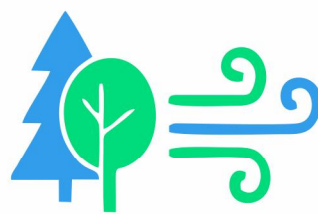


LUKO 弗迪沃斯

专注温湿度系统解决方案



Control the air Keep the balance

ALL AIR COMFORT SYSTEM



Catalog

LUKCO 弗迪沃斯

专注温湿度系统解决方案

Company introduction	01-05
Fresh air double-flow heat recovery Air-purifying dehumidification FD-E	06-11
Heat recovery dehumidifier with inverter compressor FD-EX	12-15
Whole-house ventilating dehumidifier FD-X	16-19
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Fedywos provides tens of millions of worldwide families with a smart home experience and strive for creating a comfort air system.

We know that only by being down-to-earth can we have our own starry sky; we keep in mind that technology is the cornerstone of the brand's standing, and innovation is the blood of the brand growth; we firmly believe that sincere service can lead to long-term cooperation with dealers and users. We therefore provide not only more reliable products, but also total solutions for our clients.

We are deeply engaged in fresh air dehumidification, and our products serve domestic and overseas clients. We move according to the times to develop more energy-saving and environmentally friendly products; we follow the trend to upgrade the industry; we improve the product line to provide customized new products!

Walking on the road of technological innovation, we are not afraid of changes and welcome changes!



FIVECOMFORT INDEXES

FIVE INDICATORS THAT AFFECT HUMAN COMFORT

TEMPERATURE

The optimal temperature for human comfort: 20~26°C

When the temperature is between 20°C-26°C, the human body feels most comfortable. To solve the problem of comfortable living temperature, heating in winter and cooling in summer are inevitable, and a good heating and cooling system is needed.

HUMIDITY

Relative humidity for human comfort: 40%-65%

The relative humidity that the human body is comfortable with should be 40%-65%. At present, most of the air conditioners used by residents can only guarantee the temperature, and it is difficult to take into account the humidity. In fact, the technical level is also difficult to achieve. A truly comfortable and healthy building technology system will fully consider the relative humidity in the design, that is, when the temperature reaches After comfort requirements, the humidity is also controlled within the human body's comfortable range of 40%-65%.

NOISE

Completely comfortable living environment: 35dB-45dB

It is lower than 35 decibels when resting and lower than 45 decibels during activities. In indoor environment, too much noise will make people extremely uncomfortable. Complete silence will also make people uncomfortable. A completely comfortable living environment should be 35 decibels during rest and lower during activities. At 45 decibels, this is a very important indicator. For example, background sounds during sleep, whether coming from indoors or outdoors: for example, the sound of an electronic clock, if it is higher than 35 decibels during rest, will affect people's sleep.

AIR

The most comfortable atmospheric environment for the human body: 78% nitrogen-21% oxygen

Replace the fresh air system to create the most comfortable atmospheric environment for the human body. 78% nitrogen, 21% oxygen, 0.2% carbon dioxide and other gases, this is the normal atmospheric environment that the human body is most accustomed to. People spend about 2/3 of their lives at home, and indoor air quality has attracted more and more attention. Why is indoor air quality worse than outdoor air quality? Basically there are the following reasons:

1. The space is closed and turbid air remains indoors.
2. Carbon dioxide exhaled by people's natural breathing
3. Exhaust gas generated by other indoor mechanical equipment

In the past, due to limitations of technological development, there was no way to control indoor air quality, such as climate, temperature, noise, etc., so indoor air environment problems existed all over the world. Today, the advancement of building technology and the emergence of displacement fresh air systems have been able to comprehensively solve indoor air environment problems.

ILLUMINATION

External shading system: adjust indoor brightness, heat insulation, noise reduction and energy saving

The external sunshade system adjusts indoor brightness, insulates, reduces noise and saves energy. Lighting is a very important aspect to ensure physical fitness. You can enjoy sufficient sunshine during the day and enjoy the beautiful landscape. External sunshades are very important to the building, from the perspective of building physics. From a scientific point of view, the role of external sunshade is difficult to be replaced by other technologies.



MULTI-PROTECTIONS FOR THE HEALTHY AIR

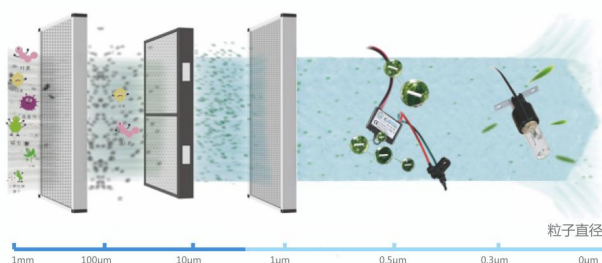
1st stage: Traps larger particles such as dust, pet hair and fine crumbs, among other larger particles.

2nd stage: Filters 97% of PM2.5 and up to 82.1% of ultrafine particles (0.3 microns) from entering.

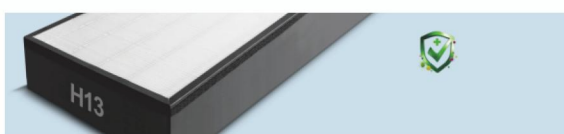
3rd stage: Removes 99.98% elimination of 0.1 μm particles and allergens such as PM2.5 and pollen.

4th stage: Known as air vitamins, bringing fresh air and providing clean protection.

5th stage: Ensures strong sterilization, disinfection, purification of the entering air.



- ① Remove particulate matter: Dust/yellow sand/dander/pollen are the causes of allergic diseases, eye diseases and skin diseases
- ② Remove microorganisms: Mites affect people's skin health, harmful fungi such as aphids cause respiratory diseases
- ③ Remove harmful bacteria: Influenza virus/mold/air conditioner contains bacteria that cause high fever/diarrhea/pneumonia and other diseases
- ④ Removal of harmful exhaust gases: Vehicles/industry/cigarettes are the main causes of headaches/soreness/dizziness etc.
- ⑤ Remove odors: Remove odors from human body/life/industry/chemical/pets



CREATE FRESH INDOOR FLOWING AIR TO SOLVE INDOOR CO₂ AND STUFFY HEAT PROBLEMS

As air quality problems become increasingly serious, breathing fresh air has become a luxury for people living in cities. When the external environment is not ideal, is there a suitable way to solve the problem? Or, when we cannot change the bad air environment outside, can we keep the place we started from in the first place - home?



A house with good air tightness and insulation
Special attention needs to be paid to new trends

Air exchange
rate standard

More than 0.5 times/h,
replace half of the indoor
air within an hour

From a health perspective, the room must have reliable ventilation and high airtightness. Residential buildings tend to create an unclean indoor environment, and excessive moisture can also cause bacterial growth.

formaldehyde

TVOC

Allergics

Co₂

smoke

Odor

Buildings with high sealing and high insulation layers do not allow you to open doors and windows, sacrificing energy. The whole-house comfort system can always ensure indoor humidity without opening doors and windows. The whole room is always filled with fresh air, allowing you to have the feeling of bathing in the forest.



