

C-V8SEU202305

Midea

2023

SMART IN ONE

# V8S

## VRF Catalogue



**Midea Building Technologies Division**  
**Midea Group**

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[mbt.midea.com](http://mbt.midea.com)   [www.midea-group.com](http://www.midea-group.com)   [tsp.midea.com](http://tsp.midea.com)

Midea reserves the right to change the specifications of the product, and to withdraw or replace products without prior notification or public announcement. Midea is constantly developing and improving its products.

GD MIDEA Heating & Ventilating Equipment Co. Ltd participates in the ECP programme for VRF. Check ongoing validity of certificate: [WWW.eurovent-certification.com](http://WWW.eurovent-certification.com)



**Compact size with modular design**  
**perfectly suitable for limited installation spaces**





## Midea MBT

Midea MBT (Midea Building Technologies) is a key division of the Midea Group, a leading provider of comprehensive solutions for intelligent buildings. It specializes in energy sources, elevators, control systems, and heating, ventilation & air conditioning. Midea MBT continues the tradition of innovation upon which it was founded and has 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 the competition. Through independent projects and joint-cooperation with other global enterprises, Midea has supplied thousands of innovative solutions to customers worldwide.

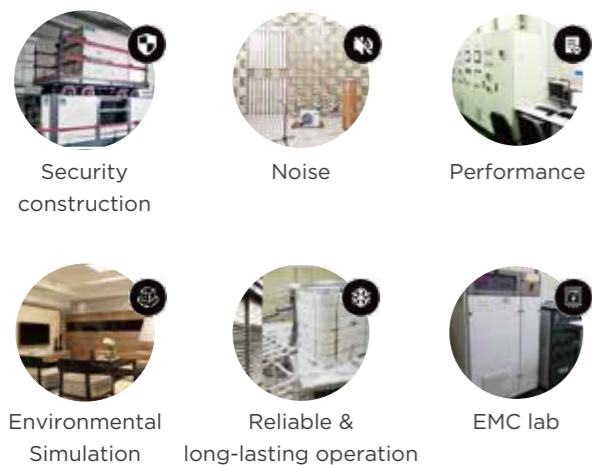
■ **3 businesses make up the core of Midea intelligent building solutions**



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



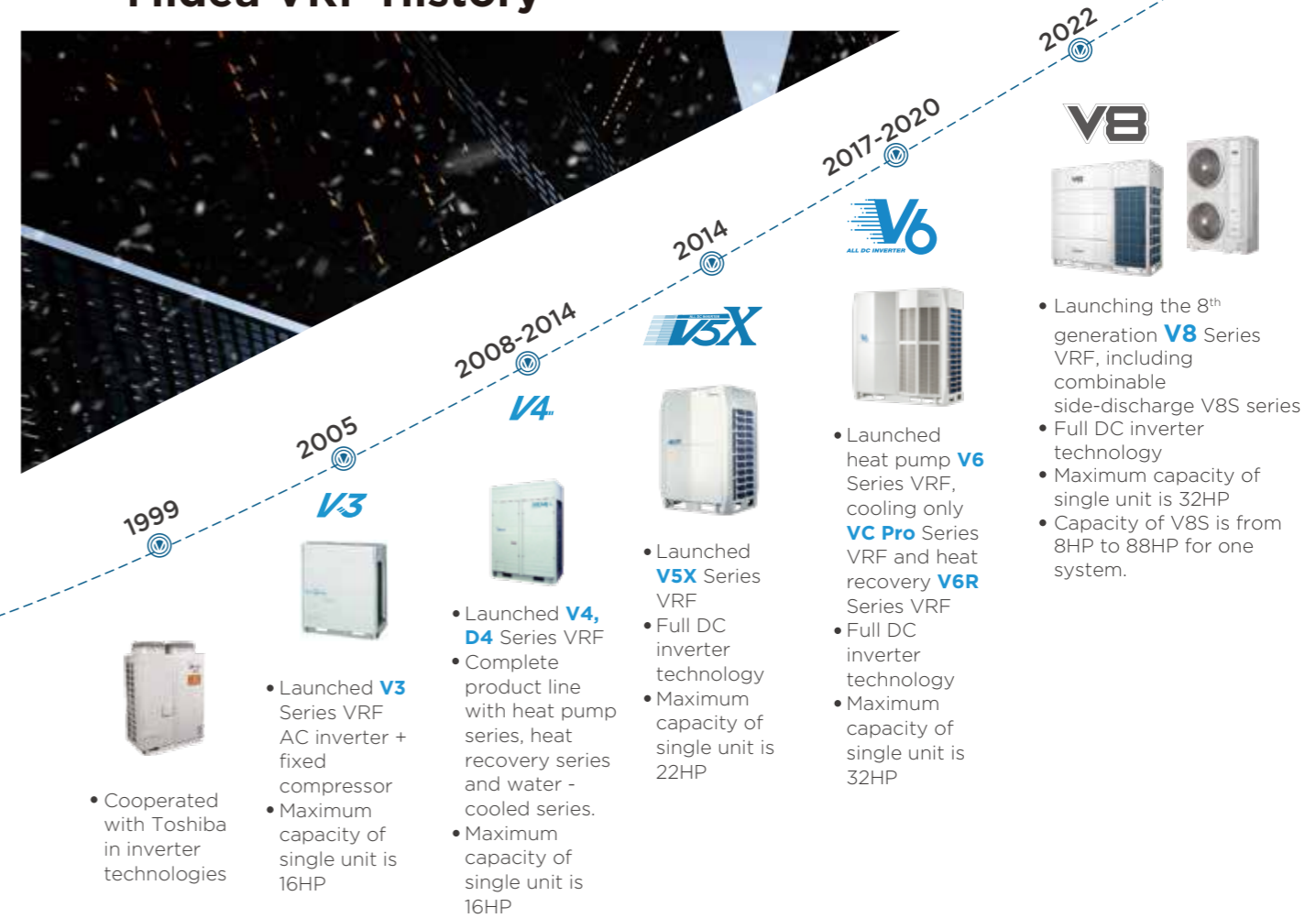
■ **Over 100 testing labs cover a wide range of real application scenarios**



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



## Midea VRF History





# 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

### Office Complexes

#### Enjoy comfort while working

Midea VRF provides solutions for office buildings of all sizes and its smart control solutions streamline the management of VRF. It offers a wide variety of indoor units that are suitable for all designs.



### Residential Apartments

#### One for every home

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



### Hotels & Shopping Malls

#### Increase your business, not your bills

The high efficiency and reliability of Midea VRF make it ideal for commercial applications. Intelligent control solutions like hotel key cards and touch screen controller make management easy.



### Hospitals/ Schools/ Airports

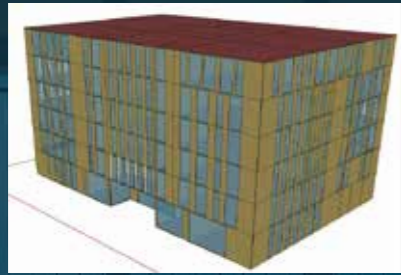
#### Meeting all expectations

The innovative design and variety of indoor unit options make Midea VRF suitable for all kinds of applications. The newly designed puro-air kit is perfect for modern hospitals.





### Design Service

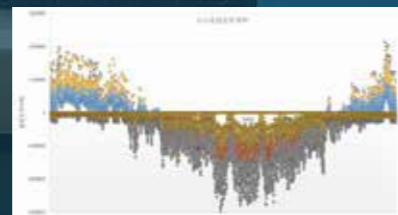


Energy Plus Building load calculation

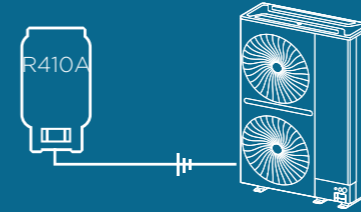


MSSP Online VRF system design

BIM building information import



### Installation service

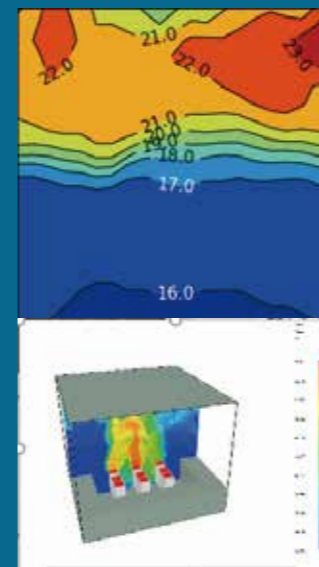


Automatic refrigerant charge



Automatic commissioning report

MCFD Energy consumption and airflow simulation optimization



### Management service



The probability of filth blockage 80%



Degradation of energy efficiency 25%

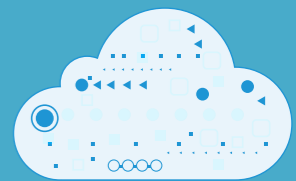
Continuous energy saving service



### After-sales service



Intelligent maintenance tool



Cloud-based big data analytics

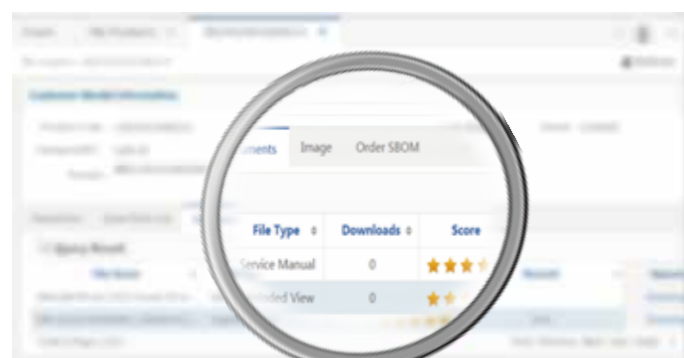
2 +10 +N Spare Parts Layout can ensure the timely supply of global after-sales spare parts.



## Technical Support Platform (TSP)

TSP is a platform for customers to seek professional technical support. Through TSP, you can inquire about product information, documentation, spare parts and troubleshooting, ask technical questions, submit complaints, and order spare parts.

<https://tsp.midea.com/>



### My order

Inquire about spare parts from an exploded view and place orders for spare parts directly in TSP.

### Document inquiry and download

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

### Technical inquiry & FAQ

Ask technical questions online and receive a prompt response from our technicians. Or find a quick solution in the FAQ.

### Troubleshooting

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

### Complain

Submit product quality complaints online, and our after-sales engineers will respond promptly.



## Mobile Intelligence Service App (MISA)

MISA is the mobile terminal of TSP, with the same functions as TSP. The mobile service improves the response time and convenience of technical support.

