

# Eco Series

VB

Midea

# **SMART IN ONE**

Midea Building Technologies Division

Midea Group

Add.: Midea Headquarters Building, 6 Midea Avenue, Shunde, Foshan, Guangdong, China

Postal code: 528311

nbt.midea.com www.midea-group.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.





Several production bases are situated on Shunde, Chongqing, Hefei, and Italy.

MBT Hefei: 11 product lines focusing on VRF, Chillers and Heat Pump Water Heaters.

2018-2019

Chillers and AHU/FCU.

split and close control and so on.

MBT Shunde: 38 product lines focusing on VRF, Split Products, Heat Pump Water Heaters and AHU/FCU.

MBT Chongqing: 14 product lines focusing on Water Cooled Centrifugal/Screw/Scroll Chillers, Air Cooled Screw/Scroll

Clivet S.p.A: 50,000m2 workshop in Feltre and Verona, covering products such as ELFO system, hydronic, WHLP, packaged,

04

# Benefits of Midea VRF

## **Benefits for End-users**



#### **Healthy Operation**

- An outside air intake port in the indoor unit allows outdoor fresh air to be introduced into indoor rooms
- Puro-Air kit, powered by OSRAM's UVC lamps, can effectively kill bacteria, viruses and odors of indoor air to provide a healthy and safe indoor environ-
- PCO-kit use magnetic particles coated with TiO2nanoparticles to oxidize organic pollutants to produce harmless substances such as carbon dioxide and



Benefits for Midea VRF

#### Cost Saving Operation

- Cost saving can be up to 31% through Midea META technology
- High efficiency operations thanks to the full DC inverter technology



#### Comfortable Environment

- 0.5° C or 1° C steps temperature setting and 7 fan speeds, providing comfort-
- Zen air technology ensuring comfortable in any condition
- Noise level is as low as 22dB(A), creating a quiet environment







## **Energy Saving Management**

- Centralized and unified management of all equipment, saving energy and
- Remote access to CCM-15 allows anytime, anywhere control (via mobile app "M-Control")



#### **Reliable Operation**

- The key components are made of internationally renowned brands, like Hitachi, Danfoss, FUJIKOKI, Infineon, Mitsubishi etc., enhancing better performance and guaranteeing reliable operation
- Electric control parts are produced by well-known Midea-SIIX Electronics Corporation, enhancing reliability
- Doctor M technology real-time monitoring system operation, timely self-diagnosis, ensuring stable and reliable operation



#### **Backup Solution**



## **Benefits for Consultants**



#### **Diversified Solutions**

- A wide product portfolio including air cooled heat pump VRF, Air cooled heat recovery VRF, air cooled cooling only VRF and water cooled VRF
- 12 types and more 100 models of VRF indoor units to meet varied customer requirements in a wide range of locations
- Heat Recovery Ventilation and Air Handling Unit adding more options



#### **Professional Tool and Support**

- MSSP (Midea Selection Software Platform) enables an easy and quick selection and provides comprehensive system design reports and calculations
- CFD analysis helps optimize solutions and anticipate potential problems in
- Energy consumption analysis helps to provide optimal design solutions



#### Design Flexibility

- $\bullet$  Up to 80°C hot water supply in heat recovery system
- Standard and tropical area applications
- Supporting cooling operation even at -15°C



# **Benefits for Construction Companies**



#### **Green Solutions**

- Help earn points when applying for a LEED certificate
- Renewable energy solution provided through water cooled application



#### Space Saving Design

- Top class compact design, 16kW capacity with only 0.42m² footprint which also can be hang on the wall
- Large capacity for single unit design can save space in big system



#### Intelligent Management

• Full compatibility with the leading BMS protocols: BACnet, LonWorks, Modbus





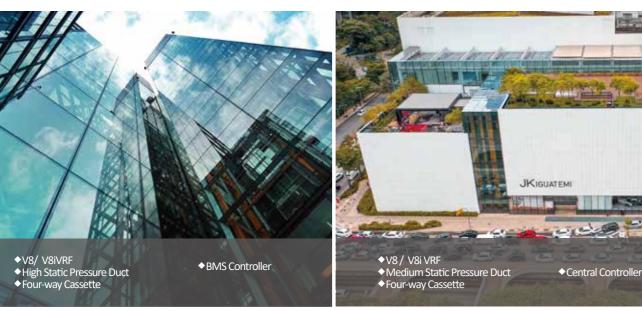
- Quadruple back-up function allowing time for maintenance or repair whilst
- Maintenance mode can be activated on site during maintenance period as the remaining indoor units continue to operate

# **Application Solutions**

# **Office Complexes**

Enjoy comfort while working

High-rise office building



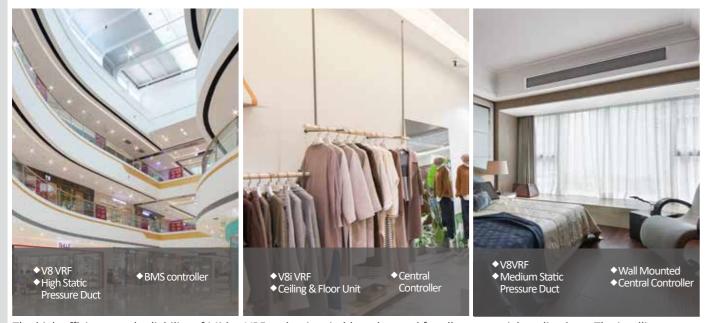
Small and medium-sized office buildings

Be it small or large sized, Midea VRF provides solution for all 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.

# **Hotels & Shopping Malls**

Increase your business, not your bills

**Shopping Malls** Hotel Retails



The high efficiency and reliability of Midea VRF makes it suitable to be used for all commercial applications. The intelligent control solutions like hotel key cards and touch screen controller makes the management easy

# **Residential Apartments**

One for Every home

**Apartments** 

Villas





06

**Application Solutions** 

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

# **Other Applications**

Meeting all expectations

Hospitals **Schools Airports** 



The innovative design and a variety of indoor unit choices makes Midea VRF suitable for all kinds of applications. The newly designed puro-air kit is a must have product for modern hospitals.

Tool and Support

08

Midea dedicated to provide the best HVAC engineering supportand solutionsfocused oneffectively designed, built, supervised, and maintained throughout the lifecycle, providing our customers a faster, easier, and a more accurate way in everyday duties.



## Design

#### MSSP-Drag/Drop Design

MSSP-Drag/Drop design enables an easy and quick selection and provides comprehensive system design reports and calculations.

Note: MSSP (Midea Selection Software Platform)



#### **MSSP-CAD Design**

MSSP-CAD design enables an visual and fast selection and provides comprehensive system design reports and calculations.

Note: MSSP (Midea Selection Software Platform)



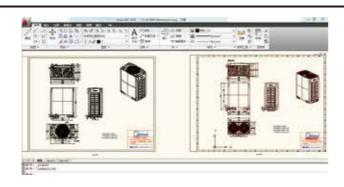
#### **Revit Family**

Midea revit is developed to make 3D design of Midea products easier than the previous program. It enables engineers to check 3D images from design stage and prevents possible issues of the installation stage.



#### **CAD Drawing**

CAD enables faster and a more accurate design of Midea products.





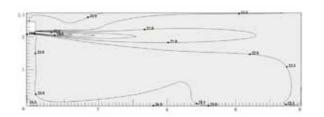
#### **Simulation**

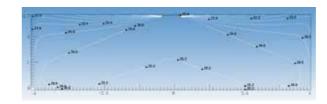
#### **CFD (Computational Fluid Dynamics)**

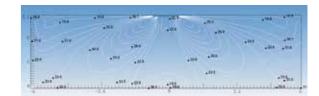
CFD Analysis is applied in areas of estimating: indoor airflow and temperature distribution. By running a simulation before construction, engineers estimate possible issues and find optimal solutions of malfunction that could occur after construction.

#### Temperature distribution

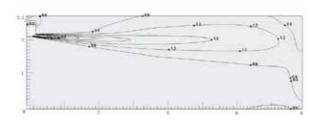


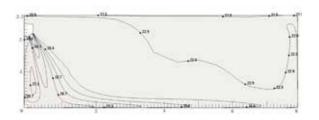


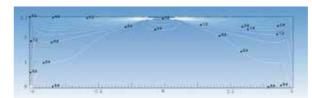


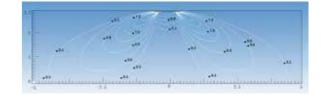


#### Airflow distribution









Global Spare Center

10

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.





