C-V8MNEU202302

Midea

V8M MINI VRF
8-18kW Catalogue

Midea Building Technologies Division

Midea Group

Quality Assurance
ISO 9001

Environmental Management
ISO 14001

Occupational Health and Safety Management
ISO 45001

R32 Eco Friendly
Lower GWP 675
Zero impact on ozone layer
Less carb on emission

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Midea MBT

Midea MBT (Midea Building Technologies) is a key division of the Midea Group, a leading provider of comprehensive solutions of intelligent building, involving energy sources, elevators, control systems, and heating, ventilation & air conditioning. Midea MBT has continued with the tradition of innovation upon which it was founded and emerged as a global leader in the HVAC and building management industry. A strong drive for advancement has resulted in an extensive R&D department that has placed Midea MBT at the forefront of a competitive edge. Through these independent projects and joint-cooperation with other global enterprises, Midea has supplied thousands of innovative solutions to customers worldwide.
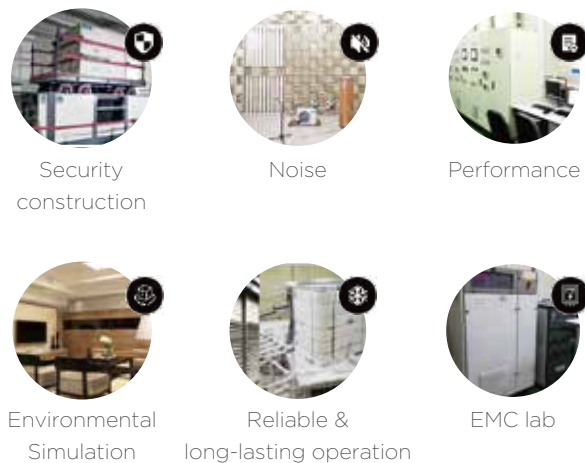
■ **3** businesses constitute the significant components of Midea intelligent building solutions

■ **4** production bases can achieve fast delivery

Italy
Feltre

China
Guangdong
Hefei
Chongqing

■ Over **100** testing labs cover all different real application sceneries

Security construction

Noise

Performance

Environmental Simulation

Reliable & long-lasting operation

EMC lab

■ **All** products can be visualized and digitalized throughout entire process

SQA
Supplier quality

IQC
Receiving inspection of factory quality

CSI
Market quality

Digital Visual

QSM

TRS

PQC
Process inspection of factory quality

FQC
Finished product inspection of factory quality

Midea VRF History

2022

V8

2017-2020

V6

2014

V5X

2008-2014

V4

2005

V3

1999

- Cooperated with Toshiba in inverter technologies

- Launched **V3** Series VRF AC inverter + fixed compressor
- Maximum capacity of single unit is 16HP

- Launched **V4, D4** Series VRF
- Complete product line with heat pump series, heat recovery series and water - cooled series.
- Maximum capacity of single unit is 16HP

- Launched **V5X** Series VRF
- Full DC inverter technology
- Maximum capacity of single unit is 22HP

- Launched heat pump **V6** Series VRF, cooling only **VC Pro** Series VRF and heat recovery **V6R** Series VRF
- Full DC inverter technology
- Maximum capacity of single unit is 32HP

- Launching the 8th generation **V8** Series, Including R410A and R32 V8 Mini VRF Full DC inverter
- technology Maximum capacity of
- single unit is 32HP Capacity of V8 Mini is
- from 8kW to 18kW

Friendly to Environment

R32

Advantages of R32 Refrigerant

R32 Eco friendly

- Lower GWP 675
- Zero impact on ozone layer
- Less carbon emission

Better performance

- Higher heat transfer coefficient
- Less pressure loss
- No temperature glide

SCost aving

- Easier to get
- Less charged volume

2088

675

-68%

Potential global warming impact

R32

CO_2 NEUTRAL
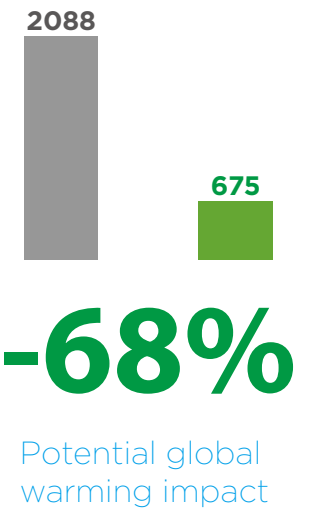
Benefits of Midea VRF

For End-users

Healthy Operation

Cost Saving Operation

Comfortable Environment

For Consultants

Diversified Solutions

Professional Tool and Support

Design Flexibility

For Building Owners

Energy Saving Management

Reliable Operation

Backup Solution

For Construction Companies

Green Solutions

Space Saving Design

Intelligent Management

Application Solutions

Villas

Enjoy high quality of life

The fashionable and simple appearance perfectly matches all kinds of villa styles, and the concealed indoor unit provides you with high-quality air while perfectly integrating into all kinds of interior decoration.

Residential Apartments

One for every home

The compact size and high efficiency make Midea VRF suitable for all residential homes.

Offices

Enjoy comfort while working

Midea VRF provides solution for small to medium-sized office buildings and its smart control solutions makes the management of VRF simple and easy whereas the wide variety of indoor units are suitable for all designs.

Convenience Stores / Restaurants

Meeting all expectations

The innovative design and a variety of indoor unit choices makes Midea Mini VRF suitable for different applications.
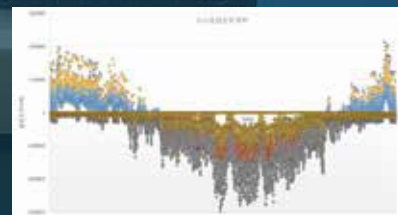
ALL DIGITALIZED SERVICE
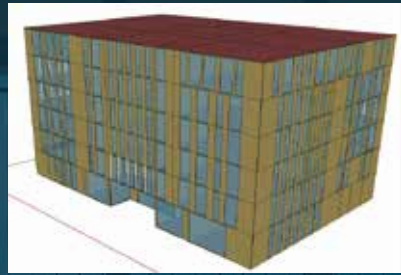
Design Service

Energy Plus
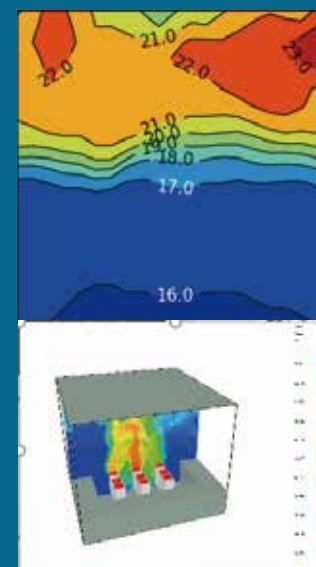Building load
calculation

BIM
building
information
import

MSSP Online
VRF system design

Installation service

Automatic com-
missioning report

MCFD
Energy consumption
and airflow simulation
optimization

Management service

The probability of
Filth blockage 80%

Degradation of energy
efficiency 25%

Continuous energy
saving service

After-sales service

Intelligent mainte-
nance tool

Cloud-based big
data analytics

2 +10 +N Spare Parts
Layout can ensure
the timely supply of
global after-sales
spare parts.

Technical Support Platform (TSP)

TSP is a platform for customers to provide professional technical support. Through TSP, you can inquire product information, documentation, spare parts and trouble-shooting, initiate technical questions and quality complaint process, and also support self-service spare parts order.

Website address: https://tsp.midea.com/

My order

Inquire spare parts from exploded view and place spare parts order directly in TSP.

Document inquiry and download

View or download product technical documentation online, such as catalogs, images, training PPTs, etc.

Technical inquiry & FAQ

Initiate technical questions online, and our technicians answer them online in time. Find a quick solution in the FAQ.

Troubleshooting

Query the error code and solution by SN, model name, error code or product type.

Complain

Initiate the product quality complaint process online, and our after-sales engineers handle related complaints in time.