<https://link.midea.com>



FAQ



Complain



Technical Enquiry

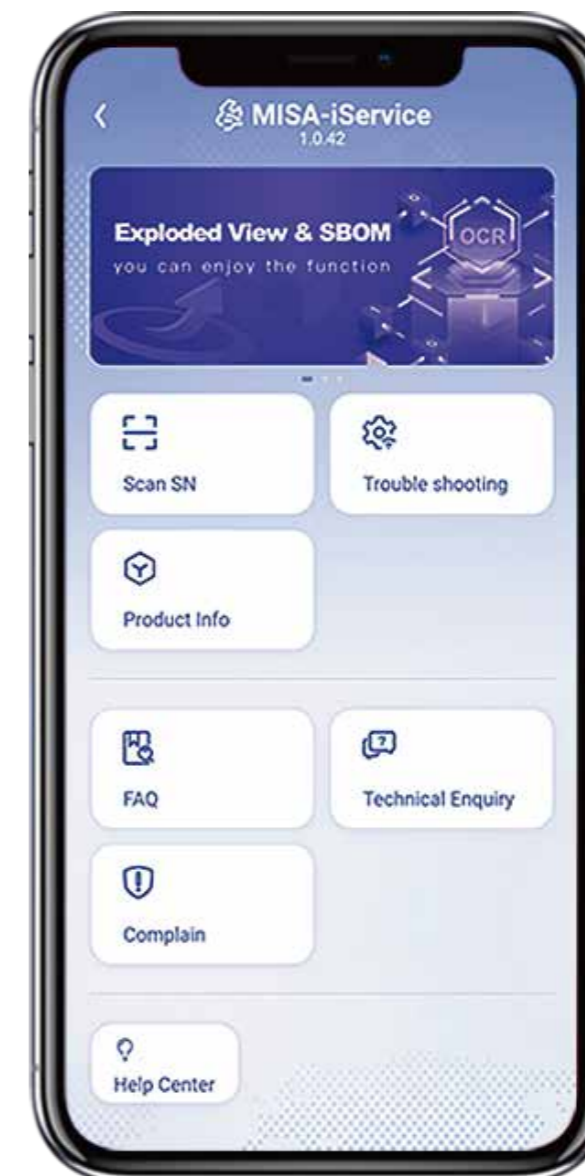


Trouble shooting

Download



Scan to download the mobile app



Search product manuals



Spare parts list

Feedback



Thank you for your attention and feedback



## Midea Global Spare Parts Center

The global spare parts center provides high quality and fast spare parts supply. Midea's online system (<https://tsp.midea.com>) allows users to 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 after-sales spare parts around the globe.







 **OUTDOOR UNITS**

**V8S VRF**



## V8S VRF Lineup

### Outdoor Unit

8-14HP



16-22HP



24-44HP



46-66HP



68-88HP



● **The V8S** Series VRF uses algorithms and self-learning technology to monitor the operation of the equipment, so that the equipment can run stably and be maintained in time to ensure that the equipment always runs in optimal condition throughout its life cycle.





# Outdoor Unit Functions

Functions			V8S
●: equipped as standard; ○: customization option			
Key Technologies	HyperLink	Midea's original communication bus chip greatly simplifies installation and saves installation costs	●
	SuperSense	18 sensors monitor the state of each part of the refrigerant pipeline throughout the whole process	●
	Meta 2.0	Triple variable control maximizes 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	●
	<hr style="border-top: 1px dashed #0070C0;"/>		
High Efficiency	Full DC inverter technology	All electrical components of outdoor and indoor units use DC power supply, improving electrical efficiency and saving energy	●
	Enhanced Vapor Injection (EVI) compressor	Increases refrigerant circulation and improves both cooling and heating capacity	●
	Micro-channel refrigerant subcooling	The refrigerant system can achieve 15°C refrigerant subcooling, which can further improve the refrigerant heat transfer efficiency while reducing noise	●
	Low standby power consumption	The standby power consumption is as low as 3.5W	●
	60-step energy management	The system can be set from 40% to 100% capacity output in 1% increments	●

Functions			V8S
●: equipped as standard; ○: customization option			
High Reliability	Duty cycling	Equalizes the running time of the outdoor units in a multiple-unit system, significantly extending unit lifespan (available for combined units)	●
	Backup operation (unit)	If one unit fails, the other units provide backup so that the system can continue operating (available for combined units)	●
	Backup operation (fan motor)	If one fan motor fails, the other fan motor provides backup so that the system can continue operating	●
	Backup operation (sensor)	If one sensor fails, the virtual sensor provides backup so that the system can continue operating	●
	Precise oil control	Ensures all outdoor compressor oil is at a safe level, eliminating compressor oil shortages	●
	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	○
	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	○
	Micro-channel refrigerant cooling PCB	10 times higher than ordinary refrigerant pipe cooling efficiency	●
	Auto dust-clean function	Blows away accumulated dust on the outdoor unit, guaranteeing stable unit operations in a dusty environment	●
	Alarm output	In the event of system malfunction, remotely output error information and remind maintenance personnel to conduct maintenance	○
	Fire alarm input	In the event of fire, receive fire information in time and stop the system immediately to avoid serious problems	●





# Outdoor Unit Functions

Functions			V8S
●: equipped as standard; ○: customization option			
Enhanced Comfort	Silent mode	15-step silent mode selections provide more freedom and convenience to match the needs of customers	●
	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)	●
	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	○
	0.1 °C control precision	Control precision of the sensor can reach 0.1°C, ensuring less fluctuations in room temperature	●
	Multiple priority modes	10 priority modes meet the requirements of all scenarios	●
	Wide Application Range	Wide capacity range	Meets all customer requirements from small to large buildings
Wide range of indoor units		Provides 12 types and more than 100 models of VRF indoor units to meet the needs of different application scenarios	●
Wide operation range		Operates stably under extreme conditions	-15-55°C (C) -30-30°C (H)
Long piping capability		Benefits for the system design, installation flexibility, as well as the less installation cost	●
Auto addressing (ODU-IDU)		Distributes addresses to indoor units automatically, simplifying the installation	●
Auto addressing (ODU-ODU)		Distributes addresses to slave outdoor units automatically, further simplifying the installation (available for combined units)	●

Functions			V8S
●: equipped as standard; ○: customization option			
Easy Installation And Service	Automatic refrigerant charging	Makes installation and service easier and more efficient	○
	Automatic refrigerant recycling	Refrigerant can be recycled to ODUs or IDUs and normal ODUs, 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, programme upgrade for indoor and outdoor units, etc., simplifying installation and maintenance.	○
	Digit display	4 digit 7-segment display can be intuitive for parameter setting, parameter checks and error checks	●
	High external static pressure	Up to 80Pa ESP allows easy handling in a variety of installation environments	0-35Pa ● 35-80Pa ○
	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%-200% under certain conditions which can meet different project requirements	50-130% ● 50-200% (for single unit system) ○
	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 the ODU at the same time, and the central controller can connect to the ODU or IDU	●
	Refrigerant amount diagnosis	The unit can diagnose excessive or insufficient amounts of refrigerant, and prompt maintenance personnel to check the system in time to avoid serious malfunction	●
	Easy system commissioning and checking	System commissioning and checking can easily be completed on-site or remotely via the web	●
Intelligent maintenance tool	Intelligent bluetooth after-sales kit can simplify maintenance and improve maintenance efficiency	○	

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*

 **ETA 2.0**

 **ENair 2.0**

**DOCTOR m. 2.0**



Midea's original communication bus chip greatly simplifies installation and saves installation costs.

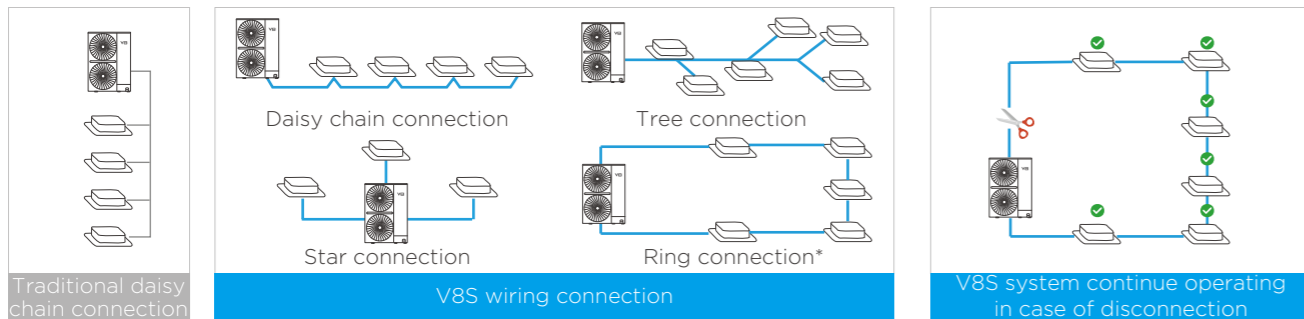


- Benefits**
- Flexible installation
  - Low installation cost
  - High reliability
  - Stable operation

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

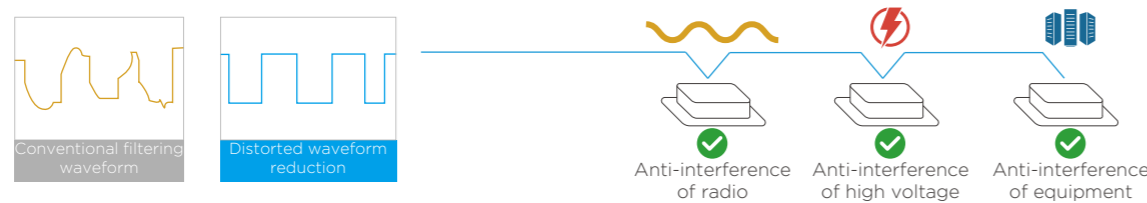
**Arbitrary Topology Communication**

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



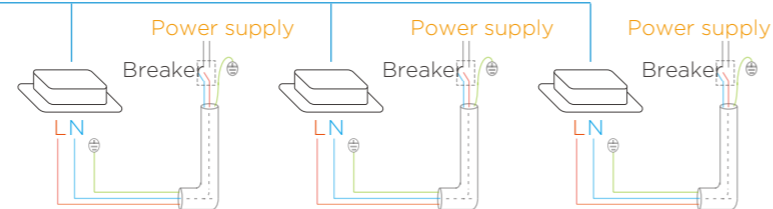
**Super Anti-interference Capability**

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



**Flexible Power Supply for Indoor Units**

HyperLink's unique communication method allows the indoor units to be powered not only by a uniform power supply, but also by individual and zone power supplies, making it particularly suitable for each shop in a large complex building, which can independently power on and off its own indoor units.



The status of the refrigerant can be determined throughout the process, ensuring high **RELIABILITY** and **COMFORT**.

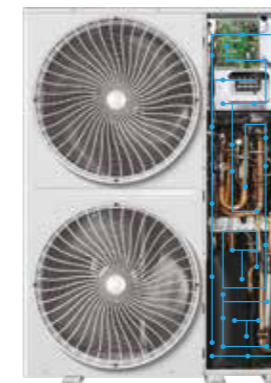


- Benefits**
- High reliability
  - Stable operation
  - Enhanced comfort

Up to 18 sensors are distributed throughout the refrigerant system, and the status of the refrigerant can be determined 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.

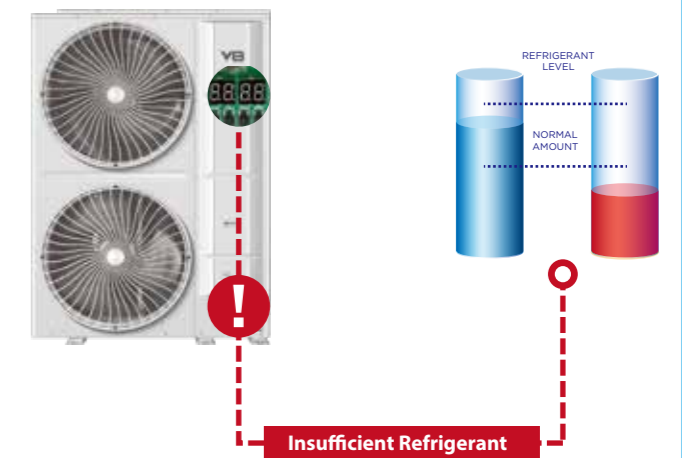
**Complete Sensors**

The V8S VRF features the industry's most comprehensive range of 18 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.



