DAIKIN

Perfecting the Air

VRV

Quick and High Quality replacement

VRV IV Q SERIES

Reusing existing piping for speedy replacement to an advanced energy-saving air conditioning system

R-410A

Cooling Only 50Hz

Exceeding Boundari
Innovative Energy Sa

New

First launched in Japan in 1982, the Daikin VRV by world markets for over 35 years. Now, Daikin the new VRV X and A series. By combining the tec **VRV**, *VRT and VAV, we have attained both energy comfortable air conditioning.*

VRV+VRT

Energy savings

Uniting **VRV**, VRT and VAV technologies

Automatic refrigerant charge function

- Optimised operation efficiency
- Higher installation quality
- Easier installation

es with vings

system has been embraced
proudly introduces
hnologies of
savings and

+VAV

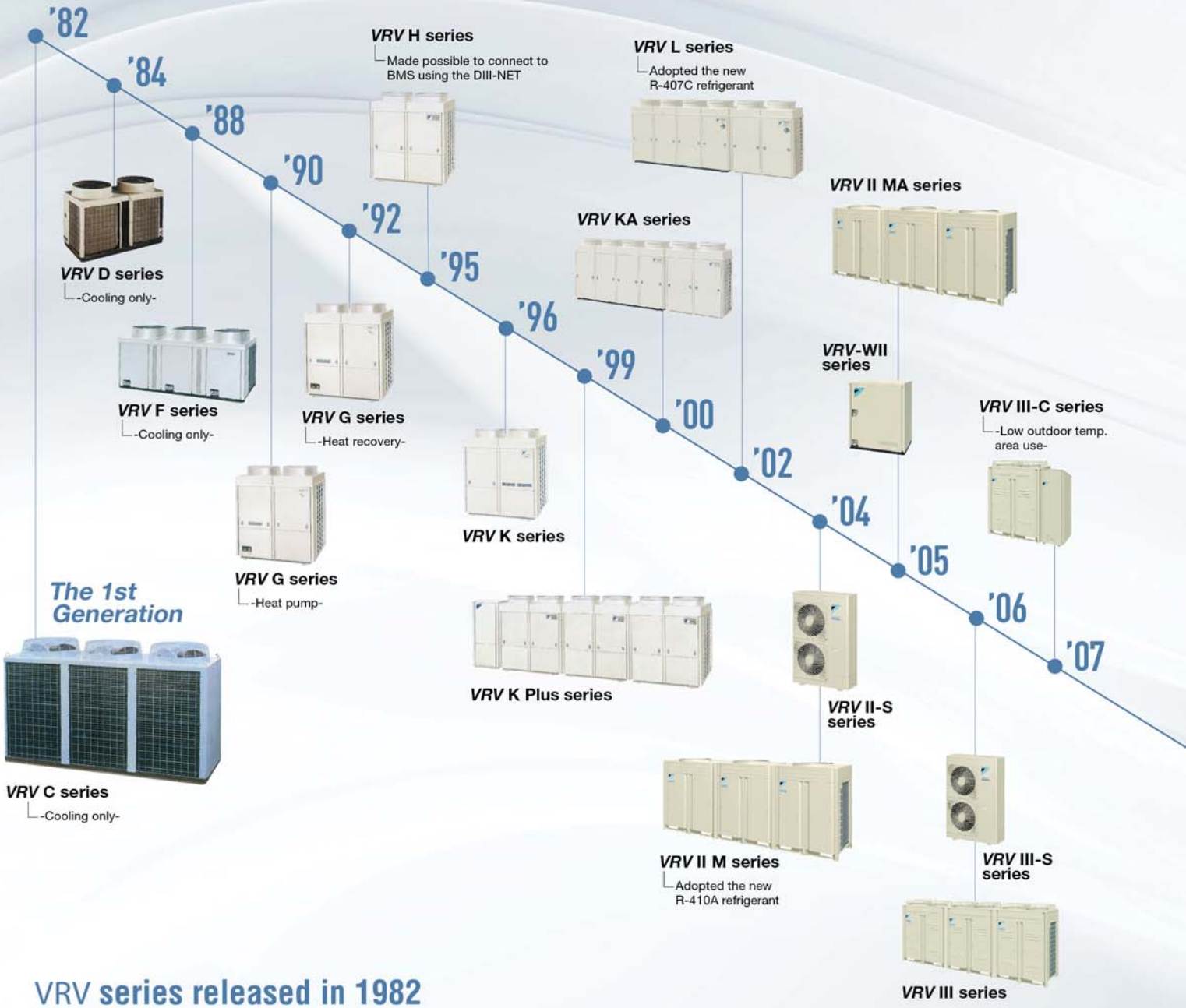
Contents

High reliability

- New inverter PC board
- Double backup operation
- Refrigerant cooling for PC board

Development history

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



VRV series released in 1982

<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

VRV

Expansion of the country of sale

Sales is undergoing in more than 70 countries

Europe

Italy	Austria	Lithuania	Greece	Sweden
France	Belgium	Macedonia	Hungary	Switzerland
Germany	Bulgaria	Netherlands	Ireland	Turkey
Spain	Croatia	Poland	Romania	Ukraine
Russia	Cyprus	Portugal	Serbia	⋮
UK	Czech	Finland	Slovakia	

North America

USA	Canada
Mexico	Puerto Rico
	⋮

Asia

Japan	Korea
China	Taiwan
⋮	

Middle East

UAE
Saudi Arabia
Bahrain
Jordan
Oman
Qatar
⋮

Africa

South Africa
Algeria
Burkina Faso
Egypt
Ivory Coast
Senegal
Sudan
⋮

Asia

India	Cambodia
Vietnam	Myanmar
Thailand	Maldives
Indonesia	Nepal
Malaysia	Seychelles
Singapore	Pakistan
Philippine	Sri Lanka
	⋮

Oceania

Australia
Fiji
New Caledonia
New Zealand
Tahiti
⋮

South America

Brazil
Argentina
Chile
Colombia
Panama
Peru
⋮

'08

'10

'11

'12

'14

'15

'16

'17

'18

'19

VRV-WIII series

VRV III Connection to residential indoor unit series

VRV III Q series
-Replacement use-

VRV Multi function series
-Cooling/heating, hot water supply-

VRV IV
-Heat recovery-

VRV IV S series

VRV IV
-Cooling only / Heat pump-

VRV IV W series
-Water cooled system-

VRV IV Q series
-Replacement use-

VRV IV Heat Recovery Hot Water System

VRV A series
-Cooling only-

VRV X series
-Cooling only-

VRV WS series
-Water cooled system-

VRV A MAX
-Heavy anti-corrosion-

VRV X MAX
-Heavy anti-corrosion-

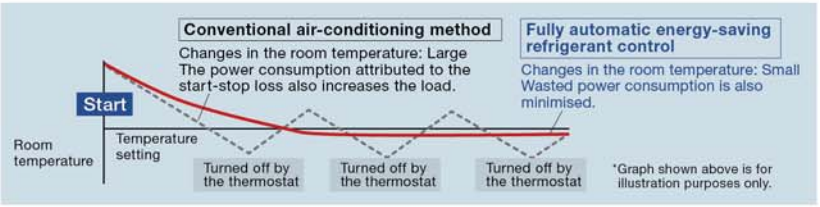
VRV User Benefits

First launched in 1982, the Daikin ***VRV*** system has been providing comfort and reliability to building owners and their tenants for over 35 years. Leveraging the latest in energy-saving technology, Daikin has further improved energy savings while reducing space requirements. This added value is one reason why Daikin is the right choice for building owners.

Energy saving & comfortable environment

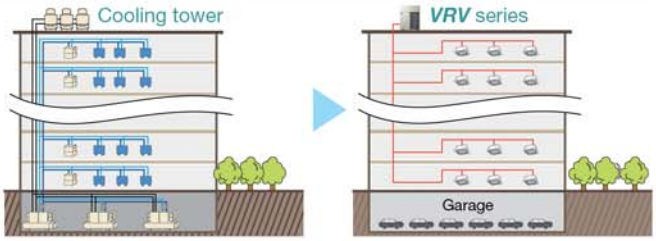
Based on the idea of using only as much space as absolutely required, Daikin first launched its commercial multi-split air conditioning systems in 1982. Since then, customers have benefitted from much increased energy efficiency. Now, our revolutionary new systems dramatically reduce energy with VRT Smart Control. During operating periods, control programs ensure thermal loading is generally low, thus boosting energy efficiency. This greatly reduces the amount of energy required for building air conditioning.

While optimally operating at low load, it maintains a comfortable indoor environment.



Efficient space utilisation

Daikin ***VRV*** system can be used to develop a large-scale air conditioning system on a single refrigerant system, thus reducing the space required for air conditioning equipment. Because the difference in height between the indoor and the outdoor unit can be as large as 90 m, even with a 20-storey building all of the outdoor units can be placed on the rooftop for more efficient utilisation of space.



High reliability

Double backup operation

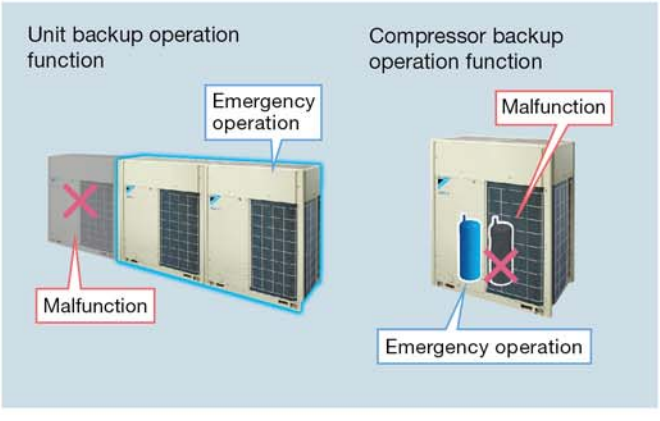
Daikin ***VRV*** outdoor unit goes beyond just highly reliable compressors with a backup system that ensures continued operation.

Unit backup

Should one outdoor unit in a multiple unit system fail, the other outdoor units switch to emergency operation. If for some reason a failure occurs, the system for that unit does not completely stop, and air conditioning is maintained.

Compressor backup

Since units are equipped with two compressors, even if one compressor fails, the other compressor carries on in emergency mode.

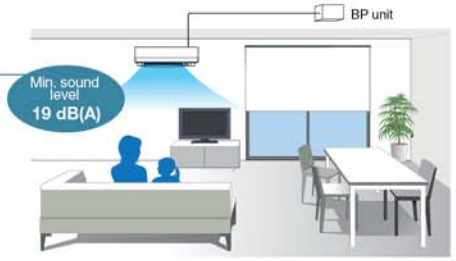


Comfortable environment

While operating optimally at low load, VRT smart operation maintains the indoor temperature and ensures a comfortable environment.

Residential Indoor Units

Because indoor units developed for residential use can be connected, it is possible to realise quiet operation.
You can include indoor units that operate at min.19 dB(A), and to reduce the noise of refrigerant passing through the piping by remotely installing an BP unit.

