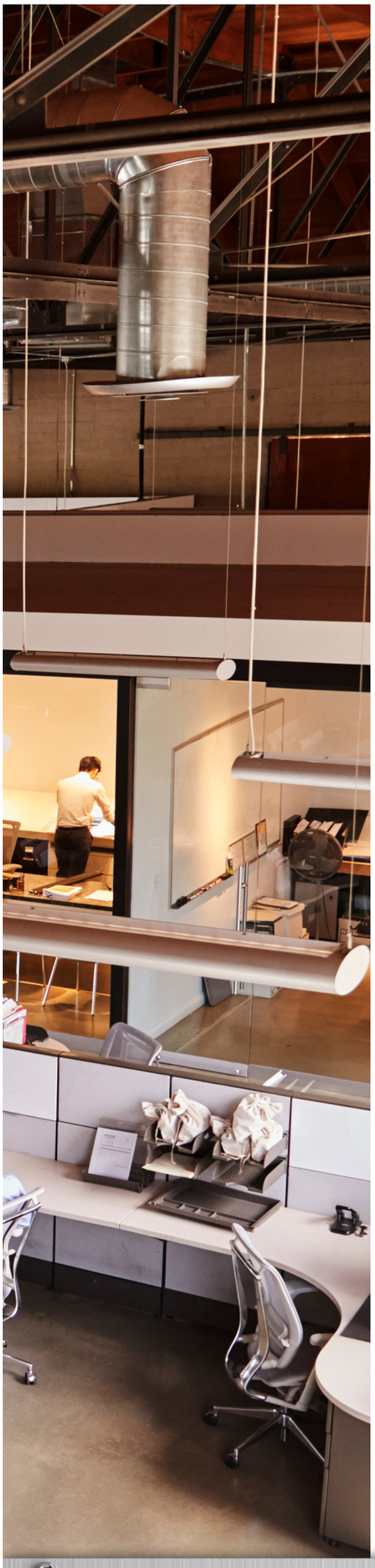
UAVR-D SERIES
A NEW GENERATION OF VRF.

RELY ON RUUD.™



CONTENTS.

ABOUT Ruud®

VRF SYSTEMS

OUTDOOR: UAVR-D SERIES

INDOOR UNITS

CONTROL TECHNOLOGIES

DESIGNED TO LAST, IN ANY ENVIRONMENT.

For nearly 100 years, Ruud® has pioneered innovative air conditioning and water heating solutions.

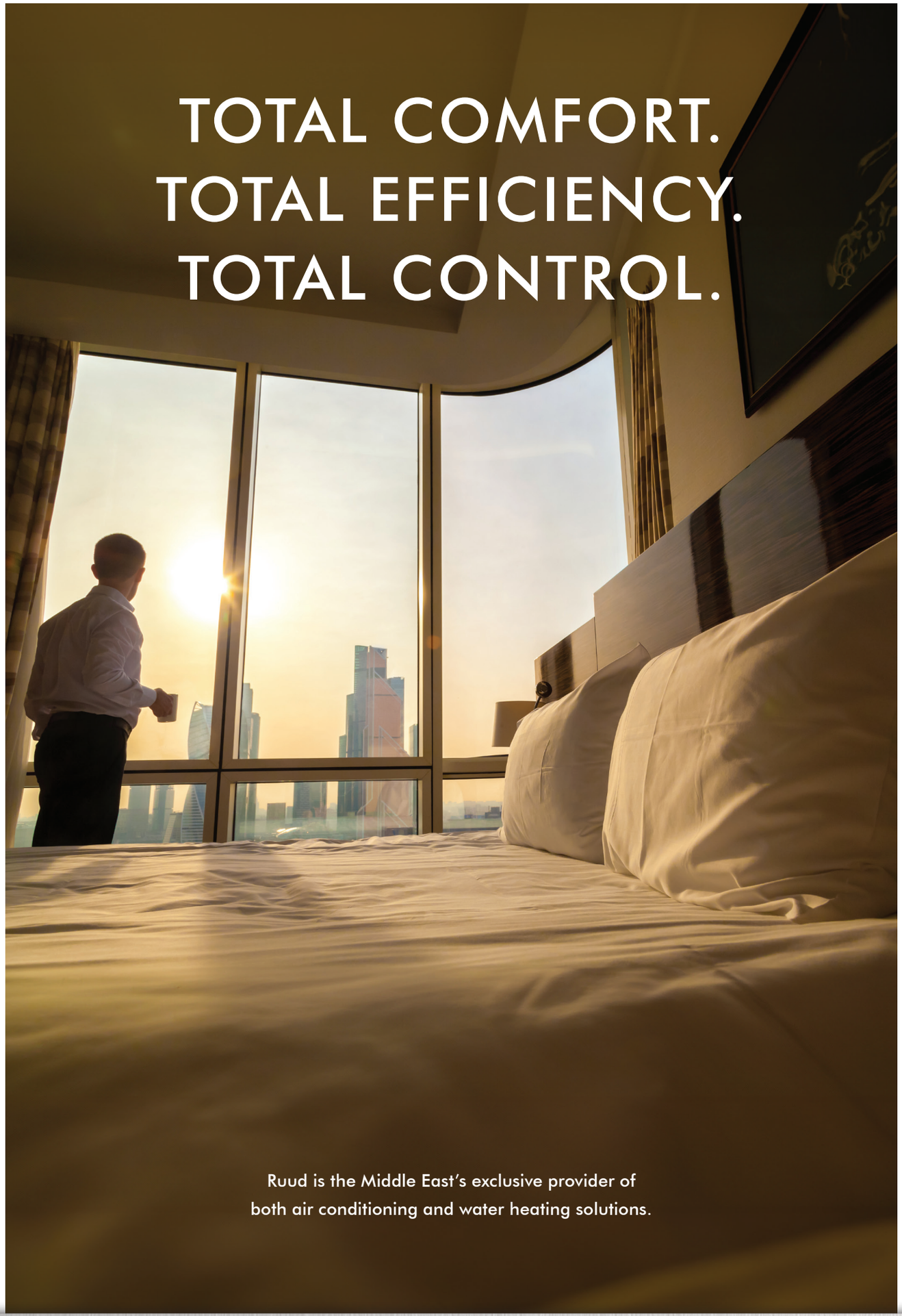
Our journey began in 1925, as a small family business based in Arkansas, USA. Since then, we have evolved into a global symbol of trust and quality within the industry.

Establishing a robust presence in the Middle East as far back as the 1980s, Ruud has consistently introduced world-leading product innovations for both commercial and residential projects.

From our manufacturing facilities in Dubai, to our Innovation and Learning Centers (ILCs) across the United Arab Emirates and Kingdom of Saudi Arabia, Ruud is dedicated to designing, building and supplying the most reliable, environmentally responsible and technologically advanced products in the industry.

And, whilst we always want to stay one step ahead, we will always stay true to our core values.

We are committed to making a difference with the products we create, for the people we serve and for the planet we call home.



TIMELINE.

1889

Edwin Ruud invents the first gas storage water heater.

1925

Brothers Richard and Donald Ruud establish Ruud Manufacturing Company.

1930-50

Automatic gas storage water heaters are produced under the Ruud business. Ruud enters the HVAC business, advertising central heating and air conditioning systems.

2024

The largest Innovation Learning Center opens in Saudi Arabia.

2021

Inaugrated a new air conditioning factory in UAE.

1970

Air conditioning headquarters open in Fort Smith, Arkansas. Water heating headquarters are established in Montgomery, Alabama.

1980-90

- Paloma Co. Ltd of Nagoya, Japan, acquires Ruud.
- The Richmond brand for water heating is created.
- Nuevo Laredo (WHD) opens.

2000-08

- Ruud pioneers the first gas storage water heater, originally patented by Edwin Ruud in 1890.
- Nuevo Laredo (ACD) opens.
- Ruud's headquarters open in Atlanta.

2020

Opened Innovation and Learning Center in UAE.

2012

Manufacturing MEA FZE (Dubai office) is established.

2009-10

- Ruud introduces tankless water heaters.
- Research & Development (R&D) lab opens in Mexico.

OUR COMMITMENT TO SUSTAINABILITY.

At Ruud, we are committed to developing products which consume fewer resources, generate less waste and ensure simpler, safer processes.

These solutions are designed to dramatically cut our impact on the environment, whilst empowering both our customers and employees to work and live sustainably.

Degrees of innovation

We are focused on innovating with intent, engineering solutions with lifetime sustainability in mind — from material selection, to smart features, to responsible recycling.

Degrees of efficiency

We strive for operational excellence, working smarter and more sustainably to consume fewer resources, generate less waste and ensure simpler, safer processes.

Degrees of leadership

We hire and inspire our teams to be next-generation thinkers and responsible stewards of our industry, the greater community and the environment.

OUR 360+1 PHILOSOPHY.

At Ruud, our 360°+1 philosophy is at the center of everything we do. Over the past century, we have pioneered smart solutions that meet the heating, cooling and water heating needs of contractors and homeowners alike.

We believe in delivering excellence at every angle – from design, to performance, to partnership and beyond. We delve into every detail, from top to bottom and inside out. We continuously interrogate and evaluate the work that goes into installing and servicing our products, to ensure that we are delivering the best experience possible – and then we push it even further.

We are committed to total sustainability, reliability, comfort and control in each of our products, and we always go that extra degree to exceed the expected. This is why we're more than a provider; we're your trusted partner.

360° performance™

Performance is not just about numbers. It's also about reliability – for today, tomorrow and for years to come. With every product we design and develop, we set out to lower energy consumption and operating costs. Our work continuously drives us towards optimal efficiency, to deliver better results for people and our planet.

360° installability™

We continuously add innovative new features to our product line-up to make installation faster, easier and more cost-effective. This seamless approach is integral to what we do. In fact, we think this aspect of our products is so important, that we coined a new term for it: Installability™.

360° serviceability™

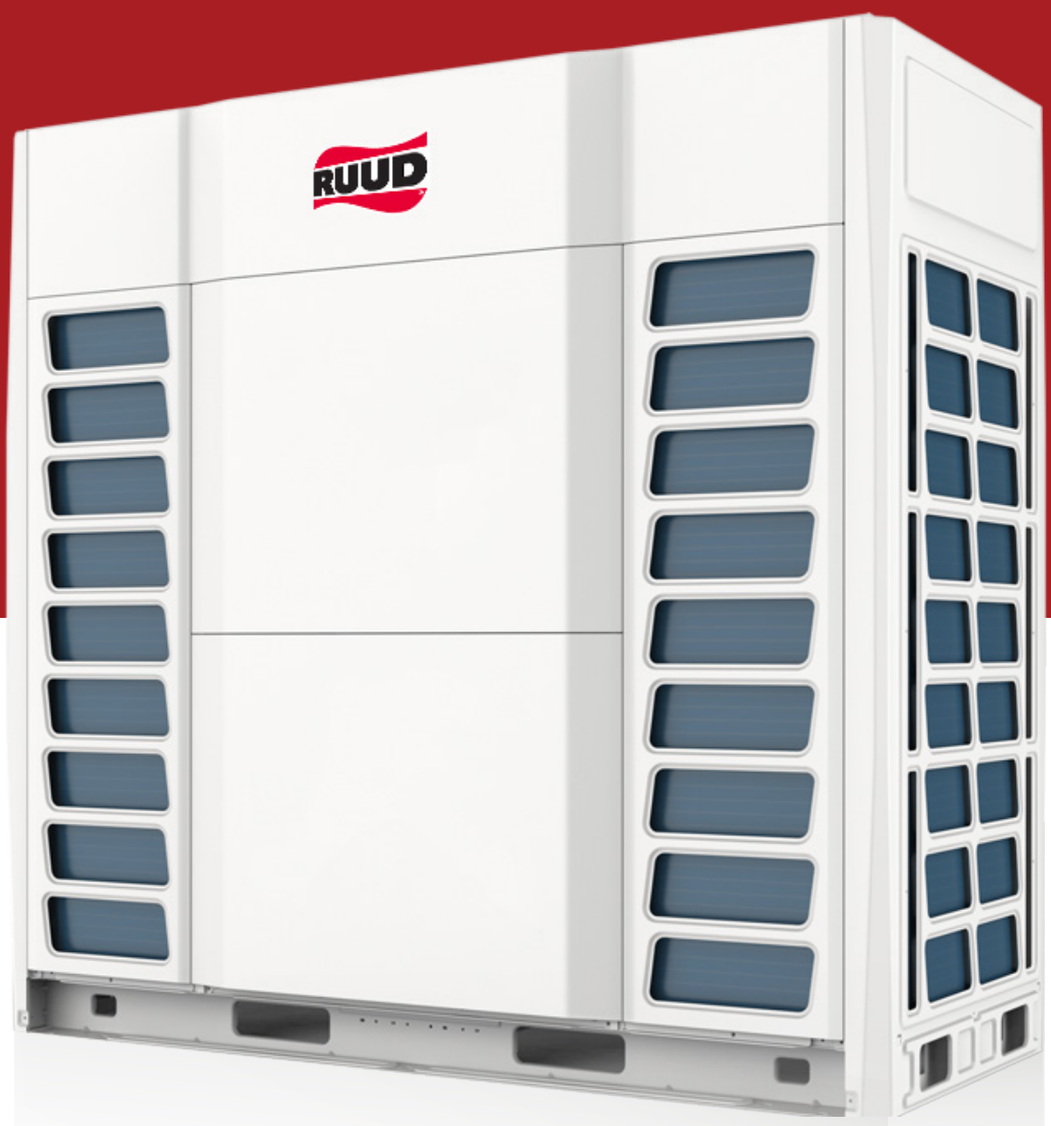
We work smarter, so you don't have to work harder. Serviceability is a cornerstone of our work. We ensure that our products are developed with easy access to unit components in mind, and our diagnostic systems are intelligently designed to make problem solving quicker and easier.

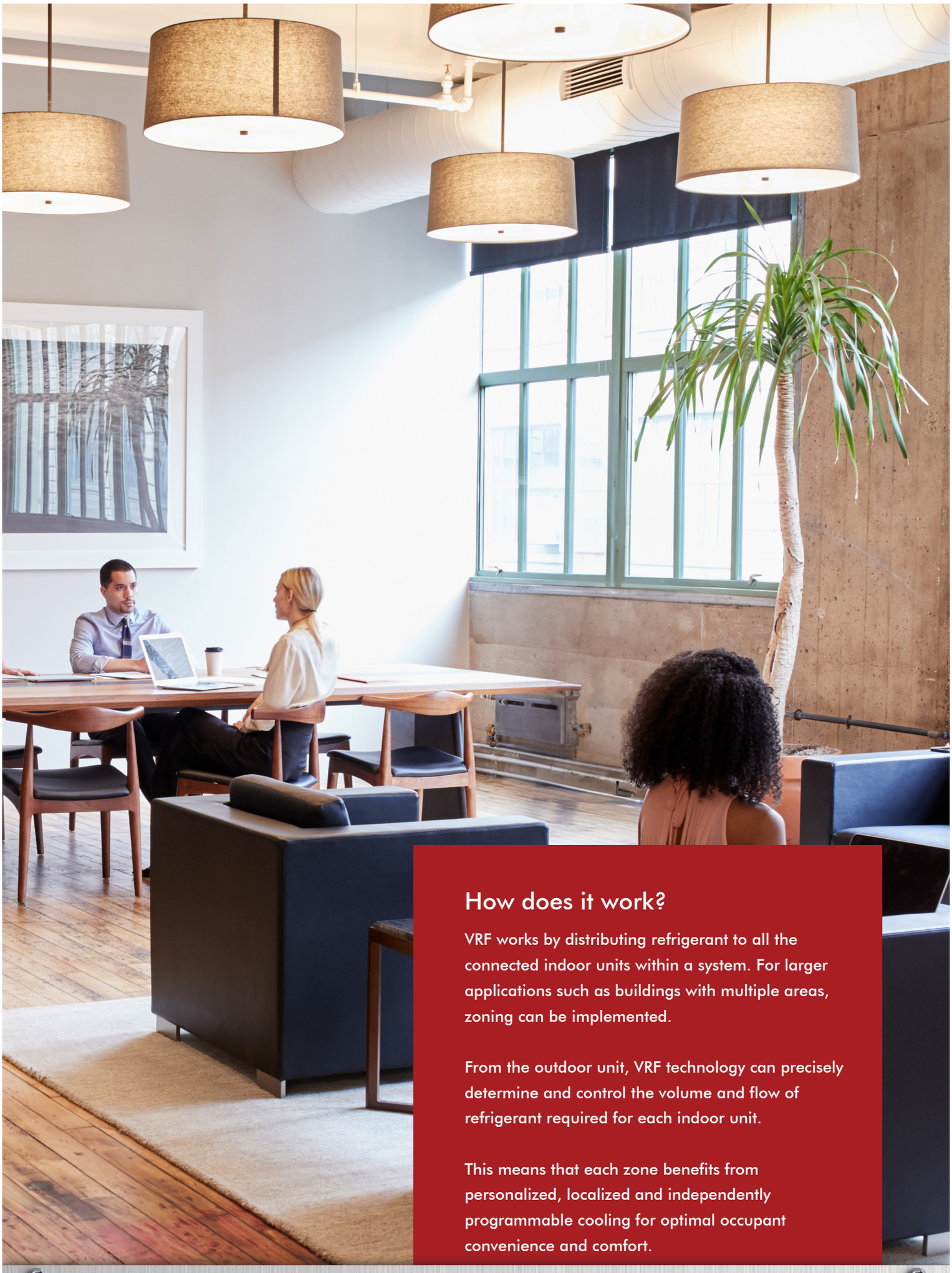
VRF SYSTEMS.

WHAT IS VRF?

A global solution for local challenges.

The all-in-one solution for a cooler, cleaner indoor environment. Variable Refrigerant Flow (VRF) systems are designed to perform at a high capacity and with greater efficiency than standard HVAC technology. This unparalleled innovation makes it easier to reduce environmental impact and operating costs, whilst raising comfort levels for all.





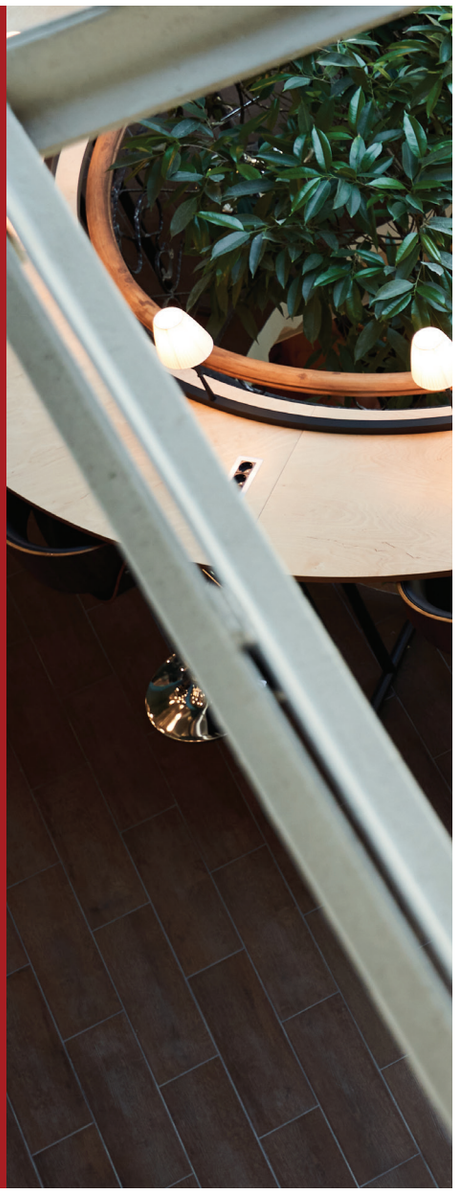
How does it work?

VRF works by distributing refrigerant to all the connected indoor units within a system. For larger applications such as buildings with multiple areas, zoning can be implemented.

From the outdoor unit, VRF technology can precisely determine and control the volume and flow of refrigerant required for each indoor unit.

This means that each zone benefits from personalized, localized and independently programmable cooling for optimal occupant convenience and comfort.

GENERAL BENEFITS.



Efficient

Because VRF systems deploy the minimum amount of refrigerant needed to cool to the desired temperature, they are significantly more efficient than conventional, ducted HVAC-R systems.

By eliminating the substantial energy loss incurred through conventional duct systems, VRF technology can achieve energy cost savings of more than 30%.

Versatile

Performance is not just about numbers. It's also about reliability – for today, tomorrow and for years to come.

With every product we design and develop, we set out to lower energy consumption and operating costs. Our work continuously drives us towards optimal efficiency,
to deliver better results for people and our planet.

Sustainable

We design our systems to exceed all local efficiency and environmental regulatory standards and adhere to rigorous MENA regulations.

Our VRF products are developed with R410A refrigerant, which has an Ozone Depletion Potential (ODP) of 0. We were the first HVAC manufacturer to introduce R-410A units to the GCC market, and we continue to develop and deliver innovative solutions that combine high performance with environmental responsibility.

BENEFITS FOR BUILDING OWNERS.

Streamlined management

- Easy maintenance and management.
- Clear fault detection and self-diagnosis, for streamlined troubleshooting.
- Lower energy usage, resulting in greater cost savings.

Durability

- Backup operation technology ensures uninterrupted operation, even in the event of a component failure.
- In one combination system, any module can run as the master unit, optimizing the overall system performance and prolonging the overall lifespan of each unit.

Reliability

- Engineered to meet the highest regulatory standards.
- Corrosion-resistant blue fin technology.
- Oil return control technology extends the lifespan of the compressor.
- Dynamic oil balance structure, to ensure the reliability of units that have multiple compressors.

BENEFITS FOR END USERS.

Introducing the UAVR-D series.

Industry-leading energy efficiency, with no compromise on performance.

The UAVR-D series combines state-of-the-art technology with Ruud's dynamic approach to product development.

We provide powerful solutions which scale with your needs. Spanning 8 to 144 HP, our UAVR-D series capacity range is the widest in the industry. A single unit alone can provide up to 36HP, the largest capacity for a single unit available on the market today.

So, no matter the size or scale, you can find the right match for your project.

Cost-efficiency

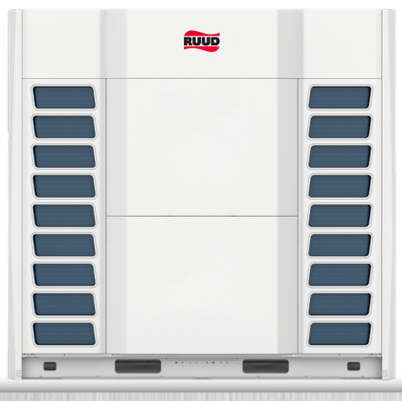
- Lower energy output results in lower energy bills for consumers.
- Targeting specific zones makes cooling quicker and cheaper.

Comfort

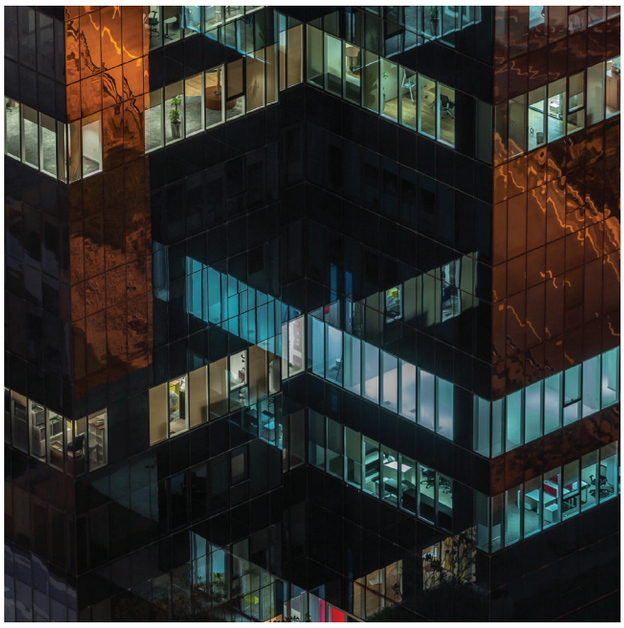
- High-frequency startup, for faster cooling.
- Extremely low noise operation, for enhanced acoustic comfort.

Air quality

- Efficient dehumidification.
- Long-term, quality air filter for better air purification.

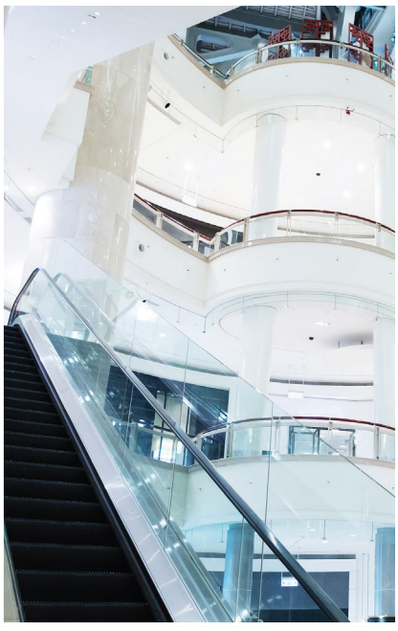


RUUD VRF APPLICATIONS AND PROJECTS.



Offices

UAVR-D series can be coupled with an array of indoor units and air handling units to enhance the comfort of occupants.



Commercial

By providing precise temperature control and zoning capabilities, UAVR-D systems optimize comfort levels for occupants while minimizing energy consumption for all sorts of commercial spaces.

Residential

Slim ducted and medium static units of the UAVR-D series enables optimal space-saving solutions, providing comfort to individual zones.

Hospitality

Our hotel key card options can be easily integrated ensuring a seamless and efficient way to manage energy usage in guest rooms.

TECHNICAL SOFTWARE.

Estimated Power consumption and ROI Calculator

CoolSaver

Selection Software

Piping Design

Generation of Selection on Shop Drawing

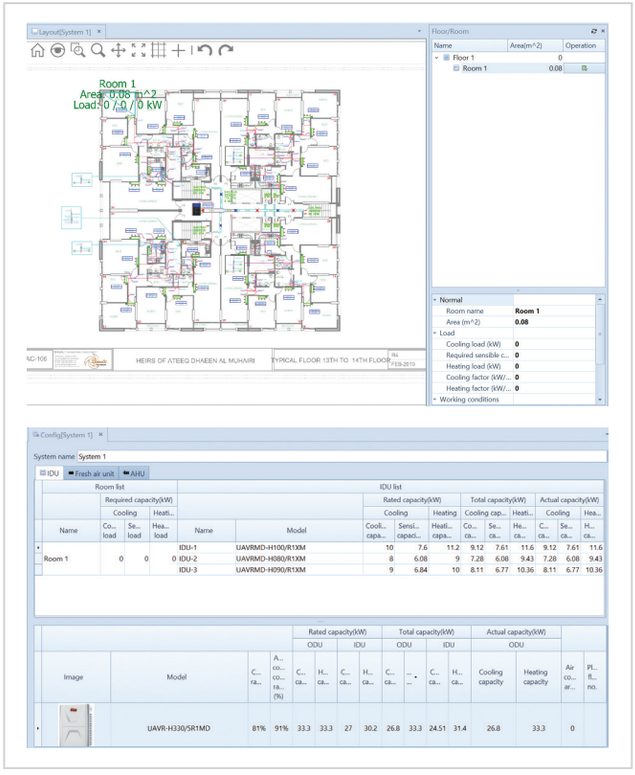
Ruud VRF Selection Software

Troubleshooting and Service Software

Ruud Monitoring Software

CoolSaver

Ruud CoolSaver is a program designed to provide estimations of energy consumption while also conducting in-depth analyses of Return on Investment. This innovative tool aids in forecasting draft energy usage, enabling users to make informed decisions regarding energy efficiency measures and potential savings.



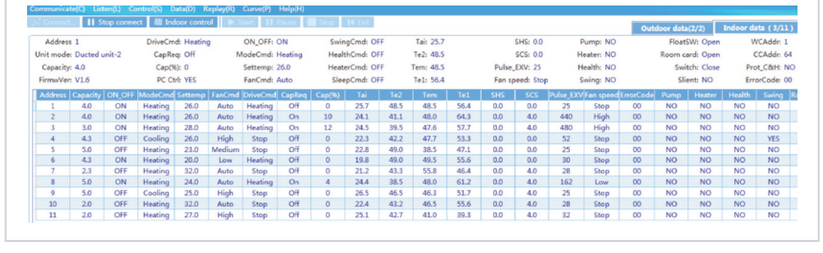
Ruud VRF Selection Software

Ruud has developed an advanced selection software that can help customers optimize selection for VRF system design. It allows customers to leverage the engineered flexibility of Ruud's VRF by quickly sizing and selecting equipment. The selection can be done in multiple ways. Customers can input the project conditions and choose the right indoor units and auto-select the outdoor units. Drawing of pipin and wiring diagrams can easily be generated.

In addition, the software can allow you to do estimated load calculations based on the floor plans and enable you to generate equipment schedules accordingly. You can export your selections in PDF, Word or CAD. For access to Ruud software, please contact your local Ruud Sales Representative.

Ruud Monitoring Software

Ruud VRF Monitoring Software provides real-time monitoring of the system. At startup, it enables quick verification of the operating parameters of the indoor and outdoor units, facilitates identification of errors and expedites troubleshooting.



OUTDOOR: UAVR-D SERIES.

OUTDOOR PRODUCT LINEUP.

Modular VRF Outdoor Units - UAVR-D Full DC Inverter Heat Pump

HP	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP	24HP	26HP	28HP	30HP	32HP	34HP	36HP
															
(kW)	25.2	28.0	33.5	40.0	45.0	50.4	56.0	61.5	68.0	73.5	78.5	85.0	90.0	95.2	101

COMBINATION RANGES.

8/ 10/ 12 HP

14/ 16 HP

18/ 20/ 22 HP

24/ 26/ 28/ 30/ 32/ 34/ 36 HP

38 - 72 HP

74 - 108 HP

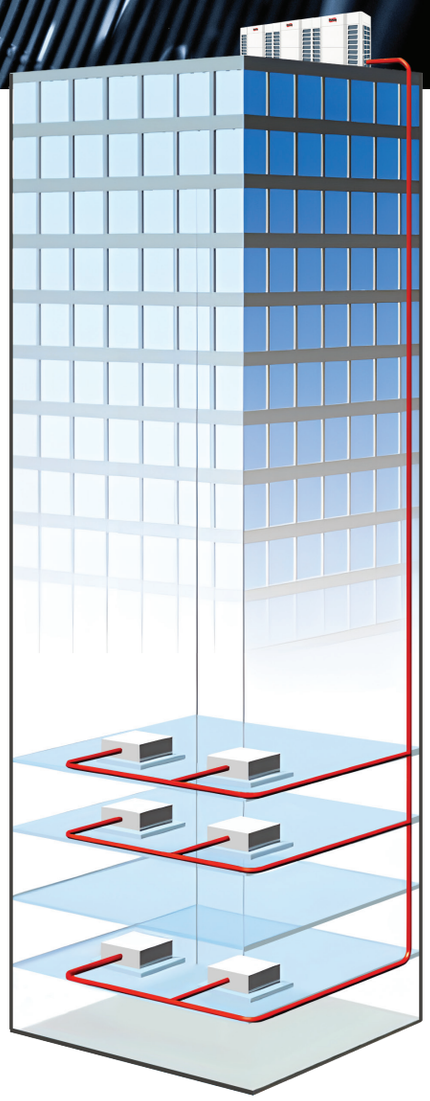
110 - 144 HP

UAVR-D SERIES.

A modular solution for maximum output and versatility.

We can offer individual models ranging in capacity from 8 HP to 36 HP. By combining four 36 HP units together, a maximum capacity of 144 HP - the highest in the industry - can be achieved. This results in fewer outdoor systems which results in saving installation space, installation time and cost.

GENERAL BENEFITS.



1000 m
Total piping length

200 m
Longest pipe length

Key benefits

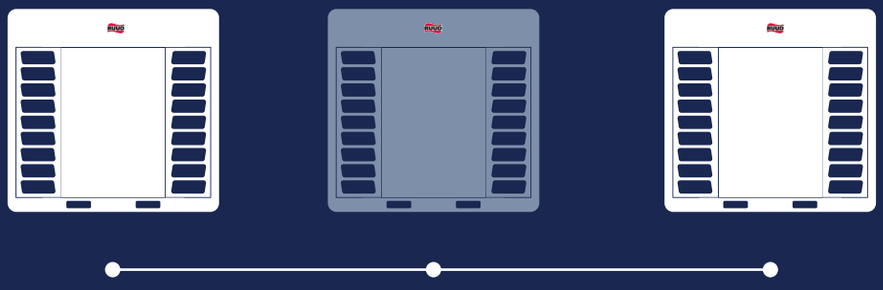
Coupling DC inverter control technology with sub-cooling circuit technology means that a system with longer piping can be achieved. This pairing also results in a simplifed design and installation process.

Max. total piping length	Max. piping length between ODU and farthest IDU	Max. piping length from first indoor branch to the farthest IDU	Max. level difference between IDU	Max. level difference between ODU and IDU units
1000m	200m	40m/90m*	30m	110m/130m

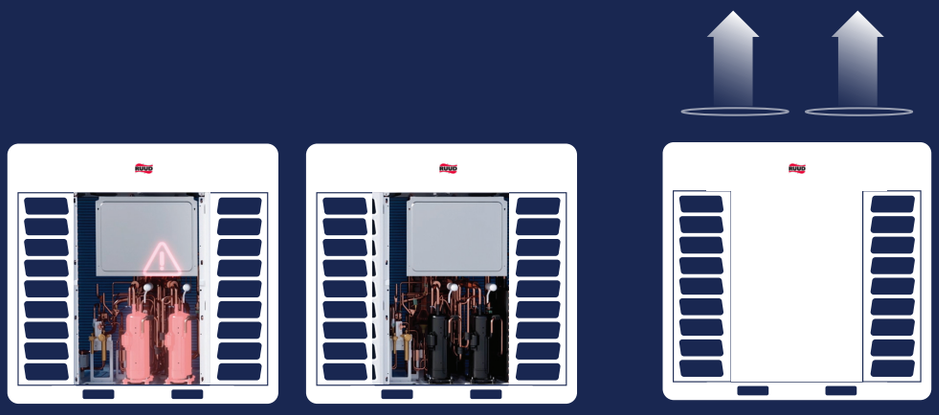
*The longest length after first branch is 40m as standard. This can be extended to up to 90m under certain conditions. Please contact your local dealer for further information.

Backup technology

Peace of mind, every time. Keep normal operations running with our backup technology.



If one module within a refrigerant system breaks down, the rest of the modules in the same system will start up immediately.



Compressor backup technology

If one compressor breaks down the other compressor in the unit will continue to operate, ensuring continuous operation.

