



## Enhanced Dehumidification

Increased dehumidification capacity while circulating warm air back into the room. Especially good for those wet and cold winter climates.

 **AUTO\* + Five Preset Off Timers**



## Smart Room Heating

Smart room heating to help enhance your bathing experience.

**Five Preset Off Timers**



## Smart Clothes Drying

Drying your clothes by evaporating the moisture on your clothes and expelling the moisture out of the room.

 **AUTO\* + Five Preset Off Timers**



## Air Circulation Indoor Air

Recirculating indoor air to every corner of the room so air does not become stagnant.

**Always On/ Five Preset Off Timers**



## Air Circulation Vent Air

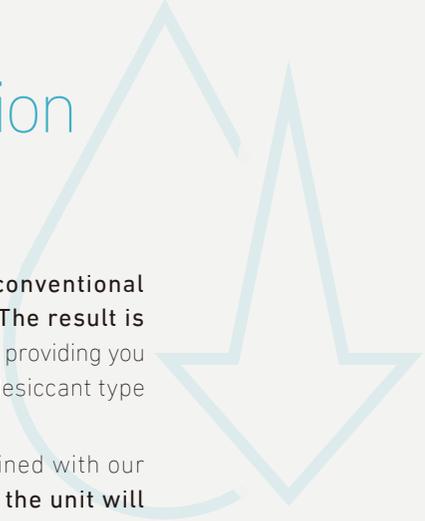
Suitable for removing odor and water vapor after showers.

**Always On/ Five Preset Off Timers**

### **AUTO**

Setting Auto when running in any of the dehumidification functions will allow the HumiDry® unit to automatically detect humidity and temperature, calculate the ideal humidity level and begin dehumidification. The unit will go into monitoring mode once target is reached. Dehumidification restarts automatically when indoor conditions change.

# Cool Air Dehumidification



**AUTO**

**Five Preset Off Timers**

Proprietary dehumidification technology **solves the conventional dehumidifier problem of raising room temperature. The result is ambient room temperature during dehumidification** while providing you 30% energy saving compared to traditional stand-alone desiccant type dehumidifiers.

HumiDry® uses highly accurate humidity sensor, combined with our in-house smart monitoring technology. **In auto mode, the unit will determine, automatically, when to start dehumidification and when to stop, based on the environmental conditions.** It is fully automated and smart enough to prevent accidental triggers from opening and closing doors.

# Enhanced Dehumidification



**AUTO**

**Five Preset Off Timers**

The typical solution to those wet winters is to turn up the thermostat or turn on the heater. The problem with this that the humidity issue is overlooked and further sacrificed when rooms are sealed tight to prevent heat from escaping. A prolonged period of this can turn any indoor space into a hotbed for bacteria and dust mites.

HumiDry® **brings out warm air in Enhanced Dehumidification and automatically detects, controls and monitors your indoor environment based on the changes in weather.** Placing you constantly in a setting of ideal temperature and humidity.

# Smart Room Heating



## Five Preset Off Timers

The dual channel of PTC heater, combined with our exclusive smart temperature control technology, **automatically heat and maintain ambient indoor conditions.** Be it cool autumns or chilly winters, the ceramic heater automatically adjusts the wattage, bringing you comfort without the waste of energy.

HumiDry® utilizes PTC heaters with exceptional properties such as, heat resistant, high thermal conductivity, superior insulation, long lifespan, corrosion resistant, as well as increased level of safety in knowing your heater will not catch on fire from lint and paper.





## Smart Clothes Drying

**AUTO**  
**Five Preset Off Timers**

Did you know that mold can grow in any corner of the house? The greatest downside of drying your clothes indoors is the increased humidity from evaporation. This rise in humidity will promote mold and mildew growth especially when there is a lack of ventilation. The risk is not only in the negative effects to your belongings and property, but also in the health of respiratory systems and the skin.

HumiDry® Smart Clothes Drying **calculates the optimal time it takes to dry and dehumidify based on the volume and humidity of clothes.**

In the days without any sunlight, HumiDry® is your own little sun.



