



EKRV-C Series Commercial DC Inverter VRF Central Air Conditioner

Cooling capacity: 25.0kW ~ 184.5kW

Heating capacity: 28.0kW ~ 207.0kW



 **EUROKLIMAT**®

Give life to building , bring us back to nature™



EK

Energy-saving Air-conditioning Expert From Europe

For more than half a century, we have been dedicated to research on energy saving. For many business and domestic users in Europe nowadays, EK has become the synonym of energy-saving air conditioners. In 2009, EK worked with China Aerospace Science & Industry Corp. to introduce the most advanced energy saving technology in Europe and make innovative researches on air conditioning products suitable for China customers successively, with a view to meeting various personalized needs of customers.



Quality

High-quality core components



Reliable

Reliable all-weather operation



Comfortable

Comfortable European design concept



Convenient

Highly flexible design and installation

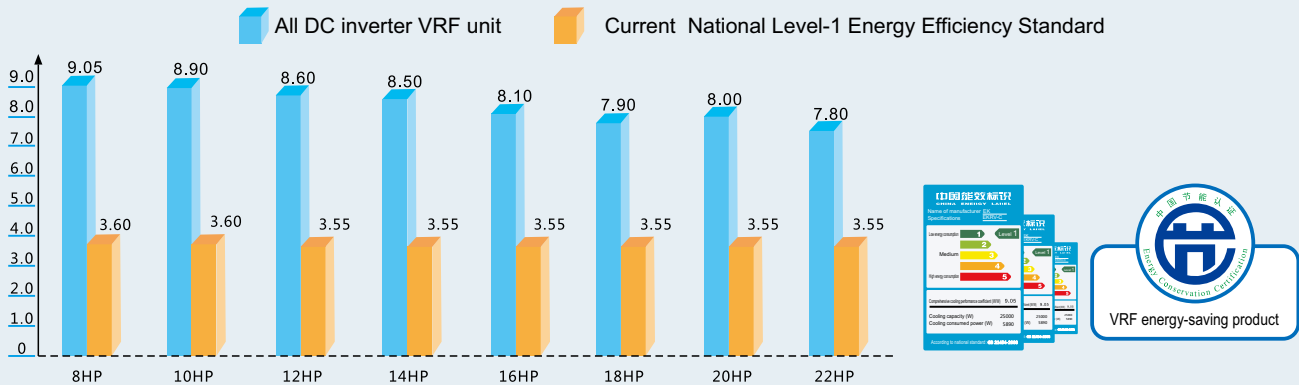


Comfortable
Comfortable European design concept

Low Carbon and Energy Saving

Far exceeding the National Level-1 Energy Efficiency Standard to ensure more economic and efficient operation

PLV(C) of EKRVC air conditioning system is up to 9.05, far beyond the National Level-1 Energy Efficiency Standard 3.55



Note: According to the GB21454-2008 Minimum Allowable Values of the IPLV and Energy Efficiency Grades for Multi-connected Air-condition (Heat Pump) Unit, the IPLV(C) test is conducted using basic modules for the modular VRF air conditioning (heat pump) unit.

According to the GB21454-2008 Minimum Allowable Values of the IPLV and Energy Efficiency Grades for Multi-connected Air-condition (Heat Pump) Unit, the current energy efficiency evaluation standard IPLV(C) for VRF products includes five grades, among which grade 1 is the highest one.

Corresponding IPLV(C) values (W/W) to energy efficiency grades

Nominal cooling capacity (CC)W	Energy efficiency grade				
	Grade 5	Grade 4	Grade 3	Grade 2	Grade 1
CC ≤ 28000	2.80	3.00	3.20	3.40	3.60
28000 < CC ≤ 84000	2.75	2.95	3.15	3.35	3.55

Using the R410A environment-friendly refrigerant

The R410A environment-friendly refrigerant, internationally recognized as non-toxic, highly performed and reliable, is adopted for the whole EKRVC Series. With the ODP as zero, the refrigerant does not cause any damage to the atmospheric ozone layer. In addition to high efficiency and energy conservation, a green and environmentally friendly air-conditioning environment is ensured for customers.

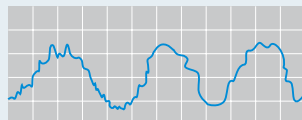
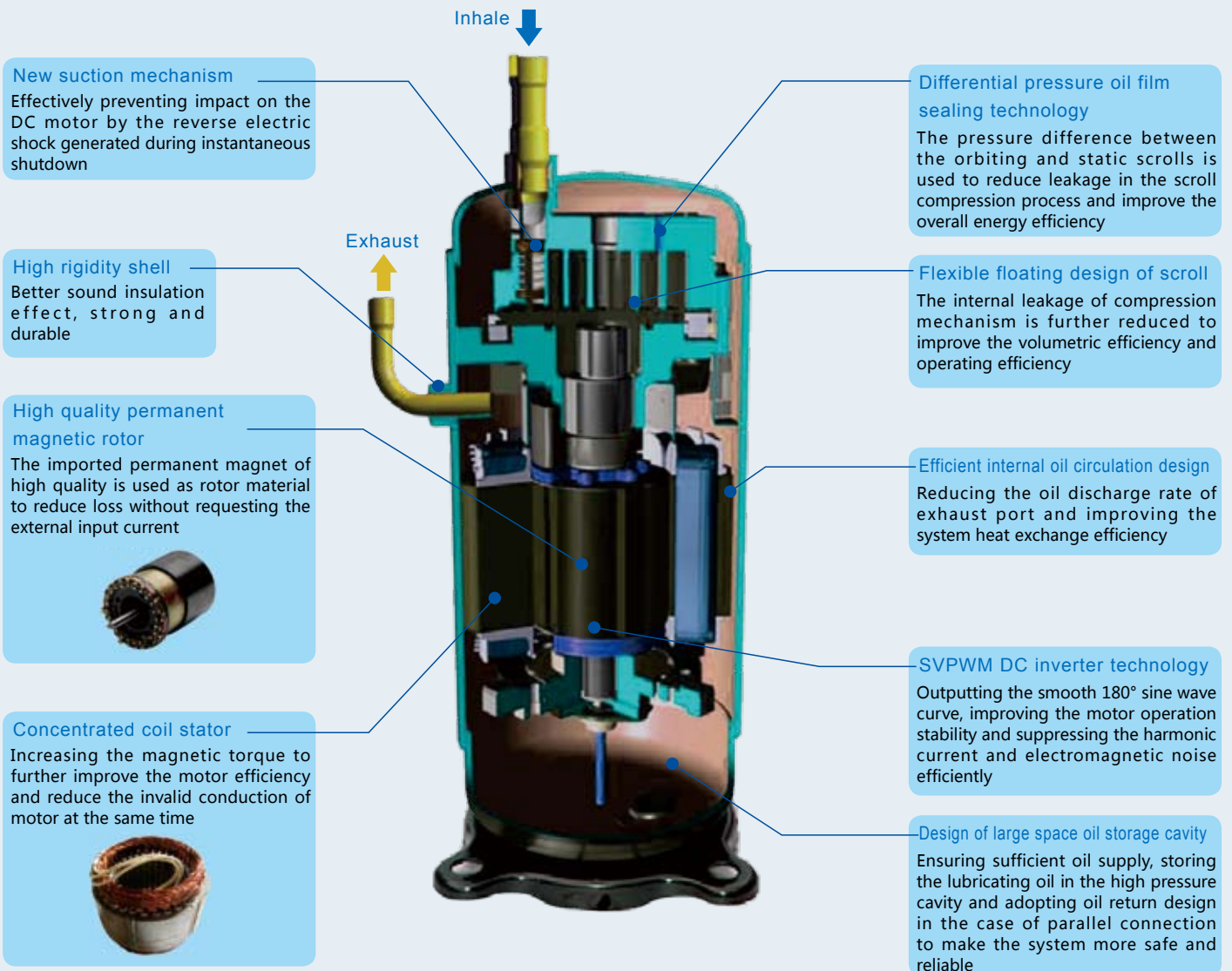


Responding to European RoHS Directive positively and comprehensively

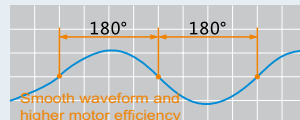
RoHS is the short form of the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment. It bans use of the six noxious substances (Pb, Hg, Cd, Cr6+, PBDE and PBB) in electrical and electronic equipment. By actively responding to European RoHS Directive, EK sets a strict control on use of noxious substances to ensure health of users and disused electronic and electrical equipment recycled and dealt with in an environmentally friendly way.

High pressure cavity DC inverter scroll compressor with large discharge

The unit adopts the high pressure cavity scroll compressor with the direct suction compression mode to improve the compressor compression efficiency greatly. The unique internal oil supply mode uses the inherent pressure difference to ensure reliable compressor operation under the low load and prolong the compressor service life; the silencing structure design in the cavity reduces the compressor operation noise effectively.



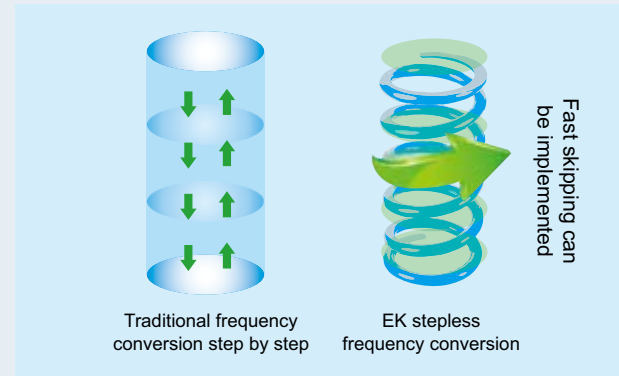
Common air conditioner: Common rectangular wave output and low motor efficiency



Smooth waveform and higher motor efficiency
EK air conditioner: 180° sine wave output and high motor efficiency

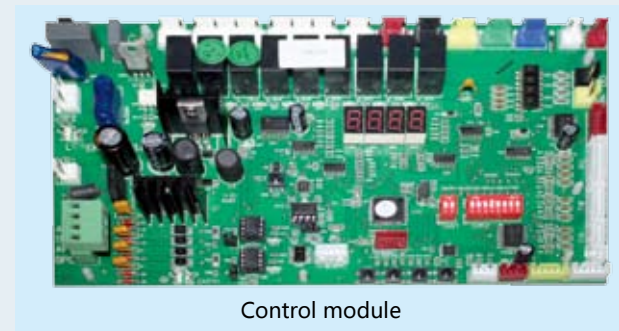
Stepless inverter technology

The advanced DC inverter control technology implements stepless speed regulation for the compressor. The system output is regulated intelligently according to the actual load need of air conditioner to ensure linear output from the low load capacity to high load capacity and load output as needed in the real sense.



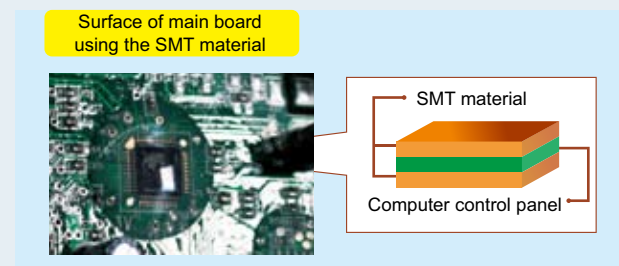
Intelligent inverter control

- The powerful inverter main board developed independently is adopted to ensure the output frequency change range of 0 to 420 Hz and control the frequency precision at 0.01 Hz.
- Texas Instruments high-speed DSP chip is used, together with the precise control through mature algorithm controlled by voltage and current double closed loop feedback and the integrated multiple protection functions to avoid over-voltage, over-current, and over-temperature, to make the performance more stable and the operation more reliable.
- The no-sensor SVPWM sine wave control technology effectively reduces the vibration of compressor motor.
- The closed loop startup control scheme decreases the startup current of compressor, reduces the grid impact, and effectively ensures the grid stability of customers.



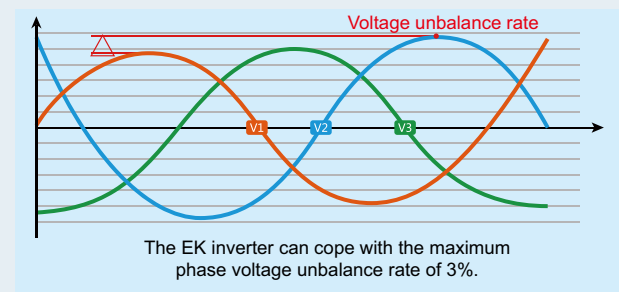
SMT

Surface Mounted Technology (SMT) means coating sealing material on the surface of the entire main board to improve the anti-clutter performance of main board and protect it from being affected by high temperature, humidity, sandwind and other severe weathers and air environments.



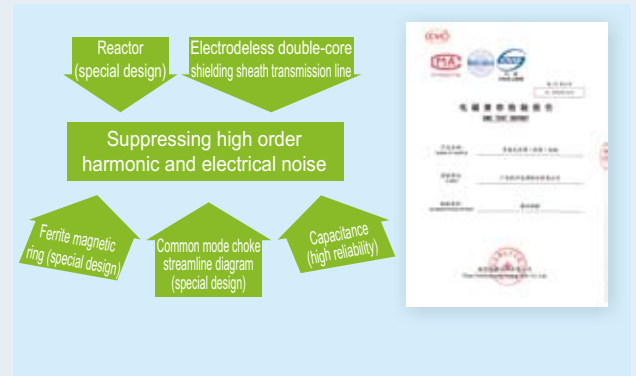
Inverter floating to adapt to the voltage

The E.K inverter controller adopts the advanced power voltage unbalance control technology. It can operate stably and efficiently when the voltage unbalance rate reaches 3%.



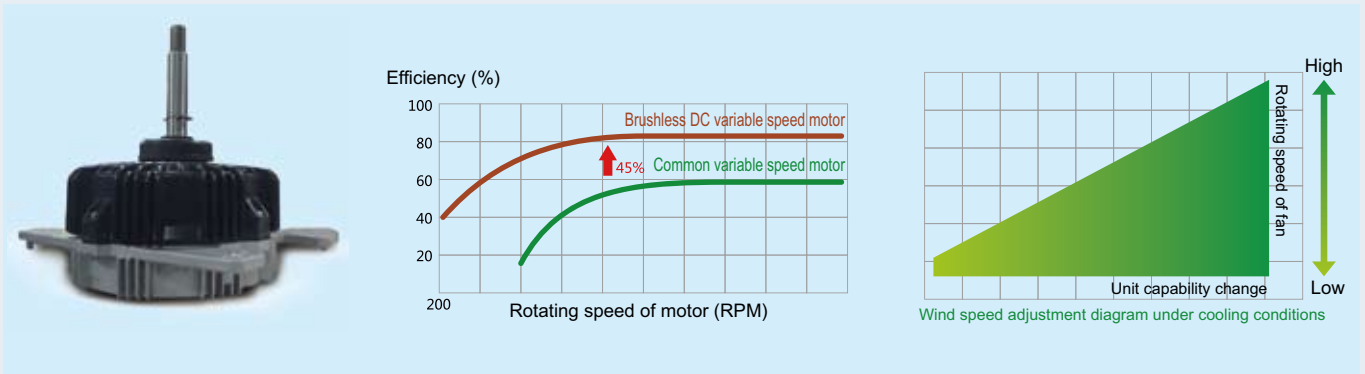
Suppressing high order harmonic and electrical noise

The EKRV-C series VRF central air conditioner units have undergone a lot of strict tests and passed the national EMC test. They are combined with efficient components to suppress generation of high order harmonic and electrical noise efficiently.



DC inverter motor

The brushless DC variable speed motor is selected to efficiently adapt to varying environmental temperature and is capable of quickly adjusting the rotating speed of the fan to ensure the stability of suction and exhaust pressure of the system. It also automatically adjusts the air volume and air pressure of ODU according to the varying load, ensuring stable and reliable operation of the system.



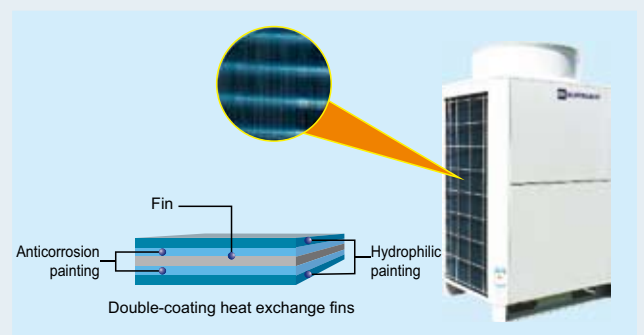
Newly designed efficient heat exchanger

It adopts the whole new design of highly efficient heat conducting inner grooved copper tubes arranged in three rows. The structure effectively strengthens the turbulent flow of refrigerant and increases the heat exchange area of heat exchanger to further boost the heat exchange efficiency.



Efficient corrosion resistant heat dissipater

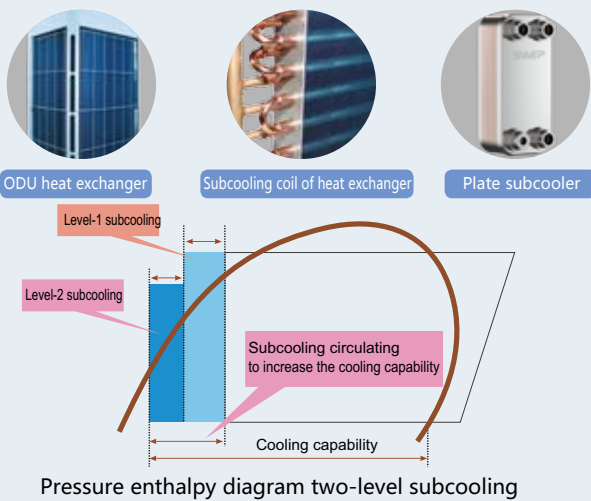
Hydrophilic aluminum foil is used for both IDU and ODU. Water hardly condenses on fins. In particular, the defrosting performance in winter is perfect, and the heat exchange performance and corrosion resistance is excellent.





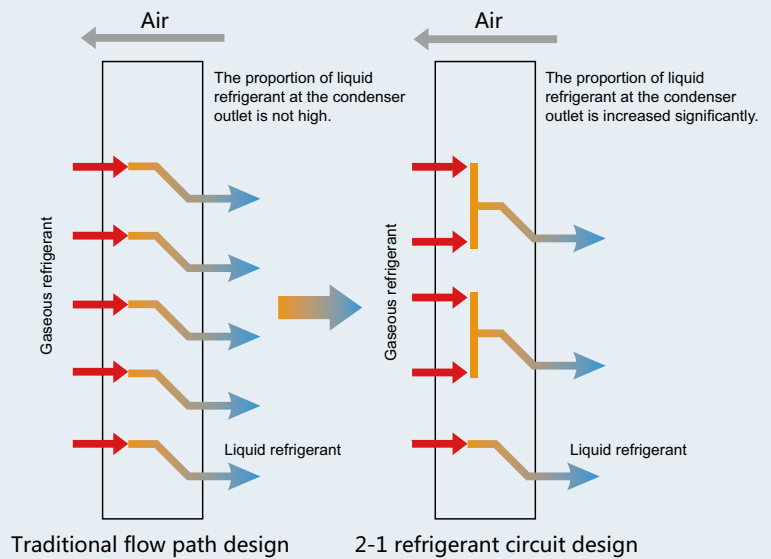
Super high subcooling design

The condenser realizes the level-1 subcooling, and the independent plate heat exchanger realizes the level-2 subcooling. Two levels of subcooling can implement a maximum subcooling of 30°C. It not only enhances the cooling capability of the unit, but also improves the problem of capacity attenuation caused by long pipes, improving the unit efficiency and making operation more stable.