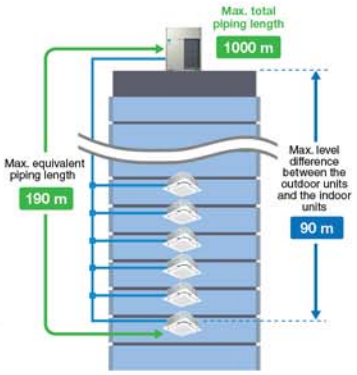


Varied lineup of models

System applications range from family residences to large commercial buildings. With 26 types of indoor unit available, comfortable airflow is ensured in every space.

Long piping provides more flexible system design

Greater design freedom is provided because equivalent piping between indoor and outdoor unit can run as large as 190 m and reach a maximum height difference of 90 m.



Compatible with engineering software

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

Energy efficient

Daikin's innovative energy-saving technology helps you to achieve your green building solution.

Automatic Refrigerant Charge Function

The automatic refrigerant charge function automates the charging of the proper refrigerant amount and the closing of shut-off valves by simply pressing a switch after pre-charging. Simplified installation eliminates excessive and insufficient refrigerant charge amounts due to calculation mistakes, and this has led to higher installation quality.

Lightweight and compact large-capacity single units

Systems can be configured with single modules providing up to 20 HP.
The lightweight and compact bodies are both 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.

Wide variety of series models to supply total air solutions

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.

VRV X SERIES

Cooling Only

RXUQ-A

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

NEW Heavy anti-corrosion model

VRV X MAX

RXUQ-AW

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.

Lineup

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				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●										
Triple outdoor units							●	●											●	●	●	●	●	●	●	●	●	●

VRV A SERIES

Cooling Only

RXQ-A

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

NEW Heavy anti-corrosion model

VRV A MAX

RXQ-AW

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.

Lineup

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							●	●	●	●	●	●	●	●	●	●	●	●										
Triple outdoor units																			●	●	●	●	●	●	●	●	●	●

VRV IV S SERIES

Cooling Only

RXMQ-A

4-6 HP 1-phase, 220 V, 50 Hz

8-9 HP 3-phase, 380-415 V, 50 Hz

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, and offer 5 models to suit your needs.

Lineup

HP	4	5	6	8	9
Cooling Only	●	●	●	●	●

VRV IV Q SERIES

Cooling Only

For quick & high quality replacement use

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

RQQ-T

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.

Lineup

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							●	●					●	●	●	●	●	●	●	●	●	●

VRV IV W SERIES

Cooling Only

Water cooled system suitable for tall multi-storied buildings

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

RWEYQ-T

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

Cooling Only

Water cooled system suitable for residential houses

1-phase, 220-240 V/220 V, 50/60 Hz

New

RWXQ-A

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

Cooling Only

Comfortable air conditioning and energy-efficient hot water heating

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

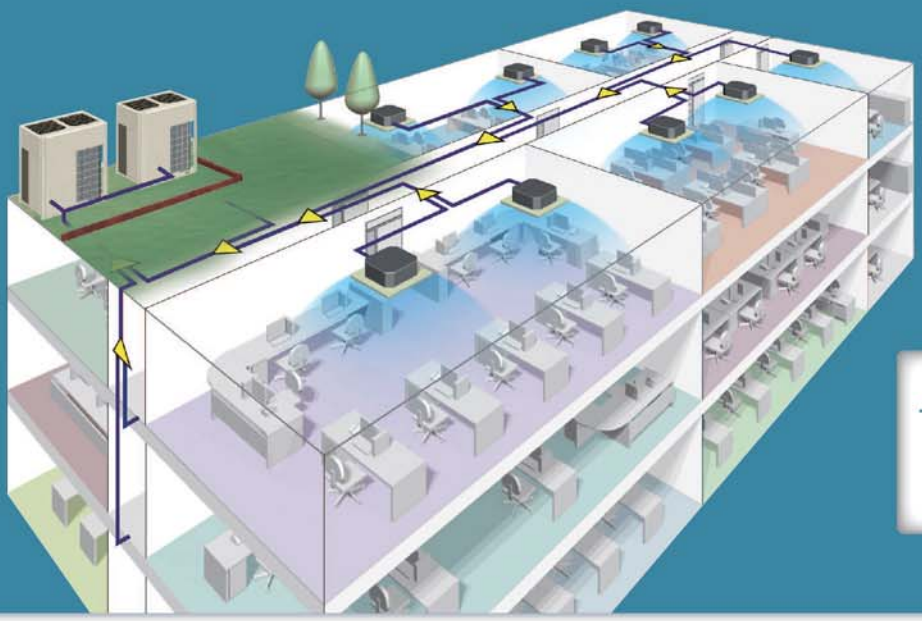
RWHQ-T
HWHQ30A

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.

Lineup

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				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●					
Standard Type	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Space Saving Type							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●					

VRV IV Q SERIES For Quick & High



RQQ-T

Cooling Only

6 HP - 48 HP

(16 kW) (135 kW)

Reusing existing piping for speedy replacement to an advanced energy-saving air conditioning system

Upgrading air conditioning systems in the past used to require replacement of refrigerant piping in buildings, leading to major construction and costs exceeding those of the original installation.
To save time and cost, Daikin developed the ***VRV*** IV Q Series as a model specializing in system replacement. This revolutionary system reuses existing piping and enables quick and high quality replacement to the latest energy-saving air conditioning system without renovation work for new piping.

The VRV IV Q SERIES concept

Reusing existing refrigerant piping minimizes:

- Piping removal and new construction along with installation time and cost
- Impact to the interior and exterior of buildings
- Suspension of daily business operations for renovation

An automatic refrigerant charge function enables high quality installation for the *VRV* IV Q Series.

- The system is automatically charged with the proper amount of refrigerant even when the length of the existing piping is unknown.
- Equipment automatically performs a sequence of tasks from refrigerant charging to test operation.

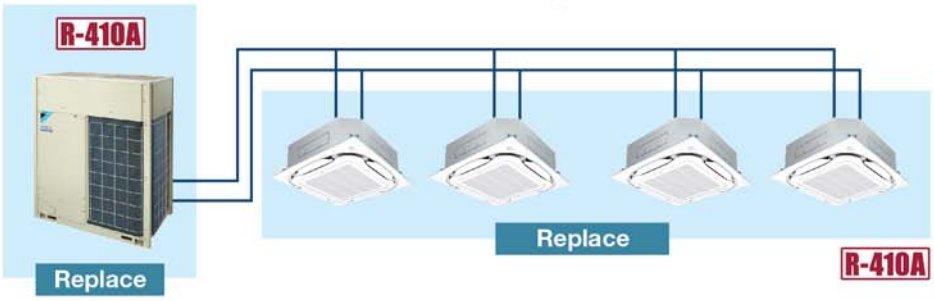
Improvement in capacity and greater number of indoor units with the *VRV* IV Q Series

- Increase in capacity is possible while using existing piping.
- More indoor units can be connected in a single system, enabling consolidation of existing piping.

Before replacement

Reuse of existing piping

After replacement



* It is possible to keep R-22 indoor units from K-series and later version. It is not possible to combine old R-22 and new R-410A indoor units in one system due to incompatibility of communication. When reusing R-22 indoor units, field setting of the outdoor unit is required. Refer to the installation manual for details. In case of the R-22 L-series indoor units, field setting by indoor remote controller is required. Contact your local dealer for details.

Quick & High Quality replacement

Enhanced lineup

2 types up 48 HP

Energy saving

Higher COP and VRT technology

Variety of indoor unit

Multiple functions for greater comfort

Convenient control system

Advanced energy-saving management

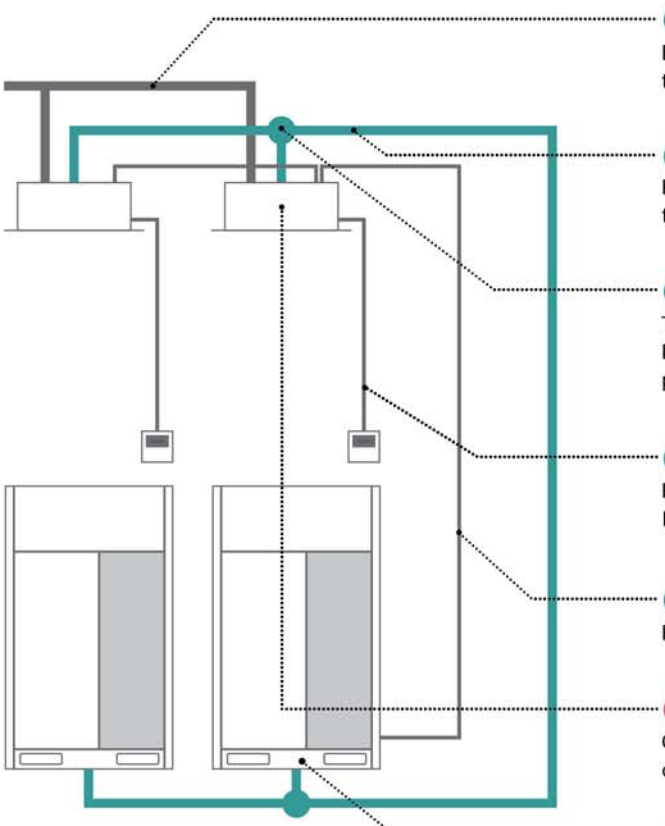
Quick, Quality and Economical

Reuse

Simple use of existing refrigerant piping.

In the past, special equipment and work was needed to clean pipes when using existing piping, but this is no longer required. A new function automatically deals with contamination inside piping during refrigerant charging, eliminating the work involved in cleaning.

Even applicable for non-DAIKIN systems! The Daikin low-cost upgrade solution



Reuse drain pipes
Durable PVC pipes can be easily reused. Only flow tests are required.

Reuse refrigerant pipes
Pipes used for R-22 will also work with ***VRV*** IV Q series, thanks to lower operating pressures of the system.

Reuse refrigerant branch pipes*1
There are no restrictions when upgrading from a Daikin ***VRV*** system. Other VRF systems require branch pipes withstand pressure up to 3.3 MPa.

Reuse remote control wiring
Reuse wiring when upgrading from a Daikin ***VRV*** system. In other cases, this will depend on the cable type.

Reuse indoor-outdoor wiring
Restrictions: see remote control wiring.

Replace indoor units*2
Contact your local dealer to check compatibility in case you need to keep the indoor units.

Replace outdoor units

*1 For reuse of existing refrigerant piping, it is possible to use piping or branched piping capable of handling 3.3 MPa or more. Heat insulation is necessary for liquid piping and gas piping. Even if the existing liquid piping is not insulated, the piping can be reused by its field setting. Refer to the installation manual for details for the field setting.

*2 It is possible to keep R-22 indoor units from K-series and later version. It is not possible to combine old R-22 and new R-410A indoor units in one system due to incompatibility of communication. When reusing R-22 indoor units, field setting of the outdoor unit is required. Refer to the installation manual for details. In case of the R-22 L-series indoor units, field setting by indoor remote controller is required. Contact your local dealer for details.

