



Cooling Only 50 Hz

**R-410A**



**VRV**

*A SERIES*



# Exceeding Boundaries Innovative Energy Solutions



New

First launched in Japan in 1982, the Daikin VRV has been adopted by world markets for over 35 years. Now, Daikin introduces the new VRV X and A series. By combining the technologies of VRV, VRT and VAV, we have attained both energy efficiency and comfortable air conditioning.

## VRV+VRT

**VRV**  
**X SERIES / A SERIES**



VRV  
X series / A series  
movie

### 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  
hнологies of  
savings and

# +VAV

## C o n t e n t s

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### High reliability

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

• VRV is a trademark of Daikin Industries, Ltd.



## Background of VRV development

### The 1st Generation

#### VRV series released in 1982

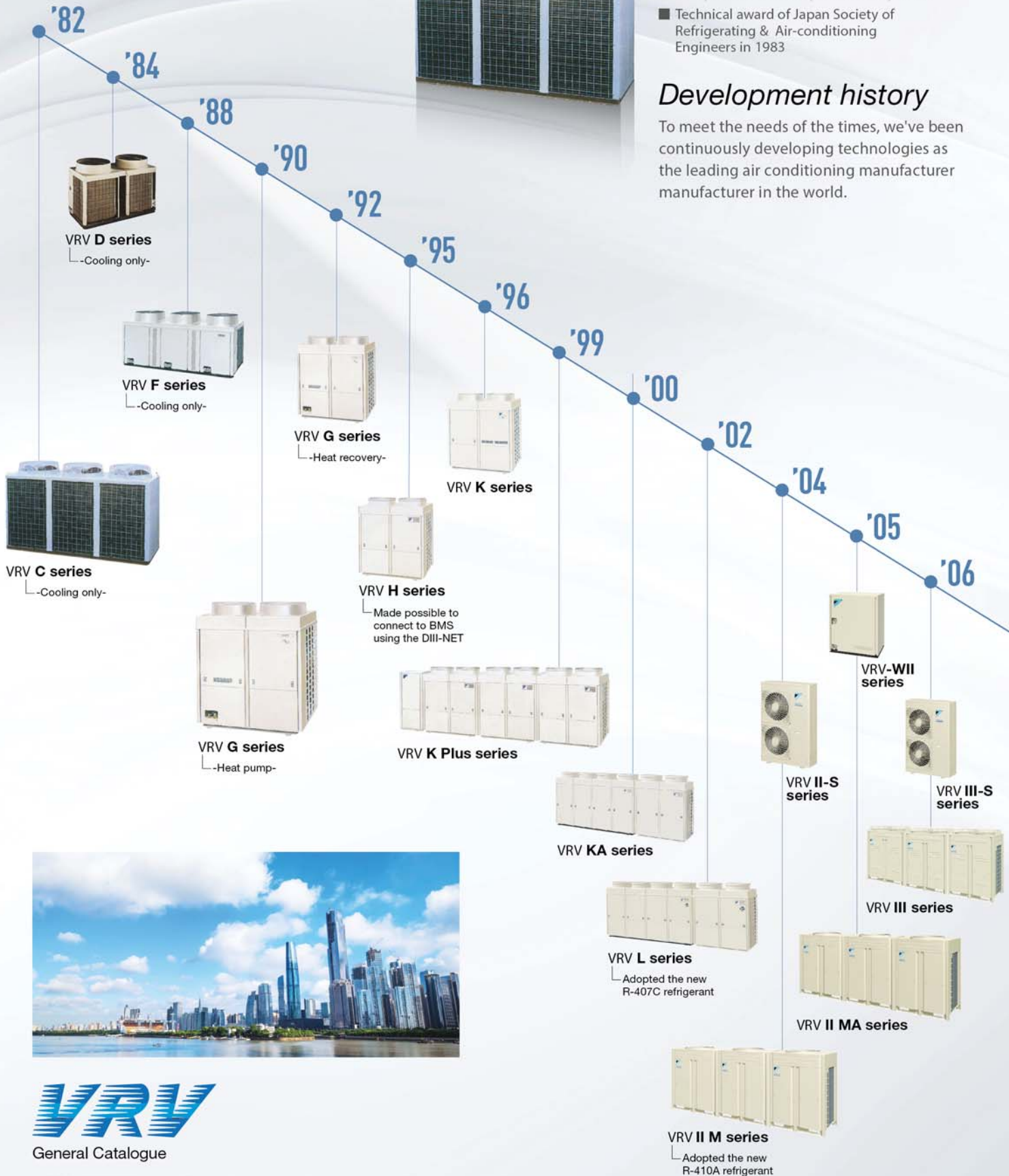
<The birth of innovative products that changed the history of air conditioning technology>