Efficient 2-1 circuit

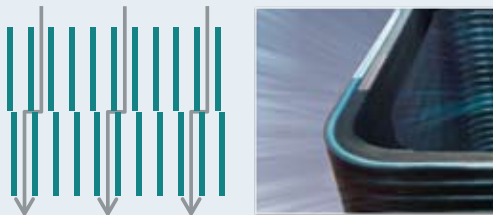
The efficient heat exchanger adopts the "2-1" refrigerant circuit design and increases the amount of liquid refrigerant to significantly enhance the heat exchange efficiency.



Unique bent ventilation design of heat exchanger

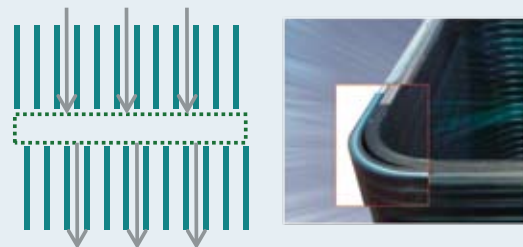
- When the common heat exchanger is bent, fins of adjacent tubes are easily dislocated, thereby causing increased ventilation resistance, reduced air volume, and lowered heat exchange efficiency. In the heating mode, the condensate water easily blocks the air duct.

Common heat exchanger

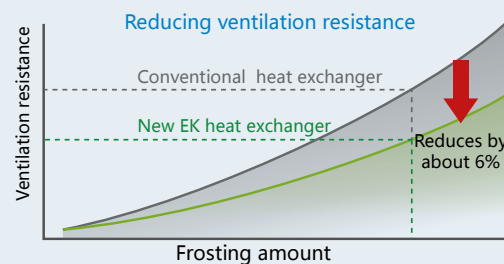
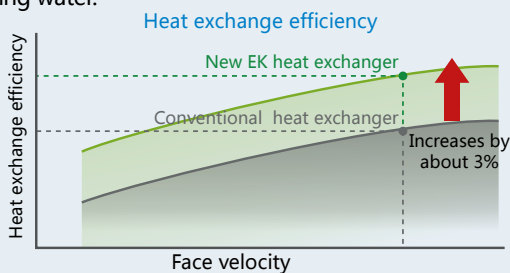


- The EK heat exchanger adopts the new bend design, which lowers the windage and increases the heat exchange efficiency, and in the heating mode, enables the condensate water in the bend to drain away smoothly.

New EK heat exchanger



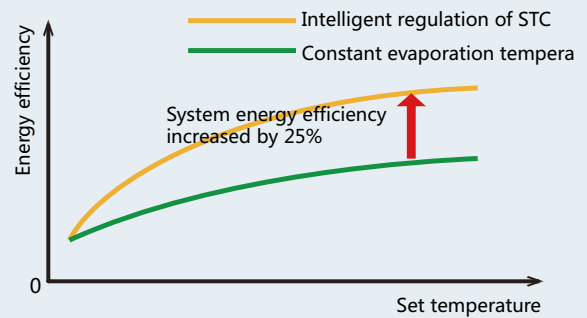
- The new heat exchanger improves the performance in heat exchange efficiency and windage significantly. Moreover, it removes the condensate water in time during defrosting, thereby ensuring the heat exchange efficiency by avoiding blocking of defrosting water.



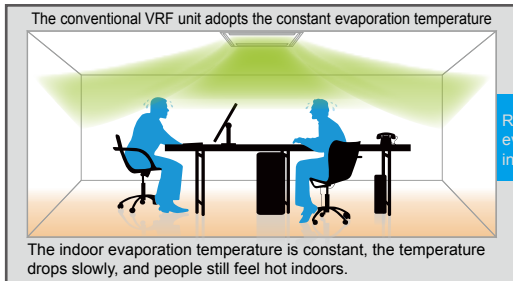
Refrigerant control technology

Intelligent regulation technology of STC

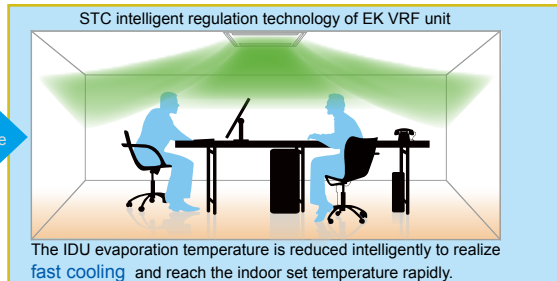
The unit is equipped with the Smart Temperature Control (STC) technology. The IDU can regulate the evaporation temperature intelligently according to the corresponding load demand. When the cooling demand is low, it regulates the evaporation temperature high and reduces the electronic expansion valve opening at the same time, and vice versa. People feel more comfortable in the room as the system operates more efficiently. The unit can perform predictive control on refrigerant and predict the ideal operating status of air conditioning system intelligently.



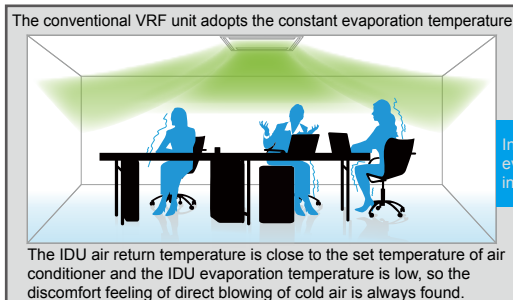
The IDU just starts to implement fast cooling or heating



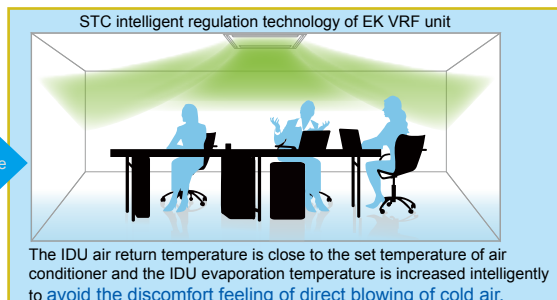
Reducing the IDU evaporation temperature intelligently



The discomfort feeling of direct blowing of cold air and hot air is avoided when the temperature is close to the set temperature of indoor air conditioner.



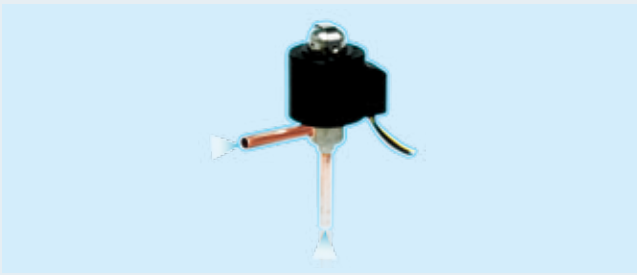
Increasing the IDU evaporation temperature intelligently





Control of multiple electronic expansion valves to implement accurate temperature control

The ODU is configured with multiple electronic expansion valves to adjust the refrigerant flow rate accurately according to the actually required cooling capacity of IDU and create a more comfortable indoor environment.



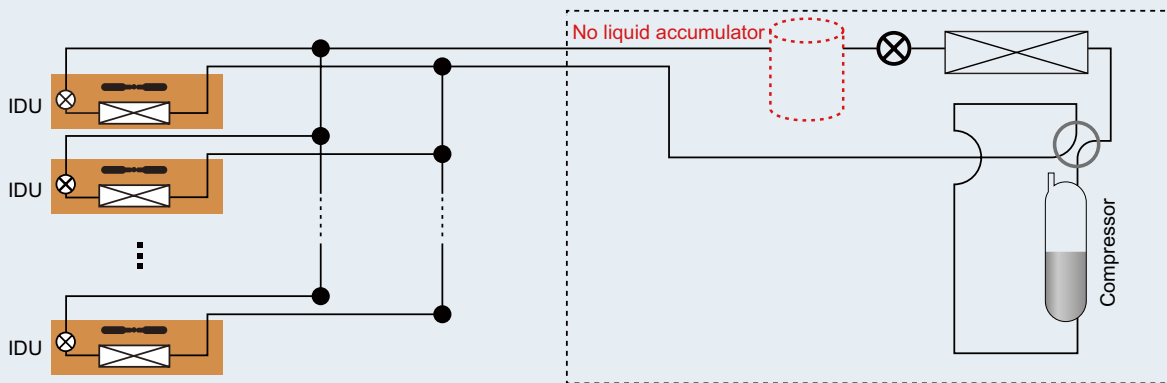
Refrigerant pressure detection technology to ensure stable and more efficient system operation

The air suction and exhaust pressure sensors are used together with the temperature sensor to detect the system refrigerant status accurately and ensure stable and efficient unit operation. The sensor reports the pressure change in time, and the unit responds to the indoor load rapidly to avoid the impact and influence on the compressor by instantaneous high or low voltage.



Refrigerant pipe storage technology

The refrigerant pipe storage technology is used to store excess liquid refrigerant in the pipeline without requesting a special liquid accumulator, and the system circuit of liquid accumulator is removed. In this way, refrigerant is controlled more accurately and the system operating efficiency is improved significantly.



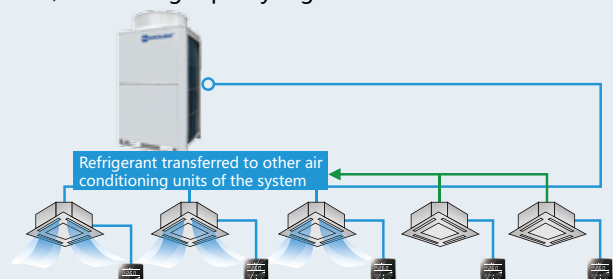
New refrigerant liquid separator

The new refrigerant liquid separator is used to ensure the uniform refrigerant flow, reduce the pressure loss and noise, and improve the heat exchange efficiency effectively. It is corrosion resistant and has a longer service life.



Dynamic refrigerant distribution technology

In the heating mode, the refrigerant in the stopped IDU is transferred and reasonably distributed to the operating air conditioning units to ensure sufficient refrigerant in the units. Thus, the heating capacity is guaranteed.



Oil control technology

Based on long-term test and analysis of the VRF system, EK air conditioner R&D team has adopted multiple oil balance control technologies, including the large-capacity oil separator, independent oil supply control in the compressor, crossed oil return of compressor, and intelligent oil balance technology of modules, to achieve the maximum efficient oil return rate of 99.9% for the system, ensuring a perfect oil balance status among compressors, among modules, and between system and refrigerant pipelines, guaranteeing the stable and reliable operation of the system and efficiently extending the service life of compressor.

Large-capacity oil separator and gas and liquid separator

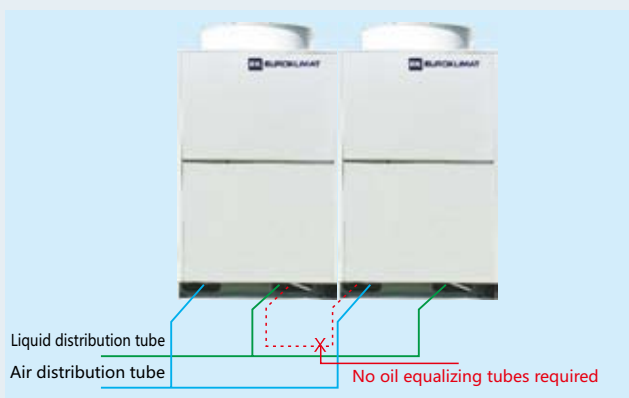
EKRVC uses the large-capacity oil separator, which effectively prevents refrigerant oil from flowing into the system with refrigerant, and promptly sends the oil back to the compressor. In particular, in the case of operation under a low load or in an extreme environment, it can ensure the smooth oil return and stable operation of the units. The gas and liquid separator adopts double oil return holes to realize efficient oil return.

(Patent No. of the gas and liquid separator with double oil return holes: ZL201520458001.0)



Intelligent oil balance of modules

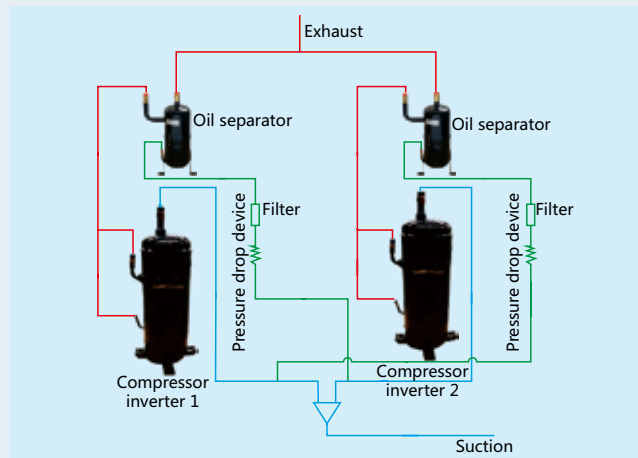
The system automatically adjusts oil balance inside modules through the oil balance program of master control board for each module. No oil equalizing tubes are required among modules, making installation easier and a better oil balance among modules, and between system and refrigerant pipelines.



Crossed oil return technology

Crossed oil return is implemented among different compressors to enable reasonable distribution of refrigerant oil before return to the compressors. This ensures internal oil balance among compressors and a favorable operating status of the system.

(Patent No. of the crossed oil return system: ZL201520458037.9)



Heating mode continued in the case of oil return

The heating mode does not need to be switched to the cooling mode when oil returns in the heating mode of EK VRF unit, and the unit can continue to supply heat during oil return.

Automatic oil return of the system as needed

The system sends the oil return command through the controller according to operation time and status, and realizes automatic oil return as needed.

Oil and mist separation inside compressor

The oil and mist separation design inside the compressor reduces the oil discharge rate of exhaust port and improves the system heat exchange efficiency.

Differential pressure oil supply technology of the compressor

The differential pressure oil supply design in the high pressure cavity scroll compressor ensures good lubrication of the compressor.

Defrosting technology

Smart defrosting technology ensures normal operation in winter

- **Dynamic intelligent defrosting function**

The unit detects the ambient temperature through the outdoor temperature sensor in real time, and dynamically corrects the defrosting time and seizes the right time of defrosting according to the real-time pressure, suction temperature and recorded defrosting cycle. In this way, the defrosting efficiency is improved and defrosting is performed only when needed, avoiding heating losses commonly seen in the conventional defrosting mode.

- **Intelligent defrosting function at a low temperature**

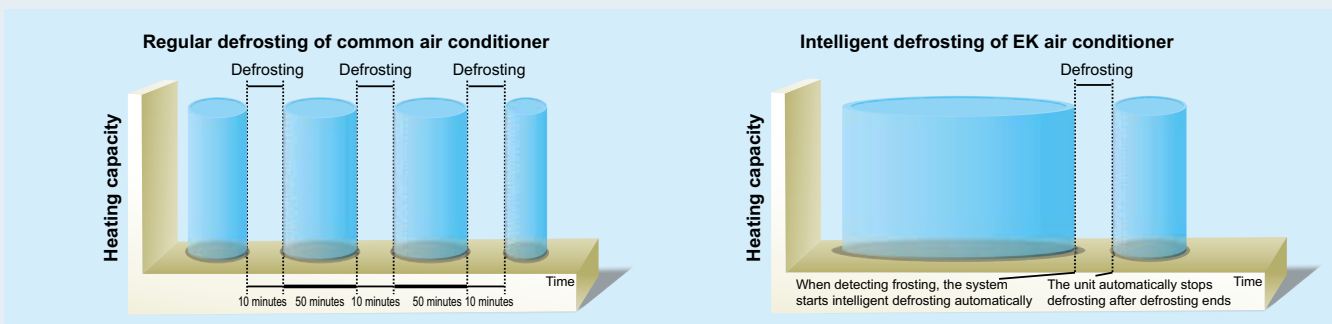
When the outdoor temperature is relatively low (below -10°C), the unit automatically corrects the data measured by the temperature sensor according to the outdoor temperature and makes the data more authentic and defrosting more accurate.

- **Intelligent defrosting function in a high humidity environment**

The unit frosts more easily when the ambient humidity increases. EK units can automatically detect the ambient humidity and implement accurate defrosting to avoid excessive frosting or ineffective defrosting.

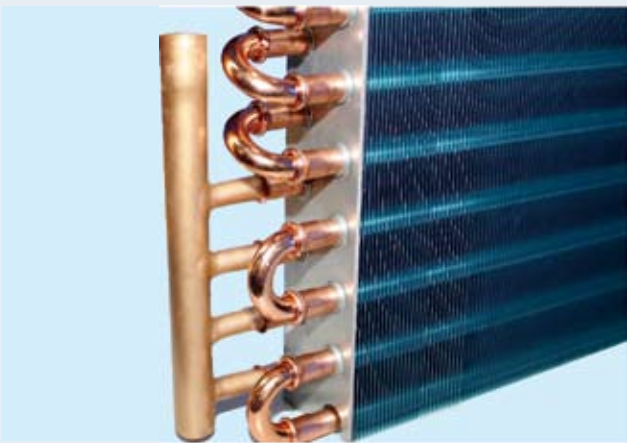
- **Intelligent defrosting function with the partial load**

In the case of full load, the unit automatically implements defrosting according to heat exchange temperature changes of ODUs; in the case of partial load, the unit implements defrosting according to heat exchange efficiency changes of ODUs. In different load modes, the unit grasps the defrosting opportunity more accurately according to different judgment criteria.



Anti-frosting heat exchanger

The ODU heat exchanger adopts the anti-frosting design. In the heating mode, gaseous refrigerant at a high temperature sent out from the compressor enters the IDU to release heat first, then enters the anti-frosting heat exchanger for further heat release to prevent frosting at the bottom of ODU heat exchanger, and finally throttles down and enters ODU heat exchanger to absorb heat. In cold and humid areas in winter, the anti-frosting design effectively prevents the bottom of heat exchanger from frosting and ensures smooth drainage.



Snow resistance

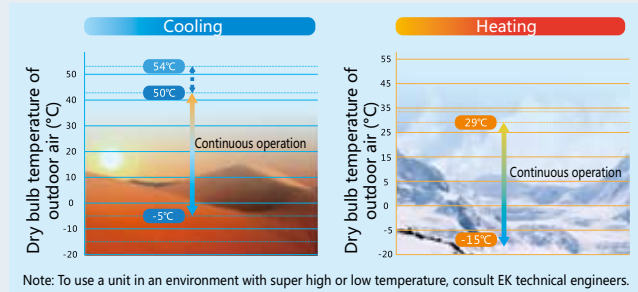
The system's ODU is equipped with the snow resistance function, which prevents the unit from being covered by snow when it stops operation and extends the service life of fan motor.