**Refrigerant Amount Diagnosis**

Thanks to the complete sensors, the refrigerant running state is clearly visible, so as to accurately diagnose the amount of refrigerant.



**Virtual Sensor Backup**

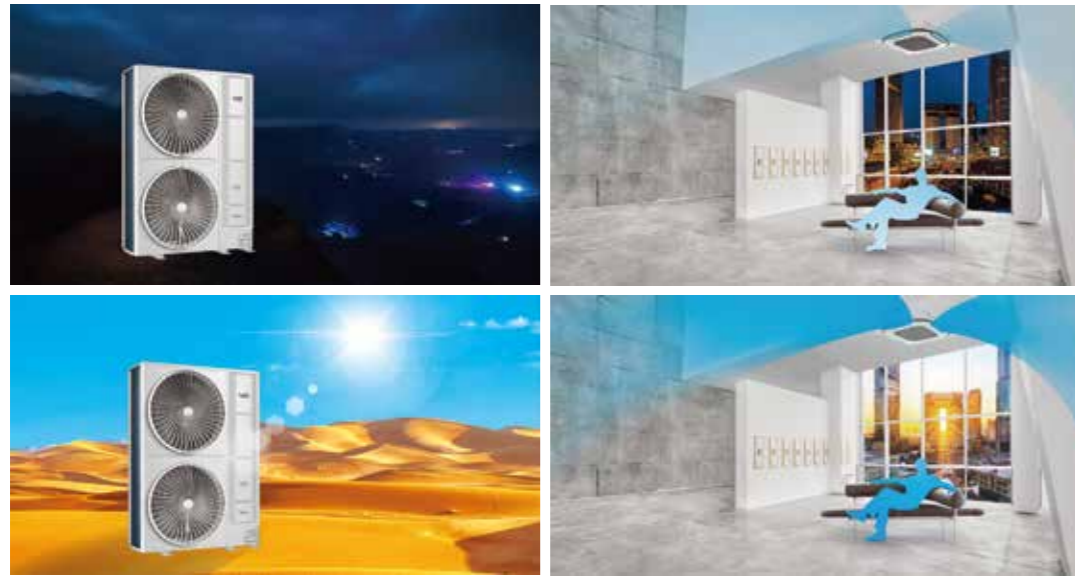
In the event of a sensor failure, other sensors can automatically simulate a virtual backup sensor, so that the VRF system can continue to operate without stopping.





## 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

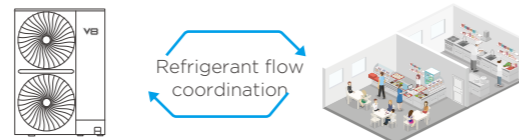
Built-in professional operation and maintenance algorithm, so that the annual operation energy efficiency of each set of systems is increased by more than 28%.



#### 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.



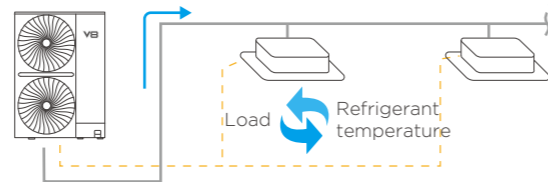
Automatic calculation of the building load and the required refrigerant quantity based on the sensor parameters.



#### 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.



Automatic matching of the corresponding refrigerant temperature to the load.



#### Variable Indoor Airflow

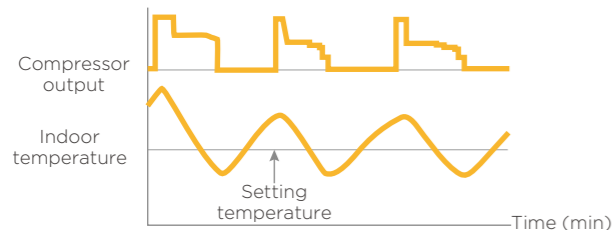
##### STEP 3: Adaptive indoor airflow and refrigerant flow

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

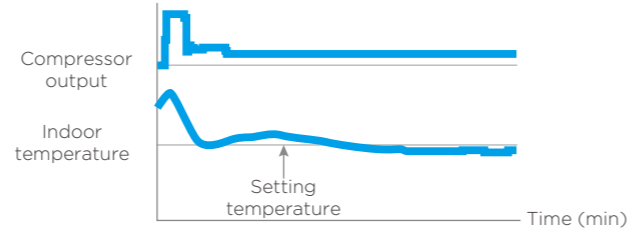


Automatic matching of the corresponding indoor airflow to the load and refrigerant temperature.

#### Conventional refrigerant regulation



#### V8S refrigerant regulation



## Zen Air 2.0

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



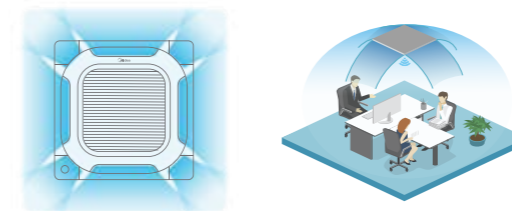
### Benefits

- Quiet
- Enhanced comfort
- Healthy

0.5°C temperature adjustment, 7 fan speeds selection, sleep mode, silent mode, windless technology, high efficiency filter, a variety of sterilization devices and other advanced technologies used in V8S Series VRF are dedicated to creating a quiet, comfortable and healthy indoor environment.

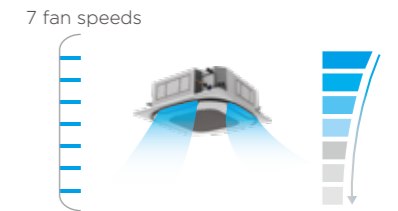
#### 360° Airflow

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



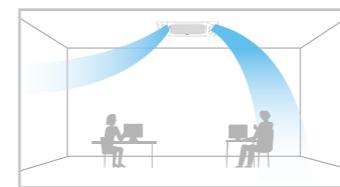
#### 7 Fan Speeds

7 indoor fan speed options to meet the needs of different indoor conditions.



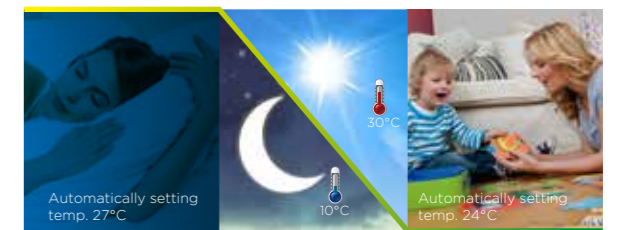
#### Individual Louver Control

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



#### Sleep Mode

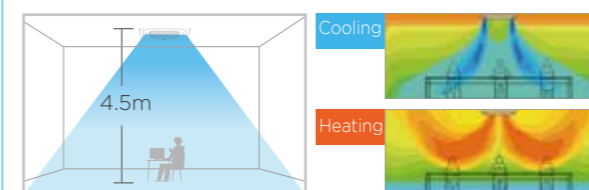
The smart sleep mode provides a comfortable sleep period and a refreshing wake up time.



\*Temperature on left is for reference.

#### Long Distance Air Delivery\*

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



\*This function is available as a customization option.

#### Innovative Puro-air Kit

Protectors of health and safety  
From Germany - OSRAM quality UV light source

Ozone-Free  
UV leakage-Free

\*The indoor unit needs to be customized in order to use the Puro-air Kit.






## 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 V8S 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. The intelligent Bluetooth module and special Bluetooth after-sales kit can further simplify maintenance and improve maintenance efficiency.

### Intelligent Maintenance Tool

With the 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 connecting a PC or opening the cabinet.



\* Bluetooth module is available as a customization option.

### Real-time Monitoring of Operating Parameters

The V8S 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 V8S 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

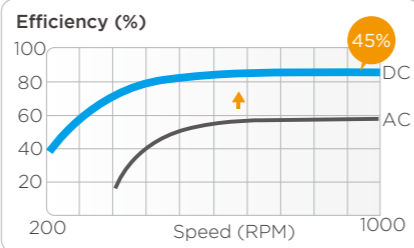
## Full DC Inverter Technology

Full DC Inverter for Outdoor Components

The V8S Series 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

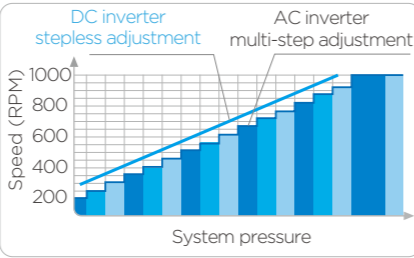
Speed (RPM) 200 1000

Wider frequency adjustment range

Faster cooling and heating

Higher energy efficiency

**Speed (RPM)**



DC inverter stepless adjustment  
AC inverter multi-step adjustment

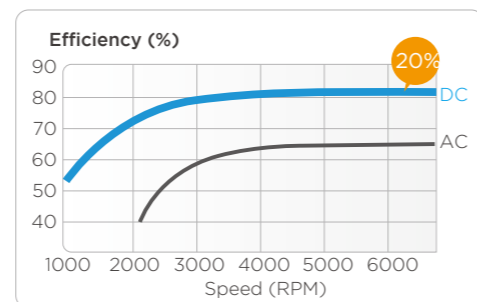
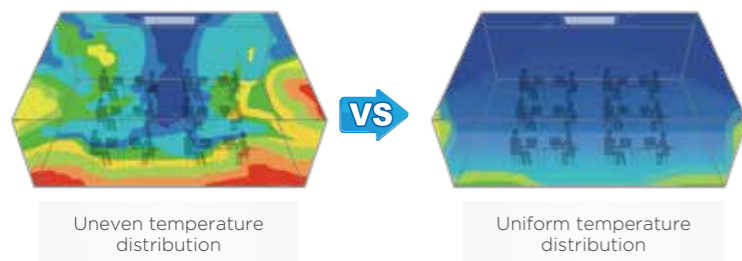
Speed (RPM) 200 1000  
System pressure

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.