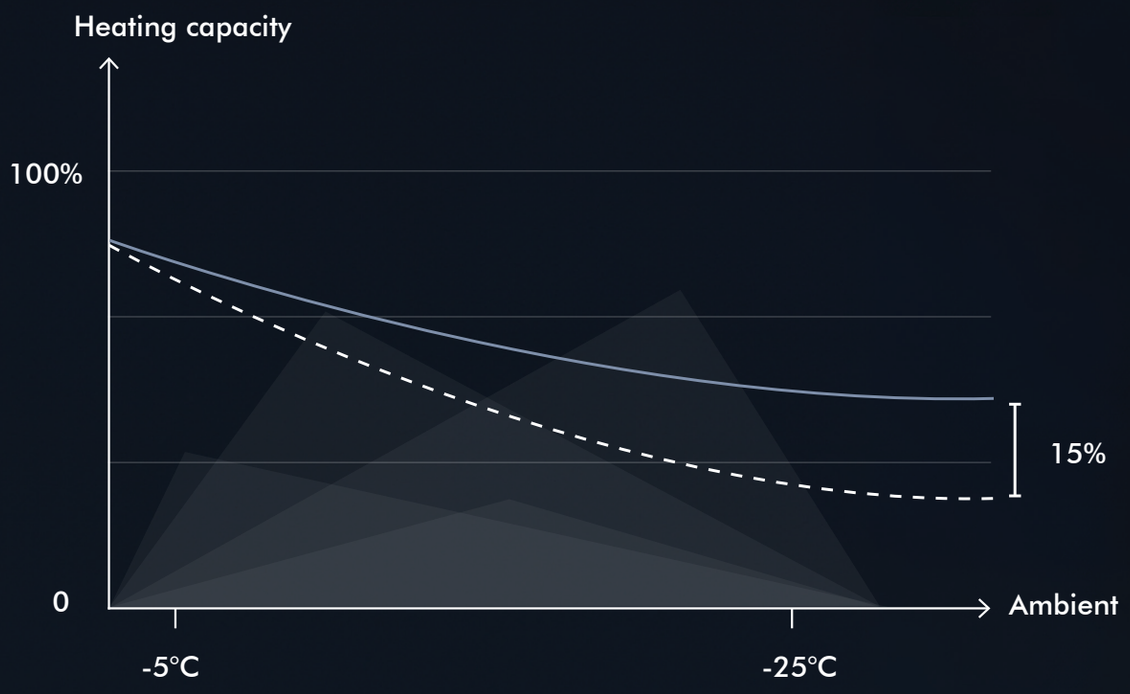
Fan motor backup

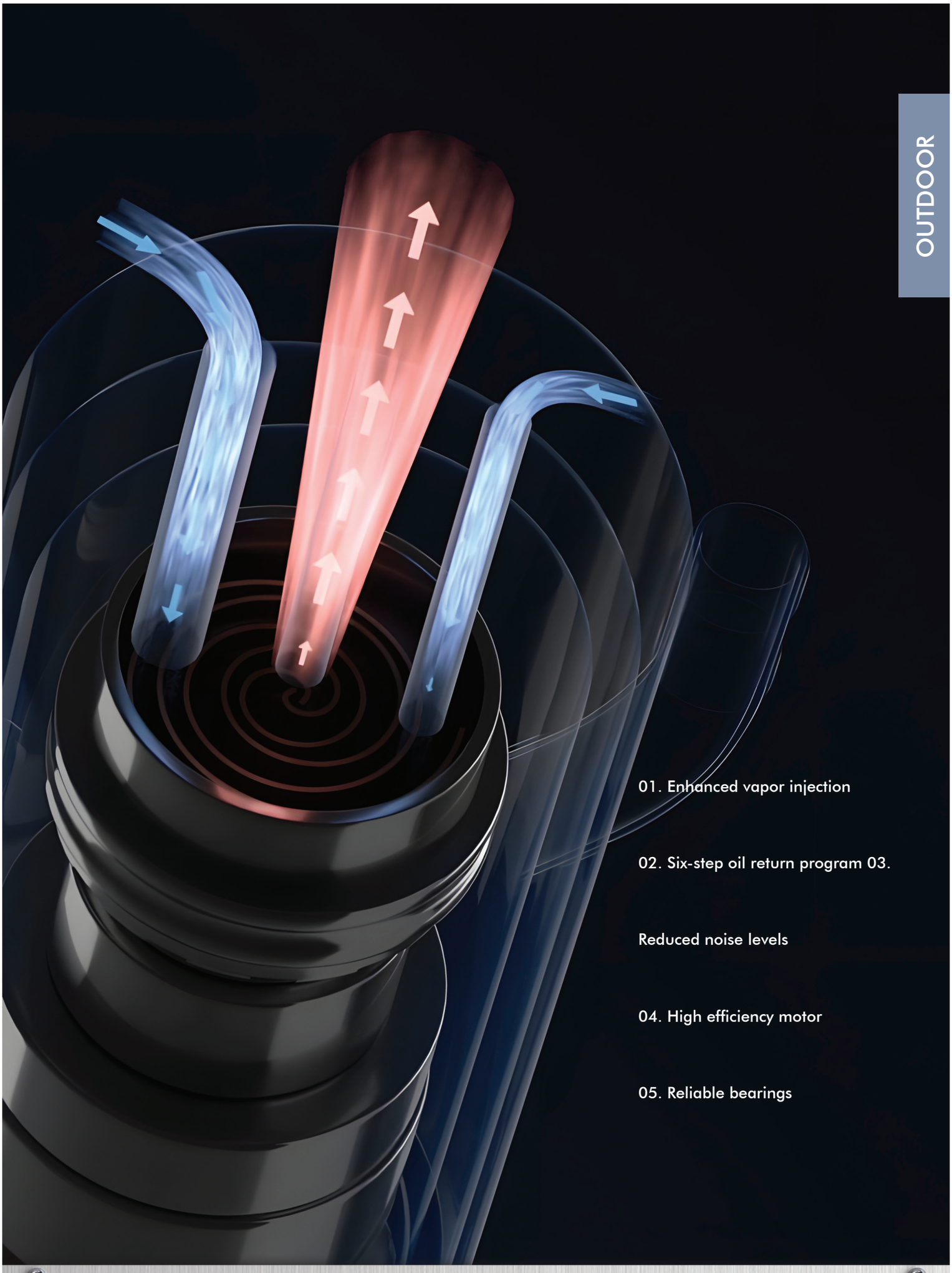
If one condenser fan breaks down the other one will continue to operate, maintaining effective operation of the unit.

RUUD INVERTER COMPRESSOR.

Ruud's inverter compressor sits at the core of our VRF technology. Our inverter compressor provides unparalleled efficiency and reliability.

Contrast curve





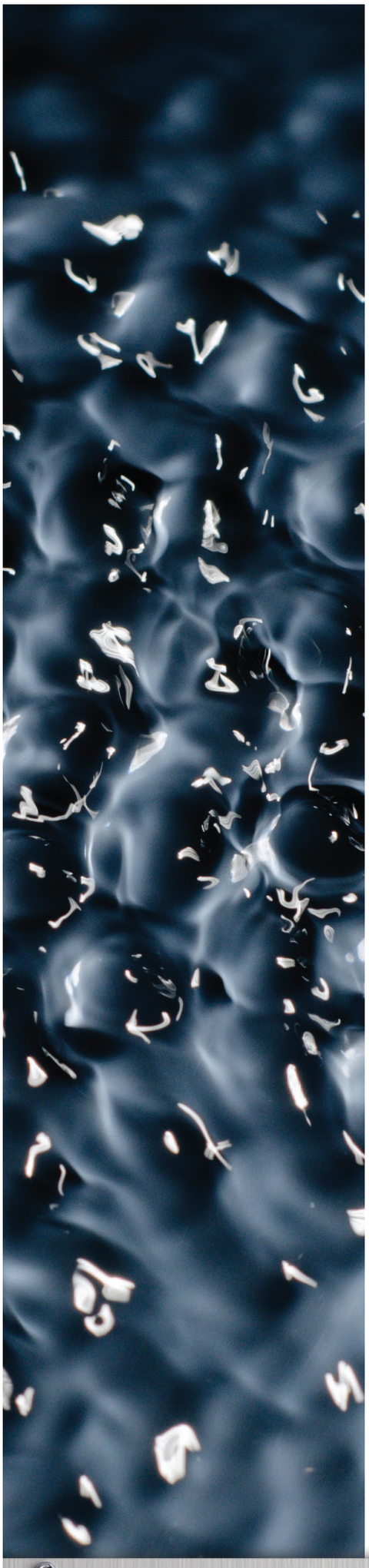
01. Enhanced vapor injection

02. Six-step oil return program 03.

Reduced noise levels

04. High efficiency motor

05. Reliable bearings



EVI-enhanced vapor

Enhanced Vapor Injection (EVI) technology reduces the outlet temperature while increasing the compressor capacity, for an improved heating performance.

Optimized asymmetric vortex design

Heating condition, reducing the outlet temperature, increasing the compressor capacity, improving the heating performance.

Dynamic oil balance structure

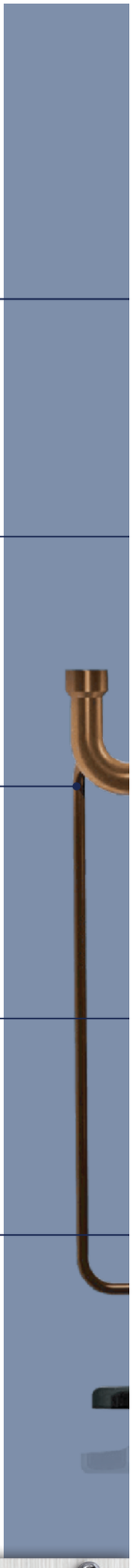
The implementation of an oil balance tube and the dynamic equilibrium of oil quantity ensures the reliability of multiple parallel compressors.

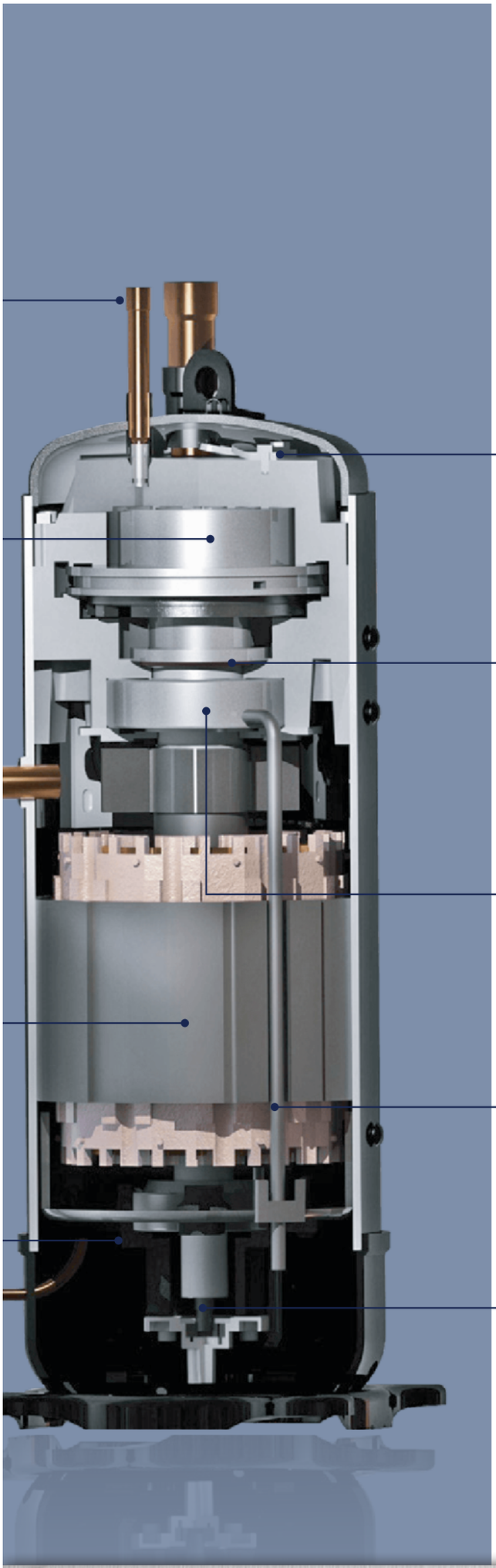
High efficiency motor configuration

Using a high-quality material concentrated stator in combination with a neodymium magnet rotor results in outstanding efficiency.

High-pressure cavity structure

The large exhaust buffers volume, reducing the airflow noise and vibration of the runtime.





Pressure relief valve structure

Improves partial load efficiency and adapts to the transformer ratio working condition, to enhance the compressor performance.

Intermediate pressure servomechanism

Adjusts based on the operational pressure. Dynamically adjusting the middle pressure provides axial flexibility and optimizes the dynamic vortex.

High reliability of the bearing

Adopts a cylinder bearing and a self-aligning ball-bearing group, improving compressor reliability.

Internal oil circulation structure

The internal circulation of lubricating oil reduces heat loss, decreases the rate of oil spitting and improves efficiency and reliability.

Positive displacement gear oil pump

Ensures that both high and low frequencies can satisfy the oil supply, improving the reliability of the compressor.

Smart technology for oil return

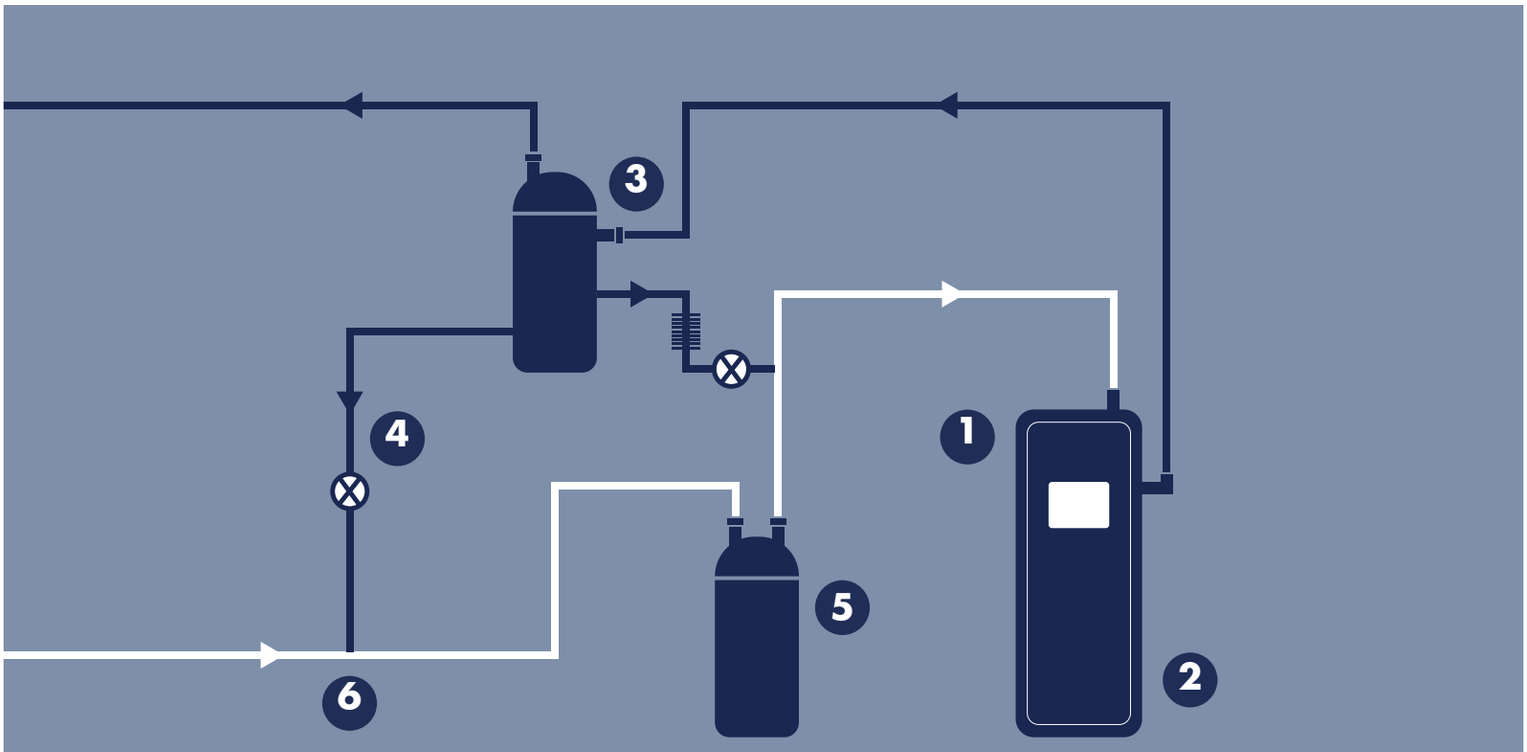
Keep VRF systems running smoothly.

Dynamic oil return control

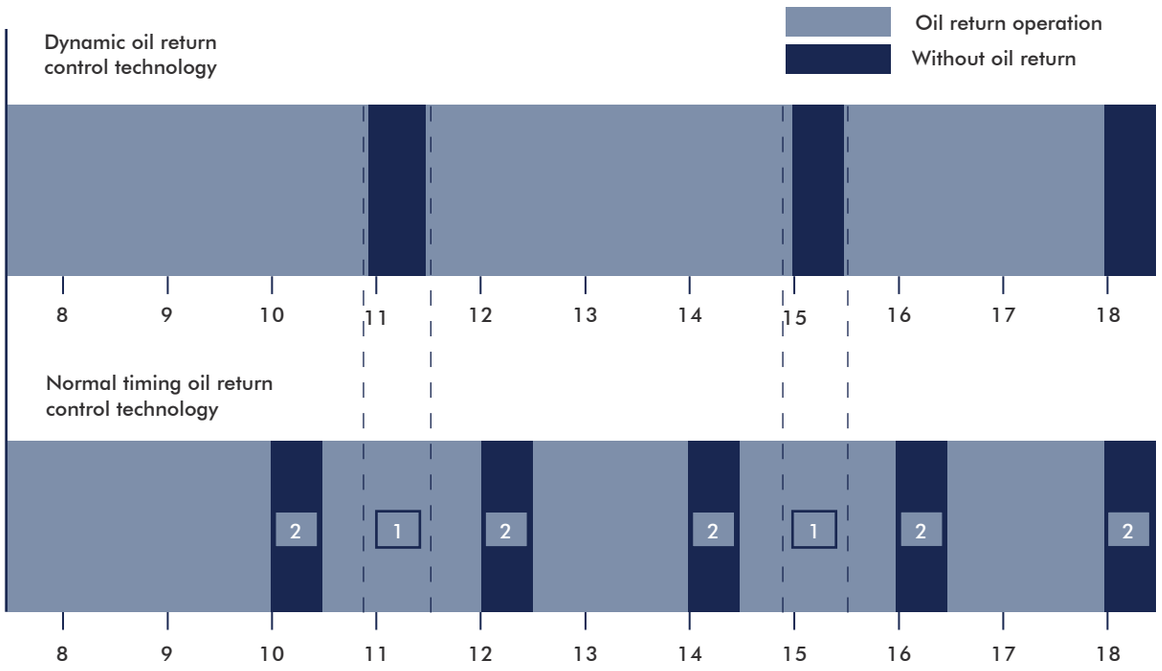
Ruud's innovative oil level measuring sensor actively monitors the oil level in each compressor, providing a leverage in ensuring optimal performance and longevity. Exceptional performance of Ruud's VRF system is guaranteed through the advanced six-step oil return control technology.

This technology of oil return control ensures optimal performance under all conditions. With an oil level sensor integrated into each compressor, it guarantees real-time monitoring of oil levels. If the sensor detects low oil levels, the main PCB is promptly notified, initiating an efficient oil return cycle between the system.

For outdoor units that are equipped with two compressors, the system balances oil levels between them. This ensures longevity in both compressors.

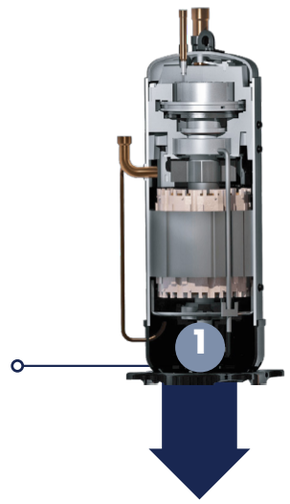


1. Compressor with oil mist separation
2. Oil self-balancing control design
3. High efficiency oil separator
4. Emergency oil circuit design
5. Gas-liquid separator oil return
6. System with oil return design

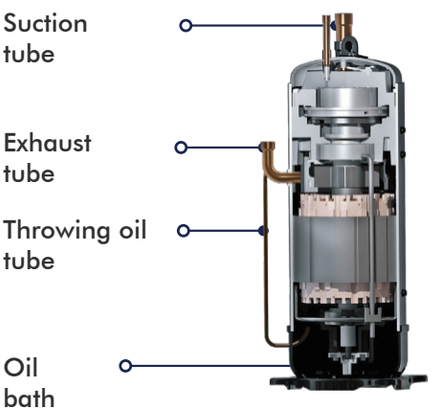


Compressor throwing oil technology

When the compressor oil level becomes higher than the warning line, the system's through-tubing will eliminate any redundant frozen oil. This keeps the oil balanced.



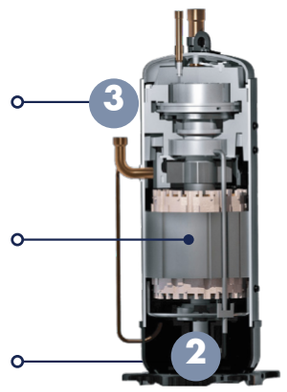
Normal operation state, the level for compressor frozen oil.



Eliminates the redundant frozen oil with the refrigerant into the exhaust system, to return to the high-efficient oil separator.

Excess oil by compressor exhaust gas is introduced into the throwing oil tubing.

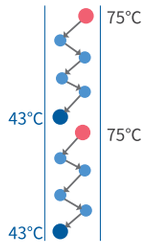
When the compressor oil level is higher than the warning line.



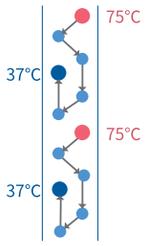
Two-stage sub-cooling technology

Exclusive to Ruud, our innovative two-stage sub-cooling technology dramatically enhances system efficiency. This is achieved through an optimized refrigerant circuit and an 'inverse fin type' window fin design in the first stage.

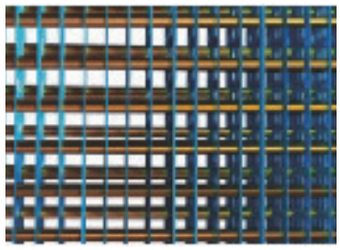
STAGE 1



Normal condenser ambient 35°C



E-pass condenser ambient 35°C



"Inverse fin type" window fin design

In the second stage, a high-efficiency plate heat exchanger, coupled with a sub-cooling electronic expansion valve (EXV), powers the sub-cooling process. Together, these features ensure superior performance and contribute to the overall efficiency of the system.

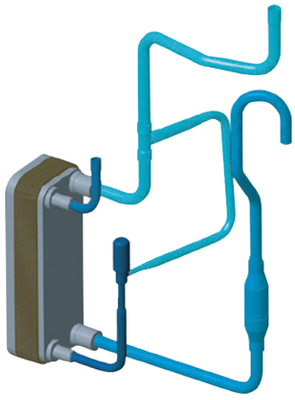
STAGE 2

Low cold

Mid cold

High cold

Super cold

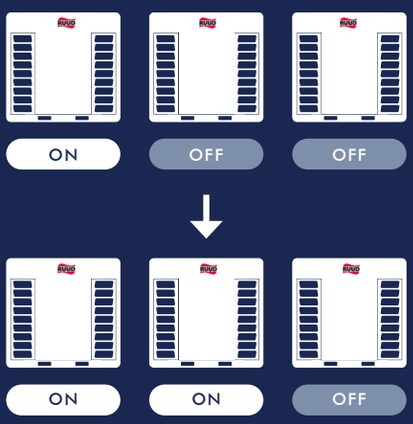


Energy-saving control technology

Our systems can easily adjust to varying load conditions. The integrated technology in Ruud's VRF systems maximizes efficiency across varying loads. This innovation guarantees minimal power consumption and higher cooling performance. It will deliver unparalleled performance and efficiency.

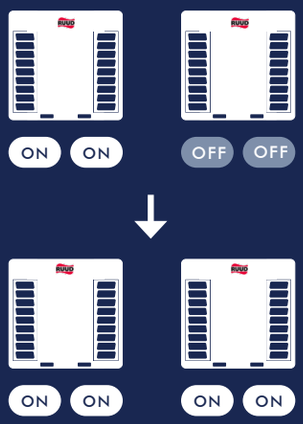
Module anticipation energy-saving control technology

Intelligent judgment of single operation and module efficiency, to maintain minimum power consumption in partial load conditions.



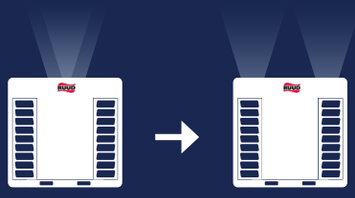
Compressor anticipation energy-saving control technology

Precise control of compressor quantity and operating frequency, to maximize energy efficiency ratios during partial load operation.



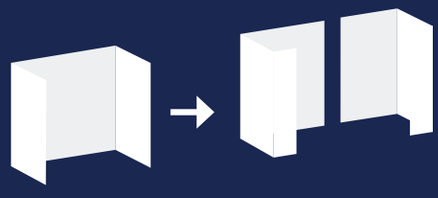
Fan anticipation energy-saving control technology

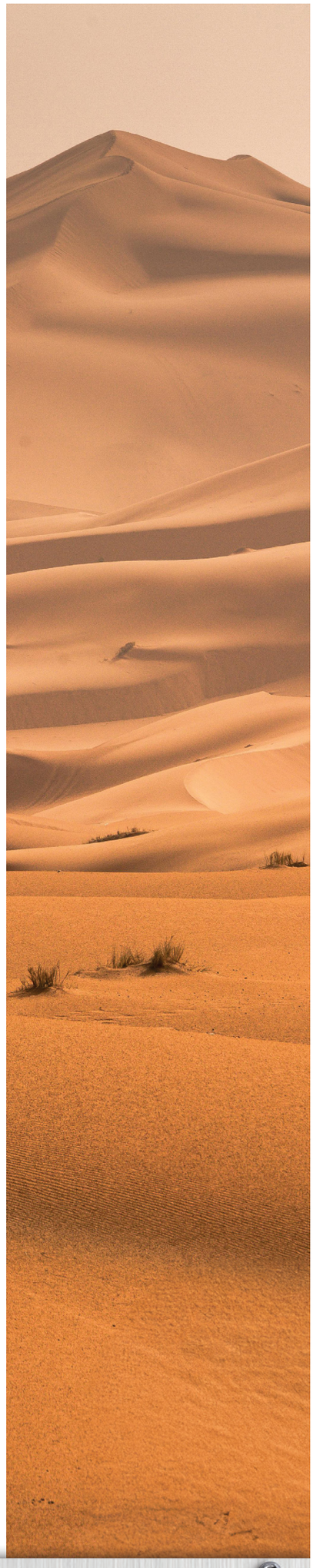
Control of the running quantity and operating frequency of fans, to achieve higher energy efficiency ratios under partial load.



Refrigerant anticipation energy-saving control technology

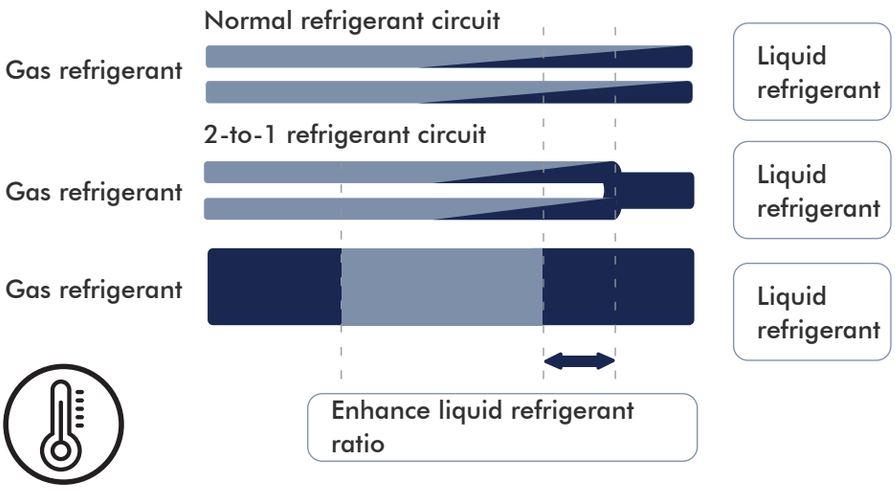
Adjust the electronic expansion valve opening to enhance condenser heat transfer. This results in higher energy efficiency ratios under partial load.





High efficiency heat exchanger

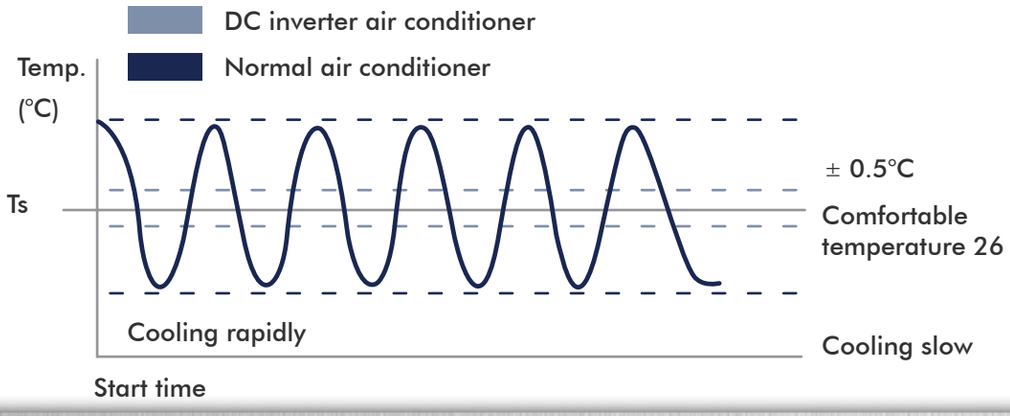
Our optimized 2-to-1 refrigerant circuit design increases the heat exchange efficiency and improves the ratio of liquid flowing to the evaporator, to optimize overall performance. Plus, our optimized fin design reduces the water and wind resistance, to enhance system efficiency and boost performance.



Precise temperature control

Our system employs a sophisticated temperature control mechanism featuring dual EXVs, each achieving a 480-plus rate for precise refrigerant flow adjustments. Utilizing Ruud's composite temperature control technology, the system dynamically adjusts outdoor power output and optimizes indoor air distribution based on detected indoor/outdoor operating conditions, to achieve a high-precision adjustment of 0.5°C.

By employing the PI calculation principle, the unit accurately determines the percentage of indoor capacity demand in response to temperature fluctuations. Real-time control of the compressor operating frequency, coupled with the precision of double EXV adjustments up to level 1000, ensures meticulous control of refrigerant flow, guaranteeing indoor comfort with unparalleled accuracy.



Variable evaporating and condensing temperature technology

The cooling and heating performance and efficiency of a VRF system are significantly impacted by evaporating and condensing temperatures. Ruud's innovative variable technology allows for adjustment between modes that will result in different refrigerant temperatures. These modes operate by regulating capacity through the inverter compressor and adjusting the evaporating and condensing temperatures.

Cooling:
Three modes with different evaporation temperatures.

Heating:
Three modes with different condensing temperatures.

Users have the flexibility to select a specific mode that aligns with their needs, to provide a personalized and energy-efficient solution.

Basic mode

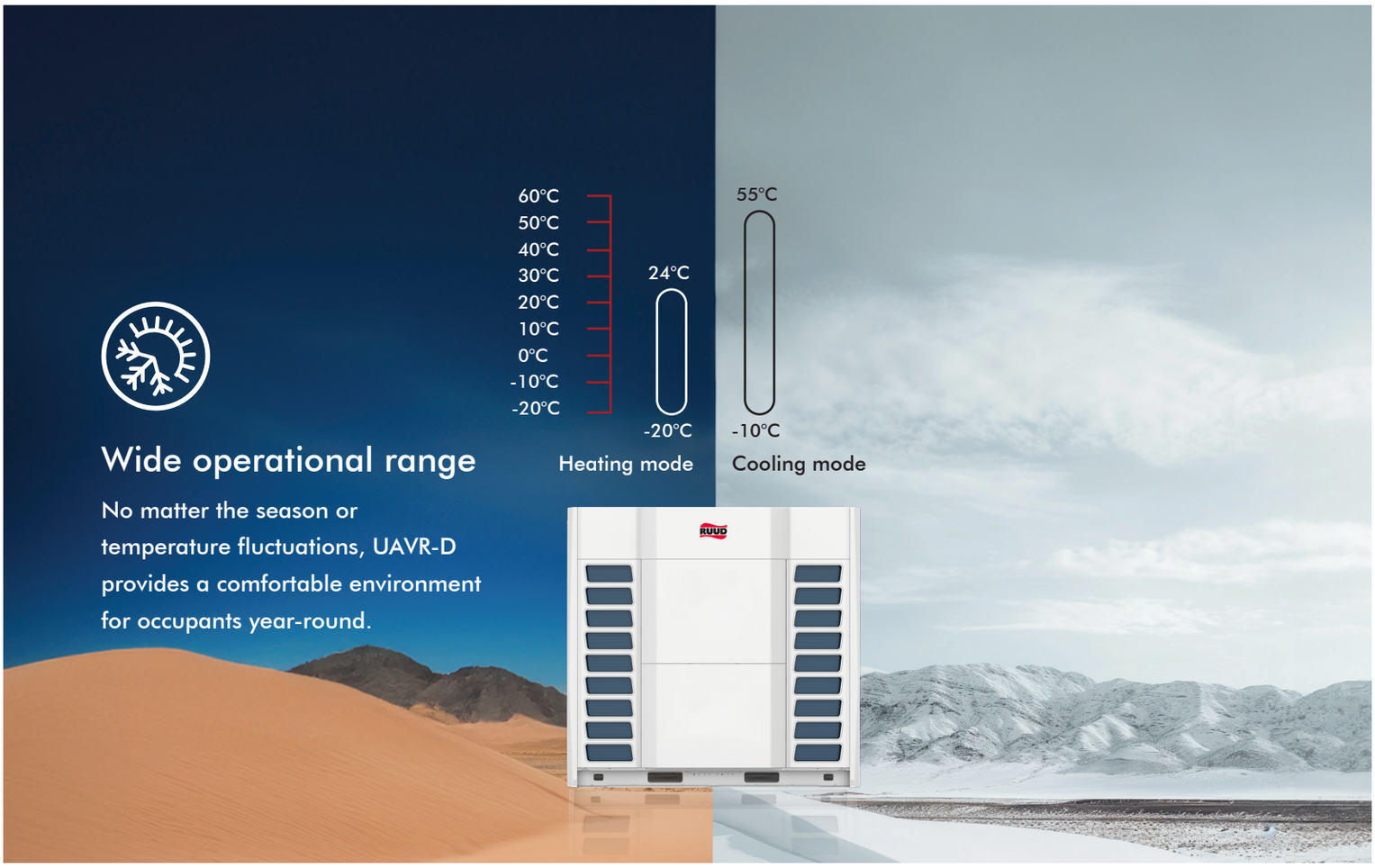
Default mode, which balances the reaction speed and efficiency.

Turbo mode

High-cooling and heating performance, for rapid temperature adjustment.

High efficiency mode

Satisfies the lowest capacity requirement, whilst reducing energy consumption and enhancing efficiency.



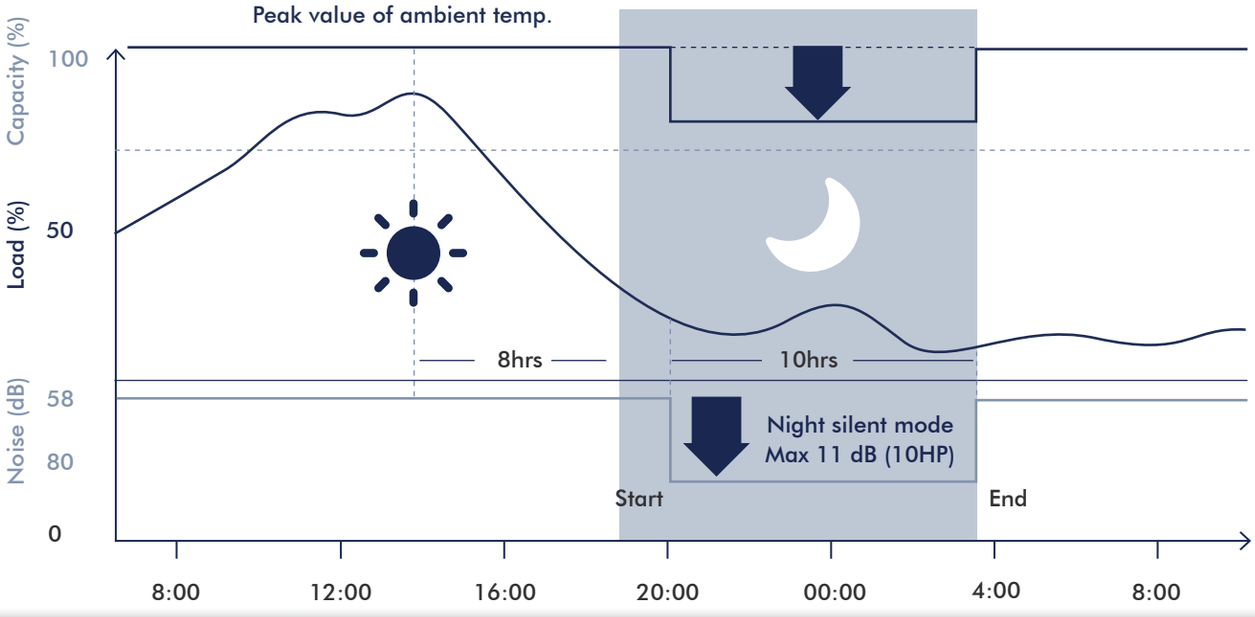
Wide operational range

No matter the season or temperature fluctuations, UAVR-D provides a comfortable environment for occupants year-round.

Silent nighttime operation

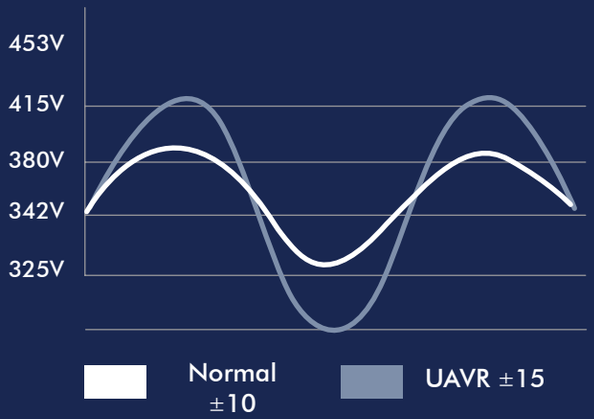
By leveraging optimized fan blades and computational fluid dynamics (CFD) technology, our UAVR-D series' night silent mode feature enables it to operate at an even lower noise volume of just 45dB(A).

12 levels silent mode:
6 levels silent night
6 levels daytime silent



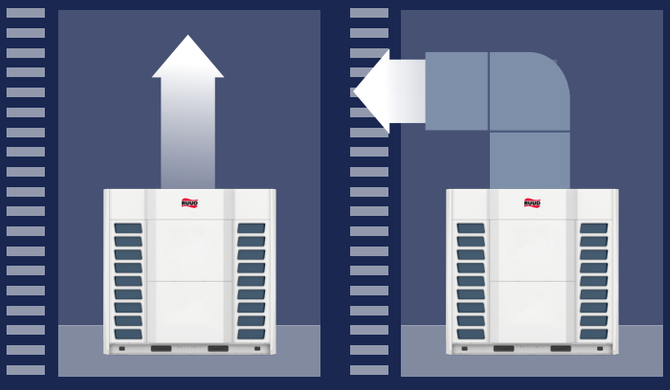
Wide voltage design

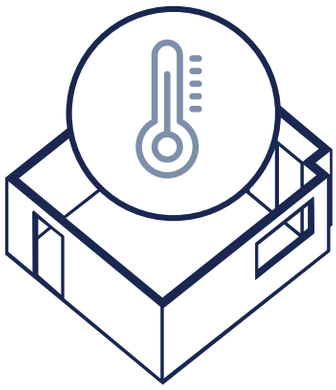
Our UAVR-D systems feature a wide voltage design, to ensure stable operation even in countries and regions with fluctuating or unstable voltage. This provides reliability and performance regardless of the voltage conditions, and provides consistent functionality in diverse environments.