## [Air Ventilation & Recirculation] Air Circulation

Always On  
Five Preset Off Timers

Good ventilation is the key to maintaining good air quality and personal health. **Using HumiDry® for air circulation is beneficial for improving indoor air quality.** It could also help alleviate symptoms of drowsiness, tiredness, headaches, nausea, eye and throat irritation caused by stale air due to poor ventilation in a tight enclosed indoor area.

In the case where there are no windows, air ventilation is great for removing odor and water vapor from bathroom/ indoor area. Activating the "Vent Air" function effectively and quickly removes odor and excess moisture from the indoors. Moreover, to further improve the air circulation efficiency, while venting the air, a small portion of the indoor air is recirculated back indoors to improve circulation efficiency.

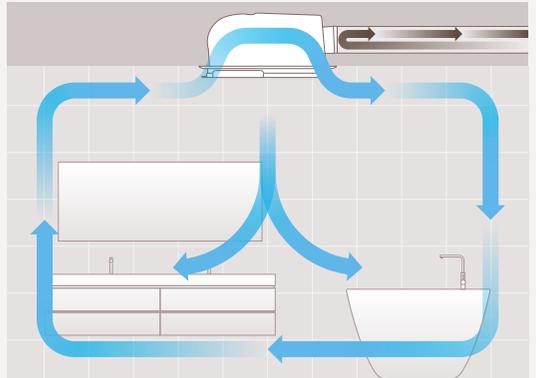
In addition, the "Indoor Air" air recirculation function effectively recirculates indoor air, when activated, it greatly improves air flow within the room, reaching every corner.

# Air Flow Diagrams

\* With the exception of Smart Room Heating and Air Recirculation, all remaining functions also provide air ventilation while in operation.

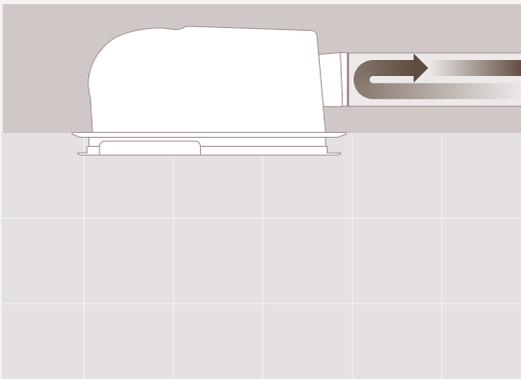
## Air Recirculation

Improves air flow within the room, reaching every corner to provide you with a comfortable breeze.



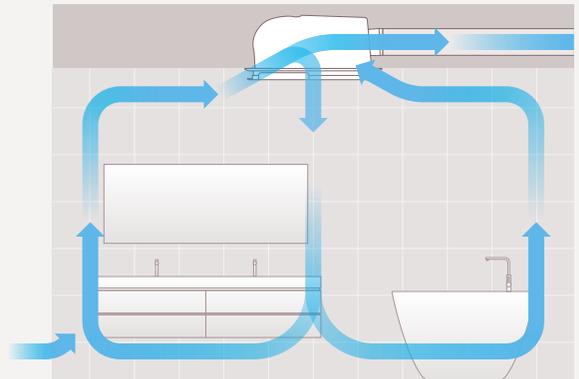
## Standby Monitoring/ Powered OFF

Unique patented rotary air valve effectively controls air flow, also prevents air entering indoors through exhaust duct.



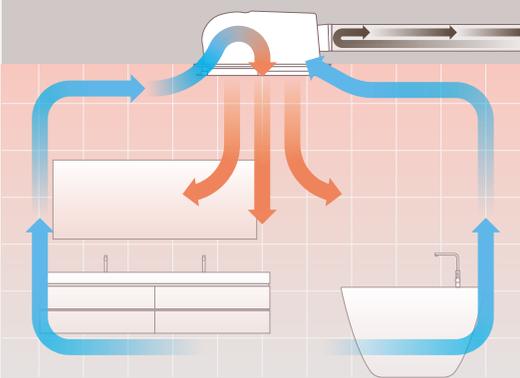
## Air Ventilation

Great for odor removal, HumiDry® can quickly vent high moisture air directly outdoors, and recirculates indoor air partially to increase air circulation. Meanwhile, by venting the unwanted air outdoors, fresh air is refilled through door gap from other indoor spaces.