Mobile Intelligence Service App (MISA)

MISA is the mobile terminal of TSP, with the same functions as TSP. The mobile service makes technical support more timely and convenient.

https://link.midea.com

FAQ **Complain**

Technical Enquiry

Trouble shooting

Search product manuals

Spare Parts list

Download

Scan above to download the mobile app
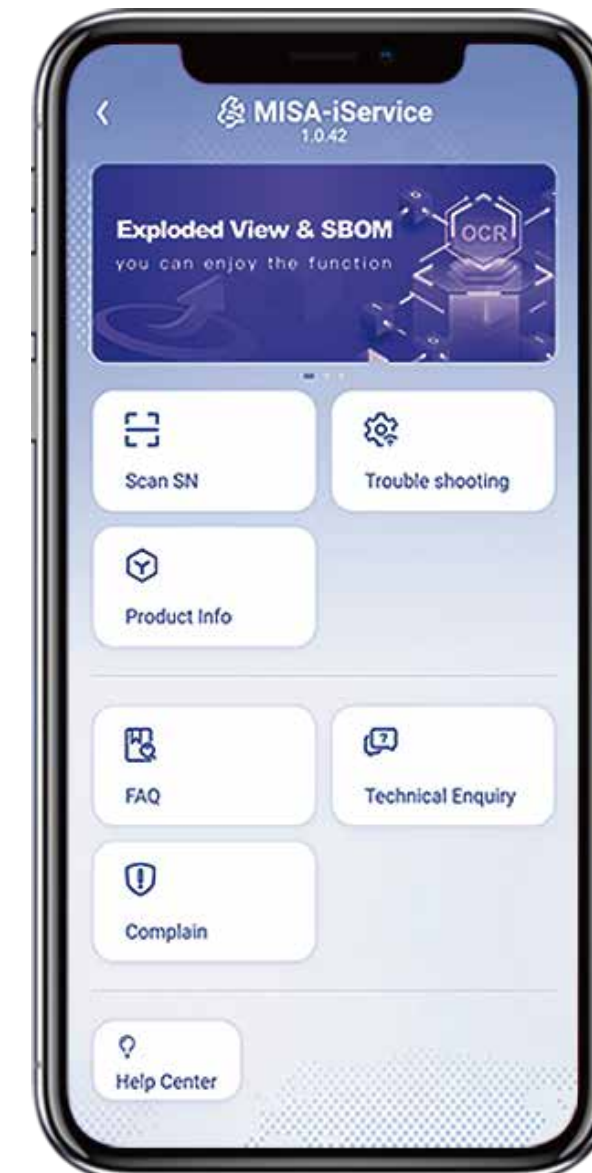
Feedback

Thank you very much for your attention and advice

Midea Global Spare Parts Center

The global spare parts center provides high quality and fast spare parts supply. Midea online system (https://tsp.midea.com) can query and purchase spare parts with one click, further shortening the supply time of spare parts.

The "2 (HQ Spare parts center) + 10 (Regional Spare parts center) + N (Country Spare parts inventory)" Spare Parts Layout can ensure the timely supply of global after-sales spare parts.

Hungary

Italy

Georgia

Turkey

China

Egypt

UAE

Thailand

Vietnam

Malaysia

Mexico

Brazil

⦿ HQ Spare parts center
⦿ Regional Spare parts center

The V8 Mini Series

VRF uses a variety of algorithms and self-learning technology to monitor the operation of the equipment through operating parameters and timely maintenance, so that the equipment always runs in optimal condition throughout its life cycle.

V8 Mini VRF Lineup

Outdoor Unit

8-18kW	12-18kW
220-240V~ 50Hz	380-415V 3N~ 50Hz

Indoor Unit

One-way Cassette	Two-way Cassette	Compact Four-way Cassette

Four-way Cassette	Arc Duct	Medium Static Pressure Duct

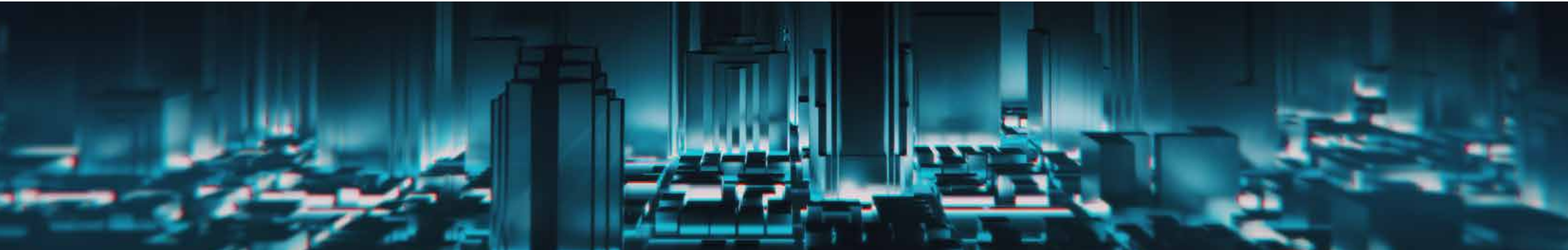| High Static Pressure Duct	Wall Mounted	Ceiling & Floor
		Note: It should be ceiling installation to meet regulatory requirements.

Fresh Air Processing Unit

Note: R32 V8 Mini can only available with V8 indoor units. The indoor unit must be installed at a height of 1.8m or more.

Outdoor Unit Functions

Functions		V8 Mini
●: equipped as standard; O: customization option		
Key Technologies	HyperLink — Midea original communication bus chip greatly simplifies installation and saves installation cost	●
	M-Holmes — Reduces installation space constraints and increases the safety of the R32 V8 Mini	●
	SuperSense — 13 sensors achieves the state of each part of the refrigerant pipeline can be known in the whole process	●
	Meta 2.0 — Triple variable control to maximize the comfort and energy efficiency	●
	Zen air 2.0 — Provides comfort and healthy air supply	●
	Doctor M 2.0 — Intelligent diagnostic technology makes maintenance easier and more efficient	●
High Efficiency	Full DC inverter technology — All electrical components of outdoor and indoor units are DC power supply, improving electrical efficiency and achieving energy saving	●
	Advanced subcooling technology — The refrigerant system can achieve 15°C refrigerant subcooling, which can further improve the refrigerant heat transfer efficiency while reducing the sound	●
	Low standby power consumption — The standby power consumption is as low as 3.5W	●
	60-step energy management — The system can be set 40% to 100% capacity output in 1% increments	●
	Sensor backup — If one sensor fails, the virtual sensor provide backup so that the system can continue operating	●

Functions		V8 Mini
●: equipped as standard; O: customization option		
High Reliability	Precise oil control — Ensures all outdoor compressor oil is at a safe level, eliminating any compressor oil shortage problems.	●
	Heavy anti-corrosion protection — Can be customized with heavy anti-corrosion treatment for surface protection against corrosive air, acid rain and saline air (for installations in coastal regions) to extend overall useful life	O
	UL anti-corrosion certificate — It has been certified by UL that our VRF outdoor unit can withstand 27 years of simulated severe corrosion under a salt contaminated traffic environment	O
	Refrigerant cooling PCB — Guarantees stable and safe operation of the control system	●
	Chassis electrical heater — Prevents condensation on the chassis from freezing in winter	O
	Alarm output — In case of system malfunction, remote output error information, remind maintenance personnel timely maintenance	●
	Fire alarm input — In case of fire, receive fire information in time and stop the system immediately to avoid serious problems	●
	Silent mode — 5-step silent mode selections provide more freedom and convenience to match the customer needs	●
	Intelligent defrosting technology — Calculates the time required for defrosting according to the actual system status, eliminating heat losses from unnecessary defrosting	●
	Auto cooling-heating changeover — Automatically selects cooling or heating mode to achieve the set temperature (available in changeover priority mode)	●

Outdoor Unit Functions

Functions			V8 Mini
●: equipped as standard; O: customization option			
Enhanced Comfort	Additional ambient temperature sensor	The additional external ambient temperature sensor can detect the true outdoor ambient temperature, correctly judge whether the system is running in cooling or heating in auto priority mode, ensuring indoor comfort	O
	0.1 ℃ control precision	Control precision of the sensor can reach 0.1℃, ensuring less room temperature fluctuation	●
	Multiple priority modes	10 priority modes meet the requirements of all scenarios	●
Wide Application Range	Wide capacity range	Meets the requirements of some residential and light business scenarios	8-18kW
	Wide range of indoor units	Provides a variety of types of VRF indoor units to meet different application scenarios	●
	Wide operation range	Operates stably under extreme conditions	-15~52℃ (C) -20~30℃ (H)
	Long piping capability	Benefits for the system design, installation flexibility, as well as the less installation cost	●
	Auto addressing	Distributes addresses to indoor units automatically, simplifying the installation	●
	Automatic refrigerant recycling	Refrigerant can recycle to ODUs or IDUs, making the maintenance easier and more efficient	●
	Bluetooth module	It can be used for fault information storage, operation parameter enquiry, system parameter setting, quick after-sales PCB replacement, indoor and outdoor units programme upgrade, etc., simplifying installation and maintenance.	O
	Digit display	4 digit 7-segment display can be intuitive for parameter setting, parameter check and error check	●

Functions			V8 Mini
●: equipped as standard; O: customization option			
Easy Installation And Service	High external static pressure	Up to 35Pa ESP allows easy handling in a variety of installation environments	●
	Arbitrary topology of communication wire	Supports any communication topology, greatly simplifies installation and reduces installation cost	●
	2-core non-polarity communication wiring between the indoor and outdoor units	Simplifies installation and reduces wiring failures	●
	Long communication wiring	Communication wiring up to 2000m makes installation more flexible	●
	Wide combination ratio	Combination ration can be extended to 50%-160% under certain conditions which can meet different project requirements(R32 V8 Mini can only available with V8 indoor units)	●
	Supports manual and automatic defrosting	Improves maintenance efficiency	●
	Supports manual and automatic oil return	Improves maintenance efficiency	●
	Easy software program upgrade*	The software program can be upgraded via on-site USB and burning, or remotely via the web	●
	Flexible controller connection	Central controller and BMS gateway can connect to ODU at the same time, central controller can connect to ODU or IDU	●
	Easy system commissioning and checking*	System commissioning and checking can easily be done on-site or remotely via the web	●
	Intelligent maintenance tool	Intelligent bluetooth after-sales kit can simplify maintenance and improve maintenance efficiency	O

Note:
*: The web function needs to be realized through the data cloud gateway, and the data cloud gateway needs to be purchased separately.