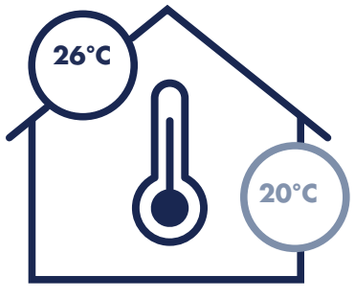


Adjustable external static pressure (ESP)

Our UAVR-D system is designed to be versatile and adaptable to different external static pressure conditions of up to 80Pa (8-22HP), 125Pa (24-36HP). This means that our outdoor units can be installed in various locations within a building, for optimal performance in various environments.







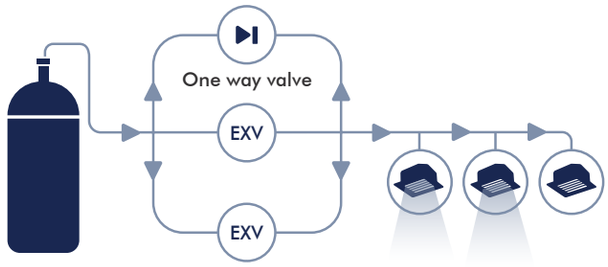
VIP

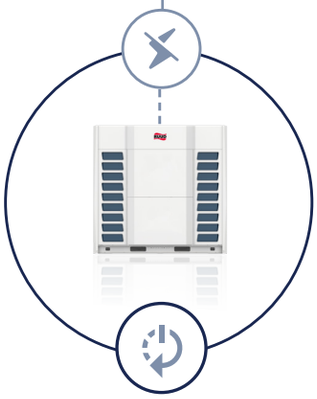
VIP function

With the VIP function, the operator can designate one room to control the entire system's operational mode.

Economic locking function

Our economic locking function, accessible through the outdoor printed circuit board (PCB) switch settings, optimizes energy usage. When the unit operates in economic lock mode, the air conditioner functions at the lowest cooling temperature (26°C) and the highest heating temperature (20°C). This feature ensures efficient and cost-effective performance, contributing to energy savings.





Precise refrigerant control

Our system offers real-time monitoring of discharge and suction pressures, to allow for precise regulation. The output of compressors and the degree of opening of the EXV can be finely adjusted to optimize the compression ratio. This meticulous control ensures that the compression ratio consistently remains within the safety zone, enhancing overall system performance and safety.

Auto-restart function

In the event that the power is accidentally turned off, a unit can automatically memorize its prior operation setting. This allows it to return to the previous setting once power resumes, with no need for a manual restart.

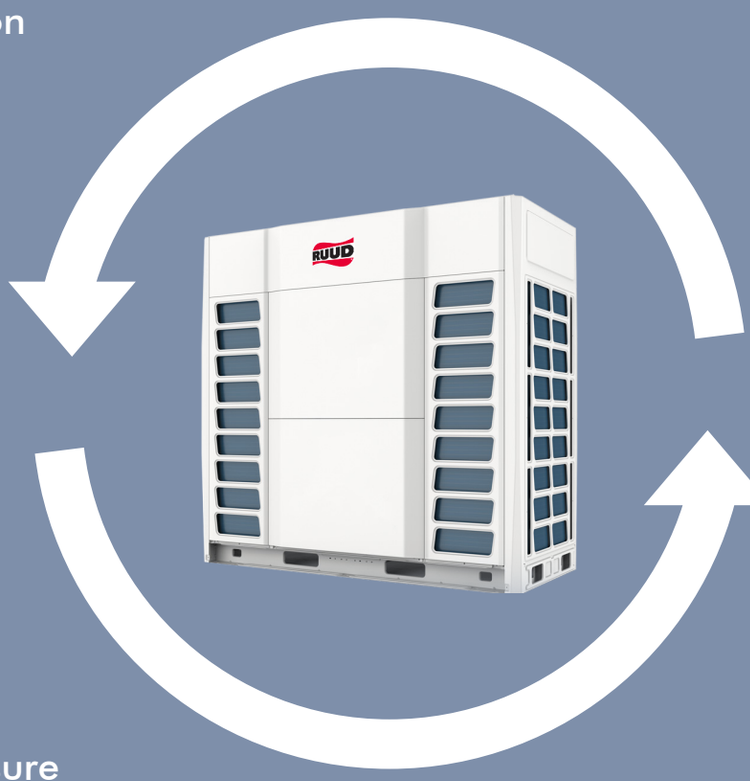
ALL-ROUND PROTECTION.

Phase sequence protection

High/low discharge temp. protection

Inverter module protection

Voltage protection



Fan motor protection

Ground protection

Current protection

High/low pressure protection

Compressor overload protection

High/low compression ratio protection

AUTO

Auto-commissioning

Auto-commissioning streamlines the commissioning process by allowing the outdoor mainboard to assess the operational state and display relevant error codes in engineering mode. This feature helps identify and address faults during commissioning, ultimately boosting the overall reliability of the system.

Connection ratio is okay?
Num. of IDU is OK?

Stop valves opened normally?

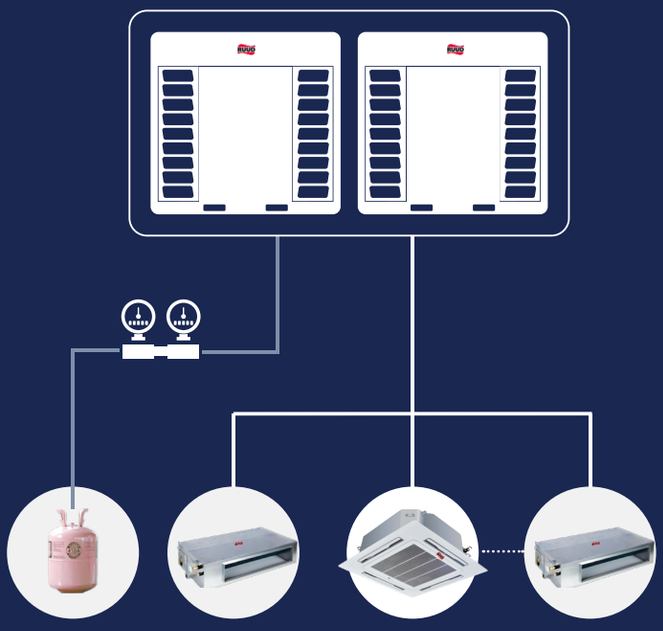
Temperature sensor fault?

Pressure sensor fault?

EXV fault?

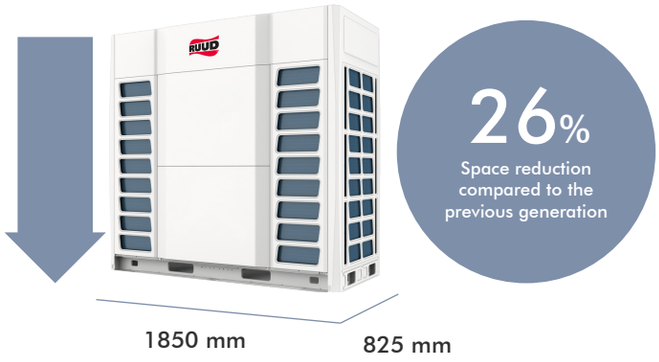
Auto-refrigerant recycling and auto-refrigerant charging

During maintenance, refrigerant is efficiently recycled back into the outdoor units. The outdoor unit possesses the capability to dynamically adjust the refrigerant volume based on operational parameters like pressure and temperature. Additionally, it provides timely reminders to installation personnel, prompting them to halt the charging process. This automated system ensures optimal refrigerant management during maintenance activities.



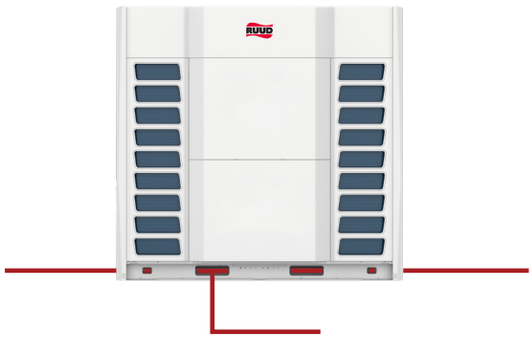
Space-saving

The benefits of a large capacity system, in a smaller size. With the capability to reach up to 36HP in a single unit, this series offers significant space-saving benefits, making it particularly advantageous for projects where optimizing installation space is crucial.



360° pipe-connecting mode

Benefit from the flexibility of freely choosing the pipe-connecting direction. Our UAVR series can be positioned on the front, left side or right side, providing versatile and convenient installation options.



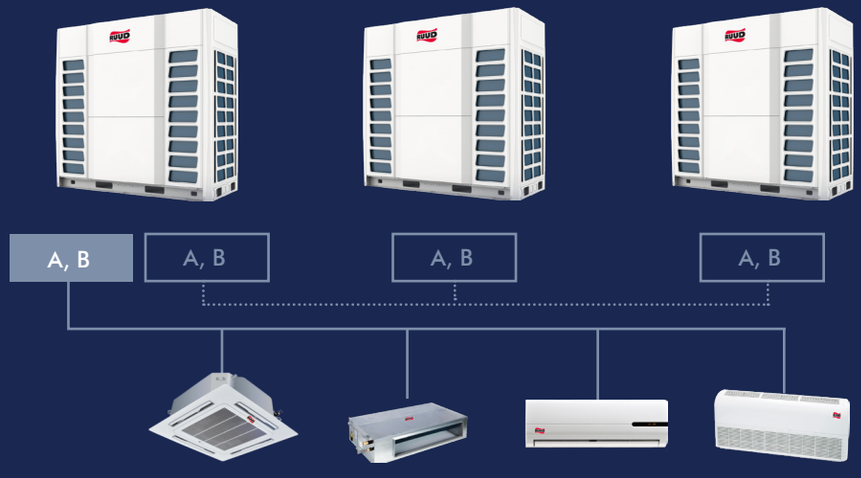
Seven-level limit electricity usage

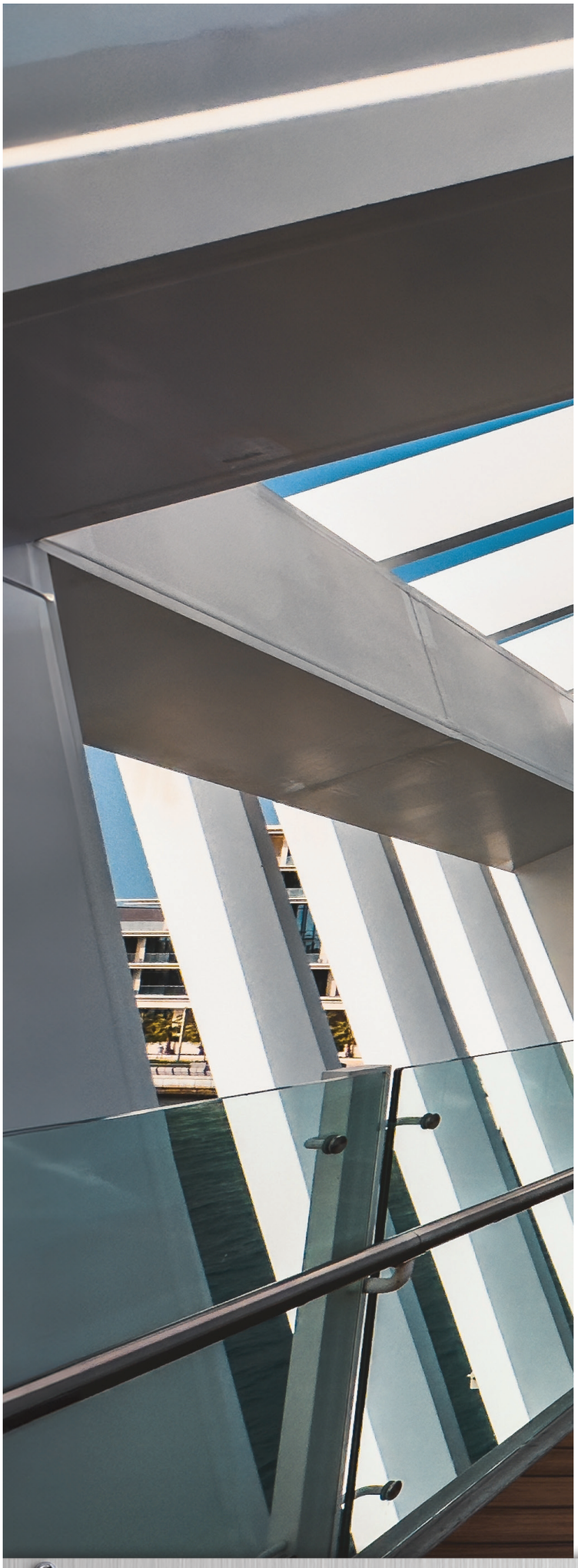
Our UAVR-D series features a seven-level limit electricity usage function, providing energy-saving and power-limiting capabilities (ranging from 40% to 100% output power limit).

Occupants can select the automatic energy-saving mode, where the system dynamically optimizes output based on ambient temperature changes. This innovative feature enhances the overall operating energy efficiency of the unit, ensuring optimal performance while minimizing electricity consumption.

Non-polar communication

No polar in the communication cable, for easier and safer installation and commissioning.





One-button test-run

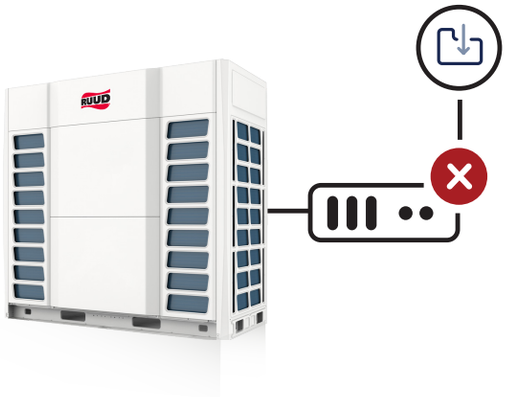
No need to individually open each indoor machine one by one – our one-button test-run feature conveniently streamlines the process. Press the button lightly once in the outdoor PCB to activate effortless cooling and heating test runs.

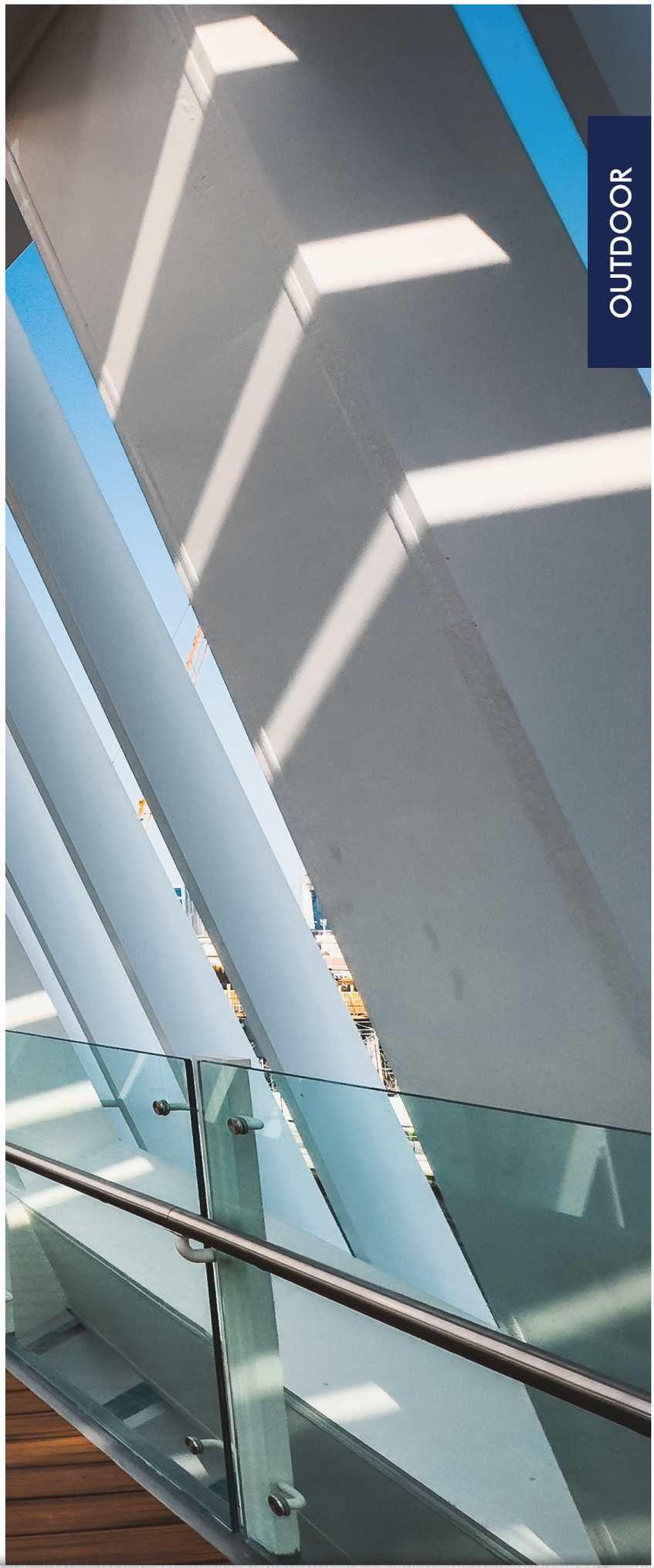
Auto-dust removal

Activate this function to enable the outdoor fan to rotate in the opposite direction, effectively clearing dust from the heat exchanger. By ensuring optimal heat exchange performance, the system can operate seamlessly – even in severe environments – without the need for manual cleaning.

Black box function

Incorporating aviation-grade black box technology, our system employs a memory function to capture operational parameters before a failure occurs. This feature enables efficient fault detection and provides valuable information for maintenance services. With the black box function, maintenance becomes more efficient and convenient, ensuring prompt and effective resolution of issues.

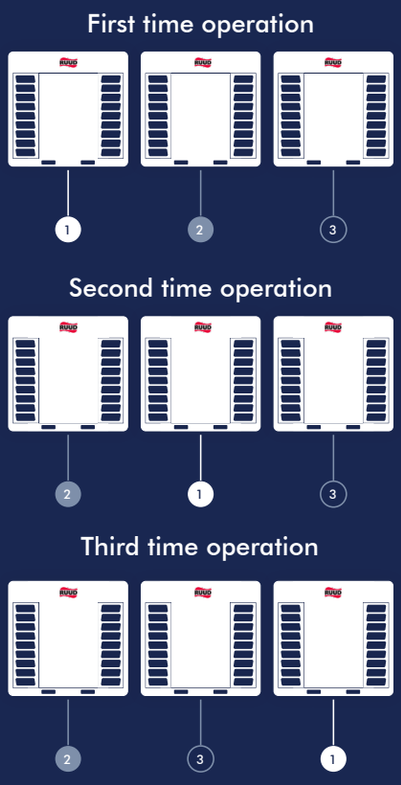




OUTDOOR

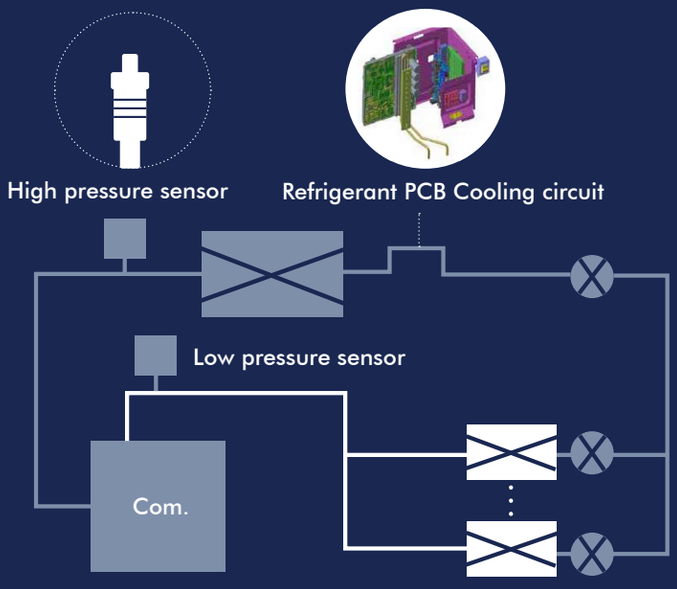
Alternate module operation

Our module alternate operation feature allows any module within a combination system to function as the master unit based on running time. This intelligent balancing of running time contributes to the prolonged life of outdoor units within the system, optimizing the overall performance and durability of the system.



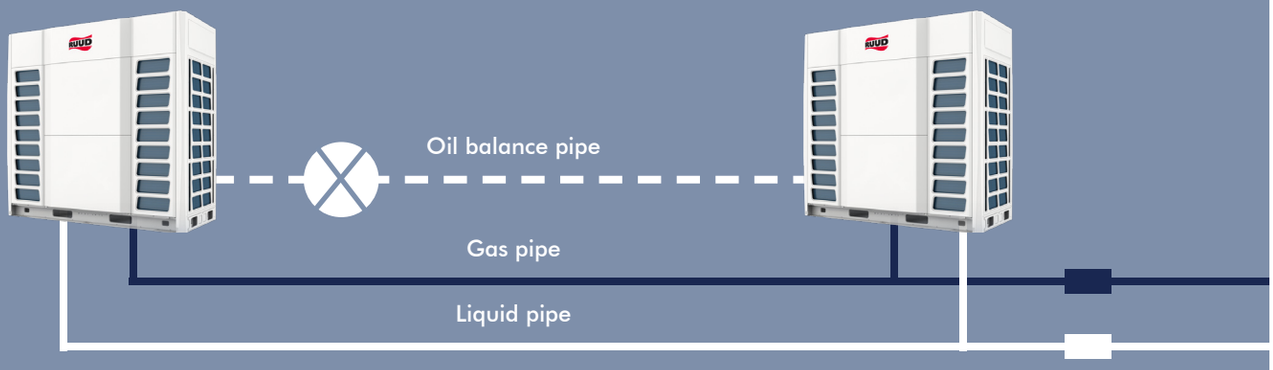
Refrigerant PCB cooling system

Our cutting-edge refrigerant PCB cooling system enables stable operation of the system, even in tropical climates. This technology not only enhances stability but also permits an increased frequency limit for the inverter compressor. Consequently, the output capacity of the outdoor unit surpasses that of traditional products, resulting in improved performance under challenging environmental conditions.



No oil balancing pipe between outdoor units

Our advanced oil and gas separating technology eliminates the need for an oil balance pipe between outdoor units. This innovation enables effective system oil balance between compressors, streamlining the operation without the requirement for additional piping.



NOMENCLATURE.

UAVR	H	-	250	/	5	R1	M	D

- **UAVR**: Ruud air cooled VRF system
- **H**: **H**: Cooling & heating **C**: Cooling
- **250**: Cooling capacity (x100W)

250	500	785
280	560	850
330	610	900
400	680	950
450	730	1010

- **5**:
  - 2: 220-240V~,1Ph,60Hz
  - 4: 220-240V~,1Ph,50Hz
  - 5: 380-415V~,3Ph,50Hz
  - 6: 380-415V~,3Ph,60Hz
  - 9: 208-230V~,3Ph,60Hz
- **R1**: R410A
- **M**: Modular outdoor unit
- **D**: Series name

UAVR-D SPECIFICATIONS.

Model				UAVR-H250/5R1MD	UAVR-H280/5R1MD	UAVR-H330/5R1MD
Combination model				/	/	/
				/	/	/
				/	/	/
				/	/	/
Power supply			V~,Hz,Ph	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3
Capacity	Capacity range		HP	8.0	10.0	12.0
	Cooling (T1)		kW	25.2	27.9	33.3
			Btu/h	86000	95000	114000
	Cooling (T3)		kW	22.2	24.9	29.4
			Btu/h	76000	85000	100000
	Heating		kW	25.20	27.90	33.30
			Btu/h	86000	95000	114000
Electrical parameters	Cooling	Rated cooling power input (T1)	kW	5.99	6.98	8.62
		Rated cooling current (T1)	A	9.50	11.07	13.67
		Rated cooling power input (T3)	kW	7.55	9.02	10.24
		Rated cooling current (T3)	A	11.98	14.31	16.24
	Heating	Rated heating power input (T1)	kW	4.80	5.50	6.60
		Rated heating current (T1)	A	7.61	8.72	10.47
	EER	T1	Btu/(h*W)	14.35	13.65	13.15
		T3	W/W	2.95	2.75	2.85
			Btu/(h*W)	10.05	9.40	9.75
	COP	Heating	W/W	5.25	5.07	5.05
		Cooling (T1)	W/W	4.20	4.00	3.85
		Cooling (T3)	W/W	2.95	2.75	2.85
		CSPF	Btu/h/W	16.00	15.30	14.80
Compressor	Number			1	1	1
Outdoor fan	Fan quantity			1	1	1
Coil	Fin material			Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
	Outside diameter and grooving		mm	7 Inner grooved	7 Inner grooved	7 Inner grooved
Air flow volume			CFM	7058	7058	7058
Noise level			dB(A)	58	58	58
Dimension (WxDxH)	Net		mm	990x765x1635	990x765x1635	990x765x1635
	Packing		mm	1030x825x1865	1030x825x1865	1030x825x1865
Weight	Net		kg	215.00	215.00	230.00
	Gross		kg	225.00	225.00	240.00
Installation	Pipe Size	Liquid	mm	12.7	12.7	12.7
		Suction	mm	22.2	22.2	22.2
Ambient temperature	Cooling		°C	-10~55	-10~55	-10~55
	Heating		°C	-20~24	-20~24	-20~24
Connection	Indoor units			13	14	17

Notes:
1. **Cooling Capacity at T1:** Indoor temperature: 27°C DB / 19°C WB; Outdoor temperature: 35°C DB / 24°C WB.
2. **Cooling Capacity at T3:** Indoor temperature: 29°C DB / 19°C WB; Outdoor temperature: 46.1°C DB / 24°C DB.
3. **Heating Capacity:** Indoor temperature: 20°C DB; Outdoor temperature: 7°C DB / 6°C WB.
4. We can guarantee operation only within 130% combination. If you want to connect more than 130% combination, please contact us to discuss the requirements.
5. The above designs and specifications are subject to change for product improvement without prior notice.
For final specifications, please refer to the technical specifications provided by the sales representative.
6. The above combined types are factory-recommended types.

UAVR-H400/5R1MD	UAVR-H450/5R1MD	UAVR-H500/5R1MD	UAVR-H560/5R1MD	UAVR-H610/5R1MD
/	/	/	/	/
/	/	/	/	/
/	/	/	/	/
/	/	/	/	/
380~415,50/60,3	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3
14.0	16.0	18.0	20.0	22.0
40.0	45.0	50.0	56.0	61.5
136000	154000	170000	192000	210000
33.6	37.2	42.0	44.0	46.0
114000	127000	144000	150000	156000
40.00	45.00	50.00	56.00	61.50
136000	154000	170000	192000	210000
10.67	13.04	13.70	16.14	18.64
16.92	20.68	21.73	25.60	29.57
11.62	13.73	15.73	17.05	18.40
18.43	21.78	24.95	27.04	29.19
8.50	9.80	12.20	13.83	17.60
13.48	15.54	19.35	21.94	27.92
12.80	11.80	12.45	11.80	11.25
2.90	2.70	2.65	2.60	2.50
9.90	9.20	9.05	8.85	8.55
4.71	4.59	4.10	4.05	3.49
3.75	3.45	3.65	3.45	3.30
2.90	2.70	2.65	2.60	2.50
14.10	14.00	13.80	13.60	13.50
1	1	2	2	2
2	2	2	2	2
Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
7 Inner grooved	7 Inner grooved	7 Inner grooved	7 Inner grooved	7 Inner grooved
8235	8235	9411	9411	9411
61	61	63	63	63
1340x765x1635	1340x765x1635	1340x765x1635	1340x765x1635	1340x765x1635
1395x815x1865	1395x815x1865	1395x815x1865	1395x815x1865	1395x815x1865
265.00	265.00	330.00	330.00	330.00
280.00	280.00	345.00	345.00	345.00
15.88	15.88	15.88	15.88	15.88
28.6	28.6	28.6	28.6	28.6
-10~55	-10 ~ 55	-10 ~ 55	-10 ~ 55	-10 ~ 55
-20~24	-20 ~ 24	-20 ~ 24	-20 ~ 24	-20 ~ 24
19	22	23	26	27

UAVR-D SPECIFICATIONS.

Model				UAVR-H680/5R1MD	UAVR-H730/5R1MD	UAVR-H785/5R1MD
Combination model				/	/	/
				/	/	/
				/	/	/
				/	/	/
Power supply			V~,Hz,Ph	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3
Capacity	Capacity range		HP	24.0	26.0	28.0
	Cooling (T1)		kW	67.0	73.0	78.5
			Btu/h	228000	250000	268000
	Cooling (T3)		kW	52.0	57.0	61.0
			Btu/h	178000	194000	208000
	Heating		kW	67.00	73.00	78.50
			Btu/h	228000	250000	268000
Electrical parameters	Cooling	Rated cooling power input (T1)	kW	19.42	23.17	25.74
		Rated cooling current (T1)	A	30.76	36.71	40.77
		Rated cooling power input (T3)	kW	20.00	22.35	24.40
		Rated cooling current (T3)	A	31.68	35.40	38.65
	Heating	Rated heating power input (T1)	kW	16.80	19.10	21.80
		Rated heating current (T1)	A	26.76	30.41	34.72
	EER	T1	Btu/(h*W)	11.75	10.75	10.40
		T3	W/W	2.60	2.55	2.50
			Btu/(h*W)	8.85	8.70	8.50
	COP	Heating	W/W	4.00	3.80	3.60
		Cooling (T1)	W/W	3.45	3.15	3.05
		Cooling (T3)	W/W	2.60	2.55	2.50
		CSPF	Btu/h/W	13.40	13.35	13.30
Compressor	Number			2	2	2
Outdoor fan	Fan quantity			2	2	2
Coil	Fin material			Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
	Outside diameter and grooving		mm	7 Inner grooved	7 Inner grooved	7 Inner grooved
Air flow volume			CFM	17058	17058	17058
Noise level			dB(A)	62	62	63
Dimension (WxDxH)	Net		mm	1850x825x1760	1850x825x1760	1850x825x1760
	Packing		mm	1925x930x1930	1925x930x1930	1925x930x1930
Weight	Net		kg	388.00	388.00	388.00
	Gross		kg	411.00	411.00	411.00
Installation	Pipe size	Liquid	mm	19.05	19.05	22.2
		Suction	mm	35.0	35.0	35.0
Ambient temperature	Cooling		°C	-10~55	-10~55	-10~55
	Heating		°C	-20~24	-20~24	-20~24
Connection	Indoor units			30	33	36

Notes:
1. **Cooling Capacity at T1:** Indoor temperature: 27°C DB / 19°C WB; Outdoor temperature: 35°C DB / 24°C WB.
2. **Cooling Capacity at T3:** Indoor temperature: 29°C DB / 19°C WB; Outdoor temperature: 46.1°C DB / 24°C DB.
3. **Heating Capacity:** Indoor temperature: 20°C DB; Outdoor temperature: 7°C DB / 6°C WB.
4. We can guarantee operation only within 130% combination. If you want to connect more than 130% combination, please contact us to discuss the requirements.
5. The above designs and specifications are subject to change for product improvement without prior notice.
For final specifications, please refer to the technical specifications provided by the sales representative.
6. The above combined types are factory-recommended types.

UAVR-H850/5R1MD	UAVR-H900/5R1MD	UAVR-H950/5R1MD	UAVR-H1010/5R1MD	UAVR-H1060/5R1MD
/	/	/	/	UAVR-H400/5R1MD
/	/	/	/	UAVR-H680/5R1MD
/	/	/	/	
/	/	/	/	
380~415,50/60,3	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3
30.0	32.0	34.0	36.0	38.0
85.0	90.0	95.0	101.0	107.0
290000	308000	324000	344000	365084
63.5	65.0	67.5	71.5	85.6
216000	222000	230000	244000	292067
85.00	90.00	95.00	101.00	107.00
290000	308000	324000	344000	365084
28.33	30.20	32.20	34.47	30.09
44.88	47.84	51.01	54.60	47.68
25.60	26.53	27.89	29.79	31.62
40.56	42.02	44.18	47.19	50.11
24.30	26.50	28.40	30.20	25.30
38.70	42.20	45.23	48.10	40.24
10.25	10.15	10.05	10.00	12.13
2.48	2.45	2.42	2.40	2.71
8.45	8.35	8.25	8.20	9.24
3.50	3.40	3.35	3.30	4.23
3.00	2.98	2.95	2.93	3.05
2.48	2.45	2.42	2.40	2.50
13.25	13.20	13.10	13.05	13.30
2	2	2	2	3
2	2	2	2	4
Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
7 Inner grooved	7 Inner grooved	7 Inner grooved	7 Inner grooved	7 Inner grooved
17647	17647	17647	17647	17059+8235
64	64	66	66	62+61
1850x825x1760	1850x825x1760	1850x825x1760	1850x825x1760	1850x825x1760+1340x765x1635
1925x930x1930	1925x930x1930	1925x930x1930	1925x930x1930	1925x930x1930+1395x815x1865
422.00	422.00	430.00	430.00	388+265
445.00	445.00	453.00	453.00	411+280
22.2	22.2	22.2	22.2	22.2
35.0	35.0	35.0	35.0	35.0
-10~55	-10~55	-10~55	-10~55	-10~55
-20~24	-20~24	-20~24	-20~24	-20~24
37	38	39	42	50

UAVR-D SPECIFICATIONS.

Model				UAVR-H1120/5R1MD	UAVR-H1170/5R1MD	UAVR-H1230/5R1MD
Combination model				UAVR-H400/5R1MD	UAVR-H450/5R1MD	UAVR-H500/5R1MD
				UAVR-H730/5R1MD	UAVR-H730/5R1MD	UAVR-H730/5R1MD
Power supply			V~,Hz,Ph	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3
Capacity	Capacity range		HP	40.0	42.0	44.0
	Cooling (T1)		kW	113.0	118.0	123.0
			Btu/h	385556	402616	419676
	Cooling (T3)		kW	90.6	94.2	99.0
			Btu/h	309127	321410	337788
	Heating		kW	113.00	118.00	123.00
			Btu/h	385556	402616	419676
Electrical parameters	Cooling	Rated cooling power input (T1)	kW	33.84	36.21	36.87
		Rated cooling current (T1)	A	53.63	57.39	58.44
		Rated cooling power input (T3)	kW	33.97	36.08	38.08
		Rated cooling current (T3)	A	53.84	57.18	60.36
	Heating	Rated heating power input (T1)	kW	27.60	28.90	31.30
		Rated heating current (T1)	A	43.89	45.95	38.45
	EER	T1	Btu/(h*W)	11.39	11.12	11.38
		T3	W/W	2.67	2.61	2.60
			Btu/(h*W)	9.10	8.91	8.87
	COP	Heating	W/W	4.09	4.08	3.93
		Cooling (T1)	W/W	3.00	2.98	2.95
		Cooling (T3)	W/W	2.48	2.45	2.42
		CSPF	Btu/h/W	13.25	13.20	13.10
Compressor	Number			3	3	4
Outdoor fan	Fan quantity			4	4	4
Coil	Fin material			Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
	Outside diameter and grooving		mm	7 Inner grooved	7 Inner grooved	7 Inner grooved
Air flow volume			CFM	17059+8235	17059+8235	17059+9412
Noise level			dB(A)	62+61	62+61	62+63
Dimension (WxDxH)	Net		mm	1850x825x-1760+1340x765x1635	1850x825x-1760+1340x765x1635	1850x825x-1760+1340x765x1635
	Packing		mm	1925x930x-1930+1395x815x1865	1925x930x-1930+1395x815x1865	1925x930x-1930+1395x815x1865
Weight	Net		kg	388+265	388+265	388+330
	Gross		kg	411+280	411+280	411+345
Installation	Pipe size	Liquid	mm	22.2	22.2	22.2
		Suction	mm	35.0	35.0	35.0
Ambient temperature	Cooling		°C	-10~55	-10~55	-10~55
	Heating		°C	-20~24	-20~24	-20~24
Connection	Indoor units			53	55	58

Notes:
1. **Cooling Capacity at T1:** Indoor temperature: 27°C DB / 19°C WB; Outdoor temperature: 35°C DB / 24°C WB.
2. **Cooling Capacity at T3:** Indoor temperature: 29°C DB / 19°C WB; Outdoor temperature: 46.1°C DB / 24°C DB.
3. **Heating Capacity:** Indoor temperature: 20°C DB; Outdoor temperature: 7°C DB / 6°C WB.
4. We can guarantee operation only within 130% combination. If you want to connect more than 130% combination, please contact us to discuss the requirements.
5. The above designs and specifications are subject to change for product improvement without prior notice.
For final specifications, please refer to the technical specifications provided by the sales representative.
6. The above combined types are factory-recommended types.

