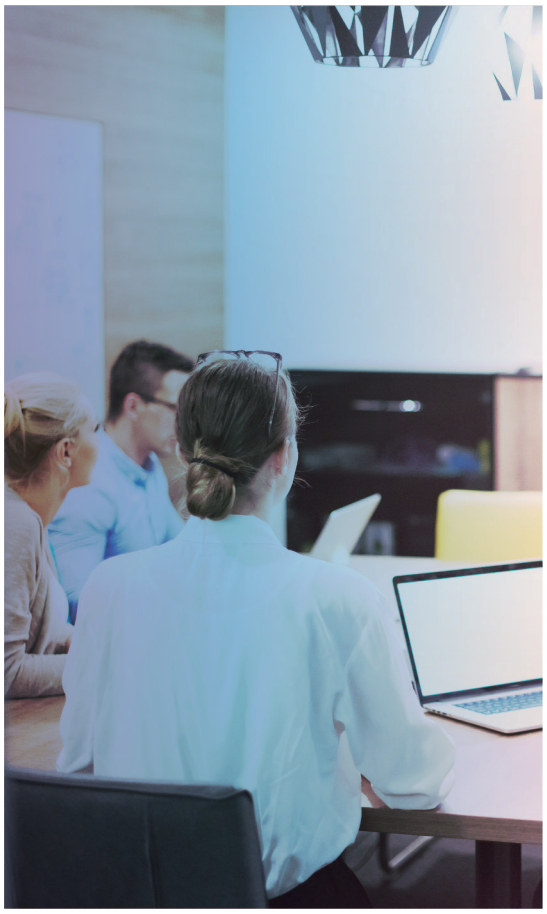
ALARKO

VRF

Benefits of Alarko 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 environment
• PCO-kit use magnetic particles coated with TiO2nanoparticles to oxidize organic pollutants to produce harmless substances such as carbon dioxide and water

Cost Saving Operation

• Cost saving can be up to 31% through Alarko ETA 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 comfortable environment
• En air technology ensuring comfortable in any condition
• Noise level is as low as 22dB(A), creating a quiet environment

Benefits for Building Owners

Energy Saving Management

• Centralized and unified management of all equipment, saving energy and manpower
• 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 Alarko-SIIX Electronics Corporation, enhancing reliability
• Doctor M technology real-time monitoring system operation, timely self-diagnosis, ensuring stable and reliable operation

Backup Solution

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

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 (Alarko 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 advance
- Energy consumption analysis helps to provide optimal design solutions

Design Flexibility

- 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 and KNX

Application Solutions

Office Complexes

Enjoy comfort while working

High-rise office building

Small and medium-sized office buildings

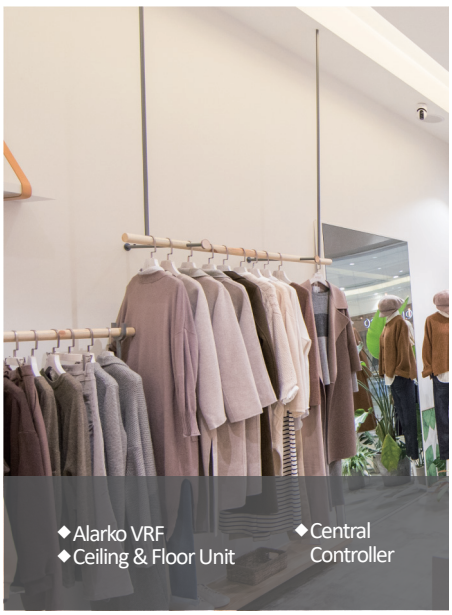
Be it small or large sized, Alarko VRF provides solution for all office buildings and its smart control solutions makes the management of VRF simple and easy whereas the wide variety of indoor units are suitable for all designs.

Hotels & Shopping Malls

Increase your business, not your bills

Shopping Malls

Retails



Hotel

The high efficiency and reliability of Alarko 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

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

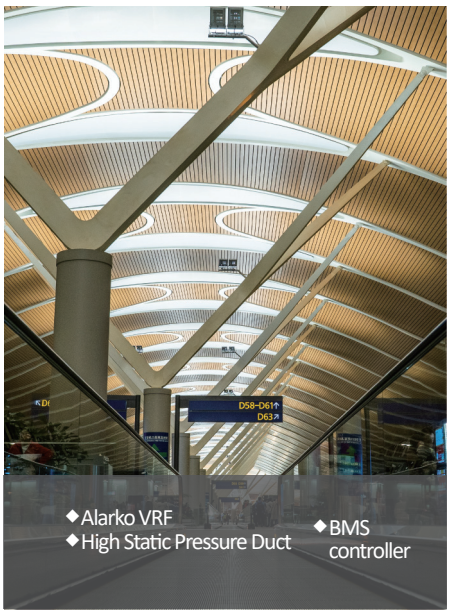
Other Applications

Meeting all expectations

Hospitals

Schools

Airports



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

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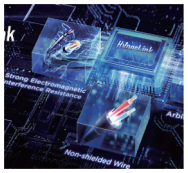
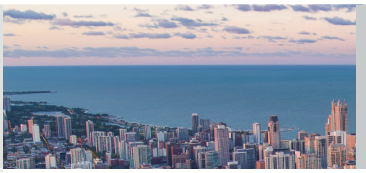
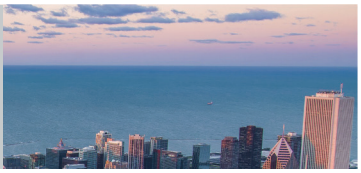
01 OUTDOOR UNITS

02 INDOOR UNITS



03 CONTROL SOLUTIONS





04 ACCESSORIES

OUTDOOR UNITS

Outdoor Unit Lineup

Alarko - Combinable Series

Single unit

8-16HP

Single unit

18-24HP

Single unit

26-32HP

Combined unit

34-64HP

Combined unit

66-96HP

Outdoor Unit Functions

Functions			VRF Alarko
Innovative Technology	ShieldBox	Fully sealed electric control box realizes resisting all factors that cause intrusion and damage to the electric control box	●
	SuperSense	19 sensors achieves the state of each part of the refrigerant pipeline can be known in the whole process	●
	ETA 2.0	Triple variable control to maximize the comfort and energy efficiency	●
	En air 2.0	Provides comfort and healthy air supply	●
	Doctor M 2.0	Intelligent diagnostic technology makes maintenance easier and more efficient	●
High Efficiency	Full DC inverter technology	All electrical components of outdoor and indoor units are DC power supply, improving electrical efficiency and achieving energy saving	●
	Enhanced Vapor Injection (EVI) compressor	Increases refrigerant circulation and improves both cooling and heating capacity	●
	Micro-channel refrigerant subcooling	The refrigerant system can achieve 15°C refrigerant subcooling, which can further improve the refrigerant heat transfer efficiency while reducing the sound of refrigerant flow	●
	Low standby power consumption	The standby power consumption is as low as 3.5W	●
	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	●
High Reliability	Duty cycling (unit)	Equalizes the running time of the outdoor units in a multiple-unit system, significantly extending unit lifespan (available for combined unit)	●
	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)	●
	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	●
	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	○
	Anti-corrosion protection	Outdoor units are given anti-corrosion treatment for non-extreme conditions as standard	●
	Micro-channel refrigerant cooling PCB	10 times higher than ordinary refrigerant pipe cooling efficiency	●
	Chassis electrical heater	Prevents condensation on the chassis from freezing in winter	○
	Anti-snow shield	Prevents the snow accumulating on the outdoor unit, guaranteeing the unit operating stable in snowy days	○
	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	○
	Resistant to violent typhoon	A reinforced trusses and double fastening for stable operation even under violent typhoon	○
	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	●

Functions			VRF Alarko
Enhanced Comfort	Silent mode	15-step silent mode selections provide more freedom and convenience to match the customer needs	●
	Intelligent defrosting technology	Calculates the time required for defrosting according to the actual system status, eliminating heat losses from unnecessary defrosting	●
	Auto cooling-heating changeover	Automatically selects cooling or heating mode to achieve the set temperature (available in changeover priority mode)	●
	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)	●
	Additional ambient temperature sensor	The additional external ambient temperature sensor can detect the true outdoor ambient temperature, correctly judge whether the system is running in cooling or heating in auto priority mode, ensuring indoor comfort	○
	0.1°C control precision	Control precision of the sensor can reach 0.1°C, ensuring less room temperature fluctuation	●
	Multiple priority modes	10 priority modes meet the requirements of all scenarios	●
Wide Application	Wide capacity range	Meets all customer requirements from small to large buildings	8-32HP (single) 34-96HP (combined)
	Wide range of indoor units	Provides 12 types and more 100 models of VRF indoor units to meet different application scenarios	●
	Wide operation range	Operates stably under extreme conditions	-15~55°C (C) -30~30°C (H)
	Long piping capability	Benefits for the system design, installation flexibility, as well as the less installation cost	●
Easy Installation and Service	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	●
	Automatic refrigerant charging	Makes installation and service easier and more efficient	○
	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.	●
	Digit display	4 digit 7-segment display can be intuitive for parameter setting, parameter check and error check	●
	High external static pressure	Up to 80Pa ESP allows easy handling in a variety of installation environments	0-20Pa ● 20-80Pa ○
	2-core non-polarity communication wiring between IDU~ODU (PQ communication)	Simplifies installation and reduces wiring failures	●
	Long communication wiring	Communication wiring up to 1200m makes installation more flexible	●
	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) ○
	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 commissioning and checking*1	System commissioning and checking can easily be done on-site or remotely via the web	●
	Intelligent maintenance tool	Intelligent bluetooth after-sales kit can simplify maintenance and improve maintenance efficiency	○

Note: ●: 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.*

5 INNOVATIVE TECHNOLOGIES

ShieldBox New & Unique

Fully sealed electric control box provides all-round protection for internal electronic components, greatly improving system RELIABILITY.

Anti-corrosion

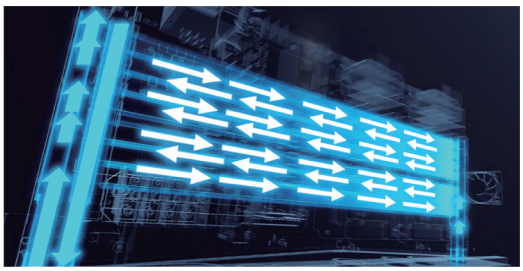
Dustproof

Rain & snow proof

Insect proof

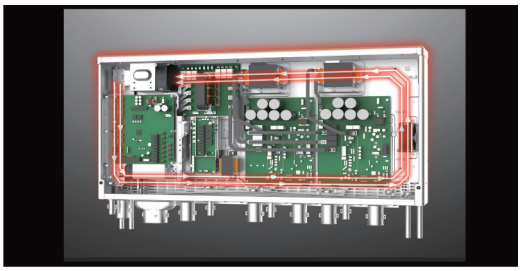
All Microchannel Refrigerant Cooling

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.



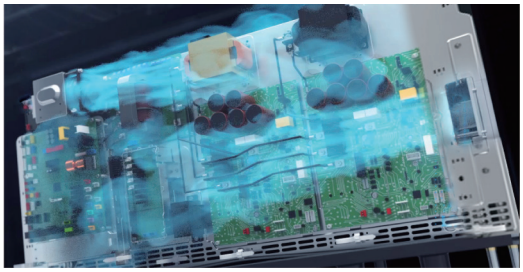
PTC Heater

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.



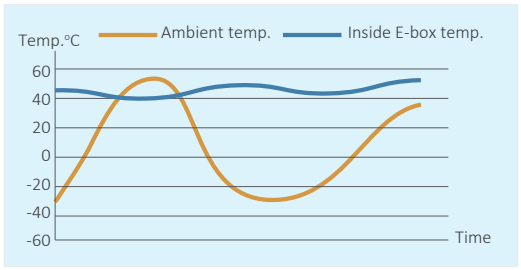
Built-in Circulating Fan

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.



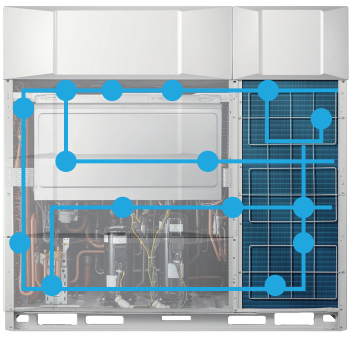
SuperSense

New & Unique

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

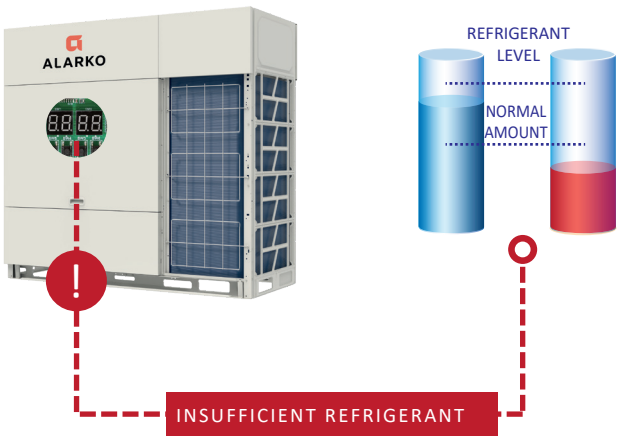
Complete Sensors

Alarko 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.



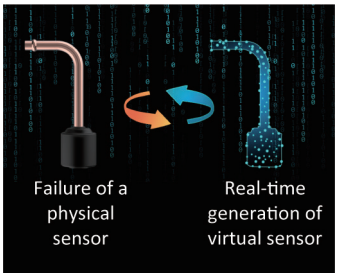
Refrigerant Amount Diagnosis

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



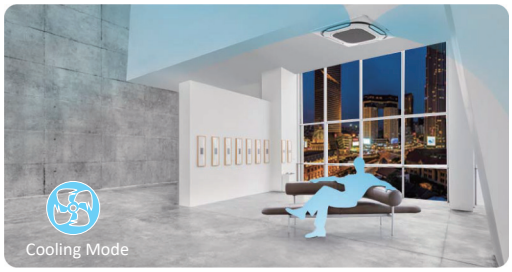
Virtual Sensor Backup

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.



ETA 2.0

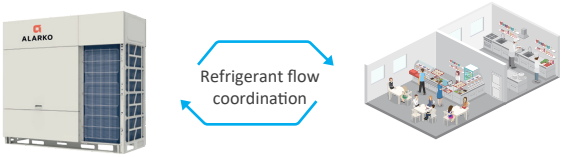
ETA is the abbreviation of Alarko Evaporating Temperature Alteration.
Further upgraded ETA technology to maximize ENERGY SAVING.



Variable Refrigerant Flow

STEP 1: Architectural space feature recognition

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

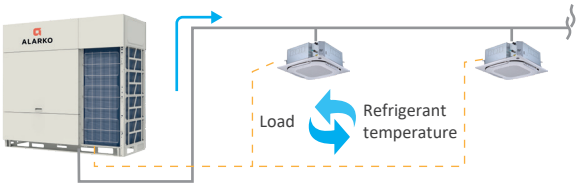


Automatic calculation of the building load and the required refrigerant quantity based on the sensor parameters.

Variable Refrigerant Temperature

STEP 2: System refrigerant temperature determination

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



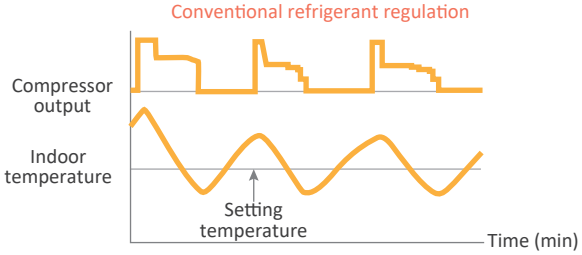
Automatic matching of the corresponding refrigerant temperature to the load.

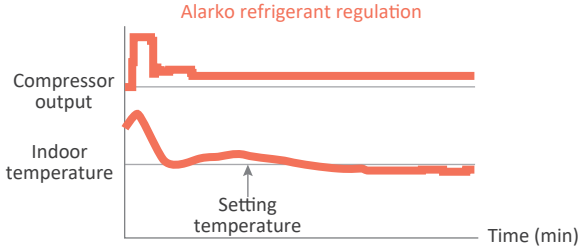
Variable Indoor Airflow

STEP 3: Adaptive indoor airflow and refrigerant flow

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

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



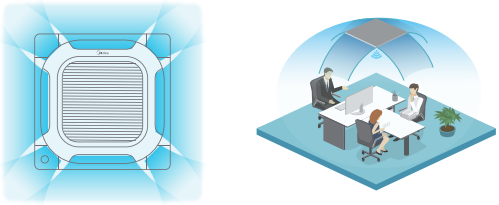


ENair 2.0

Further upgraded EN AIR technology to maximize COMFORT.

360° Airflow

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

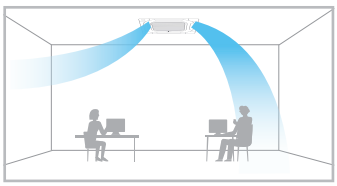


7 Fan Speeds

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

Individual Louver Control

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



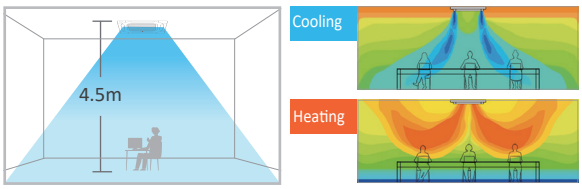
Sleep Mode

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

Temperature on left is for reference.

Long Distance Air Delivery*

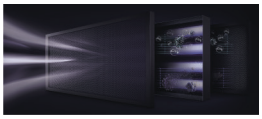
The Four-way Cassette has an additional 50Pa static pressure for long airflow delivery and is capable of being used in spaces up to 4.5m in floor height.



*This function is available as a customization option.

Innovative Puro-air Kit

Protectors of health and safety



From Germany -
OSRAM quality UV light source

Ozone –Free
UV leakage-Free

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

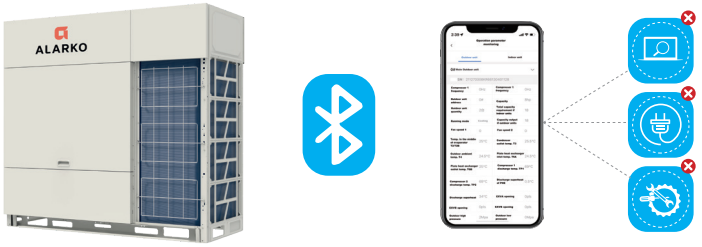
DOCTOR 2.0

Further upgraded DOCTOR technology to maximize EASY SERVICE.

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



Real-time Monitoring of Operating Parameters

Alarko 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

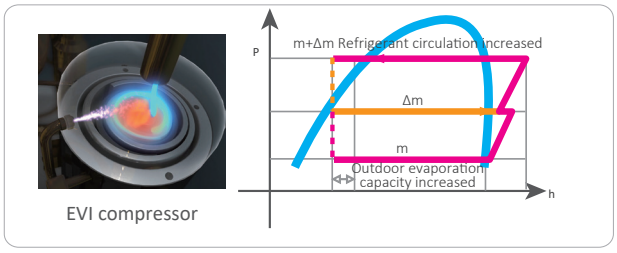
Alarko VRF transmits the system operation data to the cloud in real time through the data cloud gateway, and timely reminds the system of abnormal conditions through big data analysis, helping users to proactively avoid the risk of failure that has not yet occurred and minimize hidden problems.

**The data cloud gateway needs to be purchased separately.*

HIGH EFFICIENCY

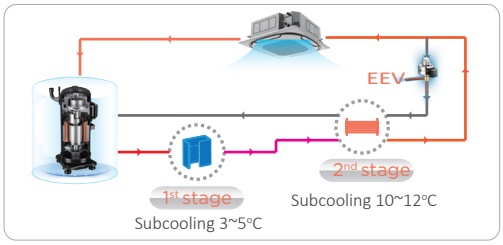
High Efficiency Enhanced Vapor Injection (EVI) Compressor

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



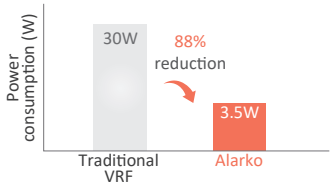
Advanced Subcooling Technology

Alarko 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.



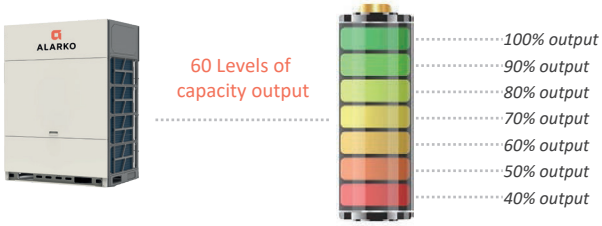
Low Standby Power Consumption

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

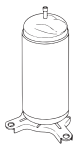
Compressor Duty Cycling

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

Precise Oil Control Technology

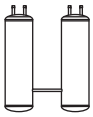
Four stages of oil control technology ensure all outdoor compressor oil is always kept at a safe level, eliminating any compressor oil shortage problems.

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.

Quadruple Backup

Unit Backup

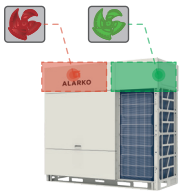
In a multi-unit system, the different units act as a backup to each other, ensuring that the system can continue to operate if one unit fails.

Intelligent load-bearing between units during normal operation

Continue operating in case of failure of one unit

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.



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 compressor

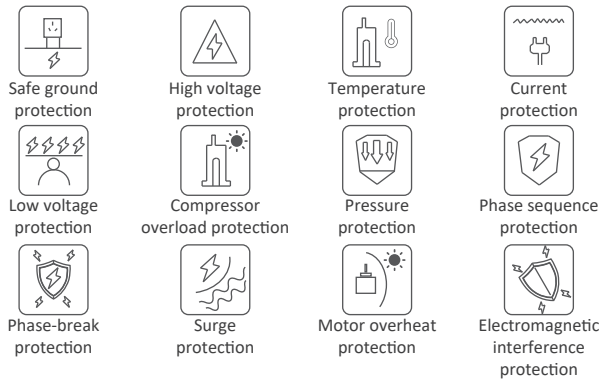
Sensor Backup

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.

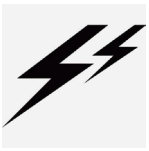


Extreme Testing

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.

HALT testing

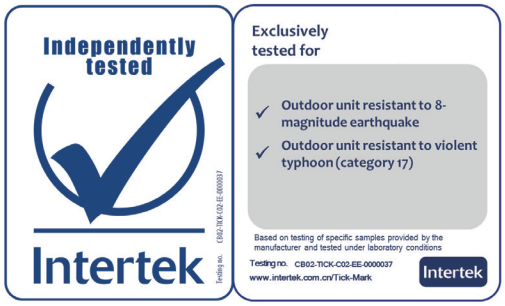
ESD testing



Surge testing

Resistant to 8 Intensity Earthquake and Violent Typhoon*

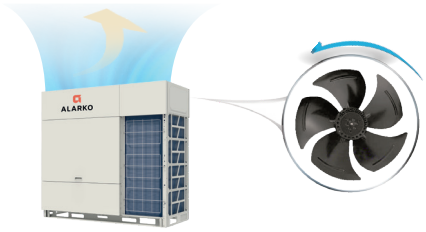
The Alarko Series VRF has a reinforced frame footprint to prevent tipping and deformation damage and can still operate normally in a 8 intensity earthquake or Violent Typhoon (Category 17).



**This function is available as a customization option.*

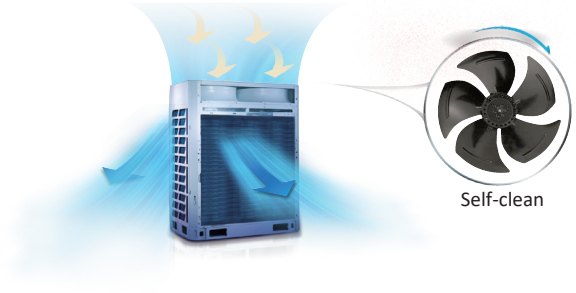
Auto Snow-blowing Function

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 VERIFIED verify.ul.com A926834

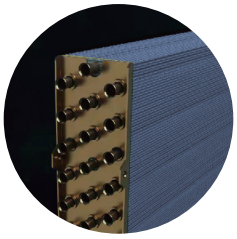
**UL anti-corrosion certificate is available for heavy anti-corrosion treatment units.*

Anti-corrosion Protection

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

01 Screws / bolts / gaskets

02 Fan motor



03 Heat exchanger aluminum foil

04 Electric control box case

05 Painted sheet metal

WIDE CAPACITY RANGE

Wide Capacity Range

Alarko VRF are available in individual series and combinable series. The individual series has capacities from 8HP to 32HP and the combinable series from 8HP to 96HP, perfectly suited for small to large buildings.

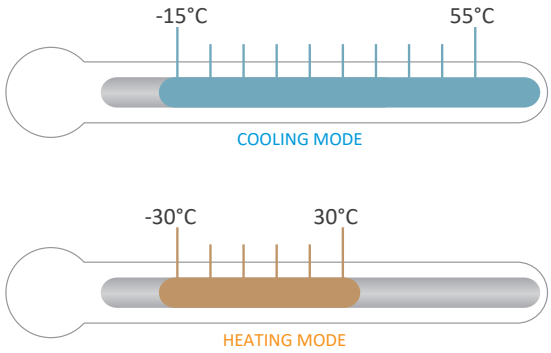
Alarko - Combinable Series

Wide Range of Indoor Units

Alarko 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

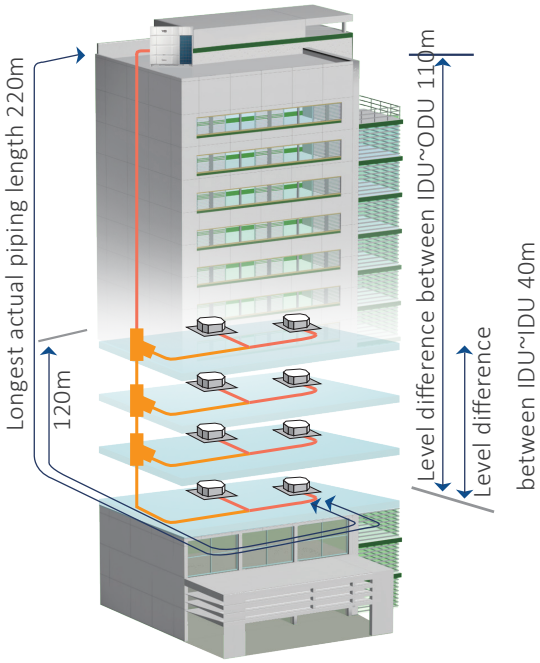
Thanks to the EVI compressor and refrigerant cooling technology, Alarko VRF can operate at temperatures as low as -30°C for heating and up to 55°C for cooling.



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***

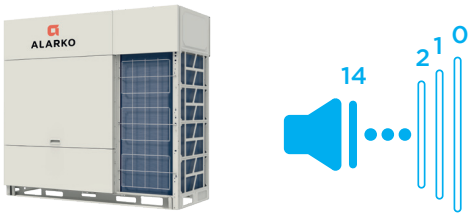
**The longest length after first branch is 40m as standard but can be extended to up to 120m under certain conditions. Please contact Alarko for further information.*



ENHANCED COMFORT

Advanced Silent Technology

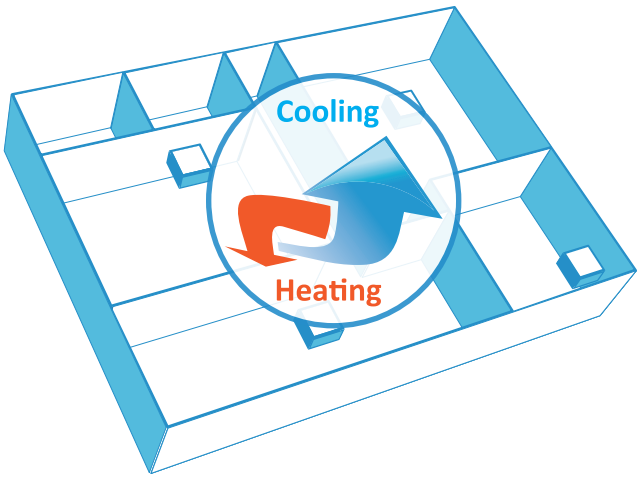
15-step silent mode plus night silent mode provide more freedom and convenience to match the customer needs.



15 silent options

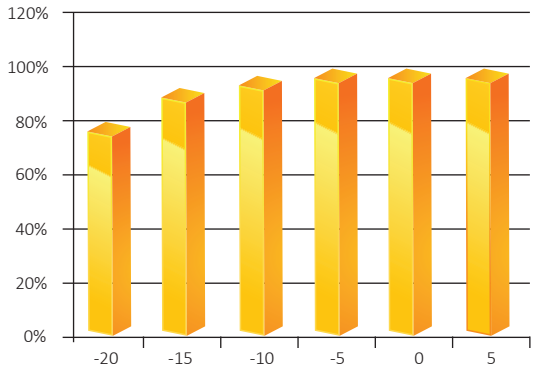
Auto Cooling-heating Changeover

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



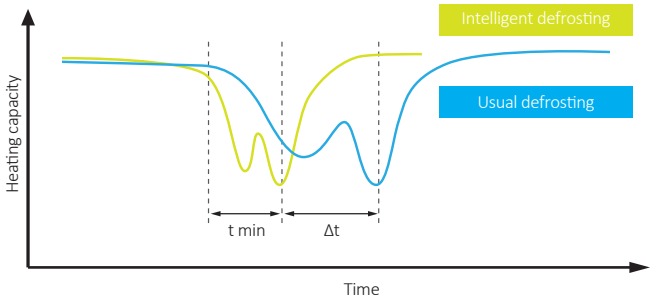
Enhanced Heating Capacity

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.



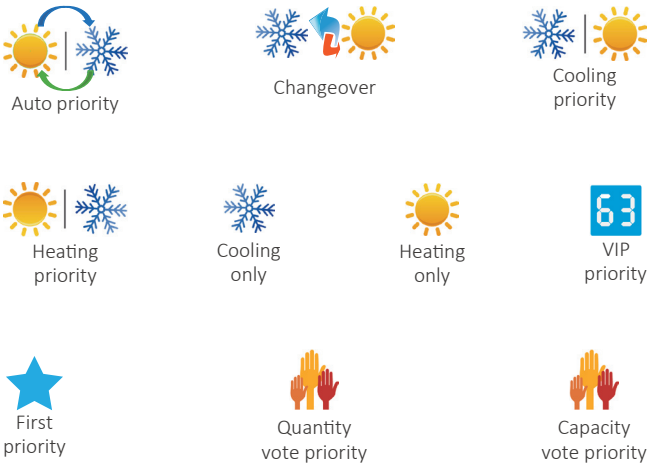
Intelligent Defrosting Technology

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

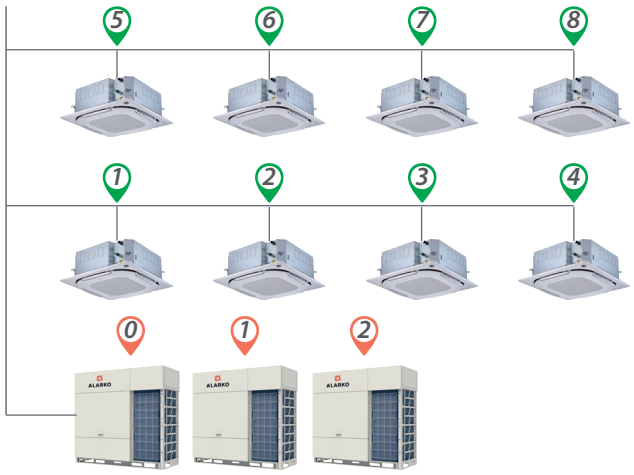
10 priority mode options provide more freedom and convenience to match the customer needs.



EASY INSTALLATION AND SERVICE

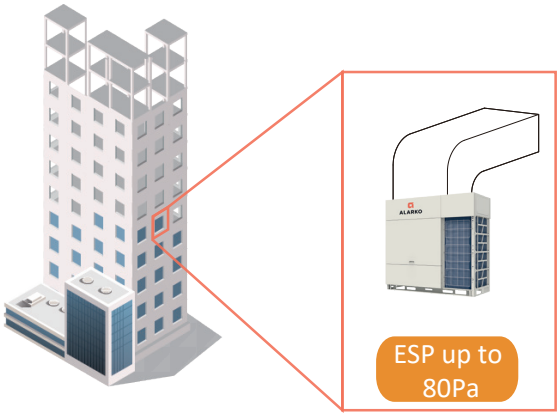
Auto Addressing

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



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*

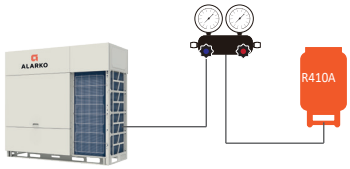
Compared to manual refrigerant charging, automatic refrigerant charging greatly simplifies the process, making installation and maintenance easier and more efficient.

Manual refrigerant charging

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

Automatic refrigerant charging

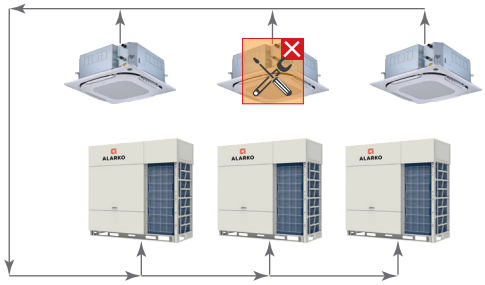
1. Connect refrigerant tank to the outdoor unit & activate automatic charging function
2. Close the shut-off valve automatically & finish filling process

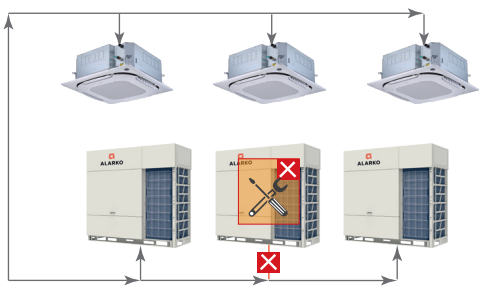


*This function is available as a customization option.

Automatic Refrigerant Recycling

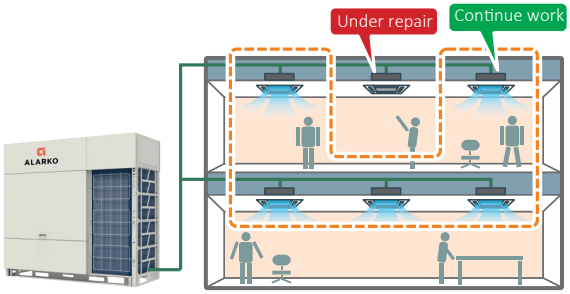
When an indoor unit fails, the refrigerant can be recycled into the outdoor units. When part of the outdoor unit fails, the refrigerant can be recycled into the indoor units and the normal outdoor unit. Two types of refrigerant recycling make the maintenance easier and more efficient.





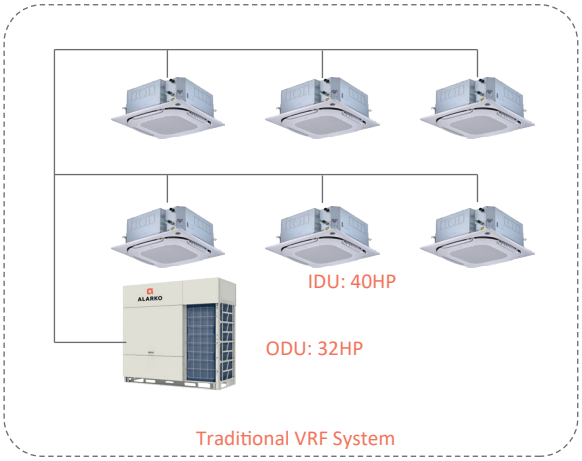
Maintenance Mode

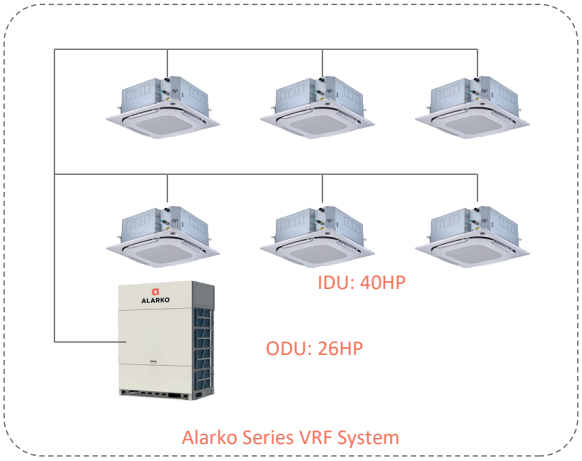
The unit has maintenance mode which allows the shutdown of some indoor units without shutting down the whole VRF system. the maintenance mode can be activated on site during maintenance period as the remaining indoor units continue to operate.



Wide Combination Ratio*

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

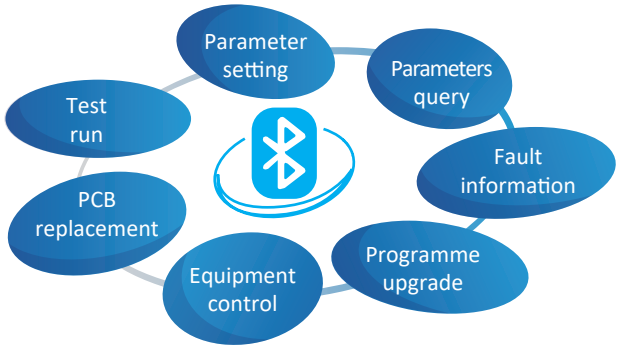
Easy Software Program Upgrade

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 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

*The Bluetooth module is available as a customization option.

Specifications

Alarko (Combinable series)

HP			8	10	12
Model name			ALR-V8HP008CT01	ALR-V8HP010CT01	ALR-V8HP012CT01
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50
Cooling capacity[1]		kW	25.2	28.0	33.5
		kBtu/h	85.9	95.5	114.2
Heating capacity[2](rated)		kW	25.2	28.0	33.5
		kBtu/h	85.9	95.5	114.2
Heating capacity[2](max)		kW	27.0	31.5	37.5
		kBtu/h	92.1	107.4	127.9
SEER			7.33	7.25	7.19
ηs,c		%	290.20	287.00	284.60
SCOP			4.33	4.27	4.29
ηs,h		%	170.20	167.80	168.60
Connected indoor unit	Total capacity		50%-130% of outdoor unit capacity		
	Maximum quantity		13	16	19
Compressors	Type		DC inverter	DC inverter	DC inverter
	Quantity		1	1	1
Fan motors	Type		DC	DC	DC
	Quantity		1	1	1
	Static pressure	Pa	0-20 (standard)20-80 (customized)		
	Airflow rate	m³/h	12600	12600	13500
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	7	7	7
Pipe connections[3]	Liquid pipe	mm	Φ12.7	Φ12.7	Φ12.7
	Gas pipe	mm	Φ25.4	Φ25.4	Φ25.4
Sound pressure level[4]		dB(A)	58	58	61
Sound power level[4]		dB(A)	83	84	85
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	195	195	195
Gross weight		kg	213	213	213
Ambient temp. operation range	Cooling	°C (DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C (DB)	-30 to 30	-30 to 30	-30 to 30

HP			14	16	18
Model name			ALR-V8HP014CT01	ALR-V8HP016CT01	ALR-V8HP018CT01
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50
Cooling capacity[1]		kW	40.0	45.0	50.0
		kBtu/h	136.4	153.5	170.5
Heating capacity[2](rated)		kW	40.0	45.0	50.0
		kBtu/h	136.4	153.5	170.5
Heating capacity[2](max)		kW	45.0	50.0	56.0
		kBtu/h	153.5	170.5	191.0
SEER			7.28	6.83	7.03
ηs,c		%	288.20	270.20	278.20
SCOP			4.37	4.27	4.25
ηs,h		%	171.80	167.80	167.00
Connected indoor unit	Total capacity		50%-130% of outdoor unit capacity		
	Maximum quantity		23	26	29
Compressors	Type		DC inverter	DC inverter	DC inverter
	Quantity		1	1	2
Fan motors	Type		DC	DC	DC
	Quantity		1	1	2
	Static pressure	Pa	0-20 (standard) 20-80 (customized)		
	Airflow rate	m³/h	15600	15600	22000
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	8.4	8.4	9.3
Pipe connections[3]	Liquid pipe	mm	Φ15.9	Φ15.9	Φ15.9
	Gas pipe	mm	Φ28.6	Φ28.6	Φ28.6
Sound pressure level[4]		dB(A)	65	65	65
Sound power level[4]		dB(A)	86	86	88
Net dimensions (W×H×D)		mm	940×1760×825	940×1760×825	1340×1760×825
Packed dimensions (W×H×D)		mm	1010×1945×890	1010×1945×890	1410×1945×890
Net weight		kg	215	215	295
Gross weight		kg	232	232	315
Ambient temp. operation range	Cooling	°C (DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C (DB)	-30 to 30	-30 to 30	-30 to 30

Notes:
1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.
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			20	22	24
Model name			ALR-V8HP020CT01	ALR-V8HP022CT01	ALR-V8HP024CT01
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50
Cooling capacity[1]		kW	56.0	61.5	67.0
		kBtu/h	191.0	209.7	228.5
Heating capacity[2](rated)		kW	56.0	61.5	67.0
		kBtu/h	191.0	209.7	228.5
Heating capacity[2](max)		kW	63.0	69.0	75.0
		kBtu/h	214.8	235.3	255.8
SEER			6.63	6.63	6.14
ηs,c		%	262.20	262.20	242.60
SCOP			4.20	4.35	4.28
ηs,h		%	165.00	171.00	168.20
Connected indoor unit	Total capacity		50%-130% of outdoor unit capacity		
	Maximum quantity		33	36	39
Compressors	Type		DC inverter	DC inverter	DC inverter
	Quantity		2	2	2
Fan motors	Type		DC	DC	DC
	Quantity		2	2	2
	Static pressure	Pa	0-20 (standard) 20-80 (customized)		
	Airflow rate	m^3/h	22000	21500	21500
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	9.3	11.96	11.96
Pipe connections[3]	Liquid pipe	mm	Φ15.9	Φ15.9	Φ15.9
	Gas pipe	mm	Φ28.6	Φ28.6	Φ28.6
Sound pressure level[4]		dB(A)	66	66	67
Sound power level[4]		dB(A)	89	89	92
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	295	315	315
Gross weight		kg	315	335	335
Ambient temp. operation range	Cooling	°C (DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C (DB)	-30 to 30	-30 to 30	-30 to 30

HP			26	28	30	32
Model name			ALR-V8HP026CT01	ALR-V8HP028CT01	ALR-V8HP030CT01	ALR-V8HP032CT01
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
Cooling capacity[1]		kW	73.0	78.5	85.0	90.0
		kBtu/h	248.9	267.7	289.9	306.9
Heating capacity[2](rated)		kW	73.0	78.5	85.0	90.0
		kBtu/h	248.9	267.7	289.9	306.9
Heating capacity[2](max)		kW	81.5	87.5	95.0	100.0
		kBtu/h	277.9	298.4	324.0	341.0
SEER			5.69	6.02	5.93	5.78
ηs,c		%	224.60	237.80	234.20	228.20
SCOP			4.27	4.28	4.20	4.20
ηs,h		%	167.80	168.20	165.00	165.00
Connected indoor unit	Total capacity		50%-130% of outdoor unit capacity			
	Maximum quantity		43	46	50	53
Compressors	Type		DC inverter	DC inverter	DC inverter	DC inverter
	Quantity		2	2	2	2
Fan motors	Type		DC	DC	DC	DC
	Quantity		2	2	2	2
	Static pressure	Pa	0-20 (standard) 20-80 (customized)			
	Airflow rate	m^3/h	29000	28000	28000	28000
Refrigerant	Type		R410A	R410A	R410A	R410A
	Factory charge	kg	11.96	11.96	11.96	11.96
Pipe connections[3]	Liquid pipe	mm	Φ22.2	Φ22.2	Φ22.2	Φ22.2
	Gas pipe	mm	Φ31.8	Φ34.9	Φ34.9	Φ34.9
Sound pressure level[4]		dB(A)	68	68	68	68
Sound power level[4]		dB(A)	93	93	93	93
Net dimensions (W×H×D)		mm	1880×1760×825	1880×1760×825	1880×1760×825	1880×1760×825
Packed dimensions (W×H×D)		mm	1935×1945×890	1935×1945×890	1935×1945×890	1935×1945×890
Net weight		kg	366	396	396	396
Gross weight		kg	396	426	426	426
Ambient temp. operation range	Cooling	°C (DB)	-15 to 55	-15 to 55	-15 to 55	-15 to 55
	Heating	°C (DB)	-30 to 30	-30 to 30	-30 to 30	-30 to 30

Notes:
1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.
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.

Specifications

Alarko (Combinable series)

HP			34	36	38
Model name (Combination unit)			ALR-V8HP034CT01	ALR-V8HP036CT01	ALR-V8HP038CT01
Combination type			14HP+20HP	16HP+20HP	14HP+24HP
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50
Cooling capacity[1]		kW	96.0	101.0	107.0
		kBtu/h	327.4	344.4	364.9
Heating capacity[2](rated)		kW	96.0	101.0	107.0
		kBtu/h	327.4	344.4	364.9
Heating capacity[2](max)		kW	108.0	113.0	120.0
		kBtu/h	368.3	385.3	409.2
SEER			6.89	6.72	6.52
ηs,c		%	272.60	265.80	257.80
SCOP			4.27	4.23	4.31
ηs,h		%	167.80	166.20	170.60
Connected indoor unit	Total capacity		50%-130% of outdoor unit capacity		
	Maximum quantity		56	59	62
Compressors	Type		DC inverter	DC inverter	DC inverter
	Quantity		3	3	3
Fan motors	Type		DC	DC	DC
	Quantity		3	3	3
	Static pressure	Pa	0-20 (standard) 20-80 (customized)		
	Airflow rate	m³/h	37600	37600	37100
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	8.4+9.3	8.4+9.3	8.4+11.96
Pipe connections[3]	Liquid pipe	mm	Φ19.1	Φ19.1	Φ19.1
	Gas pipe	mm	Φ31.8	Φ38.1	Φ38.1
Sound pressure level[4]		dB(A)	69	69	69
Sound power level[4]		dB(A)	93	91	93
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	215+295	215+295	215+315
Gross weight		kg	232+315	232+315	232+335
Ambient temp. operation range	Cooling	°C (DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C (DB)	-30 to 30	-30 to 30	-30 to 30

HP			40	42	44
Model name (Combination unit)			ALR-V8HP040CT01	ALR-V8HP042CT01	ALR-V8HP044CT01
Combination type			16HP+24HP	18HP+24HP	22HP+22HP
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50
Cooling capacity[1]		kW	112.0	117.0	123.0
		kBtu/h	381.9	399.0	419.4
Heating capacity[2](rated)		kW	112.0	117.0	123.0
		kBtu/h	381.9	399.0	419.4
Heating capacity[2](max)		kW	125.0	131.0	138.0
		kBtu/h	426.3	446.7	470.6
SEER			6.40	6.49	6.63
ηs,c		%	253.00	256.60	262.20
SCOP			4.28	4.27	4.35
ηs,h		%	169.00	168.60	171.00
Connected indoor unit	Total capacity		50%-130% of outdoor unit capacity		
	Maximum quantity		64	64	64
Compressors	Type		DC inverter	DC inverter	DC inverter
	Quantity		3	4	4
Fan motors	Type		DC	DC	DC
	Quantity		3	4	4
	Static pressure	Pa	0-20 (standard) 20-80 (customized)		
	Airflow rate	m³/h	37100	43500	43000
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	8.4+11.96	9.3+11.96	11.96×2
Pipe connections[3]	Liquid pipe	mm	Φ19.1	Φ19.1	Φ19.1
	Gas pipe	mm	Φ38.1	Φ38.1	Φ38.1
Sound pressure level[4]		dB(A)	69	69	69
Sound power level[4]		dB(A)	93	94	92
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	215+315	295+315	315×2
Gross weight		kg	232+335	315+335	335×2
Ambient temp. operation range	Cooling	°C (DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C (DB)	-30 to 30	-30 to 30	-30 to 30

Notes:
1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.
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 Alarko 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			46	48	50
Model name (Combination unit)			ALR-V8HP046CT01	ALR-V8HP048CT01	ALR-V8HP050CT01
Combination type			22HP+24HP	24HP+24HP	18HP+32HP
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50
Cooling capacity[1]		kW	128.5	134.0	140.0
		kBtu/h	438.2	456.9	477.4
Heating capacity[2](rated)		kW	128.5	134.0	140.0
		kBtu/h	438.2	456.9	477.4
Heating capacity[2](max)		kW	144.0	150.0	156.0
		kBtu/h	491.0	511.5	532.0
SEER			6.37	6.14	6.17
ηs,c		%	251.80	242.60	243.80
SCOP			4.31	4.28	4.22
ηs,h		%	171.00	168.20	165.80
Connected indoor unit	Total capacity		50%-130% of outdoor unit capacity		
	Maximum quantity		64	64	64
Compressors	Type		DC inverter	DC inverter	DC inverter
	Quantity		4	4	4
Fan motors	Type		DC	DC	DC
	Quantity		4	4	4
	Static pressure	Pa	0-20 (standard) 20-80 (customized)		
	Airflow rate	m^3/h	43000	43000	50000
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	11.96×2	11.96×2	9.3+11.96
Pipe connections[3]	Liquid pipe	mm	Φ19.1	Φ19.1	Φ19.1
	Gas pipe	mm	Φ38.1	Φ38.1	Φ38.1
Sound pressure level[4]		dB(A)	70	70	70
Sound power level[4]		dB(A)	94	95	94
Net dimensions (W×H×D)		mm	(1340×1760×825)×2	(1340×1760×825)×2	(1340×1760×825)+(1880×1760×825)
Packed dimensions (W×H×D)		mm	(1410×1945×890)×2	(1410×1945×890)×2	(1410×1945×890)+(1935×1945×890)
Net weight		kg	315×2	315×2	295+396
Gross weight		kg	335×2	335×2	315+426
Ambient temp. operation range	Cooling	°C (DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C (DB)	-30 to 30	-30 to 30	-30 to 30

HP			52	54	56
Model name (Combination unit)			ALR-V8HP052CT01	ALR-V8HP054CT01	ALR-V8HP056CT01
Combination type			20HP+32HP	22HP+32HP	24HP+32HP
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50
Cooling capacity[1]		kW	146.0	151.5	157.0
		kBtu/h	497.9	516.6	535.4
Heating capacity[2](rated)		kW	146.0	151.5	157.0
		kBtu/h	497.9	516.6	535.4
Heating capacity[2](max)		kW	163.0	169.0	175.0
		kBtu/h	555.8	576.3	596.8
SEER			6.08	6.10	5.93
ηs,c		%	240.20	241.00	234.20
SCOP			4.20	4.26	4.23
ηs,h		%	165.00	168.20	167.00
Connected indoor unit	Total capacity		50%-130% of outdoor unit capacity		
	Maximum quantity		64	64	64
Compressors	Type		DC inverter	DC inverter	DC inverter
	Quantity		4	4	4
Fan motors	Type		DC	DC	DC
	Quantity		4	4	4
	Static pressure	Pa	0-20 (standard) 20-80 (customized)		
	Airflow rate	m^3/h	50000	49500	49500
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	9.3+11.96	11.96×2	11.96×2
Pipe connections[3]	Liquid pipe	mm	Φ19.1	Φ19.1	Φ19.1
	Gas pipe	mm	Φ38.1	Φ38.1	Φ41.3
Sound pressure level[4]		dB(A)	70	70	71
Sound power level[4]		dB(A)	95	95	96
Net dimensions (W×H×D)		mm	(1340×1760×825)+(1880×1760×825)	(1340×1760×825)+(1880×1760×825)	(1340×1760×825)+(1880×1760×825)
Packed dimensions (W×H×D)		mm	(1410×1945×890)+(1935×1945×890)	(1410×1945×890)+(1935×1945×890)	(1410×1945×890)+(1935×1945×890)
Net weight		kg	295+396	315+396	315+396
Gross weight		kg	315+426	335+426	335+426
Ambient temp. operation range	Cooling	°C (DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C (DB)	-30 to 30	-30 to 30	-30 to 30

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.

2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.

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 Alarko 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.

Specifications

Alarko (Combinable series)

HP			58	60	62
Model name (Combination unit)			ALR-V8HP058CT01	ALR-V8HP060CT01	ALR-V8HP062CT01
Combination type			26HP+32HP	28HP+32HP	30HP+32HP
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50
Cooling capacity[1]		kW	163.0	168.5	175.0
		kBtu/h	555.8	574.6	596.8
Heating capacity[2](rated)		kW	163.0	168.5	175.0
		kBtu/h	555.8	574.6	596.8
Heating capacity[2](max)		kW	181.5	187.5	195.0
		kBtu/h	618.9	639.4	665.0
SEER			5.74	5.89	5.85
ηs,c		%	226.60	232.60	231.00
SCOP			4.23	4.24	4.20
ηs,h		%	166.20	166.60	165.00
Connected indoor unit	Total capacity		50%-130% of outdoor unit capacity		
	Maximum quantity		64	64	64
Compressors	Type		DC inverter	DC inverter	DC inverter
	Quantity		4	4	4
Fan motors	Type		DC	DC	DC
	Quantity		4	4	4
	Static pressure	Pa	0-20 (standard) 20-80 (customized)		
	Airflow rate	m³/h	57000	56000	56000
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	11.96×2	11.96×2	11.96×2
Pipe connections[3]	Liquid pipe	mm	Φ19.1	Φ19.1	Φ19.1
	Gas pipe	mm	Φ41.3	Φ41.3	Φ41.3
Sound pressure level[4]		dB(A)	71	71	71
Sound power level[4]		dB(A)	96	96	96
Net dimensions (W×H×D)		mm	(1880×1760×825)×2	(1880×1760×825)×2	(1880×1760×825)×2
Packed dimensions (W×H×D)		mm	(1935×1945×890)×2	(1935×1945×890)×2	(1935×1945×890)×2
Net weight		kg	366+396	396×2	396×2
Gross weight		kg	396+426	426×2	426×2
Ambient temp. operation range	Cooling	°C (DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C (DB)	-30 to 30	-30 to 30	-30 to 30

HP			64	66	68
Model name (Combination unit)			ALR-V8HP064CT01	ALR-V8HP066CT01	ALR-V8HP068CT01
Combination type			32HP+32HP	14HP+20HP+32HP	16HP+20HP+32HP
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50
Cooling capacity[1]		kW	180.0	186.0	191.0
		kBtu/h	613.8	634.3	651.3
Heating capacity[2](rated)		kW	180.0	186.0	191.0
		kBtu/h	613.8	634.3	651.3
Heating capacity[2](max)		kW	200.0	208.0	213.0
		kBtu/h	682.0	709.3	726.3
SEER			5.78	6.30	6.24
ηs,c		%	228.20	249.00	246.60
SCOP			4.20	4.24	4.22
ηs,h		%	165.00	166.60	165.80
Connected indoor unit	Total capacity		50%-130% of outdoor unit capacity		
	Maximum quantity		64	64	64
Compressors	Type		DC inverter	DC inverter	DC inverter
	Quantity		4	5	5
Fan motors	Type		DC	DC	DC
	Quantity		4	5	5
	Static pressure	Pa	0-20 (standard) 20-80 (customized)		
	Airflow rate	m³/h	56000	65600	65600
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	11.96×2	8.4+9.3+11.96	8.4+9.3+11.96
Pipe connections[3]	Liquid pipe	mm	Φ19.1	Φ19.1	Φ22.2
	Gas pipe	mm	Φ41.3	Φ41.3	Φ44.5
Sound pressure level[4]		dB(A)	71	71	72
Sound power level[4]		dB(A)	96	95	95
Net dimensions (W×H×D)		mm	(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	(1935×1945×890)×2	(1010×1945×890)+(1410×1945×890) +(1935×1945×890)	(1010×1945×890)+(1410×1945×890) +(1935×1945×890)
Net weight		kg	396×2	215+295+396	215+295+396
Gross weight		kg	426×2	232+315+426	232+315+426
Ambient temp. operation range	Cooling	°C (DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C (DB)	-30 to 30	-30 to 30	-30 to 30

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.

2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.