In life, "waste gas" is produced indoors all the time! The human body's own metabolism, and the garbage in the kitchen, bathroom, and trash cans will produce air pollution overnight, reducing indoor oxygen content, making the human body's resistance drop and making it easier to be infected. Disease attacks. The fresh air full heat exchange bidirectional flow haze removal, dehumidification and purification system effectively increases indoor oxygen content. It will promptly discharge all the dirty air in your home and indoor harmful gases that are harmful to the human body, such as formaldehyde and benzene in decoration materials, second-hand smoke, kitchen odors, infectious viruses and bacteria, and various dusts, etc., and will be removed in time, while replenishing Let in enough fresh air. No matter in spring, summer, autumn or winter, the fresh air entering the room will be adjusted to a temperature close to the indoor temperature, and the air volume will be soft, free of noise and dust. Fresh and clean indoor air will be of great benefit to our physical and mental health. Colds are reduced, chest tightness and headaches are gone, people with allergies can rest easy, and many diseases caused by indoor air pollution, such as asthma, lung cancer, heart disease, leukemia, etc., are also away from you and your family. All you need to do is enjoy the comfort of your indoor environment.

FILL THE AIR WITH FRESH SMELL

Negative ion purification technology
More intuitive and visible purification effect

Negative ions adsorb pollution sources in the air give it a negative charge



The dust removal rate is as high as 99% and can adsorb 0.01 micron carcinogens

The secret of those negative ions

Improve quality of life

Enhance air elasticity

Adsorb dust impurities

Improve air quality



UV LAMPS ARE OZONE-FREE

Ozone-free ultraviolet germicidal lamps can only disinfect and sterilize the places where ultraviolet rays are irradiated. Places blocked by obstructions cannot penetrate for disinfection and sterilization, and are not afraid of blind spots.

Quick disinfection in 30 minutes



Get rid of mites

Sterilize

disinfect



Fresh air replacement adopts ground air supply and top return air mode.

Principle of ground air supply and top return air

Large air volume, high static pressure, low noise, more perfect implementation of the installation method of floor air supply and top return air replacement. Dirty air forms an air flow path from the indoor floor to the ceiling, changing the air pollution caused by the traditional top air supply and top return air supply method. Secondary pollution situation.

Traditional air supply method
Ground air supply method

Dilute air supply
Displacement air supply



Fresh air is naturally deposited below. The fresh air rises along the human body, is breathed, and turns into exhaust gas and is discharged from the exhaust outlet. This ensures the separation of fresh air and exhaust gas. The air supply speed is low and will not cause floating dust, no noise, no air flow, and no air conditioning feeling.

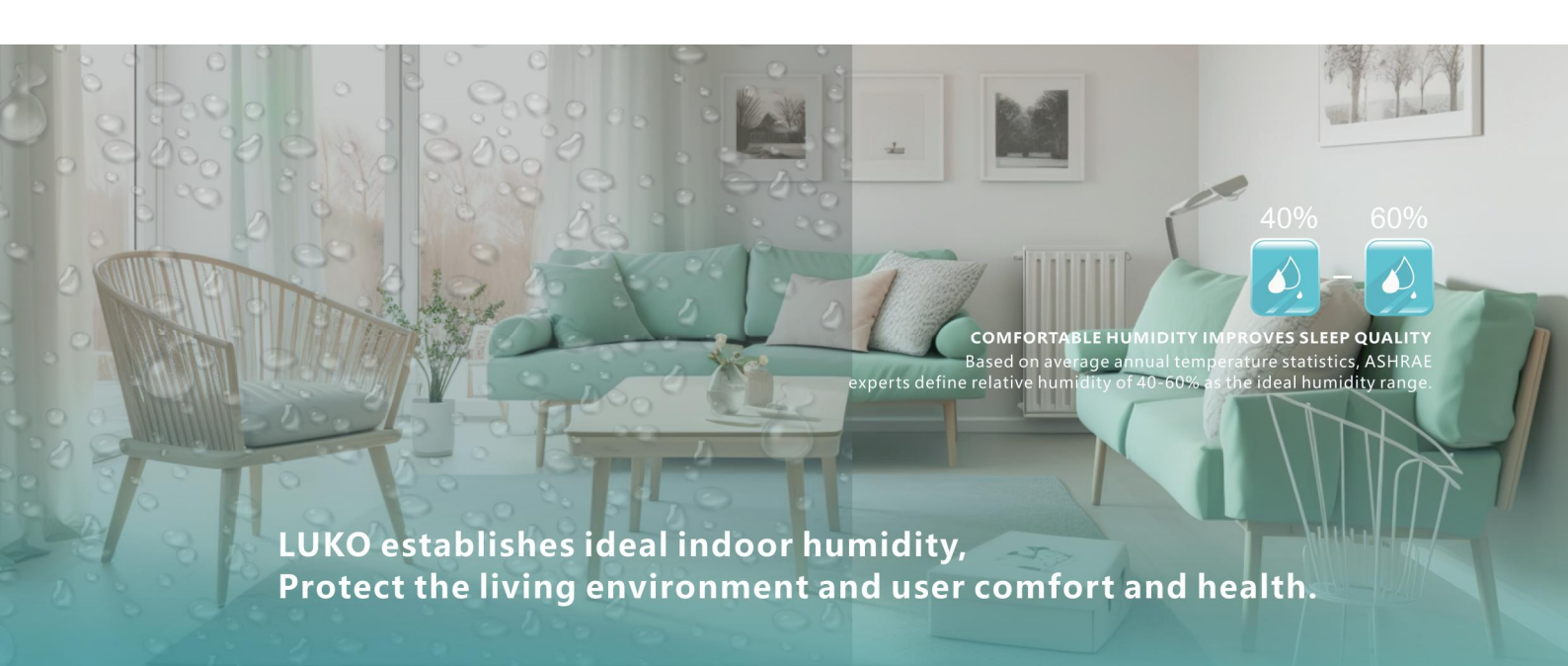
SILENT NIGHT OPERATION PROTECT YOUR FAMILY

Perfect choice for quiet operation/nighttime
air management your family

In sleep mode, the noise level is equivalent to the feeling of being in a quiet library. All the credit comes from LUKO's high-efficiency silent filtration technology, which allows LUKO products to process your indoor air while maintaining low wind resistance, low noise, and low energy consumption. . LUKO is truly silent and efficiently handles indoor air quality in large spaces.



The new product has added air duct silencer technology to effectively remove high and low frequency noise in the noise. It can be adjusted to low speed mode while sleeping.



LUKO establishes ideal indoor humidity, Protect the living environment and user comfort and health.

Ideal temperature

The most comfortable room temperature is 23-26°C. When the room temperature is above 26°C, sleep will become lighter, and body movements and awakening times during sleep will increase. When the sleep temperature is below 20°C, it is not easy to enter deep sleep.

Ideal humidity

Humidity is too low (<40%): Dust, bacteria, etc. can easily adhere to mucous membranes, irritate the throat, cause coughing, and easily induce respiratory diseases such as bronchitis and asthma. Humidity that is too high (>70%) can make people feel nauseated, loss of appetite, irritability, fatigue, dizziness, etc. Living in a damp and moldy room can also increase the risk of children suffering from allergic diseases such as asthma and eczema. Practice shows that the ideal humidity is 40%-60%.

