



SGPCV2001

Perfecting the Air

VRV S SERIES

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

Cooling Only
7 HP – 9 HP
(20 kW) (24 kW)

New



RSUQ7-9AYM

Exceeding Boundaries with Innovative Energy Savings

First launched in Japan in 1982, the Daikin **VRV** system has been embraced by world markets for over 35 years. Daikin proudly introduces the advanced **VRV** system. By combining the technologies of **VRV**, **VRT** and **VAV**, we have attained both energy savings and comfortable air conditioning.

VRV *S SERIES*

New



RSUQ7-9AYM

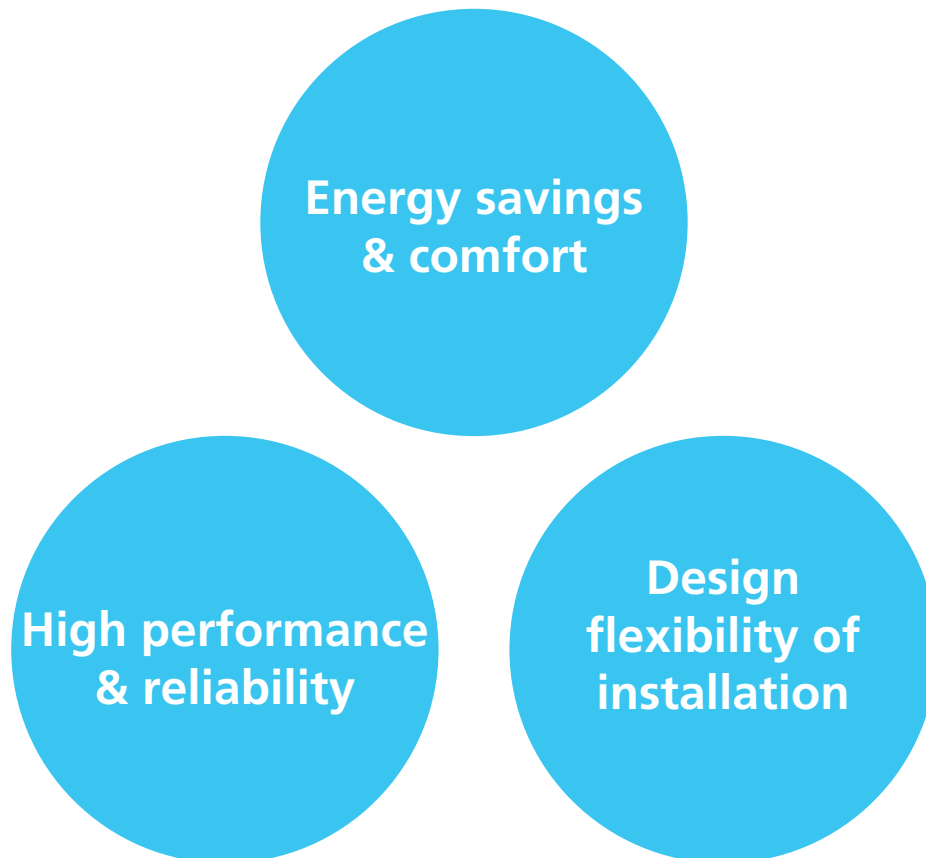
Contents

The VRV S Series Concept	2
Energy Savings & Comfort	3
High Performance & Reliability	5
Design Flexibility of Installation	7
Indoor Unit Overview	11
Outdoor Unit Overview	13

*VRV is a trademark of Daikin Industries, Ltd.