UAVR-H1280/5R1MD	UAVR-H1340/5R1MD	UAVR-H1400/5R1MD	UAVR-H1450/5R1MD	UAVR-H1510/5R1MD
UAVR-H560/5R1MD	UAVR-H610/5R1MD	UAVR-H680/5R1MD	UAVR-H730/5R1MD	UAVR-H500/5R1MD
UAVR-H730/5R1MD	UAVR-H730/5R1MD	UAVR-H730/5R1MD	UAVR-H730/5R1MD	UAVR-H1010/5R1MD
380~415,50/60,3	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3
46.0	48.0	50.0	52.0	54.0
129.0	134.5	140.0	146.0	151.0
440148	458914	477680	498152	515212
101.0	103.0	109.0	114.0	113.5
344612	351436	371908	388968	387262
129.00	134.50	140.00	146.00	151.00
440148	458914	477680	498152	515212
39.31	41.81	42.59	46.35	48.17
62.31	66.27	67.47	73.41	76.33
39.40	40.75	42.35	44.71	45.52
62.45	64.59	67.08	70.81	72.14
32.93	36.70	35.90	38.20	42.40
41.04	47.02	45.86	49.51	49.55
11.20	10.97	11.21	10.75	10.70
2.56	2.53	2.57	2.55	2.49
8.75	8.62	8.78	8.70	8.51
3.92	3.66	3.90	3.82	3.56
2.93	3.05	3.00	2.98	2.95
2.40	2.50	2.48	2.45	2.42
13.05	13.30	13.25	13.20	13.10
4	4	4	4	4
4	4	4	4	4
Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
7 Inner grooved	7 Inner grooved	7 Inner grooved	7 Inner grooved	7 Inner grooved
17059+9412	17059+9412	17059*2	17059*2	17647+9412
62+63	62+63	62+62	62+62	66+63
1850x825x-1760+1340x765x1635	1850x825x-1760+1340x765x1635	(1850x825x1760)*2	(1850x825x1760)*2	1850x825x-1760+1340x765x1635
1925x930x-1930+1395x815x1865	1925x930x-1930+1395x815x1865	(1925x930x1930)*2	(1925x930x1930)*2	1925x930x-1930+1395x815x1865
388+330	388+330	388*2	388*2	430+330
411+345	411+345	411*2	411*2	453+345
22.2	22.2	22.2	22.2	22.2
35.0	35.0	35.0	35.0	35.0
-10~55	-10~55	-10~55	-10~55	-10~55
-20~24	-20~24	-20~24	-20~24	-20~24
59	60	64	64	64

UAVR-D SPECIFICATIONS.

Model				UAVR-H1560/5R1MD	UAVR-H1624/5R1MD	UAVR-H1680/5R1MD
Combination model				UAVR-H560/5R1MD UAVR-H1010/5R1MD	UAVR-H610/5R1MD UAVR-H1010/5R1MD	UAVR-H680/5R1MD UAVR-H1010/5R1MD
Power supply			V~,Hz,Ph	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3
Capacity	Capacity range		HP	56.0	58.0	60.0
	Cooling (T1)		kW	157.0	162.5	168.0
			Btu/h	535684	554450	573216
	Cooling (T3)		kW	115.5	117.5	123.5
			Btu/h	394086	400910	421382
	Heating		kW	157.0	162.5	168.0
			Btu/h	535684	554450	573216
Electrical parameters	Cooling	Rated cooling power input (T1)	kW	50.61	53.11	53.89
		Rated cooling current (T1)	A	80.20	84.17	85.36
		Rated cooling power input (T3)	kW	46.84	48.19	49.79
		Rated cooling current (T3)	A	74.23	76.37	78.87
	Heating	Rated heating power input (T1)	kW	44.03	47.80	47.00
		Rated heating current (T1)	A	52.14	58.12	56.96
	EER	T1	Btu/(h*W)	10.58	10.44	10.64
		T3	W/W	2.47	2.44	2.48
			Btu/(h*W)	8.41	8.32	8.46
	COP	Heating	W/W	3.57	3.40	3.57
		Cooling (T1)	W/W	2.93	3.05	3.00
		Cooling (T3)	W/W	2.40	2.50	2.48
		CSPF	Btu/h/W	13.05	13.30	13.25
Compressor	Number			4	4	4
Outdoor fan	Fan quantity			4	4	4
Coil	Fin material			Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
	Outside diameter and grooving		mm	7 Inner grooved	7 Inner grooved	7 Inner grooved
Air flow volume			CFM	17647+9412	17647+9412	17647+17059
Noise level			dB(A)	66+63	66+63	66+62
Dimension (WxDxH)	Net		mm	1850x825x-1760+1340x765x1635	1850x825x-1760+1340x765x1635	(1850x825x1760)*2
	Packing		mm	1925x930x-1930+1395x815x1865	1925x930x-1930+1395x815x1865	(1925x930x1930)*2
Weight	Net		kg	430+330	430+330	430+388
	Gross		kg	453+345	453+345	453+411
Installation	Pipe size	Liquid	mm	22.2	22.2	22.2
		Suction	mm	35.0	35.0	35.0
Ambient temperature	Cooling		°C	-10~55	-10~55	-10~55
	Heating		°C	-20~24	-20~24	-20~24
Connection	Indoor units			64	64	64

Notes:
1. **Cooling Capacity at T1:** Indoor temperature: 27°C DB / 19°C WB; Outdoor temperature: 35°C DB / 24°C WB.
2. **Cooling Capacity at T3:** Indoor temperature: 29°C DB / 19°C WB; Outdoor temperature: 46.1°C DB / 24°C DB.
3. **Heating Capacity:** Indoor temperature: 20°C DB; Outdoor temperature: 7°C DB / 6°C WB.
4. We can guarantee operation only within 130% combination. If you want to connect more than 130% combination, please contact us to discuss the requirements.
5. The above designs and specifications are subject to change for product improvement without prior notice.
For final specifications, please refer to the technical specifications provided by the sales representative.
6. The above combined types are factory-recommended types.

UAVR-H1730/5R1MD	UAVR-H1790/5R1MD	UAVR-H1840/5R1MD	UAVR-H1900/5R1MD	UAVR-H1960/5R1MD
UAVR-H730/5R1MD	UAVR-H785/5R1MD	UAVR-H850/5R1MD	UAVR-H900/5R1MD	UAVR-H950/5R1MD
UAVR-H1010/5R1MD	UAVR-H1010/5R1MD	UAVR-H1010/5R1MD	UAVR-H1010/5R1MD	UAVR-H1010/5R1MD
380~415,50/60,3	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3
62.0	64.0	66.0	68.0	70.0
174.0	179.5	186.0	191.0	196.0
593688	612454	634632	651692	668752
128.5	132.5	135.0	136.5	139.0
438442	452090	460620	465738	474268
174.0	179.5	186.0	191.0	196.0
593688	612454	634632	651692	668752
57.65	60.21	62.80	64.67	66.67
91.31	95.37	99.48	102.43	105.61
52.14	54.19	55.40	56.32	57.68
82.59	85.83	87.74	89.21	91.37
49.30	52.00	54.50	56.70	58.60
60.61	64.92	68.90	72.40	75.43
10.30	10.17	10.10	10.08	10.03
2.46	2.45	2.44	2.42	2.41
8.41	8.34	8.31	8.27	8.22
3.53	3.45	3.41	3.37	3.34
2.98	2.95	2.93	3.05	3.00
2.45	2.42	2.40	2.50	2.48
13.20	13.10	13.05	13.30	13.25
4	4	4	4	4
4	4	4	4	4
Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
7 Inner grooved	7 Inner grooved	7 Inner grooved	7 Inner grooved	7 Inner grooved
17647+17059	17647+17059	17647*2	17647*2	17647*2
66+62	66+63	66+64	66+64	66+66
(1850x825x1760)*2	(1850x825x1760)*2	(1850x825x1760)*2	(1850x825x1760)*2	(1850x825x1760)*2
(1925x930x1930)*2	(1925x930x1930)*2	(1925x930x1930)*2	(1925x930x1930)*2	(1925x930x1930)*2
430+388	430+388	430+422	430+422	430*2
453+411	453+411	453+445	453+445	453*2
22.2	22.2	22.2	22.2	22.2
35.0	35.0	35.0	35.0	35.0
-10~55	-10~55	-10~55	-10~55	-10~55
-20~24	-20~24	-20~24	-20~24	-20~24
64	64	64	64	64

UAVR-D SPECIFICATIONS.

Model				**UAVR-H2010/5R1MD**	**UAVR-H2070/5R1MD**	**UAVR-H2120/5R1MD**
Combination model				**UAVR-H1010/5R1MD**	**UAVR-H400/5R1MD**	**UAVR-H400/5R1MD**
				UAVR-H1010/5R1MD	**UAVR-H680/5R1MD**	**UAVR-H730/5R1MD**
					UAVR-H1010/5R1MD	**UAVR-H1010/5R1MD**
Power supply			V~,Hz,Ph	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3
Capacity	Capacity range		HP	72.0	74.0	76.0
	Cooling (T1)		kW	202.0	208.0	214.00
			Btu/h	689224	709696	730168
	Cooling (T3)		kW	143.0	157.1	162.1
			Btu/h	487916	536025	553085
	Heating		kW	202.0	208.0	214.00
			Btu/h	689224	709696	730168
Electrical parameters	Cooling	Rated cooling power input (T1)	kW	68.94	64.56	68.32
		Rated cooling current (T1)	A	109.20	102.28	108.23
		Rated cooling power input (T3)	kW	59.58	61.41	63.76
		Rated cooling current (T3)	A	94.37	97.30	101.02
	Heating	Rated heating power input (T1)	kW	60.40	55.50	57.80
		Rated heating current (T1)	A	78.30	88.34	91.99
	EER	T1	Btu/(h*W)	10.00	10.99	10.69
		T3	W/W	2.40	2.56	2.54
			Btu/(h*W)	8.19	8.73	8.67
	COP	Heating	W/W	3.34	3.75	3.70
		Cooling (T1)	W/W	2.98	2.95	2.93
		Cooling (T3)	W/W	2.45	2.42	2.40
		CSPF	Btu/h/W	13.20	13.10	13.05
Compressor	Number			4	5	5
Outdoor fan	Fan quantity			4	6	6
Coil	Fin material			Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
	Outside diameter and grooving		mm	7 Inner grooved	7 Inner grooved	7 Inner grooved
Air flow volume			CFM	17647*2	17647+17059+8235	17647+17059+8235
Noise level			dB(A)	66+66	66+62+61	66+62+61
Dimension (WxDxH)	Net		mm	(1850x825x1760)*2	(1850x825x-1760)*2+1340x765x1635	(1850x825x-1760)*2+1340x765x1635
	Packing		mm	(1925x930x1930)*2	(1925x930x-1930)*2+1395x815x1865	(1925x930x-1930)*2+1395x815x1865
Weight	Net		kg	430*2	430+388+265	430+388+265
	Gross		kg	453*2	453+411+280	453+411+280
Installation	Pipe size	Liquid	mm	22.2	22.2	22.2
		Suction	mm	35.0	35.0	35.0
Ambient temperature	Cooling		°C	-10~55	-10~55	-10~55
	Heating		°C	-20~24	-20~24	-20~24
Connection	Indoor units			64	64	64

Notes:
1. **Cooling Capacity at T1:** Indoor temperature: 27°C DB / 19°C WB; Outdoor temperature: 35°C DB / 24°C WB.
2. **Cooling Capacity at T3:** Indoor temperature: 29°C DB / 19°C WB; Outdoor temperature: 46.1°C DB / 24°C DB.
3. **Heating Capacity:** Indoor temperature: 20°C DB; Outdoor temperature: 7°C DB / 6°C WB.
4. We can guarantee operation only within 130% combination. If you want to connect more than 130% combination, please contact us to discuss the requirements.
5. The above designs and specifications are subject to change for product improvement without prior notice.
For final specifications, please refer to the technical specifications provided by the sales representative.
6. The above combined types are factory-recommended types.

UAVR-H2180/5R1MD	UAVR-H2240/5R1MD	UAVR-H2290/5R1MD	UAVR-H2350/5R1MD	UAVR-H2400/5R1MD
UAVR-H450/5R1MD	UAVR-H500/5R1MD	UAVR-H560/5R1MD	UAVR-H610/5R1MD	UAVR-H680/5R1MD
UAVR-H730/5R1MD	UAVR-H730/5R1MD	UAVR-H730/5R1MD	UAVR-H730/5R1MD	UAVR-H730/5R1MD
UAVR-H1010/5R1MD	UAVR-H1010/5R1MD	UAVR-H1010/5R1MD	UAVR-H1010/5R1MD	UAVR-H1010/5R1MD
380~415,50/60,3	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3
78.0	80.0	82.0	84.0	86.0
219.00	224.00	230.00	235.50	241.00
747228	764288	784760	803526	822292
166.1	168.6	170.1	172.6	176.6
566733	575263	580381	588911	602559
219.00	224.00	230.00	235.50	241.00
747228	764288	784760	803526	822292
70.69	71.35	73.79	76.29	77.07
111.99	113.04	116.91	120.87	122.07
65.87	67.87	69.19	70.54	72.14
104.37	107.54	109.64	111.78	114.27
59.10	61.50	63.13	66.90	66.10
94.05	97.86	100.44	106.42	105.26
10.57	10.71	10.64	10.53	10.67
2.52	2.48	2.46	2.45	2.45
8.60	8.48	8.39	8.35	8.35
3.71	3.64	3.64	3.52	3.65
3.05	3.00	2.98	2.95	2.93
2.50	2.48	2.45	2.42	2.40
13.30	13.25	13.20	13.10	13.05
5	6	6	6	6
6	6	6	6	6
Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
7 Inner grooved	7 Inner grooved	7 Inner grooved	7 Inner grooved	7 Inner grooved
17647+17059+8235	17647+17059+9412	17647+17059+9412	17647+17059+9412	17647+17059*2
66+62+61	66+62+63	66+62+63	66+62+63	66+62+62
(1850x825x-1760)*2+1340x765x1635	(1850x825x-1760)*2+1340x765x1635	(1850x825x-1760)*2+1340x765x1635	(1850x825x-1760)*2+1340x765x1635	(1850x825x1760)*3
(1925x930x-1930)*2+1395x815x1865	(1925x930x-1930)*2+1395x815x1865	(1925x930x-1930)*2+1395x815x1865	(1925x930x-1930)*2+1395x815x1865	(1925x930x1930)*3
430+388+265	430+388+330	430+388+330	430+388+330	430+388*2
453+411+280	453+411+345	453+411+345	453+411+345	453+411*2
22.2	22.2	22.2	22.2	22.2
35.0	35.0	35.0	35.0	35.0
-10~55	-10~55	-10~55	-10~55	-10~55
-20~24	-20~24	-20~24	-20~24	-20~24
64	64	64	64	64

UAVR-D SPECIFICATIONS.

Model				**UAVR-H2460/5R1MD**	**UAVR-H2520/5R1MD**	**UAVR-H2580/5R1MD**
Combination model				**UAVR-H730/5R1MD**	**UAVR-H500/5R1MD**	**UAVR-H560/5R1MD**
				UAVR-H730/5R1MD	**UAVR-H1010/5R1MD**	**UAVR-H1010/5R1MD**
				UAVR-H1010/5R1MD	**UAVR-H1010/5R1MD**	**UAVR-H1010/5R1MD**
Power supply			V~,Hz,Ph	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3
Capacity	Capacity range		HP	88.0	90.0	92.0
	Cooling (T1)		kW	247.00	252.00	258.00
			Btu/h	842764	859824	880296
	Cooling (T3)		kW	190.7	185.0	187.0
			Btu/h	650668	631220	638044
	Heating		kW	247.00	252.00	258.00
			Btu/h	842764	859824	880296
Electrical parameters	Cooling	Rated cooling power input (T1)	kW	80.82	82.64	85.08
		Rated cooling current (T1)	A	128.01	130.93	134.80
		Rated cooling power input (T3)	kW	74.50	75.31	76.63
		Rated cooling current (T3)	A	118.00	119.32	121.42
	Heating	Rated heating power input (T1)	kW	68.40	72.60	74.23
		Rated heating current (T1)	A	108.92	115.54	118.13
	EER	T1	Btu/(h*W)	10.43	10.40	10.35
		T3	W/W	2.56	2.46	2.44
			Btu/(h*W)	8.73	8.38	8.33
	COP	Heating	W/W	3.61	3.47	3.48
		Cooling (T1)	W/W	3.05	3.00	2.98
		Cooling (T3)	W/W	2.50	2.48	2.45
		CSPF	Btu/h/W	13.30	13.25	13.20
Compressor	Number			6	6	6
Outdoort fan	Fan quantity			6	6	6
Coil	Fin material			Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
	Outside diameter and grooving		mm	7 Inner grooved	7 Inner grooved	7 Inner grooved
Air flow volume			CFM	17647+17059*2	17647*2+9412	17647*2+9412
Noise level			dB(A)	66+62+62	66+66+63	66+66+63
Dimension (WxDxH)	Net		mm	(1850x825x1760)*3	(1850x825x-1760)*2+1340x765x1635	(1850x825x-1760)*2+1340x765x1635
	Packing		mm	(1925x930x1930)*3	(1925x930x-1930)*2+1395x815x1865	(1925x930x-1930)*2+1395x815x1865
Weight	Net		kg	430+388*2	430*2+330	430*2+330
	Gross		kg	453+411*2	453*2+345	453*2+345
Installation	Pipe size	Liquid	mm	22.2	22.2	22.2
		Suction	mm	35.0	35.0	35.0
Ambient temperature	Cooling		°C	-10~55	-10~55	-10~55
	Heating		°C	-20~24	-20~24	-20~24
Connection	Indoor units			64	64	64

Notes:
1. **Cooling Capacity at T1:** Indoor temperature: 27°C DB / 19°C WB; Outdoor temperature: 35°C DB / 24°C WB.
2. **Cooling Capacity at T3:** Indoor temperature: 29°C DB / 19°C WB; Outdoor temperature: 46.1°C DB / 24°C DB.
3. **Heating Capacity:** Indoor temperature: 20°C DB; Outdoor temperature: 7°C DB / 6°C WB.
4. We can guarantee operation only within 130% combination. If you want to connect more than 130% combination, please contact us to discuss the requirements.
5. The above designs and specifications are subject to change for product improvement without prior notice.
For final specifications, please refer to the technical specifications provided by the sales representative.
6. The above combined types are factory-recommended types.

UAVR-H2630/5R1MD	UAVR-H2700/5R1MD	UAVR-H2750/5R1MD	UAVR-H2800/5R1MD	UAVR-H2870/5R1MD
UAVR-H610/5R1MD	UAVR-H680/5R1MD	UAVR-H730/5R1MD	UAVR-H785/5R1MD	UAVR-H850/5R1MD
UAVR-H1010/5R1MD	UAVR-H1010/5R1MD	UAVR-H1010/5R1MD	UAVR-H1010/5R1MD	UAVR-H1010/5R1MD
UAVR-H1010/5R1MD	UAVR-H1010/5R1MD	UAVR-H1010/5R1MD	UAVR-H1010/5R1MD	UAVR-H1010/5R1MD
380~415,50/60,3	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3
94.0	96.0	98.0	100.0	102.0
263.50	269.00	275.00	280.50	287.00
899062	917828	938300	957066	979244
189.0	195.0	200.0	204.0	206.5
644868	665340	682400	696048	704578
263.50	269.00	275.00	280.50	287.00
899062	917828	938300	957066	979244
87.58	88.36	92.12	94.68	97.28
138.76	139.96	145.90	149.96	154.08
77.98	79.58	81.94	83.98	85.19
123.56	126.05	129.78	133.02	134.93
78.00	77.20	79.50	82.20	84.70
124.11	122.95	126.60	130.91	134.89
10.27	10.39	10.19	10.11	10.07
2.42	2.45	2.44	2.43	2.42
8.27	8.36	8.33	8.29	8.27
3.38	3.48	3.46	3.41	3.39
2.95	2.93	3.05	3.00	2.98
2.42	2.40	2.50	2.48	2.45
13.10	13.05	13.30	13.25	13.20
6	6	6	6	6
6	6	6	6	6
Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
7 Inner grooved	7 Inner grooved	7 Inner grooved	7 Inner grooved	7 Inner grooved
17647*2+9412	17647*2+17059	17647*2+17059	17647*2+17059	17647*3
66+66+63	66+66+62	66+66+62	66+66+63	66+66+64
(1850x825x-1760)*2+1340x765x1635	(1850x825x1760)*3	(1850x825x1760)*3	(1850x825x1760)*3	(1850x825x1760)*3
(1925x930x-1930)*2+1395x815x1865	(1925x930x1930)*3	(1925x930x1930)*3	(1925x930x1930)*3	(1925x930x1930)*3
430*2+330	430*2+388	430*2+388	430*2+388	430*2+422
453*2+345	453*2+411	453*2+411	453*2+411	453*2+445
22.2	22.2	22.2	22.2	22.2
35.0	35.0	35.0	35.0	35.0
-10~55	-10~55	-10~55	-10~55	-10~55
-20~24	-20~24	-20~24	-20~24	-20~24
64	64	64	64	64

UAVR-D SPECIFICATIONS.

Model				**UAVR-H2920/5R1MD**	**UAVR-H2970/5R1MD**	**UAVR-H3030/5R1MD**
Combination model				**UAVR-H900/5R1MD**	**UAVR-H950/5R1MD**	**UAVR-H1010/5R1MD**
				UAVR-H1010/5R1MD	**UAVR-H1010/5R1MD**	**UAVR-H1010/5R1MD**
				UAVR-H1010/5R1MD	**UAVR-H1010/5R1MD**	**UAVR-H1010/5R1MD**
Power supply			V~,Hz,Ph	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3
Capacity	Capacity range		HP	104.0	106.0	108.0
	Cooling (T1)		kW	292.00	297.00	303.00
			Btu/h	996304	1013364	1033836
	Cooling (T3)		kW	208.0	210.5	214.5
			Btu/h	709696	718226	731874
	Heating		kW	292.00	297.00	303.00
			Btu/h	996304	1013364	1033836
Electrical parameters	Cooling	Rated cooling power input (T1)	kW	99.14	101.15	103.41
		Rated cooling current (T1)	A	157.03	160.20	163.80
		Rated cooling power input (T3)	kW	86.11	87.48	89.38
		Rated cooling current (T3)	A	136.40	138.55	141.56
	Heating	Rated heating power input (T1)	kW	86.90	88.80	90.60
		Rated heating current (T1)	A	138.40	141.42	144.29
	EER	T1	Btu/(h*W)	10.05	10.02	10.00
		T3	W/W	2.42	2.41	2.40
			Btu/(h*W)	8.24	8.21	8.19
	COP	Heating	W/W	3.36	3.34	3.34
		Cooling (T1)	W/W	2.95	2.93	3.05
		Cooling (T3)	W/W	2.42	2.40	2.50
		CSPF	Btu/h/W	13.10	13.05	13.30
Compressor	Number			6	6	6
Outdoor fan	Fan quantity			6	6	6
Coil	Fin material			Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
	Outside diameter and grooving		mm	7 Inner grooved	7 Inner grooved	7 Inner grooved
Air flow volume			CFM	17647*3	17647*3	17647*3
Noise level			dB(A)	66+66+64	66+66+66	66+66+66
Dimension (WxDxH)	Net		mm	(1850x825x1760)*3	(1850x825x1760)*3	(1850x825x1760)*3
	Packing		mm	(1925x930x1930)*3	(1925x930x1930)*3	(1925x930x1930)*3
Weight	Net		kg	430*2+422	430*3	430*3
	Gross		kg	453*2+445	453*3	453*3
Installation	Pipe size	Liquid	mm	22.2	22.2	22.2
		Suction	mm	35.0	35.0	35.0
Ambient temperature	Cooling		°C	-10~55	-10~55	-10~55
	Heating		°C	-20~24	-20~24	-20~24
Connection	Indoor units			64	64	64

Notes:
1. **Cooling Capacity at T1:** Indoor temperature: 27°C DB / 19°C WB; Outdoor temperature: 35°C DB / 24°C WB.
2. **Cooling Capacity at T3:** Indoor temperature: 29°C DB / 19°C WB; Outdoor temperature: 46.1°C DB / 24°C DB.
3. **Heating Capacity:** Indoor temperature: 20°C DB; Outdoor temperature: 7°C DB / 6°C WB.
4. We can guarantee operation only within 130% combination. If you want to connect more than 130% combination, please contact us to discuss the requirements.
5. The above designs and specifications are subject to change for product improvement without prior notice.
For final specifications, please refer to the technical specifications provided by the sales representative.
6. The above combined types are factory-recommended types.

UAVR-H3090/5R1MD	UAVR-H3140/5R1MD	UAVR-H3210/5R1MD	UAVR-H3260/5R1MD	UAVR-H3310/5R1MD
UAVR-H730/5R1MD	UAVR-H730/5R1MD	UAVR-H730/5R1MD	UAVR-H730/5R1MD	UAVR-H730/5R1MD
UAVR-H730/5R1MD	UAVR-H730/5R1MD	UAVR-H730/5R1MD	UAVR-H730/5R1MD	UAVR-H785/5R1MD
UAVR-H730/5R1MD	UAVR-H785/5R1MD	UAVR-H850/5R1MD	UAVR-H900/5R1MD	UAVR-H900/5R1MD
UAVR-H900/5R1MD	UAVR-H900/5R1MD	UAVR-H900/5R1MD	UAVR-H900/5R1MD	UAVR-H900/5R1MD
380~415,50/60,3	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3
110.0	112.0	114.0	116.0	118.0
309.00	314.50	321.00	326.00	331.50
1054308	1073074	1095252	1112312	1131078
236.0	240.0	242.5	244.0	248.0
805232	818880	827410	832528	846176
309.00	314.50	321.00	326.00	331.50
1054308	1073074	1095252	1112312	1131078
99.73	102.29	104.88	106.75	109.31
157.96	162.02	166.13	169.09	173.14
93.59	95.64	96.84	97.77	99.81
148.24	151.48	153.39	154.85	158.10
83.80	86.50	89.00	91.20	93.90
133.43	122.04	103.40	106.90	133.83
10.57	10.49	10.44	10.42	10.35
2.52	2.51	2.50	2.50	2.48
8.60	8.56	8.54	8.52	8.48
3.69	3.64	3.61	3.57	3.53
3.00	2.98	2.95	2.93	3.05
2.48	2.45	2.42	2.40	2.50
13.25	13.20	13.10	13.05	13.30
8	8	8	8	8
8	8	8	8	8
Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
7 Inner grooved	7 Inner grooved	7 Inner grooved	7 Inner grooved	7 Inner grooved
17647+17059*3	17647+17059*3	17647+17059*3	17647*2+17059*2	17647*2+17059*2
64+62+62+62	64+63+62+62	64+64+62+62	64+64+62+62	64+64+63+62
(1850x825x1760)*4	(1850x825x1760)*4	(1850x825x1760)*4	(1850x825x1760)*4	(1850x825x1760)*4
(1925x930x1930)*4	(1925x930x1930)*4	(1925x930x1930)*4	(1925x930x1930)*4	(1925x930x1930)*4
422+388*3	422+388*3	422*2+388*2	422*2+388*2	422*2+388*2
445+411*3	445+411*3	445*2+411*2	445*2+411*2	445*2+411*2
22.2	22.2	22.2	22.2	22.2
35.0	35.0	35.0	35.0	35.0
-10~55	-10~55	-10~55	-10~55	-10~55
-20~24	-20~24	-20~24	-20~24	-20~24
64	64	64	64	64

UAVR-D SPECIFICATIONS.

Model				**UAVR-H3380/5R1MD**	**UAVR-H3430/5R1MD**	**UAVR-H3480/5R1MD**
Combination model				**UAVR-H730/5R1MD**	**UAVR-H730/5R1MD**	**UAVR-H785/5R1MD**
				UAVR-H850/5R1MD	**UAVR-H900/5R1MD**	**UAVR-H900/5R1MD**
				UAVR-H900/5R1MD	**UAVR-H900/5R1MD**	**UAVR-H900/5R1MD**
				UAVR-H900/5R1MD	**UAVR-H900/5R1MD**	**UAVR-H900/5R1MD**
Power supply			V~,Hz,Ph	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3
Capacity	Capacity range		HP	120.0	122.0	124.0
	Cooling (T1)		kW	338.00	343.00	348.50
			Btu/h	1153256	1170316	1189082
	Cooling (T3)		kW	250.5	252.0	256.0
			Btu/h	854706	859824	873472
	Heating		kW	338.00	343.00	348.50
			Btu/h	1153256	1170316	1189082
Electrical parameters	Cooling	Rated cooling power input (T1)	kW	111.91	113.78	116.34
		Rated cooling current (T1)	A	177.26	180.21	184.27
		Rated cooling power input (T3)	kW	101.02	101.94	103.99
		Rated cooling current (T3)	A	160.00	161.47	164.71
	Heating	Rated heating power input (T1)	kW	96.40	98.60	101.30
		Rated heating current (T1)	A	153.52	157.02	161.33
	EER	T1	Btu/(h*W)	10.31	10.29	10.22
		T3	W/W	2.48	2.47	2.46
			Btu/(h*W)	8.46	8.43	8.40
	COP	Heating	W/W	3.51	3.48	3.44
		Cooling (T1)	W/W	3.00	2.98	2.95
		Cooling (T3)	W/W	2.48	2.45	2.42
		CSPF	Btu/h/W	13.25	13.20	13.10
Compressor	Number			8	8	8
Outdoor fan	Fan quantity			8	8	8
Coil	Fin material			Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
	Outside diameter and grooving		mm	7 Inner grooved	7 Inner grooved	7 Inner grooved
Air flow volume			CFM	17647*3+17059	17647*3+17059	17647*3+17059
Noise level			dB(A)	64+64+64+62	64+64+64+62	64+64+64+63
Dimension (WxDxH)	Net		mm	(1850x825x1760)*4	(1850x825x1760)*4	(1850x825x1760)*4
	Packing		mm	(1925x930x1930)*4	(1925x930x1930)*4	(1925x930x1930)*4
Weight	Net		kg	422*3+388	422*3+388	422*3+388
	Gross		kg	445*3+411	445*3+411	445*3+411
Installation	Pipe size	Liquid	mm	22.2	22.2	22.2
		Suction	mm	35.0	35.0	35.0
Ambient temperature	Cooling		°C	-10~55	-10~55	-10~55
	Heating		°C	-20~24	-20~24	-20~24
Connection	Indoor units			64	64	64

Notes:
1. **Cooling Capacity at T1:** Indoor temperature: 27°C DB / 19°C WB; Outdoor temperature: 35°C DB / 24°C WB.
2. **Cooling Capacity at T3:** Indoor temperature: 29°C DB / 19°C WB; Outdoor temperature: 46.1°C DB / 24°C DB.
3. **Heating Capacity:** Indoor temperature: 20°C DB; Outdoor temperature: 7°C DB / 6°C WB.
4. We can guarantee operation only within 130% combination. If you want to connect more than 130% combination, please contact us to discuss the requirements.
5. The above designs and specifications are subject to change for product improvement without prior notice.
For final specifications, please refer to the technical specifications provided by the sales representative.
6. The above combined types are factory-recommended types.

UAVR-H3550/5R1MD	UAVR-H3600/5R1MD	UAVR-H3640/5R1MD	UAVR-H3710/5R1MD	UAVR-H3760/5R1MD
UAVR-H850/5R1MD	UAVR-H900/5R1MD	UAVR-H610/5R1MD	UAVR-H680/5R1MD	UAVR-H730/5R1MD
UAVR-H900/5R1MD	UAVR-H900/5R1MD	UAVR-H1010/5R1MD	UAVR-H1010/5R1MD	UAVR-H1010/5R1MD
UAVR-H900/5R1MD	UAVR-H900/5R1MD	UAVR-H1010/5R1MD	UAVR-H1010/5R1MD	UAVR-H1010/5R1MD
UAVR-H900/5R1MD	UAVR-H900/5R1MD	UAVR-H1010/5R1MD	UAVR-H1010/5R1MD	UAVR-H1010/5R1MD
380~415,50/60,3	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3
126.0	128.0	130.0	132.0	134.0
355.00	360.00	364.50	370.00	376.00
1211260	1228320	1243674	1262440	1282912
258.5	260.0	260.5	266.5	271.5
882002	887120	888826	909298	926358
355.00	360.00	364.50	370.00	376.00
1211260	1228320	1243674	1262440	1282912
118.94	120.81	122.05	122.83	126.59
188.39	191.34	193.36	194.56	200.50
105.20	106.12	107.78	109.38	111.73
166.62	168.09	170.75	173.24	176.97
103.80	106.00	108.20	107.40	109.70
165.31	168.82	172.21	171.05	174.70
10.18	10.17	10.19	10.28	10.13
2.46	2.45	2.42	2.44	2.43
8.38	8.36	8.25	8.31	8.29
3.42	3.40	3.37	3.45	3.43
2.93	3.05	3.00	2.98	2.95
2.40	2.50	2.48	2.45	2.42
13.05	13.30	13.25	13.20	13.10
8	8	8	8	8
8	8	8	8	8
Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
7 Inner grooved	7 Inner grooved	7 Inner grooved	7 Inner grooved	7 Inner grooved
17647*4	17647*4	17647*3+9412	17647*3+17059	17647*3+17059
64+64+64+64	64+64+64+64	66+66+66+63	66+66+66+62	66+66+66+62
(1850x825x1760)*4	(1850x825x1760)*4	(1850x825x1760)*3+1340x765x1635	(1850x825x1760)*4	(1850x825x1760)*4
(1925x930x1930)*4	(1925x930x1930)*4	(1925x930x1930)*3+1395x815x1865	(1925x930x1930)*4	(1925x930x1930)*4
422*4	422*4	430*3+330	430*3+388	430*3+388
445*4	445*4	453*3+345	453*3+411	453*3+411
22.2	22.2	22.2	22.2	22.2
35.0	35.0	35.0	35.0	35.0
-10~55	-10~55	-10~55	-10~55	-10~55
-20~24	-20~24	-20~24	-20~24	-20~24
64	64	64	64	64

UAVR-D SPECIFICATIONS.

Model				**UAVR-H3810/5R1MD**	**UAVR-H3880/5R1MD**
Combination model				**UAVR-H785/5R1MD**	**UAVR-H850/5R1MD**
				UAVR-H1010/5R1MD	**UAVR-H1010/5R1MD**
				UAVR-H1010/5R1MD	**UAVR-H1010/5R1MD**
				UAVR-H1010/5R1MD	**UAVR-H1010/5R1MD**
Power supply			V~,Hz,Ph	380~415,50/60,3	380~415,50/60,3
Capacity	Capacity range		HP	136.0	138.0
	Cooling (T1)		kW	381.50	388.00
			Btu/h	1301678	1323856
	Cooling (T3)		kW	275.5	278.0
			Btu/h	940006	948536
	Heating		kW	381.50	388.00
			Btu/h	1301678	1323856
Electrical parameters	Cooling	Rated cooling power input (T1)	kW	129.15	131.75
		Rated cooling current (T1)	A	204.56	208.67
		Rated cooling power input (T3)	kW	113.78	114.98
		Rated cooling current (T3)	A	180.21	182.12
	Heating	Rated heating power input (T1)	kW	112.40	114.90
		Rated heating current (T1)	A	179.01	182.99
	EER	T1	Btu/(h*W)	10.08	10.05
		T3	W/W	2.42	2.42
				8.26	8.25
	COP	Heating	W/W	3.39	3.38
		Cooling (T1)	W/W	2.93	3.05
		Cooling (T3)	W/W	2.40	2.50
		CSPF	Btu/h/W	13.05	13.30
Compressor	Number			8	8
Outdoor fan	Fan quantity			8	8
Coil	Fin material			Hydrophilic aluminum fin	Hydrophilic aluminum fin
	Outside diameter and grooving		mm	7 Inner grooved	7 Inner grooved
Air flow volume			CFM	17647*3+17059	17647*4
Noise level			dB(A)	66+66+66+63	66+66+66+64
Dimension (WxDxH)	Net		mm	(1850x825x1760)*4	(1850x825x1760)*4
	Packing		mm	(1925x930x1930)*4	(1925x930x1930)*4
Weight	Net		kg	430*3+388	430*3+422
	Gross		kg	453*3+411	453*3+445
Installation	Pipe size	Liquid	mm	22.2	22.2
		Suction	mm	35.0	35.0
Ambient temperature	Cooling		°C	-10~55	-10~55
	Heating		°C	-20~24	-20~24
Connection	Indoor units			64	64

Notes:
1. **Cooling Capacity at T1:** Indoor temperature: 27°C DB / 19°C WB; Outdoor temperature: 35°C DB / 24°C WB.
2. **Cooling Capacity at T3:** Indoor temperature: 29°C DB / 19°C WB; Outdoor temperature: 46.1°C DB / 24°C DB.
3. **Heating Capacity:** Indoor temperature: 20°C DB; Outdoor temperature: 7°C DB / 6°C WB.
4. We can guarantee operation only within 130% combination. If you want to connect more than 130% combination, please contact us to discuss the requirements.
5. The above designs and specifications are subject to change for product improvement without prior notice.
For final specifications, please refer to the technical specifications provided by the sales representative.
6. The above combined types are factory-recommended types.

UAVR-H3930/5R1MD	**UAVR-H3980/5R1MD**	**UAVR-H4040/5R1MD**
UAVR-H900/5R1MD	**UAVR-H950/5R1MD**	**UAVR-H1010/5R1MD**
UAVR-H1010/5R1MD	**UAVR-H1010/5R1MD**	**UAVR-H1010/5R1MD**
UAVR-H1010/5R1MD	**UAVR-H1010/5R1MD**	**UAVR-H1010/5R1MD**
UAVR-H1010/5R1MD	**UAVR-H1010/5R1MD**	**UAVR-H1010/5R1MD**
380~415,50/60,3	380~415,50/60,3	380~415,50/60,3
140.0	142.0	144.0
393.00	398.00	404.00
1340916	1357976	1378448
279.5	282.0	286.0
953654	962184	975832
393.00	398.00	404.00
1340916	1357976	1378448
133.61	135.62	137.88
211.63	214.80	218.40
115.91	117.27	119.17
183.58	185.74	188.75
117.10	119.00	120.80
186.49	189.52	192.39
10.04	10.01	10.00
2.41	2.40	2.40
8.23	8.21	8.19
3.36	3.34	3.34
3.00	2.98	2.95
2.48	2.45	2.42
13.25	13.20	13.10
8	8	8
8	8	8
Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
7 Inner grooved	7 Inner grooved	7 Inner grooved
17647*4	17647*4	17647*4
66+66+66+64	66+66+66+66	66+66+66+66
(1850x825x1760)*4	(1850x825x1760)*4	(1850x825x1760)*4
(1925x930x1930)*4	(1925x930x1930)*4	(1925x930x1930)*4
430*3+422	430*4	430*4
453*3+445	453*4	453*4
22.2	22.2	22.2
35.0	35.0	35.0
-10~55	-10~55	-10~55
-20~24	-20~24	-20~24
64	64	64

UAVR-D SERIES OUTDOOR UNITS.

