Hisense VRF



# AIR CONDITIONING SOLUTION

Reimagine your solution

Hisense | UEFA EURO2024 GERMANY

OFFICIAL VRF OF UEFA EURO 2024™


Qingdao Hisense HVAC Equipment Co., Ltd.
Hisense Tower, Qingdao, China

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CE CB ISO14001 ISO9001 ISO45001 HCAC-CA-GP202401


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Hisense VRF




# Hisense SINCE 1969

Hisense is a well-known large-scale electronic information industrial group. With strong emphasis on technology and innovation, its efficient technological innovation system firmly grounds Hisense at the forefront of its peers. At present, Hisense brand family has expanded to include multiple famous brand Hisense, Toshiba, Gorenje and ASKO.

SINCE 1969

# BUSINESS LAYOUT

## Multimedia

TV and Display Devices
Internet TV Operation
Mobile Communication Devices
Optical Communication Devices
Chip



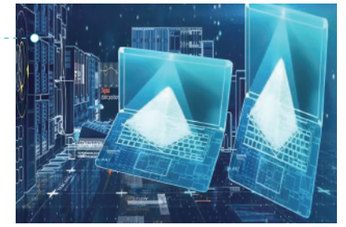
## Household Appliances

Refrigerator
Freezer
Air-conditioner
Washing Machine
Kitchen Appliance



## IT Smart Systems

Smart City
Smart Community
Smart Transportation
Smart Business
Medical Electronic Devices
Smart Home System and Service



## Real Estate & Modern Services

Real Estate
High-end Plaza Chains
Mould Design and Manufacturing
Finance
Trade



# GLOBAL HISENSE SINCE 1969

Hisense has started a long-term sports marketing strategy to increase brand awareness worldwide. After the successful sponsorship of **UEFA EURO 2016 & 2020** and **FIFA WORLD CUP 2018 & 2022**, Hisense has made clear its focus on football. Hisense also is the official partner of **UEFA EURO 2024.**




Team Supplier to Red Bull Racing

Official Partner of UEFA EURO 2016

Official Sponsor of 2018 FIFA World Cup




Official Partner of UEFA EURO 2020

Official Sponsor of 2022 FIFA World Cup

Official Partner of UEFA EURO 2024



# Hisense HVAC MANUFACTURING BASE

Qingdao Hisense HVAC Equipment Co. Ltd. is a leading manufacturer of heating, ventilation, air conditioning and other HVAC equipments, integrated with the product development, manufacturing, sales and after-sales service as a whole.

Hisense HVAC always regards product technology research and development as the most important value. With strong technological innovation capabilities, Hisense HVAC has participated in the formulation and revision of 112 national standards, industry standards and association standards, and boasts 2020 authorized patents in the field of CAC and heat pump products. With the great support of all shareholders and customers, Hisense HVAC is expected to become the leading brand in the industry.

Note: The above data is as of Dec. 31th, 2023.

**266,000** $m^2$
Manufacturing Area

**40+**
Production Line

**6,000,000** units/year
Production Capacity

**16,700** $m^2$/70+
Laboratory



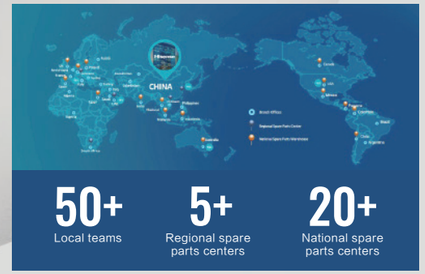
# HISENSE HVAC PROFESSIONAL ENGINEERING TOOLS & SUPPORT

iCare

## Beyond Your Expectation

Hisense HVAC is committed to providing a comprehensive suite of air conditioning solutions. Our services span every stage of the customer journey — from product development, pre-sales support, and quotation & purchase, to installation & commissioning, use & experience, and after-sales service. At Hisense HVAC, we consistently deliver enhanced support to ensure our customers receive unparalleled assistance.

Introducing our iCare vision, Hisense HVAC is taking a step further to elevate our technical support and after-sales service, reaffirming our commitment to customer satisfaction.




### Customer Oriented

Hisense HVAC boasts over 50 technical and service teams strategically positioned worldwide to offer prompt local support. With more than 5 regional spare parts centers and 20+ national spare parts warehouses, we ensure high-quality and swift spare part supply. Furthermore, R&D centers in Europe and America are currently under construction.



### Reliable Service Anytime and Anywhere be with You

We've established a comprehensive all-media after-sales service system, ensuring reliable assistance anytime and anywhere.

### Informatization Unified HVAC Application Platform

Hisense has built the technical platform matrix which including the product selection software, CAD Hi-Design software, BIM, service platforms GCSS, GSD, GKP and so on.




### Ability Focus on Full Cycle Training Support

The Hisense HVAC Academy was founded to offer a range of training courses for our staff and partners, with the goal of consistently enhancing the HVAC expertise of engineers, installers, and service agents.



5000m² training center in HQ
10+ training center globally
Skilled training team in HQ

Hisense HVAC ACADEMY

5+ practice operation room
Real machine teaching
Live training online

### Excellence Pursuit Enhancing User Experience Continuously

The technical and service team not only serves as the business's service provider but also champions excellent products. Hisense is actively promoting the application of Cloud AI and NFC in HVAC.



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Hisense VRF

# OUTDOOR UNITS LINE-UP

## Hi-FLEXi S Series Heat Recovery

## Hi-FLEXi S Series

## Hi-FLEXi S mavo+ Series



| 8~12HP | 14~18HP | 20~24HP | 26~28HP |
|---|---|---|---|
|  |  |  |  |

| 30~56HP | 58~84HP |
|---|---|
|  |  |

86~112HP



## Hi-FLEXi X3 Series



| 8~12HP | 14~18HP | 20~24HP | 26~28HP |
|---|---|---|---|
|  |  |  |  |

| 30~56HP | 58~84HP |
|---|---|
|  |  |

86~112HP



| 8~14HP | 16~20HP | 22~40HP |
|---|---|---|
|  |  |  |

42~60HP



## Hi-FLEXi W Series



| | 4/5/6HP | 8/10/12/14/16HP | 18~32HP |
|---|---|---|---|
| H5 |  R32 | Coming soon  R32 | Coming soon  R32 |

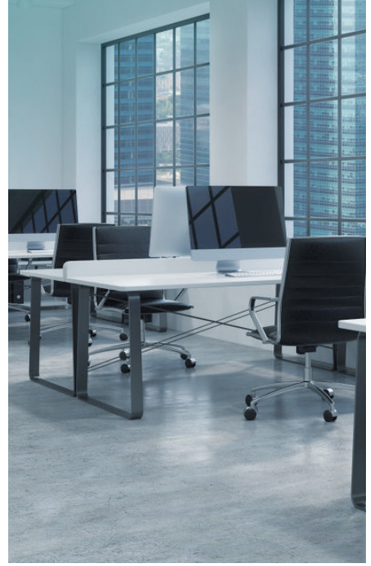
| | 4/5/6HP | 4/5/6HP | 8/10/12HP |
|---|---|---|---|
| E+L+C+ |  |  |  |

| | 3/4/5HP | 4/5/6HP | 8/10/12HP |
|---|---|---|---|
| H |  |  |  |

## Hi-Smart H5 Series

## Hi-Smart E+ L+ C+ Series

## Hi-Smart H Series



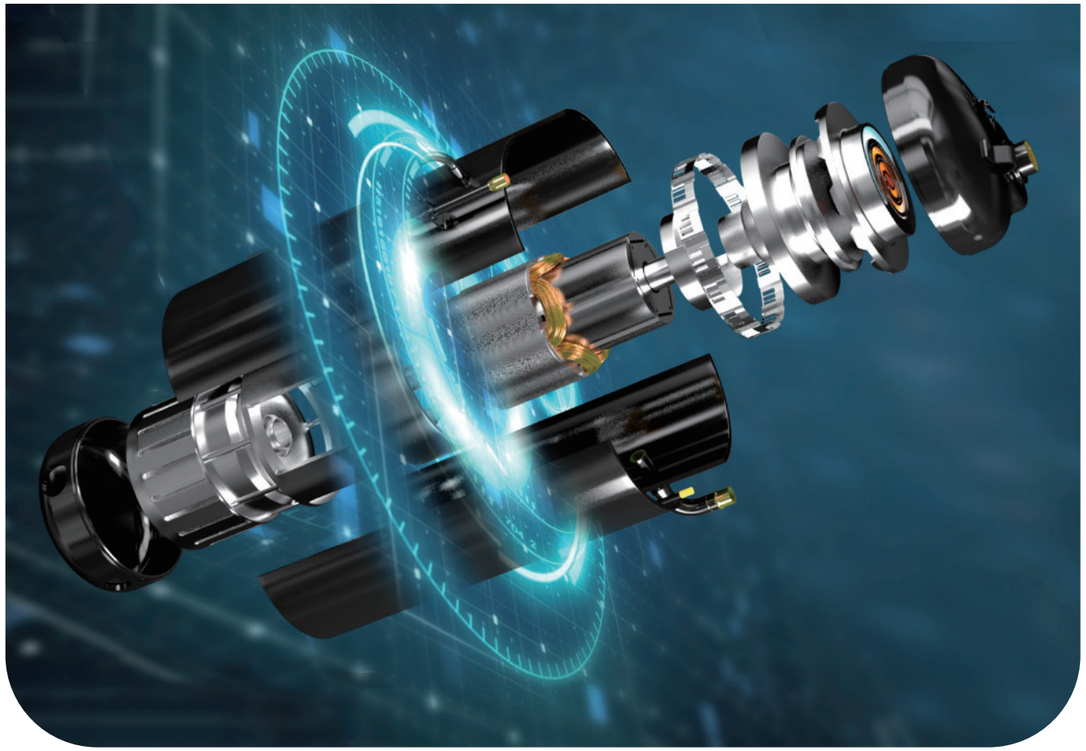
Hisense VRF

# RELIABILITY

- Refrigerant Circuit
- Enhanced Anti-corrosion Solution
- System & Operation
- Electrical & Electronics
- Indoor Unit Reliability