Full DC Inverter for Indoor Components

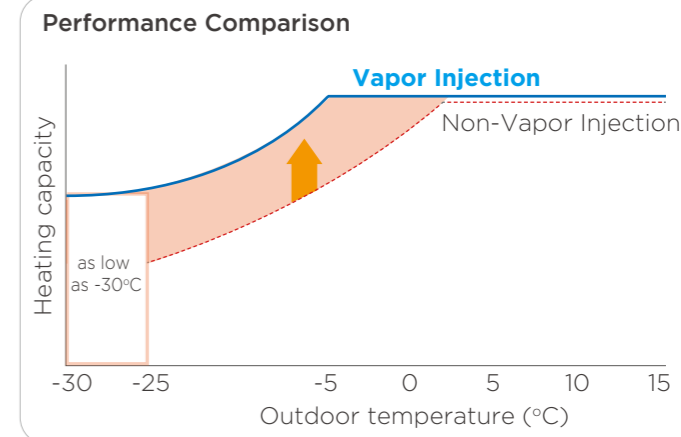
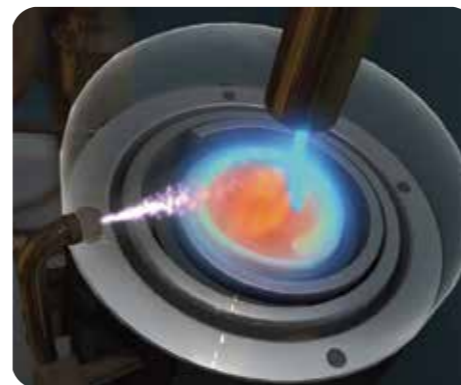


**20%**  
Efficiency improvements



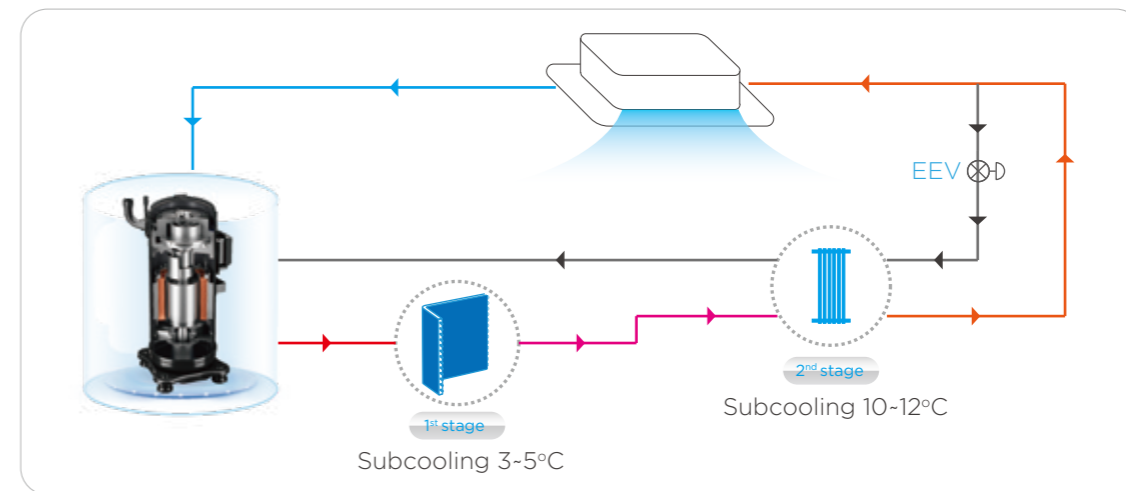
## Enhanced Vapor Injection (EVI) Compressor

The enhanced vapor injection DC inverter compressor increases refrigerant circulation and improves both cooling and heating capacity.



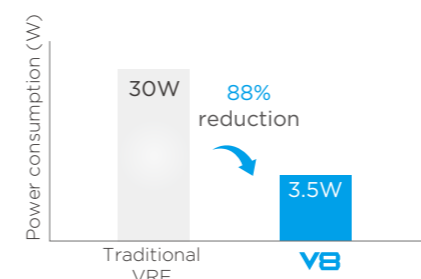
## Advanced Subcooling Technology

The V8S Series VRF uses a micro-channel 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.



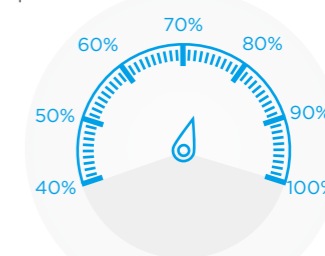
## Low Standby Power Consumption

Compared to the standby power consumption of traditional VRF of about 30W, the V8S Series VRF uses optimized control scheme to further reduce standby power consumption to as low as 3.5W.



## 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 conditions of restricted electricity supply and allows the system to continue to operate.





# High Reliability

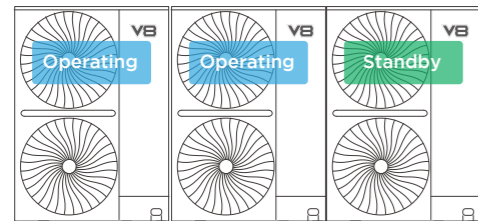


## Triple Backup

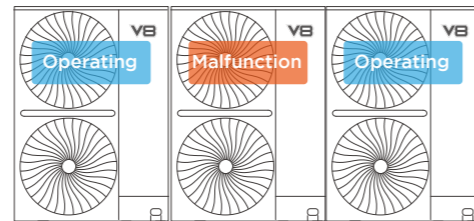
The V8S supports unit backup, fan backup and sensor backup. The triple backup ensures no shutdown in the event of a failure, further guaranteeing comfort.

### 1 Unit Backup

In a multi-unit system, the different units act as a backup to each other, ensuring that the system can continue to operate if one unit fails.



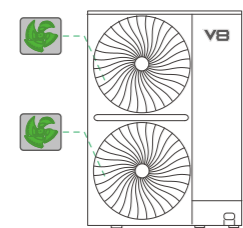
Intelligent load-bearing between units during normal operation



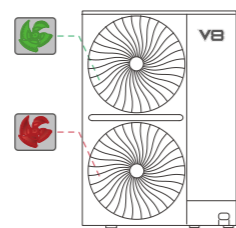
Standby unit backup operating with no system shutdown

### 2 Fan Backup

In unit with two fans, the two fans act as a backup to each other, ensuring that the system can continue to operate if one fan fails.



In normal operation, each fan runs on demand



Automatic backup operation of another fan in case of failure of one fan

Operation fan  
 Failed fan

### 3 Sensor Backup

New & Unique

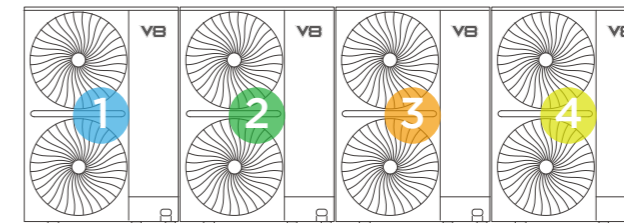
Through digital algorithms, each physical sensor generates a corresponding virtual sensor that acts as a backup to each other, ensuring that the failure of one sensor does not affect the normal operation of the system.



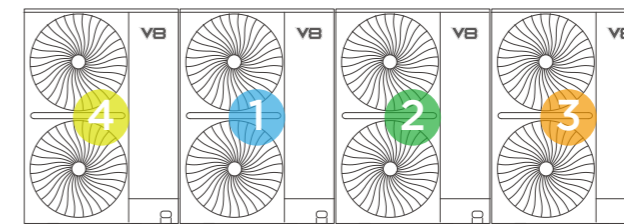
Automatic backup operation of the corresponding virtual sensor in case of failure of one physical sensor

## Duty Cycling

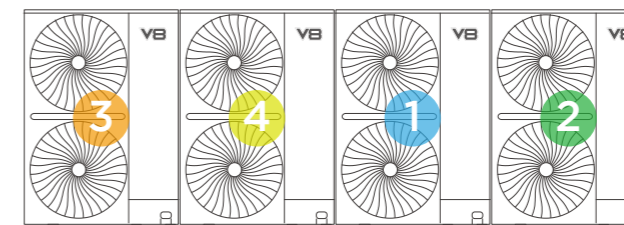
In a multi-unit system, duty cycling equalizes the running time of each outdoor unit, significantly extending unit lifespan.



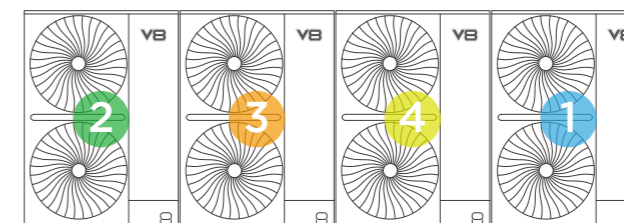
1<sup>st</sup> cycle



2<sup>nd</sup> cycle



3<sup>rd</sup> cycle



4<sup>th</sup> cycle

Note: The duty cycling sequence shown in the figure is only a schematic reference. The actual duty cycling sequence is not a fixed sequence. Please refer to the technical manual for specific rotation rules.

## SuperSense

V8S Series VRF uses up to 18 sensors for each outdoor unit and 4 sensors for each indoor unit. The operating status of the system refrigerant is clearly visible, which can achieve intelligent analysis of operation parameters, intelligent error diagnosis and forecasting, and visualized energy saving.

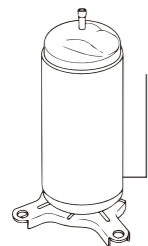




### /// Precise Oil Control

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



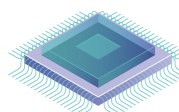
Compressor internal oil separation.

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\*

Standard outdoor units are given anti-corrosion treatment for non-extreme conditions 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.



\*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.

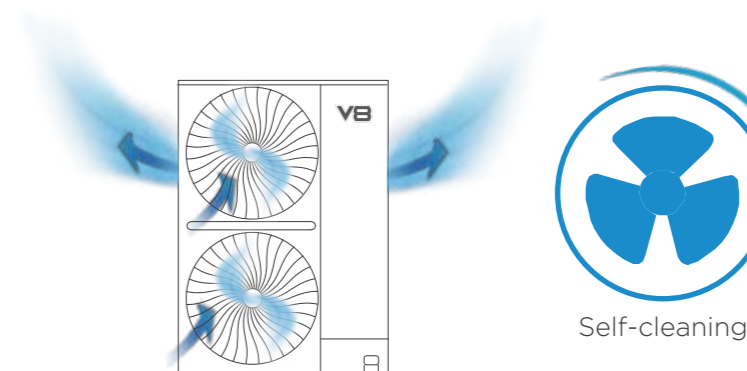
\*UL anti-corrosion certificate is available for heavy anti-corrosion treatment units.

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



### /// Auto Dust-clean Function

The innovatively designed dust-clean function enables the outdoor unit to prevent the dust by itself.

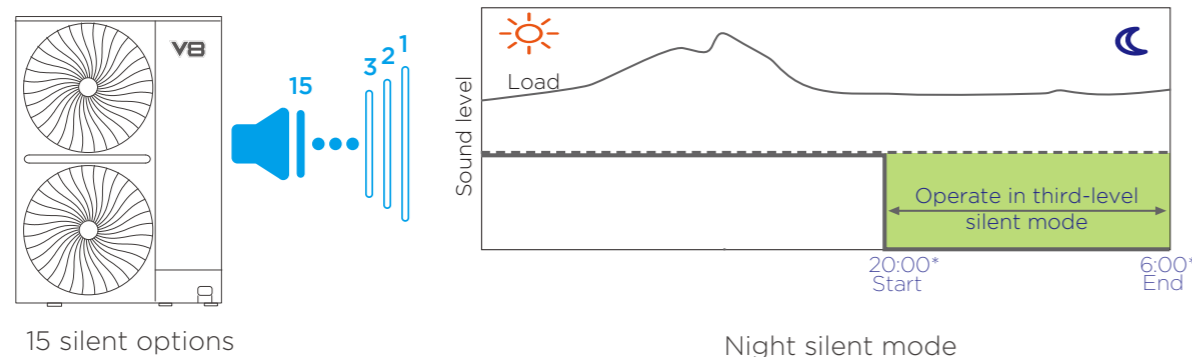




# Enhanced Comfort

## Advanced Silent Technology

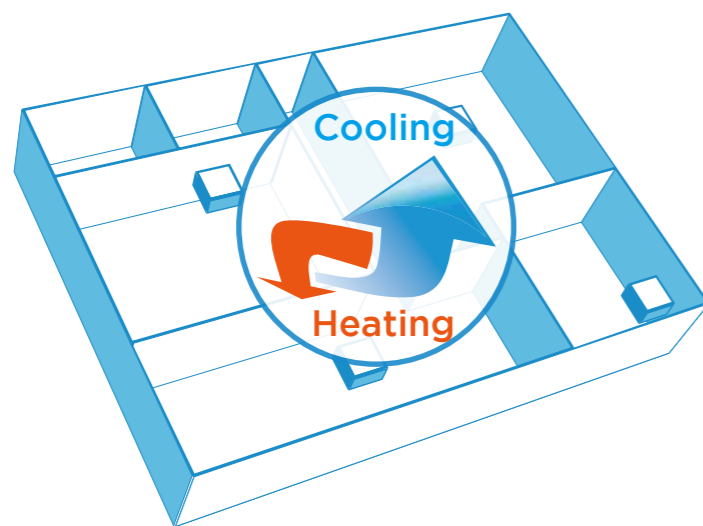
15-step silent mode plus night silent mode provide more freedom and convenience to match the customer needs.