Reliable operation

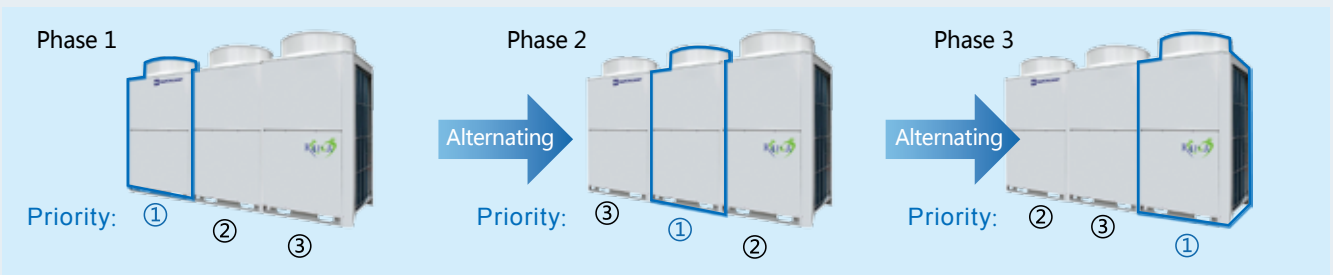
The wide range of operating temperature for better coping with the harsh environment

A wide range of operating temperature significantly enhances the system capability of adapting to various environments. The advanced cooling system design enables EKRVC units to operate reliably and create a cozy indoor environment, no matter in a summer when the outdoor temperature is 50°C or in a winter when the outdoor temperature is -15°C.
 Range of cooling temperature: -5°C to 50°C
 Range of heating temperature: -15°C to 29°C



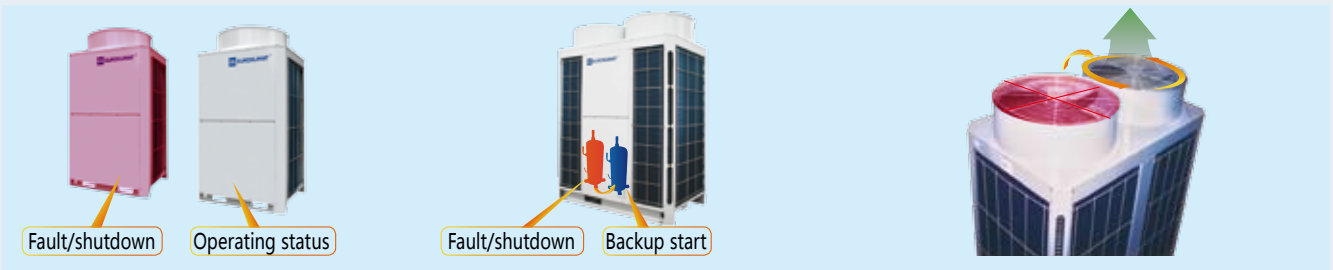
Intelligent and balanced operation management

The system automatically records the operation time of each compressor, and first starts the compressor with relatively shorter operation time, so as to balance the operation time of each compressor and extend their service life; it also automatically records the operation time of each module, and first starts the module with relatively shorter operation time, so as to balance the operation time of each module and extend the unit service life.

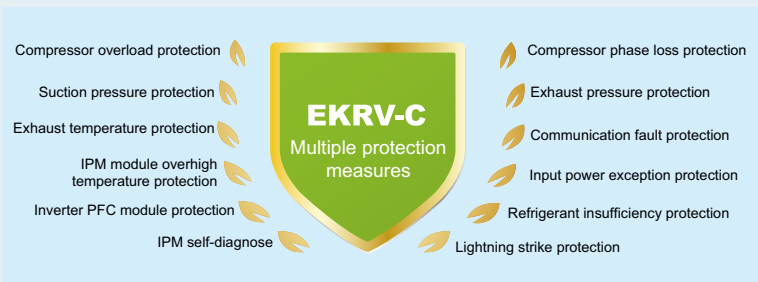


Triple backup operation function

The units adopt the triple backup operation design, through which ODU modules, intra-module compressors and fans back up each other, with a view to ensuring that the system units can continue operation in accidental protection/shutdown and shortening the maintenance waiting time.



The system is configured with a number of protection measures to ensure safe and reliable operation of units.



Intelligent power saving mode

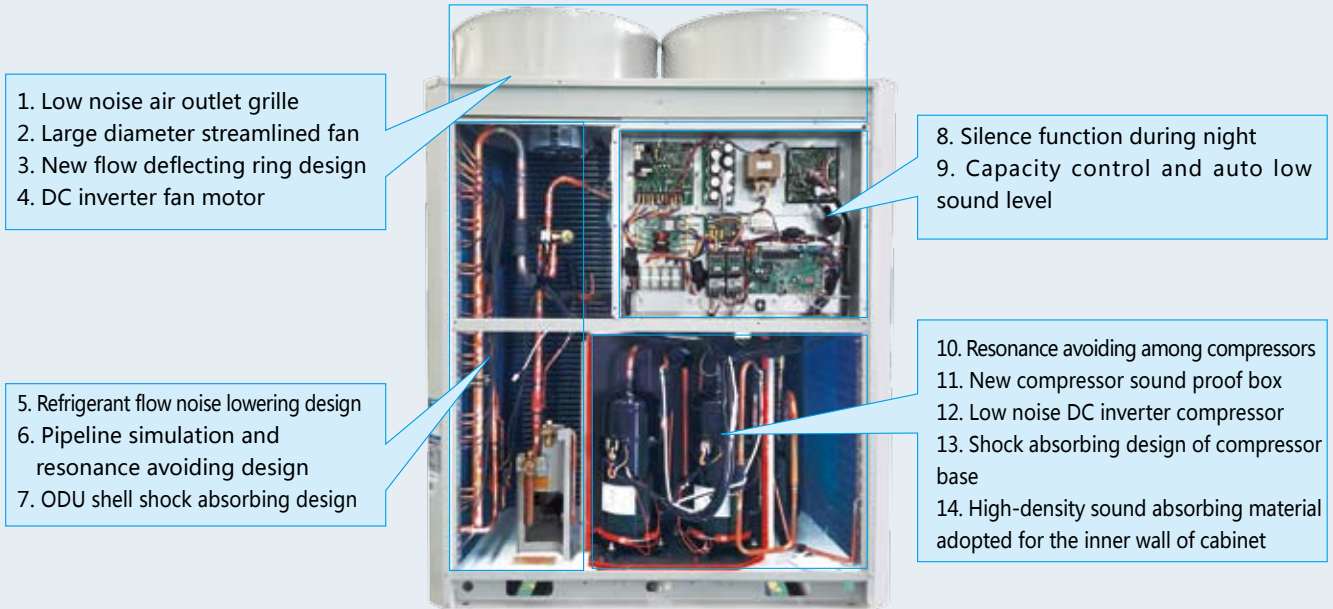
EKRVC series central air conditioners can, based on power peak and valley needs, detect electric current intelligently and operate under the power saving mode automatically, reducing the power consumption while guaranteeing the comfort degree.



Comfortable environment

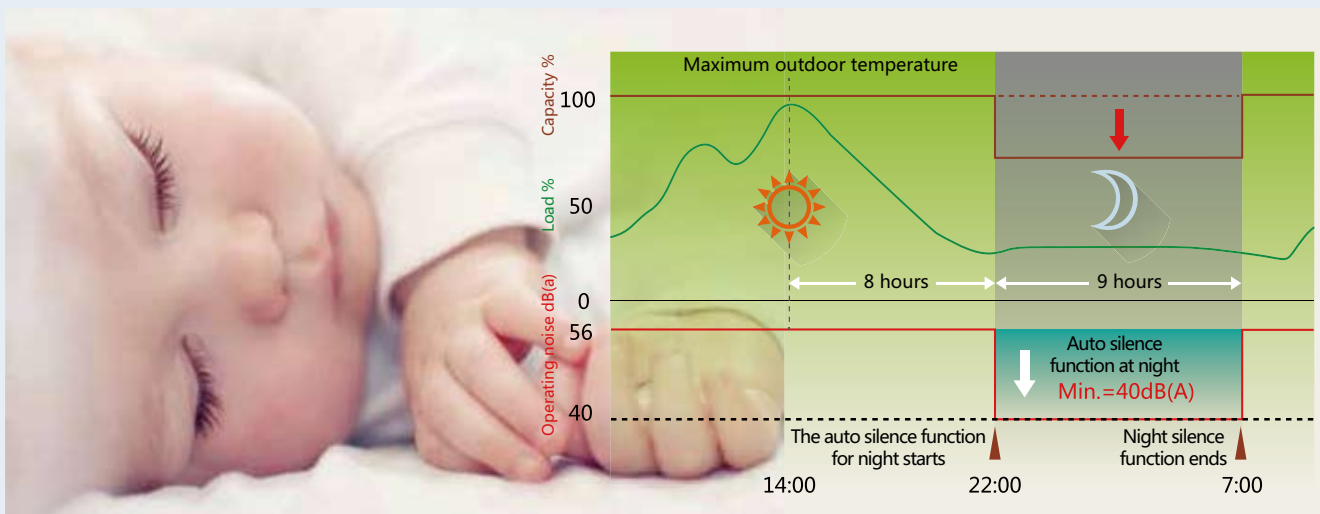
Silent design

The units are configured with 14 silent designs and use the simulation technology to improve the system constantly and realize silent operation for both IDUs and ODU.



Silent mode at night

The ODU is configured with the night silence function. When the night silence mode is started, the minimum noise of the unit is 40 dB so the unit can create a comfortable and quiet environment at night.

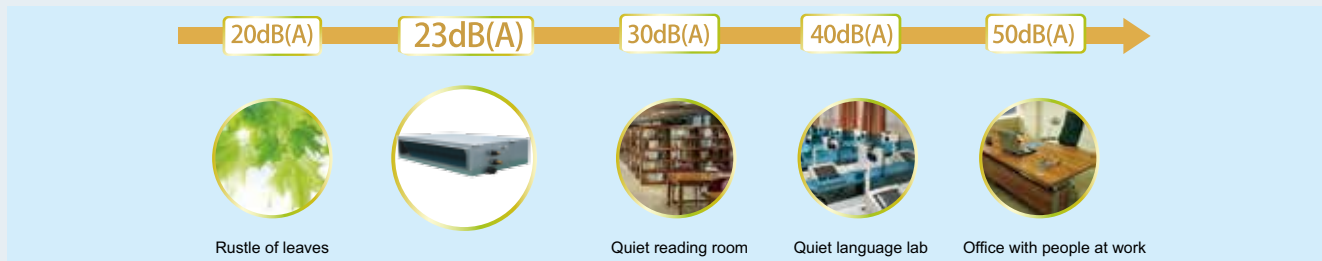


All-day auto silence function

In the partial load, the outdoor fan automatically lowers its speed according to the pressure, makes its capacity output perfectly match the needed load at terminals, reducing the noises automatically.

|| Noise control of IDUs

The technical means and installation methods of reducing operating noises of EKRVC series IDUs are studied from multiple aspects and in consideration of their application places and structural characteristics.

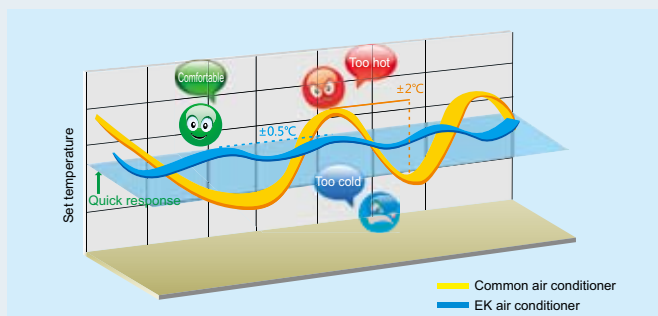


|| VIP function

A number of operation modes are available: priority of VIP IDU users, cooling priority, heating priority, cooling only, and heating only.

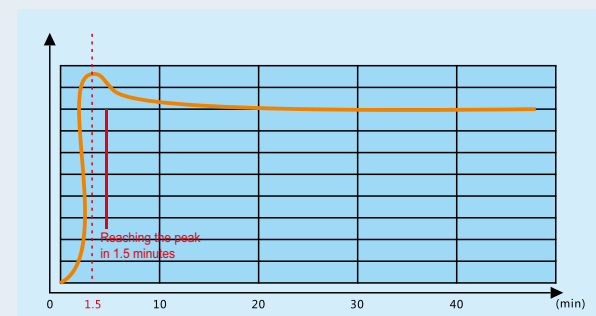
|| Three-in-one temperature sensing design

The temperature sensor precisely detects the air supply temperature, air return temperature and indoor temperature. The IDU's control chip intelligently senses the change in temperature, and then automatically adjusts the actual cooling capacity or heating capacity of the IDU to keep indoor temperature with a tiny variation of $\pm 0.5^{\circ}\text{C}$, and in the meantime controls the air outlet temperature within the most comfortable range for human bodies.



|| Quick start of cooling(heating) to reach the set temperature

After startup, the unit automatically compares the outdoor ambient temperature with the set temperature, and implements an output of 100% of the cooling/heating capacity through large capacity operation of the compressor, quickly responding to the indoor load demand for air conditioning.



|| Comfortable and healthy air solutions

It is urgent to improve the indoor air quality given the frequent occurrence of smog and increasingly worsened air quality in big cities of China in recent years. EK provides its users with professional air quality solutions:

① Ecological-level air purifying technology (optional)

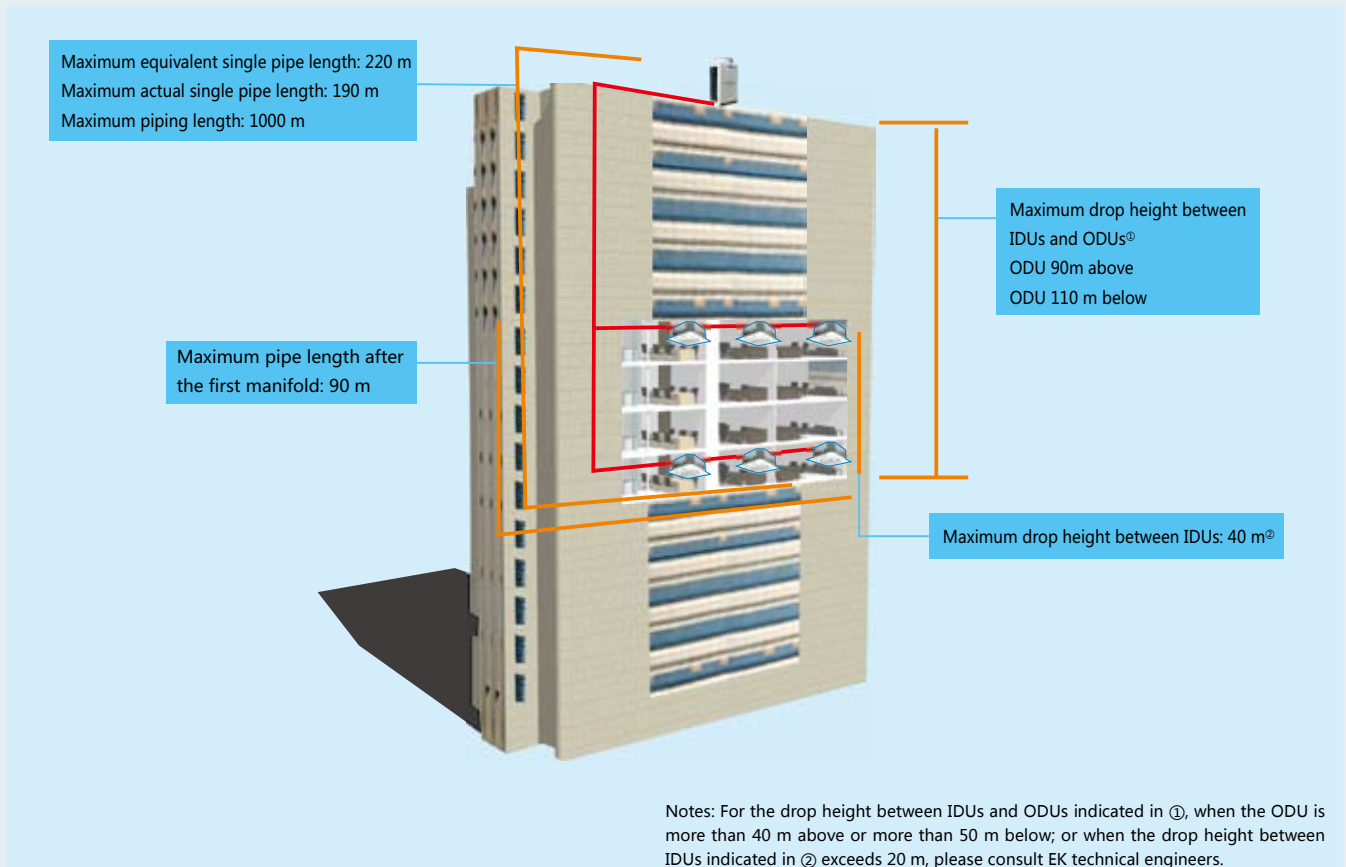
The DecoTec™ technology is adopted to decompose formaldehyde, which is absorbed from air onto the filter surface, into water and CO_2 , completely preventing formaldehyde from being released again. The test carried out by a third party authority proves that such technology can remove 99% of formaldehyde and restore an original ecological environment in the most harmonious way.

② PM2.5 electrostatic precipitation filter (optional)

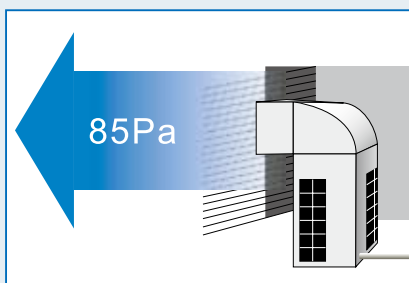
The PM2.5 electrostatic precipitation filter can be configured at the IDU return air inlet to realize indoor air circulating purification and create a healthy and comfortable indoor environment.

Convenient Design, Construction and Maintenance

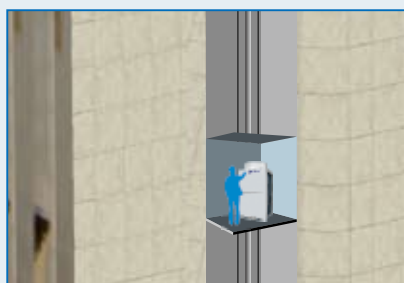
Super long piping



|| The maximum adaptive regulation of external static pressure can reach 85 Pa and can cope with hierarchical placement of the system to ensure the unit heat dissipation effect.



|| For the modular design, the maximum dimensions of a single unit are 1280 * 760 * 1640, and the unit can be transported using an elevator easily.



