



WORLD STANDARD AIR CONDITIONERS

# ERVc **MAX**



***High Efficiency VRF System  
Cooling Only***

# Outdoor Unit Lineup

ERVc (Combinable series)

	8-20HP	22-30HP
Single Unit		

	32-60HP	62-90HP
Combined Unit		



Original communication bus chip greatly simplifies installation and saves installation costs.



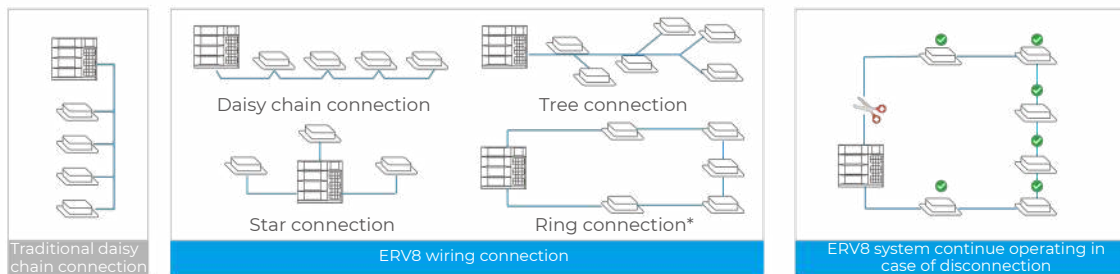
### Benefits

- 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

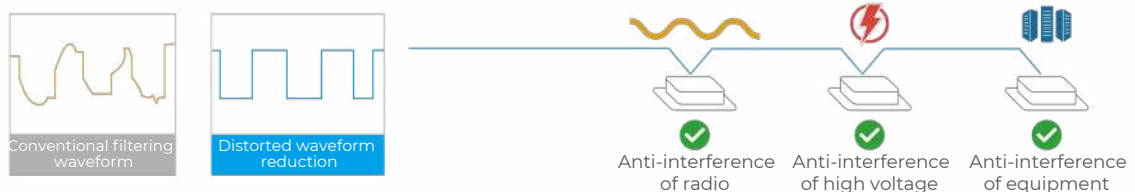
In addition to the traditional daisy chain connection, the communication wire supports tree connection, star connection, ring connection and so on. The wiring is flexible, which greatly reduces installation costs and has no possibility of wrong connection on site.



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

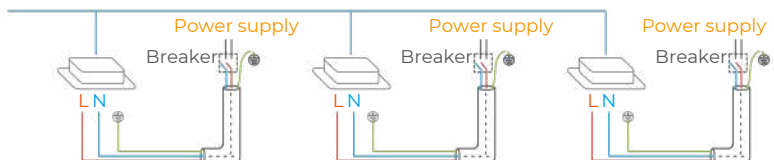
### Super Anti-interference Capability

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



### 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.



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



Anti-corrosion



Dustproof



Rain & weatherproof



Insect proof

**Benefits**



High reliability



Stable operation

■ IP (INGRESS PROTECTION)

IP	<b>Dustproof grade code</b> Prevent entry foreign objects and dust
	<b>55</b> <b>Waterproof grade code</b> Prevent water spray in all directions

Fully enclosed electronic components are isolated from the external environment to protect against corrosion, sand, humidity, snowstorms and other harsh conditions, and prevent small animals and insects from entering the chamber. This protects internal electronic devices and improves the overall environmental tolerance.

**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.



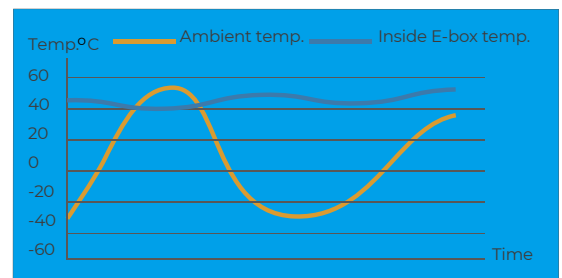
**Built-in Circulating Fan**

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.



**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.



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 17 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.

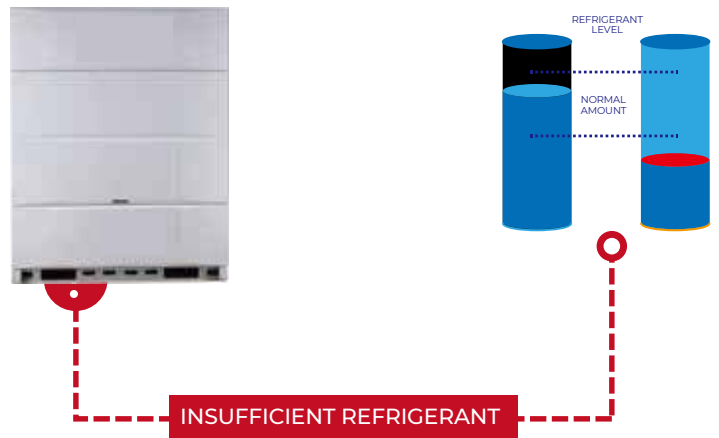
### Complete Sensors

The ERVc series VRF is equipped with up to 17 condition monitoring sensors, combined with built-in data models of compressors, heat exchangers and throttling components, which can analyze the operation data in real time and monitor the refrigerant condition of the system.



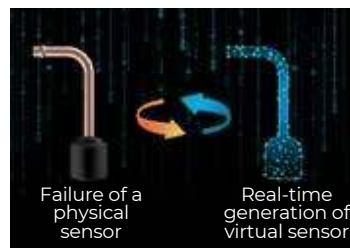
### Refrigerant Amount Diagnosis

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.



# ERVc ETA

ETA is the abbreviation of Evaporating Temperature Alteration. Further upgraded ETA technology to maximize ENERGY SAVING.



### Benefits

- Energy saving
- Enhanced comfort
- Fast cooling

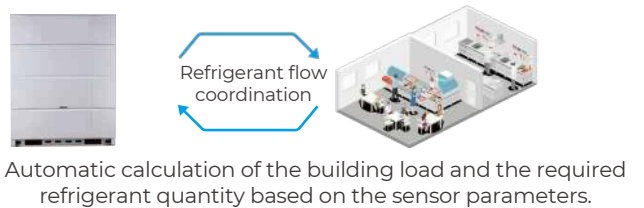
Built-in professional operation and maintenance algorithm, so that the annual operation energy efficiency of each set of systems is increased by more than 28%.



Variable Refrigerant Flow

### STEP 1: Architectural space feature recognition

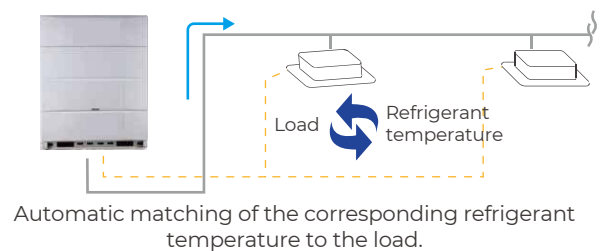
The indoor unit automatically recognizes the size of the building space and the effectiveness of the insulation according to the rate of temperature drop.