\*The entry and exit time of the night silent mode can be set in the wired controller.

## Auto Cooling-heating Changeover

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



## 10 Priority Modes

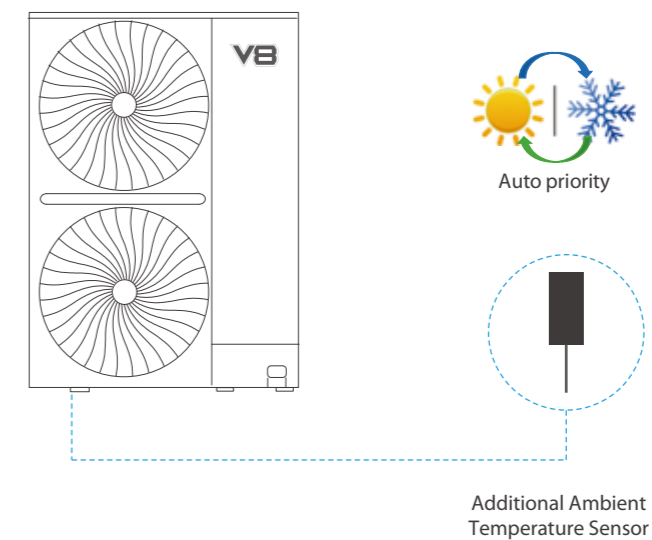
10 priority mode options provide more freedom and convenience to match the customer needs.



## Additional Ambient Temperature Sensor\*

The V8S Series 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, and correctly judge whether the system is running in cooling or heating mode, ensuring indoor comfort.

\*This function is available as a customization option.






# Wide Application Range

## Wide Capacity Range


The capacity of one V8S Series VRF system is from 8HP to 88HP with up to 4 units combined, perfectly suited for small to large buildings.

Single unit




8-14HP

Single unit



16-22HP

Combined unit




24-44HP

Combined unit



46-66HP

Combined unit



68-88HP

## Wide Range of Indoor Units

The V8S Series VRF offers 12 types of over 100 models of indoor units to meet different scenarios of applications such as offices, shopping malls, hotels, airports, schools, hospitals, etc.



## Wide Operation Range

Thanks to the EVI compressor and refrigerant cooling technology, the V8S Series VRF can operate at temperatures as low as -30°C for heating and up to 55°C for cooling.

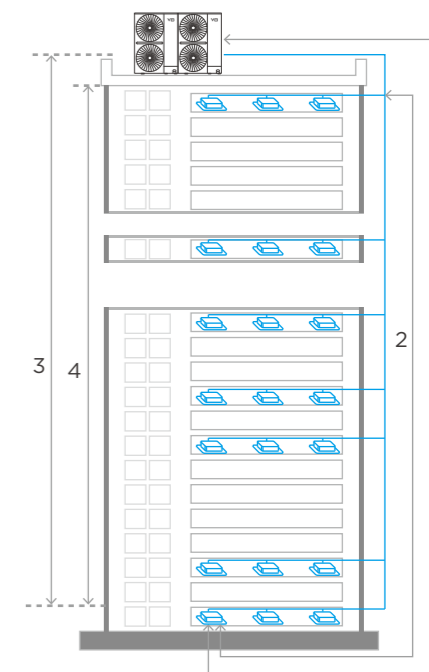


## Long Piping Capability

The V8S system can support a total piping length of up to 560m, an installation height difference of up to 50m between indoor and outdoor units, and up to 30m between indoor units, making the V8S Series VRF adaptable to a wide range of building designs.

- Total piping length: **560m**
- 1 Longest piping length - actual (equivalent): **150(175)m**
- 2 Longest piping length after first branch: **40/90\*m**
- 3 Level difference between IDUs and ODU - ODU above (below): **50(40)m**
- 4 Level difference between IDUs: **30m**

\*The longest length after first branch is 40m as a standard but can be extended to up to 90m under certain conditions. Please contact your local dealer for further information.



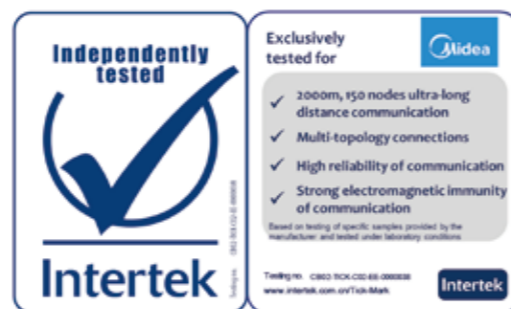


# Easy Installation and Service



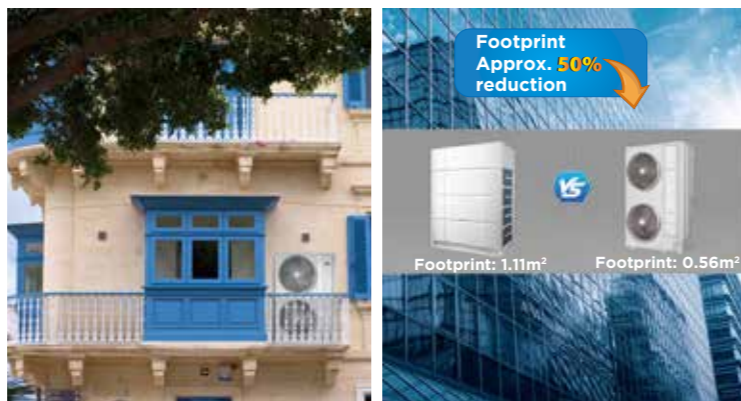
## Free Wiring

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 a communication distance of up to 2000m.



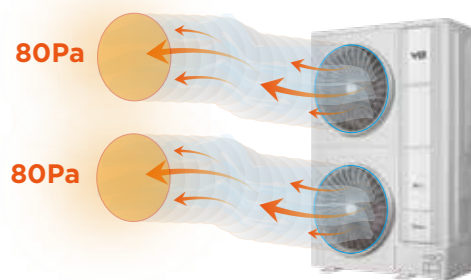
## Space Saving

The compact, slim designed outdoor unit can easily be installed on a balcony, realizing complete system installation within each floor. Which release more useful utilization of the space on the building rooftop.



## External Static Pressure up to 80Pa\*

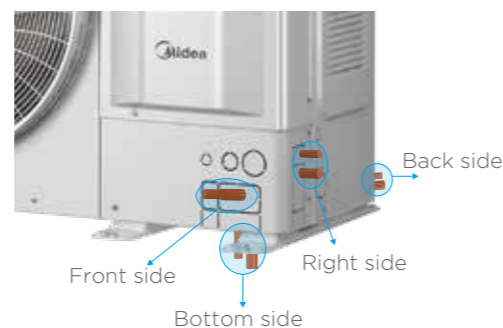
The static pressure of the outdoor unit can be up to 80Pa which facilitates installation of the unit on each floor of high-rise buildings or on balconies.



\*External static pressure above 35Pa is available as a customization option.

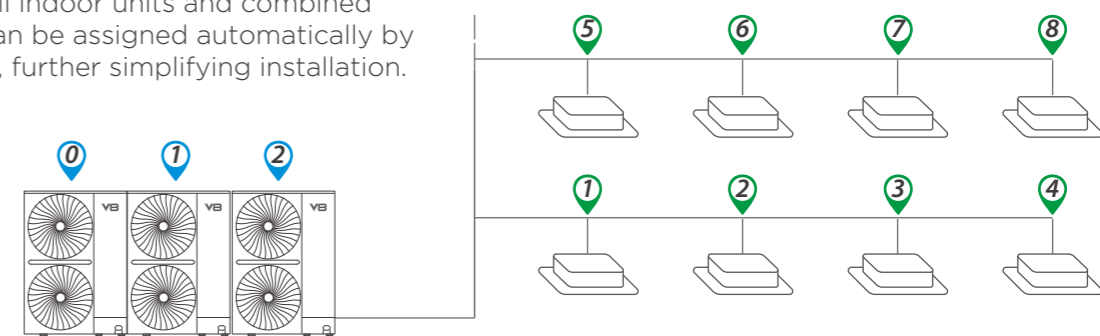
## Four-way Piping Connection

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



## Auto Addressing

Addresses for all indoor units and combined outdoor units can be assigned automatically by the V8S system, further simplifying installation.



## Automatic Refrigerant Charging\*

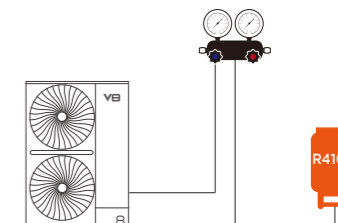
Compared to manual refrigerant charging, automatic refrigerant charging greatly simplifies the process, making installation and maintenance easier and more efficient.

### Manual refrigerant charging

- 1 Calculate additional refrigerant quantity
- 2 Connect refrigerant tank to the outdoor unit & start the filling process
- 3 Observe the weight scale to check the refrigerant charge
- 4 Close the shut-off valve manually & finish the filling process

### Automatic refrigerant charging

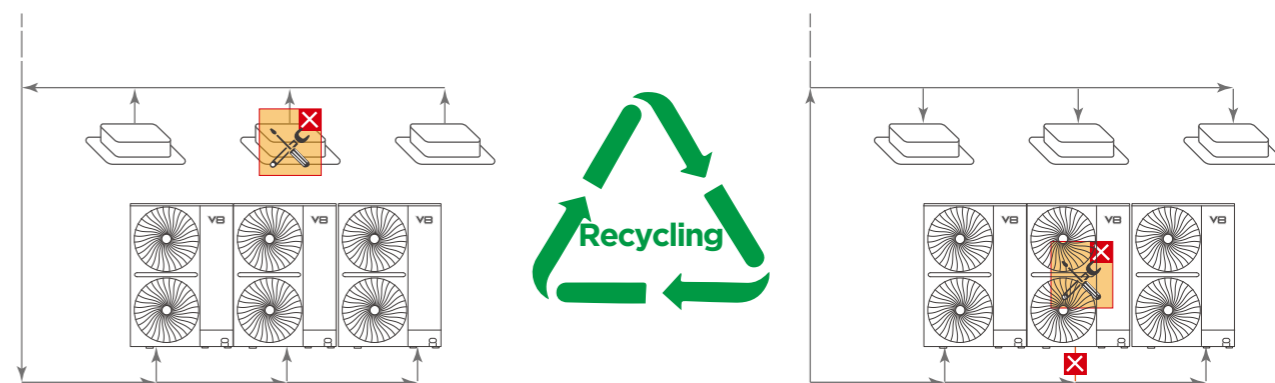
- 1 Connect refrigerant tank to the outdoor unit & activate automatic charging function
- 2 Close the shut-off valve automatically & finish the filling process



\*This function is available as a customization option.

