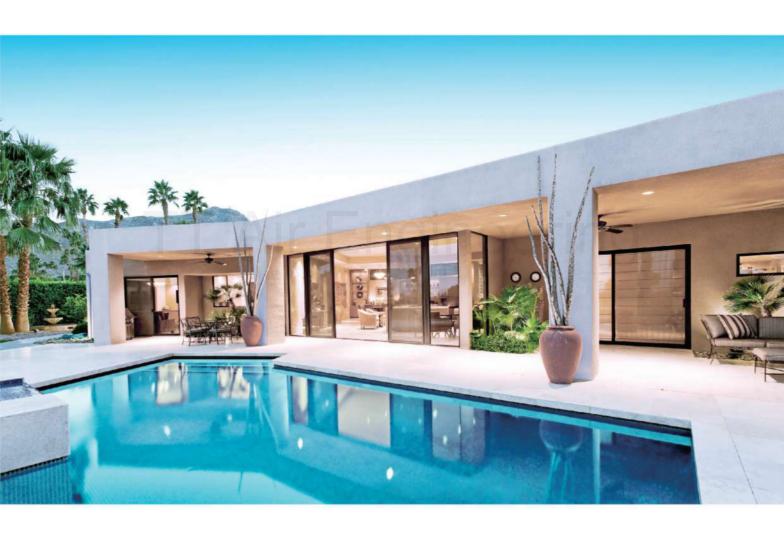


VRV S High Seasonal Efficiency SERIES

For residential and light commercial use







NEW! VRV S High Seasonal

New *VRV* S High Seasonal Efficiency Series achieves higher energy efficiency with a variety of function for comfort and high performance. A wide range of options for installation location and application are easily achieved by the low height casing long piping length and other features.



Energy savings & comfort

- √ High seasonal efficiency
- √ VRT Smart Control
- √ Quiet operation

High performance & reliability

- ✓ Extended operation range up to 52°C
- √ High voltage shield PCB
- ✓ Automatic refrigerant charge function

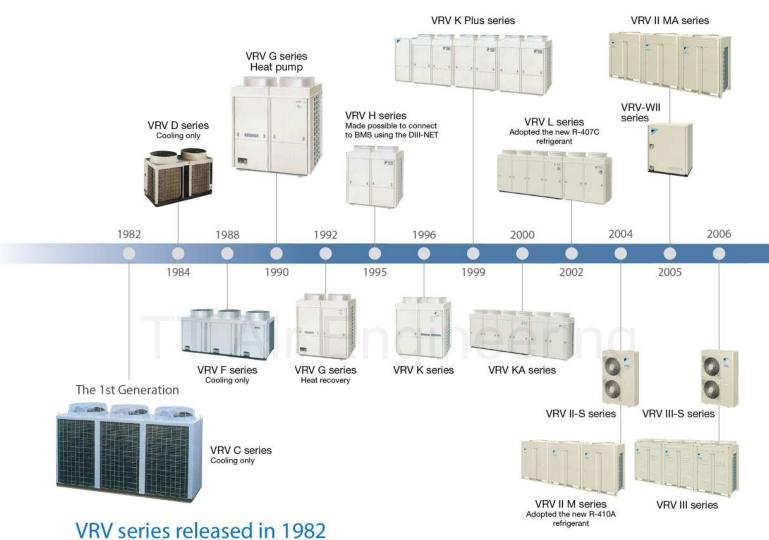


Design flexibility of installation

- ✓ The high external static pressure of 40 Pa enables installation in small installation spaces where the
 airflow direction needs to be diverted to avoid short circuits.
- ✓ Low height casing design
- ✓ Increased actual piping length up to 120 m

VRV Development History

To meet the needs of the times, we've been continuously developing technologies as the leading air conditioning manufacturer in the world.

