

procozy®

Professional Humidity Control and
Air Purifying System



Have you chosen the right dehumidifier?

Contrary to compressor type dehumidifiers, desiccant dehumidifiers utilize highly efficient and environmentally friendly desiccant instead of refrigerant. The honeycombed desiccant absorbs the humidity from the air, which after passing through a heater, goes into a heat exchanger and condenses into water. The water is then collected in the water tank while dry air is returned into the room.

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[Standard / Professional]

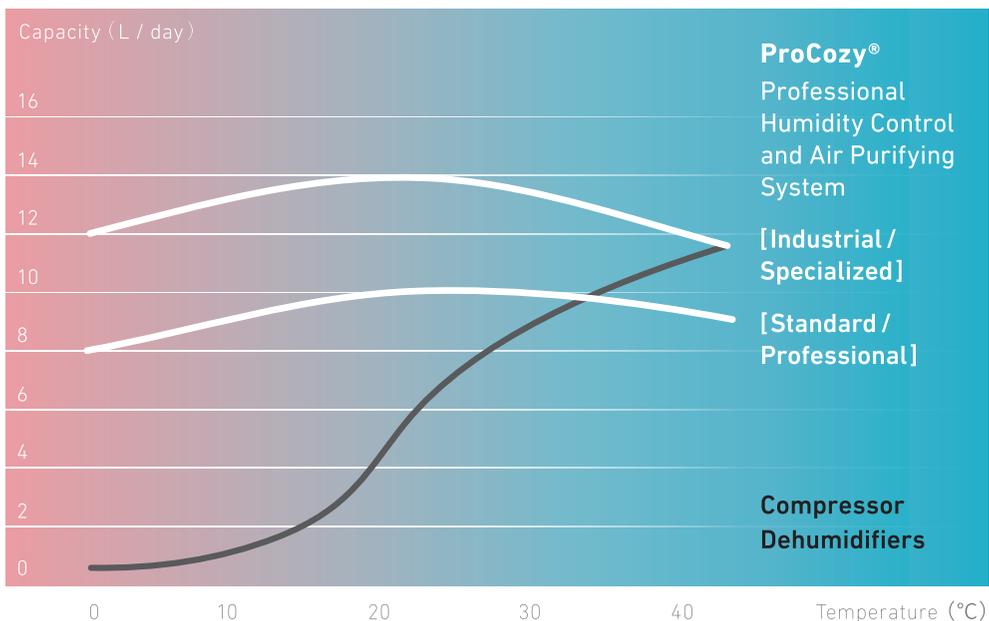
20° / 40% RH, Average 9L /day
20° / 80% RH, Average 10L /day



[Industrial / Specialized]

20° / 40% RH, Average 12.6L /day
20° / 80% RH, Average 14L /day

Dehumidifier capacity table of ProCozy® when compared to traditional dehumidifier under different temperature conditions:

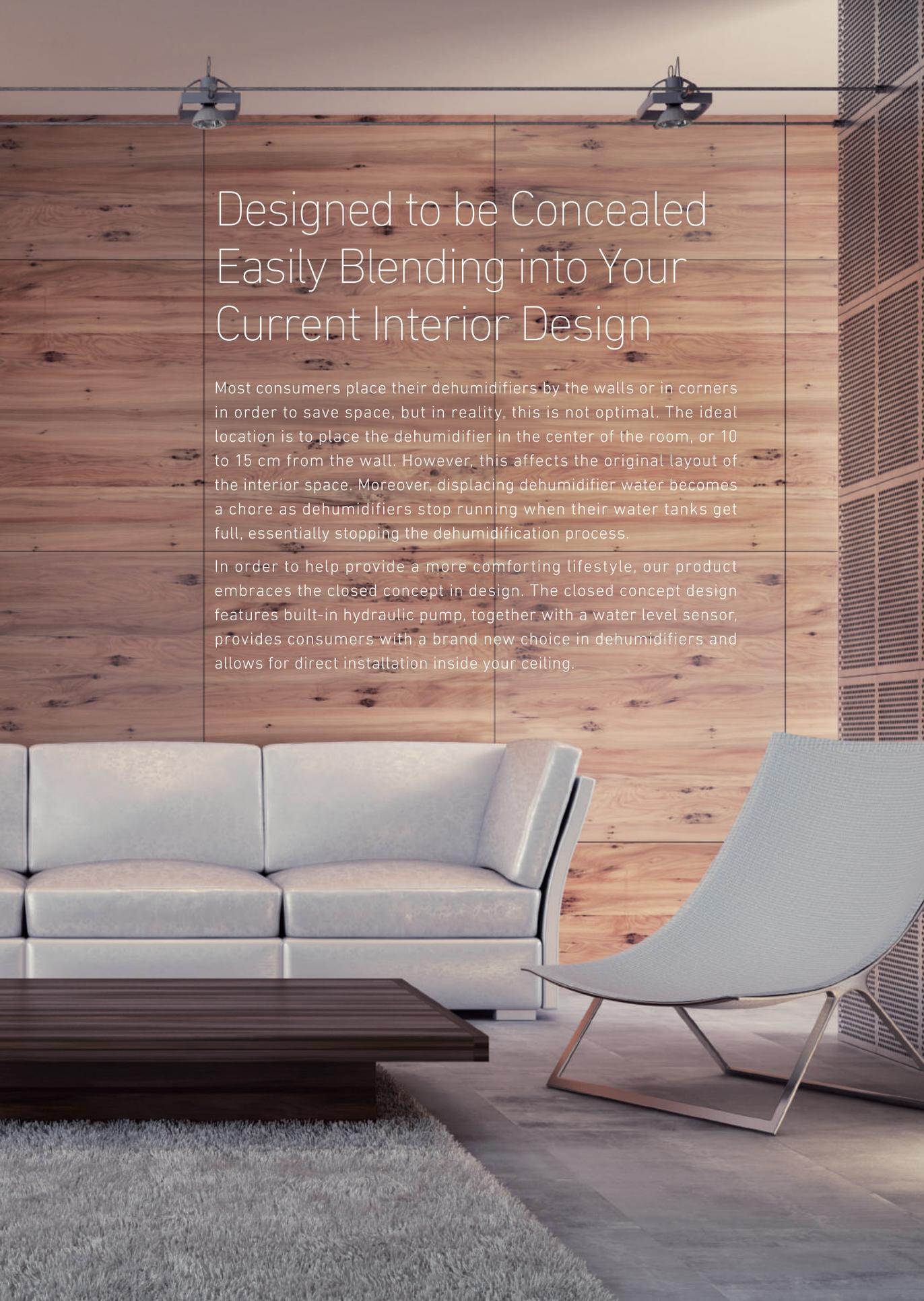


Zeolite Desiccant Rotors Produce Excellent Dehumidifying Results in Wide Temperature Range!