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

#### Development history

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

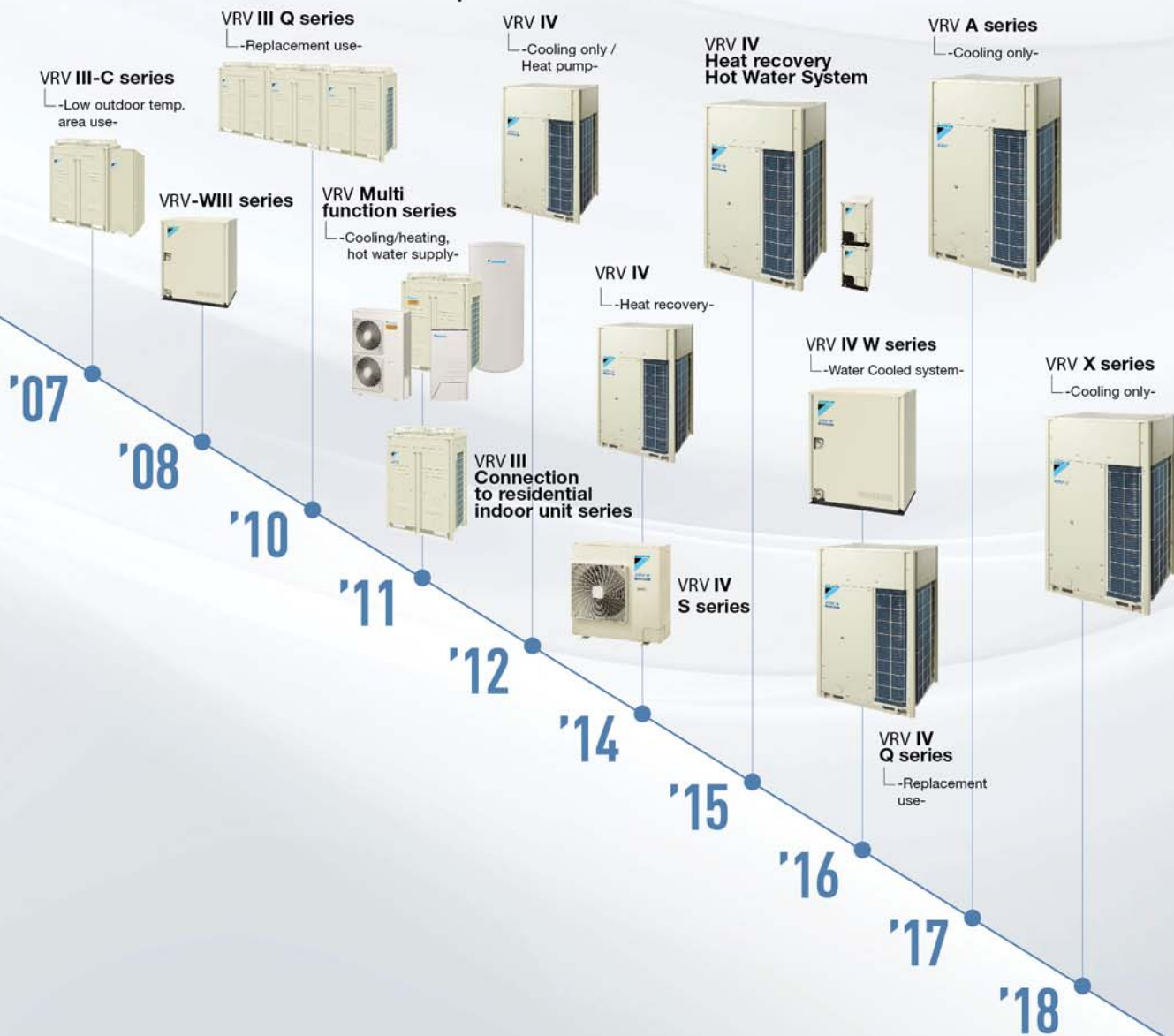


General Catalogue

\* VRV is a trademark of Daikin Industries, Ltd.