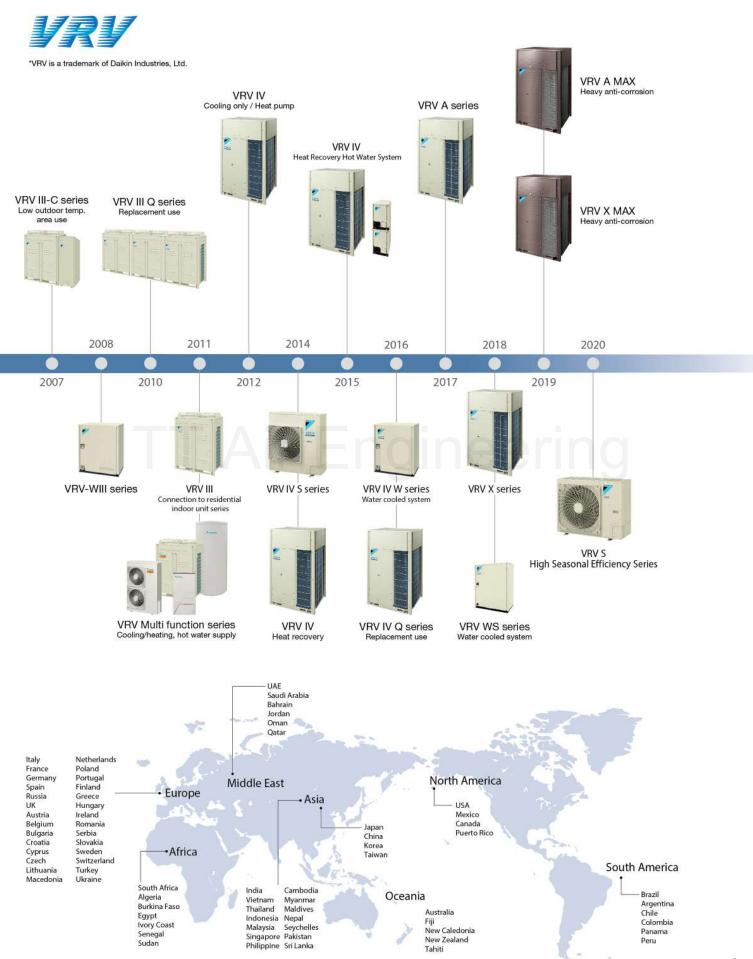


The birth of innovative products that changed the history of air conditioning technology

- 2.5-year development term
- Completion of development in May, 1982
- Technical award of Japan Society of Refrigerating & Air-conditioning Engineers in 1983

Expansion of the country of sale

Sales companies well established in more than 70 countries



Wide Variety of Series Models to Supply Total Air Solutions



URU X SERIES



New heights in energy efficiency during actual operation

The VRV X series features new models specially developed for higher efficiency. All compressors used in outdoor units are new scroll compressors designed to enhance energy efficiency.

HP	6	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
Single outdoor units		•		•	•	•	•	•																				
Double outdoor units				•	•	•	•	•	0	•	•	•		•	•	•	•	•										
Triple outdoor units							•	•											•	•	•	•	•	•	•	•	•	



380-415 V, 50 Hz

VRV A SERIES



Saves space and delivers excellent performance

The VRV A series achieves high efficiency in a design that is more compact and lightweight. It also offers comfort, easy installation, and high reliability to meet the needs in various buildings.

HP	6	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
Single outdoor units		•		•		•	•	•				V		7														
Double outdoor units	Т				J.		•		•	•	•	•		•	•	•	•	•										
Triple outdoor units																				•	0		•	•	•	•		•



VRV S High Seasonal Efficiency SERIES

Especially designed for residential houses, small office and shops

New VRV S High Seasonal Efficiency series achieves higher energy efficiency with a variety of function for comfort and high performance. A wide range of options for installation location and application are easily achieved by the low height casing, long piping length and other features.

Lineup						
HP	4	5	6	7	8	9
Cooling Only	0	•	•	•	•	



VRV IV S SERIES

Especially designed for residential houses, small offices and shops

VRV IV S series aims to provide sufficient capacity, along with the compact size required by residential houses, small offices and shops. Outdoor units are designed to be slim and space saving to suit your needs.

ineup			
HP	4	5	6
Cooling Only		•	0

From residential houses to large buildings, and from newly constructed to renovated buildings, VRV system meets a wide range of air conditioning needs and supplies total air solutions.



RQQ-T 3-phase 4-wire system, 380-415 V, 50 Hz

URV IV Q SERIES

For quick & high quality replacement use

VRV IV Q series, a replacement VRV unit, can be installed using existing refrigerant piping, so renovation of the air conditioning system can be carried out quickly and smoothly. This minimises inconveniences to activities and users in the building.