# **Outdoor Unit Lineup**

## **V8 - Combinable Series**











## V8i - Individual Series







# **Outdoor Unit Functions**

Func	tions		VRF V8	VRF V8i
A£	ShieldBox	IP55 Fully sealed electric control box realizes resisting all factors that cause intrusion and damage to the electric control box	•	•
Innovative Technology	SuperSense	19 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	•	•
novati	Zen air 2.0	Provides comfort and healthy air supply	•	•
<u>=</u>	Doctor M 2.0	Intelligent diagnostic technology makes maintenance easier and more efficient	•	•
	Full DC inverter technology	All electrical components of outdoor and indoor units are DC power supply, improving electrical efficiency and achieving energy saving	•	•
>	Enhanced Vapor Injection (EVI) compressor	Increases refrigerant circulation and improves both cooling and heating capacity	•	•
High Efficiency	Micro-channel refrigerant subcooling	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	•	•
igh Eff	Low standby power consumption	The standby power consumption is as low as 3.5W	•	•
I	G-type heat exchanger	Large capacity outdoor unit with G-type heat exchanger, which can increase the heat exchanger area and saves floor space	•	•
	60-step energy management	The system can be set 40% to 100% capacity output in 1% increments	•	•
	Duty cycling (unit)	Equalizes the running time of the outdoor units in a multiple-unit system, significantly extending unit lifespan (available for combined unit)	•	X
	Duty cycling (compressor)	Equalizes the running time of the compressor in each unit, significantly extending compressor lifespan (available for unit with two compressors)	•	•
	Backup operation (unit)	If one unit fails, the other units provide backup so that the system can continue operating (available for combined unit)	•	X
	Backup operation (compressor)	If one compressor fails, the other compressor provide backup so that the system can continue operating (available for unit with two compressors)	•	•
	Backup operation (fan motor)	If one fan motor fails, the other fan motor provide backup so that the system can continue operating (available for unit with two fan motors)	•	•
	Backup operation (sensor)	If one sensor fails, the virtual sensor provide backup so that the system can continue operating	•	•
	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	0	0
High Reliability	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	Ο	0
igh Re	Micro-channel refrigerant cooling PCB	10 times higher than ordinary refrigerant pipe cooling efficiency	•	•
I	Chassis electrical heater	Prevents condensation on the chassis from freezing in winter	0	0
	Anti-snow shield	Prevents the snow accumulating on the outdoor unit, guaranteeing the unit operating stable in snowy days	0	0
	Auto snow-blowing function	Blows away accumulated snow on the outdoor unit, guaranteeing the unit operating stable in snowy days	•	•
	Auto dust-clean function	Blows away accumulated dust on the outdoor unit, guaranteeing the unit operating stable in dusty environment	•	•
	Resistant to 8 intensity earthquake	A reinforced frame footprint to prevent tipping and deformation damage in a 8 intensity earthquake	0	0
	Resistant to violent typhoon	A reinforced trusses and double fastening for stable operation even under violent typhoon	0	0
	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	•	•

uno	ctions		VRF V8	VRF V8i	
	Silent mode	15-step silent mode selections provide more freedom and convenience to match the customer needs	•	•	
	Humidity control	Combined with the optional humidity sensor, the room humidity can be controlled by 35% to 75%	0	0	
omfort	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)	•	•	
anced	Continuous heating in oil return mode	Oil return in heating mode does not need to convert to cooling mode, further enhancing indoor comfort (activated via menu setting)	•	•	
E L	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	0	
	0.1°C control precision	Control precision of the sensor can reach 0.1°C, ensuring less room temperature fluctuation	•	•	
	Multiple priority modes	10 priority modes meet the requirements of all scenarios	•	•	
ź	Wide capacity range	Meets all customer requirements from small to large buildings	8-36HP (single) 38-108HP (combined)	8-36HP	
WIDE APPLICATION	Wide range of indoor units	Provides 12 types and more 100 models of VRF indoor units to meet different application scenarios	•	•	
A A P	Wide operation range	Operates stably under extreme conditions	-15~55°C (C) -30~30°C (H)	-15~55°C (C) -30~30°C (H)	
<u> </u>	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	•	Χ	
	Automatic refrigerant charging	Makes installation and service easier and more efficient	0	0	
	Automatic refrigerant recycling	Refrigerant can recycle 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, indoor and outdoor units programme upgrade, etc., simplifying installation and maintenance.	0	0	
	Digit display	4 digit 7-segment display can be intuitive for parameter setting, parameter check and error check	•	•	
Service	High external static pressure	Up to 80Pa ESP allows easy handling in a variety of installation environments	0-20Pa • 20-80Pa (	0-20Pa • 20-80Pa (	
5	2-core non-polarity communication wiring between IDU~ODU (P Q communication)	Simplifies installation and reduces wiring failures	•	•	
ation	Long communication wiring	Communication wiring up to 1200m makes installation more flexible	•	•	
easy installation an	Wide combination ratio	Combination ration can be extended to 50%-150% under certain conditions which can meet different project requirements	50-130% 50-150% (for single unit system)	50-130% <b>•</b> 50-150% <b>•</b>	
Easy	Supports manual and automatic defrosting	Improves maintenance efficiency	•	•	
	Supports manual and automatic oil return	Improves maintenance efficiency	•	•	
	Easy software program upgrade*1	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	•	•	
	Refrigerant amount diagnosis	The unit can diagnose excessive or insufficient amounts of refrigerant, prompt maintenance personnel to check the system in time to avoid serious malfunction	•	•	
	Easy system commis- sioning and checking*1	System commissioning and checking can easily be done on-site or remotely via the web	•	•	
	Intelligent mainte- nance tool	Intelligent bluetooth after-sales kit can simplify maintenance and improve maintenance efficiency	0	0	

<sup>•:</sup> equipped as standard; •: customization option; ×: without this function
\*1: The web function needs to be realized through the data cloud gateway, and the data cloud gateway needs to be purchased separately.

16

## **5 INNOVATIVE TECHNOLOGIES**



IP55 fully enclosed electric control box provides all-round protection for internal electronic components, greatly improving system RELIABILITY.







**5** Dustproof grade code Prevent entry foreign objects and dust





**S** Waterproof grade code Prevent water spray in all directions

#### **All Microchannel Refrigerant Cooling**

All electronic components including inverter module, filter module and power module are cooled by specially designed microchannel refrigerant to ensure that the electronic components work in the best temperature range.



#### **Built-in Circulating Fan**

The built-in circulating fan accelerates the air flow inside the chamber, and the heat exchange is more sufficient to ensure the consistent ambient temperature inside the chamber.



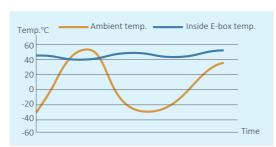
#### **PTC** Heater

The unique PTC heater, with precise temperature control sensor, can still ensure that the temperature inside the chamber is within the normal operating temperature range of electronic devices even in the low-temperature environment of -30°C.



#### **5 High Precision Temperature Sensors**

5 high precision temperature sensors are used to accurately monitor the operation state of electronic control under various conditions to ensure that the internal temperature of the chamber is always kept within a stable range.



# SuperSense New & Unique



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



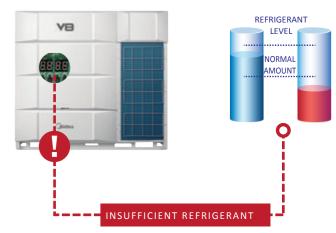
#### **Complete Sensors**

The V8 Series VRF has the industry's most comprehensive range of 19 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.



\*This function is available at the end of July 2022.

#### **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.



18

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





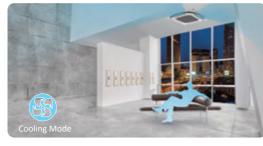




Variable Refrigerant Flow

# STEP 1: Architectural space feature

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











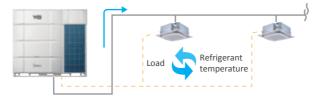
Automatic calculation of the building load and the required refrigerant quantity based on the sensor parameters.



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.



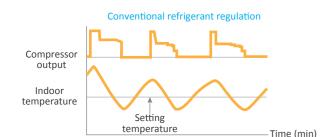
Variable Indoor Airflow

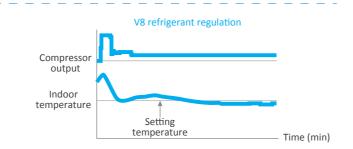
#### STEP 3: Adaptive indoor airflow and refrigerant flow

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.







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



#### 360° Airflow

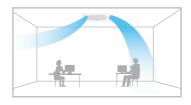
New design, round air flow path ensures uniform air flow and temperature distribution.





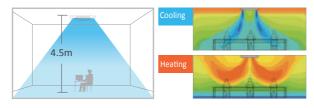
#### **Individual Louver Control**

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



### 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.

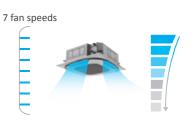


<sup>\*</sup>This function is available as a customization option.



#### 7 Fan Speeds

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



#### Sleep Mode

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



\*Temperature on left is for reference.

#### **Innovative Puro-air Kit**

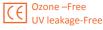
Protectors of health and safet



OSRAM quality UV light source



1st The world's first air conditioning sterilization product certification 99.9% Effective killing rate of white grape fungus 99.9% Effective killing rate of H1N1 98% Effective killing rate of natural bacteria



<sup>\*</sup>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.



Based on a cloud-based platform of big data and artificial intelligence, the V8 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.

\* The Bluetooth module will be available at the end of July 2022.



#### **Real-time Monitoring of Operating Parameters**

The V8 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

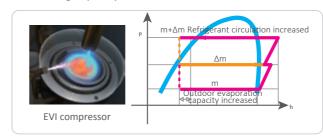
Midea V8 Series VRF transmits the system operation data to the cloud in real time through the data cloud gateway, and timely reminds the system of abnormal conditions through big data analysis, helping users to proactively avoid the risk of failure that has not yet occurred and minimize hidden problems.



#### HIGH EFFICIENCY

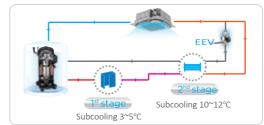
#### High Efficiency Enhanced Vapor Injection (EVI) Compressor

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



#### **Advanced Subcooling Technology**

The V8 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 V8 Series VRF uses optimized control scheme to further reduce standby power consumption to as low as 3.5W.



#### **60 Levels of 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.



#### **HIGH RELIABILITY**

#### **Duty Cycling**

#### **Unit Duty Cycling**

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



#### **Compressor Duty Cycling**

In units with two compressors, duty cycling equalizes the running time of each compressor, significantly extending compressor lifespan.