Our product incorporates Japanese desiccant rotor made from a nature mineral called zeolite. The microporous nature of these minerals gives our desiccant rotors superior humidity absorption and the ability to be reused. Under normal operations, **our desiccant rotors can be safely used for a very long time**. Additionally, there are studies that indicate zeolite can be used to improve air quality by trapping impurities from air, therefore working in parallel with our air filter, creating highly purified indoor air.







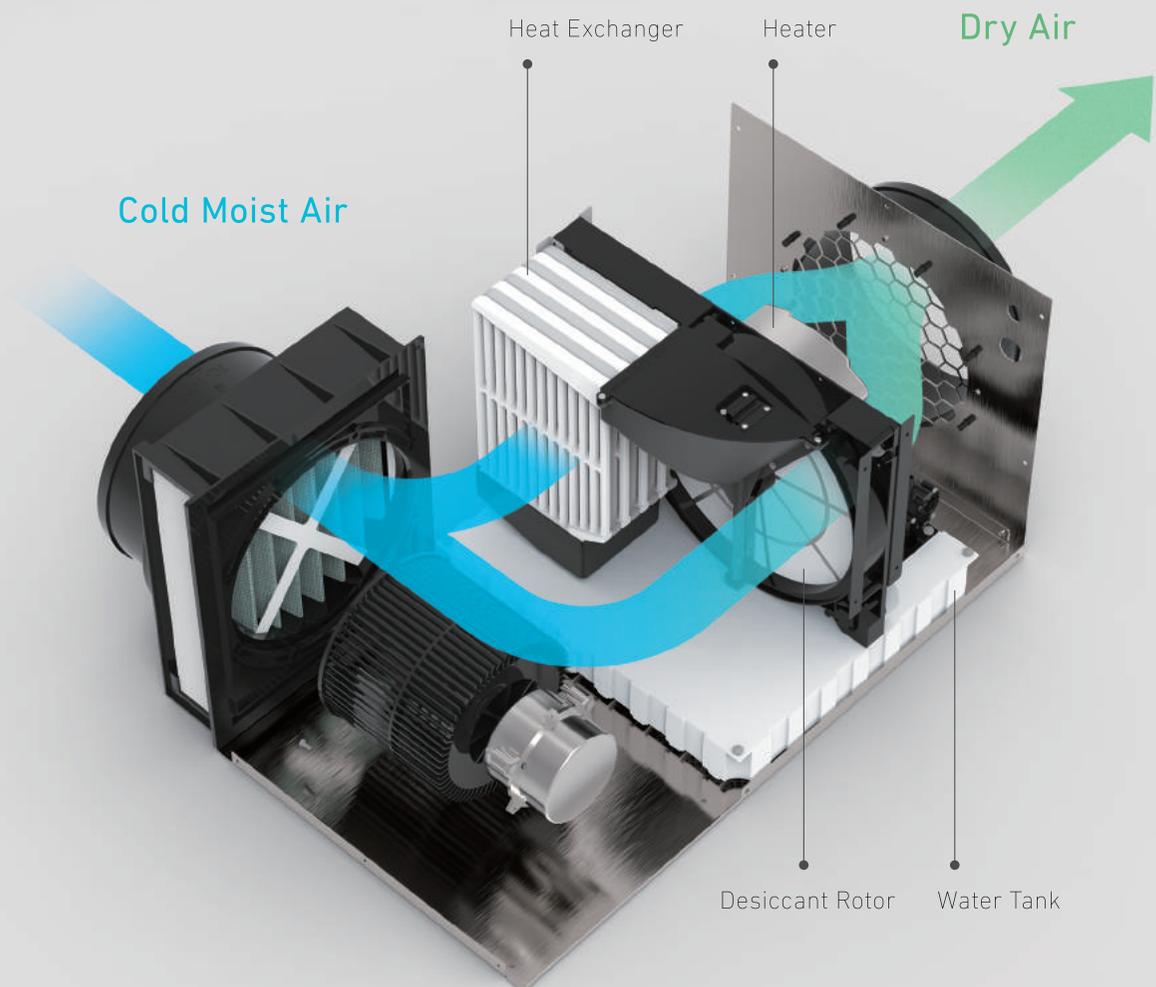
Designed to be Concealed Easily Blending into Your Current Interior Design

Most consumers place their dehumidifiers by the walls or in corners in order to save space, but in reality, this is not optimal. The ideal location is to place the dehumidifier in the center of the room, or 10 to 15 cm from the wall. However, this affects the original layout of the interior space. Moreover, displacing dehumidifier water becomes a chore as dehumidifiers stop running when their water tanks get full, essentially stopping the dehumidification process.