INNOVATIVE
TECHNOLOGIES

HyperLink New & Unique

SuperSense New & Unique

M-Holmes New & Unique

ETA 2.0

ENair 2.0

DOCTOR m. 2.0

Midea

HyperLink

Midea original communication bus chip greatly simplifies installation and saves installation cost.
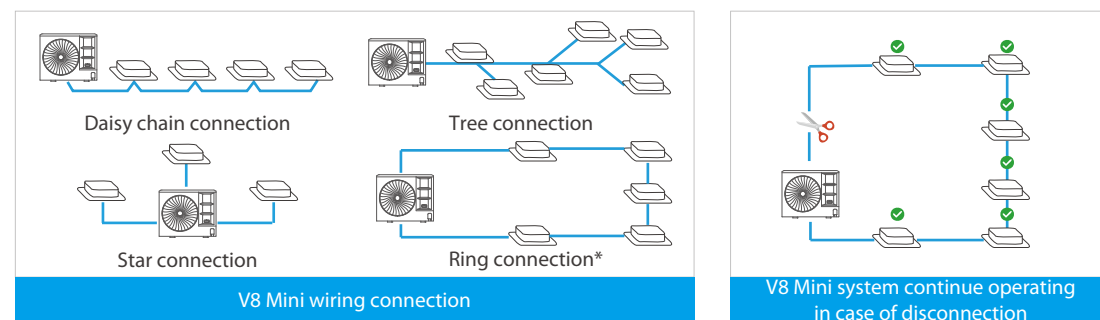

Benefits

Flexible installation

Low installation cost

High reliability

Stable operation

HyperLink communication technology supports any wiring pattern rather than just daisy chain connection, reducing the installation cost and the possibility of incorrect connection. It has stronger anti-interference ability, achieving communication distance up to 2000m.

Arbitrary Topology Communication

New & Unique

In addition to the traditional daisy chain connection, the communication wire supports tree connection, star connection, ring connection and so on. The wring is flexible, which greatly reduces the installation cost and has no possibility of wrong connection on site.
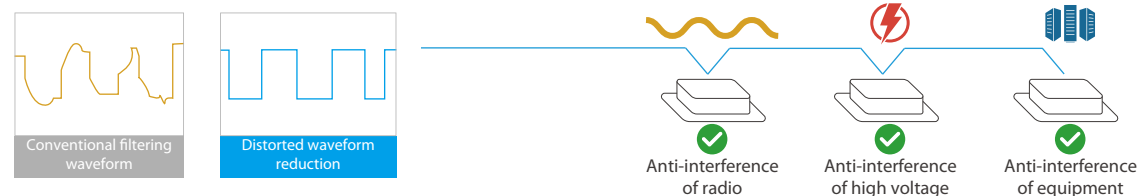

Daisy chain connection

Tree connection

Star connection

Ring connection*

V8 Mini wiring connection

V8 Mini system continue operating in case of disconnection

*In ring connection, the communication wire must be connected polarized (M1 port to M1 port and M2 port to M2 port).

Traditional daisy chain connection
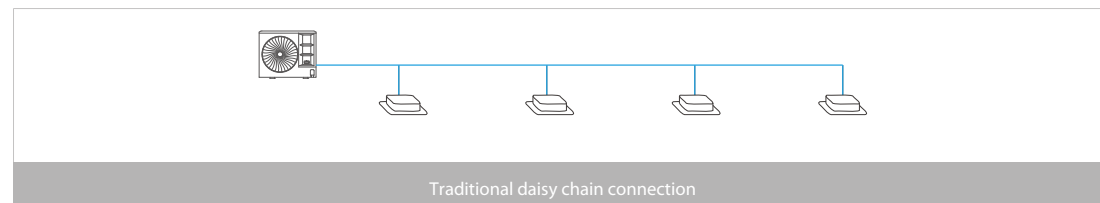
*In ring connection, the communication wire must be connected polarized (M1 port to M1 port and M2 port to M2 port).

Super Anti-interference Capability

Special waveform restoration technology enhances anti-interference performance for more stable communication.

Conventional filtering waveform

Distorted waveform reduction

Anti-interference of radio

Anti-interference of high voltage

Anti-interference of equipment

M-Holmes

M-Holmes technology reduces installation space constraints and increases the safety of the R32 V8 Mini.

HIGHLY PRECISE R32 LEAKAGE CHECKING

TIMELY ALARM R32 ALARM DEVICE

HIGHLY SENSITIVE R32 SHUT-OFF

Benefits

Safety

Timely reminders

Refrigerant recovery

With the optional M-Holmes technology (refrigerant shut-off device, alarm device and refrigerant leak sensor), timely detection, alarm and alert of refrigerant leaks can be achieved, making the entire operating system safer. It is also possible to reduce room size restrictions and adapt to more installation scenarios.

Refrigerant Shut-off Device

The shut-off device is installed on the outdoor unit side, which can automatically recover the refrigerant to the outdoor unit after the refrigerant leakage and keep the refrigerant safely.
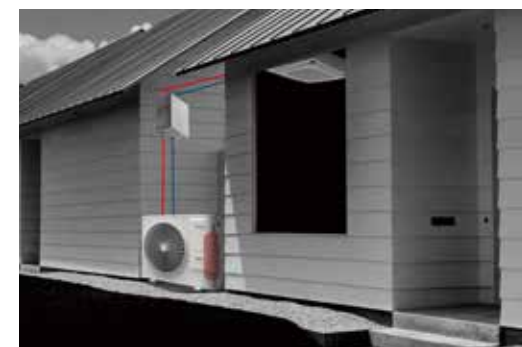
*The shut-off device must be purchased from Midea

Alarm Device

When a refrigerant leak is detected in the system, the alarm device will alert you in time.

Refrigerant Leakage Sensor

The refrigerant leak sensor is installed on the indoor unit side to detect refrigerant leaks and can automatically activate alarm measures.

*The refrigerant leak sensor must be installed at 1.5m above the floor.

Cloud-based Remote Alerts

Midea V8 Mini VR transmits system operation data to the cloud in real time through the data cloud gateway, and alerts users in time by email if there is refrigerant leakage, minimizing hidden dangers.

▨ SuperSense

The status of the refrigerant is known anywhere throughout the process, ensuring high **RELIABILITY** and **COMFORT**.


Benefits

High reliability

Stable operation

Enhanced comfort

Up to 13 sensors are distributed throughout the refrigerant system, and the status of the refrigerant is known anywhere throughout the process, ensuring stable operation. At the same time, combined with the digital twin technology of the refrigerant system, a virtual sensor can be created in the event of a physical sensor failure, so that the system does not shut down in the event of a sensor failure, ensuring comfort.

Complete Sensors

The V8 Mini VRF has up to 13 condition sensors with built-in data models for compressors, heat exchangers, throttling components and more. By analyzing sensor data in real time, it can sense the status of the refrigerant anywhere in the system.
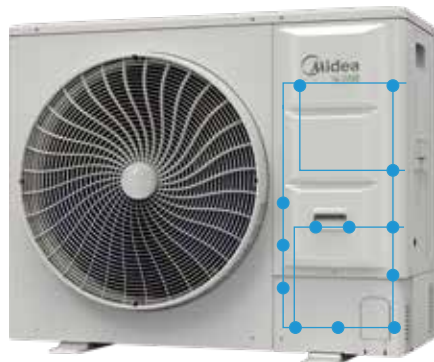
Virtual Sensor Backup

In the event of a sensor failure, other sensors can automatically simulate a virtual backup sensor, so that the VRF system can continue to operate without stopping.

New & Unique

Failure of a physical sensor | Real-time generation of virtual sensor

▨ Midea ETA (META) 2.0

META is the abbreviation of Midea Evaporating Temperature Alteration
Further upgraded META technology to maximize **ENERGY SAVING**.

Benefits

Energy saving

Enhanced comfort

Fast cooling/heating

Built-in professional operation and maintenance algorithm, so that the annual operation energy efficiency of each set of systems increased by more than 28%.

Variable Refrigerant Flow

STEP 1: Architectural space feature recognition

The indoor unit automatically recognizes the size of the building space and the effectiveness of the insulation according to the rate of temperature drop.


Refrigerant flow coordination

Automatic calculation of the building load and the required refrigerant quantity based on the sensor parameters.