2<sup>nd</sup> cycle

20

**Outdoor Units** 

#### **Precise Oil Control Technology**

Four stages of oil control technology ensure all outdoor compressor oil is always kept at a safe level, eliminating any compressor oil shortage problems.



Compressor internal



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



Oil balance pipes between gas-liquid separator ensure even oil distribution to keep compressors running normally.



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

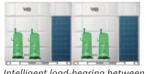
<sup>\*</sup>The data cloud gateway is still under development and needs to be purchased separately.

22

#### **Quadruple Backup**

#### **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 betweer units during normal operation

Continue operating in case of failure of one unit

#### Fan Backup

**Outdoor Units** 

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.



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

#### Compressor Backup

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



Intelligent load-bearing between compressors during normal operation



Continue operating in case of failure of one

#### Sensor Backup

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

#### **Multiple Protection Function**

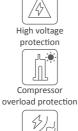
Multiple protection function, such as safe ground protection, voltage protection, temperature protection, current protection, pressure protection, compressor overload protection, motor overheat protection, electromagnetic interference protection, etc., ensuring the system consistently safe and reliable operation.



Phase-break

protection





Surge

protection







interference protection

#### **Extreme Testing**

Tests under extreme conditions such as Highly Accelerated Life Testing (HALT), Surge testing and Electro-Static Discharge (ESD), the test conditions for which are far more extreme than EU test standards are performed on the units to further guarantee the reliability of electronic components.







Surge testing

#### Resistant to 8 Intensity Earthquake and Violent Typhoon\*

The V8 Series VRF has a reinforced frame footprint to prevent tipping and deformation damage and can still operate normally in a 8 intensity earthquake or Violent Typhoon (Category 17).



\*This function is available as a customization option.

#### **Auto Snow-blowing Function**

The innovatively designed auto snow-blowing function enables the outdoor unit to prevent the accumulation of snow by itself.



#### **Dust-clean function**

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



#### **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.

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



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

and light aging testing.

**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

**01** Screws / bolts / gaskets



02 Fan motor



**03** Heat exchanger aluminum foil



**04** Electric control box case



05 Painted sheet metal



<sup>\*</sup>Heavy anti-corrosion treatment is available as a customization option.

24

## **WIDE CAPACITY RANGE**

#### **Wide Capacity Range**

The V8 Series VRF are available in individual series and combinable series. The individual series has capacities from 8HP to 36HP and the combinable series from 8HP to 108HP, perfectly suited for small to large buildings.

#### **V8 - Combinable Series**



#### V8i - Individual Series



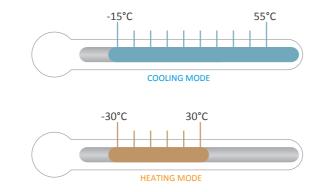
#### **Wide Range of Indoor Units**

Midea provides 12 types and more 100 models of VRF indoor units to meet varied customer requirements in a wide range of locations including offices, shopping malls, hospitals and airports.



#### **Wide Operation Range**

Thanks to the EVI compressor and refrigerant cooling technology, the V8 Series VRF can operate at temperatures as low as -30°C for heating and up to 55°C for cooling.



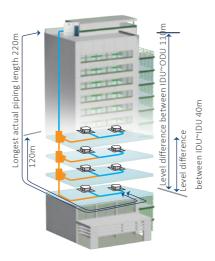
It also supports continuous operation in temperatures up to 60°C to cope with short periods of extreme heat.



#### **Long Piping Capability**

Piping length	Capability (m)
Total piping length	1100
Longest piping length-actual (equivalent)	220(260)
Longest piping length after first branch	40/120*
Largest level difference between IDUs and ODU-ODU up (down)	110(110)
Largest level difference between IDUs	40m

<sup>\*</sup>The longest length after first branch is 40m as standard but can be extended to up to 120m under certain conditions. Please contact your local dealer for further information

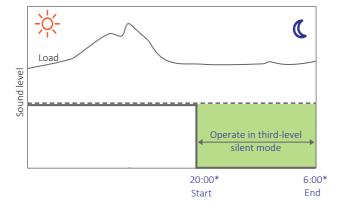


## **ENHANCED COMFORT**

#### **Advanced Silent Technology**

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

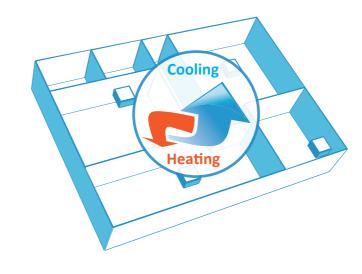




Night silent mode

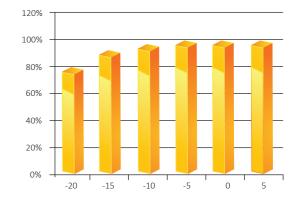
#### **Auto Cooling-heating Changeover**

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



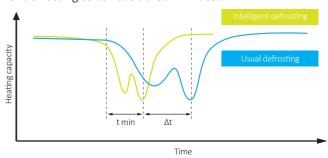
#### **Enhanced Heating Capacity**

Thanks to the EVI compressor, the heating capacity can be improved greatly. Heating capacity is 100% of rated capacity at ambient temperatures as low as -5°C and 90% of rated capacity at -15°C.



#### **Intelligent Defrosting Technology**

The intelligent defrosting program calculates the time required for defrosting according to the actual system status, eliminating heat losses from unnecessary defrosting. A specialized defrosting valve reduces time required for defrosting to as little at four minutes.



#### **10 Priority Modes**

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





















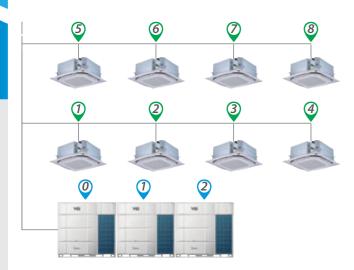


<sup>\*</sup>The entry and exit time of the night silent mode can be set in the wired

#### **EASY INSTALLATION AND SERVICE**

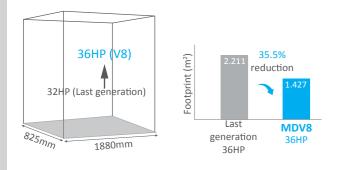
#### **Auto Addressing**

Addresses for all indoor units and combined outdoor units can be assigned automatically by the V8 system, further simplifying installation.



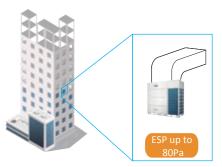
#### **Space Saving**

The V8 Series VRF has large capacity and small size, with a capacity of up to 36 HP in a single unit. A single unit can provide cooling/heating for a space of 400m². The space-saving advantages are particularly obvious for large projects.



#### High External Static Pressure\*

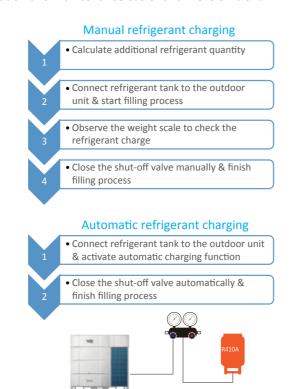
The static pressure of the outdoor unit can be up to 80Pa which facilitates installation of the unit on each floor of high-rise building or on balconies.



\*External static pressure above 20Pa is available as a customization option.

#### Automatic Refrigerant Charging\*

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

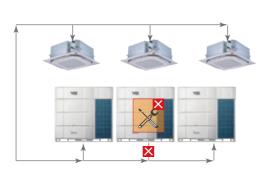


\*This function is available as a customization option.

#### **Automatic Refrigerant Recycling**

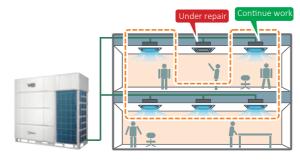
When an indoor unit fails, the refrigerant can be recycled into the outdoor units. When part of the outdoor unit fails, the refrigerant can be recycled into the indoor units and the normal outdoor unit. Two types of refrigerant recycling make the maintenance easier and more efficient.





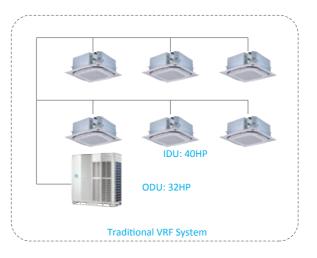
#### **Maintenance Mode**

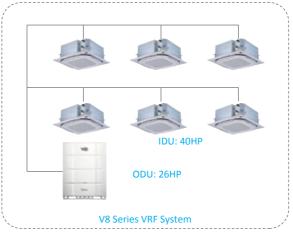
The unit has maintenance mode which allows the shutdown of some indoor units without shutting down the whole VRF system. the maintenance mode can be activated on site during maintenance period as the remaining indoor units continue to operate.



#### Wide Combination Ratio\*

Compared to traditional VRF with combination ratio of 50-130%, the V8 Series VRF can be extended to 50-150%, 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**

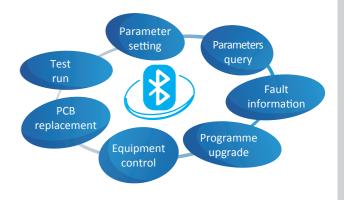
In addition to upgrading the program of outdoor and indoor units through USB and burner, the new product can also remotely upgrade all the programs of indoor and outdoor units through data cloud gateway, making system upgrades very convenient and ensuring that the system program is always up to date.



\*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.



#### 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

<sup>\*</sup>The Bluetooth module is available as a customization option.