AIR
CONDITIONING
SOLUTION

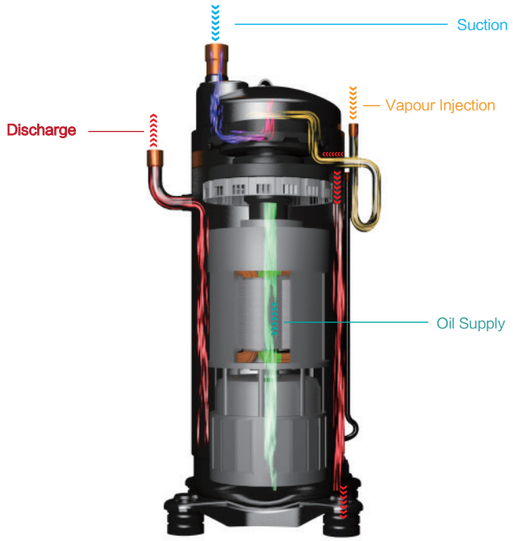
# Refrigerant Circuit



## Revolutionary HVAC compressor

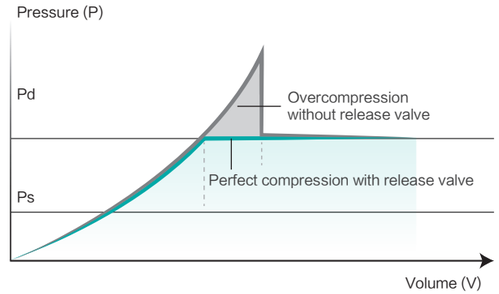
### Vapour injection technology

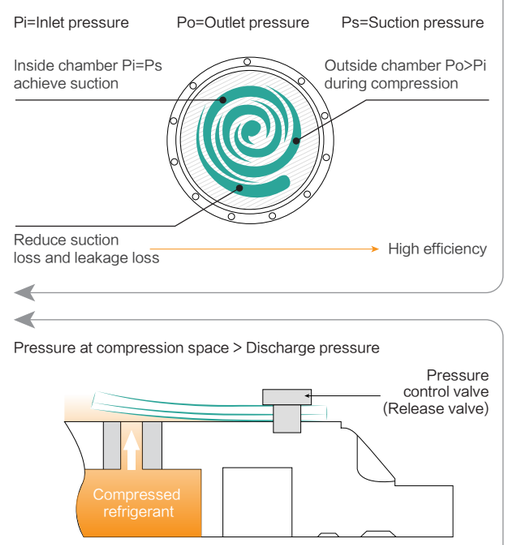
New generation scroll compressor is now patented with higher performance capability vapour injection technology, increasing capacity up to 25% compared to conventional scroll compressor with same amount of power consumed.



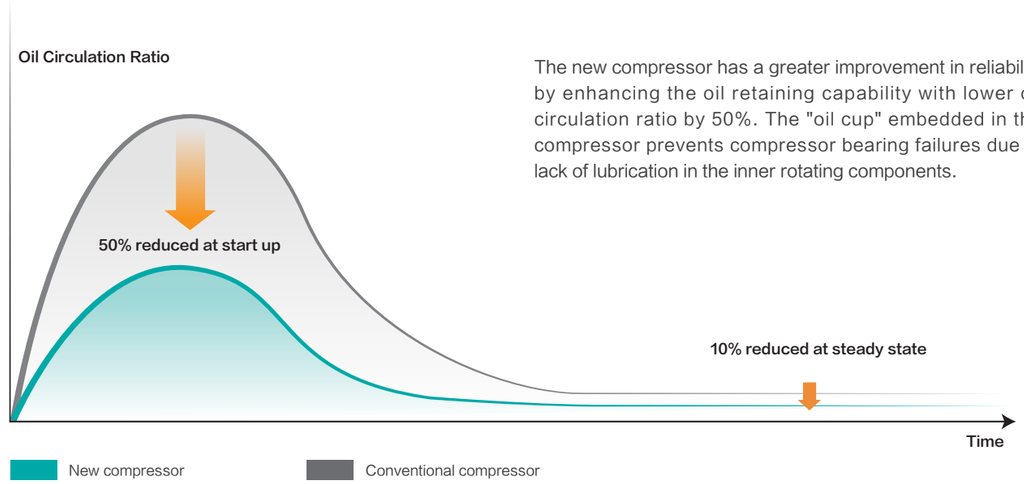

### Efficient energy usage

Wasted power is reduced by minimizing leakage and anti−overcompression while compressing refrigerant gas with asymmetric scroll and patented release valves.



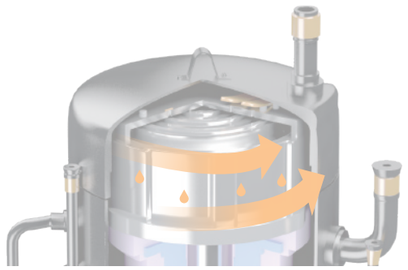

### Enhanced oil level retaining capability



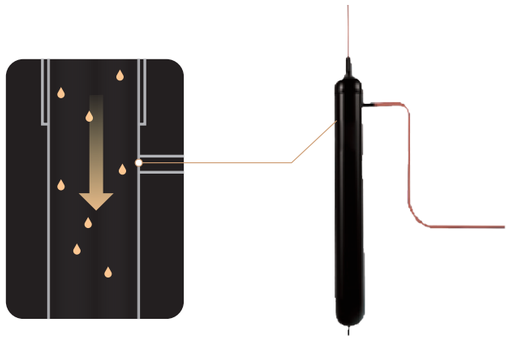

The new compressor has a greater improvement in reliability by enhancing the oil retaining capability with lower oil circulation ratio by 50%. The "oil cup" embedded in the compressor prevents compressor bearing failures due to lack of lubrication in the inner rotating components.

# Oil separation and oil return

## Oil separation



First-stage Oil Separation



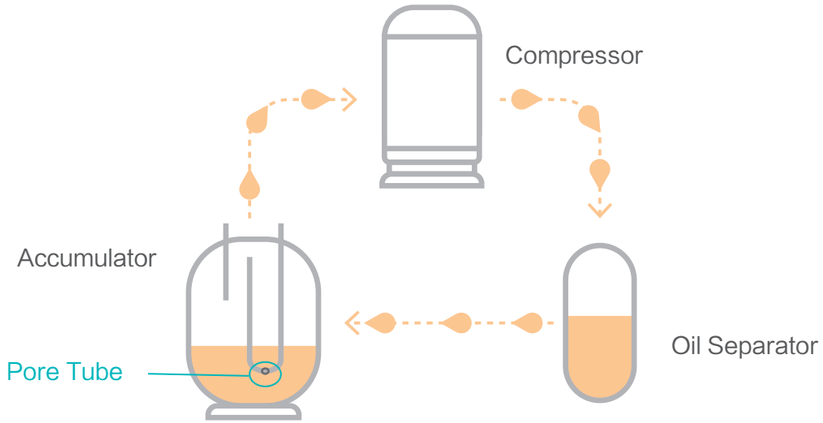
Second-stage Oil Separation

First-stage oil separation is realized through efficient oil separation structure inside the high-pressure-chamber compressor. Only a small amount of oil is brought out of the compressor.

During second-stage oil separation, the small amount of oil discharged from compressor is separated by a large-capacity high-efficiency centrifugal oil separator, with efficiency over 99%.

## Oil return

The accumulator adopts pore tube oil return technology with a built-in fine strainer, which not only ensures oil balance between compressors within one module, but also plays an important role in the oil balance between modules.
Besides this, the system implements oil-return function based on compressor frequency and corresponding operation time. The oil-return takes 60 seconds and can return to previous condition when it is finished.
In winter under heating mode, this operation is implemented without switching to cooling mode, which guarantees the heating performance.




# Enhanced Anti-corrosion Solution

Hisense's complete corrosion-proof is a perfect solution in seaside and chemical factory applications (sulphide contamination occasion), providing ultimate comfort without sacrificing life span and reducing maintenance cost simultaneously.
The components from top to toe are treated with effect treatments, and the systems have acquired UL certification.




| | | |
|---|---|---|
| ❶ **Front Panel** | Galvanized steel treated with zirconium & 100 μ m ~ 180 μ m epoxy zinc rich primer + pure polyester paint coating. | |
| ❷ **Heat Exchanger** | Black fin (with epoxy resin & hydrophilic film); Cooper fin. | |
| ❸ **Electrical Box** | Galvanized steel treated with zirconium & 50 μ m~120 μ m pure polyester. | |
| ❹ **Fan Motor** | Coated with 10 μ m ~ 30 μ m Acrylic Resin coating Thickness: 10 μ m ~30 μ m. | |
| ❺ **Top Grill** | ❻ **Motor Bracket** | ❼ **Protection Net** |

Note
Please refer to the catalog of Hisense VRF Anti-corrosion Solution for detailed anti-corrosion treatment measures.

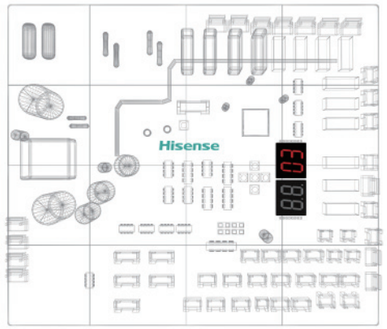
# System & Operation



## Self-diagnosis & self-protection measures

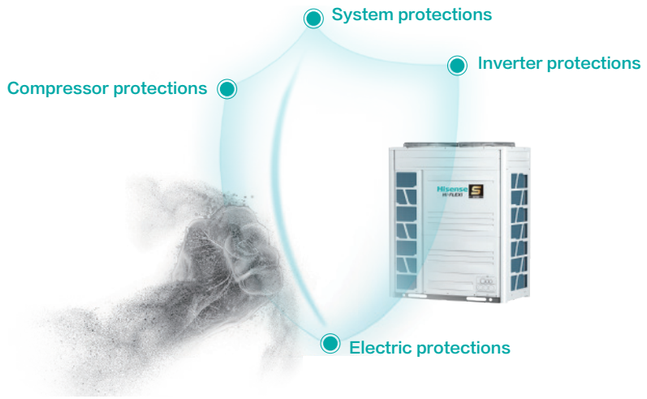
### Self-diagnosis

Operation monitoring and maintenance are made simpler by having the AC unit tells you what and where is wrong with them. Alarm codes will be flashed out when an error or breakdown occurs. Extremely helpful for installers during test run and also end-users to understand what's going on. Besides alarm codes, operating status and parameters like history temperature, pressure, compressor frequency and etc are traceable on controllers and the outdoor unit, easing service maintenance and troubleshooting.




### Self-protection

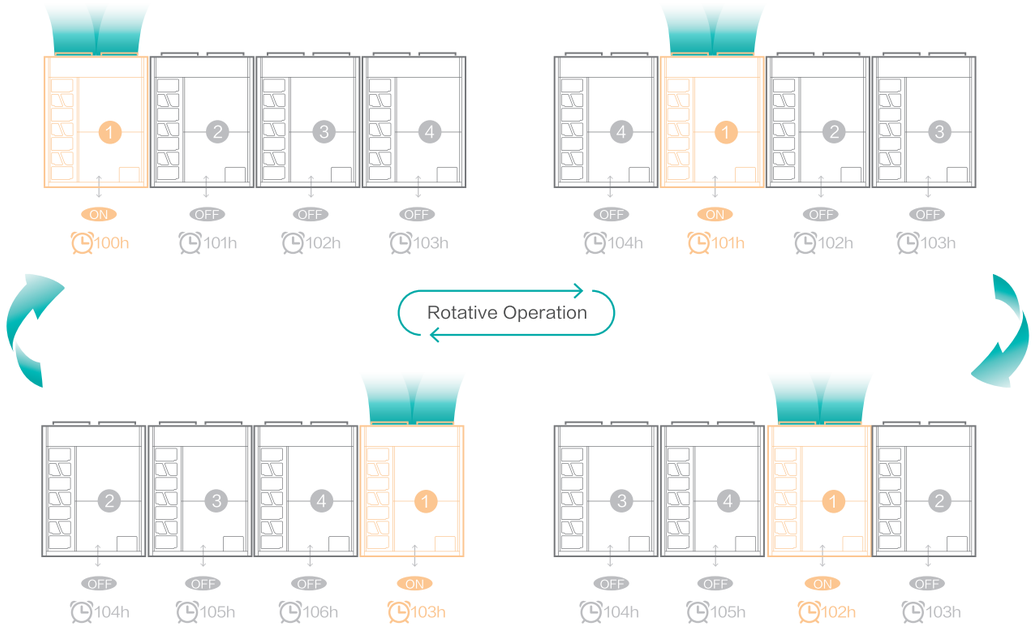
Hisense VRF can protect itself with algorithms embedded to make necessary protective decisions and measures by different sensor readings and parameters, including compressor protections, system protections, inverter protections and electric protections.