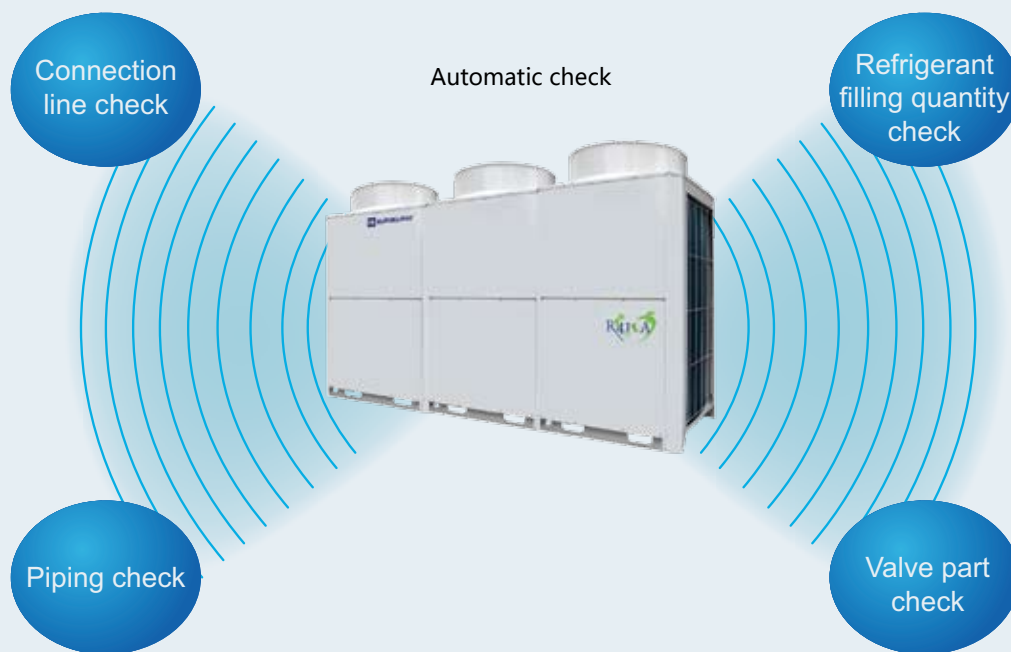
|| 360° omni-directional pipe connection to facilitate pipeline installation and adjustment



Efficient trial operation

The EKR-C series VRF units are equipped with the trial operation function, not only accelerating construction, but also guaranteeing the construction quality of the construction site.

- Automatically checking all kinds of connection lines between IDUs and ODUs to confirm correct connections
- Automatically checking whether the refrigerant filling quantity in the system is in the reasonable range according to the IDU and ODU configuration and actual system conditions such as the refrigerant piping length
- Automatically checking to confirm whether the valve parts of each ODU module are in the normal operating status and ensuring normal operation of the air conditioning system.



Automatic phase sequence identification and correction technology

Both the compressor motor and fan motor are DC motors. When an error occurs in the phase sequence of power distribution, the unit can identify and correct the phase sequence automatically to implement normal operation.

Automatic pipeline exception check function

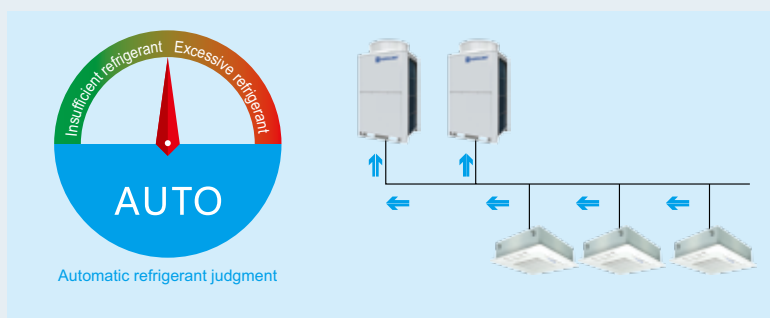
According to the configured temperature and pressure sensors, the system monitors the system operating status in real time and finds system pipeline exceptions (such as pipe connection error and leakage) in a timely manner.

Non-polar communication and automatic addressing of the ODU

IDU and ODU communication is implemented through the non-polar shielded twisted pair; it is unnecessary to set an address for each IDU during debugging, and addresses can be registered through the controller automatically, simply and safely for all the IDUs in the system, without requiring manual code dialing.

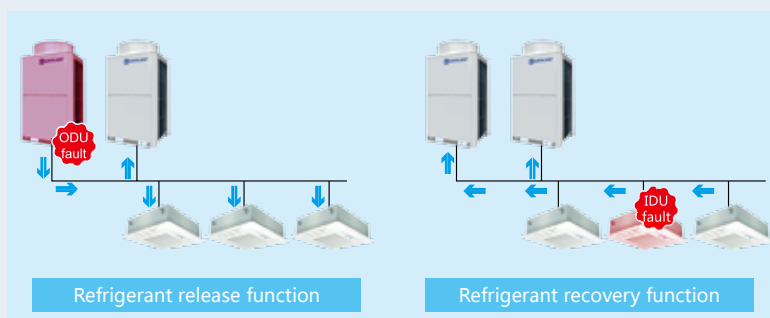
Automatic refrigerant filling quantity judgment and automatic refrigerant filling

The unit checks whether the refrigerant filling quantity in the system is proper according to the IDU configuration and actual refrigerant piping length. When the refrigerant filling quantity is insufficient, it reminds the technician to fill refrigerant in time so as to ensure stable and efficient operation of the system.



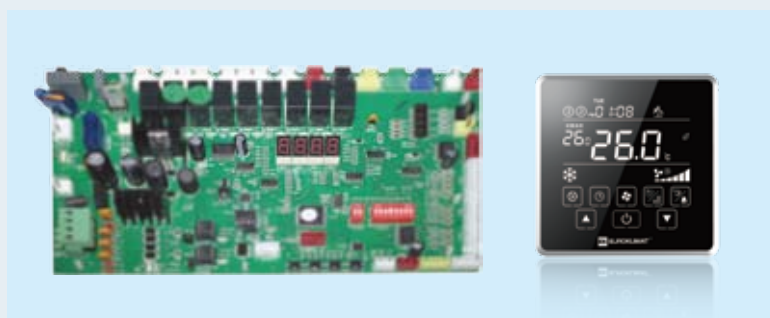
Automatic refrigerant recovery technology

Refrigerant can be recovered to the ODU or IDU side automatically according to the overhaul demand to reduce the waste caused by refrigerant discharge during maintenance.



Auto fault detection

The unit can diagnose faults automatically and display them using fault codes through the IDU wire controller or control module so that the service and maintenance personnel can maintain and repair the system correctly and in a timely manner.

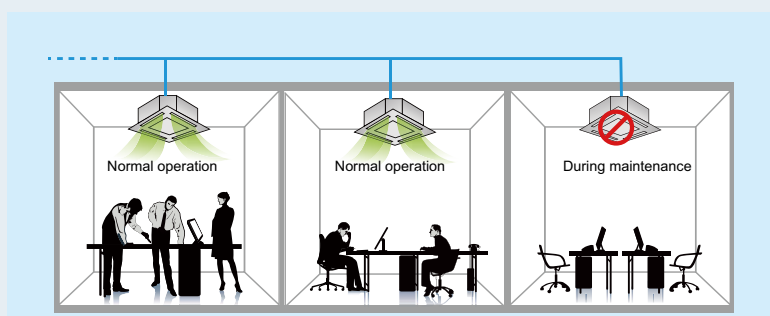


Emergency power-down repair of IDU

When an IDU requires emergency power-down repair due to a fault, this IDU can be powered off separately, which does not affect operation of the whole system.

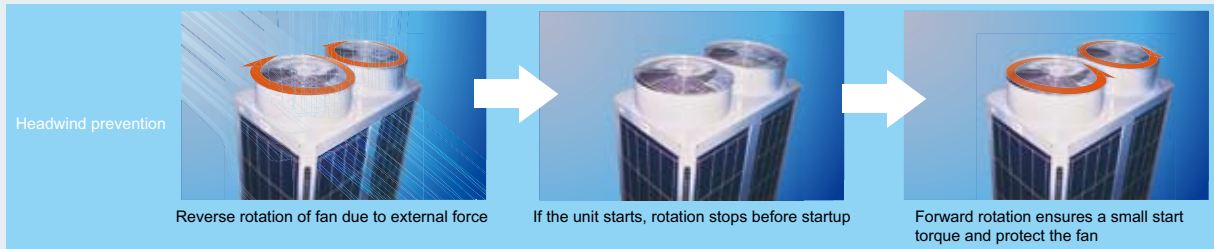
Emergency shutdown function

The ODU can directly access the fire alarm linkage signal without remote monitoring. In an emergency, the entire unit can be shut down immediately to avoid greater risk losses.



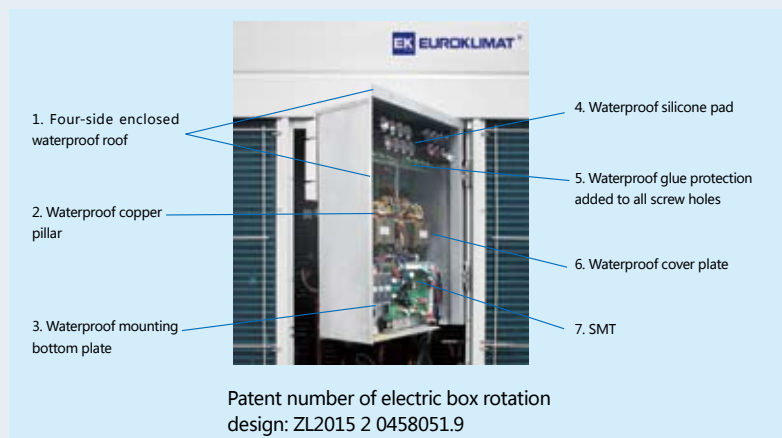
Headwind prevention function of ODU fan

The ODU fan may rotate reversely under the function of strong wind. If the air conditioning system is powered on and the fan starts unexpectedly under this situation, the motor torque will increase suddenly, easily damaging the fan.



Electric box rotation and waterproof design

Since electrical components are sensitive to water, the electric box for the EKR-V-C series unit adopts multiple effective waterproof sealing designs to protect electrical components effectively and prolong the unit service life. The electric box adopts patented rotation design to greatly facilitate debugging and maintenance.



Auto startup upon power restoration

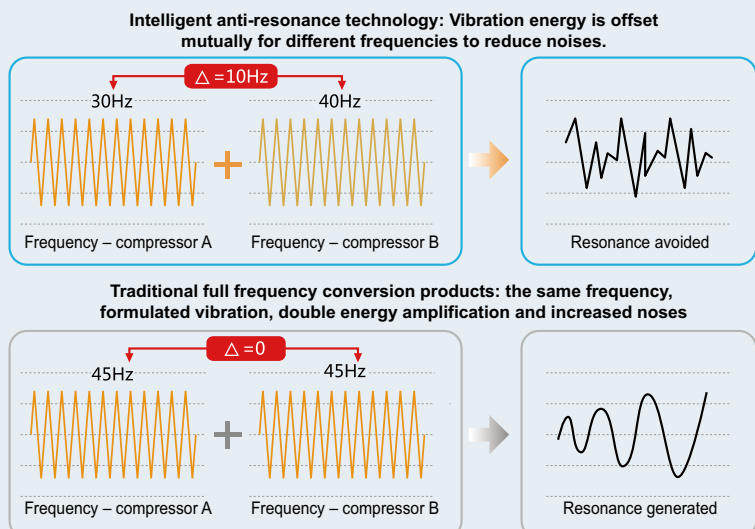
When power is restored after unexpected power outage, the system resumes the operating status before power outage automatically, without requiring manual operation.

Fault storage and query function

The system provides the fault storage function so that fault data can be queried and recorded and the after-sales service personnel can judge and analyze the equipment fault causes correctly and rapidly.

Intelligent anti-resonance technology

The ODU can adjust the frequency difference during operation of two inverter compressors automatically to prevent system resonance, improve system stability, and reduce system noises.



Intelligent control

Wired controller

- User-friendly interfaces and touch screen operation;
- Power-on/off and temperature settings;
- Air conditioning mode (Cooling/heating/dehumidifying/air supply) settings;
- High wind/medium wind/low wind/auto/air deflector swing settings;
- Timed ON/OFF function: the maximum timing is 24 hours;
- Fault code display;
- Sleep function;
- Auxiliary electrical heating or auxiliary hot water coil control;
- Automatic recovery of set temperature;
- Controller locking;
- The address code can be registered through the wired controller;
- Filter cleaning prompt;
- Master wired thermostat function;
- Temperature limit setting function.



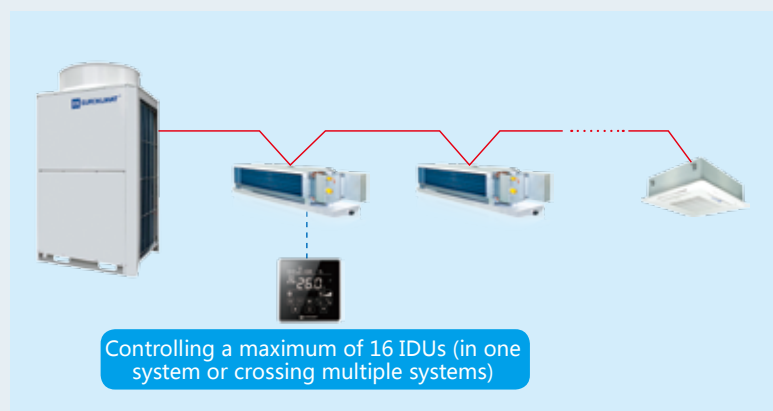
Wireless remote controller

- Large LCD screen;
- Power-on/off and temperature settings;
- Air conditioning mode (cooling/heating/dehumidifying/air supply) settings;
- Timed ON/OFF function: the maximum timing is 24 hours;
- High wind/medium wind/low wind/auto/air deflector swing settings;
- Intelligent PTT function;
- Simultaneous control of IDUs in the wired/wireless mode;
- The address code can be registered through remote control;
- Auxiliary electrical heating or auxiliary hot water coil control.



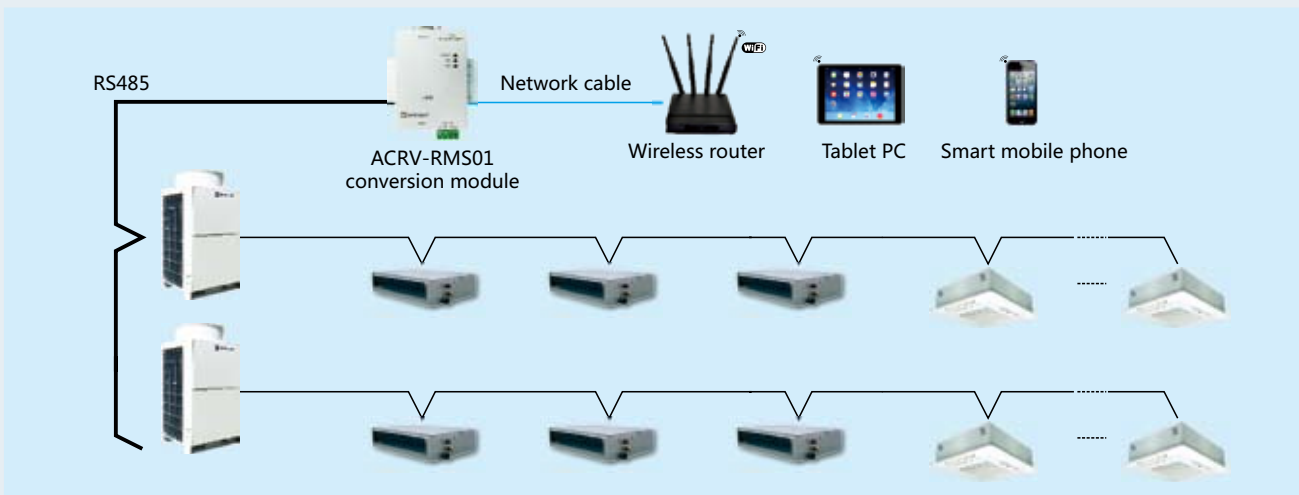
Centralized controller

- User-friendly interfaces and touch screen operation;
- Controlling a maximum of 16 IDUs (in one system or crossing multiple systems);
- Single unit or cluster mode settings;
- Power-on/off and temperature settings;
- Air conditioning mode (cooling/heating/dehumidifying/air supply) settings;
- High wind/medium wind/low wind/auto/air deflector swing settings;
- Timed ON/OFF function: the maximum timing is 24 hours;
- Sleep function;
- Auxiliary electrical heating or auxiliary hot water pipe control;
- Operating status monitoring.



Remote monitoring

The remote intelligent monitoring function of smart mobile phone/tablet PC can use the smart software of mobile phone to realize remote monitoring and operations of the air conditioning system and implement dynamic and all-dimensional monitoring on the operating status of each IDU.

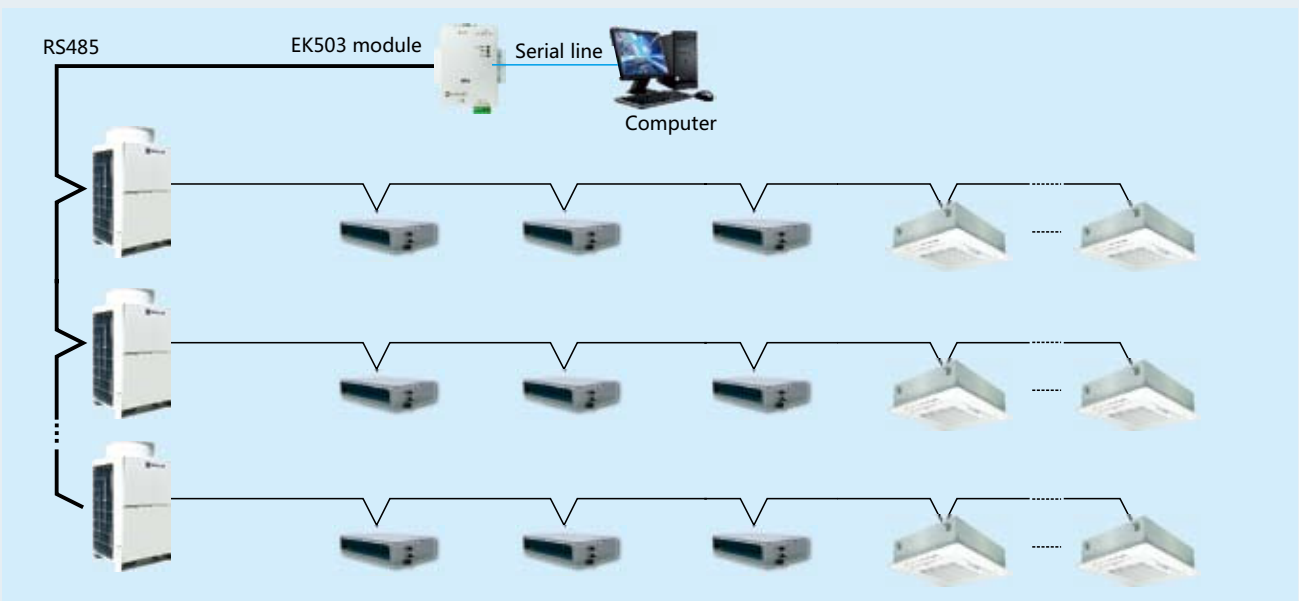


- One set monitoring system is able to support max 64 ODU systems.