Dehumidification principle

Moisture in a room not only comes from the bathroom, but also from the human body and burning appliances. Moreover, now that buildings are well-sealed, it is easy for furniture and walls to become moldy and rot due to moisture damage. Based on the principle of direct expansion dehumidification, the refrigerant used in the dehumidification system is environmentally friendly refrigerant. Because the air can hold different amounts of moisture at different temperatures and energies, the moisture content in the air decreases as the air temperature decreases. When the air passes through the heat exchanger, the air is cooled by the heat exchange cold coil. As the temperature of the air decreases, the water vapor in the air gradually condenses and reaches a saturated state. When the dew point of the air continues to decrease, the water vapor in the air becomes condensed water and precipitates, so that the absolute moisture content in the air is reduced. The air realizes the dehumidification process, removes the heat and moisture in the incoming air, and heats the discharged air. The hot, high-pressure gas refrigerant is compressed by the compressor and reaches the condenser, where it releases heat into the air that is about to be discharged from the dehumidifier. The liquid refrigerant then passes through a filter dryer and a capillary tube or expansion valve body that drops the refrigeration pressure and temperature. The refrigerant then enters the evaporator coil, absorbs heat from the incoming air and evaporates. The evaporator needs to operate under wet conditions, which means that, under normal operating conditions, all evaporator tubes contain liquid refrigerant. A wet evaporator maintains a constant pressure throughout the coil from inlet to outlet and temperature.

Relative humidity

Maintaining ideal humidity dew point and relative humidity (RH) affects the body's perception of heat. Higher humidity levels can cause the body to feel warmer than it actually is. If the relative humidity is maintained at the right level, then the air conditioner can do less work because the air will still feel cooler after removing the moisture. The combination of moisture and heat affects the feeling of heat in the human body. For example: in 32°C air. If the relative humidity is 50%, the human body will feel as high as 36 degrees Celsius.

FD-E SERIES

FRESH AIR DOUBLE-FLOW HEAT RECOVERY AIR-PURIFYING DEHUMIDIFICATION



LUKO-FD-E series is LUKO's unique patented design.

Its working principle is that supply air and exhaust air are completed by two fans. A heat exchange module is added inside the unit to quickly absorb and release heat, ensuring sufficient heat recovery between the air.

The outdoor air exhausted and the fresh air sent into the room undergo heat exchange in this heat recovery core. When the indoor exhaust air and the fresh air flow through the heat recovery core in a crosswise manner, there is a temperature difference in the air flow on both sides. Due to the difference, the two airflows will undergo heat transfer when passing through the partition plate, causing a total heat recovery process.

Fresh outdoor air is drawn into the unit by a fan. When the humid air passes through the heat exchange coils, the moisture in the air condenses into water, which is gathered into the drainage pan and discharged by the drainage pipe. At the same time, the dry air is distributed indoors. At this time, the indoor dirty air is finally discharged outside after heat recovery. Such continuous circulation gradually reduces the indoor humidity and also solves the problem of indoor stuffy heat. You can enjoy the fresh air of nature without opening the windows.

During summer operation, the fresh air obtains cold energy from the exhaust air, which lowers the temperature, and is dehumidified and dried at the same time, reducing the moisture content of the fresh air. During winter operation, the fresh air obtains heat from the exhaust air, causing the temperature to rise. In this way, through the heat recovery core, the fresh air can recover energy from the exhaust air. The indoor air and outdoor fresh air are exchanged through heat recovery core, that is, the waste heat of the exhaust air is used to process the fresh air, which effectively saves energy and can simultaneously solve the fresh air problem and improve comfort.

PRODUCT FEATURES



A mini measuring level stucked on the bottom side of the unit, which can help to keep the balance during installation



Condensate trap does not need to install because of the positive pressure drainage design. This helps to save more space during installation



An electric heater can be mounted in the air outlet duct for further heating of the dry air



The machine uses name-brand compressor Panasonic or Embraco, with eco-friendly R410A or R134A refrigerant.



Low Noise, High Static Pressure, Double Speed Centrifugal Fan, which allow fan speed adjustment.



Purifying spare parts replacement is mandatory, which can better improve the air quality and the machine's service life.



Cross flow heat recovery core is made of hydrophilic coating aluminum foil with high efficiency 70%.



The highly efficient and energy-saving FD-E series is specially designed to provide comfortable humidity and fresh air indoors.



Blue hydrophilic-coated aluminum-fin heat exchanger coils and SS304 condensate drain pan is made of prevent corrosion damage



The fresh air purification system integrates fresh air and dehumidification into one system to minimize maintenance costs, improve comfort, and save energy.



Evaporator and Condenser is epoxy-coated for better durability and corrosion resistant. It is also washable for maintenance service.



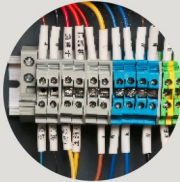
Primary filter G4 + medium efficiency 7 + high efficiency H13 (aerosol filter) + return air filter F7, which can remove particles, bacteria, dust and other harmful substances in the air to ensure fresh and clean indoor air. The exhaust outlet is equipped with a check valve to effectively control the backflow of PM2.5 into the room.



The intelligent control module is easy to operate and can be memorized after setting. The product supports RS485 communication protocol and comes with an intelligent APP.

MAIN FEATURES

Easy access and maintenance



LUKO electrical system adopts no PCB design, the whole electronic control system runs without electronic components, avoids flammable, explosive, poisoning, short circuit, spark and other dangers, mature technology and stable performance, safe and reliable operation, fully automatic manual operation, intelligent Control.

Measuring level

A mini measuring level stucked on the bottom side of the unit, which can help to keep the balance during installation

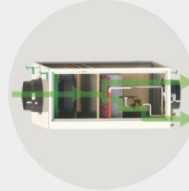


PM2.5 filter

PM2.5 filter removes 99.98% elimination of 0.1 μ m particles and allergens such as PM2.5 and pollen.

Name-brand compressor

LUKO uses a brand compressor, which has a strong dehumidification capacity and a low failure rate, ensuring that each system can operate efficiently.



Positive drainage

Condensate trap does not need to install because of the positive pressure drainage design. This helps to save more space during installation

High pressure drop

The centrifugal fans used in the FD-E series have two-speed adjustable and 0-10V stepless speed regulation. The fans have been dynamically balanced and tested, so that each set of fans can ensure efficient and silent operation. The air outlet distance of the product can be sent to about 50 meters, and it has the characteristics of large air volume and high static pressure.



Heat recovery efficiency up to 76%

High-efficiency heat recovery core exchanges indoor and outdoor air heat, reducing ventilation heat loss, greatly saving energy consumption in fresh air treatment, effectively reducing air conditioning costs, and achieving truly energy-saving ventilation.

Fresh oxygen

Using high technology to make it more environmentally friendly, the discarded HEPA filter will not cause certain pollution to the environment. The dehumidification system uses fluorine-free environmentally friendly R134A or R410A refrigerant to participate in system operation, solving environmental problems from the product itself.