## Smart rotative operation & triple backup operation

### Smart rotative operation

Operation duties are smartly balanced in higher capacity module combinations to prevent occurrence of individual unit overworked and hence extending the overall operating life of the overall system.




### Triple backup operation

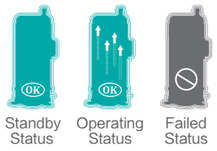
**Module backup operation**

If one module in a combination system malfunctions, the other ones can still keep working to ensure an emergency operation until service and repair.



### Compressor backup operation

In the single module system equipped with two compressors, if one compressor malfunctions, the other one can provide emergency operation. In the combined modules, if the compressor in one module goes wrong, the other modules can provide emergency operation. Thus a stable and continuous operation can be ensured thanks to the backup of compressors.





Compressor Backup


Outdoor Unit Backup

### Fan backup operation

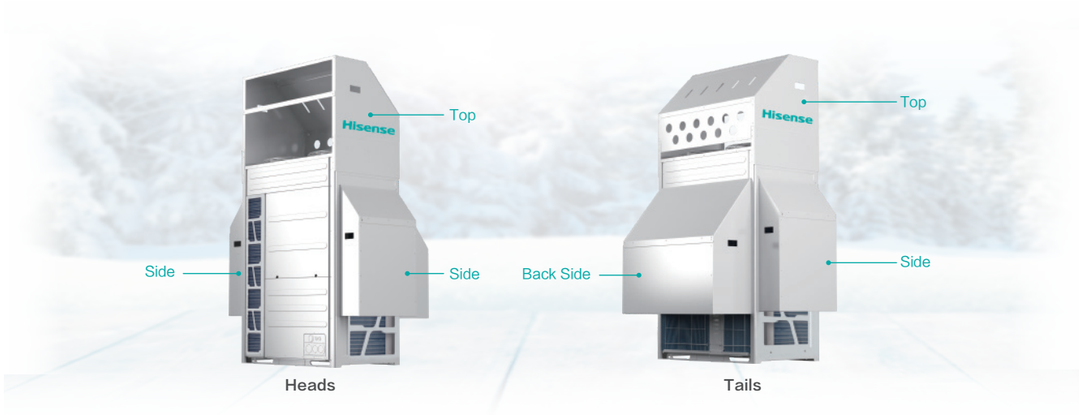
For the module equipped with two fans, if one fan breaks down, the other one won't be influenced, the module can still keep working.


Single Module System


Combined Modules System

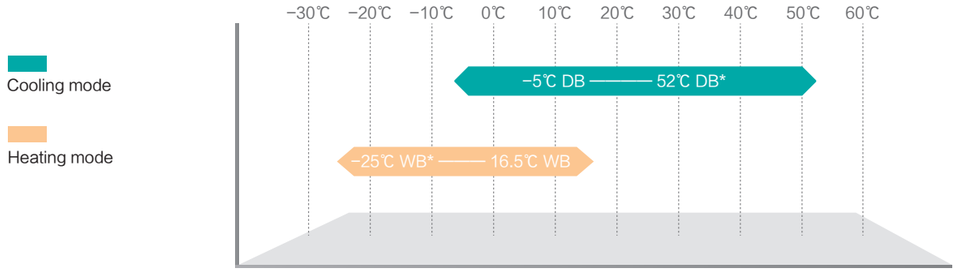
## Snow hood (optional)

The snow hood kit can effectively prevent heavy snow from accumulating on the top of the unit and covering the heat exchanger. Heavy snow accumulating will affect the heat exchange seriously, thus stable operation can be ensured thanks to the snow hood.




## Wider operation range

Extended operation range creates wider application potential，in cooling mode the operation range is from −5℃ DB to 52℃ DB and in heating mode the operation range is from −25℃ WB to 16.5℃ WB, which adapts to extreme conditions.

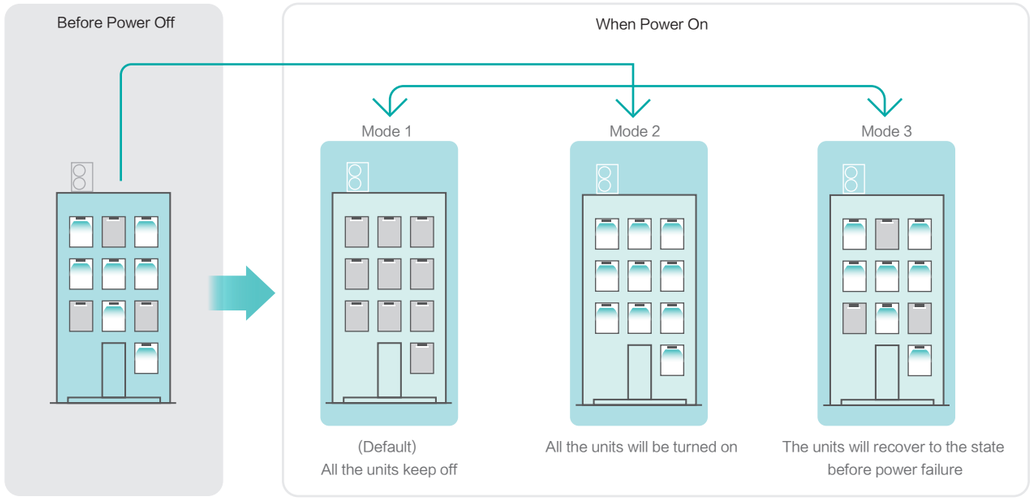



Note

1. The dry temperature range of heating operation mode is from −25℃ to 26℃.
2. When the temperature is in 48℃~52℃ and −20℃~ −25℃, the module is in intermittent operation.
3. Please refer to the specification table of each series for detailed operation range.

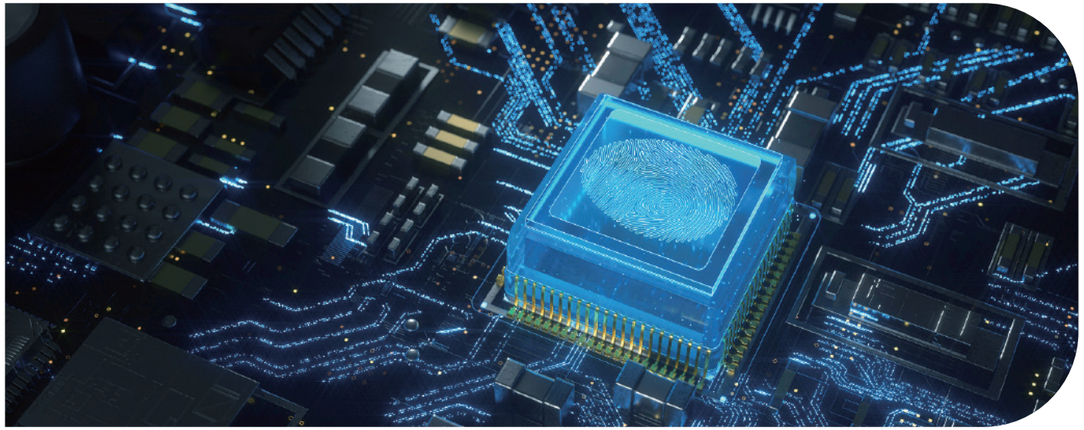
# Automatic Restart

Hisense indoor units are capable to restart automatically to the previous state whenever the power supply is shut off suddenly and restores immediately. When there is long power shortage, the default setting is to keep all the indoor units off when the power restores. Also there are two other settings for users' choice, recovering to the state before power failure or restarting all the indoor units.



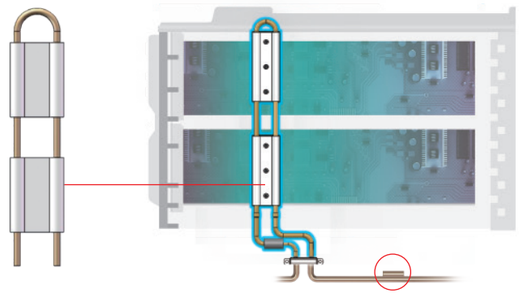

* DIP setting is necessary for mode 2 and mode 3.

# Electrical & Electronics



## Patented 360° fitted refrigerant cooling technology

Hisense VRF uses refrigerant cooling technology to cool the electrical control box. It overcomes the poor heat dissipation and high ambient temperature issues to maintain efficient operation even at harsh environment. Compared with air-cooled technology, the temperature inside the electrical box can be reduced by up to 20%*. Moreover, the refrigerant cooling kit adds a temperature sensor, which could be more precise to control the refrigerant cooling temperature and ensure the whole reliability.

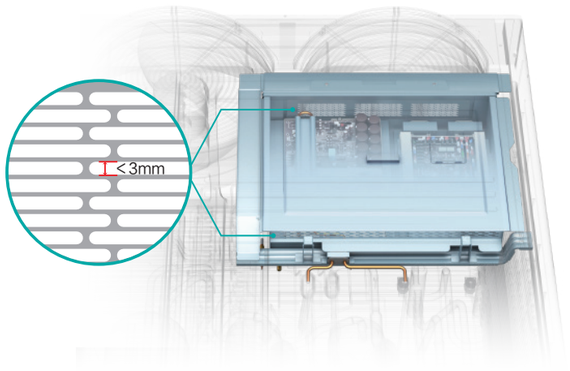


Note

1. * The data is based on the S mavo+ unit under low fan speed operation. 2. Temperature sensor is only available for S mavo+ series.