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 Alarko 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			70	72	74
Model name (Combination unit)			ALR-V8HP070CT01	ALR-V8HP072CT01	ALR-V8HP074CT01
Combination type			14HP+24HP+32HP	16HP+24HP+32HP	18HP+24HP+32HP
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50
Cooling capacity[1]		kW	197.0	202.0	207.0
		kBtu/h	671.8	688.8	705.9
Heating capacity[2](rated)		kW	197.0	202.0	207.0
		kBtu/h	671.8	688.8	705.9
Heating capacity[2](max)		kW	220.0	225.0	231.0
		kBtu/h	750.2	767.3	787.7
SEER			6.16	6.11	6.16
ηs,c		%	243.40	241.40	243.40
SCOP			4.26	4.24	4.24
ηs,h		%	167.80	167.00	167.00
Connected indoor unit	Total capacity		50%-130% of outdoor unit capacity		
	Maximum quantity		64	64	64
Compressors	Type		DC inverter	DC inverter	DC inverter
	Quantity		5	5	6
Fan motors	Type		DC	DC	DC
	Quantity		5	5	6
	Static pressure	Pa	0-20 (standard) 20-80 (customized)		
	Airflow rate	m^3/h	65100	65100	71500
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	8.4+11.96×2	8.4+11.96×2	9.3+11.96×2
Pipe connections[3]	Liquid pipe	mm	Φ22.2	Φ22.2	Φ22.2
	Gas pipe	mm	Φ44.5	Φ44.5	Φ44.5
Sound pressure level[4]		dB(A)	72	72	72
Sound power level[4]		dB(A)	96	96	96
Net dimensions (W×H×D)		mm	(940×1760×825)+(1340×1760×825)+(1880×1760×825)	(940×1760×825)+(1340×1760×825)+(1880×1760×825)	(1340×1760×825)×2+(1880×1760×825)
Packed dimensions (W×H×D)		mm	(1010×1945×890)+(1410×1945×890)+(1935×1945×890)	(1010×1945×890)+(1410×1945×890)+(1935×1945×890)	(1410×1945×890)×2+(1935×1945×890)
Net weight		kg	215+315+396	215+315+396	295+315+396
Gross weight		kg	232+335+426	232+335+426	315+335+426
Ambient temp. operation range	Cooling	°C (DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C (DB)	-30 to 30	-30 to 30	-30 to 30

HP			76	78	80
Model name (Combination unit)			ALR-V8HP076CT01	ALR-V8HP078CT01	ALR-V8HP080CT01
Combination type			22HP+22HP+32HP	22HP+24HP+32HP	24HP+24HP+32HP
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50
Cooling capacity[1]		kW	213.0	218.5	224.0
		kBtu/h	726.3	745.1	763.8
Heating capacity[2](rated)		kW	213.0	218.5	224.0
		kBtu/h	726.3	745.1	763.8
Heating capacity[2](max)		kW	238.0	244.0	250.0
		kBtu/h	811.6	832.0	852.5
SEER			6.24	6.11	5.99
ηs,c		%	246.60	241.40	236.60
SCOP			4.29	4.27	4.25
ηs,h		%	169.40	168.60	167.80
Connected indoor unit	Total capacity		50%-130% of outdoor unit capacity		
	Maximum quantity		64	64	64
Compressors	Type		DC inverter	DC inverter	DC inverter
	Quantity		6	6	6
Fan motors	Type		DC	DC	DC
	Quantity		6	6	6
	Static pressure	Pa	0-20 (standard) 20-80 (customized)		
	Airflow rate	m^3/h	71000	71000	71000
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	11.96×3	11.96×3	11.96×3
Pipe connections[3]	Liquid pipe	mm	Φ22.2	Φ22.2	Φ22.2
	Gas pipe	mm	Φ44.5	Φ44.5	Φ44.5
Sound pressure level[4]		dB(A)	72	72	72
Sound power level[4]		dB(A)	96	96	97
Net dimensions (W×H×D)		mm	(1340×1760×825)×2+(1880×1760×825)	(1340×1760×825)×2+(1880×1760×825)	(1340×1760×825)×2+(1880×1760×825)
Packed dimensions (W×H×D)		mm	(1410×1945×890)×2+(1935×1945×890)	(1410×1945×890)×2+(1935×1945×890)	(1410×1945×890)×2+(1935×1945×890)
Net weight		kg	315×2+396	315×2+396	315×2+396
Gross weight		kg	335×2+426	335×2+426	335×2+426
Ambient temp. operation range	Cooling	°C (DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C (DB)	-30 to 30	-30 to 30	-30 to 30

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.

2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.

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 Alarko 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.

Specifications

Alarko (Combinable series)

HP			82	84
Model name (Combination unit)			ALR-V8HP082CT01	ALR-V8HP084CT01
Combination type			18HP+32HP+32HP	20HP+32HP+32HP
Power supply		V/N/Hz	380-415/3/50	380-415/3/50
Cooling capacity[1]		kW	230.0	236.0
		kBtu/h	784.3	804.8
Heating capacity[2](rated)		kW	230.0	236.0
		kBtu/h	784.3	804.8
Heating capacity[2](max)		kW	256.0	263.0
		kBtu/h	873.0	896.8
SEER			6.01	5.96
ηs,c		%	237.40	235.40
SCOP			4.21	4.20
ηs,h		%	165.40	165.00
Connected indoor unit	Total capacity		50%-130% of outdoor unit capacity	50%-130% of outdoor unit capacity
	Maximum quantity		64	64
Compressors	Type		DC inverter	DC inverter
	Quantity		6	6
Fan motors	Type		DC	DC
	Quantity		6	6
	Static pressure	Pa	0-20 (standard) 20-80 (customized)	
	Airflow rate	m^3/h	78000	78000
Refrigerant	Type		R410A	R410A
	Factory charge	kg	9.3+11.96×2	9.3+11.96×2
Pipe connections[3]	Liquid pipe	mm	Φ22.2	Φ25.4
	Gas pipe	mm	Φ44.5	Φ50.8
Sound pressure level[4]		dB(A)	72	72
Sound power level[4]		dB(A)	97	97
Net dimensions (W×H×D)		mm	(1340×1760×825)+(1880×1760×825)×2	(1340×1760×825)+(1880×1760×825)×2
Packed dimensions (W×H×D)		mm	(1410×1945×890)+(1935×1945×890)×2	(1410×1945×890)+(1935×1945×890)×2
Net weight		kg	295+396×2	295+396×2
Gross weight		kg	315+426×2	315+426×2
Ambient temp. operation range	Cooling	°C (DB)	-15 to 55	-15 to 55
	Heating	°C (DB)	-30 to 30	-30 to 30

HP			86	88
Model name (Combination unit)			ALR-V8HP086CT01	ALR-V8HP088CT01
Combination type			22HP+32HP+32HP	24HP+32HP+32HP
Power supply		V/N/Hz	380-415/3/50	380-415/3/50
Cooling capacity[1]		kW	241.5	247.0
		kBtu/h	823.5	842.3
Heating capacity[2](rated)		kW	241.5	247.0
		kBtu/h	823.5	842.3
Heating capacity[2](max)		kW	269.0	275.0
		kBtu/h	917.3	937.8
SEER			5.98	5.87
ηs,c		%	236.20	231.80
SCOP			4.24	4.22
ηs,h		%	167.00	166.20
Connected indoor unit	Total capacity		50%-130% of outdoor unit capacity	50%-130% of outdoor unit capacity
	Maximum quantity		64	64
Compressors	Type		DC inverter	DC inverter
	Quantity		6	6
Fan motors	Type		DC	DC
	Quantity		6	6
	Static pressure	Pa	0-20 (standard) 20-80 (customized)	
	Airflow rate	m^3/h	77500	77500
Refrigerant	Type		R410A	R410A
	Factory charge	kg	11.96×3	11.96×3
Pipe connections[3]	Liquid pipe	mm	Φ25.4	Φ25.4
	Gas pipe	mm	Φ50.8	Φ50.8
Sound pressure level[4]		dB(A)	72	72
Sound power level[4]		dB(A)	97	98
Net dimensions (W×H×D)		mm	(1340×1760×825)+(1880×1760×825)×2	(1340×1760×825)+(1880×1760×825)×2
Packed dimensions (W×H×D)		mm	(1410×1945×890)+(1935×1945×890)×2	(1410×1945×890)+(1935×1945×890)×2
Net weight		kg	315+396×2	315+396×2
Gross weight		kg	335+426×2	335+426×2
Ambient temp. operation range	Cooling	°C (DB)	-15 to 55	-15 to 55
	Heating	°C (DB)	-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 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.

2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.

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 Alarko 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			90	92
Model name (Combination unit)			ALR-V8HP090CT01	ALR-V8HP092CT01
Combination type			26HP+32HP+32HP	28HP+32HP+32HP
Power supply		V/N/Hz	380-415/3/50	380-415/3/50
Cooling capacity[1]		kW	253.0	258.5
		kBtu/h	862.7	881.5
Heating capacity[2](rated)		kW	253.0	258.5
		kBtu/h	862.7	881.5
Heating capacity[2](max)		kW	281.5	287.5
		kBtu/h	959.9	980.4
SEER			5.75	5.85
ηs,c		%	227.00	231.00
SCOP			4.22	4.22
ηs,h		%	165.80	165.80
Connected indoor unit	Total capacity		50%-130% of outdoor unit capacity	50%-130% of outdoor unit capacity
	Maximum quantity		64	64
Compressors	Type		DC inverter	DC inverter
	Quantity		6	6
Fan motors	Type		DC	DC
	Quantity		6	6
	Static pressure	Pa	0-20 (standard) 20-80 (customized)	
	Airflow rate	m^3/h	85000	84000
Refrigerant	Type		R410A	R410A
	Factory charge	kg	11.96×3	11.96×3
Pipe connections[3]	Liquid pipe	mm	Φ25.4	Φ25.4
	Gas pipe	mm	Φ50.8	Φ50.8
Sound pressure level[4]		dB(A)	73	73
Sound power level[4]		dB(A)	98	98
Net dimensions (W×H×D)		mm	(1880×1760×825)×3	(1880×1760×825)×3
Packed dimensions (W×H×D)		mm	(1935×1945×890)×3	(1935×1945×890)×3
Net weight		kg	366+396×2	396×3
Gross weight		kg	396+426×2	426×3
Ambient temp. operation range	Cooling	°C (DB)	-15 to 55	-15 to 55
	Heating	°C (DB)	-30 to 30	-30 to 30

HP			94	96
Model name (Combination unit)			ALR-V8HP094CT01	ALR-V8HP096CT01
Combination type			30HP+32HP+32HP	32HP+32HP+32HP
Power supply		V/N/Hz	380-415/3/50	380-415/3/50
Cooling capacity[1]		kW	265.0	270.0
		kBtu/h	903.7	920.7
Heating capacity[2](rated)		kW	265.0	270.0
		kBtu/h	903.7	920.7
Heating capacity[2](max)		kW	295.0	300.0
		kBtu/h	1006.0	1023.0
SEER			5.83	5.78
ηs,c		%	230.20	228.20
SCOP			4.20	4.20
ηs,h		%	165.00	165.00
Connected indoor unit	Total capacity		50%-130% of outdoor unit capacity	50%-130% of outdoor unit capacity
	Maximum quantity		64	64
Compressors	Type		DC inverter	DC inverter
	Quantity		6	6
Fan motors	Type		DC	DC
	Quantity		6	6
	Static pressure	Pa	0-20 (standard) 20-80 (customized)	
	Airflow rate	m^3/h	84000	84000
Refrigerant	Type		R410A	R410A
	Factory charge	kg	11.96×3	11.96×3
Pipe connections[3]	Liquid pipe	mm	Φ25.4	Φ25.4
	Gas pipe	mm	Φ50.8	Φ50.8
Sound pressure level[4]		dB(A)	73	73
Sound power level[4]		dB(A)	98	98
Net dimensions (W×H×D)		mm	(1880×1760×825)×3	(1880×1760×825)×3
Packed dimensions (W×H×D)		mm	(1935×1945×890)×3	(1935×1945×890)×3
Net weight		kg	396×3	396×3
Gross weight		kg	426×3	426×3
Ambient temp. operation range	Cooling	°C (DB)	-15 to 55	-15 to 55
	Heating	°C (DB)	-30 to 30	-30 to 30

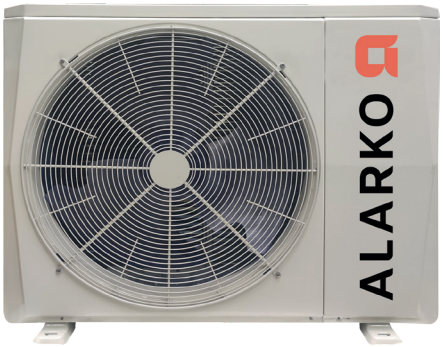
Notes:
1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.
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 Alarko 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.

Indoor Units
VRF Indoor Units

Ventilating
Heat Recovery Ventilator (HRV)

Controllers
Smart Controllers

AHU Kit
Connects to Alarko or 3rd party AHU Kit.

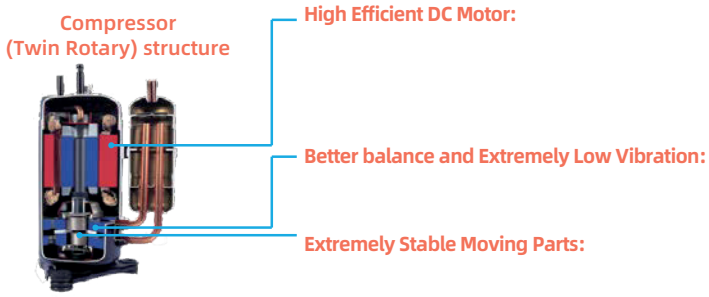


Side Discharge Mini VRF Outdoor Unit (3-12 HP)

Optimized Design for Small Buildings

- Refrigerant Cooling PCB (Only for Mini VRF)
- Precise Oil Control Technology
- Advanced Silence Technology
- Compact, Easy Installation

DC Inverter Compressor



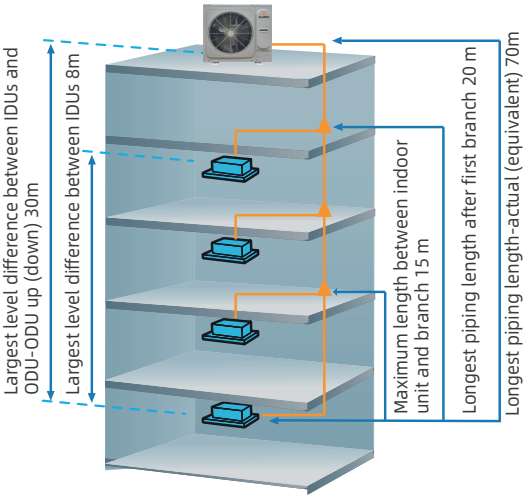
Wide Capacity Range

Mini VRF Series is perfect for commercial and residential applications such as small offices, villas, apartments, shops.

2 Pipe Side Discharge Mini VRF Outdoor Unit		
8kW	10-16kW	20-33.5kW
		

Long Piping Lenght

Piping Length	Capacity (m)			
	8kW	10/12kW	14/16kW	20/22.4/26/28/33.5kW
Total piping length	50	65	100	150
Longest piping length-actual (equivalent)	35 (40)	45 (50)	60 (70)	100 (110)
Longest piping length after first branch	20	20	20	40
Maximum length between indoor unit and branch	15	15	15	15
Largest level difference between IDUs and ODU-ODU up (down)	10 (10)	20 (20)	30 (20)	50 (40)
Largest level difference between IDUs	8	8	8	15



Side Discharge Mini VRF - Outdoor Unit

220~240V, 1N, 50Hz

HP			3	4	4.5
Model			ALR-V6HP003FS11	ALR-V6HP0S4FS11	ALR-V6HP004FS11
Power Supply		V/N/Hz	220-240/1/50		
Cooling[1]	Capacity	kW	7.2	9.0	12.2
		kBtu/h	24.6	30.7	40.9
	Power Inpout	kW	2.18	2.64	4.32
	EER		3.30	3.41	2.83
Heating[2]	Capacity	kW	7.2	9.0	14.0
		kBtu/h	24.6	30.7	47.8
	Power Input	kW	1.82	2.10	3.17
	COP		3.95	4.29	4.40
Indoor Unit	Total Diversity		%45~130 of outdoor unit capacity		
	Maximum Quantity		4	6	7
Compressor	Type		DC inverter		
	Quantity		1		
Fan motor	Type		DC		
	Quantity		1		
Refrigerant	Type		R410A		
	standard charge	kg	2.2	2.35	3
Piping[3]	Liquid Pipe	mm	Ø9.53		
	Gas Pipe	mm	Ø15.9		
Airflow		m^3/h	3700	5200	5000
Sound Pressure Level		dB(A)	54	54	56
Net Dimensions (WxHxD)		mm	982×712×440	950×840×426	950×840×426
Packaging Dimensions (WxHxD)		mm	1048×810×485	1025×950×510	1025×950×510
Net Weight		kg	55	72.5	84
Gross Weight		kg	59.5	82	93
Operating Range		°C	Cooling: -5 ~ 55, Heating: -15 ~ 27		

HP			5	6
Model			ALR-V6HP005FS11	ALR-V6HP006FS11
Power Supply		V/N/Hz	220-240/1/50	
Cooling[1]	Capacity	kW	14.0	15.5
		kBtu/h	47.8	52.9
	Power Inpout	kW	4.56	5.35
	EER		3.07	2.90
Heating[2]	Capacity	kW	16.0	18.0
		kBtu/h	54.6	61.4
	Power Input	kW	4.08	5.71
	COP		3.92	3.20
Indoor Unit	Total Diversity		%45~130 of outdoor unit capacity	
	Maximum Quantity		8	9
Compressor	Type		DC inverter	
	Quantity		1	
Fan motor	Type		DC	
	Quantity		1	
Refrigerant	Type		R410A	
	standard charge	kg	3.4	3.8
Piping[3]	Liquid Pipe	mm	Ø9.53	Ø9.53
	Gas Pipe	mm	Ø15.9	Ø19.1
Airflow		m^3/h	5400	5200
Sound Pressure Level		dB(A)	56	56
Net Dimensions (WxHxD)		mm	1040×865×523	
Packaging Dimensions (WxHxD)		mm	1120×980×560	
Net Weight		kg	91.4	95.4
Gross Weight		kg	101.4	105.4
Operating Range		°C	Cooling: -5 ~ 55, Heating: -15 ~ 27	

Notlar:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference;
3. Sound pressure level is measured at a position 1m in front of the unit and 1 m above the oor in a semi-anechoic chamber.

Side Discharge Mini VRF - Outdoor Unit

380~415V, 3N, 50Hz

HP			7	8	9	10	12
Model			ALR-V6HP007FS01	ALR-V6HP008FS01	ALR-V6HP009FS01	ALR-V6HP010FS01	ALR-V6HP012FS01
Power Supply		V/N/Hz	380-415/3/50				
Cooling[1]	Capacity	kW	20	22.4	26	28.5	33.5
		kBtu/h	68.2	76.4	88.7	97.2	114.3
	Power Inpout	kW	4.90	6.83	9.63	12.28	14.38
	EER		4.08	3.28	2.70	2.32	2.33
Heating[2]	Capacity	kW	20	22.4	26	28.5	33.5
		kBtu/h	68.2	76.4	88.7	97.2	114.3
	Power Inpout	kW	4.21	4.98	5.53	6.16	8.1
	COP		4.75	4.50	4.70	4.63	4.14
Heating[2] (Maks.)	Capacity	kW	22.5	25	28.5	31.5	37.5
		kBtu/h	76.8	85.3	97.2	107.5	128.0
	Power Inpout	kW	6.59	6.67	7.43	7.41	9.08
	COP		3.41	3.75	3.83	4.25	4.13
Indoor Unit	Total Divercity		%50~130 of outdoor unit capacity				
	Maximum Quantity		11	13	15	16	20
Compressor	Type		DC inverter				
	Quantity		1				
Fan motor	Type		DC				
	Quantity		2				
Refrigerant	Type		R410A				
	Standard charge	kg	6.5	6.5	6.5	6.5	8
Piping[3]	Liquid Pipe	mm	Ø9.53	Ø9.53	Ø9.53	Ø9.53	Ø12.7
	Gas Pipe	mm	Ø19.1	Ø19.1	Ø22.2	Ø22.2	Ø25.4
Airflow		m3/h	9000	9000	10000	11000	11300
Sound Pressure Level [4]		dB(A)	58	58	59	60	61
Net Dimensions (WxHxD)		mm	1120×1558×528				
Packaging Dimensions (WxHxD)		mm	1270×1720×565				
Net Weight		kg	143	143	144	144	157
Gross Weight		kg	159	159	160	160	173
Operating Range	Cooling	°C	-5 ila 48				
	Heating	°C	-20 ila 24				

Notlar:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m 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 m above the oor in a semi-anechoic chamber.

ALARKO INDIVIDUAL SIDE DISCHARGE SERIES (14-22 HP)

Alarko Individual Side Discharge Series

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

14HP	16-22HP
	

Outdoor Unit Functions

	Functions		Alarko Individual Side Discharge VRF
	●: equipped as standard; O: customization option		
Key Technologies	HyperLink	Original communication bus chip greatly simplifies installation and saves installation costs	●
	SuperSense	18 sensors monitor the state of each part of the refrigerant pipeline throughout the whole process	●
	Alarko ETA 2.0	Triple variable control maximizes comfort and energy efficiency	●
	En air 2.0	Provides comfort and healthy air supply	●
	Doctor M 2.0	Intelligent diagnostic technology makes maintenance easier and more efficient	●
High Efficiency	Full DC inverter technology	All electrical components of outdoor and indoor units use DC power supply, improving electrical efficiency and saving energy	●
	Enhanced Vapor Injection (EVI) compressor	Increases refrigerant circulation and improves both cooling and heating capacity	●
	Micro-channel refrigerant subcooling	The refrigerant system can achieve 15°C refrigerant subcooling, which can further improve the refrigerant heat transfer efficiency while reducing noise	●
	Low standby power consumption	The standby power consumption is as low as 3.5W	●
	60-step energy manage-ment	The system can be set from 40% to 100% capacity output in 1% increments	●

Functions ●: equipped as standard; O: customization option			Alarko Individual Side Discharge VRF
High Reliability	Backup operation (fan motor)	If one fan motor fails, the other fan motor provides backup so that the system can continue operating	●
	Backup operation (sensor)	If one sensor fails, the virtual sensor provides backup so that the system can continue operating	●
	Precise oil control	Ensures all outdoor compressor oil is at a safe level, eliminating compressor oil shortages	●
	Heavy anti-corrosion protection	Can be customized with heavy anti-corrosion treatment for surface protection against corrosive air, acid rain and saline air (for installations in coastal regions) to extend overall useful life	○
	UL anti-corrosion certificate	It has been certified by UL that our VRF outdoor unit can withstand 27 years of simulated severe corrosion under a salt contaminated traffic environment	○
	Micro-channel refrigerant cooling PCB	10 times higher than ordinary refrigerant pipe cooling efficiency	●
	Auto dust-clean function	Blows away accumulated dust on the outdoor unit, guaranteeing stable unit operations in a dusty environment	●
	Alarm output	In the event of system malfunction, remotely output error information and remind maintenance personnel to conduct maintenance	○
	Fire alarm input	In the event of fire, receive fire information in time and stop the system immediately to avoid serious problems	●
	Silent mode	15-step silent mode selections provide more freedom and convenience to match the needs of customers	●

Outdoor Unit Functions

Functions			Alarko Individual Side Discharge VRF
●: equipped as standard; O: customization option			
Enhanced Comfort	Intelligent defrosting technology	Calculates the time required for defrosting according to the actual system status, eliminating heat losses from unnecessary defrosting	●
	Auto cooling-heating changeover	Automatically selects cooling or heating mode to achieve the set temperature (available in changeover priority mode)	●
	Additional ambient temperature sensor	The additional external ambient temperature sensor can detect the true outdoor ambient temperature, correctly judge whether the system is running in cooling or heating in auto priority mode, ensuring indoor comfort	○
	0.1 °C control precision	Control precision of the sensor can reach 0.1°C, ensuring less fluctuations in room temperature	●
	Multiple priority modes	10 priority modes meet the requirements of all scenarios	●
Wide Application Range	Wide capacity range	Meets all customer requirements from small to large buildings	14-22 HP
	Wide range of indoor units	Provides 12 types and more than 100 models of VRF indoor units to meet the needs of different application scenarios	●
	Wide operation range	Operates stably under extreme conditions	-15-55°C (C) -30-30°C (H)
	Long piping capability	Benefits for the system design, installation flexibility, as well as the less installation cost	●
	Auto addressing	Distributes addresses to indoor units automatically, simplifying the installation	●
	Automatic refrigerant charging	Makes installation and service easier and more efficient	○
	Automatic refrigerant recycling	Refrigerant can be recycled to ODUs or IDUs, making the maintenance easier and more efficient	●
	Bluetooth module	It can be used for fault information storage, operation parameter enquiry, system parameter setting, quick after-sales PCB replacement, programme upgrade for indoor and outdoor units, etc., simplifying installation and maintenance	○

Functions			Alarko Individual Side Discharge VRF
●: equipped as standard; O: customization option			
Easy Installation And Service	Digit display	4 digit 7-segment display can be intuitive for parameter setting, parameter checks and error checks	●
	High external static pressure	Up to 80Pa ESP allows easy handling in a variety of installation environments	0-35Pa ● 35-80Pa○
	Arbitrary topology of communication wire	Supports any communication topology, greatly simplifies installation and reduces installation cost	●
	2-core non-polarity communication wiring between the indoor and outdoor units	Simplifies installation and reduces wiring failures	●
	Long communication wiring	Communication wiring up to 2000m makes installation more flexible	●
	Wide combination ratio	Combination ration can be extended to 50%-200% under certain conditions which can meet different project requirements	50-130%● 50-200%○
	Supports manual and automatic defrosting	Improves maintenance efficiency	●
	Supports manual and automatic oil return	Improves maintenance efficiency	●
	Easy software program upgrade	The software program can be upgraded via on-site USB and burning, or remotely via the web	●
	Flexible controller connection	Central controller and BMS gateway can connect to the ODU at the same time, and the central controller can connect to the ODU or IDU	●
	Refrigerant amount diagnosis	The unit can diagnose excessive or insufficient amounts of refrigerant, and prompt maintenance personnel to check the system in time to avoid serious malfunction	●
	Easy system commissioning and checking*	System commissioning and checking can easily be completed on-site or remotely via the web	●
	Intelligent maintenance tool	Intelligent bluetooth after-sales kit can simplify maintenance and improve maintenance efficiency	○

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

INNOVATIVE TECHNOLOGIES

HyperLink

SuperSense

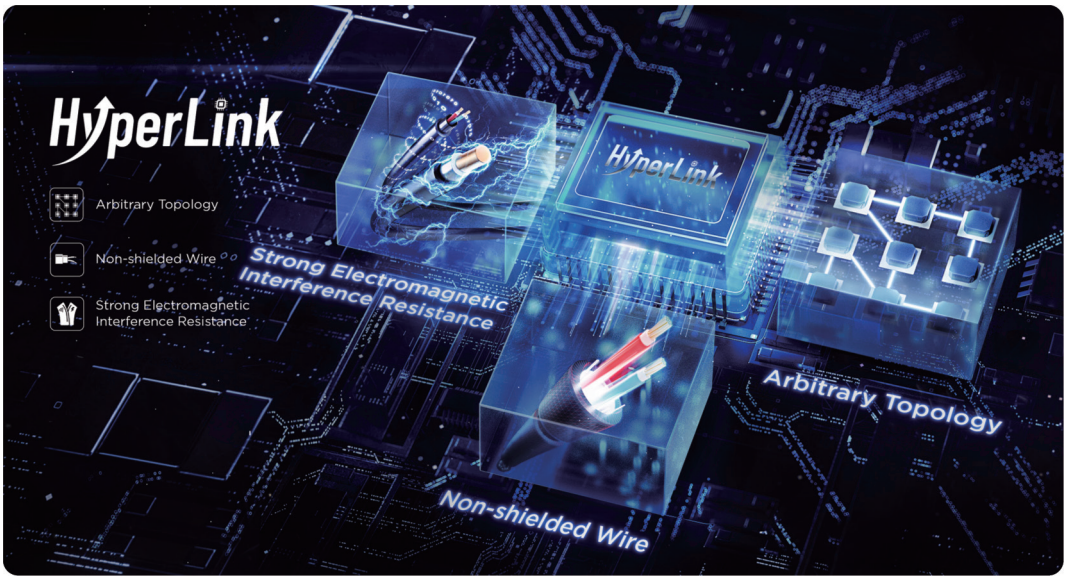
ETA 2.0

ENair 2.0

DOCTOR 2.0

HyperLink

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



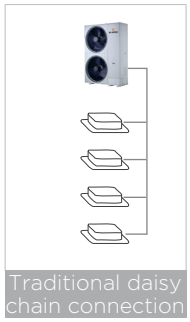
Benefits

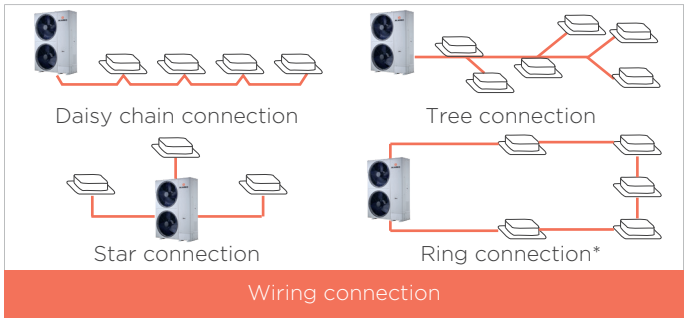
- Flexible installation
- Low installation cost
- High reliability
- Stable operation

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

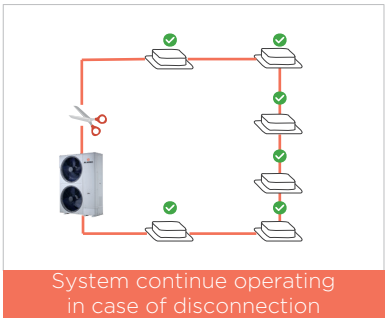
Arbitrary Topology Communication

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


Traditional daisy chain connection



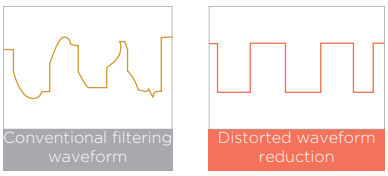
Wiring connection

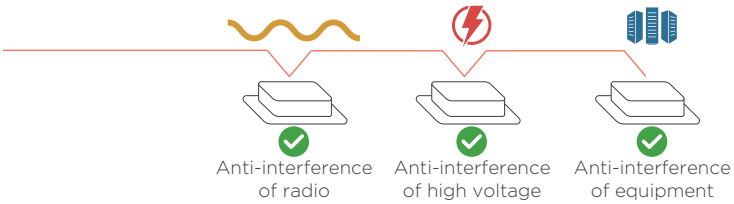

System continue operating in case of disconnection

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

Super Anti-interference Capability

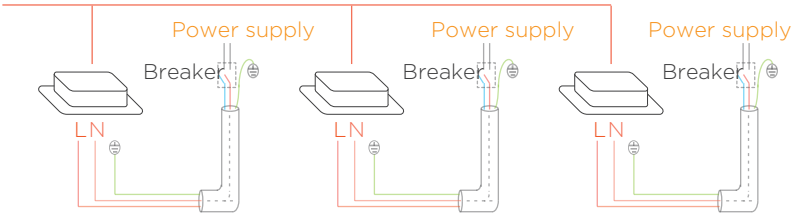
Special waveform restoration technology enhances anti-interference performance for more stable communication.





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.



SuperSense

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

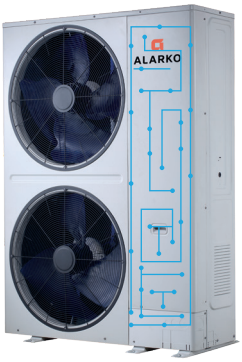
Benefits

- High reliability
- Stable operation
- Enhanced comfort

Up to 18 sensors are distributed throughout the refrigerant system, and the status of the refrigerant can be determined throughout the process, ensuring stable operation. At the same time, combined with the digital twin technology of the refrigerant system, a virtual sensor can be created in the event of a physical sensor failure, so that the system does not shut down in the event of a sensor failure, ensuring comfort.

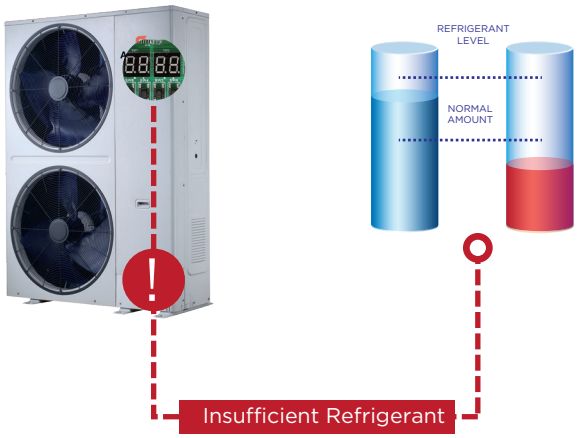
Complete Sensors

Alarko Individual Side Discharge features the industry's most comprehensive range of 18 condition sensors with built-in data models for compressors, heat exchangers, throttling components and more. By analyzing sensor data in real time, it can sense the status of the refrigerant anywhere in the system.



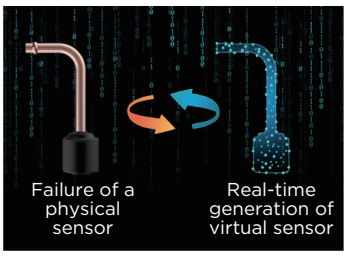
Refrigerant Amount Diagnosis

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



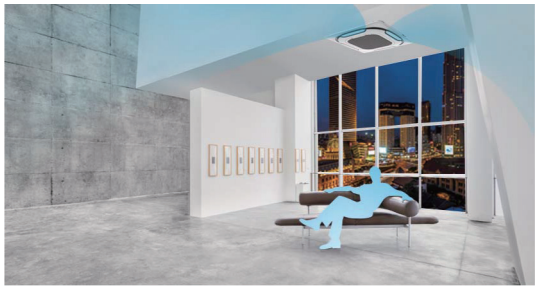
Virtual Sensor Backup

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



Alarko ETA 2.0

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

Benefits

- Energy saving
- Enhanced comfort
- Fast cooling/heating

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

Variable Refrigerant Flow

STEP 1: Architectural space feature recognition

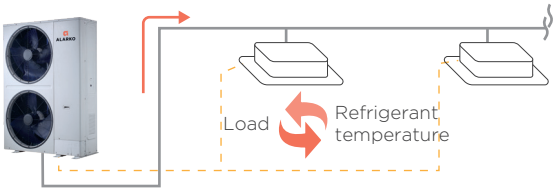
The indoor unit automatically recognizes the size of the building space and the effectiveness of the insulation according to the rate of temperature drop.

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

Variable Refrigerant Temperature

STEP 2: System refrigerant temperature determination

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



Automatic matching of the corresponding refrigerant temperature to the load.

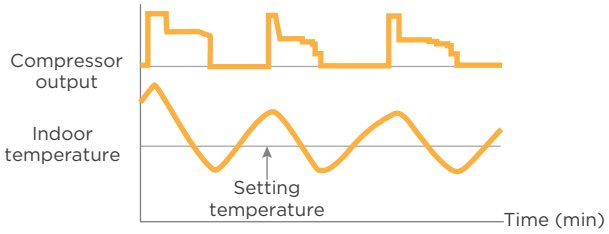
Variable Indoor Airflow

STEP 3: Adaptive indoor airflow and refrigerant flow

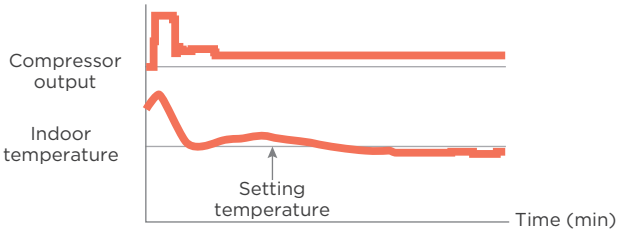
Each indoor unit automatically adjusts the corresponding indoor airflow and refrigerant flow according to the evaporating/condensing temperature, enabling precise temperature control.

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

Conventional refrigerant regulation



Alarko refrigerant regulation



En Air 2.0

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

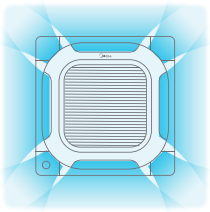
Benefits

- Quiet
- Enhanced comfort
- Healthy

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

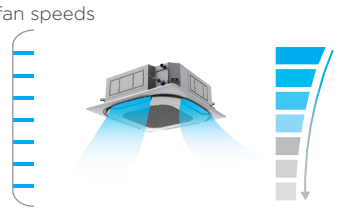
360° Airflow

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



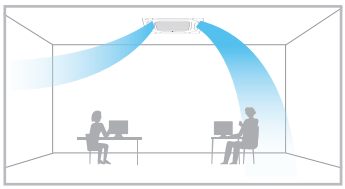
7 Fan Speeds

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



Individual Louver Control

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



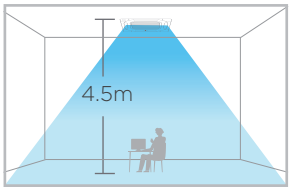
Sleep Mode

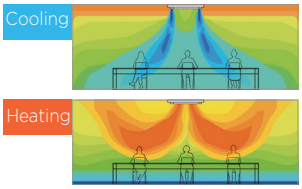
The smart sleep mode provides a comfortable sleep period and a refreshing wake up time.

*Temperature on left is for reference.

Long Distance Air Delivery

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

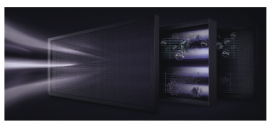




Innovative Puro-air Kit

Protectors of health and safety

OSRAM From Germany - OSRAM quality UV light source



Ozone -Free
UV leakage-Free

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

Doctor 2.0

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

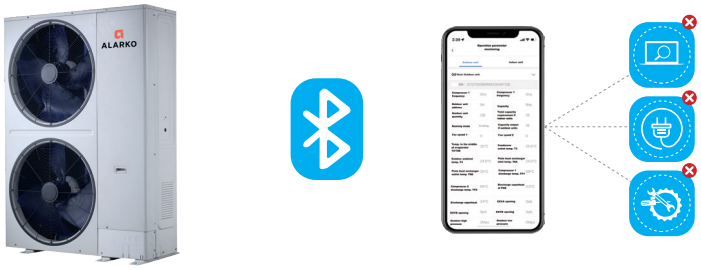
Benefits

- Easy maintenance
- Fast maintenance
- Low maintenance cost

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

Intelligent Maintenance Tool

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



* Bluetooth module is available as a customization option.

Real-time Monitoring of Operating Parameters

Alarko Individual Side Discharge 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

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

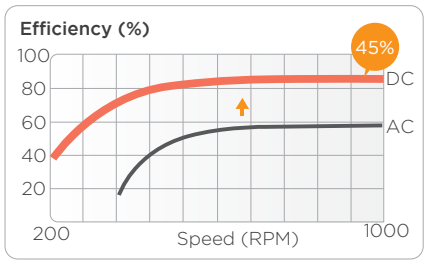
*The data cloud gateway is still under development and needs to be purchased separately.

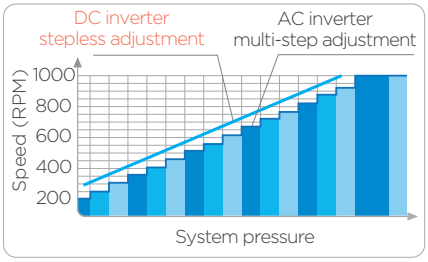
High Efficiency

Full DC Inverter Technology

Full DC Inverter for Outdoor Components

Alarko Individual Side Discharge 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.

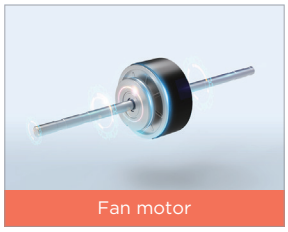




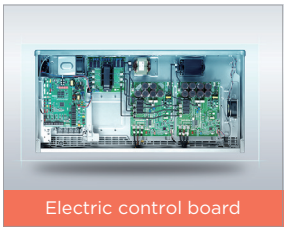
- Wider frequency adjustment range
- Faster cooling and heating
- Higher energy efficiency

Full DC Inverter for Indoor Components

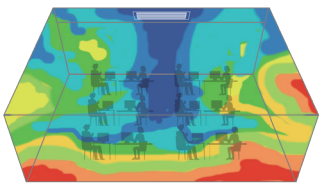
All power devices such as indoor fan motor, drain pump and electric control board are fully DC, which increases electrical efficiency by 20% and results in more accurate temperature control, a more constant indoor temperature and higher energy efficiency.


Fan motor

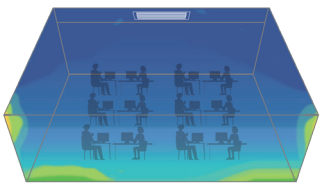

Drain pump


Electric control board

20%
Efficiency improvements

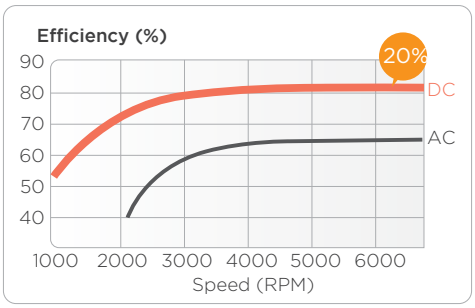


VS



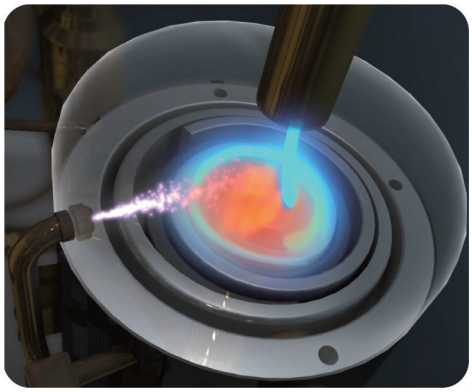
Uneven temperature distribution

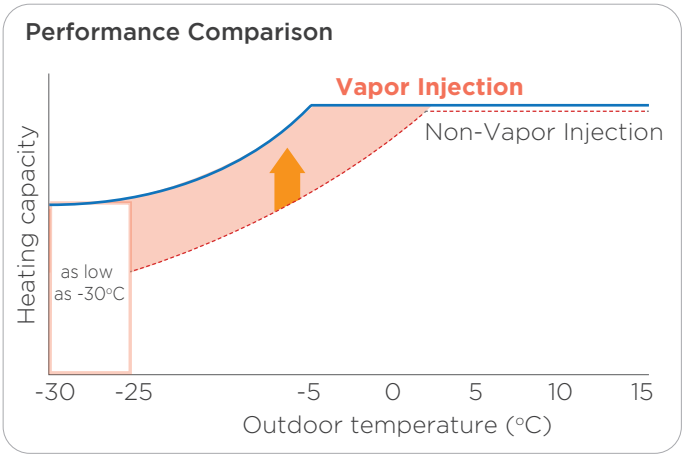
Uniform temperature distribution



Enhanced Vapor Injection (EVI) Compressor

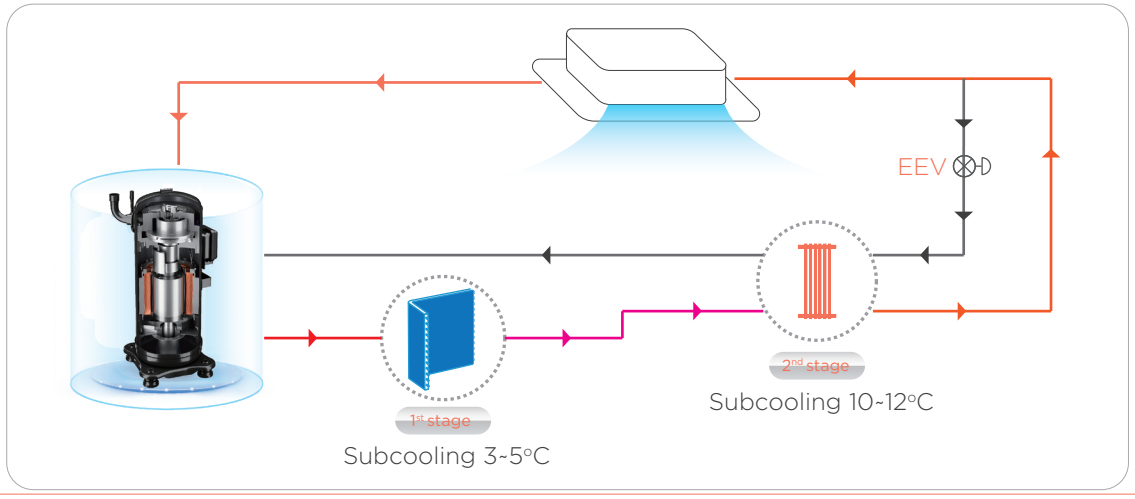
The enhanced vapor injection DC inverter compressor increases refrigerant circulation and improves both cooling and heating capacity.





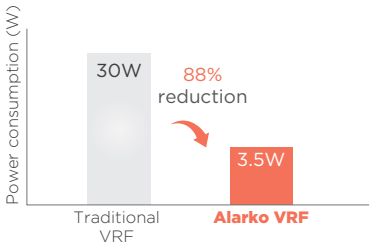
Advanced Subcooling Technology

Alarko Individual Side Discharge 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.



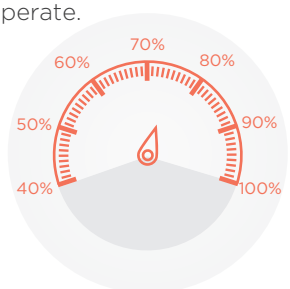
Low Standby Power Consumption

Compared to the standby power consumption of traditional VRF of about 30W, Alarko Individual Side Discharge 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

Double Backup

Alarko Individual Side Discharge supports fan backup and sensor backup. The double backup ensures no shutdown in the event of a failure, further guaranteeing comfort.

1 Fan Backup

In Alarko Individual Side Discharge unit, 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

2 Sensor Backup

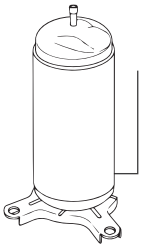
Through digital algorithms, each physical sensor generates a corresponding virtual sensor that acts as a backup to each other, ensuring that the failure of one sensor does not affect the normal operation of the system.

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

Precise Oil Control

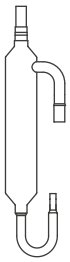
Three stages of oil control technology ensure all outdoor compressor oil is always kept at a safe level, eliminating any compressor oil shortage problems.

1



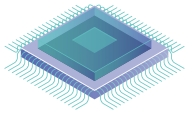
Compressor internal oil separation.

2



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

3



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

UL Anti-Corrosion Certificate*

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

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

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

UL verifyUL.com A926834

Auto Dust-clean Function

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

Self-cleaning

Enhanced Comfort

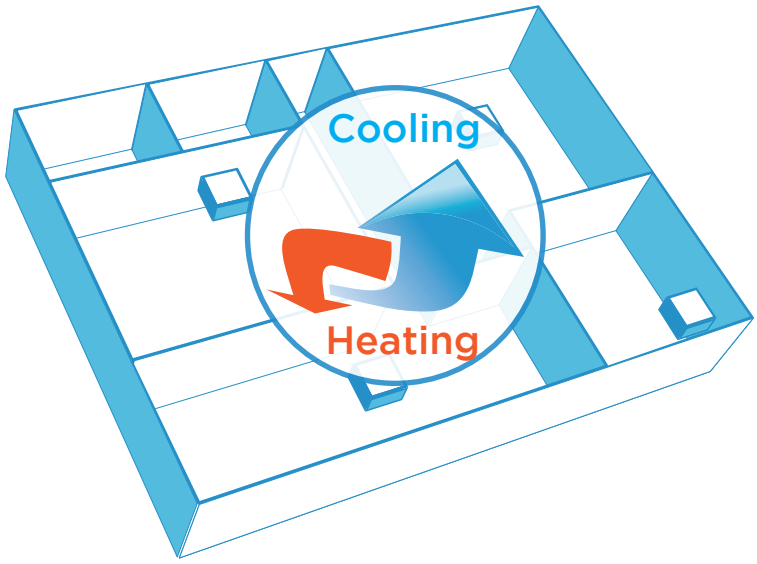
Advanced Silent Technology

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

15 silent options

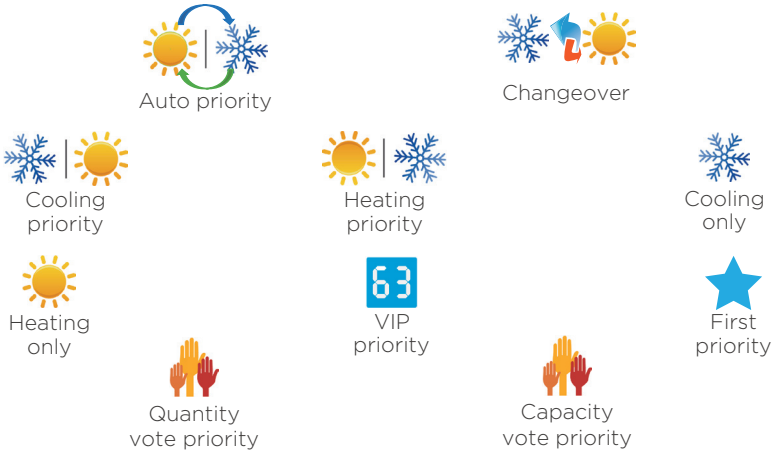
Auto Cooling-heating Changeover

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



10 Priority Modes

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



Additional Ambient Temperature Sensor*

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

*This function is available as a customization option.

Wide Application Range

Wide Capacity Range

The capacity of Alarko Individual Side Discharge Series VRF is from 14HP to 22HP, perfectly suitable for all kinds of small and medium-sized buildings.

14HP	16-22HP
	

Wide Range of Indoor Units

Alarko Individual Side Discharge Series VRF offers a variety of types of indoor units to meet different scenarios of applications such as offices, villas, restaurants, etc.

Wide Operation Range

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

Long Piping Capability

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

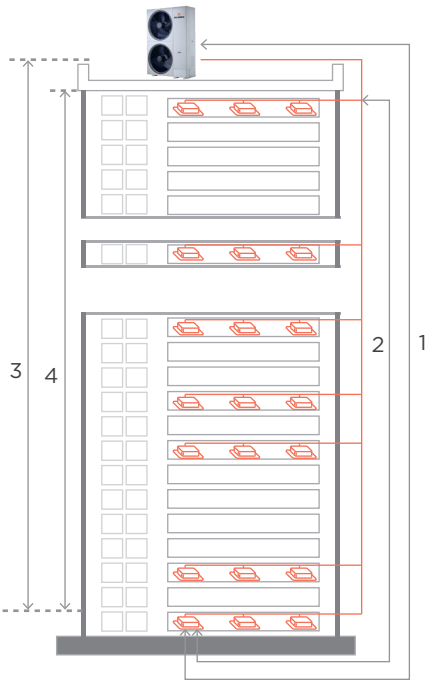
Total piping length: **560m**
1 Longest piping length - actual (equivalent): **150(175)m**

2 Longest piping length after first branch: **40/90*m**

3 Level difference between IDUs and ODU - ODU above (below): **50(40)m**

4 Level difference between IDUs: **30m**

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



Easy Installation and Service

Free Wiring

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

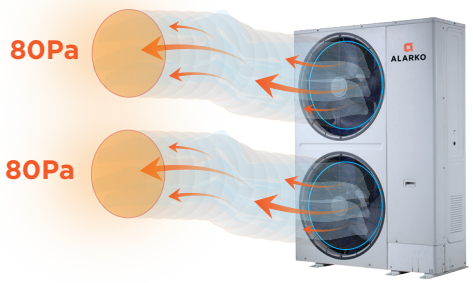
HyperLink

Space Saving

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

External Static Pressure up to 80Pa*

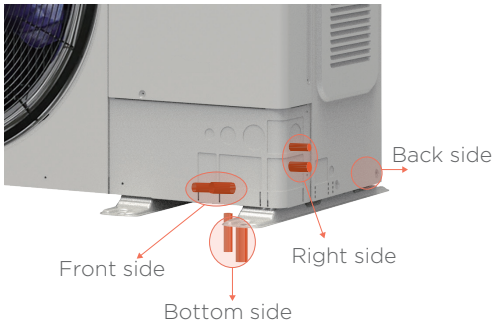
The static pressure of the outdoor unit can be up to 80Pa which facilitates installation of the unit on each floor of high-rise buildings or on balconies.



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

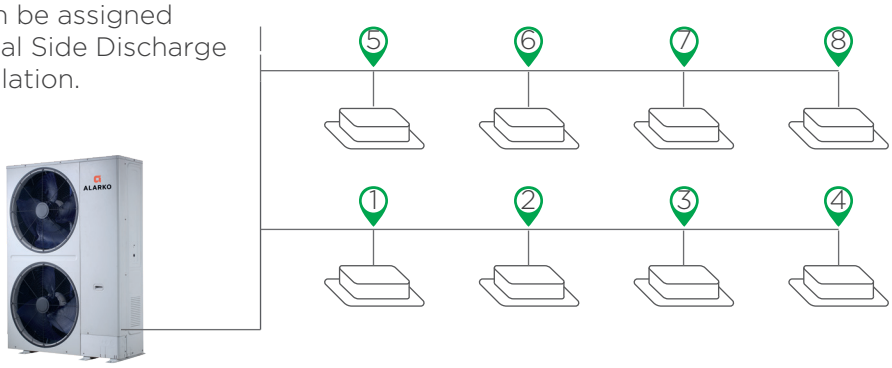
Four-way Piping Connection

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



Auto Addressing

Addresses for all indoor unitscan be assigned automatically by Alarko Individual Side Discharge system, further simplifying installation.



Automatic Refrigerant Charging*

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

Manual refrigerant charging

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

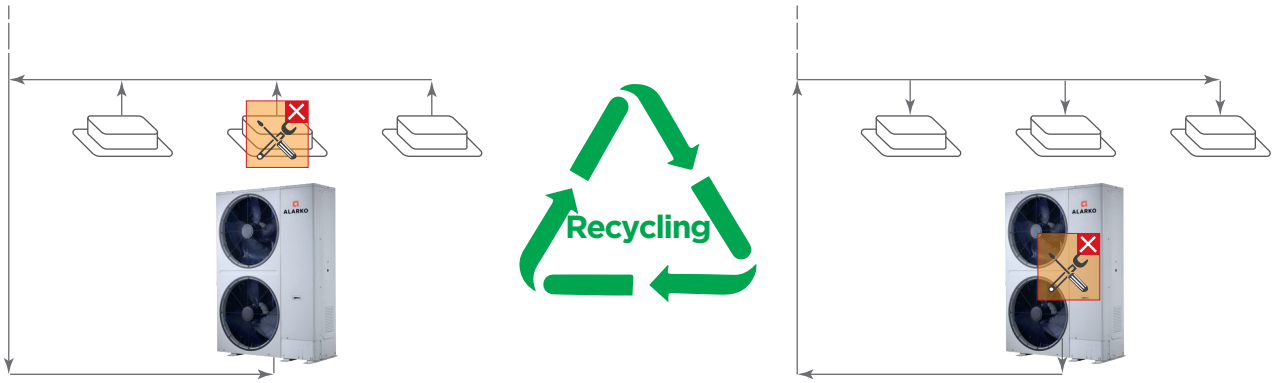
*This function is available as a customization option.

Automatic refrigerant charging

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

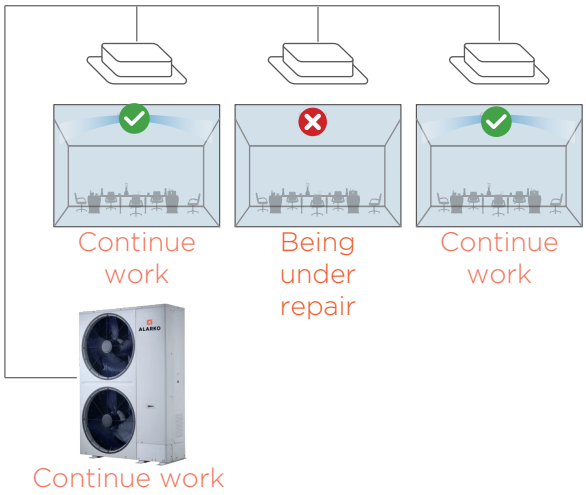
Automatic Refrigerant Recycling

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



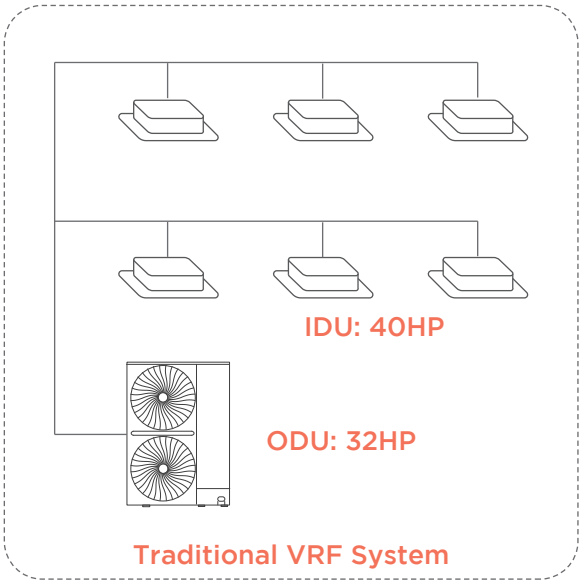
Maintenance Mode

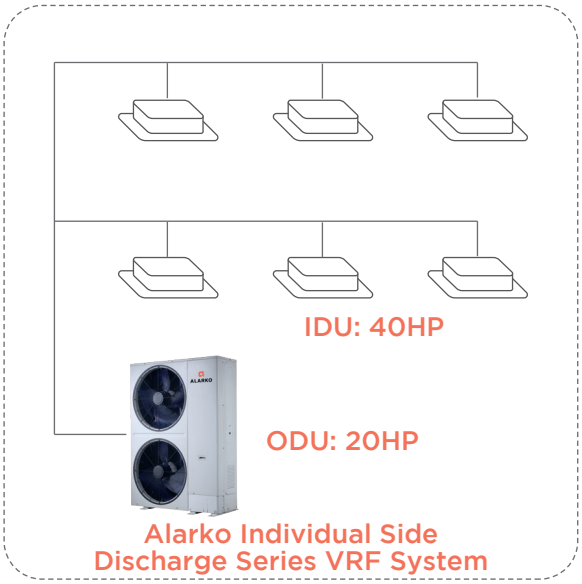
The maintenance mode allows the shutdown of some indoor units without shutting down the whole VRF system, and it can be activated on site during the maintenance period as the remaining indoor units continue to operate.



Wide Combination Ratio*

Compared to traditional VRF with combination ratio of 50-130%, Alarko Individual Side Discharge Series VRF can be extended to 50-200%, and the wider combination ratio allows for more flexible system configuration. The larger combination ratio can be applied to long-term part-load operation scenarios, allowing for further reduction in installation costs.





