

VRV III-S

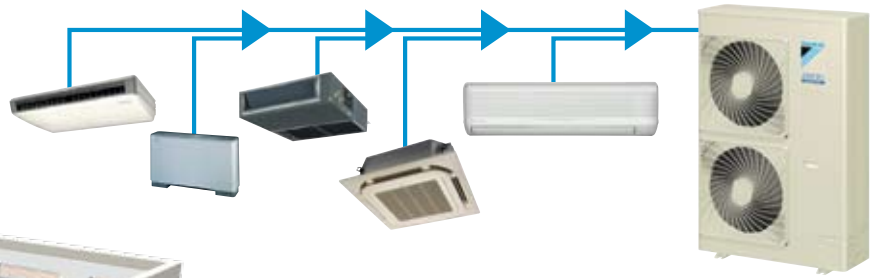
LIGHT COMMERCIAL
RESIDENTIAL



The Solution

For Light Commercial and Residential Applications

**HEAT PUMP
INVERTER
R-410A**

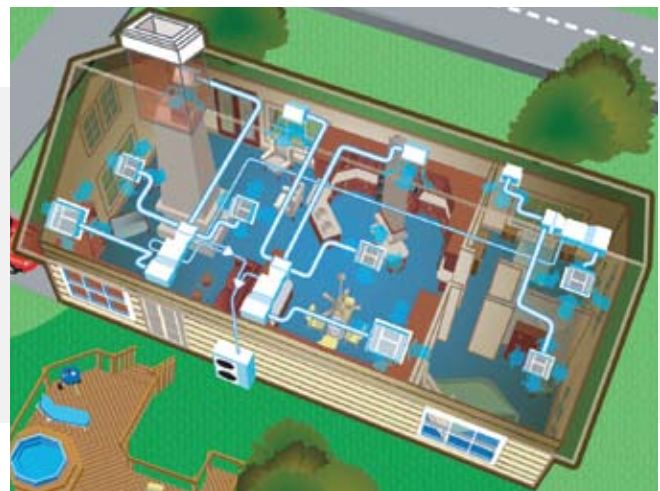


Light commercial

The VRVIII-S system is a highly efficient solution for small commercial buildings requiring heating and cooling of up to 8 zones. A mix of ducted and duct-free indoor units can be combined to provide individual comfort and ease of installation. Imagine a small office application with the reception, the meeting room, the president's office; all part of the same system but yet able to have different set temperatures or being shut off without affecting other areas, realizing tremendous energy savings compared to traditional centralized systems.

Whether you are working with space constraints or want to maximize the amount of commercial space available, the VRVIII-S system gives you the flexibility you need. With its simple, versatile design and long piping (up to 492ft actual piping length one way), the VRVIII-S can accommodate practically any floor layout, enabling better use of space.

Its advanced zoning capabilities allow floor-by-floor installation so that each floor can be occupied quickly upon completion. And, because the outdoor units are lightweight and vibration-free, there's no need to reinforce floors, reducing both installation time and costs.



Residential

VRVIII-S is also an excellent alternative when building a new house or renovating. Its long piping length allows for multiple floors to be served from one condenser installed outside.

All indoor units come with fan speed control and operate extremely softly — as low as 28 decibels, the equivalent of rustling leaves.

Outdoor units have built-in noise-reducing features, including an automatic night mode function that lowers the sound level for any period of time specified.

A feature of particular importance for residential applications is the 'night set' mode, which can be set on site to function over a 9 hour period during which operating sound is reduced progressively in three increments of 3dB(A).

Intelligent to the core

At the core of the VRVIII®-S system is built-in intelligence that gives you independent zoning control with maximum flexibility and energy savings. With the ability to connect up to eight indoor units to one outdoor unit, the space-saving VRVIII-S system is ideal for most light commercial or residential projects.

All major components of the VRVIII-S outdoor units are engineered and manufactured by Daikin to ensure maximum performance, efficiency and Absolute Comfort

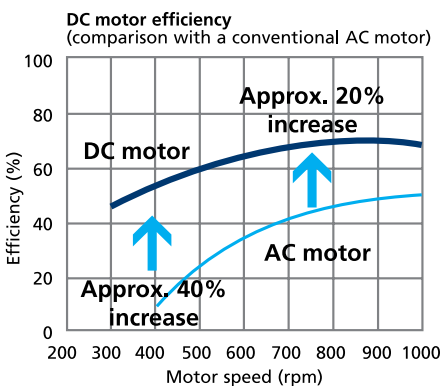
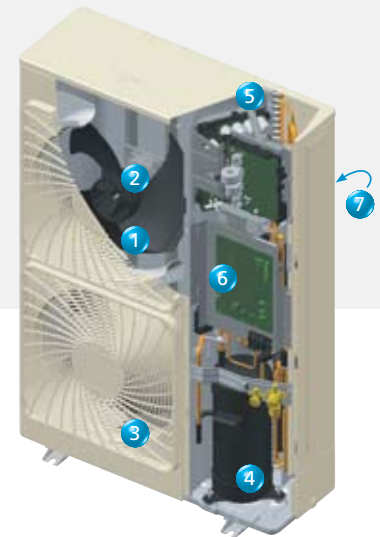
VRVIII-S Features:

The 7S for Success Concept

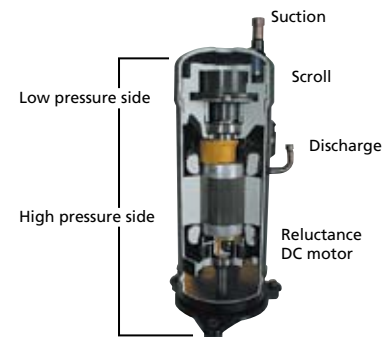
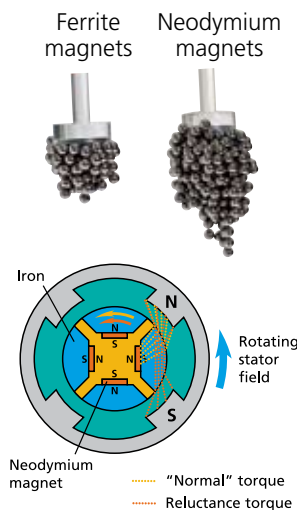
- **Single-phase technology** is perfect for light commercial and residential applications in 36,000 and 48,000 Btu/h models.
- **Smaller capacity** allows precise temperature control over every square inch of space.
- **Space-saving design** and flexible indoor unit options offer quick and easy installation.
- **Superior energy efficiency** results in lower operating costs especially under partial load conditions.
- **Soft sound level operation** ensures a comfortable fit in any room.
- **Single-supplier reliability.** The system - factory engineered and 80% complete upon delivery - is fully optimized by Daikin, plus has self-Diagnostics and one of the best warranties in the industry.
- **Straightforward maintenance** and service with self diagnosis function.

- 1 Noise-Reducing Air Inlet Bell Mouth & Aero Spiral Fan.** Bell mouth guides and bent-edge fan blades also reduce turbulence.
- 2 DC Fan Motor.** Improves efficiency compared to conventional AC motors, especially during low-speed rotation.
- 3 Super Aero Grille.** Spiral-shaped ribs align with direction of discharge flow to minimize turbulence and reduce noise.
- 4 Reluctance Brushless DC Compressor.** Significantly increases efficiency over AC inverter motors by using both normal and reluctance torque to produce extra power from small electric currents.
































































- 5 e-Bridge Circuit.** Increases evaporative capacity by adding super cooling prior to expansion cycle. This prevents accumulation of refrigerant in the condenser for greater energy efficiency.
- 6 i-Demand Function.** Optimizes energy consumption by using a current sensor to minimize the difference between actual and predefined power consumption.
- 7 e-Pass Heat Exchanger.** Improves operating efficiency by preventing heat transfer from the overheated gas section of the sub-cooled liquid section.



Note:
Data are based on studies conducted under controlled conditions at a Daikin laboratory.



VRV Indoor Units

Indoor Type		Capacity Range												
		MBH	7.5	09	12	18	24	30	36	42	48	54	72	96
		Tons	0.6	0.75	1	1.5	2	2.5	3	3.5	4	4.5	6	8
Ducted	Vertical air handling unit (horizontal right configuration is possible)	FXTQ_PAVJU 												
	DC ducted concealed ceiling (medium static)	FXMQ_PVJU 												
	Concealed ceiling unit (medium static)	FXMQ_MVJU 												
	Slim duct built-in concealed ceiling unit	FXDQ_MVJU 												
Duct-free	Round flow ceiling mounted cassette	FXFQ_PVJU 												
	2' x 2' 4-way ceiling mounted cassette	FXZQ_M7VJU 												
	Wall mounted unit	FXAQ_MVJU 												
	Ceiling suspended unit	FXHQ_MVJU 												
	Floor standing unit	FXLQ_MVJU 												
	Concealed floor standing unit	FXNQ_MVJU 												
Ventilation	100% Outside Air Processing Unit	FXMQ_MFVJU 												



Available (11 types, 51 models)