EK VRF unit management system

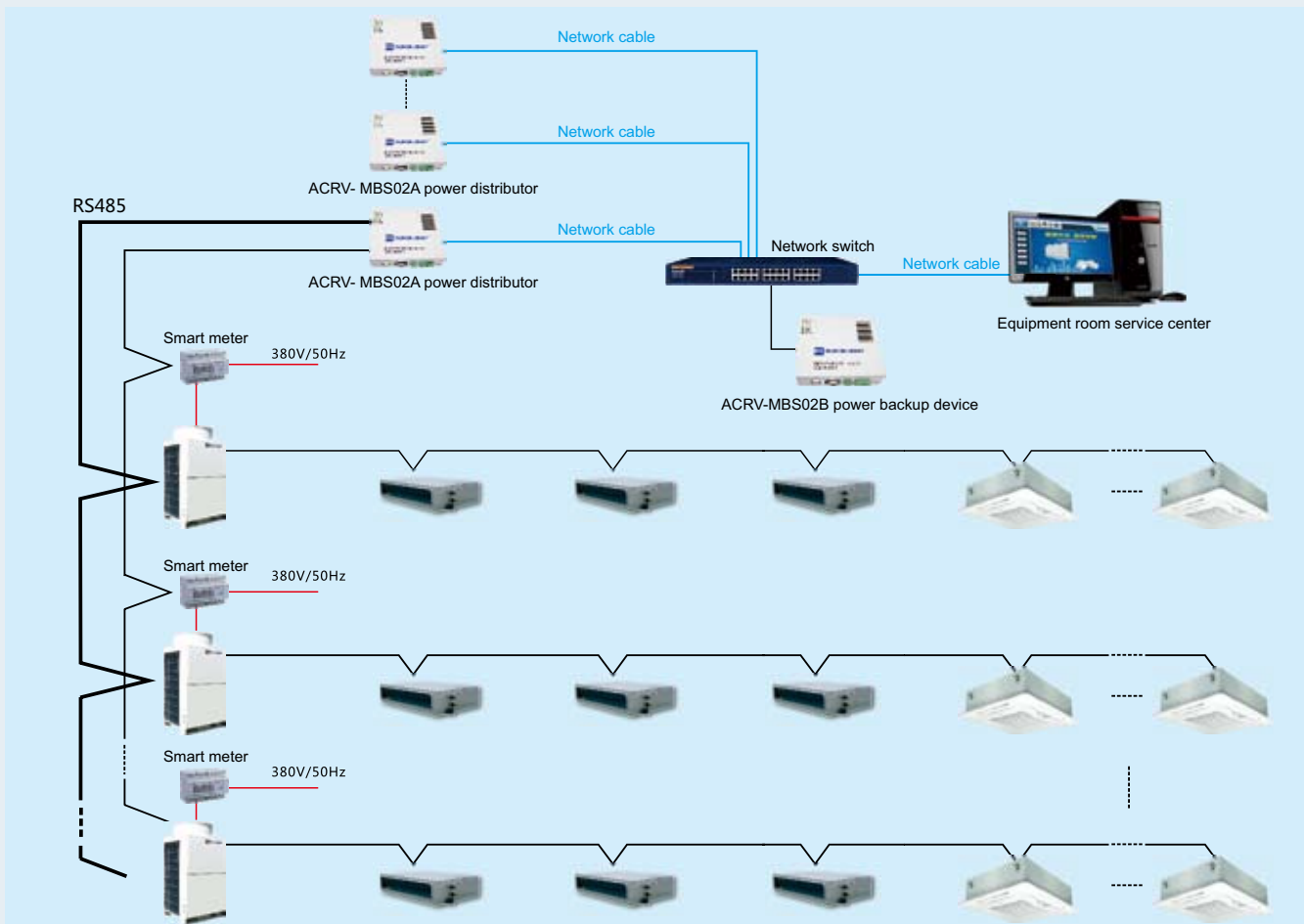
The EK VRF unit management system is a set of software specially developed for management and control of the EK VRF central air conditioning system. It regards a computer as the centralized control center to control a maximum of 4096 IDUs and implement automatic online management of the whole air conditioning system.

- Monitoring the operating status of the air conditioning system
- Power-on/off and temperature settings, wind speed settings and other settings for each IDU
- Timer management
- User controller shielding function
- User permission settings
- Fault alarm



Household-based charging function

The power distributor is connected to the smart meter and the IDU and ODU system to read the smart meter data and the real-time operating status of IDU and ODU at a high speed, accurately distribute and store the total electricity consumption in real time according to the refrigerant flow ratio corresponding to the electronic expansion valve opening of each IDU and by combining the status parameters such as the IDU wind speed, return air temperature and ODU defrosting status, and transfer the related information to the PC through the LAN switch. The PC converts the electricity distributed to each IDU into the corresponding expense to complete the report statistics and other functions.



Remark : One set power distributor is able to support max 128 ODU systems.

The visual navigation interface of floor can be used to monitor the statuses of all units, manage user permissions, and display and save the operating records of all units. It can also count and export the electricity data of IDUs automatically and generate the electricity statement of each user according to settings.

Central air conditioning bill of xx Property Management
(Owner's power consumption details)

Owner : A0608 Billing period: 00:00:00 on July 17, 2015 to 23:59:59 on July 17, 2015 Current balance (RMB) : 1544.50

Name	IDU	General type electric quantity	Electric quantity of period 1	Electric quantity of period 2	Electric quantity of period 3	Electric quantity of period 4	Electric quantity of period 5	Total electric quantity (flow rate)	Total amount (RMB)
1	A0608	EKCC028	10.13	0.00	0.00	0.00	0.00	10.13	12.13
2	A0608	EKCC063	0.06	0.00	0.00	0.00	0.00	0.06	0.07
3	A0608	EKCC071	11.71	0.00	0.00	0.00	0.00	11.71	14.05
4	A0608	EKCC022	16.12	0.00	0.00	0.00	0.00	16.12	19.34
5	A0608	EKCK022	1.93	0.00	0.00	0.00	0.00	1.93	2.32
6	A0608	EKCC040	0.50	0.00	0.00	0.00	0.00	0.50	0.60
7	A0608	EKCC071	1.32	0.00	0.00	0.00	0.00	1.32	1.63
8	A0608	EKCK036	1.09	0.00	0.00	0.00	0.00	1.09	1.31
...	合计	...	43.86	0.00	0.00	0.00	0.00	43.06	51.67

General type electricity price: RMB1.2000/flow rate

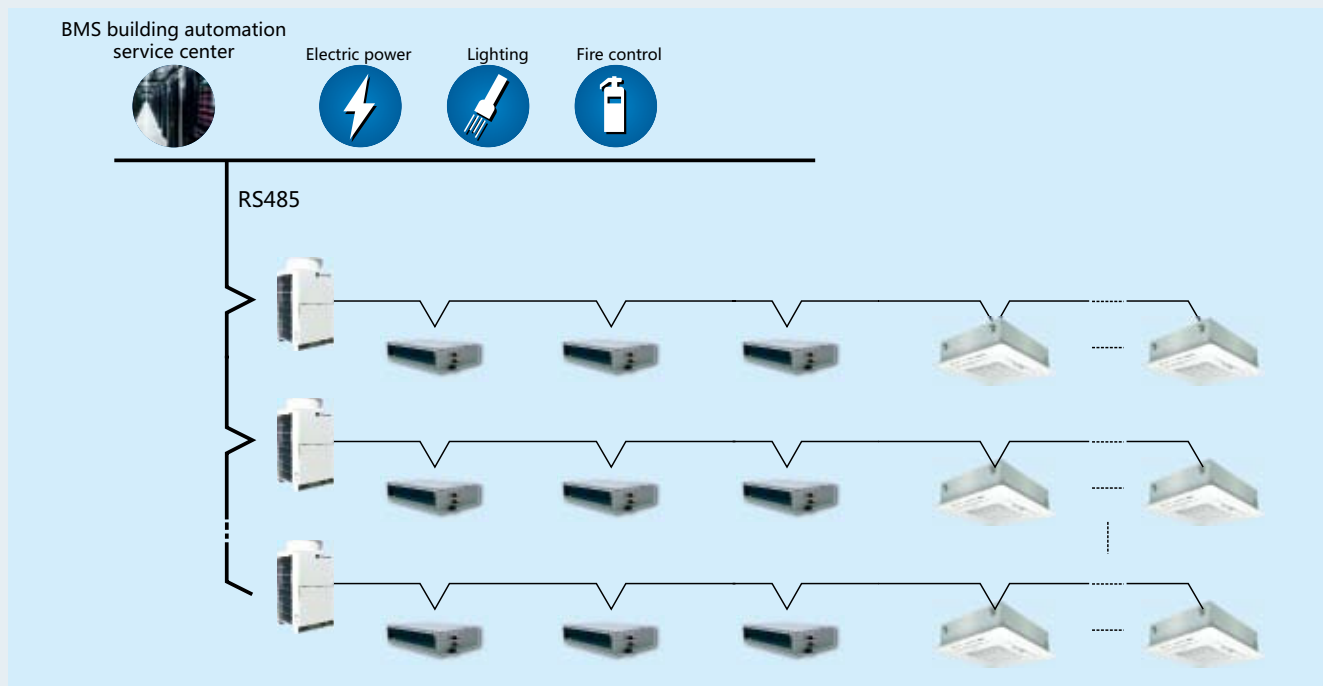
Owner location: none
Billing clerk: admin Date: 11-25-2015 Owner's phone number: IP Property company's phone number:



Open intelligent building control system

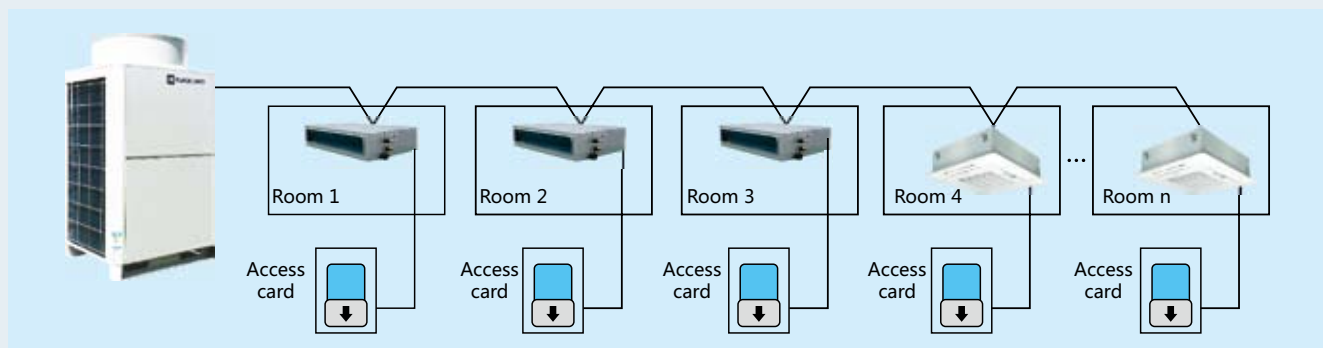
The EK open intelligent building control system applies to the MODBUS communication protocol. The network connection module is used to connect the EK VRF air conditioning system to the intelligent building control system to implement the following functions:

- Built-in protocol converter
- Monitoring the operating status of the air conditioning system in real time
- The monitoring center sends operation instructions (power-on/off, temperature settings, air flow and direction settings, mode settings, etc.) to any air conditioner
- Fault alarm and fault code display
- Management of user permission settings
- Interlock control (fire alarm, door lock, lighting, etc.)



Access card control system

An access card signal interface can be preset on the IDU control panel, and the related IDU is controlled jointly through the access card. The IDU is powered off after the card is unplugged. After the card is inserted again, the IDU automatically restores to the operating mode before unplugging of the card or to the standby mode.



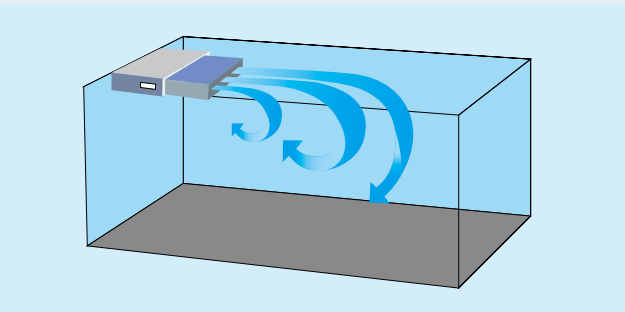
Diversified IDU Series



Multiple air supply distances adjustable

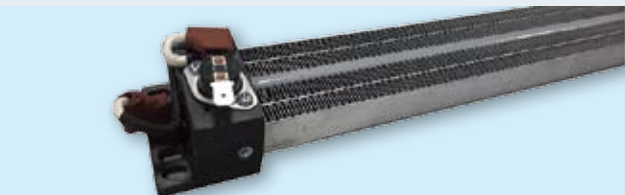
Multiple static pressures can be converted on the field to meet the air supply requirements of different distances.

Model	Standard static pressure (Pa)	Optional static pressure (Pa)
EKCC22B1-EKCC71B1	10	10/30
EKCC80B1-EKCC140B1	10	10/30/50



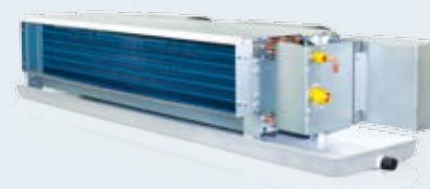
Auxiliary electric heater (optional)

The PTC thermal sensitive ceramic element is adopted to ensure high thermal efficiency. Its most significant characteristic is its safety, i.e., the power will drop sharply and automatically because the PTC heater cannot realize full heat dissipation when the fan is blocked due to a fault. In this way, the "redness" phenomenon will not take place on the surface of heater like electric heating tube, thus eliminating the hidden danger of accident.



Concealed ceiling-type duct unit (standard)

EKCC-B1 series



Optional

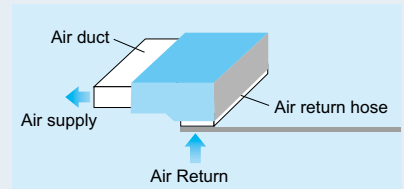


Optional

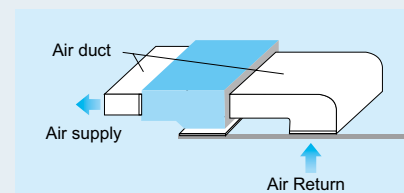
Multiple air return modes available

The bottom return air plenum or back return air plenum can be selected.

Side air supply and bottom air return:
The required overall ceiling space is small, and the access port needs to be set in consideration of the indoor decoration to ensure smooth progress of the maintenance work.

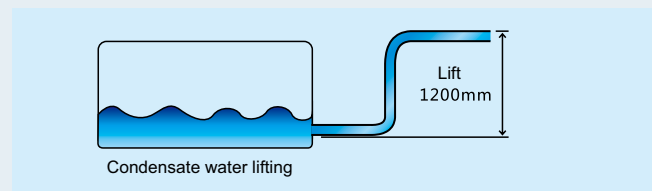


Side air supply and back air return:
If the installation space is sufficient, it is recommended to adopt the side air supply and back air return mode to reduce the operation sound effectively. An access port is set to ensure smooth progress of the maintenance work.



Condensate water lifting pump (optional)

The 1200 mm high lift pump can be selected to ensure more safe use and more flexible installation position.



Integral forming drain pan to prevent condensation and leakage

Concealed ceiling-type duct unit (ultra-thin and narrow)

EKCC-SA1 series



Optional



Optional



Ultra-thin

With the small depth of 450 mm and the small height of 200 mm, the unit requires a smaller ceiling space and matches the indoor decoration more ideally.

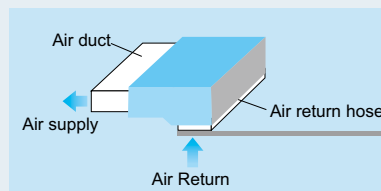
Silent

The optimized design of internal duct implements the minimum ultra-low operating sound of 23dB(A).

Return air plenum can be changed to bottom return air plenum on the field after standard configuration

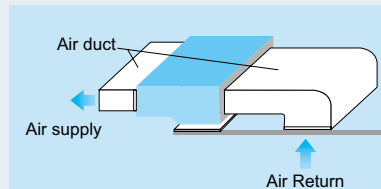
Side air supply and bottom air return:

The required overall ceiling space is small, and the access port needs to be set in consideration of the indoor decoration to ensure smooth progress of the maintenance work.



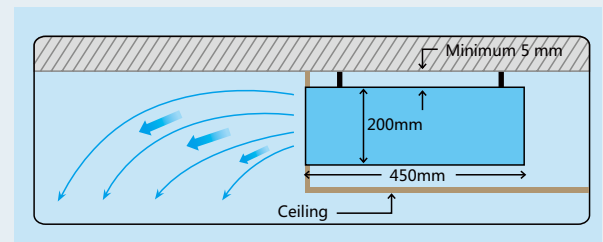
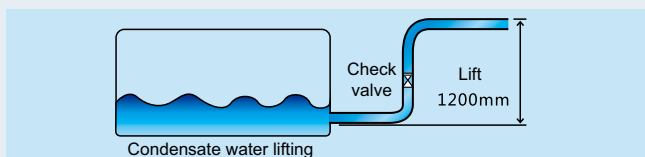
Side air supply and back air return:

If the installation space is sufficient, it is recommended to adopt the side air supply and back air return mode to reduce the operation sound effectively. An access port is set to ensure smooth progress of the maintenance work.



Condensate water lifting pump (optional)

The condensate water lifting pump with the 1200 mm high lift and check valve can be selected. The check valve can prevent condensed water intrusion and ensure more safe use and more flexible installation position.



Auxiliary electric heater (optional)

The built-in PTC auxiliary electric heater can be selected.

Integral forming drain pan to prevent condensation and leakage

Three-dimensional air supply panel (optional)

- The air supply angles of horizontal blade and vertical blade of the air outlet can be adjusted freely through remote control to create comfortable stereo air outlet effect;
- After the air conditioner is powered off, the blade is automatically closed to restore the smooth panel, making the indoor decoration more concise and beautiful and preventing dust from entering the IDU;
- The advanced engineering plastic is adopted to efficiently prevent condensation at the air supply outlet during cooling.