The VRV S Series concept

New VRV S 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

- ✓ 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

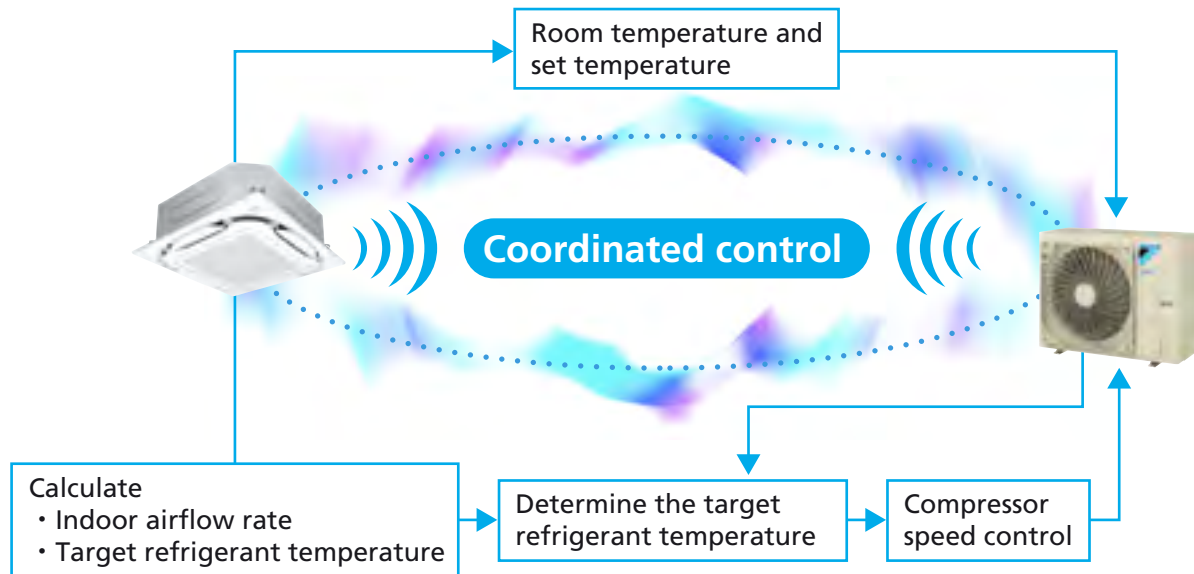
- ✓ The high external static pressure of 40 Pa enables installation in small installation spaces where the airflow direction needs to be diverted to avoid short circuits.
- ✓ Low height casing design
- ✓ Increased actual piping length up to 120 m

Energy Savings & Comfort

Energy savings

VRT Smart Control

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



Notes: • For the classification of indoor units (VRT smart control and VRT control), refer to pages 11-12.
• 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

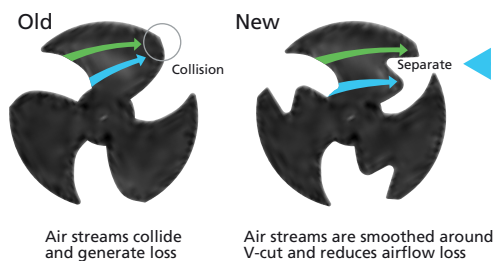
New fan and bell mouth help enable low operation sound.

Cooling	7 HP	8 HP	9 HP
New	58	59	60

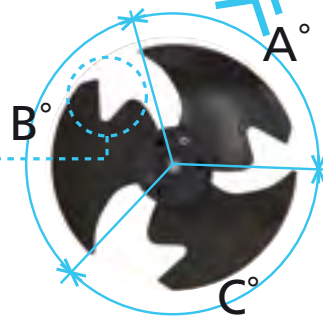
dB(A)



V-cut & irregular pitch propeller fan



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



Irregular blade pitch also contributes to reduced airflow noise.

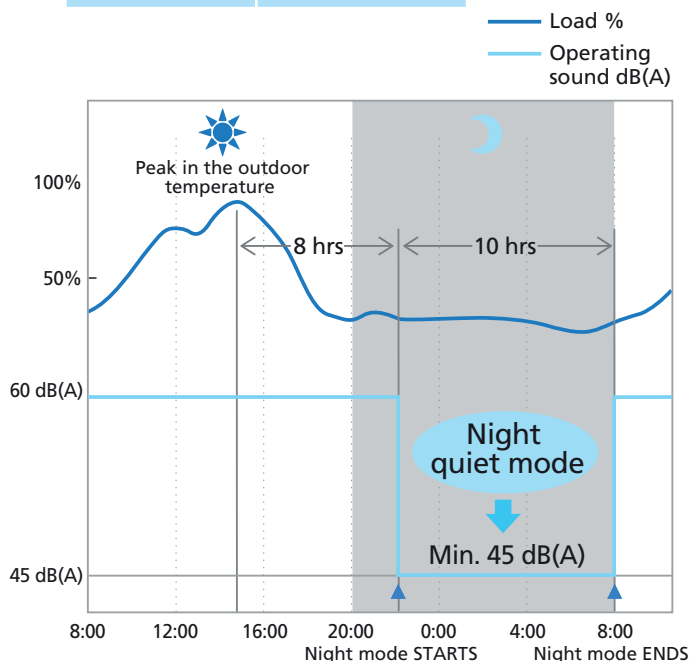
$$A^\circ < B^\circ < C^\circ$$

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.