Condensate pump standard on model



Outside air connection possible on model

Note: 72 MBH and 96 MBH indoor units are not connectable to the VRVIII-S system

VRVIII-S Specifications

Condensing Units Specifications

VRVIII-S 208-230V Heat Pump			3-Ton	4-Ton
Model	Name		RXYMQ36PVJU	RXYMQ48PVJU
Performance	Cooling Capacity ¹	Btu/h	36,000	47,500
	Cooling Input Power	kW	Refer to Engineering Data Book	
	Heating Capacity ²	Btu/h	42,000	52,500
	Heating Input Power	kW	Refer to Engineering Data Book	
	Operation Range - Cooling	°F DB	23 - 115	23 - 115
	Operation Range - Heating	°F DB/°FWB	0 - 64/-5 - 60	0 - 64/-5 - 60
	Power	V/ph/Hz	208-230/1/60	208-230/1/60
	Sound Pressure Level @ 3ft.	dB(A)	58	58
Refrigerant Piping	Refrigerant Type and Quantity	(lbs.)	R-410A (8.8)	R-410A (8.8)
	Liquid Pipe (Main Line)	in.	3/8 (Flare)	3/8 (Flare)
	Suction Gas Pipe (Main Line)	in.	5/8 (Flare)	5/8 (Flare)
	Vertical Pipe Length	ft.	164	164
	Actual Pipe Length (Equivalent Length)	ft.	492	492
	Total Pipe Length	ft.	984	984
Connection Ratio	Connectable Indoor Unit Ratio	%	50-130%	
	Number of Indoor Units	Qty.	6	8
Unit	Weight	lbs.	283	283
	Dimensions (H x W x D)	in.	52 5/16 x 35 7/16 x 12 5/8	
Fan	Air Flow	cfm	3,740	3,740
	External Static Pressure	W.G.		
	Fan Motor Output and Quantity	kW (Qty.)	0.070	0.070
Electrical	Maximum Overcurrent Protection (MOP)	A	30	30
	Minimum Circuit Amps (MCA)	A	27.0	27.0
	Compressor Rated Load Amps (RLA)	A	17.6	23.3
Compressor	Compressor Type		Daikin G-Type Scroll	Daikin G-Type Scroll
	Compressor Set-Up		1 INV	1 INV
	Compressor Capacity Control	%	29 - 100	29 - 100



1 Indoor temp. : 80°F DB or 67°F WB/Outdoor temp. : 95°F DB/Equivalent piping length : 25ft (7.5m), level difference: 0 ft.

2 Indoor temp. : 70°F DB, 70°F DB/Outdoor temp. : 47°F DB or 43°F WB/Equivalent piping length: 25ft. (7.5m), level difference: 0ft.

Installation Space

The unit values are in inches

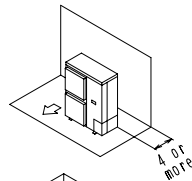
In case of series installation, some space between the units is needed for wiring with conduit and servicing.

1. Where there is an obstacle on the suction side:

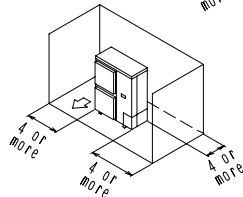
(a) No obstacle above

(1) Stand-alone installation

- Obstacle on the suction side only



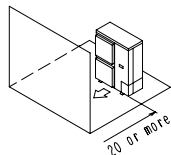
- Obstacle on both sides



2. Where there is an obstacle on the discharge side:

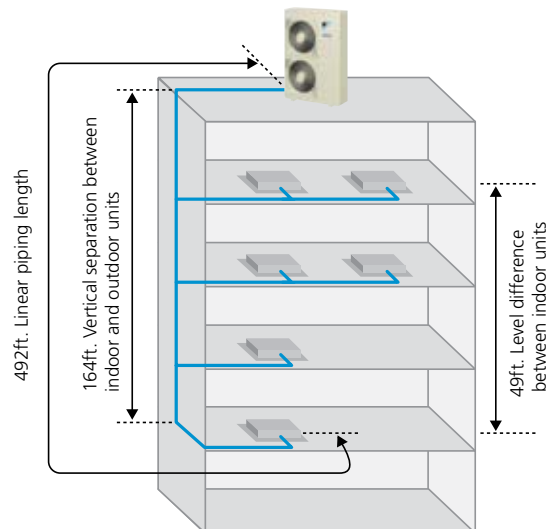
(a) No obstacle above

(1) Stand-alone installation



Piping Specifications

	Ft.
Linear piping between condensing unit and furthest located fan coil unit (equivalent)	492 (580)
Total "one-way" piping in the complete piping network	984
Vertical (height) separation between the condensing unit and the fan coil units (if outdoor unit is below)	164 (130)
Vertical (height) separation between fan coil units	49
Linear piping between first REFNET and furthest located fan coil unit	130