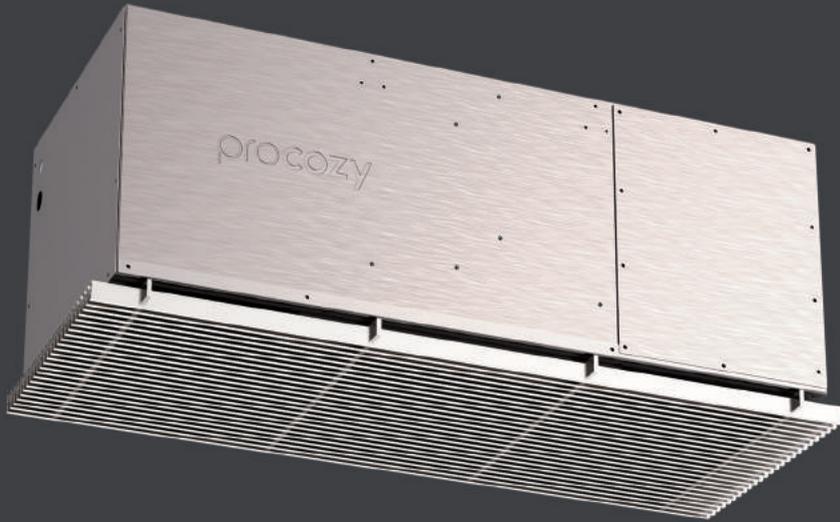
In order to help provide a more comforting lifestyle, our product embraces the closed concept in design. The closed concept design features built-in hydraulic pump, together with a water level sensor, provides consumers with a brand new choice in dehumidifiers and allows for direct installation inside your ceiling.

Total Dehumidification Upgrade

Closed concept design is not bound by the limitations of the more common upright dehumidifiers. The limitations come from the need to minimize footprint, in turn sacrificing efficiency. Our system forgoes front and back design of **desiccant rotor and heat exchanger**. **This novel parallel design** allows for an even flow of cold moist air into both the desiccant rotor and the heat exchanger, which results in faster dehumidification and reduces wind drag, improving dehumidification efficiency.



Two Models for Design Versatility



Grille Type

Easy to install, simply elegant design for use with ceiling grilles
(linear grilles for reference only, not included with unit)



Concealed Type

Use with air conditioning ducts for better management
and shared access panel

Air Filter Installation Made Easy Because We Care

Needless to Worry About
Where Your Access Panel or
Return Air Vent is

[For concealed type only]

1

Embedded

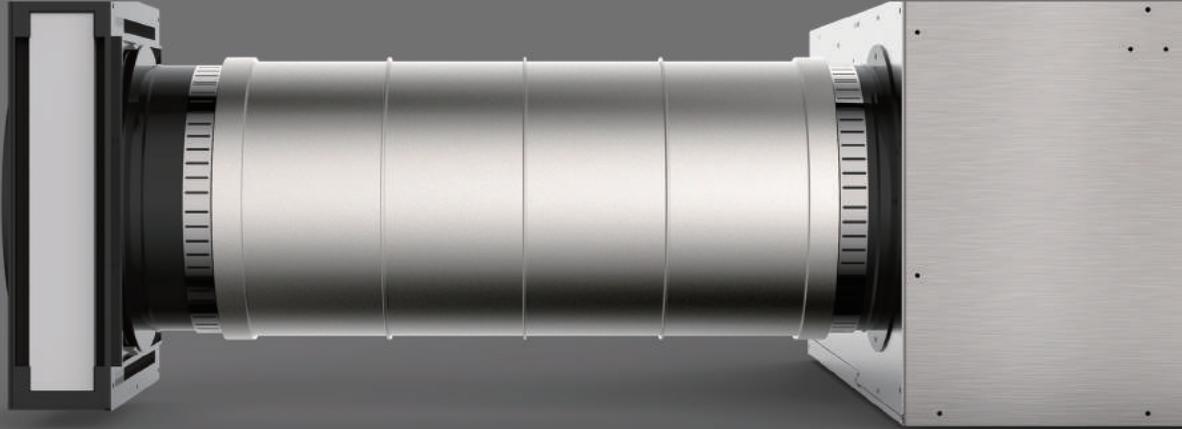
Directly attached to the side of the unit and can be attached to air conditioning ducts.



2

External

Attach air conditioning duct to the unit, then attach filter box.



3

Extended

After attaching air conditioning ducts to the unit, the filter box can be attached with air conditioning ducts on either side.