Variable Refrigerant Temperature

STEP 2: System refrigerant temperature determination

The system automatically matches the evaporating temperature (in cooling) or condensing temperature (in heating) to the room load to maximize comfort and energy efficiency.
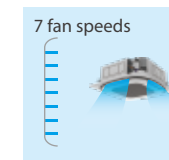

Load | Refrigerant temperature
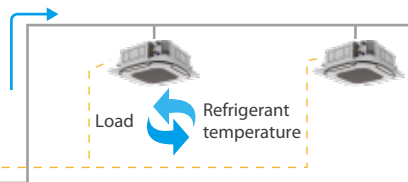
Automatic matching of the corresponding refrigerant temperature to the load.
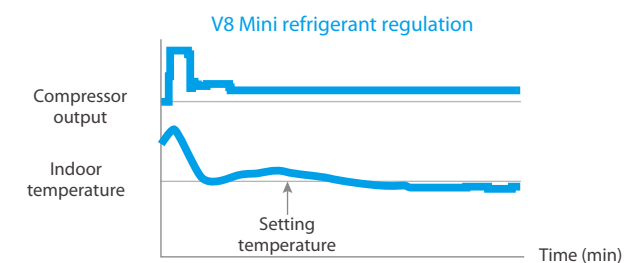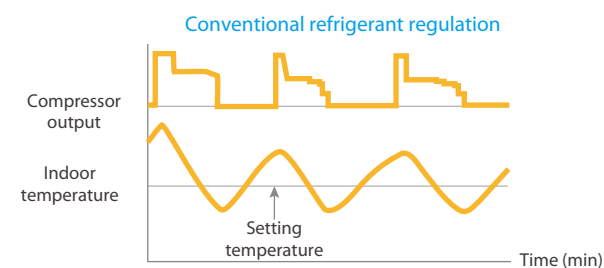
Variable Indoor Airflow

STEP 3: Adaptive indoor airflow and refrigerant flow

Each indoor unit automatically adjusts the corresponding indoor airflow and refrigerant flow according to the evaporating/condensing temperature, enabling precise temperature control.

7 fan speeds

Automatic matching of the corresponding indoor airflow to the load and refrigerant temperature.

Conventional refrigerant regulation

Compressor output

Indoor temperature

Setting temperature

Time (min)

V8 Mini refrigerant regulation

Compressor output

Indoor temperature

Setting temperature

Time (min)

▨ Zen Air 2.0

Further upgraded ZEN AIR technology to maximize **COMFORT**.

Sleep mode

Soft wind mode

Benefits

🔇
Quiet

❄️
Enhanced comfort

🚫
Healthy

0.5℃ temperature adjustment, 7 fan speeds selection, sleep mode, silent mode, windless technology, high efficiency filter, a variety of sterilization device and other advanced technologies used in V8 Mini Series VRF are dedicated to creating a quiet, comfortable and healthy indoor environment.
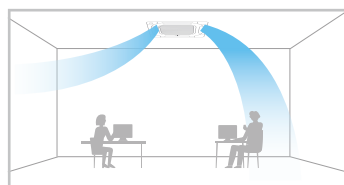
360° Airflow

New design, round air flow path ensures uniform air flow and temperature distribution.

7 Fan Speeds

7 indoor fan speed options to meet the needs of different indoor conditions.
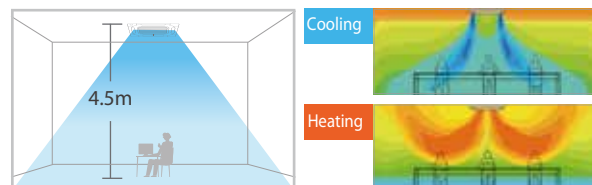
7 fan speeds
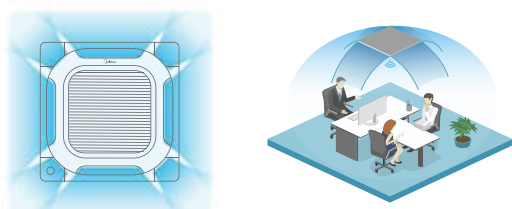
Individual Louver Control

The Individual louver control can control the motors separately, making it possible to control all four louvers independently.

Sleep Mode

The smart sleep mode provides a comfortable sleep period and a refreshing wake up time.

Automatically setting temp. 27℃

30℃

10℃

Automatically setting temp. 24℃

*Temperature on left is for reference.
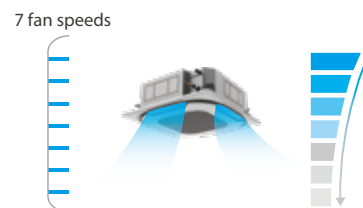
Long Distance Air Delivery*

The Four-way Cassette has an additional 50Pa static pressure for long airflow delivery and is capable of being used in spaces up to 4.5m in floor height.

4.5m

Cooling

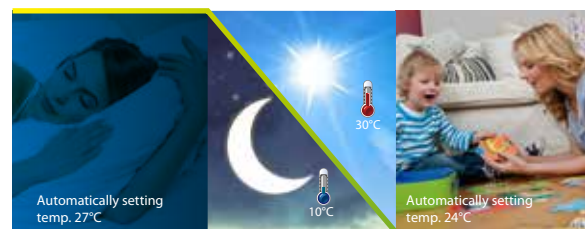Heating

*This function is available as a customization option.

Heat Exchanger Self-cleaning

Wash the dirt on the heat exchanger through freezing frost, and then high temperature sterilization.

Frosting
Frost makes the surface of heat exchanger dirt stripping

Defrosting
Water flow flushes dirt from heat exchanger

Drying
55℃ high temperature drying water, effective sterilization

▨ Doctor M 2.0

Further upgraded DOCTOR M technology to maximize **EASY SERVICE**.

Benefits

🔍
Easy maintenance

🔧
Fast maintenance

💲
Low maintenance cost

Based on a cloud-based platform of big data and artificial intelligence, the V8 Mini Series VRF can monitor the operation status of each unit in real time, predict system faults in advance and provide data analysis for system maintenance. Intelligent Bluetooth module and special Bluetooth after-sales kit can further simplify maintenance and improve maintenance efficiency.

Intelligent Maintenance Tool

With intelligent Bluetooth module or special Bluetooth after-sales kit, the data of the outdoor unit can be directly read and written on your smart phone without the needs of connecting PC or opening cabinet.

Bluetooth after-sales kit

* Bluetooth module is available as a customization option.

Real-time Monitoring of Operating Parameters

The V8 Mini Series VRF synchronizes and stores all the unit parameters to the cloud through the data cloud gateway, including the running status, locking status, dirty blocking rate, all spot inspection parameters and so on. Users can query real-time and historical parameters on computers, tablets and mobile phones at any time.

Cloud-based Big Data Analytics

Midea V8 Mini Series VRF transmits the system operation data to the cloud in real time through the data cloud gateway, and timely reminds the system of abnormal conditions through big data analysis, helping users to proactively avoid the risk of failure that has not yet occurred and minimize hidden problems.
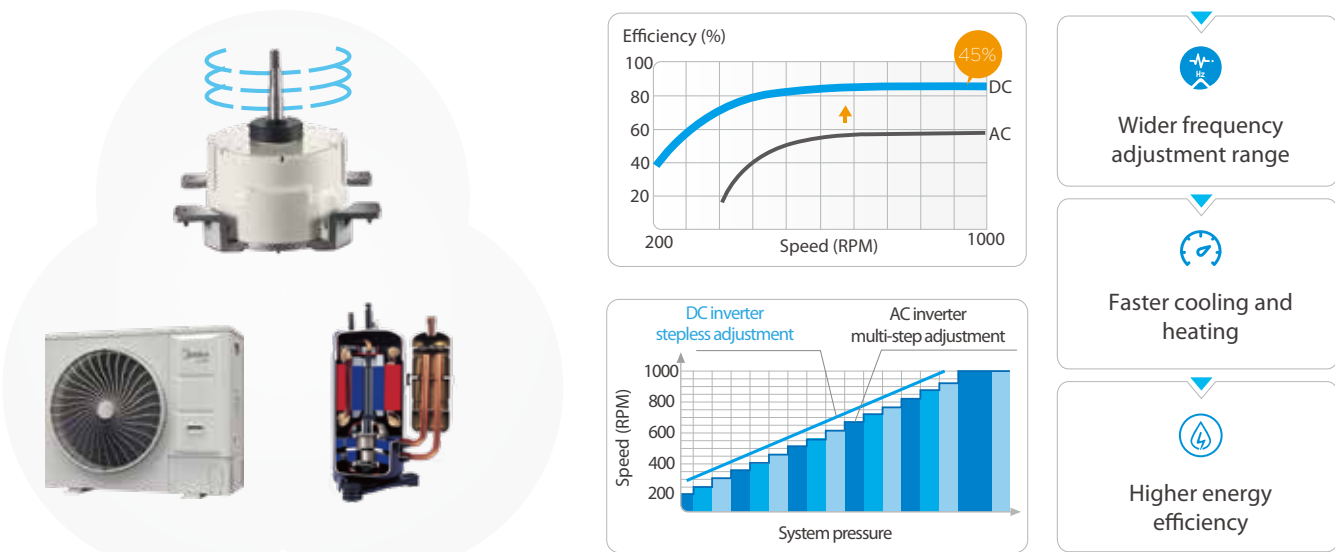
*The data cloud gateway is still under development and needs to be purchased separately.