## V8 (Combinable series)

HP			8	10	12
Model Power supply V/Ph/Hz			MV8-252WV2GN1(ECO)	MV8-280WV2GN1(ECO)	MV8-335WV2GN1(ECO)
		V/Ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
	Cit	kW	25.2	28	33.5
	Capacity	kBtu/h	86.0	95.5	114.3
Cooling <sup>1</sup>	Power input	kW	5.3	6.8	8.3
	EER		4.76	4.14	4.06
	Cit	kW	27	31.5	37.5
leating <sup>2</sup>	Capacity	kBtu/h	92.1	107.5	128.0
eating	Power input	kW	5.4	6.6	8.5
	COP		5.03	4.76	4.43
onnected indoor	Total capacity		50-130%	50-130%	50-130%
nit	Max. quantity		13	16	19
	Туре		DC inverter	DC inverter	DC inverter
ompressors	Quantity		1	1	1
	Туре		DC	DC	DC
	Quantity		1	1	1
an motors	Airflow rate	m³/h	12600	12600	13500
	Max. ESP	Pa	0-20 (standard) 20-80 (customized)	0-20 (standard) 20-80 (customized)	0-20 (standard) 20-80 (customized)
	Туре		R410A	R410A	R410A
efrigerant	Factory charge	kg	7	7	7
2	Liquid pipe	mm	Ø12.7	Ø12.7	Ø12.7
ipe connections <sup>3</sup>	Gas pipe	mm	Ø25.4	Ø25.4	Ø25.4
ound pressure leve	2 4	dB(A)	56	57	59
et dimensions (W×	(H×D)	mm	940×1760×825	940×1760×825	940×1760×825
Packed dimensions (W×H×D)		mm	1005×1945×890	1005×1945×890	1005×1945×890
et weight		kg	195	195	195
ross weight		kg	213	213	213
mbient temp.	Cooling	*C(DB)	-15 to 55	-15 to 55	-15 to 55
peration range	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30

HP			14	16	18	20
Model Power supply V/Ph/Hz		MV8-400WV2GN1(ECO)	MV8-450WV2GN1(ECO)	MV8-500WV2GN1(ECO)	MV8-560WV2GN1(ECO)	
		V/Ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
		kW	40	45	50	56
o l: 1	Capacity	kBtu/h	136.5	153.5	170.6	191.1
Cooling <sup>1</sup>	Power input	kW	9.9	11.7	12.8	15.1
	EER		4.05	3.83	3.91	3.71
	Cit	kW	45	50	56	63
Heating <sup>2</sup>	Capacity	kBtu/h	153.5	170.6	191.1	215.0
icating	Power input	kW	10.2	11.7	13.5	15.3
	COP		4.40	4.27	4.15	4.13
Connected indoor	Total capacity		50-130%	50-130%	50-130%	50-130%
ınit	Max. quantity		22	26	29	32
	Туре		DC inverter	DC inverter	DC inverter	DC inverter
ompressors	Quantity		1	1	1	2
	Туре		DC	DC	DC	DC
	Quantity		1	1	1	2
an motors	Airflow rate	m³/h	15600	15600	16500	22000
	Max. ESP	Pa	0-20 (standard) 20-80 (customized)	0-20 (standard) 20-80 (customized)	0-20 (standard) 20-80 (customized)	0-20 (standard) 20-80 (customized)
	Туре		R410A	R410A	R410A	R410A
efrigerant	Factory charge	kg	8	8	8.4	9.3
ipe connections <sup>3</sup>	Liquid pipe	mm	Ø15.9	Ø15.9	Ø15.9	Ø15.9
ipe connections	Gas pipe	mm	Ø28.6	Ø28.6	Ø28.6	Ø28.6
ound pressure leve	I <sup>4</sup>	dB(A)	59	60	61	62
et dimensions (W×	H×D)	mm	940×1760×825	940×1760×825	940×1760×825	1340×1760×825
Packed dimensions (W×H×D) mm		mm	1005×1945×890	1005×1945×890	1005×1945×890	1405×1945×890
Net weight kg		kg	213	213	215	295
ross weight		kg	230	230	232	315
mbient temp.	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55	-15 to 55
peration range	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30	-30 to 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 1.3m above the floor in a semi-anechoic chamber.

HP			22	24	26	28
Model Power supply V/Ph/Hz		MV8-615WV2GN1(ECO)	MV8-670WV2GN1(ECO)	MV8-730WV2GN1(ECO)	MV8-785WV2GN1(ECC	
		V/Ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
		kW	61.5	67	73	78.5
o l: 1	Capacity	kBtu/h	209.8	228.6	249.1	267.9
Cooling <sup>1</sup>	Power input	kW	17.9	19.0	21.0	24.0
	EER		3.43	3.52	3.47	3.27
		kW	69	75	81.5	87.5
Heating <sup>2</sup>	Capacity	kBtu/h	235.4	255.9	278.1	298.6
icatilig	Power input	kW	17.6	19.0	21.0	24.2
	COP		3.91	3.95	3.88	3.62
Connected indoor	Total capacity		50-130%	50-130%	50-130%	50-130%
unit	Max. quantity		35	39	42	45
~	Туре		DC inverter	DC inverter	DC inverter	DC inverter
Compressors	Quantity		2	2	2	2
	Туре		DC	DC	DC	DC
	Quantity		2	2	2	2
an motors	Airflow rate	m³/h	22000	21500	21500	29000
	Max. ESP	Pa	0-20 (standard) 20-80 (customized)	0-20 (standard) 20-80 (customized)	0-20 (standard) 20-80 (customized)	0-20 (standard) 20-80 (customized)
Refrigerant	Туре		R410A	R410A	R410A	R410A
Kerrigerani	Factory charge	kg	9.3	12	12	19
Pipe connections <sup>3</sup>	Liquid pipe	mm	Ø15.9	Ø15.9	Ø15.9	Ø22.2
The connections	Gas pipe	mm	Ø28.6	Ø28.6	Ø28.6	Ø31.8
ound pressure leve	4	dB(A)	62	62	62	63
Net dimensions (W×H×D)		mm	1340×1760×825	1340×1760×825	1340×1760×825	1880×1760×825
Packed dimensions (W×H×D)		mm	1405×1945×890	1405×1945×890	1405×1945×890	1945×1945×890
Net weight		kg	295	315	315	373
Gross weight		kg	315	335	335	403
Ambient temp.	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55	-15 to 55
operation range	Heating	C(DB)	-30 to 30	-30 to 30	-30 to 30	-30 to 30

HP Model			30	32	34	36
		MV8-850WV2GN1(ECO)	MV8-900WV2GN1(ECO)	MV8-950WV2GN1(ECO)	MV8-1010WV2GN1(ECO)	
Power supply		V/Ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
	Cit	kW	85	90	95	101
	Capacity	kBtu/h	290.0	307.1	324.2	344.6
Cooling <sup>1</sup>	Power input	kW	27.2	30.2	32.4	35.4
	EER		3.12	2.98	2.93	2.85
	Conneity	kW	95	100	106	112
Heating <sup>2</sup>	Capacity	kBtu/h	324.2	341.2	361.7	382.2
icacii B	Power input	kW	27.6	30.2	32.2	34.7
	COP		3.44	3.31	3.29	3.23
Connected indoor	Total capacity		50-130%	50-130%	50-130%	50-130%
ınit	Max. quantity		48	52	55	58
`	Туре		DC inverter	DC inverter	DC inverter	DC inverter
Compressors	Quantity		2	2	2	2
	Туре		DC	DC	DC	DC
	Quantity		2	2	2	2
an motors	Airflow rate	m³/h	28000	28000	29000	29000
	Max. ESP	Pa	0-20 (standard) 20-80 (customized)	0-20 (standard) 20-80 (customized)	0-20 (standard) 20-80 (customized)	0-20 (standard) 20-80 (customized)
) - f - i +	Туре		R410A	R410A	R410A	R410A
Refrigerant	Factory charge	kg	21	21	21	21
lipe connections <sup>3</sup>	Liquid pipe	mm	Ø22.2	Ø22.2	Ø22.2	Ø22.2
ipe connections	Gas pipe	mm	Ø34.9	Ø34.9	Ø34.9	Ø34.9
ound pressure level	4	dB(A)	64	64	66	66
Net dimensions (W×	H×D)	mm	1880×1760×825	1880×1760×825	1880×1760×825	1880×1760×825
acked dimensions (	W×H×D)	mm	1945×1945×890	1945×1945×890	1945×1945×890	1945×1945×890
let weight		kg	405	405	406	406
Gross weight		kg	435	435	436	436
Ambient temp.	Cooling	*C(DB)	-15 to 55	-15 to 55	-15 to 55	-15 to 55
operation range	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30	-30 to 30

- 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 1.3m above the floor in a semi-anechoic chamber.