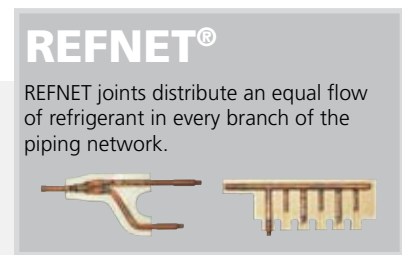
VRV8-S Specifications



Certified Performance Data

Outdoor Unit	Indoor Units Combination	Nominal Cooling Capacity (Btu/h)	EER	SEER	Nominal Heating Capacity (Btu/h)	COP	Low Heating Capacity (Btu/h)	COP	HSPF
			95 °F			47 °F		17 °F	
RXYMQ36PVJU	Non-Ducted Indoor Units	36,000	11.5	14.9	42,000	2.8	26,000	2.0	7.9
	Ducted Indoor Units	36,000	9.9	14.0	42,000	2.9	29,500	2.1	8.4
	Mixed Ducted and Non-Ducted Indoor Units	36,000	10.7	14.45	42,000	2.85	27,750	2.05	8.15
RXYMQ48PVJU	Non-Ducted Indoor Units	47,500	9.0	15.1	52,500	2.6	33,000	2.0	9.1
	Ducted Indoor Units	47,500	9.0	13.2	52,500	2.7	36,500	2.0	8.8
	Mixed Ducted and Non-Ducted Indoor Units	47,500	9.0	14.15	52,500	2.65	34,750	2.0	8.95

VRV8-S Accessories		RXYMQ36-48PVJU	
Cool/Heat Selector		KRC19-26A	
Fixing Box		KJB111A	
Distributive Piping	Refnet header	KHRP26M22H (Max. 4 branches)	KHRP26M33H (Max. 8 branches)
	Refnet joint	KHRP26A22T	
Central Drain Plug		KKPJ5F180	
Fixture for Preventing Overturning		KPT-60B160	
Wire Fixture for Preventing Overturning		K-KYZP15C	
Wind Baffle (2 required per unit)		KPW5E80	



Choosing the right controls

Daikin controls are optimized for VRV technology and offers highly scalable solutions for all applications and budgets. It also allows for lower cost alternatives to traditional energy management systems when centralized control is required.

Project Requirements	Daikin VRV Controls							
	BRC1E71 Navigation	BRC2A71 Simplified	DCS302C71 Centralized	DCS301C71 Unified	DCS601C71 Intelligent Touch	Intelligent Manager	BACnet Interface	LonWorks Interface
Simple individual zone control	■	■						
Individual zone control with 7-day programmable scheduling	■							
Multi-zone control without scheduling functions			■					
Basic central point on/off control of all air handling units				■				
Advanced multi-zone control of small to medium size projects					■			
Advanced multi-zone control of large commercial projects						■	■	■
Advanced multi-zone control with scheduling logic and calendar					■	■		
Automatic cooling/heating changeover for heat pump systems	■				■	■		
Single input batch shutdown of all connected air handlers			■	■	■	■		■
Web browser control and monitoring via Intranet and Internet					■	■	■	■
E-mail notification of system alarms and equipment malfunctions					■	■	■	■
Multiple tenant power billing for shared condenser applications					■	■		
Temperature set-point range restrictions	■				■	■	■	■
Graphical user interface based upon a PC platform						■		
Start/stop control of ancillary building systems ¹					■	■	■	■
Daikin VRV integration with BACnet based automation systems							■	
Daikin VRV integration with LonWorks based automation systems								■

¹ Requires one or more DEC102A51-US2 Digital Input/Output units.

- Native application or feature for this device.
- Dependent upon capabilities of the third party energy management system.



WARNINGS:

- Always use a licensed 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 licensed contractor to install those parts and accessories. Use of unauthorized 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.
- For any inquiries, contact your local Daikin sales office.



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JMI-0107

Organization:
DAIKIN INDUSTRIES, LTD.
AIR CONDITIONING MANUFACTURING DIVISION

Scope of Registration:
THE DESIGN/DEVELOPMENT AND MANUFACTURE OF COMMERCIAL AIR CONDITIONING, HEATING, COOLING, REFRIGERATING EQUIPMENT, COMMERCIAL HEATING EQUIPMENT, RESIDENTIAL AIR CONDITIONING EQUIPMENT, HEAT RECLAIM VENTILATION, AIR CLEANING EQUIPMENT, MARINE TYPE CONTAINER REFRIGERATION UNITS, COMPRESSORS AND VALVES.



JQA-1452

Organization:
DAIKIN INDUSTRIES
(THAILAND) LTD.

Scope of Registration:
THE DESIGN/DEVELOPMENT AND MANUFACTURE OF AIR CONDITIONERS AND THE COMPONENTS INCLUDING COMPRESSORS USED FOR THEM.



EC99J2044

All of the Daikin Group's business facilities and subsidiaries in Japan are certified under the ISO 14001 International standard for environmental management.

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