CORE COMPONENTS



EXPLODED VIEW



- 1- Name-brand compressor
- 2- EC exhaust fan
- 3- EC supply fan
- 4- Exhaust air(with check valve)
- 5- Fresh air(with electric air damper)
- 6- Primary filter(paper)

- 7- Primary filter(aluminum)
- 8- Medium filter(paper)
- 9- HEPA filter(paper)
- 10- Heat recovery core
- 11- push & pull type electric cabinet
- 12- heat exchange coil

- 13-Supply air
- 14- Return air
- 15- UV air sanitizer
- 16- Anion generator
- 17- Condensate drainage

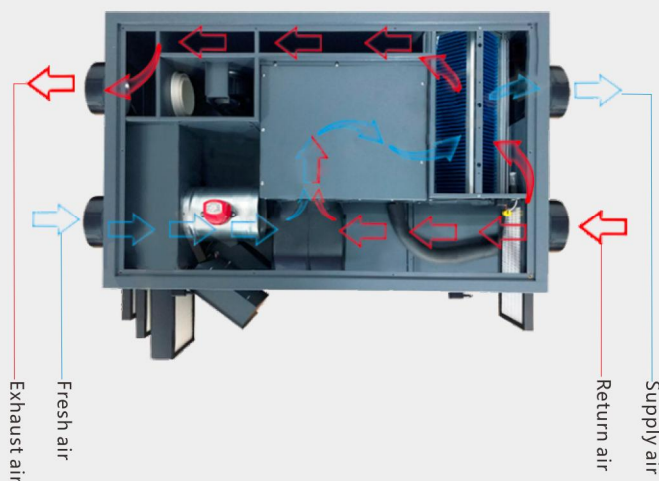
constant humidity
dehumidification

constant temperature
purification

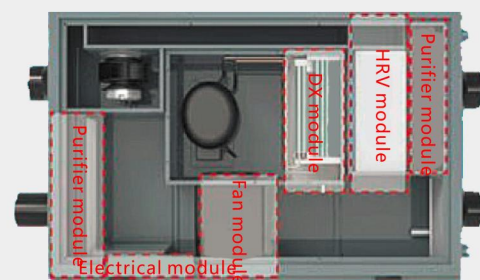
constant oxygen
fresh air

constant quietness
quietness

AIR FLOW CHART



MODULE DESIGN

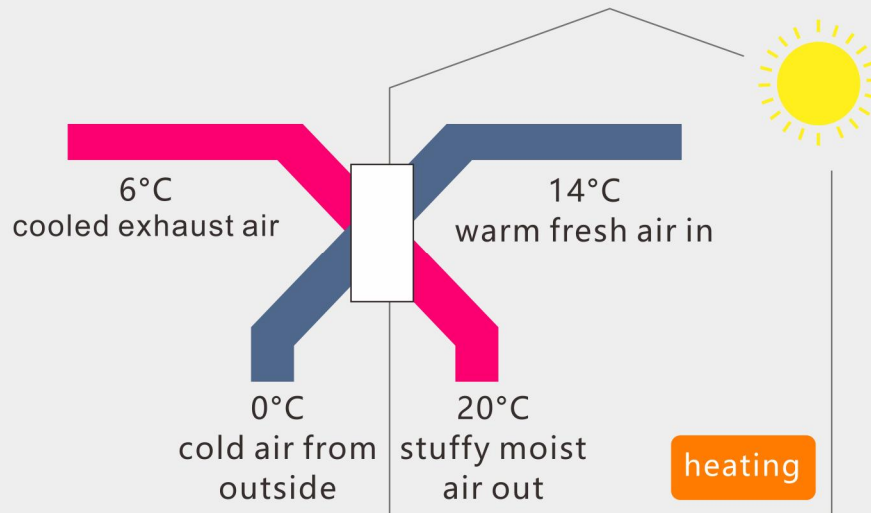


- DX module
- HRV module
- Purifier module
- Fan module
- Electrical module

5 modules design ensures easy access and maintenance

HEAT RECOVERY CONCEPT

operation in winter



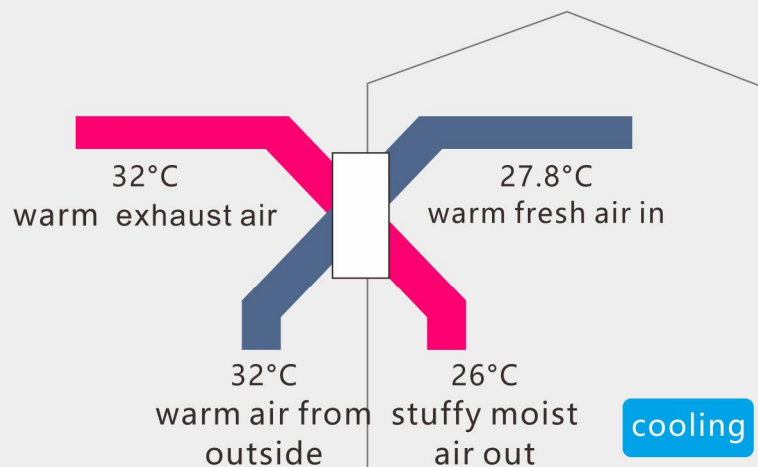
heat-exchange calculating equation

winter: indoor supply air temperature(°C)={indoor temperature(°C)-outdoor temperature(°C)}

*temp exchange efficiency(%)+outdoor temperature(°C)

$(20^{\circ}\text{C}-0^{\circ}\text{C}) \times 70\% + 0^{\circ}\text{C} = 14^{\circ}\text{C}$

operation in summer



heat-exchange calculating equation

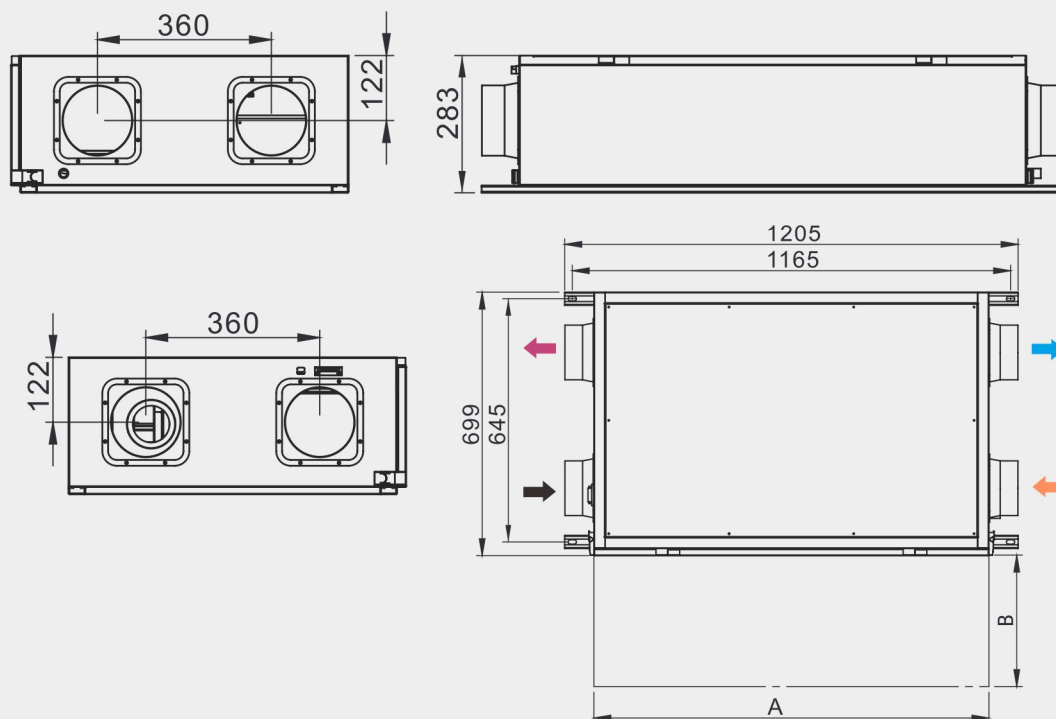
summer: indoor supply air temperature(°C)=outdoor temperature(°C)-{indoor temperature(°C)