Variable Refrigerant Temperature

### STEP 2: System refrigerant temperature determination

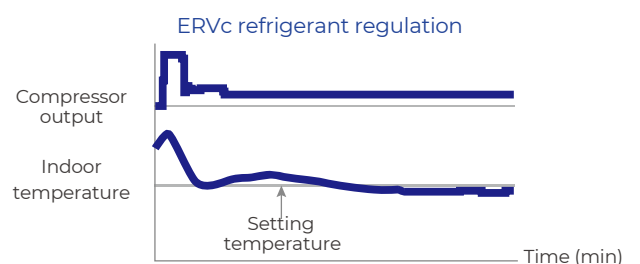
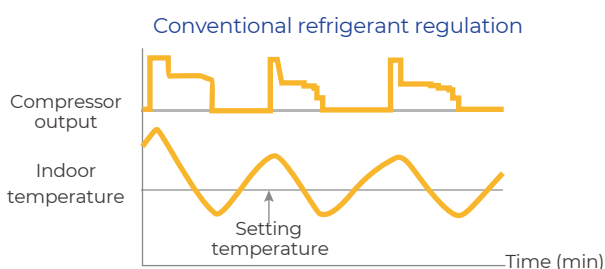
The system automatically matches the evaporating temperature to the room load to maximize comfort and energy efficiency.



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 temperature, enabling precise temperature control.

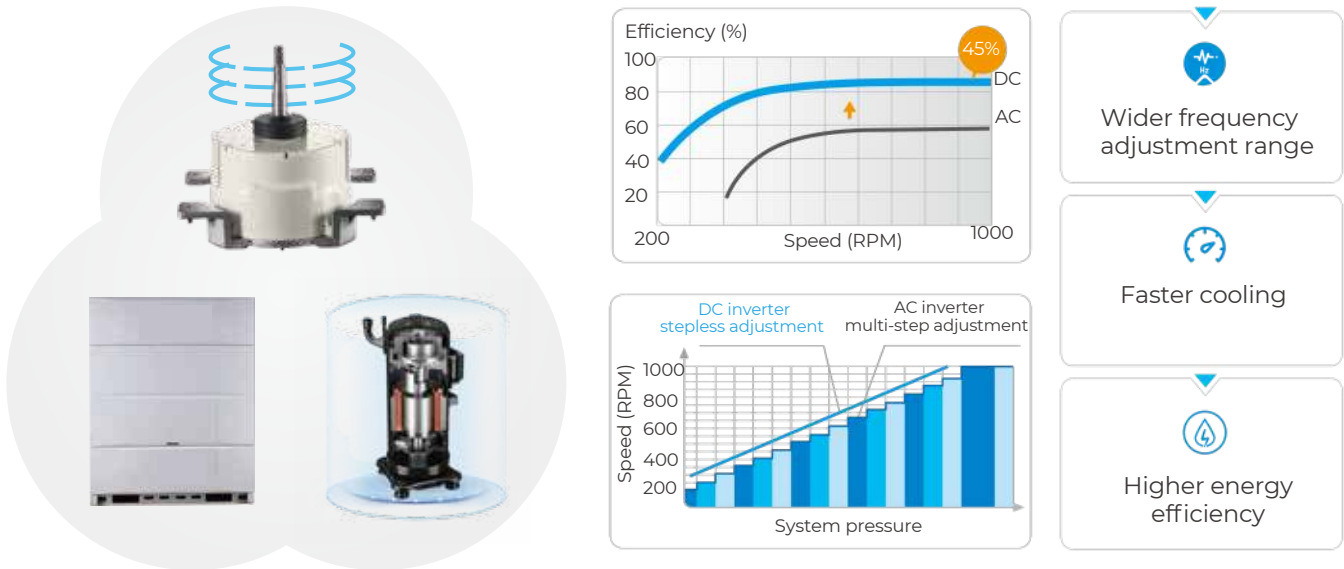


# High Efficiency

## Full DC Inverter Technology

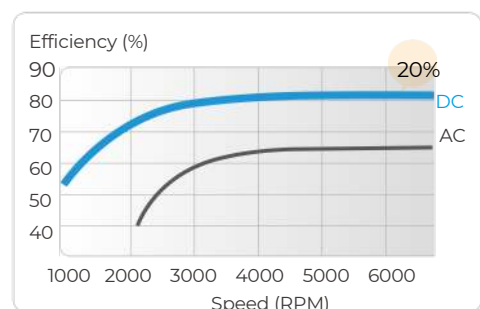
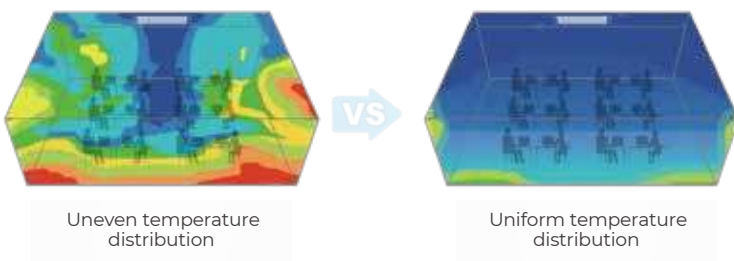
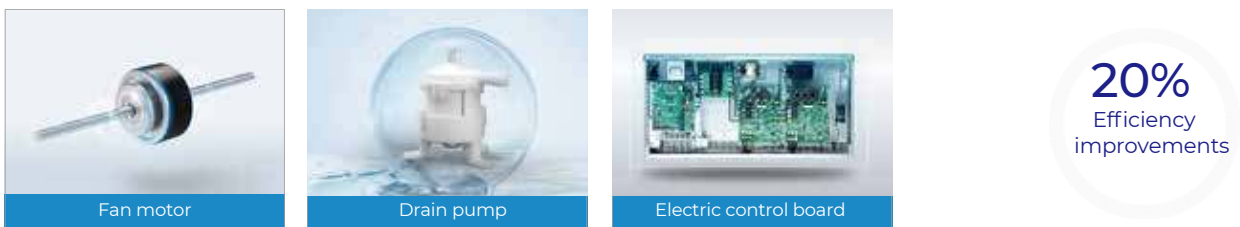
### Full DC Inverter for Outdoor Components

The ERVc 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.



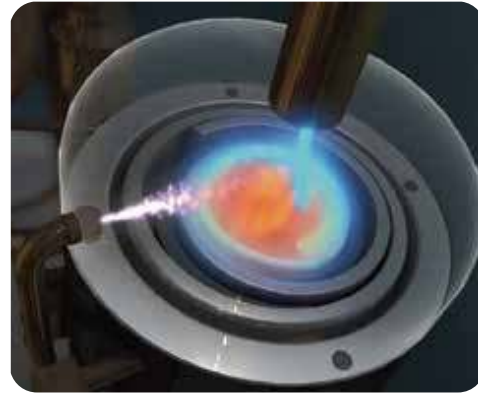
### Full DC Inverter for Indoor Components

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



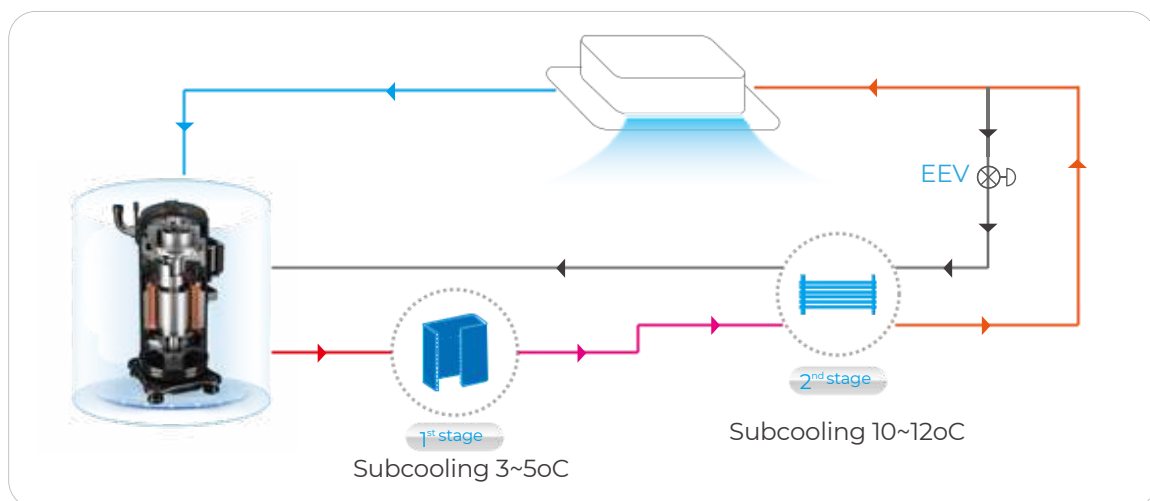
## Enhanced Vapor Injection (EVI) Compressor