Cooling	Night Quiet Mode
RSUQ7/8/9A	Min. 45 dB(A)



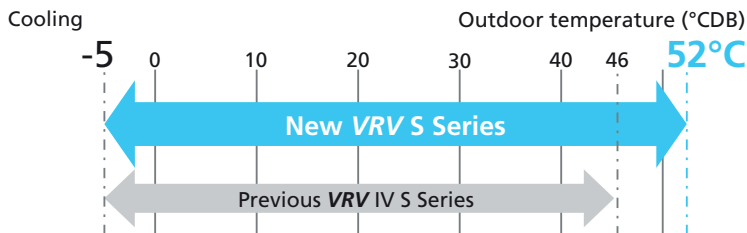
- Notes:
- This function is available in setting at site.
 - The operating sound in quiet operation mode is the actual value measured by our company.
 - The relationship of outdoor temperature (load) and time shown above is just an example.

High Performance & Reliability

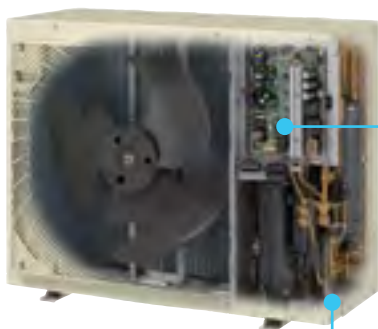
High temperature operation

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.



The refrigerant-cooled PCB and large 3-row heat exchanger raise the maximum cooling outdoor operation temperature from 46°C to 52°C.



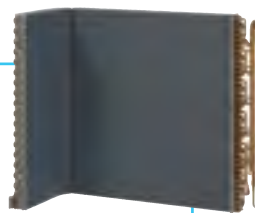
Refrigerant cooled PCB

Daikin's unique refrigerant cooling helps maintain high cooling capacity even during high outdoor temperatures.



New heat exchanger

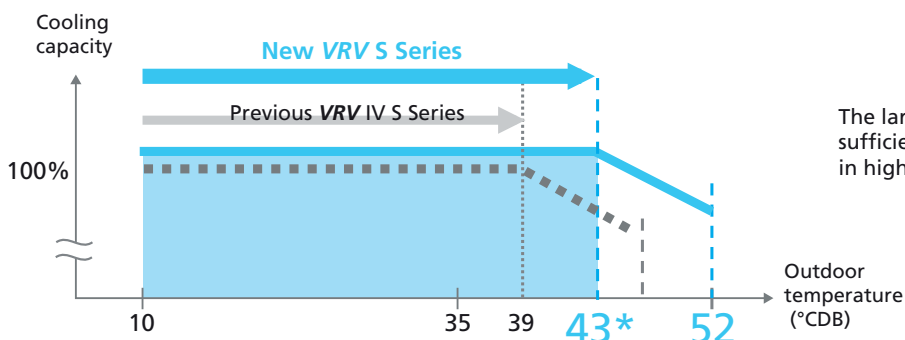
- 2-sided 3-row
- Increased heat exchanger area



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.



The large heat exchanger ensures sufficient cooling capacity even in high ambient temperatures.

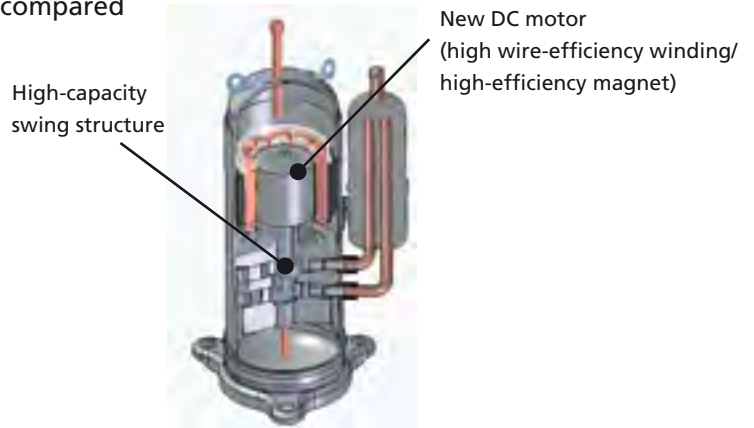
New swing compressor

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.