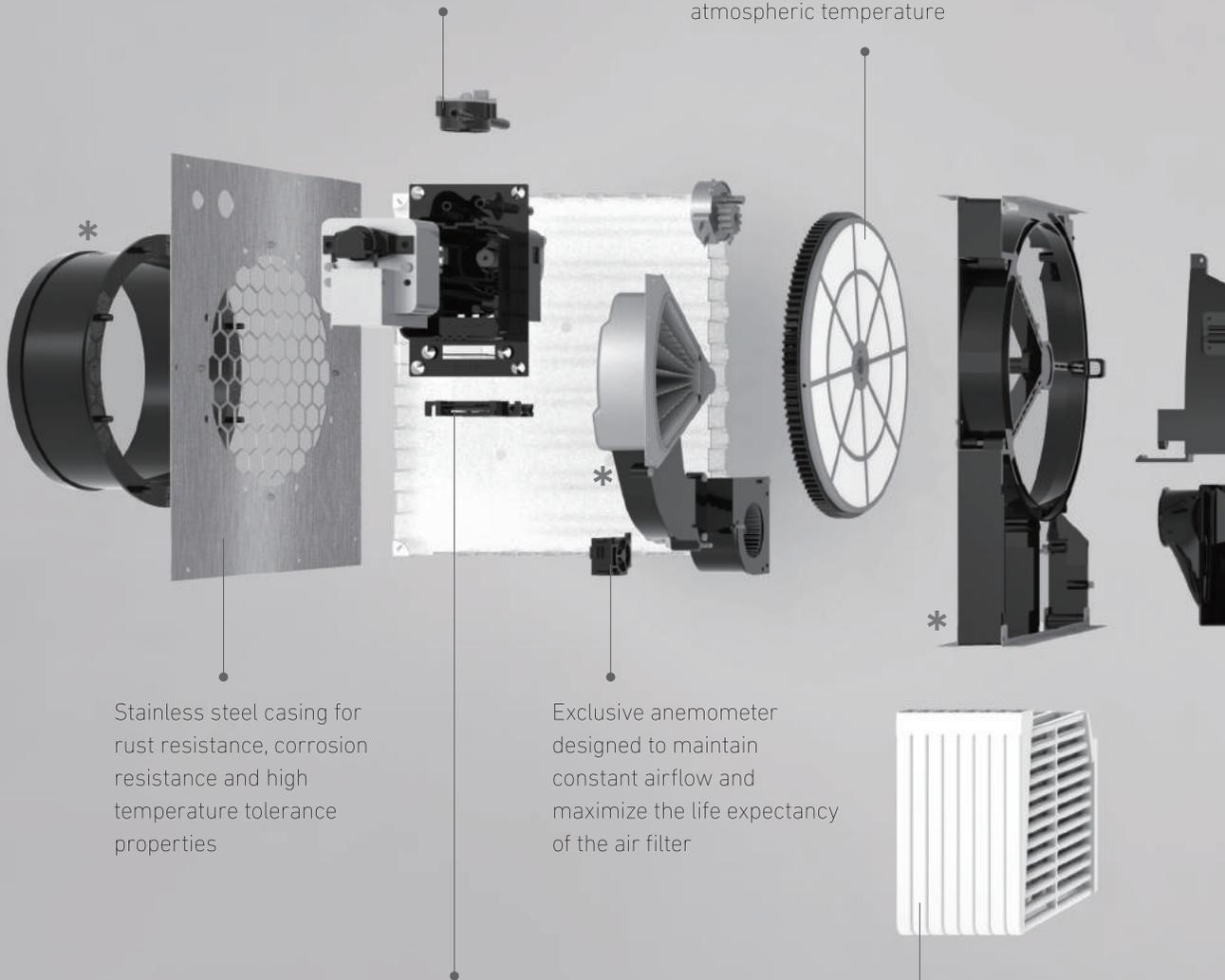


Proprietary Technology Top of the Line Component

※ Items marked with an asterisk * may have different colors depending on model or components made from different materials.

Specially designed water flow meter for accurate displacement measurement

Japanese made zeolite desiccant rotor allowing high efficiency no matter the atmospheric temperature



Stainless steel casing for rust resistance, corrosion resistance and high temperature tolerance properties

Exclusive anemometer designed to maintain constant airflow and maximize the life expectancy of the air filter

Ditching traditional mechanical water level sensors, our in-house designed system accurately detects water level and automatically pumps water up to 2 meters high. No more emptying out the water tank

Super thin heat exchanger wall measuring only 0.2 mm in thickness, increasing surface area for better heat exchange and improved energy efficiency

Built-in high precision digital humidity and temperature sensor for real time humidity and temperature reading

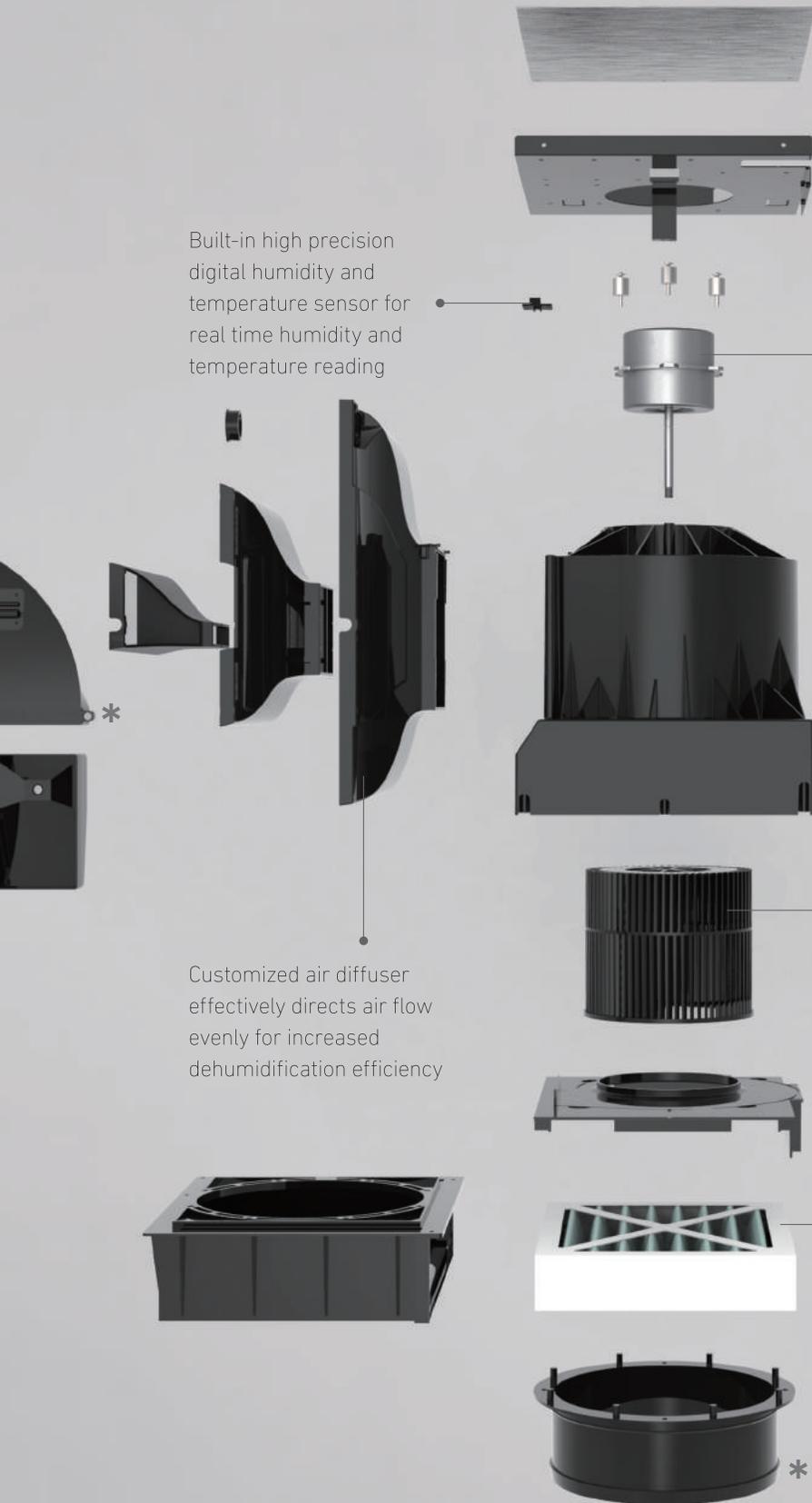
Utilizes high efficient DC inverter motor for efficiency and quietness