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



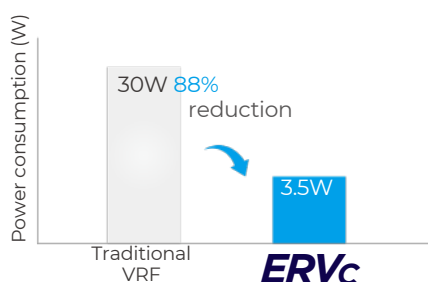
## Advanced Subcooling Technology

The ERVc 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.



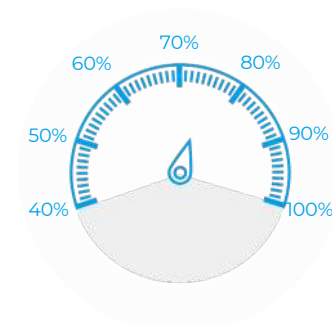
## Low Standby Power Consumption

Compared to the standby power consumption of traditional VRF of about 30W, the ERVc 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

## /// Quadruple Backup

In two fans, two compressors and multiple units, one can run in backup for another. Additionally, the ERVc series VRF generates a corresponding virtual sensor for each physical sensor by means of a digital algorithm, which serves as a backup for each other, ensuring no shutdown in the event of a fault, and 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



Continue operating in case of failure of one unit

 Operation compressor  Failed compressor

### 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 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 compressor

### 4 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.

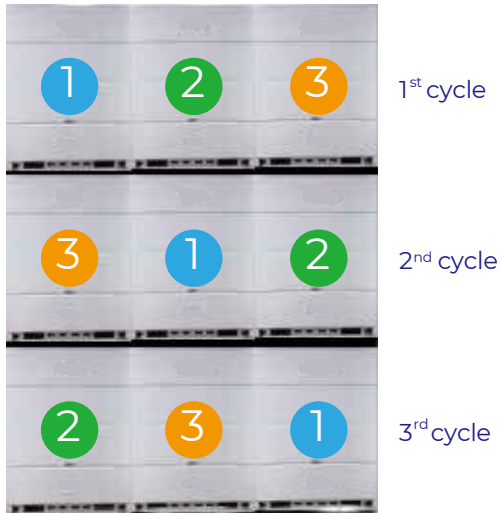


Automatic backup operation of the corresponding virtual sensor in case of failure of one physical sensor

## Double Duty Cycling

### 1 Unit Duty Cycling

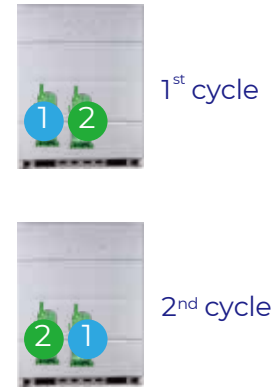
In a multi-unit system, duty cycling equalizes the running time of each outdoor unit, significantly extending unit lifespan.



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.

### 2 Compressor Duty Cycling

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



Compressor start-up sequence

## ShieldBox

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



## SuperSense

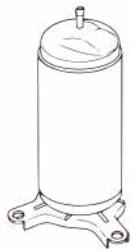
ERVc Series VRF uses up to 17 sensors for each outdoor unit and 4 sensors for each indoor unit. The operating status of the system refrigerant is clearly visible, which can achieve intelligent analysis of operation parameters, intelligent error diagnosis and forecasting, and visualized energy saving.



## Precise Oil Control

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

1



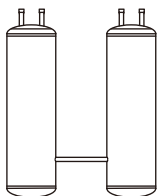
Compressor internal oil separation.

2



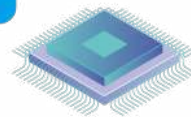
High-efficiency centrifugal oil separator (with separation efficiency of up to 99%) ensures that oil is separated from the discharge gas and returned to the compressors in a timely fashion.

3



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

4



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.

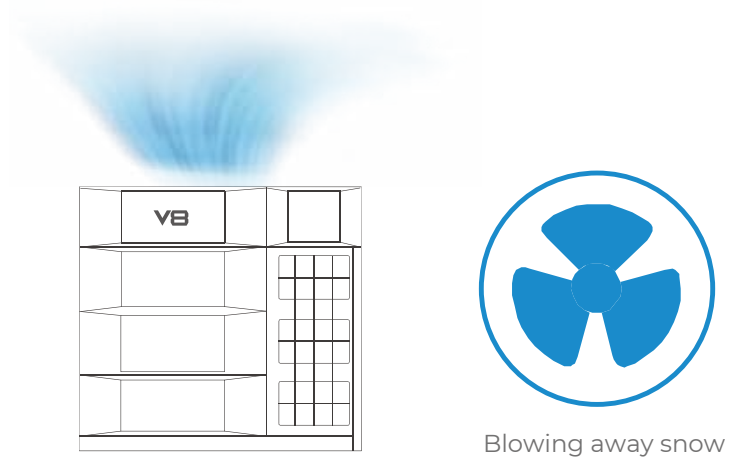
## /// Auto Dust-clean Function

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



## /// Auto Snow-blowing Function

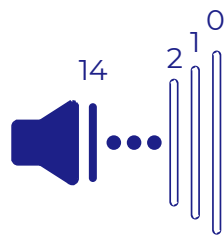
The innovatively designed auto snow-blowing function enables the outdoor unit to prevent the accumulation of snow by itself.



# Enhanced Comfort

## Advanced Silent Technology

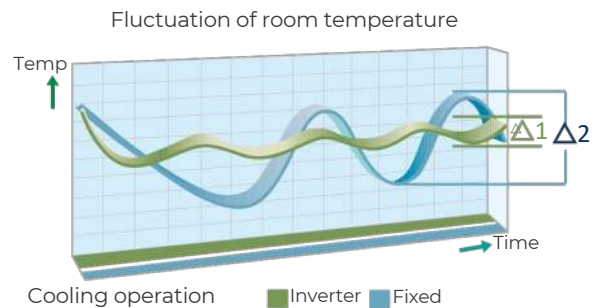
15-step silent mode provide more freedom and convenience to match the customer needs.



15 silent options

## Fast Cooling

Thanks to advanced full DC inverter technology, the system can quickly reach full load output, shorten cooling time, reduce temperature fluctuations, and create a more comfortable living environment.