## V8 (Combinable series)

HP			38	40	42	44
Model name (Combi	nation unit)		MV8- 1070WV2GN1(ECO)	MV8- 1130WV2GN1(ECO)	MV8- 1180WV2GN1(ECO)	MV8- 1230WV2GN1(ECO)
Combination type		14HP+24HP	14HP+26HP	16HP+26HP	18HP+26HP	
Power supply		V/Ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
	Capacity	kW	107.0	113.0	118.0	123.0
Cooling <sup>1</sup>	Capacity	kBtu/h	365.1	385.6	402.6	419.7
Cooling	Power input	kW	28.9	30.9	32.7	33.8
	EER		3.70	3.66	3.61	3.64
	Capacity	kW	120.0	126.5	131.5	137.5
Heating <sup>2</sup>	Capacity	kBtu/h	409.4	431.6	448.7	469.2
neating-	Power input	kW	29.2	31.2	32.7	34.5
	COP		4.11	4.05	4.02	3.99
Connected indoor	Total capacity		50-130%	50-130%	50-130%	50-130%
unit	Max. quantity		63	64	64	64
C	Туре		DC inverter	DC inverter	DC inverter	DC inverter
Compressors	Quantity		3	3	3	3
	Type		DC	DC	DC	DC
	Quantity		3	3	3	3
Fan motors	Airflow rate	m³/h	37100	37100	37100	38000
	500		0-20 (standard)	0-20 (standard)	0-20 (standard)	0-20 (standard)
	Max. ESP	Pa	20-80 (customized)	20-80 (customized)	20-80 (customized)	20-80 (customized)
	Type		R410A	R410A	R410A	R410A
Refrigerant	Factory charge	kg	8+12	8+12	8+12	8.4+12
	Liquid pipe	mm	Ø19.1	Ø19.1	Ø19.1	Ø19.1
Pipe connections <sup>3</sup>	Gas pipe	mm	Ø38.1	Ø38.1	Ø38.1	Ø38.1
Sound pressure level		dB(A)	64	64	64	65
Net dimensions (W×H×D) mm		, ,	(940×1760×825)+(1340 ×1760×825)	(940×1760×825)+(1340 ×1760×825)	(940×1760×825)+(1340 ×1760×825)	(940×1760×825)+(1340 ×1760×825)
Packed dimensions (W×H×D) mm		mm	(1005×1945×890)+ (1405×1945×890)	(1005×1945×890)+ (1405×1945×890)	(1005×1945×890)+ (1405×1945×890)	(1005×1945×890)+ (1405×1945×890)
Net weight		kg	213+315	213+315	213+315	215+315
Gross weight		kg	230+335	230+335	230+335	232+335
Ambient temp.	Cooling	C(DB)	-15 to 55	-15 to 55	-15 to 55	-15 to 55
operation range	Heating	·C(DB)	-30 to 30	-30 to 30	-30 to 30	-30 to 30

HP		46	48	50	52	
Model name (Combination unit)			MV8- 1290WV2GN1(ECO)	MV8- 1345WV2GN1(ECO)	MV8- 1400WV2GN1(ECO)	MV8- 1460WV2GN1(ECO)
Combination type			20HP+26HP	22HP+26HP	24HP+26HP	26HP+26HP
Power supply		V/Ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
	Capacity	kW	129.0	134.5	140.0	146.0
a I: 1	Сараспу	kBtu/h	440.2	458.9	477.7	498.2
Cooling <sup>1</sup>	Power input	kW	36.1	38.9	40.0	42.0
	EER		3.57	3.46	3.50	3.48
	Capacity	kW	144.5	150.5	156.5	163.0
	Сарасіту	kBtu/h	493.1	513.5	534.0	556.2
leating <sup>2</sup>	Power input	kW	36.3	38.6	40.0	42.0
	COP		3.98	3.90	3.91	3.88
Connected indoor	Total capacity		50-130%	50-130%	50-130%	50-130%
ınit	Max. quantity		64	64	64	64
Compressors	Туре		DC inverter	DC inverter	DC inverter	DC inverter
ompressors	Quantity		4	4	4	4
	Type		DC	DC	DC	DC
	Quantity		4	4	4	4
an motors	Airflow rate	m³/h	43500	43500	43000	43000
	Max. ESP	D-	0-20 (standard)	0-20 (standard)	0-20 (standard)	0-20 (standard)
	IVIAX. ESP	Pa	20-80 (customized)	20-80 (customized)	20-80 (customized)	20-80 (customized)
Type			R410A	R410A	R410A	R410A
efrigerant	Factory charge	kg	9.3+12	9.3+12	12×2	12×2
	Liquid pipe	mm	Ø19.1	Ø19.1	Ø19.1	Ø19.1
Pipe connections <sup>3</sup>	Gas pipe	mm	Ø38.1	Ø38.1	Ø38.1	Ø38.1
ound pressure level	4	dB(A)	65	65	65	65
Net dimensions (W×H×D)		mm	(1340×1760×825)×2	(1340×1760×825)×2	(1340×1760×825)×2	(1340×1760×825)×2
Packed dimensions (W×H×D)		mm	(1405×1945×890)×2	(1405×1945×890)×2	(1405×1945×890)×2	(1405×1945×890)×2
Net weight		kg	295+315	295+315	315×2	315×2
Gross weight		kg	315+335	315+335	335×2	335×2
Ambient temp.	Cooling	*C(DB)	-15 to 55	-15 to 55	-15 to 55	-15 to 55
operation range	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30	-30 to 30

- 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 for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to the V8 Series Engineering Data Book for connection piping diameters.
- 4. 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	60
Model name (Combi	ination unit)		MV8- 1510WV2GN1(ECO)	MV8- 1570WV2GN1(ECO)	MV8- 1625WV2GN1(ECO)	MV8- 1680WV2GN1(ECO)
Combination type			18HP+36HP	20HP+36HP	22HP+36HP	24HP+36HP
Power supply		V/Ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
	Conocity	kW	151.0	157.0	162.5	168.0
0 1: 1	Capacity	kBtu/h	515.2	535.7	554.4	573.2
Cooling <sup>1</sup>	Power input	kW	48.2	50.5	53.3	54.4
	EER		3.13	3.11	3.05	3.09
	Cit	kW	168.0	175.0	181.0	187.0
	Capacity	kBtu/h	573.3	597.2	617.6	638.1
Heating <sup>2</sup>	Power input	kW	48.2	50.0	52.3	53.7
	COP		3.49	3.50	3.46	3.48
Connected indoor	Total capacity		50-130%	50-130%	50-130%	50-130%
unit	Max. quantity		64	64	64	64
C	Type		DC inverter	DC inverter	DC inverter	DC inverter
Compressors	Quantity		3	4	4	4
	Type		DC	DC	DC	DC
	Quantity		3	4	4	4
Fan motors	Airflow rate	m³/h	45500	51000	51000	50500
	500		0-20 (standard)	0-20 (standard)	0-20 (standard)	0-20 (standard)
	Max. ESP	Pa	20-80 (customized)	20-80 (customized)	20-80 (customized)	20-80 (customized)
	Type		R410A	R410A	R410A	R410A
Refrigerant	Factory charge	kg	8.4+21	9.3+21	9.3+21	12+21
	Liquid pipe	mm	Ø19.1	Ø19.1	Ø19.1	Ø19.1
Pipe connections <sup>3</sup>	Gas pipe	mm	Ø38.1	Ø41.3	Ø41.3	Ø41.3
Sound pressure level		dB(A)	67	67	67	67
Net dimensions (W×	H^D)		(940×1760×825)+(1880	(1340×1760×825)+(1880	(1340×1760×825)+(1880	(1340×1760×825)+(1880
Net dimensions (W×H×D) mm		×1760×825)	×1760×825)	×1760×825)	×1760×825)	
Packed dimensions (W×H×D) mm		mm	(1005×1945×890)+	(1405×1945×890)+	(1405×1945×890)+	(1405×1945×890)+
Packed dimensions (W×H×D) mm			(1945×1945×890)	(1945×1945×890)	(1945×1945×890)	(1945×1945×890)
Net weight		kg	215+406	295+406	295+406	315+406
Gross weight		kg	232+436	315+436	315+436	335+436
Ambient temp.	Cooling	*C(DB)	-15 to 55	-15 to 55	-15 to 55	-15 to 55
operation range	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30	-30 to 30

30

**Outdoor Units** 

HP		62 64	66	68		
Model name (Combination unit)			MV8- 1740WV2GN1(ECO)	MV8- 1795WV2GN1(ECO)	MV8- 1860WV2GN1(ECO)	MV8- 1910WV2GN1(ECO)
Combination type		26HP+36HP	28HP+36HP	30HP+36HP	32HP+36HP	
Power supply		V/Ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
	Capacity	kW	174.0	179.5	186.0	191.0
Cooling <sup>1</sup>	Сарасіту	kBtu/h	593.7	612.5	634.6	651.7
Looming	Power input	kW	56.4	59.4	62.6	65.6
	EER		3.09	3.02	2.97	2.91
	Conocity	kW	193.5	199.5	207.0	212.0
Heating <sup>2</sup>	Capacity	kBtu/h	660.3	680.8	706.4	723.4
reating-	Power input	kW	55.7	58.9	62.3	64.9
	COP		3.47	3.39	3.32	3.27
Connected indoor	Total capacity		50-130%	50-130%	50-130%	50-130%
unit	Max. quantity		64	64	64	64
^	Type		DC inverter	DC inverter	DC inverter	DC inverter
Compressors	Quantity		4	4	4	4
	Type		DC.	DC.	DC.	DC.
	Quantity		4	4	4	4
Fan motors	Airflow rate	m³/h	50500	58000	57000	57000
	Max. ESP		0-20 (standard)	0-20 (standard)	0-20 (standard)	0-20 (standard)
		Pa	20-80 (customized)	20-80 (customized)	20-80 (customized)	20-80 (customized)
	Type		R410A	R410A	R410A	R410A
Refrigerant	Factory charge	kg	12+21	19+21	21×2	21×2
	Liquid pipe	mm	Ø19.1	Ø19.1	Ø19.1	Ø22.2
Pipe connections <sup>3</sup>	Gas pipe	mm	Ø41.3	Ø41.3	Ø41.3	Ø44.5
ound pressure level		dB(A)	67	68	68	68
		mm	(1340×1760×825)+(1880 ×1760×825)	(1880×1760×825)×2	(1880×1760×825)×2	(1880×1760×825)×2
Packed dimensions (W×H×D)		mm	(1405×1945×890)+(1945 ×1945×890)	(1945×1945×890)×2	(1945×1945×890)×2	(1945×1945×890)×2
Net weight		kg	315+406	373+406	405+406	405+406
Gross weight		kg	335+436	403+436	435+436	435+436
Ambient temp.	Cooling	*C(DB)	-15 to 55	-15 to 55	-15 to 55	-15 to 55
		*C(DB)	-30 to 30	-30 to 30	-30 to 30	-30 to 30

- 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 for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to the V8 Series Engineering Data Book for connection piping diameters.
- 4. 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.