High Efficiency

Full DC Inverter Technology

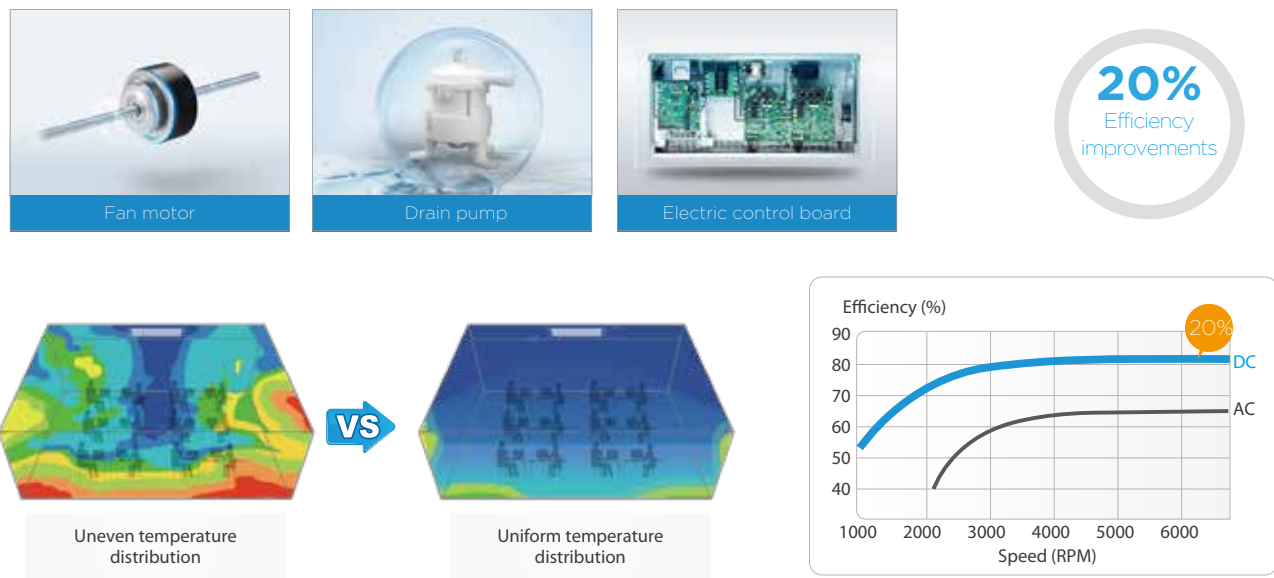### Full DC Inverter for Outdoor Components

The V8 Mini VRF uses full DC inverter compressor and fan motor to achieve high precision stepless speed adjustment according to system operation, and ensures that the system is always in optimum condition, operating more efficiently, more consistently and with less noise.

Efficiency (%)

45%

DC
AC

200 — Speed (RPM) — 1000

DC inverter stepless adjustment — AC inverter multi-step adjustment

Speed (RPM)

System pressure

Wider frequency adjustment range

Faster cooling and heating

Higher energy efficiency

### Full DC Inverter for Indoor Components

All power devices such as indoor fan motor, drain pump and electric control board are fully DC, which increases electrical efficiency by 20% and results in more accurate temperature control, a more constant indoor temperature and higher energy efficiency.

Fan motor

Drain pump

Electric control board

20% Efficiency improvements

Uneven temperature distribution

VS

Uniform temperature distribution

Efficiency (%)

20%

DC
AC

1000 2000 3000 4000 5000 6000 — Speed (RPM)

Advanced Subcooling Technology

The V8 Mini VRF uses a plate heat exchanger to further cool the refrigerant and the refrigerant system can achieve 15°C refrigerant subcooling, which can further improve the refrigerant heat transfer efficiency while reducing the sound of refrigerant flow.

EEV

2nd stage

Subcooling 10~12°C

1st stage

Subcooling 3~5°C
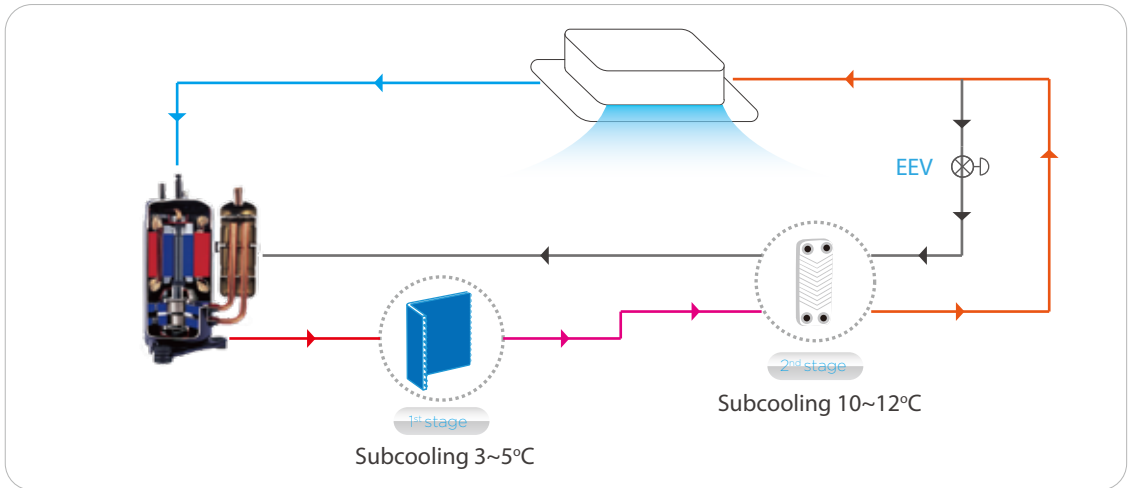
Low Standby Power Consumption

Compared to the standby power consumption of traditional VRF of about 30W, the V8 Mini VRF uses optimized control scheme to further reduce standby power consumption to as low as 3.5W.

Power consumption (W)

30W

88% reduction

3.5W

Traditional VRF

V8
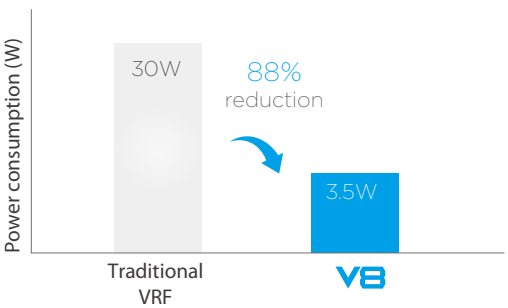
60-step Energy Management

For projects with temporary electricity supply restrictions, the outdoor unit supports 60-step energy management which can be set to output 40-100% capacity in 1% increments. It prevents tripping during electricity supply restriction conditions and remains system continue to operate.

70%
60% 80%
50% 90%
40% 100%
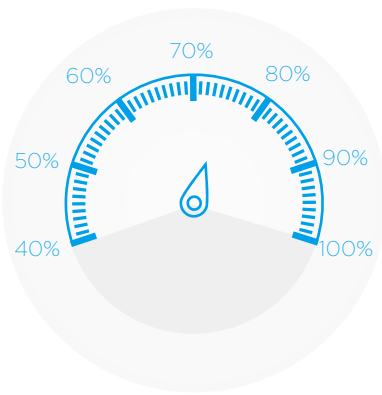
High Reliability

Sensor Backup New & Unique

Through digital algorithms, each physical sensor generates a corresponding virtual sensor that acts as a backup to each other, ensuring that the failure of one sensor does not affect the normal operation of the system.

Failure of a physical sensor

Real-time generation of virtual sensor

SuperSense

V8 Mini VRF uses up to 13 sensors for each outdoor unit and 4 sensors for each indoor unit. The operating status of the system refrigerant is clearly visible, which can realize intelligent analysis of operation parameters, intelligent error diagnosis and forecasting, and visualized energy saving.

Precise Oil Control

Three stages of oil control technology ensure all outdoor compressor oil is always kept at a safe level, eliminating any compressor oil shortage problems.
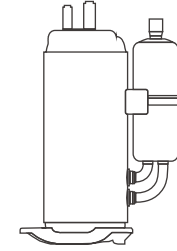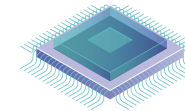
1 Compressor internal oil separation.

2 High-efficiency centrifugal oil separator (with separation efficiency of up to 99%) ensures that oil is separated from the discharge gas and returned to the compressors in a timely fashion.

3 The automatic oil return program determines the oil return through the running time and the oil discharge amount, enabling precise oil return.

Heavy Anti-corrosion Protection*

Outdoor units are given anti-corrosion treatment for non-extreme conditions as standard and can also be customized with heavy anti-corrosion treatment on main components for surface protection against corrosive air, acid rain and saline air (for installations in coastal regions) to extend overall useful life. The integrity of the anti-corrosion treatment is ensured by subjecting major components and parts to salt mist testing, moisture and heating testing and light aging testing.

Independently tested

Intertek

Exclusively tested for

Midea

✓ Super anti-corrosion protection 1500h neutral salt spray test
✓ Super anti-sulphuration corrosion protection 240h SO2 test

Based on testing of specific samples provided by the manufacturer and tested under laboratory conditions

Testing no.   CB03-TICK-C02-EE-0000036
www.intertek.com.cn/Tick-Mark

Intertek

*Heavy anti-corrosion treatment is available as a customization option.

UL Anti-Corrosion Certificate*

It has been certified by UL that our VRF outdoor unit can withstand 27 years of simulated severe corrosion under a salt contaminated traffic environment.