Automatic

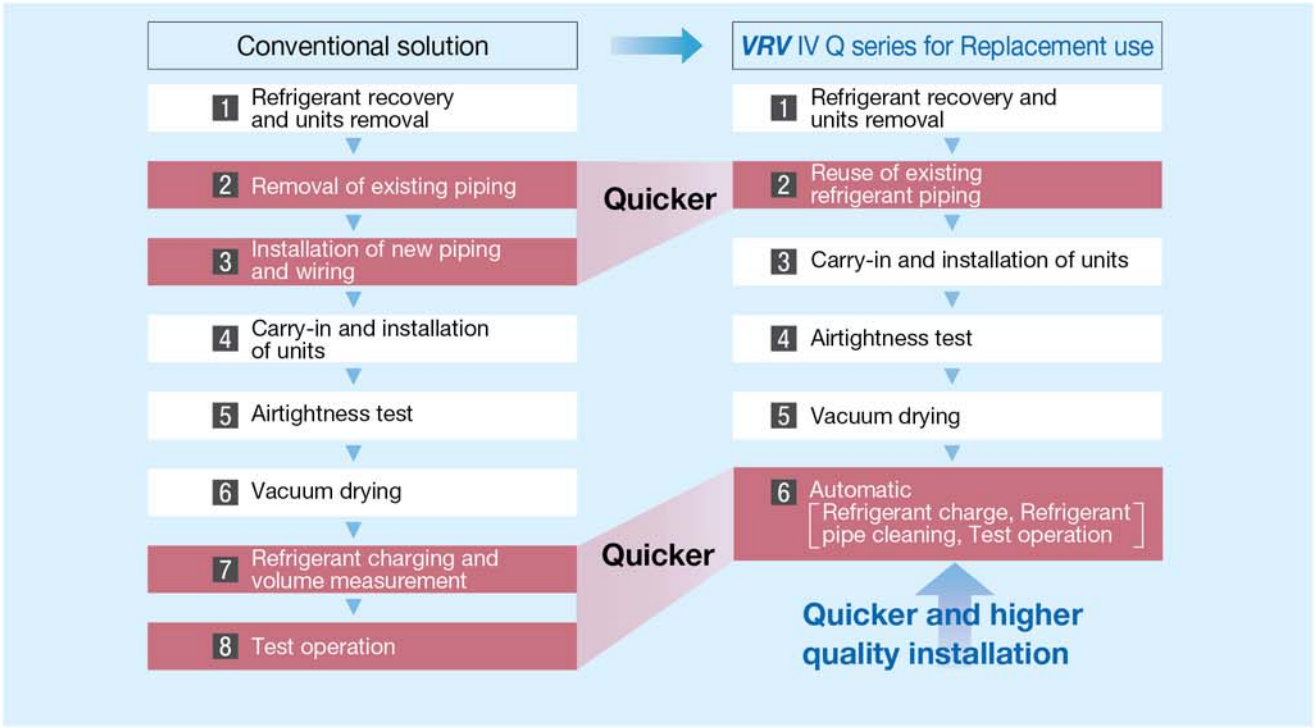
Refrigerant charging, cleaning and test operation done with just a single switch.

The unique automatic refrigerant charge eliminates the need to calculate refrigerant volume, simplifying the installation process. Not knowing the exact piping lengths because of changes or mistakes in case you didn't do the original installation or replacing a competitor installation no longer poses a problem. Furthermore, there is no need to clean inside piping as this is handled automatically by the ***VRV*** IV Q unit.

* There are conditions in the range (ambient temperature, connection ratio) in which the automatic refrigerant charge can be used. Refer to the installation manual for details. The refrigerant amount that can be automatically charged may differ from the additional refrigerant amount that is provided from calculations, but there are no problems in performance and quality.

Time saving

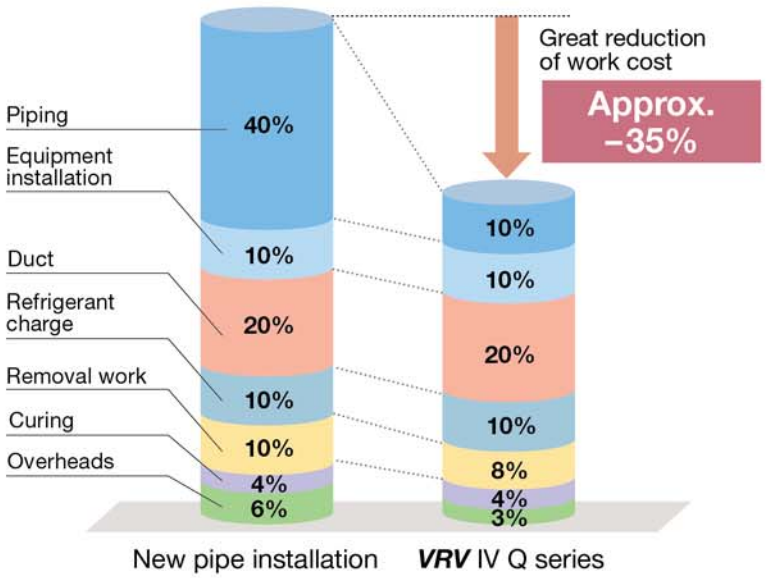
Enables smooth replacement of air conditioning with less effect on operations and users in the building.



Cost saving

Work costs for pipe removal, installation and insulation account for much of the total cost.
By the reuse of existing piping, 35% of cost down can be realized compared to installing new pipes.

■ Cost details (10 HP example)



Design flexibility

Significantly more compact outdoor unit enables the effective use of limited space!

Compact design enables the effective use of space taken up by existing machinery

Conventional
VRV K PLUS series : RX20K
(model from 20 years previous)
20 HP outdoor unit

Installation space
2.25 m²

VRV IV Q SERIES : RQQ20T
20 HP outdoor unit

Installation space
0.95 m²

58% less space

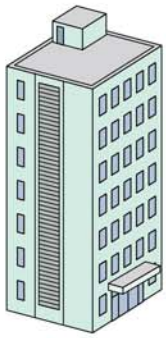
High external static pressure 78.4 Pa

Conventional ***VRV*** K series
(model from 20 years previous)
49.0 Pa

VRV IV Q SERIES
78.4 Pa

External static pressure
78.4 Pa

Easier discharge
hood connection
(field setting)



Easy installation on each floor
for use in tall buildings

Small and light, significantly reducing constraints during carry-in

Can be carried on a cart

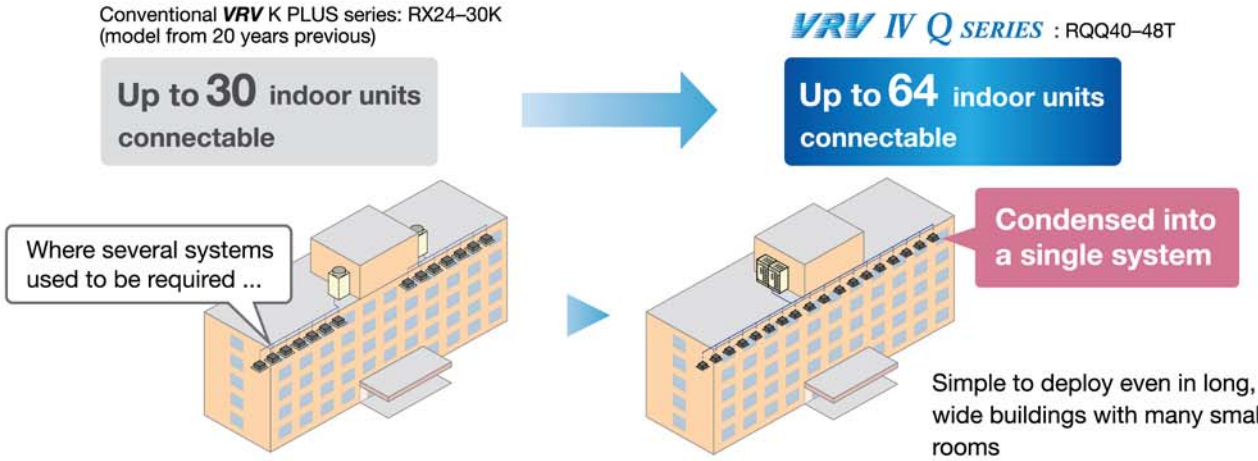
Can be transported easily by elevator

System flexibility

An increased number of connectable indoor units in a single system

More indoor units can be connected in a single system, enabling consolidation of existing piping!

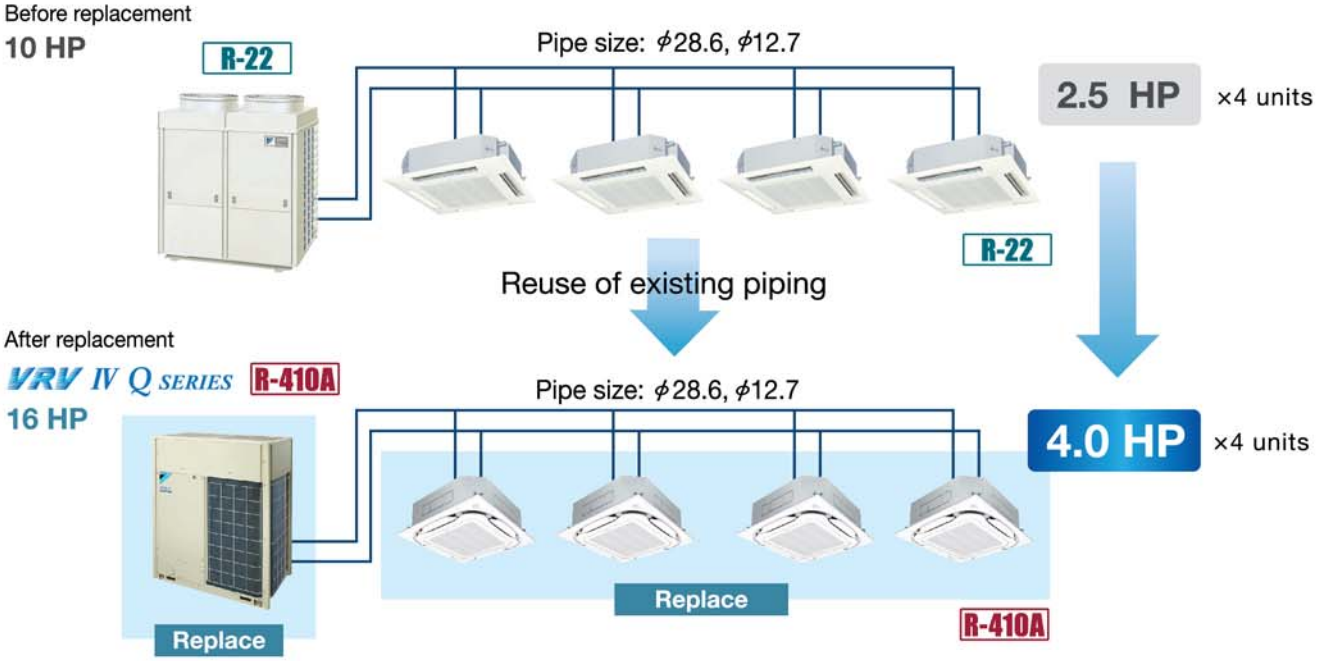
The number of connectable indoor units has been drastically increased from 30 to 64.