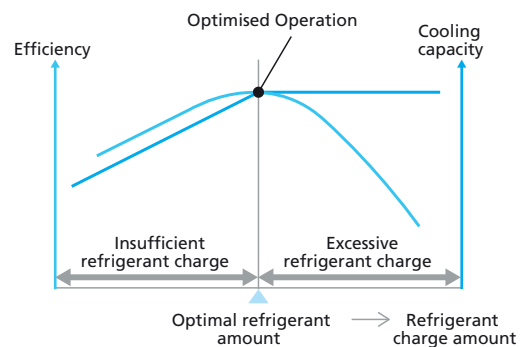


Automatic refrigerant charge function

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

Optimised operation efficiency

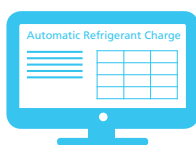
This function prevents a capacity shortage or energy loss due to excessive or insufficient refrigerant.



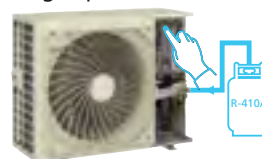
Higher quality and easier installation

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

1 Calculation of necessary refrigerant amount from design drawing



2 Start of automatic refrigerant charge operation



- Automatic completion by proper refrigerant amount
- Monitoring refrigerant charging is unnecessary
- No recalculation of charge amounts due to minor design changes locally

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

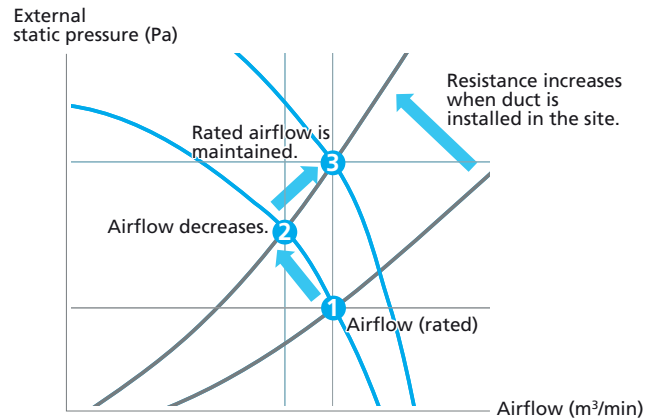
Design Flexibility of Installation

No short circuits

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

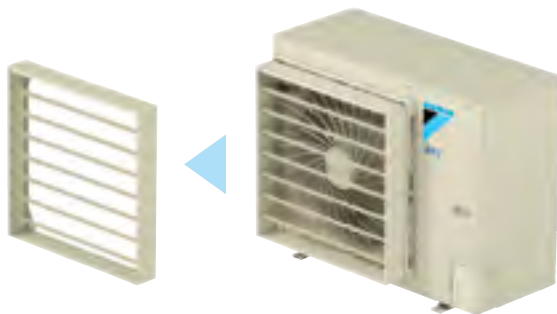
The new **VRV S Series** outdoor unit has been achieved high external static pressure up to 40 Pa, realizing stable operation in small installation sites where the air direction adjustment grille or duct is used to avoid short circuits.

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.



Air direction adjustment grille (option)

Wind is diverted upwards.

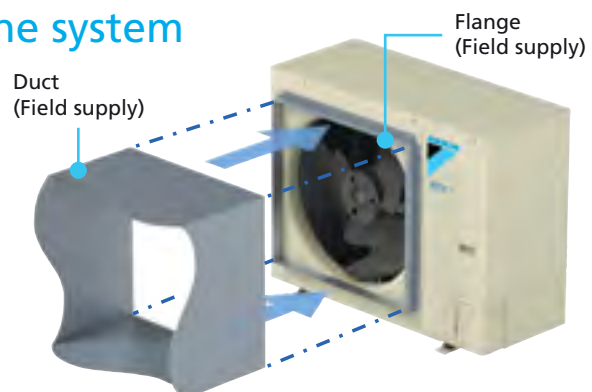


Wind is diverted sideways.