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

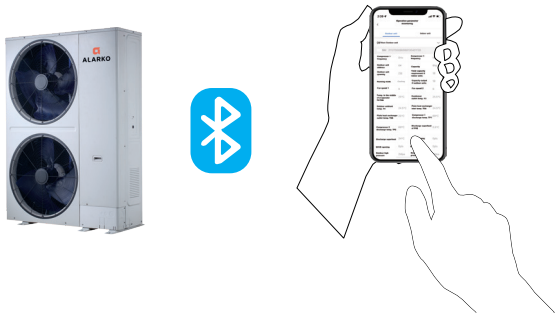
Easy Software Program Upgrade

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

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

Smart Commissioning/Maintenance Tool

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

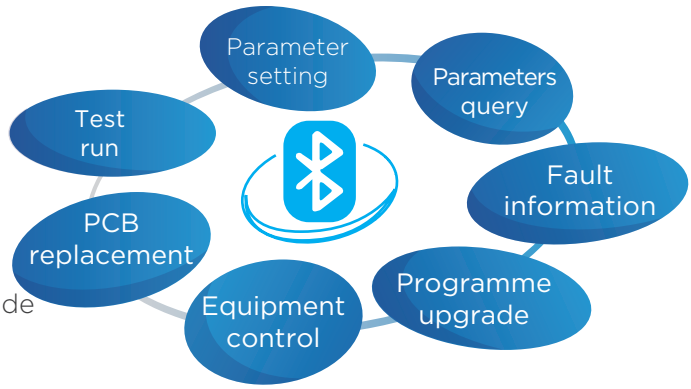


Useful in the following situations:

- Installation
- Service maintenance

Main functions:

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



Specifications

HP			14
Model			ALR-V8HP014FS01
Power supply		V/N/Hz	380-415/3/50
Cooling[1]	Capacity	kW	40
		kBtu/h	136.5
Heating(Rated)[2]	Capacity	kW	40
		kBtu/h	136.5
Heating(Max)[2]	Capacity	kW	45
		kBtu/h	153.5
SEER			6.65
ηs,c		%	263.0
SCOP			4.15
ηs,h		%	163.0
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity
	Maximum quantity		23
Compressor	Type		DC inverter
	Quantity		1
Fan motors	Type		DC
	Quantity		2
	Static	Pa	0-35 (standard); 35-80 (customized)
	Airflow rate	m^3/h	12500
Refrigerant	Type		R410A
	Factory charge	kg	7.4
Pipe connections[3]	Liquid pipe	mm	Ø12.7
	Gas pipe	mm	Ø25.4
Sound pressure level[4]		dB(A)	59
Sound power level		dB(A)	82
Net dimensions (W×H×D)		mm	1130×1760×580
Packed dimensions (W×H×D)		mm	1210×1916×597
Net weight		kg	187
Gross weight		kg	209
Ambient temp. operation range	Cooling	°C (DB)	-15to 55
	Heating	°C (DB)	-30 to 30

Notes:
1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit
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.

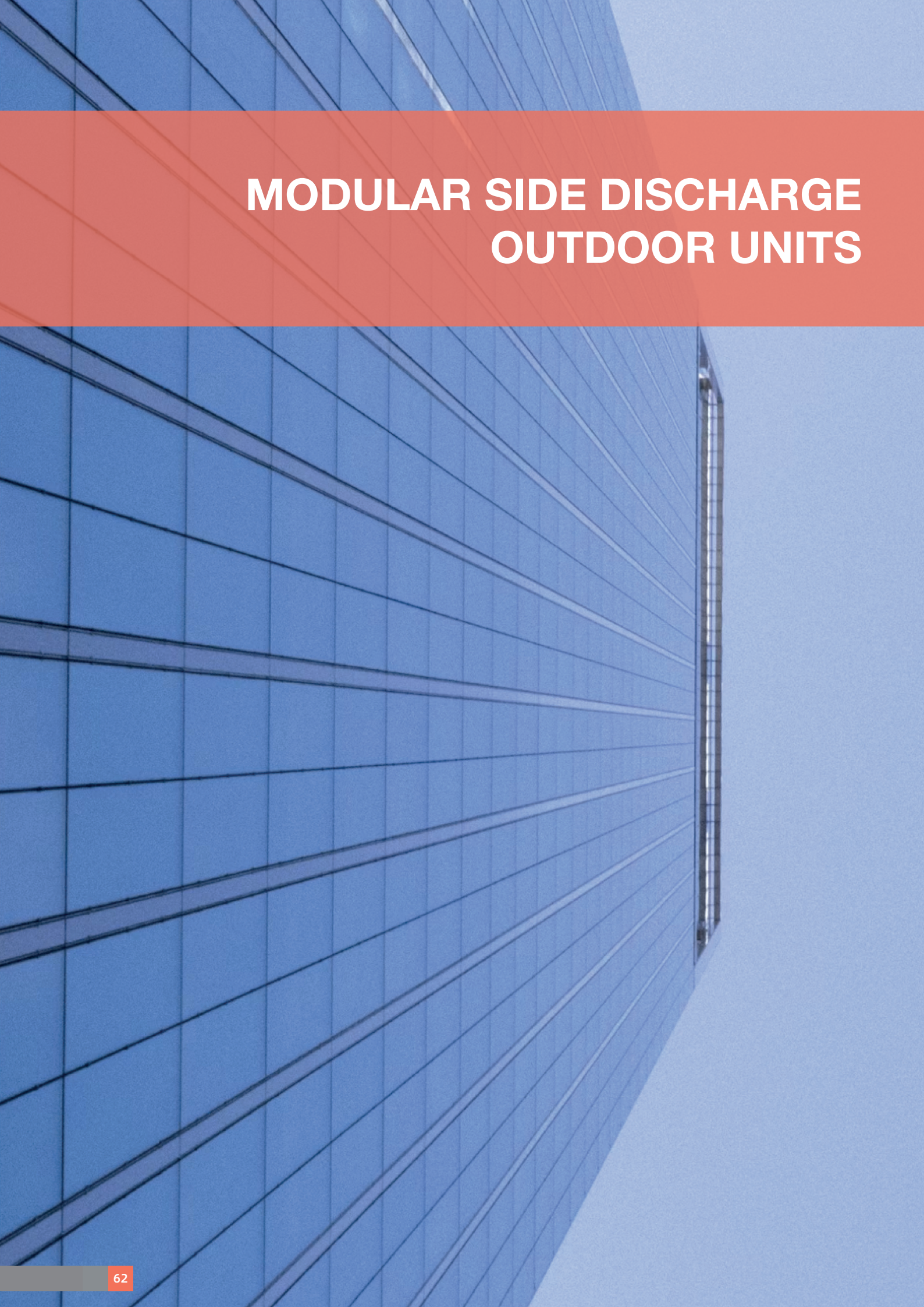
Specifications

HP			16	18
Model			ALR-V8HP016FS01	ALR-V8HP018FS01
Power supply		V/N/Hz	380-415/3/50	380-415/3/50
Cooling[1]	Capacity	kW	45	50
		kBtu/h	153.5	170.6
Heating(Rated)[2]	Capacity	kW	45	50
		kBtu/h	153.5	170.6
Heating(Max)[2]	Capacity	kW	50	56.5
		kBtu/h	170.6	192.8
SEER			6.77	6.47
ηs,c		%	267.8	255.8
SCOP			4.23	4.17
ηs,h		%	166.2	163.8
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
	Maximum quantity		26	29
Compressor	Type		DC inverter	DC inverter
	Quantity		1	1
Fan motors	Type		DC	DC
	Quantity		2	2
	Static	Pa	0-35 (standard); 35-80 (customized)	0-35 (standard); 35-80 (customized)
	Airflow rate	m^3/h	18500	20000
Refrigerant	Type		R410A	R410A
	Factory charge	kg	8	8
Pipe connections[3]	Liquid pipe	mm	Ø15.9	Ø15.9
	Gas pipe	mm	Ø28.6	Ø28.6
Sound pressure level[4]		dB(A)	60	61
Sound power level		dB(A)	86	88
Net dimensions (W×H×D)		mm	1250×1760×580	1250×1760×580
Packed dimensions (W×H×D)		mm	1330×1916×597	1330×1916×597
Net weight		kg	214	214
Gross weight		kg	238	238
Ambient temp. operation range	Cooling	°C (DB)	-15to 55	-15to 55
	Heating	°C (DB)	-30 to 30	-30 to 30

HP			20	22
Model			ALR-V8HP020FS01	ALR-V8HP022FS01
Power supply		V/N/Hz	380-415/3/50	380-415/3/50
Cooling[1]	Capacity	kW	56	61.5
		kBtu/h	191.1	209.8
Heating(Rated)[2]	Capacity	kW	56	61.5
		kBtu/h	191.1	209.8
Heating(Max)[2]	Capacity	kW	63	69
		kBtu/h	215.0	235.4
SEER			6.30	6.15
ηs,c		%	249.0	243.0
SCOP			4.07	4.00
ηs,h		%	159.8	157.0
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
	Maximum quantity		33	36
Compressor	Type		DC inverter	DC inverter
	Quantity		1	1
Fan motors	Type		DC	DC
	Quantity		2	2
	Static	Pa	0-35 (standard); 35-80 (customized)	0-35 (standard); 35-80 (customized)
	Airflow rate	m^3/h	18500	19000
Refrigerant	Type		R410A	R410A
	Factory charge	kg	8.5	8.5
Pipe connections[3]	Liquid pipe	mm	Ø15.9	Ø15.9
	Gas pipe	mm	Ø28.6	Ø28.6
Sound pressure level[4]		dB(A)	61	62
Sound power level		dB(A)	89	89
Net dimensions (W×H×D)		mm	1250×1760×580	1250×1760×580
Packed dimensions (W×H×D)		mm	1330×1916×597	1330×1916×597
Net weight		kg	234	234
Gross weight		kg	258	258
Ambient temp. operation range	Cooling	°C (DB)	-15to 55	-15to 55
	Heating	°C (DB)	-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 7.5m with zero level difference; connect to Four-Way Cassette indoor unit
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit
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.

MODULAR SIDE DISCHARGE OUTDOOR UNITS



Lineup

Outdoor Unit

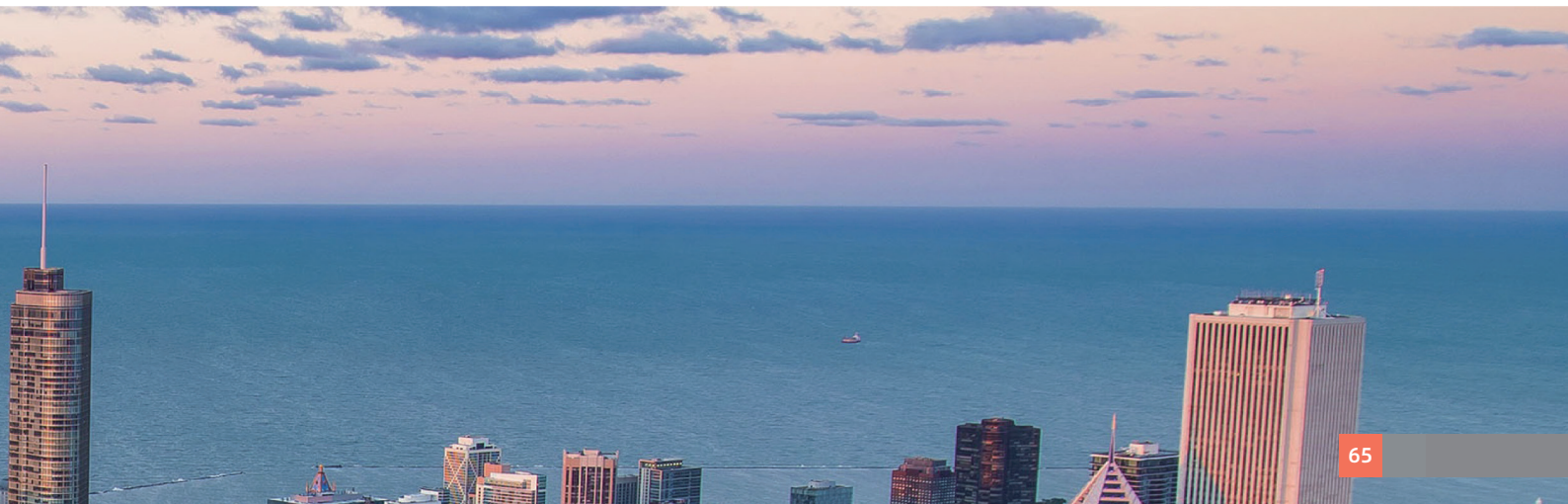
8-14HP	16-22HP
	

24-44HP	46-66HP
	

68-88HP


Outdoor Unit Functions

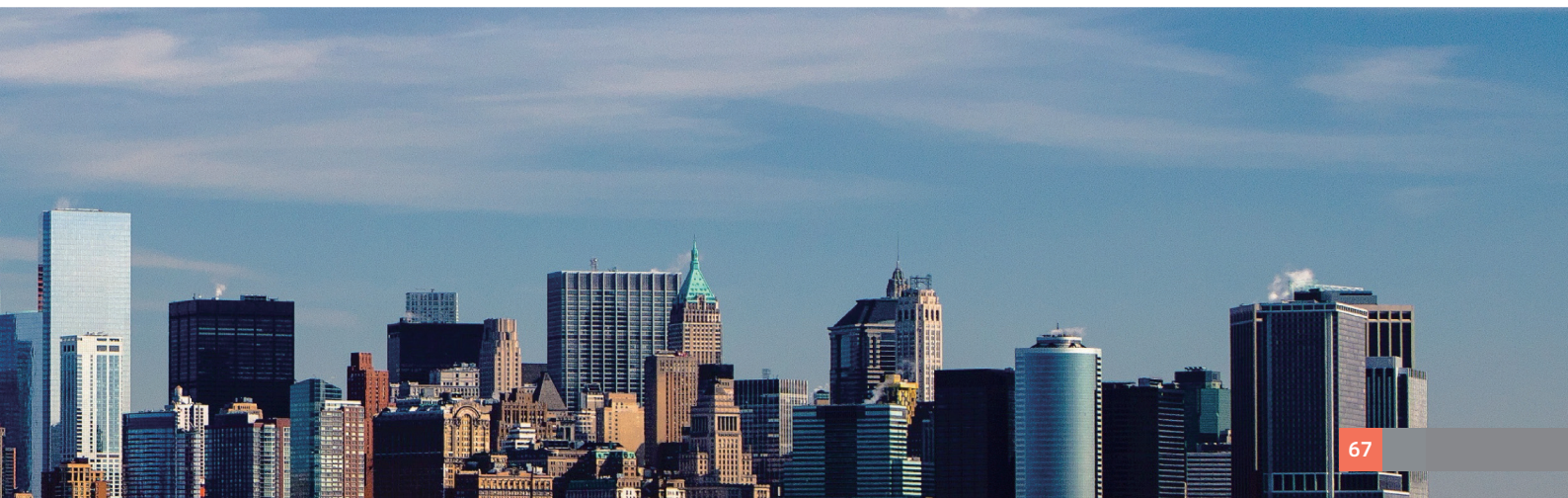
Functions			Modular Side Discharge Outdoor Units
●: equipped as standard; O: customization option			
Key Technologies	HyperLink	Alarko's original communication bus chip greatly simplifies installation and saves installation costs	●
	SuperSense	18 sensors monitor the state of each part of the refrigerant pipeline throughout the whole process	●
	ETA 2.0	Triple variable control maximizes comfort and energy efficiency	●
	EN air 2.0	Provides comfort and healthy air supply	●
	Doctor M 2.0	Intelligent diagnostic technology makes maintenance easier and more efficient	●
High Efficiency	Full DC inverter technology	All electrical components of outdoor and indoor units use DC power supply, improving electrical efficiency and saving energy	●
	Enhanced Vapor Injection (EVI) compressor	Increases refrigerant circulation and improves both cooling and heating capacity	●
	Micro-channel refrigerant subcooling	The refrigerant system can achieve 15°C refrigerant subcooling, which can further improve the refrigerant heat transfer efficiency while reducing noise	●
	Low standby power consumption	The standby power consumption is as low as 3.5W	●
	60-step energy management	The system can be set from 40% to 100% capacity output in 1% increments	●



Functions			Modular Side Discharge Outdoor Units
●: equipped as standard; O: customization option			
High Reliability	Duty cycling	Equalizes the running time of the outdoor units in a multiple-unit system,significantly extending unit lifespan (available for combined units)	●
	Backup operation (unit)	If one unit fails, the other units provide backup so that the system can continue operating (available for combined units)	●
	Backup operation (fan motor)	If one fan motor fails, the other fan motor provides backup so that the system can continue operating	●
	Backup operation (sensor)	If one sensor fails, the virtual sensor provides backup so that the system can continue operating	●
	Precise oil control	Ensures all outdoor compressor oil is at a safe level, eliminating compressor oil shortages	●
	Heavy anti-corrosion protection	Can be customized with heavy anti-corrosion treatment for surface protection against corrosive air, acid rain and saline air (for installations in coastal regions) to extend overall useful life	○
	UL anti-corrosion certificate	It has been certified by UL that our VRF outdoor unit can withstand 27 years of simulated severe corrosion under a salt contaminated traffic environment	○
	Micro-channel refrigerant cooling PCB	10 times higher than ordinary refrigerant pipe cooling efficiency	●
	Auto dust-clean function	Blows away accumulated dust on the outdoor unit, guaranteeing stable unit operations in a dusty environment	●
	Alarm output	In the event of system malfunction, remotely output error information and remind maintenance personnel to conduct maintenance	○
	Fire alarm input	In the event of fire, receive fire information in time and stop the system immediately to avoid serious problems	●

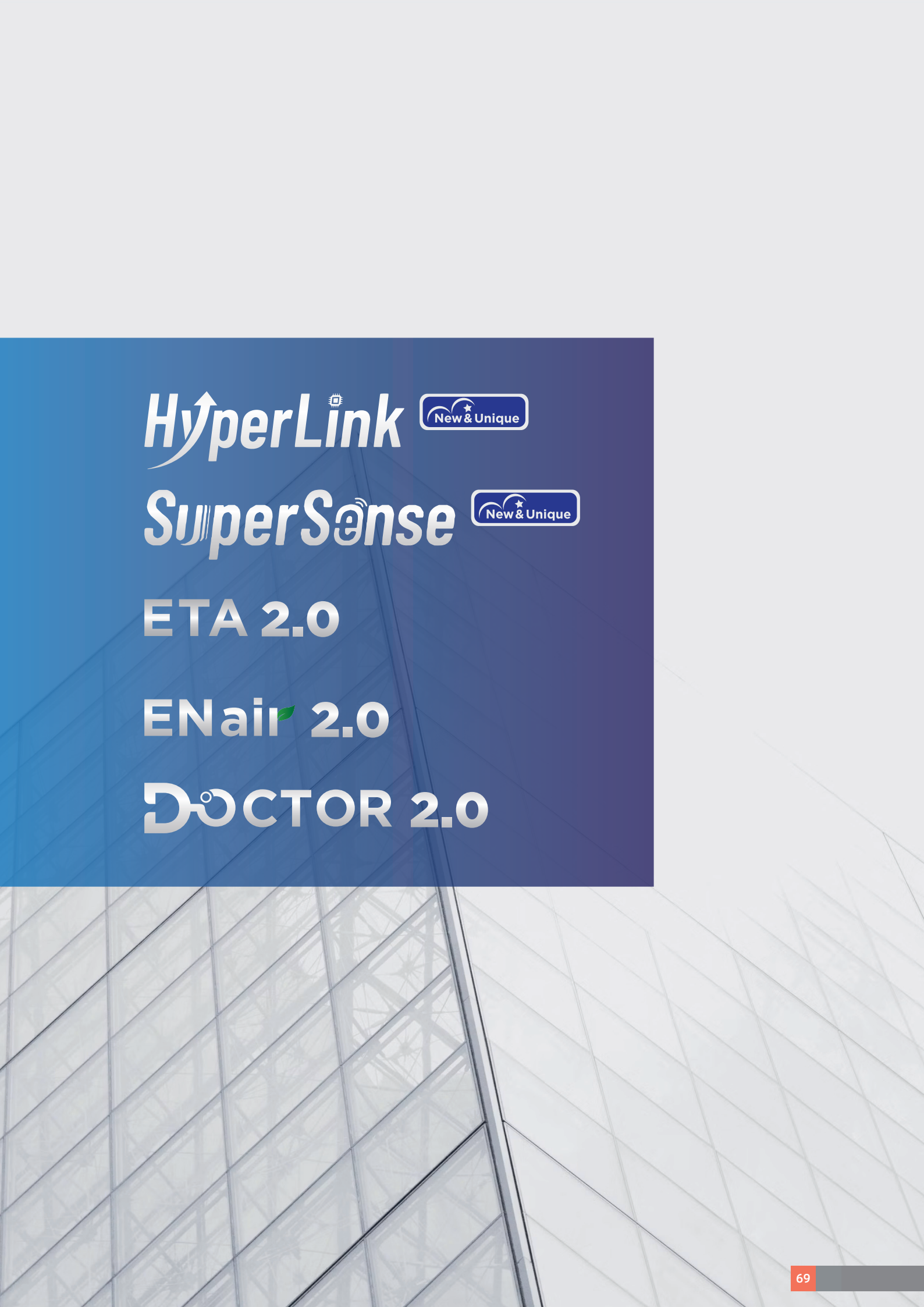
Outdoor Unit Functions

Functions			Modular Side Discharge Outdoor Units
●: equipped as standard; O: customization option			
Enhanced Comfort	Silent mode	15-step silent mode selections provide more freedom and convenience to match the needs of customers	●
	Intelligent defrosting technology	Calculates the time required for defrosting according to the actual system status, eliminating heat losses from unnecessary defrosting	●
	Auto cooling-heating changeover	Automatically selects cooling or heating mode to achieve the set temperature (available in changeover priority mode)	●
	Additional ambient temperature sensor	The additional external ambient temperature sensor can detect the true outdoor ambient temperature, correctly judge whether the system is running in cooling or heating in auto priority mode, ensuring indoor comfort	○
	0.1 °C control precision	Control precision of the sensor can reach 0.1°C, ensuring less fluctuations in room temperature	●
	Multiple priority modes	10 priority modes meet the requirements of all scenarios	●
Wide Application Range	Wide capacity range	Meets all customer requirements from small to large buildings	8-22HP (single) 24-88HP (combined)
	Wide range of indoor units	Provides 12 types and more than 100 models of VRF indoor units to meet the needs of different application scenarios	●
	Wide operation range	Operates stably under extreme conditions	-15-55°C (C) -30-30°C (H)
	Long piping capability	Benefits for the system design, installation flexibility, as well as the less installation cost	●
	Auto addressing (ODU-IDU)	Distributes addresses to indoor units automatically, simplifying the installation	●
	Auto addressing (ODU-ODU)	Distributes addresses to slave outdoor units automatically, further simplifying the installation (available for combined units)	●



Functions ●: equipped as standard; O: customization option			Modular Side Discharge Outdoor Units
Easy Installation And Service	Automatic refrigerant charging	Makes installation and service easier and more efficient	○
	Automatic refrigerant recycling	Refrigerant can be recycled to ODUs or IDUs and normal ODUs, making the maintenance easier and more efficient	●
	Bluetooth module	It can be used for fault information storage, operation parameter enquiry, system parameter setting, quick after-sales PCB replacement, programme upgrade for indoor and outdoor units, etc., simplifying installation and maintenance.	○
	Digit display	4 digit 7-segment display can be intuitive for parameter setting, parameter checks and error checks	●
	High external static pressure	Up to 80Pa ESP allows easy handling in a variety of installation environments	0-35Pa ● 35-80Pa ○
	Arbitrary topology of communication wire	Supports any communication topology, greatly simplifies installation and reduces installation cost	●
	2-core non-polarity communication wiring between the indoor and outdoor units	Simplifies installation and reduces wiring failures	●
	Long communication wiring	Communication wiring up to 2000m makes installation more flexible	●
	Wide combination ratio	Combination ration can be extended to 50%-200% under certain conditions which can meet different project requirements	50-130% ● 50-200% (for single unit system) ○
	Supports manual and automatic defrosting	Improves maintenance efficiency	●
	Supports manual and automatic oil return	Improves maintenance efficiency	●
	Easy software program upgrade	The software program can be upgraded via on-site USB and burning, or remotely via the web	●
	Flexible controller connection	Central controller and BMS gateway can connect to the ODU at the same time, and the central controller can connect to the ODU or IDU	●
	Refrigerant amount diagnosis	The unit can diagnose excessive or insufficient amounts of refrigerant, and prompt maintenance personnel to check the system in time to avoid serious malfunction	●
	Easy system commissioning and checking*	System commissioning and checking can easily be completed on-site or remotely via the web	●
	Intelligent maintenance tool	Intelligent bluetooth after-sales kit can simplify maintenance and improve maintenance efficiency	○

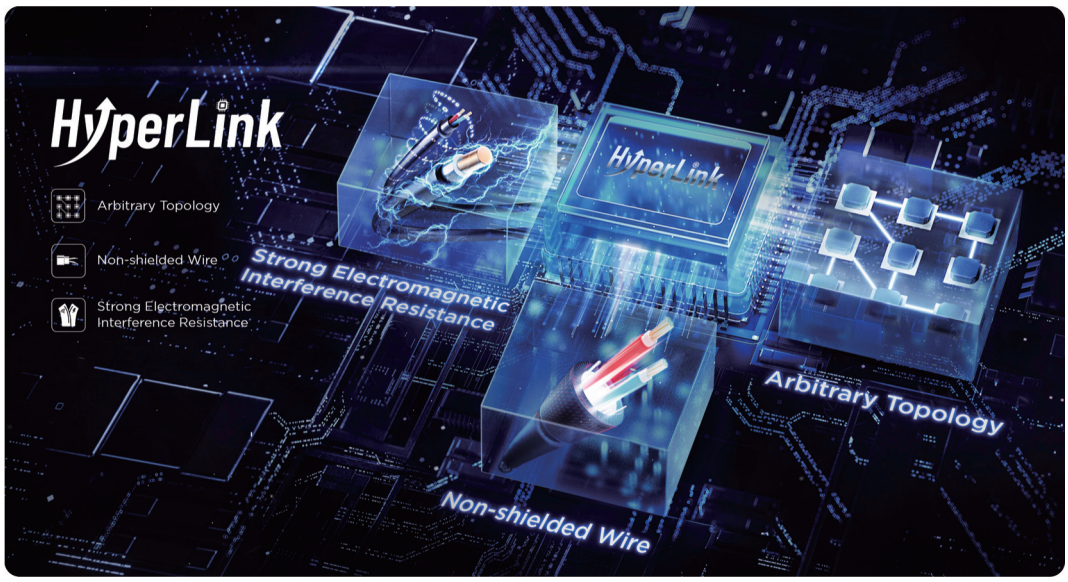
Note:
*The web function needs to be realized through the data cloud gateway, and the data cloud gateway needs to be purchased separately.


HyperLink
New & Unique
SuperSense
New & Unique
ETA 2.0
ENair 2.0
DOCTOR 2.0

HyperLink

New & Unique

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



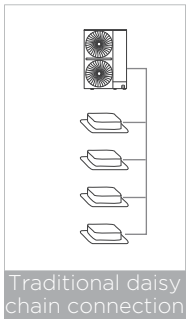
Benefits

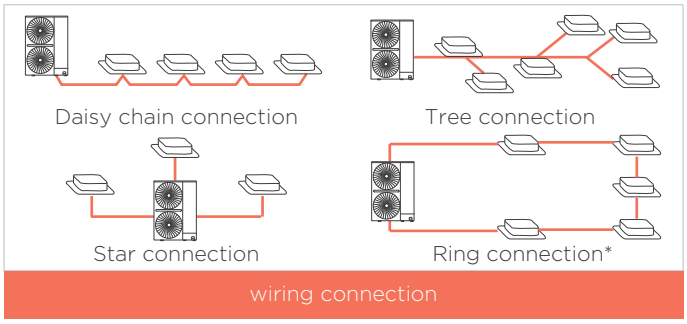
- Flexible installation
- Low installation cost
- High reliability
- Stable operation

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

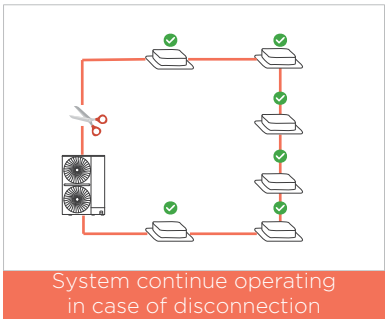
Arbitrary Topology Communication

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


Traditional daisy chain connection



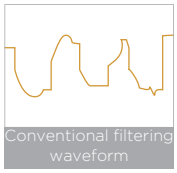
wiring connection

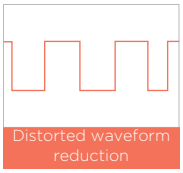

System continue operating in case of disconnection

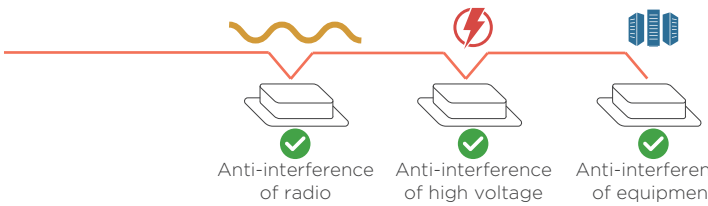
*In ring connection, the communication wire must be connected polarized (M1 port to M1 port and M2 port to M2 port).

Super Anti-interference Capability

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

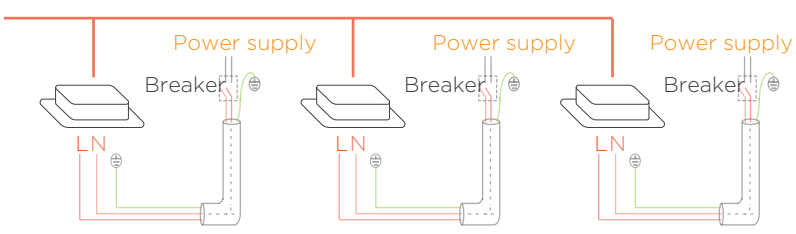

Conventional filtering waveform


Distorted waveform reduction



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.



SuperSense

New & Unique

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

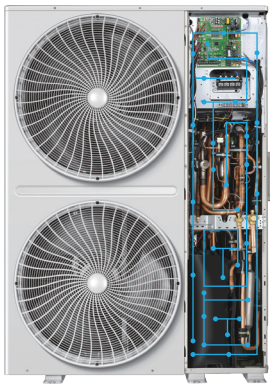
Benefits

- High reliability
- Stable operation
- Enhanced comfort

Up to 18 sensors are distributed throughout the refrigerant system, and the status of the refrigerant can be determined throughout the process, ensuring stable operation. At the same time, combined with the digital twin technology of the refrigerant system, a virtual sensor can be created in the event of a physical sensor failure, so that the system does not shut down in the event of a sensor failure, ensuring comfort.

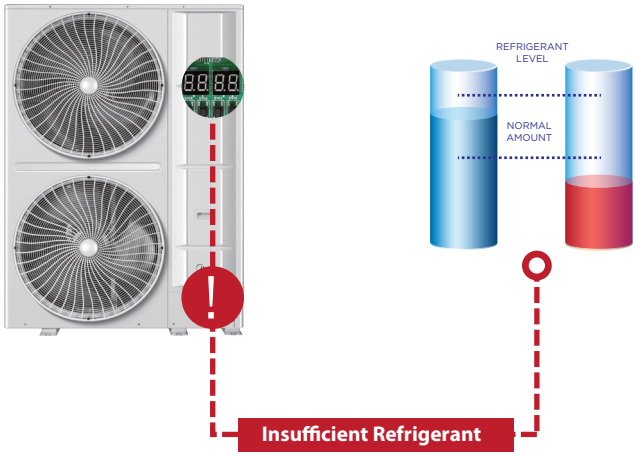
Complete Sensors

Alarko modular side discharge VRF features the industry's most comprehensive range of 18 condition sensors with built-in data models for compressors, heat exchangers, throttling components and more. By analyzing sensor data in real time, it can sense the status of the refrigerant anywhere in the system.



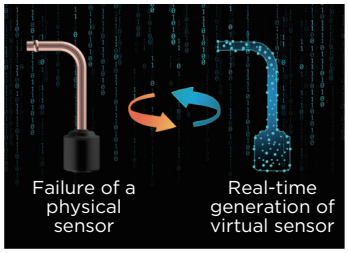
Refrigerant Amount Diagnosis

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



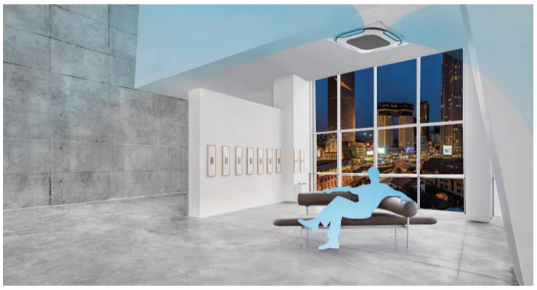
Virtual Sensor Backup

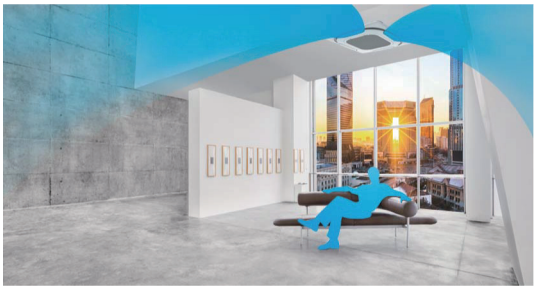
In the event of a sensor failure, other sensors can automatically simulate a virtual backup sensor, so that the VRF system can continue to operate without stopping.



ETA 2.0

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



Benefits

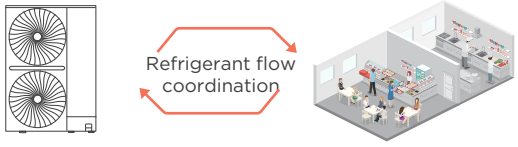
- Energy saving
- Enhanced comfort
- Fast cooling/heating

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

Variable Refrigerant Flow

STEP 1: Architectural space feature recognition

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

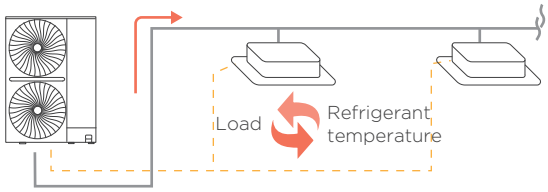


Automatic calculation of the building load and the required refrigerant quantity based on the sensor parameters.

Variable Refrigerant Temperature

STEP 2: System refrigerant temperature determination

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



Automatic matching of the corresponding refrigerant temperature to the load.

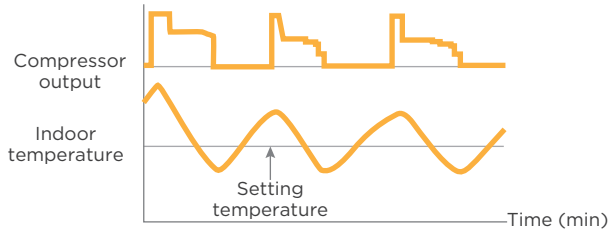
Variable Indoor Airflow

STEP 3: Adaptive indoor airflow and refrigerant flow

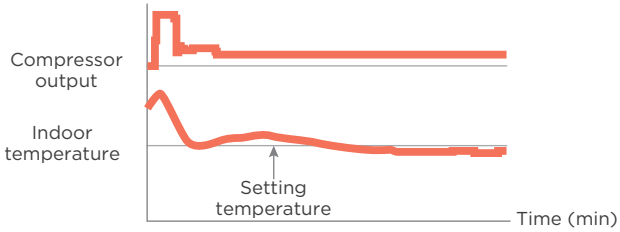
Each indoor unit automatically adjusts the corresponding indoor airflow and refrigerant flow according to the evaporating/condensing temperature, enabling precise temperature control.

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

Conventional refrigerant regulation



Refrigerant regulation



En Air 2.0

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

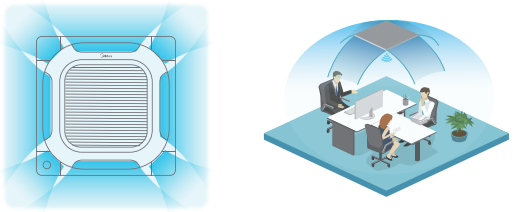
Benefits

- Quiet
- Enhanced comfort
- Healthy

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

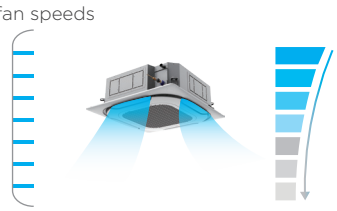
360° Airflow

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



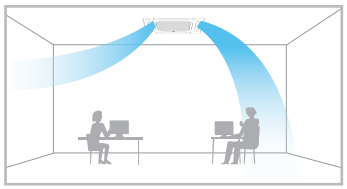
7 Fan Speeds

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



Individual Louver Control

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



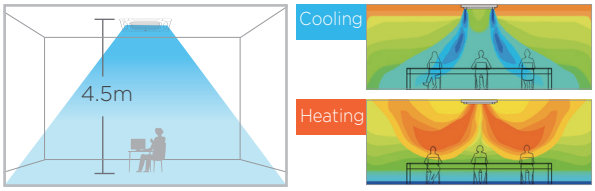
Sleep Mode

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

*Temperature on left is for reference.

Long Distance Air Delivery

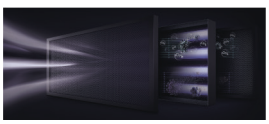
The Four-way Cassette has an additional 50Pa of static pressure for long airflow delivery and can be used in spaces of up to 4.5m in floor height.



Innovative Puro-air Kit

Protectors of health and safety

From Germany - OSRAM quality UV light source



Ozone –Free
UV leakage-Free

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

Doctor 2.0

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

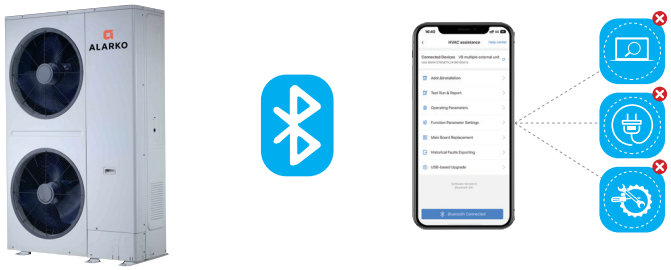
Benefits

- Easy maintenance
- Fast maintenance
- Low maintenance cost

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

Intelligent Maintenance Tool

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



* Bluetooth module is available as a customization option.

Real-time Monitoring of Operating Parameters

Alarko modular side discharge 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

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

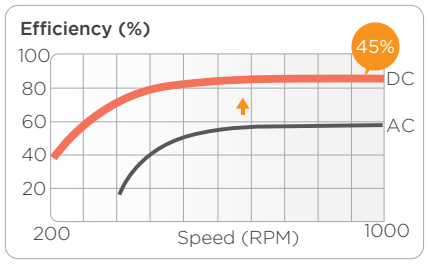
*The data cloud gateway is still under development and needs to be purchased separately.

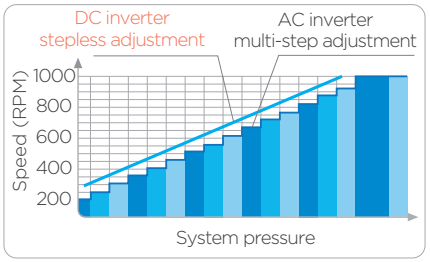
High Efficiency

Full DC Inverter Technology

Full DC Inverter for Outdoor Components

Alarko modular side discharge 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.

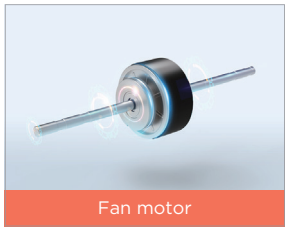




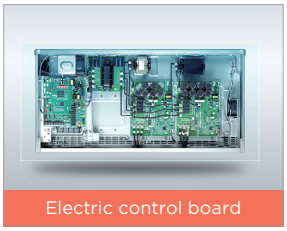
- Wider frequency adjustment range
- Faster cooling and heating
- Higher energy efficiency

Full DC Inverter for Indoor Components

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


Fan motor

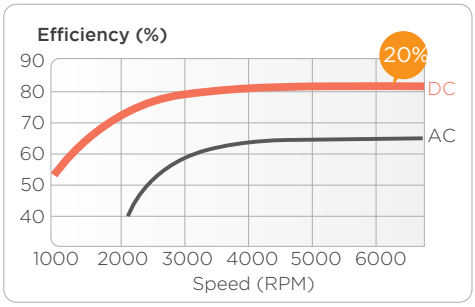

Drain pump


Electric control board

20%
Efficiency improvements

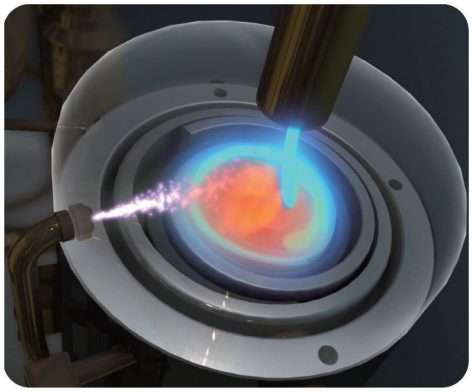
Uneven temperature distribution

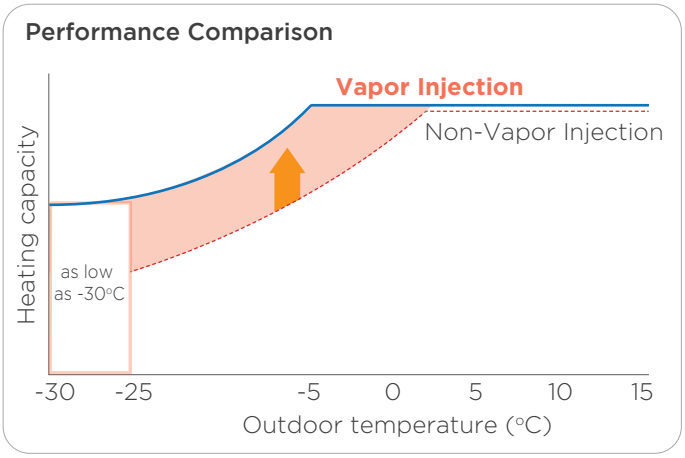
Uniform temperature distribution



Enhanced Vapor Injection (EVI) Compressor

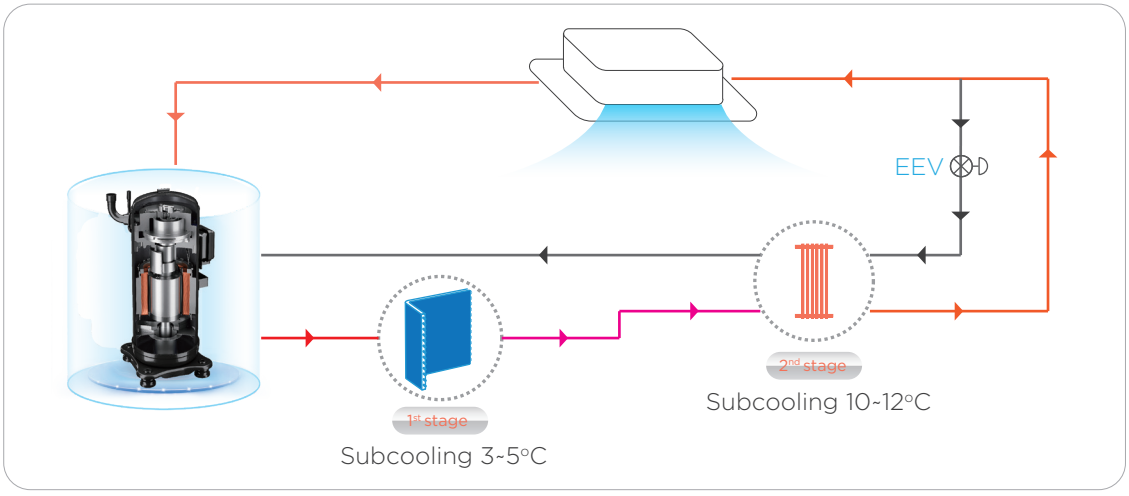
The enhanced vapor injection DC inverter compressor increases refrigerant circulation and improves both cooling and heating capacity.





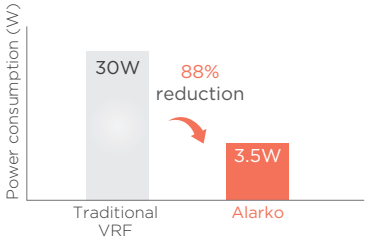
Advanced Subcooling Technology

Alarko modular side discharge 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.



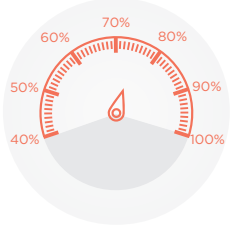
Low Standby Power Consumption

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



60-step Energy Management

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



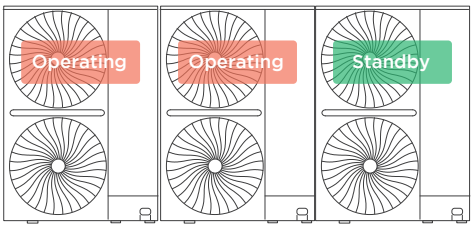
High Reliability

Triple Backup

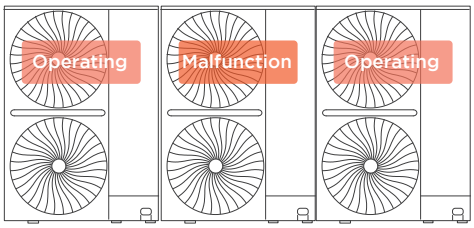
Alarko modular side discharge supports unit backup, fan backup and sensor backup. The triple backup ensures no shutdown in the event of a failure, further guaranteeing comfort.

1 Unit Backup

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



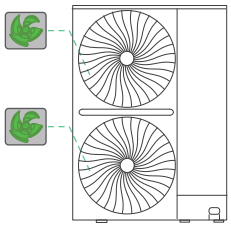
Intelligent load-bearing between units during normal operation



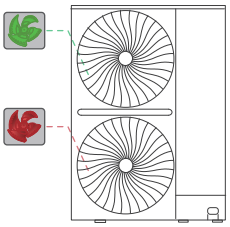
Standby unit backup operating with no system shutdown

2 Fan Backup

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



In normal operation, each fan runs on demand



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

3 Sensor Backup

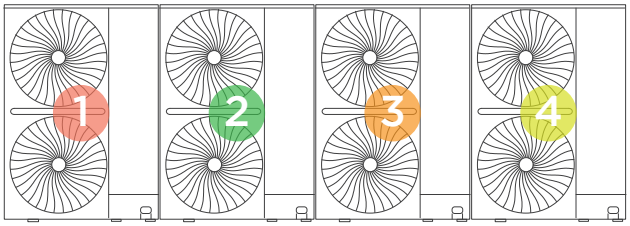
New & Unique

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

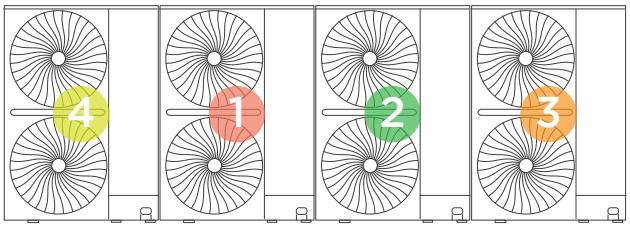
Automatic backup operation of the corresponding virtual sensor in case of failure of one physical sensor

Duty Cycling

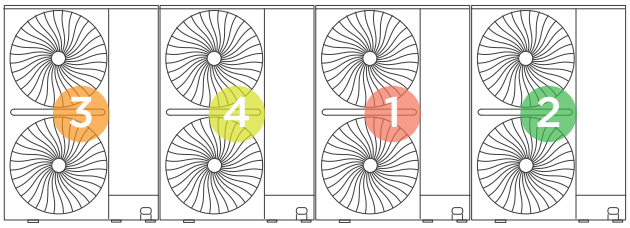
In a multi-unit system, duty cycling equalizes the running time of each outdoor unit, significantly extending unit lifespan.



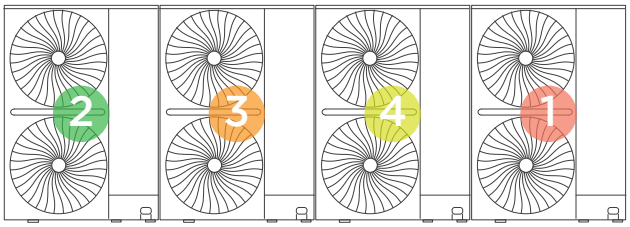
1st cycle



2nd cycle



3rd cycle



4th cycle

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

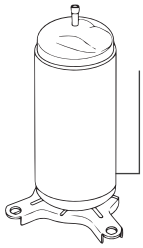
SuperSense

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

Precise Oil Control

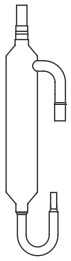
Three stages of oil control technology ensure all outdoor compressor oil is always kept at a safe level, eliminating any compressor oil shortage problems.

1



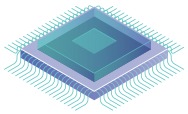
Compressor internal oil separation.

2



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

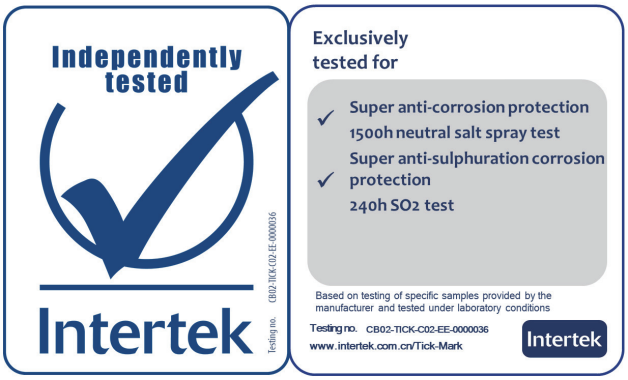
3



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

Heavy Anti-corrosion Protection*

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



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

UL Anti-Corrosion Certificate*

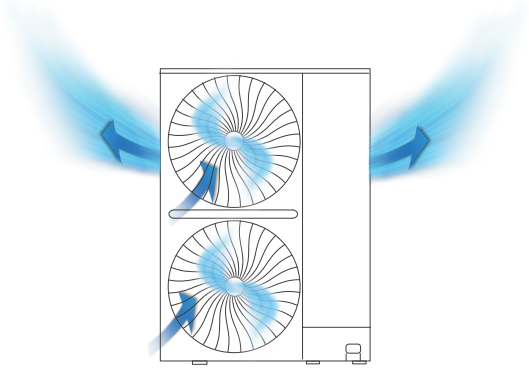
It has been certified by UL that our VRF outdoor unit can withstand 27 years of simulated severe corrosion under a salt contaminated traffic environment.

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

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

Auto Dust-clean Function

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

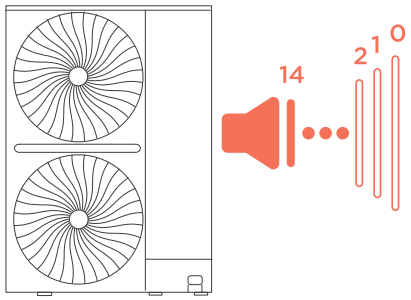


Self-cleaning

Enhanced Comfort

Advanced Silent Technology

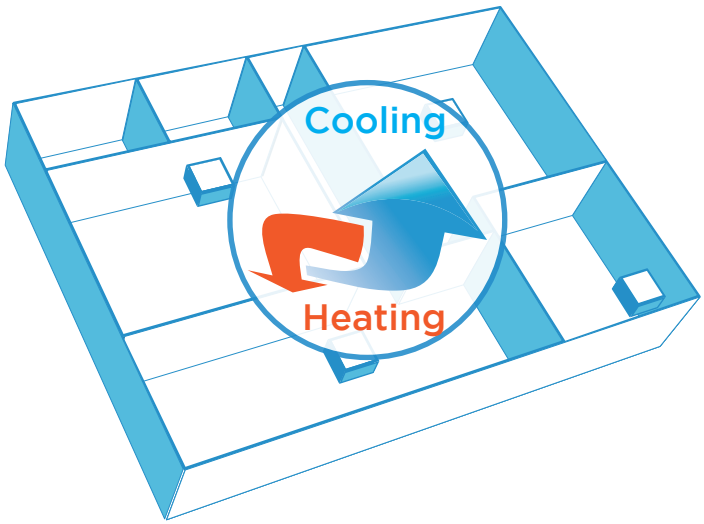
15-step silent mode provide more freedom and convenience to match the customer needs.



15 silent options

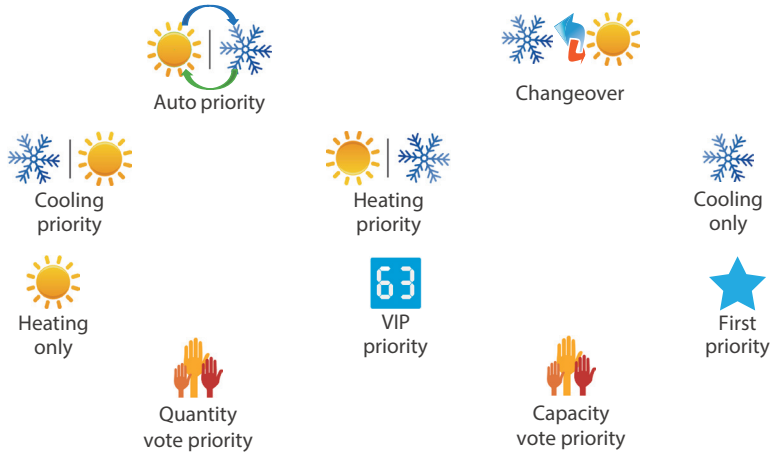
Auto Cooling-heating Changeover

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



10 Priority Modes

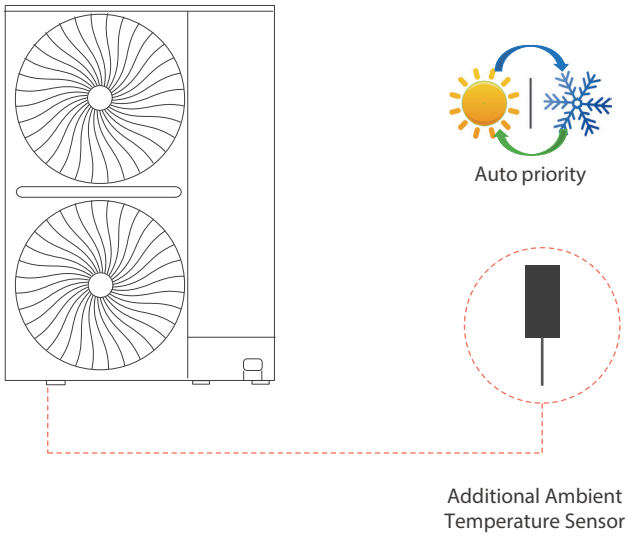
10 priority mode options provide more freedom and convenience to match the customer needs.



Additional Ambient Temperature Sensor*

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

*This function is available as a customization option.



Wide Application Range

Wide Capacity Range

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

Single unit

8-14HP

Single unit

16-22HP

Combined unit

24-44HP

Combined unit

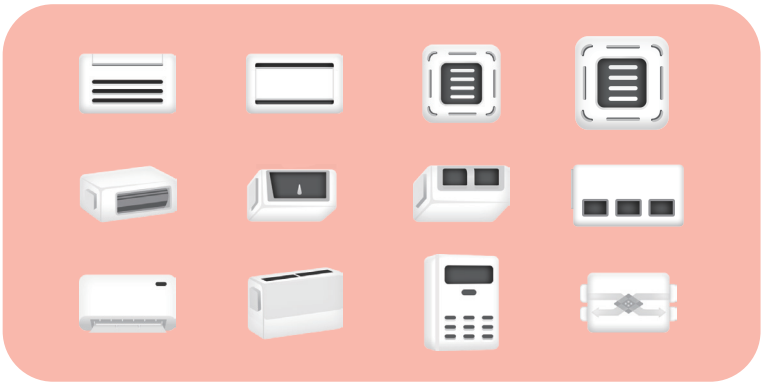
46-66HP

Combined unit

68-88HP

Wide Range of Indoor Units

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



Wide Operation Range

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

Long Piping Capability

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

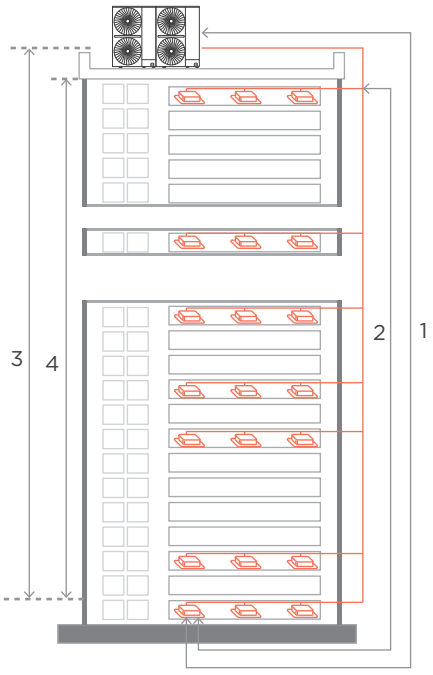
Total piping length: **560m**
1 Longest piping length - actual (equivalent): **150(175)m**

2 Longest piping length after first branch: **40/90*m**

3 Level difference between IDUs and ODU - ODU above (below): **50(40)m**

4 Level difference between IDUs: **30m**

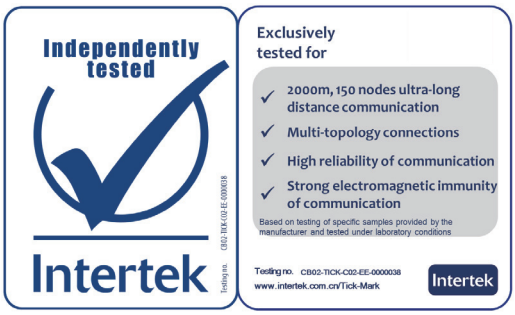
*The longest length after first branch is 40m as a standard but can be extended to up to 90m under certain conditions. Please contact your local dealer for further information.