Enables increased capacity

System can be upgraded using existing piping

VRV IV Q series for replacement use enables the system capacity to be increased without changing the refrigerant piping. For example, it is possible to install a 16 HP ***VRV*** IV Q series using the refrigerant piping of an 10 HP R-22 system.



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Heat insulation is necessary for liquid piping and gas piping. Even if the existing liquid piping is not insulated, the piping can be reused by its field setting.
Refer to the installation manual for details for the field setting.

Main Features

Enhanced Lineup

2 types up to 48 HP

With its enhanced lineup of 2 types and Standard and Space saving types, ***VRV*** IV Q series outdoor units offer a high capacity up to 48 HP to meet an ever wider variety of needs.

Single outdoor unit

VRV Ⅲ Q SERIES

8, 10, 12 HP　14, 16 HP

1 type only

VRV IV Q SERIES

6, 8, 10, 12 HP　14, 16, 18, 20 HP

2 type of Standard type and Space saving type

Lineup

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							●	●					●	●	●	●	●	●	●	●	●	●

Compact & Light Weight Design

New Space Saving type with refined design

As a leading global innovator, Daikin advanced from the conventional 2 module combination to a single module for 18 and 20 HP models. This allows the installation area to reduce by 33% as compared to the previous models.

VRV Ⅲ Q SERIES

18, 20 HP

VRV IV Q SERIES

18, 20 HP

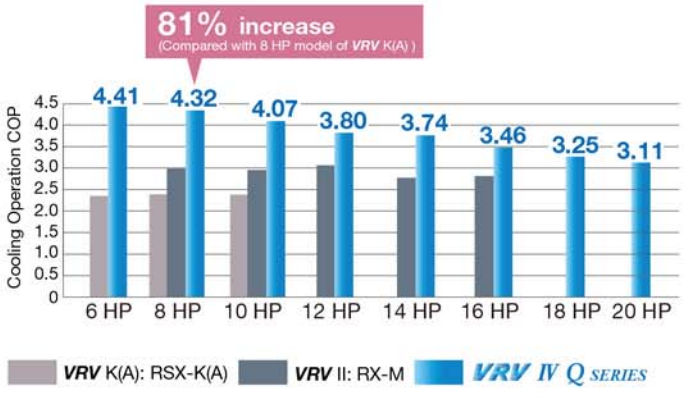
Foot print	1.42 m²	0.95 m²	33% decrease
Product weight	487 kg	320 kg	34% decrease

Energy Saving

Higher Coefficient of Performance (COP)

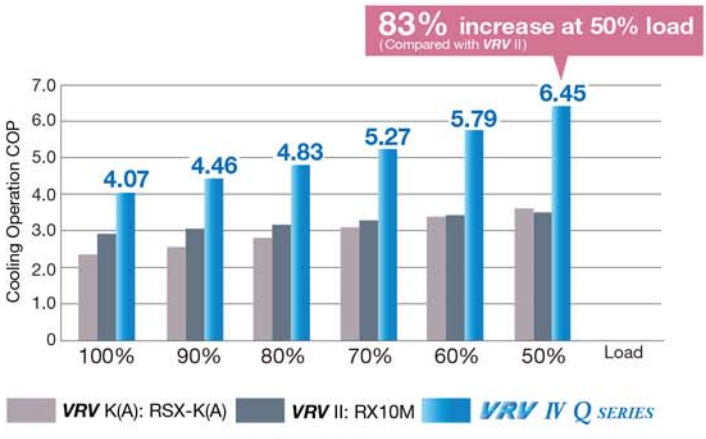
COP at 100% operation load

VRV IV Q series delivers highly efficient performance, contributing to high energy savings.



COP for 10 HP

Improved efficiency during long operation under low load



*Cooling operation conditions: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB.

State-of-the-art energy saving technology for *VRV* system

Customise your *VRV* system for optimal annual efficiency

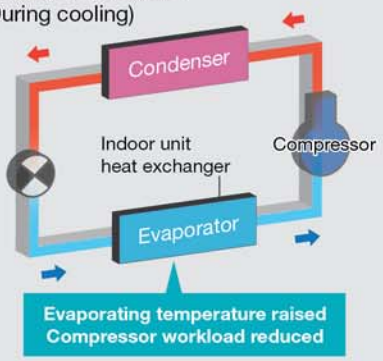
The new ***VRV*** IV Q series now features VRT technology.
VRT automatically adjusts refrigerant temperature to individual building and climate requirement, thus further improving annual energy efficiency and maintaining comfort.
With this excellent technology, running costs are reduced.

Variable Refrigerant Temperature

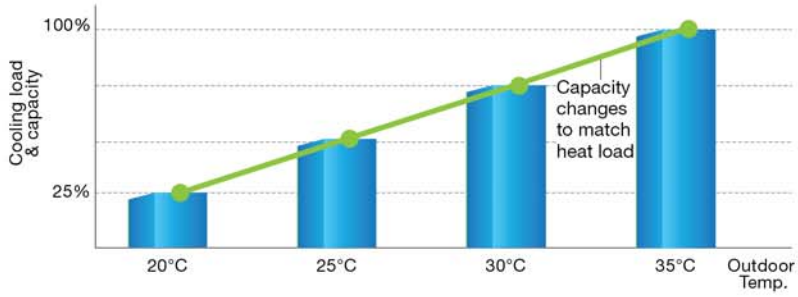
How is energy reduced?

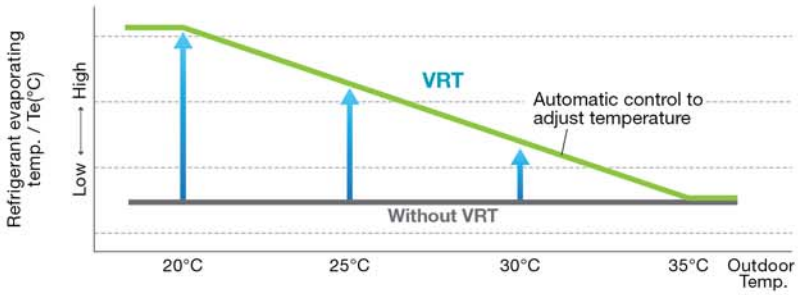
During cooling, the refrigerant evaporating temperature (Te) is raised to minimise the difference with the condensing temperature. Compressors work less, and this reduces power consumption.

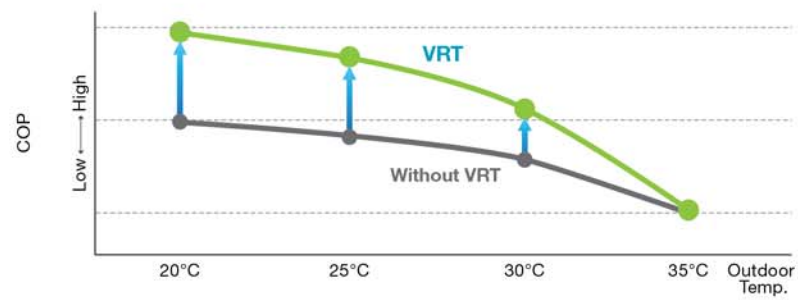
■ Refrigerant cycle
(During cooling)



■ Typical changes in evaporating temperature and COP depending on changing indoor load







Required capacity changes as air conditioning load changes according to outdoor temperature.

In case of fixed evaporating temperature, excessive cooling, thermo on-off loss, and other inefficiencies occur.

Automatic control adjusts evaporating temperature to heat load change.

Energy efficiency is improved without sacrificing comfort.

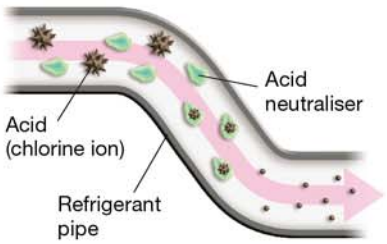
New technology that enables use of existing piping

New tested contamination collection method
A new method collects contamination from existing piping, eliminating compressors and electric valves malfunction.

VRV IV Q series Only

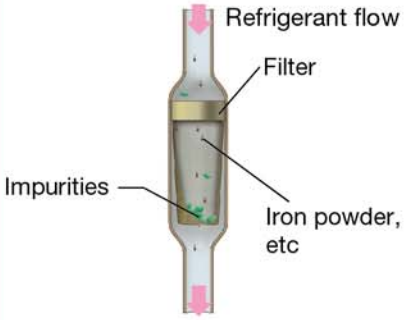
Acid

An acid neutraliser agent is added to disable acids (chlorine ions), which cause corrosion.



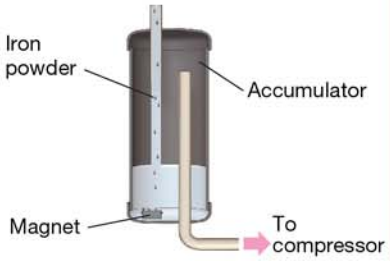
Impurities

A generously sized filter is provided inside the refrigerant circuit which traps impurities.



Iron powder

A magnet is installed inside the accumulator where liquid refrigerant accumulates.
The magnet attracts iron powder to keep the system clean.



Outer Rotor DC Motor (ODM)

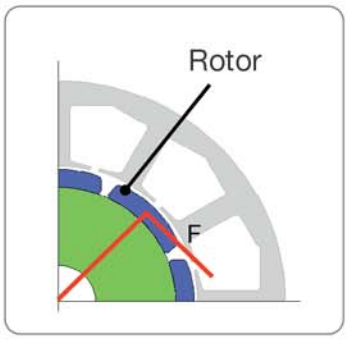
Only Daikin adapted ODM with feature ofstable rotation and volumetric efficiency

Advantages of ODM

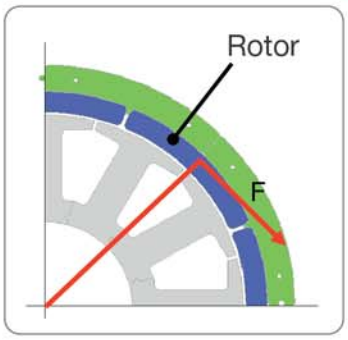
Thanks to large diameter of the rotor,
① Large torque with same electromagnetic force
② Stable rotation in all range, and can be operated with small number of rotations

UNIQUE

Conventional Motor (Inner Type)



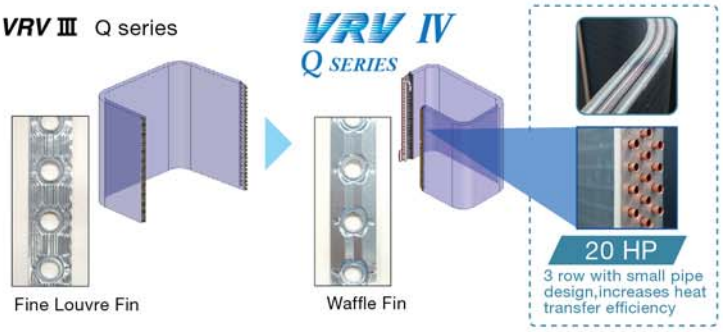
ODM (Outer Type)



HIGH TORQUE with low energy → MORE efficient

Highly integrated heat exchanger

Improve performance by increasing heat exchanger area while maintaining the same installation space.