Concealed ceiling-type duct unit (ultra-thin)

EKCC-S1 series



Optional



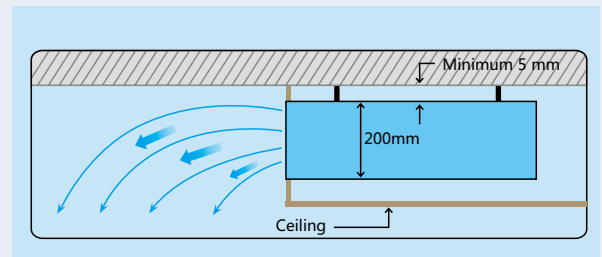
Optional

Ultra-thin

With the small height of 200 mm, the unit requires a smaller ceiling space and matches the indoor decoration more ideally.

Silent

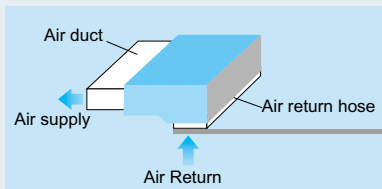
The optimized design of internal duct implements the minimum ultra-low operating sound of 23dB(A).



Return air plenum can be changed to bottom return air plenum on the field after standard configuration

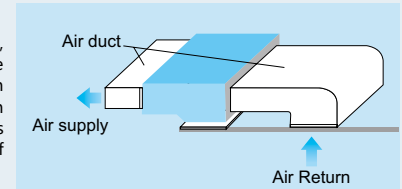
Side air supply and bottom air return:

The required overall ceiling space is small, and the access port needs to be set in consideration of the indoor decoration to ensure smooth progress of the maintenance work.



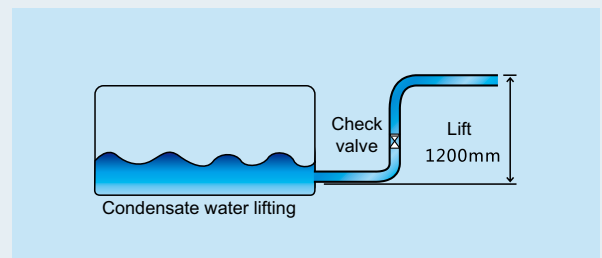
Side air supply and back air return:

If the installation space is sufficient, it is recommended to adopt the side air supply and back air return mode to reduce the operation sound effectively. An access port is set to ensure smooth progress of the maintenance work.



Condensate water lifting pump (optional)

The condensate water lifting pump with the 1200 mm high lift and check valve can be selected. The check valve can prevent condensed water intrusion and ensure more safe use and more flexible installation position.



Ceiling embedded IDU

EKCK-B1 series



EKCK-C1 series



Optional



Optional



|| Pleasant appearance

The new panel design presents an elegant and pleasant appearance, and the unique structure design can prevent condensation.

|| 360° surrounding air supply

360° surrounding air supply makes the air flow more event and avoids the dead angle of air supply efficiently; the unique swing design prevents cold air from blowing to the human body directly and improves the comfortable degree of human body.



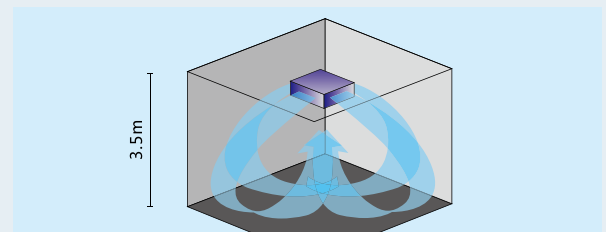
|| Silent

The three-dimensional spiral blade design of advanced aviation technology is adopted to reduce the operating vibration and noises.



|| Ultra-thin body and high ceiling air supply design

With the minimum body height of 250 mm, the unit requires a smaller ceiling space. The high ceiling air supply design applies to the high ceiling space with a ceiling height of 3.5 m.

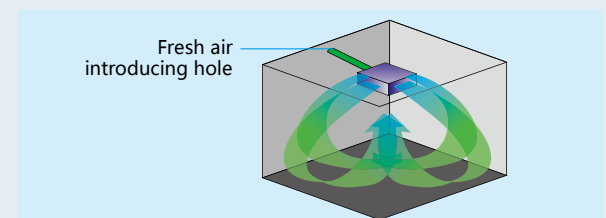


|| Long acting filter for the standard configuration

The filter can absorb particulate matter and harmful substances effectively and improve the indoor air quality.

|| Introducing fresh air

The unit is provided with a fresh air introducing hole, which can introduce proper amount of fresh air indoors and make the indoor environment more comfortable. (This function applies to the C series.)





High static pressure duct type IDU

EKDB-B1 series



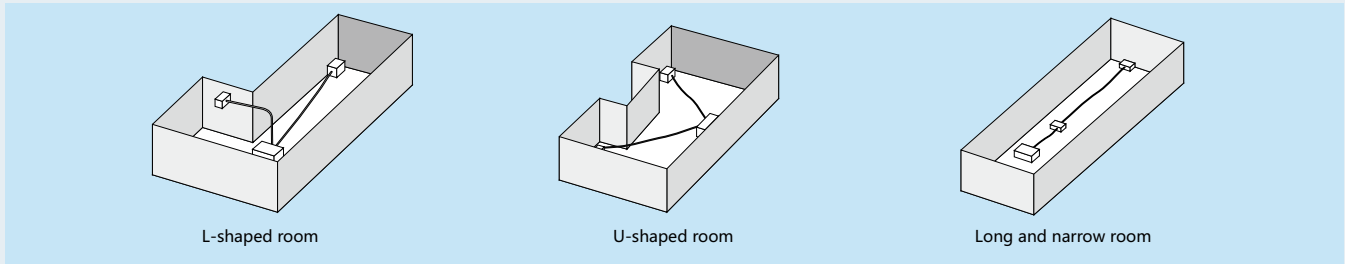
Standard configuration



Optional

High static pressure design

With the high static pressure design, the IDU can implement multi-point air supply at a long distance to meet the air conditioning demand of a large space.



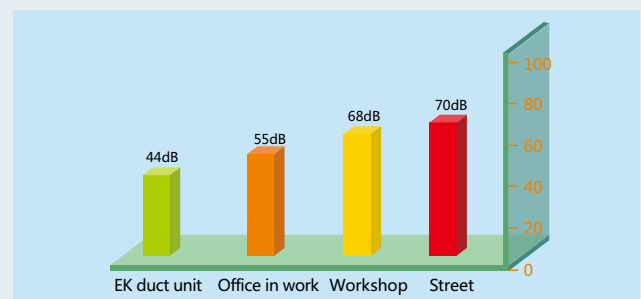
Selection of multiple air supply outlets

The air supply outlets of diversified forms can be selected according to actual decoration requirements on the field to satisfy the air conditioning demands of different sites.



Low operating noises

The IDU adopts the high efficiency and low noise centrifugal fan, sound-absorbing insulation material for the inner wall and dual noise reduction design to ensure low noise operation of the IDU; the IDU can be installed on the ceiling far from the air conditioning area to ultimately meet the indoor low noise demand.



Long acting filter

The filter can absorb particulate matter and harmful substances effectively and improve the indoor air quality.



Wall-mounted air conditioning IDU

EKBG-B1 series



EKBG-C1 series



Optional



Standard configuration



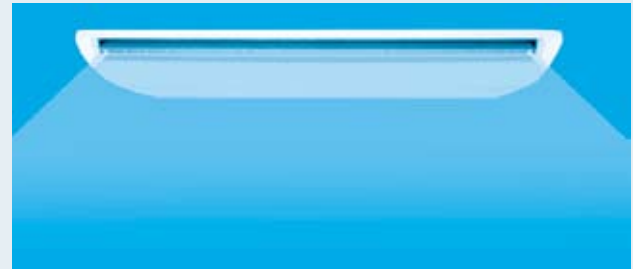
|| Pleasant appearance

The ultra-thin pleasant appearance designed recently complies with all kinds of decoration styles to make your decoration more elegant.



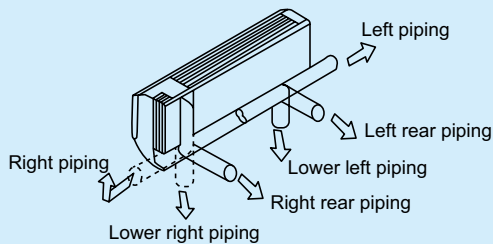
|| Intelligent and comfortable

The intelligent dehumidification function makes the air dry and comfortable; low noise operation and multiple-automatic protection improve safety and comfort degree.



|| Free design

The simple installation, multi-direction pipe connection at the left and right and thin design save the cost and space efficiently.



|| Mould-proof washable filter screen

The filter screen can be cleaned simply and conveniently to keep the indoor air clean.



|| Convenience maintenance

All the maintenance operations can be performed from the front, and the horizontal baffle can be removed and cleaned easily.



Powerful Presentation of ODUs



Table of ODU combinations

The EKRVC commercial DC inverter VRF central air conditioning system adopts the 8HP, 10HP, 12HP, 14HP, 16HP, 18HP, 20HP and 22HP as single module ODU; the fixed module combination mode is adopted in the increasing order from 2HP to form the maximum of 66HP air conditioning system.

Capacity	Model	Cooling capacity kW	ODU combination							
			8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP
8HP	EKRV080CR1	25.0	●							
10HP	EKRV100CR1	28.0		●						
12HP	EKRV120CR1	33.5			●					
14HP	EKRV140CR1	40.0				●				
16HP	EKRV160CR1	45.0					●			
18HP	EKRV180CR1	50.5						●		
20HP	EKRV200CR1	56.0							●	
22HP	EKRV220CR1	61.5								●
24HP	EKRV240CR1	67.0			●●					
26HP	EKRV260CR1	73.5			●	●				
28HP	EKRV280CR1	78.5			●		●			
30HP	EKRV300CR1	84.0			●			●		
32HP	EKRV320CR1	90.0					●●			
34HP	EKRV340CR1	95.5					●	●		
36HP	EKRV360CR1	101.0						●●		
38HP	EKRV380CR1	106.5					●			●
40HP	EKRV400CR1	112.0						●		●
42HP	EKRV420CR1	117.5							●	●
44HP	EKRV440CR1	123.0								●●
46HP	EKRV460CR1	129.0			●		●	●		
48HP	EKRV480CR1	134.5			●			●●		
50HP	EKRV500CR1	140.5					●●	●		
52HP	EKRV520CR1	146.0					●	●●		
54HP	EKRV540CR1	151.5						●●●		
56HP	EKRV560CR1	157.0					●	●		●
58HP	EKRV580CR1	162.5						●●		●
60HP	EKRV600CR1	168.0					●			●●
62HP	EKRV620CR1	173.5						●		●●
64HP	EKRV640CR1	179.0							●	●●
66HP	EKRV660CR1	184.5								●●●

ODU Parameters

Table of ODU parameters

Model		EKRV080CR1	EKRV100CR1	EKRV120CR1	EKRV140CR1	EKRV160CR1	EKRV180CR1	EKRV200CR1	EKRV220CR1	EKRV240CR1	
Cooling capacity	kW	25	28	33.5	40	45	50.5	56	61.5	67	
Heating capacity	kW	28	31.5	37.5	45	50	56	63	69	75	
Cooling input power	kW	5.89	7.05	8.85	10.72	12.46	13.88	14.9	16.52	17.7	
Heating input power	kW	6.01	7.2	8.98	10.84	12.5	13.96	15.02	16.76	17.96	
Power supply		380-415V/3N~/50Hz									
Size of liquid pipe connector	mm	9.52	9.52	12.7	12.7	12.7	15.88	15.88	15.88	15.88	
Size of air pipe connector	mm	19.05	22.2	25.4	25.4	28.6	28.6	28.6	28.6	28.6	
Weight of unit	kg	200	210	230	310	320	340	350	360	460	
Noise	dB(A)	56	57	60	60	60	61	61	61	62	
Refrigerant type		R410A									
External dimensions WxDxH	mm	920x760x1640				1280x760x1640				(920+920)x760x1640	

Model		EKRV260CR1	EKRV280CR1	EKRV300CR1	EKRV320CR1	EKRV340CR1	EKRV360CR1	EKRV380CR1	EKRV400CR1	EKRV420CR1	EKRV440CR1
Cooling capacity	kW	73.5	78.5	84	90	95.5	101	106.5	112	117.5	123
Heating capacity	kW	82.5	87.5	93.5	100	106	112	119	125	132	138
Cooling input power	kW	19.57	21.31	22.73	24.92	26.34	27.76	28.98	30.4	31.42	33.04
Heating input power	kW	19.82	21.48	22.94	25	26.46	27.92	29.26	30.72	31.78	33.52
Power supply		380-415V/3N~/150Hz									
Size of liquid pipe connector	mm	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05
Size of air pipe connector	mm	31.8	31.8	31.8	31.8	31.8	38.1	38.1	38.1	38.1	38.1
Weight of unit	kg	540	550	570	640	660	680	680	700	710	720
Noise	dB(A)	62	62	63	63	63	63	63	63	64	64
Refrigerant type		R410A									
External dimensions WxDxH	mm	(920+1280)x760x1640				(1280+1280)x760x1640					

Model		EKRV460CR1	EKRV480CR1	EKRV500CR1	EKRV520CR1	EKRV540CR1	EKRV560CR1	EKRV580CR1	EKRV600CR1	EKRV620CR1	EKRV640CR1	EKRV660CR1
Cooling capacity	kW	129	134.5	140.5	146	151.5	157	162.5	168	173.5	179	184.5
Heating capacity	kW	143.5	149.5	156	162	168	175	181	188	194	201	207
Cooling input power	kW	35.19	36.61	38.8	40.22	41.64	42.86	44.28	45.5	46.92	47.94	49.56
Heating input power	kW	35.44	36.9	38.96	40.42	41.88	43.22	44.68	46.02	47.48	48.54	50.28
Power supply		380-415V/3N~/50Hz										
Size of liquid pipe connector	mm	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05
Size of air pipe connector	mm	38.1	38.1	38.1	38.1	38.1	41.3	41.3	41.3	41.3	41.3	41.3
Weight of unit	kg	890	910	980	1000	1020	1020	1040	1040	1060	1070	1080
Noise	dB(A)	64	64	65	65	65	65	66	66	66	66	66
Refrigerant type		R410A										
External dimensions WxDxH	mm	(920+1280+1280)x760x1640			(1280+1280+1280)x760x1640							

Notes:

- The cooling capacities above are the results of tests performed under the working condition where the indoor dry/wet bulb temperature is 27/19°C and the outdoor dry/wet bulb temperature is 35/24°C;
- The heating capacities above are the results of tests performed under the working condition where the indoor dry/wet bulb temperature is 20/-°C and the outdoor dry/wet bulb temperature is 7/6°C;
- The noise values above are the averages of measurement values at the four points that are 1 m below the air conditioner center and equivalent to 1/2 of the unit height plus 1 m in a half-anechoic chamber. Actual noise values may be higher than the standard values due to impact from the external environment.

IDU Parameters



● Concealed ceiling-type duct unit (Ultra-thin and narrow)

IDU model	Cooling capacity kW	Heating capacity kW	Electric auxiliary heating power kW (optional)	Air flow (H/M/L) m³/h	External static pressure Pa	Input power W	Power supply	Noise (H/M/L) dB(A)	Dimensions (W x D x H) mm	Weight kg	Connecting pipe specification					Control mode
											Liquid pipe mm	Gas pipe mm	Drainage pipe (self drainage)	Water pump drainage(mm) Drain port	External water pipe	
EKCC18SA1	1.8	2.2	1.0	460/390/330	10/30	40	220-240V~/50Hz	28/26/23	700x450x200	17.5	Φ6.35	Φ12.7	R1/2	Φ26	Φ16	Touch screen wired controller (optional); LCD remote controller (optional)
EKCC22SA1	2.2	2.8	1.0	460/390/330	10/30	40	220-240V~/50Hz	28/26/23	700x450x200	17.5	Φ6.35	Φ12.7	R1/2	Φ26	Φ16	
EKCC25SA1	2.5	3.0	1.0	460/390/330	10/30	40	220-240V~/50Hz	28/26/23	700x450x200	17.5	Φ6.35	Φ12.7	R1/2	Φ26	Φ16	
EKCC28SA1	2.8	3.3	1.0	460/390/330	10/30	40	220-240V~/50Hz	28/26/23	700x450x200	17.5	Φ6.35	Φ12.7	R1/2	Φ26	Φ16	
EKCC32SA1	3.2	3.6	1.0	460/390/330	10/30	40	220-240V~/50Hz	29/27/25	700x450x200	18	Φ6.35	Φ12.7	R1/2	Φ26	Φ16	
EKCC36SA1	3.6	4.2	1.0	460/390/330	10/30	40	220-240V~/50Hz	29/27/25	700x450x200	18	Φ6.35	Φ12.7	R1/2	Φ26	Φ16	
EKCC40SA1	4.0	4.5	1.0	550/450/390	10/30	55	220-240V~/50Hz	33/30/27	700x450x200	18	Φ6.35	Φ12.7	R1/2	Φ26	Φ16	
EKCC45SA1	4.5	5.0	1.0	550/450/390	10/30	55	220-240V~/50Hz	33/30/27	700x450x200	18	Φ6.35	Φ12.7	R1/2	Φ26	Φ16	
EKCC50SA1	5.0	5.8	2.0	870/750/630	10/30	83	220-240V~/50Hz	35/32/28	1100x450x200	25	Φ6.35	Φ12.7	R1/2	Φ26	Φ16	
EKCC56SA1	5.6	6.5	2.0	1050/950/820	10/30	93	220-240V~/50Hz	37/34/30	1100x450x200	25	Φ6.35	Φ12.7	R1/2	Φ26	Φ16	
EKCC63SA1	6.3	7.5	2.0	1050/950/820	10/30	93	220-240V~/50Hz	37/34/30	1100x450x200	26	Φ9.52	Φ15.88	R1/2	Φ26	Φ16	
EKCC71SA1	7.1	8.5	2.0	1050/950/820	10/30	93	220-240V~/50Hz	37/34/30	1100x450x200	26	Φ9.52	Φ15.88	R1/2	Φ26	Φ16	

● Concealed ceiling-type duct unit (Ultra-thin)