## V8 (Combinable series)

НР			70	72	74	76
Model name (Comb	Model name (Combination unit)		MV8- 1960WV2GN1(ECO) 2020WV2GN1(ECO)		MV8- 2080WV2GN1(ECO)	MV8- 2140WV2GN1(ECO)
Combination type		34HP+36HP	36HP+36HP	14HP+24HP+36HP	14HP+26HP+36HP	
Power supply		V/Ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
	Conocity	kW	196.0	202.0	208.0	214.0
Cooling <sup>1</sup>	Capacity	kBtu/h	668.8	689.2	709.7	730.2
COOMING	Power input	kW	67.8	70.8	64.3	66.3
	EER		2.89	2.85	3.23	3.23
	Capacity	kW	218.0	224.0	232.0	238.5
Heating <sup>2</sup>	Сараспту	kBtu/h	743.9	764.4	791.6	813.8
ricating	Power input	kW	66.9	69.4	63.9	65.9
	COP		3.26	3.23	3.63	3.62
Connected indoor	Total capacity		50-130%	50-130%	50-130%	50-130%
unit	Max. quantity		64	64	64	64
Caranzasara	Туре		DC inverter	DC inverter	DC inverter	DC inverter
Compressors	Quantity		4	4	5	5
	Туре		DC	DC	DC	DC
	Quantity		4	4	5	5
Fan motors	Airflow rate	m³/h	58000	58000	66100	66100
	14 FCD		0-20 (standard)	0-20 (standard)	0-20 (standard)	0-20 (standard)
	Max. ESP	Pa	20-80 (customized)	20-80 (customized)	20-80 (customized)	20-80 (customized)
D-f-:	Туре		R410A	R410A	R410A	R410A
Refrigerant	Factory charge	kg	21×2	21×2	8+12+21	8+12+21
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	4	dB(A)	69	69	68	68
Net dimensions (W×H×D) mm		mm	(1880×1760×825)×2	(1880×1760×825)×2	(940×1760×825)+(1340×1760× 825)+(1880×1760×825)	(940×1760×825)+(1340×1760× 825)+(1880×1760×825)
Packed dimensions (W×H×D) mm		mm	(1945×1945×890)×2	(1945×1945×890)×2	(1005×1945×890)+(1405×1945× 890)+(1945×1945×890)	(1005×1945×890)+(1405×1945× 890)+(1945×1945×890)
Net weight		kg	406×2	406×2	213+315+406	213+315+406
Gross weight		kg	436×2	436×2	230+335+436	230+335+436
Ambient temp.	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55	-15 to 55
operation range	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30	-30 to 30

HP		78	80	82	84		
Model name (Combination unit)			MV8- MV8- 2190WV2GN1(ECO) 2240WV2GN1(ECO)		MV8- 2300WV2GN1(ECO)	MV8- 2355WV2GN1(ECO)	
Combination type			16HP+26HP+36HP	18HP+26HP+36HP	20HP+26HP+36HP	22HP+26HP+36HP	
Power supply		V/Ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)	
	Capacity	kW	219.0	224.0	230.0	235.5	
Cooling <sup>1</sup>	Capacity	kBtu/h	747.2	764.3	784.8	803.5	
Cooling	Power input	kW	68.1	69.2	71.5	74.3	
	EER		3.22	3.24	3.22	3.17	
	Capacity	kW	243.5	249.5	256.5	262.5	
Heating <sup>2</sup>	Сарасіту	kBtu/h	830.9	851.4	875.3	895.7	
пеанну	Power input	kW	67.4	69.2	71.0	73.3	
	COP		3.61	3.61	3.61	3.58	
Connected indoor	Total capacity		50-130%	50-130%	50-130%	50-130%	
unit	Max. quantity		64	64	64	64	
Compressors	Туре		DC inverter	DC inverter	DC inverter	DC inverter	
Compressors	Quantity		5	5	6	6	
	Туре		DC	DC	DC	DC	
	Quantity		5	5	6	6	
Fan motors	Airflow rate	m³/h	66100	67000	72500	72500	
	Max. ESP		0-20 (standard)	0-20 (standard)	0-20 (standard)	0-20 (standard)	
	IVIAX. ESP	Pa	20-80 (customized)	20-80 (customized)	20-80 (customized)	20-80 (customized)	
D-f-:	Type		R410A	R410A	R410A	R410A	
Refrigerant	Factory charge	kg	8+12+21	8.4+12+21	9.3+12+21	9.3+12+21	
Pipe connections <sup>3</sup>	Liquid pipe	mm	Ø22.2	Ø22.2	Ø22.2	Ø22.2	
ripe connections	Gas pipe	mm	Ø44.5	Ø44.5	Ø44.5	Ø50.8	
Sound pressure level	4	dB(A)	68	68	69	69	
Net dimensions (W×I	4×U)	mm	(940×1760×825)+(1340×1760×	(940×1760×825)+(1340×1760×	(1340×1760×825)×2+	(1340×1760×825)×2+	
Net difficults (WARAD)		111111	825)+(1880×1760×825)	825)+(1880×1760×825)	(1880×1760×825)	(1880×1760×825)	
Packed dimensions (W×H×D)		mm	, ,	(1005×1945×890)+(1405×1945×	(1405×1945×890)×2+	(1405×1945×890)×2+	
			890)+(1945×1945×890)	890)+(1945×1945×890)	(1945×1945×890)	(1945×1945×890)	
Net weight		kg	213+315+406	215+315+406	295+315+406	295+315+406	
Gross weight		kg	230+335+436	232+335+436	315+335+436	315+335+436	
Ambient temp.	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55	-15 to 55	
operation range	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30	-30 to 30	

- 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 for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to the V8 Series Engineering Data Book for connection piping diameters.
- 4. 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			86	88
Model name (Combination unit)			MV8- 2410WV2GN1(ECO)	MV8- 2470WV2GN1(ECO)
Combination type			24HP+26HP+36HP	26HP+26HP+36HP
Power supply		V/Ph/Hz	380-415/3/50(60)	380-415/3/50(60)
	Conneity	kW	241.0	247.0
Cooling <sup>1</sup>	Capacity	kBtu/h	822.3	842.8
COOIIIIg	Power input	kW	75.4	77.4
	EER		3.20	3.19
	Capacity	kW	268.5	275.0
Llooting?	Capacity	kBtu/h	916.2	938.4
Heating <sup>2</sup>	Power input	kW	74.7	76.7
	COP		3.59	3.59
Connected indoor	Total capacity		50-130%	50-130%
unit	Max. quantity		64	64
^	Туре		DC inverter	DC inverter
Compressors	Quantity		6	6
	Туре		DC	DC
	Quantity		6	6
an motors	Airflow rate	m³/h	72000	72000
	14 500		0-20 (standard)	0-20 (standard)
	Max. ESP	Pa	20-80 (customized)	20-80 (customized)
	Type		R410A	R410A
Refrigerant	Factory charge	kg	12×2+21	12×2+21
Pipe connections <sup>3</sup>	Liquid pipe	mm	Ø22.2	Ø22.2
Pipe connections	Gas pipe	mm	Ø50.8	Ø50.8
Sound pressure leve	el <sup>4</sup>	dB(A)	69	69
			(1340×1760×825)×2+(1880×	(1340×1760×825)×2+(1880×
Net dimensions (W	×H×D)	mm	1760×825)	1760×825)
			1/60×825)	1/60×825)
	/\\/\\D\		(1405×1945×890)×2+(1945×	(1405×1945×890)×2+(1945×
Packed dimensions	(W×H×D)	mm	1945×890)	1945×890)
Net weight		kg	315×2+406	315×2+406
Gross weight		kg	335×2+436	335×2+406 335×2+436
Ambient temp.	Cooling	-	-15 to 55	-15 to 55
	- 0	*C(DB)		
operation range	Heating	*C(DB)	-30 to 30	-30 to 30

HP Model name (Combination unit)			90	92
			MV8- 2520WV2GN1(ECO)	MV8- 2580WV2GN1(ECO)
Combination type			18HP+36HP+36HP	20HP+36HP+36HP
Power supply		V/Ph/Hz	380-415/3/50(60)	380-415/3/50(60)
	Capacity	kW	252.0	258.0
Cooling <sup>1</sup>	Сарасису	kBtu/h	859.8	880.3
Journal	Power input	kW	83.6	85.9
	EER		3.01	3.00
	Capacity	kW	280.0	287.0
Heating <sup>2</sup>	Сараситу	kBtu/h	955.5	979.4
reating	Power input	kW	82.9	84.7
	COP		3.38	3.39
Connected indoor	Total capacity		50-130%	50-130%
unit	Max. quantity		64	64
Compressors	Туре		DC inverter	DC inverter
compressors	Quantity		5	6
	Type		DC	DC
	Quantity		5	6
an motors	Airflow rate	m³/h	74500	80000
	500		0-20 (standard)	0-20 (standard)
	Max. ESP	Pa	20-80 (customized)	20-80 (customized)
	Type		R410A	R410A
Refrigerant	Factory charge kg		8.4+21×2	9.3+21×2
Pipe connections <sup>3</sup>	Liquid pipe	mm	Ø25.4	Ø25.4
ripe connections	Gas pipe	mm	Ø50.8	Ø50.8
Sound pressure leve	4	dB(A)	70	70
			(940×1760×825)+(1880×	(1340×1760×825)+(1880×
Net dimensions (W×	H×D)	mm	, ,	, , ,
			1760×825)×2	1760×825)×2
			(1005×1945×890)+(1945×	(1405×1945×890)+(1945×
Packed dimensions (	W×H×D)	mm	1945×890)×2	1945×890)×2
N			,	,
Net weight		kg	215+406×2	295+406×2
Gross weight	0 1:	kg	232+436×2	315+436×2
Ambient temp.	Cooling	°C(DB)	-15 to 55	-15 to 55
operation range	Heating	*C(DB)	-30 to 30	-30 to 30

- 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 for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to the V8 Series Engineering Data Book for connection piping diameters.
- 4. 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.