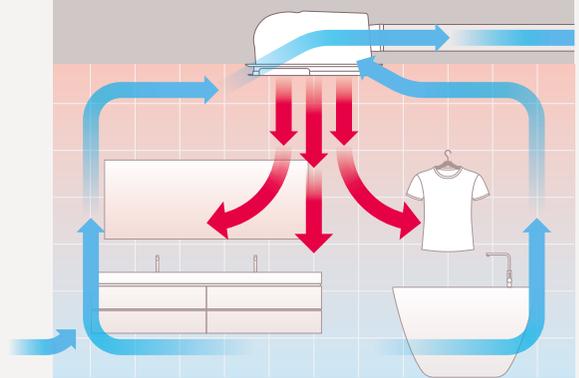
## Smart Room Heating

HumiDry® quickly heats up and recirculates warm air back into the room, and automatically maintains comfortable indoor temperature for best comfort during the cold days.



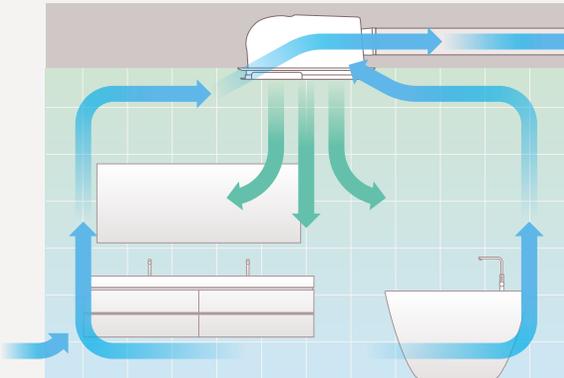
## Smart Clothes Drying

HumiDry® continuously detects and controls indoor temperature to maximize water evaporation from clothes being dried, while maintaining maximum efficiency of moisture removal via dehumidification. HumiDry® intelligently dries the clothes and automatically stops when all the clothes have been dried.



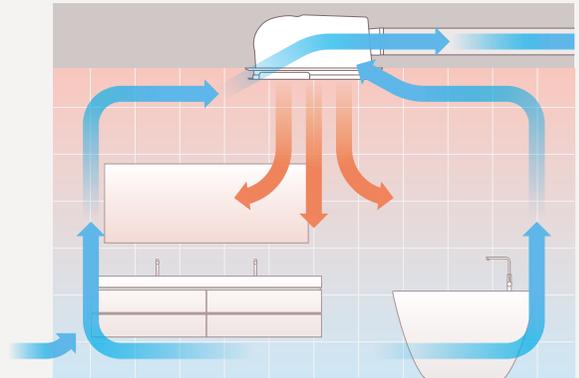
## Cool Air Dehumidification

HumiDry® separates indoor moist air into moist and dry air while maintaining the ambient air temperature. The moist air is processed with Altrason's proprietary dew point control technology, vented outdoors, while the processed dry air gets recirculated back indoors. Effectively accomplishes true dehumidification without the need of manually decanting water.



## Enhanced Dehumidification

Moderately increase indoor air temperature to help with evaporation and dehumidification. HumiDry® separates indoor moist air into moist and dry air. Moist air is processed with Altrason's proprietary dew point control technology then vented outdoors, while the processed dry air gets recirculated back indoors. Effectively and quickly accomplishes true dehumidification without the need of user pouring out water.





**humidry**<sup>®</sup> Ceiling Mounted Desiccant Rotor  
Multifunctional Dehumidifier

3 Different Models  
Endless Possibilities

Depending on indoor temperature, the ideal humidity is between

**40%RH ~ 70%RH**

Automated Intelligent Humidity Control, perfect for wide range of environments, no matter if it's hot and humid or damp and cold, HumiDry® has got you covered:

1

## Enhanced Model

Fully functioned, perfect for wide range of locations. Incorporates Cool Air Dehumidification, Enhanced Dehumidification, Smart Clothes Drying, Smart Room Heating, Air Ventilation, and Air Recirculation. Choose from bundled with Wall Touch Panel type or bundled with Infrared Remote Control type.