	ıe	

HP	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
Standard Type	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Space Saving Type							•	•					•	•	•	•	•	•	•	•	•	•



RWEYQ-T 3-phase 4-wire system, 380-415 V, 50 Hz

VRV IV W SERIES

Water cooled system suitable for tall multi-storied buildings

Water cooled VRV IV W series utilises water as a heat source. The temperature of heat source water can be from 10° C to 45° C, and outdoor air temperature does not affect cooling capacity. The outside unit is compact and saves space in the machine room.

Lineup																
HP	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36
Cooling Only		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•



VRV WS SERIES

Water cooled system suitable for residential houses

Water cooled VRV WS series outside units are designed to be compact and lightweight, and single phase power supply enables simplified installation in residential applications.

Lineup			
HP	4	5	6
Cooling Only	•		



VRV IV HEAT RECOVERY HOT WATER SYSTEM

Comfortable air conditioning and energy-efficient hot water heating

This energy-efficient, multifunction system recovers waste heat generated by air conditioning, as energy to heat water. It is suitable for different business applications and provides flexible combination of VRV IV indoor units achieving comfort and aesthetic.

HP	6	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
High-COP Type				•	•	•	•	•	•	•	•	•	0		•	•	•	•		•	•	•						
Standard Type	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Space Saving Type					J.		•	•	•		•	•	•	•	•	•	•	•	•	•	0	•	•					

171 S High Seasonal Efficiency SERIES

The Ideal Air Conditioning System for Residential Houses,
Small Offices and Shops

Cooling Only 4HP-9HP (12.1 kW) (24 kW)



Presentation Movie

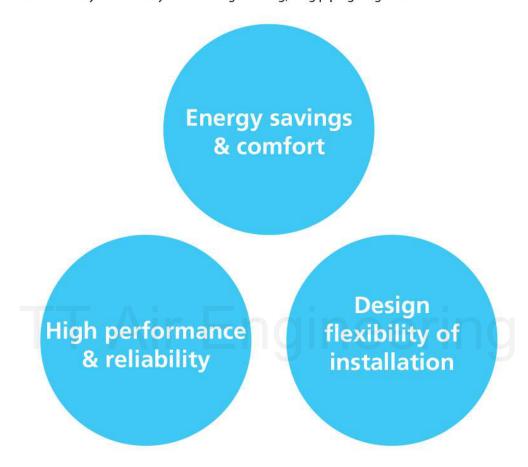




RSUQ4-6AVMS RSUQ7-9AYMS

The VRV S High Seasonal Efficiency Series concept

New VRV S High Seasonal Efficiency Series achieves higher energy efficiency with a variety of function for comfort and high performance. A wide range of options for installation location and application are easily achieved by the low height casing, long piping length and other features.



Energy savings & comfort

- ✓ Higher energy efficiency
- ✓ VRT Smart Control
- ✓ Quiet operation

High performance & reliability

- ✓ Extended operation range up to 52°C
- ✓ High voltage shield PCB
- ✓ Automatic refrigerant charge function

Design flexibility of installation

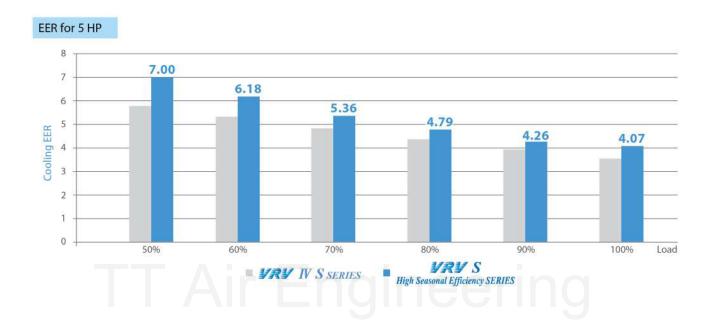
- ✓ The high external static pressure of 40 Pa enables installation in small installation spaces where the
 airflow direction needs to be diverted to avoid short circuits.
- ✓ Low height casing design
- √ Increased actual piping length up to 120 m

Energy Savings & Comfort

Energy savings

■ High seasonal efficiency

The VRT Smart Control enables improvements on efficiency during low load operation, achieving high seasonal efficiency.