## Automatic Refrigerant Recycling

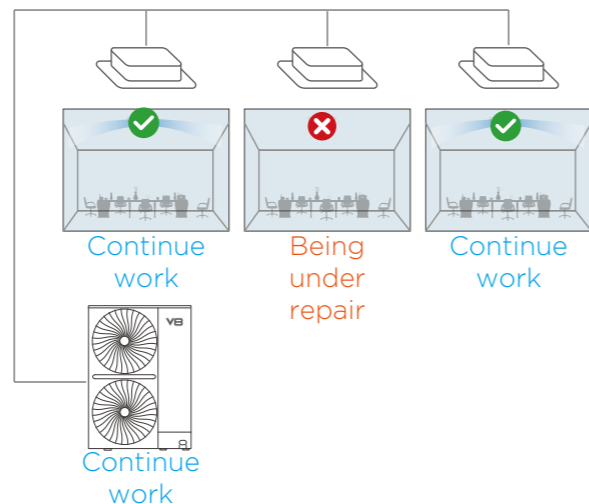
When an indoor unit fails, the refrigerant can be recycled into the outdoor units. When part of the outdoor unit fails, the refrigerant can be recycled into the indoor units and the normal outdoor unit. Two types of refrigerant recycling make the maintenance process easier and more efficient.





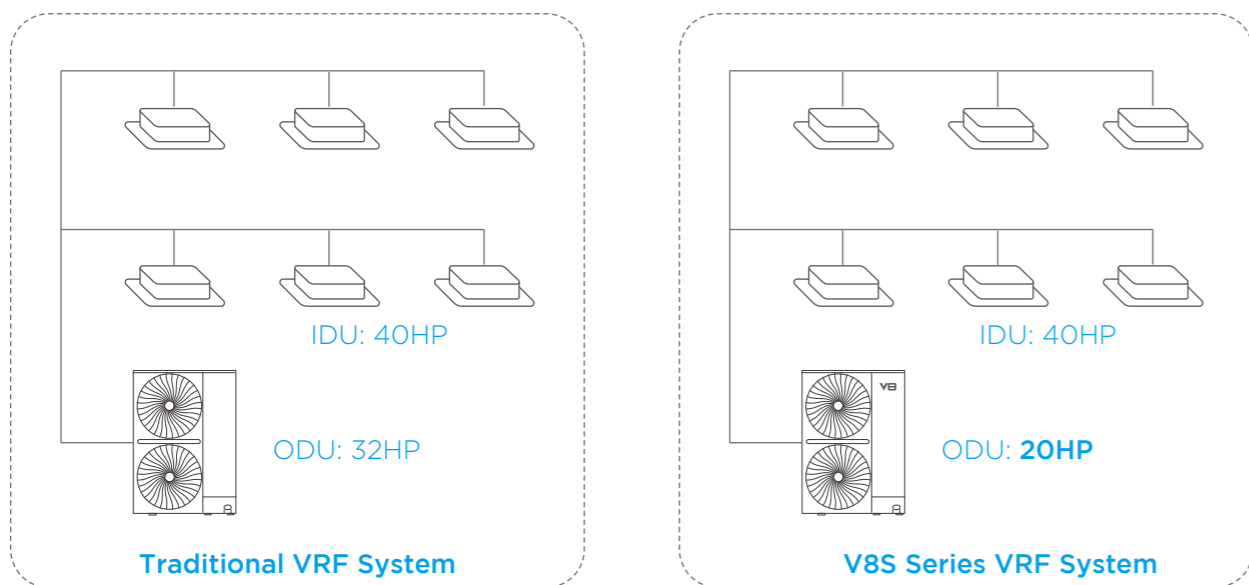
### /// Maintenance Mode

The maintenance mode allows the shutdown of some indoor units without shutting down the whole VRF system, and it can be activated on site during the maintenance period as the remaining indoor units continue to operate.



### /// Wide Combination Ratio\*

Compared to traditional VRF with combination ratio of 50-130%, the V8S Series VRF can be extended to 50-200%, 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.



\*Combination ratio over 130% is available as a customization option.

### /// 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 the 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.

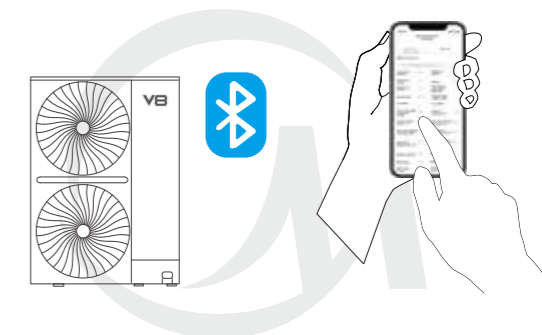


### /// Smart Commissioning/Maintenance Tool

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.

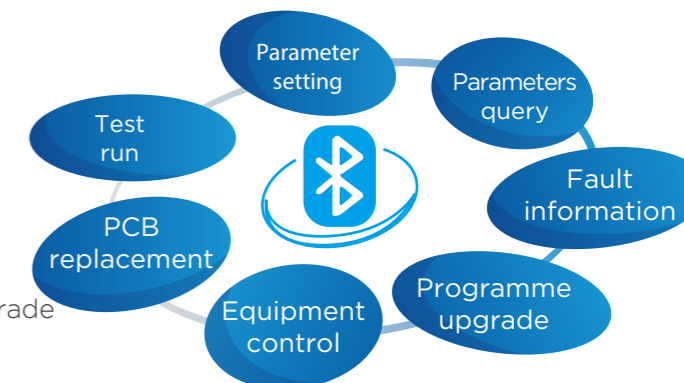
**Useful in the following situations:**

- 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





## Specifications

## V8S (380-415V/3N/50Hz)

HP	Model name		8	10	12	14
Model name			MV8S-252WV2RN1	MV8S-280WV2RN1	MV8S-335WV2RN1	MV8S-400WV2RN1
Power supply	V/N/Hz		380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
Cooling <sup>1</sup>	Capacity	kW	25.2	28	33.5	40
		kBtu/h	86.0	95.5	114.3	136.5
Heating <sup>2</sup> (Rated)	Capacity	kW	25.2	28	33.5	40
		kBtu/h	86.0	95.5	114.3	136.5
Heating <sup>2</sup> (Max)	Capacity	kW	27	31.5	37.5	45
		kBtu/h	92.1	107.5	128.0	153.5
SEER			7.1	6.80	6.38	6.23
η <sub>s,c</sub>	%		287.0	279.0	273.4	263.0
SCOP			4.15	4.10	4.11	4.00
η <sub>s,h</sub>	%		163.0	161.4	161.4	163.0
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%	50-130%
	Maximum quantity		13	16	19	22
Compressor	Type		DC inverter			
	Quantity		1	1	1	1
Fan motors	Type		DC	DC	DC	DC
	Quantity		2	2	2	2
	Airflow rate	m <sup>3</sup> /h	1800	12500	12500	12500
	Static pressure		Pa 0-35 (standard); 35-80 (customized)			
Refrigerant	Type		R410A	R410A	R410A	R410A
	Factory charge	kg	6.1	6.1	6.4	7.4
Pipe connections <sup>3</sup>	Liquid pipe	mm	Ø12.7	Ø12.7	Ø12.7	Ø12.7
	Gas pipe	mm	Ø25.4	Ø25.4	Ø25.4	Ø25.4
Sound pressure level <sup>4</sup>	dB(A)		56	57	58	59
Sound power level <sup>4</sup>	dB(A)		76	79	81	82
Net dimensions (W×H×D)	mm		1130×1760×580	1130×1760×580	1130×1760×580	1130×1760×580
Packed dimensions (W×H×D)	mm		1210×1916×597	1210×1916×597	1210×1916×597	1210×1916×597
Net weight	kg		177	177	180	182
Gross weight	kg		191	191	194	196
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30	-30 to 30

## Specifications

## V8S (380-415V/3N/50Hz)

HP	Model name (Combination unit)		24	26	28
Model name (Combination unit)			MV8S-670WV2RN1	MV8S-735WV2RN1	MV8S-800WV2RN1
Combination type			12HP+12HP	12HP+14HP	14HP+14HP
Power supply	V/N/Hz		380-415/3/50	380-415/3/50	380-415/3/50
Cooling <sup>1</sup>	Capacity	kW	67.0	73.5	80.0
		kBtu/h	228.6	250.8	273.0
Heating <sup>2</sup> (Rated)	Capacity	kW	67.0	73.5	80.0
		kBtu/h	228.6	250.8	273.0
Heating <sup>2</sup> (Max)	Capacity	kW	75.0	82.5	90.0
		kBtu/h	255.9	281.5	307.1
SEER			6.95	6.81	6.67
η <sub>s,c</sub>	%		275.0	269.4	263.8
SCOP			4.11	4.13	4.15
η <sub>s,h</sub>	%		161.4	162.2	163.0
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%
	Maximum quantity		39	43	46
Compressor	Type		DC inverter		
	Quantity		2	2	2
Fan motors	Type		DC	DC	DC
	Quantity		4	4	4
	Airflow rate	m <sup>3</sup> /h	25000	25000	25000
	Static pressure		Pa 0-35 (standard); 35-80 (customized)		
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	6.4×2	6.4+7.4	7.4×2
Pipe connections <sup>3</sup>	Liquid pipe	mm	Ø15.9	Ø19.1	Ø19.1
	Gas pipe	mm	Ø28.6	Ø31.8	Ø31.8
Sound pressure level <sup>4</sup>	dB(A)		61	61.5	62
Sound power level <sup>4</sup>	dB(A)		84	84.5	84.5
Net dimensions (W×H×D)	mm		(1130×1760×580)×2	(1130×1760×580)×2	(1130×1760×580)×2
Packed dimensions (W×H×D)	mm		(1210×1916×597)×2	(1210×1916×597)×2	(1210×1916×597)×2
Net weight	kg		180×2	180+182	182×2
Gross weight	kg		194×2	194+196	196×2
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30

HP	Model name		16	18	20	22
Model name			MV8S-450WV2RN1	MV8S-500WV2RN1	MV8S-560WV2RN1	MV8S-615WV2RN1
Power supply	V/N/Hz		380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
Cooling <sup>1</sup>	Capacity	kW	45	50	56	61.5
		kBtu/h	153.5	170.6	191.1	209.8
Heating <sup>2</sup> (Rated)	Capacity	kW	45	50	56	61.5
		kBtu/h	153.5	170.6	191.1	209.8
Heating <sup>2</sup> (Max)	Capacity	kW	50	56.5	63	69
		kBtu/h	170.6	192.8	215.0	235.4
SEER			6.15	6.08	5.95	5.80
η <sub>s,c</sub>	%		267.8	255.8	249.0	243.0
SCOP			4.10	4.15	4.07	4.00
η <sub>s,h</sub>	%		166.2	163.8	159.8	157.0
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%	50-130%
	Maximum quantity		26	29	32	35
Compressor	Type		DC inverter			
	Quantity		1	1	1	1
Fan motors	Type		DC	DC	DC	DC
	Quantity		2	2	2	2
	Airflow rate	m <sup>3</sup> /h	18500	20000	18500	19000
	Static pressure		Pa 0-35 (standard); 35-80 (customized)			
Refrigerant	Type		R410A	R410A	R410A	R410A
	Factory charge	kg	8	8	8.5	8.5
Pipe connections <sup>3</sup>	Liquid pipe	mm	Ø15.9	Ø15.9	Ø15.9	Ø15.9
	Gas pipe	mm	Ø28.6	Ø28.6	Ø28.6	Ø28.6
Sound pressure level <sup>4</sup>	dB(A)		60	61	61	62
Sound power level <sup>4</sup>	dB(A)		86	88	89	89
Net dimensions (W×H×D)	mm		1250×1760×580	1250×1760×580	1250×1760×580	1250×1760×580
Packed dimensions (W×H×D)	mm		1330×1916×597	1330×1916×597	1330×1916×597	1330×1916×597
Net weight	kg		208	208	228	228
Gross weight	kg		223	223	243	243
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30	-30 to 30