-outdoor temperature(°C)}*temp exchange efficiency(%)

$32^{\circ}\text{C}-(32^{\circ}\text{C}-26^{\circ}\text{C}) \times 70\% + 0^{\circ}\text{C} = 27.8^{\circ}\text{C}$

PARAMETERS

To meet the different needs of customers,
We provide FD-E40L,FD-E60L products based on FD-E technology



FD-E40L

Test condition	Fresh air flow	Return air flow
30°C 80%	180-250m³/h	400-780m³/h
Dry air flow	Exhaust air flow	Drainage pan
650-780m³/h	120m³/h	SUS 304
Dehumidifier capacity	Pressure drop	Drainage pipe
40L/天	150Pa	Φ20
Fiter	Purification	control
Primary/Medium/HEPA	UV air sanitizer /Anion generator	LCD touch screen
Fan type	Power / current	Exhaust air duct
EC type	720W/3.2A	Φ150 mm
Fresh air duct	Return air duct	Supply air duct
Φ150mm	Φ150mm	Φ150mm
Power supply	Unit dimension	Noise
220V/50Hz	1205*699*283mm	< 45DB
Compressor	heat exchange coil	Electric shock protection type Waterproof protection type
Embraco/R134A	copper tubes with blue hydrophilic-coated aluminum Pns	class I/IPX3
Net weight	A-mm/B-mm	
72Kg	1050mm/460mm	

FD-E60L

Test condition	Fresh air flow	Return air flow
30°C 80%	280-360m³/h	450/850m³/h
Dry air flow	Exhaust air flow	Drainage pan
730/850m³/h	200m³/h	SUS 304
Dehumidifier capacity	Pressure drop	Drainage pipe
60L/天	150Pa	Φ20
Fiter	Purification	control
Primary/Medium/HEPA	UV air sanitizer /Anion generator	LCD touch screen
Fan type	Power / current	Exhaust air duct
EC type	850W/3.7A	Φ150 mm
Fresh air duct	Return air duct	Supply air duct
Φ150mm	Φ150mm	Φ150mm
Power supply	Unit dimension	Noise
220V/50Hz	1205*699*283mm	< 45DB
Compressor	heat exchange coil	Electric shock protection type Waterproof protection type
Embraco/R134A	copper tubes with blue hydrophilic-coated aluminum Pns	class I/IPX3
Net weight	A-mm/B-mm	
78Kg	1050mm/460mm	

FD-EX SERIES

Heat recovery dehumidifier with inverter compressor

Patent number: CN202123050916.2

Architectural concepts and technological developments

High-rise housing/prefabricated housing/passive house Will become a must-have label for future architecture

Lightweight/hardcover/energy-saving and efficient fresh air dehumidification system Will become the first choice and must choice for future buildings

Two-way ventilation/variable frequency fresh air dehumidification system More in line with future construction needs



PRODUCT FEATURES



The electronic expansion valve controls the precise amount of refrigerant flow, optimizing refrigeration cycle efficiency.



The product comes with no circuit board: the touch screen controller (integrated with temperature & humidity sensor) simplifies complex wiring and installation.



The product comes with a self-balancing central fresh air introduction function, and excess moisture is removed to prevent mold growing indoors.



The product has its own positive pressure drainage function. It can drain water smoothly without reserving a water trap, greatly reducing the height of the ceiling.



The product integrates fresh air and dehumidification into one system with minimal maintenance costs, improved comfort and energy savings.



The product has a touch-screen intelligent controller with a memory function for user's settings in case of black-out or power failure.



The heat exchange coil is made of high-efficiency copper tubes with blue hydrophilic-coated aluminum fins. The condensate pan is made of SUS304. Enforced filter replacement function further improves the quality of air purification and the service life of the product.



The product is designed through professional calculation and simulation software to ensure that the coils and pipeline match cooling & heating capacity & circulating air volume, optimize the performance while keep the size compact.



The product comes with a cross flow heat recovery core, which is made of graphene with high efficiency 75%.



The product comes with primary, medium and HEPA filter to remove hair, pet fur, dust, smoke particles, fine dust, pollen and PM2.5 particles in the air. It has UV light and negative ion generator to ensure fresh and clean indoor air.

SPARE PARTS



Electronic expansion valve

Designed specifically for frequency conversion
Independent control of refrigerant flow
Dehumidification control is more precise



Intelligent control

4 inch



Heat recovery core

Graphene heat recovery core
Reduce cooling and heating loads
Improve the comfort of fresh air entering the room



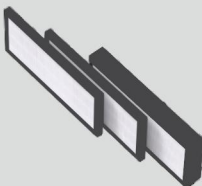
DC inverter compressor

Efficient and powerful



EC inverter fan motor

Low noise/large air volume
High static pressure/low power consumption/ more energy-saving



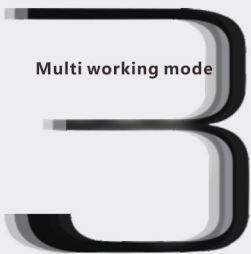
Multi-filtration

G4+F7+H13
Ensure indoor air is clean

WORKING PRINCIPLE



WORKING MODE



Multi working mode

HRV mode

Works as a heat recovery ventilator, the compressor will not run.



Mix air mode

Works to process the return air or introduce the fresh air depending on the humidity sensor reading.

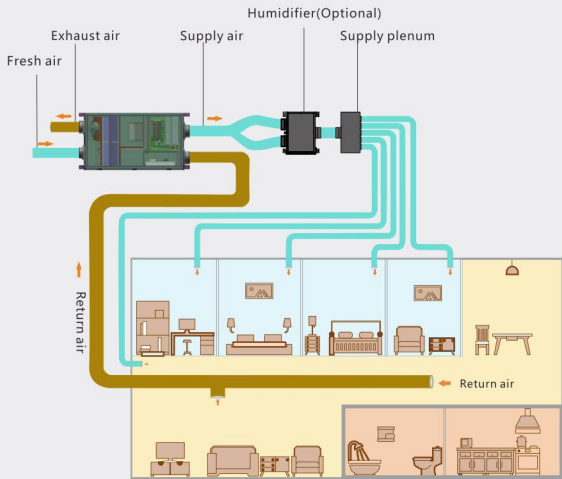


Dehumidifier mode

Indoor circulation
Works to process the return air without fresh air intake.