Easy Installation and Service

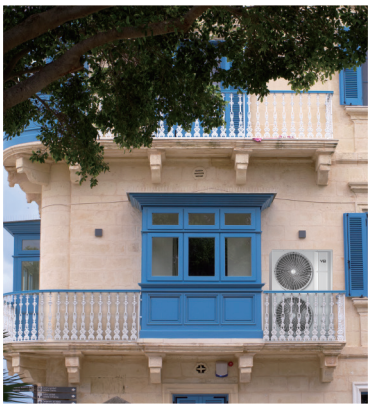
Free Wiring

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



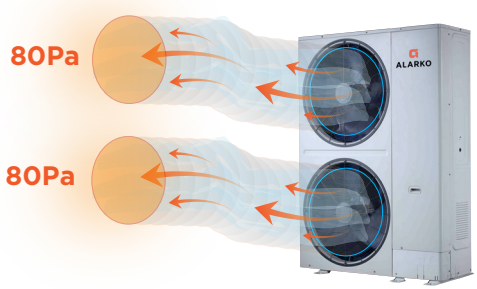
Space Saving

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



External Static Pressure up to 80Pa*

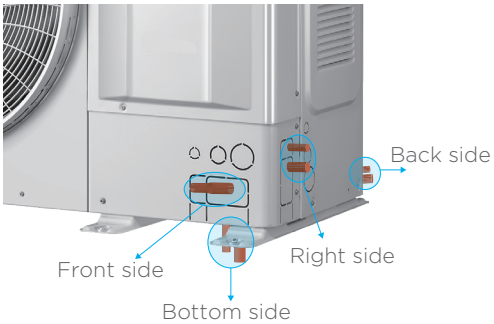
The static pressure of the outdoor unit can be up to 80Pa which facilitates installation of the unit on each floor of high-rise buildings or on balconies.



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

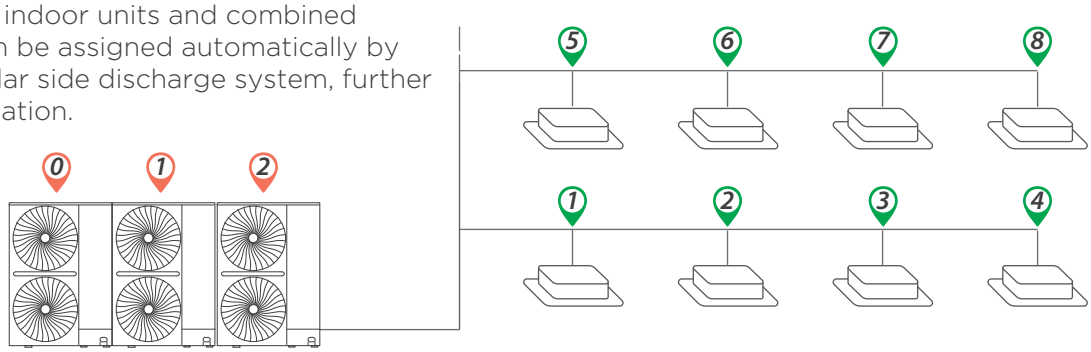
Four-way Piping Connection

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



Auto Addressing

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



Automatic Refrigerant Charging*

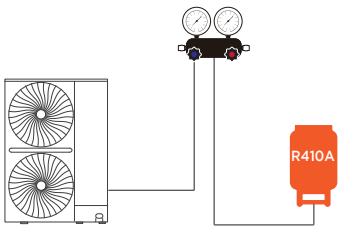
Compared to manual refrigerant charging, automatic refrigerant charging greatly simplifies the process, making installation and maintenance easier and more efficient.

Manual refrigerant charging

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

Automatic refrigerant charging

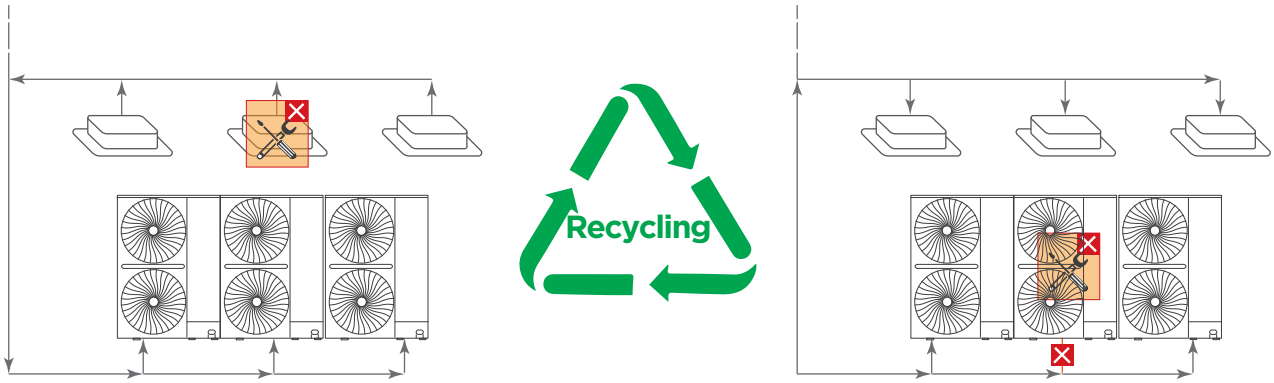
1. Connect refrigerant tank to the outdoor unit & activate automatic charging function
2. Close the shut-off valve automatically & finish the filling process



*This function is available as a customization option.

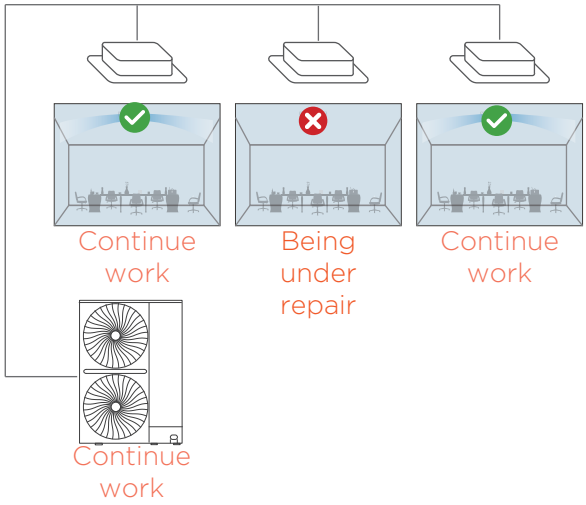
Automatic Refrigerant Recycling

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



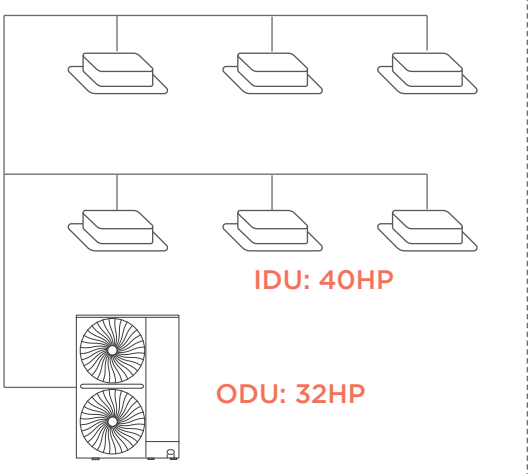
Maintenance Mode

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

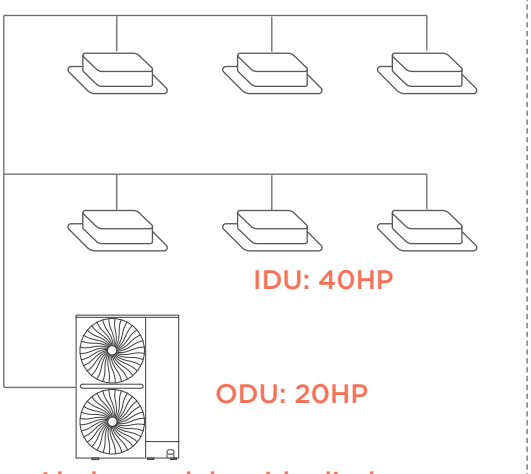


Wide Combination Ratio*

Compared to traditional VRF with combination ratio of 50-130%, Alarko modular side discharge 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.



Traditional VRF System



Alarko modular side discharge Series VRF System

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

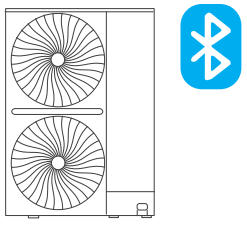
Easy Software Program Upgrade

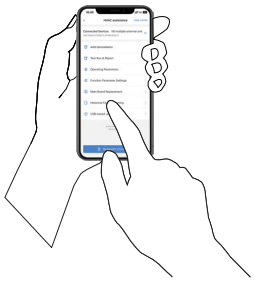
In addition to upgrading the program of outdoor and indoor units through USB and burner, the new product can also remotely upgrade all the programs of indoor and outdoor units through the data cloud gateway, making system upgrades very convenient and ensuring that the system program is always up to date.

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

Smart Commissioning/Maintenance Tool

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



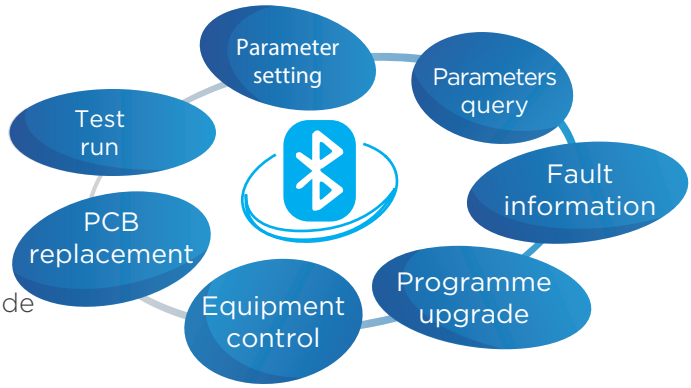


Useful in the following situations:

- Installation
- Service maintenance

Main functions:

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



Specifications

Alarko modular side discharge outdoor units (380-415V/3N/50Hz)

HP Model name			8 ALR-V8HP008CS01	10 ALR-V8HP010CS01	12 ALR-V8HP012CS01	14 ALR-V8HP014CS01
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
Cooling[1]	Capacity	kW	25.2	28	33.5	40
		kBtu/h	86.0	95.5	114.3	136.5
Heating[2] (Rated)	Capacity	kW	25.2	28	33.5	40
		kBtu/h	86.0	95.5	114.3	136.5
Heating[2] (Max)	Capacity	kW	27	31.5	37.5	45
		kBtu/h	92.1	107.5	128.0	153.5
SEER			7.25	7.05	6.91	6.65
ηs,c		%	287.0	279.0	273.4	263.0
SCOP			4.15	4.11	4.11	4.15
ηs,h		%	163.0	161.4	161.4	163.0
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%	50-130%
	Maximum quantity		13	16	19	23
Compressor	Type		DC inverter			
	Quantity		1	1	1	1
Fan motors	Type		DC	DC	DC	DC
	Quantity		2	2	2	2
	Airflow rate	m3/h	11800	12500	12500	12500
	Static pressure	Pa	0-35 (standard); 35-80 (customized)			
Refrigerant	Type		R410A	R410A	R410A	R410A
	Factory charge	kg	6.1	6.1	6.4	7.4
Pipe connections[3]	Liquid pipe	mm	Ø12.7	Ø12.7	Ø12.7	Ø12.7
	Gas pipe	mm	Ø25.4	Ø25.4	Ø25.4	Ø25.4
Sound pressure level[4]		dB(A)	56	57	58	59
Sound power level[4]		dB(A)	76	79	81	82
Net dimensions (W×H×D)		mm	1130×1760×580	1130×1760×580	1130×1760×580	1130×1760×580
Packed dimensions (W×H×D)		mm	1210×1916×597	1210×1916×597	1210×1916×597	1210×1916×597
Net weight		kg	177	177	180	182
Gross weight		kg	199	199	202	204
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30	-30 to 30

HP Model name			16 ALR-V8HP016CS01	18 ALR-V8HP018CS01	20 ALR-V8HP020CS01	22 ALR-V8HP022CS01
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
Cooling1	Capacity	kW	45	50	56	61.5
		kBtu/h	153.5	170.6	191.1	209.8
Heating2 (Rated)	Capacity	kW	45	50	56	61.5
		kBtu/h	153.5	170.6	191.1	209.8
Heating2 (Max)	Capacity	kW	50	56.5	63	69
		kBtu/h	170.6	192.8	215.0	235.4
SEER			6.77	6.47	6.30	6.15
ηs,c		%	267.8	255.8	249.0	243.0
SCOP			4.23	4.17	4.07	4.00
ηs,h		%	166.2	163.8	159.8	157.0
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%	50-130%
	Maximum quantity		26	29	33	36
Compressor	Type		DC inverter			
	Quantity		1	1	1	1
Fan motors	Type		DC	DC	DC	DC
	Quantity		2	2	2	2
	Airflow rate	m3/h	18500	20000	18500	19000
	Static pressure	Pa	0-35 (standard); 35-80 (customized)			
Refrigerant	Type		R410A	R410A	R410A	R410A
	Factory charge	kg	8	8	8.5	8.5
Pipe connections3	Liquid pipe	mm	Ø15.9	Ø15.9	Ø15.9	Ø15.9
	Gas pipe	mm	Ø28.6	Ø28.6	Ø28.6	Ø28.6
Sound pressure level4		dB(A)	60	61	61	62
Sound power level4		dB(A)	86	88	89	89
Net dimensions (W×H×D)		mm	1250×1760×580	1250×1760×580	1250×1760×580	1250×1760×580
Packed dimensions (W×H×D)		mm	1330×1916×597	1330×1916×597	1330×1916×597	1330×1916×597
Net weight		kg	208	208	228	228
Gross weight		kg	232	232	252	252
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30	-30 to 30

Notes:
1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.
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.

Specifications

Alarko modular side discharge outdoor units (380-415V/3N/50Hz)

HP Model name (Combination unit)			24 ALR-V8HP024CS01	26 ALR-V8HP026CS01	28 ALR-V8HP028CS01
Combination type			12HP+12HP	12HP+14HP	14HP+14HP
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50
Cooling1	Capacity	kW	67.0	73.5	80.0
		kBtu/h	228.6	250.8	273.0
Heating2 (Rated)	Capacity	kW	67.0	73.5	80.0
		kBtu/h	228.6	250.8	273.0
Heating2 (Max)	Capacity	kW	75.0	82.5	90.0
		kBtu/h	255.9	281.5	307.1
SEER			6.95	6.81	6.67
ηs,c		%	275.0	269.4	263.8
SCOP			4.11	4.13	4.15
ηs,h		%	161.4	162.2	163.0
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%
	Maximum quantity		39	43	46
Compressor	Type		DC inverter		
	Quantity		2	2	2
Fan motors	Type		DC	DC	DC
	Quantity		4	4	4
	Airflow rate	m3/h	25000	25000	25000
	Static pressure	Pa	0-35 (standard); 35-80 (customized)		
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	6.4×2	6.4+7.4	7.4×2
Pipe connections3	Liquid pipe	mm	Ø15.9	Ø19.1	Ø19.1
	Gas pipe	mm	Ø28.6	Ø31.8	Ø31.8
Sound pressure level4		dB(A)	61	61.5	62
Sound power level4		dB(A)	84	84.5	84.5
Net dimensions (W×H×D)		mm	(1130×1760×580)×2	(1130×1760×580)×2	(1130×1760×580)×2
Packed dimensions (W×H×D)		mm	(1210×1916×597)×2	(1210×1916×597)×2	(1210×1916×597)×2
Net weight		kg	180×2	180+182	182×2
Gross weight		kg	202×2	202+204	204×2
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30

HP Model name (Combination unit)			30 ALR-V8HP030CS01	32 ALR-V8HP032CS01	34 ALR-V8HP034CS01
Combination type			14HP+16HP	14HP+18HP	16HP+18HP
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50
Cooling1	Capacity	kW	85.0	90.0	95.0
		kBtu/h	290.0	307.1	324.1
Heating2 (Rated)	Capacity	kW	85.0	90.0	95.0
		kBtu/h	290.0	307.1	324.1
Heating2 (Max)	Capacity	kW	95.0	101.5	106.5
		kBtu/h	324.1	346.3	363.4
SEER			6.73	6.57	6.63
ηs,c		%	266.2	259.8	262.2
SCOP			4.19	4.19	4.23
ηs,h		%	164.6	164.6	166.2
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%
	Maximum quantity		50	53	56
Compressor	Type		DC inverter		
	Quantity		2	2	2
Fan motors	Type		DC	DC	DC
	Quantity		4	4	4
	Airflow rate	m3/h	31000	32500	38500
	Static pressure	Pa	0-35 (standard); 35-80 (customized)		
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	7.4+8	7.4+8	8×2
Pipe connections3	Liquid pipe	mm	Ø19.1	Ø19.1	Ø19.1
	Gas pipe	mm	Ø31.8	Ø31.8	Ø31.8
Sound pressure level4		dB(A)	62.5	63.1	63.5
Sound power level4		dB(A)	87.5	89	90.1
Net dimensions (W×H×D)		mm	(1130×1760×580)+(1250×1760×580)	(1130×1760×580)+(1250×1760×580)	(1250×1760×580)×2
Packed dimensions (W×H×D)		mm	(1210×1916×597)+(1330×1916×597)	(1210×1916×597)+(1330×1916×597)	(1330×1916×597)×2
Net weight		kg	182+208	182+208	208×2
Gross weight		kg	204+232	204+232	232×2
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30

Notes:
1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.
3. Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent lengths between the farthest IDU and the first outdoor branch joint of less than 90m. For systems with lengths of 90m or longer, please refer to the 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.

Specifications

Alarko modular side discharge outdoor units (380-415V/3N/50Hz)

HP Model name (Combination unit)			36 ALR-V8HP036CS01	38 ALR-V8HP038CS01	40 ALR-V8HP040CS01
Combination type			18HP+18HP	16HP+22HP	18HP+22HP
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50
Cooling[1]	Capacity	kW	100.0	106.5	111.5
		kBtu/h	341.2	363.4	380.4
Heating[2] (Rated)	Capacity	kW	100.0	106.5	111.5
		kBtu/h	341.2	363.4	380.4
Heating[2] (Max)	Capacity	kW	113.0	119.0	125.5
		kBtu/h	385.6	406.0	428.2
SEER			6.49	6.41	6.30
ηs,c		%	256.6	253.4	249.0
SCOP			4.17	4.08	4.10
ηs,h		%	163.8	160.2	161.0
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%
	Maximum quantity		59	63	64
Compressor	Type		DC inverter		
	Quantity		2	2	2
Fan motors	Type		DC	DC	DC
	Quantity		4	4	4
	Airflow rate	m^3/h	40000	37500	39000
	Static pressure	Pa	0-35 (standard); 35-80 (customized)		
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	8×2	8+8.5	8+8.5
Pipe connections[3]	Liquid pipe	mm	Ø19.1	Ø19.1	Ø19.1
	Gas pipe	mm	Ø38.1	Ø38.1	Ø38.1
Sound pressure level[4]		dB(A)	64	64.1	64.5
Sound power level[4]		dB(A)	91	90.8	91.5
Net dimensions (W×H×D)		mm	(1250×1760×580)×2	(1250×1760×580)×2	(1250×1760×580)×2
Packed dimensions (W×H×D)		mm	(1330×1916×597)×2	(1330×1916×597)×2	(1330×1916×597)×2
Net weight		kg	208×2	208+228	208+228
Gross weight		kg	232×2	232+252	232+252
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30

HP Model name (Combination unit)			42 ALR-V8HP042CS01	44 ALR-V8HP044CS01	46 ALR-V8HP046CS01
Combination type			20HP+22HP	22HP+22HP	14HP+14HP+18HP
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50
Cooling[1]	Capacity	kW	117.5	123.0	130.0
		kBtu/h	400.9	419.7	443.6
Heating[2] (Rated)	Capacity	kW	117.5	123.0	130.0
		kBtu/h	400.9	419.7	443.6
Heating[2] (Max)	Capacity	kW	132.0	138.0	146.5
		kBtu/h	450.4	470.9	499.9
SEER			6.24	6.16	6.60
ηs,c		%	246.6	243.4	261.0
SCOP			4.03	4.00	4.17
ηs,h		%	158.2	157.0	163.8
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%
	Maximum quantity		64	64	64
Compressor	Type		DC inverter		
	Quantity		2	2	3
Fan motors	Type		DC	DC	DC
	Quantity		4	4	6
	Airflow rate	m3/h	37500	38000	45000
	Static pressure	Pa	0-35 (standard); 35-80 (customized)		
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	8.5×2	8.5×2	7.4×2+8
Pipe connections3	Liquid pipe	mm	Ø19.1	Ø19.1	Ø19.1
	Gas pipe	mm	Ø38.1	Ø38.1	Ø38.1
Sound pressure level4		dB(A)	64.5	65	64.5
Sound power level4		dB(A)	92	92	89.8
Net dimensions (W×H×D)		mm	(1250×1760×580)×2	(1250×1760×580)×2	(1130×1760×580)×2+(1250×1760×580)
Packed dimensions (W×H×D)		mm	(1330×1916×597)×2	(1330×1916×597)×2	(1210×1916×597)×2+(1330×1916×597)
Net weight		kg	228×2	228×2	182×2+208
Gross weight		kg	252×2	252×2	204x2+232
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30

Notes:
1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.
3. Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent lengths between the farthest IDU and the first outdoor branch joint of less than 90m. For systems with lengths of 90m or longer, please refer to the 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.

Specifications

Alarko modular side discharge outdoor units (380-415V/3N/50Hz)

HP Model name (Combination unit)			48 ALR-V8HP048CS01	50 ALR-V8HP050CS01	52 ALR-V8HP052CS01
Combination type			14HP+16HP+18HP	14HP+18HP+18HP	16HP+18HP+18HP
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50
Cooling1	Capacity	kW	135.0	140.0	145.0
		kBtu/h	460.6	477.7	494.7
Heating2 (Rated)	Capacity	kW	135.0	140.0	145.0
		kBtu/h	460.6	477.7	494.7
Heating2 (Max)	Capacity	kW	151.5	158.0	163.0
		kBtu/h	516.9	539.1	556.2
SEER			6.64	6.54	6.58
ηs,c		%	262.6	258.6	260.2
SCOP			4.20	4.20	4.22
ηs,h		%	165.0	165.0	165.8
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%
	Maximum quantity		64	64	64
Compressor	Type		DC inverter		
	Quantity		3	3	3
Fan motors	Type		DC	DC	DC
	Quantity		6	6	6
	Airflow rate	m3/h	51000	52500	58500
	Static pressure	Pa	0-35 (standard); 35-80 (customized)		
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	7.4+8×2	7.4+8×2	8×3
Pipe connections3	Liquid pipe	mm	Ø19.1	Ø19.1	Ø19.1
	Gas pipe	mm	Ø38.1	Ø38.1	Ø38.1
Sound pressure level4		dB(A)	64.8	65.2	65.5
Sound power level4		dB(A)	90.7	91.5	92.2
Net dimensions (W×H×D)		mm	(1130×1760×580)+(1250×1760×580)×2	(1130×1760×580)+(1250×1760×580)×2	(1250×1760×580)×3
Packed dimensions (W×H×D)		mm	(1210×1916×597)+(1330×1916×597)×2	(1210×1916×597)+(1330×1916×597)×2	(1330×1916×597)×3
Net weight		kg	182+208×2	182+208×2	208×3
Gross weight		kg	204+232x2	204+232x2	232×3
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30

HP Model name (Combination unit)			54 ALR-V8HP054CS01	56 ALR-V8HP056CS01	58 ALR-V8HP058CS01
Combination type			18HP+18HP+18HP	16HP+18HP+22HP	18HP+18HP+22HP
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50
Cooling[1]	Capacity	kW	150.0	156.5	161.5
		kBtu/h	511.8	534.0	551.0
Heating[2] (Rated)	Capacity	kW	150.0	156.5	161.5
		kBtu/h	511.8	534.0	551.0
Heating[2] (Max)	Capacity	kW	169.5	175.5	182.0
		kBtu/h	578.3	598.8	621.0
SEER			6.49	6.44	6.36
ηs,c		%	256.6	254.6	251.4
SCOP			4.17	4.13	4.14
ηs,h		%	163.8	162.2	162.6
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%
	Maximum quantity		64	64	64
Compressor	Type		DC inverter		
	Quantity		3	3	3
Fan motors	Type		DC	DC	DC
	Quantity		6	6	6
	Airflow rate	m^3/h	60000	57500	59000
	Static pressure	Pa	0-35 (standard); 35-80 (customized)		
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	8×3	8×2+8.5	8×2+8.5
Pipe connections[3]	Liquid pipe	mm	Ø19.1	Ø19.1	Ø19.1
	Gas pipe	mm	Ø38.1	Ø41.3	Ø41.3
Sound pressure level[4]		dB(A)	65.8	65.8	66.1
Sound power level[4]		dB(A)	92.8	92.6	93.1
Net dimensions (W×H×D)		mm	(1250×1760×580)×3	(1250×1760×580)×3	(1250×1760×580)×3
Packed dimensions (W×H×D)		mm	(1330×1916×597)×3	(1330×1916×597)×3	(1330×1916×597)×3
Net weight		kg	208×3	208×2+228	208×2+228
Gross weight		kg	232×3	232×2+252	232×2+252
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30

Notes:
1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.
3. Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent lengths between the farthest IDU and the first outdoor branch joint of less than 90m. For systems with lengths of 90m or longer, please refer to the 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.

Specifications

Alarko modular side discharge outdoor units (380-415V/3N/50Hz)

HP Model name (Combination unit)			60 ALR-V8HP060CS01	62 ALR-V8HP062CS01	64 ALR-V8HP064CS01	66 ALR-V8HP066CS01
Combination type			18HP+20HP+22HP	18HP+22HP+22HP	20HP+22HP+22HP	22HP+22HP+22HP
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
Cooling[1]	Capacity	kW	167.5	173.0	179.0	184.5
		kBtu/h	571.5	590.3	610.7	629.5
Heating[2] (Rated)	Capacity	kW	167.5	173.0	179.0	184.5
		kBtu/h	571.5	590.3	610.7	629.5
Heating[2] (Max)	Capacity	kW	188.5	194.5	201.0	207.0
		kBtu/h	643.2	663.6	685.8	706.3
SEER			6.32	6.25	6.22	6.16
ηs,c		%	249.8	247.0	245.8	243.4
SCOP			4.09	4.06	4.02	4.00
ηs,h		%	160.6	159.4	157.8	157.0
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%	50-130%
	Maximum quantity		64	64	64	64
Compressor	Type		DC inverter			
	Quantity		3	3	3	3
Fan motors	Type		DC	DC	DC	DC
	Quantity		6	6	6	6
	Airflow rate	m^3/h	57500	58000	56500	57000
	Static pressure	Pa	0-35 (standard); 35-80 (customized)			
Refrigerant	Type		R410A	R410A	R410A	R410A
	Factory charge	kg	8+8.5×2	8+8.5×2	8.5×3	8.5×3
Pipe connections[3]	Liquid pipe	mm	Ø19.1	Ø19.1	Ø19.1	Ø19.1
	Gas pipe	mm	Ø41.3	Ø41.3	Ø41.3	Ø41.3
Sound pressure level[4]		dB(A)	66.1	66.5	66.5	66.8
Sound power level[4]		dB(A)	93.5	93.5	93.6	93.8
Net dimensions (W×H×D)		mm	(1250×1760×580)×3	(1250×1760×580)×3	(1250×1760×580)×3	(1250×1760×580)×3
Packed dimensions (W×H×D)		mm	(1330×1916×597)×3	(1330×1916×597)×3	(1330×1916×597)×3	(1330×1916×597)×3
Net weight		kg	208+228×2	208+228×2	228×3	228×3
Gross weight		kg	232+252×2	232+252×2	252×3	252×3
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30	-30 to 30

HP Model name (Combination unit)			68 ALR-V8HP068CS01	70 ALR-V8HP070CS01	72 ALR-V8HP072CS01
Combination type			14HP+18HP+18HP+18HP	14HP+18HP+18HP+20HP	18HP+18HP+18HP+18HP
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50
Cooling[1]	Capacity	kW	190.0	196.0	200.0
		kBtu/h	648.3	668.8	682.4
Heating[2] (Rated)	Capacity	kW	190.0	196.0	200.0
		kBtu/h	648.3	668.8	682.4
Heating[2] (Max)	Capacity	kW	214.5	221.0	226.0
		kBtu/h	731.9	754.1	771.1
SEER			6.53	6.49	6.50
ηs,c		%	258.2	256.6	257.0
SCOP			4.21	4.16	4.17
ηs,h		%	165.4	163.4	163.8
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%
	Maximum quantity		64	64	64
Compressor	Type		DC inverter		
	Quantity		4	4	4
Fan motors	Type		DC	DC	DC
	Quantity		8	8	8
	Airflow rate	m^3/h	72500	71000	80000
	Static pressure	Pa	0-35 (standard); 35-80 (customized)		
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	7.4+8×3	7.4+8×2+8.5	8×4
Pipe connections[3]	Liquid pipe	mm	Ø22.2	Ø22.2	Ø22.2
	Gas pipe	mm	Ø44.5	Ø44.5	Ø44.5
Sound pressure level[4]		dB(A)	66.6	66.6	67
Sound power level[4]		dB(A)	93.1	93.5	94
Net dimensions (W×H×D)		mm	(1130×1760×580)+(1250×1760×580)×2	(1130×1760×580)+(1250×1760×580)×3	(1250×1760×580)×4
Packed dimensions (W×H×D)		mm	(1210×1916×597)+(1330×1916×597)×2	(1210×1916×597)+(1330×1916×597)×3	(1330×1916×597)×4
Net weight		kg	182+208×3	182+208×2+228	208×4
Gross weight		kg	204+232×3	204+232×2+252	232×4
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30

Notes:
1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.
3. Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent lengths between the farthest IDU and the first outdoor branch joint of less than 90m. For systems with lengths of 90m or longer, please refer to the 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.

Specifications

Alarko modular side discharge outdoor units (380-415V/3N/50Hz)

HP Model name (Combination unit)			74 ALR-V8HP074CS01	76 ALR-V8HP076CS01	78 ALR-V8HP078CS01	80 ALR-V8HP080CS01
Combination type			18HP+18HP+18HP+20HP	18HP+18HP+18HP+22HP	18HP+18HP+20HP+22HP	18HP+18HP+22HP+22H
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
Cooling[1]	Capacity	kW	206.0	211.5	217.5	223.0
		kBtu/h	702.9	721.6	742.1	760.9
Heating[2] (Rated)	Capacity	kW	206.0	211.5	217.5	223.0
		kBtu/h	702.9	721.6	742.1	760.9
Heating[2] (Max)	Capacity	kW	232.5	238.5	245.0	251.0
		kBtu/h	793.3	813.8	835.9	856.4
SEER			6.46	6.39	6.36	6.31
ηs,c		%	255.4	252.6	251.4	249.4
SCOP			4.13	4.16	4.12	4.10
ηs,h		%	162.2	163.4	161.8	161.0
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%	50-130%
	Maximum quantity		64	64	64	64
Compressor	Type		DC inverter			
	Quantity		4	4	4	4
Fan motors	Type		DC	DC	DC	DC
	Quantity		8	8	8	8
	Airflow rate	m^3/h	78500	79000	77500	78000
	Static pressure	Pa	0-35 (standard); 35-80 (customized)			
Refrigerant	Type		R410A	R410A	R410A	R410A
	Factory charge	kg	8×3+8.5	8×3+8.5	8×2+8.5×2	8×2+8.5×2
Pipe connections[3]	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)	67	67.3	67.3	67.5
Sound power level[4]		dB(A)	94.3	94.3	94.5	94.5
Net dimensions (W×H×D)		mm	(1250×1760×580)×4	(1250×1760×580)×4	(1250×1760×580)×4	(1250×1760×580)×4
Packed dimensions (W×H×D)		mm	(1330×1916×597)×4	(1330×1916×597)×4	(1330×1916×597)×4	(1330×1916×597)×4
Net weight		kg	208×3+228	208×3+228	208×2+228×2	208×2+228×2
Gross weight		kg	232×3+252	232×3+252	232×2+252×2	232×2+252×2
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30	-30 to 30

HP Model name (Combination unit)			82 ALR-V8HP082CS01	84 ALR-V8HP084CS01	86 ALR-V8HP086CS01	88 ALR-V8HP088CS01
Combination type			18HP+20HP+22HP+22H	18HP+22HP+22HP+22H	20HP+22HP+22HP+22	22HP+22HP+22HP+22HP
Power supply		V/N/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
Cooling[1]	Capacity	kW	229.0	234.5	240.5	246.0
		kBtu/h	781.3	800.1	820.6	839.4
Heating[2] (Rated)	Capacity	kW	229.0	234.5	240.5	246.0
		kBtu/h	781.3	800.1	820.6	839.4
Heating[2] (Max)	Capacity	kW	257.5	263.5	270.0	276.0
		kBtu/h	878.6	899.1	921.2	941.7
SEER			6.28	6.23	6.20	6.16
ηs,c		%	248.2	246.2	245.0	243.4
SCOP			4.06	4.05	4.02	4.00
ηs,h		%	159.4	159.0	157.8	157.0
Connected indoor unit	Total capacity		50-130%	50-130%	50-130%	50-130%
	Maximum quantity		64	64	64	64
Compressor	Type		DC inverter			
	Quantity		4	4	4	4
Fan motors	Type		DC	DC	DC	DC
	Quantity		8	8	8	8
	Airflow rate	m^3/h	76500	77000	75500	76000
	Static pressure	Pa	0-35 (standard); 35-80 (customized)			
Refrigerant	Type		R410A	R410A	R410A	R410A
	Factory charge	kg	8+8.5×3	8+8.5×3	8.5×4	8.5×4
Pipe connections[3]	Liquid pipe	mm	Ø22.2	Ø22.2	Ø22.2	Ø22.2
	Gas pipe	mm	Ø44.5	Ø50.8	Ø50.8	Ø50.8
Sound pressure level[4]		dB(A)	67.5	67.8	67.8	68
Sound power level[4]		dB(A)	94.8	94.8	95	95
Net dimensions (W×H×D)		mm	(1250×1760×580)×4	(1250×1760×580)×4	(1250×1760×580)×4	(1250×1760×580)×4
Packed dimensions (W×H×D)		mm	(1330×1916×597)×4	(1330×1916×597)×4	(1330×1916×597)×4	(1330×1916×597)×4
Net weight		kg	208+228×3	208+228×3	228×4	228×4
Gross weight		kg	232+252×3	232+252×3	252×4	252×4
Ambient temp. operation range	Cooling	°C(DB)	-15 to 55	-15 to 55	-15 to 55	-15 to 55
	Heating	°C(DB)	-30 to 30	-30 to 30	-30 to 30	-30 to 30

Notes:
1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference; connect to Four-Way Cassette indoor unit.
3. Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent lengths between the farthest IDU and the first outdoor branch joint of less than 90m. For systems with lengths of 90m or longer, please refer to the 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.

Indoor Units
VRF Indoor Units

Fresh Air Processing Unit
%100 fresh air supply

Ventilating
Heat Recovery Ventilator (HRV)

AHU Kit
Connects to Alarko or 3rd party AHU Kit.

Controllers
Smart Controllers

3 Pipe Top Discharge VRF Outdoor Unit

Provides simultaneous cooling and heating in a single system

- ▶ ETA Technology
- ▶ Doktor Technology
- ▶ Enhanced Vapor Injection Compressor
- ▶ 3 Different Management Option
- ● ESP to 80 Pa
- ▶ Subcooling by Plate Heat Exchanger
- ▶ Precise Oil Control Technology
- ▶ Multi Silent Modes
- ▶ Operating Cycle
- ● Spare Operation
- ▶ Refrigerant Cooling PCB
- ● Auto Frost Cleaning Function
- ● Dust Cleaning Function
- ▶ Standard Multifunctional Diagnostic Box
- ▶ Automatic Refrigerant Sense/Charge/Recycle

▶ :Standard ● :Customization

Wide Capacity Range

8/10/12HP

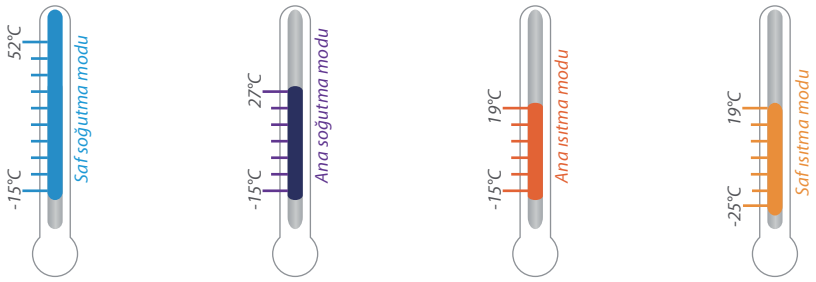
14/16/18HP

16-36HP

24-54HP

Wide Operating Range

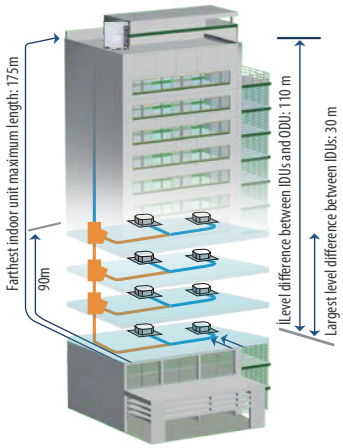
3 Pipe VRF system has a wide working range in cooling mode, heating mode and simultaneous cooling and heating mode.



Long Piping Length

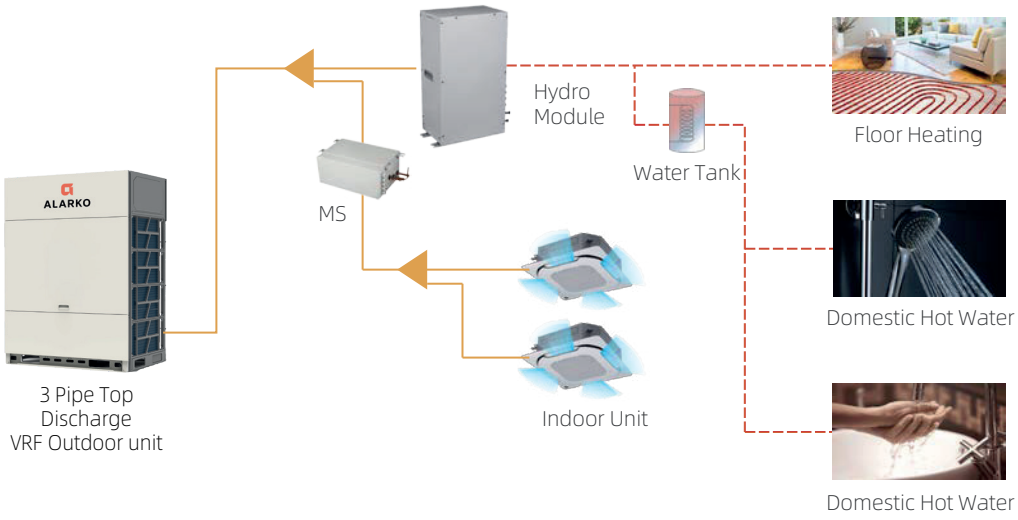
Piping Length	Capacity (m)
Total Piping Length	1000
Farthest indoor unit maximum length actual (equivalent)	175 (200)
Longest piping length after rst branch	40/90*
Level difference between IDUs and ODU - ODU above (below) maximum height difference	110 (110)
Largest level difference between IDUs	30

* The maximum length after the first branch is 40 m as standard, but can be extended to 90 m under certain conditions. Please refer to the installation manual for further information.



Hot Water Supply

3 Pipe VRF system can provide room air conditioning and also produce hot water for domestic use (between 25°C and 80°C). Hot water can be used for underfloor heating and domestic needs and increases the comfort of the room.



Continuous Heating During Defrost on Outdoor Units

Normally, the heating operation should be stopped during defrost operation. However, the continuous heating operation makes it possible to defrost while the heating mode is in progress. Combined outdoor units perform the defrost process alternately. While one unit is on defrost, the other unit continues to heat.

During normal heating | During continuous heating | During continuous heating

Note: This function is only available in 2nd generation DC VRF indoor units connected to 3 Pipe VRF system and manufactured after May 31, 2020.

Top Discharge VRF - 3 Pipe Outdoor Unit

380~415V, 3N, 50Hz

HP			8	10	12	14	16	18
Model			ALR-V6HR008CT01	ALR-V6HR010CT01	ALR-V6HR012CT01	ALR-V6HR014CT01	ALR-V6HR016CT01	ALR-V6HR018CT01
Power Supply		V/N/Hz	380-415/3/50					
Cooling[1]	Capacity	kW	22.4	28.0	33.5	40.0	45.0	50.0
	Power Input	kW	5.25	7.18	8.64	9.83	12.00	13.81
	EER		4.27	3.90	3.88	4.07	3.75	3.62
Heating[2]	Capacity	kW	22.4	28.0	33.5	40.0	45.0	50.0
	Power Input	kW	3.96	5.46	6.57	8.26	9.78	11.90
	COP		5.66	5.13	5.10	4.84	4.60	4.20
Heating[2] (Max.)	Capacity	kW	25.0	31.5	37.5	45.0	50.0	56.0
	Power Input	kW	4.69	7.12	9.48	9.78	12.26	14.77
	COP		5.33	4.43	3.95	4.60	4.08	3.79
Connected Indoor Unit	Total Diversity		%50-200 of outdoor unit capacity					
	Maximum Quantity		64					
Compressor	Type		DC inverter					
	Quantity		1					
Fan	Type		Fan Blade					
	Motor Type		DC					
	Quantity		1			2		
	Static Pressure	Pa	0, 20, 40, 60, 80 (Optional)					
	Airflow	m³/h	9000	9500	10000	14000	14900	15800
Refrigerant Cooling	Type		R410A					
	Standard Charging	kg	8			10		
Piping[3]	Liquid Pipe	mm	Ø12.7			Ø15.9		
	Low Pressure Gas Pipe	mm	Ø25.4			Ø28.6		
	High Pressure Gas Pipe	mm	Ø19.1			Ø22.2		
Sound Pressure Level[4]		dB(A)	58	58	60	61	64	65
Sound Power Level[4]		dB(A)	78	78	81	81	88	88
Net Dimensions (WxHxD)		mm	990x1635x790			1340x1635x825		
Packaging Dimensions (WxHxD)		mm	1090x1805x860			1405x1805x910		
Net Weight		kg	232			300		
Gross Weight		kg	248			325		
Outdoor Temperature Operating Range	Cooling	°C (DB)	-15 ~ 52					
	Heating	°C (WB)	-25 ~ 19					
	Domestic Hot Water	°C (DB)	-20 ~ 43					

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference;
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference;
3. For single units, the diameters given are the inlet valves of the outdoor unit. For combined units, the diameters given are the diameters of the pipe connecting the outdoor unit combination to the first indoor branch connection in systems with a total equivalent liquid pipe length of less than 90 m. For systems with a total equivalent liquid pipe length of 90 m or more, please refer to the Engineering Data Book for the connection pipe 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.

3 Pipe Top Discharge VRF - Mode Switch Box

Model			ALR-MSFT01D	ALR-MSFT04D	ALR-MSFT06D	ALR-MSFT08D	ALR-MSFT10D	ALR-MSFT12D
Power Supply			220-240V~50Hz					
Maximum Indoor Unit Connection Port Quantity			1	4	6	8	10	12
Maximum number of indoor unit connections per port			8	5				
Total maximum indoor unit connection quantity			8	20	30	40	47	
Maximum connection capacity per port		kW	32	16				
Total maximum indoor unit connection capacity		kW	32	49	63	85		
Piping to Outdoor Unit [1]	Liquid Pipe	Ø mm	9.53 / 12.7	9.53 / 12.7 / 15.9 / 19.1		12.7 / 15.9 / 19.1 / 22.2		
	Low Pressure Gas Pipe	Ø mm	15.9 / 19.1 / 22.2	19.1 / 22.2 / 28.6		22.2 / 28.6 / 34.9		
	High Pressure Gas Pipe	Ø mm	12.7 / 15.9 / 19.1	15.9 / 19.1 / 22.2 / 28.6		19.1 / 22.2 / 28.6		
Pipings to Indoor Unit [1]	Sıvı borusu	Ø mm	6.35 / 9.53					
	Gaz borusu	Ø mm	12.7 / 15.9					
Sound Pressure Levels [1]		dB(A)	40	44	45	47		
Sound Power Levels [1]		dB(A)	60	63	65			
Net Dimensions (WxHxD)		mm	440×195×296	668×250×574		974×250×574		
Packaging Dimensions (W×H×D)		mm	740×275×405	1020×390×850		1320×390×850		
Net Weight		kg	10.5	33	36	48	51	54
Gross Weight		kg	14	58	61	79	82	85

Note:

1. There is more than one size for pipe diameter in the table above because MS offers multiple sizes for different installation conditions.

3 Pipe VRF - High Temperature Hydro Module

Model			ALR-HWMD04801
Power Supply			220-240V~50Hz
Heating Capacity[1]		kW	14
Hot Water Support	Heating	°C	-20~30
	Domestic Hot Water	°C	-20~43
Water Temperature		°C	25~80
Water Flow	Nominal (Min.-Max.)	m^3/h	2.4 (1.2-2.9)
Allowable Water Pressure		Bar	1-Oct
Refrigerant	Type		R134a
	Standard Charge	kg	1.2
Sound Pressure Level		dB(A)	44
Net Dimensions (WxHxD)		mm	450x795x300
Packaging Dimensions (WxHxD)		mm	735×820×380
Net / Gross Weight		kg	58 / 67.2
Refrigerant Pipe	Connection Type		Brazed
	Liquid Pipe Diameter	mm	Ø9.53
	Gas Pipe Diameter	mm	Ø12.7
Su borusu	Piping Type		Dış Çap
	Inlet Pipe Diameter	mm	Ø25.4
	Outlet Pipe Diameter	mm	Ø25.4
Unit Installation Outdoor Temperature Range		°C	0~40
Unit Installation Location			Only Indoor

Note:

The nominal heating capacity is based on the following conditions: Outdoor temperature 7°C DB/6°C WB; water inlet/outlet temperature 40°C DB/45°C.

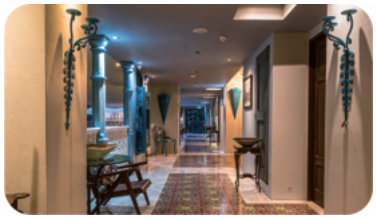
INDOOR UNITS

Indoor Unit Lineup

One-Way Cassette

- Automatic anti-condensation
- Multiple Steps Vertical Swing
- Built-in 1200mm high-lift drain pump (Digital feedback DC water pump)

Two-Way Cassette



- Automatic anti-condensation
- Multiple Steps Vertical Swing
- Built-in 1200mm high-lift drain pump (Digital feedback DC water pump)

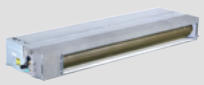
Compact Four-Way Cassette

- 575mm compact body size
- 360° airflow
- Individual louver control
- 3.5m high ceiling installation
- Built-in 1200mm high-lift drain pump
- Optional medium efficiency filter

Four-Way Cassette

- 360° airflow, uniform air flow and temperature distribution
- Individual louver control
- Built-in 1200mm high-lift drain pump
- Optional medium efficiency filter

Arc Duct

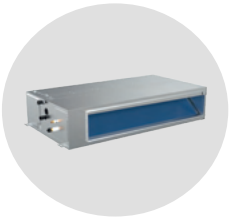


- 199mm ultra-thin height (all models)
- 450mm ultra-narrow depth (all models)
- Static pressure adaption, constant air volume supply
- Built-in 1200mm high-lift drain pump
- Optional medium efficiency filter

Medium Static Pressure Duct

- ESP up to 160Pa (all models)
- 245mm ultra-thin height (all models)
- Static pressure adaption, constant air volume supply
- Built-in 1200mm high-lift drain pump
- Optional HEPA filter with H12 rating
- Optional medium to high efficiency filter

High Static Pressure Duct



- 5.6kW-16kW ESP up to 250Pa
- 20kW-56kW ESP up to 400Pa
- 299mm ultra-thin height (5.6kW-16kW)
- Static pressure adaption, constant air volume supply
- Built-in 1200mm high-lift drain pump
- Optional HEPA filter with H13 rating
- Optional medium to high efficiency filter

Wall Mounted

- Supports installation close to the ceiling to free up space
- Bi-directional Coanda airflow, enhanced comfort
- Quiet operation
- Optional built-in 1200mm high-lift drain pump

Floor Standing

- ESP up to 60Pa (F3 concealed model)
- Three appearance options to meet different installation requirement
- DC fan creates a more quiet and comfortable environment
- 0.5°C/1°C Setting Temperature Adjustment

HRV

- Multiple operation modes: Auto, Bypass, Heat recovery, Free cooling mode.
- Optional CO_2 Sensor
- Optional Multi-functional Expansion Board

Ceiling&Floor

- A sleek design suits installation either on the ceiling or floor
- DC fan motor creates a more quiet and comfortable environment
- Optional 600mm high-lift drain pump (When the unit is installed on the ceiling)

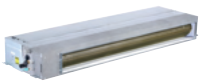
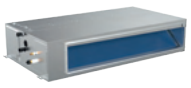
Small Airflow Rate Fresh Air Processing Unit

- 9kW-28kW ESP up to 300Pa
- 310mm ultra-thin height (9kW-28kW) Static pressure adaption, constant air volume supply
- Built-in 1200mm high-lift drain pump

Floor Standing (FS)

- 25.2-56kW model, Side Discharge Type and Top Discharge Type.
- Optional 6m drainage pump.
- ESP up to 400Pa (Top Discharge Type).

Indoor Unit Lineup

		kW	1.5	1.8	2.2	2.8	3.6	4.5	5.6	6.3	7.1	8.0	9.0	10.0	11.2	12.5	14.0	16.0	20.0	22.4	25.2	28.0	33.5	40.0	45.0	56.0
		Btu/h	5.1k	6.1k	7.5k	9.6k	12.3k	15.4k	19.1k	21.5k	24.2k	27.3k	30.7k	34.1k	38.2k	42.7k	47.8k	54.6k	68.3K	76.5K	86.0K	95.6K	114.3K	136.5K	153.6K	191.1K
Cassette	One-Way Cassette			■	■	■	■	■	■		■															
	Two-Way Cassette				■	■	■	■	■		■															
	Compact Four-Way Cassette		■		■	■	■	■	■	■																
	Four-Way Cassette					■	■	■	■		■	■	■	■	■		■									
	Four-Way Cassette																	■	■							
Duct	Arc Duct		■		■	■	■	■	■		■	■	■		■											
	Medium Static Pressure Duct		■		■	■	■	■	■		■	■	■		■	■	■	■								
	High Static Pressure Duct								■		■	■	■		■	■	■	■	■	■	■	■	■	■	■	■

		kW	1.5	1.8	2.2	2.8	3.6	4.5	5.6	6.3	7.1	8.0	9.0	10.0	11.2	12.5	14.0	16.0	20.0	22.4	25.2	28.0	33.5	40.0	45.0	56.0
		Btu/h	5.1 k	6.1 k	7.5 k	9.6 k	12.3 k	15.4 k	19.1 k	21.5 k	24.2 k	27.3 k	30.7 k	34.1 k	38.2 k	42.7 k	47.8 k	54.6 k	68.3 K	76.5 K	86.0 K	95.6 K	114.3 K	136.5 K	153.6 K	191.1 K
Floor Standing	Floor Standing - Concealed																									
	Floor Standing - Exposed																									
Wall Mounted	Wall Mounted																									
Ceiling&Floor	Ceiling&Floor																									
Small Airflow Rate Fresh Air Processing Unit																										
Floor Standing (FS)	Side discharge type																									
	Top discharge type																									

Indoor Unit Functions

	Functions ●: equipped as standard; ○: customization option; ×: without this function		One-Way Cassette	Two-Way Cassette	Ceiling&Floor	Compact Four-Way Cassette
COMFORT & HEALTH	Quiet operation	All indoor units are quiet operation	●	●	●	●
	Auto cooling-heating changeover	Automatically selects cooling or heating mode to achieve the set temperature	●	●	●	●
	Cold air prevention	When starting to warm up, the fan speed is automatically adjusted according to coil temperature to prevent cold air discharge After warming up, fan speed is set as desired	●	●	●	●
	Digital display on/off	Indoor unit displays can be shut off at night, creating a better environment for rest	●	●	●	●
	Buzzer sound on/off	The buzzer sound of the indoor unit can be turned off to create a quieter environment	●	●	●	●
	EEV automatic adjustment	When in heating standby mode, the indoor unit automatically adjusts the EEV opening according to the load to eliminate noise of refrigerant flowing.	●	●	●	●
	Indoor temperature detection control	The indoor temperature of multiple indoor units is obtained from a designated indoor unit, and multiple indoor units in a large space are controlled uniformly through this designated indoor unit.	●	●	●	●
	0.5℃/1℃ setting temperature adjustment	Set temperature can be adjusted in 0.5℃ or 1℃ steps, enabling precise comfort control	●	●	●	●
	Home leave mode	During absence, the indoor temperature can be maintained at a certain level	●	●	●	●
	Independent power supply	This feature allows the shutdown of some indoor units without shutting down the whole VRF system	×	×	×	×
	Sleep mode	The smart sleep mode can realize sleep is not easy to catch a cold and wake up refreshing	●	●	●	●
	Mildew proof of heat exchanger	After the unit is shutdown, the fan is delayed shutdown to dry the heat exchanger and prevent the heat exchanger from mildew	●	●	●	●
	Air filter	Removes airborne dust particles to ensure a steady supply of clean air	pre-filter ●	pre-filter ●	pre-filter ●	G1 ● G3 ○ F6 ○
	Fresh air intake	A reserved outside air intake port allows outdoor air to be introduced directly into the unit	4.5-7.1kW●	●	●	●
	Visualization of dirty blockage rate	Dirty blockage rate can be accurately identified and displayed on the controller	×	×	×	×
	Silver Ions drain pan	Slow-released nano-silver ions can keep the drain pan free of mold for a long time.	×	×	×	○
	Heat exchanger self-cleaning*	Wash the dirt on the heat exchanger through freezing frost, and then high temperature sterilization.	●	●	●	●
	Humidity control	Additional humidity sensor can achieve humidity control in 35~75%	×	×	○	○
	Puro-air kit	Powered by OSRAM's UVC lamps, can effectively kill bacteria, viruses and odors of indoor air	×	×	×	×
AIR FLOW	Vertical swing	Possibility to select automatic vertical moving of the air discharge louvre, for uniform air flow and temperature distribution	5 steps + auto	5 steps + auto	5 steps + auto	5 steps + auto
	Horizontal swing	Possibility to select automatic horizontal moving of the air discharge louvre, for uniform air flow and temperature distribution	×	×	●	×
	Fan speed steps	Multiple fan speeds can be selected to optimize comfort levels	7 steps	7 steps	7 steps	7 steps
	Auto fan speed	Automatically controls rotation speed of fan depending on indoor load to achieve efficiency and comfort simultaneously	●	●	●	●
	Individual louver control	Individual louver control via the wired remote controller makes it simple to fix the position of each flap individually	×	×	×	●
	Soft wind mode	Supplies air against the ceiling to create windless environment	●	●	●	●
	Adaptive ESP	ESP adapts to duct resistance to ensure constant airflow	×	×	×	×

* Heat exchanger self-cleaning function can be available only when Alarko Mini is connected. There is no AHU-Kit, Fresh Air Processing Unit and 2nd generation indoor units in the system.