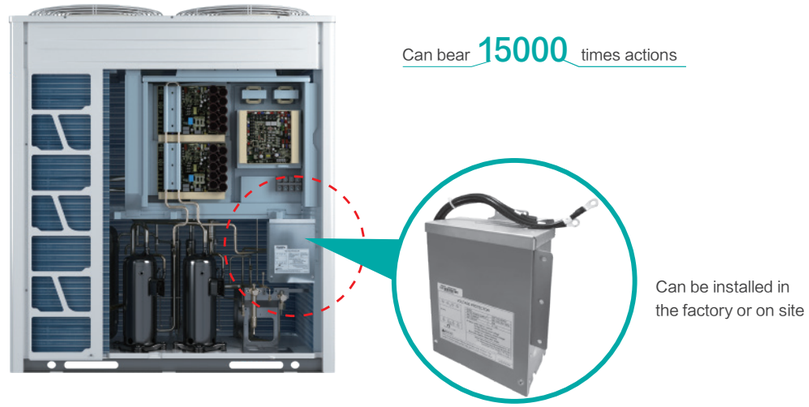
## Insect protection design

Special design nettings are placed on insect easy-entry openings, effectively preventing unnecessary electrical component damages.




## Voltage protector reserved (optional)

Too low or too high voltage can easily damage the electronic components. The new generation of top flow unit has reserved the space for assembling the voltage protector, which can be an effective solution to protect outdoor units from any voltage spikes. The power supply of outdoor unit will be automatically cut off when there is abnormal voltage, and will be restored when power supply returns to normal after 30s. Meanwhile, it's helpful for checking the phase sequence error or phase loss according to the indicator lights, convenient for commission and maintenance.




## Quality electrical and magnetism precaution measure

Air-conditioning unit produced by Hisense VRF requires strict electromagnetic protection and preventive quality assurance to not allow electromagnetic wave from other devices surrounding the unit to interfere the normal operation and function of our unit and vice versa onto other equipment. Another typical damage causes of electronic and electrical failure is sudden high external power source exerted into the electronic compositions like thunder strike during a storm. As to overcome such inevitable natural phenomenon to cause damage, 4000V sudden high voltage test is infused into the long list of electromagnetism quality test in our internationally qualified test lab.

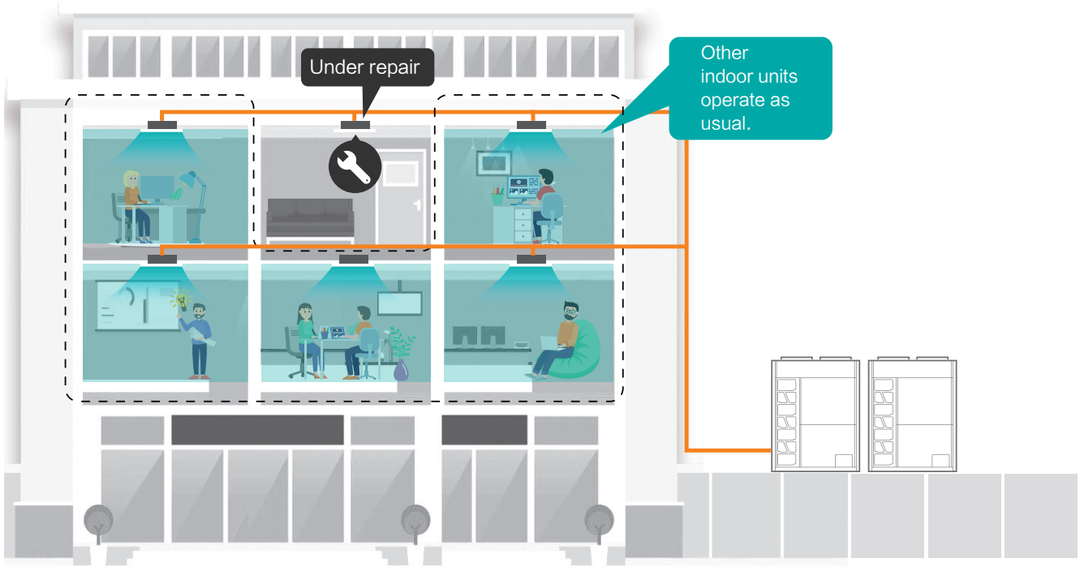


# Indoor Unit Reliability



## Independent maintenance of indoor unit

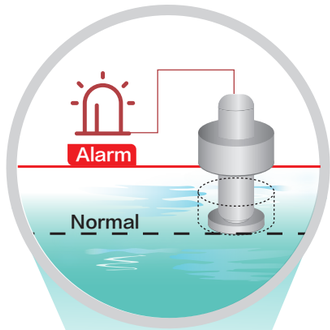
To maintain the whole system's continuous operation even when there is a breakdown occurring within the system, Hisense VRF is capable to isolate the faulty unit from the others while conducting restoration and maintaining continuous operation of other units simultaneously. It's especially practical for retail shops or offices where multiple indoor units share the same system.

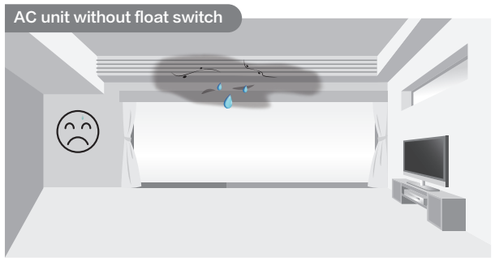



*Preliminary setting is unnecessary

## Condensate water leakage protection

Indoor units have build-in water-leakage float switches. Alarming warnings will be displayed on controllers when condensate reaches a certain level. Save your ceiling and carpet from being soaked in time when drain pipe is clogged or drain pump breakdowns.







## Effective drainage solution

### High quality seals

Water could seep through anywhere as long as there is a void. Thus, Hisense utilizes the best quality sealing material to seal up gaps between the heat exchanger and drain pan, which effectively prevents condensate leakage.

### Transparent drain pipe

To ease drainage inspection, Hisense indoor units adopt transparent drain hose connection. It enhances installation and maintenance, making sure drain hoses are connected securely and make blockage inspections much easier.

Hisense VRF

# EFFICIENCY

- Efficient Heat Exchanger
- Intelligent Defrosting Logic
- Steady Air Discharge

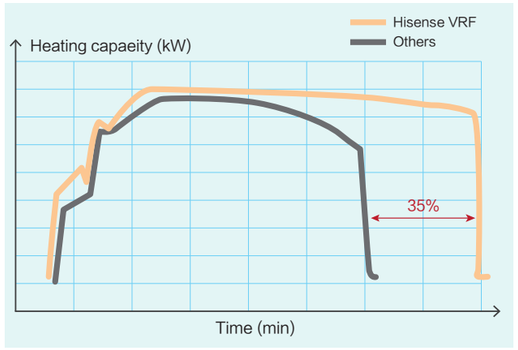
AIR
CONDITIONING
SOLUTION

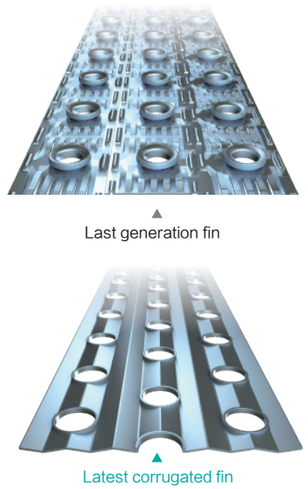
# Efficient Heat Exchanger

## New advanced corrugated fin design

The heat exchanger of Hisense VRF adopts the new advanced corrugated fin design. With this new design, larger amount of fins can be allocated into the heat exchanger, increasing 20% heat exchange surface area maximally compared with the last generation fin and the heating capability increase 10% averagely.

### Long-time stable heating performance

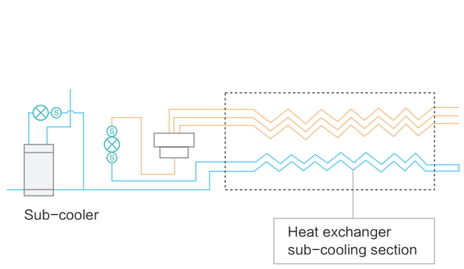


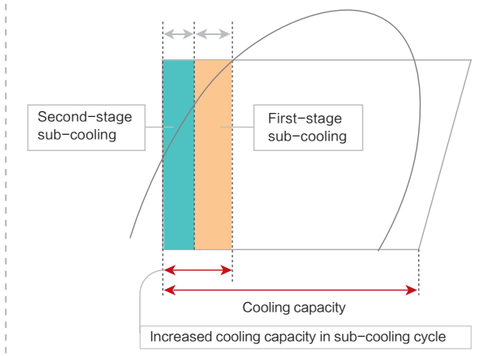

## Two-stage subcooling

For the conventional VRF systems without the sub-coolers, the subcooling temperature is about 12.5℃ with one-stage subcooling. However, Hisense VRF's 2-stage subcooling technology can realize the subcooling temperature up to 27℃, distinctly improving the cooling capacity by pushing refrigerant further beyond its condensing temperature.

Two-stage sub-cooling cycle diagram



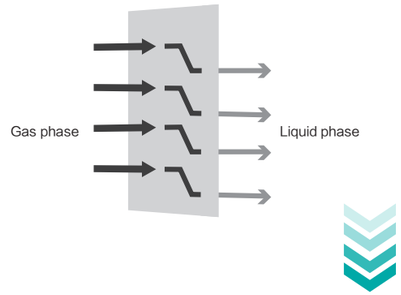

Two-stage sub-cooling pressure enthalpy diagram

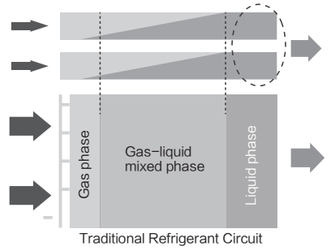



## Optimized refrigerant circuit

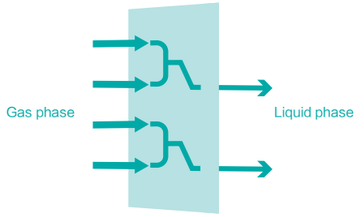
As refrigerant flows in the system, energy will be lost due to friction and other factors naturally especially when refrigerant change phase, latent heat are lost when gas turns to liquid. Whereby, as more heat is dissipated out, higher the heat exchanger efficiency is. By making full use of heat dissipation, refrigerant flow layout is maneuvered into 2 to 1 refrigerant flow path extends liquid refrigerant's occupancy and eventually the efficiency too.

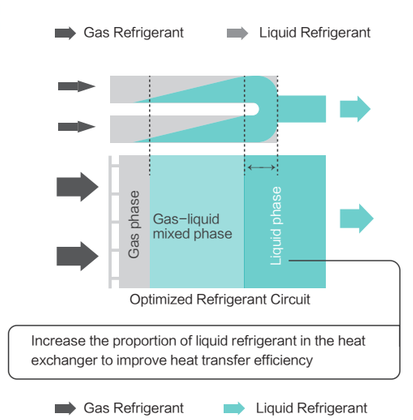
**Conventional technology**



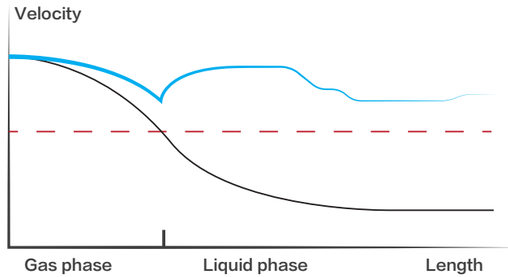




2-to-1 refrigerant flow path




Why does 2 to 1 refrigerant circuit is higher in efficiency?