INSTALLATION EXAMPLE



PARAMETERS

To meet the different needs of customers,
We provide FD-EX60L,FD-EX80L,FD-EX100L
products based on FD-EX technology

FD-EX60L

Test condition	Fresh air flow	Exhaust air flow
27°C 60%	250-450m³/h	220-400m³/h
Dry air flow	Cooling heat recovery rate	Heating heat recovery rate
620-750m³/h	≥55%	≥60%
Throttling device	Voltage/Frequency	Filtration
EEV	220V/50HZ	Primary/Medium/HEPA
Purification	Ventilator power/current	Dehumidifier capacity
UV air sanitizer /Anion generator	550W/2.5A	50L-70L/D
Dehumidifier power/current	Mode	Drainage
550W-970W 2.5A-4.5A	DX working	Positive/Φ20
Noise	Compressor	Heat recovery
< 40DB	DC inverter /R410A	graphene core
Fan	Fresh air duct	Return air duct
EC type/150PA	Φ200mm	Φ200mm
Supply air duct	Exhaust air duct	Unit dimension
Φ200mm	Φ200mm	1550*769*315mm

FD-EX80L

Test condition	Fresh air flow	Exhaust air flow
27°C 60%	360/750m³/h	320/670m³/h
Dry air flow	Cooling heat recovery rate	Heating heat recovery rate
750/980m³/h	≥55%	≥60%
Throttling device	Voltage/Frequency	Filtration
EEV	220V/50HZ	Primary/Medium/HEPA
Purification	Ventilator power/current	Dehumidifier capacity
UV air sanitizer /Anion generator	680W/3.1A	70L-120L/D
Dehumidifier power/current	Mode	Drainage
1050W-1600W 4.7A-7.2A	DX working	Positive/Φ20
Noise	Compressor	Heat recovery
< 40DB	DC inverter /R410A	graphene core
Fan	Fresh air duct	Return air duct
EC type/180PA	Φ200mm	Φ200mm
Supply air duct	Exhaust air duct	Unit dimension
Φ200mm	Φ200mm	1550*769*315mm

FD-EX100L

Test condition	Fresh air flow	Exhaust air flow
27°C 60%	930/660/530m³/h	800/560/450m³/h
Dry air flow	Cooling heat recovery rate	Heating heat recovery rate
1100/1280m³/h	≥50%	≥60%
Throttling device	Voltage/Frequency	Filtration
EEV	220V/50HZ	Primary/Medium/HEPA
Purification	Ventilator power/current	Dehumidifier capacity
UV air sanitizer /Anion generator	820W/3.7A	80L-130L/D
Dehumidifier power/current	Mode	Drainage
1650W-2300W 7.5A-10A	DX working	Positive/Φ20
Noise	Compressor	Heat recovery
< 45DB	Inverter/Panasonic/R410A	graphene core
Fan	Fresh air duct	Return air duct
EC type/200PA	Φ200mm	Φ200mm
Supply air duct	Exhaust air duct	Unit dimension
Φ200mm	Φ200mm	1550*769*315mm

FORERUNNER OF HOUSING TECHINNOVATION



FD-X SERIES

Whole-house ventilating dehumidifier

Intelligent control / Multiple filtration / Positive drainage



PRODUCT FEATURES



The electronic expansion valve controls the precise amount of refrigerant flow, optimizing refrigeration cycle efficiency.



The product comes with no circuit board: the touch screen controller (integrated with temperature & humidity sensor) simplifies complex wiring and installation.



The product comes with a self-balancing central fresh air introduction function, and excess moisture is removed to prevent mold growing indoors.



The product has its own positive pressure drainage function. It can drain water smoothly without reserving a water trap, greatly reducing the height of the ceiling.



The product integrates fresh air and dehumidification into one system with minimal maintenance costs, improved comfort and energy savings.



The product has a touch-screen intelligent controller with a memory function for user's settings in case of black-out or power failure.



The heat exchange coil is made of high-efficiency copper tubes with blue hydrophilic-coated aluminum fins. The condensate pan is made of SUS304. Enforced filter replacement function further improves the quality of air purification and the service life of the product.



The product is designed through professional calculation and simulation software to ensure that the coils and pipeline match cooling & heating capacity & circulating air volume, optimize the performance while keep the size compact.

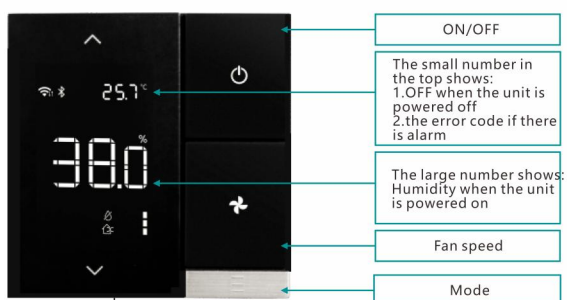


The product comes with a cross flow heat recovery core, which is made of graphene with high efficiency 75%.



The product comes with primary, medium and HEPA filter to remove hair, pet fur, dust, smoke particles, fine dust, pollen and PM2.5 particles in the air. It has UV light and negative ion generator to ensure fresh and clean indoor air.

INTELLIGENT CONTROL



Intelligent control

Multiple filtration

Positive condensate drainage



Primary filter

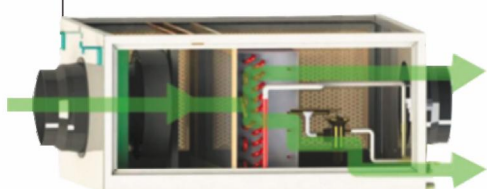
remove 80~90% of the air-borne particles larger than 10 micron size (10 micron size is the size of flower pollen)

Medium filter

remove very fine dust particles including soot, pollens, mould spores and bacteria.

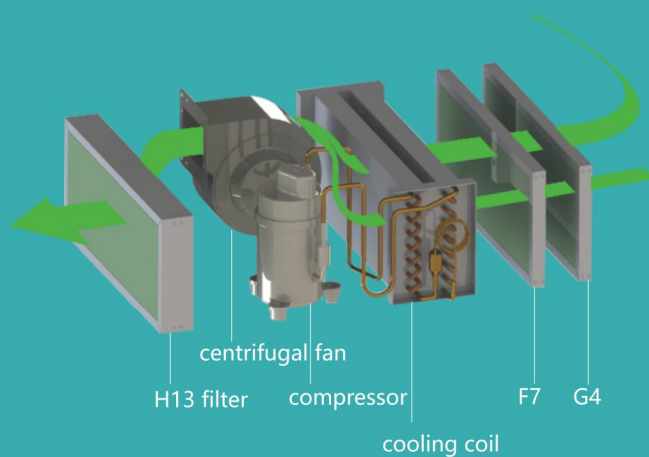
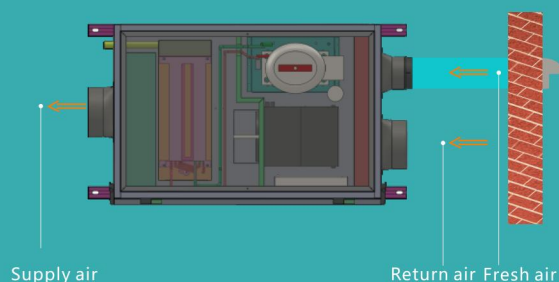
HEPA filter