Cool Air  
Dehumidification



Air  
Ventilation



Air  
Recirculation



Enhanced  
Dehumidification



Smart  
Clothes Drying



Smart  
Room Heating

2

## Standard Model

Ideal for hot and humid locations. Incorporates Cool Air Dehumidification, Air Ventilation, and Air Recirculation. Choose from bundled with Wall Touch Panel type or bundled with Infrared Remote Control type.



Cool Air  
Dehumidification



Air  
Ventilation



Air  
Recirculation

3

## Closet Model

Great for closet and storage locations. Incorporates Cool Air Dehumidification and operates only in Automated Intelligent Humidity Control mode. Unit is ready to plug and play, connects directly to power switch, and greatly simplifies installation and usage, if automated dehumidification is the only function needed.



Cool Air  
Dehumidification



# Friendly Control Interface Simplifies User Experience

HumiDry® Enhanced model and Standard model offer two types of control interface options. The Wall Touch Panel type is equipped with tempered glass, touch sense interface, crystal clear LCD screen and backlit touch sense buttons. It offers high durability and resistance to moisture and can be operated in a wide range of environments. The Infrared Remote Control type is made of impact resistant ABS plastic and durable high transparency PC plastic. It is equipped with crystal clear LCD screen, unique bidirectional infrared transceiver, while offering the convenience of wireless remote and uncompromised functionality.

The arrangement of the buttons and the control interface is designed to simplify the user experience, one simple touch automatically takes care of indoor environment needs.

## Power Saving Standby

Wall Touch Panel – Under intelligent AUTO mode, after the ideal humidity level has been achieved, the wall panel screen will enter power saving mode. Simply touch any button on the Wall Touch Panel to wake it up.

Infrared Remote Control – When the remote control is left unattended for a while, it will enter power saving mode to conserve battery. Simply move the remote control to wake it up.

## Always Resume AUTO

When this setting is activated, HumiDry® will remember the last dehumidification mode used (either Cool Air Dehumidification or Enhanced Dehumidification) and resume to that mode once any current job has been completed. This is convenient in keeping your environment at ideal humidity while being able to enjoy other functions without needing to manually set HumiDry® back to dehumidification mode.

## Humidity Preference

Depending on personal preference, HumiDry® also allows user to configure humidity preference for Intelligent AUTO mode. User can choose between: NORMAL, HIGH, LOW humidity preferences.

## Status Indicator

Easily allows user to identify current operation status or mode.

## Intelligent AUTO Mode

Continuously monitors indoor environment conditions, automatically determines and maintains the ideal indoor humidity level during dehumidification modes; intelligently detects and dries clothes efficiently during clothes drying mode.

## OFF Timer Mode

Schedule a one-time operation, after the operation completes, the unit powers off or resumes to AUTO dehumidification after the operation, depending on configuration in the settings menu.

# humidry® Wall Touch Panel

※ for HumiDry®  
bundled with wall panel



[ Enhanced Model ]



Smart  
Room Heating



Cool Air  
Dehumidification



Enhanced  
Dehumidification



Smart  
Clothes Drying



Air  
Circulation

- Vent Air
- Indoor Air

(Pressing repeatedly or Up/Down arrow  
key switches between the functions.)



[ Standard Model ]

\*Closet Model incorporates Cool Air Dehumidification and operates only in Automated Intelligent Humidity Control mode. (No Wall Panel)



**Power Off  
Settings**

(Long press 3 seconds)



**Off Timer**

Choose between AUTO  
or Five Preset Off Timers



**Humidity Indicator**  
Dry/ Ideal/ Moist/ Humid



**Dehumidification/  
Clothes Drying  
Progress Bar**

Settings: Languages, Humidity  
Preference, Power Lost  
Resume, Always Resume AUTO

humidry®

## Infrared Remote Control

※ for HumiDry® bundled with remote control



[ Enhanced Model ]



Smart  
Room Heating



Cool Air  
Dehumidification



Enhanced  
Dehumidification



Smart  
Clothes Drying



Air  
Recirculation



Air  
Ventilation



\*Closet Model incorporates Cool Air Dehumidification and operates only in Automated Intelligent Humidity Control mode. (No Infrared Remote Control)

[ Standard Model ]



**Power Off  
Settings**

(Long press 3 seconds)