■ Duct installation to stabilize the system

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 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



8,9 HP

New

VRV S SERIES



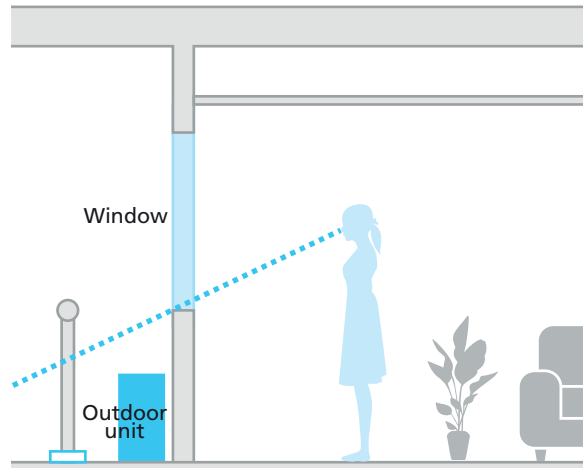
7-9 HP

- 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

Previous **VRV IV S** series

VRV S SERIES

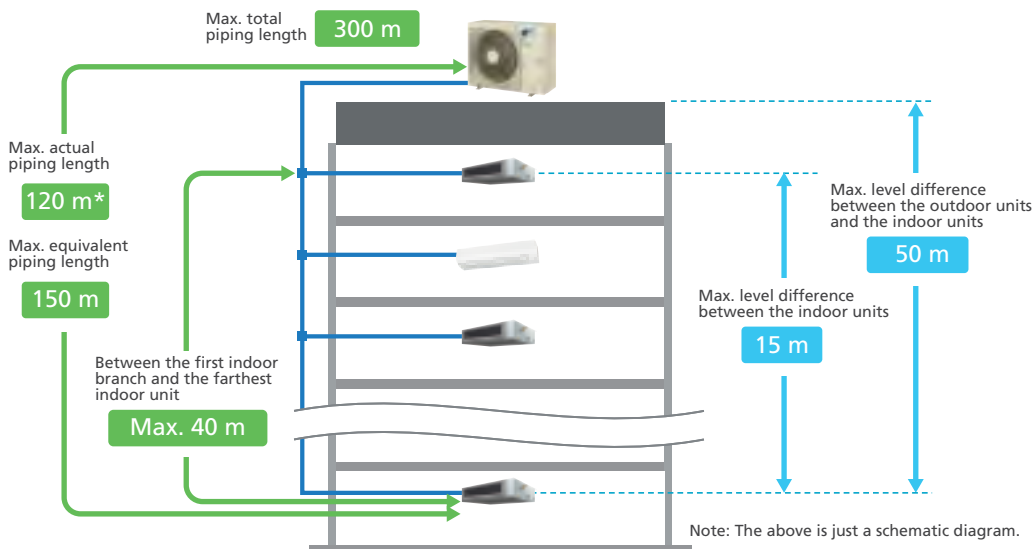
100 m



120 m*



Installation for **VRV** indoor units only



Maximum allowable piping length	Actual piping length (Equivalent)	7-9 HP	
	Total piping length	120 m* (150 m)	
	Between the first indoor branch and the farthest indoor unit	40 m	
Maximum allowable level difference	Between the indoor units	15 m	
	Between the outdoor units and the indoor units	If the outdoor unit is above.	50 m
		If the outdoor unit is below.	40 m