## V8 (Combinable series)

HP			94	96
Model name (Combi	Model name (Combination unit)		MV8- 2635WV2GN1(ECO)	MV8- 2690WV2GN1(ECO)
Combination type			22HP+36HP+36HP	24HP+36HP+36HP
Power supply		V/Ph/Hz	380-415/3/50(60)	380-415/3/50(60)
	Capacity	kW	263.5	269.0
CI:1	Capacity	kBtu/h	899.0	917.8
Cooling <sup>1</sup>	Power input	kW	88.7	89.8
	EER		2.97	3.00
	Conneitu	kW	293.0	299.0
	Capacity	kBtu/h	999.8	1020.3
Heating <sup>2</sup>	Power input	kW	87.0	88.4
	COP		3.37	3.38
Connected indoor	Total capacity		50-130%	50-130%
unit	Max. quantity		64	64
C	Туре		DC inverter	DC inverter
Compressors	Quantity		6	6
	Type		DC	DC
	Quantity		6	6
Fan motors	Airflow rate	m³/h	80000	79500
		·	0-20 (standard)	0-20 (standard)
	Max. ESP	Pa	20-80 (customized)	20-80 (customized)
- 4.	Type		R410A	R410A
Refrigerant	Factory charge	kg	9.3+21×2	12+21×2
	Liquid pipe	mm	Ø25.4	Ø25.4
Pipe connections <sup>3</sup>	Gas pipe	mm	Ø50.8	Ø50.8
Sound pressure level		dB(A)	70	70
'			(1340×1760×825)+(1880×	(1340×1760×825)+(1880×
Net dimensions (W×I	H×D)	mm	1760×825)×2	, , ,
			1/0U×0Z3/XZ	1760×825)×2
Dookod dimonsions ()	A/vLlvD\		(1405×1945×890)+(1945×	(1405×1945×890)+(1945×
Packed dimensions (	W×H×D)	mm	1945×890)×2	1945×890)×2
Net weight k		kg	295+406×2	315+406×2
Gross weight		kg	315+436×2	335+436×2
Ambient temp.	Cooling	°C(DB)	-15 to 55	-15 to 55
operation range	Heating	·C(DB)	-30 to 30	-30 to 30

HP			98	100	
Model name (Comb	ination unit\		MV8-	MV8-	
wioder name (Comb	ווומנוטוו עוווגן		2750WV2GN1(ECO)	2805WV2GN1(ECO)	
Combination type			26HP+36HP+36HP	28HP+36HP+36HP	
Power supply		V/Ph/Hz	380-415/3/50(60)	380-415/3/50(60)	
	Capacity	kW	275.0	280.5	
o 1: 1	Сараспу	kBtu/h	938.3	957.1	
Cooling <sup>1</sup>	Power input	kW	91.8	94.8	
	EER		3.00	2.96	
	Congoity	kW	305.5	311.5	
	Capacity	kBtu/h	1042.5	1063.0	
Heating <sup>2</sup>	Power input	kW	90.4	93.6	
	COP		3.38	3.33	
Connected indoor	Total capacity		50-130%	50-130%	
ınit	Max. quantity		64	64	
	Type		DC inverter	DC inverter	
Compressors	Quantity		6	6	
	Type		DC	DC	
	Quantity		6	6	
an motors	Airflow rate	m³/h	79500	87000	
41111101010			0-20 (standard)	0-20 (standard)	
	Max. ESP	Pa	20-80 (customized)	20-80 (customized)	
	Type		R410A	R410A	
Refrigerant	Factory charge	kg	12+21×2	19+21×2	
	Liquid pipe	mm	Ø25.4	Ø25.4	
Pipe connections <sup>3</sup>	Gas pipe	mm	Ø50.8	Ø50.8	
Sound pressure level		dB(A)	70	70	
souriu pressure ieve		UD(A)	· -	70	
Net dimensions (W×	H×D)	mm	(1340×1760×825)+(1880×	(1880×1760×825)×3	
tee anniensions (***		11111	1760×825)×2	(1000-17-00-1020)	
			(1405×1945×890)+(1945×		
Packed dimensions (	W×H×D)	mm		(1945×1945×890)×3	
			1945×890)×2		
		kg	315+406×2	373+406×2	
Gross weight kg			335+436×2	403+436×2	
Ambient temp.	Cooling	°C(DB)	-15 to 55	-15 to 55	
operation range	Heating	°C(DB)	-30 to 30	-30 to 30	

- 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 for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to the V8 Series Engineering Data Book for connection piping diameters.

  4. 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			102	104	
Model name (Combination unit)			MV8- 2870WV2GN1(ECO)	MV8- 2920WV2GN1(ECO)	
Combination type			30HP+36HP+36HP	32HP+36HP+36HP	
Power supply		V/Ph/Hz	380-415/3/50(60)	380-415/3/50(60)	
	Capacity	kW	287.0	292.0	
CI:1	Сараспу	kBtu/h	979.2	996.3	
Cooling <sup>1</sup>	Power input	kW	98.0	101.0	
	EER		2.93	2.89	
	Conneity	kW	319.0	324.0	
	Capacity	kBtu/h	1088.6	1105.6	
Heating <sup>2</sup>	Power input	kW	97.0	99.6	
	COP		3,29	3.25	
Connected indoor	Total capacity		50-130%	50-130%	
unit	Max. quantity		64	64	
^	Type		DC inverter	DC inverter	
Compressors	Quantity		6	6	
	Type		DC	DC	
	Quantity		6	6	
Fan motors	Airflow rate	m³/h	86000	86000	
		_	0-20 (standard)	0-20 (standard)	
	Max. ESP	Pa	20-80 (customized)	20-80 (customized)	
	Type		R410A	R410A	
Refrigerant	Factory charge	kg	21×3	21×3	
	Liquid pipe	mm	Ø25.4	Ø25.4	
Pipe connections <sup>3</sup>	Gas pipe	mm	Ø50.8	Ø50.8	
Sound pressure leve		dB(A)	70	70	
Net dimensions (W×H×D) mm			(1880×1760×825)×3	(1880×1760×825)×3	
Packed dimensions (W×H×D)		mm	(1945×1945×890)×3	(1945×1945×890)×3	
Net weight		kg	405+406×2	405+406×2	
Gross weight		kg	435+436×2	435+436×2	
Ambient temp.	Cooling	°C(DB)	-15 to 55	-15 to 55	
operation range	Heating	*C(DB)	-30 to 30	-30 to 30	

HP			106	108
Model name (Combi	Model name (Combination unit) Combination type		MV8- 2970WV2GN1(ECO)	MV8- 3030WV2GN1(ECO)
Combination type			34HP+36HP+36HP	36HP+36HP+36HP
Power supply		V/Ph/Hz	380-415/3/50(60)	380-415/3/50(60)
	Capacity	kW	297.0	303.0
Cooling <sup>1</sup>	Сарасіту	kBtu/h	1013.4	1033.8
Cooling	Power input	kW	103.2	106.2
	EER		2.88	2.85
	Capacity	kW	330.0	336.0
1147	Capacity	kBtu/h	1126.1	1146.6
Heating <sup>2</sup>	Power input	kW	101.6	104.1
	COP		3.25	3.23
Connected indoor	Total capacity		50-130%	50-130%
unit	Max. quantity		64	64
Compressors	Туре		DC inverter	DC inverter
Compressors	Quantity		6	6
	Type		DC	DC
	Quantity		6	6
Fan motors	Airflow rate	m³/h	87000	87000
	Max. ESP		0-20 (standard)	0-20 (standard)
		Pa	20-80 (customized)	20-80 (customized)
- 4.	Type		R410A	R410A
Refrigerant	Factory charge	kg	21x3	21x3
	Liquid pipe	mm	Ø25.4	Ø25.4
Pipe connections <sup>3</sup>	Gas pipe	mm	Ø50.8	Ø50.8
Sound pressure level		dB(A)	71	71
Net dimensions (W×H×D)		mm	(1880×1760×825)×3	(1880×1760×825)×3
Packed dimensions (W×H×D)		mm	(1945×1945×890)×3	(1945×1945×890)×3
Net weight kg			406×3	406×3
Gross weight kg		kg	436×3	436×3
Ambient temp.	Cooling	°C(DB)	-15 to 55	-15 to 55
operation range Notes:	Heating	°C(DB)	-30 to 30	-30 to 30

- $1. \ Indoor \ temperature \ 27^{\circ}C \ DB, \ 19^{\circ}C \ WB; \ outdoor \ temperature \ 35^{\circ}C \ DB; \ equivalent \ refrigerant \ piping \ length \ 5m \ with \ zero \ level \ difference.$
- 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 for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to the V8 Series Engineering Data Book for connection piping diameters.