Flexible Outdoor Unit Combination

HP	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36
38				○					○						
40				○						○					
42					○					○					
44						○				○					
46							○			○					
48								○		○					
50									○	○					
52										○○					
54						○									○
56							○								○
58								○							○
60									○						○
62										○					○
64											○				○
66												○			○
68													○		○
70														○	○
72															
74				○					○						○
76				○						○					○
78					○					○					○
80						○				○					○
82							○			○					○
84								○		○					○
86									○	○					○
88															○
90						○									○○

*The above combination types are factory-recommended. The combined type also can be combined at will.

HP	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36
92				○			○								○○
94								○							○○
96									○						○○
98										○					○○
100											○				○○
102												○			○○
104													○		○○
106														○	○○
108															○○○
110										○○○			○		
112										○○	○		○		
114										○○		○	○		
116										○○			○○		
118										○	○		○○		
120										○		○	○○		
122										○			○○○		
124											○		○○○		
126												○	○○○		
128								○					○○○○		
130									○						○○○
132										○					○○○
134											○				○○○
138												○			○○○
140													○		○○○
142														○	○○○
144															○○○○

*The above combination types are factory-recommended.

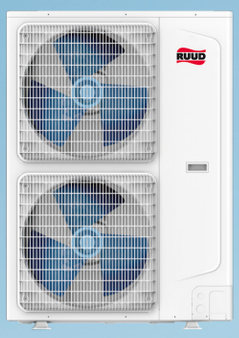
UAVR-D MINI VRF SERIES.

Seamless integration into compact spaces.

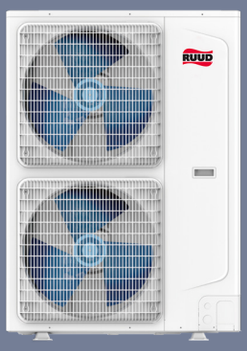
Our new Mini VRF series features compact units that can be installed in a wide range of locations, including behind a parapet, against a low wall, or even on a balcony. Thanks to its small footprint, the unit can be seamlessly integrated into compact spaces such as villa balconies.

MINI VRF PRODUCT LINEUP.

UAVR-D Mini VRF Full DC Inverter Heat Pump

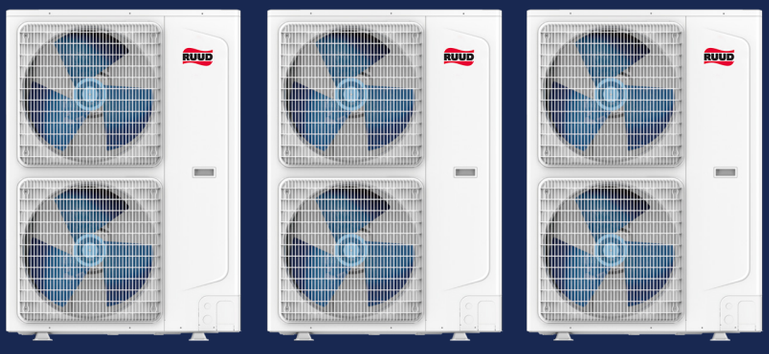
kW	10	12	14	16	18	20	22
							

COMBINATION RANGES.



10 - 22 kW

32 - 44 kW



48 - 66 kW

GENERAL BENEFITS.

Alternate module operation

In a combined system, any module can function as the master unit based on runtime. This helps to balance the lifespan of all outdoor units in the system.

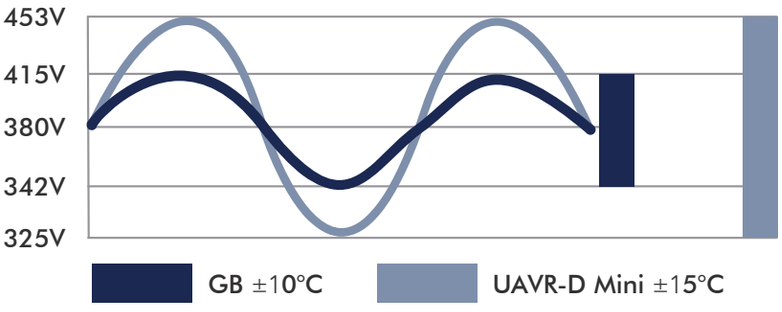
First time operation | Second time operation | Third time operation

26°C economic locking

All indoor units can operate in energy-saving mode.

Wide voltage design

The Mini VRF series has a wide voltage range.

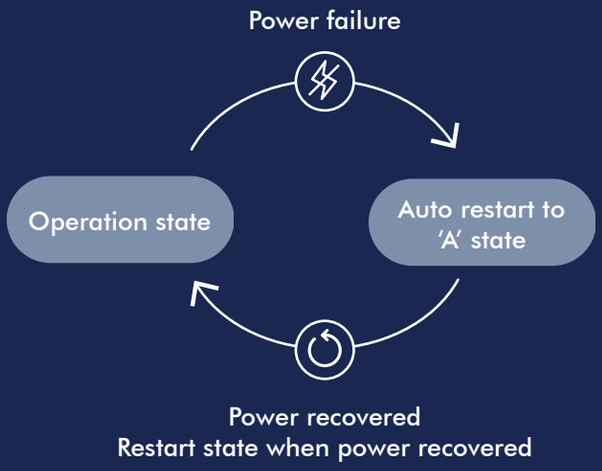


Refrigerant PCB cooling system

The PCB is cooled effectively by the refrigerant, ensuring stable system operation.

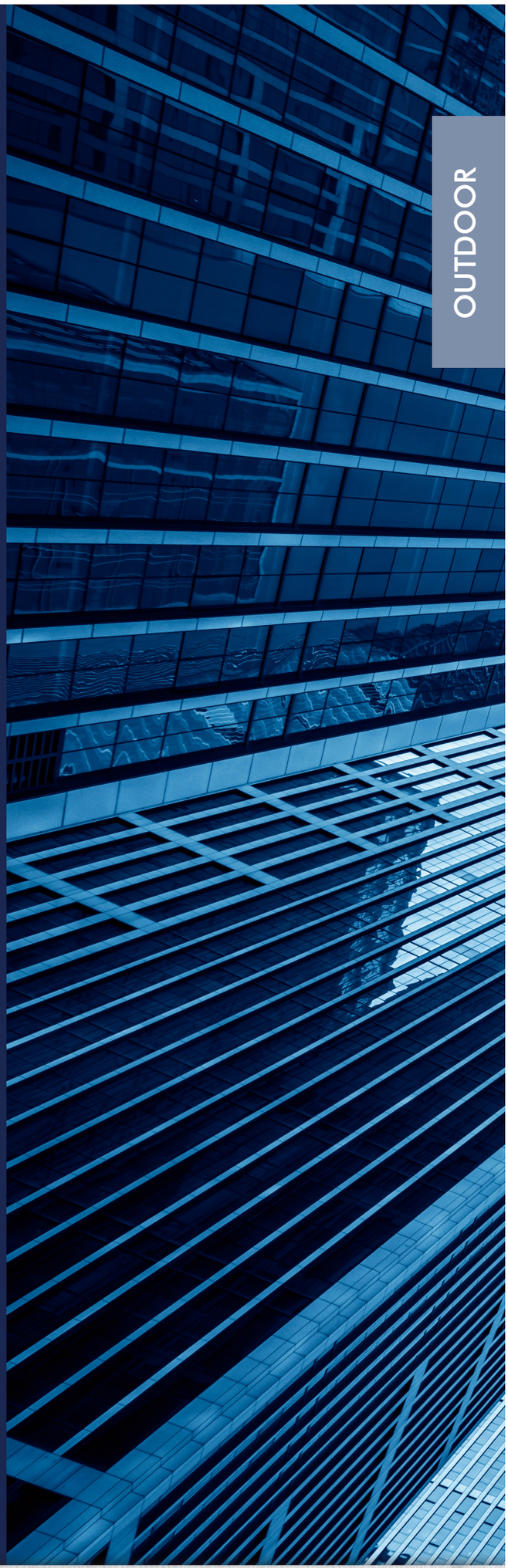
Auto restart function

In the event of a power outage, the unit automatically remembers its operation settings and restores them when the power is resumed.



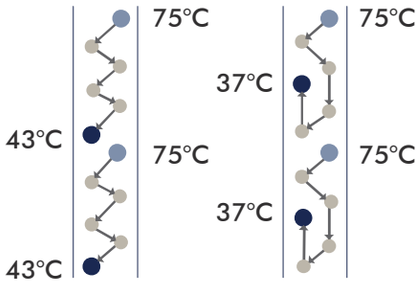
High capacity and flexible combinations

Three models ranging from 16-22 kW can be grouped together, allowing for a maximum capacity of up to 66 kW.



Two-stage sub-cooling technology

Featuring an E-pass circuit, this technology reduces resistance and enhances heat transfer efficiency.

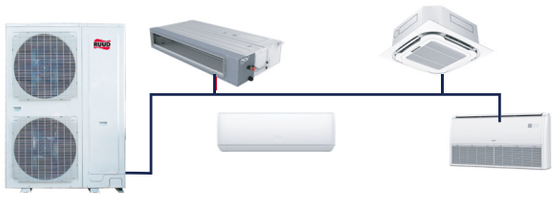


Normal condenser ambient 35°C

E-pass condenser ambient 35°C

Flexible installation options

The Mini VRF system allows for the connection of various indoor units, enabling multiple units to be combined within a single system. This makes it an ideal choice for applications with multiple zoning requirements.



180° sine wave control

Our DC inverter compressor uses 180° sine wave vector control. This allows the motor to operate more smoothly quietly, and efficiently compared to traditional sawtooth wave control.

Seven levels of electricity usage limiting

The unit features energy-saving and power-limiting functions with adjustable output limits, ranging from 40% to 100%. Users can select the automatic energy-saving mode, allowing the system to optimize output based on ambient temperature changes and enhancing overall operating energy efficiency.

Non-polar communication

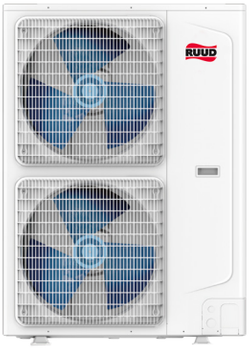
Non-polar communication between indoor units simplifies installation and commissioning.

New integrated PCB design (2-in-1)

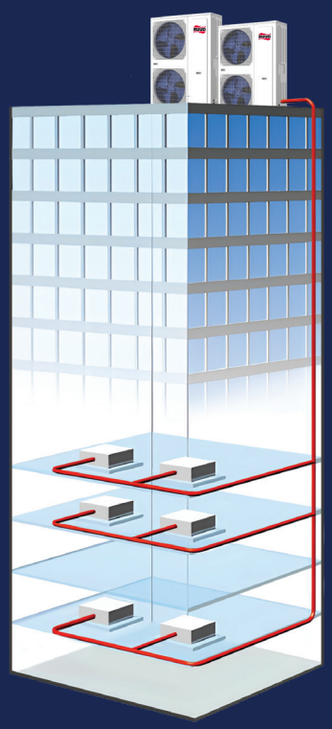
The main control, drive and filter boards are all centralized in one control board, for more convenient maintenance.

High efficiency DC fan motor

Our DC brushless motor adjusts the fan speed based on system pressure and load, improving efficiency by 45%. Its advanced aero fan design also offers increased air volume and higher static pressure.



LONG PIPING LENGTH.



Max. total piping length	Max. piping length between ODU and farthest IDU	Max. piping length from first indoor branch to the farthest IDU	Max. level difference between IDU	Max. level difference between ODU and IDU units
150/*560m	100m (120m)/ *150m (175m)	40m	30m	40m/50m

UAVR-D MINI SPECIFICATIONS.

Model				UAVR-H100/4R1D	UAVR-H120/4R1D	UAVR-H140/4R1D
kW				10 kW	12 kW	14 kW
Combination Model				/	/	/
				/	/	/
				/	/	/
Power supply			V~,Hz,Ph	220~240,50/60,1	220~240,50/60,1	220~240,50/60,1
Capacity	Cooling (T1)		kW	10.2	12.3	14.1
	Cooling (T3)		kW	9.3	11.1	12.6
	Heating		kW	11.5	13.2	16.0
Electrical parameters	Cooling	Rated cooling power input (T1)	kW	2.30	2.80	3.58
		Rated cooling current (T1)	A	10.32	12.56	16.06
		Rated cooling power input (T3)	kW	2.70	3.15	4.25
		Rated cooling current (T3)	A	12.11	14.13	19.07
	Heating	Rated heating power input (T1)	kW	2.85	3.41	3.93
		Rated heating current (T1)	A	12.75	15.28	17.62
	EER	T1	W/W	4.43	4.39	3.94
		T3	W/W	3.44	3.52	2.96
	COP	Heating	W/W	4.04	3.87	4.07
	CSPF		Btu/h/W			
Compressor	Type			Twin rotary inverter	Twin rotary inverter	Twin rotary inverter
Outdoor fan	Fan quantity			2	2	2
Coil	Fin material			Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
	Outside diameter and grooving		mm	7, Inner grooved	7, Inner grooved	7, Inner grooved
Air flow volume			CFM	3973	3973	3973
Noise level			dB(A)	56	56	57
Dimension (WxDxH)	Net		mm	940x340x1320	940x340x1320	940x340x1320
	Packing		mm	1080x430x1440	1080x430x1440	1080x430x1440
Weight	Net		kg	88	88	88
	Gross		kg	98	98	98
Installation	Pipe Size	Liquid	mm	9.52(3/8)	9.52(3/8)	9.52(3/8)
		Suction	mm	15.88(5/8)	15.88(5/8)	19.05(6/8)
Ambient temperature	Cooling		°C	15~54	-15~54	-15~54
	Heating		°C	-20~24	-20~24	-20~24
Connection	Indoor units			8	10	12

UAVR-H160/5R1D	UAVR-H180/5R1D	UAVR-H200/5R1D	UAVR-H220/5R1D
16kW	18kW	20kW	22kW
/	/	/	/
/	/	/	/
/	/	/	/
380~415,50/60,3	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3
16.05	18.0	20.2	22.4
14.1	16.5	18.0	20.0
18.0	20.2	22.0	24.2
4.70	5.30	5.40	6.10
7.25	8.17	8.20	9.30
5.40	6.00	6.40	7.00
8.33	9.25	9.70	10.80
5.00	5.98	6.00	7.20
7.71	9.22	9.20	11.00
3.40	3.40	3.74	3.67
2.64	2.75	2.81	2.86
3.60	3.38	3.67	3.36
14.90	14.60	14.40	14.90
Twin rotary inverter	Twin rotary inverter	Twin rotary inverter	Twin rotary inverter
2	2	2	2
Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
7, Inner grooved	7, Inner grooved	7, Inner grooved	7, Inner grooved
9000	9000	9000	9000
43-58	43-58	43-58	43-58
1120x400x1540	1120x400x1540	1120x400x1540	1120x400x1540
1270x560x1710	1270x560x1710	1270x560x1710	1270x560x1710
152	152	152	152
162	162	162	162
12.7(1/2)	12.7(1/2)	12.7(1/2)	12.7(1/2)
22.22(7/8)	22.22(7/8)	22.22(7/8)	22.22(7/8)
-15~54	-15~54	-15~54	-15~54
-20~24	-20~24	-20~24	-20~24
13	15	17	19

UAVR-D MINI SPECIFICATIONS.

Model				**UAVR-H320/5R1D**	**UAVR-H340/5R1D**	**UAVR-H360/5R1D**
kW				**16KW+16KW**	**16KW+18KW**	**18KW+18KW**
Combination Model				**UAVR-H160/5R1D**	**UAVR-H160/5R1D**	**UAVR-H180/5R1D**
				UAVR-H160/5R1D	**UAVR-H180/5R1D**	**UAVR-H180/5R1D**
				/	/	/
Power supply			V~,Hz,Ph	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3
Capacity	Cooling (T1)		kW	32.1	34.1	36.0
	Cooling (T3)		kW	28.2	30.6	33.0
	Heating		kW	36.00	38.20	40.40
Electrical parameters	Cooling	Rated cooling power input (T1)	kW	9.40	10.00	10.60
		Rated cooling current (T1)	A	14.50	15.42	16.34
		Rated cooling power input (T3)	kW	10.8	11.4	12
		Rated cooling current (T3)	A	16.66	17.58	18.50
	Heating	Rated heating power input (T1)	kW	10	10.98	11.96
		Rated heating current (T1)	A	15.42	16.93	18.44
	EER	T1	W/W	3.40	3.40	3.40
		T3	W/W	2.60	2.70	2.75
	COP	Heating	W/W	3.60	3.48	3.38
	CSPF		Btu/h/W	14.90	14.75	14.60
Compressor	Type			Rotary inverter	Rotary inverter	Rotary inverter
Outdoor fan	Fan quantity			2	2	2
Coil	Fin material			Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
	Outside diameter and grooving		mm	7, Inner grooved	7, Inner grooved	7, Inner grooved
Air flow volume			CFM	9000x2	9000x2	9000x2
Noise level			dB(A)	43-58	43-58	43-58
Dimension (WxDxH)	Net		mm	1120x400x1540	1120x400x1540	1120x400x1540
	Packing		mm	1270x560x1710	1270x560x1710	1270x560x1710
Weight	Net		kg	304	304	304
	Gross		kg	324	324	324
Installation	Pipe Size	Liquid	mm	12.7(1/2)x2	12.7(1/2)x3	12.7(1/2)x3
		Suction	mm	22.22(7/8)x2	22.22(7/8)x3	22.22(7/8)x3
Ambient temperature	Cooling		°C	-15~54	-15~54	-15~54
	Heating		°C	-20~24	-20~24	-20~24
Connection	Indoor units			27	29	31

UAVR-H380/5R1D	UAVR-H400/5R1D	UAVR-H420/5R1D	UAVR-H440/5R1D
18KW+20KW	**20KW+20KW**	**20KW+22KW**	**22KW+22KW**
UAVR-H180/5R1D	**UAVR-H200/5R1D**	**UAVR-H200/5R1D**	**UAVR-H220/5R1D**
UAVR-H200/5R1D	**UAVR-H200/5R1D**	**UAVR-H220/5R1D**	**UAVR-H220/5R1D**
/	/	/	/
380~415,50/60,3	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3
38.2	40.4	42.6	44.8
34.5	36.0	38.0	40.0
42.20	44.00	46.20	48.40
10.70	10.80	11.50	12.20
16.37	16.40	17.50	18.60
12.4	12.8	13.4	14
18.95	19.40	20.50	21.60
11.98	12	13.2	14.4
18.42	18.40	20.20	22.00
3.60	3.70	3.70	3.65
2.75	2.80	2.84	2.85
3.52	3.67	3.50	3.36
14.50	14.4	14.60	14.90
Rotary inverter	Rotary inverter	Rotary inverter	Rotary inverter
2	2	2	2
Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
7, Inner grooved	7, Inner grooved	7, Inner grooved	7, Inner grooved
9000x2	9000x2	9000x2	9000x2
43-58	43-58	43-58	43-58
1120x400x1540	1120x400x1540	1120x400x1540	1120x400x1540
1270x560x1710	1270x560x1710	1270x560x1710	1270x560x1710
304	304	304	304
324	324	324	324
12.7(1/2)x3	12.7(1/2)x3	12.7(1/2)x3	12.7(1/2)x3
22.22(7/8)x3	22.22(7/8)x3	22.22(7/8)x3	22.22(7/8)x3
-15~54	-15~54	-15~54	-15~54
-20~24	-20~24	-20~24	-20~24
32	34	36	38

UAVR-D MINI SPECIFICATIONS.

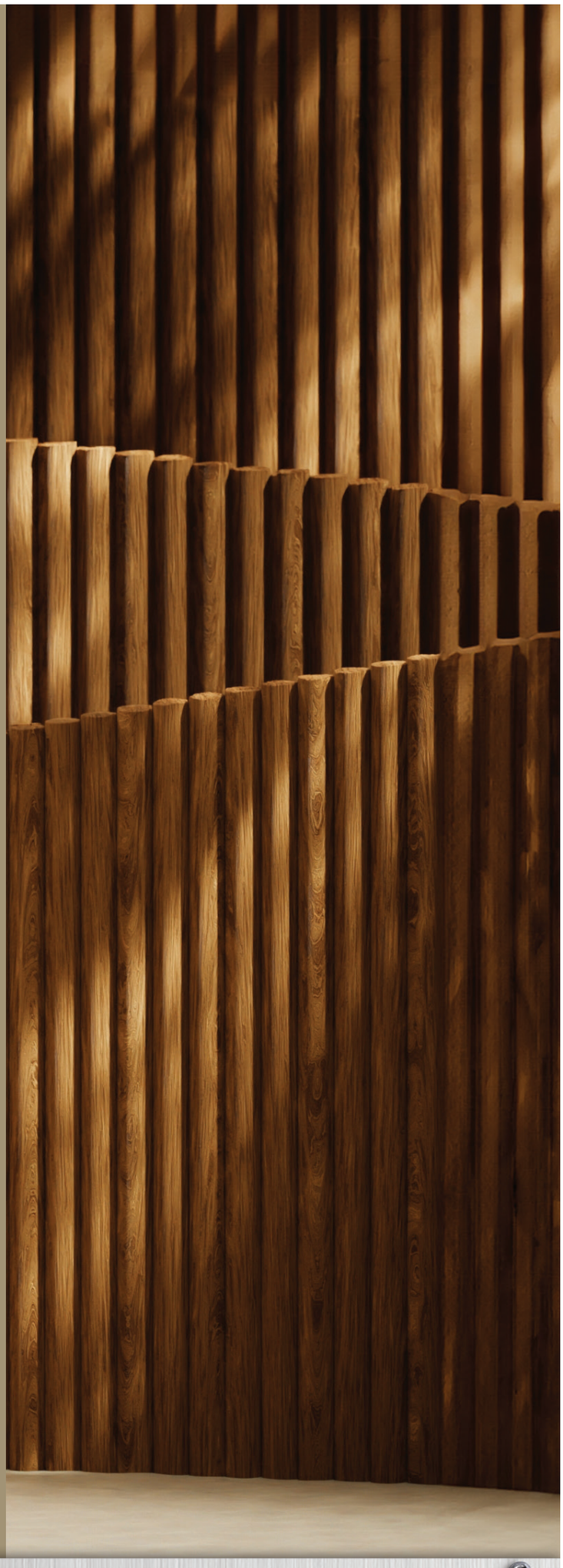
Model				**UAVR-H480/5R1D**	**UAVR-H500/5R1D**	**UAVR-H520/5R1D**
kW				**16KW+16KW+16KW**	**16KW+16KW+18KW**	**16KW+18KW+18KW**
Combination Model				**UAVR-H160/5R1D**	**UAVR-H160/5R1D**	**UAVR-H160/5R1D**
				UAVR-H160/5R1D	**UAVR-H160/5R1D**	**UAVR-H180/5R1D**
				UAVR-H160/5R1D	**UAVR-H180/5R1D**	**UAVR-H180/5R1D**
Power supply			V~,Hz,Ph	380~415,50/60,3	380~415,50/60,3	380~415,50/60,3
Capacity	Cooling (T1)		kW	48.2	50.1	52.1
	Cooling (T3)		kW	42.3	44.7	47.1
	Heating		kW	54.00	56.20	58.40
Electrical parameters	Cooling	Rated cooling power input (T1)	kW	14.10	14.70	15.30
		Rated cooling current (T1)	A	21.75	22.67	23.59
		Rated cooling power input (T3)	kW	16.2	16.8	17.4
		Rated cooling current (T3)	A	24.99	25.91	26.83
	Heating	Rated heating power input (T1)	kW	15	15.98	16.96
		Rated heating current (T1)	A	23.13	24.64	26.15
	EER	T1	W/W	3.40	3.40	3.40
		T3	W/W	2.60	2.65	2.70
	COP	Heating	W/W	3.60	3.52	3.44
	CSPF		Btu/h/W	14.90	14.80	14.70
Compressor	Type			Rotary inverter	Rotary inverter	Rotary inverter
Outdoor fan	Fan quantity			2	2	2
Coil	Fin material			Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
	Outside diameter and grooving		mm	7, Inner grooved	7, Inner grooved	7, Inner grooved
Air flow volume			CFM	9000x3	9000x3	9000x3
Noise level			dB(A)	43-58	43-58	43-58
Dimension (WxDxH)	Net		mm	1120x400x1540	1120x400x1540	1120x400x1540
	Packing		mm	1270x560x1710	1270x560x1710	1270x560x1710
Weight	Net		kg	456	456	456
	Gross		kg	486	486	486
Installation	Pipe Size	Liquid	mm	12.7(1/2)x3	12.7(1/2)x3	12.7(1/2)x3
		Suction	mm	22.22(7/8)x3	22.22(7/8)x3	22.22(7/8)x3
Ambient temperature	Cooling		°C	-15~54	-15~54	-15~54
	Heating		°C	-20~24	-20~24	-20~24
Connection	Indoor units			41	43	45

UAVR-H540/5R1D	UAVR-H560/5R1D	UAVR-H580/5R1D
18KW+18KW+18KW	18KW+18KW+20KW	18KW+20KW+20KW
UAVR-H180/5R1D	UAVR-H180/5R1D	UAVR-H180/5R1D
UAVR-H180/5R1D	UAVR-H180/5R1D	UAVR-H200/5R1D
UAVR-H180/5R1D	UAVR-H200/5R1D	UAVR-H200/5R1D
380~415,50/60,3	380~415,50/60,3	380~415,50/60,3
54.0	56.2	58.4
49.5	51.0	52.5
60.60	62.40	64.20
15.90	16.00	16.10
24.51	24.54	24.57
18	18.4	18.8
27.75	28.20	28.65
17.94	17.96	17.98
27.66	27.64	27.62
3.40	3.50	3.65
2.75	2.75	2.80
3.38	3.47	3.57
14.60	14.50	14.45
Rotary inverter	Rotary inverter	Rotary inverter
2	2	2
Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
□ 7, Inner grooved	□ 7, Inner grooved	□ 7, Inner grooved
9000x3	9000x3	9000x3
43-58	43-58	43-58
1120x400x1540	1120x400x1540	1120x400x1540
1270x560x1710	1270x560x1710	1270x560x1710
456	456	456
486	486	486
12.7(1/2)x3	12.7(1/2)x3	12.7(1/2)x3
22.22(7/8)x3	22.22(7/8)x3	22.22(7/8)x3
-15~54	-15~54	-15~54
-20~24	-20~24	-20~24
46	48	50

UAVR-D MINI SPECIFICATIONS.

Model				**UAVR-H600/5R1D**	**UAVR-H620/5R1D**
kW				**20KW+20KW+20KW**	**20KW+20KW+22KW**
Combination Model				**UAVR-H200/5R1D**	**UAVR-H200/5R1D**
				UAVR-H200/5R1D	**UAVR-H200/5R1D**
				UAVR-H200/5R1D	**UAVR-H220/5R1D**
Power supply			V~,Hz,Ph	380~415,50/60,3	380~415,50/60,3
Capacity	Cooling (T1)		kW	60.6	62.8
	Cooling (T3)		kW	54.0	56.0
	Heating		kW	66.00	68.20
Electrical parameters	Cooling	Rated cooling power input (T1)	kW	16.20	16.90
		Rated cooling current (T1)	A	24.60	25.70
		Rated cooling power input (T3)	kW	19.2	19.8
		Rated cooling current (T3)	A	29.10	30.20
	Heating	Rated heating power input (T1)	kW	18	19.2
		Rated heating current (T1)	A	27.60	29.40
	EER	T1	W/W	3.70	3.70
		T3	W/W	2.80	2.80
	COP	Heating	W/W	3.67	3.55
	CSPF		Btu/h/W	14.36	14.50
Compressor	Type			Rotary inverter	Rotary inverter
Outdoor fan	Fan quantity			2	2
Coil	Fin material			Hydrophilic aluminum fin	Hydrophilic aluminum fin
	Outside diameter and grooving		mm	7, Inner grooved	7, Inner grooved
Air flow volume			CFM	9000x3	9000x3
Noise level			dB(A)	43-58	43-58
Dimension (WxDxH)	Net		mm	1120x400x1540	1120x400x1540
	Packing		mm	1270x560x1710	1270x560x1710
Weight	Net		kg	456	456
	Gross		kg	486	486
Installation	Pipe Size	Liquid	mm	12.7(1/2)x3	12.7(1/2)x3
		Suction	mm	22.22(7/8)x3	22.22(7/8)x3
Ambient temperature	Cooling		°C	-15~54	-15~54
	Heating		°C	-20~24	-20~24
Connection	Indoor units			52	53

UAVR-H640/5R1D	**UAVR-H660/5R1D**
20KW+22KW+22KW	**22KW+22KW+22KW**
UAVR-H200/5R1D	**UAVR-H220/5R1D**
UAVR-H220/5R1D	**UAVR-H220/5R1D**
UAVR-H220/5R1D	**UAVR-H220/5R1D**
380~415,50/60,3	380~415,50/60,3
65.0	67.2
58.0	60.0
70.40	72.60
17.60	18.30
26.80	27.90
20.4	21
31.30	32.40
20.4	21.6
31.20	33.00
3.70	3.65
2.83	2.85
3.45	3.36
14.70	14.9
Rotary inverter	Rotary inverter
2	2
Hydrophilic aluminum fin	Hydrophilic aluminum fin
7, Inner grooved	7, Inner grooved
9000x3	9000x3
43-58	43-58
1120x400x1540	1120x400x1540
1270x560x1710	1270x560x1710
456	456
486	486
12.7(1/2)x3	12.7(1/2)x3
22.22(7/8)x3	22.22(7/8)x3
-15~54	-15~54
-20~24	-20~24
55	57



INDOOR UNITS.

INDOOR PRODUCT LINEUP.

Indoor unit (DC)

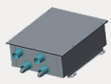
Capacity (kW)	2.2	2.8	3.6	4.5	5.6	7.1	8.0	9.0	10.0	11.2	12.5	14.0	15.0
Compact Cassette 		○	○	○	○								
Cassette 		○	○	○	○	○	○	○	○	○	○	○	
Slim Duct 	○	○	○	○	○	○							
Mid ESP Duct 				○	○	○	○	○	○	○	○	○	○
Ceiling & Floor 				○	○	○	○	○	○	○	○	○	○

Capacity (kW)	22.0	28.0	45.0	56.0
High ESP Duct 	○	○		
Fresh Air Processor 	○	○	○	○

Indoor Unit (AC)

Capacity (kW)	2.2	2.8	3.6	4.5	5.6	7.1	8.0	9.0	10.0	11.2	12.5	14.0	15.0	16.0
Cassette 						○	○	○	○	○	○	○		
Slim Duct 	○	○	○	○	○	○								
Mid ESP Duct 				○	○	○	○	○	○	○	○	○	○	○
High ESP Duct 										○	○	○	○	

AHU Kit

Mode	3HP	6HP	10HP	20HP	38HP
UAVRK 	○	○	○	○	○

Heat Recovery Ventilator

Air volume(m3/h)	200	300	400	500	600	800	1000	1500	2000	2500	3000	4000	5000
HRV 	○	○	○	○	○	○	○	○	○	○	○	○	○

NOMENCLATURE.

UAVR | CA - H | 028 / 4 | R1 | A

- UAVR: Ruud Air cooled VRF System
- CA: **CA**: Four-Way Cassette; **CB**: Compact Cassette; **CF**: Ceiling & Floor; **SD**: Slim Duct; **MD**: Mid ESP Duct; **HD**: High ESP Duct; **WM**: Wall-Mounted; **FA**: Fresh Air Processor; **CM**: Compact Cassette M-panel
- H: **H**: Cooling & Heating; **C**: Cooling
- 028: Cooling Capacity (x100 W)
- 4: **Power Supply**: 5:380~415V, 3Ph, 50Hz; 4:220~240V, 1Ph, 50Hz (If omitted, Power supply is 50/60Hz)
- R1: R410A
- A: **AY**: AC motor; **AM**: AC Mid ESP; **A**: AC High ESP; **X, XY, XM, XF** : DC Motor

INDOOR UNITS.

Seamless connectivity, for ultimate control.

No matter the size or scale of a project, one VRF system can connect to – and serve – multiple indoor units, to enable individualized control of different zones throughout the building.

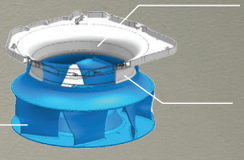
COMPACT CASSETTE.

External control box

The control box is located externally on the chassis, facilitating convenient maintenance and service if required.

Concealed design

Units are installed into the ceiling, saving space and providing a neater finish to your interior.



Higher air flow

Featuring an optimized air guide ring structure with depth designed through simulation technology, this feature enhances cooling comfort.

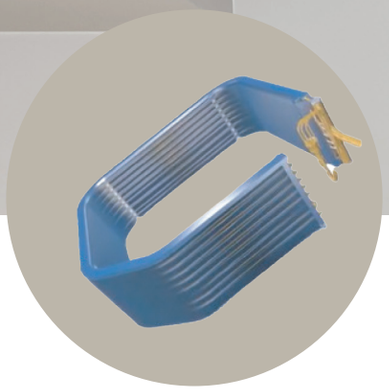
Fresh air intake design

Fresh air intake to improve indoor air quality.

Automatic failure detection

In the event of a failure the indicator will flash and the error code will appear on the display board or remote controller, to make malfunction checking easier.

CASSETTE FEATURES.



Five-fold exchanger

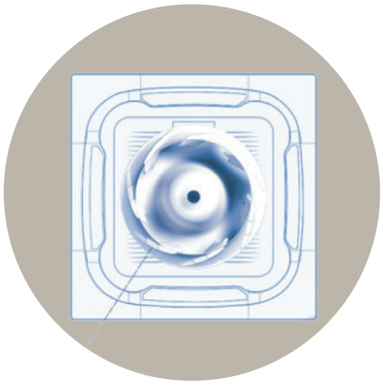
A larger heat exchange area results in a 12% increase in heat exchange efficiency when compared to traditional four-fold evaporators.

Round-way air supply

360° air diffusion from a 360° direction, for more uniform temperature distribution.

Long-distance air supply

With a reach of up to four meters, this feature ensures effective and efficient ventilation of taller spaces.



Higher airflow

Adopting a large-diameter spiral wind wheel for larger air volume and lower noise.

Sleep mode

Activate sleep mode for a comfortable night's sleep, with no temperature fluctuations.

Screen display function

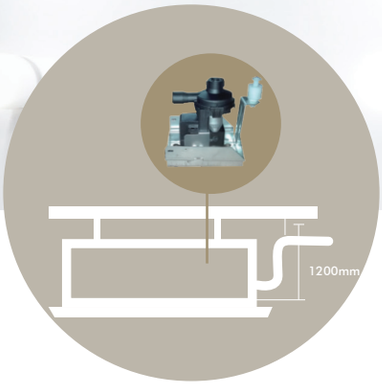
Meet the needs of different customers, with the option to set the light panel icon to show or not during operation.

Fresh air

External air is channeled internally via a connection pipe, to keep indoor air fresh and healthy.

Auto-clean

The auto-clean function automatically removes dust and dirt from the evaporator, promoting a healthier and more comfortable environment.

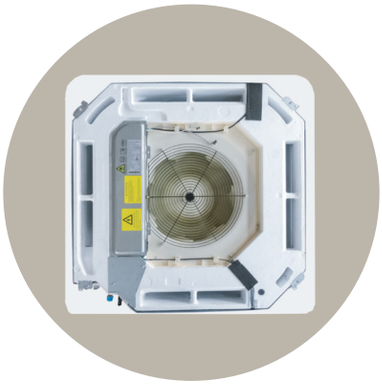


Built-in drain pump

Lift up to 1200mm of condensate water generated during the air conditioning process, for easier installation and more efficient drainage.

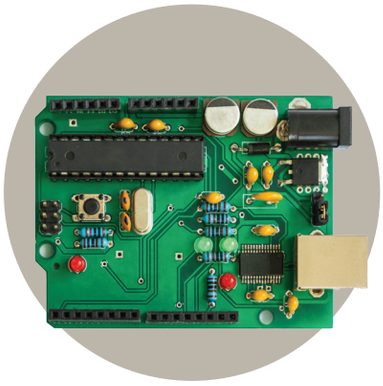
Anti-leakage water pan

Featuring a 1.5mm thick plastic drain pan with superior waterproof performance, to effectively prevent water seepage.



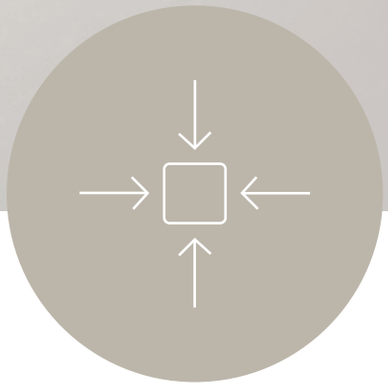
Fireproof cover

The metal fireproof electric control box ensures heightened safety, guaranteeing the secure operation of the unit.



Reliable control board

Hot melt adhesive is applied around the electronic components, to ensure stability.

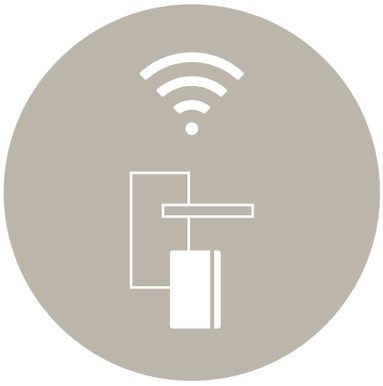


Compact body size

Measuring just 246mm in thickness, our unit minimizes ceiling space for convenient and efficient installation.