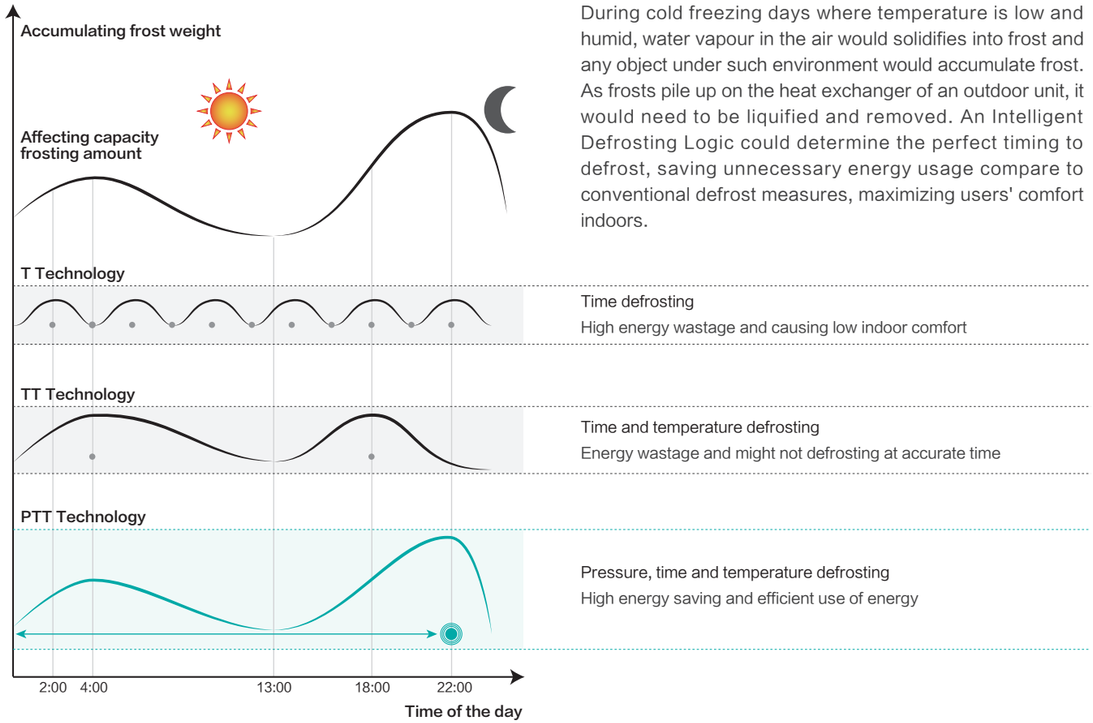



2 to 1 refrigerant circuit:
velocity is maintained same goes to the efficiency of refrigerant heat exchange.

Conventional refrigerant circuit:
Heat exchange slows down with decreased velocity. Efficiency is greatly reduced.

# Intelligent Defrosting Logic

## PTT defrosting mode




During cold freezing days where temperature is low and humid, water vapour in the air would solidifies into frost and any object under such environment would accumulate frost. As frosts pile up on the heat exchanger of an outdoor unit, it would need to be liquified and removed. An Intelligent Defrosting Logic could determine the perfect timing to defrost, saving unnecessary energy usage compare to conventional defrost measures, maximizing users' comfort indoors.

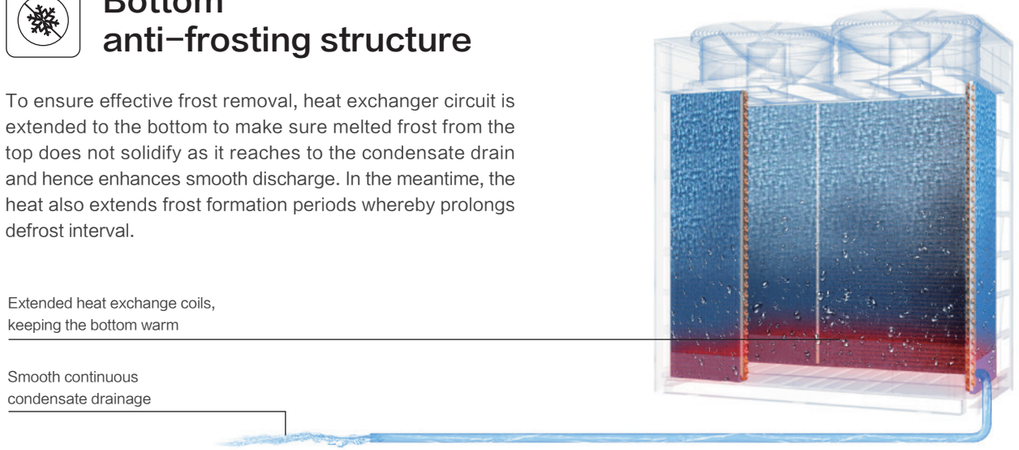
Time defrosting
High energy wastage and causing low indoor comfort

Time and temperature defrosting
Energy wastage and might not defrosting at accurate time

Pressure, time and temperature defrosting
High energy saving and efficient use of energy

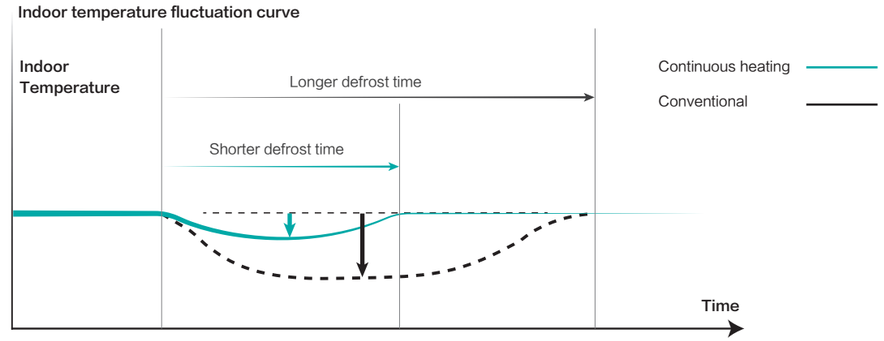
## Bottom anti-frosting structure

To ensure effective frost removal, heat exchanger circuit is extended to the bottom to make sure melted frost from the top does not solidify as it reaches to the condensate drain and hence enhances smooth discharge. In the meantime, the heat also extends frost formation periods whereby prolongs defrost interval.




## Continuous heating during defrost

The module combination design can achieve rotation defrosting among modules for decreasing indoor temperature fluctuation, so as to improve users' comfort.







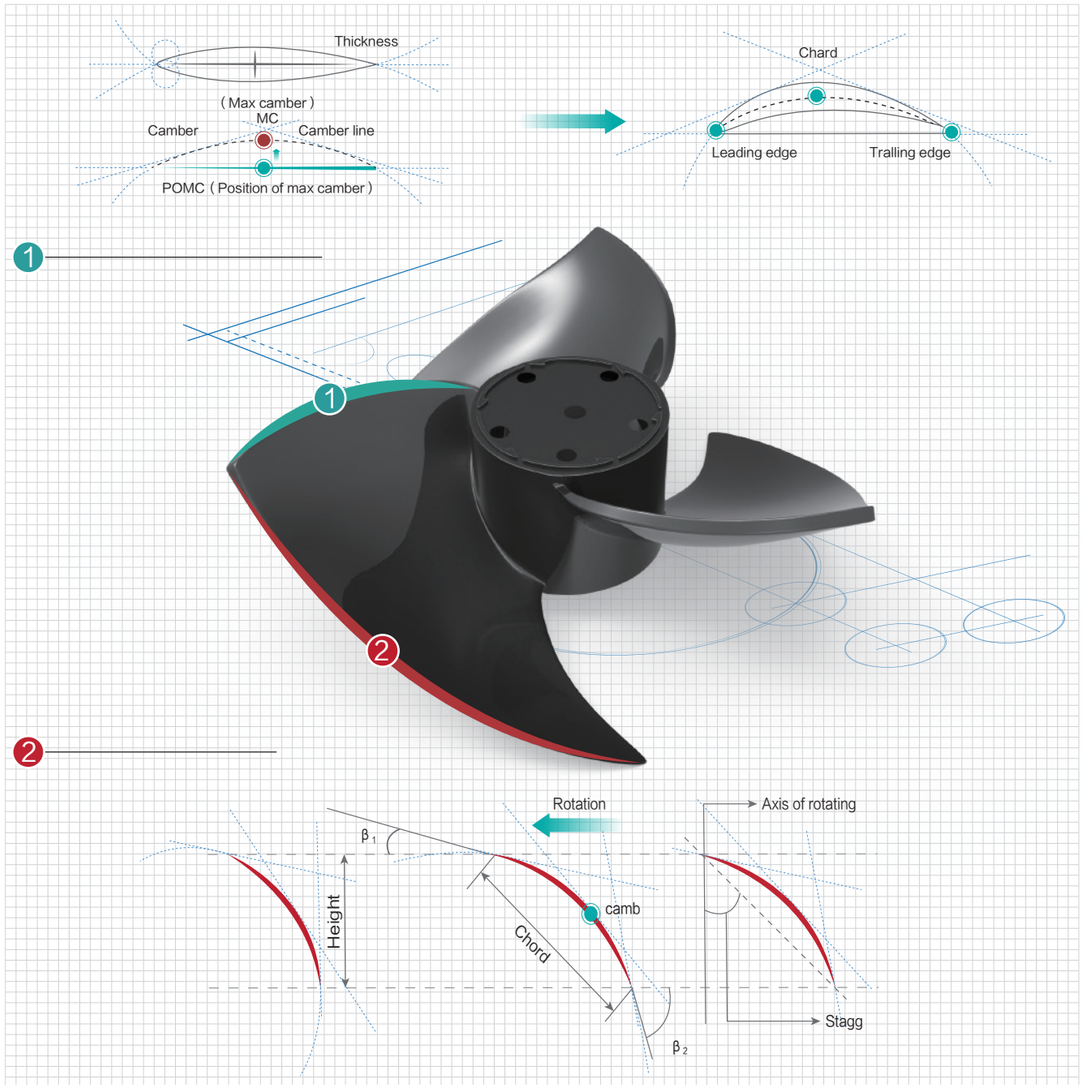
Note

Only available for module combinations of Hi-FLEXi S Heat Recovery.