Our blower, pump and internal circulation motors utilize top quality sealed type ball bearings from Japan's NMB. Our motor axles are constructed with SUS304 stainless steel, providing better efficiency and extending the lifetime of the product

Customized air diffuser effectively directs air flow evenly for increased dehumidification efficiency

Independently designed centrifugal blower, producing high air pressure while maintaining ultra-quiet characteristics, provides effective airflow

ASHRAE standard MERV 11 and MERV 13 filters remove PM 2.5 from the atmosphere effectively



Ultra-Low Humidity Capability Suitable for Any Design Requirements

ProCozy® Professional Humidity Control and Air Purifying System

Supports relative humidity range from **$\leq 1\%RH$ to $70\%RH$** , not only for normal household and office space, but also suitable for **dressing room, private collections, electronics storage, file storage, hotels, etc.** Our system is also suitable for **laboratories, manufacturing plants,** and other professional applications, which require more stringent humidity control.

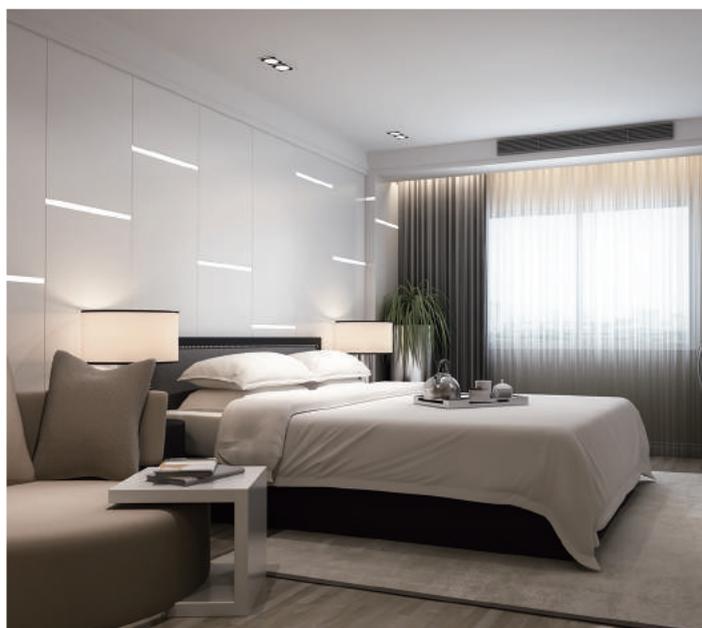
Different models for different needs:

Standard Model : $40\%RH \sim 70\%RH$

Professional Model : $30\%RH \sim 70\%RH$

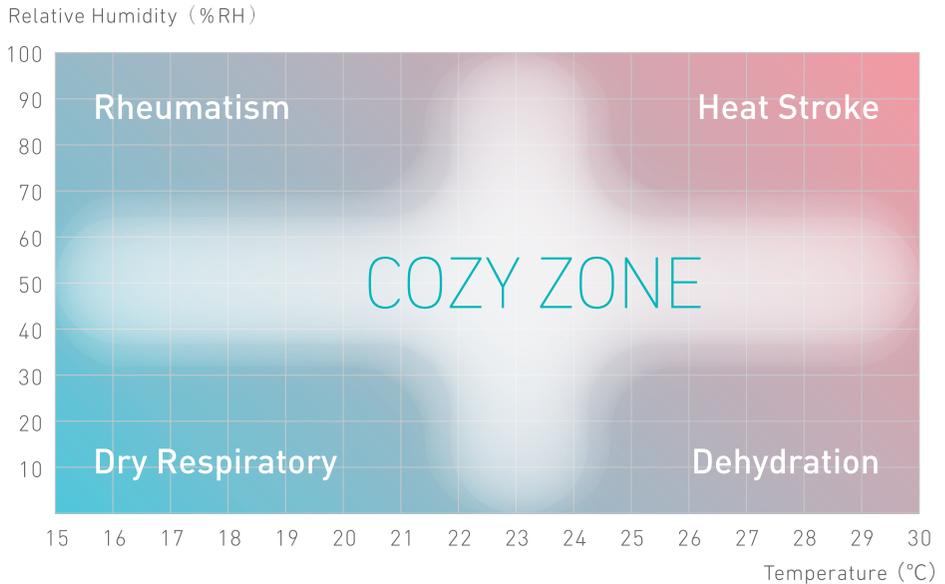
Industrial Model : $10\%RH \sim 70\%RH$

Specialized Model : $\leq 1\%RH \sim 70\%RH$

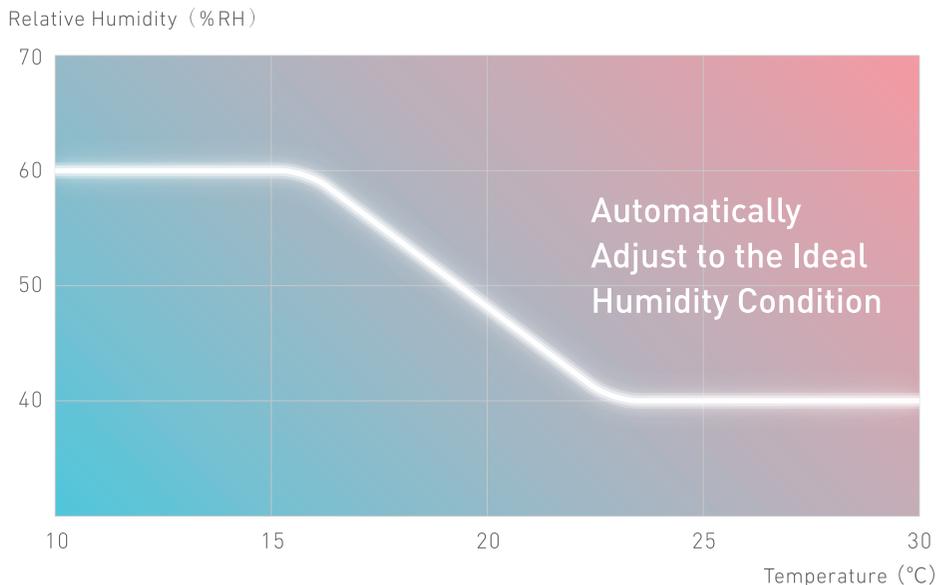




Built-in Intelligent Software Humanized COZY ZONE



ProCozy® remote control has the ability to display the current environmental condition. COZY ZONE presents the most comfortable temperature and humidity zone for the human body.