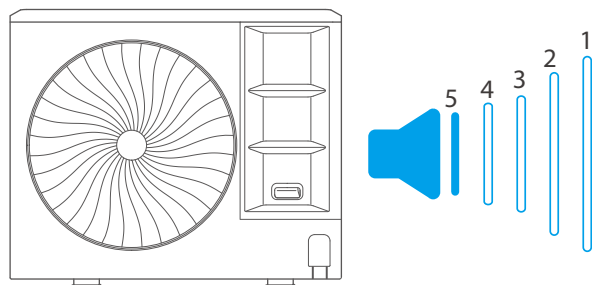*UL anti-corrosion certificate is available for heavy anti-corrosion treatment units.

Outdoor Unit can resist 27 years of simulated severe corrosion under a salt contaminated traffic environment

UL
VERIFIED
A926834

Enhanced Comfort

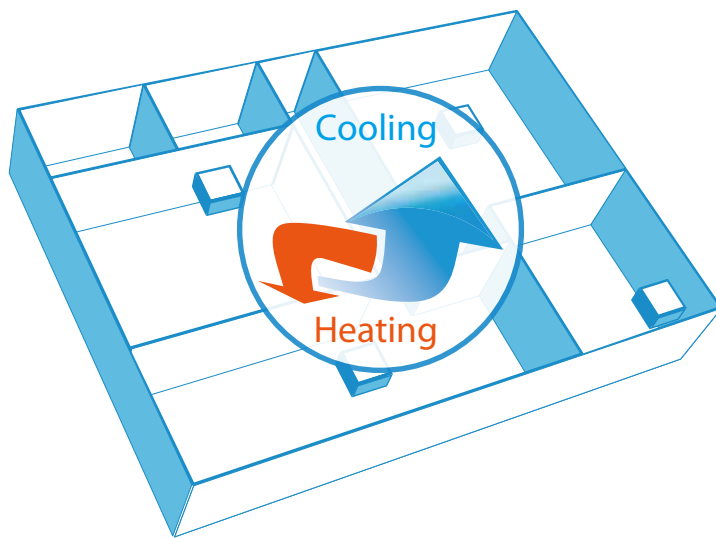## ⚡ Advanced Silent Technology

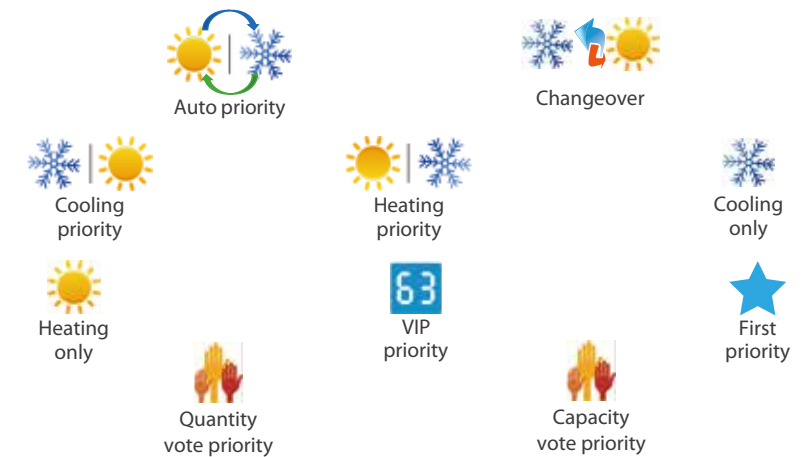5-step silent mode provide more freedom and convenience to match the customer needs.

5 4 3 2 1

5 silent options

⚡ Auto Cooling-heating Changeover

Automatically selects cooling or heating mode to achieve the set temperature.

Cooling

Heating

⚡ 10 Priority Modes

10 priority mode options provide more freedom and convenience to match the customer needs.

Auto priority

Changeover

Cooling priority

Heating priority

Cooling only

Heating only

63 VIP priority

First priority

Quantity vote priority

Capacity vote priority

⚡ Additional Ambient Temperature Sensor*

The V8 Mini VRF can be equipped with an additional external ambient temperature sensor to determine whether the system is operating in cooling or heating in auto priority mode. For some installations, the ambient temperature sensor fixed on the unit cannot detect the true ambient temperature, resulting in the system operating in an inappropriate mode and affecting indoor comfort. The external ambient temperature sensor can detect the true outdoor ambient temperature, correctly judge whether the system is running in cooling or heating, ensuring indoor comfort.

*This function is available as a customization option.

Auto priority

Additional Ambient Temperature Sensor
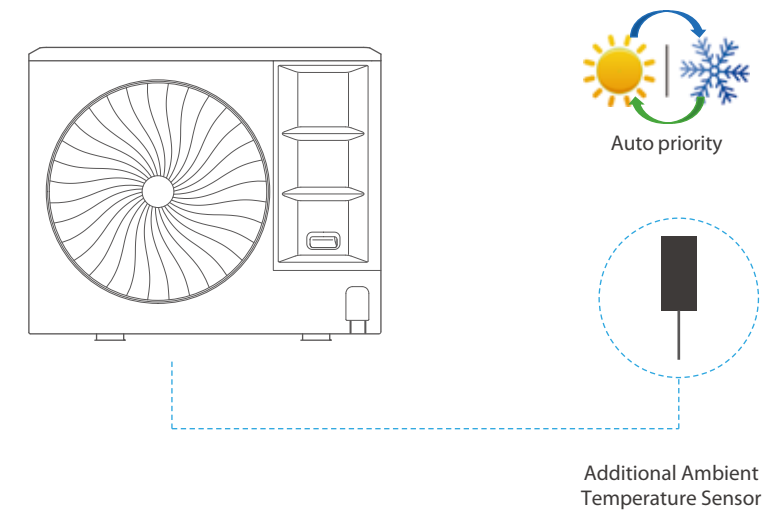
Wide Application Range

Wide Capacity Range

The capacity of V8 Mini VRF is from 8kW to 18kW with two power supply options, which are perfectly suitable for all kinds of small and medium-sized buildings.

8-18kW	12-18kW
220-240V~ 50Hz	380-415V 3N~ 50Hz

Wide Range of Indoor Units

The V8 Mini VRF offers a variety of types of indoor units to meet different scenarios of applications such as offices, villas, restaurants, etc.

Wide Operation Range

Thanks to the refrigerant cooling technology, the electronic components are always working in a safe temperature range. The system can operate stably at extreme temperature range from -20℃ to 52℃.

-15°C　52°C　Cooling

-20°C　30°C　Heating
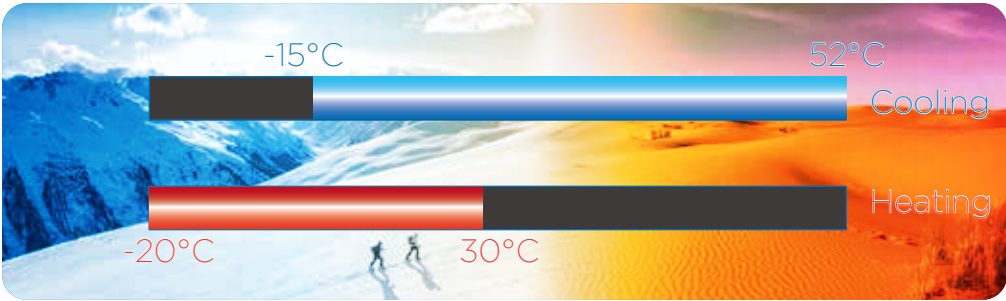
Long Piping Capability

The total piping length of the V8 Mini VRF can be up to 300m, the level difference between indoor and outdoor units can be up to 50m and the level difference between indoor units can be up to 15m, making the V8 Mini VRF perfectly suitable for small and medium-sized buildings.

Piping length / Height difference		Capability (m)	
		8-10kW	12-18kW
Total piping length		150	300
1. Longest piping length	Actual	50	100
	Equivalent	60	120
2. Longest piping length after first branch		30	40
3. Largest level difference between IDUs and ODU	ODU up	30	50
	ODU down	20	40
4. Largest level difference between IDUs		15	15
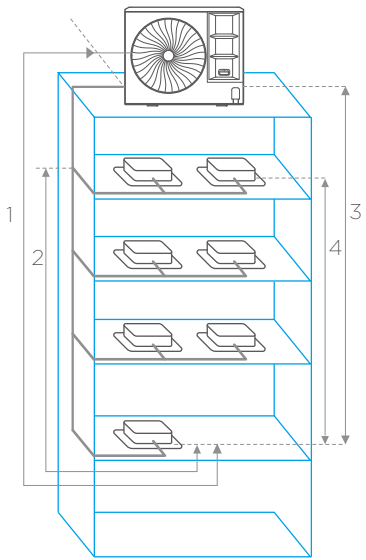
Easy Installation and Service

Free Wiring

HyperLink communication technology supports any wiring pattern rather than just daisy chain connection, reducing the installation cost and the possibility of incorrect connection. It has stronger anti-interference ability, achieving communication distance up to 2000m.