HP	Model name (Combination unit)		30	32	34
Model name (Combination unit)			MV8S-850WV2RN1	MV8S-900WV2RN1	MV8S-950WV2RN1
Combination type			14HP+16HP	14HP+18HP	16HP+18HP
Power supply	V/N/Hz		380-415/3/50	380-415/3/50	380-415/3/50
Cooling <sup>1</sup>	Capacity	kW	85.0	90.0	95.0
		kBtu/h	290.0	307.1	324.1
Heating <sup>2</sup> (Rated)	Capacity	kW	85.0	90.0	95.0
		kBtu/h	290.0	307.1	324.1
Heating <sup>2</sup> (Max)	Capacity	kW	95.0	101.5	106.5
		kBtu/h	324.1	346.3	363.4
SEER			6.73	6.57	6.63
η <sub>s,c</sub>	%		266.2	259.8	262.2
SCOP			4.19	4.19	4.23
η <sub>s,h</sub>	%		164.6	164.6	166.2
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%
	Maximum quantity		50	53	56
Compressor	Type		DC inverter		
	Quantity		2	2	2
Fan motors	Type		DC	DC	DC
	Quantity		4	4	4
	Airflow rate	m <sup>3</sup> /h	31000	32500	38500
	Static pressure		Pa 0-35 (standard); 35-80 (customized)		
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	7.4+8	7.4+8	8×2
Pipe connections <sup>3</sup>	Liquid pipe	mm	Ø19.1	Ø19.1	Ø19.1
	Gas pipe	mm	Ø31.8	Ø31.8	Ø31.8
Sound pressure level <sup>4</sup>	dB(A)		62.5	63.1	63.5
Sound power level <sup>4</sup>	dB(A)		87.5	89	90.1
Net dimensions (W×H×D)	mm		(1130×1760×580)+(1250×1760×580)	(1130×1760×580)+(1250×1760×580)	(1250×1760×580)×2
Packed dimensions (W×H×D)	mm		(1210×1916×597)+(1330×1916×597)	(1210×1916×597)+(1330×1916×597)	(1330×1916×597)×2
Net weight	kg		182+208	182+208	208×2
Gross weight	kg		196+223	196+223	223×2
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30

## Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those of the unit's stop valves.
- Sound pressure level is measured at a position 1m in front of the unit and 1.3m above the floor in a semi-anechoic chamber.

## Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent lengths between the farthest IDU and the first outdoor branch joint of less than 90m. For systems with lengths of 90m or longer, please refer to the V8S Series Engineering Data Book for connection piping diameters.
- Sound pressure level is measured at a position 1m in front of the unit and 1.3m above the floor in a semi-anechoic chamber.



## Specifications

## V8S (380-415V/3N/50Hz)

HP			36	38	40
Model name (Combination unit)			MV8S-1000WV2RN1	MV8S-1065WV2RN1	MV8S-1115WV2RN1
Combination type			18HP+18HP	16HP+22HP	18HP+22HP
Power supply			V/N/Hz 380-415/3/50	380-415/3/50	380-415/3/50
Cooling <sup>1</sup>	Capacity	kW	100.0	106.5	111.5
		kBtu/h	341.2	363.4	380.4
Heating <sup>2</sup> (Rated)	Capacity	kW	100.0	106.5	111.5
		kBtu/h	341.2	363.4	380.4
Heating <sup>2</sup> (Max)	Capacity	kW	113.0	119.0	125.5
		kBtu/h	385.6	406.0	428.2
SEER			6.49	6.41	6.30
η <sub>sc</sub>			256.6	253.4	249.0
SCOP			4.17	4.08	4.10
η <sub>sh</sub>			163.8	160.2	161.0
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%
	Maximum quantity		59	63	64
Compressor	Type		DC inverter		
	Quantity		2	2	2
Fan motors	Type		DC		
	Quantity		4	4	4
	Airflow rate	m <sup>3</sup> /h	40000	37500	39000
Refrigerant	Static pressure		Pa		
	Type		R410A		
	Factory charge	kg	8×2	8+8.5	8+8.5
Pipe connections <sup>3</sup>	Liquid pipe	mm	Ø19.1	Ø19.1	Ø19.1
	Gas pipe	mm	Ø38.1	Ø38.1	Ø38.1
Sound pressure level <sup>4</sup>			64	64.1	64.5
Sound power level <sup>4</sup>			91	90.8	91.5
Net dimensions (W×H×D)			mm (1250×1760×580)×2	(1250×1760×580)×2	(1250×1760×580)×2
Packed dimensions (W×H×D)			mm (1330×1916×597)×2	(1330×1916×597)×2	(1330×1916×597)×2
Net weight			kg 208×2	208+228	208+228
Gross weight			kg 223×2	223+243	223+243
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30

## Specifications

## V8S (380-415V/3N/50Hz)

HP			48	50	52
Model name (Combination unit)			MV8S-1350WV2RN1	MV8S-1400WV2RN1	MV8S-1450WV2RN1
Combination type			14HP+16HP+18HP	14HP+18HP+18HP	16HP+18HP+18HP
Power supply			V/N/Hz 380-415/3/50	380-415/3/50	380-415/3/50
Cooling <sup>1</sup>	Capacity	kW	135.0	140.0	145.0
		kBtu/h	460.6	477.7	494.7
Heating <sup>2</sup> (Rated)	Capacity	kW	135.0	140.0	145.0
		kBtu/h	460.6	477.7	494.7
Heating <sup>2</sup> (Max)	Capacity	kW	151.5	158.0	163.0
		kBtu/h	516.9	539.1	556.2
SEER			6.64	6.54	6.58
η <sub>sc</sub>			262.6	258.6	260.2
SCOP			4.20	4.20	4.22
η <sub>sh</sub>			165.0	165.0	165.8
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%
	Maximum quantity		64	64	64
Compressor	Type		DC inverter		
	Quantity		3	3	3
Fan motors	Type		DC		
	Quantity		6	6	6
	Airflow rate	m <sup>3</sup> /h	51000	52500	58500
Refrigerant	Static pressure		Pa		
	Type		R410A		
	Factory charge	kg	7.4+8×2	7.4+8×2	8×3
Pipe connections <sup>3</sup>	Liquid pipe	mm	Ø19.1	Ø19.1	Ø19.1
	Gas pipe	mm	Ø38.1	Ø38.1	Ø38.1
Sound pressure level <sup>4</sup>			64.8	65.2	65.5
Sound power level <sup>4</sup>			90.7	91.5	92.2
Net dimensions (W×H×D)			mm (1130×1760×580)+(1250×1760×580)×2	(1130×1760×580)+(1250×1760×580)×2	(1250×1760×580)×3
Packed dimensions (W×H×D)			mm (1210×1916×597)+(1330×1916×597)×2	(1210×1916×597)+(1330×1916×597)×2	(1330×1916×597)×3
Net weight			kg 182+208×2	182+208×2	208×3
Gross weight			kg 196+223×2	196+223×2	223×3
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30

HP			42	44	46
Model name (Combination unit)			MV8S-1175WV2RN1	MV8S-1230WV2RN1	MV8S-1300WV2RN1
Combination type			20HP+22HP	22HP+22HP	14HP+14HP+18HP
Power supply			V/N/Hz 380-415/3/50	380-415/3/50	380-415/3/50
Cooling <sup>1</sup>	Capacity	kW	117.5	123.0	130.0
		kBtu/h	400.9	419.7	443.6
Heating <sup>2</sup> (Rated)	Capacity	kW	117.5	123.0	130.0
		kBtu/h	400.9	419.7	443.6
Heating <sup>2</sup> (Max)	Capacity	kW	132.0	138.0	146.5
		kBtu/h	450.4	470.9	499.9
SEER			6.24	6.16	6.60
η <sub>sc</sub>			246.6	243.4	261.0
SCOP			4.03	4.00	4.17
η <sub>sh</sub>			158.2	157.0	163.8
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%
	Maximum quantity		64	64	64
Compressor	Type		DC inverter		
	Quantity		2	2	3
Fan motors	Type		DC		
	Quantity		4	4	6
	Airflow rate	m <sup>3</sup> /h	37500	38000	45000
Refrigerant	Static pressure		Pa		
	Type		R410A		
	Factory charge	kg	8.5×2	8.5×2	7.4×2+8
Pipe connections <sup>3</sup>	Liquid pipe	mm	Ø19.1	Ø19.1	Ø19.1
	Gas pipe	mm	Ø38.1	Ø38.1	Ø38.1
Sound pressure level <sup>4</sup>			64.5	65	64.5
Sound power level <sup>4</sup>			92	92	89.8
Net dimensions (W×H×D)			mm (1250×1760×580)×2	(1250×1760×580)×2	(1130×1760×580)×2+(1250×1760×580)
Packed dimensions (W×H×D)			mm (1330×1916×597)×2	(1330×1916×597)×2	(1210×1916×597)×2+(1330×1916×597)
Net weight			kg 228×2	228×2	182×2+208
Gross weight			kg 243×2	243×2	196×2+223
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30

## Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent lengths between the farthest IDU and the first outdoor branch joint of less than 90m. For systems with lengths of 90m or longer, please refer to the V8S Series Engineering Data Book for connection piping diameters.
- Sound pressure level is measured at a position 1m in front of the unit and 1.3m above the floor in a semi-anechoic chamber.

HP			54	56	58
Model name (Combination unit)			MV8S-1500WV2RN1	MV8S-1565WV2RN1	MV8S-1615WV2RN1
Combination type			18HP+18HP+18HP	16HP+18HP+22HP	18HP+18HP+22HP
Power supply			V/N/Hz 380-415/3/50	380-415/3/50	380-415/3/50
Cooling <sup>1</sup>	Capacity	kW	150.0	156.5	161.5
		kBtu/h	511.8	534.0	551.0
Heating <sup>2</sup> (Rated)	Capacity	kW	150.0	156.5	161.5
		kBtu/h	511.8	534.0	551.0
Heating <sup>2</sup> (Max)	Capacity	kW	169.5	175.5	182.0
		kBtu/h	578.3	598.8	621.0
SEER			6.49	6.44	6.36
η <sub>sc</sub>			256.6	254.6	251.4
SCOP			4.17	4.13	4.14
η <sub>sh</sub>			163.8	162.2	162.6
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%
	Maximum quantity		64	64	64
Compressor	Type		DC inverter		
	Quantity		3	3	3
Fan motors	Type		DC		
	Quantity		6	6	6
	Airflow rate	m <sup>3</sup> /h	60000	57500	59000
Refrigerant	Static pressure		Pa		
	Type		R410A		
	Factory charge	kg	8×3	8×2+8.5	8×2+8.5
Pipe connections <sup>3</sup>	Liquid pipe	mm	Ø19.1	Ø19.1	Ø19.1
	Gas pipe	mm	Ø38.1	Ø41.3	Ø41.3
Sound pressure level <sup>4</sup>			65.8	65.8	66.1
Sound power level <sup>4</sup>			92.8	92.6	93.1
Net dimensions (W×H×D)			mm (1250×1760×580)×3	(1250×1760×580)×3	(1250×1760×580)×3
Packed dimensions (W×H×D)			mm (1330×1916×597)×3	(1330×1916×597)×3	(1330×1916×597)×3
Net weight			kg 208×3	208×3	208×2+228
Gross weight			kg 223×3	223×3	223×2+243
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30

## Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent lengths between the farthest IDU and the first outdoor branch joint of less than 90m. For systems with lengths of 90m or longer, please refer to the V8S Series Engineering Data Book for connection piping diameters.
- Sound pressure level is measured at a position 1m in front of the unit and 1.3m above the floor in a semi-anechoic chamber.