# Steady Air Discharge

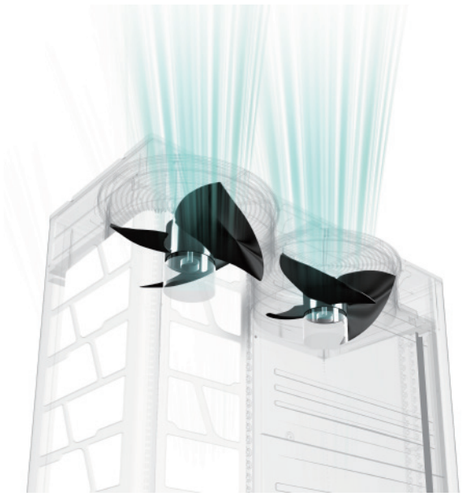
## High efficiency aerodynamic axial fan

The propeller bearing which acts as the joint connecting the propeller and motor are specially treated with anti-rain corrosion treatment and propeller made of fiber glass composite is now better corrosion resistance.
Fan blades are aerodynamically designed to reduce energy wastage in converting power consumed to unnecessary noise energy, reserving the energy to improve on flowrate performance and static pressure. Integration with brushless DC fan motor further improves the efficiency and reduces noise of the propeller structure.




## Stepless-smooth fan speed control

Inverter fan motors are now commonly used, where efficiency increase by 40%. Whereas in Hisense VRF, brushless DC fan motors are used, as it could further reduces power consumption and noise production than normal inverter motors.



Efficient axial fan

# Auto Refrigerant Temperature Control (ART)

Hisense VRF system featured with ART technology can meet the indoor loads more accurately at a higher efficiency. The system adjusts the evaporating temperature (Et) according to actual indoor loads automatically in a wide range. The Et is raised to minimize the difference with the condensing temperature when the air-conditioning load is low, thus further improving the energy efficiency.

Features:

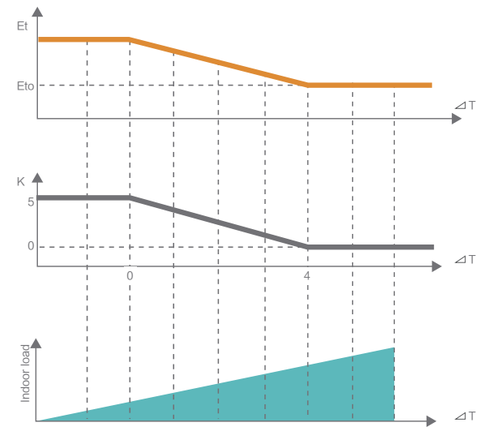
1. Energy efficiency is improved without sacrificing comfort.

2. ART is particularly efficient under low-load operation.

3. The initial evaporation temperature can be adjusted between 2-11℃, which is the widest in the market.

4. Realize rapid cooling with lower evaporating temperature.

5. Avoiding cold draft with higher evaporating temperature.




Et=Eto+K
Et: Evaporation temperature
Eto: The initial evaporation temperature
△T: The temperature difference between air inlet and the setting temperature

Hisense VRF

# COMFORT

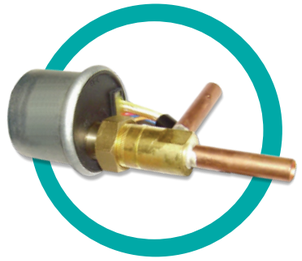
- Smart Air Supply
- Lower Noise
- Clean Fresh Air
- Auto Refrigerant Temperature Control (ART)
- VIP Mode

AIR CONDITIONING SOLUTION

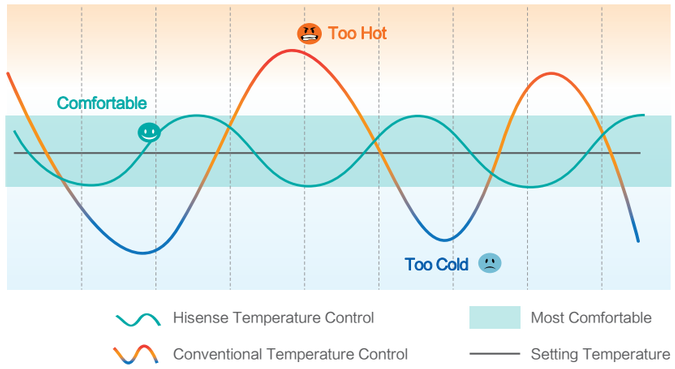
# Smart Air Supply

## Precise temperature control

There are multiple temperature sensors equipped in the system, which will be very helpful to judge the indoor load more accurately. Also the 2000-step EEV is specially adopted to ensure precise refrigerant flow adjustment according to the actual load of indoor units, achieving a more comfortable indoor environment with small temperature fluctuation.

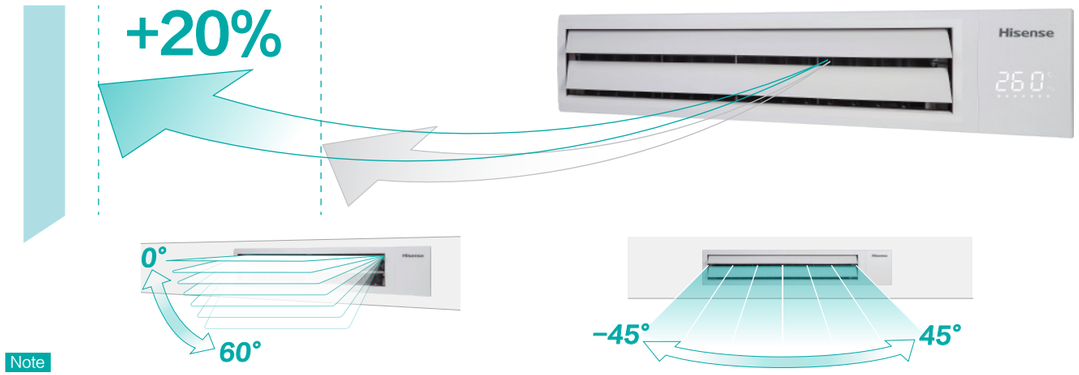


2000-step EEV




## 3D air-flow panel(optional)

The 3D air-flow panel with luxurious appearance is available for the low-height ceiling ducted indoor units (optional). The 3D airflow panel can offer even airflow and wide airflow coverage to keep every corners of your room cool or warm. It also has three wind setting, normal mode, 3D mode and super long distance mode, flexible for you choice.

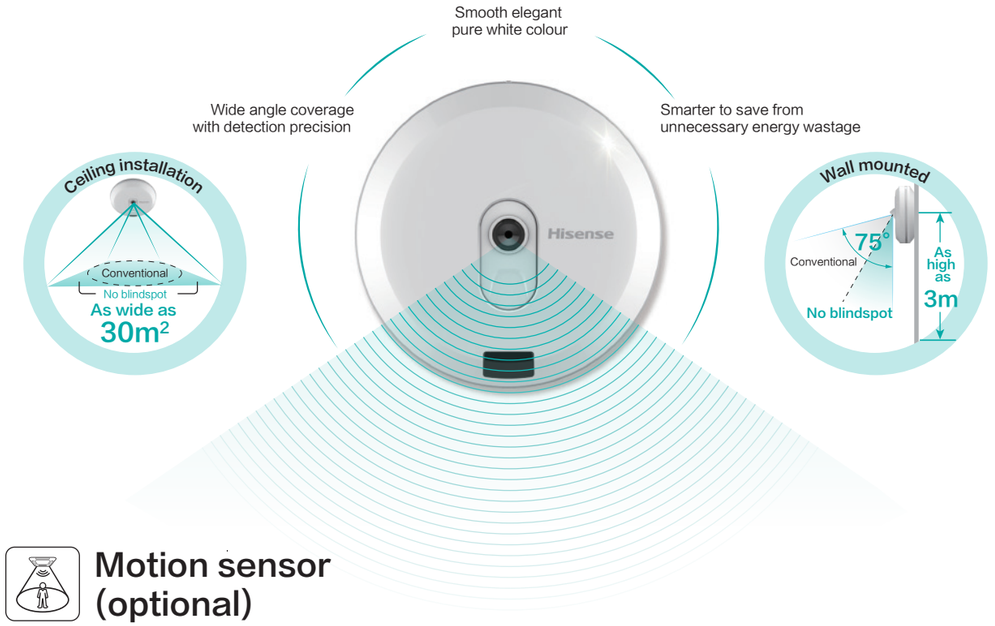



Note

It's optional for the AC/DC low height ceiling ducted unit.

## Hi-motion (optional)

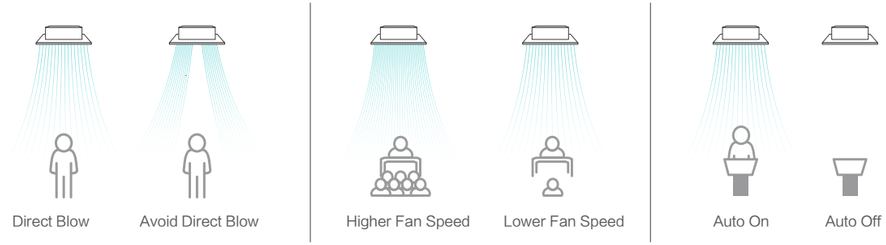
Hi-Motion works as an independent human sensor and can be installed separately from indoor unit. It can detect the human activities indoors to provide comfort and energy savings.
1. Automatically stops the unit when no one is in the room in order to realize energy saving.
2. Adjusting the setting temperature and air flow according to the actual human activity.




## Motion sensor (optional)

Motion Sensor, assembled in the panel of 4-Way Cassette and Mini 4-Way Cassette, can provide a more comfortable environment, and achieve efficient and energy-saving operation of the unit at the same time.
1. With the sensor, indoor unit can ON or OFF automatically when people enter or leave the room.
2. The people location can be detected by the sensor automatically, and the air flow direction can be set to blow directly or to avoid blowing at people as they like.
3. The setting temperature can be changed automatically by detecting the number of people changing.

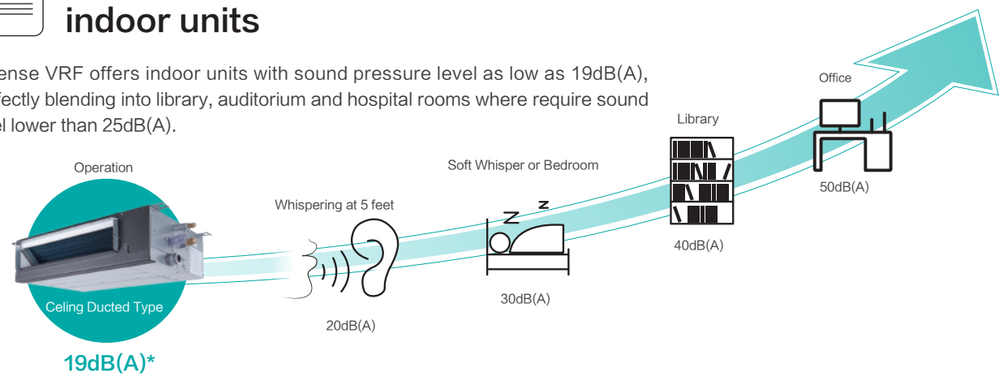


# Lower Noise

## Lower noise for indoor units

Hisense VRF offers indoor units with sound pressure level as low as 19dB(A), perfectly blending into library, auditorium and hospital rooms where require sound level lower than 25dB(A).