  4. 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.

# V8i (Individual series)

HP Model name			8	10	12	14
			MV8i-252WV2GN1(ECO)	MV8i-280WV2GN1(ECO)	MV8i-335WV2GN1(ECO)	MV8i-400WV2GN1(ECO)
Power supply		V/Ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
		kW	25.2	28.0	33.5	40.0
	Capacity	kBtu/h	86.0	95.5	114.3	136.5
Cooling <sup>1</sup>	Power input	kW	5.5	7.2	8.6	11.0
	EER	:	4.58	3.91	3.88	3.63
		kW	27.0	31.5	37.5	45.0
11	Capacity	kBtu/h	92.1	107.5	128.0	153.5
Heating <sup>2</sup>	Power input	kW	5.7	7.0	9.1	11.6
	COP		4.77	4.49	4.14	3.89
Connected indoor	Total capacity		50%-130%	50%-130%	50%-130%	50%-130%
unit	Maximum quantit	У	13	16	19	22
C	Туре		DC inverter	DC inverter	DC inverter	DC inverter
Compressors	Quantity		1	1	1	1
	Туре		DC	DC	DC	DC
	Quantity		1	1	1	1
Fan motors	Airflow rate	m³/h	12600	12600	13500	14400
	Max. ESP	Pa	0-20 (standard) 20-80 (customized)	0-20 (standard) 20-80 (customized)	0-20 (standard) 20-80 (customized)	0-20 (standard) 20-80 (customized)
D. C	Туре		R410A	R410A	R410A	R410A
Refrigerant	Factory charge	kg	7	7	7	7
2	Liquid pipe	mm	Ø12.7	Ø12.7	Ø12.7	Ø12.7
Pipe connections <sup>3</sup>	Gas pipe	mm	Ø25.4	Ø25.4	Ø25.4	Ø25.4
Sound pressure level <sup>4</sup> d		dB(A)	56	57	59	59
Net dimensions (W×H×D)		mm	940×1760×825	940×1760×825	940×1760×825	940×1760×825
Packed dimensions (W×H×D)		mm	1005×1945×890	1005×1945×890	1005×1945×890	1005×1945×890
Net weight		kg	195	195	195	197
Gross weight	Gross weight		213	213	213	215
Ambient temp.	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55	-15 to 55
operation range	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30	-30 to 30

HP Model name			16	18	20	22
			MV8i-450WV2GN1(ECO) MV8i-500WV2GN1	MV8i-500WV2GN1(ECO)	MV8i-560WV2GN1(ECO)	MV8i-615WV2GN1(ECC
Power supply		V/Ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
		kW	45.0	50.0	56.0	61.5
Cooling <sup>1</sup>	Capacity	kBtu/h	153.5	170.6	191.1	209.8
	Power input	kW	12.6	14.3	16.5	18.9
	EER		3.57	3.50	3.39	3.26
		kW	50.0	56.0	63.0	69.0
	Capacity	kBtu/h	170.6	191.1	215.0	235.4
Heating <sup>2</sup>	Power input	kW	12.8	14.6	16.7	19.1
	COP		3.91	3.83	3.77	3.61
Connected indoor	Total capacity		50%-130%	50%-130%	50%-130%	50%-130%
ınit	Maximum quantity	/	26	29	32	35
	Type		DC inverter	DC inverter	DC inverter	DC inverter
Compressors	Quantity		1	1	2	2
	Туре		DC	DC	DC	DC
	Quantity		1	1	2	2
an motors	Airflow rate	m³/h	15600	16500	22000	22000
	Max. ESP	Pa	0-20 (standard) 20-80 (customized)	0-20 (standard) 20-80 (customized)	0-20 (standard) 20-80 (customized)	0-20 (standard) 20-80 (customized)
) - f-: +	Type		R410A	R410A	R410A	R410A
Refrigerant	Factory charge	kg	8	8.4	9.3	9.3
ipe connections <sup>3</sup>	Liquid pipe	mm	Ø15.9	Ø15.9	Ø15.9	Ø15.9
ipe connections	Gas pipe	mm	Ø28.6	Ø28.6	Ø28.6	Ø28.6
Sound pressure level <sup>4</sup> dB(A)		dB(A)	60	61	62	62
Net dimensions (W ×H ×D) mm		940×1760×825	940×1760×825	1340×1760×825	1340×1760×825	
Packed dimensions (W×H×D) mm		1005×1945×890	1005×1945×890	1405×1945×890	1405×1945×890	
Net weight kg		kg	213	215	295	295
Gross weight		kg	230	232	315	315
Ambient temp.	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55	-15 to 55
operation range	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30	-30 to 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 1.3m above the floor in a semi-anechoic chamber.

HP Model name			24	26	28	30
			MV8i-670WV2GN1(ECO) MV8i-730WV2GN1(ECO)		MV8i-785WV2GN1(ECO)	MV8i-850WV2GN1(ECO
Power supply		V/Ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
	Cit.	kW	67.0	73.0	78.5	85.0
Cooling <sup>1</sup>	Capacity	kBtu/h	228.6	249.1	267.9	290.0
	Power input	kW	20.9	23.0	24.9	27.5
	EER		3.20	3.18	3.15	3.09
		kW	75.0	81.5	87.5	95.0
Heating <sup>2</sup>	Capacity	kBtu/h	255.9	278.1	298.6	324.2
пеанну	Power input	kW	21.3	22.8	26.1	29.1
	COP		3.52	3.57	3.35	3.26
Connected indoor	Total capacity		50%-130%	50%-130%	50%-130%	50%-130%
unit	Maximum quantity	1	39	42	45	48
	Туре		DC inverter	DC inverter	DC inverter	DC inverter
Compressors	Quantity		2	2	2	2
	Type		DC	DC	DC	DC
	Quantity		2	2	2	2
Fan motors	Airflow rate	m³/h	21500	21500	29000	28000
	Max. ESP	Pa	0-20 (standard) 20-80 (customized)	0-20 (standard) 20-80 (customized)	0-20 (standard) 20-80 (customized)	0-20 (standard) 20-80 (customized)
) - f-i +	Туре		R410A	R410A	R410A	R410A
Refrigerant	Factory charge	kg	9.3	12	19	21
	Liquid pipe	mm	Ø15.9	Ø15.9	Ø22.2	Ø22.2
Pipe connections <sup>3</sup>	Gas pipe	mm	Ø28.6	Ø28.6	Ø31.8	Ø34.9
Sound pressure level <sup>4</sup> dB(A)		dB(A)	62	62	63	64
Net dimensions (W×H×D) mm		mm	1340×1760×825	1340×1760×825	1880×1760×825	1880×1760×825
Packed dimensions (W×H×D) mm		mm	1405×1945×890	1405×1945×890	1945×1945×890	1945×1945×890
Net weight		kg	300	315	373	405
Gross weight		kg	320	335	403	435
Ambient temp.	Cooling	*C(DB)	-15 to 55	-15 to 55	-15 to 55	-15 to 55
operation range	Heating	*C(DB)	-30 to 30	-30 to 30	-30 to 30	-30 to 30

36

Outdoor Units

HP		32	34	36		
Model name			MV8i-900WV2GN1(ECO) MV8i-950WV2GN1(ECO)		MV8i-1010WV2GN1(ECO)	
Power supply		V/Ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)	
	Canacity	kW	90.0	95.0	101.0	
Cooling <sup>1</sup>	Capacity	kBtu/h	307.1	324.2	344.6	
	Power input	kW	31.5	33.8	36.3	
	EER		2.86	2.81	2.78	
	_ ·.	kW	100.0	106.0	112.0	
Heating <sup>2</sup>	Capacity	kBtu/h	341.2	361.7	382.2	
icatilig	Power input	kW	31.1	33.5	36.0	
	COP		3.22	3.16	3.11	
Connected indoor	Total capacity		50%-130%	50%-130%	50%-130%	
unit	Maximum quantity	/	52	55	58	
^	Туре		DC inverter	DC inverter	DC inverter	
Compressors	Quantity		2	2	2	
	Туре		DC	DC	DC	
	Quantity		2	2	2	
Fan motors	Airflow rate	m³/h	28000	29000	29000	
	Max. ESP	Pa	0-20 (standard)	0-20 (standard)	0-20 (standard)	
			20-80 (customized)	20-80 (customized)	20-80 (customized)	
Refrigerant	Туре		R410A	R410A	R410A	
	Factory charge	kg	21	21	21	
Pipe connections <sup>3</sup>	Liquid pipe	mm	Ø22.2	Ø22.2	Ø22.2	
ripe connections	Gas pipe	mm	Ø34.9	Ø34.9	Ø34.9	
Sound pressure level4		dB(A)	64	66	66	
Net dimensions (W×H×D) mm		mm	1880×1760×825	1880×1760×825	1880×1760×825	
Packed dimensions (W×H×D) mm		mm	1945×1945×890	1945×1945×890	1945×1945×890	
Net weight kg		kg	405	406	406	
Gross weight		kg	435	436	436	
Ambient temp.	Cooling	*C(DB)	-15 to 55	-15 to 55	-15 to 55	
operation range	Heating	*C(DB)	-30 to 30	-30 to 30	-30 to 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 1.3m above the floor in a semi-anechoic chamber.