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

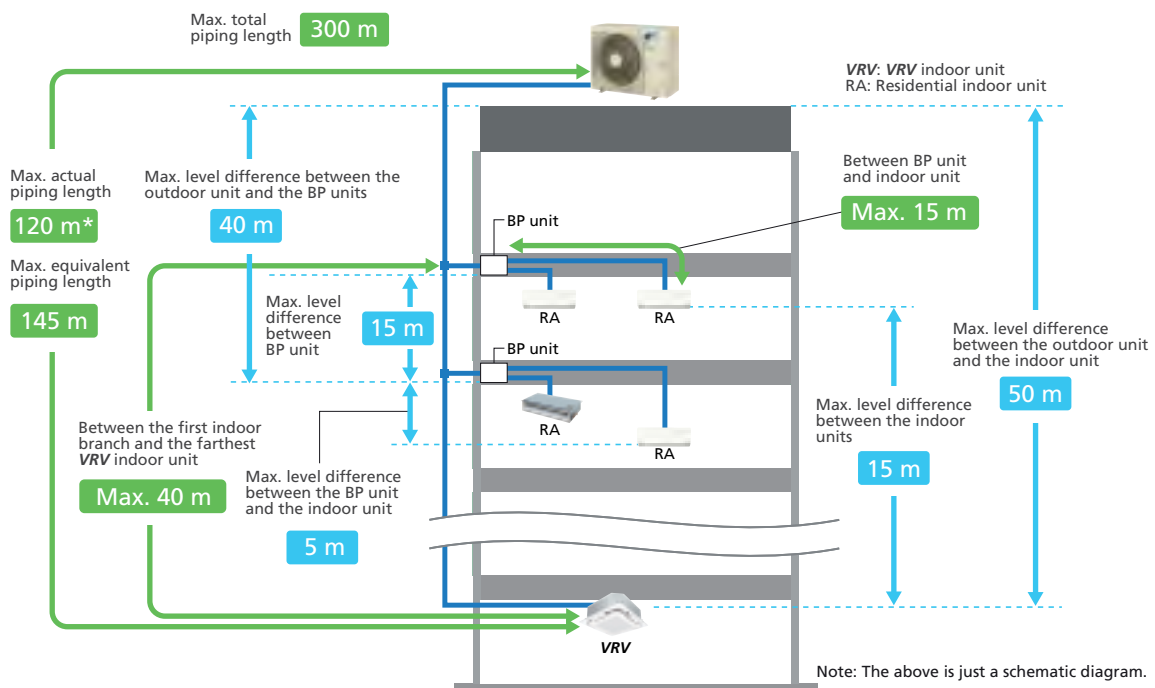
Installation on balconies of residential apartments



One outdoor unit can provide comfort for the whole house



Installation for mixed combination of VRV and residential indoor units



		7-9 HP	
Maximum allowable piping length	Actual piping length (Equivalent)	120 m* (145 m)	
	Total piping length	300 m	
	Between BP unit and indoor unit	If indoor unit capacity index < 60.	2 m-15 m
		If indoor unit capacity index is 60.	2 m-12 m
If indoor unit capacity index is 71.		2 m-8 m	
	Between the first indoor branch and the farthest BP unit or between the first indoor branch and the farthest VRV indoor unit	40 m	
Minimum allowable piping length	Between outdoor unit and the first indoor branch	5 m	
Maximum allowable level difference	Between the indoor units	15 m	
	Between BP units	15 m	
	Between the outdoor unit and the indoor unit	If the outdoor unit is above.	50 m
		If the outdoor unit is below.	40 m
	Between the outdoor unit and the BP unit	40 m	
	Between the BP unit and the indoor unit	5 m	