Independently tested

Exclusively tested for

✓ 2000m, 150 nodes ultra-long distance communication
✓ Multi-topology connections
✓ High reliability of communication
✓ Strong electromagnetic immunity of communication

Based on testing of specific samples provided by the manufacturer and tested under laboratory conditions

Intertek

Space Saving

One Mini VRF outdoor unit can connect 1 to 12 indoor units, which greatly saves the installation space of outdoor units and retains buildings' original aesthetics. compared to the traditional split AC. It is very suitable for use in residential and light commercial scenarios, such as villas, restaurants, small and medium-sized supermarkets, etc.
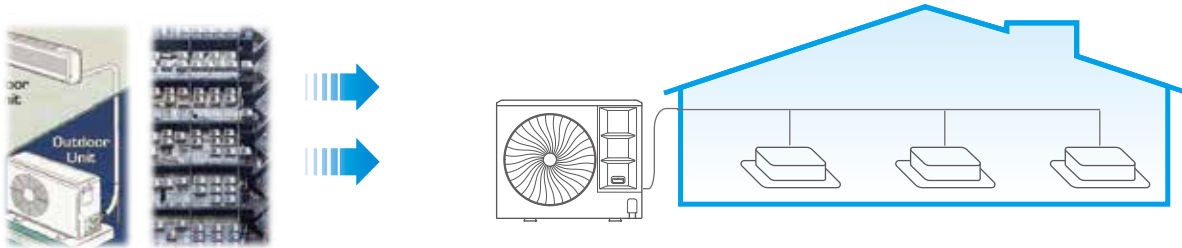
Auto Addressing

Addresses for all indoor units can be assigned automatically by the V8 Mini system, further simplifying installation.
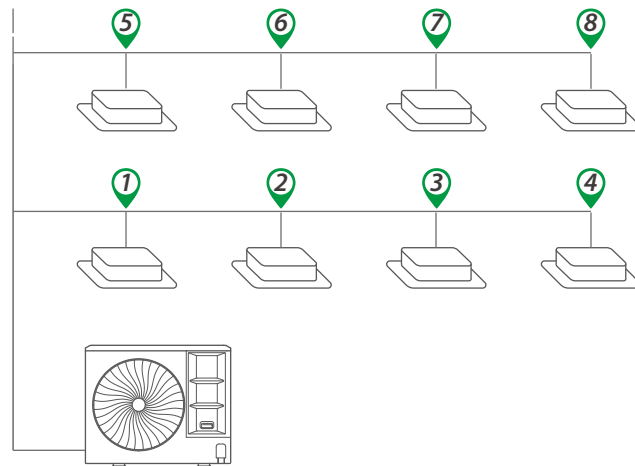
Flexible Pipe Connection

A four-direction space is available for connecting pipes and wiring in various installation sites.

Back side

Right side

Front side

Bottom side
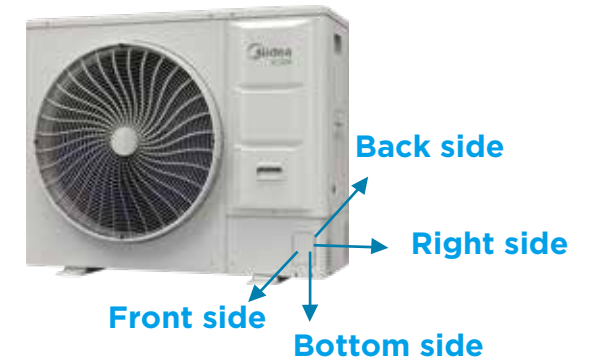
35Pa External Static Pressure

The 35Pa static pressure increases flexibility in the choice of the unit's installation point. Strong heat dissipation can be maintained even when the outdoor unit is covered.

35Pa

Easy Transportation

V8 Mini can be transported by elevator which makes installation dramatically easy, and effectively reduces time and labor thanks to the small size.

Automatic Refrigerant Recycling

When an indoor unit fails, the refrigerant can be recycled into the outdoor unit. When the outdoor unit fails, the refrigerant can be recycled into the indoor units. Two types of refrigerant recycling make the maintenance easier and more efficient.

Recycling

Wide Combination Ratio

Compared to traditional Mini VRF with combination ratio of 50-130%, the V8 Mini VRF can be extended to 50-160%, and the wider combination ratio allows for more flexible system configuration. The larger combination ratio can be applied to long-term part-load operation scenarios, allowing for further reduction in installation costs.

IDU: 19kW

ODU: 16kW

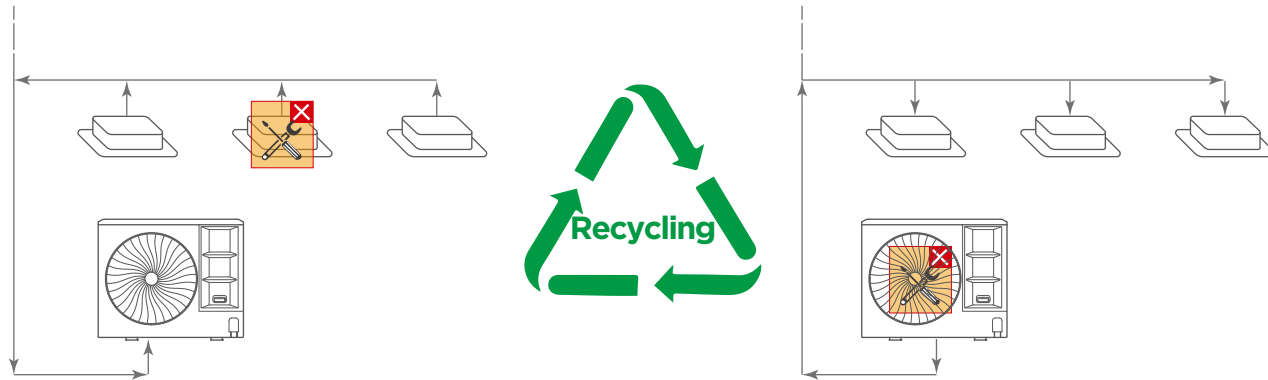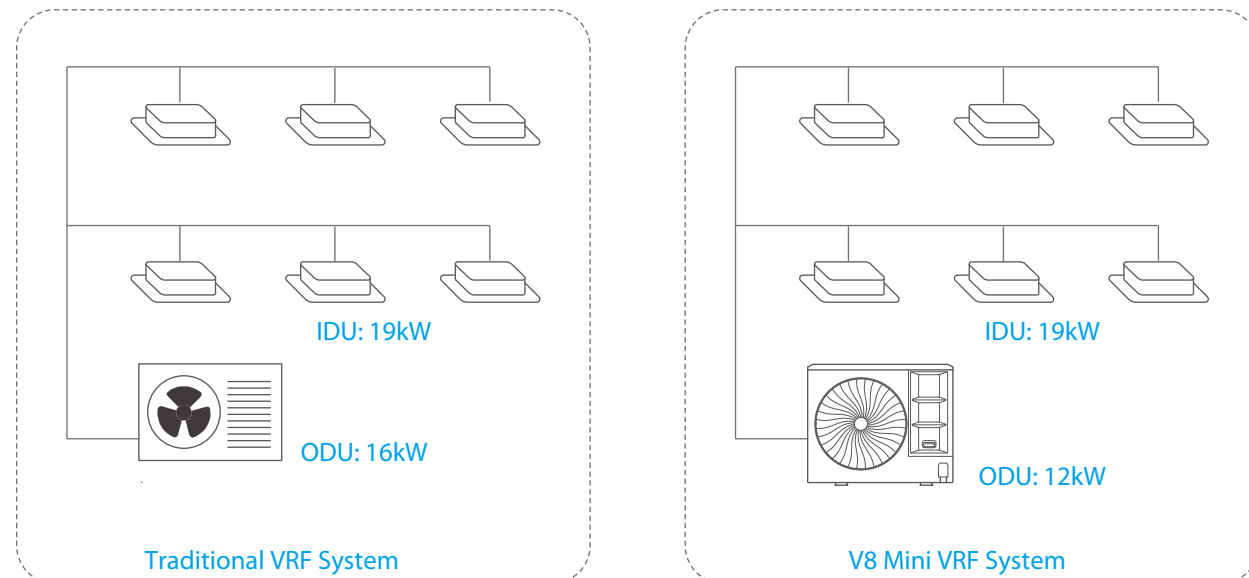Traditional VRF System

IDU: 19kW

ODU: 12kW

V8 Mini VRF System

Easy Software Program Upgrade

In addition to upgrading the program of outdoor and indoor units through USB and burner, the new product can also remotely upgrade all the programs of indoor and outdoor units through data cloud gateway, making system upgrades very convenient and ensuring that the system program is always up to date.

*The data cloud gateway is still under development and needs to be purchased separately.

Smart Commissioning/Maintenance Tool

With the newly developed smart tool (Bluetooth module and special Bluetooth after-sales kit), system settings, operating parameter queries, trial runs and programme upgrades are all possible without opening the cabinet.