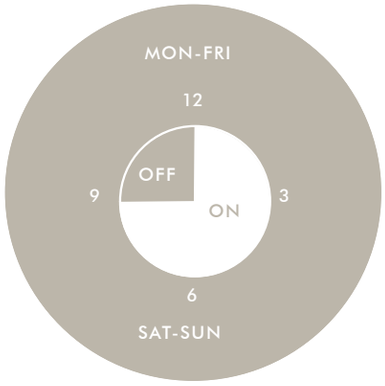
Removable grille

No tools needed — simply press lightly to open the grille, for a convenient and hassle-free installation process.



WiFi and room card

Optional WiFi and room key card compatibility is available to meet the requirements of different applications.



Weekly timer

Program the unit's operating time for the entire week in advance, eliminating the need for manual activation and ensuring seamless operation all week long.

WALL MOUNTED.

Features

- Remote control
- Intelligent defrosting
- Sleep mode
- Fast cooling/ heating
- Anti-cold air
- Digital tube display
- Central control
- Wired control
- WiFi control

Optional

102

Panel options

A variety of panels can be chosen.

Wired control

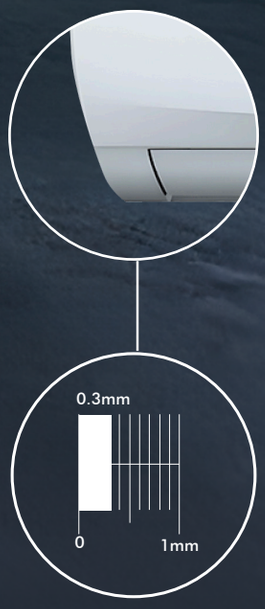
Units come with remote control as standard and wired control options. Wired controllers can be wall mounted for convenient use.

Two-way drainage connection

Drainage pipes can be connected to either the left or right hand side for flexible installation.

Convenient installation

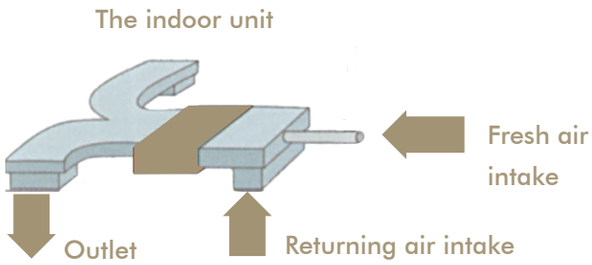
EXV is built into the unit providing compact size. The unit comes with our innovative fixing plate to provide improved stability and quicker installation.



Superb craftsmanship

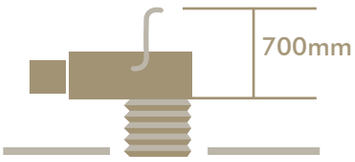
0.3mm seam for a low-profile appearance.

SLIM DUCT.



Fresh air inlet

Designed with a fresh air inlet, ensuring the introduction of fresh air to maintain a healthy and pleasant indoor environment.

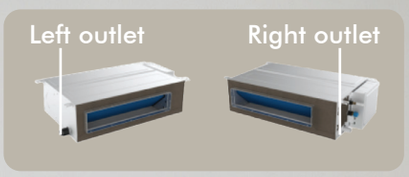


Optional built-in water drainage pump

The built-in pump can lift condensing water up to 700mm above the drainage pan.

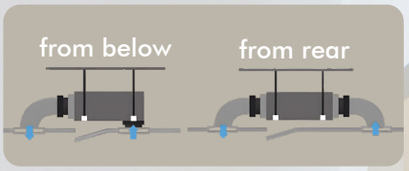
Ultra-slim design

Thinner, lighter design to save space.



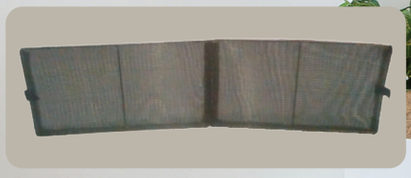
Double drainage holes

Double drainage design on the left and the right side of the water plate, making the unit adaptable to the installation site.



Flexible air intake options

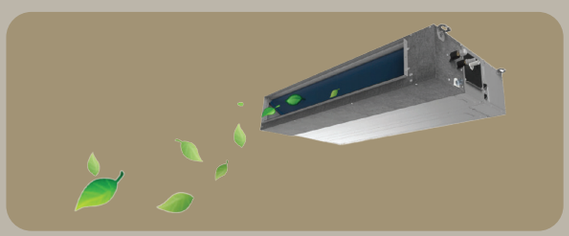
Air intake is provided from the rear, with optional air intake from the bottom. Uniform plate and flange sizes provide options for different decorating requirements.



Standard accessories

All models come with return air filter as standard.

MEDIUM STATIC DUCT.

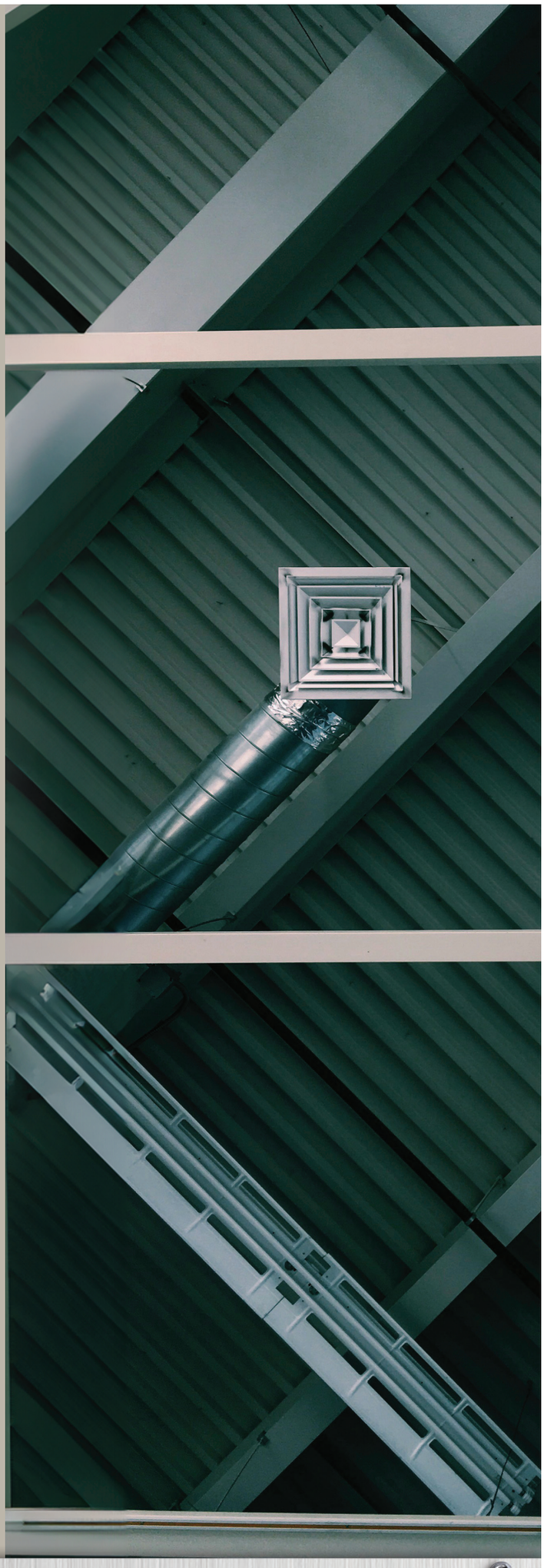


Fresh air inlet

Designed with a fresh air inlet, ensuring the introduction of fresh air to maintain a healthy and pleasant indoor environment.

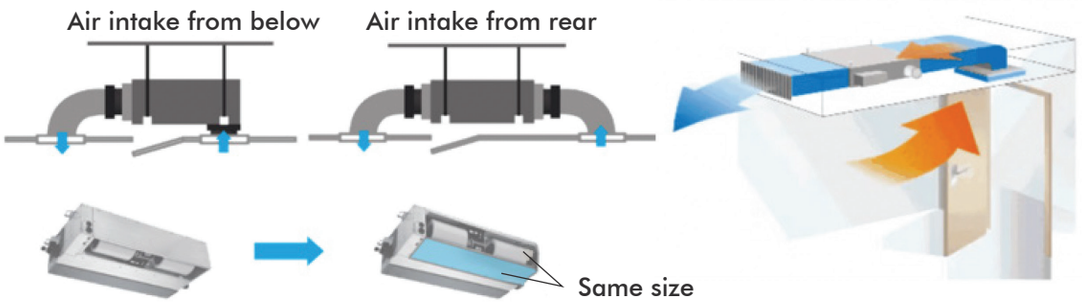
Optional drainage pump

Meet installation requirements while maintaining a quiet operating environment.



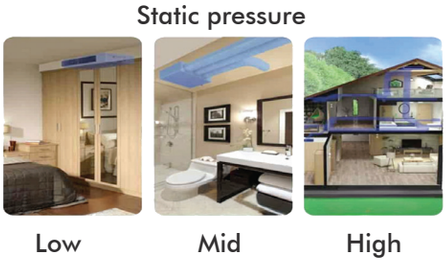
Two return air modes

Easily choose and switch between two return air modes (back return air and down return air) for optimal comfort.



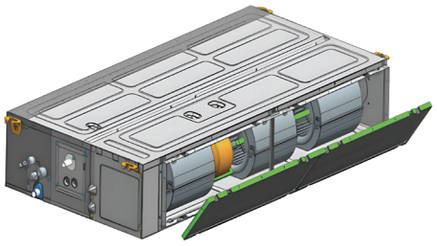
Versatile ESP for various installations

(DC models only) Control the ESP within an impressively wide range (0-150Pa) using a remote controller, ideal for applications such as apartments and villas.



W-type high efficiency filter screen

Simply remove one screw from the left and right end cover, then change the direction of the output line to enable maintenance without shielding, thereby increasing the maintenance space.

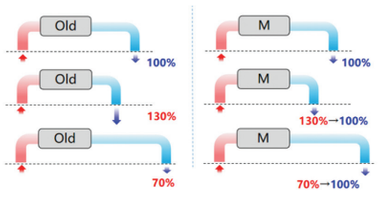


Double drainage holes

Featuring a double drainage design on both the left and right sides of the water plate, this feature provides adaptability to various installation sites.

Constant airflow volume

Select silent water pump to ensure different customer installation requirements.



HIGH STATIC DUCT.

Changeable ESP

The ESP can range from 30-250 Pa, making it suitable for a range of application sites.

Static pressure

Low Mid High

Fresh air intake

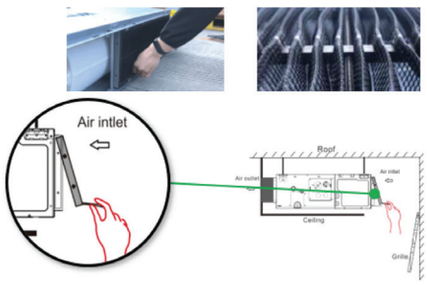
Integrates with the air duct for access to fresh air.

High-ESP design, long-distance air supply

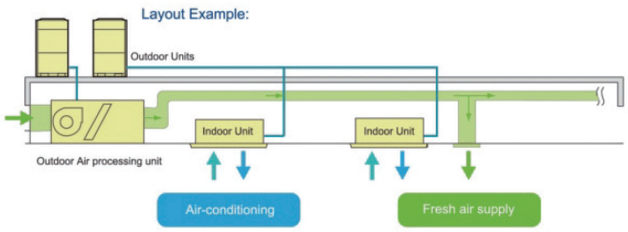
Reach air supply distances of 16m long and 6.5m high.

Easy-to-remove air filter

Our new design (with a double drainage pan and fan assembly integration) means that the filter can be removed and repaired from the bottom, for higher efficiency.

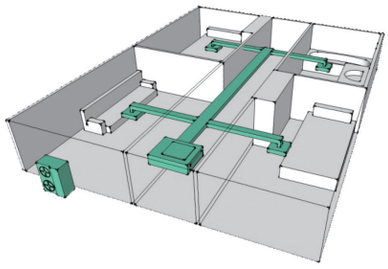


FRESH AIR PROCESSOR.



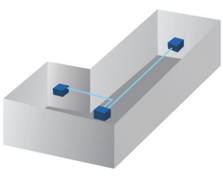
World-class room temperature control

Our innovative air supply technology and inlet design keeps indoor air supply continuously fresh.

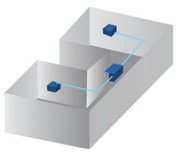


Long-distance air supply

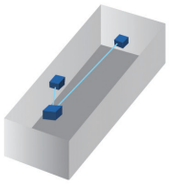
Our high-ESP facilitates an air supply distance of up to 50m.



L-shape room



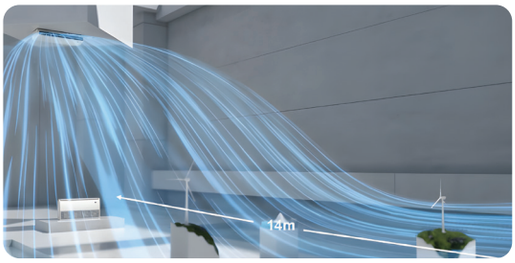
U-shape room



Narrow room

Adaptable design for every space

From L-type to U-type rooms — and everything in between — specific ESP designs can be applied to best meet the needs of each unique space. The air outlet can be set separately from the indoor unit so that the airflow is equally distributed — no matter the shape and layout of the room.

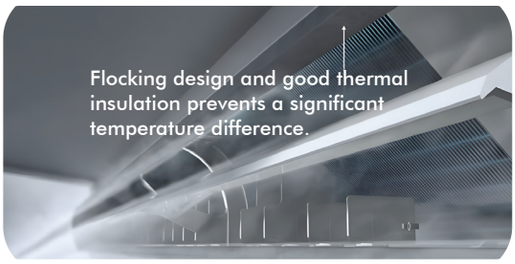


Long air supply distance

Meet large room requirements, with air supply of up to 14m.

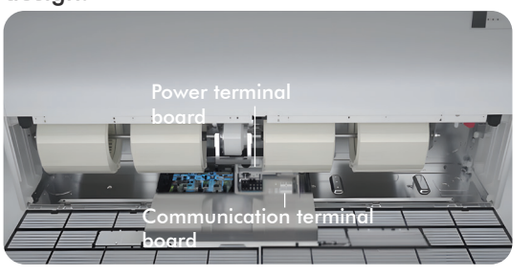
Sleek display board design

High-quality digital display with a moisture-proof, long-lasting design.



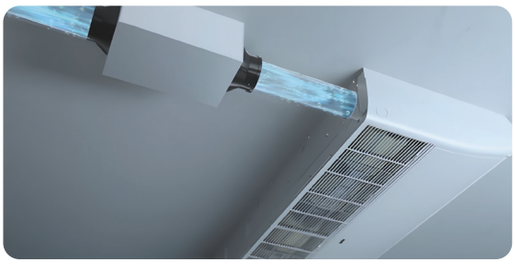
Anti-condensation

Industry-leading anti-condensation insulation design, to prevent water damage to the air outlet.



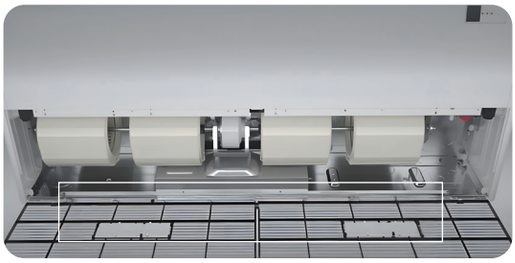
Safe and reliable

Separate power and communication terminals to prevent malfunction and improve safety.



Fresh air intake

Fresh air intake design to introduce fresh air and ensure high indoor air quality.

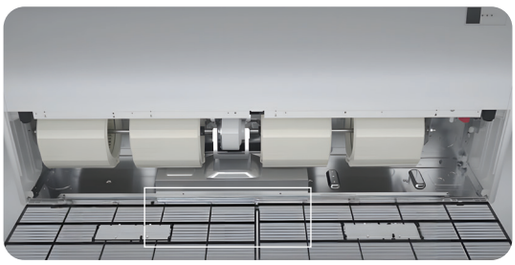


Optional filter

A variety of health filters can be selected to improve indoor air quality.

Easy drainage

Left and right water outlet options for flexible site installation.



Easy maintenance

Spacious internal workings, preventing the need to remove the internal electrical box during maintenance.

COMPACT CASSETTES.

SPECIFICATION-50/60HZ						
Model	**Indoor**		**UAVRCB-H028/R1XY**	**UAVRCB-H036/R1XY**	**UAVRCB-H045/R1XY**	**UAVRCB-H056/R1XY**
Capacity	Cooling	KW	2.8	3.6	4.5	5.6
	Heating	KW	3	4.3	5	6.3
Electric data	Power supply	V~,Hz,Ph	220~240,50(60),1	220~240,50(60),1	220~240,50(60),1	220~240,50(60),1
	Rated power	W	30	32	33.5	33.5
Performance	Air flow volume (Tu/Hi/Mid/Low)	m3/H	700/670/640/570	740/700/660/590	760/740/660/600	800/760/680/620
	Noise level (Tu/Hi/Mid/Low)	dB(A)	42/40/38/36	43/41/39/37	44/42/40/37	45/43/40/38
Dimension (Wx-DxH)	Net (body)	mm	570x570x260	570x570x260	570x570x260	570x570x260
	Packing (body)	mm	720x650x290	720x650x290	720x650x290	720x650x290
	Net (panel)	mm	650x650x55	650x650x55	650x650x55	650x650x55
	Packing (panel)	mm	710x710x80	710x710x80	710x710x80	710x710x80
Weight	Net/gross (body)	KG	15.5/18.5	15.5/18.5	15.5/18.5	15.5/18.5
	Net/gross (panel)	KG	2.2/3.7	2.2/3.7	2.2/3.7	2.2/3.7
Refrigerant type			R410A	R410A	R410A	R410A
Pipe diameter	Liquid side	mm	6.35	6.35	6.35	6.35
	Gas side	mm	12.7	12.7	12.7	12.7
	Drainage	mm(inch)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)
Stuffing quantity	20/40/40H	unit	216/432/486	216/432/486	216/432/486	216/432/486

CASSETTES.

SPECIFICATION-50/60HZ								
Model	**Indoor**		**UAVRCA-H028/ R1XY**	**UAVRCA-H036/ R1XY**	**UAVRCA-H045/ R1XY**	**UAVRCA-H056/ R1XY**	**UAVRCA-H071/ R1XY**	**UAVRCA-H080/ R1XY**
Capacity	Cooling	KW	2.8	3.6	4.5	5.6	7.1	8
	Heating	KW	3	4.3	5	6.3	8.5	9.5
Electric data	Power supply	V~,Hz,Ph	220~240,50(60),1	220~240,50(60),1	220~240,50(60),1	220~240,50(60),1	220~240,50(60),1	220~240,50(60),1
	Rated power	W	40	45	50	57	57	57
Performance	Air flow Volume (Hi/Mid/Low)	m3/H	900/800/700	900/800/700	900/800/700	950/850/750	1250/1040/910	1250/1040/910
	Noise level (Hi/ Mid/Low)	dB(A)	35/32/28	35/32/28	35/32/28	35/32/28	38/34/30	38/34/30
Dimension (WxDxH)	Net (body)	mm	840x840x246	840x840x246	840x840x246	840x840x246	840x840x246	840x840x246
	Packing (body)	mm	915x915x315	915x915x315	915x915x315	915x915x315	915x915x315	915x915x315
	Net (panel)	mm	950x950x55	950x950x55	950x950x55	950x950x55	950x950x55	950x950x55
	Packing (panel)	mm	1000x1000x100	1000x1000x100	1000x1000x100	1000x1000x100	1000x1000x100	1000x1000x100
Weight	Net/gross (body)	KG	23.5/27.5	23.5/27.5	23.5/27.5	23.5/27.5	24.5/28.5	24.5/28.5
	Net/gross (panel)	KG	5.7/8.3	5.7/8.3	5.7/8.3	5.7/8.3	5.7/8.3	5.7/8.3
Refrigerant type			R410A	R410A	R410A	R410A	R410A	R410A
Pipe diam- eter	Liquid side	mm	6.35	6.35	6.35	6.35	9.52	9.52
	Gas side	mm	12.7	12.7	12.7	12.7	15.88	15.88
	Drainage	mm(inch)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)
Stuffing quantity	20/40/40H	unit	77/164/175	77/164/175	77/164/175	77/164/175	77/164/175	77/164/175

SPECIFICATION-50/60HZ							
Model	**Indoor**		**UAVRCA-H090/ R1XY**	**UAVRCA-H100/ R1XY**	**UAVRCA-H112/ R1XY**	**UAVRCA-H125/ R1XY**	**UAVRCA-H140/ R1XY**
Capacity	Cooling	KW	9	10	11.2	12.5	14
	Heating	KW	10	11.2	13	14	16
Electric data	Power supply	V~,Hz,Ph	220~240,50(60),1	220~240,50(60),1	220~240,50(60),1	220~240,50(60),1	220~240,50(60),1
	Rated power	W	57	120	120	120	127
Performance	Air flow Volume (Hi/Mid/Low)	m3/H	1250/1040/910	1800/1440/1260	1800/1440/1260	1800/1440/1260	1800/1440/1260
	Noise level (Hi/ Mid/Low)	dB(A)	38/34/30	44/42/40	44/42/40	44/42/40	46/43/41
Dimension (WxDxH)	Net (body)	mm	840x840x246	840x840x288	840x840x288	840x840x288	840x840x288
	Packing (body)	mm	915x915x315	915x915x355	915x915x355	915x915x355	915x915x355
	Net (panel)	mm	950x950x55	950x950x55	950x950x55	950x950x55	950x950x55
	Packing (panel)	mm	1000x1000x100	1000x1000x100	1000x1000x100	1000x1000x100	1000x1000x100
Weight	Net/gross (Body)	KG	24.5/28.5	27/31	27/31	27/31	30.5/34.5
	Net/gross (panel)	KG	5.7/8.3	5.7/8.3	5.7/8.3	5.7/8.3	5.7/8.3
Refrigerant type			R410A	R410A	R410A	R410A	R410A
Pipe diam- eter	Liquid side	mm	9.52	9.52	9.52	9.52	9.52
	Gas side	mm	15.88	15.88	15.88	15.88	15.88
	Drainage	mm(inch)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)
Stuffing quantity	20/40/40H	unit	77/164/175	77/164/175	77/164/175	77/164/175	77/164/175

CASSETTES.

Specification-50/60 Hz					
Model	**Indoor**		**UAVRCM-H028/R1XY**	**UAVRCM-H036/R1XY**	**UAVRCM-H045/R1XY**
Capacity	Cooling	kW	2.8	3.6	4.5
	Heating	kW	3.2	4.3	5.0
Electric Data	Power Supply	V~,Hz,Ph	220~240,50/60Hz,1	220~240,50/60Hz,1	220~240,50/60Hz,1
	Rated Power	W	40	40	40
Performance	Indoor Air Flow	m3/h	800/630/550	800/630/550	850/680/580
	Noise Level	dB(A)	33/31/30	33/31/30	36/34/33
"Dimensions (W×D×H)"	Net (Body)	mm	840*840*205	840*840*205	840*840*205
	Packing (Body)	mm	915*915*270	915*915*270	915*915*270
	Net (Panel)	mm	950x950x53	950x950x53	950x950x53
	Packing (Panel)	mm	1000x1000x100	1000x1000x100	1000x1000x100
Weight	Net Weight (Body)	Kg	18	18	18
	Gross Weight (Body)	Kg	22	22	22
	Net Weight (Panel)	Kg	5.3	5.3	5.3
	Gross Weight (Panel)	Kg	7.3	7.3	7.3
Refrigerant			R410A	R410A	R410A
Pipe Diameter	Liquid Side	mm	6.35	6.35	6.35
	Gas Side	mm	12.7	12.7	12.7
	Drainage	mm	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)
Stuffing Quantity	20/40/40H	Unit	108/208/260	108/208/260	108/208/260

Specification-50/60 Hz						
Model	**Indoor**		**UAVRCM-H056/ R1XY**	**UAVRCM-H063/ R1XY**	**UAVRCM-H071/R1XY**	**UAVRCM-H080/R1XY**
Capacity	Cooling	kW	5.6	6.3	7.1	8.0
	Heating	kW	6.3	7.1	8.5	9.0
Electric Data	Power Supply	V~,Hz,Ph	220~240,50/60Hz,1	220~240,50/60Hz,1	220~240,50/60Hz,1	220~240,50/60Hz,1
	Rated Power	W	40	40	40	40
Performance	Indoor Air Flow	m3/h	860/680/580	1150/920/800	1150/920/800	1150/920/800
	Noise Level	dB(A)	36/34/33	40/38/36	40/38/36	41/38/36
"Dimensions (W×D×H)"	Net (Body)	mm	840*840*205	840*840*205	840*840*205	840*840*205
	Packing (Body)	mm	915*915*270	915*915*270	915*915*270	915*915*270
	Net (Panel)	mm	950x950x53	950x950x53	950x950x53	950x950x53
	Packing (Panel)	mm	1000x1000x100	1000x1000x100	1000x1000x100	1000x1000x100
Weight	Net Weight (Body)	Kg	18	19	19	19
	Gross Weight (Body)	Kg	22	23	23	23
	Net Weight (Panel)	Kg	5.3	5.3	5.3	5.3
	Gross Weight (Panel)	Kg	7.3	7.3	7.3	7.3
Refrigerant			R410A	R410A	R410A	R410A
Pipe Diameter	Liquid Side	mm	6.35	9.52	9.52	9.52
	Gas Side	mm	12.7	15.88	15.88	15.88
	Drainage	mm	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)
Stuffing Quantity	20/40/40H	Unit	108/208/260	108/208/260	108/208/260	108/208/260

CASSETTES.

Specification-50/60 Hz					
Model	**Indoor**		**UAVRCM-H090/R1XY**	**UAVRCM-H100/R1XY**	**UAVRCM-H112/R1XY**
Capacity	Cooling	kW	9.0	10.0	11.2
	Heating	kW	10.0	11.2	13.0
Electric Data	Power Supply	V~,Hz,Ph	220~240,50/60Hz,1	220~240,50/60Hz,1	220~240,50/60Hz,1
	Rated Power	W	80	80	80
Performance	Indoor Air Flow	m3/h	1450/1205/960	1450/1205/960	1600/1440/1260
	Noise Level	dB(A)	42/39/36	42/39/36	44/41/38
"Dimensions (W×D×H)"	Net (Body)	mm	840*840*245	840*840*245	840*840*288
	Packing (Body)	mm	915*915*310	915*915*310	915*915*350
	Net (Panel)	mm	950x950x53	950x950x53	950x950x53
	Packing (Panel)	mm	1000x1000x100	1000x1000x100	1000x1000x100
Weight	Net Weight (Body)	Kg	21.5	21.5	23.5
	Gross Weight (Body)	Kg	25	25	27.5
	Net Weight (Panel)	Kg	5.3	5.3	5.3
	Gross Weight (Panel)	Kg	7.3	7.3	7.3
Refrigerant			R410A	R410A	R410A
Pipe Diameter	Liquid Side	mm	9.52	9.52	9.52
	Gas Side	mm	15.88	15.88	15.88
	Drainage	mm	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)
Stuffing Quantity	20/40/40H	Unit	96/182/234	96/182/234	84/156/208

Specification-50/60 Hz				
Model	**Indoor**		**UAVRCM-H125/R1XY**	**UAVRCM-H140/R1XY**
Capacity	Cooling	kW	12.5	14.0
	Heating	kW	14.0	16.0
Electric Data	Power Supply	V~,Hz,Ph	220~240,50/60Hz,1	220~240,50/60Hz,1
	Rated Power	W	80	80
Performance	Indoor Air Flow	m3/h	1800/1440/1260	1800/1440/1260
	Noise Level	dB(A)	46/42/39	46/42/39
"Dimensions (W×D×H)"	Net (Body)	mm	840*840*288	840*840*288
	Packing (Body)	mm	915*915*350	915*915*350
	Net (Panel)	mm	950x950x53	950x950x53
	Packing (Panel)	mm	1000x1000x100	1000x1000x100
Weight	Net Weight (Body)	Kg	23.5	25
	Gross Weight (Body)	Kg	27.5	28.5
	Net Weight (Panel)	Kg	5.3	5.3
	Gross Weight (Panel)	Kg	7.3	7.3
Refrigerant			R410A	R410A
Pipe Diameter	Liquid Side	mm	9.52	9.52
	Gas Side	mm	15.88	15.88
	Drainage	mm	R3/4in(DN20)	R3/4in(DN20)
Stuffing Quantity	20/40/40H	Unit	84/156/208	84/156/208

CASSETTES.

SPECIFICATION-50HZ/60HZ							
Model	**Indoor**		**UAVRCA-H028/ 4R1AY**	**UAVRCA-H036/ 4R1AY**	**UAVRCA-H045/ 4R1AY**	**UAVRCA-H056/ 4R1AY**	**UAVRCA-H071/ 4R1AY**
Capacity	Cooling	KW	2.8	3.6	4.5	5.6	7.1
	Heating	KW	3.2	4.3	5	6.3	8
Electric data	Power supply	V~,Hz,Ph	220~240,50,1	220~240,50,1	220~240,50,1	220~240,50,1	220~240,50,1
	Rated power	W	80	80	80	80	100
Performance	Air flow volume (Hi/Mid/Low)	m3/H	900/850/750	900/850/750	900/850/750	950/850/750	1250/1040/910
	Noise level (Hi/Mid/Low)	dB(A)	36/34/33	36/34/33	36/34/33	36/34/33	43/39/37
Dimension (WxDxH)	Net (body)	mm	840x840x246	840x840x246	840x840x246	840x840x246	840x840x246
	Packing (body)	mm	915x915x315	915x915x315	915x915x315	915x915x315	915x915x315
	Net (panel)	mm	950x950x55	950x950x55	950x950x55	950x950x55	950x950x55
	Packing (panel)	mm	1000x1000x100	1000x1000x100	1000x1000x100	1000x1000x100	1000x1000x100
Weight	Net/gross (body)	KG	24/28	24/28	24/28	24/28	25/29
	Net/gross (panel)	KG	5.7/8.3	5.7/8.3	5.7/8.3	5.7/8.3	5.7/8.3
Refrigerant type			R410A	R410A	R410A	R410A	R410A
Pipe diam-eter	Liquid side	mm	6.35	6.35	6.35	6.35	9.52
	Gas side	mm	12.7	12.7	12.7	12.7	15.88
	Drainage	mm(inch)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)
Stuffing quantity	20/40/40H	unit	77/164/175	77/164/175	77/164/175	77/164/175	77/164/175

SPECIFICATION-50HZ/60HZ							
Model	**Indoor**		**UAVRCA-H090/ 4R1AY**	**UAVRCA-H100/ 4R1AY**	**UAVRCA-H112/ 4R1AY**	**UAVRCA-H125/ 4R1AY**	**UAVRCA-H140/ 4R1AY**
Capacity	Cooling	KW	9	10	11.2	12.5	14
	Heating	KW	10	11.2	12.8	14	16
Electric data	Power supply	V~,Hz,Ph	220~240,50,1	220~240,50,1	220~240,50,1	220~240,50,1	220~240,50,1
	Rated power	W	100	190	190	190	190
Performance	Air flow volume (Hi/Mid/Low)	m3/H	1400/1200/1000	1850/1440/1260	1850/1440/1260	1850/1440/1260	1850/1440/1260
	Noise level (Hi/Mid/Low)	dB(A)	43/39/37	45/40/39	45/40/39	45/40/39	46/41/39
Dimension (WxDxH)	Net (body)	mm	840x840x246	840x840x288	840x840x288	840x840x288	840x840x288
	Packing (body)	mm	915x915x315	915x915x355	915x915x355	915x915x355	915x915x355
	Net (panel)	mm	950x950x55	950x950x55	950x950x55	950x950x55	950x950x55
	Packing (panel)	mm	1000x1000x100	1000x1000x100	1000x1000x100	1000x1000x100	1000x1000x100
Weight	Net/gross (body)	KG	25/29	28.5/32.5	28.5/32.5	28.5/32.5	31/35
	Net/gross (panel)	KG	5.7/8.3	5.7/8.3	5.7/8.3	5.7/8.3	5.7/8.3
Refrigerant type			R410A	R410A	R410A	R410A	R410A
Pipe diam-eter	Liquid side	mm	9.52	9.52	9.52	9.52	9.52
	Gas side	mm	15.88	15.88	15.88	15.88	15.88
	Drainage	mm(inch)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)
Stuffing quantity	20/40/40H	unit	77/164/175	77/164/175	77/164/175	77/164/175	77/164/175

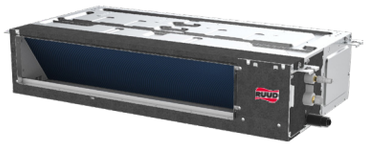
WALL MOUNTED.

SPECIFICATION-50/60HZ					
Model	**Indoor**		**UAVRWM-H022/R1X**	**UAVRWM-H028/R1X**	**UAVRWM-H036/R1X**
Capacity	Cooling	KW	2.2	2.8	3.6
	Heating	KW	2.6	3.2	4
Electric data	Power supply	V~,Hz,Ph	220~240,50(60),1	220~240,50(60),1	220~240,50(60),1
	Rated power	W	20	20	20
Performance	Air flow volume (Hi/Mid/Low)	m3/H	520/460/400	520/460/400	520/460/400
	Noise level (Hi/Mid/Low)	dB(A)	38/33/27	38/33/27	38/33/27
Dimension (WxDxH)	Net	mm	881x294x194	881x294x194	881x294x194
	Packing	mm	965x370x282	965x370x282	965x370x282
Weight	Net/gross	KG	10.5/13	10.5/13	10.5/13
Pipe diameter	Liquid side	mm	6.35	6.35	6.35
	Gas side	mm	9.52	9.52	9.52
	Drainage	mm(inch)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)
Stuffing quantity	20/40/40H	unit	316/647/737	316/647/737	316/647/737

SPECIFICATION-50/60HZ					
Model	**Indoor**		**UAVRWM-H045/R1X**	**UAVRWM-H056/R1X**	**UAVRWM-H071/R1X**
Capacity	Cooling	KW	4.5	5.6	7.1
	Heating	KW	5	6.3	8
Electric data	Power supply	V~,Hz,Ph	220~240,50(60),1	220~240,50(60),1	220~240,50(60),1
	Rated power	W	30	30	40
Performance	Air flow volume (Hi/Mid/Low)	m3/H	850/750/660	850/750/660	1000/900/800
	Noise level (Hi/Mid/Low)	dB(A)	42/38/34	42/38/34	44/40/37
Dimension (WxDxH)	Net	mm	997x316x227	997x316x227	1132x330x232
	Packing	mm	1067x385x312	1067x385x312	1205x400x317
Weight	Net/gross	KG	13.5/16.5	13.5/16.5	15.5/19
Pipe diameter	Liquid side	mm	6.35	6.35	6.35
	Gas side	mm	12.7	12.7	15.88
	Drainage	mm(inch)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)
Stuffing quantity	20/40/40H	unit	241/498/563	241/498/563	176/410/465

SPECIFICATION-50/60HZ						
Model	**Indoor**		**UAVRWM-H080/R1X**	**UAVRWM-H090/R1X**	**UAVRWM-H100/R1X**	**UAVRWM-H110/R1X**
Capacity	Cooling	KW	8	9	10	11
	Heating	KW	9.0	10	11	12.0
Electric data	Power supply	V~,Hz,Ph	220~240,50/60,1	220~240,50/60,1	220~240,50/60,1	220~240,50/60,1
	Rated power	W	82	82	82	82
Performance	Air flow volume (Hi/Mid/Low)	m3/H	1500/1400/1100/950	1500/1400/1100/950	1500/1400/1100/950	1500/1400/1100/950
	Noise level (Hi/Mid/Low)	dB(A)	48/46/43/40/38	48/46/43/40/38	48/46/43/40/38	48/46/43/40/38
Dimension (WxDxH)	Net (body)	mm	1460*375*270	1460*375*270	1460*375*270	1460*375*270
	Packing (body)	mm	1555*460*377	1555*460*377	1555*460*377	1555*460*377
Weight	Net/gross (body)	KG	23	23	23	23
	Net/gross (panel)	KG	27.0	27.0	27.0	27.0
Pipe diameter	Liquid side	mm	9.52(3/8)	9.52(3/8)	9.52(3/8)	9.52(3/8)
	Gas side	mm	15.88(5/8)	15.88(5/8)	15.88(5/8)	15.88(5/8)
	Drainage	mm(inch)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)
Stuffing quantity	20/40/40H	unit	109/232/257	109/232/257	109/232/257	109/232/257

SLIM DUCT.