When the remote control is set to Auto, the unit will automatically adjust to the ideal comfortable humidity level in the designated space.

ProCozy® Exclusive Intelligent Remote Control



Humidity Control Setting
Allows for humidity control



Automatic Timer Function
Allows for pre-determined system shutoff



Real-Time Temperature, Humidity and System Information Display
Stay in control of your indoor environment anytime by checking system status: dehumidifying capacity, shutoff timer and air filter life expectancy.



Function Selection
Manual / Automatic /
Air Purification / System Off



Tri-Mode Intelligent Dehumidification / Air Purification
Normal / Silent / Turbo



Setting Configurations
Language Setting, Temperature Unit,
Power Lost Resume,
Reset Filter (for Standard Model only)



※ Remote color varies depending on model.

Providing Real-Time Temperature, Humidity and Detailed System Status Information, Dehumidification Capability You Can “See”

Our product comes with a dedicated remote control. This allows the user to be in control of the temperature, humidity and dehumidification status at any given time. When it comes to detecting humidity and temperature, our unit uses a highly sensitive digital sensor. A simple pick-up or waving motion activates the remote from standby, due to the accelerometer that's inside waking up the LCD display, allowing for immediate humidity and temperature information.

In addition, our industrial leading water displacement amount logging function provides water displacement information for the last 24 hours, as well as life-time accumulation. This vital information puts you in total control of your environment.



Automatic Eco Mode

When the desired humidity level has been reached, our units automatically go into standby to save energy cost.



Real-Time Environmental Humidity and Temperature Detection

Built-in high precision digital humidity and temperature sensor for real-time humidity and temperature detection.



Features Accumulated Water Displacement Amount Logging

Our independent flow meter allows for water displacement amount logging throughout our unit's operation.

ProCozy® Exclusive Wall Panel (Optional)



Function Selection

AUTO
MANUAL
AIR PURIFY



Mode Selection

NORMAL
TURBO
SILENT



Setting Configurations

Language Setting
Temperature Unit
Power Lost Resume
Reset Filter
(for Standard Model only)



Real-Time Info

Stay in control of your indoor ambient conditions, dehumidifying capacity, shutoff timer, air filter life expectancy and system status



COZY ZONE



ON / OFF



ProCozy® can effectively filter out pollen with 99.9% efficiency, so you will never have to worry about pollen allergy.

Resolving the Headache Causing Airborne Pollen

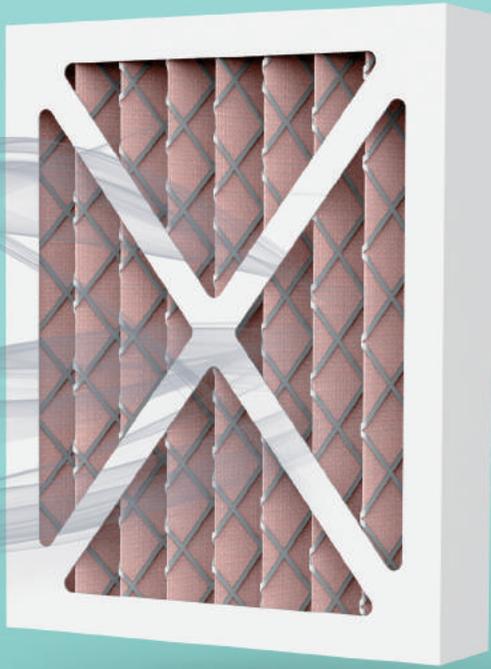
Pollen season is an annual occurrence. Respirators or dust masks may be able to protect you when you go outside, but when you return indoors, pollen may still follow you inside. Whether via the clothes drying outside or any clothing that has been worn outside, pollen cannot be avoided and will enter the house even when doors and windows are closed.

The typical pollen particle size is $30\mu\text{m}$, smaller than the human eye's detectable size of $50\mu\text{m}$. As pollen enters the room, it spreads and at prolonged exposure, will cause damage to the human body, while affecting one's work efficiency and quality of life.

High Efficiency Air Purifying Capability Providing Hospital Grade Air Quality

In addition to good air filter, it is also important to maintain good air flow through the filter. Only the perfect balance between airflow from a well-designed blower and air filter can one achieve the greatest air purification. ProCozy® uses **American ASHRAE standard MERV 11 / MERV 13 grade** air filter. When combined with our ultra-quiet blower, ProCozy® can produce 100 CFM in silent mode and 200 CFM in turbo mode, improving the air purification effectively.

Particle Size and Typical Pollutant	Filter Type	MERV 11		MERV 13	
		Efficiency (% reduction of:)	Number of passages	Efficiency (% reduction of:)	Number of passages
 0.3 ~ 1 μm All bacteria / Droplet nuclei (Sneeze) / Cooking oil / Most smoke / Insecticide dust /  Most paint pigments / Most face powder		≥20%	1x	≥50%	1x
		>99.1%	21x	>99.2%	7x
 1 ~ 3 μm Legionella/ Lead dust / Humidifier dust /  Milled flour / Auto emission particles / Nebulizer drops		≥65%	1x	≥85%	1x
		>99.5%	5x	>99.7%	3x
 3 ~ 10 μm Fabric protector / Dust mite body parts and droppings / Cat and dog dander / Mold /  Dusting aids / Pudding mix / Hair spray / Spores /		≥85%	1x	≥90%	1x
		>99.7%	3x	>99%	2x
 >10 μm Cockroach body parts and droppings / Spanish moss / Dust mites / Carpet fibers /  Textile fibers / Sanding dust / Spray paint dust / Pollen		≥99.9%	1x	≥99.9%	1x
		≥99.9%	1x	≥99.9%	1x



Superior air purification capability
Conveniently controls dust mite proliferation

Effectively removes typical pollutants
Reducing allergens

※ For Professional, Industrial and Specialized Models only.