Four-Way Cassette	Arc Duct	Medium Static Pressure Duct	High Static Pressure Duct	Wall Mounted	Floor Standing	Small Airflow Rate Fresh Air Processing	Top Discharge Type (FS)	Side Discharge Type (FS)
●	●	●	●	●	●	×	●	●
●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	×	●	●
●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	×	●	●
×	×	×	×	×	×	●	×	×
●	●	●	●	●	●	×	●	●
●	●	●	●	●	●	×	●	●
G1 ● G3 ○ F6 ○	G1 ● F6 ○	G1 ● G3+F7○ G3+H12○	pre-filter ● F7 ○ H13○	pre-filter ●	G1 ●	pre-filter ● F7 ○ H13○	pre-filter ● F7 ○ H13○	pre-filter ● F7 ○ H13○
●	●	●	×	X	×	●	×	×
×	●	●	●	×	×	●	●	×
○	○	○	○	○	×	○	○	○
●	●	●	×	●	●	×	×	×
○	○	○	○	○	○	×	○	○
×	×	○	○	×	×	○	○	○
5 steps + auto	×	×	×	5 steps + auto	×	×	×	×
×	×	×	×	○	×	×	×	5 steps + auto
7 steps	7 steps	7 steps	7 steps	7 steps	7 steps	7 steps	7 steps	7 steps
●	●	●	●	●	●	×	●	●
●	×	×	×	×	×	×	×	×
●	×	×	×	●	×	×	×	×
×	●	●	●	×	×	●	●	×

Indoor Unit Functions

Functions ●: equipped as standard; ○: customization option ; ×: without this function			One-Way Cassette	Two-Way Cassette	Ceiling&Floor
ENERGY SAVING	META mode	Triple variable control maximizes energy saving operation	●	●	●
	ECO mode	The set temperature will automatically increase by 1°C per hour (in cooling mode) or decrease by 1°C per hour (in heating mode), with a maximum change of 2°C.	●	●	●
	Full DC electronic components	The fan motor and water pump are DC power supply	●	●	●
	Human Detect Sensor	Using millimeter-wave radar sensor controller automatically turns indoor units on or off upon detecting that the room is occupied or unoccupied, ensuringclimate control whilst minimizing energy consumption.	×	×	×
EASY Installation & Service	Program upgrade(2)	All indoor units can be upgraded on outdoor unit of the same system, more easy program upgrade.	●	●	●
	Long distance air delivery	Provides adequate airflow and capacity under high ceiling conditions	×	×	×
	High-lift drain pump	Facilitates condensation draining from the indoor unit	●	●	○(3)
	Water level switch	When the drain pipe is blocked or the drain pipe is poor, the water level switch is turned off, and there is no need to worry about overflowing the ceiling.	●	●	○
	Ceiling anti-dirt setting	The air discharge is specially designed to prevent air blowing against the ceiling to prevent ceiling dirty	●	●	×
	Air baffle fittings for irregular rooms	Some air discharge ports can be blocked with air baffle to optimize air distribution in irregular shaped rooms	×	×	×
	2-core non-polarity communication wiring	Simplifies installation and reduces wiring failures	●	●	●
	Long communication wiring	Communication wiring up to 1200m makes installation more flexible	●	●	●
	3 digit 7-segment display	3 digit 7-segment display can display more parameters and error information	●	●	●
	Error codes are further refined	Simplifies maintenance by refined error code	●	●	●
EASY CONTROL	Timer	Timer can be set to start and stop operation anytime on a daily or weekly basis	●	●	●
	Infrared remote control	Infrared remote control with LCD to remotely control your indoor unit	●	●	●
	Wired remote control	Wired remote control to remotely control your indoor unit	●	●	●
	Group control	Up to 16 indoor units can be in a group control system	●	●	●
	Centralized control	Centralized control to control several indoor units from one single point	●	●	●
	Auto-restart	The unit restarts automatically at the original settings after power failure	●	●	●
	°C/°F setting	Temperature unit °C or °F can be set according to your usage habits	●	●	●
	Long-distance on/off function	Long-distance startup or shutoff the system by weak electricity external devices	●	●	●
EXTENDED FUNCTIONS	Humidifier connection	Additional expansion board can achieve third-party humidifier connection	×	×	○
	Dehumidifier connection	Additional expansion board can achieve third-party dehumidifier connection	×	×	○
	Electric heater connection	Additional expansion board can achieve third-party electric heater connection	○(4)	×	○
	Refrigerant leak sensor connection	Additional expansion board can achieve refrigerant leak sensor connection	○(4)	×	○
	CO2 sensor connection	Additional expansion board can achieve CO2 sensor connection	○(4)	×	○
	PM2.5 sensor connection	Additional expansion board can achieve PM2.5 sensor connection	○(4)	×	○
	Third-party controller connection	Third party controller can realize mode, fan speed and temperature control	○(4)	×	○
	Long-distance on/off function	Long-distance startup or shutoff the system by strong electricity external devices	○(4)	×	○
	Long-distance alarm function	Long-distance alarm when an error occurs	○(4)	×	○
	Multiple protections	Multiple protections make the unit run more reliably	●	●	●

Note:
(1). Use the display box which is equipped with a human detect sensor.
(2). The program upgrade function needs to be implemented through Bluetooth Module or Data Cloud Gateway. The Bluetooth Module and Data Cloud Gateway needs to be purchased separately.
(3). Only when the unit is installed on the ceiling
(4). To achieve these functions for the One-Way Cassette unit, you need to purchase function expansion modules and install them locally.

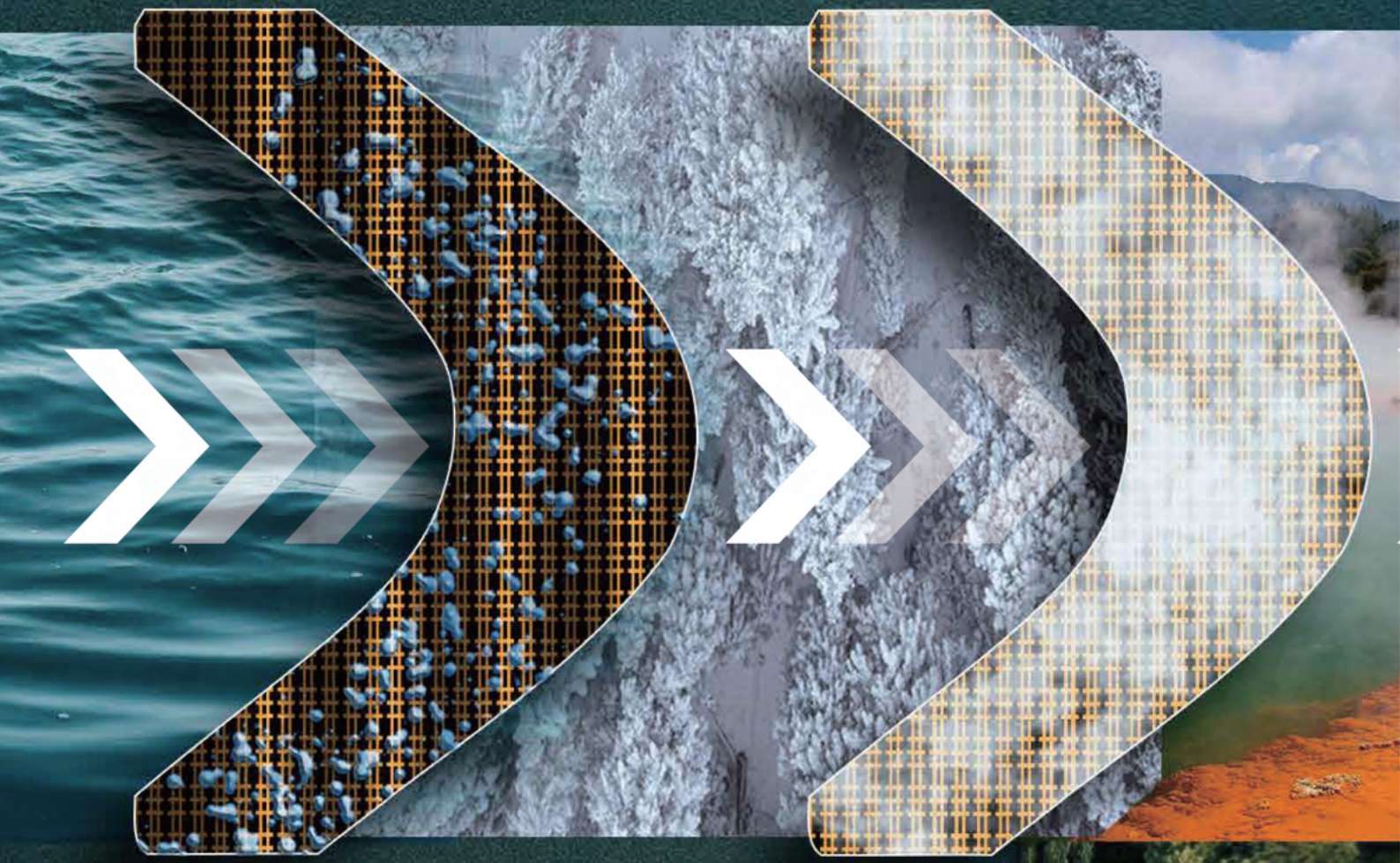
Compact Four-Way Cassette	Four-Way Cassette	Arc Duct	Medium Static Pressure Duct	High Static Pressure Duct	Wall Mounted	Floor Standing	Small Airflow Rate Fresh Air Processing	Top Discharge Type (FS)	Side Discharge Type (FS)
●	●	●	●	×	●	●	×	×	×
●	●	●	●	●	●	●	×	●	●
●	●	●	●	●	●	●	●	●	●
○	○	○[1]	○[1]	○[1]	○	×	×	○[1]	○[1]
●	●	●	●	●	●	●	●	●	●
● 3.5m	● 4.5m	×	×	×	×	×	×	×	×
●	●	●	●	○	○	×	●	○	○
●	●	●	●	●	○	×	●	●	●
●	●	×	×	×	×	×	×	×	×
●	●	×	×	×	×	×	×	×	×
●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●
○	○	○	○	○	○	○	×	○	○
○	○	○	○	○	○	○	×	○	○
○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○
●	●	●	●	●	●	●	●	●	●

Frosting

Frost makes the surface of heat exchanger dirt stripping

Defrosting

Water flow flushes dirt from heat exchanger



HEAT EXCHANGER SELF-CLEANING*

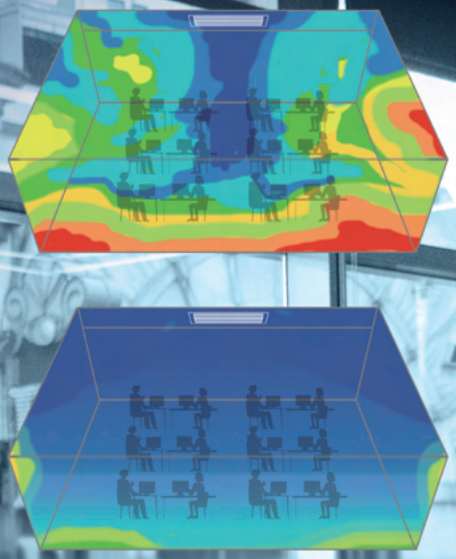
* Heat exchanger self-cleaning function can be available only when Alarko Mini is connected.

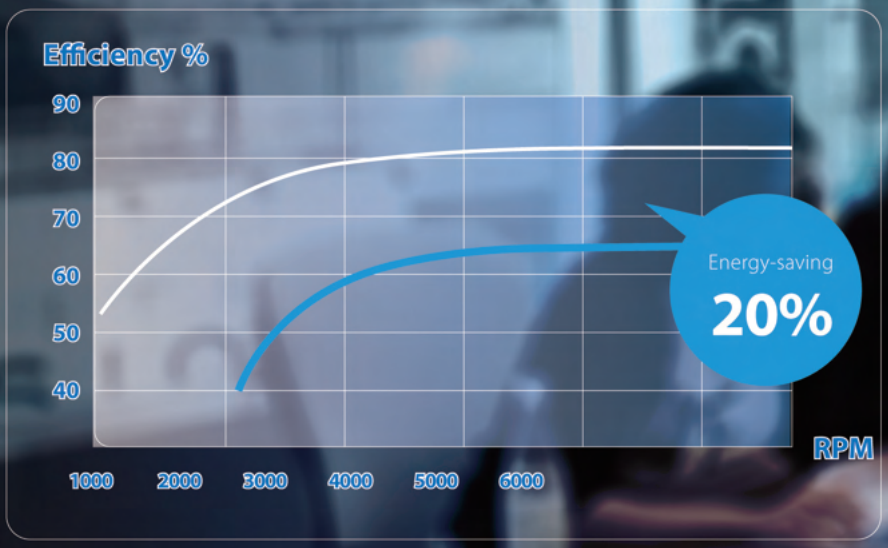
Drying

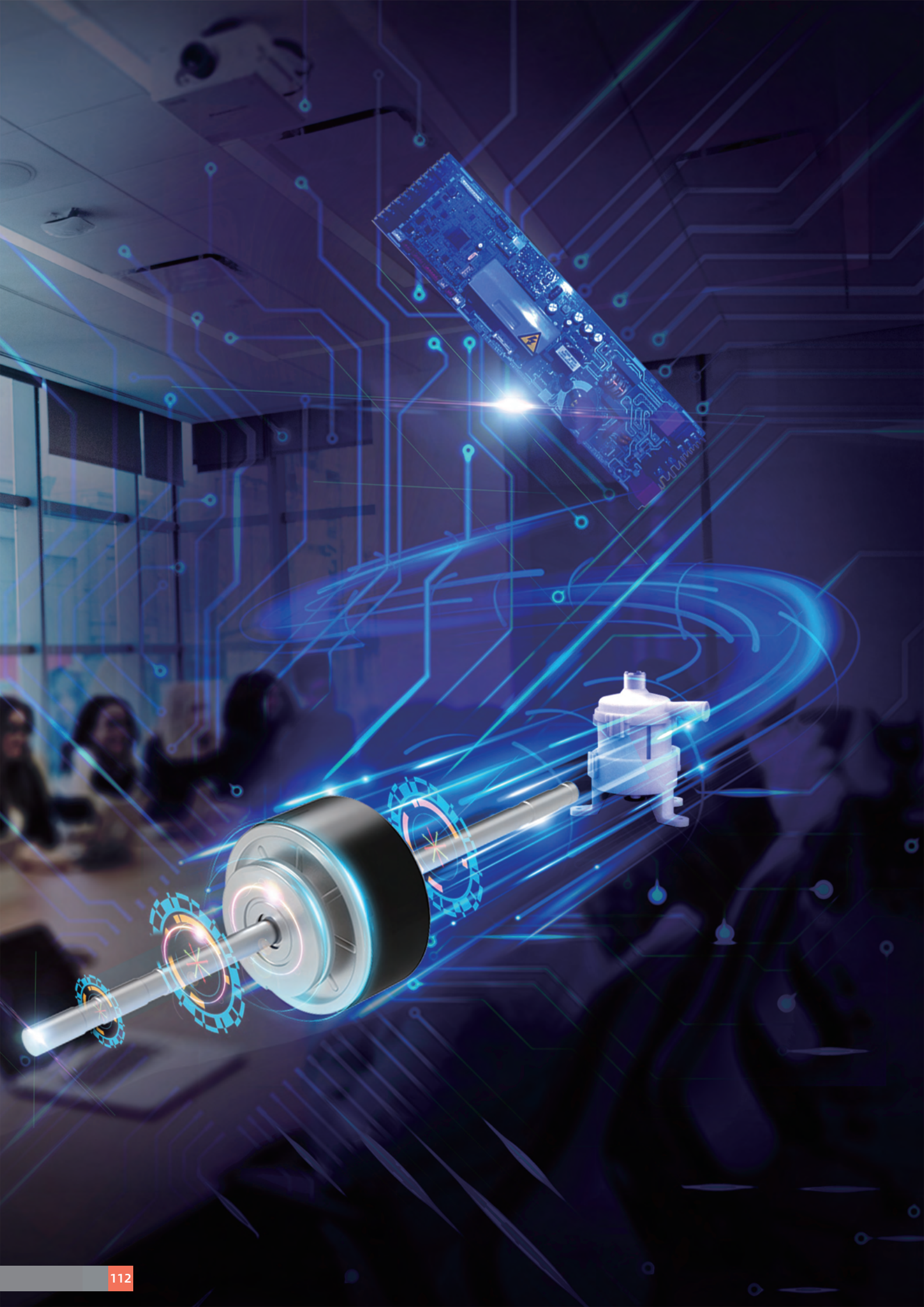
55˚C high temperature drying water, effective sterilization

Full DC Electronic Components

The fan motor and water pump are DC power supply,
making the temperature control more precise and the indoor temperature more uniform.







Optional Multi-Functional Expansion Board

Humidity control

Electric heater connection

Multiple protections

Long-distance on/off function

Long-distance alarm function

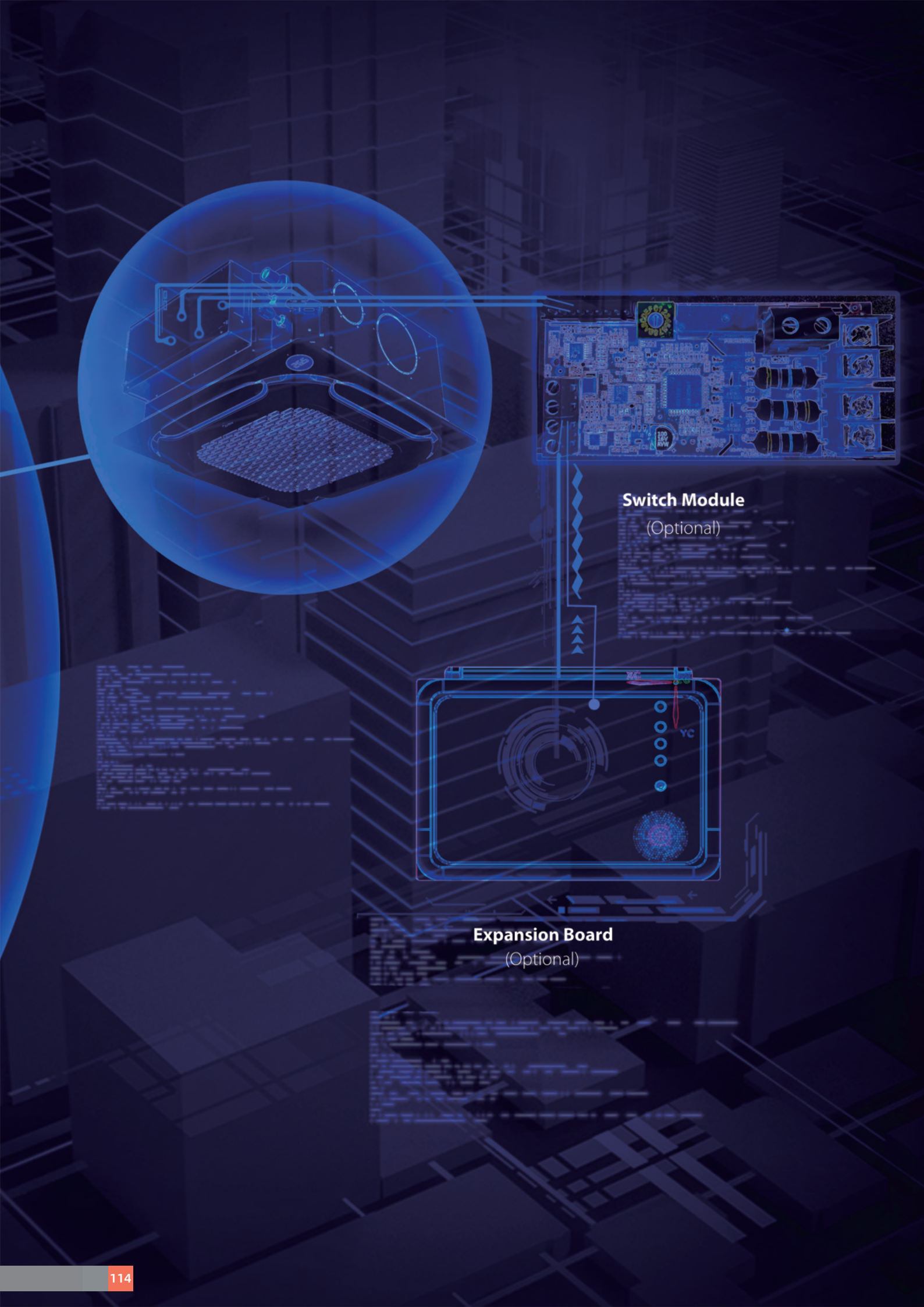
Humidifier/ Dehumidifier connection

Third-party controller connection

CO_2 sensor connection

PM2.5 sensor connection

Refrigerant leak sensor connection


Switch Module
(Optional)
Expansion Board
(Optional)

Free drainage

Quiet operation

High-lift drain pump

One-Way Cassette

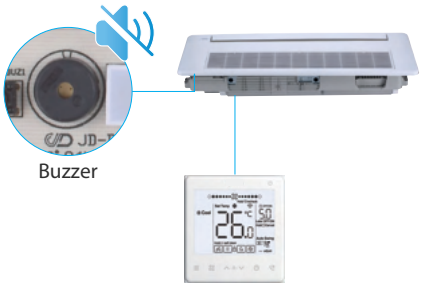
COMFORT

Digital Display On/Off

Indoor unit displays can be shut off at night, creating a better environment for rest.

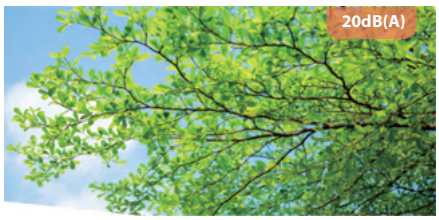
Buzzer Sound On/Off.

Indoor unit buzzer sound can be set off to not disturb the user, creating a quieter environment.



Quiet Operation

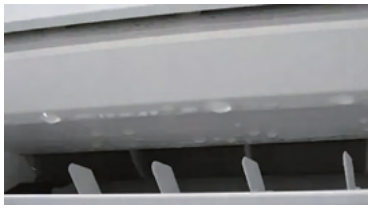
By optimizing the design of fan motor, air duct and heat exchanger, the new duct operates with noise as low as 22dB(A), creating a quieter and more comfortable environment



HEALTH

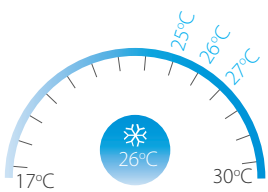
Automatic anti-condensation

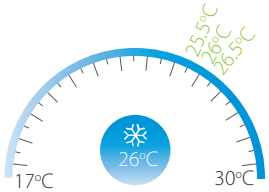
The One-way Cassette can automatically enter and exit the anti-condensation mode by detecting its own operation data;
In the anti-condensation mode, the machine can change the outlet angle of the guide vane intermittently to prevent the local temperature difference of the guide panel from being too large and avoid the occurrence of condensation.



0.5°C/1°C Setting Temperature Adjustment

Set temperature can be adjusted in 0.5°C or 1°C steps, enabling precise comfort control.

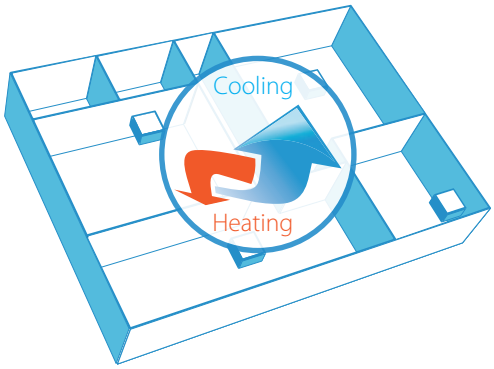




WIDER APPLICATION

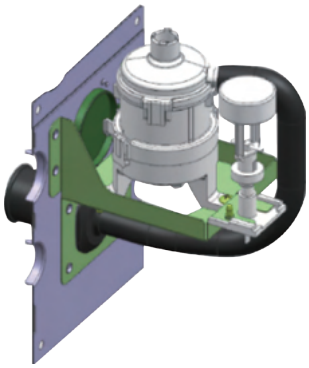
Auto Cooling-heating Changeover

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



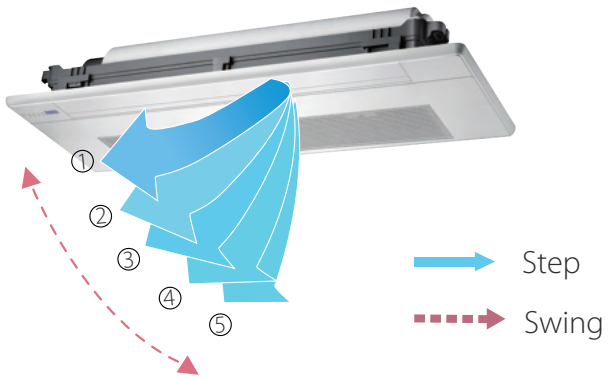
Digital feedback DC water pump

Digital feedback DC water pump: actively sense the pump speed and water flow to determine whether there is jamming attenuation or damage, and give early warning to avoid water leakage.



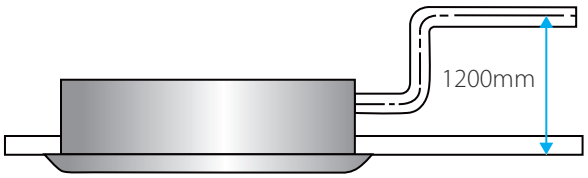
Multiple Steps Vertical Swing

There are 5-steps louver control makes the air flow direction more precisely. In addition, the auto swing mode can better meet different customer needs. Air supply angle 25-80°.



High-lift drain pump

A drain pump with a 1200mm raise height is fitted as standard, simplifying installation of the drain piping.



One-Way Cassette

Model name			ALR-V8SC006D11(A)	ALR-V8SC007D11(A)	ALR-V8SC009D11(A)	ALR-V8SC012D11(A)
Power supply			1-phase, 220-240V, 50Hz			
Cooling[1]	Capacity	kW	1.8	2.2	2.8	3.6
		kBut/h	6.1	7.5	9.6	12.3
	Input	W	15	19	27	29
Heating[2]	Capacity	kW	2.2	2.6	3.2	4.0
		kBut/h	7.5	8.9	10.9	13.6
	Input	W	15	19	27	29
Airflow rate[3]		m^3/h	300/283/266/250/233/216/200	400/375/350/325/300/275/250	550/516/483/450/416/383/350	550/516/483/450/416/383/350
Sound pressure level[4]		dB(A)	28/27/26/26/25/24/24	32/30/29/28/27/26/25	33/31/30/29/28/27/26	36/34/33/32/30/29/28
Unit	Net dimensions[5] (WxHxD)	mm	700x130x425	700x130x425	900x130x425	900x130x425
	Packed dimensions (WxHxD)	mm	880x225x510	880x225x510	1080x225x510	1080x225x510
	Net/Gross weight	kg	9.6/11.9	9.6/11.9	11.2/13.8	12.2/14.7
Pipe connections	Liquid/Gas pipe	mm	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Ø6.35/Ø12.7
	Drain pipe	mm	OD Ø25			

Model name			ALR-V8SC016D11(A)	ALR-V8SC020D11(A)	ALR-V8SC024D11(A)
Power supply			1-phase, 220-240V, 50Hz		
Cooling[1]	Capacity	kW	4.5	5.6	7.1
		kBut/h	15.4	19.1	24.2
	Input	W	30	40	52
Heating[2]	Capacity	kW	5.0	6.3	8.0
		kBut/h	17.1	21.5	27.3
	Input	W	30	40	52
Airflow rate[3] (0Pa)		m^3/h	850/791/733/675/616/558/500	1000/941/883/825/766/708/650	1050/1000/950/900/850/800/750
Sound pressure level[4](0Pa)		dB(A)	39/37/36/35/34/33/32	45/43/42/40/39/37/36	47/45/44/43/42/41/40
Unit	Net dimensions[5] (W×H×D)	mm	1200x130x425	1200x130x425	1200x130x425
	Packed dimensions (W×H×D)	mm	1280x225x510	1280x225x510	1280x225x510
	Net/Gross weight	kg	14.3/17.7	15.5/18.8	15.5/18.8
Pipe connections	Liquid/Gas pipe	mm	Φ9.52/Φ15.9	Φ9.52/Φ15.9	Φ9.52/Φ15.9
	Drain pipe	mm	OD Ø25		

Note:

Net dimensions without water tray. These products are under development and the specifications are subject to change.

One-Way Cassette

Model name			ALR-V8SC006D11	ALR-V8SC007D11	ALR-V8SC009D11	ALR-V8SC012D11	ALR-V8SC016D11	ALR-V8SC020D11	ALR-V8SC024D11
Power supply			1-phase, 220-240V, 50Hz						
Cooling[1]	Capacity	kW	1.8	2.2	2.8	3.6	4.5	5.6	7.1
		kBut/h	6.1	7.5	9.6	12.3	15.4	19.1	24.2
	Input	W	25	25	30	30	40	48	60
Heating[2]	Capacity	kW	2.2	2.6	3.2	4.0	5.0	6.3	8.0
		kBut/h	7.5	8.9	10.9	13.6	17.1	21.5	27.3
	Input	W	25	25	30	30	40	48	60
Airflow rate[3]		m³/h	380/355/330/300/286/263/240		460/440/410/380/355/330/300		693/662/638/600/556/510/476	792/763/728/688/643/589/549	933/873/815/749/689/637/592
Sound pressure level[4]		dB(A)	30/28/27/26/25/24/22		37/36/35/34/32/31/30	38/37/35/34/32/31/30	39/37/36/35/34/32/31	41/39/38/37/36/35/33	43/41/40/39/37/36/35
Sound power level		dB(A)	44/42/41/40/39/38/36		51/50/49/48/46/45/44	52/51/49/48/46/45/44	53/51/50/49/48/46/45	55/53/52/51/50/49/47	57/55/54/53/51/50/49
indoor unit	Net dimensions[5] (W×H×D)	mm	1054×153×428				1275×189×452		
	Net dimensions(no water tray)(W×H×D)	mm	1054×141×428				1275×176×452		
	Packed dimensions (W×H×D)	mm	1155×245×490				1370×295×505		
	Net/Gross weight	kg	11.5/14.5		11.8/14.8		15.8/20.2		16.9/21.4
Panel	Net dimensions (W×H×D)	mm	1180×25×465				1350×25×505		
	Packed dimensions (W×H×D)	mm	1232×107×517				1410×95×560		
	Net/Gross weight	kg	3.5/4.7				4/5.6		
Refrigerant type			R410A	R410A	R410A	R410A	R410A	R410A	R410A
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7						Φ9.52/Φ15.9
	Drain pipe	mm	OD Φ25						

Notes:
1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Each model's 7 airflow rate options are listed in order, from highest to lowest.
4. Each model's 7 sound pressure levels are listed in order from highest to lowest and correspond to the model's 7 airflow rate options (see Note 3). Sound pressure level is measured 1.4m below the unit in a anechoic chamber.
5. Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.
6. These products are under development and the specifications are always subject to change.

Free drainage

Quiet operation

High-lift drain pump

Two-Way Cassette

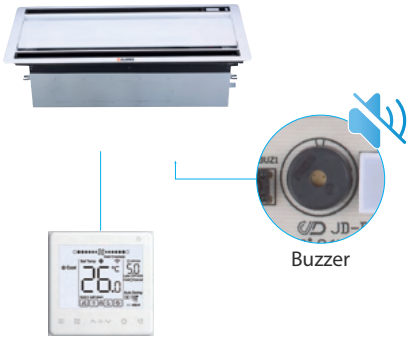
COMFORT

Digital Display On/Off

Indoor unit displays can be shut off at night, creating a better environment for rest.

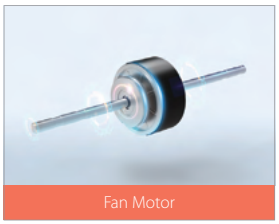
Buzzer Sound On/Off

Indoor unit buzzer sound can be set off to not disturb the user, creating a quieter environment.



Quiet Operation

The fan motor and water pump are DC power supply, which is more energy-saving and silent than AC power supply, creating a more quiet and comfortable environment


Fan Motor


Drain Pump

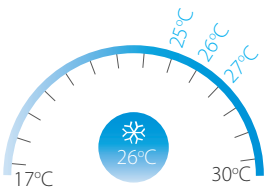
HEALTH

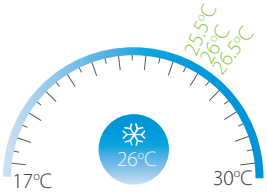
Automatic anti-condensation

The Two-way Cassette can automatically enter and exit the anti-condensation mode by detecting its own operation data;
In the anti-condensation mode, the machine can change the outlet angle of the guide vane intermittently to prevent the local temperature difference of the guide panel from being too large and avoid the occurrence of condensation.

0.5°C/1°C Setting Temperature Adjustment

Set temperature can be adjusted in 0.5°C or 1°C steps, enabling precise comfort control.

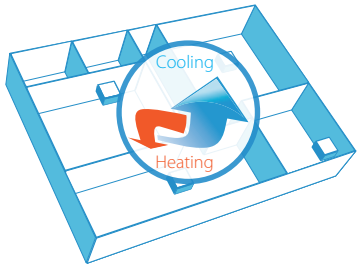




WIDER APPLICATION

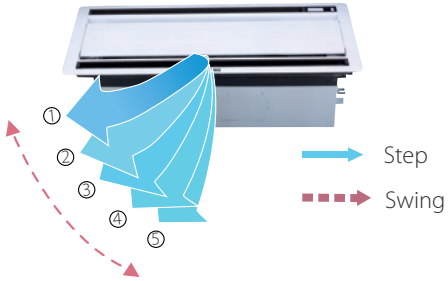
Auto Cooling-heating Changeover

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



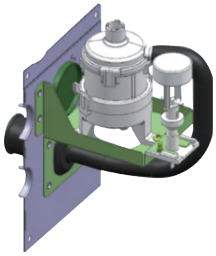
Multiple Steps Vertical Swing

There are 5-steps louver control makes the air flow direction more precisely. In addition, the auto swing mode can better meet different customer needs. Air supply angle 35-65 °.



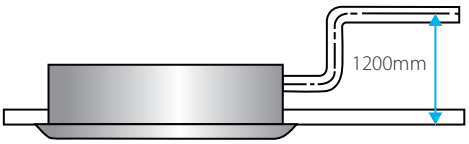
Digital feedback DC water pump

Digital feedback DC water pump: actively sense the pump speed and water flow to determine whether there is jamming attenuation or damage, and give early warning to avoid water leakage.



High-lift drain pump

A drain pump with a 1200mm raise height is fitted as standard, simplifying installation of the drain piping.



Two-way Cassette

Model name			ALR-V8TC007D11	ALR-V8TC009D11	ALR-V8TC012D11	ALR-V8TC016D11	ALR-V8TC020D11	ALR-V8TC024D11
Power supply			1-phase, 220-240V, 50Hz					
Cooling[1]	Capacity	kW	2.2	2.8	3.6	4.5	5.6	7.1
		kBut/h	7.5	9.6	12.3	15.4	19.1	24.2
	Input	W	35	40	40	50	69	98
Heating[2]	Capacity	kW	2.6	3.2	4	5	6.3	8
		kBut/h	8.9	10.9	13.6	17.1	21.5	27.3
	Input	W	35	40	40	50	69	98
Airflow rate[3]		m³/h	654/612/571/530/488/449/410	654/612/571/530/488/449/410	725/679/641/591/554/509/458	850/792/731/670/631/592/550	980/925/855/800/755/702/670	1200/1115/1068/1000/921/808/770
Sound pressure level[4]		dB(A)	33/31/30/29/27/25/24	33/31/30/29/27/25/24	35/33/32/30/29/27/25	37/36/35/34/32/31/30	39/37/36/35/33/31/30	44/42/41/40/38/36/34
Sound power level		dB(A)	49/47/46/45/43/41/40	49/47/46/45/43/41/40	51/49/48/46/45/43/41	53/52/51/50/48/47/46	55/53/52/51/49/47/46	60/58/57/56/54/52/50
indoor unit	Net dimensions[5] (W×H×D)	mm	1172×299×591					
	Packed dimensions (W×H×D)	mm	1355×400×675					
	Net/Gross weight	kg	29.7/36.3			31.6/38.2		
Panel	Net dimensions (W×H×D)	mm	1430×53×680					
	Packed dimensions (W×H×D)	mm	1525×130×765					
	Net/Gross weight	kg	11/15			11/15		
Refrigerant type			R410A	R410A	R410A	R410A	R410A	R410A
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7					Φ9.52/Φ15.9
	Drain pipe	mm	OD Φ32					

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
4. Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.4m below the unit in a anechoic chamber.
5. The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.

Compact design

360° airflow

High ceiling installation

Individual louver control

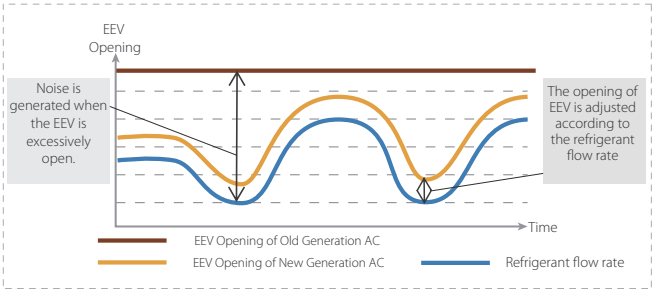
Healthy air supply

Compact Four-Way Cassette

COMFORT

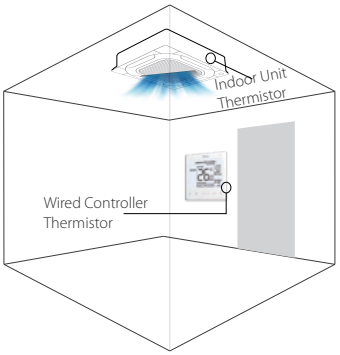
EEV automatic adjustment

When in heating standby mode, the indoor unit automatically adjusts the EEV opening according to the load to eliminate noise of refrigerant flowing.



Two thermistors control

The indoor temperature can be checked using the thermistor in the wired controller as well as from the indoor unit



Human Detect Sensor*

Using millimeter-wave radar sensor controller automatically turns indoor units on or off upon detecting that the room is occupied or unoccupied, ensuring climate control whilst minimizing energy consumption.

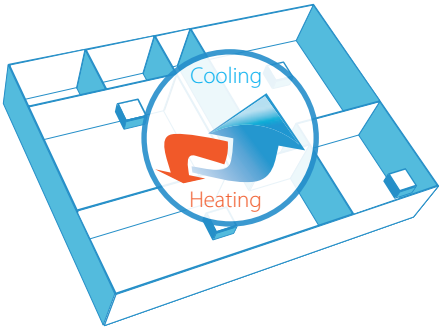
The indoor unit automatically runs when detecting human body

The indoor unit automatically stops when detecting absence

*This function is available as a customization option for Alarko Compact Four Way Cassette.

Auto Cooling-heating Changeover

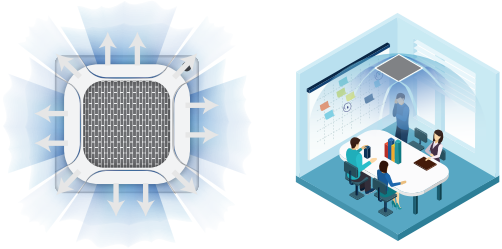
Automatically selects cooling or heating mode to achieve the set temperature.



AIR FLOW

360° Airflow

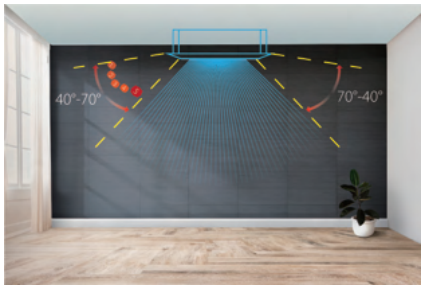
New design, round airflow path ensures uniform airflow and temperature distribution.



The continuous air supply port air supply area increases by 20%

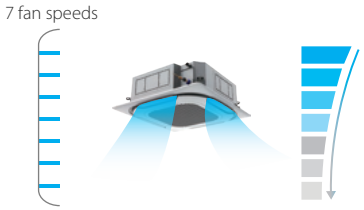
Multiple Steps Vertical Swing

The Compact Four-way Cassette unit has a wide range of airflow angles from 40° to70° and is equipped with a 5-step louver control and auto swing mode to better meet the needs of different customers



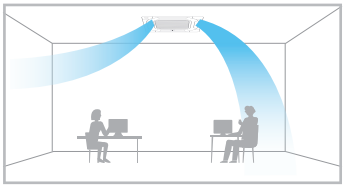
7 Fan Speeds

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



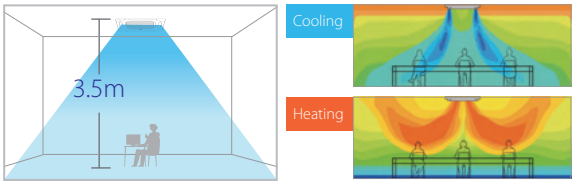
Individual Louver Control

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



Long Distance Air Delivery

The Compact Four-way Cassette has an additional 30Pa static pressure for long airflow delivery and is capable of being used in spaces up to 3.5m in floor height.



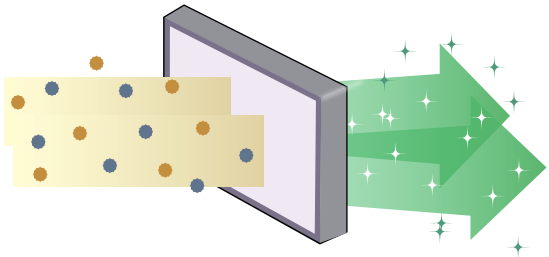
Soft Wind Mode

Supplies air against the ceiling to create windless environment.

HEALTH

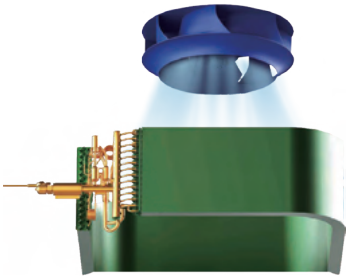
Optional F6-class Air Filter

The Compact Four-way Cassette supports 30Pa external static pressure for the F6-class filter installation. Filtering effect of the F6-class filter reaches up to 80% against particles (particle size > 1μm), creating a cleaner living environment.



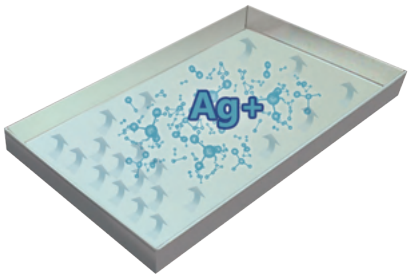
Mildew proof of heat exchanger

When the indoor unit is turned off in cooling mode, the fan is still on, and dry the heat exchanger to avoid mold on the heat exchanger.



Silver Ions drain pan (optional)

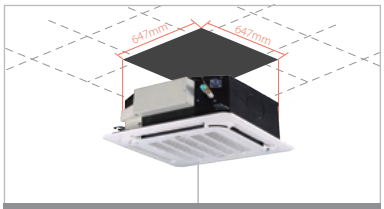
Slow-released nano-silver ions can keep the drain pan free of mold for a long time.



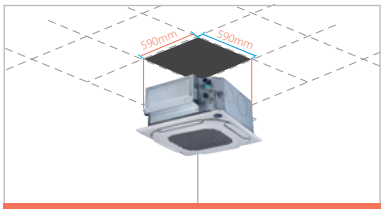
EASY INSTALLATION

Compact and stylish design

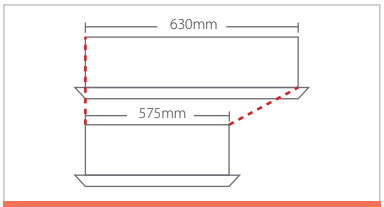
New Compact Four-way Cassette panel size is fit into the ceiling tile(620mm×620mm), making installation easier.



Cut ceiling tile to install



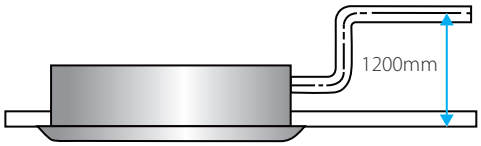
Pull out an gusset plate to install



Reduced by 55mm

High-lift drain pump

A drain pump with a 1200mm raise height is fitted as standard, simplifying installation of the drain piping.

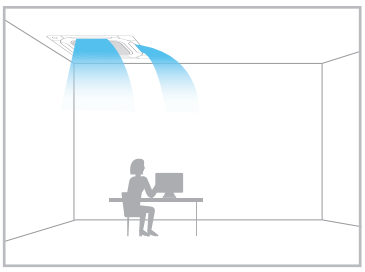


Water level switch

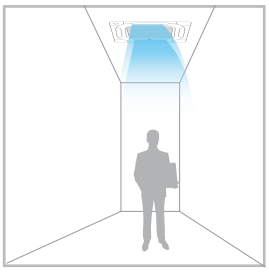
When the drain pipe is blocked or the drain pipe is poor, the water level switch is turned off, and there is no need to worry about overflowing the ceiling.

Air baffle fittings for irregular rooms

Some air discharge ports can be blocked with air baffle to optimize air distribution in irregular shaped rooms. Air outlets can be blocked with accessories, which can be found in the packing material.



At the corner



In the narrow room

SPECIFICATIONS

Compact Four-way Cassette

Model			ALR-V8CC005D11	ALR-V8CC007D11	ALR-V8CC009D11	ALR-V8CC012D11
Power supply			1-phase, 220-240V, 50Hz			
Cooling[1]	Capacity	kW	1.5	2.2	2.8	3.6
		kBtu/h	5.1	7.5	9.6	12.3
	Power input	W	14	14	16	18
Heating[2]	Capacity	kW	1.8	2.4	3.2	4.0
		kBtu/h	6.1	8.2	10.9	13.7
	Power input	W	14	14	16	18
Air flow rate[3]		m^3/h	450/425/400/370/345/320/295		510/480/455/425/395/370/340	530/500/470/440/405/375/345
Sound pressure level[4]		dB(A)	29/28/27/27/26/26/25		30/29/28/27/26/26/25	31/30/29/28/27/26/25.5
Sound power level		dB(A)	40/39/39/39/38/38/38		42/41/40/39/39/38/38	42/40/39/38/38/38/38
Main body	Net dimensions[5] (W×H×D)	mm	575×235×638			
	Packed dimensions (W×H×D)	mm	690×285×690			
	Net/Gross weight	kg	13.0/15.5			14.0/16.5
Panel	Net dimensions[6] (W×H×D)	mm	620×65×620			
	Packed dimensions (W×H×D)	mm	680×80×665			
	Net/Gross weight	kg	2.3/3.0			
Refrigerant type			R410A			
Pipe connections	Liquid/Gas pipe	mm	Ø6.35/Ø12.7			
	Drain pipe	mm	OD Ø25			

Model			ALR-V8CC016D11	ALR-V8CC020D11	ALR-V8CC022D11
Power supply			1-phase, 220-240V, 50Hz		
Cooling[1]	Capacity	kW	4.5	5.6	6.3
		kBtu/h	15.4	19.1	21.5
	Power input	W	25	35	50
Heating[2]	Capacity	kW	5.0	6.3	7.1
		kBtu/h	17.1	21.5	24.2
	Power input	W	25	35	50
Air flow rate[3]		m^3/h	640/605/570/530/495/460/425	810/765/720/670/625/580/535	905/855/805/755/705/655/605
Sound pressure level[4]		dB(A)	36.5/35/33/31/29/28/26.5	39/38/37/36/35/34/32	43/42/40/38/36/35/33.5
Sound power level		dB(A)	44/44/43/42/41/41/41	48/46/45/43/42/42/41	51/50/48/46/45/44/42
Main body	Net dimensions[5] (W×H×D)	mm	575×235×638		
	Packed dimensions (W×H×D)	mm	690×285×690		
	Net/Gross weight	kg	14.0/16.5	15.0/17.5	
Panel	Net dimensions[6] (W×H×D)	mm	620×65×620		
	Packed dimensions (W×H×D)	mm	680×80×665		
	Net/Gross weight	kg	2.3/3.0		
Refrigerant type			R410A		
Pipe connections	Liquid/Gas pipe	mm	Ø6.35/Ø12.7		Ø9.52/Ø15.9
	Drain pipe	mm	OD Ø25		

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
4. Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in an anechoic chamber.
5. The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.
6. Exposed height of the panel after being installed on the ceiling.

360°
360° airflow

Individual louver control

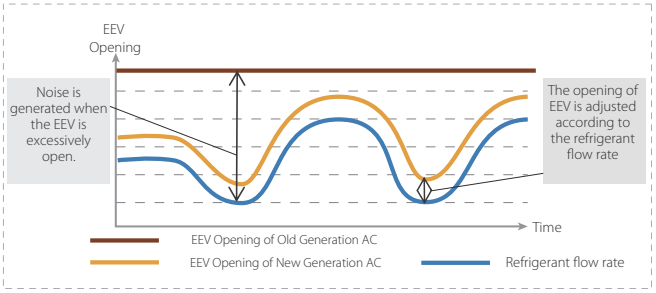
Healthy air supply

Four-Way Cassette

COMFORT

EEV automatic adjustment

When in heating standby mode, the indoor unit automatically adjusts the EEV opening according to the load to eliminate noise of refrigerant flowing.



Human Detect Sensor*

Using millimeter-wave radar sensor controller automatically turns indoor units on or off upon detecting that the room is occupied or unoccupied, ensuring climate control whilst minimizing energy consumption.

The indoor unit automatically runs when detecting human body

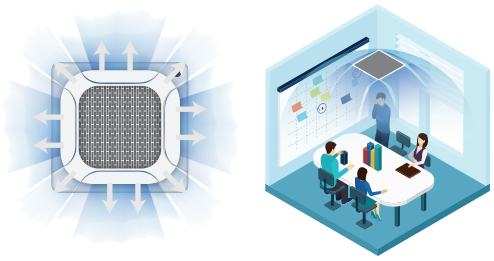
The indoor unit automatically stops when detecting absence

*This function is available as a customization option for Alarko Four Way Cassette.

AIR FLOW

360° Airflow

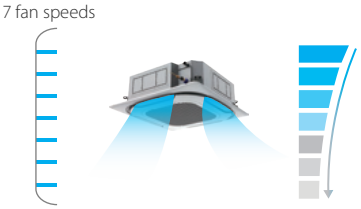
New design, round airflow path ensures uniform airflow and temperature distribution.



The continuous air supply port air supply area increases by 20%

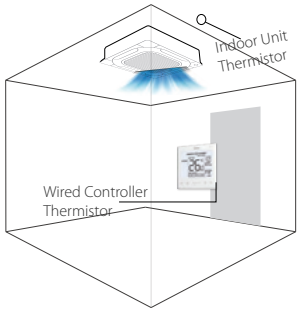
7 Fan Speeds

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



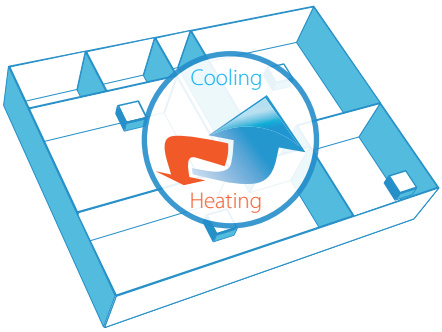
Two thermistors control

The indoor temperature can be checked using the thermistor in the wired controller as well as from the indoor unit



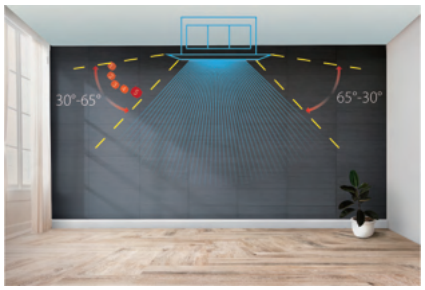
Auto Cooling-heating Changeover

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



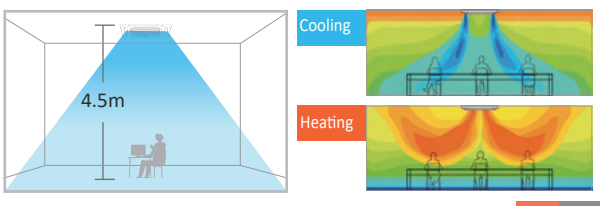
Multiple Steps Vertical Swing

The Four-way Cassette unit has a wide range of airflow angles from 30° to 65° and is equipped with a 5-step louver control and auto swing mode to better meet the needs of different customers



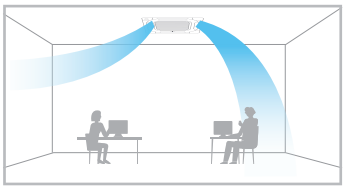
Long Distance Air Delivery

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.



Individual Louver Control

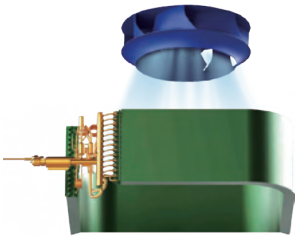
The Individual louver control can control the motors separately, making it possible to control all four louvers independently.



HEALTH

Mildew proof of heat exchanger

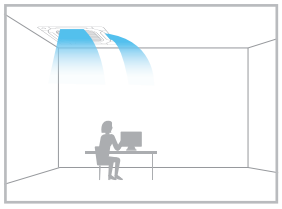
When the indoor unit is turned off in cooling mode, the fan is still on, and dry the heat exchanger to avoid mold on the heat exchanger.



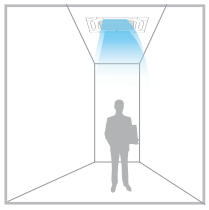
EASY INSTALLATION

Air baffle fittings for irregular rooms

Some air discharge ports can be blocked with air baffle to optimize air distribution in irregular shaped rooms. Air outlets can be blocked with accessories, which can be found in the packing material.



At the corner



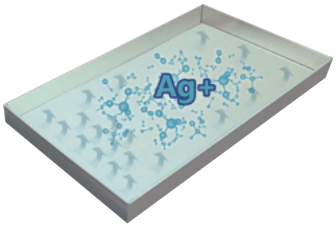
In the narrow room

Soft Wind Mode

Supplies air against the ceiling to create windless environment.

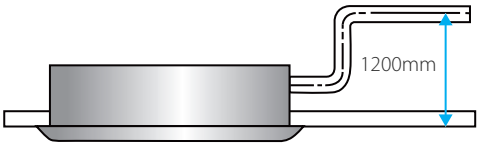
Silver Ions drain pan (optional)

Slow-released nano-silver ions can keep the drain pan free of mold for a long time.



High-lift drain pump

A drain pump with a 1200mm raise height is fitted as standard, simplifying installation of the drain piping.



Water level switch

When the drain pipe is blocked or the drain pipe is poor, the water level switch is turned off, and there is no need to worry about overflowing the ceiling.

SPECIFICATIONS

Four-way Cassette

Model			ALR-V8RC009D11	ALR-V8RC012D11	ALR-V8RC016D11	ALR-V8RC020D11
Power supply			1-phase, 220-240V, 50Hz			
Cooling[1]	Capacity	kW	2.8	3.6	4.5	5.6
		kBtu/h	9.6	12.3	15.4	19.1
	Power input	W	17.0	17.0	23	23
Heating[2]	Capacity	kW	3.2	4.0	5.0	6.3
		kBtu/h	10.9	13.7	17.1	21.5
	Power input	W	17.0	17.0	23	23
Air flow rate[3] (0Pa)		m^3/h	790/740/691/641/591/542/492	790/740/691/641/591/542/492	840/787/733/680/626/573/519	840/791/741/692/642/593/543
Sound pressure level[4] (0Pa)		dB(A)	30/29/28/27.5/27/26/25	30/29/28/27.5/27/26/25	33/32/31/30/29/28/27	33/32/31/30/29/28/27
Sound power level		dB(A)	43/42/41/41/40/39/39	44/43/42/42/41/40/39	49/48/47/46/45/44/43	49/48/48/47/46/45/44
Main body	Net dimensions[5] (W×H×D)	mm	840×204×840			
	Packed dimensions (W×H×D)	mm	940×250×940			
	Net/Gross weight	kg	18/20.8		19.5/22.4	
Panel	Net dimensions[6] (W×H×D)	mm	950×53×950			
	Packed dimensions (W×H×D)	mm	1030×95×1030			
	Net/Gross weight	kg	5.6/8.0			
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7			
	Drain pipe	mm	OD Ø25			

Model			ALR-V8RC024D11	ALR-V8RC028D11	ALR-V8RC030D11
Power supply			1-phase, 220-240V, 50Hz		
Cooling[1]	Capacity	kW	7.1	8.0	9.0
		kBtu/h	24.2	27.3	30.7
	Power input	W	31	41	43
Heating[2]	Capacity	kW	8.0	9.0	10.0
		kBtu/h	27.3	30.7	34.1
	Power input	W	31	41	43
Air flow rate[3] (0Pa)		m^3/h	1000/943/886/829/772/715/658	1330/1239/1148/1057/965/874/783	1330/1239/1148/1057/965/874/783
Sound pressure level[4] (0Pa)		dB(A)	37/36/34/33/32/30/29	38/37/35/34/32/31/29	38/37/35/34/32/31/29
Sound power level		dB(A)	51/50/49/48/47/46/46	53/52/51/50/49/48/47	54/53/52/51/50/49/48
Main body	Net dimensions[5] (W×H×D)	mm	840×246×840		
	Packed dimensions (W×H×D)	mm	940×295×940		
	Net/Gross weight	kg	22/25.4		
Panel	Net dimensions[6] (W×H×D)	mm	950×53×950		
	Packed dimensions (W×H×D)	mm	1030×95×1030		
	Net/Gross weight	kg	5.6/8.0		
Pipe connections	Liquid/Gas pipe	mm	Φ9.52/Φ15.9		
	Drain pipe	mm	OD Ø25		

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
4. Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in an anechoic chamber.
5. The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.
6. Exposed height of the panel after being installed on the ceiling.

Four-way Cassette

Model			ALR-V8RC034D11	ALR-V8RC040D11	ALR-V8RC048D11
Power supply			1-phase, 220-240V, 50Hz		
Cooling[1]	Capacity	kW	10.0	11.2	14
		kBtu/h	34.1	38.2	47.8
	Power input	W	54	61	89
Heating[2]	Capacity	kW	11.2	12.5	16.0
		kBtu/h	38.2	42.7	54.6
	Power input	W	54	61	89
Air flow rate[3] (0Pa)		m^3/h	1445/1363/1282/1200/1118/1037/955	1600/1497/1393/1290/1186/1083/979	1730/1624/1518/1412/1306/1200/1094
Sound pressure level[4] (0Pa)		dB(A)	39/38/37/36/35/34/33	41/40/38/37/36/34/33	43/42/40/39/37/36/34
Sound power level		dB(A)	54/53/52/51/50/50/49	57/56/55/54/53/52/51	58/57/56/55/54/53/52
Main body	Net dimensions[5] (W×H×D)	mm	840×288×840		
	Packed dimensions (W×H×D)	mm	940×335×940		
	Net/Gross weight	kg	24/27.7		26.5/30.1
Panel	Net dimensions[6] (W×H×D)	mm	950×53×950		
	Packed dimensions (W×H×D)	mm	1030×95×1030		
	Net/Gross weight	kg	5.6/8.0		
Pipe connections	Liquid/Gas pipe	mm	Φ9.52/Φ15.9		
	Drain pipe	mm	OD Ø25		

Model			ALR-V8RC054D11	ALR-V8RC060D11
Power supply			1-phase, 220-240V, 50Hz	
Cooling[1]	Capacity	kW	16	18
		kBtu/h	54.6	61.4
	Power input	W	110	145
Heating[2]	Capacity	kW	18	20
		kBtu/h	61.4	68.2
	Power input	W	110	145
Air flow rate[3] (0Pa)		m^3/h	2100/1900/1760/1630/1500/1380/1270	2300/2140/1960/1770/1600/1430/1270
Sound pressure level[4] (0Pa)		dB(A)	48/46/44/43/41/39/37	52/49/47/45/42/39/38
Sound power level		dB(A)	57/56/54/52/50/47/46	60/58/56/54/52/49/46
Main body	Net dimensions[5] (W×H×D)	mm	950×300×950	
	Packed dimensions (W×H×D)	mm	1050×350×1050	
	Net/Gross weight	kg	32.6/37.2	32.7/37.3
Panel	Net dimensions[6] (W×H×D)	mm	1050×55×1050	
	Packed dimensions (W×H×D)	mm	1115×100×1115	
	Net/Gross weight	kg	7.4/9.7	
Pipe connections	Liquid/Gas pipe	mm	Φ9.52/Φ15.9	Φ9.52/Φ19.1
	Drain pipe	mm	OD Ø25	

Notes:

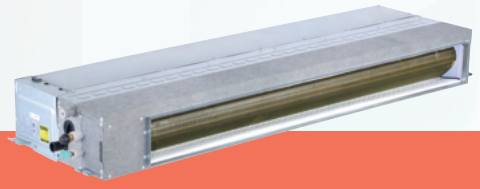
1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
4. Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in an anechoic chamber.
5. The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.
6. Exposed height of the panel after being installed on the ceiling.