■ VRT Smart Control

Calculate

· Indoor airflow rate

Target refrigerant temperature

VRT Smart function is available in the VRV S High Seasonal Efficiency Series for the first time. Coordination between indoor and outdoor units minimizes energy consumption by optimising capacity to meet actual operation load.

Room temperature and set temperature

Coordinated control

Notes: • For the classification of indoor units (VRT smart control and VRT control), refer to pages 59 - 60.

Determine the target

refrigerant temperature

Compressor

speed control

[•] If a system has indoor units subject to both VRT smart and VRT control, the system is operated under VRT control.

[•] If a system has both outdoor-air processing air conditioners and outdoor-air processing type indoor units, VRT smart control and VRT control are disabled.

Comfort

Quiet operation

Low operation sound

New fan and bell mouth help enable low operation sound.

Ì	New	52	52	52	58	59	60	
	Cooling	4 HP	5 HP	6 HP	7 HP	8 HP	9 HP	
							dB(A	.)





The fan's V-cut enables streamlined and effective airflow.

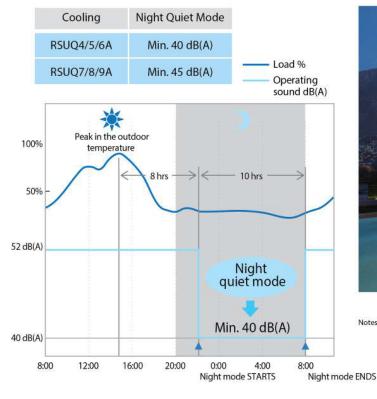
Irregular blade pitch also contributes to reduced airflow noise.

 $A^{\circ} < B^{\circ} < C^{\circ}$

Nighttime quiet operation function

The nighttime quiet operation function automatically suppresses the nighttime operating sound by reducing operation capacity to maintain the quiet environment of the neighborhood. Three selectable modes are available depending on the required level.

This function is suitable for use in residential areas.





Notes: • This function is available in setting at site.

- The operating sound in quiet operation mode is the actual value measured by our company.
- The relationship of outdoor temperature (load) and time shown above is just an example.
- In case of 4-6 HP outdoor unit

High Performance & Reliability

High temperature operation

Extended operation range up to 52°C

The outdoor operation temperature range is now extended to 52°C. This enables reliable operation even under high temperature conditions and a wider choice of installation locations.





Keep rated cooling capacity in high outdoor temperature up to 43°C*

Rated cooling capacity can be maintained even when outdoor temperature is up to 43°C*. *Rated cooling capacity for 9 HP is up to 42°C.



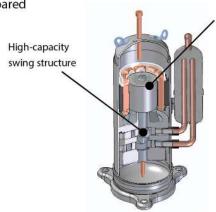
New swing compressor

High efficiency, high capacity DC inverter swing compressor

The new compressors offer higher performance compared to that of conventional scroll compressors.

Improved performance

The new DC motor designed with small-diameter bearing and improved efficiency during low-speed operation has improved seasonal efficiency.



New DC motor (high wire-efficiency winding/ high-efficiency magnet)

High voltage shield PCB (4-6 HP model only)

The high voltage shield PCB protects the electrical parts and prevents malfunctions at the highest voltage of 440 V.



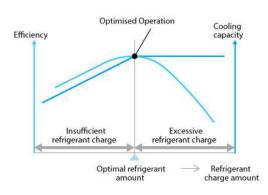
* Continuous operation range is 198 to 264 V.

Automatic refrigerant charge function

Contribute to optimised operation efficiency, higher quality and easier installation.

Optimised operation efficiency

This function prevents a capacity shortage or energy loss due to excessive or insufficient refrigerant.

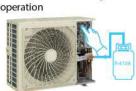


Higher quality and easier installation

The automatic refrigerant charge function automates the charging of the proper refrigerant amount and easy start by pressing one button.







Start of automatic refrigerant charge

- · Automatic completion by proper refrigerant amount
- No recalculation of charge amounts due to minor design changes locally

^{*} Must use automatic refrigerant charge function. Refer to installation manual for details.