IDU model	Cooling capacity kW	Heating capacity kW	Air flow (H/M/L) m³/h	External static pressure Pa	Input power W	Power supply	Noise (H/M/L) dB(A)	Dimensions (W x D x H) mm	Weight kg	Connecting pipe specification					Control mode
										Liquid pipe mm	Gas pipe mm	Drainage pipe (self drainage)	Water pump drainage(mm) Drain port	External water pipe	
EKCC18S1	1.8	2.2	480/420/360	10/30	52	220-240V~/50Hz	28/26/23	700x600x200	19	Φ6.35	Φ12.7	Φ21.3	Φ26	Φ16	Touch screen wired controller (optional); LCD remote controller (optional)
EKCC22S1	2.2	2.8	480/420/360	10/30	52	220-240V~/50Hz	28/26/23	700x600x200	19	Φ6.35	Φ12.7	Φ21.3	Φ26	Φ16	
EKCC25S1	2.5	3.0	480/420/360	10/30	52	220-240V~/50Hz	28/26/23	700x600x200	19	Φ6.35	Φ12.7	Φ21.3	Φ26	Φ16	
EKCC28S1	2.8	3.3	480/420/360	10/30	52	220-240V~/50Hz	28/26/23	700x600x200	19	Φ6.35	Φ12.7	Φ21.3	Φ26	Φ16	
EKCC32S1	3.2	3.6	480/420/360	10/30	52	220-240V~/50Hz	28/26/23	700x600x200	19	Φ6.35	Φ12.7	Φ21.3	Φ26	Φ16	
EKCC36S1	3.6	4.2	480/420/360	10/30	52	220-240V~/50Hz	28/26/23	700x600x200	19	Φ6.35	Φ12.7	Φ21.3	Φ26	Φ16	
EKCC40S1	4.0	4.5	480/420/360	10/30	52	220-240V~/50Hz	28/26/23	700x600x200	19	Φ6.35	Φ12.7	Φ21.3	Φ26	Φ16	
EKCC45S1	4.5	5.0	600/500/430	10/30	53	220-240V~/50Hz	29/27/24	900x600x200	25	Φ6.35	Φ12.7	Φ21.3	Φ26	Φ16	
EKCC50S1	5.0	5.8	870/750/630	10/30	85	220-240V~/50Hz	33/30/28	900x600x200	25	Φ6.35	Φ12.7	Φ21.3	Φ26	Φ16	
EKCC56S1	5.6	6.5	960/840/720	10/30	92	220-240V~/50Hz	37/34/30	1100x600x200	31	Φ6.35	Φ12.7	Φ21.3	Φ26	Φ16	
EKCC63S1	6.3	7.5	960/840/720	10/30	92	220-240V~/50Hz	37/34/30	1100x600x200	31	Φ9.52	Φ15.88	Φ21.3	Φ26	Φ16	
EKCC71S1	7.1	8.5	960/840/720	10/30	92	220-240V~/50Hz	37/34/30	1100x600x200	31	Φ9.52	Φ15.88	Φ21.3	Φ26	Φ16	

● Concealed ceiling-type duct unit (Standard)

IDU model	Cooling capacity kW	Heating capacity kW	Electric auxiliary heating power kW (optional)	Air flow (H/M/L) m³/h	External static pressure Pa	Input power W	Power supply	Noise (H/M/L) dB(A)	Dimensions (W x D x H) mm	Weight kg	Connecting pipe specification			Control mode
											Liquid pipe mm	Gas pipe mm	Drainage pipe (self drainage)	
EKCC22B1	2.2	2.5	1.0	500/400/300	10/30	54	220-240V~/50Hz	34/31/27	1032x467x230	22	Φ6.35	Φ12.7	R3/4	Touch screen wired controller (optional); LCD remote controller (optional)
EKCC25B1	2.5	3.0	1.0	500/400/300	10/30	54	220-240V~/50Hz	34/31/27	1032x467x230	22	Φ6.35	Φ12.7	R3/4	
EKCC28B1	2.8	3.2	1.0	500/400/300	10/30	54	220-240V~/50Hz	34/31/27	1032x467x230	22	Φ6.35	Φ12.7	R3/4	
EKCC32B1	3.2	3.6	1.0	500/400/300	10/30	54	220-240V~/50Hz	34/31/27	1032x467x230	22	Φ6.35	Φ12.7	R3/4	
EKCC36B1	3.6	4.0	1.2	580/500/400	10/30	64	220-240V~/50Hz	36/34/31	1032x467x230	22	Φ6.35	Φ12.7	R3/4	
EKCC40B1	4.0	4.5	1.2	580/500/400	10/30	64	220-240V~/50Hz	36/34/31	1032x467x230	22	Φ6.35	Φ12.7	R3/4	
EKCC45B1	4.5	5.0	2.0	900/750/550	10/30	102	220-240V~/50Hz	36/34/31	1288x492x250	25	Φ6.35	Φ12.7	R3/4	
EKCC50B1	5.0	5.8	2.0	900/750/550	10/30	102	220-240V~/50Hz	36/34/31	1288x492x250	25	Φ6.35	Φ12.7	R3/4	
EKCC56B1	5.6	6.3	2.0	900/750/550	10/30	102	220-240V~/50Hz	36/34/31	1288x492x250	25	Φ6.35	Φ12.7	R3/4	
EKCC63B1	6.3	7.1	2.2	960/900/750	10/30	113	220-240V~/50Hz	37/36/35	1288x492x250	27	Φ9.52	Φ15.88	R3/4	
EKCC71B1	7.1	8.0	2.2	960/900/750	10/30	113	220-240V~/50Hz	37/36/35	1288x492x250	27	Φ9.52	Φ15.88	R3/4	
EKCC80B1	8.0	9.0	2.2	1200/950/800	10/30/50	158	220-240V~/50Hz	39/37/35	1288x480x250	28	Φ9.52	Φ15.88	R3/4	
EKCC90B1	9.0	10.0	3.6	1400/1100/900	10/30/50	210	220-240V~/50Hz	40/38/36	1642x480x250	39	Φ9.52	Φ15.88	R3/4	
EKCC100B1	10.0	11.2	3.6	1900/1520/1300	10/30/50	276	220-240V~/50Hz	43/41/39	1642x480x250	39	Φ9.52	Φ15.88	R3/4	
EKCC112B1	11.2	12.5	3.6	1900/1520/1300	10/30/50	276	220-240V~/50Hz	43/41/39	1642x480x250	39	Φ9.52	Φ15.88	R3/4	
EKCC125B1	12.5	14.0	3.6	1900/1520/1300	10/30/50	276	220-240V~/50Hz	43/41/39	1642x480x250	39	Φ9.52	Φ15.88	R3/4	
EKCC140B1	14.0	16.0	3.6	2100/1750/1460	10/30/50	280	220-240V~/50Hz	44/42/40	1903x480x250	45	Φ9.52	Φ15.88	R3/4	

Notes:

- The cooling capacities above are the results of tests performed under the working condition where the indoor dry/wet bulb temperature is 27/19°C and the outdoor dry/wet bulb temperature is 35/24°C;
- The heating capacities above are the results of tests performed under the working condition where the indoor dry/wet bulb temperature is 20/-°C and the outdoor dry/wet bulb temperature is 7/6°C;
- The above noise value is measured in the semi-anechoic chamber, 1.4 m below the air conditioner center. In practice, the value is a little higher than the standard value due to the influence of the ambient environment;
- The noise value of ultra-thin duct unit is tested during operation in the back air return mode; the noise value during operation in the bottom air return mode is about 5 dB(A) greater than that during operation in the back air return mode.



• B series ceiling embedded IDU

IDU model	Cooling capacity kW	Heating capacity kW	Air flow (H/M/L) m ³ /h	Input power W	Power supply	Noise dB(A)	Dimensions (W x D x H) mm	Panel dimensions (W x D x H) mm	Weight kg	Connecting pipe specification				Control mode
										Liquid pipe mm	Gas pipe mm	Water pump drainage(mm)		
										Drain port	External water pipe			
EKCK28B1	2.8	3.2	500/420/350	45	220-240V~/50Hz	34	582x582x265	680x680x30	24	Φ6.35	Φ12.7	Φ26	Φ16	Touch screen wired controller (optional); LCD remote controller (optional)
EKCK32B1	3.2	3.6	500/420/350	45	220-240V~/50Hz	34	582x582x265	680x680x30	24	Φ6.35	Φ12.7	Φ26	Φ16	
EKCK36B1	3.6	4.0	500/420/350	45	220-240V~/50Hz	34	582x582x265	680x680x30	24	Φ6.35	Φ12.7	Φ26	Φ16	
EKCK40B1	4.0	4.5	800/670/560	86	220-240V~/50Hz	38	582x582x265	680x680x30	24	Φ6.35	Φ12.7	Φ26	Φ16	
EKCK45B1	4.5	5.0	800/670/560	86	220-240V~/50Hz	38	582x582x265	680x680x30	24	Φ6.35	Φ12.7	Φ26	Φ16	
EKCK50B1	5.0	5.6	800/670/560	86	220-240V~/50Hz	38	582x582x265	680x680x30	24	Φ6.35	Φ12.7	Φ26	Φ16	
EKCK56B1	5.6	6.3	800/670/560	86	220-240V~/50Hz	38	582x582x265	680x680x30	24	Φ6.35	Φ12.7	Φ26	Φ16	
EKCK63B1	6.3	7.1	1200/1000/840	117	220-240V~/50Hz	40	712x712x290	830x830x30	29	Φ9.52	Φ15.88	Φ26	Φ16	
EKCK71B1	7.1	8.0	1200/1000/840	117	220-240V~/50Hz	40	712x712x290	830x830x30	29	Φ9.52	Φ15.88	Φ26	Φ16	
EKCK80B1	8.0	9.0	1200/1000/840	117	220-240V~/50Hz	40	712x712x290	830x830x30	31	Φ9.52	Φ15.88	Φ26	Φ16	
EKCK90B1	9.0	10.0	1400/1150/980	130	220-240V~/50Hz	42	712x712x290	830x830x30	31	Φ9.52	Φ15.88	Φ26	Φ16	
EKCK100B1	10.0	11.2	1700/1360/1200	187	220-240V~/50Hz	44	827x827x290	980x980x30	38	Φ9.52	Φ15.88	Φ26	Φ16	
EKCK112B1	11.2	12.5	1700/1360/1200	187	220-240V~/50Hz	44	827x827x290	980x980x30	38	Φ9.52	Φ15.88	Φ26	Φ16	
EKCK125B1	12.5	14.0	1700/1360/1200	187	220-240V~/50Hz	44	827x827x290	980x980x30	39	Φ9.52	Φ15.88	Φ26	Φ16	
EKCK140B1	14.0	16.0	1700/1360/1200	194	220-240V~/50Hz	44	827x827x290	980x980x30	39	Φ9.52	Φ15.88	Φ26	Φ16	

Notes:

- The cooling capacities above are the results of tests performed under the working condition where the indoor dry/wet bulb temperature is 27/19°C and the outdoor dry/wet bulb temperature is 35/24°C;
- The heating capacities above are the results of tests performed under the working condition where the indoor dry/wet bulb temperature is 20/-°C and the outdoor dry/wet bulb temperature is 7/6°C;
- The above noise value is measured in the semi-anechoic chamber, 1.4 m below the air conditioner center. In practice, the value is a little higher than the standard value due to the influence of the ambient environment;
- The outer diameter of condensate pipe for the unit is 26 mm, and that of connecting pipe for the external hose fitting is 16 mm;
- The standard configuration provides the 750 mm lift condensate pump, with a check valve (the 1200 mm lift is optional).



• C series ceiling embedded IDU

IDU model	Cooling capacity kW	Heating capacity kW	Air flow (High) m ³ /h	Input power W	PTC Electric auxiliary heating power kW	Power supply	Noise dB(A)	Dimensions (W x D x H) mm	Panel dimensions (W x D x H) mm	Weight kg	Connecting pipe specification				Control mode
											Liquid pipe mm	Gas pipe mm	Water pump drainage(mm)		
											Drain port	External water pipe			
EKCK28C1	2.8	3.2	1000	95	1700	220-240V~/50Hz	34	835x835x250	950x950x55	30	Φ6.35	Φ12.7	Φ32	Φ30	Touch screen wired controller (optional); LCD remote controller (optional)
EKCK32C1	3.2	3.6	1000	95	1700	220-240V~/50Hz	34	835x835x250	950x950x55	30	Φ6.35	Φ12.7	Φ32	Φ30	
EKCK36C1	3.6	4	1000	95	1700	220-240V~/50Hz	34	835x835x250	950x950x55	30	Φ6.35	Φ12.7	Φ32	Φ30	
EKCK40C1	4.0	4.5	1000	95	1700	220-240V~/50Hz	34	835x835x250	950x950x55	30	Φ6.35	Φ12.7	Φ32	Φ30	
EKCK45C1	4.5	5.0	1000	95	1700	220-240V~/50Hz	38	835x835x250	950x950x55	30	Φ6.35	Φ12.7	Φ32	Φ30	
EKCK50C1	5.0	5.6	1000	95	1700	220-240V~/50Hz	38	835x835x250	950x950x55	30	Φ6.35	Φ12.7	Φ32	Φ30	
EKCK56C1	5.6	6.3	1000	95	1700	220-240V~/50Hz	38	835x835x250	950x950x55	30	Φ6.35	Φ12.7	Φ32	Φ30	
EKCK63C1	6.3	7.1	1250	100	1700	220-240V~/50Hz	40	835x835x250	950x950x55	32	Φ9.52	Φ15.88	Φ32	Φ30	
EKCK71C1	7.1	8.0	1250	100	1700	220-240V~/50Hz	40	835x835x250	950x950x55	32	Φ9.52	Φ15.88	Φ32	Φ30	
EKCK80C1	8.0	9.0	1250	100	1700	220-240V~/50Hz	40	835x835x250	950x950x55	32	Φ9.52	Φ15.88	Φ32	Φ30	
EKCK90C1	9.0	10.0	1500	176	1700	220-240V~/50Hz	44	835x835x250	950x950x55	33	Φ9.52	Φ15.88	Φ32	Φ30	
EKCK100C1	10.0	11.2	1500	176	1700	220-240V~/50Hz	44	835x835x250	950x950x55	33	Φ9.52	Φ15.88	Φ32	Φ30	
EKCK112C1	11.2	12.5	1800	200	2500	220-240V~/50Hz	44	835x835x290	950x950x55	35	Φ9.52	Φ15.88	Φ32	Φ30	
EKCK125C1	12.5	14	1800	200	2500	220-240V~/50Hz	44	835x835x290	950x950x55	35	Φ9.52	Φ15.88	Φ32	Φ30	
EKCK140C1	14.0	16.0	1800	200	2500	220-240V~/50Hz	44	835x835x290	950x950x55	35	Φ9.52	Φ15.88	Φ32	Φ30	

Notes:

- The cooling capacities above are the results of tests performed under the working condition where the indoor dry/wet bulb temperature is 17/29°C and the outdoor dry/wet bulb temperature is 35/24°C;
- The heating capacities above are the results of tests performed under the working condition where the indoor dry/wet bulb temperature is 20/-°C and the outdoor dry/wet bulb temperature is 7/6°C;
- The above noise value is measured in the semi-anechoic chamber, 1.4 m below the air conditioner center. In practice, the value is a little higher than the standard value due to the influence of the ambient environment;
- The outer diameter of condensate pipe for the unit is 32 mm, and that of connecting pipe for the external hose fitting is 30 mm;
- The standard configuration provides the 1200 mm high lift condensate pump.



• High static pressure duct type IDU

IDU model	Cooling capacity kW	Heating capacity kW	Air flow (H/M/L) m ³ /h	External static pressure Pa	Input power W	Power supply	Noise (H/M/L) dB(A)	Dimensions (W x D x H) mm	Weight kg	Connecting pipe specification			Control mode
										Liquid pipe mm	Gas pipe mm	Drainage pipe (self drainage)	
EKDB125B1	12.5	14.0	2550/2040/1650	100	583/480/380	220-240V~/50Hz	48/46/44	1280x655x350	69	Φ9.52	Φ15.88	R3/4	Touch screen wired controller (optional); LCD remote controller (optional)
EKDB140B1	14.0	16.0	3000/2540/1920	100	742/640/550	220-240V~/50Hz	50/48/46	1280x655x350	75	Φ9.52	Φ15.88	R3/4	
EKDB160B1	16.0	18.4	3440/2770/2330	100	938/692/577	220-240V~/50Hz	51/49/47	1611x655x350	75	Φ9.52	Φ15.88	R3/4	
EKDB250B1	25.0	28.0	5200/4900/3900	100	1700/1540/1250	220-240V~/50Hz	57/54/51	1580x925x470	100	Φ9.52	Φ19.05	R1	
EKDB280B1	28.0	31.5	5000	100	1800	220-240V~/50Hz	57	1580x925x470	120	Φ9.52	Φ22.23	R1	
EKDB280B1	28.0	31.5	5000	150/200/300	1250/1500/1700	380-415V/3N~/50Hz	57/58/61	1580x1020x520	150	Φ9.52	Φ22.23	R1	

Notes:

- The cooling capacities above are the results of tests performed under the working condition where the indoor dry/wet bulb temperature is 17/29°C and the outdoor dry/wet bulb temperature is 35/24°C;
- The heating capacities above are the results of tests performed under the working condition where the indoor dry/wet bulb temperature is 20/-°C and the outdoor dry/wet bulb temperature is 7/6°C;
- The above noise value is measured in the semi-anechoic chamber, 1.4 m below the air conditioner center. In practice, the value is a little higher than the standard value due to the influence of the ambient environment;
- The above noise values are tested during operation in the back air return mode; the noise value during operation in the bottom air return mode is about 5 dB(A) greater than that during operation in the back air return mode.



• B series wall-mounted IDUs

IDU model	Cooling capacity kW	Heating capacity kW	Air flow (H/M/L) m ³ /h	Input power W	Power supply	Noise (H/M/L) dB(A)	Dimensions (W x D x H) mm	Weight kg	Connecting pipe specification			Control mode
									Liquid pipe mm	Gas pipe mm	Drainage pipe (self drainage)	
EKBG22B1	2.2	2.5	450/360/270	30	220-240V~/50Hz	35/31/28	876x228x300	11	Φ6.35	Φ12.7	Φ16	Touch screen wired controller (optional); LCD remote controller (Standard configuration)
EKBG28B1	2.8	3.2	450/360/270	30	220-240V~/50Hz	35/31/28	876x228x300	11	Φ6.35	Φ12.7	Φ16	
EKBG36B1	3.6	4.0	500/400/300	35	220-240V~/50Hz	36/33/29	876x228x300	11	Φ6.35	Φ12.7	Φ16	

Notes:

- The cooling capacities above are the results of tests performed under the working condition where the indoor dry/wet bulb temperature is 27/19°C and the outdoor dry/wet bulb temperature is 35/24°C;
- The heating capacities above are the results of tests performed under the working condition where the indoor dry/wet bulb temperature is 20/-°C and the outdoor dry/wet bulb temperature is 7/6°C;
- The above noise value is measured in the semi-anechoic chamber, 1.4 m below the air conditioner center. In practice, the value is a little higher than the standard value due to the influence of the ambient environment.



• C series wall-mounted IDUs

IDU model	Cooling capacity kW	Heating capacity kW	Electric auxiliary heating power kW	Air flow (High) m ³ /h	Input power W	Power supply	Noise (H/M/L) dB(A)	Dimensions (W x D x H) mm	Weight kg	Connecting pipe specification			Control mode
										Liquid pipe mm	Gas pipe mm	Drainage pipe (self drainage)	
EKBG40C1	4.0	4.5	1.0	850	68	220-240V~/50Hz	40/37/34	970x235x315	14	Φ6.35	Φ12.7	Φ16	Touch screen wired controller (optional); LCD remote controller (Standard configuration)
EKBG45C1	4.5	5.0	1.0	850	68	220-240V~/50Hz	40/37/34	970x235x315	14	Φ6.35	Φ12.7	Φ16	
EKBG50C1	5.0	5.8	1.0	850	68	220-240V~/50Hz	40/37/34	970x235x315	14	Φ6.35	Φ12.7	Φ16	
EKBG56C1	5.6	6.0	1.0	850	68	220-240V~/50Hz	40/37/34	970x235x315	14	Φ6.35	Φ12.7	Φ16	

Notes:

- The cooling capacities above are the results of tests performed under the working condition where the indoor dry/wet bulb temperature is 27/19°C and the outdoor dry/wet bulb temperature is 35/24°C;
- The heating capacities above are the results of tests performed under the working condition where the indoor dry/wet bulb temperature is 20/-°C and the outdoor dry/wet bulb temperature is 7/6°C;
- The above noise value is measured in the semi-anechoic chamber, 1.4 m below the air conditioner center. In practice, the value is a little higher than the standard value due to the influence of the ambient environment.