SPECIFICATION-50/60HZ									
Model	Indoor		UAVRSD-H015/R1XQ	UAVRSD-H022/R1XQ	UAVRSD-H028/R1XQ	UAVRSD-H036/R1XQ	UAVRSD-H045/R1XQ	UAVRSD-H056/R1XQ	UAVRSD-H071/R1XQ
Capacity	Cooling	KW	1.5	2.2	2.8	3.6	4.5	5.6	7.1
	Heating	KW	1.8	2.5	3.2	4	5	6.3	8
Electric data	Power supply	V~,Hz,Ph	220~240,50(60),1	220~240,50(60),1	220~240,50(60),1	220~240,50(60),1	220~240,50(60),1	220~240,50(60),1	220~240,50(60),1
	Rated power	W	31	31	31	31	31	31	65
Performance	Air flow volume (Tu/Hi/Mid/Low)	m3/H	446/378/301	446/378/301	446/378/301	577/473/392	833/654/536	833/654/536	1055/856/678
	Noise level (Hi/Mid/Low)	dB(A)	30/26/22	30/26/22	30/26/22	30/28/24	30/26/22	30/26/22	36/32/28
	External static pressure (ESP)	Pa	30	30	30	30	30	30	30
Dimension (WxDxH)	Net	mm	550×450×198	550×450×198	550×450×198	700x450x198	900x450x198	900x450x198	1100x450x198
	Packing	mm	715×535×255	715×535×255	715×535×255	865×535×255	1065×535×255	1065×535×255	1265x535x255
Weight	Net/Gross	KG	11/13.5	11/13.5	11/13.5	13/16	15.5/18.5	15.5/18.5	18.5/21.5
Pipe Diameter	Liquid Side	mm	6.35	6.35	6.35	6.35	6.35	6.35	9.52
	Gas Side	mm	9.52	9.52	9.52	12.7	12.7	12.7	15.88
Stuffing Quantity	20/40/40H	unit	306/621/720	306/621/720	306/621/720	243/504/570	198/396/440	198/396/440	171/360/400

MEDIUM ESP DUCT.

SPECIFICATION-50/60HZ							
Model	**Indoor**		**UAVRMD-H045/ R1XM**	**UAVRMD-H056/ R1XM**	**UAVRMD-H071/ R1XM**	**UAVRMD-H080/ R1XM**	**UAVRMD-H090/ R1XM**
Capacity	Cooling	KW	4.5	5.6	7.1	8	9
	Heating	KW	5.6	6.3	8	9	10
Electric Data	Power Supply	V~,Hz,Ph	220~240,50/60,1	220~240,50/60,1	220~240,50/60,1	220~240,50/60,1	220~240,50/60,1
	Rated Power	W	110	110	125	125	150
Performance	Air Flow Volume (Tu/Hi/ Mid/Low)	m3/H	1300/1250/1180/1060	1300/1250/1180/1060	1890/1590/1410/1290	1890/1590/1410/1290	1970/1750/1580/1420
	Noise Level (Hi/Mid/Low)	dB(A)	39/37/35	39/37/35	40/38/36	41/39/37	41/39/37
	External Static Pressure (ESP)	Pa	50	50	50	50	50
Dimension (WxDxH)	Net	mm	1000x700x245	1000x700x245	1000x700x245	1000x700x245	1000x700x245
	Packing	mm	1230x830x300	1230x830x300	1230x830x300	1230x830x300	1230x830x300
Weight	Net/Gross	KG	30/36	30/36	30/36	30/36	32/38
Pipe Diameter	Liquid Side	mm	9.52	9.52	9.52	9.52	9.52
	Gas Side	mm	15.88	15.88	15.88	15.88	15.88
	Drainage	mm(inch)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)
Stuffing Quantity	20/40/40H	unit	72/151/164	72/151/164	72/151/164	72/151/164	72/151/164

SPECIFICATION-50/60HZ								
Model	**Indoor**		**UAVRMD-H100/ R1XM**	**UAVRMD-H112/ R1XM**	**UAVRMD-H125/ R1XM**	**UAVRMD-H140/ R1XM**	**UAVRMD-H150/ R1XM**	**UAVRMD-H160/ R1XM**
Capacity	Cooling	KW	10	11.2	12.5	14	15	16
	Heating	KW	11.2	12.5	14	16	17	18
Electric data	Power supply	V~,Hz,Ph	220~240,50/60,1	220~240,50/60,1	220~240,50/60,1	220~240,50/60,1	220~240,50/60,1	220~240,50/60,1
	Rated power	W	150	230	230	230	250	250
Performance	Air flow volume (Tu/Hi/Mid/ Low)	m3/H	1970/1750/1580/ 1420	2520/2380/2110/ 1910	2520/2380/2110/ 1910	2720/2580/2310/ 2110	2720/2580/2310/ 2110	2300/1900/1600/ 1400
	Noise level (Hi/Mid/ Low)	dB(A)	42/40/38	44/42/40	44/42/40	44/42/40	45/43/41	44/42/40
	External static pressure (ESP)	Pa	50	50	50	50	50	50
Dimension (WxDxH)	Net	mm	1000x700x245	1400x700x245	1400x700x245	1400x700x245	1400x700x245	1400x700x245
	Packing	mm	1230x830x300	1630x830x300	1630x830x300	1630x830x300	1630x830x300	1630x830x300
Weight	Net/gross	KG	32/38	41/48	41/48	41/48	41/48	43/50
Pipe diameter	Liquid side	mm	9.52	9.52	9.52	9.52	9.52	9.52
	Gas side	mm	15.88	15.88	15.88	15.88	15.88	15.88
	Drainage	mm(inch)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)
Stuffing quantity	20/40/40H	unit	72/151/164	49/98/112	49/98/112	49/98/112	49/98/112	49/98/112

MEDIUM ESP DUCT.

SPECIFICATION-50HZ							
Model	**Indoor**		**UAVRMD-H045/ 4R1AM**	**UAVRMD-H056/ 4R1AM**	**UAVRMD-H071 /4R1AM**	**UAVRMD-H080/ 4R1AM**	**UAVRMD-H090/ 4R1AM**
Capacity	Cooling	KW	4.5	5.6	7.1	8	9
	Heating	KW	5.6	6.3	8	9.5	7
Electric data	Power supply	V~,Hz,Ph	220~240,50,1	220~240,50,1	220~240,50,1	220~240,50,1	220~240,50,1
	Rated power	W	215	215	215	215	220
Performance	Air flow volume (Tu/Hi/Mid/ Low)	m3/H	1310/1200/1060/920	1310/1200/1060/920	1580/1420/1210/1050	1780/1700/1400/1250	1780/1700/1400/1250
	Noise level (Hi/Mid/Low)	dB(A)	42/39/36	42/39/36	43/40/37	43/40/37	44/41/38
	External static pressure (ESP)	Pa	50	50	50	50	50
Dimension (WxDxH)	Net	mm	1000x700x245	1000x700x245	1000x700x245	1000x700x245	1000x700x245
	Packing	mm	1230x830x300	1230x830x300	1230x830x300	1230x830x300	1230x830x300
Weight	Net/gross	KG	30/36	30/36	30/36	30/36	32/38
Pipe diameter	Liquid side	mm	9.52	9.52	9.52	9.52	9.52
	Gas side	mm	15.88	15.88	15.88	15.88	15.88
	Drainage	mm(inch)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)
Stuffing quantity	20/40/40H	unit	72/151/164	72/151/164	72/151/164	72/151/164	72/151/164

SPECIFICATION-50HZ							
Model	**Indoor**		**UAVRMD-H100/ 4R1AM**	**UAVRMD-H112/ 4R1AM**	**UAVRMD-H125/ 4R1AM**	**UAVRMD-H140 /4R1AM**	**UAVRMD-H150/ 4R1AM**
Capacity	Cooling	KW	10	11.2	12.5	14	15
	Heating	KW	11.2	12.5	14	15.5	16.5
Electric data	Power supply	V~,Hz,Ph	220~240,50,1	220~240,50,1	220~240,50,1	220~240,50,1	220~240,50,1
	Rated power	W	220	310	310	310	310
Performance	Air flow volume (Tu/Hi/Mid/ Low)	m3/H	1780/1700/1400/1250	2380/2270/1910/1720	2380/2270/1910/1720	2380/2270/1910/1720	2570/2460/1870/1840
	Noise level (Hi/Mid/Low)	dB(A)	44/41/38	45/42/39	45/42/39	45/42/39	46/43/40
	External static pressure (ESP)	Pa	50	50	50	50	50
Dimension (WxDxH)	Net	mm	1000x700x245	1400x700x245	1400x700x245	1400x700x245	1400x700x245
	Packing	mm	1230x830x300	1630x830x300	1630x830x300	1630x830x300	1630x830x300
Weight	Net/gross	KG	32/38	43/50	43/50	43/50	43/50
Pipe diam-eter	Liquid side	mm	9.52	9.52	9.52	9.52	9.52
	Gas side	mm	15.88	15.88	15.88	15.88	15.88
	Drainage	mm(inch)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)
Stuffing quantity	20/40/40H	unit	72/151/164	49/98/112	49/98/112	49/98/112	49/98/112

HIGH ESP DUCT.

SPECIFICATION-50HZ						
Model	**Indoor**		**UAVRHD-H112/4R1A**	**UAVRHD-H125/4R1A**	**UAVRHD-H140/4R1A**	**UAVRHD-H150/4R1A**
Capacity	Cooling	KW	11.2	12.5	14	15
	Heating	KW	12.8	13.3	15	16
Electric Data	Power Supply	V~,Hz,Ph	220~240,50,1	220~240,50,1	220~240,50,1	220~240,50,1
	Rated Power	W	600	600	600	600
Performance	Air Flow Volume (Hi/Mid/Low)	m3/H	2000/1600/1400	2000/1600/1400	2000/1600/1400	2000/1600/1400
	Noise Level (Hi/Mid/Low)	dB(A)	60/57/51	60/57/51	60/57/51	60/57/51
	External Static Pressure (ESP)	Pa	196	196	196	196
Dimension (Wx-DxH)	Net	mm	1200x719x380	1200x719x380	1200x719x380	1200x719x380
	Packing	mm	1235x760x415	1235x760x415	1235x760x415	1235x760x415
Weight	Net/Gross	KG	56/59	56/59	56/59	56/59
Pipe Diameter	Liquid Side	mm	9.52	9.52	9.52	9.52
	Gas Side	mm	19.05	19.05	19.05	19.05
	Drainage	mm(inch)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)
Stuffing Quantity	20/40/40H	unit	68/147/168	68/147/168	68/147/168	68/147/168

SPECIFICATION-50/60HZ				
Model	**Indoor**		**UAVRHD-H220/R1X**	**UAVRHD-H280/R1X**
Capacity	Cooling	KW	22.4	28
	Heating	KW	25	31.5
Electric Data	Power Supply	V~,Hz,Ph	220~240,50/60,1	220~240,50/60,1
	Rated Power	W	1200	1200
Performance	Air Flow Volume (Hi/Mid/Low)	m3/H	4400	4400
	Noise Level (Hi/Mid/Low)	dB(A)	57	57
	External Static Pressure (ESP)	Pa	170 (30-250)	170 (30-250)
Dimension (Wx-DxH)	Net	mm	1388x715x480	1388x715x480
	Packing	mm	1540x810x610	1540x810x610
Weight	Net/Gross	KG	99/120	99/120
Pipe Diameter	Liquid Side	mm	12.7	12.7
	Gas Side	mm	22.2	22.2
	Drainage	mm(inch)	OD33.5	OD33.5
Stuffing Quantity	20/40/40H	unit	30/63/84	30/63/84

FRESH AIR PROCESSOR.

SPECIFICATION-50/60HZ				
Model	**Indoor**		**UAVRFA-H220/R1X**	**UAVRFA-H280/R1X**
Capacity	Cooling	KW	22.4	28
	Heating	KW	18	22
Electric data	Power supply	V~,Hz,Ph	220~240,50/60,1	220~240,50/60,1
	Rated power	W	900	900
Performance	Air flow volume	m3/H	3200	3200
	Noise level	dB(A)	55	55
	External static pressure (esp)	Pa	220	220
Dimension (WxDxH)	Net	mm	1388x715x480	1388x715x480
	Packing	mm	1540x810x610	1540x810x610
Weight	Net/gross	KG	99/120	99/120
Pipe diameter	Liquid side	mm	12.7	12.7
	Gas side	mm	22.2	22.2
	Drainage	mm(inch)	OD33.5	OD33.5
Stuffing quantity	20/40/40H	unit	30/63/84	30/63/84

SPECIFICATION-50HZ				
Model	**Indoor**		**UAVRFA-H450/5R1AY**	**UAVRFA-H560/5R1AY**
Capacity	Cooling	KW	45	56
	Heating	KW	49.5	61.5
Electric data	Power supply	V~,Hz,Ph	380~415,50/,3	380~415,50/,3
	Rated power	W	1520	1520
Performance	Air flow volume	m3/H	4000	5000
	Noise level	dB(A)	57	59
	External static pressure (esp)	Pa	220	220
Dimension (WxDxH)	Net	mm	1820x990x855	2115x990x855
	Packing	mm	1935x1025x1015	2225x1025x1015
Weight	Net/gross	KG	150/170	225/255
Pipe diameter	Liquid side	mm	12.7x2	12.7x2
	Gas side	mm	22.2x2	22.2x2
	Drainage	mm(inch)	DN25	DN25
Stuffing quantity	20/40/40H	unit	12/24/24	12/24/24

CEILING AND FLOOR.

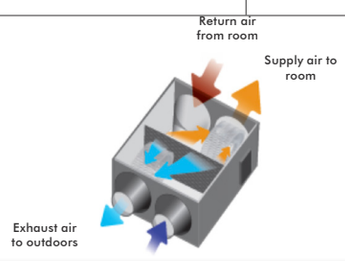
SPECIFICATION-50/60HZ						
Model	**Indoor**		**UAVRCF-H045/R1XF**	**UAVRCF-H056/R1XF**	**UAVRCF-H071/R1XF**	**UAVRCF-H080/R1XF**
Capacity	Cooling	KW	4.5	5.6	7.1	8
	Heating	KW	5	6.3	8	9
Electric data	Power supply	V~,Hz,Ph	220-240V,50/60,1	220-240V,50/60,1	220-240V,50/60,1	220-240V,50/60,1
	Rated power	W	40	40	40	70
Performance	Air flow volume (Tu/Hi/Mid/ Low/Sl)	m3/H	940/895/700/650/600	940/895/700/650/600	940/895/700/650/600	1300/1245/1020/930/840
	Noise level (Tu/Hi/Mid/ Low/Sl)	dB(A)	42/41/38/37/36	42/41/38/37/36	42/41/38/37/36	43/42/39/38/37
Dimension (WxDxH)	Net	mm	1000x690x235	1000x690x235	1000x690x235	1280x690x235
	Packing	mm	1080x770x325	1080x770x325	1080x770x325	1360x770x325
Weight	Net/gross	KG	29/33.5	29/33.5	29/33.5	35.5/41
Pipe diam-eter	Liquid side	mm	6.35	6.35	6.35	9.52
	Gas side	mm	12.7	12.7	12.7	15.88
	Drainage	mm(inch)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)
Stuffing quantity	20/40/40H	unit	112/224/264	112/224/264	112/224/264	84/175/200

SPECIFICATION-50/60HZ						
Model	**Indoor**		**UAVRCF-H090/R1XF**	**UAVRCF-H112/R1XF**	**UAVRCF-H125/R1XF**	**UAVRCF-H140/R1XF**
Capacity	Cooling	KW	9	11.2	12.5	14
	Heating	KW	11	12.8	14	15
Electric data	Power supply	V~,Hz,Ph	220-240V,50/60,1	220-240V,50/60,1	220-240V,50/60,1	220-240V,50/60,1
	Rated power	W	70	120	120	120
Performance	Air flow volume (Tu/Hi/Mid/ Low/Sl)	m3/H	1300/1245/1020/930/840	2040/1890/1740/1560//1440	2040/1890/1740/1560//1440	2040/1890/1740/1560//1440
	Noise level (Tu/Hi/Mid/ Low/Sl)	dB(A)	43/42/39/38/37	50/49/45/43/41	50/49/45/43/41	50/49/45/43/41
Dimension (WxDxH)	Net	mm	1280x690x235	1600x690x235	1600x690x235	1600x690x235
	Packing	mm	1360x770x325	1680x770x325	1680x770x325	1680x770x325
Weight	Net/gross	KG	35.5/41	42/49	42/49	42/49
Pipe diam-eter	Liquid side	mm	9.52	9.52	9.52	9.52
	Gas side	mm	15.88	15.88	15.88	15.88
	Drainage	mm(inch)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)	R3/4in(DN20)
Stuffing quantity	20/40/40H	unit	84/175/200	70/147/168	70/147/168	70/147/168

HRV-HEAT RECOVERY VENTILATOR.

Model			SAHRV-200/4	SAHRV-300/4	SAHRV-400/4	SAHRV-500/4
Volume		m3/h	200	300	400	500
		CFM	118	176	235	294
External static pressure		pa	75	75	80	80
Electric data	Power supply	V~,Hz,Ph	220~240,50,1	220~240,50,1	220~240,50,1	220~240,50,1
	Rated power	W	65	120	200	220
Cooling	Temp. Efficiency	%	60	60	60	60
	Enthalpy efficiency	%	50	50	50	50
Heating	Temp. Efficiency	%	65	65	65	65
	Enthalpy efficiency	%	55	55	55	55
Noise level		dB(A)	37	39	40	41
Fan quantities		unit	2	2	2	2
Flange		mm	144	144	144	194
Net weight		kg	25	27	30	41
Net dimension (WxDxH)		mm	848x654x264	926x722x270	926x927x270	1018x1024x270
Gross dimension (WxDxH)		mm	910x710x405	985x775x405	985x980x405	1085x1080x405
Stuffing quantity	20/40/40H	unit	280/568/710	216/456/513	168/344/387	112/244/280

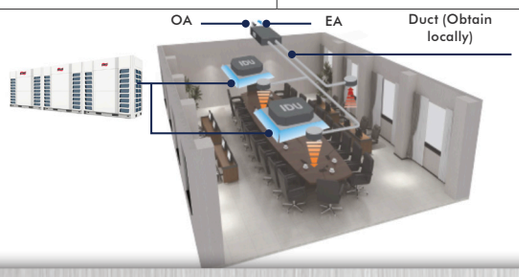
Model			SAHRV-600/4	SAHRV-800/4	SAHRV-1000/4
Volume		m3/h	600	800	1000
		CFM	353	471	588
External static pressure		pa	90	100	130
Electric data	Power supply	V~,Hz,Ph	220~240,50,1	220~240,50,1	220~240,50,1
	Rated power	W	242	410	510
Cooling	Temp. Efficiency	%	60	60	60
	Enthalpy efficiency	%	50	50	50
Heating	Temp. Efficiency	%	65	65	65
	Enthalpy efficiency	%	55	55	55
Noise level		dB(A)	41	43	45
Fan quantities		unit	2	2	2
Flange		mm	194	243	243
Net weight		kg	41	68	82
Net dimension (WxDxH)		mm	1018x1024x270	1274x1007x388	1274x1257x388
Gross dimension (WxDxH)		mm	1085x1080x405	1335x1055x533	1345x1315x548
Stuffing quantity	20/40/40H	unit	112/244/252	72/156/156	60/120/120



HRV-HEAT RECOVERY VENTILATOR.

Model			SAHRV-1500/5	SAHRV-2000/5	SAHRV-2500/5
Volume		m3/h	1500	2000	2500
		CFM	882	1176	1471
External static pressure		pa	160	170	180
Electric data	Power supply	V~,Hz,Ph	220~240,50,1	220~240,50,1	380~415,50,3
	Rated power	W	1000	1200	2000
Cooling	Temp. Efficiency	%	60	60	60
	Enthalpy efficiency	%	50	50	50
Heating	Temp. Efficiency	%	65	65	65
	Enthalpy efficiency	%	55	55	55
Noise level		dB(A)	52	60	62
Fan quantities		unit	2	2	2
Flange		mm	320x300	320x300	320x300
Net weight		kg	200	225	240
Net dimension (WxDxH)		mm	1600x1270x540	1650x1470x540	1710x1400x600
Gross dimension (WxDxH)		mm	1668x1331x720	1770x1550x665	1770x1550x665
Stuffing quantity	20/40/40H	unit	20/40/40	20/40/40	20/40/40

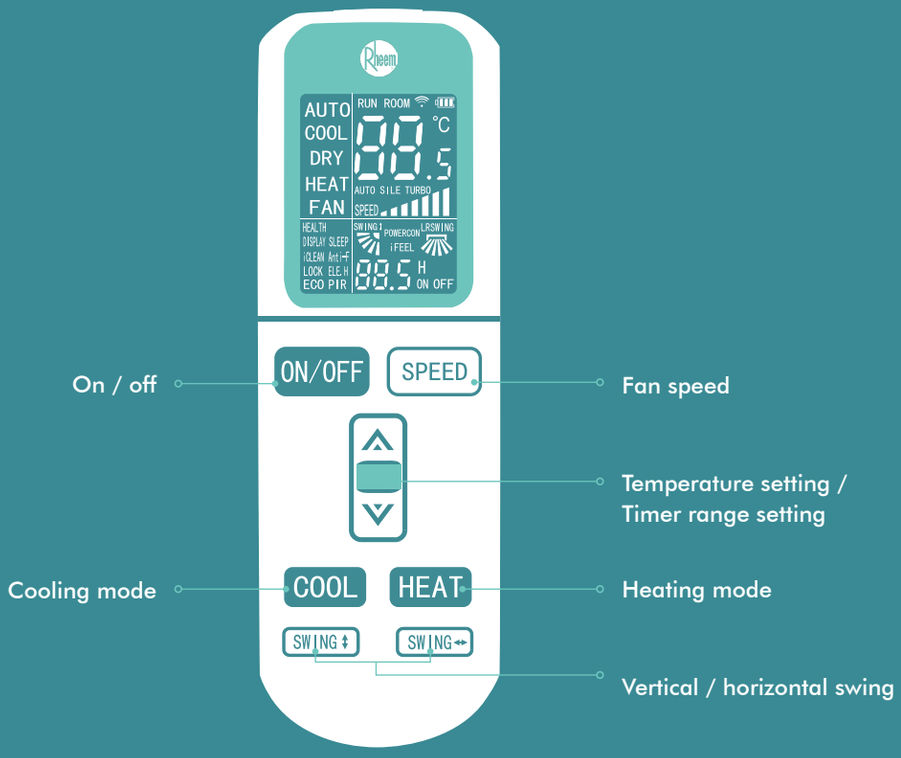
Model			SAHRV-3000/5	SAHRV-4000/5	SAHRV-5000/5
Volume		m3/h	3000	4000	5000
		CFM	1765	2353	2941
External static pressure		pa	200	220	240
Electric data	Power supply	V~,Hz,Ph	380~415,50,3	380~415,50,3	380~415,50,3
	Rated power	W	2100	2400	3000
Cooling	Temp. Efficiency	%	60	60	60
	Enthalpy efficiency	%	50	50	50
Heating	Temp. Efficiency	%	65	65	65
	Enthalpy efficiency	%	55	55	55
Noise level		dB(A)	64	66	68
Fan quantities		unit	2	2	2
Flange		mm	320x300	323x253	500x690
Net weight		kg	270	265	280
Net dimension (WxDxH)		mm	1700x1630x640	1725x1450x1050	1820x1780x1050
Gross dimension (WxDxH)		mm	1760x1750x770	1785x1510x1180	1880x1840x1150
Stuffing quantity	20/40/40H	unit	20/40/40	8/18/18	8/18/18



CONTROL TECHNOLOGIES.

WIRELESS CONTROLLERS.

YK-L.



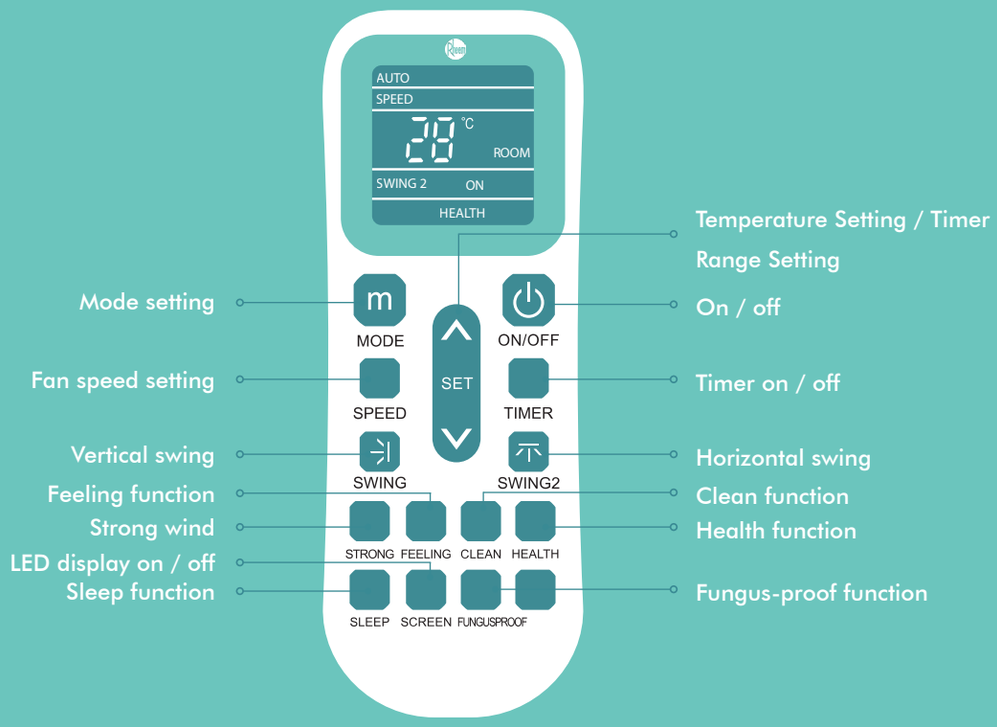
Background light

The background light allows users to operate the device in a dark room. The device lights up when a button is pressed, and turns off when a given operation is completed.

Address setting

Besides the machine's auto-addressing function, users can set the indoor unit's address on the YK-L remote controller.

YK-K.



Model	YK-L	YK-K
Dimensions	52x160x25 (max)	50X140x28.5 (max)
Power (V)	3V (1.5Vx2)	3V (1.5Vx2)

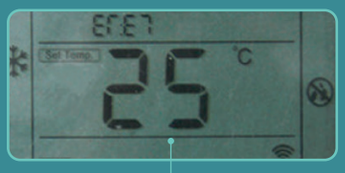
WIRED CONTROLLER.

XK-O5B.

Integrated remote signal receiver

The remote control has a built-in signal receiver, allowing adjustment of system status through both the remote and wired controllers.

Error reporting



In case of malfunction, the controller displays error codes in the temperature setting area for quick and efficient troubleshooting.

Sleek and user-friendly design

The XK-05B, a hidden-mode controller designed for hotels, hospitals, schools and offices, features a standard background light for easy use in the dark.

Model	XK-O5B
Dimensions (WxHxD) mm	120x120x18
Power supply (V)	DC 12V by IDU

Follow me

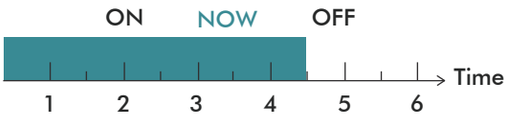
The follow me function uses the wired controller's built-in temperature sensor to allow for more accurate temperature measurement closer to the user — rather than at ceiling or floor height — in an indoor unit.

Keyboard locking

Prevent unauthorized setting changes in public spaces with the keyboard locking function, which ensures secure and controlled access.

Built-in timer

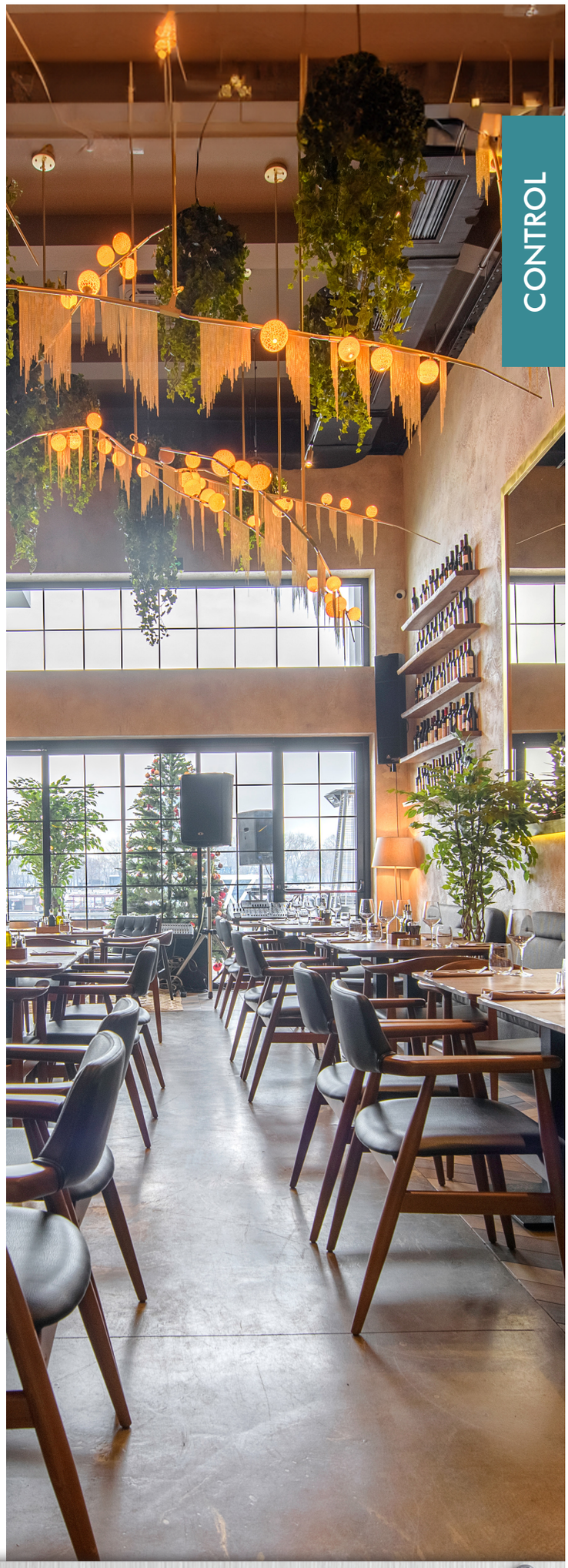
The system's built-in daily timer enables automatic start and stop based on user-defined time settings, for added convenience.



Indoor unit set to stop in 0.5 hours

Address setting

Address setting, coupled with easy installation, simplifies future maintenance. By using XK-05B, service personnel can easily set the indoor unit's address.



XK-06A.

Straightforward, streamlined solutions for enhanced comfort and convenience

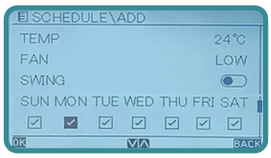
The XK-06 wired controller includes all the same features as the XK-05B, with some new additions to simplify set-up and troubleshooting.

Display room temperature

Accurately view the room temperature, for enhanced monitoring and comfort control.

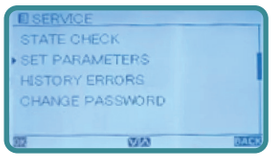
History errors

Search and review historical errors with our simple error history retrieval feature.



Weekly timer

Easily set a weekly running schedule, for user-friendly, efficient and convenient operation.



Parameter setting

Simplified parameter settings for a straightforward and convenient user experience.

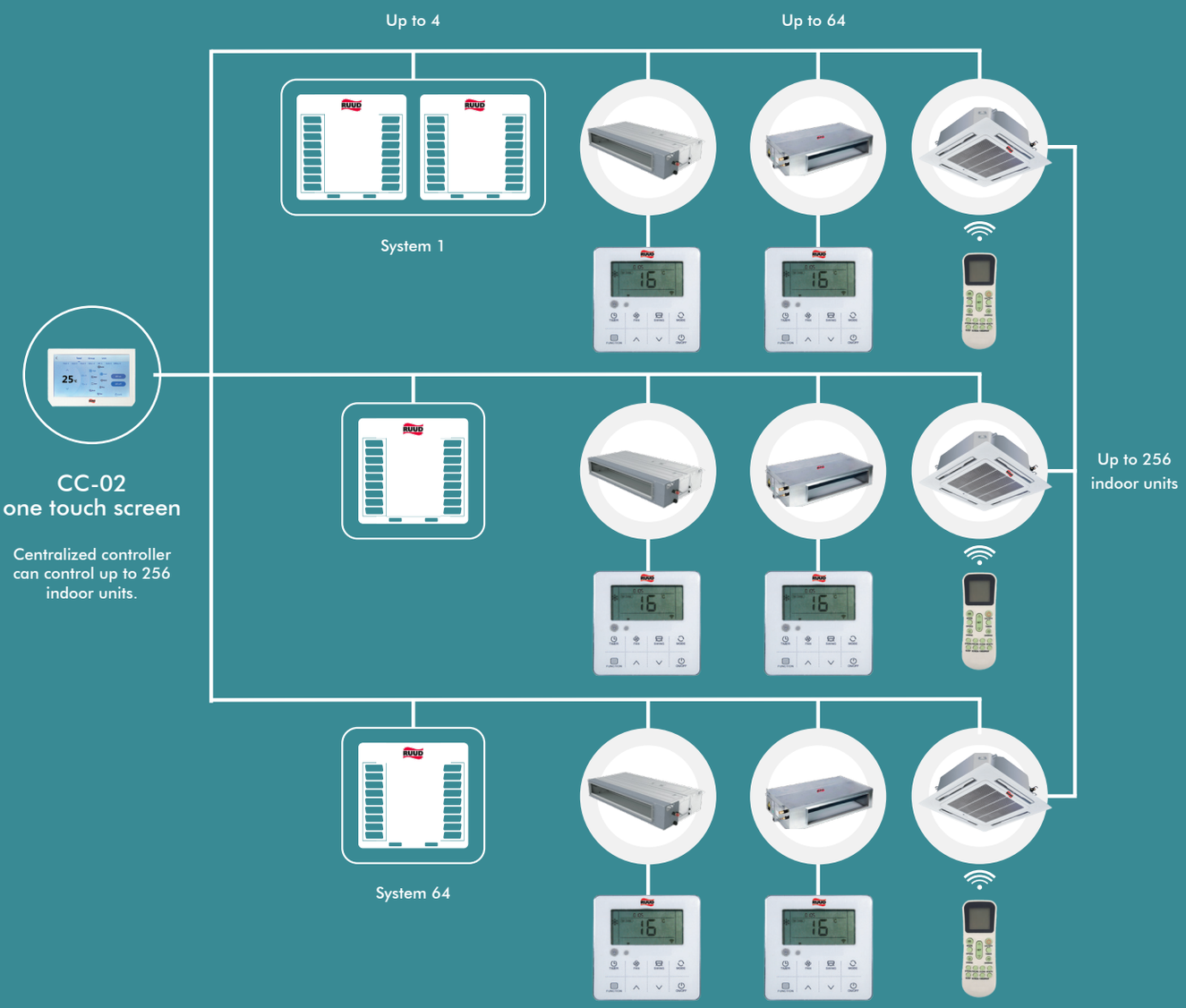
Model	XK-05B	XK-06
Dimensions	120x120x18	120x120x20
Power (V)	DC 12V by IDU	DC 12V by IDU

CENTRALIZED CONTROLLER.