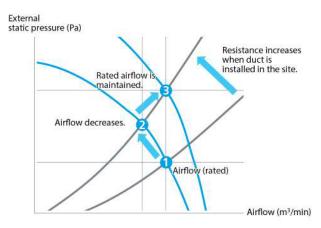
Design Flexibility of Installation

No short circuits

High external static pressure up to 40 Pa and automatic adjustment of external static pressure

The new VRV S High Seasonal Efficiency Series outdoor unit has been achieved high external static pressure up to 40 Pa, realizing stable operation in small installation sites where the air direction adjustment grille or duct is used to avoid short circuits.

The external static pressure automatic adjustment function maintains rated airflow and capacity by automatically adjusting the external static pressure during the test operation to suit the resistance of the installation site.



Optimum airflow direction with the optional air direction adjustment grille

When discharged air is blocked by some obstacle, the optional air direction adjustment grille can divert the airflow to one of 4 directions (up, down, left or right) to avoid the obstacle.



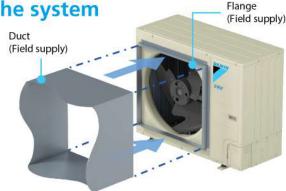
Wind is diverted upwards.

Wind is diverted sideways.





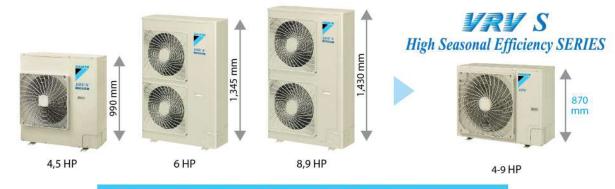
When the obstacle is not avoidable by the air direction adjustment grille, installing a field-supplied duct can bypass the obstacle. In this way, installation of the outdoor unit is possible in places like behind an advertising board.



Low height casing design

The new design has been optimised for the VRV S High Seasonal Efficiency Series with the height of all models reduced to only 870 mm. This low height casing design provides occupants with a clear, unobstructed view of the scenery.

Previous VRV IV S series

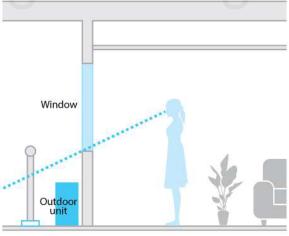


- Ideal solution that minimises both visual and sound impact
- Can be installed in a wide variety of locations and applications
- No space required for multiple outdoor units

View from outside

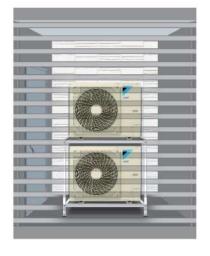


View from inside



Double-stacking installation possible

The low height casing design allows for compact double-stacking of outdoor units to maximize utilization of installation space.



Design Flexibility of Installation

Increased actual piping length up to 120 m*

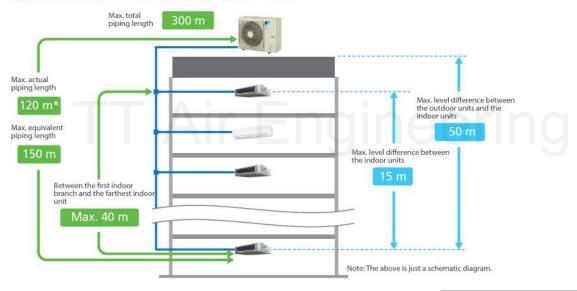
Actual piping length increased by 20% allows for various installation!

Installation on the rooftop of residential apartments





Installation for VRV indoor units only



			4 HP	5-9 HP
NX -1	Actual piping length (Equivale	ent)	120 m* (150 m)	120 m* (150 m)
Maximum allowable piping length	Total piping length		300 m	300 m
piping length	Between the first indoor bran	ch and the farthest indoor unit	40 m	40 m
Maximum allowable	Between the indoor units		10 m	15 m
level difference	Between the outdoor units	If the outdoor unit is above.	50 m	50 m
never difference	and the indoor units	If the outdoor unit is below.	40 m	40 m

^{*} Must use automatic refrigerant charge function. Refer to installation manual for details.