remove all particles of 0.1 microns and larger with 99.95% efficiency

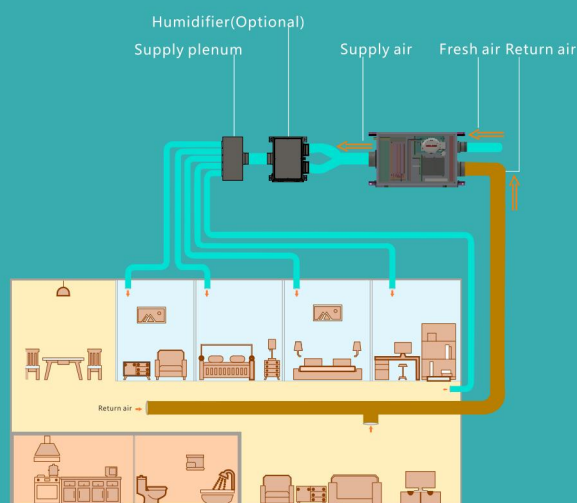


This is positive-pressure type unit, the fan is located before the heat exchange coils, thus the condensate water can be drained away when the fan works. When install those models, no need to add a water-trap. It can save space and reduce installation work.

WORKING PRINCIPLE



INSTALLATION EXAMPLE



PARAMETERS

FD-X40L

Test condition	Pressure drop	Dehumidification Capacity
30°C/80%	150Pa	40L/天
Supply Air Flow	Fresh Air Flow	Power/Current
400-500m³/h	0-220m³/h	550W/2.5A
Voltage/Frequency	heat exchange coil	Noise
220V/50Hz	copper tubes with blue hydrophilic-coated aluminum fins	< 35DB
Fan type	Drain hole size	Filtration
EC motor,variable air rate control	Positive/Φ20	Primary/Medium/HEPA
Purification	Fresh air duct	Return air duct
UV air sanitizer /Anion generator	Φ100mm	Φ150mm
Supply air duct	Unit dimension	Compressor
Φ150mm	950*539*265mm	Embraco/R134A

FD-X60L

Test condition	Pressure drop	Dehumidification Capacity
30°C/80%	150Pa	60L/天
Supply Air Flow	Fresh Air Flow	Power/Current
520-650m³/h	0-260m³/h	740W/3.5A
Voltage/Frequency	heat exchange coil	Noise
220V/50Hz	copper tubes with blue hydrophilic-coated aluminum fins	< 40DB
Fan type	Drain hole size	Filtration
EC motor,variable air rate control	Positive/Φ20	Primary/Medium/HEPA
Purification	Fresh air duct	Return air duct
UV air sanitizer /Anion generator	Φ100mm	Φ150mm
Supply air duct	Unit dimension	Compressor
Φ150mm	950*539*265mm	Embraco/R134A

FD-X100L

Test condition	Pressure drop	Dehumidification Capacity
30°C/80%	180Pa	100L/天
Supply Air Flow	Fresh Air Flow	Power/Current
700-950m³/h	320-400m³/h	1050W/4.9A
Voltage/Frequency	heat exchange coil	Noise
220V/50Hz	copper tubes with blue hydrophilic-coated aluminum fins	< 45DB
Fan type	Drain hole size	Filtration
EC motor,variable air rate control	Positive/Φ20	Primary/Medium/HEPA
Purification	Fresh air duct	Return air duct
UV air sanitizer /Anion generator	Φ150mm	Φ200mm
Supply air duct	Unit dimension	Compressor
Φ200mm	1030*639*375mm	Embraco/R134A

FD-X180L

Test condition	Pressure drop	Dehumidification Capacity
30°C/80%	200Pa	180L/天
Supply Air Flow	Fresh Air Flow	Power/Current
1800-2200m³/h	0-750m³/h	3000W/5.4A
Voltage/Frequency	heat exchange coil	Noise
380V/50Hz	copper tubes with blue hydrophilic-coated aluminum fins	< 55DB
Fan type	Drain hole size	Filtration
EC motor,variable air rate control	Dn32	Primary/Medium/HEPA
Purification	Fresh air duct	Return air duct
UV air sanitizer /Anion generator	230*230mm	300*350mm
Supply air duct	Unit dimension	Compressor
350*350mm	1160*820*600mm	Rotary

FD-X250L

Test condition	Pressure drop	Dehumidification Capacity
30°C/80%	200Pa	250L/天
Supply Air Flow	Fresh Air Flow	Power/Current
2500-2900m³/h	0-850m³/h	4200W/7.5A
Voltage/Frequency	heat exchange coil	Noise
380V/50Hz	copper tubes with blue hydrophilic-coated aluminum fins	< 55DB
Fan type	Drain hole size	Filtration
EC motor,variable air rate control	Dn32	Primary/Medium/HEPA
Purification	Fresh air duct	Return air duct
UV air sanitizer /Anion generator	200*200mm	300*350mm
Supply air duct	Unit dimension	Compressor
350*350mm	1160*820*600mm	Rotary

INTERNATIONALIZATION PROCESS

Serving domestically and exporting overseas
Fedyvos products serve more than 30 countries
and regions around the world
Provide fresh air dehumidification solutions for
families around the world
In the future, we will continue to expand
domestic and overseas markets
Become a global leader in fresh air
dehumidification



FD-XX SERIES

Whole-house fresh air dehumidifier
with inverter compressor



Intelligent control
4 inch screen(86*86)



DC inverter compressor
Efficient and powerful



Electronic expansion valve
Precisely control the humidity

SPARE PARTS



EC inverter fan motor
Quiet and energy-saving

PRODUCT FEATURES

The product integrates fresh air and dehumidification into one system with minimal maintenance costs, improved comfort and energy savings.

The product has its own positive pressure drainage function. It can drain water smoothly without reserving a water trap, greatly reducing the height of the ceiling.

It can automatically perform frequency modulation dehumidification according to the quality of the indoor environment, minimizing maintenance costs and improving comfort.

The electronic expansion valve controls the precise amount of refrigerant flow, optimizing refrigeration cycle efficiency.

Enforced filter replacement function further improves the quality of air purification and the service life of the product.

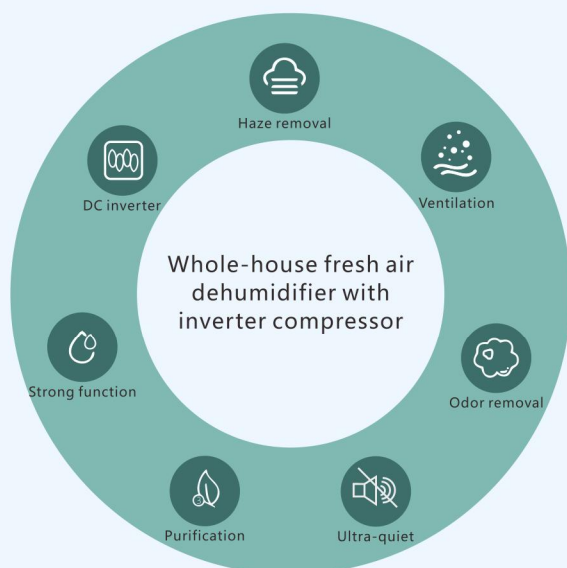
The heat exchange coil is made of high-efficiency copper tubes with blue hydrophilic-coated aluminum fins. The condensate pan is made of SUS304.