Settings: Languages, Humidity Preference, Power Lost Resume, Always Resume AUTO



**Off Timer**

Choose between AUTO or Five Preset Off Timers



**Information  
(Acquire Status)**

Humidity Indicator, Dehumidification/ Clothes Drying Progress Bar, Status Message, Filter Cleaning Reminder



**Reset Filter  
Cleaning Reminder**

(Long press 3 seconds)



Self-Resettable  
Thermal Fuse



System Wide Short-Circuit  
Protection Fuse



High Quality FR-4  
Grade PCB



Built with  
Thermoplastic Materials

# Unprecedented Safety Design Unparalleled peace of mind

HumiDry® offers you comfortable home environment without keeping you mindful.



Intelligent Software System  
Wide Safety Safeguards



IPX2  
Water Resistant Rating



DC PWM Brushless Motor  
with Over-Temperature  
and Over-Current Protection



PTC Dual Channel Ceramic  
Heater with Protection Fuse



European VDE  
Safety Certified AC Relay



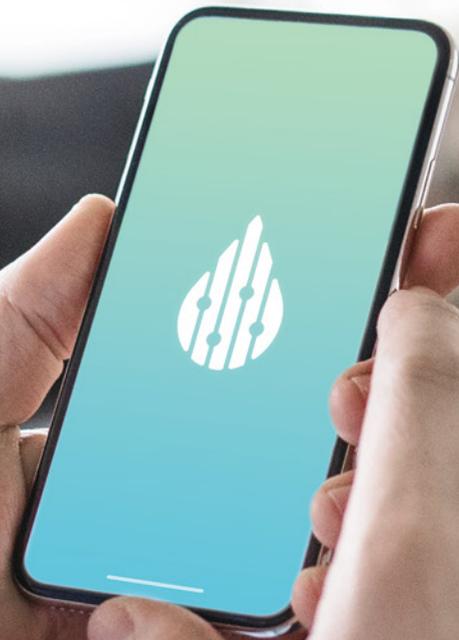
Industrial AC Power Supply with  
OVP (Over-Voltage Protection) &  
OCP (Over-Current Protection)

# Extraordinary Automation Intelligence and Control

Being able to manage and control your home from the tip of your finger is convenient, that's why Altrason designs its products with ability to adopt home automation and user's ease of use in mind.

HumiDry® incorporates industry standard RS-485 communication protocol, offering ability to be adopted into various home automation standards. In addition, with Altrason's Centralized Control Platform, large scale deployment project can be easily managed from one centralized location.

\*WiFi and App remote management features requires optional hardware, some features are in development.



# humidry® and Traditional Dehumidifiers and Air Vents Comparison

	humidry®		Traditional Standalone Dehumidifiers	Traditional Air Vents
Work Effectively Under Cold Temperatures (<12°C)	Yes 		No	—
Effective Dehumidification Range	40 ~ 100%RH 		50 ~ 100%RH limited by dew point of water	—
Method of Dehumidification	Moisture in the air is absorbed by Zeolite rotor, which is heated and moist air is directly expelled to outdoors, dry air is circulated back indoor		Metal heat exchange is cooled to near freezing point of water to cause air moisture to condense on the metal surface	—
Patented Innovative Dew Point Control	Prevents condensation in the air duct 		No	No
Resistant to Mold Growth Inside the Machine	Yes 		No, mold and bacteria could grow on heat exchange metal surface	—
Manually Dumping Water Daily	Not Needed! Moist air is vented outdoor directly through air duct 		Requires manual dumping water from water tank	—
Compressor Noise	None 		Noisy	—
Mechanical Vibration	None 		Yes, from Compressor	Slight
Refrigerant	None 		Yes	—
Able to Dehumidify Without Raising Indoor Temperature	Yes 		No	—
Room Heating Function	Yes 		No	No
Enhanced Quick Dehumidification Function	Yes 		No	No
Automated Clothes Drying Function	Yes 		No	No
Air Venting Function	Yes 		No	Yes 
Air Circulation Function	Yes 		No	No
Advanced Home Automation Compatibility	Yes 		No	No
WiFi Enabled	Yes  (Applicable to Models Equipped with Required Hardware*)		No	No
Remote Management via Mobile App	Yes  (Applicable to Models Equipped with Required Hardware*)		No	No