Indoor Unit Lineup

New lineup VRT Indoor units subject to VRT smart control

Indoor units subject to VRT control

Streamer Technology

Indoor units can be selected from 2 lineups, both VRV and residential indoor units, to match rooms and preferences.

Category	Туре	Model Nar	me	Capacity Range Capacity Index	20 0.8 HP 20	25 1 HP 25	32 1,25 HP 31,25	40 1.6 HP 40	50 2 HP 50	63 2.5 HP 62.5	71 3 HP 71	80 3.2 HP 80	100 4 HP 100	125 5 HP 125	140 6 HP 140	200 8 HP 200	250 10 HP 250	400 16 HP 400	500 20 H 500
	Round Flow Cassette	FXFSQ-AVS	VRT smart				•	•	•				•	•	•				
	with Sensing	FXFTQ-AVS	reamer	€ treamer		•	•	•	•	0		•	•	•	•				
ssette	Round Flow Cassette	FXFQ-AVS	VRT smart			•	•	•	•			•	•	•	•				
Seiling Mounted Cassette	NEV	FXFRQ-AVS 5	reamer	**************************************		•	•	•	•	•			•	•	•				
iling Mo	Compact Multi Flow Cassette	FXZQ-MVES	VRT	=	•	•		•	•										
Ce		FXZQ-AV2S	VRT smart		•	•	•	•	•										
	Double Flow Cassette	FXCQ-AVMS	VRT smart					•						•					
	Single Flow Cassette	FXEQ-AV36	VRT					•	•										
	3D Airflow Duct with Sensing	FXDSQ-AVM	VRT					•	•										
		FXDQ-PDV2S (with drain pump)	VRT smart																
	Slim Duct (Standard)	FXDQ-PDVTS (without drain pump)	VRT smart	(700 mm width type)															
せ	Sam Back (Standard)	FXDQ-NDV2S (with drain pump)	VRT smart																
ng pa		FXDQ-NDVTS (without drain pump)	VRT smart	(900/1,100 mm) width type															
nceal	Bedroom Duct	FXDBQ-AVMS (with drain pump)	VRT smart	1				•	•	•		•							
Ceiling Concealed Duct	Slim Duct (Compact)	FXDQ-SPV1	VRT			•	•	•	•		E								
o o	Middle Static Pressure Duct	FXSQ-PAVS	VRT smart			•	•		•						•				
	Middle-High Static Pressure Duct	FXMQ-PAVS	VRT smart																
	High Static Pressure Duct	FXMQ-MVES	VRT																
	Outdoor-Air Processing Unit	FXMQ-MFV1																	
		FXMQ-BFV2S																	
Ceiling Suspended	4-Way Flow Ceiling Suspended	FXUQ-AVEB	VRT										•						
g Sus	Ceiling Suspended	FXHQ-MAVS	VRT																
Ceilir	Celting Suspended	FXHQ-AVMS	VRT																
Wall	l Mounted	FXAQ-AVMS	VRT smart	(agentational)		•													
9	Floor Standing	FXLQ-MAVE	VRT																
andin	Concealed Floor Standing	FXNQ-MAVE	VRT																
Floor Standing	Floor Standing Duct	FXVQ-NY1 FXVQ-NY16	VRT	2500													•		(
		(high static pressure type) FXBQ-PVE	VRT																02
Clear	n Room Air Conditioner	FXBPQ-PVE	VRT							•									
	t Reclaim Ventilator DX-Coil	VKM-GAV1			Airf	low ra	ate 50	0-100	0 m3/	h									
Heat	t Reclaim Ventilator 🐠	VAM-HVE		00	Airf	low ra	ate 15	0-200	0 m3/	h									
Air F	Handling Unit	AHUR		U													6-120	HP	
Duct	t Streamer Chamber 🐠	BDEZ500A-VE	reamer		Airf	low ra	ate 80	-5100	m3/h										

Outdoor Units

VRV S High Seasonal Efficiency Series

Specifications



Sound level: Anechoic chamber conversion value, measured at a point 1 m in front of the unit at a height of 1.5 m.
 During actual operation, these values are normally somewhat higher as a result of ambient conditions and oil recovery mode.

When there is concern for noise the surrounding area such as residences, we recommend investigating the installation location and taking soundproofing measures.