The product comes with primary, medium and HEPA filter to remove hair, pet fur, dust, smoke particles, fine dust, pollen and PM2.5 particles in the air. It has UV light and negative ion generator to ensure fresh and clean indoor air.

The product is designed through professional calculation and simulation software to ensure that the coils and pipeline match cooling & heating capacity & circulating air volume, optimize the performance while keep the size compact.

The product comes with a self-balancing central fresh air introduction function, and excess moisture is removed to prevent mold growing indoors.

FUNCTIONS AND FEATURES



Whole-house dehumidification
Max capacity 100L/D

Automatic work
Intelligent switch between
ventilation and dehumidification

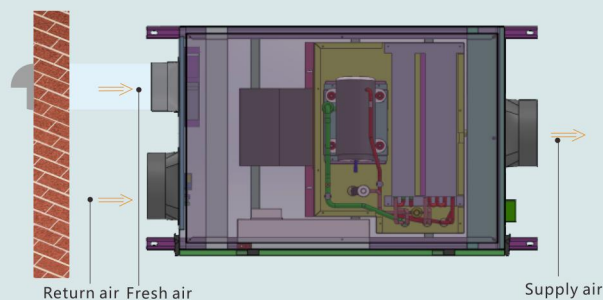
WIFI support
Remote control easily

Multiple noise reduction
Noise as low as 30DB

Triple filtration
Filter 99.98% of PM0.3

Frequency conversion
technology
Inverter compressor
and inverter fan

WORKING PRINCIPLE



Fresh air dehumidification

(external circulation)



Mix the fresh air and return air and process the mixed air to keep the indoor air fresh and dry.

Fresh air introduction

Intelligent introduction of outdoor air to keep the indoor air fresh. It is suitable for indoor humidity < 60%RH.



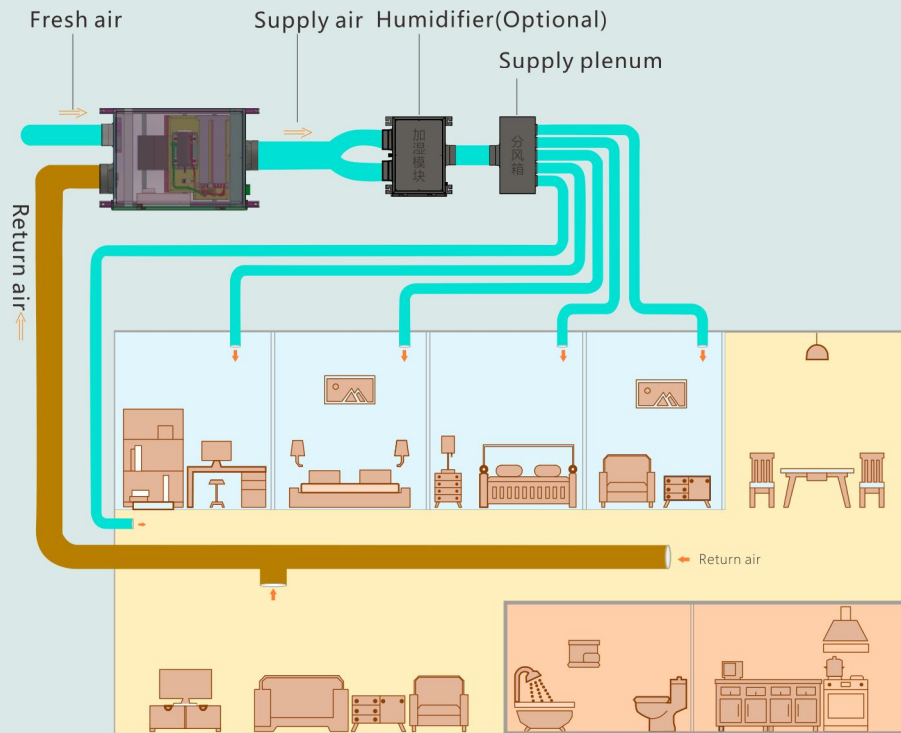
Return air dehumidification

(internal circulation)



Energy-saving dehumidification mode, lower energy consumption for continuous operation. Suitable for indoor humidity < 75%RH.

INSTALLATION EXAMPLE



PARAMETERS

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To meet the different needs of customers,
We provide FD-XX60L, FD-XX100L products based on FD-XX technology

FD-XX60L

Test condition	Dehumidification Capacity	Supply Air Flow
27°C 60% 30°C 80%	60-100L/D	550-780m³/h
Fresh Air Flow	Return Air Flow	Fan type
0-350m³/h	200-430m³/h	EC motor, variable air rate control
Air damper	Throttling device	Drain hole size
Built-in	EEV	Positive/Φ20
Filtration	Pressure drop	Power
Primary/Medium/HEPA	150PA	600W-950W
Current	Voltage/Frequency	Noise
2.7A-4.3A	220V/50Hz	< 40DB
Compressor	Return air sensor	Purification
Inverter type/R410A	Multi-sensor	UV air sanitize /Anion generator
Fresh air duct	Return air duct	Supply air duct
Φ150mm	Φ200mm	Φ200mm
heat exchange coil	Unit dimension	
copper tubes with blue hydrophilic-coated aluminum fins	1090*659*310mm	

FD-XX100L

Test condition	Dehumidification Capacity	Supply Air Flow
27°C 60% 30°C 80%	90-120L/D	850-1180m³/h
Fresh Air Flow	Return Air Flow	Fan type
0-400m³/h	680-800m³/h	EC motor, variable air rate control
Air damper	Throttling device	Drain hole size
Built-in	EEV	Positive/Φ20
Filtration	Pressure drop	Power
Primary/Medium/HEPA	150PA	750W-1180W
Current	Voltage/Frequency	Noise
3.4A-5.3A	220V/50Hz	< 45DB
Compressor	Return air sensor	Purification
Inverter type/R410A	Multi-sensor	UV air sanitize /Anion generator
Fresh air duct	Return air duct	Supply air duct
Φ150mm	Φ200mm	Φ200mm
heat exchange coil	Unit dimension	
copper tubes with blue hydrophilic-coated aluminum fins	1090*659*310mm	

LUKO 弗迪沃斯
专注温湿度系统解决方案

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FORERUNNER OF HOUSING TECH INNOVATION

LUKO FEDYWOS

FOCUS ON TEMPERATURE AND
HUMIDITY SYSTEM SOLUTIONS

CREATE A COMFORTABLE NEW LIFE
WITH FIVE CONSTANTS

CONSTANT TEMPERATURE / CONSTANT HUMIDITY /
CONSTANT OXYGEN / CONSTANT NET / CONSTANT STATIC