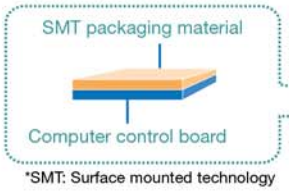
Realise highly integrated heat exchanger performance (increase row, reduce fin pitch) by reducing of airflow resistance which changes cooling tube to Ø7.

Change fin shape from fine louvre to waffle fin. Fin pitch can be reduced fin pitch from 2.0 mm to 1.4 mm, to realise unit efficiency which increased heat exchanger area.

Advanced control main PC board

SMT* packaging technology

- SMT packaging technology adopted by the whole computer control panel improves the anti-clutter performance.
- Protects your computer boards from the adverse effect of sandy and humid weather.

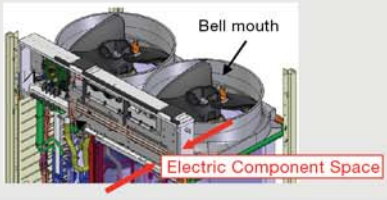


*SMT: Surface mounted technology

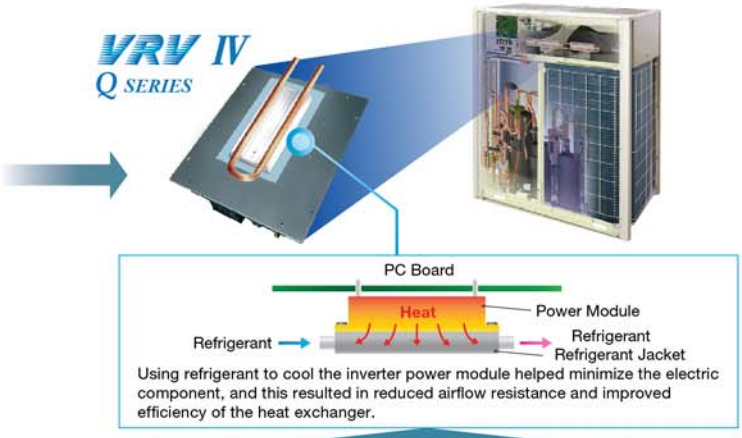
Refrigerant cooling technology, ensures stability of PCB temperature

Improved inner design to increase smooth airflow

Downsize electric component, re-locate to dead space of bell mouth side to decrease airflow resistance.



VRV Ⅲ
Q series



Using refrigerant to cool the inverter power module helped minimize the electric component, and this resulted in reduced airflow resistance and improved efficiency of the heat exchanger.

Roof terrace temperature in summer is over 40°C, seriously affecting inverter cooling efficiency, resulting in decline of inverter operating speed. Finally device parts response speed is reduced.

Control board failure ratio at stable operation is reduced.

Improve reliability at high ambient temperature

It is possible to cool the inverter power module stability even at high ambient temperature. This helps to keep air-conditioning capacity and also reduces failure ratio.

Outdoor Unit Lineup

Enhanced lineup to 2 types

- With its enhanced lineup of 2 types and Standard and Space Saving types, ***VRV*** IV Q series outdoor units offer a high capacity up to 48 HP to meet an ever wider variety of needs.
- The single outdoor unit has only 2 different shapes and dimensions, not only simplifying the design process, but also bringing the system flexibility to a new level.
- With the outdoor unit capacity increased in increment of 2 HP, customers' needs can be precisely met.
- Outdoor units with anti-corrosion specifications (-E type on request) are designed specifically for use in areas which are subject to salt damage and atmospheric pollution.

Standard Type

• Single Outdoor Units

6, 8, 10, 12 HP

RQQ6TY1S(E)
RQQ8TY1S(E)
RQQ10TY1S(E)
RQQ12TY1S(E)

14, 16 HP

RQQ14TY1S(E)
RQQ16TY1S(E)

• Double Outdoor Units

18, 20, 22, 24 HP

RQQ18TNY1S(E)
RQQ20TNY1S(E)
RQQ22TNY1S(E)
RQQ24TNY1S(E)

26, 28 HP

RQQ26TNY1S(E)
RQQ28TNY1S(E)

30, 32 HP

RQQ30TNY1S(E)
RQQ32TNY1S(E)

• Triple Outdoor Units

34, 36 HP

RQQ34TNY1S(E)
RQQ36TNY1S(E)

38, 40 HP

RQQ38TNY1S(E)
RQQ40TNY1S(E)

42, 44 HP

RQQ42TNY1S(E)
RQQ44TNY1S(E)

46, 48 HP

RQQ46TNY1S(E)
RQQ48TNY1S(E)

Space Saving Type

• Single Outdoor Units

18, 20 HP

RQQ18TY1S(E)
RQQ20TY1S(E)

• Double Outdoor Units

30, 32 HP

RQQ30TSY1S(E)
RQQ32TSY1S(E)

34, 36, 38, 40 HP

RQQ34TSY1S(E)
RQQ36TSY1S(E)
RQQ38TSY1S(E)
RQQ40TSY1S(E)

• Triple Outdoor Units

42, 44 HP

RQQ42TSY1S(E)
RQQ44TSY1S(E)

46, 48 HP

RQQ46TSY1S(E)
RQQ48TSY1S(E)

Lineup

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							●	●					●	●	●	●	●	●	●	●	●	●

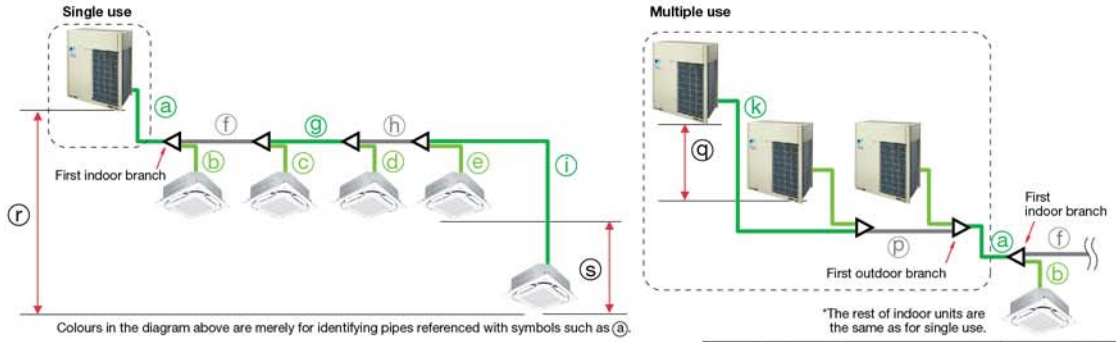
Variety of indoor unit

● New lineup

Type	Model Name		Capacity Range	20	25	32	40	50	63	71	80	100	125	140	200	250	400	500
				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	16 HP	20 HP
			Capacity Index	20	25	31.25	40	50	62.5	71	80	100	125	140	200	250	400	500
Ceiling Mounted Cassette (Round Flow with Sensing)	FXFSQ-AVS				●	●	●	●	●		●	●	●	●				
Ceiling Mounted Cassette (Round Flow)	FXFQ-AVS				●	●	●	●	●		●	●	●	●				
Ceiling Mounted Cassette (Compact Multi Flow)	FXZQ-MVES			●	●	●	●	●										
4-Way Flow Ceiling Suspended	FXUQ-AVEB									●		●						
Ceiling Mounted Cassette (Double Flow)	New FXCQ-AVMS			●	●	●	●	●	●		●		●					
Ceiling Mounted Cassette (Single Flow)	FXEQ-AV36			●	●	●	●	●	●									
Slim Ceiling Mounted Duct (3D Airflow with Sensing)	New FXDSQ-AVM			●	●	●	●	●	●									
Slim Ceiling Mounted Duct (Standard Series)	FXDQ-PDV2S (with drain pump)	 (700mm width type)		●	●	●												
	FXDQ-PDVTS (without drain pump)			●	●	●												
	FXDQ-NDV2S (with drain pump)	 (900 / 1100mm width type)					●	●	●									
	FXDQ-NDVTS (without drain pump)						●	●	●									
Slim Ceiling Mounted Duct (Compact Series)	FXDQ-SPV1			●	●	●	●	●	●									
Middle Static Pressure Ceiling Mounted Duct	FXSQ-PAVS			●	●	●	●	●	●		●	●	●	●				
Ceiling Mounted Duct	FXMQ-PAVS			●	●	●	●	●	●		●	●	●	●				
	FXMQ-MVES														●	●		
	New FXMQ-PVM														●	●		
Outdoor-Air Processing Unit	FXMQ-MFV1												●		●	●		
Ceiling Suspended	FXHQ-MAVS					●			●			●						
	New FXHQ-AVMS												●	●				
Wall Mounted	New FXAQ-AVMS			●	●	●	●	●	●									
Floor Standing	FXLQ-MAVE			●	●	●	●	●	●									
Concealed Floor Standing	FXNQ-MAVE			●	●	●	●	●	●									
Floor Standing Duct	FXVQ-NY1												●		●	●	●	●
	FXVQ-NY16 (high static pressure type)																	●
Heat Reclaim Ventilator with DX-Coil	VKM-GAV1		Airflow rate 500-1000 m³/h															
Heat Reclaim Ventilator	VAM-GJVE		Airflow rate 150-2000 m³/h															

* It is possible to keep R-22 indoor units from K-series and later version. It is not possible to combine old R-22 and new R-410A indoor units in one system due to incompatibility of communication. When reusing R-22 indoor units, field setting of the outdoor unit is required. Refer to the installation manual for details. In case of the R-22 L-series indoor units, field setting by indoor remote controller is required. Contact your local dealer for details.