Ultra-thin height

Quiet operation

Healthy air supply

Constant air volume

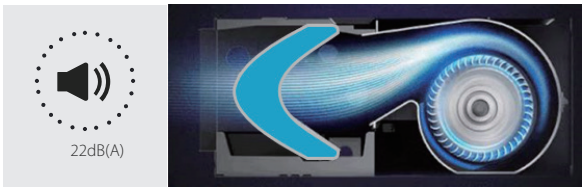


Arc Duct

COMFORT

Quiet Operation

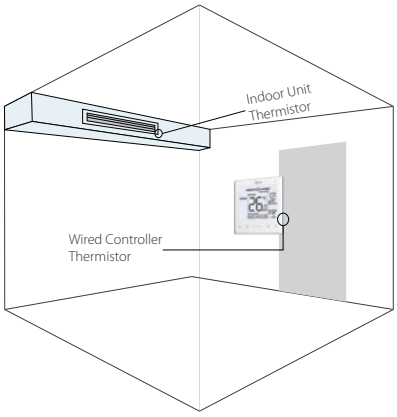
By optimizing the design of fan motor, air duct and heat exchanger, the new duct operates with noise as low as 22dB(A), creating a quieter and more comfortable environment.



- Fan motor noise reduction
- Air duct noise reduction
- Heat exchanger noise reduction

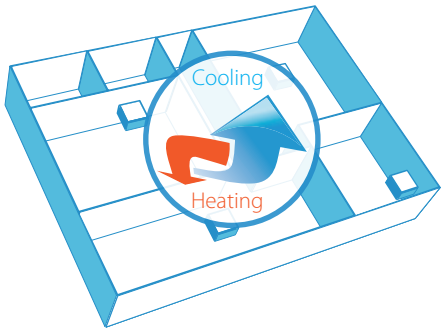
Two thermistors control

The indoor temperature can be checked using the thermistor in the wired controller as well as from the indoor unit



Auto Cooling-heating Changeover

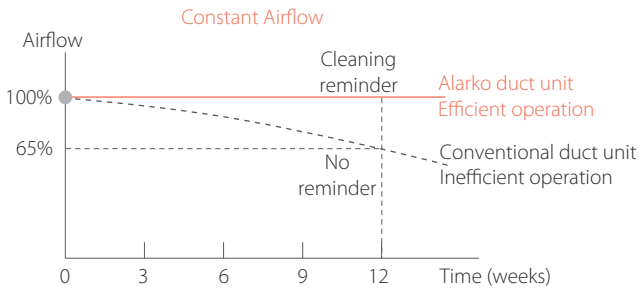
Automatically selects cooling or heating mode to achieve the set temperature.



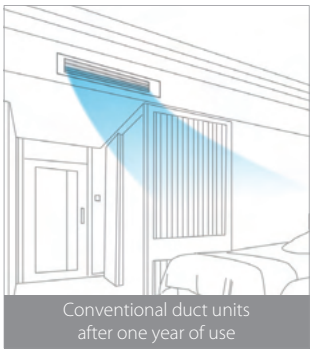
AIR FLOW

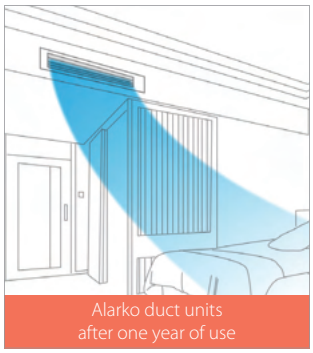
Constant Airflow

Constant airflow technology can realize the airflow output is not affected by installation conditions and use conditions, ensuring the constant airflow supply.



*Data measured in the UX lab

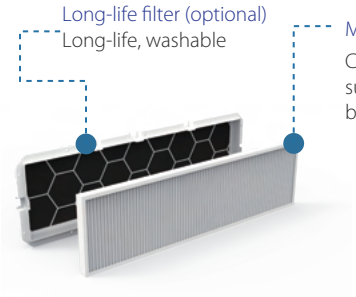

Conventional duct units
after one year of use

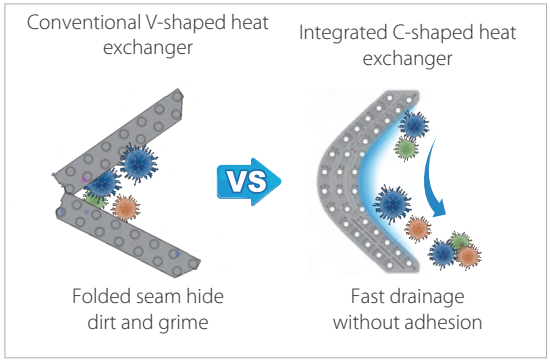

Alarko duct units
after one year of use

HEALTH

Healthy Air Supply

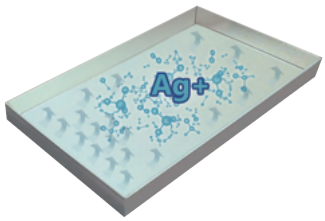
The Arc Duct unit adopts an integrated C-shaped heat exchanger that allows for fast drainage and no dust or ash accumulation. The optional long-life filter, medium-life filter further enhance the air quality of the air supply and create a healthy environment.





Silver Ions drain pan (optional)

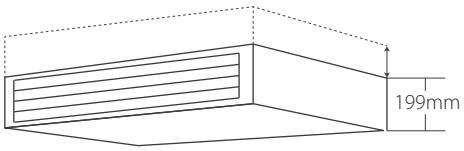
Slow-released nano-silver ions can keep the drain pan free of mold for a long time.



EASY INSTALLATION

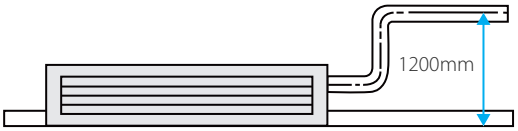
Ultra-thin Body

Ultra-thin body design, the body height of the whole series is only 199mm, greatly saving space and more flexible installation.



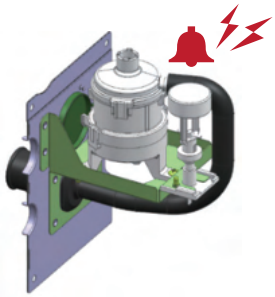
High-lift drain pump

A drain pump with a 1200mm raise height is fitted as standard, simplifying installation of the drain piping.



Fault Feedback

Early warning of drain pump fault.



SPECIFICATIONS

Arc Duct

Model			ALR-V8DL005D11	ALR-V8DL007D11
Power supply			1-phase, 220-240V, 50Hz	
Cooling[1]	Capacity	kW	1.5	2.2
		kBtu/h	5.1	7.5
	Power input	W	21	22
Heating[2]	Capacity	kW	1.8	2.5
		kBtu/h	6.1	8.5
	Power input	W	21	22
Air flow rate[3]		m³/h	340/335/329/320/307/298/290	370/347/339/322/314/ 306/295
External static pressure[4]		Pa	10 (10-50)	
Sound pressure level[5]		dB(A)	27/26/25.5/24.5/23.5/ 22.5/22	28/27.5/26.5/25.5/24.5/23.5/22.0
Sound power level		dB(A)	43.5/43/42.5/42/41.5/41/40	46/45/44/43/42/41/40
Unit	Net dimensions[6] (W×H×D)	mm	550×199×450	
	Packed dimensions (W×H×D)	mm	715×255×525	
	Net/Gross weight	kg	11.5/13.5	
Refrigerant type			R410A	
Pipe connections	Liquid/Gas pipe	mm	Ø6.35/Ø12.7	
	Drain pipe	mm	OD Ø25	

Model			ALR-V8DL009D11	ALR-V8DL012D11	ALR-V8DL016D11
Power supply			1-phase, 220-240V, 50Hz		
Cooling[1]	Capacity	kW	2.8	3.6	4.5
		kBtu/h	9.6	12.3	15.4
	Power input	W	28	31	43
Heating[2]	Capacity	kW	3.2	4	5
		kBtu/h	10.9	13.7	17.1
	Power input	W	28	31	43
Air flow rate[3]		m³/h	460/431/413/380/351/ 323/300	605/557/508/453/414/ 365/320	800/770/701/629/557/ 506/435
External static pressure[4]		Pa	10 (10-50)		
Sound pressure level[5]		dB(A)	30/29.5/28.5/27.5/26/24.5/22	30/29.5/28.5/27.5/ 26.5/25.5/25	33/32.5/32/30.5/29/ 27.5/26
Sound power level		dB(A)	50.5/49/47/45.5/43.5/42/40	50.5/49.5/48/47/45.5/44.5/43	52/50.5/49/47.5/46/44.5/43
Unit	Net dimensions[6] (W×H×D)	mm	550×199×450	700×199×450	900×199×450
	Packed dimensions (W×H×D)	mm	715×255×525	865×255×525	1065×255×525
	Net/Gross weight	kg	11.5/13.5	13.0/15.5	16.5/19.5
Refrigerant type			R410A		
Pipe connections	Liquid/Gas pipe	mm	Ø6.35/Ø12.7		
	Drain pipe	mm	OD Ø25		

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
4. Stable operation external static pressure range. (Note: setting external static pressure outside the unit's optimal static pressure range may lead to higher noise levels and lower airflow rate. For the optimal external static pressure range refer to the unit's installation manual.)
5. Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in an anechoic chamber.
6. The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.

SPECIFICATIONS

Arc Duct

Model			ALR-V8DL020D11	ALR-V8DL024D11	ALR-V8DL028D11
Power supply			1-phase, 220-240V, 50Hz		
Cooling[1]	Capacity	kW	5.6	7.1	8
		kBtu/h	19.1	24.2	27.3
	Power input	W	58	65	108
Heating[2]	Capacity	kW	6.3	8	9
		kBtu/h	21.5	27.3	30.7
	Power input	W	58	65	108
Air flow rate[3]		m^3/h	900/800/761/682/603/ 549/470	1145/1033/957/860/763/671/580	1400/1327/1249/1175/1095/1026/960
External static pressure[4]		Pa	10 (10-50)	10 (10-50)	20(10-80)
Sound pressure level[5]		dB(A)	36/34.5/33.5/32.5/ 31/29/27	37/35/34/32.5/31/30/29	36.5/35.5/34.5/33/ 32/31.5/30.5
Sound power level		dB(A)	56/54/52/50/48/46/44	57/55.5/54/52/50.5/49/47	57/56/54.5/53.5/52/51/49.5
Unit	Net dimensions[6] (W×H×D)	mm	900×199×450	1100×199×450	1600×199×450
	Packed dimensions (W×H×D)	mm	1065×255×525	1300×255×525	1780×250×525
	Net/Gross weight	kg	16.5/19.5	20/23.5	28/32.5
Refrigerant type			R410A		
Pipe connections	Liquid/Gas pipe	mm	Ø6.35/Ø12.7	Ø9.52/Ø15.9	Ø9.52/Ø15.9
	Drain pipe	mm	OD Ø25		

Model			ALR-V8DL030D11	ALR-V8DL040D11
Power supply			1-phase, 220-240V, 50Hz	
Cooling[1]	Capacity	kW	9	11.2
		kBtu/h	30.7	38.2
	Power input	W	108	128
Heating[2]	Capacity	kW	10	12.5
		kBtu/h	34.1	42.7
	Power input	W	108	128
Air flow rate[3]		m^3/h	1400/1327/1249/1175/1095/1026/960	1620/1522/1433/1343/1254/1170/1080
External static pressure[4]		Pa	20(10-80)	
Sound pressure level[5]		dB(A)	36.5/35.5/34/33/ 32/31.5/30.5	39.5/38/36.5/35/34/ 32.5/31.5
Sound power level		dB(A)	57/56/54.5/53.5/52/51/49.5	60.5/59/57.5/55.5/54/52.5/50.5
Unit	Net dimensions[6] (W×H×D)	mm	1600×199×450	1600×199×450
	Packed dimensions (W×H×D)	mm	1780×250×525	1780×250×525
	Net/Gross weight	kg	28/32.5	
Refrigerant type			R410A	
Pipe connections	Liquid/Gas pipe	mm	Ø9.52/Ø15.9	
	Drain pipe	mm	OD Ø25	

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
4. Stable operation external static pressure range. (Note: setting external static pressure outside the unit's optimal static pressure range may lead to higher noise levels and lower airflow rate. For the optimal external static pressure range refer to the unit's installation manual.)
5. Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in an anechoic chamber.
6. The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.

Compact design

Healthy air supply

Constant air volume

Flexible installation

Medium Static Pressure Duct

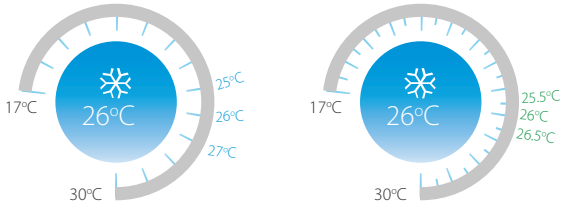
COMFORT

Quiet Operation

By optimizing the design of fan motor, air duct and heat exchanger, the new duct operates with noise as low as 22dB(A), creating a quieter and more comfortable environment.

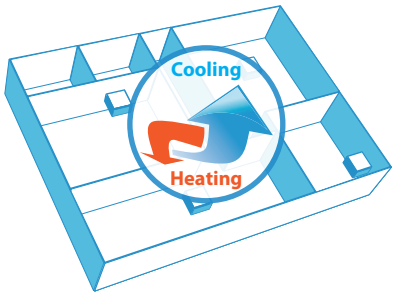
0.5°C/1°C Setting Temperature Adjustment

Set temperature can be adjusted in 0.5°C or 1°C steps, enabling precise comfort control.



Auto Cooling-heating Changeover

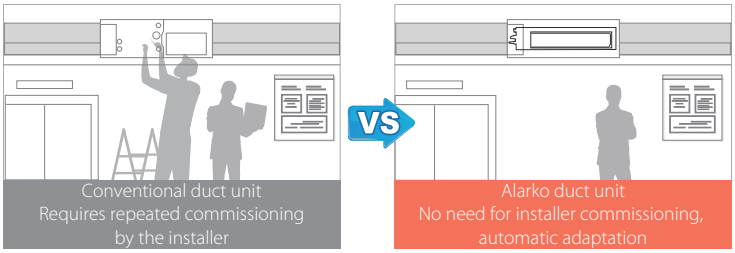
Automatically selects cooling or heating mode to achieve the set temperature.



AIR FLOW

Adaptive Duct Length and Filter Resistance

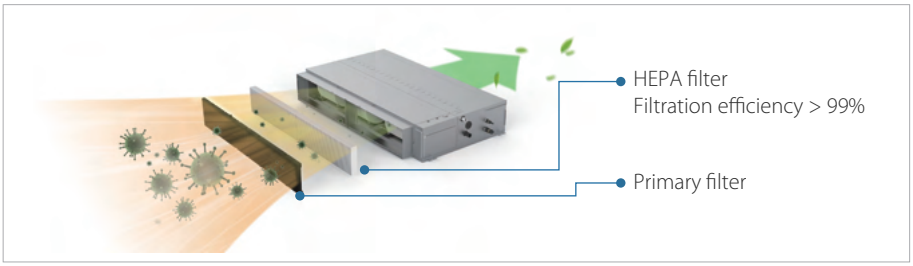
By digital fan motor and a specially designed independent drive chip enables precise control and output on demand. It can automatically adapt to duct lengths from 10 to 160 Pa equivalent static pressure without intervention from the installer.



HEALTH

Optional High Efficiency HEPA Filter*

A static pressure of up to 160 Pa enables the application of medical-grade HEPA filters, and even small capacity models can be equipped with high-efficiency filters, efficiently filtering fine particles of 0.5 microns with an efficiency of over 99%.

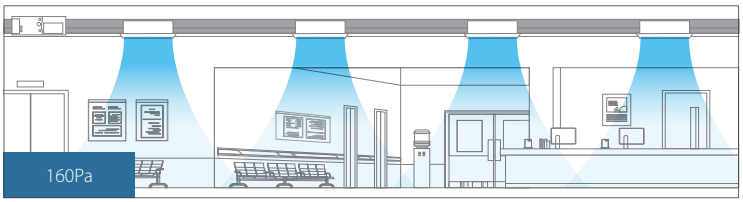


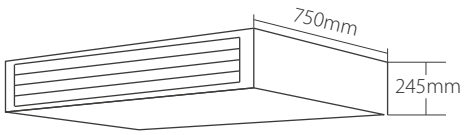
* This function is available as a customization option.

EASY INSTALLATION

Thin Body with High ESP

All models have a static pressure of 160 Pa and a thickness of only 245 mm. The high static pressure allows air to be delivered over longer distances without loss of cooling and heating effect. Especially suitable for long and narrow spaces.





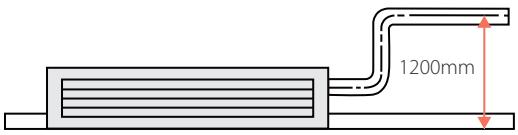
3 Way flexible installation*

It is possible to install and connect the outdoor unit in 3 different ways for Duct, providing flexibility to accommodate a wide range of room designs.

*Hanging the Wall and Against the Wall are available as customization options.

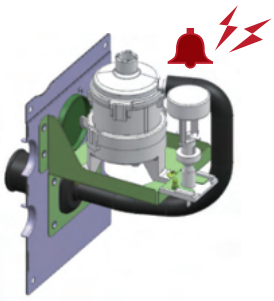
High-lift drain pump

A drain pump with a 1200mm raise height is fitted as standard, simplifying installation of the drain piping.



Fault Feedback

Early warning of drain pump fault.



SPECIFICATIONS

Medium Static Pressure Duct

Model			ALR-V8DM005D11	ALR-V8DM007D11	ALR-V8DM009D11
Power supply			1-phase, 220-240V, 50Hz		
Cooling[1]	Capacity	kW	1.5	2.2	2.8
		kBtu/h	5.1	7.5	9.6
	Power input	W	33	36	40
Heating[2]	Capacity	kW	1.8	2.5	3.2
		kBtu/h	6.1	8.5	10.9
	Power input	W	33	36	40
Air flow rate[3]		m^3/h	470/438/407/375/343/312/280	500/467/433/400/367/333/300	540/503/467/430/393/357/320
External static pressure[4]		Pa	30 (10-160)		
Sound pressure level[5]		dB(A)	26.5/26/25/24/23/22.5/22	26.5/26/25/24/23/22.5/22	26.5/26/25/24/23/22.5/22
Sound power level		dB(A)	46/44.5/43/41.5/40/38.5/37	47/45.5/44/42.5/41/39.5/38	47/45.5/44/42.5/41/39.5/38
Unit	Net dimensions[6] (W×H×D)	mm	600×245×750		
	Packed dimensions (W×H×D)	mm	765×305×885		
	Net/Gross weight	kg	18.5/21	18.5/21	18.5/21
Refrigerant type			R410A		
Pipe connections	Liquid/Gas pipe	mm	Ø6.35/Ø12.7		
	Drain pipe	mm	OD Ø25		

Model			ALR-V8DM012D11	ALR-V8DM016D11	ALR-V8DM020D11
Power supply			1-phase, 220-240V, 50Hz		
Cooling[1]	Capacity	kW	3.6	4.5	5.6
		kBtu/h	12.3	15.4	19.1
	Power input	W	50	70	70
Heating[2]	Capacity	kW	4	5	6.3
		kBtu/h	13.7	17.1	21.5
	Power input	W	50	70	70
Air flow rate[3]		m^3/h	575/535/495/455/415/375/335	665/623/580/538/495/453/410	970/904/838/773/707/641/575
External static pressure[4]		Pa	30 (10-160)		
Sound pressure level[5]		dB(A)	29/28/27/26/25/23/22	33/32/29.5/28/26.5/25/24	33/32/31/30/27.5/26/25
Sound power level		dB(A)	50/48.5/47/45/43/41/39	53/51/49/47/45/43/41	55/53/51/49/47/45/43
Unit	Net dimensions[6] (W×H×D)	mm	600×245×750		800×245×750
	Packed dimensions (W×H×D)	mm	765×305×885		965×305×885
	Net/Gross weight	kg	18.5/21	19.5/22	24/27.5
Refrigerant type			R410A		
Pipe connections	Liquid/Gas pipe	mm	Ø6.35/Ø12.7		
	Drain pipe	mm	OD Ø25		

Notes:
1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
4. Stable operation external static pressure range. (Note: setting external static pressure outside the unit's optimal static pressure range may lead to higher noise levels and lower airflow rate. For the optimal external static pressure range refer to the unit's installation manual.)
5. Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in a semi-anechoic chamber.
6. The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual

SPECIFICATIONS

Medium Static Pressure Duct

Model			ALR-V8DM024D11	ALR-V8DM028D11	ALR-V8DM030D11
Power supply			1-phase, 220-240V, 50Hz		
Cooling[1]	Capacity	kW	7.1	8	9
		kBtu/h	24.2	27.3	30.7
	Power input	W	96	102	110
Heating[2]	Capacity	kW	8	9	10
		kBtu/h	27.3	30.7	34.1
	Power input	W	96	102	110
Air flow rate[3]		m^3/h	1150/1068/986/904/822/740/660	1355/1263/1172/1080/988/897/805	1420/1323/1225/1128/1030/933/835
External static pressure[4]		Pa	30 (10-160)	40 (10-160)	40(10-160)
Sound pressure level[5]		dB(A)	35/33.5/32/30.5/29/27.5/26	37/35.5/34/32.5/31/29.5/28	37/35.5/34/32.5/31/29.5/28
Sound power level		dB(A)	58/56/54/51.5/48/47/45	59/57/55/53/51/49/47	59/57/55/53/50.5/48/46
Unit	Net dimensions[6] (W×H×D)	mm	800×245×750	1050×245×750	
	Packed dimensions (W×H×D)	mm	965×305×885	1215×305×885	
	Net/Gross weight	kg	25/28.5	30/34.0	31/35.0
Refrigerant type			R410A		
Pipe connections	Liquid/Gas pipe	mm	Ø9.52/Ø15.9		
	Drain pipe	mm	OD Ø25		

Model			ALR-V8DM040D11	ALR-V8DM042D11	ALR-V8DM048D11	ALR-V8DM054D11
Power supply			1-phase, 220-240V, 50Hz			
Cooling[1]	Capacity	kW	11.2	12.5	14	16
		kBtu/h	38.2	42.7	47.8	54.6
	Power input	W	138	172	172	210
Heating[2]	Capacity	kW	12.5	14	16	18
		kBtu/h	42.7	47.8	54.6	61.4
	Power input	W	138	172	172	210
Air flow rate[3]		m^3/h	1950/1817/1683/1550/ 1417/1283/1150	2105/1971/1837/1703/ 1568/1434/1300	2105/1971/1837/1703/ 1568/1434/1300	2350/2160/2015/1871/ 1776/1533/1400
External static pressure[4]		Pa	40 (10-160)	50 (10-160)	50 (10-160)	
Sound pressure level[5]		dB(A)	39/37/35/33/31/29/28	40/38/36/34/32/30/29	40/38/36/34/32/30/29	42/40/38/36/34/33/31
Sound power level		dB(A)	60/58/56.5/55/53.5/52/50	64/62/61.5/59.5/57.5/55/53	64/62/61.5/59.5/57.5/55/53	65/63/61/58.5/56.5/54/52
Unit	Net dimensions[6] (W×H×D)	mm	1400×245×750			
	Packed dimensions (W×H×D)	mm	1565×305×885			
	Net/Gross weight	kg	37/42.0	39/44.0	39/44.0	39/44.0
Refrigerant type			R410A			
Pipe connections	Liquid/Gas pipe	mm	Ø9.52/Ø15.9			
	Drain pipe	mm	OD Ø25			

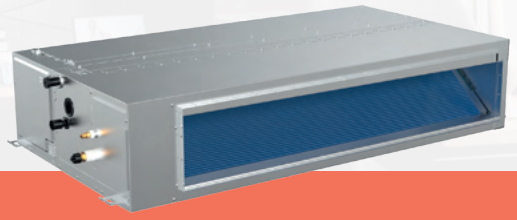
Notes:
1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
4. Stable operation external static pressure range. (Note: setting external static pressure outside the unit's optimal static pressure range may lead to higher noise levels and lower airflow rate. For the optimal external static pressure range refer to the unit's installation manual.)
5. Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in a semi-anechoic chamber.
6. The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual

Compact design

Healthy air supply

Constant air volume

Flexible installation



High Static Pressure Duct

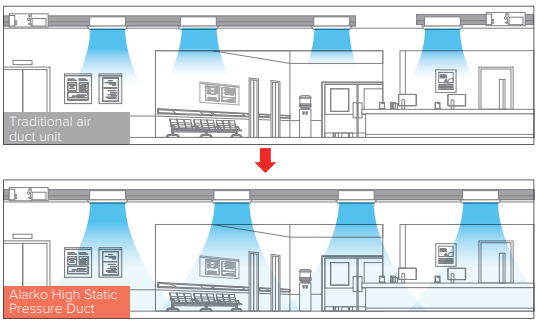
AIR FLOW

Constant Airflow Technology

Through the independent constant air volume digital fan technology, the air volume is independently detected and adjusted to realize constant air volume and no attenuation in the whole life.

Ultra-high static pressure

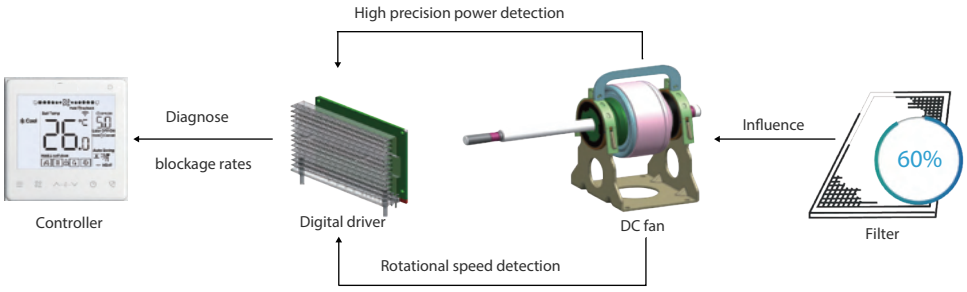
The static pressure can reach 250Pa(5.6-16kW) or 400Pa(20-56kW), so the air supply distance is longer. Especially in long and narrow spaces such as corridors, it can reduce the number of units used and save investment costs..



HEALTH

Visualization of dirty blockage rate

Built-in self-learning model can detect the real-time resistance of the filter screen and restore the true state of the filter screen. 10 levels blockage rates can be accurately identified and displayed on the controller, reminding the user to clean the filter in time.



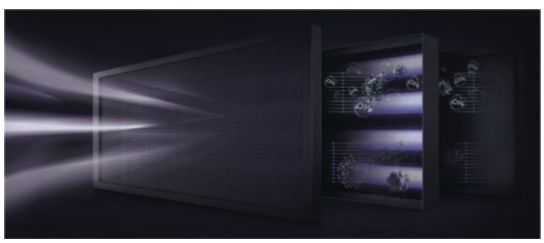
Innovative Puro-air Kit

Protectors of health and safety

From Germany -OSRAM quality UV light source

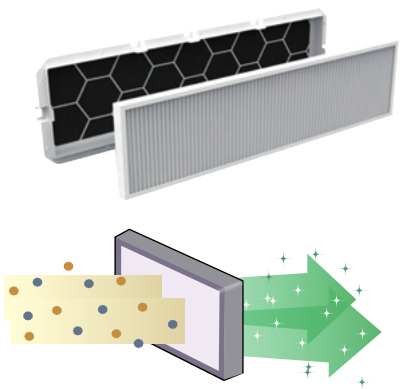
Ozone –Free
UV leakage-Free

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



Efficiency filter screen

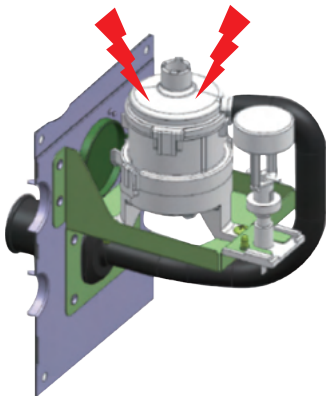
Optional F7 or H13-class air filter, Equipped with H13 HEPA high-efficiency filter screen, it can filter 0.5 micron extremely fine particles, and the primary filtration efficiency is more than 99.95%.



WIDER APPLICATION

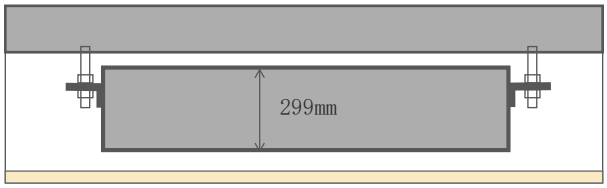
Intelligent leak feedback

Digital feedback DC water pump, Take the initiative to sense the pump speed and water flow, judge whether there is jamming attenuation or damage, and give early warning to avoid water leakage
Integrated drainage pipe design reduces the sealing points of traditional design from 6 to 2, reduces breakpoints and reduces leakage risks



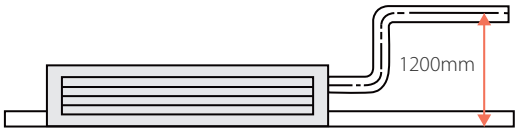
Ultra-thin fuselage

For High static pressure duct(5.6-16kW), the fuselage thickness is only **299mm**,the height required for ceiling installation is greatly reduced which leads to be able to cope with more installation situations.



High-lift drain pump

A drain pump with a 1200mm raise height is fitted as standard, simplifying installation of the drain piping.



SPECIFICATIONS

High Static Pressure Duct

Model name			ALR-V8DH020D11	ALR-V8DH024D11	ALR-V8DH028D11	ALR-V8DH030D11
Power supply			1-phase, 220-240V, 50Hz			
Cooling[1]	Capacity	kW	5.6	7.1	8	9
		kBut/h	19.1	24.2	27.3	30.7
	Input	W	159	159	159	196
Heating[2]	Capacity	kW	6.3	8	9	10
		kBut/h	21.5	27.3	30.7	34.1
	Input	W	159	159	159	196
Airflow rate[3]		m^3/h	1360/1281/1201/1122/1043/963/884	1360/1281/1201/1122/1043/963/884	1360/1281/1201/1122/1043/963/884	1500/1413/1325/1238/1150/1063/975
External static pressure[4]		Pa	80(0-250)			
Sound pressure level[5]		dB(A)	39/38/36/35/33/32/30	39/38/36/35/33/32/30	39/38/36/35/33/32/30	40/39/37/36/34/33/31
Sound power level		dB(A)	59/56/54/53/51/49/47	59/56/54/53/51/49/47	59/56/54/53/51/49/47	63/60/58/56/54/52/50
Unit	Net dimensions[6] (W×H×D)	mm	1050×299×750			
	Packed dimensions (W×H×D)	mm	1215×359×890			
	Net/Gross weight	kg	35/38.5	35/38.5	35/38.5	35/38.5
Refrigerant type			R410A	R410A	R410A	R410A
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7	Φ9.52/Φ15.9		
	Drain pipe	mm	OD Φ25			

Model name			ALR-V8DH040D11	ALR-V8DH042D11	ALR-V8DH048D11	ALR-V8DH054D11
Power supply			1-phase, 220-240V, 50Hz			
Cooling[1]	Capacity	kW	11.2	12.5	14	16
		kBut/h	38.2	42.7	47.8	54.6
	Input	W	248	252	284	339
Heating[2]	Capacity	kW	12.5	14	16	18
		kBut/h	42.7	47.8	54.6	61.4
	Input	W	248	252	284	339
Airflow rate[3]		m^3/h	2140/2015/1890/1766/1641/1516/1391	2150/2025/1899/1774/1649/1523/1398	2400/2260/2120/1980/1840/1700/1560	2600/2448/2297/2145/1993/1842/1690
External static pressure[4]		Pa	80(0-250)	100(0-250)		
Sound pressure level[5]		dB(A)	41/40/38/37/35/34/32	41/40/39/37/36/35/33	43/42/40/39/37/36/34	44/43/41/40/38/37/35
Sound power level		dB(A)	63/61/59/57/56/54/52	66/64/62/60/58/56/54	67/64/62/60/58/57/55	68/66/64/62/60/59/57
Unit	Net dimensions[6] (W×H×D)	mm	1400×299×750			
	Packed dimensions (W×H×D)	mm	1565×359×890			
	Net/Gross weight	kg	44.5/48.5	46.5/50.5	46.5/50.5	46.5/50.5
Refrigerant type			R410A	R410A	R410A	R410A
Pipe connections	Liquid/Gas pipe	mm	Φ9.52/Φ15.9			
	Drain pipe	mm	OD Φ25			

1.Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2.Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3.Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
4.Stable operation external static pressure range. (Note: setting external static pressure outside the unit's optimal static pressure range may lead to higher noise levels and lower airflow rate. For the optimal external static pressure range refer to the unit's installation manual.)
5.Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.4m below the unit in a anechoic chamber.
6.The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.
7.All specifications are measured at standard external static pressure.

Model name			ALR-V8DH070D11	ALR-V8DH076D11	ALR-V8DH086D11	ALR-V8DH096D11
Power supply			1-phase, 220-240V, 50Hz			
Cooling[1]	Capacity	kW	20	22.4	25.2	28
		kBut/h	68.3	76.5	86.0	95.6
	Input	W	780	780	780	780
Heating[2]	Capacity	kW	22.5	25	26	31.5
		kBut/h	76.8	85.3	88.7	107.5
	Input	W	780	780	780	780
Airflow rate[3]		m³/h	4700/4387/4073/3760/3447/3133/2820	4700/4387/4073/3760/3447/3133/2820	4700/4387/4073/3760/3447/3133/2820	4700/4387/4073/3760/3447/3133/2820
External static pressure[4]		Pa	200(0-400)			
Sound pressure level[5]		dB(A)	51/50/48/46/44/43/42	51/50/48/46/44/43/42	51/50/48/46/44/43/42	51/50/48/46/44/43/42
Sound power level		dB(A)	74/72/70/68/66/64/62	74/72/70/68/66/64/62	74/72/70/68/66/64/62	74/72/70/68/66/64/62
Unit	Net dimensions[6] (W×H×D)	mm	1300×580×900			
	Packed dimensions (W×H×D)	mm	1530×730×1060			
	Net/Gross weight	kg	125/150	125/150	125/150	125/150
Refrigerant type			R410A	R410A	R410A	R410A
Pipe connections	Liquid/Gas pipe	mm	Φ9.52/Φ19.1		Φ12.7/Φ22.2	
	Drain pipe	mm	OD Φ32			

Model name			ALR-V8DH120D11	ALR-V8DH140D11	ALR-V8DH160D11	ALR-V8DH190D11
Power supply			1-phase, 220-240V, 50Hz			
Cooling[1]	Capacity	kW	33.5	40	45	56
		kBut/h	114.3	136.5	153.6	191.1
	Input	W	810	1850	1850	2030
Heating[2]	Capacity	kW	38	45	56	63
		kBut/h	129.7	153.6	191.1	215.0
	Input	W	810	1850	1850	2030
Airflow rate[3]		m³/h	4700/4387/4073/3760/3447/3133/2820	7500/7000/6500/6000/5500/5000/4500	7500/7000/6500/6000/5500/5000/4500	8400/7840/7280/6720/6160/5600/5040
External static pressure[4]		Pa	200(0-400)	300(0-400)		
Sound pressure level[5]		dB(A)	52/51/49/48/46/44/43	58/56/54/52/50/49/48	58/56/54/52/50/49/48	59/58/56/54/53/51/49
Sound power level		dB(A)	74/72/70/68/66/63/61	79/78/76/74/72/70/67	79/78/76/74/72/70/67	81/80/77/75/73/71/69
Unit	Net dimensions[6] (W×H×D)	mm	1300×580×900	1850×580×900		
	Packed dimensions (W×H×D)	mm	1530×730×1060	2080×730×1060		
	Net/Gross weight	kg	128/153	166/204	166/204	170/208
Refrigerant type			R410A	R410A	R410A	R410A
Pipe connections	Liquid/Gas pipe	mm	Φ12.7/Φ25.4	Φ12.7/Φ25.4	Φ15.9/Φ28.6	
	Drain pipe	mm	OD Φ32			

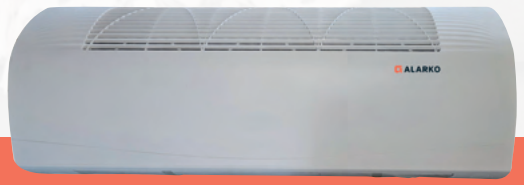
1.Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2.Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3.Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
4.Stable operation external static pressure range. (Note: setting external static pressure outside the unit's optimal static pressure range may lead to higher noise levels and lower airflow rate. For the optimal external static pressure range refer to the unit's installation manual.)
5.Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.4m below the unit in a anechoic chamber.
6.The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.
7.All specifications are measured at standard external static pressure.

Close to ceiling installation

Free drainage

Quiet operation

Bi-directional Coanda airflow



Wall Mounted

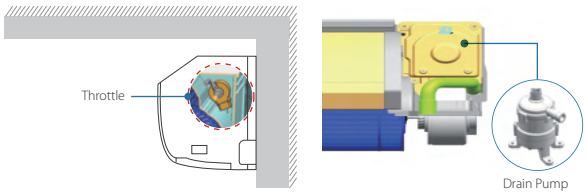
COMFORT

Quiet Operation

The minimum noise level of Wall Mounted is as low as 27dB(A), idea for hotels and other noise-sensitive locations.

Enclosed design

For Wall Mounted throttling parts and drain pumps adopt closed design, reducing noise.



Human Detect Sensor*

Using millimeter-wave radar sensor controller automatically turns indoor units on or off upon detecting that the room is occupied or unoccupied, ensuring climate control whilst minimizing energy consumption.

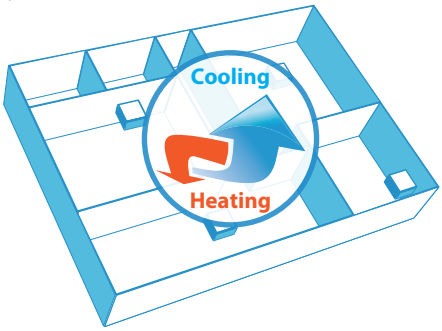
The indoor unit automatically runs when detecting human body

The indoor unit automatically stops when detecting absence

*This function is available as a customization option for Alarko Wall Mounted.

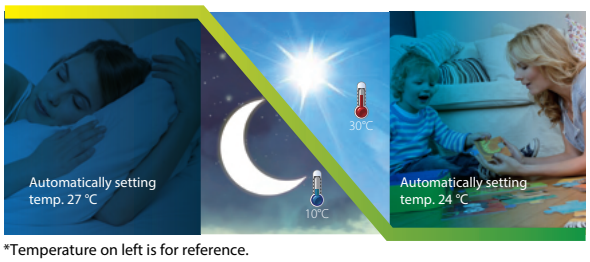
Auto Cooling-heating Changeover

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



Sleep Mode

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

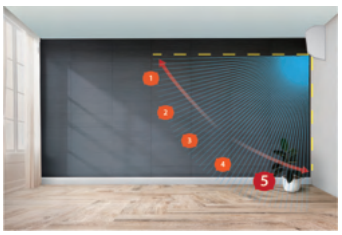


*Temperature on left is for reference.

AIR FLOW

3D Air Flow*

Possibility to select automatic vertical and horizontal moving of the air discharge louvre, for uniform air flow and temperature distribution.



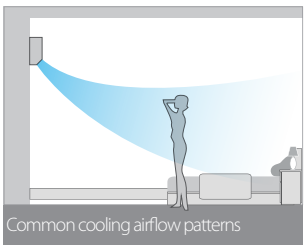
Up & Down

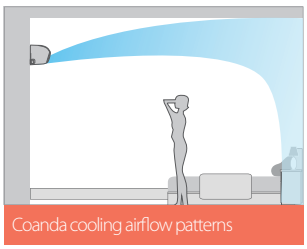
Right & Left

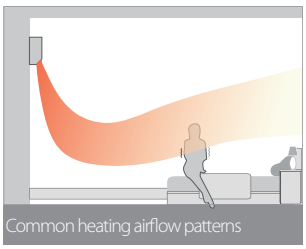
*Horizontal Swing function is available as a customization option for Wall Mounted.

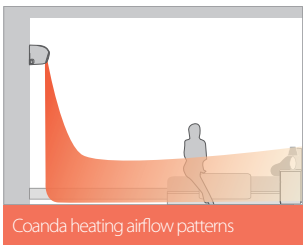
Bi-directional Coanda Airflow

With bi-directional Coanda airflow delivery technology, the cold air does not blow directly on people and the hot air warms up evenly from the feet for better comfort.


Common cooling airflow patterns


Coanda cooling airflow patterns

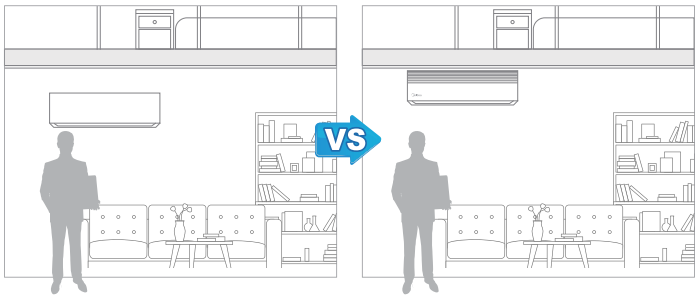

Common heating airflow patterns


Coanda heating airflow patterns

EASY INSTALLATION

Ceiling Mounting

The Wall Mounted new heat exchanger is designed to meet the installation requirements close to the ceiling, and the minimum distance from the ceiling is 3cm.

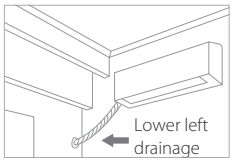


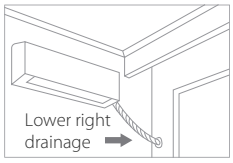
There is some distance from ceiling

The distance from the ceiling is 3cm

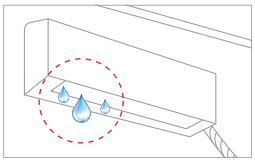
Free Drainage without Space Restrictions

The Wall Mounted can realize horizontal drainage, downward drainage, upward drainage, making installation more flexible.





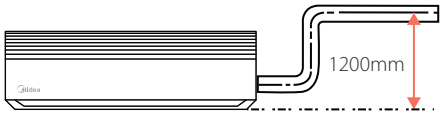
Most conventional Wall Mounted unit does not have a drain pump and the condensate pipe can only be installed underneath the unit, relying on gravity to drain the condensate to the nearest window.



When the condensate pipe is blocked, condensate can drip down onto the floor and damage it.

High-lift drain pump*

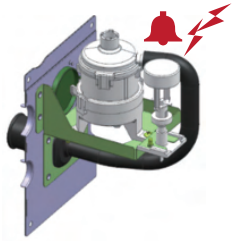
A drain pump with a 1200mm raise height is fitted as a customization option , simplifying installation of the drain piping.



*Drain pump is available as a customization option for Wall Mounted.

Fault Feedback*

Early warning of drain pump fault.



*Drain pump is available as a customization option for Wall Mounted.

SPECIFICATIONS

Wall Mounted

Model			ALR-V8HW005D11	ALR-V8HW007D11	ALR-V8HW009D11	ALR-V8HW012D11
Power supply			1-phase, 220-240V, 50Hz			
Cooling[1]	Capacity	kW	1.5	2.2	2.8	3.6
		kBtu/h	5.1	7.5	9.6	12.3
	Power input	W	18	21	24	27
Heating[2]	Capacity	kW	1.7	2.4	3.2	4
		kBtu/h	5.8	8.2	10.9	13.6
	Power input	W	18	21	24	27
Air flow rate[3]		m^3/h	460/440/420/400/380/360/340	500/470/440/410/390/370/340	540/510/470/430/400/370/340	580/540/500/460/420/380/340
Sound pressure level[4]		dB(A)	32/31/30/30/29/28/27	33/32/31/30/29/28/27	35/34/33/32/31/30/28	37/36/34/33/31/30/28
Sound power level		dB(A)	45/44/43/43/42/41/40	46/45/44/43/42/41/40	50/49/48/47/46/44/42	54/53/51/50/48/46/44
Unit	Net dimensions[5] (W×H×D)	mm	750×295×265	750×295×265	750×295×265	750×295×265
	Packed dimensions (W×H×D)	mm	875×385×360	875×385×360	875×385×360	875×385×360
	Net/Gross weight	kg	9/11.5	9/11.5	10/12.5	10/12.5
Refrigerant type			R410A			
Pipe connections	Liquid/Gas pipe	mm	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Ø6.35/Ø12.7
	Drain pipe	mm	OD Ø16	OD Ø16	OD Ø16	OD Ø16

Model			ALR-V8HW016D11	ALR-V8HW020D11	ALR-V8HW024D11	ALR-V8HW028D11
Power supply			1-phase, 220-240V, 50Hz			
Cooling[1]	Capacity	kW	4.5	5.6	7.1	8
		kBtu/h	15.4	19.1	24.2	27.3
	Power input	W	30	40	50	65
Heating[2]	Capacity	kW	5	6.3	8	9
		kBtu/h	17.1	21.5	27.3	30.7
	Power input	W	30	40	50	65
Air flow rate[3]		m^3/h	720/670/620/560/510/460/410	860/780/700/620/550/480/410	1220/1120/1030/940/850/750/660	1380/1260/1140/1020/900/780/660
Sound pressure level[4]		dB(A)	37/35/33/32/31/30/29	41/39/37/35/33/31/29	44/42/40/38/36/34/32	45/43/41/39/37/35/32
Sound power level		dB(A)	54/52/50/49/48/46/44	56/54/52/50/48/46/44	58/56/54/52/50/48/46	60/57/55/53/50/48/46
Unit	Net dimensions[5] (W×H×D)	mm	950×295×265	950×295×265	1200×295×265	1200×295×265
	Packed dimensions (W×H×D)	mm	1075×385×360	1075×385×360	1315×385×360	1315×385×360
	Net/Gross weight	kg	11.5/14	11.5/14	15/18	15/18
Refrigerant type			R410A			
Pipe connections	Liquid/Gas pipe	mm	Ø6.35/Ø12.7	Ø6.35/Ø12.7	Φ9.52/Φ15.9	Φ9.52/Φ15.9
	Drain pipe	mm	OD Ø16	OD Ø16	OD Ø16	OD Ø16

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
4. Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 0.8m below the unit in an anechoic chamber.
5. The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual

Healthy
air supply

Multi-functional
Expansion

Flexible
installation

Floor Standing

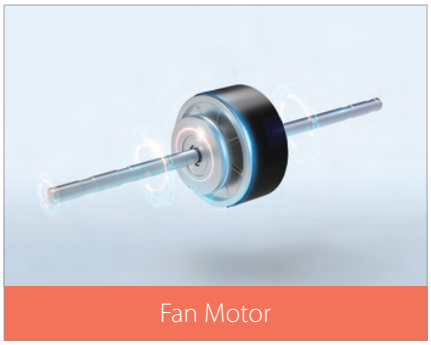
COMFORT

Digital Display On/Off

Indoor unit displays can be shut off at night, creating a better environment for rest.

Quiet Operation

The fan motor is DC power supply, which is more energy-saving and silent than AC power supply, creating a more quiet and comfortable environment

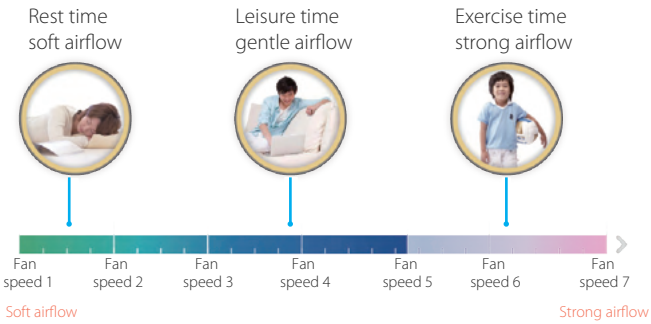


Buzzer Sound On/Off

Indoor unit buzzer sound can be set off to not disturb the user, creating a quieter environment.

Multiple Fan Speeds

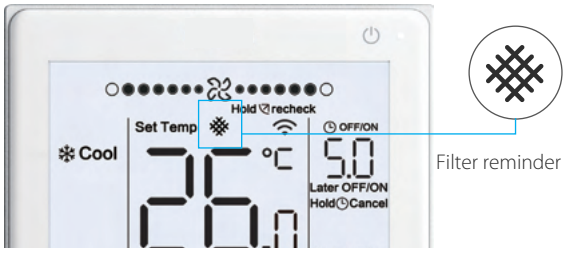
7 indoor fan speeds provide control flexibility to meet the needs of different indoor conditions.



HEALTH

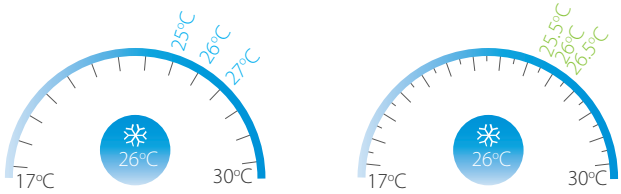
Dirty Filters Indicator Signal

The filter indicator will be on when the running time reaches a certain time to remind user to clean the filter.



0.5°C/1°C Setting Temperature Adjustment

Set temperature can be adjusted in 0.5°C or 1°C steps, enabling precise comfort control.



WIDER APPLICATION

Multiple Appearance Options

The Floor Standing Unit has three appearance options to meet different installation requirement, the F3 (concealed) unit is designed to be concealed in walls while the F4 (front air intake) and F5 (underside air intake) offer a choice of air intake options.

F5

F3

F4

SPECIFICATIONS

Floor Standing F3(concealed)

Model name			ALR-V8FC007D11	ALR-V8FC009D11	ALR-V8FC012D11	ALR-V8FC016D11	ALR-V8FC020D11	ALR-V8FC024D11	ALR-V8FC028D11
Power supply			1-phase, 220-240V, 50Hz						
Cooling[1]	Capacity	kW	2.2	2.8	3.6	4.5	5.6	7.1	8
		kBut/h	7.5	9.6	12.3	15.4	19.1	24.2	27.3
	Input	W	35	35	40	44	45	53	62
Heating[2]	Capacity	kW	2.4	3.2	4.0	5.0	6.3	8.0	9.0
		kBut/h	8.2	10.9	13.7	17.1	21.5	27.3	30.7
	Input	W	35	35	41	46	47	57	64
External static pressure[4]		Pa	0-60						
Airflow rate[3]		m³/h	473/464/454/449/439/431/426		524/503/488/471/450/427/408	636/611/584/557/533/507/483	781/756/738/717/683/651/624	928/893/865/834/803/770/739	
Sound pressure level[4]		dB(A)	34.5/34/33.5/32.5/32/31/30.5		36.5/35.5/34.5/34/33/32/31	37/36/35/34/33/32/30	36.5/36/35/34/33.5/32.5/31.5	40.5/39.5/38.5/37.5/36.5/36/34.5	
Sound power level		dB(A)	49/48/48/47/47/46/46		51/50/49/48/47/46/46	52/51/50/49/48/47/46	51/51/50/49/48/48/47	55/54/53/52/52/51/50	
Unit	Net dimensions[5] (W×H×D)	mm	915×470×200			1133×470×200	1253×566×200		
	Packed dimensions (W×H×D)	mm	985×555×255			1205×555×255	1325×650×255		
	Net/Gross weight	kg	16.3/20.0		16.9/20.7	20.0/24.4	24.3/30.0	26.1/31.8	
Refrigerant type			R410A						
pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7					Φ9.52/Φ15.9	
	Drain piping	mm	OD Φ18.5						

Floor Standing F4/F5(Exposed)

Model name			ALR-V8FF007D11	ALR-V8FF009D11	ALR-V8FF012D11	ALR-V8FF016D11	ALR-V8FF020D11	ALR-V8FF024D11	ALR-V8FF028D11
Model name			ALR-V8FB007D11	ALR-V8FB009D11	ALR-V8FB012D11	ALR-V8FB016D11	ALR-V8FB020D11	ALR-V8FB024D11	ALR-V8FB028D11
Power supply			1-phase, 220-240V, 50Hz						
Cooling[1]	Capacity	kW	2.2	2.8	3.6	4.5	5.6	7.1	8
		kBut/h	7.5	9.6	12.3	15.4	19.1	24.2	27.3
	Input	W	35	35	40	44	45	53	62
Heating[2]	Capacity	kW	2.4	3.2	4	5	6.3	8	9
		kBut/h	8.2	10.9	13.7	17.1	21.5	27.3	30.7
	Input	W	35	35	41	46	47	57	64
External static pressure[4]		Pa(F4)	0-10						
		Pa(F5)	0-10						
Airflow rate[3]		m³/h(F4)	507/490/482/466/449/450/435		532/512/501/483/466/435/414	689/663/639/608/575/560/526	934/904/888/860/821/786/764	1054/1011/992/955/924/889/841	
		m³/h(F5)	498/486/475/464/453/441/430		508/491/474/458/441/424/407	692/665/637/610/582/555/528	811/785/759/732/706/680/653	930/895/860/825/790/755/721	
Sound pressure level[4]		dB(A)(F4)	36/35/34.5/34/33/32.5/32		38/37/36/35/34/33/32	43/42/41/40/39/38/37	41.5/41/40/39/38/37/36	46/45.5/45/44/43/42/41	
		dB(A)(F5)	32.5/32/31.5/31/30.5/30/29		35/34/33/32/31/30/29	38/37/36/35/34/32.5/31.5	35/34.5/34/33/32.5/32/31	39.5/39/38/37/36/35/34	
Sound power level[4]		dB(A)(F4)	52/51/51/50/50/49/49		52/52/51/50/49/48/47	55/54/54/53/52/51/51	53/52/52/52/51/51/50	57/56/55/54/53/53/52	
		dB(A)(F5)	51/50/49/49/48/48/48		51/50/49/48/47/47/46	53/53/52/51/50/49/48	51/50/50/50/49/49/48	54/53/52/51/50/50/49	
Unit	Net dimensions[5] (W×H×D)	mm(F4)	1020×495×200		1020×495×200	1240×495×200	1360×591×200		
		mm(F5)	1020×495×200		1020×495×200	1240×495×200	1360×591×200		
	Packed dimensions (W×H×D)	mm(F4)	1125×595×285		1125×595×285	1345×595×285	1465×695×285		
		mm(F5)	1125×595×285		1125×595×285	1345×595×285	1465×695×285		
	Net/Gross weight	kg(F4)	21.1/27.9		21.9/28.6	26.3/32.9	32.1/41.0	33.3/41.1	33.3/42.1
		kg(F5)	21.1/26.8		21.9/27.6	26.3/32.4	32.1/39.4	33.3/41.1	33.3/41.1
Refrigerant type			R410A						
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7					Φ9.52/Φ15.9	
	Drain piping	mm	OD Φ18.5						

Notes:
1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Fan motor speed and air flow rate are from the highest to the lowest, total 7 rates for each model.
4. Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in a anechoic chamber.
5. Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Compact design

Healthy air supply

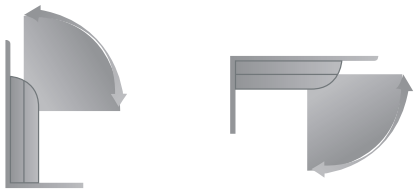
Flexible installation

Ceiling&Floor

Feature

Two Installation Options

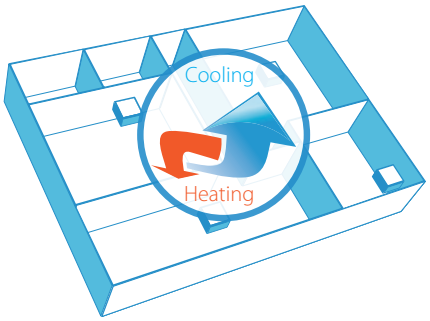
A sleek design suits installation either on the ceiling or floor, providing flexibility to accommodate a wide range of room designs.



The unit can be installed either horizontally on the ceiling or vertically against the wall.

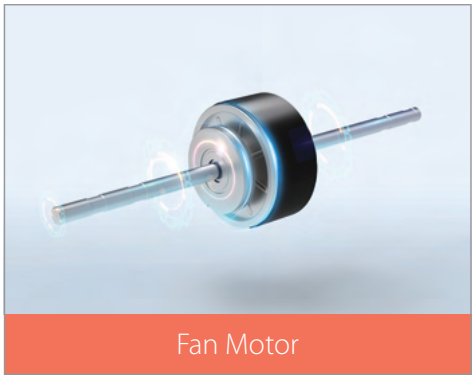
Auto Cooling-heating Changeover

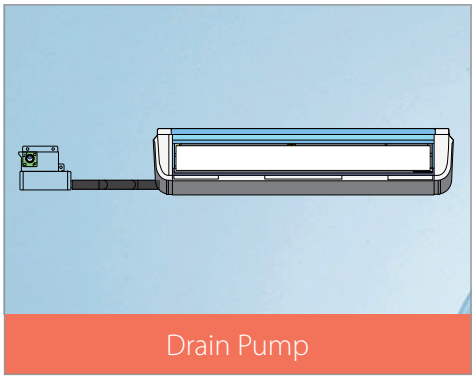
Automatically selects cooling or heating mode to achieve the set temperature.