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

Indoor Unit Lineup

Wide variety of indoor units

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

VRV indoor units
















































 New lineup

 VRT smart

Indoor units subject to VRT smart control

 VRT

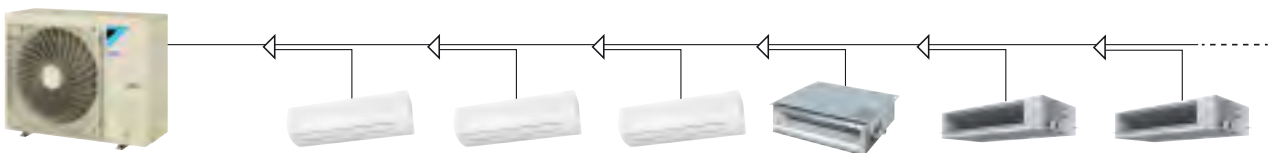
Indoor units subject to VRT control

Category	Type	Model Name	Capacity Range	20	25	32	40	50	63	71	80	100	125	140	200	250	
				0.8 HP	1 HP	1.25 HP	1.6 HP	2 HP	2.5 HP	3 HP	3.2 HP	4 HP	5 HP	6 HP	8 HP	10 HP	
				Capacity Index	20	25	31.25	40	50	62.5	71	80	100	125	140	200	250
Ceiling Mounted Cassette	Round Flow Cassette with Sensing	FXFSQ-AVM 			●	●	●	●	●		●	●	●	●			
	Round Flow Cassette	FXFQ-AVM 			●	●	●	●	●		●	●	●	●			
	Compact Multi Flow Cassette	New FXZQ-AVM 		●	●	●	●	●									
	Double Flow Cassette	FXCQ-AVM 		●	●	●	●	●	●		●		●				
	Single Flow Cassette	FXEQ-AV36 		●	●	●	●	●	●								
Ceiling Concealed Duct	3D Airflow Duct with Sensing	FXDSQ-AVM 		●	●	●	●	●	●								
	Slim Duct (Standard)	FXDQ-PDVE (with drain pump) 		●	●	●											
		FXDQ-PDVET (without drain pump) 		●	●	●											
		FXDQ-NDVE (with drain pump) 					●	●	●								
		FXDQ-NDVET (without drain pump) 					●	●	●								
	Slim Duct (Compact)	FXDQ-SPV1 		●	●	●	●	●	●								
	Middle Static Pressure Duct	FXSQ-PAVE 		●	●	●	●	●	●		●	●	●	●			
	Middle-High Static Pressure Duct	FXMQ-PAVE 		●	●	●	●	●	●		●	●	●	●			
	High Static Pressure Duct	FXMQ-MVE9 													●	●	
Outdoor-Air Processing Unit	FXMQ-MFV1 											●		●			
Ceiling Suspended	4-Way Flow Ceiling Suspended	FXUQ-AVEB 								●		●					
	Ceiling Suspended	FXHQ-MAVE 				●			●			●					
		FXHQ-AVM 											●	●			
Wall Mounted	FXAQ-AVM 		●	●	●	●	●	●									
Floor Standing	Floor Standing	FXLQ-MAVE 		●	●	●	●	●	●								
	Concealed Floor Standing	FXNQ-MAVE 		●	●	●	●	●	●								
	Floor Standing Duct	FXVQ-NY1 										●		●	●		
Clean Room Air Conditioner	FXBQ-PVE 					●	●	●									
	FXBPQ-PVE 								●								
Heat Reclaim Ventilator	VAM-GJVE 		Airflow rate 150-2000 m³/h														

Residential indoor units with connection to BP units

Type	Model Name	VRT	Image	Rated Capacity (kW)	25	35	50	60	71
				Capacity Index	2.5	3.5	5.0	6.0	7.1
					25	35	50	60	71
Slim Ceiling Concealed Duct	FDKS-EAVMB	VRT			●	●			
	FDKS-C(A)VMB	VRT			●	●	●	●	
Wall Mounted	FTKJ-NVMW	VRT			●	●	●		
	FTKJ-NVMS	VRT			●	●	●		
	FTKS-DVM	VRT			●	●			
	FTKS-BVMA	VRT					●		
	FTKS-FVM	VRT					●	●	●

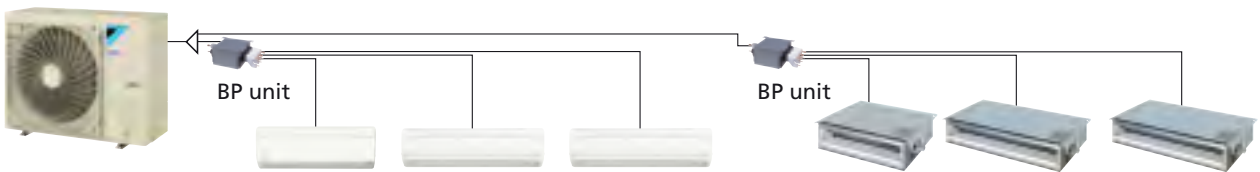
Note: BP units are necessary for residential indoor units.