# Wide Application Range

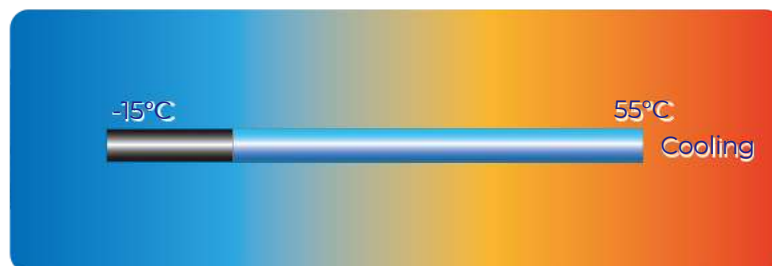
## Wide Capacity Range

The capacity of one ERVc Series VRF system is from 8HP to 90HP with up to 3 units combined, perfectly suited for small to large buildings.



## Wide Operation Range

Thanks to the refrigerant cooling technology, the ERVc Series VRF can operate stably in a temperature range as low as  $-15^{\circ}\text{C}$  and as high as  $55^{\circ}\text{C}$ .



## Wide Range of Indoor Units

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



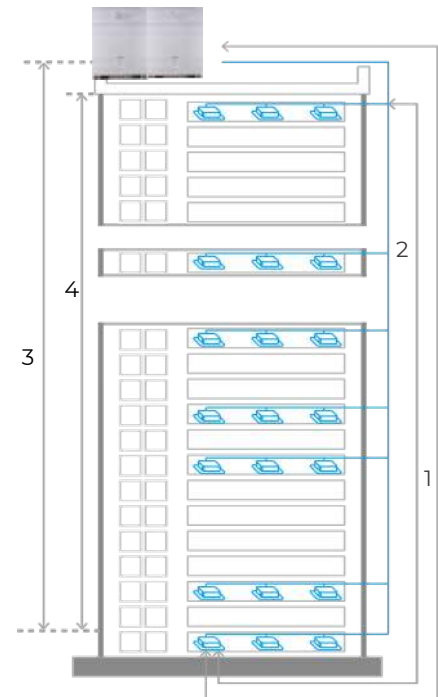
## Long Piping Capability

The ERVc system can support a total piping length of up to 1100m, an installation height difference of up to 110m between indoor and outdoor units, and up to 40m between indoor units, making the ERVc Series VRF adaptable to a wide range of building designs.

Total piping length: **1100m**

1. Longest piping length - actual (equivalent): **220(260)m**
2. Longest piping length after first branch: **40/120\*m**
3. Level difference between IDUs and ODU - ODU above (below): **110(110)m**
4. Level difference between IDUs: **40m**

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



# Easy Installation and Service



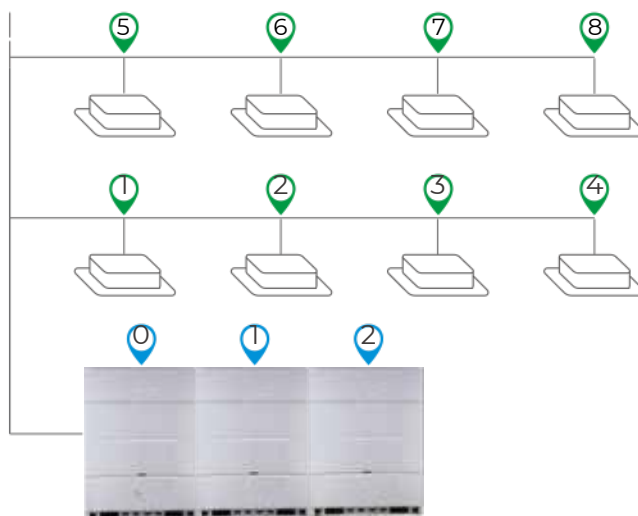
## Free Wiring

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.



## Auto Addressing

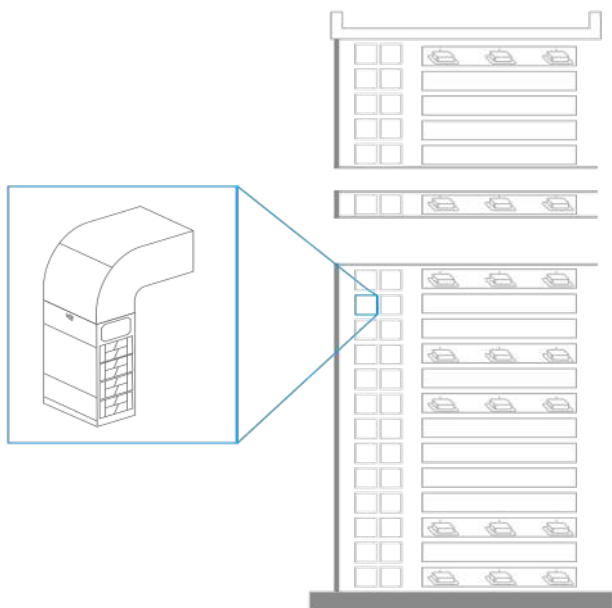
Addresses for all indoor units and combined outdoor units can be assigned automatically by the ERVc system, further simplifying installation.



## External Static Pressure up to 120Pa\*

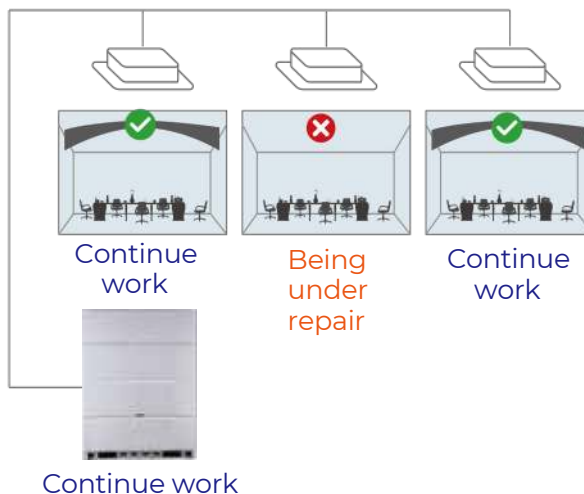
The static pressure of the outdoor unit can be up to 120Pa which facilitates installation of the unit on each floor of high-rise buildings or on balconies.

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



## Maintenance Mode

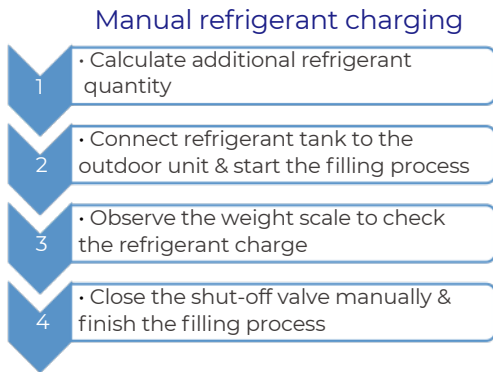
The maintenance mode allows the shutdown of some indoor units without shutting down the whole VRF system, and it can be activated on site during the maintenance period as the remaining indoor units continue to operate.