Quiet Operation

The fan motor and water pump* are DC power supply, which is more energy-saving and silent than AC power supply, creating a more quiet and comfortable environment.

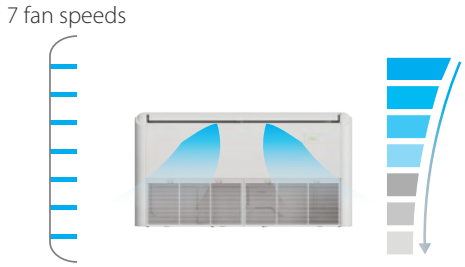




*External drain Pump is available as a customization option for unit

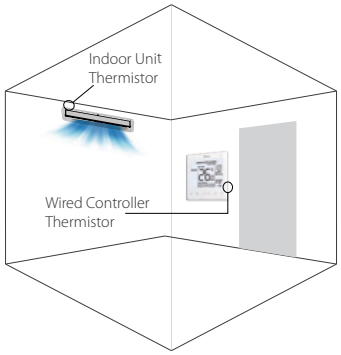
Multiple Steps Vertical Swing

There are 5-steps louver control makes the air flow direction more precisely. In addition, the auto swing mode can better meet different customer needs. Air supply angle 35-65 °.



Two thermistors control

The indoor temperature can be checked using the thermistor in the wired controller as well as from the indoor unit.



Model name			ALR-V8CE012D11	ALR-V8CE016D11	ALR-V8CE020D11	ALR-V8CE024D11	ALR-V8CE028D11
Power supply			1-phase, 220-240V, 50Hz				
Cooling[1]	Capacity	kW	3.6	4.5	5.6	7.1	8
		kBut/h	12.3	15.4	19.1	24.2	27.3
	Input	W	16	24	40	42	56
Heating[2]	Capacity	kW	4	5	6.3	8	9
		kBut/h	13.7	17.1	21.5	27.3	30.7
	Input	W	16	24	40	42	56
Airflow rate[3]		m³/h	564/539/514/492/467/445/424	712/674/637/603/565/531/500	927/883/840/794/751/707/665	1128/1062/1024/926/860/791/729	1300/1218/1138/1057/982/904/824
Sound pressure level[4]		dB(A)	32/30/29/28/27/26/25	36/35/34/33/32/31/30	43/41/40/38/36/34/33	43/40/39/37/35/34/33	45/44/42/40/38/36/34
Sound power level		dB(A)	43/42/40/39/38/38/37	47/45/45/43/42/41/40	54/53/51/50/48/47/45	54/53/52/51/49/48/48	55/53/51/50/49/46/44
Unit	Net dimensions[5] (W×H×D)	mm	1069×674×234			1284×674×234	
	Packed dimensions (W×H×D)	mm	1190×755×313			1405×755×323	
	Net/Gross weight	kg	24.7/29.5	24.7/29.5	24.7/29.5	29.8/34.8	29.8/34.8
Refrigerant type			R410A				
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7			Φ9.52/Φ15.9	
	Drain pipe	mm	OD Φ25				

Model name			ALR-V8CE030D11	ALR-V8CE034D11	ALR-V8CE040D11	ALR-V8CE042D11	ALR-V8CE048D11
Power supply			1-phase, 220-240V, 50Hz				
Cooling[1]	Capacity	kW	9	10	11.2	12.5	14
		kBut/h	30.7	34.1	38.2	42.7	47.8
	Input	W	75	50	65	95	140
Heating[2]	Capacity	kW	10	11.2	12.5	14	16
		kBut/h	34.1	38.2	42.7	47.8	54.6
	Input	W	75	50	65	95	140
Airflow rate[3]		m³/h	1480/1397/1302/1218/1138/1056/979	1497/1469/1296/1200/1104/1015/918	1648/1530/1469/1292/1178/1067/956	2012/1879/1772/1649/1531/1469/1285	2206/2070/1937/1810/1677/1516/1402
Sound pressure level[4]		dB(A)	48/47/46/44/42/40/37	42/40/39/37/35/33/32	44/42/41/39/37/35/33	49/48/46/44/42/40/38	51.5/50/48/46/44/42/40
Sound power level		dB(A)	58/57/55/54/52/50/49	54/53/51/50/48/46/44	56/54/53/51/49/47/45	60/59/58/56/54/53/51	63/62/60/58/56/54/53
Unit	Net dimensions[5] (W×H×D)	mm	1284×674×234	1649×674×234			
	Packed dimensions (W×H×D)	mm	1405×755×323	1770×755×323			
	Net/Gross weight	kg	29.8/34.8	36.4/42.7	36.4/42.7	36.4/42.7	36.4/42.7
Refrigerant type			R410A				
Pipe connections	Liquid/Gas pipe	mm	Φ9.52/Φ15.9				
	Drain pipe	mm	OD Φ25				

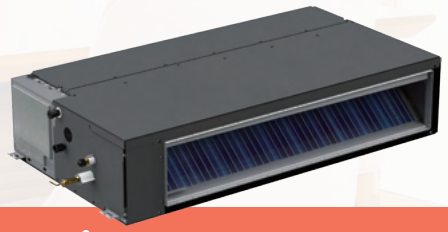
Notes:
1.Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2.Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3.Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
4.Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in a semi-anechoic chamber.
5.The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.

Compact design

Healthy air supply

Constant air volume

Flexible installation

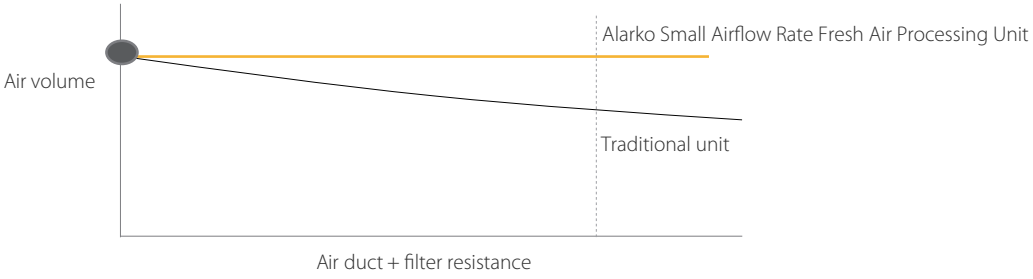


Small Airflow Rate Fresh Air Processing

AIR FLOW

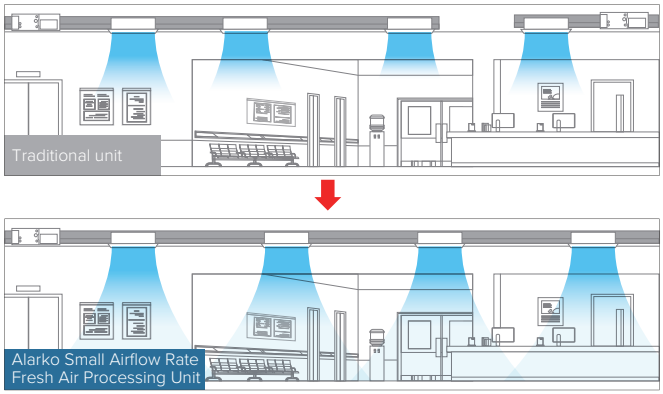
Constant Airflow Technology

Through the independent constant air volume digital fan technology, the air volume is independently detected and adjusted to realize constant air volume and no attenuation in the whole life.



Ultra-high static pressure

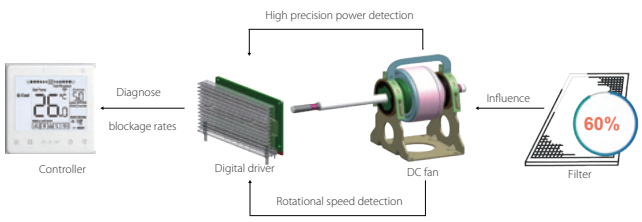
The static pressure can reach 300Pa(9-28kW), so the air supply distance is longer. Especially in long and narrow spaces such as corridors, it can reduce the number of units used and save investment costs..



HEALTH

Visualization of dirty blockage rate

Built-in self-learning model can detect the real-time resistance of the filter screen and restore the true state of the filter screen.
10 levels blockage rates can be accurately identified and displayed on the controller, reminding the user to clean the filter in time.

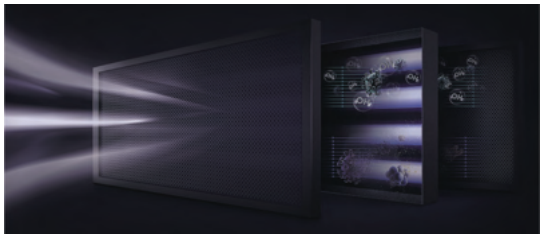


Innovative Puro-air Kit

Protectors of health and safety

OSRAM From Germany -OSRAM quality UV light source

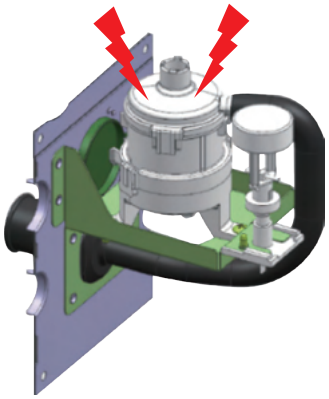
*The indoor unit needs to be customized in order to use the Puro-air Kit.



WIDER APPLICATION

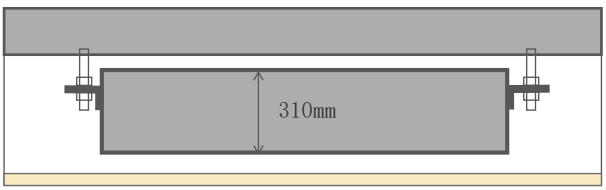
Intelligent leak feedback

Digital feedback DC water pump, Take the initiative to sense the pump speed and water flow, judge whether there is jamming attenuation or damage, and give early warning to avoid water leakage
Integrated drainage pipe design reduces the sealing points of traditional design from 6 to 2, reduces breakpoints and reduces leakage risks



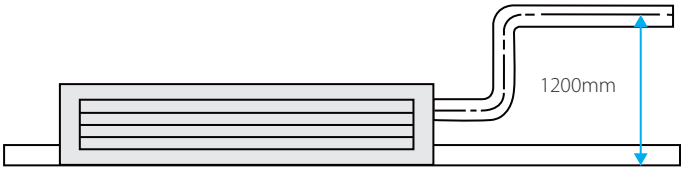
Ultra-thin fuselage

9-28 kW model, the fuselage thickness is only **310mm**,the height required for ceiling installation is greatly reduced which leads to be able to cope with more installation situations.



High-lift drain pump

A drain pump with a 1200mm raise height is fitted as standard, simplifying installation of the drain piping.



Specifications

Small Airflow Rate Fresh Air Processing

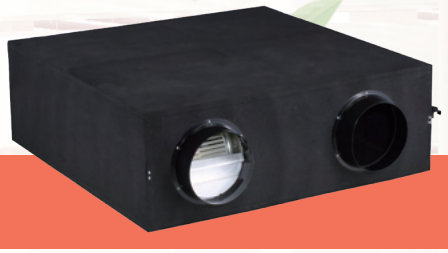
Model name			ALR-V8DF030D11	ALR-V8DF048D11	ALR-V8DF054D11
Power supply			1-phase, 220-240V, 50		
Cooling1	Capacity	kW	9.0	14.0	16.0
		kBut/h	30.7	47.8	54.6
	Input	W	80	165	185
Heating2	Capacity	kW	8.1	12.5	14.0
		kBut/h	27.6	42.7	47.8
	Input	W	80	165	185
Airflow rate3		m3/h	690/633/575/518/ 460/403/345	1100/1008/917/ 825/733/642/550	1230/1128/1025/ 923/820/718/615
External static pressure4		Pa	100 (0-300)	150 (0-300)	150 (0-300)
Sound pressure level5		dB(A)	39/37.5/36/34/ 32.5/30.5/29	44.5/42.5/40/37/ 35/33/32	44.5/43/41/38/ 36/34/32.5
Unit	Net dimensions6 (W×H×D)	mm	1095*310*773	1095*310*773	1095*310*773
	Packed dimensions (W×H×D)	mm	1215*360*885	1215*360*885	1215*360*885
	Net/Gross weight	kg	37/41.5	40/43.5	40/43.5
Pipe connections	Liquid/Gas pipe	mm	Φ9.52/Φ15.9	Φ9.52/Φ15.9	Φ9.52/Φ15.9
	Drain pipe	mm	OD Φ25		

Notes:
1.Indoor temperature 33°C DB, 28°C WB; outdoor temperature 33°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2.Indoor temperature 0°C DB; outdoor temperature 0°C DB, -2.9°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3.Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
4.Stable operation external static pressure range. (Note: setting external static pressure outside the unit's optimal static pressure range may lead to higher noise levels and lower airflow rate. For the optimal external static pressure range refer to the unit's installation manual.)
5.Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in a semi-anechoic chamber.
6.Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.
7.All specifications are measured at standard external static pressure
8.When fresh air processing units are installed together with standard indoor units, the total capacity of the fresh air processing units must not exceed 30% of the total capacity of the outdoor units and the total combination ratio must not exceed 100%.
9.When there are only fresh air processing units in the system, the combination ratio is 50-100%.

Compact design

Healthy air supply

Energy Saving



Alarko HRV

Features

Wide Capacity Range

The airflow is from 200m³/h to 2000m³/h which can meet the requirements of most scenarios.

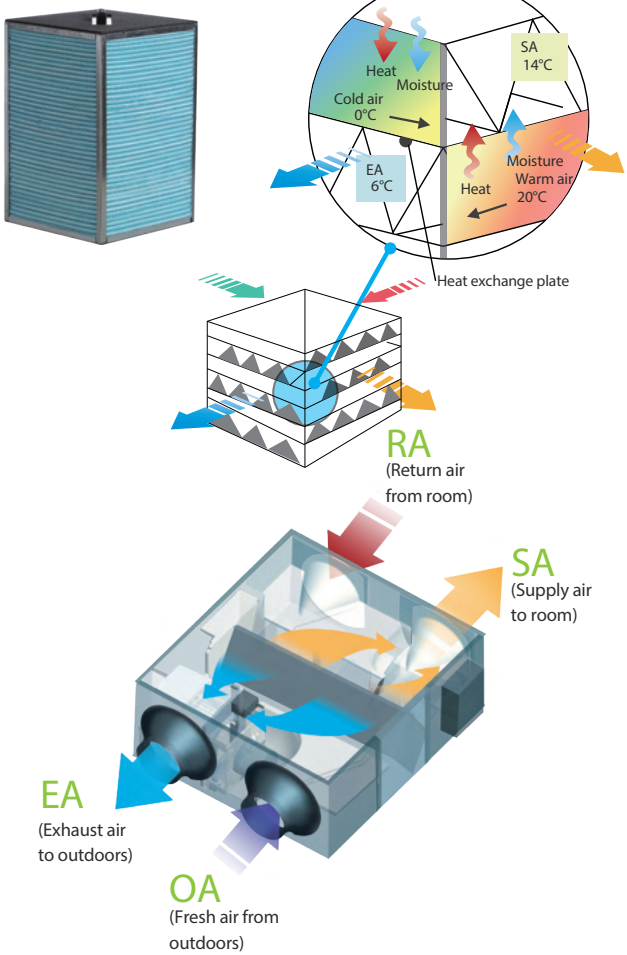
200-400m³/h

500-1000m³/h

1500-2000m³/h

Energy Saving, Heat Recovery for Both Heat and Humidity

The heat recovery ventilator (HRV) can greatly reduce energy loss and room temperature fluctuations caused by the ventilation process. The Alarko HRV's strong performance is a result of the advanced technology incorporated into its design. The heat exchanger core is made of specially filter material which gives enhanced temperature and humidity control. It prevents energy being wasted by recovering waste heat from the outgoing air, thus offering much greater levels of efficiency, while improving comfort levels too.

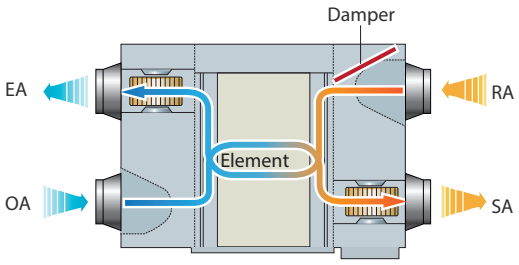


Multiple Operation Modes

Multiple operation modes: Auto, Bypass, Heat recovery, Free cooling mode.

Heat exchange mode

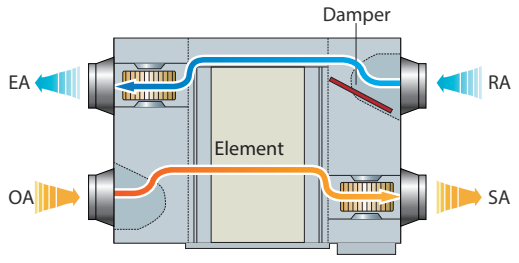
The flows of incoming and outgoing air pass close to each other, allowing heat transfer between the two channels. During summer, incoming air is cooled by the indoor air being exhausted and in winter, incoming air is warmed.



Heat exchange mode

Bypass mode

In mild climates or seasons, where temperature and humidity differences between indoors and outdoors are small, the HRV can work as a conventional ventilation fan. In standard bypass mode the supply and exhaust fans run at the same speed.



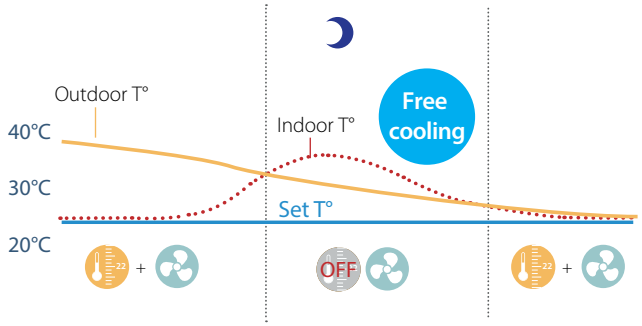
Bypass mode

Auto mode

The controller chooses heat exchange mode or bypass mode according to the temperature difference between outdoors and indoors. Both fans are set to run at low speed.

Free Cooling Mode*

Free cooling mode is only available for DC Series HRV. Free cooling operation is an energy saving function operating when outdoor ambient temperature is below indoor ambient temperature, it uses low temperature fresh air to cool down indoor temperature, reducing the running costs.



*The function is only enabled when connected to the centralized control

High Efficiency Filter

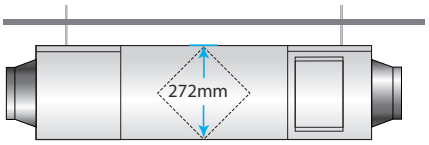
Standard Built-in G4-class dust filter, optional F7-class filter for air supply side and M5-class filter for exhaust air side in line with EU legislations can be customized.


F7-class filter


M5-class filter

Easy Installation

Slim and compact design of units, making the installation more convenient.



Wide Range of Controllers.

The HRV has its special wired controller. It also can be centralized control with VRF system through centralized controller and network control with VRF system through Alarko gateways.

Wired Controller

Gateway*


ALR3-CLOUD


Alarko BMS gateway

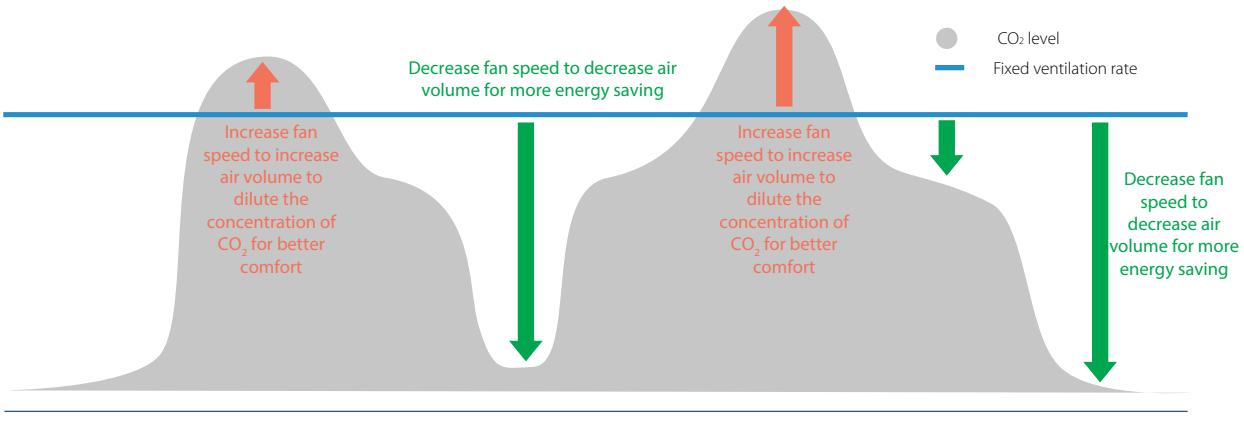
Centralized Controller*


ALR3-4GNS


ALR3-CRC270D

CO_2 Sensor Option

Enough fresh air is needed to create an enjoyable environment, but ventilating constantly is leading to energy waste. Therefore, an optional CO2 sensor can be installed which switches off the ventilation system when there is enough fresh air in the room, thus saving energy.



HRV

Sale Model			ALR-HRV-D200(C)	ALR-HRV-D300(C)	ALR-HRV-D400(C)	ALR-HRV-D500(C)
Power supply		Ph-V-Hz	1-phase, 220-240V-50Hz			
Input power (H/M/L)(standard G4)		W	70/45/25	100/55/35	110/70/40	150/95/50
Input power (H/M/L)(F7+M5)		W	80/40/25	100/55/35	110/70/40	150/95/50
Nominal Temperature Efficiency (standard G4) (H/M/L)		%	79.5/81.1/83.5	75.5/78.8/82.5	77.7/79.0/81.3	80.6/82.2/85.5
Nominal Enthalpy Efficiency (standard G4) (H/M/L)		%	75.0/77.5/79.6	72.1/75.0/79.3	73.5/75.3/78.0	74.0/76.6/80.5
Nominal Temperature Efficiency (F7+M5) (H/M/L)		%	81.8/85.4/87.5	80.4/81.8/83.5	79.2/81.1/83.3	77.2/79.4/82.5
Nominal Enthalpy Efficiency (F7+M5) (H/M/L)		%	81.2/83.1/85.0	79.4/81.2/84.0	79.6/81.8/84.2	72.3/75.6/78.6
Current		A	0.64	0.84	0.97	1.2
Indoor external static pressure (H speed+ standard G4)		Pa	100	90	100	90
Fresh air external static pressure (H speed +F7+M5)		Pa	75	70	70	65
Discharge air external static pressure (H speed +F7+M5)		Pa	100	110	110	110
Nominal air flow		m3/h	200	300	400	500
Sound Pressure (H/M/L)		dB(A)	33/29.5/25.5	36.5/33.5/30	36.5/32/28	36/30.5/24.5
Sound Power		dB	45	48	48	50
Net dimension[1] (LxWxH)		mm	1195×784×272	1195×898×272	1276×1189×272	1311×1090×390
Packing size (LxWxH)		mm	1275×880×420	1275×994×420	1360×1284×420	1390×1244×540
Net/Gross weight		kg	51/68	57/74	72/92	62/85
Power supply wire	Wire qty.		3	3	3	3
	Code wire cross- section	mm2	2.5	2.5	2.5	2.5
Controller			Wired controller, Centralized controller, BMS gateway			
Fresh air	Fresh Air Diameter	mm	Φ144	Φ144	Φ198	Φ244
	Air drop	Pa	52	179	218	357

Note:
1.The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.

HRV

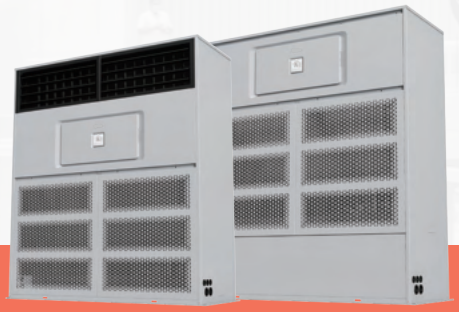
Sale Model			ALR-HRV-D800(C)	ALR-HRV-D1000(C)	ALR-HRV-D1500(C)	ALR-HRV-D2000(C)
Power supply		Ph-V-Hz	1-phase, 220-240V-50Hz			
Input power (H/M/L)(standard G4)		W	320/170/80	380/210/100	680/320/200	950/500/230
Input power (H/M/L)(F7+M5)		W	320/170/80	420/230/100	680/320/200	950/500/230
Nominal Temperature Efficiency (standard G4) (H/M/L)		%	78.7/82.1/86.8	82.8/84.0/87.4	75.5/78.6/80.2	77.2/79.5/83.4
Nominal Enthalpy Efficiency (standard G4) (H/M/L)		%	72.3/75.4/79.0	76.0/76.0/80.1	69.4/71.2/74.8	74.7/77.0/80.6
Nominal Temperature Efficiency (F7+M5) (H/M/L)		%	74.9/77.1/80.8	75.4/78.0/81.4	83.8/84.6/86.2	78.8/80.5/83.4
Nominal Enthalpy Efficiency (F7+M5) (H/M/L)		%	71.1/74.4/78.0	67.3/71.1/75.0	74.6/76.2/78.8	71.1/75.0/79.6
Current		A	2.4	2.9	3.8	5.7
Indoor external static pressure (H speed+ standard G4)		Pa	140	160	180	200
Fresh air external static pressure (H speed +F7+M5)		Pa	100	110	150	160
Discharge air external static pressure (H speed +F7+M5)		Pa	155	145	180	180
Nominal air flow		m^3/h	800	1000	1500	2000
Sound Pressure (H/M/L)		dB(A)	42/39/34	44/39/33.5	51.5/46.5/41.5	53/48.5/42.5
Sound Power		dB	55	54	69	70
Net dimension[1] (LxWxH)		mm	1311×1270×390	1311×1510×390	1740×1344×615	1811×1545×685
Packing size (LxWxH)		mm	1390×1424×540	1390×1670×540	1830×1520×770	1900×1720×845
Net/Gross weight		kg	77/101	85/112	168/200	195/235
Power supply wire	Wire qty.		3	3	3	3
	Code wire cross- section	mm2	2.5	2.5	2.5	2.5
Controller			Wired controller, Centralized controller, BMS gateway			
Fresh air	Fresh Air Diameter	mm	Φ244	Φ244	346×326	346×326
	Air drop	Pa	357	384	253	322

Note:
1.The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.

Compact design

Healthy air supply

Energy Saving

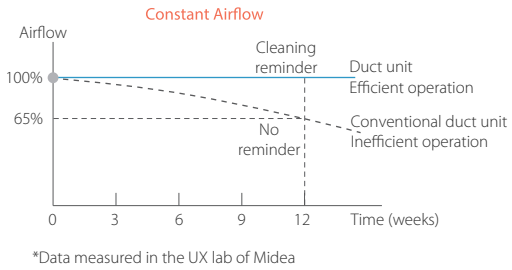


Floor Standing (FS)

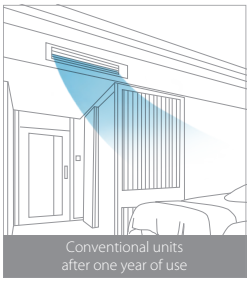
AIR FLOW

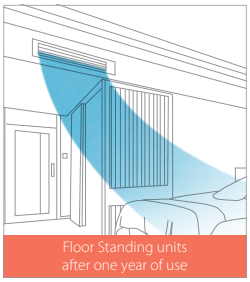
Constant Airflow*

Constant airflow technology can realize the airflow output is not affected by installation conditions and use conditions, ensuring the constant airflow supply.



*Data measured in the UX lab of Midea

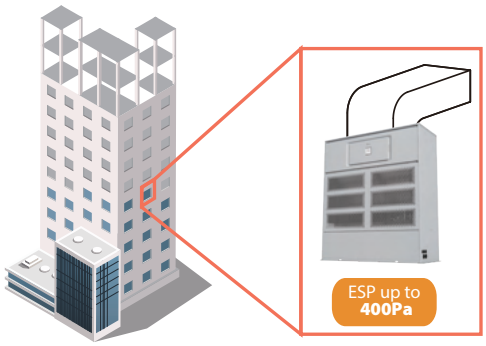


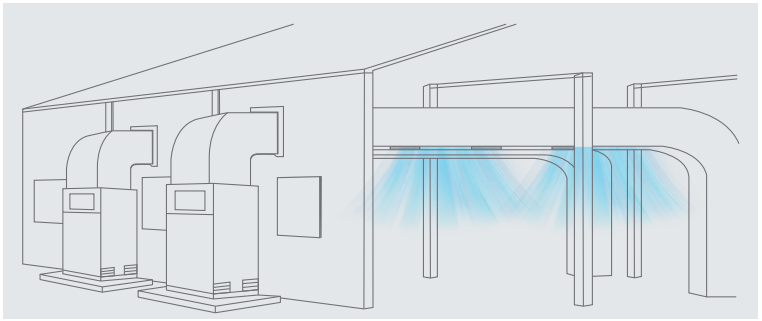


*Only the top discharge type units supports the constant airflow function.

High External Static Pressure

With a static pressure of 400Pa, top discharge type units can be connected to a maximum of 70m of air duct, which increases the flexibility of choosing the installation point of the equipment.

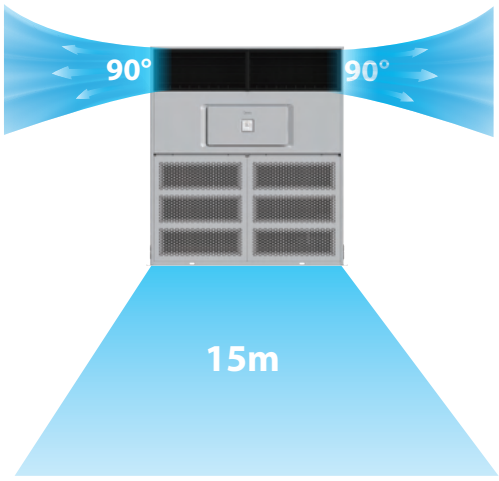




*Only the top discharge type units have external static pressure.

Large Angle of Wind

High efficiency fan, large air supply, large angle air, fast temperature control.



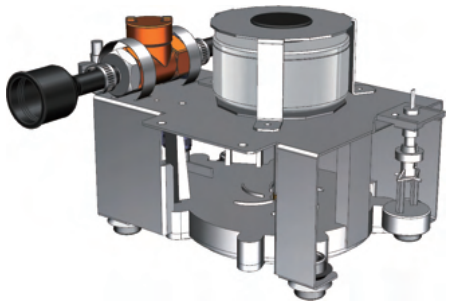
Easy Installation and Service

Flexible Installation Location

Flexible installation location, indoor and outdoor can be installed, Waterproof grade is IPX4, which is safer and more reliable.

More Reliable Drainage

Optional 6m drain pump*, to meet most of the plants and other industrial areas on the top of the drainage requirements. 5-21L drain pan, to ensure that the extreme working conditions and failures do not overflow.

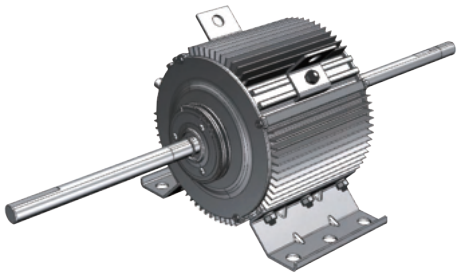


*The drain pump is available as a customization option

High Efficiency

Full DC Electronic Components

The fan motor is DC power supply, making the temperature control more precise and the indoor temperature more uniform.



SPECIFICATIONS

Floor Standing(FS) Side discharge type

Model name			ALR-V8FF086D11	ALR-V8FF096D11	ALR-V8FF120D11	ALR-V8FF160D11	ALR-V8FF190D11
Power supply			1-phase, 220-240V-50Hz				
Cooling [1]	Capacity	kW	25.2	28	33.5	45	56
		kBtu/h	86.0	95.6	114.3	153.6	191.1
	Power input	W	335	335	350	690	860
Heating [2]	Capacity	kW	26	31.5	38	56	63
		kBtu/h	88.7	107.5	129.7	191.1	215.0
	Power input	W	335	335	350	690	860
Sound pressure level [4]		dB(A)	56.0/54.6/53.3/52.6/ 51.5/50.7/49.1	56.0/54.6/53.3/52.6/ 51.5/50.7/49.1	52/50.8/49.7/48.7/ 47/44.5/43.1	57.2/55.9/54.4/53.4/ 52.3/51.0/49.4	58.7/57.4/56.4/55.2/ 54.2/53.1/52.1
Main body	Net dimensions [5] (WxHxD)	mm	615x1810x1150	615x1810x1150	615x1810x1150	615x1810x1150	615x1810x1600
	Packed dimensions (WxHxD)	mm	730x2035x1260	730x2035x1260	730x2035x1260	730x2035x1260	730x2035x1710
	Net/Gross weight	kg	153/167.5	153/167.5	158/172.5	163/177.5	209/227.5
Pipe connections	Liquid/Gas pipe	mm	Φ12.7/Φ22.2	Φ12.7/Φ22.2	Φ12.7/Φ25.4	Φ15.9/Φ28.6	Φ15.9/Φ28.6
	Drain pipe	mm	32	32	32	32	32

Floor Standing(FS) Top discharge type

Model name			ALR-V8FB086D11	ALR-V8FB096D11	ALR-V8FB120D11	ALR-V8FB160D11	ALR-V8FB190D11
Power supply			1-phase, 220-240V-50Hz				
Cooling [1]	Capacity	kW	25.2	28	33.5	45	56
		kBtu/h	86.0	95.6	114.3	153.6	191.1
	Power input	W	670	670	745	1210	1465
Heating [2]	Capacity	kW	26	31.5	38	56	63
		kBtu/h	88.7	107.5	129.7	191.1	215.0
	Power input	W	670	670	745	1210	1465
External static pressure		Pa	150(0-400)				
Sound pressure level [4]		dB(A)	59/57.6/56.5/54.9/ 53.5/52/50.6	59/57.6/56.5/54.9/ 53.5/52/50.6	55.7/54.5/53.1/51.8/ 50.1/48.5/48.2	59.5/58.4/57.0/55.6/ 54.3/52.7/51.0	61.0/59.8/58.5/57.1/ 55.6/53.9/52.1
Main body	Net dimensions [5] (WxHxD)	mm	615x1810x1150	615x1810x1150	615x1810x1150	615x1810x1150	615x1810x1600
	Packed dimensions (WxHxD)	mm	730x2035x1260	730x2035x1260	730x2035x1260	730x2035x1710	730x2035x1710
	Net/Gross weight	kg	153/168.5	153/168.5	160/173.5	204.5/222.5	211/229
Pipe connections	Liquid/Gas pipe	mm	Φ12.7/Φ22.2	Φ12.7/Φ22.2	Φ12.7/Φ25.4	Φ15.9/Φ28.6	Φ15.9/Φ28.6
	Drain pipe	mm	32	32	32	32	32

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. Air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
4. Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.4m below the unit in a semi-anechoic chamber.
5. Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

CONTROL SOLUTIONS

Remote Controllers

Wired Controllers

Centralized Control Solutions

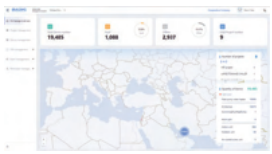
Network Control System

BMS Gateways

Accessories

Controller Lineup

Wireless Remote Controllers	Wired Remote Controllers	Centralized Control Solutions
 ALR3-WL12F1	 ALR3-WR86S	 ALR3-CRC270D
 ALR3-WR86T		ALR3-4GNS  IMMPRO II

Network Control System	BMS Gateways	Accessories
 ALR3-CLOUD + 	 ALR3-BAC	 ALR3-EK
	 ALR3-MOD	
 ALR3-CLOUD +  Cloud Control/APP	 ALR3-KNX	 DIAGNOSIS(A)

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

Remote Controllers

Features

Model	 ALR3-WL12F1
On / Off	●
Mode selection	●
Temperature setting	● (0.5℃ or 1℃ steps)
7-speed fan control	●
Auto swing	●
5-step swing louver	●
Address setting	●
Follow me	×
Eco mode	●
Silent mode	●
Display shut-off	●
Daily timer	●
Self Cleaning Mode setting	●
Sterilization function setting	●
Keyboard lock	●
Background light	●
Indoor Unit parameter setting	●
Dimensions (H×W×D) (mm)	170×48×20
Batteries	1.5V (LR03/AAA) × 2
Indoor unit series	Alarko IDU, 3rd and 2nd generation IDU

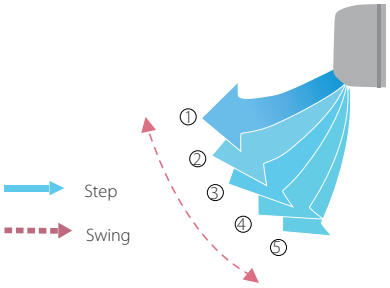
Note:
●: equipped as standard; ×: without this function

Follow Me

With the follow me function, the indoor unit responds to the temperature measured by the temperature sensor built-in to the wireless remote controller, rather than the temperature sensor in the indoor unit itself, enabling more precise control of the temperature in the user's immediate environment.

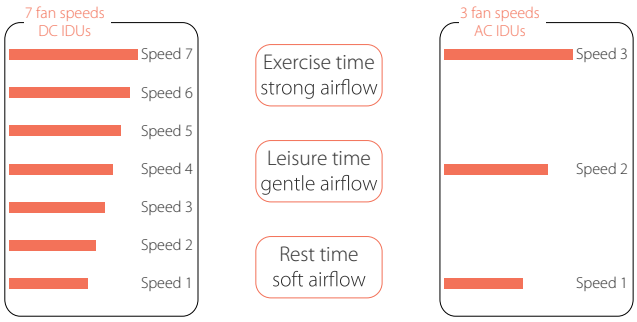
5 Swing Angles for Louver

Thanks to the 5 swing angles for indoor unit louver, the air flow direction can be controlled more precisely.



Multiple Fan Speed Control

The DC Series comes with 7 indoor fan speed options and AC Series with 3 indoor fan speed options to meet the needs of different indoor conditions.



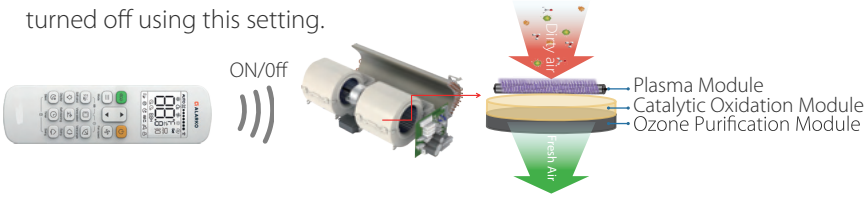
Self Cleaning Mode setting

Can be turned on Self Cleaning mode.

*The self clean function is only available for mini VRF.

Sterilization function setting

If the sterilization function is available for the indoor unit, it can be turned on or turned off using this setting.



WIRED CONTROLLERS

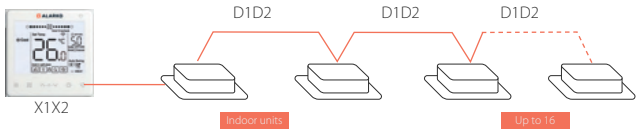
Features

Model	 ALR3-WR86S	 ALR3-WR86T
On / Off	●	●
Mode selection	●	●
Temperature setting	● (0.5℃ or 1℃ steps)	● (0.5℃ or 1℃ steps)
Dual temperature set points	×	●
App control	×	●
7-speed fan control	●	●
Auto swing	●	●
5-step swing louver	●	●
Address setting	●	●
Follow me	●	●
Meta mode	●	●
Room temperature display	●	●
°F/℃ display	●	●
Keyboard lock	×	●
Background light	●	●
Daily timer	●	●
Weekly schedule timer	×	●
Auto restart	●	●
2 permission levels	●	●
Bi-directional communication	●	●
Group control	●	●
Main or secondary controller setting	●	●
Display shut-off	●	●
Silent mode	●	●
Remote signal receiver	●	●
Clean filter reminder	●	●
Extension function	×	●
Daylight saving time	×	●
Clock display	×	●
Error check function	●	●
System parameter querying	●	●
After Hours/Off Timer function	×	●
Language	English	14 Languages
One to more control	×	●
Dimensions (WxHxD) (mm)	86x86x18	86x86x18
Power supply	18V DC	18V DC
Indoor unit series	3rd generation IDU and Alarko IDU	

Note:
●: equipped as standard; ×: without this function

Group Control

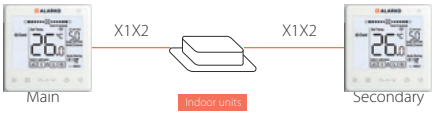
One controller can be used to unify the settings across up to 16 indoor units.



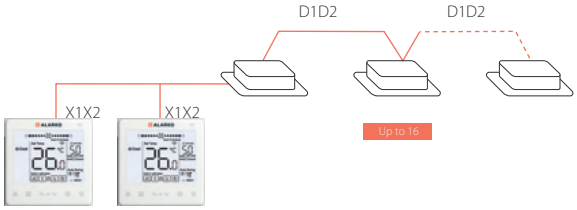
Note: when the 2nd generation AC indoor units connect to group controller WDC-120G/WK, the indoor units need to customize D1 D2 terminals.
Group control is not available for 2nd generation AC Wall Mounted Series.

Main or Secondary Controller Setting

Two controllers can be used together with single indoor unit. Operating mode and settings would be set according to the most recent instruction received. The controller display screens are synchronized so that both displays update when a setting is adjusted.



One indoor unit



Two or more indoor units

2 Permission Levels

2 permission levels ensure users can easily access control functions and allow administrators convenient access to operating parameters.

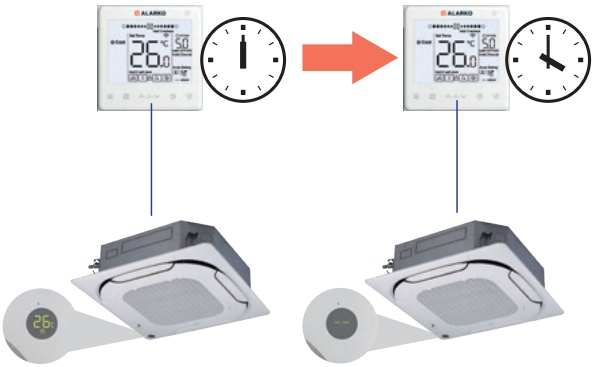
Buzzer Sound On/Off

The buzzer sound of the indoor unit can be turned off to create a quieter environment.

Buzzer

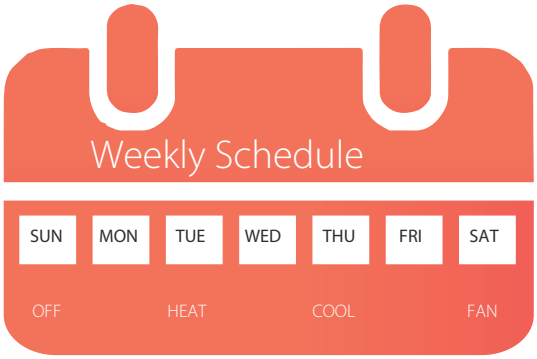
Off Timer Function

We can use the wired controller to set an automatic off timer or after hours function for the indoor unit.



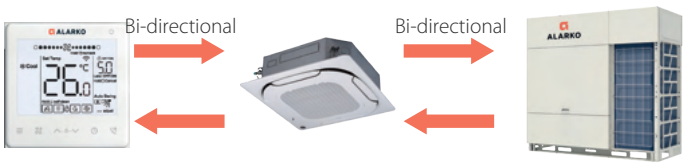
Weekly Schedule Timer

The weekly schedule timer allows users to set multiple schedules each with its own operating mode, temperature settings and fan speeds.



Bi-directional Communication

The wired controller can query the system operating parameters thanks to the new bi-directional communication functionality. In addition, settings including static pressure, cold draft prevention and temperature compensation can be configured on the wired controller.



CENTRAL CONTROL SOLUTION

Features

Model	 ALR3-CRC270D
Max. number of indoor units	384
Max. number of refrigerant systems	48
Touch screen	● (10.1-inch)
On/Off	●
Mode selection	●
Temperature setting	● (0.5°C steps)*
7-speed fan control	●*
Auto swing	●
5-step swing louver*	●
Room temperature display	●
Holiday setting	●
°C/°F display	●
Schedule management	●
Clock display	●
2 permission levels	●
Indoor unit type/model recognition	●*
Indoor unit with capacity larger than 16kW recognition	●*
Energy management	●
Group management	●
Error check function	●*
USB output	●
Report display	Error report and operation record
Operation log	●
LAN access	●
Language supported	English,Chinese,Arabic,Spanish,Turkish, Portuguese,Korean,Russian,Italian,Polish,French,German,Georgian
Dimensions (W×H×D)(mm)	270×183×27
Power supply	24V AC
Outdoor unit series or indoor unit series	All new Alarko series

Note:
●: equipped as standard; ×: without this function

Touch Screen

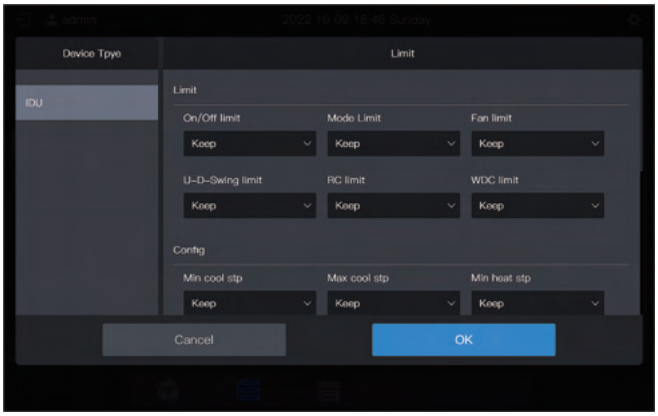
Colorful touch screen and vivid display make operation more convenient and simple.

Group Management

Units can be viewed according to group, system or location, making unit management clearer and more convenient.

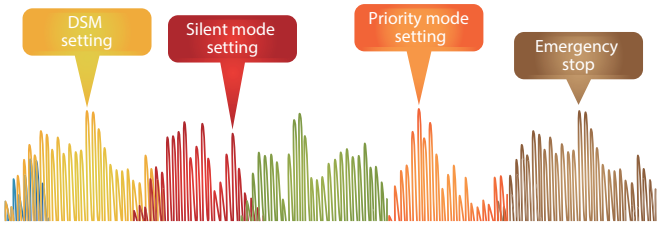
Energy Management

User can set limits on an indoor unit, such as operation temperature range, fan speed, mode, swing command, on/off command, remote controller signal and wired controller signal.



Outdoor Unit Configuration

Outdoor unit configuration and settings can be monitored and controlled without having to go outdoors.



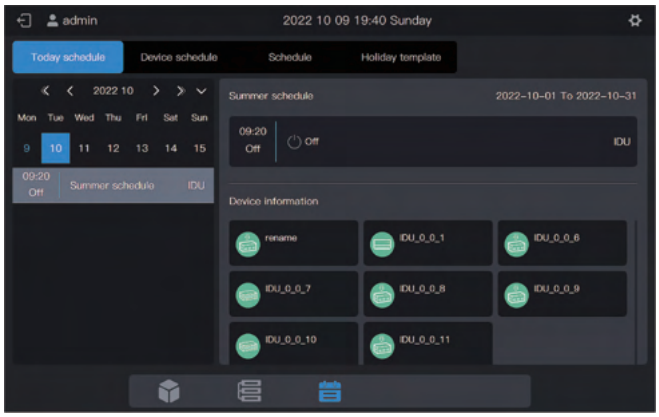
Unit Model Recognition

The controller recognizes the model of indoor and outdoor units and different models are represented by different icons.

Icon	Model	Icon	Model
	Low static pressure and middle static pressure (L-DUCT/M-DUCT)		Vertical concealed installation/vertical surface mounting (FS)
	High static pressure (H-DUCT)		Four-way Cassette
	Purifier (FAPU)		Compact Four-way Cassette (COMPACT)
	Wall mounting (WALL)		Ceiling-floor type (C&F)
	Old IDU (1st Gen. IDU)		Two-way Cassette
	One-way Cassette		CONSOLE
	Group control device icon		New ODU (New generation ODU)

Schedule Management

Daily, weekly or annual schedules can be used to set unit settings such as on/off, operating mode, set temperature, fan speed and swing.

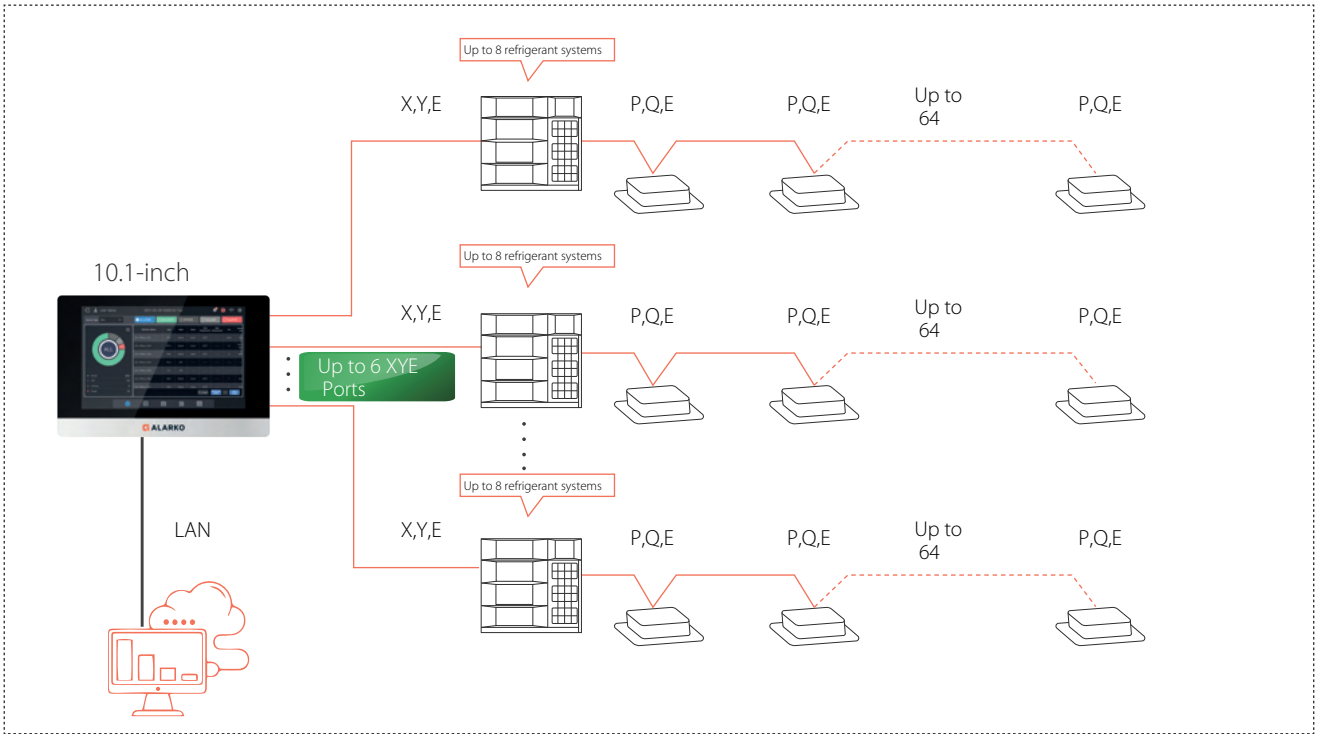


LAN Access

A desktop or laptop PC can be used for browser-based access via a LAN connection.

Wiring Flexibility

The controllers can be connected to the master outdoor unit directly.



IMMPro II

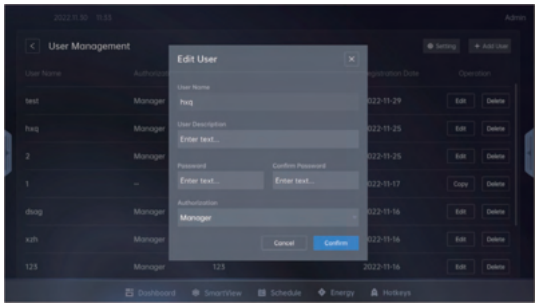
Software model	 IMMPRO II
On/Off	●
Mode selection	●
Temperature setting	●
7-speed fan contro	●
Auto swing	●
5-step swing louver*	●
Room temperature display	●
Schedule management	●
℃/ ℉ display	●
Clock display	●
4 permission levels	●
Indoor unit type/model recognition	●
Energy management	●
Group management	●
Error check function	●
Report display and output	Error history, Operation history, User history, Cycle data history
3D view	●
Language supported	English,Chinese,Arabic,Spanish,Turkish, Portuguese,Korean,Russian,Italian,Polish, French,German,Georgian
Hardware model	 ALR3-4GNS
Dimensions (HxWxD)(mm)	237×144×87.2
Max. number of gateways per software system	2
Power supply	9~30V DC
Max. number of indoor units per gateway	512
Max. number of refrigerant systems per gateway	64
Unit Series	Alarko VRF System

Device Management and Control

Users can flexibly group and centralize control the VRF devices based on diffferent system or location and scenario. And limit the device functions, such as temperature setting range fan speed, operation mode, swing lock, remote controller lock and wired controller lock.

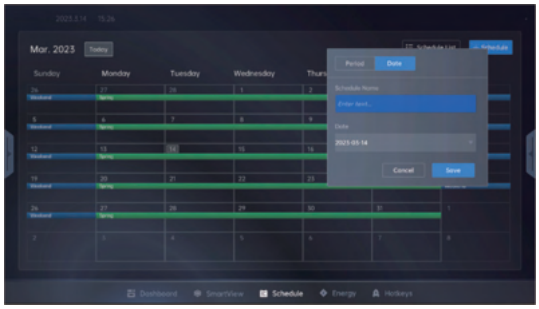
User and Permission Management

The administrator can add or reduce user accounts according to the VRF management teams of the buliding, and set corresponding roles for each account. The administrator can flexibly assign permissions of each function of the software to each role



Schedule Function

IMMPRO II can be used to make a detailed schedule for the indoor units. The schedule can be set for the whole year.