Outdoor unit combinations

MODEL			RSUQ4AVMS	RSUQ5AVMS	RSUQ6AVMS	RSUQ7AYMS	RSUQ8AYMS	RSUQ9AYMS
kW HP			12.1	14.0	16.0	20.0	22.4	24.0
			4	5	6	7	8	9
Capacity index			100	125	150	175	200	215
Total capacity	Combination(%)	50%	50	62.5	75	87.5	100	107.5
index of connectable		100%	100	125	150	175	200	215
indoor units		130%	130	162.5	195	227.5	260	280
Maximum number of connectable indoor units			6	8	9	11	13	14

Note: Total capacity index of connectable indoor units must be 50%-130% of the capacity index of the outdoor unit.

Note: Specifications are based on the following conditions;
-Cooling: Indoor temp.: 27°CDB, 19°CWB;; *27°CDB, 19.5°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.

[·] Refrigerant charge is required.

Option List

Outdoor units

VRV S High Seasonal Efficiency SERIES

No.	Type	RSUQ4A R	SUQ5A	RSUQ6A	RSUQ7A	RSUQ8A	RSUQ9A	
1	Header pack		BI	HF6RHP6Z, BHF6A	RHP6Z, BHF8RHP6	Z		
2	REFNET header KHRP26M22H (Max. 4 branch), KHRP26M33H (Max. 8 branch)							
3	REFNET joint	KHRP26A22T KHRP26A33T						
4	Drain plug	BKP082A41						
5	Air direction adjustment grille	KPW082A41						

Option PCB

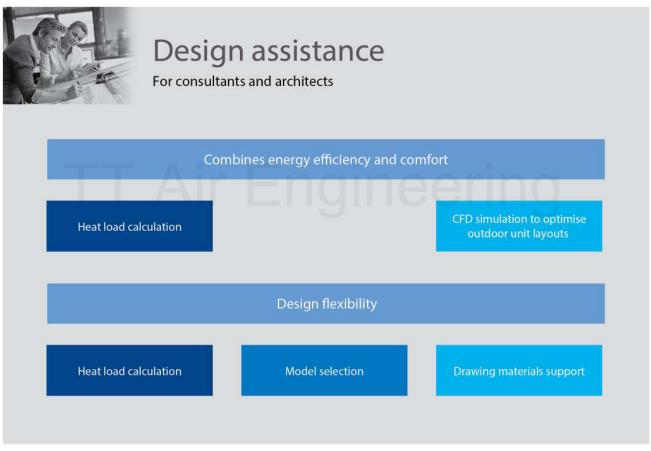
No.	Type	RSUQ4A RSUQ5A	RSUQ6A	RSUQ7A	RSUQ8A	RSUQ9A		
1	DIII-NET expander adaptor		DTA1	09A51				
2	External control adaptor	DTA104A61						
3	Home Automation Interface Adaptor		DTA1	A116A51				
4	Option plate for control adaptor	BKS26B		BKS26C				

Daikin Engineering Supports

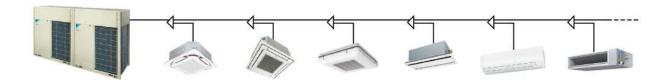
VRV design and sales proposal assistance

Daikin provides engineering supports for VRV systems. It consists of design supports that can assist consultants and architects, as well as sales proposal supports for air conditioning engineers and dealers. We at Daikin provide the software, the simulation results, and drawing materials to support the building information modeling (BIM) currently entering the mainstream in construction industries.









Model selection software

CADX press is a flexible design software that optimises equipment selection and CAD drawing. It can empower consultants and air conditioning engineers so they can fully enhance their equipment selections to design the most effective, optimum systems possible. The software also allows the choice of outdoor units based on peak loads rather than the sum of required capacities for each indoor unit. This fine-tuning feature reduces VRV system sizes and increases efficiency.

Additionally, the CAD function enables automatic calculation of piping diameter and length without any need for CAD software.

CADXpress



CFD simulation to optimise outdoor unit layouts

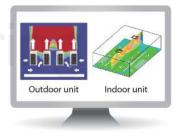
DT FLOW 2 is a simulation software that uses computational fluid dynamics (CFD), aiming to optimise outdoor unit layouts right at the design stage.