Featuring Intelligent Filter Change Reminder So You Can Keep Indoor Air Fresh

Unlike any dehumidifiers in the market today, ProCozy® air filter change reminder does not rely on a timer, but **on actual air filter usage condition to remind you of the need to change the filter**. This is due to the fact that air quality varies from different environments. If it is time to change filters, but time is not up on the timer, then the change filter function is all mute. Additionally, to extend the filter's life, the **automatic airflow control mechanism will kick in** when the change filter reminder appears. This allows for the appropriate airflow to be sustained before the old filter can be replaced while not sacrificing the indoor air quality. In order to sustain the quality of air, if the air filter is still not exchanged and exceeds its usage limit, then the unit will go into standby until a new filter is placed.

Air filters are consumables, therefore we would like to put ourselves in consumers' shoes and design a user-friendly reminder function, at the same time saving you money.

Intelligent Sensors Providing Multi-Level Protection

ProCozy® provides all-around safety protection so that you know you are in good hands.



Flame Retardant
Plastic UL-94



Mainboard Fuse
(Short-circuit protection)



FR-4 Standard PCB



Real-Time Heater
Temperature
Measurement



Thermal Fuse



Desiccant Rotor
Rotation Detection



Relay VDE Safety Mark



Power Source with
OVP and OPP



Continuous System Self-Diagnostic

Through our continuous system self-diagnostic, error code is instantaneously reported for ease of maintenance.



A Great Helper for Indoor Clothing Line Drying

Many people chose to hang-dry their clothes indoors after washing due to rain or a lack of outdoor space. But some studies have suggested that wet clothes will raise indoor humidity by as much as 30%, helping mold growth, and after breathing, causing health problems to respiratory tracts and lungs.

When severe cold winter comes, no matter how long the clothes are hung out to dry, they could still have a soggy feel. In addition to serious outdoor air pollution day after day, **typical pollutants may attach to the hung clothes, greatly affecting human health.**

Your clothing is the first line of protection that is closest to your skin. So when the need to dry your clothes indoors arises, we recommend that you use ProCozy® and do so in an air-tight space. This way your health is protected while your clothes can get dry.

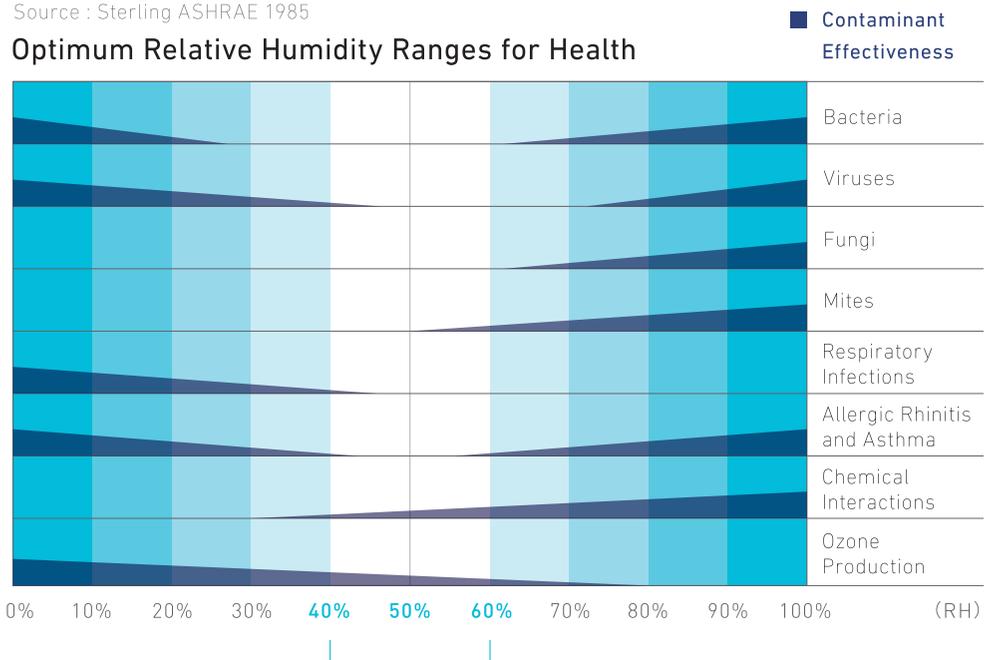
Protecting Your Family's Health Begins with Clean Air

The average people nowadays spend up to 90% of the time indoors. Therefore, it is imperative that the overall indoor air quality is not overlooked while the outdoor air quality deteriorates.

There are countries and places on Earth with hot, moist summer, and cold, wet winter. Climates similar to these help promote growth of bacteria, fungi and mites, critically endangering human health, exposing the household in an invisible danger.

Source : Sterling ASHRAE 1985

Optimum Relative Humidity Ranges for Health



Indoor Optimum Zone for the Human Body

If the indoor environment can be optimized for humidity, then the growth of bacteria, fungi, mites, etc. can be limited. This will not only improve human respiratory and skin health, but also extend the life of home decorations and furnishings.