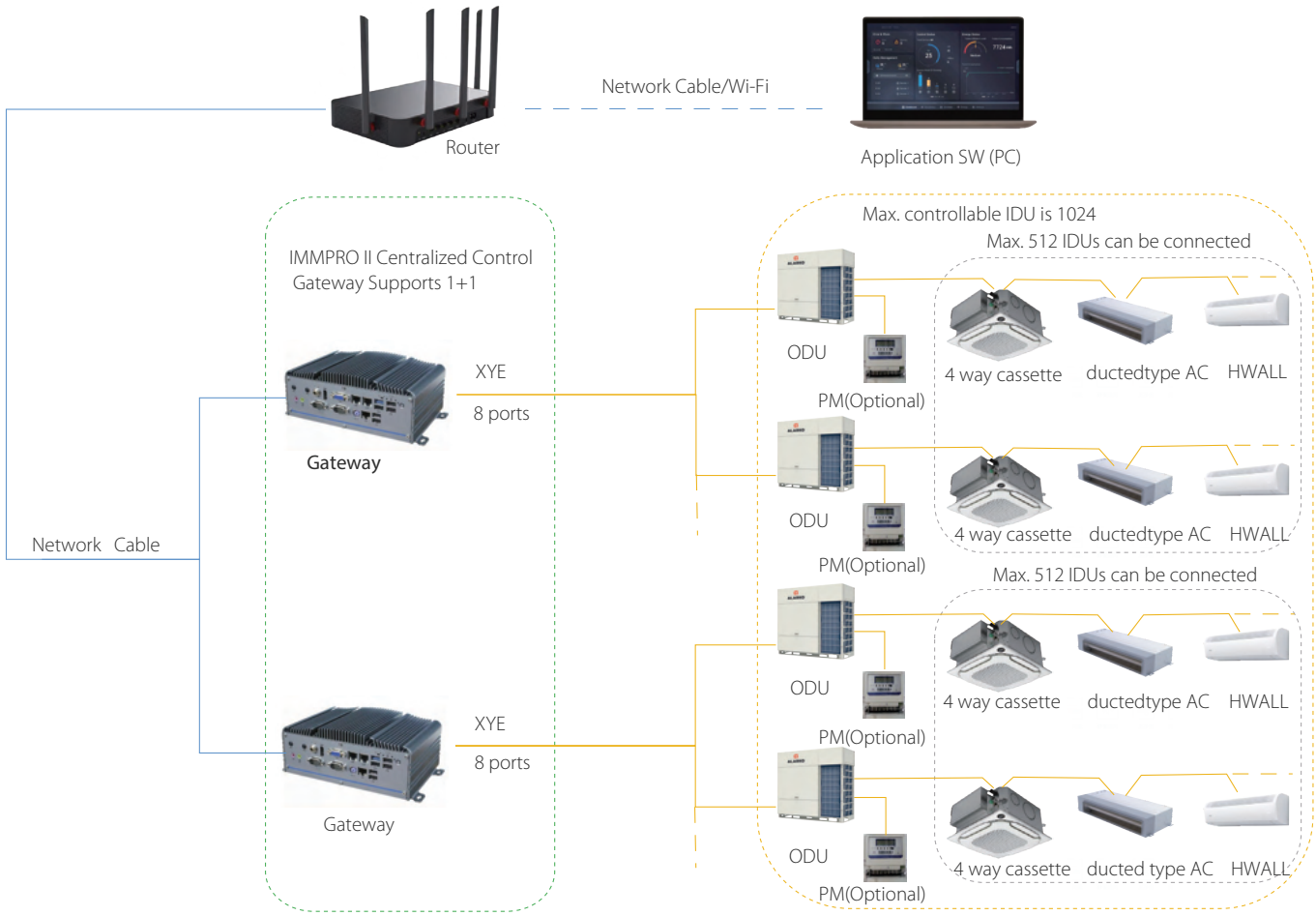
2D/3D view and setting

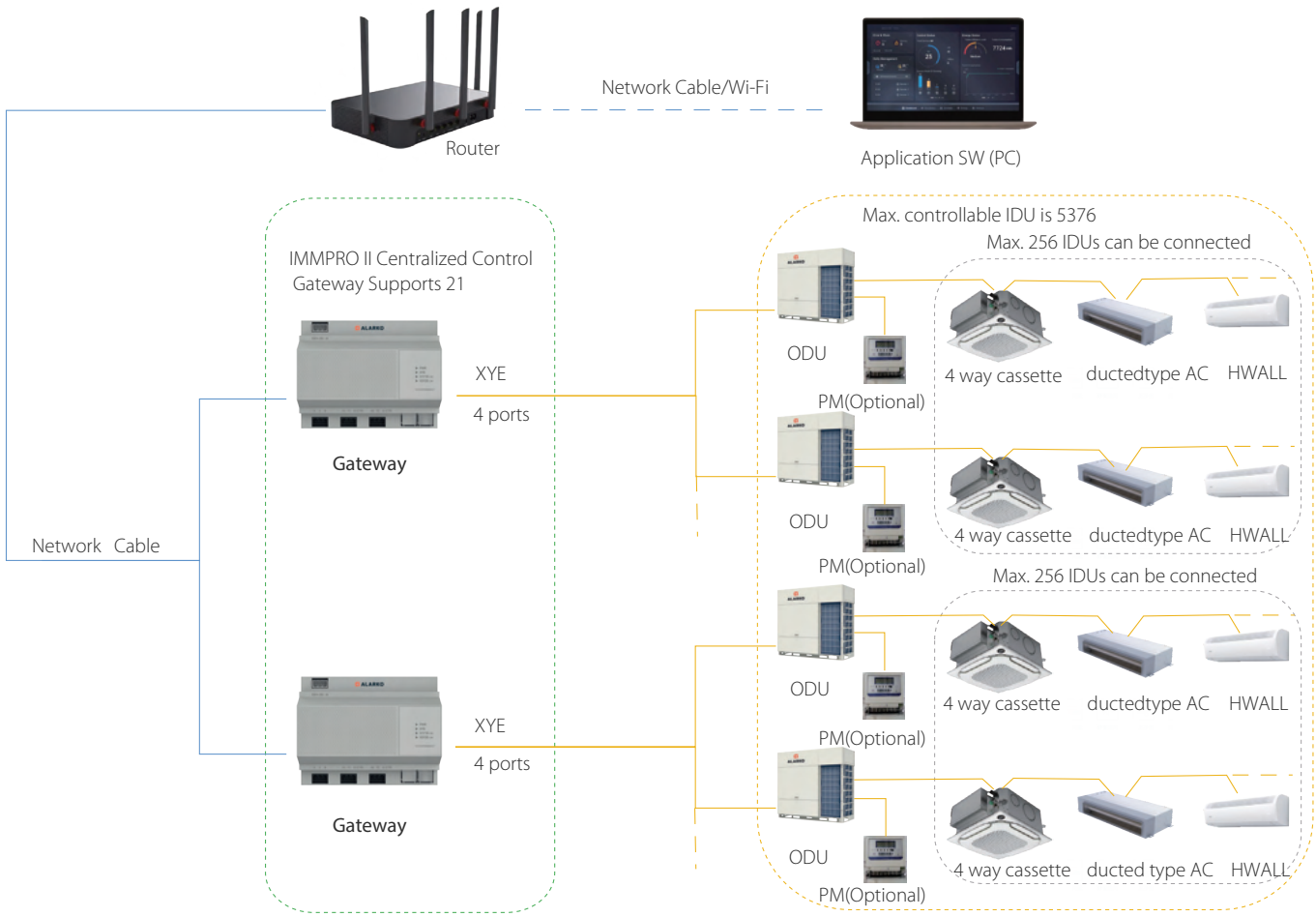
Users can upload project floor drawings and arrange equipment locations according to the engineering information. The software will be able to display the distribution of system equipment in a 2D or 3D manner

Power Distribution

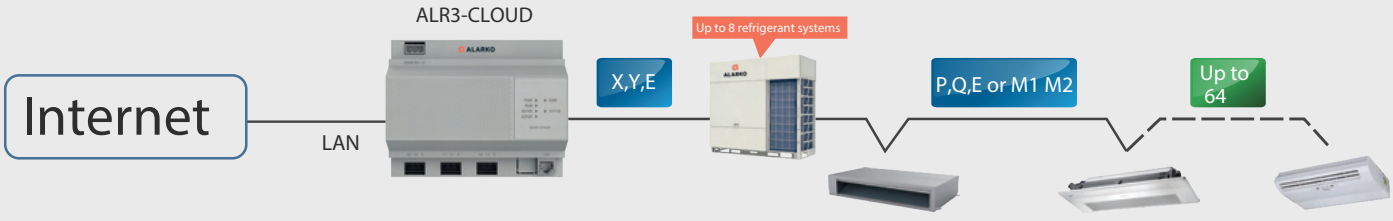
Cooperated with the Alarko digital power meter, IMMPRO II can collect ODU power consumption information and use the patented Alarko Calculation Method to estimate the electricity consumption of the indoor units and then using the rules set by the user divide the whole power comsumption among building occupants.

Easy Installation and Debugging



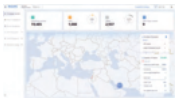


NETWORK CONTROL SYSTEM



Features

Cloud Control		
Software model	iEasyComfort	iEasyComfort App
Device control	●	●
Device monitor	●	●
Group control	●	●
Schedule management	●	●
Group management	●	●
Error check function	●	●
Operation log	●	●
Clock and Weather display	●	●
Max. number of gateways per software system	Unlimited	Unlimited
Hardware model	 ALR3-CLOUD	
Dimensions (HxWxD)(mm)	154×124×51.5	
Power supply	12V DC	
Max. number of indoor units per gateway	64	
Max. number of refrigerant systems per gateway	8	
Unit Series	Pure Alarko system	

Cloud Service Platform	
Software model	Intelligent HVAC Management System
Project management	●
Device management	●
ODU and IDU OTA management	●
Event management	●
Permission management	●
Max. number of gateways per software system	Unlimited
Hardware model	 ALR3-CLOUD
Dimensions (HxWxD)(mm)	154×124×51.5
Power supply	12V DC
Max. number of indoor units per gateway	64
Max. number of refrigerant systems per gateway	8
Unit Series	Pure Alarko system

Note:
●: equipped as standard; ×: without this function

M-BMS MAX

Project Qty Level A **57,028**

Current month **5,325**

VRF	3,204	Air-cooled modular chiller water system	450
Air-cooled heat pump	1,541	Centrifugal/screw chiller water system	130

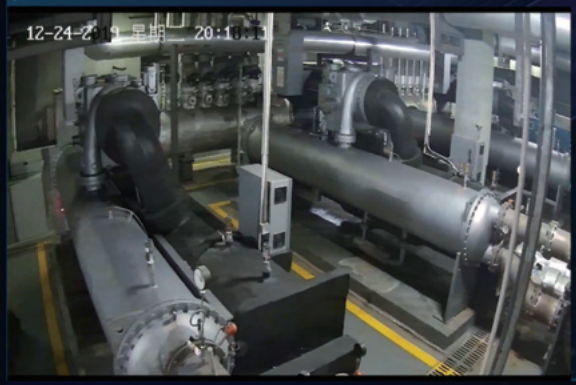
2019年12月24日 20:16:23 Shunde

	12.25	12.26	12.27	12.28
	Wednesday	Thursday	Friday	Saturday
20				
16-26℃ NWwind 2level Cloudy	16-26℃ Cloudy	13-25℃ Cloudy	15-21℃ Cloudy	16-22℃ Light rain

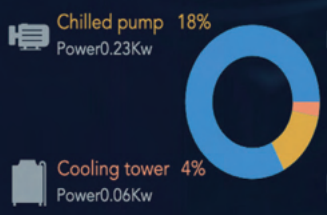
Transient Chain Indexes

Yesterday		Today
21.40	Outdoor temp. ℃	19.37
82.27	RH %	81.56
19.30	WB temp. ℃	17.29
18.28	Dew-point temp. ℃	16.15
13.30	Moisture content g/kg	11.60
2.32	Total power kW	1.26
0.00	Cooling capacity kW	0.00

Real-Time Monitoring Data



Plant Room Power Data



Lighting smart group control system

Light shading control to achieve lighting energy saving

Third-party system integration

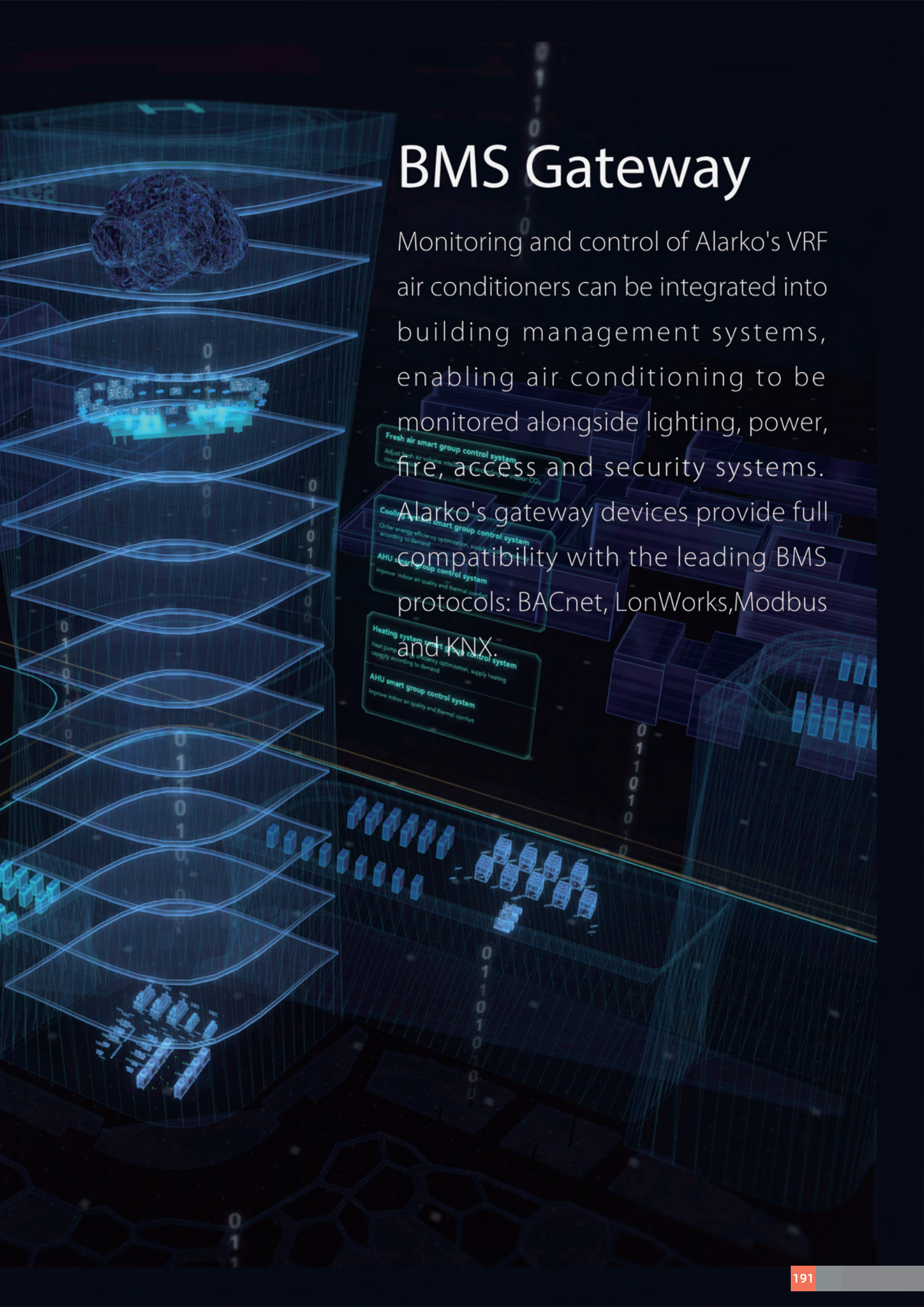
- Elevator system
- Security system
- Parking system
- Drainage system

VRF smart group control system

Flexible response to various air conditioning space demand

AHU smart group control system

Improve indoor air quality and thermal comfort

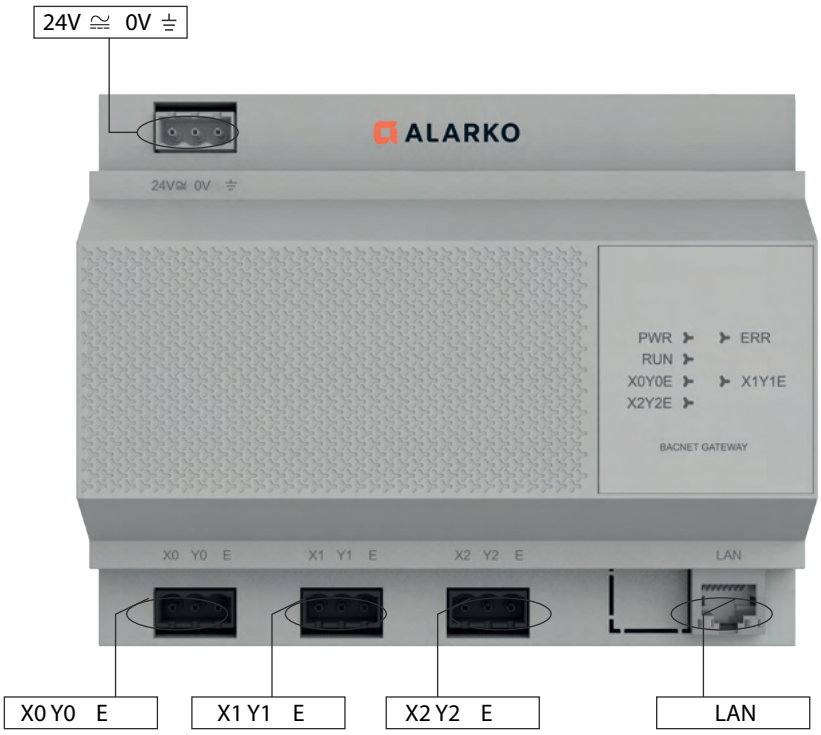


BMS Gateway

Monitoring and control of Alarko's VRF air conditioners can be integrated into building management systems, enabling air conditioning to be monitored alongside lighting, power, fire, access and security systems. Alarko's gateway devices provide full compatibility with the leading BMS protocols: BACnet, LonWorks,Modbus and KNX.

BACnet Gateway

Port Connections

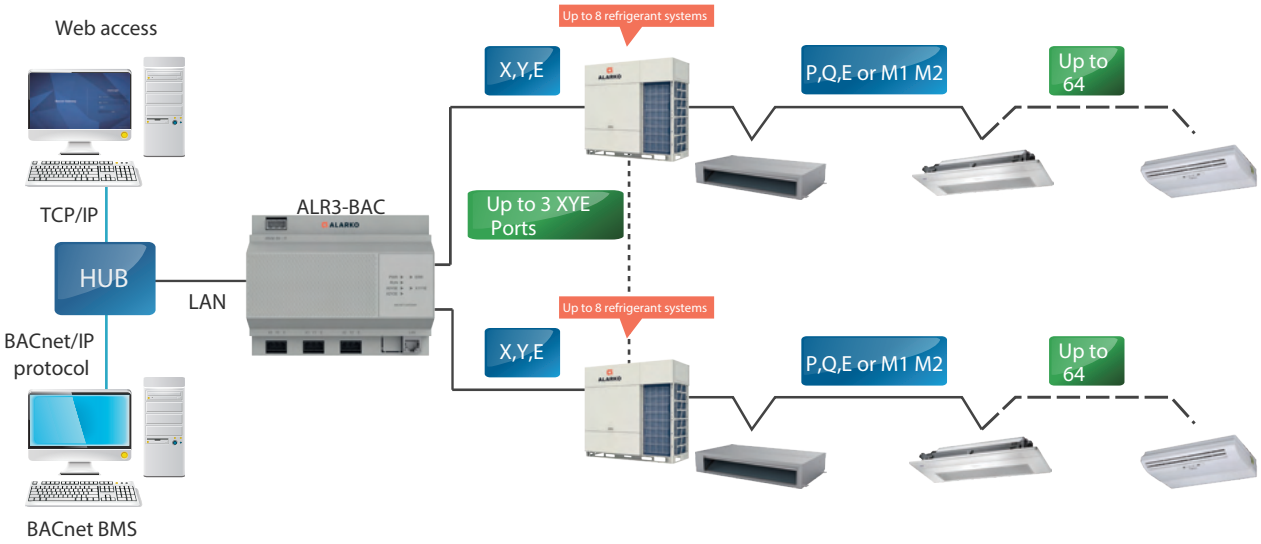


Full Integration

The BACnet Gateway enables seamless connection of Alarko VRF systems with building management systems built on the BACnet communication protocol.

Network Flexibility

The gateway can be connected to master outdoor units' XYE ports directly.



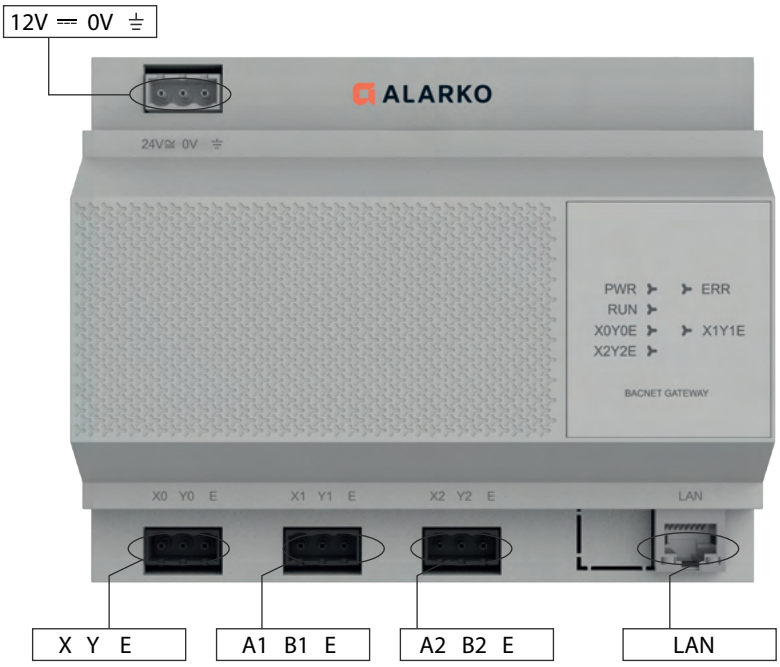
Features

Model		 ALR3-BAC
Max number of indoor units		192
Max. number of refrigerant systems		24
Indoor unit control	On / Off	●
	Mode selection	●
	Temperature setting	●
	Fan speed	●
	Swing	●
	Energy management	●
Indoor unit monitoring	Room temperature display	●
	Running status	●
	Error status	●
	EXV status	●
Outdoor unit control	Emergency Stop	●
Outdoor unit monitoring	Operating mode	●
	Outdoor ambient temperature	●
	Fan speed	●
	Compressor operating frequency	●
	Exhaust Temperature	●
	System pressure	●
	Error status	●
	Error alarms	●
LAN access		●
Dimensions (HxWxD)(mm)		154×124×51.5
Power supply		24V AC/DC
Unit Series		Pure Alarko system

Note:
●: equipped as standard; ×: without this function

Modbus Gateway

Port Connections



Two types of register addresses

By IDU/ODU address or by IDU/ODU Parameter Type (Continuous Addresses).
For the below parameter type can check by continuous addresses: IDU Operating mode status, IDU Operating fan speed status, IDU Set Temperature, IDU Ambient Temperature, IDU On/Off status, IDU online status, IDU Fault status, ODU Operating status, ODU Fault status, ODU online status and all IDU control register.

Full Integration

The Modbus Gateway enables seamless connection of Alarko VRF systems with building management systems built on the Modbus communication protocol.

Network Flexibility

The gateway can be connected to master outdoor units' XYE ports directly.

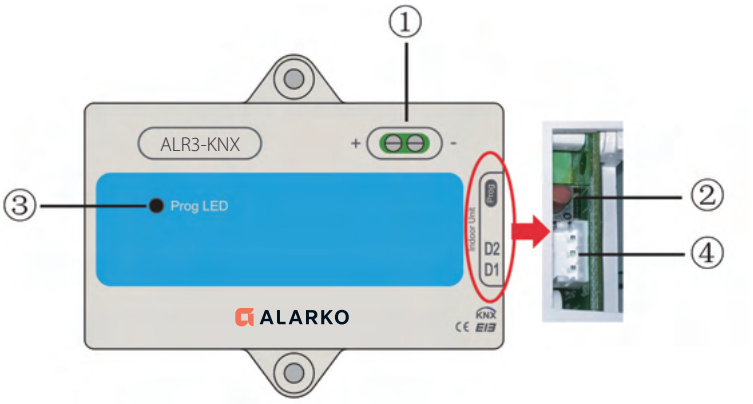
Features

Model		 ALR3-MOD
Max. number of indoor units		64
Max. number of refrigerant systems		8
Control	On / Off	●
	Mode selection	●
	Temperature setting	●
	Fan speed	●
	Energy management	●
	Group on/off	●
Indoor unit monitoring	Online status	●
	Room temperature	●
	Error status	●
	Operating mode	●
Outdoor unit monitoring	Operating mode	●
	Number of operating IDUs	●
	Outdoor ambient temperature	●
	Error status	●
LAN access		●
Dimensions (HxWxD)(mm)		154×124×51.5
Power supply		12V DC
Unit Series		Pure Alarko system

Note:
●: equipped as standard; ×: without this function

ALR3-KNX Gateway

Port Connections



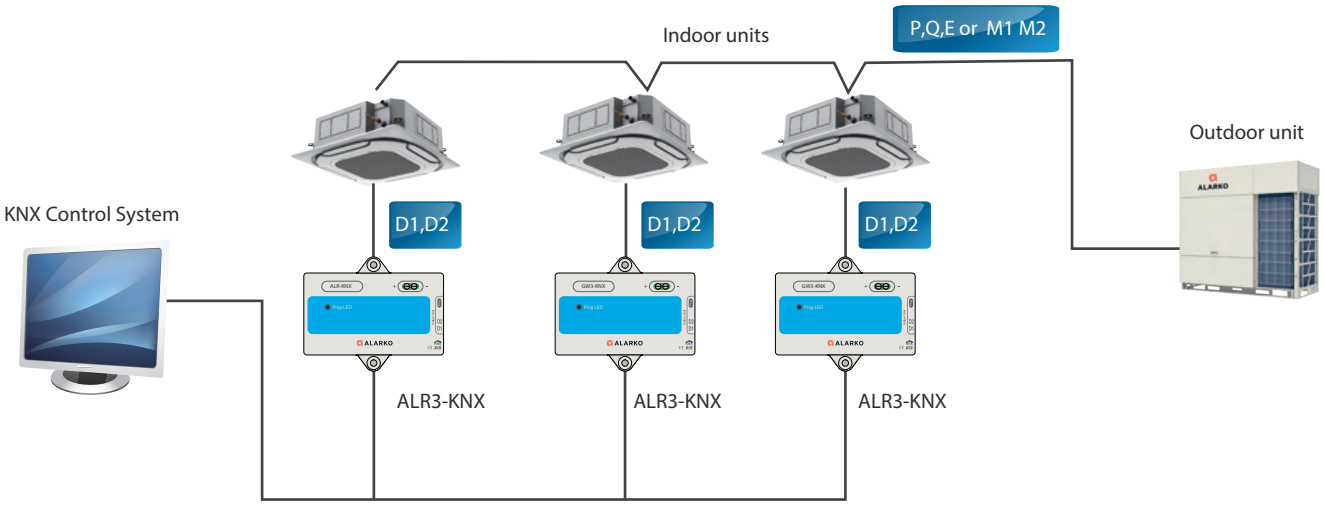
	Features
1	Power Supply DC 29 V
2	ALR Programming Button
3	ALR Programming Status Lamp
4	RS485 Communication Ports

Full Integration

The KNX Gateway enables seamless connection of Alarko VRF systems with home and building management systems built on the ALR communication protocol.

Network Flexibility

The gateway can be connected to indoor units' D1D2 port directly.



Features

Model		 ALR3-KNX
Max. number of indoor units		1
Control	On / Off	●
	Mode selection	●
	Temperature setting	● (1℃ steps)
	7-speed fan control	● (3-speed)
	Swing	●
Monitoring	On / Off	●
	Mode selection	●
	Temperature setting	●
	Fan speed	●
	Swing	●
	Room temperature	●
	Error alarm	●
Dimensions (HxWxD)(mm)		85×51×16
Power supply		29VDC (KNX bus supply)
Indoor unit series		3rd generation IDU and Alarko IDU

DIAGNOSIS SOFTWARE

Monitor and Diagnose

Alarko's VRF Diagnosis Software tool is used to monitor VRF systems and diagnose system errors.
System settings and operating parameters can be accessed easily and data logs can be reviewed for fault prevention purposes.

Features

Model		 DIAGNOSIS(A)
Max. number of indoor units		64
Max. number of refrigerant systems		1
Control	Mode selection	●
	Temperature setting	●
	Fan speed	●
Outdoor unit monitoring	Operating mode	●
	Capacity	●
	Compressor operating frequency	●
	Operating current	●
	Error status	●
	Temperatures	T3, T4(See note 1)
	Valve statuses	SV4, SV5, SV6, ST1 (See note 2)
	EXV position	●
Indoor unit monitoring	Operating mode	●
	Capacity	●
	Fan speed	●
	Address	●
	Temperatures	T1, T2, T2B, TS (See note 3)
	EXV position	●
Error codes		●
Toubleshooting		●
Data logs		●
Diagrams		System schematic, refregetrant flow diagram, parameter chart
Languages supported		English, Chinese
Units Series		Pure Alarko system

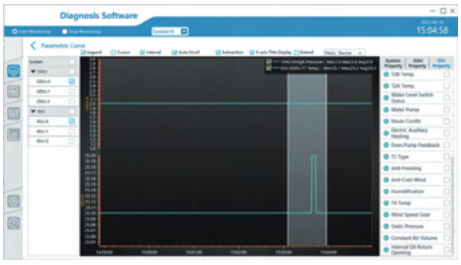
Note:
●: equipped as standard
1. Heat exchanger temperature, outdoor ambient temperature.
2. Oil return valve, defrosting valve, EXV bypass valve, four-way valve.
3. Indoor ambient temperature, indoor heat exchanger mid-point temperature, indoor heat exchanger outlet temperature, set temperature.

Expert Diagnosis

Alarko's VRF Diagnosis Software is specially designed to allow service engineers, to understand the operating status of the system at a glance.

Parameter Querying and Parametric Curve

Access all the system parameters easily.

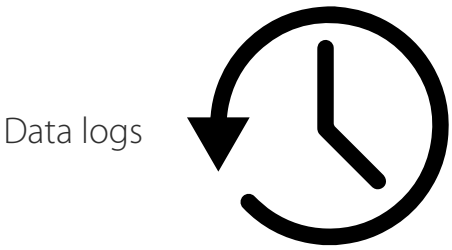


Use-friendly Interface

A stylish and simple interface with rich graphical representations makes diagnosing system issues quick and convenient.

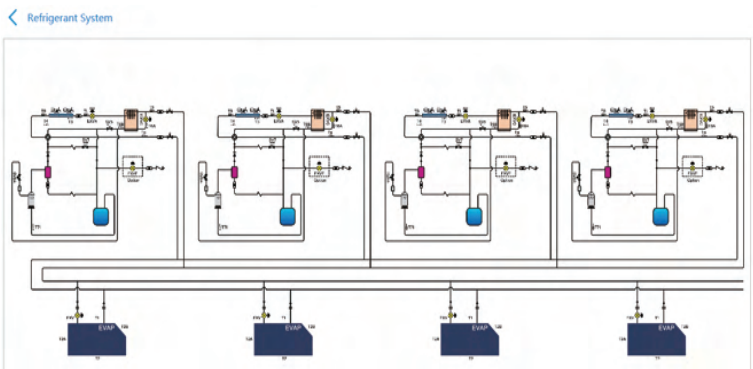
Data Logs

Data logs including operating records and error reports are saved by the software which is useful for discovering system issues.



Diagrams

A system schematic, refregetrant flow diagram and parameter chart can be generated to provide a graphical interpretation of the system status.



Wiring Schematic

XYE Extension Kit

Simple Design

The ALR3-EK is used to extend the XYE port of outdoor unit as the 2-way one which can connect to 2 Central Controllers or gateways.

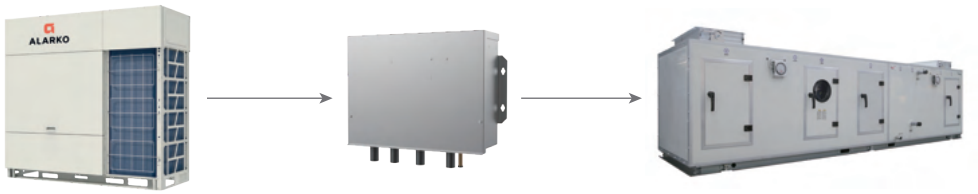
Features

Model	 ALR3-EK
Max. number of refrigerant systems	8
Wiring flexibility	
Dimensions (H×W×D)(mm)	154X124X51.5
Power supply	12V DC
Unit Series	Pure Alarko system

VRF DX AHU KIT

High Efficiency

AHU Control Box facilitates raising the EER/COP of the complete AHU system.



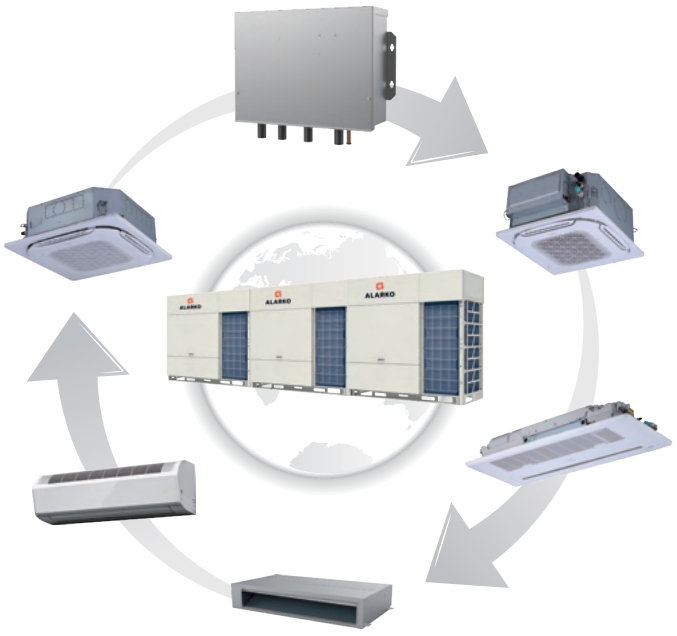
Wide Capacity Range

Four control boxes can be used in parallel, giving an overall capacity range of 0.8HP to 240HP.

ALR-AHU03F: 1.8~9kW
ALR-AHU06F: 9~20kW
ALR-AHU12F: 20~36kW
ALR-AHU20F: 36~56kW
ALR-AHU60F: 56~168kW

Compatible with VRF Systems

AHU Control Box are compatible with Alarko VRF outdoor units and can be used together with all types of Alarko VRF indoor units.



Diverse options for control

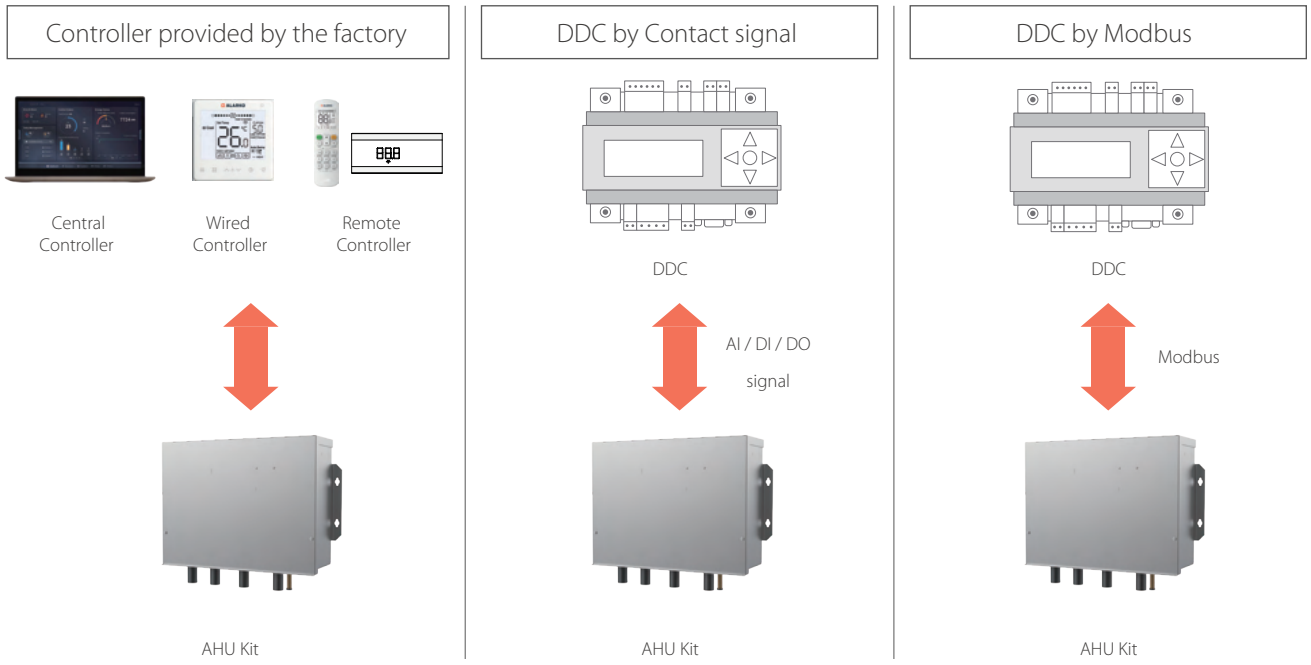
AHU Kit can be connected to multiple controllers, and can choose between factory controllers or DDC (third-party controllers), but only one can be selected. AHU Kit can directly connect to DDC and receive product control information through contact signals or Modbus protocol.

• Alarko factory controller supported

Direct wiring between DDC and AHU Kit

- Embedded digital I/O and analog inputs
- Supports Modbus RTU

Note：For details, contact technical personnel.



Matchable controller type

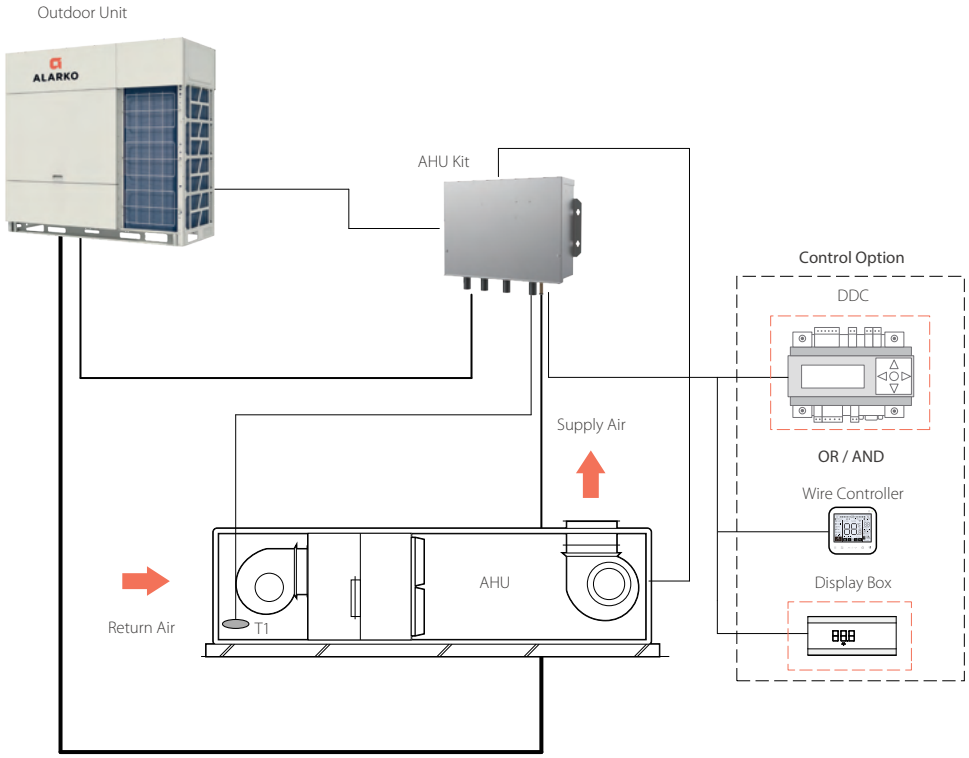
Matching controller model	
Remote controller	ALR3-WL12F1+Display box
Wired controller	ALR3-WR86S
Central controller	IMMRPO II

Specifications

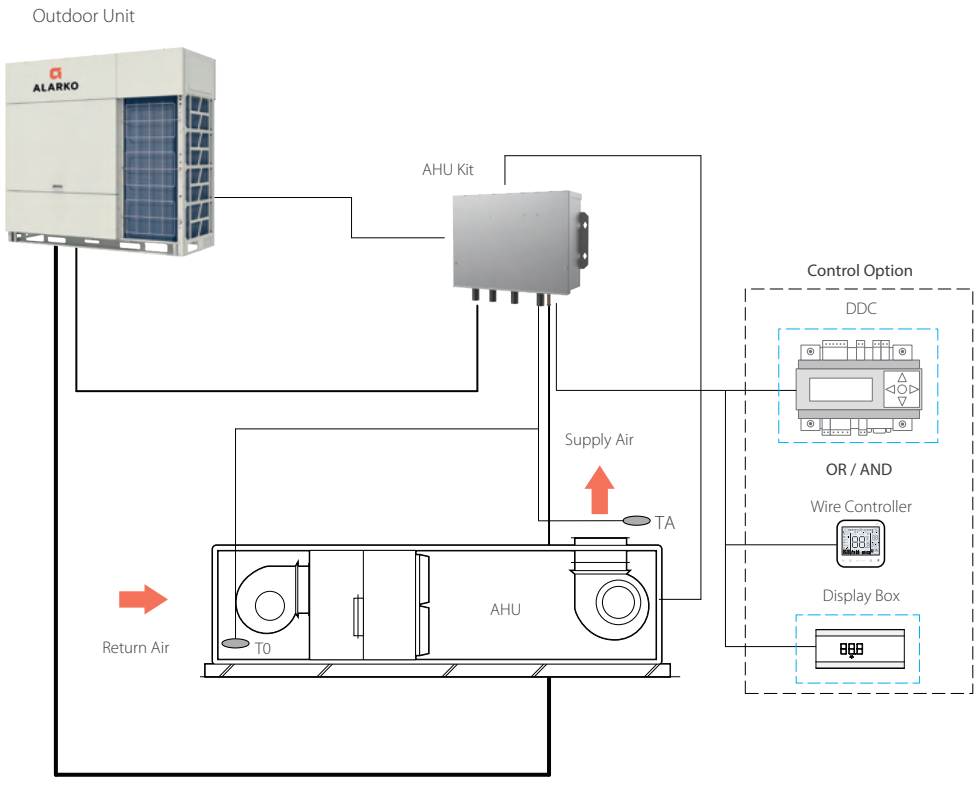
Model name	ALR-AHU03F	ALR-AHU06F	ALR-AHU12F	ALR-AHU20F	ALR-AHU60F
Capacity A (kW)	1.8≤A<9	9≤A≤20	20<A≤36	36<A≤56	56<A≤168
Power supply	220-240V~50/60Hz				
Liquid pipe (in/out) (mm)	Φ8/Φ8	Φ8/Φ8	Φ12.7/Φ12.7	Φ12.7/Φ12.7	Φ12.7/Φ12.7
Dimension (WxHxD) (mm)	479x134x384				
Weight (kg)	6.2	6.2	6.4	6.4	6.6
Operation range (cooling on coil) (°C)	17-43				
Operation range (heating on coil) (°C)	5-30				
Applicable outdoor units	Heat pump / heat recovery / cooling only				

Application (AHU Kit & Controller Module)

AHU Kit + Return Air Control



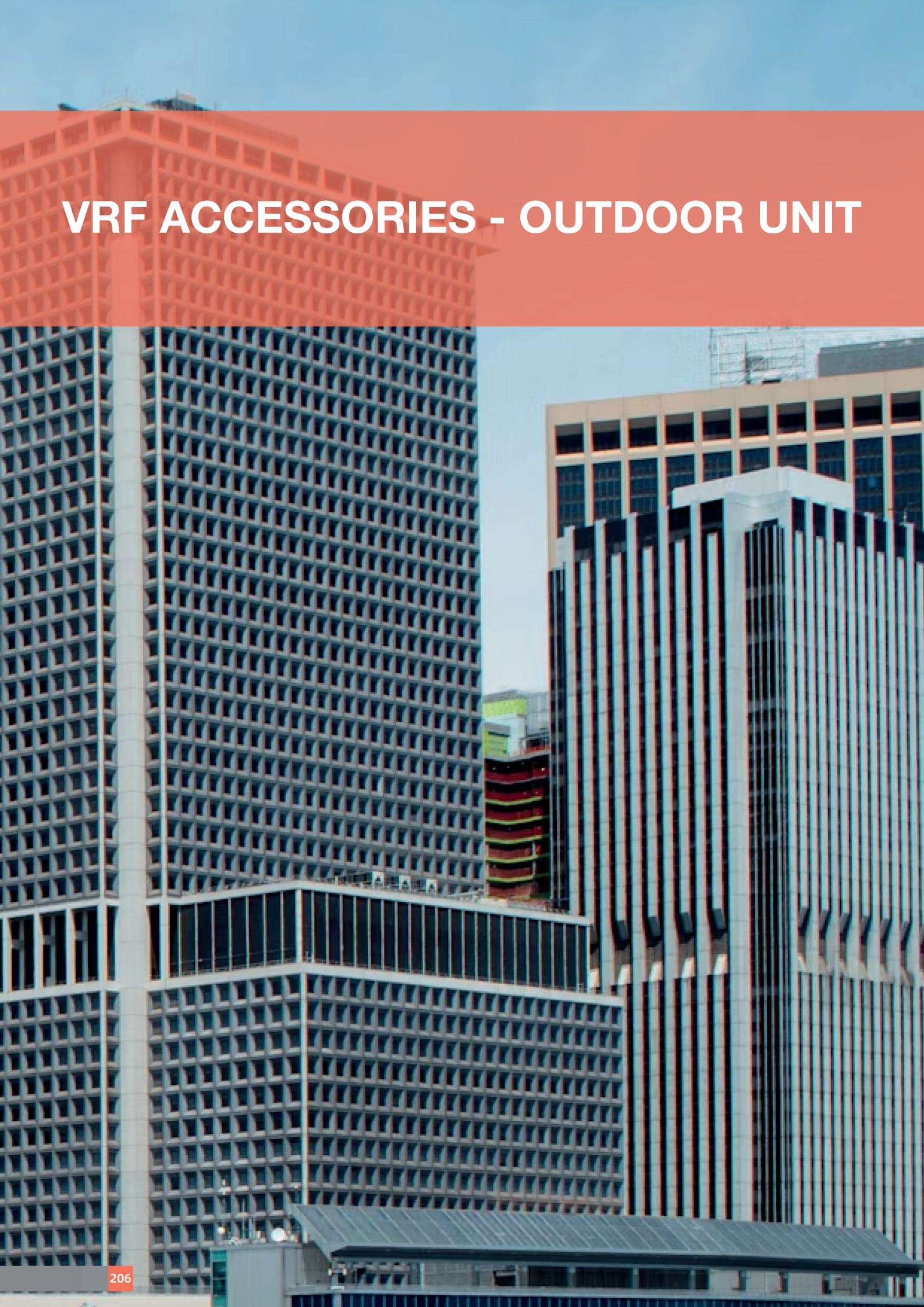
AHU Kit + Supply Air Control



T1: AHU indoor return air temperature sensor
T0: AHU outdoor fresh air temperature sensor
TA: AHU supply air temperature sensor

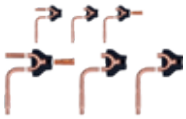
Note: For detailed installation and use requirements, please read the installation instructions.

VRF ACCESSORIES - OUTDOOR UNIT



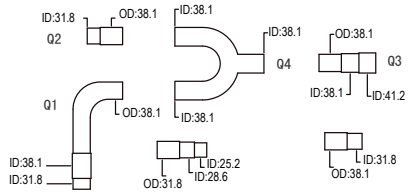
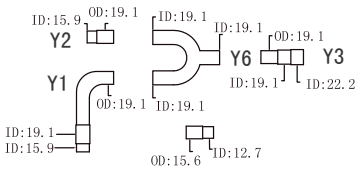
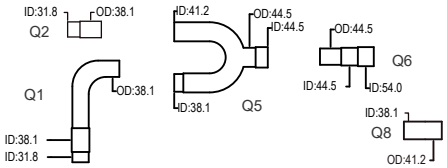
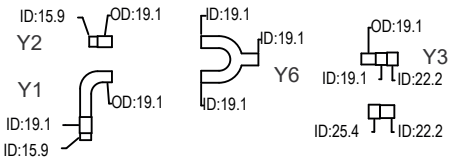
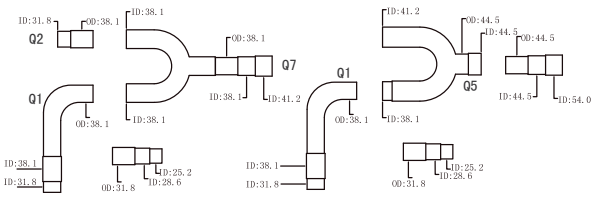
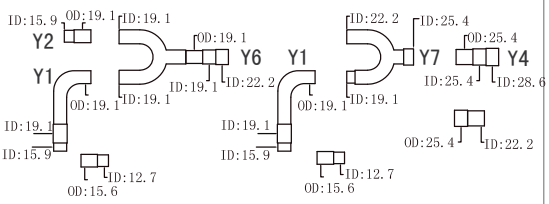
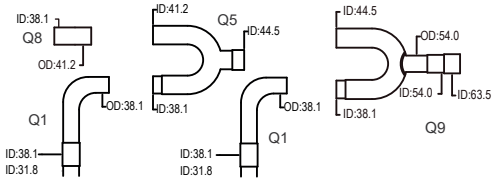
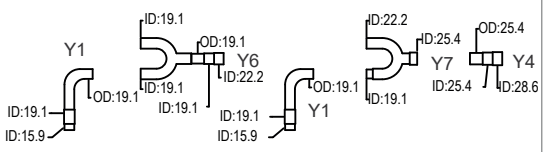
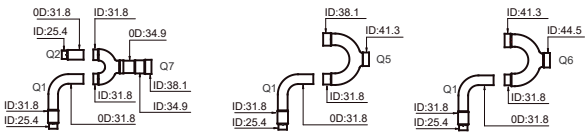
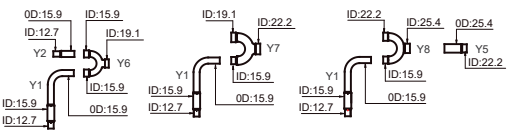
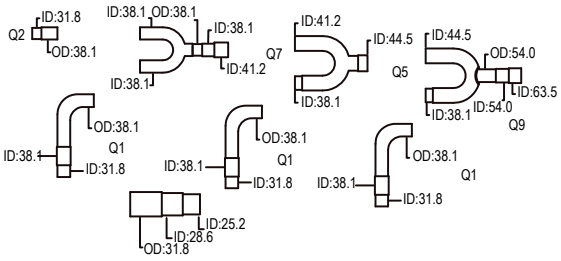
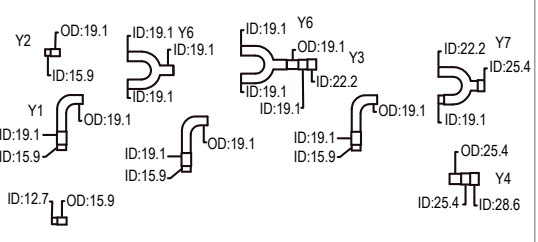
Branch Joints

For Outdoor Units

Type	Appearance	Model	Packed Dimensions (mm)	Gross Weigh t(kg)	Note
Branch joints for Top Discharge, combinable series		ALR-BJC02E	255×185×150	2.0kg	Connecting two outdoor units, outdoor unit capacity＜56HP
		ALR-BJC02G	405×270×120	2.8kg	Connecting two outdoor units, outdoor unit capacity≥56HP
		ALR-BJC03E	345×285×160	4.3kg	Connecting three outdoor units, outdoor unit capacity≤96HP
		ALR-BJC03G	585×340×140	5.0kg	Connecting three outdoor units, outdoor unit capacity＞96HP
		ALR-BJC04D	475×300×165	4.8kg	Connecting four outdoor units, outdoor unit capacity≤82HP
		ALR-BJC04G	470×370×260	6.6kg	Connecting four outdoor units, outdoor unit capacity＞82HP
Branch joints for Side discharge combinable series		ALR-BJC02E	255×185×150	2.0kg	Connecting two outdoor units
		ALR-BJC03E	345×285×160	4.3kg	Connecting three outdoor units
		ALR-BJC04G	475×300×165	4.8kg	Connecting four outdoor units

Dimensions

Outdoor Branch Joints

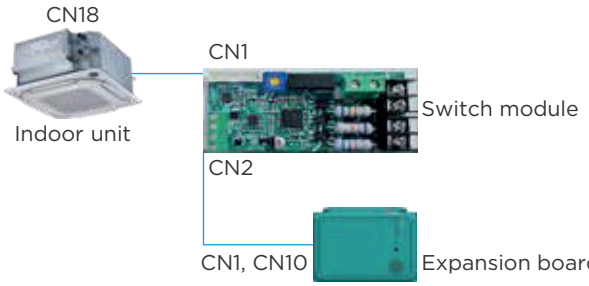
Model	Gas side joints	Liquid side joints
ALR-BJC02E		
ALR-BJC02G		
ALR-BJC03E		
ALR-BJC03G		
ALR-BJC04D		
ALR-BJC04G		

VRF ACCESSORIES - INDOOR UNIT

Expansion Board

With the expansion board, the IDU can be achieved more function, such as humidifier, dehumidifier, electric heating, long-distance alarm, sensor connection, etc.

Features

Model	ALR3-EK01 	ALR3-EK02
Wiring		
Dimensions (H×W×D) (mm)	170 x 120x 50	243 x 66.2 x 67.6
Outdoor unit series	Compact Four-Way cassette, Four-Way cassette, Arc Duct, Medium Static Pressure Duct, Wall-mounted, High Static Pressure Duct, Floor Standing	

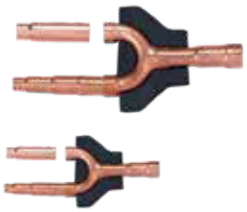
Switch Module

If the IDU wants to connect to the expansion board, it must go through the switch module.
The R32 refrigerant alarm function can also be implemented via the switch module.

Model	 ALR3-SM
Wiring	
Outdoor unit series	Compact Four-Way cassette, Four-Way cassette, Arc Duct, Medium Static Pressure Duct, Wall-mounted, High Static Pressure Duct, Floor Standing

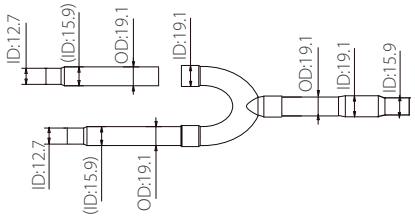
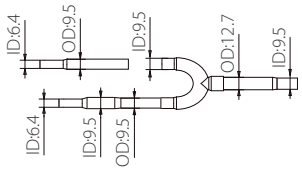
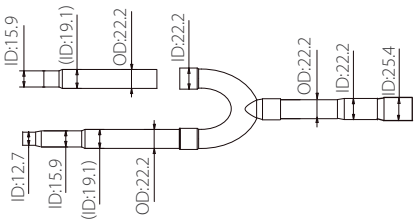
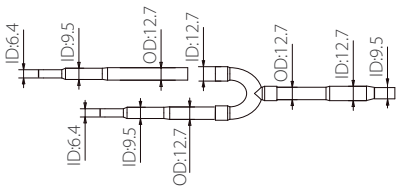
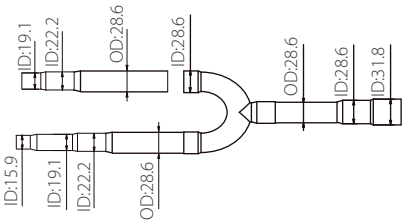
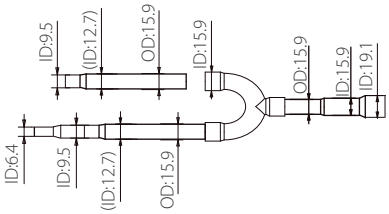
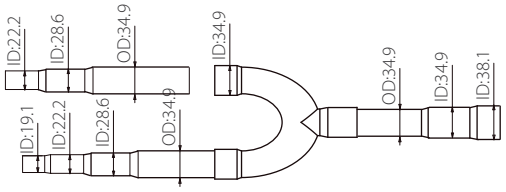
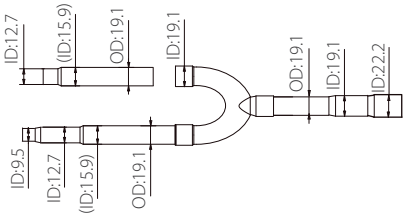
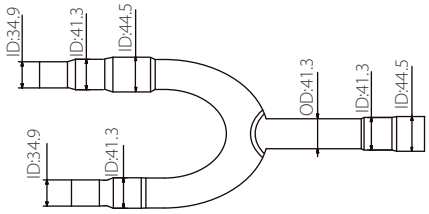
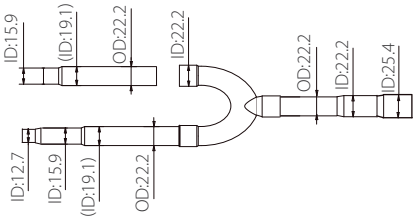
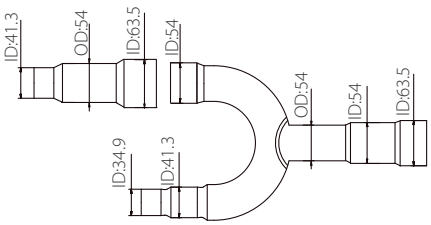
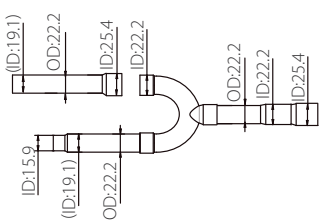
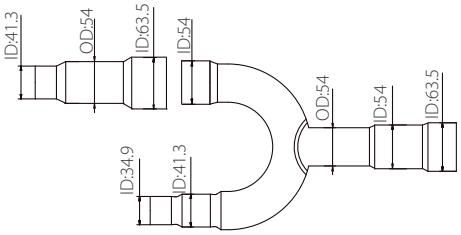
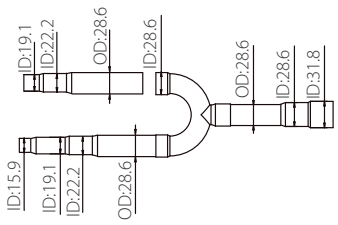
Branch Joints

For Indoor Units

Type	Appearance	Model	Packed Dimensions mm	Gross Weight kg	Note
Branch joints for indoor units		ALR-BJF224	290×105×100	0.4	/
		ALR-BJF330	290×105×100	0.6	/
		ALR-BJF710	310×130×125	0.9	/
		ALR-BJF1344	350×180×170	1.5	/
		ALR-BJFE1344	365×195×215	1.9	/
		ALR-BJFE1500	390×230×255	3.1	/
		ALR-BJFE2690	390×230×255	3.4	/

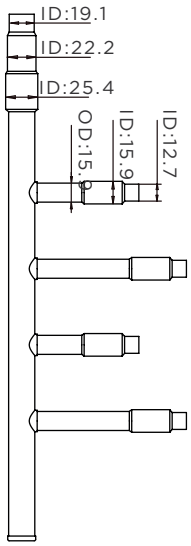
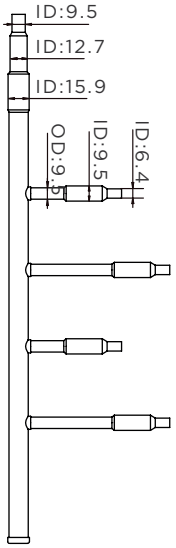
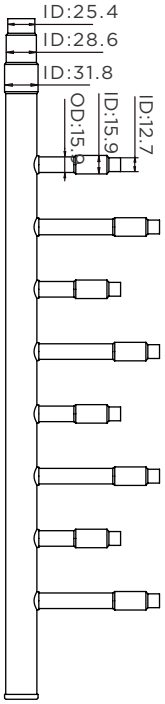
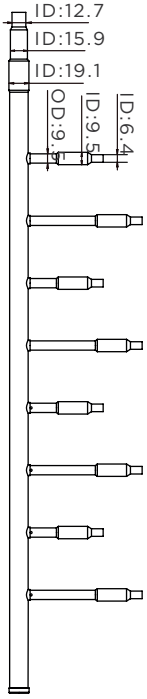
Dimensions

Indoor Branch Joints

MODEL	GAS SIDE JOINTS	LIQUID SIDE JOINTS
ALR-BJF224		
ALR-BJF330		
ALR-BJF710		
ALR-BJF1344		
ALR-BJFE1344		
ALR-BJFE1500		
ALR-BJFE2690		

Branch Header

For Indoor Units

MODEL	APPEARANCE	GAS SIDE DIMENSION	LIQUID SIDE DIMENSION
ALR-DXFQT4			
ALR-DXFQT8			

Note: Manufacturer reserves the right to change any product specifications without notice.

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