Useful in the following situations：
• Installation
• Service maintenance

Main functions：
• Fault information storage
• Operating parameters query
• Start commissioning test run
• System parameter setting
• Quick after-sales PCB replacement
• Equipment control
• Indoor and outdoor units programme upgrade

Parameter setting

Parameters query

Test run

Fault information

PCB replacement

Equipment control

Programme upgrade
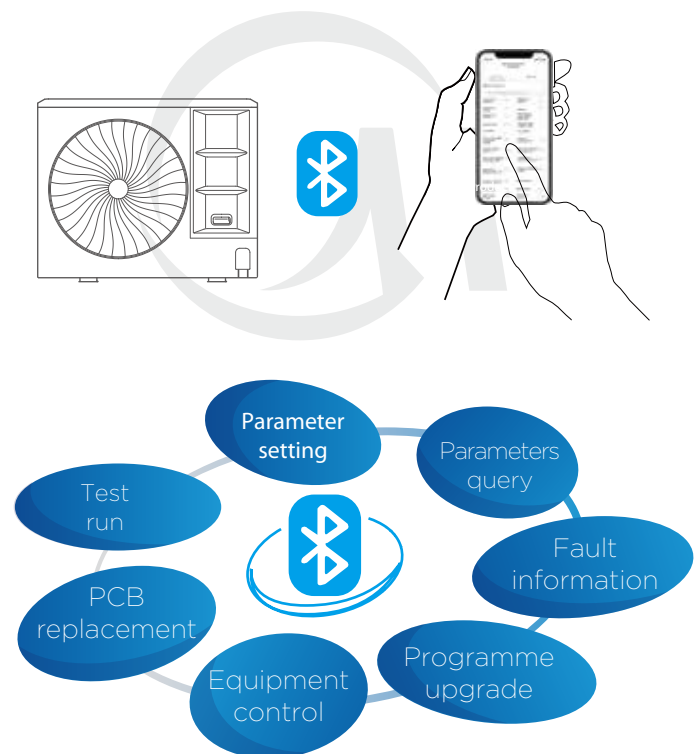
Specifications

V8 Mini 220-240V~ 50Hz

Model			MV8M-80WV2N8	MV8M-100WV2N8	MV8M-120WV2N8
Power supply		V/N/Hz		220-240/1/50	
Cooling[1]	Capacity	kW	7.2	9.0	12.3
		kBtu/h	24	30	41
	Power input	kW	1.95	2.77	3.73
	EER		3.70	3.25	3.30
	SEER		5.80	5.70	7.80
Heating (Rated)[2]	Capacity	kW	7.2	9.0	12.3
		kBtu/h	24	30	41
	Power input	kW	1.80	2.31	2.86
	COP		4.00	3.90	4.30
	SCOP		3.80	3.80	4.90
Heating (Max)[2]	Capacity	kW	9.0	10.8	14.0
		kBtu/h	30	36	47
	Power input	kW	2.50	3.18	3.59
	COP		3.60	3.40	3.90
Connected indoor unit	Total capacity			50%-160% of ODU capacity	
	Maximum quantity		5	6	8
Compressor	Type			DC inverter	
	Quantity			1	
Fan motor	Type			DC	
	Quantity			1	
	Airflow rate	m³/h	5200	5200	5000
	Static pressure	Pa		0-35 (standard)	
Refrigerant	Type			R32	
	Factory charge	kg	2	2	2.85
Pipe connections[3]	Gas pipe	mm	15.9	15.9	15.9
	Liquid pipe	mm	9.52	9.52	9.52
Sound pressure level[4]		dB(A)	53	53	55
Sound power level[4]		dB(A)	68	69	70
Net dimensions (W×H×D)		mm	1038×864×409	1038×864×409	1038×864×409
Packed dimensions (W×H×D)		mm	1120×980×560	1120×980×560	1120×980×560
Net weight		kg	77	77	94
Gross weight		kg	88	88	105
Ambient temp. operation range	Cooling	°C(DB)	-15-52	-15-52	-15-52
	Heating	°C(DB)	-20-30	-20-30	-20-30

Model			MV8M-140WV2N8	MV8M-160WV2N8	MV8M-180WV2N8
Power supply		V/N/Hz		220-240/1/50	
Cooling[1]	Capacity	kW	14.0	15.5	17.5
		kBtu/h	47	52	59
	Power input	kW	4.67	5.34	6.46
	EER		3.00	2.90	2.71
	SEER		7.40	7.35	7.10
Heating (Rated)[2]	Capacity	kW	14.0	15.5	17.5
		kBtu/h	47	52	59
	Power input	kW	3.29	3.73	4.49
	COP		4.25	4.15	3.90
	SCOP		4.80	4.80	4.80
Heating (Max)[2]	Capacity	kW	16.0	17.5	19.5
		kBtu/h	54	59	66
	Power input	kW	4.21	4.73	5.57
	COP		3.80	3.70	3.50
Connected indoor unit	Total capacity			50%-160% of ODU capacity	
	Maximum quantity		10	11	12
Compressor	Type			DC inverter	
	Quantity			1	
Fan motor	Type			DC	
	Quantity			1	
	Airflow rate	m³/h	5000	5000	5500
	Static pressure	Pa		0-35 (standard)	
Refrigerant	Type			R32	
	Factory charge	kg	2.85	2.85	2.85
Pipe connections[3]	Gas pipe	mm	15.9	15.9	19.1
	Liquid pipe	mm	9.52	9.52	9.52
Sound pressure level[4]		dB(A)	56	56	58
Sound power level[4]		dB(A)	71	72	73
Net dimensions (W×H×D)		mm	1038×864×409	1038×864×409	1038×864×409
Packed dimensions (W×H×D)		mm	1120×980×560	1120×980×560	1120×980×560
Net weight		kg	94	94	94
Gross weight		kg	105	105	105
Ambient temp. operation range	Cooling	°C(DB)	-15-52	-15-52	-15-52
	Heating	°C(DB)	-20-30	-20-30	-20-30

Notes:
1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 5m with zero level difference.
3. Diameters given are those of the unit's stop valves.
4. Sound pressure level is measured at a position 1m in front of the unit and 1m above the floor in a semi-anechoic chamber.

V8 Mini 380-415V 3N~ 50Hz

Model			MV8M-120WV2RN8	MV8M-140WV2RN8
Power supply		V/N/Hz		380-415/3/50
Cooling[1]	Capacity	kW	12.3	14.0
		kBtu/h	41	47
	Power input	kW	3.73	4.67
	EER		3.30	3.00
	SEER		7.80	7.40
Heating (Rated)[2]	Capacity	kW	12.3	14.0
		kBtu/h	41	47
	Power input	kW	2.86	3.29
	COP		4.30	4.25
	SCOP		4.90	4.80
Heating (Max)[2]	Capacity	kW	14.0	16.0
		kBtu/h	47	54
	Power input	kW	3.59	4.21
	COP		3.90	3.80
Connected indoor unit	Total capacity			50%-160% of ODU capacity
	Maximum quantity		8	10
Compressor	Type			DC inverter
	Quantity			1
Fan motor	Type			DC
	Quantity			1
	Airflow rate	m³/h	5000	5000
	Static pressure	Pa		0-35 (standard)
Refrigerant	Type			R32
	Factory charge	kg	2.85	2.85
Pipe connections[3]	Gas pipe	mm	15.9	15.9
	Liquid pipe	mm	9.52	9.52
Sound pressure level[4]		dB(A)	55	56
Sound power level[4]		dB(A)	70	71
Net dimensions (W×H×D)		mm	1038×864×409	1038×864×409
Packed dimensions (W×H×D)		mm	1120×980×560	1120×980×560
Net weight		kg	110	110
Gross weight		kg	121	121
Ambient temp. operation range	Cooling	°C(DB)	-15-52	-15-52
	Heating	°C(DB)	-20-30	-20-30

Model			MV8M-160WV2RN8	MV8M-180WV2RN8
Power supply		V/N/Hz		380-415/3/50
Cooling[1]	Capacity	kW	15.5	17.5
		kBtu/h	52	59
	Power input	kW	5.34	6.46
	EER		2.90	2.71
	SEER		7.35	7.10
Heating (Rated)[2]	Capacity	kW	15.5	17.5
		kBtu/h	52	59
	Power input	kW	3.73	4.49
	COP		4.15	3.90
	SCOP		4.80	4.80
Heating (Max)[2]	Capacity	kW	17.5	19.5
		kBtu/h	59	66
	Power input	kW	4.73	5.57
	COP		3.70	3.50
Connected indoor unit	Total capacity			50%-160% of ODU capacity
	Maximum quantity		11	12
Compressor	Type			DC inverter
	Quantity			1
Fan motor	Type			DC
	Quantity			1
	Airflow rate	m³/h	5000	5500
	Static pressure	Pa		0-35 (standard)
Refrigerant	Type			R32
	Factory charge	kg	2.85	2.85
Pipe connections[3]	Gas pipe	mm	15.9	19.1
	Liquid pipe	mm	9.52	9.52
Sound pressure level[4]		dB(A)	56	58
Sound power level[4]		dB(A)	72	73
Net dimensions (W×H×D)		mm	1038×864×409	1038×864×409
Packed dimensions (W×H×D)		mm	1120×980×560	1120×980×560
Net weight		kg	110	110
Gross weight		kg	121	121
Ambient temp. operation range	Cooling	°C(DB)	-15-52	-15-52
	Heating	°C(DB)	-20-30	-20-30

Notes:
1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 5m with zero level difference.
3. Diameters given are those of the unit's stop valves.
4. Sound pressure level is measured at a position 1m in front of the unit and 1m above the floor in a semi-anechoic chamber.