Overview of Fresh Air Products

People require higher and higher indoor air quality as the living standard increases year by year. They not only require appropriate indoor temperature, but also hope to introduce outdoor fresh air to maintain indoor air cleanness. EK provides two fresh air solutions of air conditioning to bring clean, fresh and healthy enjoyment to valued customers who attach importance to air quality.

Full heat exchanger

1. Bidirectional ventilation function

Indoor dirty air is discharged outdoors as supplying outdoor fresh air indoors, thus creating a healthy indoor environment.

2. Full heat recovery function

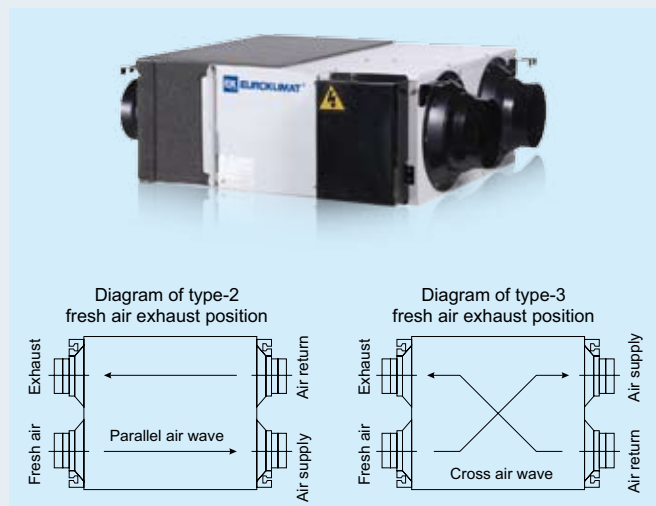
The built-in special full heat exchange element implements heat exchange without mixing for the exhausted air and supplied outdoor fresh air and achieves the maximum temperature recovery rate of 76% and maximum enthalpy exchange rate of 74%, reducing the fresh air load of the air conditioning system greatly.

3. Joint control with air conditioning IDUs

The full heat recovery fresh air unit can implement joint control and centralized control with EK air conditioning systems of other forms, without affecting normal operation of other units.

4. A variety of optional parts

The activated carbon filter and UV sterilization lamp can be selected as needed to create a more healthy indoor environment.



• Table of unit specifications (D series horizontal type)

EK model	Fresh air flow rate m ³ /h		External static pressure Pa	Enthalpy recovery rate%		Temperature recovery rate%	Noise dB(A)	Power supply V/PH/Hz	Rated power W	Rated current A	N. W. kg	Remarks
	Height	Flow		Summer	Winter							
EKHR020DH	Height	200	75	55	59	70	29	220-240V~/50Hz	105	0.5	25	All the parts are subject to mold production. Only the L2-type air outlet form can be installed upside down (R1 type).
	Medium	200	70	55	59	70	27					
	Low	150	60	60	63	75	23					
EKHR030DH	Height	300	75	57	61	68	40		117	0.56	27	
	Medium	300	70	57	61	68	37					
	Low	250	60	62	65	73	33					
EKHR040DH	Height	400	90	57	60	69	45		150	0.72	30	
	Medium	400	85	57	60	69	42					
	Low	350	80	62	65	74	38					
EKHR050DH	Height	500	90	59	61	70	48		200	0.96	41	
	Medium	500	80	59	61	70	45					
	Low	400	75	63	67	76	42					
EKHR080DH	Height	800	100	55	58	68	50	355	1.7	68		
	Medium	800	96	55	58	68	46					
	Low	700	92	58	63	74	43					
EKHR100DH	Height	1000	120	58	62	70	54	440	2.1	82		
	Medium	1000	100	58	62	70	51					
	Low	900	90	60	64	76	48					
EKHR150DH	Height	1500	160	66	70	71	58	960	4.2	200		
	Medium	1500	135	66	70	71	55					
	Low	1000	84	69	74	75	52					
EKHR200DH	Height	2000	170	62	71	71	60	1220	5.6	225		
	Medium	2000	132	62	71	71	57					
	Low	1200	110	65	73	75	54					
EKHR250DH	2500	200	62	67	72	62	380-415V /3~/50Hz	1640	3.7	235	Eight air outlet forms are available: L1~L4 and R1~R4.	
EKHR300DH	3000	210	61	65	70	64		2040	4.7	245		
EKHR400DH	4000	250	62	69	70	66		2340	5.6	280		
EKHR500DH	5000	250	61	64	70	68		2580	8.1	360		
EKHR600DH	6000	250	60	62	68	70		2730	8.5	360		
EKHR700DH	7000	310	64	69	72	72		4060	9.1	460		
EKHR800DH	8000	320	63	69	72	74		5920	13.2	480		
EKHR900DH	9000	340	62	68	72	76		7340	16.4	500		
EKHR1000DH	10000	350	63	69	72	78		7895	18.5	550		

Notes: ■ The operating noise is tested at a position 1.4 m under the unit center;

■ The model EKHR200DH and lower can implement three speed regulation;

■ The operating noises of three wind speeds of the unit fan are tested in a nationally recognized noise laboratory. In the actual operation, the operating noise value of the unit is usually higher than this value due to impact by surrounding noises.

• Table of unit specifications (H series horizontal type)

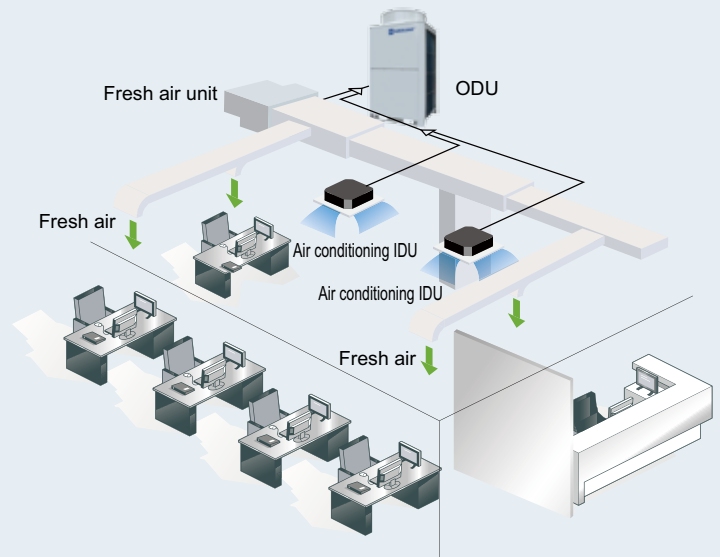
EK model	Fresh air flow rate m ³ /h	External static pressure Pa	Enthalpy recovery rate%		Temperature recovery rate%	Noise dB(A)	Power supply V/PH/Hz	Rated power W	Rated current A	N. W. kg	Remarks	
			Summer	Winter								
EKHR020HH	Height	200	75	55	59	70	220-240V~/50Hz	105	0.5	23	All the parts are subject to mold production. Only the L2-type air outlet form can be installed upside down (R1 type).	
	Medium	200	70	55	59	70						25
	Low	150	60	60	63	75						22
EKHR030HH	Height	300	85	57	61	68		30	117	0.56		25
	Medium	300	82	57	61	68		27				
EKHR040HH	Low	250	75	62	65	73		23	150	0.72		31
	Height	400	90	57	60	69		32				
	Medium	400	85	57	60	69		29				
EKHR060HH	Low	350	80	62	65	74		25	200	0.96		36
	Height	600	100	59	61	70		35				
	Medium	600	92	59	61	70		31				
EKHR080HH	Low	500	89	63	67	76		25	355	1.7	60	
	Height	800	100	55	58	68		39				
	Medium	800	96	55	58	68		37				
EKHR100HH	Low	700	92	58	63	74		32	440	2.1	70	
	Height	1000	100	58	62	70		40				
	Medium	1000	85	58	62	70		36				
EKHR130HH	Low	900	80	60	64	76		32	710	3.4	79	
	Height	1300	100	56	59	70		42				
	Medium	1300	85	56	59	70		40				
EKHR150HH	Low	1000	75	58	62	76	37	785	3.8	110		
	Height	1500	160	66	70	71	45					
	Medium	1500	135	66	70	71	42					
EKHR200HH	Low	1000	84	69	74	75	40	485	2.3	112		
	Height	2000	170	62	71	71	49					
	Medium	2000	132	62	71	71	46					
EKHR250HH	Low	1200	110	65	73	75	44	980	4.6	130		
	Height	2500	200	61	70	70	53					
	Medium	2500	170	61	70	70	50					
EKHR300HH	Low	2000	140	64	72	73	47	1300	6.3	142		
	Height	3000	210	60	69	70	54					
	Medium	3000	180	60	69	70	51					
EKHR400HH	Low	2500	150	63	71	73	48	1400	6.5	305		
	Medium	4000	260	62	69	70	59					
EKHR500HH	Medium	5000	260	61	64	70	68	380-415V /3~/50Hz	3000	7.5	240	
EKHR600HH	Medium	6000	300	60	62	68	70					4400

Notes:

- The operating noise is tested at a position 1.4 m under the unit center;
- The model EKHR300H and lower can implement three speed regulation; the models EKHR020H~EKHR130HH provide the air flow bypass function;
- The operating noises of three wind speeds of the unit fan are tested in a nationally recognized noise laboratory. In the actual operation, the operating noise value of the unit is usually higher than this value due to impact by surrounding noises.

Full fresh air handling unit

- The full fresh air handling unit is provided with a cold/heat source and can handle the outdoor fresh air to a temperature near the room temperature before sending it indoors. The air flow is in the range of 1100 to 6000 m³/h and meets the fresh air requirements in different occasions. The user can enjoy fresh and healthy air without leaving the room.
- The maximum static pressure is 350Pa and multi-point air supply at a long distance can be realized through the connecting duct.
- The automatic energy saving operation mode is provided. When the outdoor temperature is 15°C to 20°C, the fresh air handling unit automatically switches to the air supply mode and the ODU is stopped (in the case of hybrid connection, the ODU bears the IDU capacity only), thus saving the operating cost greatly.
- The fresh air handling unit and common IDU can be controlled through the EK333 centralized wired controller.
- The fresh air handling unit can access the EK VRF centralized control and management system and building automation system.
- For connection to the same system with the common air conditioning IDU, the capacity of the fresh air handling unit cannot exceed 30% of the capacity of connected ODU. Moreover, the capacity sum of the fresh air handling unit and air conditioning IDU cannot exceed the ODU capacity.
- The one-to-more connection mode is adopted. Multiple fresh air handling units are connected to the same system, and the total capacity of the fresh air handling units cannot exceed the ODU capacity.



Note: Hybrid connection is not recommended for some models of fresh air handling units. For the specific hybrid connection requirement, consult the local EK technical support engineer.

IDU model	Cooling capacity kW	Heating capacity kW	Air flow rate m ³ /h	External static pressure Pa	Input power W	Power supply	Noise dB(A)	External dimensions (WxDxH)mm	Weight kg	Connecting pipe specification			Control mode
										Liquid pipe mm	Air pipe mm	Drainage pipe mm	
EKDB140B1X	14.0	8.1	1100	200	297	220-240V~/50Hz	44	798x950x470	60	Φ9.52	Φ15.88	R1	Touch screen wired controller (standard configuration)
EKDB250B1X	25.0	12.9	1700	150/200/250	550/600/650	220-240V~/50Hz	45/47/49	1389x950x470	110	Φ9.52	Φ19.05	R1	
EKDB250B1X	25.0	12.9	2000	150/200/250	650/660/710	220-240V~/50Hz	45/48/50	1389x950x470	110	Φ9.52	Φ19.05	R1	
EKDB280B1X	28.0	16.2	2100	150/200/250	700/770/800	220-240V~/50Hz	45/48/50	1389x950x470	120	Φ9.52	Φ22.23	R1	
EKDB280B1X	28.0	16.2	2500	150/200/300	480/564/792	380-415V/3N~/50Hz	52/55/58	1389x950x470	135	Φ9.52	Φ22.23	R1	
EKDB280B1X	28.0	16.2	3000	200	760	380-415V/3N~/50Hz	56	1389x950x470	135	Φ9.52	Φ22.23	R1	
EKDB335B1X	33.5	18.0	2700	150/220	915/1100	220-240V~/50Hz	52/55	1389x950x470	120	Φ12.7	Φ25.4	R1	
EKDB450B1X	45.0	27.8	4000	200/300	850/1250	380-415V/3N~/50Hz	58/61	1580x1020x520	150	Φ12.7	Φ28.6	R1	
EKDB560B1X	56.0	34.8	5000	200/250/300/350	1250/1500/1700/2000	380-415V/3N~/50Hz	58/58/61/61	1580x1020x520	150	Φ15.88	Φ28.6	R1	
EKDB560B1X	56.0	34.8	6000	200/250/300/350	1400/1600/1800/2000	380-415V/3N~/50Hz	60/60/62/62	1580x1020x520	150	Φ15.88	Φ28.6	R1	

Notes:

- The rated cooling capacity is based on the following condition: the equivalent refrigerant pipe length of outdoor temperature 33°CDB and 28°CDB (68%RH) is 7.5 m (horizontal);
- The rated heating capacity is based on the following condition: the equivalent refrigerant pipe length of outdoor temperature 0°CDB and -2.9°CDB (50%RH) is 7.5 m (horizontal);
- The unit can operate in the outdoor temperature range of -5°C to 43°C; when the outdoor temperature is lower than -5°C, the fresh air handling IDU will stop;
- The noise value is a value measured before delivery. Due to environmental noises or other reasons during actual use, the measured noise value may differ from the value listed in the table.

Piping Sizes

Piping sizes

System piping sizes

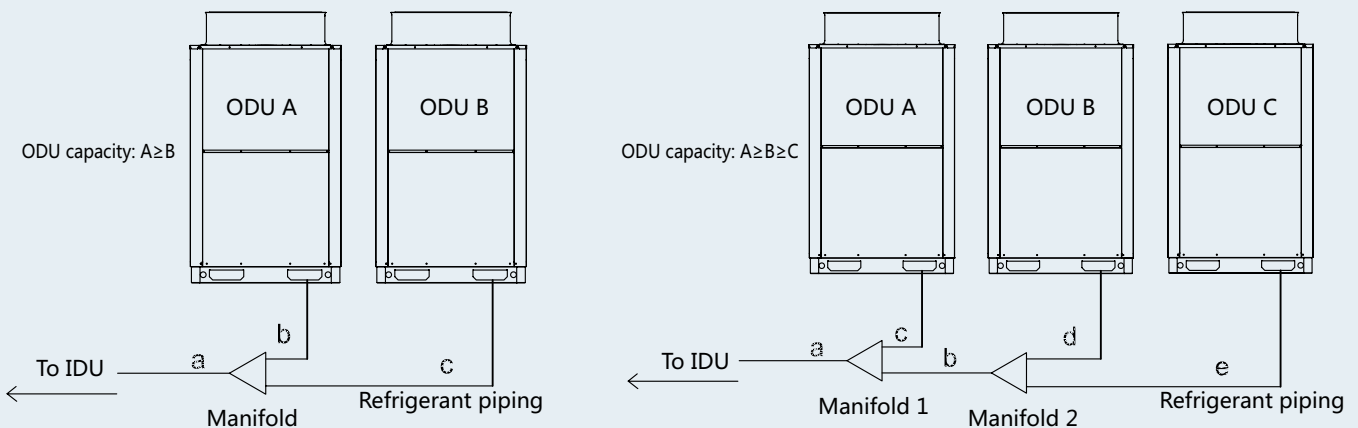
Unit: mm

ODU capacity	Main pipe size (equivalent length of main pipe < 90)			Main pipe size (equivalent length of main pipe ≥ 90)			Downstream IDU capacity A (kW)	Piping sizes		Applicable manifold
	Liquid pipe	Gas pipe	Primary indoor manifold	Liquid pipe	Gas pipe	Primary indoor manifold		Liquid pipe	Gas pipe	
8HP	φ 9.52	φ 19.05	ACRV-BP03	φ 12.7	φ 22.23	ACRV-BP03	A < 16kW	φ 9.52	φ 15.88	ACRV-BP01
10HP	φ 9.52	φ 22.23	ACRV-BP03	φ 12.7	φ 25.4	ACRV-BP04	16 ≤ A < 22 kW	φ 9.52	φ 19.05	ACRV-BP02
12-14HP	φ 12.7	φ 25.4	ACRV-BP03	φ 15.88	φ 28.6	ACRV-BP04	22 ≤ A < 35 kW	φ 9.52	φ 22.23	ACRV-BP03
16HP	φ 12.7	φ 28.6	ACRV-BP04	φ 15.88	φ 31.8	ACRV-BP05	35 ≤ A < 51 kW	φ 12.7	φ 28.6	ACRV-BP04
18-24HP	φ 15.88	φ 28.6	ACRV-BP04	φ 19.05	φ 31.8	ACRV-BP05	51 ≤ A < 75 kW	φ 15.88	φ 28.6	ACRV-BP05
26-34HP	φ 19.05	φ 31.8	ACRV-BP05	φ 22.23	φ 38.1	ACRV-BP06	75 ≤ A < 103 kW	φ 19.05	φ 31.8	ACRV-BP05
36-54HP	φ 19.05	φ 38.1	ACRV-BP05	φ 22.23	φ 41.3	ACRV-BP07	103 ≤ A < 155 kW	φ 19.05	φ 38.1	ACRV-BP05
56-66HP	φ 19.05	φ 41.3	ACRV-BP07	φ 22.23	φ 41.3	ACRV-BP07	A ≥ 155kW	φ 19.05	φ 41.3	ACRV-BP07

Notes:

- If the branch pipes are larger than the main pipes, diameter of the main pipes should be as large as possible.
- If the connection length between the manifold branch with the IDU pipe is longer than 15 m, the liquid pipe diameter should be greater by one size.

Selection of inter-ODU manifolds



Two module combination model

ODU model	EKRV240-300CR1	EKRV320-440CR1
Model of manifold	ACRV-BP04	ACRV-BP05

Three module combination model

ODU model	EKRV460-480CR1	EKRV500-540CR1	EKRV560-660CR1
Model of manifold 1	ACRV-BP05	ACRV-BP05	ACRV-BP07
Model of manifold 2	ACRV-BP04	ACRV-BP05	ACRV-BP05

Project Presentation

Project Presentation



Chinese Commercial Aircraft R&D Center



Chengdu Dading Century Square



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