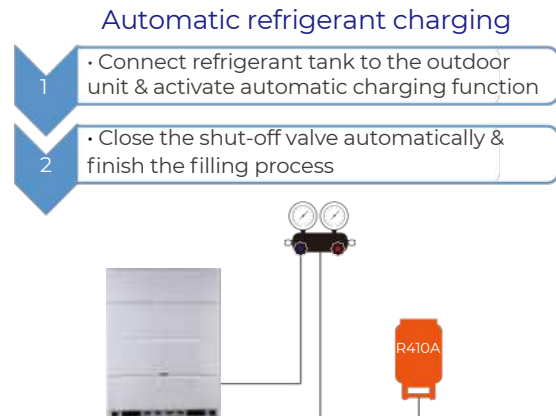


## Automatic Refrigerant Charging\*

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

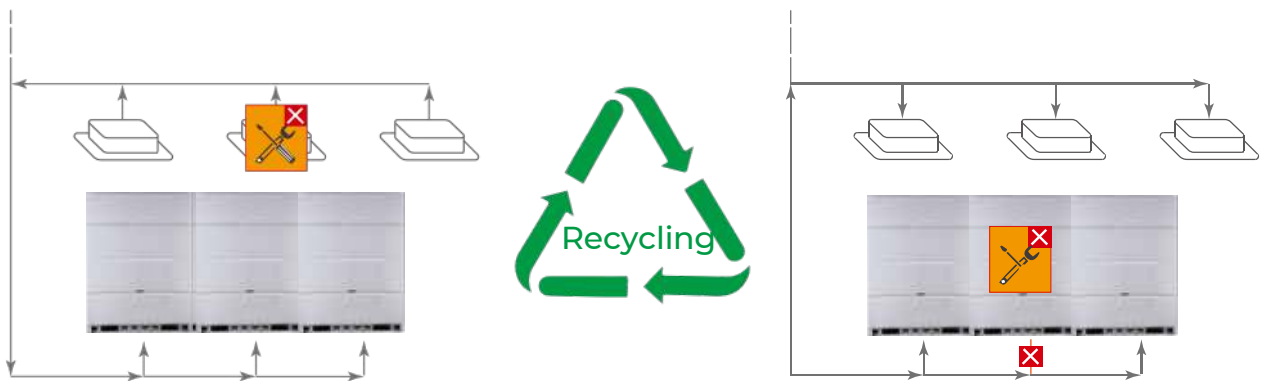


\*This function is available as a customization option.



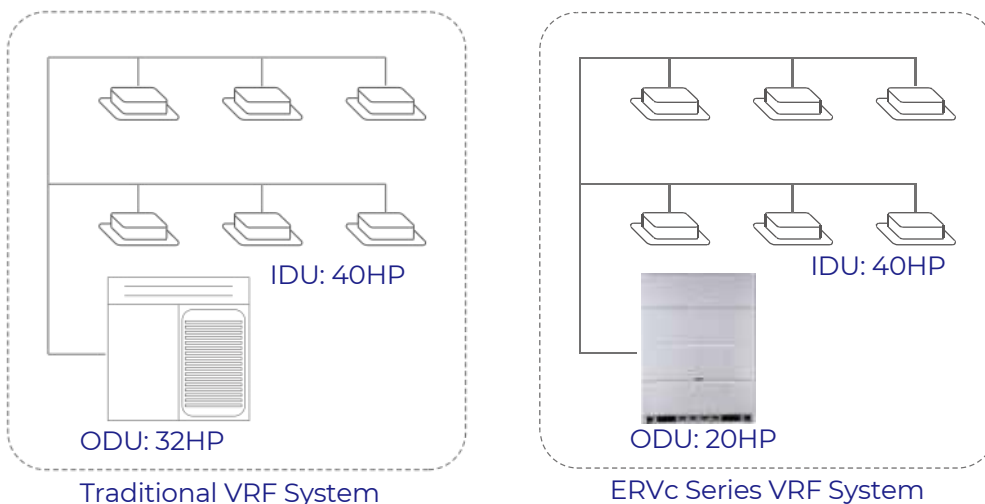
## Automatic Refrigerant Recycling

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 process easier and more efficient.



## Wide Combination Ratio\*

Compared to traditional VRF with combination ratio of 50-130%, the ERVc 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.

# Specifications

HP			8	10	12
Model name			ERVc-077	ERVc-096	ERVc-114
Power supply		V/ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
Cooling	Capacity	kW	22.4	28	33.5
		kBtu/h	76.4	95.5	114.2
	Power input	kW	4.8	6.8	8.8
	COP			4.67	4.12
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
	Maximum quantity		13	16	19
Compressor	Type		Scroll DC inverter	Scroll DC inverter	Scroll DC inverter
	Quantity		1	1	1
Fan	Type		DC	DC	DC
	Quantity		1	1	1
	Static pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	0-20 (default) 20-120(customized)
	Airflow rate	m <sup>3</sup> /h	12600	12600	13500
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	7.4	7.4	7.4
Pipe connections	Liquid pipe	mm	Φ12.7	Φ12.7	Φ12.7
	Gas pipe	mm	Φ25.4	Φ25.4	Φ25.4
Sound pressure level		dB(A)	57	58	60
Net dimensions (W×H×D)		mm	940×1760×825	940×1760×825	940×1760×825
Packed dimensions (W×H×D)		mm	1010×1945×890	1010×1945×890	1010×1945×890
Net weight		kg	185	185	185
Gross weight		kg	200	200	200
Ambient temp. operation range (Cooling)		°C	-15 to 55	-15 to 55	-15 to 55

HP			14	16	18
Model name			ERVc-137	ERVc-154	ERVc-171
Power supply		V/ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
Cooling	Capacity	kW	40	45	50
		kBtu/h	136.4	153.5	170.5
	Power input	kW	9.7	12.3	13.4
	COP			4.12	3.66
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
	Maximum quantity		23	26	29
Compressor	Type		Scroll DC inverter	Scroll DC inverter	Scroll DC inverter
	Quantity		1	1	1
Fan	Type		DC	DC	DC
	Quantity		1	1	1
	Static pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)
	Airflow rate	m <sup>3</sup> /h	15600	15600	16500
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	8.4	8.4	10
Pipe connections	Liquid pipe	mm	Φ15.9	Φ15.9	Φ15.9
	Gas pipe	mm	Φ28.6	Φ28.6	Φ28.6
Sound pressure level		dB(A)	60	61	62
Net dimensions (W×H×D)		mm	940×1760×825	940×1760×825	940×1760×825
Packed dimensions (W×H×D)		mm	1010×1945×890	1010×1945×890	1010×1945×890
Net weight		kg	200	200	212
Gross weight		kg	215	215	232
Ambient temp. operation range (Cooling)		°C	-15 to 55	-15 to 55	-15 to 55

**Notes:**

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; 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.

## Specifications

HP			20	22	24
Model name			ERVC-191	ERVC-210	ERVC-230
Power supply		V/ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
Cooling	Capacity	kW	56	61.5	67
		kBtu/h	191.0	209.7	228.5
	Power input	kW	17.4	17.3	19.0
	COP			3.22	3.55
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
	Maximum quantity		33	36	39
Compressor	Type		Scroll DC inverter	Scroll DC inverter	Scroll DC inverter
	Quantity		1	1	1
Fan	Type		DC	DC	DC
	Quantity		1	2	2
	Static pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)
	Airflow rate	m <sup>3</sup> /h	16500	21500	21500
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	10	12.8	12.8
Pipe connections	Liquid pipe	mm	Φ15.9	Φ19.1	Φ19.1
	Gas pipe	mm	Φ28.6	Φ31.8	Φ31.8
Sound pressure level		dB(A)	63	63	64
Net dimensions (W×H×D)		mm	940×1760×825	1340×1760×825	1340×1760×825
Packed dimensions (W×H×D)		mm	1010×1945×890	1410×1945×890	1410×1945×890
Net weight		kg	225	260	260
Gross weight		kg	245	285	285
Ambient temp. operation range (Cooling)		°C	-15 to 55	-15 to 55	-15 to 55

HP			26	28	30
Model name			ERVC-250	ERVC-270	ERVC-290
Power supply		V/ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
Cooling	Capacity	kW	73	78.5	85
		kBtu/h	248.9	267.7	289.9
	Power input	kW	19.4	22.3	26.4
	COP			3.76	3.52
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
	Maximum quantity		43	46	50
Compressor	Type		Scroll DC inverter	Scroll DC inverter	Scroll DC inverter
	Quantity		2	2	2
Fan	Type		DC	DC	DC
	Quantity		2	2	2
	Static pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)
	Airflow rate	m <sup>3</sup> /h	22000	22000	22000
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	15.4	15.4	15.4
Pipe connections	Liquid pipe	mm	Φ22.2	Φ22.2	Φ22.2
	Gas pipe	mm	Φ31.8	Φ31.8	Φ31.8
Sound pressure level		dB(A)	64	64	64
Net dimensions (W×H×D)		mm	1340×1760×825	1340×1760×825	1340×1760×825
Packed dimensions (W×H×D)		mm	1410×1945×890	1410×1945×890	1410×1945×890
Net weight		kg	325	325	325
Gross weight		kg	350	350	350
Ambient temp. operation range (Cooling)		°C	-15 to 55	-15 to 55	-15 to 55

### Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; 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.