Piping limits for reuse of existing piping



		Actual piping length	Example	Equivalent piping length
Maximum allowable piping length	Refrigerant piping length	**150** m	a+f+g+h+i	**175** m
	Total piping length	**300** m	a+b+c+d+e+f+g+h+i	—
	Between the first indoor branch and the farthest indoor unit	**40** m	f+g+h+i	—
	Between the outdoor branch and the last outdoor unit	**10** m	k+p	**13** m

			Level Difference	Example
Maximum allowable level difference	Between the outdoor units (Multiple use)		**5** m	q
	Between the indoor units		**15** m	s
	Between the outdoor units and the indoor units	If the outdoor unit is above.	**50** m	r
		If the outdoor unit is below.	**40** m	r

Reusability of existing piping for *VRV* IV Q series

Type of piping	Capacity	Piping size														
		Liquid						Gas								
		ϕ6.4	ϕ9.5	ϕ12.7	ϕ15.9	ϕ19.1	ϕ22.2	ϕ12.7	ϕ15.9	ϕ19.1	ϕ22.2	ϕ25.4	ϕ28.6	ϕ34.9	ϕ41.3	ϕ54.1
Main piping	6 HP	×	S○●			×	×	×	×	S○	●			×	×	×
	8 HP	×	S○	●		×	×	×	×	S○		●	●	×	×	×
	10 HP	×	S○	●		×	×	×	×	×	S○		●	×	×	×
	12 HP	×	×	S○	●	×	×	×	×	×	×	×	S○	●	×	×
	14 HP	×	×	S○	●	×	×	×	×	×	×	×	S○	●	×	×
	16 HP	×	×	S○	●	×	×	×	×	×	×	×	S○	●	×	×
	18 HP	×	×	×	S○	●	×	×	×	×	×	×	S○	●	×	×
	20 HP	×	×	×	S○	●	×	×	×	×	×	×	S○	●	×	×
	22 HP	×	×	×	S○	●	×	×	×	×	×	×	S○	●	×	×
	24 HP	×	×	×	S○	●	×	×	×	×	×	×	×	S○	●	×
	26 HP	×	×	×	×	S○	●	×	×	×	×	×	×	S○	●	×
	28 HP	×	×	×	×	S○	●	×	×	×	×	×	×	S○	●	×
	30 HP	×	×	×	×	S○	●	×	×	×	×	×	×	S○	●	×
	32 HP	×	×	×	×	S○	●	×	×	×	×	×	×	S○	●	×
	34 HP	×	×	×	×	S○	●	×	×	×	×	×	×	S○	●	×
	36 HP	×	×	×	×	S○	●	×	×	×	×	×	×	×	S○	●
	38 HP	×	×	×	×	S○	●	×	×	×	×	×	×	×	S○	●
	40 HP	×	×	×	×	S○	●	×	×	×	×	×	×	×	S○	●
	42 HP	×	×	×	×	S○	●	×	×	×	×	×	×	×	S○	●
	44 HP	×	×	×	×	S○	●	×	×	×	×	×	×	×	S○	●
	46 HP	×	×	×	×	S○	●	×	×	×	×	×	×	×	S○	●
	48 HP	×	×	×	×	S○	●	×	×	×	×	×	×	×	S○	●
From REFNET to REFNET*1	< 100	×	S○●		×	×	×	×	S○●		×	×	×	×	×	×
	100 ≤ X < 150	×	S○●		×	×	×	×	S○	●	×	×	×	×	×	×
	150 ≤ X < 160	×	S○●		×	×	×	×	×	S○●			×	×	×	×
	160 ≤ X < 200	×	S○	●	×	×	×	×	×	S○		●	×	×	×	×
	200 ≤ X < 290	×	S○	●		×	×	×	×	×	S○	●		×	×	×
	290 ≤ X < 330	×	×	S○●		×	×	×	×	×	×	●	S○		×	×
	330 ≤ X < 420	×	×	S○	●	×	×	×	×	×	×	×	S○	●	×	×
	420 ≤ X < 480	×	×	×	S○●		×	×	×	×	×	×	S○	●	×	×
	480 ≤ X < 640	×	×	×	S○	●	×	×	×	×	×	×	S○	●	×	×
	640 ≤ X < 900	×	×	×	×	S○●		×	×	×	×	×	×	S○	●	
	900 ≤ X < 920	×	×	×	×	S○	●	×	×	×	×	×	×	S○		●
	920 ≤	×	×	×	×	S○	●	×	×	×	×	×	×	×	S○	●
From REFNET to indoor unit*2	20–40 class	S○●		×	×	×	×	S●		×	×	×	×	×	×	×
	50 class	S○	●	×	×	×	×	S○	●	×	×	×	×	×	×	×
	63-80 class	×	S○●		×	×	×	×	S○●		×	×	×	×	×	×
	100–125 class	×	S○●		×	×	×	×	S○	●			×	×	×	×
	140 class	×	S○		×	×	×	×	S○				×	×	×	×
	200 class	×	S○	●	×	×	×	×	×	S○		●		×	×	×
	250 class	×	S○	●	×	×	×	×	×	×	S○		●	×	×	×
	400 class	×	×	S○		×	×	×	×	×	×	×	S○		×	×
	500 class	×	×	S○			×	×	×	×	×	×	S○		×	×

● : Piping size of conventional R-22 model
○ : Piping size of conventional R-410A model
S : Standard piping size of ***VRV*** IV Q series

: Possible
: Standard piping size of ***VRV*** IV Q series. However, when equivalent piping length between outdoor unit and indoor unit is 90 m or more, size of main piping must be increased.
× : Not possible

*1 Piping between REFNETs depends on total capacity index of indoor units connected below each REFNET. It cannot exceed piping size of upstream side.
*2 Piping from REFNET to indoor unit depends on the capacity of the connected indoor unit. It cannot exceed piping size of upstream side.

Outdoor Unit Combinations

Standard Type

HP	kW	Capacity index	Model name	Combination	Outdoor unit multi connection piping kit *1	Total capacity index of connectable indoor units *3	Maximum number of connectable indoor units *2
6	16.0	150	RQQ6T	RQQ6T	–	75 to 195	9
8	22.4	200	RQQ8T	RQQ8T	–	100 to 260	13
10	28.0	250	RQQ10T	RQQ10T	–	125 to 325	16
12	33.5	300	RQQ12T	RQQ12T	–	150 to 390	19
14	40.0	350	RQQ14T	RQQ14T	–	175 to 455	22
16	45.0	400	RQQ16T	RQQ16T	–	200 to 520	26
18	50.4	450	RQQ18TN	RQQ8T + RQQ10T	BHFP22P100	225 to 585	29
20	55.9	500	RQQ20TN	RQQ8T + RQQ12T		250 to 650	32
22	61.5	550	RQQ22TN	RQQ10T + RQQ12T		275 to 715	35
24	67.0	600	RQQ24TN	RQQ12T × 2		300 to 780	39
26	73.5	650	RQQ26TN	RQQ12T + RQQ14T		325 to 845	42
28	78.5	700	RQQ28TN	RQQ12T + RQQ16T		350 to 910	45
30	85.0	750	RQQ30TN	RQQ14T + RQQ16T		375 to 975	48
32	90.0	800	RQQ32TN	RQQ14T + RQQ18T		400 to 1,040	52
34	95.0	850	RQQ34TN	RQQ10T + RQQ12T × 2	BHFP22P151	425 to 1,105	55
36	101	900	RQQ36TN	RQQ12T × 3		450 to 1,170	58
38	106	950	RQQ38TN	RQQ8T + RQQ12T + RQQ18T		475 to 1,235	61
40	112	1,000	RQQ40TN	RQQ12T × 2 + RQQ16T		500 to 1,300	64
42	119	1,050	RQQ42TN	RQQ12T + RQQ14T + RQQ16T		525 to 1,365	
44	124	1,100	RQQ44TN	RQQ12T + RQQ16T × 2		550 to 1,430	
46	130	1,150	RQQ46TN	RQQ14T × 2 + RQQ18T		575 to 1,495	
48	135	1,200	RQQ48TN	RQQ14T + RQQ16T + RQQ18T		600 to 1,560	

Note: *1 For multiple connection of 18 HP systems and above, the outdoor unit multi connection piping kit (separately sold) is required.
*2 Total capacity index of connectable indoor units must be 50%–130% of the capacity index of the outdoor units.
*3 When outdoor-air processing units and standard indoor units are connected, the total connection capacity index of the outdoor-air processing units must not exceed 30% of the capacity index of the outdoor units. And the connection ratio must not exceed 100%.

Space Saving Type

HP	kW	Capacity index	Model name	Combination	Outdoor unit multi connection piping kit *1	Total capacity index of connectable indoor units *3	Maximum number of connectable indoor units *2
18	50.0	450	RQQ18T	RQQ18T	–	225 to 585	29
20	56.0	500	RQQ20T	RQQ20T	–	250 to 650	32
30	83.5	750	RQQ30TS	RQQ12T + RQQ18T	BHFP22P100	375 to 975	48
32	89.5	800	RQQ32TS	RQQ12T + RQQ20T		400 to 1,040	52
34	95.0	850	RQQ34TS	RQQ16T + RQQ18T		425 to 1,105	55
36	100	900	RQQ36TS	RQQ18T x 2		450 to 1,170	58
38	106	950	RQQ38TS	RQQ18T + RQQ20T		475 to 1,235	61
40	112	1,000	RQQ40TS	RQQ20T x 2		500 to 1,300	64
42	117	1,050	RQQ42TS	RQQ12T x 2 + RQQ18T	BHFP22P151	525 to 1,365	
44	123	1,100	RQQ44TS	RQQ12T x 2 + RQQ20T		550 to 1,430	
46	129	1,150	RQQ46TS	RQQ12T + RQQ16T + RQQ18T		575 to 1,495	
48	134	1,200	RQQ48TS	RQQ12T + RQQ18T x 2		600 to 1,560	

Note: *1 For multiple connection of 30 HP and above the outdoor unit multi connection piping kit (separately sold) is required.
*2 Total capacity index of connectable indoor units must be 50%–130% of the capacity index of the outdoor units.
*3 When outdoor-air processing units and standard indoor units are connected, the total connection capacity index of the outdoor-air processing units must not exceed 30% of the capacity index of the outdoor units. And the connection ratio must not exceed 100%.

VRV IV Q Series Outdoor Units

RQQ-T

Standard Type

MODEL			RQQ6TY1S(E)	RQQ8TY1S(E)	RQQ10TY1S(E)	RQQ12TY1S(E)	RQQ14TY1S(E)	RQQ16TY1S(E)
Combination units			—	—	—	—	—	—
Power supply			3-phase 4-wire system, 380-415 V, 50 Hz					
Cooling capacity		Btu/h	54,600	76,400	95,500	114,000	136,000	154,000
		Btu/h*	54,900	76,900	96,000	115,000	137,300	154,400
		kW	16.0/16.1*	22.4/22.6*	28.0/28.2*	33.5/33.7*	40.0/40.3*	45.0/45.3*
COP			4.41	4.32	4.07	3.80	3.74	3.46
Power consumption		kW	3.63	5.18	6.88	8.82	10.7	13.0
Capacity control		%	20-100	20-100	16-100	15-100	11-100	10-100
Casing colour			Ivory white (5Y7.5/1)					
Compressor	Type		Hermetically Sealed Scroll Type					
	Motor output	kW	2.4X1	3.4X1	4.1X1	5.2X1	(2.9X1)+(3.3X1)	(3.6X1)+(3.7X1)
Airflow rate		m^3/min	119	157	165	178	233	233
Dimensions (HxWxD)		mm	1,657X930X765	1,657X930X765	1,657X930X765	1,657X930X765	1,657X1,240X765	1,657X1,240X765
Machine weight		kg	185	185	195	195	285	285
Sound level		dB(A)	55	56	57	59	60	61
Operation range		°CDB	-5 to 49					
Refrigerant	Type		R-410A					
	Charge	kg	5.9	5.9	6.0	6.3	10.3	10.4
Piping connections	Liquid	mm	ϕ9.5 (Brazing)			ϕ12.7 (Brazing)		
	Gas	mm	ϕ19.1 (Brazing)		ϕ22.2 (Brazing)	ϕ28.6 (Brazing)		

Note : 1. Models with (E) are the outdoor units with anti-corrosion specifications. Please refer to Engineering Data Book for details.