\* Currently in development

# Technical Specification for humidry® Product Line

Specification	Conditions	Enhanced Model		Standard Model		Closet Model	
Operation Parameter	Operation Temperature	>0°C ~ 50°C		>0°C ~ 50°C		>0°C ~ 50°C	
	Operation Relative Humidity	0%RH ~ 100%RH		0%RH ~ 100%RH		0%RH ~ 100%RH	
	Controlling Relative Humidity	40%RH ~ 70%RH		40%RH ~ 70%RH		40%RH ~ 70%RH	
Max Dehumidification Capability	25°C / 80%RH	7L / Day		7L / Day		7L / Day	
	25°C / 40%RH	7L / Day		7L / Day		7L / Day	
	10°C / 80%RH	7L / Day		7L / Day		7L / Day	
	10°C / 40%RH	7L / Day		7L / Day		7L / Day	
Max Air Flow [CFM]	—	100 CFM		100 CFM		100 CFM	
Max Air Flow [m³/h]	—	170 m³ / h		170 m³ / h		170 m³ / h	
Outlet Air Duct Size	—	4" (10 cm)		4" (10 cm)		4" (10 cm)	
Voltage	AC	100V, 110V 120V	200V, 220V 230V, 240V	100V, 110V 120V	200V, 220V 230V, 240V	100V, 110V 120V	200V, 220V 230V, 240V
Frequency	Sinusoidal Wave	50Hz / 60Hz		50Hz / 60Hz		50Hz / 60Hz	
Maximum Power Consumption	Standby Monitoring	0.004 kW					
	Cool Air Dehumidification	0.50 kW					
	Enhanced Dehumidification	1.20 kW	1.30 kW	—	—	—	—
	Smart Clothes Drying	1.20 kW	1.30 kW	—	—	—	—
	Smart Room Heating	1.50 kW	1.70 kW	—	—	—	—
	Air Ventilation	0.05 kW	0.05 kW	0.03 kW	0.03 kW	—	—
	Air Recirculation	0.05 kW	0.05 kW	0.03 kW	0.03 kW	—	—
Dehumidification Efficiency	Liters per Kilowatt Hour	0.729		0.729		0.729	
Typical Sound Level	Normal (at 3 Meters)	42 dB		42 dB		42 dB	
	Turbo (at 3 Meters)	47 dB		47 dB		47 dB	
Filter Type	—	Washable / Reusable		Washable / Reusable		Washable / Reusable	
Effective Area	Ceiling at 3 Meters	15 m²		15 m²		15 m²	
Effective Volume		45 m²		45 m²		45 m²	
Wall Panel/ Remote Control	—	Yes		Yes		No	
Automation Control	Physical Layer	RS-485		RS-485		—	
	Baud Rate	115,200 bps		115,200 bps		—	
	Max. Distance	2,000 meters		2,000 meters		—	
Key Component Material Type	Main Body Encloser	PA + GF30 Thermalplastic		PA + GF30 Thermalplastic		PA + GF30 Thermalplastic	
	Bottom Panel	ABS		ABS		ABS	
	Heater/Rotor Assembly	PET+ GF30 Thermalplastic		PET+ GF30 Thermalplastic		PET+ GF30 Thermalplastic	
	PTC Heater Encloser	PPS Thermalplastic		—		—	
	Air Valve Assembly	PPS Thermalplastic		PPS Thermalplastic		PPS Thermalplastic	
Dimensions	Above Ceiling Portion	L434 x W340 x H198 [mm]		L434 x W340 x H198 [mm]		L434 x W340 x H198 [mm]	
	Below Ceiling Panel Portion	L510 x W416 x H42 [mm]		L510 x W416 x H42 [mm]		L510 x W416 x H42 [mm]	
	Overall	L510 x W416 x H240 [mm]		L510 x W416 x H240 [mm]		L510 x W416 x H240 [mm]	
Weight	Unit	7.2 kg		6.8 kg		6.8 kg	
Air Duct Requirement	4" (10 cm) Insulated Flexible Duct	Required		Required		Required	
Ceiling Hole Size	—	L450 x W350 [mm]		L450 x W350 [mm]		L450 x W350 [mm]	



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