## Specifications

HP			32	34	36
Model name			ERVc-308	ERVc-328	ERVc-345
Combination type			16HP+16HP	14HP+20HP	16HP+20HP
Power supply		V/ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
Cooling	Capacity	kW	90.0	96.0	101.0
		kBtu/h	307.0	327.4	344.5
	Power input	kW	24.6	27.1	29.7
	COP			3.66	3.54
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
	Maximum quantity		53	56	59
Compressor	Type		Scroll DC inverter	Scroll DC inverter	Scroll DC inverter
	Quantity		2	2	2
Fan	Type		DC	DC	DC
	Quantity		2	2	2
	Static pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)
	Airflow rate	m <sup>3</sup> /h	31200	32100	32100
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	8.4×2	8.4+10	8.4+10
Pipe connections	Liquid pipe	mm	Φ19.1	Φ19.1	Φ19.1
	Gas pipe	mm	Φ31.8	Φ31.8	Φ38.1
Sound pressure level		dB(A)	64	65	65
Net dimensions (W×H×D)		mm	(940×1760×825)×2	(940×1760×825)×2	(940×1760×825)×2
Packed dimensions (W×H×D)		mm	(1010×1945×890)×2	(1010×1945×890)×2	(1010×1945×890)×2
Net weight		kg	200×2	200+225	200+225
Gross weight		kg	215×2	215+245	215+245
Ambient temp. operation range (Cooling)		°C	-15 to 55	-15 to 55	-15 to 55

HP			38	40	42
Model name			ERVc-362	ERVc-384	ERVc-401
Combination type			18HP+20HP	16HP+24HP	18HP+24HP
Power supply		V/ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
Cooling	Capacity	kW	106.0	112.0	117.0
		kBtu/h	361.5	382.0	399.0
	Power input	kW	30.8	31.3	32.4
	COP			3.44	3.58
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
	Maximum quantity		62	64	64
Compressor	Type		Scroll DC inverter	Scroll DC inverter	Scroll DC inverter
	Quantity		2	2	2
Fan	Type		DC	DC	DC
	Quantity		2	3	3
	Static pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)
	Airflow rate	m <sup>3</sup> /h	33000	37100	38000
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	10×2	8.4+12.8	10+12.8
Pipe connections	Liquid pipe	mm	Φ19.1	Φ19.1	Φ19.1
	Gas pipe	mm	Φ38.1	Φ38.1	Φ38.1
Sound pressure level		dB(A)	66	66	66
Net dimensions (W×H×D)		mm	(940×1760×825)×2	(940×1760×825)+ (1340×1760×825)	(940×1760×825)+ (1340×1760×825)
Packed dimensions (W×H×D)		mm	(1010×1945×890)×2	(1010×1945×890)+ (1410×1945×890)	(1010×1945×890)+ (1410×1945×890)
Net weight		kg	212+225	200+260	212+260
Gross weight		kg	232+245	215+285	232+285
Ambient temp. operation range (Cooling)		°C	-15 to 55	-15 to 55	-15 to 55

### Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; 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 liquid piping lengths of less than 90m. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to the 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

HP		44		46		48		
Model name		ERVc-421		ERVc-444		ERVc-461		
Combination type		20HP+24HP		16HP+30HP		18HP+30HP		
Power supply		V/ph/Hz	380-415/3/50(60)		380-415/3/50(60)		380-415/3/50(60)	
Cooling	Capacity	kW	123.0		130.0		135.0	
		kBtu/h	419.5		443.4		460.4	
	Power input	kW	36.4		38.7		39.8	
	COP		3.38		3.36		3.39	
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity		50-130% of outdoor unit capacity		50-130% of outdoor unit capacity	
	Maximum quantity		64		64		64	
Compressor	Type		Scroll DC inverter		Scroll DC inverter		Scroll DC inverter	
	Quantity		2		3		3	
Fan	Type		DC		DC		DC	
	Quantity		3		3		3	
	Static pressure	Pa	0-20 (default) 20-120 (customized)		0-20 (default) 20-120 (customized)		0-20 (default) 20-120 (customized)	
	Airflow rate	m <sup>3</sup> /h	38000		37600		38500	
Refrigerant	Type		R410A		R410A		R410A	
	Factory charge	kg	10+12.8		8.4+15.4		10+15.4	
Pipe connections	Liquid pipe	mm	Φ19.1		Φ19.1		Φ19.1	
	Gas pipe	mm	Φ38.1		Φ38.1		Φ38.1	
Sound pressure level		dB(A)	67		66		66	
Net dimensions (W×H×D)		mm	(940×1760×825)+ (1340×1760×825)		(940×1760×825)+ (1340×1760×825)		(940×1760×825)+ (1340×1760×825)	
Packed dimensions (W×H×D)		mm	(1010×1945×890)+ (1410×1945×890)		(1010×1945×890)+ (1410×1945×890)		(1010×1945×890)+ (1410×1945×890)	
Net weight		kg	225+260		200+325		212+325	
Gross weight		kg	245+285		215+350		232+350	
Ambient temp. operation range (Cooling)		°C	-15 to 55		-15 to 55		-15 to 55	

HP		50		52		54		
Model name		ERVc-481		ERVc-500		ERVc-520		
Combination type		20HP+30HP		22HP+30HP		24HP+30HP		
Power supply		V/ph/Hz	380-415/3/50(60)		380-415/3/50(60)		380-415/3/50(60)	
Cooling	Capacity	kW	141.0		146.5		152.0	
		kBtu/h	480.9		499.6		518.4	
	Power input	kW	43.8		43.7		45.4	
	COP		3.22		3.35		3.35	
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity		50-130% of outdoor unit capacity		50-130% of outdoor unit capacity	
	Maximum quantity		64		64		64	
Compressor	Type		Scroll DC inverter		Scroll DC inverter		Scroll DC inverter	
	Quantity		3		3		3	
Fan	Type		DC		DC		DC	
	Quantity		3		4		4	
	Static pressure	Pa	0-20 (default) 20-120 (customized)		0-20 (default) 20-120 (customized)		0-20 (default) 20-120 (customized)	
	Airflow rate	m <sup>3</sup> /h	38500		43500		43500	
Refrigerant	Type		R410A		R410A		R410A	
	Factory charge	kg	10+15.4		12.8+15.4		12.8+15.4	
Pipe connections	Liquid pipe	mm	Φ19.1		Φ19.1		Φ19.1	
	Gas pipe	mm	Φ38.1		Φ38.1		Φ38.1	
Sound pressure level		dB(A)	67		67		67	
Net dimensions (W×H×D)		mm	(940×1760×825)+ (1340×1760×825)		(1340×1760×825)×2		(1340×1760×825)×2	
Packed dimensions (W×H×D)		mm	(1010×1945×890)+ (1410×1945×890)		(1410×1945×890)×2		(1410×1945×890)×2	
Net weight		kg	225+325		260+325		260+325	
Gross weight		kg	245+350		285+350		285+350	
Ambient temp. operation range (Cooling)		°C	-15 to 55		-15 to 55		-15 to 55	

### Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; 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 liquid piping lengths of less than 90m. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to the 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

HP		56		58		60		
Model name		ERVc-540		ERVc-560		ERVc-580		
Combination type		26HP+30HP		28HP+30HP		30HP+30HP		
Power supply		V/ph/Hz	380-415/3/50(60)		380-415/3/50(60)		380-415/3/50(60)	
Cooling	Capacity	kW	158.0		163.5		170.0	
		kBtu/h	538.8		557.6		579.8	
	Power input	kW	45.8		48.7		52.8	
	COP		3.45		3.36		3.22	
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity		50-130% of outdoor unit capacity		50-130% of outdoor unit capacity	
	Maximum quantity		64		64		64	
Compressor	Type		Scroll DC inverter		Scroll DC inverter		Scroll DC inverter	
	Quantity		4		4		4	
Fan	Type		DC		DC		DC	
	Quantity		4		4		4	
	Static pressure	Pa	0-20 (default) 20-120 (customized)		0-20 (default) 20-120 (customized)		0-20 (default) 20-120 (customized)	
	Airflow rate	m <sup>3</sup> /h	44000		44000		44000	
Refrigerant	Type		R410A		R410A		R410A	
	Factory charge	kg	15.4×2		15.4×2		15.4×2	
Pipe connections	Liquid pipe	mm	Φ19.1		Φ19.1		Φ19.1	
	Gas pipe	mm	Φ41.3		Φ41.3		Φ41.3	
Sound pressure level		dB(A)	67		67		67	
Net dimensions (W×H×D)		mm	(1340×1760×825)×2		(1340×1760×825)×2		(1340×1760×825)×2	
Packed dimensions (W×H×D)		mm	(1410×1945×890)×2		(1410×1945×890)×2		(1410×1945×890)×2	
Net weight		kg	325×2		325×2		325×2	
Gross weight		kg	350×2		350×2		350×2	
Ambient temp. operation range (Cooling)		°C	-15 to 55		-15 to 55		-15 to 55	

HP		62		64		66		
Model name		ERVc-598		ERVc-618		ERVc-635		
Combination type		16HP+16HP+30HP		14HP+20HP+30HP		16HP+20HP+30HP		
Power supply		V/ph/Hz	380-415/3/50(60)		380-415/3/50(60)		380-415/3/50(60)	
Cooling	Capacity	kW	175.0		181.0		186.0	
		kBtu/h	596.9		617.3		634.4	
	Power input	kW	51.0		53.5		56.1	
	COP		3.43		3.38		3.32	
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity		50-130% of outdoor unit capacity		50-130% of outdoor unit capacity	
	Maximum quantity		64		64		64	
Compressor	Type		Scroll DC inverter		Scroll DC inverter		Scroll DC inverter	
	Quantity		4		4		4	
Fan	Type		DC		DC		DC	
	Quantity		4		4		4	
	Static pressure	Pa	0-20 (default) 20-120 (customized)		0-20 (default) 20-120 (customized)		0-20 (default) 20-120 (customized)	
	Airflow rate	m <sup>3</sup> /h	53200		54100		54100	
Refrigerant	Type		R410A		R410A		R410A	
	Factory charge	kg	8.4×2+15.4		8.4+10+15.4		8.4+10+15.4	
Pipe connections	Liquid pipe	mm	Φ19.1		Φ19.1		Φ19.1	
	Gas pipe	mm	Φ41.3		Φ41.3		Φ41.3	
Sound pressure level		dB(A)	67		67		68	
Net dimensions (W×H×D)		mm	(940×1760×825)×2 +(1340×1760×825)		(940×1760×825)×2 +(1340×1760×825)		(940×1760×825)×2 +(1340×1760×825)	
Packed dimensions (W×H×D)		mm	(1010×1945×890)×2 +(1410×1945×890)		(1010×1945×890)×2 +(1410×1945×890)		(1010×1945×890)×2 +(1410×1945×890)	
Net weight		kg	200×2+325		200+225+325		200+225+325	
Gross weight		kg	215×2+350		215+245+350		215+245+350	
Ambient temp. operation range (Cooling)		°C	-15 to 55		-15 to 55		-15 to 55	

### Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; 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 liquid piping lengths of less than 90m. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to the 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

HP			68	70	72
Model name			ERVc-652	ERVc-674	ERVc-691
Combination type			18HP+20HP+30HP	16HP+24HP+30HP	18HP+24HP+30HP
Power supply		V/ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
Cooling	Capacity	kW	191.0	197.0	202.0
		kBtu/h	651.4	671.9	688.9
	Power input	kW	57.2	57.7	58.8
	COP			3.34	3.41
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
	Maximum quantity		64	64	64
Compressor	Type		Scroll DC inverter	Scroll DC inverter	Scroll DC inverter
	Quantity		4	4	4
Fan	Type		DC	DC	DC
	Quantity		4	5	5
	Static pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)
	Airflow rate	m <sup>3</sup> /h	55000	59100	60000
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	10×2+15.4	8.4+12.8+15.4	10+12.8+15.4
Pipe connections	Liquid pipe	mm	Φ22.2	Φ22.2	Φ22.2
	Gas pipe	mm	Φ44.5	Φ44.5	Φ44.5
Sound pressure level		dB(A)	68	68	68
Net dimensions (W×H×D)		mm	(940×1760×825)×2+ (1340×1760×825)	(940×1760×825)+ (1340×1760×825)×2	(940×1760×825)+ (1340×1760×825)×2
Packed dimensions (W×H×D)		mm	(1010×1945×890)×2+ (1410×1945×890)	(1010×1945×890)+ (1410×1945×890)×2	(1010×1945×890)+ (1410×1945×890)×2
Net weight		kg	212+225+325	200+260+325	212+260+325
Gross weight		kg	232+245+350	215+285+350	232+285+350
Ambient temp. operation range (Cooling)		°C	-15 to 55	-15 to 55	-15 to 55

HP			74	76	78
Model name			ERVc-711	ERVc-734	ERVc-751
Combination type			20HP+24HP+30HP	16HP+30HP+30HP	18HP+30HP+30HP
Power supply		V/ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
Cooling	Capacity	kW	208.0	215.0	220.0
		kBtu/h	709.4	733.3	750.3
	Power input	kW	62.8	65.1	66.2
	COP			3.31	3.30
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
	Maximum quantity		64	64	64
Compressor	Type		Scroll DC inverter	Scroll DC inverter	Scroll DC inverter
	Quantity		4	5	5
Fan	Type		DC	DC	DC
	Quantity		5	5	5
	Static pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)
	Airflow rate	m <sup>3</sup> /h	60000	59600	60500
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	10+12.8+15.4	8.4+15.4×2	10+15.4×2
Pipe connections	Liquid pipe	mm	Φ22.2	Φ22.2	Φ22.2
	Gas pipe	mm	Φ44.5	Φ44.5	Φ44.5
Sound pressure level		dB(A)	69	68	68
Net dimensions (W×H×D)		mm	(940×1760×825)+ (1340×1760×825)×2	(940×1760×825)+ (1340×1760×825)×2	(940×1760×825)+ (1340×1760×825)×2
Packed dimensions (W×H×D)		mm	(1010×1945×890)+ (1410×1945×890)×2	(1010×1945×890)+ (1410×1945×890)×2	(1010×1945×890)+ (1410×1945×890)×2
Net weight		kg	225+260+325	200+325×2	212+325×2
Gross weight		kg	245+285+350	215+350×2	232+350×2
Ambient temp. operation range (Cooling)		°C	-15 to 55	-15 to 55	-15 to 55

### Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; 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 liquid piping lengths of less than 90m. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to the 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

HP			80	82	84
Model name			ERVc-771	ERVc-790	ERVc-810
Combination type			20HP+30HP+30HP	22HP+30HP+30HP	24HP+30HP+30HP
Power supply		V/ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
Cooling	Capacity	kW	226.0	231.5	237.0
		kBtu/h	770.8	789.5	808.3
	Power input	kW	70.2	70.1	71.8
	COP			3.22	3.30
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
	Maximum quantity		64	64	64
Compressor	Type		Scroll DC inverter	Scroll DC inverter	Scroll DC inverter
	Quantity		5	5	5
Fan	Type		DC	DC	DC
	Quantity		5	6	6
	Static pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)
	Airflow rate	m <sup>3</sup> /h	60500	65500	65500
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	10+15.4×2	12.8+15.4×2	12.8+15.4×2
Pipe connections	Liquid pipe	mm	Φ22.2	Φ22.2	Φ25.4
	Gas pipe	mm	Φ44.5	Φ44.5	Φ50.8
Sound pressure level		dB(A)	69	69	69
Net dimensions (W×H×D)		mm	(940×1760×825)+ (1340×1760×825)×2	(1340×1760×825)×3	(1340×1760×825)×3
Packed dimensions (W×H×D)		mm	(1010×1945×890)+ (1410×1945×890)×2	(1410×1945×890)×3	(1410×1945×890)×3
Net weight		kg	225+325×2	260+325×2	260+325×2
Gross weight		kg	245+350×2	285+350×2	285+350×2
Ambient temp. operation range (Cooling)		°C	-15 to 55	-15 to 55	-15 to 55

HP			86	88	90
Model name			ERVc-830	ERVc-850	ERVc-870
Combination type			26HP+30HP+30HP	28HP+30HP+30HP	30HP+30HP+30HP
Power supply		V/ph/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
Cooling	Capacity	kW	243.0	248.5	255.0
		kBtu/h	828.7	847.5	869.7
	Power input	kW	72.2	75.1	79.2
	COP			3.37	3.31
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
	Maximum quantity		64	64	64
Compressor	Type		Scroll DC inverter	Scroll DC inverter	Scroll DC inverter
	Quantity		6	6	6
Fan	Type		DC	DC	DC
	Quantity		6	6	6
	Static pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)
	Airflow rate	m <sup>3</sup> /h	66000	66000	66000
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	15.4×3	15.4×3	15.4×3
Pipe connections	Liquid pipe	mm	Φ25.4	Φ25.4	Φ25.4
	Gas pipe	mm	Φ50.8	Φ50.8	Φ50.8
Sound pressure level		dB(A)	69	69	69
Net dimensions (W×H×D)		mm	(1340×1760×825)×3	(1340×1760×825)×3	(1340×1760×825)×3
Packed dimensions (W×H×D)		mm	(1410×1945×890)×3	(1410×1945×890)×3	(1410×1945×890)×3
Net weight		kg	325×3	325×3	325×3
Gross weight		kg	350×3	350×3	350×3
Ambient temp. operation range (Cooling)		°C	-15 to 55	-15 to 55	-15 to 55

### Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; 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 liquid piping lengths of less than 90m. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to the 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.



## ERVc Combination Table

HP	BTU/hr	Standard combination		Max. Qty. of indoor units
		Model	Combination type	
8	76,400	ERVc-077	single module	13
10	95,500	ERVc-096	single module	16
12	114,200	ERVc-114	single module	19
14	136,400	ERVc-137	single module	23
16	153,500	ERVc-154	single module	26
18	170,500	ERVc-171	single module	29
20	191,000	ERVc-191	single module	33
22	209,700	ERVc-210	single module	36
24	228,500	ERVc-230	single module	39
26	248,900	ERVc-250	single module	43
28	267,700	ERVc-270	single module	46
30	289,900	ERVc-290	single module	50
32	307,000	ERVc-308	ERVc-154 + ERVc-154	53
34	327,400	ERVc-328	ERVc-137 + ERVc-191	56
36	344,500	ERVc-345	ERVc-154 + ERVc-191	59
38	361,500	ERVc-362	ERVc-171 + ERVc-191	62
40	382,000	ERVc-384	ERVc-154 + ERVc-230	64
42	399,000	ERVc-401	ERVc-171 + ERVc-230	64
44	419,500	ERVc-421	ERVc-191 + ERVc-230	64
46	443,400	ERVc-444	ERVc-154 + ERVc-290	64
48	460,400	ERVc-461	ERVc-171 + ERVc-290	64
50	480,900	ERVc-481	ERVc-191 + ERVc-290	64
52	499,600	ERVc-500	ERVc-210 + ERVc-290	64
54	518,400	ERVc-520	ERVc-230 + ERVc-290	64
56	538,800	ERVc-540	ERVc-250 + ERVc-290	64
58	557,600	ERVc-560	ERVc-270 + ERVc-290	64
60	579,800	ERVc-580	ERVc-290 + ERVc-290	64
62	569,900	ERVc-598	ERVc-154 + ERVc-154 + ERVc-290	64
64	617,300	ERVc-618	ERVc-137 + ERVc-191 + ERVc-290	64
66	634,400	ERVc-635	ERVc-154 + ERVc-191 + ERVc-290	64
68	651,400	ERVc-652	ERVc-171 + ERVc-191 + ERVc-290	64
70	671,900	ERVc-674	ERVc-154 + ERVc-230 + ERVc-290	64
72	688,900	ERVc-691	ERVc-171 + ERVc-230 + ERVc-290	64
74	709,400	ERVc-711	ERVc-191 + ERVc-230 + ERVc-290	64
76	733,300	ERVc-734	ERVc-154 + ERVc-290 + ERVc-290	64
78	750,300	ERVc-751	ERVc-171 + ERVc-290 + ERVc-290	64
80	770,800	ERVc-771	ERVc-191 + ERVc-290 + ERVc-290	64
82	789,500	ERVc-790	ERVc-210 + ERVc-290 + ERVc-290	64
84	808,300	ERVc-810	ERVc-230 + ERVc-290 + ERVc-290	64
86	828,700	ERVc-830	ERVc-250 + ERVc-290 + ERVc-290	64
88	847,500	ERVc-850	ERVc-270 + ERVc-290 + ERVc-290	64
90	869,700	ERVc-870	ERVc-290 + ERVc-290 + ERVc-290	64



**WORLD STANDARD AIR CONDITIONERS**



SIMILAR CO., LTD. (HEAD OFFICE)  
235 Lasalle Road, Bangna-tai Sub-district,  
Bangna District, Bangkok 10260 Thailand.

: [marketing@eminent.co.th](mailto:marketing@eminent.co.th)

: [www.eminent.co.th](http://www.eminent.co.th)

: Eminent Air

: +66 2 083 5555

: +66 2 033 6235



Call Center ☎: +66 2 033 6229

LINE: @eminentairservice

Distributed by