If relative humidity can be optimized then one can even find comfort in the scorching summer heat!



proCOZY® and Traditional Dehumidifiers Comparison

	proCOZY®	Other absorbent based dehumidifier	Compressor based dehumidifier
Work effectively under cold temperatures (<12°C)	Yes 	Yes 	No
Working Humidity Range	0 ~ 100 %RH 	30 ~ 100 %RH	50 ~ 100 %RH, limited by dew point of water
Method of Dehumification	Moisture in the air is absorbed by Zeolite rotor, which is heated and water is distilled and condensed via high efficient heat exchange.	Moisture in the air is absorbed by absorbent, which is heated and moist air is expelled to outdoor	Metal heat exchange is cooled to near freezing point of water to cause air moisture to condense on the metal surface.
Resistant to mold growth inside the machine	Yes 	Yes 	No, mold and bacteria could grow on heat exchange metal surface
Ability to displace water upwards	Yes, up to 2 meters 	No	No
Air Purification	Yes 	No	No
Compressor Noise	None 	None 	Noisy
Mechanical Vibration	None 	Slight, from AC blower	Yes, from Compressor
Refrigerant	None 	None 	Yes
Non-mechanical Water Level Sensor	Yes 	N/A	No
Patented Intelligent Humidity Control based on Indoor Temperature for optimal comfort	Yes 	No	No
Advanced Home Automation Compatibility	Yes 	No	No
Ability to work in conjunction with Air Conditioner to save overall energy	Yes 	No	No
Dehumidification without creating negative air pressure indoor, for highest efficiency	Yes 	No, air expelled outdoor creates negative air pressure indoor	Yes 
Dehumidification status	Yes 	No	No
Actual Air Filter usage detection	Yes, by measuring air flow through the unit 	No, by timer	No, by timer
Air flow compensation based on Actual Filter usage	Yes, helps maintaining highest dehumidification efficiency 	No	No
WiFi enabled (currently in development)	Yes  (applicable to models equipped with required hardware)	No	No
Remote management via mobile App (currently in development)	Yes  (applicable to models equipped with required hardware)	No	No

Technical Specification for PROCOZY® Product Line

Specification	Conditions	Standard Model	Professional Model	Industrial Model	Specialized Model
Type	—	Grille / Concealed	Concealed	Concealed	Concealed
Operation Parameter	Operation Temperature	>0°C - 40°C	>0°C - 40°C	>0°C - 50°C	>0°C - 50°C
	Operation Relative Humidity	0%RH - 100%RH	0%RH - 100%RH	0%RH - 100%RH	0%RH - 100%RH
	Controlling Relative Humidity	40%RH - 70%RH	30%RH - 70%RH	10%RH - 70%RH	≤1%RH - 70%RH
Max Dehumidification Capability	20°C / RH 80%	10 L / Day	10L / Day	14L / Day	14L / Day
	20°C / RH 40%	9L / Day	9L / Day	12.6L / Day	12.6L / Day
	10°C / RH 80%	10.5L / Day	10.5L / Day	14.5L / Day	14.5L / Day
	10°C / RH 40%	10L / Day	10L / Day	13L / Day	13L / Day
Max Air Flow	—	205 CFM / 350 m3/H	205 CFM / 350 m3/H	225 CFM / 380 m3/H	225 CFM / 380 m3/H
Air Duct Size	—	8" (20.32 cm)	8" (20.32 cm)	8" (20.32 cm)	8" (20.32 cm)
Voltage	AC	100V, 110V, 120V, 200V 220V, 230V, 240V			
Frequency	Sinusoidal Wave	50Hz/ 60Hz	50Hz/ 60Hz	50Hz/ 60Hz	50Hz/ 60Hz
Maximum Power Consumption	Standby	0.004kW	0.004kW	0.004kW	0.004kW
	Silent Mode	0.55kW	0.65kW	0.72kW	0.75kW
	Normal Mode	0.65kW	0.75kW	0.84kW	0.87kW
	Turbo Mode	0.85kW	0.85kW	0.95kW	0.95kW
	Silent (Air Purification Only)	0.02kW	0.02kW	0.025kW	0.025kW
	Normal (Air Purification Only)	0.03kW	0.03kW	0.035kW	0.035kW
	Turbo (Air Purification Only)	0.05kW	0.05kW	0.06kW	0.06kW
Dehumidification Efficiency	Liters Per Kilowatt Hour	0.490	0.490	0.614	0.614
Typical Sound Level	Silent Mode (at 3 meters)	40dB	40dB	40dB	40dB
	Normal Mode (at 3 meters)	46dB	46dB	47dB	47dB
	Turbo Mode (at 3 meters)	52dB	52dB	53dB	53dB
	When Water Pump is Running (at 3 meters)	42dB	42dB	42dB	42dB
Filter Type	SGS Certified	MERV11, MERV13, Activated Carbon+MERV11	MERV11, MERV13, Activated Carbon+MERV11	MERV11, MERV13, Activated Carbon+MERV11	MERV11, MERV13, Activated Carbon+MERV11
Effective Area	Ceiling at 3 meters	60 m ²	60 m ²	60 m ²	60 m ²
Effective Volume	—	180 m ³	180 m ³	180 m ³	180 m ³
Automation Control	Physical Layer	RS-485	RS-485	RS-485	RS-485
	Baud Rate	115,200bps	115,200bps	115,200bps	115,200bps
	Max Distance	2,000m	2,000m	2,000m	2,000m
Infrared Control	Protocol Standard	Modified NEC	Modified NEC	Modified NEC	Modified NEC
	Carrier Wave Frequency	38 Khz	38 Khz	38 Khz	38 Khz
	Max Distance	10 m	10 m	10 m	10 m
Key Component Material Type	Enclosurer	Stainless Steel 430	Stainless Steel 430	Stainless Steel 430	Stainless Steel 430
	Heat Exchanger	PP Thermalplastic	PP Thermalplastic	PP + Nano Al Thermalplastic	PP + Nano Al Thermalplastic
	Internal Main Structure	PP + GF30 Thermalplastic	PP + GF30 Thermalplastic	Nylon 6/6 GF30 Thermalplastic	Nylon 6/6 GF30 Thermalplastic
	Internal Circulation Duct	PBT + GF30 Thermalplastic	PBT + GF30 Thermalplastic	PET + GF30 Thermalplastic	PET + GF30 Thermalplastic
Unit Size	Grille Type [mm]	L800 x W347 x H303	—	—	—
	Concealed Type [mm]	L615 x W347 x H303			
Unit Weight	Grille Type	19 [kg]	—	—	—
	Concealed Type	17 [kg]	17 [kg]	17 [kg]	17 [kg]



ALTRASON INC.

6F, No. 189, Lequn 2nd Rd.,
Zhongshan Dist., Taipei 10462, Taiwan

Phone : +886-2-8502-3818
E-mail : sales@altrason.com

www.altrason.com