VRV indoor units only

Max. 14 indoor units

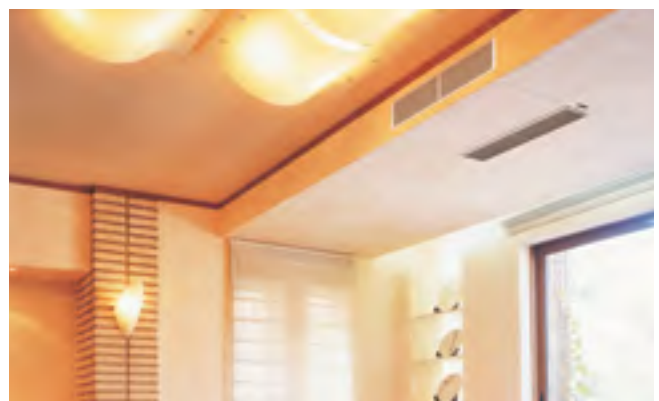
- If a system has indoor units subject to both VRT smart and VRT control, the system is operated under VRT control.
- If a system has both outdoor-air processing air conditioners and outdoor-air processing type indoor units, VRT smart control and VRT control are disabled.



Residential indoor units only

Max. 14 indoor units





- BP units are necessary for residential indoor units.
- If a system has only residential indoor units, the system is operated under VRT control.



Outdoor Units

VRV S Series

Specifications

					
					
MODEL			RSUQ7AYM	RSUQ8AYM	RSUQ9AYM
Power supply			3-phase, 380-415 V/380 V, 50/60 Hz		
Cooling capacity	Btu/h		68,200	76,400	81,900
	kW		20.0	22.4	24.0
Power consumption	kW		5.46	6.61	7.21
Capacity control	%		9 to 100		
Casing colour			Ivory white (5Y7.5/1)		
Compressor	Type		Hermetically sealed swing type		
	Motor output	kW	1.9	3.2	3.8
Airflow rate	m ³ /min		123		137
Dimensions (HxWxD)	mm		870x1,100x460		
Machine weight	kg		115		
Sound level	dB(A)		58	59	60
Operation range	°CDB		-5 to 52		
Refrigerant	Type		R-410A		
	Charge	kg	5.4		
Piping connections	Liquid	mm	φ 9.5 (Flare)		
	Gas	mm	φ 19.1 (Brazing)		φ 22.2 (Brazing)

Note: Specifications are based on the following conditions;

- Cooling: Indoor temp.: 27°CDB, 19°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.
 - 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.
 - Refrigerant charge is required.
- 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			RSUQ7AYM	RSUQ8AYM	RSUQ9AYM
kW			20.0	22.4	24.0
HP			7	8	9
Capacity index			175	200	215
Total capacity index of connectable indoor units	Combination (%)	50%	87.5	100	107.5
		100%	175	200	215
		130%	227.5	260	280
Maximum number of connectable indoor units			11	13	14

Note: Total capacity index of connectable indoor units must be 80%-130% of the capacity index of the outdoor unit.



Perfecting the Air

Warning



- Ask a qualified installer or contractor to install this product. Do not try to install the product yourself. Improper installation can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Use only those parts and accessories supplied or specified by Daikin. Ask a qualified installer or contractor to install those parts and accessories. Use of unauthorised parts and accessories or improper installation of parts and accessories can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Read the user's manual carefully before using this product. The user's manual provides important safety instructions and warnings. Be sure to follow these instructions and warnings.

If you have any enquiries, please contact your local importer, distributor and/or retailer.

Cautions on product corrosion

1. Air conditioners should not be installed in areas where corrosive gases, such as acid gas or alkaline gas, are produced.
2. If the outdoor unit is to be installed close to the sea shore, direct exposure to the sea breeze should be avoided. If you need to install the outdoor unit close to the sea shore, contact your local distributor.



Daikin Airconditioning (Singapore) Pte. Ltd.

10 Ang Mo Kio Industrial Park 2 Singapore 569501

Phone: +65 5583 8888

Email: sales@daikin.com.sg

Website: www.daikin.com.sg

Office Operating Hours

Mon to Fri: 8.30am to 6pm

Sat, Sun & Public Holiday: Closed

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 March 2021 but subject to change without notice.

©All rights reserved

SGPCV2001