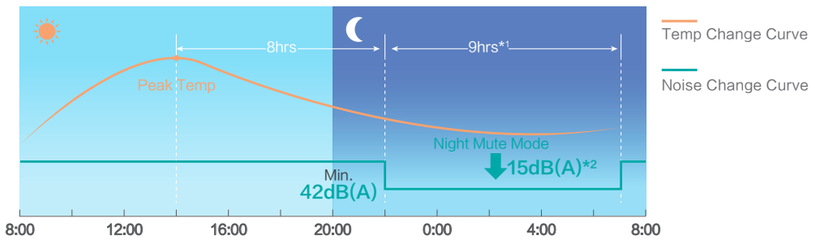

Note

* The DC ceiling ducted type (AVD-07HJFH) can achieve the 19dB(A) under the standard test condition.

## Outdoor unit noise control

### Auto night quiet mode

When outdoor conditions call for special low noise requirements, like in cases where outdoor units are installed in indoor equipment rooms with poor soundproof walls or continuous night operating conditions. The night mode reduces sound pressure levels upto 30% routinely with flexible time intervals to meet different customer needs.




Note

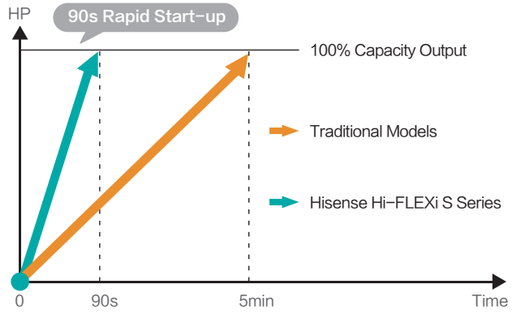
*1 : The night mute mode can last for 8hrs, 9hrs or 10hrs according to the setting.
*2 : Take the unit AVWT-96HKFSEA of S mavo+ series as an example.

### Low noise mode

Low noise mode can be set by operating the DIP in the PCB. There are multiple levels by set different frequencies of compressor and fan motor speed. What's more, the low noise mode can be achieved by external input signal. The noise can be reduced by up to 14dB(A).

# 90s Rapid Heating Start-up

To keep you comfortable and cozy as fast as possible, Hisense VRF starts supplying warm air so rapidly with only just 90s reaching a 100% capacity output. Besides, even in extreme whether condition like −15℃ outdoor temperature, Hisense VRF performance is tested with persisting capability to supply 40℃ or higher warm air within 7 minutes.




*Taking 66HP as an example




# VIP Mode

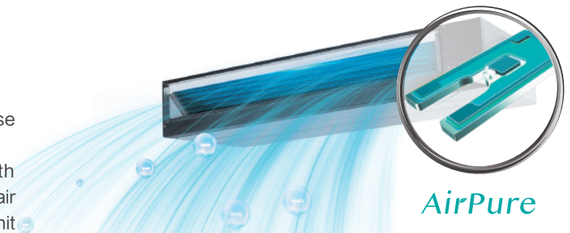
Hisense VRF offers VIP mode to give priority to the specific room, keeping them comfortable and satisfied as fast as possible and 5 indoor units can be set as VIP mode at the same time. Such function is exclusively practical for hotel application, where AC unit in the presidential suite is often set to VIP mode.



# Clean Fresh Air

## AirPure

Hisense VRF indoor unit equipped with AirPure kit can release lots of negative ions, about 20 million pcs/cc.
These negative ions are carried throughout the room with air-conditioned air flow whereby obtaining air conditioning and air purification simultaneously. With the AirPure kit, the indoor unit has got the Tick Mark certification which is an authentication for air-conditioning sterilization products.







*Take AVE-09HCFRL as the test sample.

Scan the QR code to view the product introduction video.

Anti-Bacteria and Anti-Virus

Formaldehyde Removal

Anti-mold

Odor Removal

PM2.5 Purification

Anti-allergen

Note

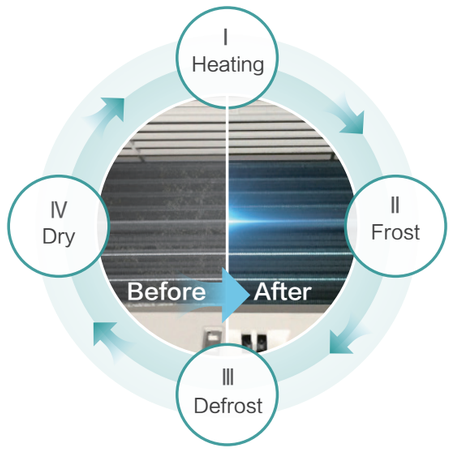
4-way Cassette, Mini 4-way Cassette, Console, Ceiling Ducted can be equipped with the AirPure kit (optional).

## Self-cleaning function

Featured with self-cleaning technology, the evaporator can be self-cleaned automatically, preventing the dust and potentially harmful substances from accumulating on the surface of the heat exchanger. Thus the air blown from the air conditioner is clean and healthy.

Note

The self-cleaning function is available in the wall mounted unit and DC high ESP ceiling ducted unit(AVD-07~AVD-54).




4 processes for deep cleaning

## Humidity sensor (optional)

To keep up with the indoor quality requirements, Hisense VRF offers auto dehumidification function and it can be achieved by choosing a humidity sensor, and the control range is from 35% to 90%.



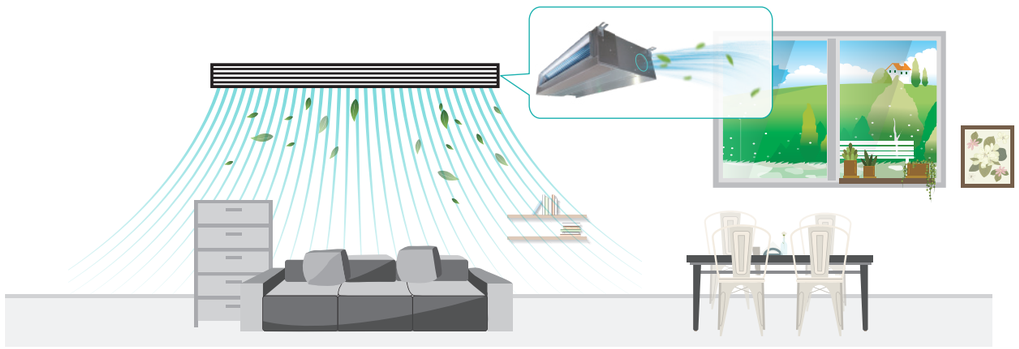







## Fresh air intake

New Hisense VRF indoor units are now infused with a fresh air duct opening for 10% free fresh air introductory directly from outdoor air, creating a comfortable and health environment.



Hisense VRF

# FLEXIBILITY

Design Flexibility

Installation Convenience

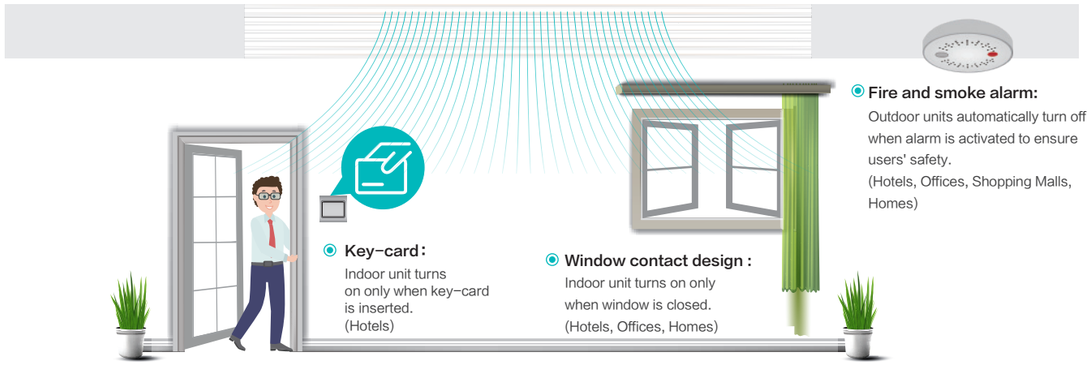
Service & Maintenance Simplicity

AIR
CONDITIONING
SOLUTION

# Design Flexibility

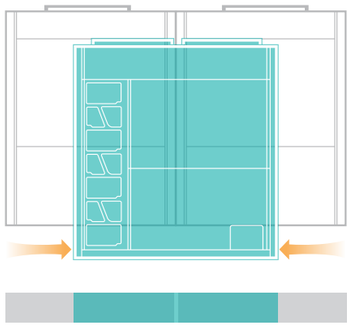
## Interlocking solution using dry contact

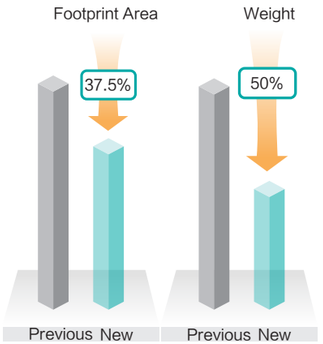
3rd party thermostats can be used to control the air conditioner in a room by using the dry contact interface. Indoor units can be interlocked with various types of input signal such as key-card, window contact signal, smoke alarm signal and so on.




## Larger capacity, minimizing footprint area

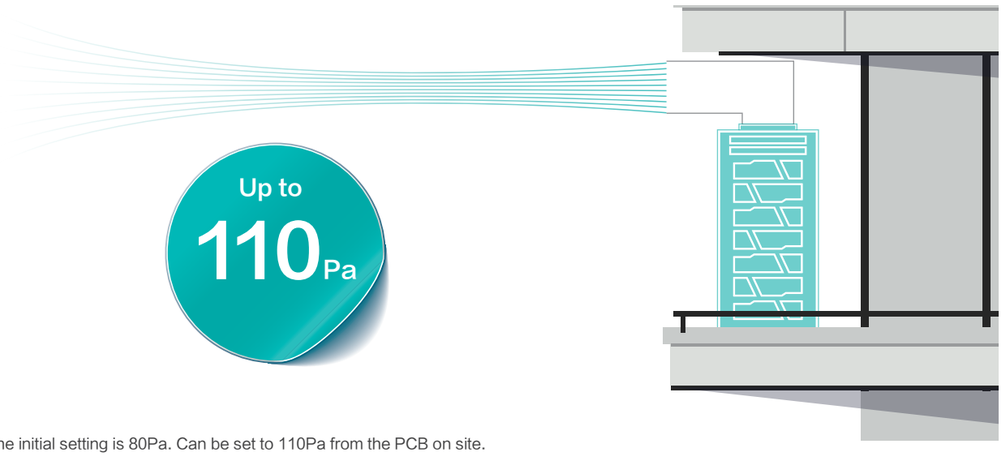
Hisense VRF outdoor units now possess larger capacity per single module unit. Reducing the installation floor space significantly also eliminates the necessity of modules for bigger capacity. Despite the beneficial space saving properties, same goes to the unit's weight per capacity too. Hence, offering more design and installation flexibility even in limited spaces.