2. 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.
- 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 to the surrounding area such as residences, we recommend investigating the installation location and taking soundproofing measures.

							
	RQQ18TNY1S(E)	RQQ20TNY1S(E)	RQQ22TNY1S(E)	RQQ24TNY1S(E)	RQQ26TNY1S(E)	RQQ28TNY1S(E)	RQQ30TNY1S(E)	RQQ32TNY1S(E)
	RQQ8TY1S(E)	RQQ8TY1S(E)	RQQ10TY1S(E)	RQQ12TY1S(E)	RQQ12TY1S(E)	RQQ12TY1S(E)	RQQ14TY1S(E)	RQQ14TY1S(E)
	RQQ10TY1S(E)	RQQ12TY1S(E)	RQQ12TY1S(E)	RQQ12TY1S(E)	RQQ14TY1S(E)	RQQ16TY1S(E)	RQQ16TY1S(E)	RQQ18TY1S(E)
	—	—	—	—	—	—	—	—
	3-phase 4-wire system, 380-415 V, 50 Hz							
	172,000	191,000	210,000	229,000	251,000	268,000	290,000	307,000
	173,000	191,900	211,200	230,000	252,300	269,500	291,700	309,000
	50.4/50.7*	55.9/56.3*	61.5/61.9*	67.0/67.4*	73.5/74.0*	78.5/79.0*	85.0/85.5*	90.0/90.6*
	4.17	3.99	3.92	3.81	3.77	3.60	3.59	3.45
	12.1	14.0	15.7	17.6	19.5	21.8	23.7	26.1
	8-100	8-100	8-100	8-100	6-100	6-100	5-100	5-100
	Ivory white (5Y7.5/1)							
	Hermetically Sealed Scroll Type							
	(3.4X1)+ (4.1X1)	(3.4X1)+ (5.2X1)	(4.1X1)+ (5.2X1)	(5.2X1)+ (5.2X1)	(5.2X1)+ (2.9X1)+ (3.3X1)	(5.2X1)+(3.6X1)+ (3.7X1)	(2.9X1)+(3.3X1)+ (3.6X1)+(3.7X1)	(2.9X1)+(3.3X1)+ (4.4X1)+(4.0X1)
	157+165	157+178	165+178	178+178	178+233	178+233	233+233	233+233
	(1,657X930X765)+ (1,657X930X765)	(1,657X930X765)+ (1,657X930X765)	(1,657X930X765)+ (1,657X930X765)	(1,657X930X765)+ (1,657X930X765)	(1,657X930X765)+ (1,657X1,240X765)	(1,657X930X765)+ (1,657X1,240X765)	(1,657X1,240X765)+ (1,657X1,240X765)	(1,657X1,240X765)+ (1,657X1,240X765)
	185+195	185+195	195+195	195+195	195+285	195+285	285+285	285+285
	60	61	61	62	63	63	64	64
	-5 to 49							
	R-410A							
	5.9+6.0	5.9+6.3	6.0+6.3	6.3+6.3	6.3+10.3	6.3+10.4	10.3+10.4	10.3+10.5
	ϕ15.9 (Brazing)	ϕ15.9 (Brazing)	ϕ15.9 (Brazing)	ϕ15.9 (Brazing)	ϕ19.1 (Brazing)	ϕ19.1 (Brazing)	ϕ19.1 (Brazing)	ϕ19.1 (Brazing)
	ϕ28.6 (Brazing)	ϕ28.6 (Brazing)	ϕ28.6 (Brazing)	ϕ34.9 (Brazing)	ϕ34.9 (Brazing)	ϕ34.9 (Brazing)	ϕ34.9 (Brazing)	ϕ34.9 (Brazing)

VRV IV Q Series Outdoor Units

RQQ-T

Standard Type

								
MODEL			**RQQ34TNY1S(E)**	**RQQ36TNY1S(E)**	**RQQ38TNY1S(E)**	**RQQ40TNY1S(E)**	**RQQ42TNY1S(E)**	**RQQ44TNY1S(E)**
Combination units			**RQQ10TY1S(E)**	**RQQ12TY1S(E)**	**RQQ8TY1S(E)**	**RQQ12TY1S(E)**	**RQQ12TY1S(E)**	**RQQ12TY1S(E)**
			RQQ12TY1S(E)	**RQQ12TY1S(E)**	**RQQ12TY1S(E)**	**RQQ12TY1S(E)**	**RQQ14TY1S(E)**	**RQQ16TY1S(E)**
			RQQ12TY1S(E)	**RQQ12TY1S(E)**	**RQQ18TY1S(E)**	**RQQ16TY1S(E)**	**RQQ16TY1S(E)**	**RQQ16TY1S(E)**
Power supply			3-phase 4-wire system, 380-415 V, 50 Hz					
Cooling capacity		Btu/h	324,000	345,000	362,000	382,000	406,000	423,000
		Btu/h*	326,200	346,300	363,400	383,900	407,700	426,500
		kW	95.0/95.6*	101/101.5*	106/106.5*	112/112.5*	119/119.5*	124/125.0*
COP			3.88	3.81	3.61	3.66	3.66	3.56
Power consumption		kW	24.5	26.5	29.4	30.6	32.5	34.8
Capacity control		%	5-100	5-100	4-100	4-100	4-100	4-100
Casing colour			Ivory white (5Y7.5/1)					
Compressor	Type		Hermetically Sealed Scroll Type					
	Motor output	kW	(4.1X1)+(5.2X1)+(5.2X1)	(5.2X1)+(5.2X1)+(5.2X1)	(3.4X1)+(5.2X1)+(4.4X1)+(4.0X1)	(5.2X1)+(5.2X1)+(3.6X1)+(3.7X1)	(5.2X1)+(2.9X1)+(3.3X1)+(3.6X1)+(3.7X1)	(5.2X1)+(3.6X1)+(3.7X1)+(3.6X1)+(3.7X1)
Airflow rate		m^3/min	165+178+178	178+178+178	157+178+233	178+178+233	178+233+233	178+233+233
Dimensions (HxWxD)		mm	(1,657X930X765)+(1,657X930X765)+(1,657X930X765)	(1,657X930X765)+(1,657X930X765)+(1,657X930X765)	(1,657X930X765)+(1,657X930X765)+(1,657X1,240X765)	(1,657X930X765)+(1,657X930X765)+(1,657X1,240X765)	(1,657X930X765)+(1,657X1,240X765)+(1,657X1,240X765)	(1,657X930X765)+(1,657X1,240X765)+(1,657X1,240X765)
Machine weight		kg	195+195+195	195+195+195	185+195+285	195+195+285	195+285+285	195+285+285
Sound level		dB(A)	63	64	64	65	65	65
Operation range		°CDB	-5 to 49					
Refrigerant	Type		R-410A					
	Charge	kg	6.0+6.3+6.3	6.3+6.3+6.3	5.9+6.3+10.5	6.3+6.3+10.4	6.3+10.3+10.4	6.3+10.4+10.4
Piping connections	Liquid	mm	φ19.1 (Brazing)	φ19.1 (Brazing)	φ19.1 (Brazing)	φ19.1 (Brazing)	φ19.1 (Brazing)	φ19.1 (Brazing)
	Gas	mm	φ34.9 (Brazing)	φ41.3 (Brazing)	φ41.3 (Brazing)	φ41.3 (Brazing)	φ41.3 (Brazing)	φ41.3 (Brazing)

Note : 1. Models with (E) are the outdoor units with anti-corrosion specifications. Please refer to Engineering Data Book for details.

2. 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.
- 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 to the surrounding area such as residences, we recommend investigating the installation location and taking soundproofing measures.

Space Saving Type

				
MODEL			**RQQ18TY1S(E)**	**RQQ20TY1S(E)**
Combination units			—	—
Power supply			3-phase 4-wire system, 380-415 V, 50 Hz	
Cooling capacity		Btu/h	171,000	191,000
		Btu/h*	171,600	192,300
		kW	50.0/50.3*	56.0/56.4*
COP			3.25	3.11
Power consumption		kW	15.4	18.0
Capacity control		%	10-100	8-100
Casing colour			Ivory white (5Y7.5/1)	
Compressor	Type		Hermetically Sealed Scroll Type	
	Motor output	kW	(4.4X1)+(4.0X1)	(4.6X1)+(5.5X1)
Airflow rate		m^3/min	233	268
Dimensions (HxWxD)		mm	1,657X1,240X765	1,657X1,240X765
Machine weight		kg	285	320
Sound level		dB(A)	62	65
Operation range		°CDB	-5 to 49	
Refrigerant	Type		R-410A	
	Charge	kg	10.5	11.8
Piping connections	Liquid	mm	φ15.9 (Brazing)	φ15.9 (Brazing)
	Gas	mm	φ28.6 (Brazing)	φ28.6 (Brazing)

		
RQQ46TNY1S(E)	**RQQ48TNY1S(E)**	
RQQ14TY1S(E)	**RQQ14TY1S(E)**	
RQQ14TY1S(E)	**RQQ16TY1S(E)**	
RQQ18TY1S(E)	**RQQ18TY1S(E)**	
3-phase 4-wire system, 380-415 V, 50 Hz		
444,000	461,000	
447,000	460,600	
130/131.0*	135/137.0*	
3.53	3.45	
36.8	39.1	
3-100	3-100	
Ivory white (5Y7.5/1)		
Hermetically Sealed Scroll Type		
(2.9X1)+(3.3X1)+ (2.9X1)+(3.3X1)+ (4.4X1)+(4.0X1)	(2.9X1)+(3.3X1)+ (3.6X1)+(3.7X1)+ (4.4X1)+(4.0X1)	
233+233+233	233+233+233	
(1,657X1,240X765)+ (1,657X1,240X765)+ (1,657X1,240X765)	(1,657X1,240X765)+ (1,657X1,240X765)+ (1,657X1,240X765)	
285+285+285	285+285+285	
66	66	
-5 to 49		
R-410A		
10.3+10.3+10.5	10.3+10.4+10.5	
φ19.1 (Brazing)	φ19.1 (Brazing)	
φ41.3 (Brazing)	φ41.3 (Brazing)	

Note : 1. Models with (E) are the outdoor units with anti-corrosion specifications. Please refer to Engineering Data Book for details.

2. 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.
- 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 to the surrounding area such as residences, we recommend investigating the installation location and taking soundproofing measures.