Model	CC-02
Dimensions (WxHxD) (mm)	176x116X12 (Outside the wall) 120x60x25 (Inside the wall)
Power supply	DC 12V by IDU AC 180-240 (50/60Hz)

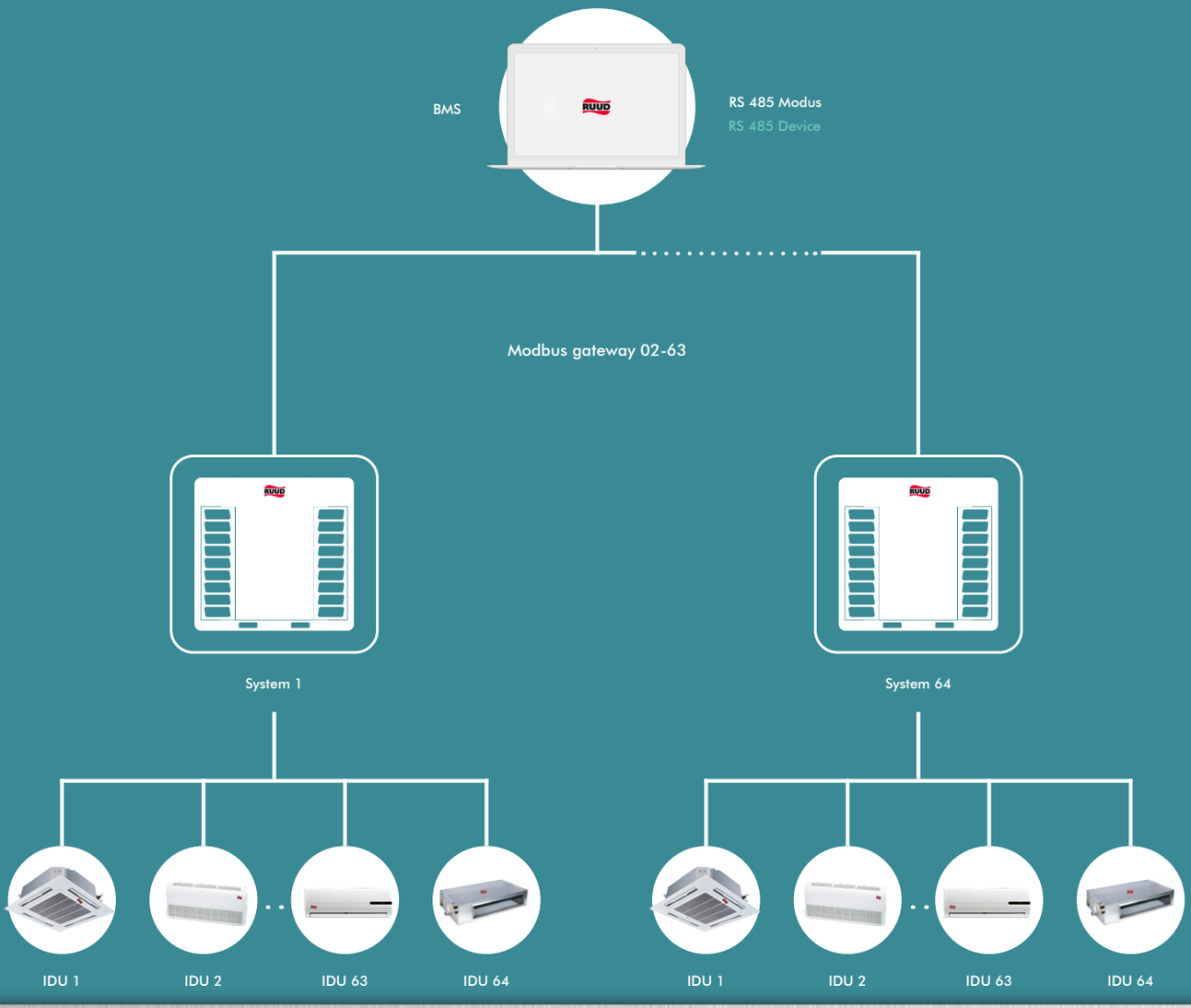
CC-02

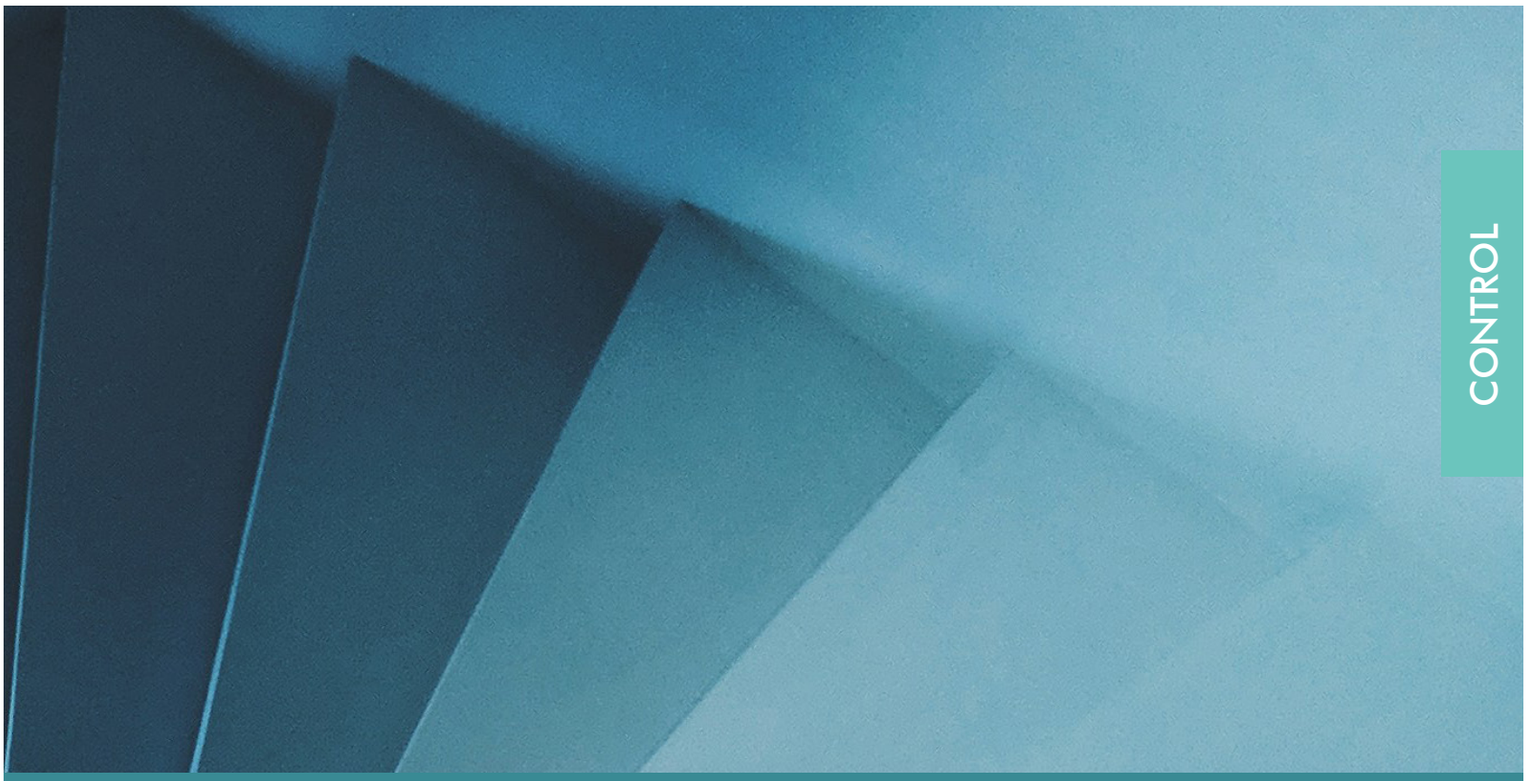
The centralized controllers can connect directly to the master outdoor unit or any indoor unit in each system, for a much more simplified wiring configuration.



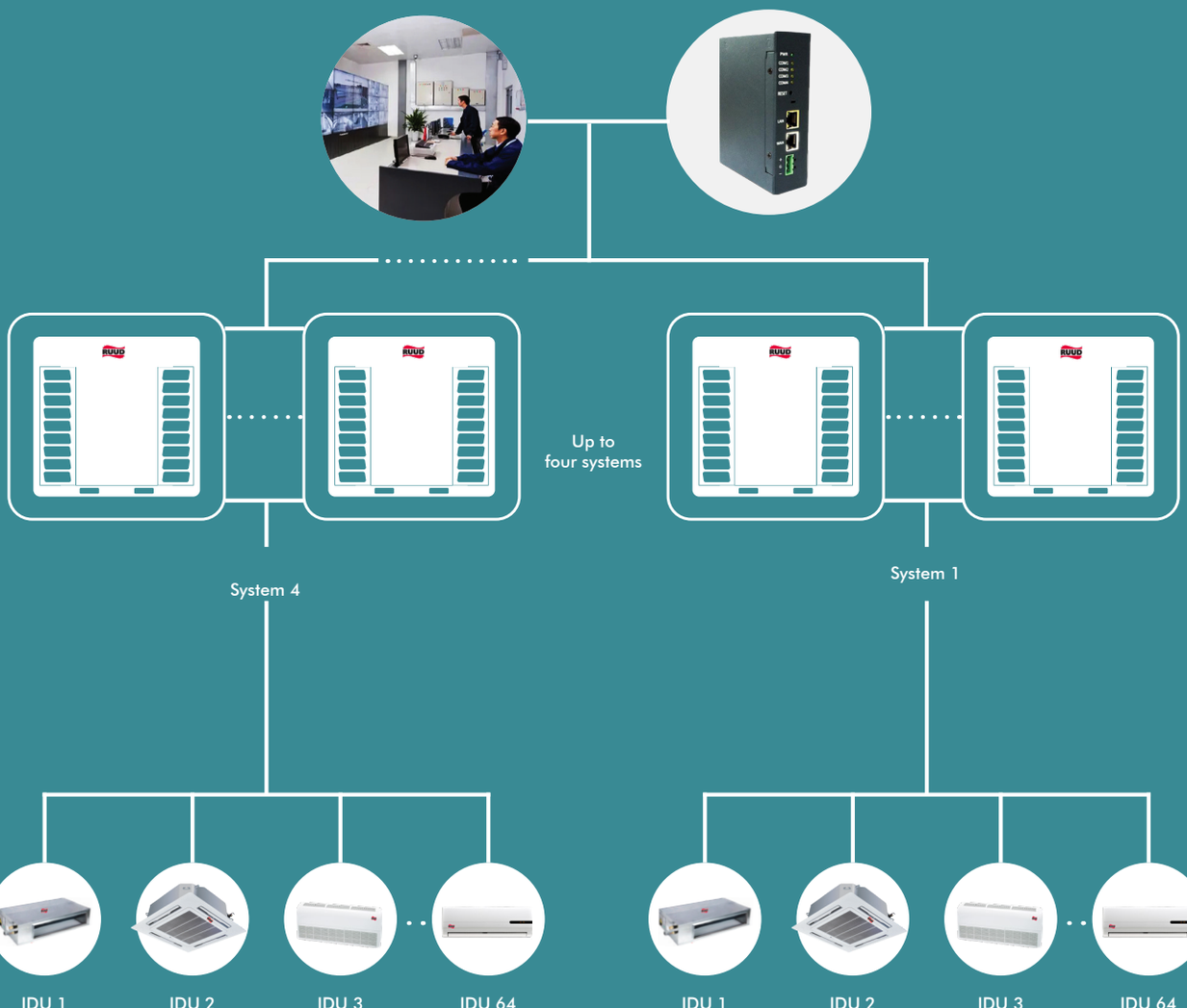
BMS GATEWAY.

Modbus connection



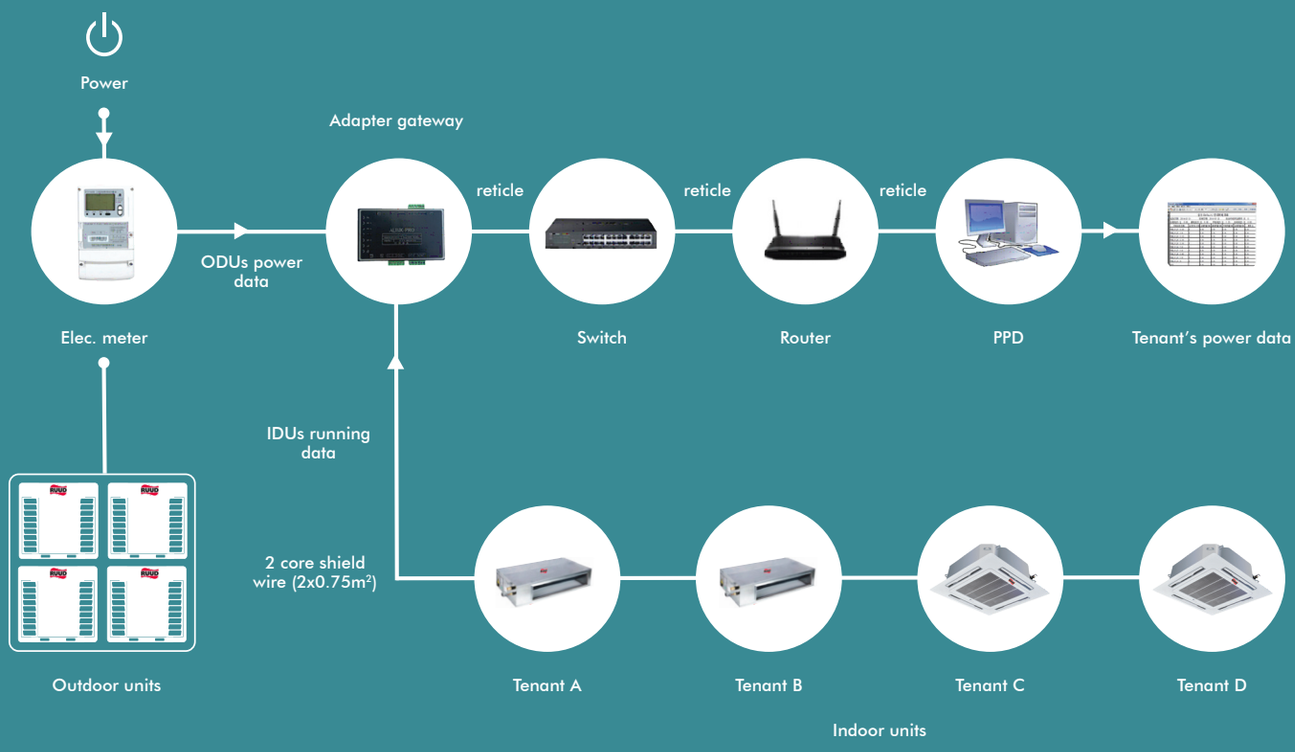


BACnet connection



MULTI-TENANT KIT.

Ruud's exclusive multi-tenant kit can be integrated with the VRF system. It allows building owners to measure the energy consumption of individual zones for the purpose of improving operational performance. It also enables them to accurately charge tenants for their electricity consumption.



Adapter	(mm)	178x115x32
	Power	DC12V (power adapter standard)
	Signal port	4*RS485
	Dip switch	Not required
	Signal indicator	Yes
	Computer port	1*LAN
	Qty of system	3 or 24
	Qty of IDUs	512
Software	Function	User management, IDU control, electricity bill, query, control log, automatic scanning, adapter management, plane guide commissioning.

MONITORING SOFTWARE.

Self-diagnosis software can be used as a remote controller for efficient commissioning. Our software makes it easy to monitor the real-time running states of both outdoor and indoor units, for convenient commissioning and troubleshooting.

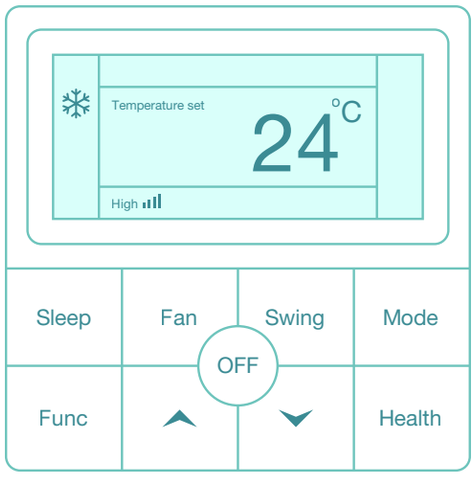
CENTRAL AIR-CONDITIONING DEBUGGER

COMMUNICATE (C) LISTEN (L) CONTROL(S)

Address	1	Drive Cmd	Heating	On_Off	
Unit Mode	Ducted unit	CapReq	Off	ModeCm	
Capacity	4.0	Cap(%)	0	Settemp	
FirmwVer	V1.6	PC Ctrl	Yes	FanCmd	

Address	Capacity	ON_OFF	ModeCmd	Settemp	FanCmd	Dri
1	4.0	ON	Heating	26.0	Auto	H
2	4.0	ON	Heating	26.0	Auto	H
3	3.0	ON	Heating	28.0	Auto	H
4	4.3	OFF	Cooling	26.0	High	
5	5.0	OFF	Heating	23.0	Medium	
6	4.3	ON	Heating	20.0	Low	
7	2.3	OFF	Heating	32.0	Auto	
8	5.0	ON	Heating	24.0	Auto	H
9	5.0	OFF	Cooling	25.0	High	
10	2.0	OFF	Heating	32.0	Auto	
11	2.0	OFF	Heating	27.0	High	

INDOOR CONTROL



Choose all | Cancel all

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64

DATA(D) REPLAY(R)

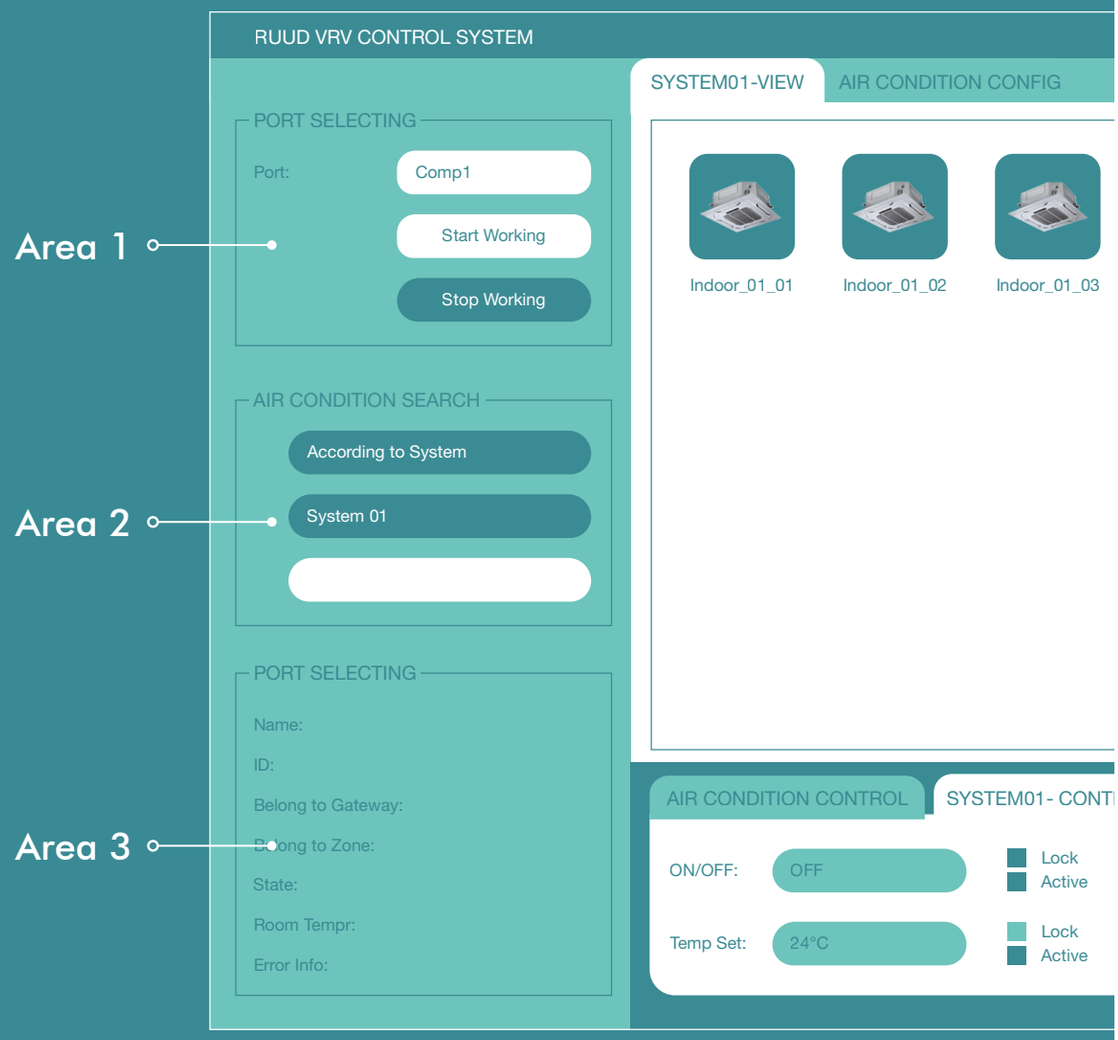
1	SwingCmd	Off
dDucted unit	HealthCmd	Off
4.0	HeaterCmd	Off
V1.6	SleepCmd	Off

veCmd	CapReq	Cap%	Tai	Te2	Tah	To1	CHS	SCS	Pulse_EXV	Fan Speed	Error Code	Pump	Heater	Health	Swing
eating	Off	0	25.7	48.5	48.5	56.4	0.0	0.0	25	Stop	00	No	No	No	No
eating	On	10	24.1	41.1	48.0	64.3	0.0	4.0	440	High	00	No	No	No	No
eating	Off	12	24.5	39.5	47.6	57.7	0.0	4.0	480	High	00	No	No	No	Yes
Stop	Off	0	22.3	42.2	47.7	53.3	0.0	0.0	52	Stop	00	No	No	No	No
Stop	Off	0	22.8	49.0	38.5	47.1	0.0	0.0	25	Stop	00	No	No	No	No
Stop	Off	0	19.8	49.0	49.5	55.6	0.0	0.0	30	Stop	00	No	No	No	No
Stop	Off	0	21.2	43.3	55.8	46.4	0.0	4.0	28	Stop	00	No	No	No	No
eating	On	4	24.4	38.5	48.0	61.2	0.0	4.0	162	Low	00	No	No	No	No
Stop	Off	0	26.5	46.5	46.3	51.7	0.0	4.0	25	Stop	00	No	No	No	No
Stop	Off	0	22.4	43.2	46.5	55.6	0.0	4.0	28	Stop	00	No	No	No	No
Stop	Off	0	25.1	47.2	41.0	39.3	0.0	4.0	32	Stop	00	No	No	No	No

CENTRALIZED CONTROL SOFTWARE.

No.	Main components		Required
1		Host computer	Operation system: Windows XP SP2 and above, Windows 7.
2		Communications adapter plate	Computer and communication protocol and unit end communication protocol are incompatible with each other. A communication adapter plate must be added to make both communicate.
3		RS-232 to RS-485/422 converter	The centralized control system RS485 network signal conversion for RS232 serial signal to achieve the interconnection of computers with centralized control system.
		USB to RS-485/422 converter	The centralized control system RS485 network signal conversion for USB to achieve the interconnection of laptops with centralized control svstem.
4		RS-485/422 repeater	Extend the communication distance and increase the number of RS-485 bus networks. The repeater is only required when there are more than 30 systems, or communication distance is more than 800 meters.

Ruud VRF control system



Area 1

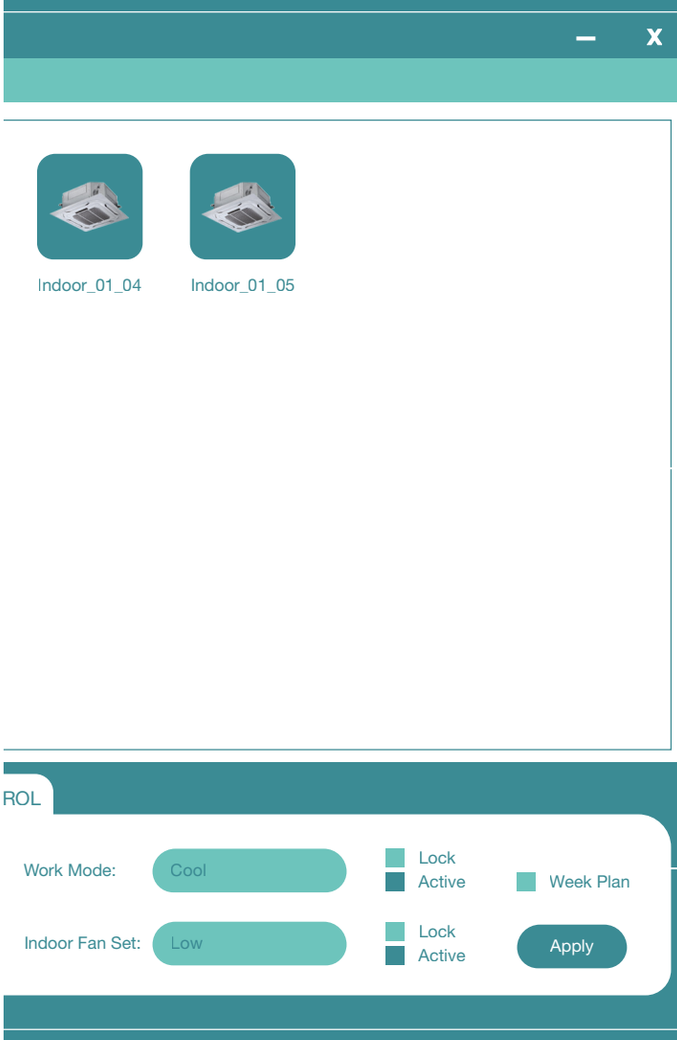
Serial setting area. Choose the serial and press the 'start working' button to kickstart operations. Press the 'stop working' button to pause operations.

Area 2

The area for the air conditioner unit. This can be divided into a system and a user-defined group. The selected unit will be displayed in area 4.

Area 3

The display area of a single air conditioner indoor unit. Select one of the indoor units in area 4 in order to display the name IC (address of indoor unit), system belonged to, group belonged to, current condition, current room temperature of the indoor unit and information regarding failures etc.



Area 4

Display area of the air conditioner group. As shown in the diagram on the right, this will display all the indoor units within the System 01 group.

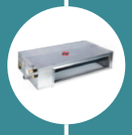
Area 5

Control area of the air conditioner. It can control one single air conditioner and some air conditioner groups.

CONTROL SYSTEM.

RS232-485 converter

Centralized control software adapter 1

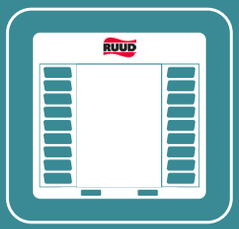


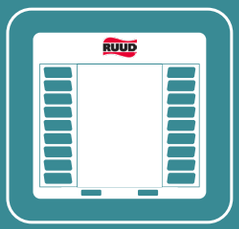
Group control

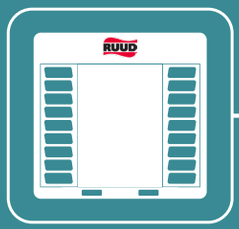
Wired controller

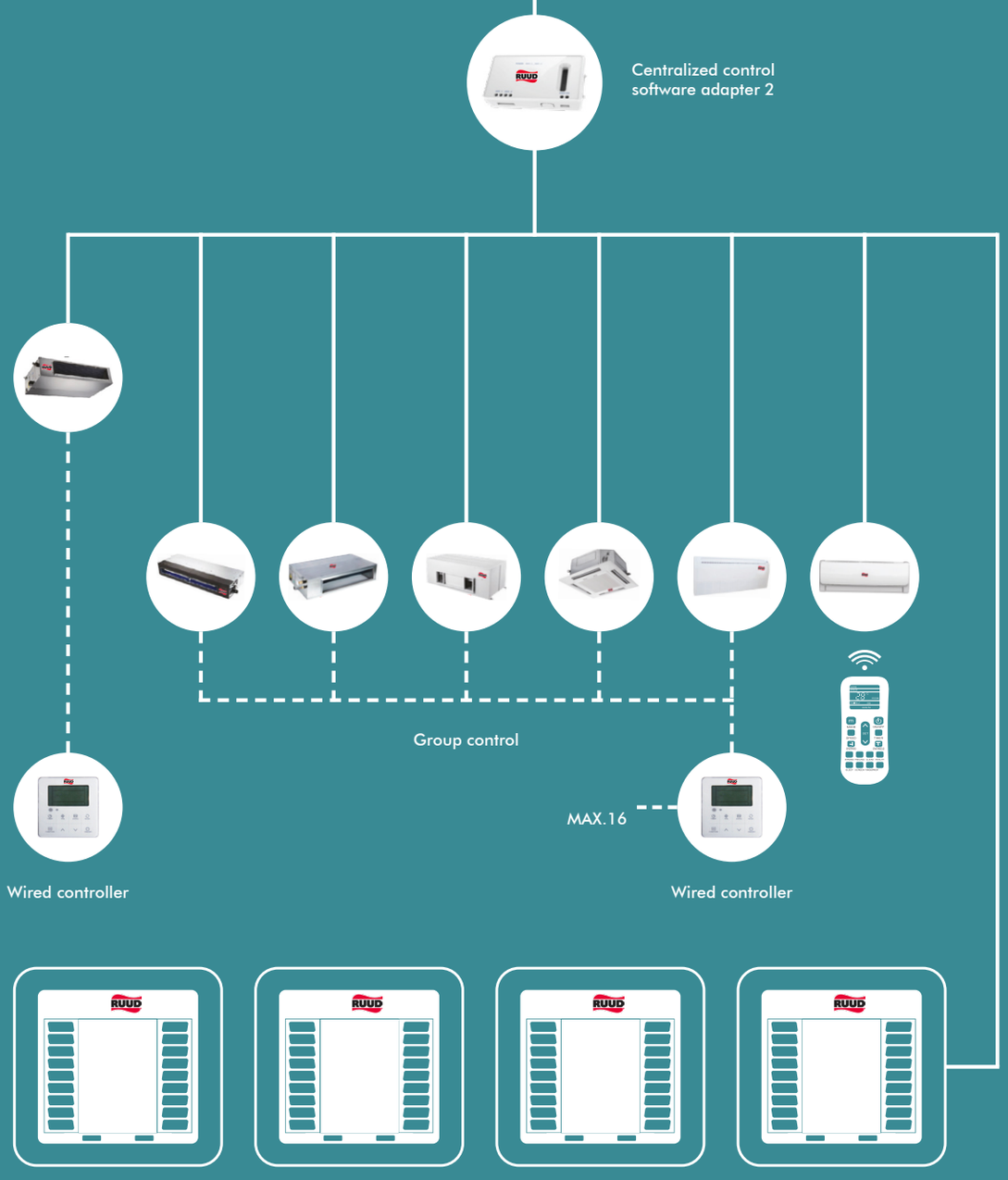
MAX.16

Wired controller









WIFI GATEWAY.

Control your air conditioning straight from your smartphone, using Ruud's AC Comfort app.

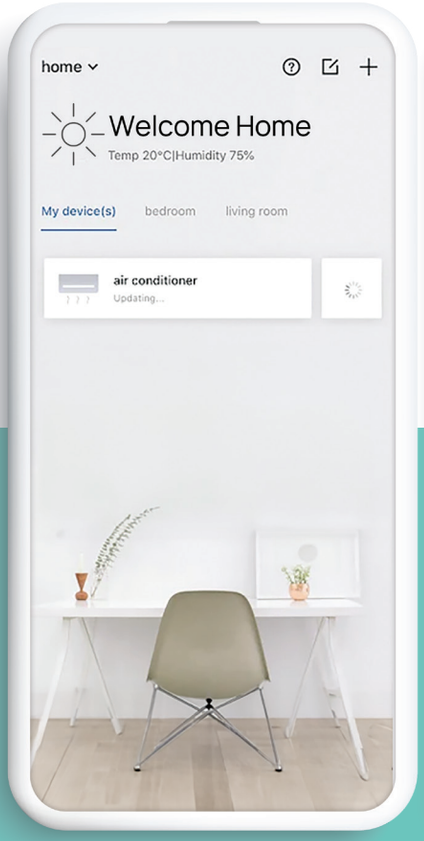
Simple set-up

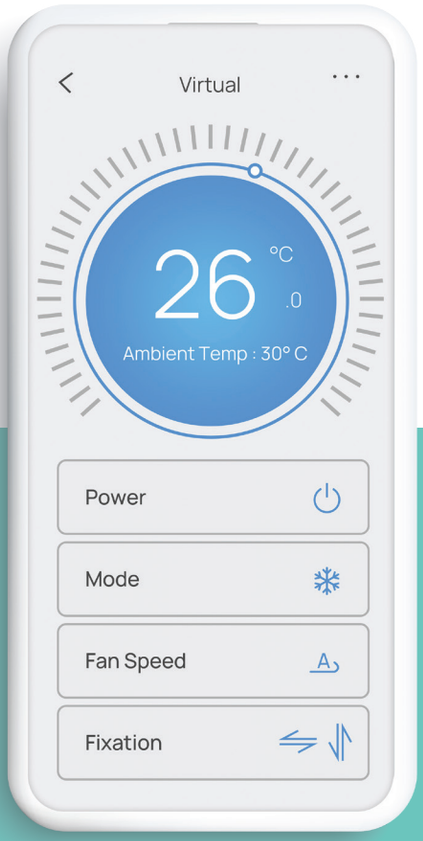
Once the app is downloaded, follow the quick steps to activate your app.

CONTROL YOUR AC FROM ANY LOCATION.

Total control

Provide every family member with the control to choose their preferred fan speed and temperature.





1

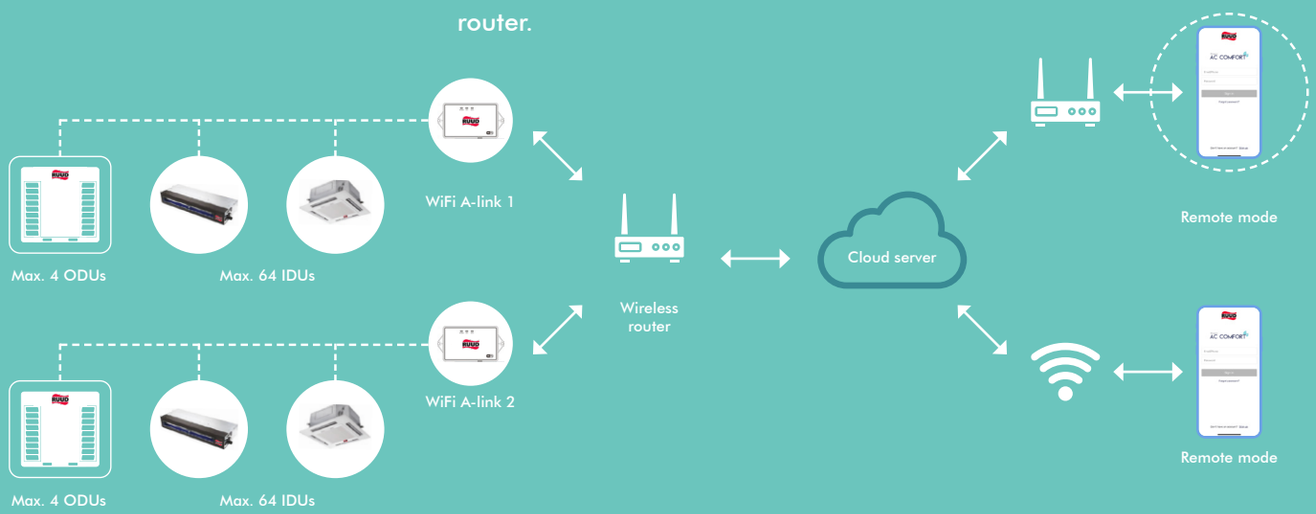
Each WiFi gateway can be used for one VRF system and up to 64 indoor units.

2

The number and distance of WiFi gateways required depends on the signal distance of the router.

3

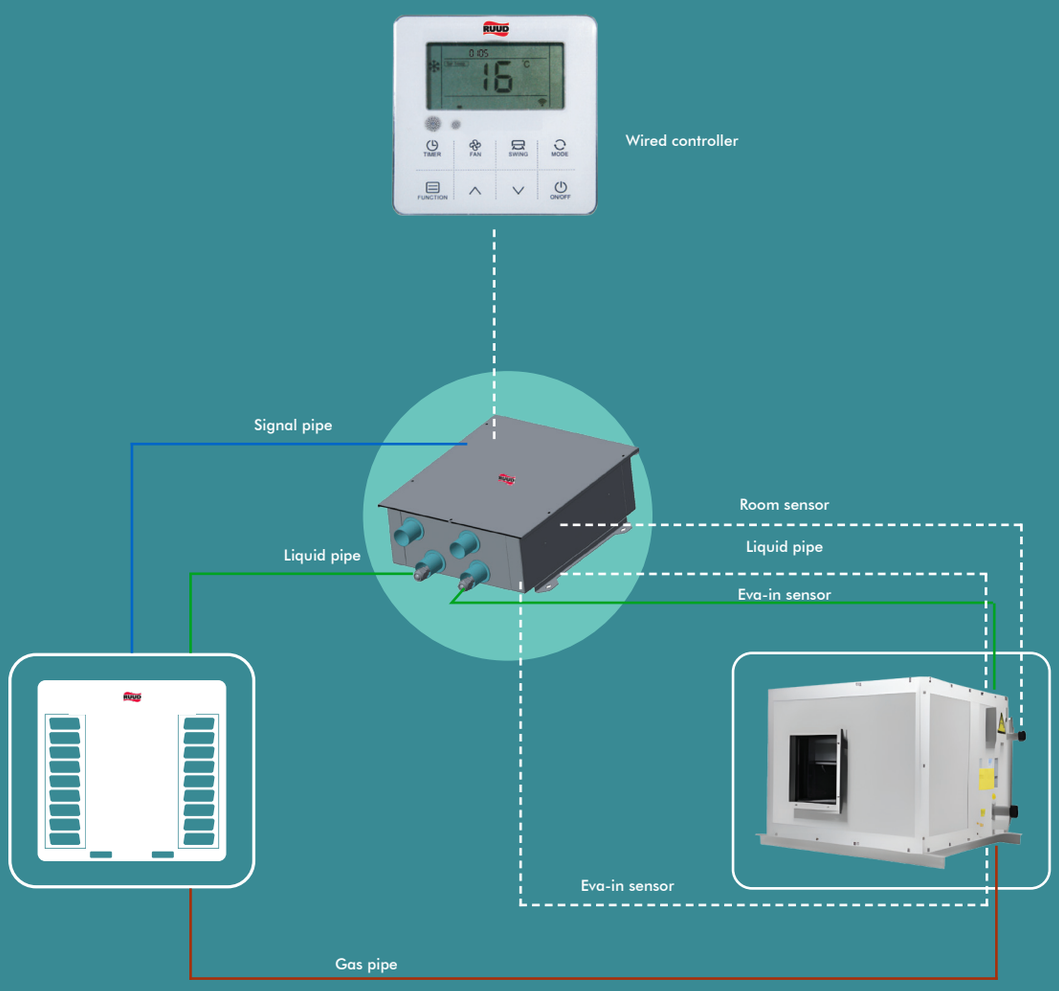
Each WiFi gateway needs to be configured in the app.



AHU KITS.

Ruud offers a range of air handling unit (AHU) kits that can connect VRF outdoor units to any third party AHUs.

Our AHU kits can be connected to various third party AHUs, by directly connecting to direct digital control (DDC) without a separate controller. This allows DDC to receive product control and monitoring information through contact signal or Modbus protocol.



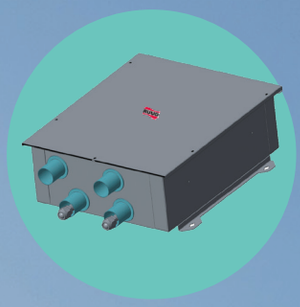
Multiple control options

Ruud's AHU kits can be connected to various control systems such as Ruud's individual and DDC.

AHU kits are compatible with third party controllers (DDC/PLC).
It can also be connected with a DDC that uses Modbus Protocol.

Ruud controller

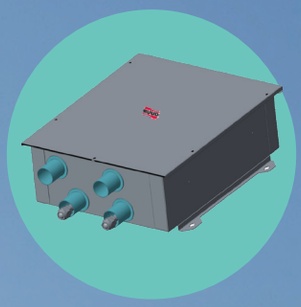
Individual controller



Third party controller (DDC/PLC)

DDC

AI/DI/ DO signal



Modbus Protocol DDC

DDC

Modbus

RUUD

@Ruudmea

www.Ruud-mea.com

Ruud Middle East

UAE: RMEA Manufacturing LLC | Onyx 2, Level P3, Offices 301-304

KSA: Innovation and Learning Center | Riyadh Building 14, Business District, Airport Road, Riyadh, KSA