## Specifications

## V8S (380-415V/3N/50Hz)

HP			60	62	64	66
Model name (Combination unit)			MV8S-1675WV2RNI	MV8S-1730WV2RNI	MV8S-1730WV2RNI	MV8S-1845WV2RNI
Combination type			18HP+20HP+22HP	18HP+22HP+22HP	20HP+22HP+22HP	22HP+22HP+22HP
Power supply			V/N/Hz 380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
Cooling <sup>1</sup>	Capacity	kW	167.5	173.0	179.0	184.5
		kBtu/h	571.5	590.3	610.7	629.5
Heating <sup>2</sup> (Rated)	Capacity	kW	167.5	173.0	179.0	184.5
		kBtu/h	571.5	590.3	610.7	629.5
Heating <sup>2</sup> (Max)	Capacity	kW	188.5	194.5	201.0	207.0
		kBtu/h	643.2	663.6	685.8	706.3
SEER			6.32	6.25	6.22	6.16
η <sub>s,c</sub>			249.8	247.0	245.8	243.4
SCOP			4.09	4.06	4.02	4.00
η <sub>s,h</sub>			160.6	159.4	157.8	157.0
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%	50-130%
	Maximum quantity		64	64	64	64
Compressor	Type		DC inverter			
	Quantity		3	3	3	3
Fan motors	Type		DC			
	Quantity		6	6	6	6
	Airflow rate	m <sup>3</sup> /h	57500	58000	56500	57000
	Static pressure		Pa 0-35 (standard); 35-80 (customized)			
Refrigerant	Type		R410A			
	Factory charge	kg	8+8.5×2	8+8.5×2	8.5×3	8.5×3
Pipe connections <sup>3</sup>	Liquid pipe	mm	Ø19.1	Ø19.1	Ø19.1	Ø19.1
	Gas pipe	mm	Ø41.3	Ø41.3	Ø41.3	Ø41.3
Sound pressure level <sup>4</sup>			66.1	66.5	66.5	66.8
Sound power level <sup>4</sup>			93.5	93.5	93.6	93.8
Net dimensions (W×H×D)			mm (1250×1760×580)×3	(1250×1760×580)×3	(1250×1760×580)×3	(1250×1760×580)×3
Packed dimensions (W×H×D)			mm (1330×1916×597)×3	(1330×1916×597)×3	(1330×1916×597)×3	(1330×1916×597)×3
Net weight			kg 208×2+228	208+228×2	228×3	228×3
Gross weight			kg 223×2+243	223+243×2	243×3	243×3
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30	-30 to 30

## Specifications

## V8S (380-415V/3N/50Hz)

HP			74	76	78	80
Model name (Combination unit)			MV8S-2060WV2RNI	MV8S-2115WV2RNI	MV8S-2175WV2RNI	MV8S-2230WV2RNI
Combination type			18HP+18HP+18HP+20HP	18HP+18HP+18HP+22HP	18HP+18HP+20HP+22HP	18HP+18HP+22HP+22HP
Power supply			V/N/Hz 380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
Cooling <sup>1</sup>	Capacity	kW	206.0	211.5	217.5	223.0
		kBtu/h	702.9	721.6	742.1	760.9
Heating <sup>2</sup> (Rated)	Capacity	kW	206.0	211.5	217.5	223.0
		kBtu/h	702.9	721.6	742.1	760.9
Heating <sup>2</sup> (Max)	Capacity	kW	232.5	238.5	245.0	251.0
		kBtu/h	793.3	813.8	835.9	856.4
SEER			6.46	6.39	6.36	6.31
η <sub>s,c</sub>			255.4	252.6	251.4	249.4
SCOP			4.13	4.16	4.12	4.10
η <sub>s,h</sub>			162.2	163.4	161.8	161.0
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%	50-130%
	Maximum quantity		64	64	64	64
Compressor	Type		DC inverter			
	Quantity		4	4	4	4
Fan motors	Type		DC			
	Quantity		8	8	8	8
	Airflow rate	m <sup>3</sup> /h	78500	79000	77500	78000
	Static pressure		Pa 0-35 (standard); 35-80 (customized)			
Refrigerant	Type		R410A			
	Factory charge	kg	8×3+8.5	8×3+8.5	8×2+8.5×2	8×2+8.5×2
Pipe connections <sup>3</sup>	Liquid pipe	mm	Ø22.2	Ø22.2	Ø22.2	Ø22.2
	Gas pipe	mm	Ø44.5	Ø44.5	Ø44.5	Ø44.5
Sound pressure level <sup>4</sup>			67	67.3	67.3	67.5
Sound power level <sup>4</sup>			94.3	94.3	94.5	94.5
Net dimensions (W×H×D)			mm (1250×1760×580)×4	(1250×1760×580)×4	(1250×1760×580)×4	(1250×1760×580)×4
Packed dimensions (W×H×D)			mm (1330×1916×597)×4	(1330×1916×597)×4	(1330×1916×597)×4	(1330×1916×597)×4
Net weight			kg 208×3+228	208×3+228	208×2+228×2	208×2+228×2
Gross weight			kg 223×3+243	223×3+243	223×2+243×2	223×2+243×2
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30	-30 to 30

HP			68	70	72
Model name (Combination unit)			MV8S-1900WV2RNI	MV8S-1960WV2RNI	MV8S-2000WV2RNI
Combination type			14HP+18HP+18HP+18HP	14HP+18HP+18HP+20HP	18HP+18HP+18HP+18HP
Power supply			V/N/Hz 380-415/3/50	380-415/3/50	380-415/3/50
Cooling <sup>1</sup>	Capacity	kW	190.0	196.0	200.0
		kBtu/h	648.3	668.8	682.4
Heating <sup>2</sup> (Rated)	Capacity	kW	190.0	196.0	200.0
		kBtu/h	648.3	668.8	682.4
Heating <sup>2</sup> (Max)	Capacity	kW	214.5	221.0	226.0
		kBtu/h	731.9	754.1	771.1
SEER			6.53	6.49	6.50
η <sub>s,c</sub>			258.2	256.6	257.0
SCOP			4.21	4.16	4.17
η <sub>s,h</sub>			165.4	163.4	163.8
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%
	Maximum quantity		64	64	64
Compressor	Type		DC inverter		
	Quantity		4	4	4
Fan motors	Type		DC		
	Quantity		8	8	8
	Airflow rate	m <sup>3</sup> /h	72500	71000	80000
	Static pressure		Pa 0-35 (standard); 35-80 (customized)		
Refrigerant	Type		R410A		
	Factory charge	kg	7.4+8×3	7.4+8×2+8.5	8×4
Pipe connections <sup>3</sup>	Liquid pipe	mm	Ø22.2	Ø22.2	Ø22.2
	Gas pipe	mm	Ø44.5	Ø44.5	Ø44.5
Sound pressure level <sup>4</sup>			66.6	66.6	67
Sound power level <sup>4</sup>			93.1	93.5	94
Net dimensions (W×H×D)			mm (1130×1760×580)+(1250×1760×580)×3	(1130×1760×580)+(1250×1760×580)×3	(1250×1760×580)×4
Packed dimensions (W×H×D)			mm (1210×1916×597)+(1330×1916×597)×3	(1210×1916×597)+(1330×1916×597)×3	(1330×1916×597)×4
Net weight			kg 182+208×3	182+208×2+228	208×4
Gross weight			kg 196+223×3	196+223×2+243	223×4
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30

## Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent lengths between the farthest IDU and the first outdoor branch joint of less than 90m. For systems with lengths of 90m or longer, please refer to the V8S Series Engineering Data Book for connection piping diameters.
- Sound pressure level is measured at a position 1m in front of the unit and 1.3m above the floor in a semi-anechoic chamber.

HP			82	84	86	88
Model name (Combination unit)			MV8S-2290WV2RNI	MV8S-2345WV2RNI	MV8S-2405WV2RNI	MV8S-2460WV2RNI
Combination type			18HP+20HP+22HP+22HP	18HP+22HP+22HP+22HP	20HP+22HP+22HP+22	22HP+22HP+22HP+22
Power supply			V/N/Hz 380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
Cooling <sup>1</sup>	Capacity	kW	229.0	234.5	240.5	246.0
		kBtu/h	781.3	800.1	820.6	839.4
Heating <sup>2</sup> (Rated)	Capacity	kW	229.0	234.5	240.5	246.0
		kBtu/h	781.3	800.1	820.6	839.4
Heating <sup>2</sup> (Max)	Capacity	kW	257.5	263.5	270.0	276.0
		kBtu/h	878.6	899.1	921.2	941.7
SEER			6.28	6.23	6.20	6.16
η <sub>s,c</sub>			248.2	246.2	245.0	243.4
SCOP			4.06	4.05	4.02	4.00
η <sub>s,h</sub>			159.4	159.0	157.8	157.0
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%	50-130%
	Maximum quantity		64	64	64	64
Compressor	Type		DC inverter			
	Quantity		4	4	4	4
Fan motors	Type		DC			
	Quantity		8	8	8	8
	Airflow rate	m <sup>3</sup> /h	76500	77000	75500	76000
	Static pressure		Pa 0-35 (standard); 35-80 (customized)			
Refrigerant	Type		R410A			
	Factory charge	kg	8+8.5×3	8+8.5×3	8.5×4	8.5×4
Pipe connections <sup>3</sup>	Liquid pipe	mm	Ø22.2	Ø22.2	Ø22.2	Ø22.2
	Gas pipe	mm	Ø44.5	Ø50.8	Ø50.8	Ø50.8
Sound pressure level <sup>4</sup>			67.5	67.8	67.8	68
Sound power level <sup>4</sup>			94.8	94.8	95	95
Net dimensions (W×H×D)			mm (1250×1760×580)×4	(1250×1760×580)×4	(1250×1760×580)×4	(1250×1760×580)×4
Packed dimensions (W×H×D)			mm (1330×1916×597)×4	(1330×1916×597)×4	(1330×1916×597)×4	(1330×1916×597)×4
Net weight			kg 208+228×3	208+228×3	228×4	228×4
Gross weight			kg 223+243×3	223+243×3	243×4	243×4
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30	-30 to 30

## Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent lengths between the farthest IDU and the first outdoor branch joint of less than 90m. For systems with lengths of 90m or longer, please refer to the V8S Series Engineering Data Book for connection piping diameters.
- Sound pressure level is measured at a position 1m in front of the unit and 1.3m above the floor in a semi-anechoic chamber.