VRV IV Q Series Outdoor Units

RQQ-T

Space Saving Type

						
MODEL			**RQQ30TSY1S(E)**	**RQQ32TSY1S(E)**	**RQQ34TSY1S(E)**	**RQQ36TSY1S(E)**
Combination units			**RQQ12TY1S(E)**	**RQQ12TY1S(E)**	**RQQ16TY1S(E)**	**RQQ18TY1S(E)**
			RQQ18TY1S(E)	**RQQ20TY1S(E)**	**RQQ18TY1S(E)**	**RQQ18TY1S(E)**
			—	—	—	—
Power supply			3-phase 4-wire system, 380-415 V, 50 Hz			
Cooling capacity		Btu/h	285,000	305,000	324,000	341,000
		Btu/h*	286,600	307,300	326,200	342,900
		kW	83.5/84.0*	89.5/90.1*	95.0/95.6*	100/100.5*
COP			3.45	3.34	3.35	3.25
Power consumption		kW	24.2	26.8	28.4	30.8
Capacity control		%	6-100	5-100	5-100	5-100
Casing colour			Ivory white (5Y7.5/1)			
Compressor	Type		Hermetically Sealed Scroll Type			
	Motor output	kW	(5.2X1)+(4.4X1)+(4.0X1)	(5.2X1)+(4.6X1)+(5.5X1)	(3.6X1)+(3.7X1)+(4.4X1)+(4.0X1)	(4.4X1)+(4.0X1)+(4.4X1)+(4.0X1)
Airflow rate		m^3/min	178+233	178+268	233+233	233+233
Dimensions (HxWxD)		mm	(1,657X930X765)+(1,657X1,240X765)	(1,657X930X765)+(1,657X1,240X765)	(1,657X1,240X765)+(1,657X1,240X765)	(1,657X1,240X765)+(1,657X1,240X765)
Machine weight		kg	195+285	195+320	285+285	285+285
Sound level		dB(A)	64	66	65	65
Operation range		°CDB	-5 to 49			
Refrigerant	Type		R-410A			
	Charge	kg	6.3+10.5	6.3+11.8	10.4+10.5	10.5+10.5
Piping connections	Liquid	mm	ϕ19.1 (Brazing)	ϕ19.1 (Brazing)	ϕ19.1 (Brazing)	ϕ19.1 (Brazing)
	Gas	mm	ϕ34.9 (Brazing)	ϕ34.9 (Brazing)	ϕ34.9 (Brazing)	ϕ41.3 (Brazing)

Note : 1. Models with (E) are the outdoor units with anti-corrosion specifications. Please refer to Engineering Data Book for details.

2. 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.
- 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 to the surrounding area such as residences, we recommend investigating the installation location and taking soundproofing measures.

						
	RQQ38TSY1S(E)	**RQQ40TSY1S(E)**	**RQQ42TSY1S(E)**	**RQQ44TSY1S(E)**	**RQQ46TSY1S(E)**	**RQQ48TSY1S(E)**
	RQQ18TY1S(E)	**RQQ20TY1S(E)**	**RQQ12TY1S(E)**	**RQQ12TY1S(E)**	**RQQ12TY1S(E)**	**RQQ12TY1S(E)**
	RQQ20TY1S(E)	**RQQ20TY1S(E)**	**RQQ12TY1S(E)**	**RQQ12TY1S(E)**	**RQQ16TY1S(E)**	**RQQ18TY1S(E)**
	—	—	**RQQ18TY1S(E)**	**RQQ20TY1S(E)**	**RQQ18TY1S(E)**	**RQQ18TY1S(E)**
	3-phase 4-wire system, 380-415 V, 50 Hz					
	362,000	382,000	399,000	420,000	440,000	457,000
	363,400	383,900	400,900	423,100	443,600	460,600
	106/106.5*	112/112.5*	117/117.5*	123/124.0*	129/130.0*	134/135.0*
	3.17	3.11	3.55	3.26	3.47	3.38
	33.4	36.0	33.0	35.6	37.2	39.6
	4-100	4-100	4-100	4-100	4-100	4-100
	Ivory white (5Y7.5/1)					
	Hermetically Sealed Scroll Type					
	(4.4X1)+(4.0X1)+(4.6X1)+(5.5X1)	(4.6X1)+(5.5X1)+(4.6X1)+(5.5X1)	(5.2X1)+(5.2X1)+(4.4X1)+(4.0X1)	(5.2X1)+(5.2X1)+(4.6X1)+(5.5X1)	(5.2X1)+(3.6X1)+(3.7X1)+(4.4X1)+(4.0X1)	(5.2X1)+(4.4X1)+(4.0X1)+(4.4X1)+(4.0X1)
	233+268	268+268	178+178+233	178+178+268	178+233+233	178+233+233
	(1,657X1,240X765)+(1,657X1,240X765)	(1,657X1,240X765)+(1,657X1,240X765)	(1,657X930X765)+(1,657X930X765)+(1,657X1,240X765)	(1,657X930X765)+(1,657X930X765)+(1,657X1,240X765)	(1,657X930X765)+(1,657X1,240X765)+(1,657X1,240X765)	(1,657X930X765)+(1,657X1,240X765)+(1,657X1,240X765)
	285+320	320+320	195+195+285	195+195+320	195+285+285	195+285+285
	67	68	65	67	66	66
	-5 to 49					
	R-410A					
	10.5+11.8	11.8+11.8	6.3+6.3+10.5	6.3+6.3+11.8	6.3+10.4+10.5	6.3+10.5+10.5
	ϕ19.1 (Brazing)	ϕ19.1 (Brazing)	ϕ19.1 (Brazing)	ϕ19.1 (Brazing)	ϕ19.1 (Brazing)	ϕ19.1 (Brazing)
	ϕ41.3 (Brazing)	ϕ41.3 (Brazing)	ϕ41.3 (Brazing)	ϕ41.3 (Brazing)	ϕ41.3 (Brazing)	ϕ41.3 (Brazing)

Option List

Outdoor Units

VRV IV Q SERIES Standard Type

No.	Item \ Type		RQQ6T(E) RQQ8T(E) RQQ10T(E)	RQQ12T(E) RQQ14T(E) RQQ16T(E)
1	Distributive piping	REFNET header	KHRP26M22H, KHRP26M33H (Max. 4 branch), (Max. 8 branch)	KHRP26M22H, KHRP26M33H, KHRP26M72H (Max. 4 branch) (Max. 8 branch) (Max. 8 branch)
		REFNET joint	KHRP26A22T, KHRP26A33T	KHRP26A22T, KHRP26A33T, KHRP26A72T

No.	Item \ Type		RQQ18TN(E) RQQ20TN(E) RQQ22TN(E)	RQQ24TN(E) RQQ26TN(E) RQQ28TN(E)	RQQ30TN(E) RQQ32TN(E)
1	Distributive piping	REFNET header	KHRP26M22H, KHRP26M33H (Max. 4 branch) (Max. 8 branch), KHRP26M72H (Max. 8 branch)	KHRP26M22H, KHRP26M33H, (Max. 4 branch) (Max. 8 branch) KHRP26M72H, KHRP26M73H (Max. 8 branch) (Max. 8 branch)	
		REFNET joint	KHRP26A22T, KHRP26A33T, KHRP26A72T	KHRP26A22T, KHRP26A33T, KHRP26A72T, KHRP26A73T	
2	Pipe size reducer		–	KHRP26M73TP, KHPR26M73HP	
3	Outdoor unit multi connection piping kit		BHFP22P100		

No.	Item \ Type		RQQ34TN(E) RQQ36TN(E)	RQQ38TN(E) RQQ40TN(E)	RQQ42TN(E) RQQ44TN(E)	RQQ46TN(E) RQQ48TN(E)
1	Distributive piping	REFNET header	KHRP26M22H, KHRP26M33H, KHRP26M72H, KHRP26M73H (Max. 4 branch) (Max. 8 branch) (Max. 8 branch) (Max. 8 branch)			
		REFNET joint	KHRP26A22T, KHRP26A33T, KHRP26A72T, KHRP26A73T			
2	Pipe size reducer		KHRP26M73TP, KHPR26M73HP			
3	Outdoor unit multi connection piping kit		BHFP22P151			

VRV IV Q SERIES Space Saving Type

No.	Item \ Type		RQQ18T(E) RQQ20T(E)
1	Distributive piping	REFNET header	KHRP26M22H, KHRP26M33H, KHRP26M72H (Max.4 branch) (Max.8 branch) (Max.8 branch)
		REFNET joint	KHRP26A22T, KHRP26A33T, KHRP26A72T

No.	Item \ Type		RQQ30TS(E) RQQ32TS(E) RQQ34TS(E)	RQQ36TS(E) RQQ38TS(E) RQQ40TS(E)	RQQ42TS(E) RQQ44TS(E)	RQQ46TS(E) RQQ48TS(E)
1	Distributive piping	REFNET header	KHRP26M22H, KHRP26M33H, KHRP26M72H, KHRP26M73H (Max.4 branch) (Max.8 branch) (Max.8 branch) (Max.8 branch)			
		REFNET joint	KHRP26A22T, KHRP26A33T, KHRP26A72T, KHRP26A73T			
2	Pipe size reducer		KHRP26M73TP, KHRP26M73HP			
3	Outdoor unit connection piping kit		BHFP22P100		BHFP22P151	

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 business-information modeling (BIM) currently entering the mainstream in construction industries.

Design

For consultants and architects

- **Combines energy efficiency and comfort**
  - Heat load calculation
  - CFD simulation to optimise outdoor unit layouts
- **Design flexibility**
  - Heat load calculation
  - Model selection
  - Drawing materials support

Sales proposals

For air conditioning engineers and dealers

- Heat load calculation
- Model selection

Daikin Engineering Supports

Model Selection Software

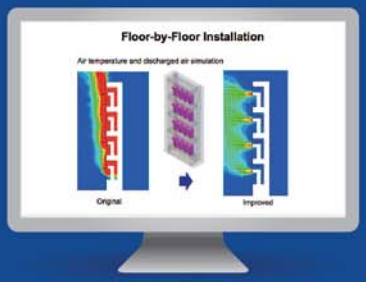
VRV Xpress

VRV Xpress is a flexible design software that optimises equipment selection. 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.

CFD Simulation to Optimise Outdoor Unit Layouts

DT FLOW II

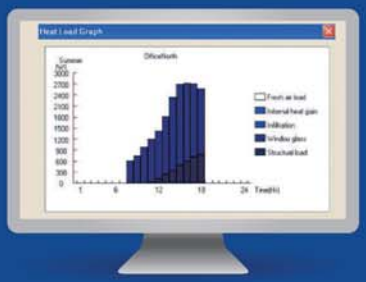
DT FLOW II is a simulation software that uses computational fluid dynamics (CFD), aiming to optimise outdoor unit layouts right at the design stage. When discharged air from the outdoor unit is drawn back into the suction vent, it can short circuit the system and lead to: decrease in efficiency of cooling 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.



Heat Load Calculation

DACCS-HKGSG and HKGSA

The DACCS program uses a steady-state load calculation method to compute heat load over a 24-hour period on summer and winter days. The heat load coming in through outer walls and rooftops from strong summer sunlight can be substantial, but the DACCS program applies effective temperature differences based on the effects of heat accumulated in the walls. The program also accesses 24-hour weather data for all major cities. The standard design data includes accurate weather information for 140 countries.



Drawing Supports

CAD Symbols

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

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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.

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