## Adaptive fan static pressure technology

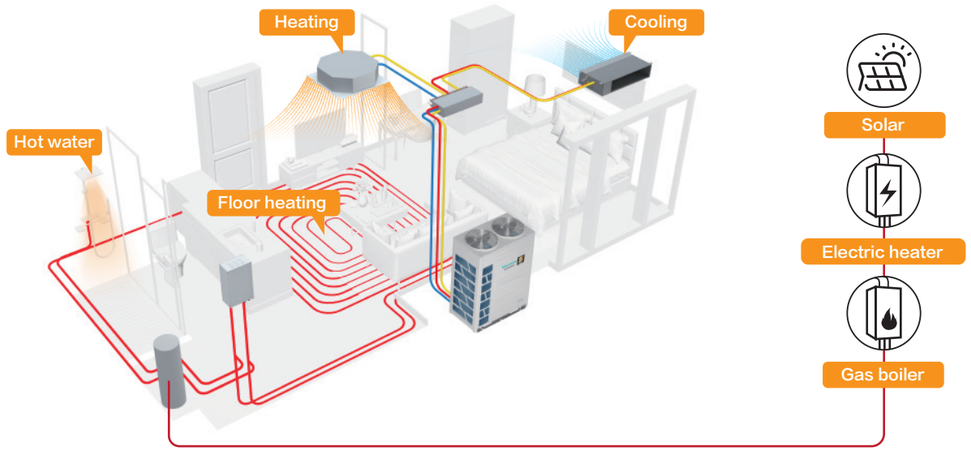
External static pressure is essential to determine the air discharge and duct connection distance. Hisense VRF's outdoor unit external static pressure is reachable upto 110Pa compare to the conventional 80Pa. Allowing longer ducting connection for better air discharge when are installed in the equipment platform that is not easy to exhaust.




Note The initial setting is 80Pa. Can be set to 110Pa from the PCB on site.

## All in one renewable energy solution

Hisense VRF heat recovery series offers an ultimate solution to satisfy heating and cooling, domestic hot water supply, floor/wall/ceiling cooling and heating simultaneously. The heat recovery system is also compatible with any auxiliary heaters like solar, electric heater and gas boiler to supply additional energy to the system in unfavorable conditions.



# Installation Convenience

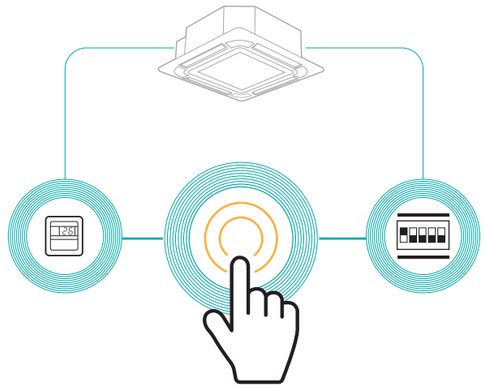
## Compact and light-weight

With larger capacity per unit, Hisense VRF outdoor units are more compact in size with the largest capacity of 28HP single module, leading capacity of a single module in the market. Compact yet reduced overall weight makes transportation much convenient and even fit into elevators.



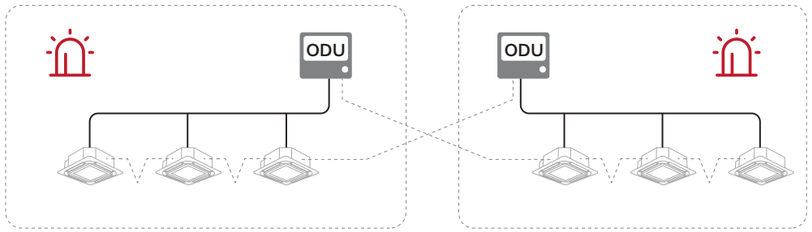

## One-touch test run

Test run is one of the essential part in testing and commissioning to make sure the HVAC system in a building works steadily and safely before hand over or soft opening. To make test run as simple as possible, Hisense VRF systems are capable to conduct test runs with just a button away wherever installers are, both indoors and outdoors.



## Mistake impossible communication connection

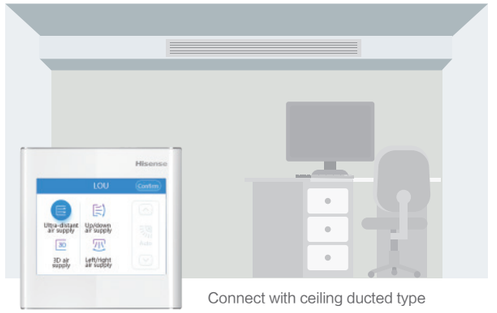
Communication line connections between outdoor unit to indoor units might be confusing when comes to long cables from the outdoors to the indoors and vise versa. It is often incorrectly connected and caused various errors affecting the end user's comfort levels. Despite of Hisense VRF's simple wiring connection ports, the outdoor unit itself could also check on the connections and display warnings when the connections are improper.




Indoor units from different systems are connected to the incorrect outdoor unit, alarm codes flashes out warning installers to make proper corrections.

## Intelligent matching IDUs

Match all kinds of hisense indoor units. If each air deflector can be controlled independently, the key will light. On the contrary, the key will dim and you can not click.



Connect with ceiling ducted type



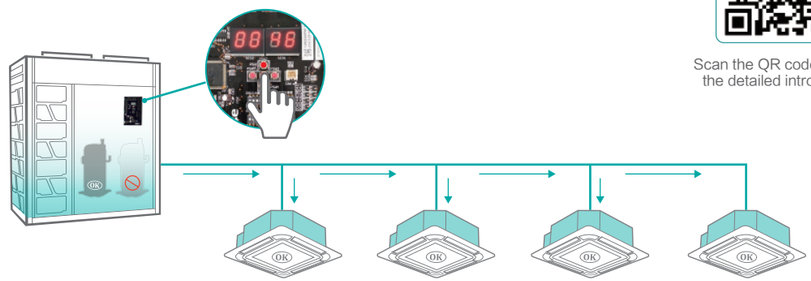
Connect with 4-way cassette type

## One-touch refrigerant recycle

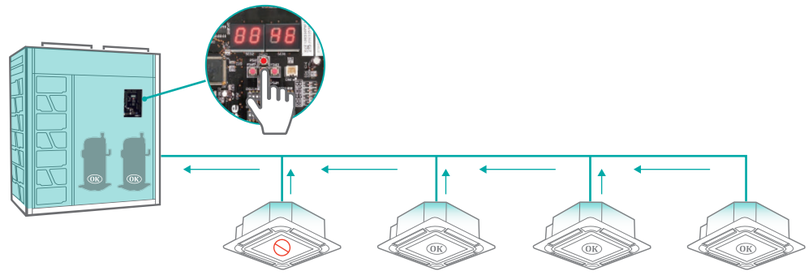
Hisense VRF has one-touch refrigerant recycle function. Just with a press of the button on the PCB, the refrigerant can be recycled directly, it is very helpful and convenient when the indoor units or the compressor are under repair.

Scan the QR code to view the detailed introduction

Replacing Compressor



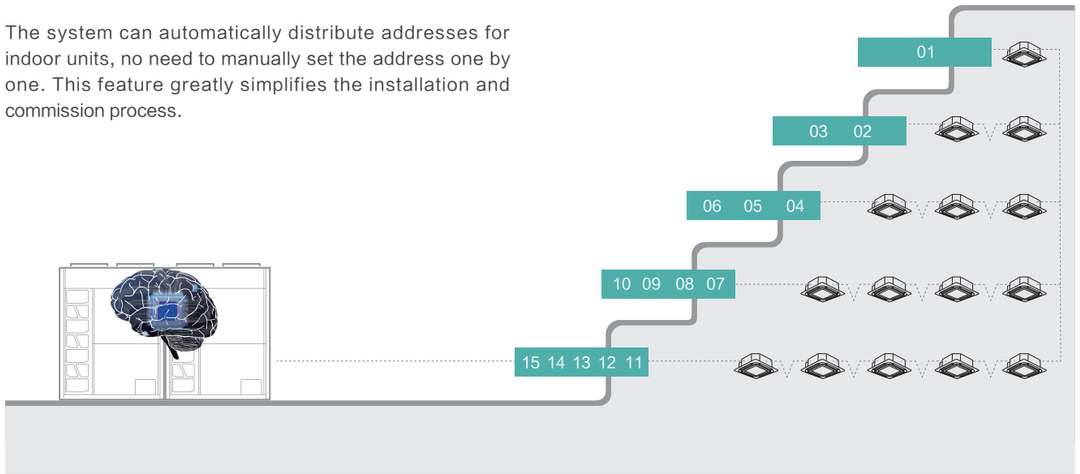
Replacing Indoor Unit



# Service & Maintenance Simplicity

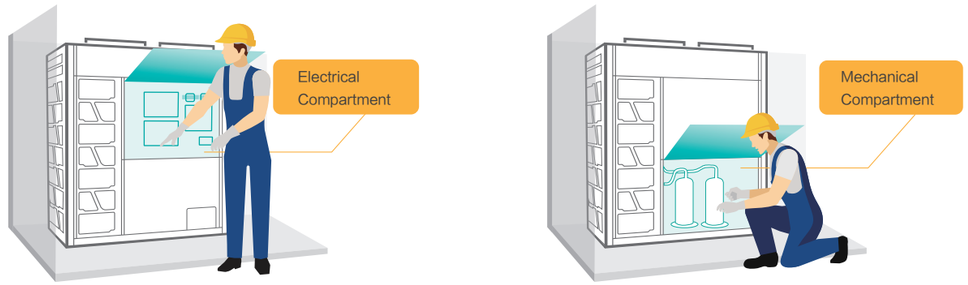
## Automatic address distribution

The system can automatically distribute addresses for indoor units, no need to manually set the address one by one. This feature greatly simplifies the installation and commission process.




## Separated mechanical & electrical compartment

The outdoor unit's mechanical and electrical segments is now designed and optimized repositioned separately for a more organized maintenance. The electrical and electronics are placed on top of the compressors and accumulator to meet the practical law of center of gravity, hence minimizing toppling accidents and unnecessary vibration produced during operation. Besides, it also maximizes the heat dissipation of eletrical box to keep the electrical in a stable temperature by maximizing airflow passed by.




## Safe and convenient system management

The new outdoor units are equipped with a service window on top of the electrical box protection panel for easy access to parameters checking and maintenance manipulation safely without exposing to high voltage segments of the electric box. With the new service windows, press switch buttons, DIP switches and the 7 segment LED operation are made safer and more convenient to operate.



## Accurate intelligent system diagnosis

Exclusive Hi-Checker is a super intelligent service tool for system diagnosis, which can provides easy access to service parameters. Detail operation status and recent error history can be checked and analyzed by using Hi-Checker.