When discharged air from the outdoor unit is drawn back into the suction vent, it can short circuit the system and lead to: decrease in efficiency of cooling operations, capacity shortages, operation cut-offs, and shorter lifetime for the outdoor unit. To avoid the need for expensive layout modifications once construction is complete, Daikin uses the CFD method at the early design stage. This can help consultants and architects optimise their outdoor unit arrangement.

New software for indoor airflow simulation will be coming soon.

Indoor airflow simulation is a method for predicting temperature distribution and velocity distribution of indoor environment.

DT FLOW 2



Heat load calculation

DS-HL2 uses ASHRAE's Radiant Time Series method to compute heat load for a 24-hour period on summer and winter days. The Radiant Time Series considers the delay in heat load coming into the room through outer walls and the roof in the form of conduction and radiation. Airflow calculation for rooms can be performed. Detailed reports are available for different breakdown requirements. Additional monthly calculation is also available with an advanced license tier.

24-hour weather data for all major cities is based on data recorded from past years.

DS-HL2



Drawing supports

Users download CAD symbol drawing materials, including 2D CAD symbols and 3D Revit data, for VRV systems designing. The 3D Revit data contains specifications for Daikin products, including things like capacities and electric characteristics to support Building Information Modeling (BIM).

CAD Symbols



VRV User Benefits



For property OWNERS

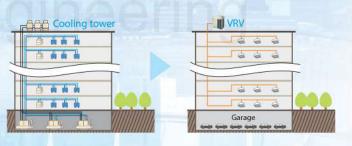
Energy saving & comfortable environment

- VRT Smart greatly reduces the energy by optimising the capacity according to heat load, especially during low-load operation.
- Comfortable indoor environment is maintained at the time.



Efficient space utilisation

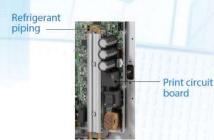
- When construct a large-scale air conditioning system on a single refrigerant system, space for air conditioning is drastically reduced.
- Even with a 20-storey building all of the outdoor units can be installed on the rooftop.



High reliability

- Refrigerant cooled PCB
 Daikin's unique refrigerant cooling helps maintain
 high cooling capacity even during high outdoor
 temperatures.
- Double backup operation
 Unit backup & Compressor backup ensure continuous operation.





Heavy anti-corrosion model
 The heavy anti-corrosion
 models can provide
 durable operation at
 humid and seaside areas.
 Also, outdoor unit can
 be installed from 0 m
 from coastline.





For USERS

Comfortable environment

 VRT Smart operation maintains the indoor temperature and ensures a comfortable environment.

Residential indoor units

- Residential indoor units can be connected and it is possible to realise quiet operation.
- By remotely installing an BP unit, the noise of refrigerant passing though the piping can be reduced.







For CONSULTANT and DESIGN OFFICES

Varied lineup of models

With various types of indoor units available, comfortable airflow is ensured in every space.

Long piping provides more flexible system design

- Maximum equivalent piping length between indoor and outdoor unit is 190 m.
- Maximum height difference is 90 m.

Compatible with engineering software

• Daikin provide the software, the simulation results, and drawing materials to support the building information modeling (BIM) currently entering the mainstream in construction industries.



 Achieves your green building solution by Daikin's innovative energy-saving technology.







For INSTALLERS

Automatic refrigerant charge function

 Automates the charging of proper refrigerant amount to contribute to optimised operation efficiency, higher quality and easier installation.

Lightweight and compact large-capacity single units

• Easy to install and can be transported in elevators.

Simple piping, easy wiring

• The REFNET piping system and DIII-NET system simplify refrigerant piping and control wiring installation.



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Tel. 0-2838-3200

Fax. 0-2721-7607



VRV is a trademark of Daikin Industries, Ltd.

This product complies with TIS1529-2561 and covers the air conditioner total cooling capacity up to 18000 W.

VRV is a trademark of Daikin Industries, Ltd.

VRV Air Conditioning System is the world's first individual air conditioning system with variable refrigerant flow control and was commercialised by Daikin in 1982.

VRV is the trademark of Daikin Industries, Ltd., which is derived from the technology we call "variable refrigerant volume."

Specifications, designs and other content appearing in this brochure are current as of October 2020 but subject to change without notice.

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