# Expansion of the country of sale

Sales is undergoing in more than 70 countries





# VRV User Benefits

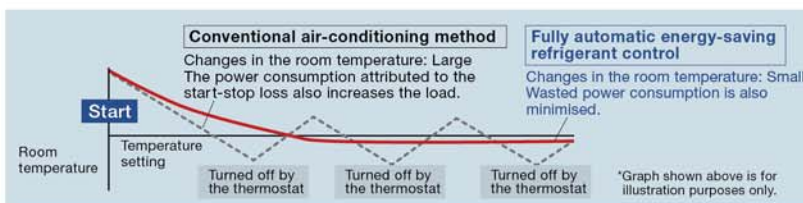
## For property OWNERS

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

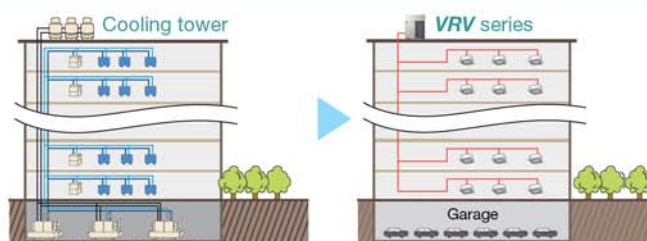
Based on the idea of using only as much space as absolutely required, Daikin first launched its commercial multi-split air conditioning systems in 1982. Since then, customers have benefitted from much increased energy efficiency. Now, our revolutionary new systems dramatically reduce energy with VRT 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

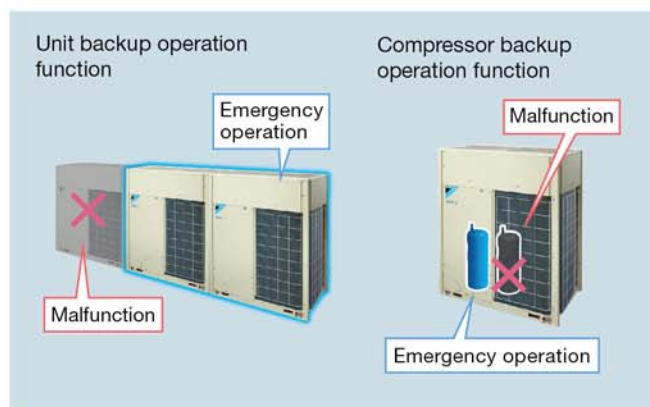
Daikin **VRV** outdoor unit goes beyond just highly reliable compressors with a backup system that ensures continued operation.

#### 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.





## For USERS

### 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.



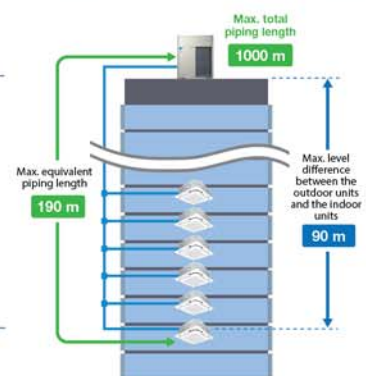
## For CONSULTANT and DESIGN OFFICES

### 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

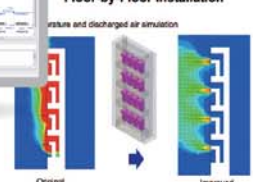
We at Daikin provide the software, the simulation results, and drawing materials to support the business-information modeling (BIM) currently entering the mainstream in construction industries.

### Energy efficient

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



Floor-by-Floor Installation



## For INSTALLERS

### 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.





New  
RXQ-A

Cooling Only

**6 HP - 60 HP**  
(16.0 kW) (168 kW)

## Greater energy savings during low-load operation

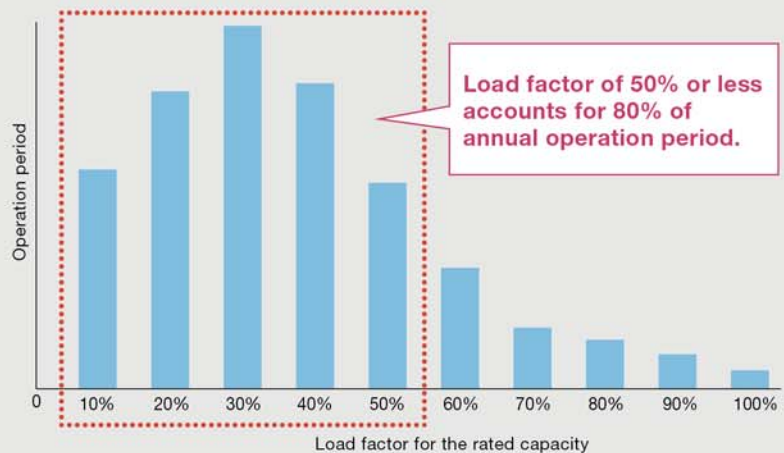
**The key to innovative energy savings is to increase efficiency during low-load operation.**

Using data gathered from actual operation, Daikin discovered that air conditioning systems operate at a load factor of 50% or less for 80% of their annual operation period.

This inspired us to develop new technologies to enhance energy efficiency during low-load operation.

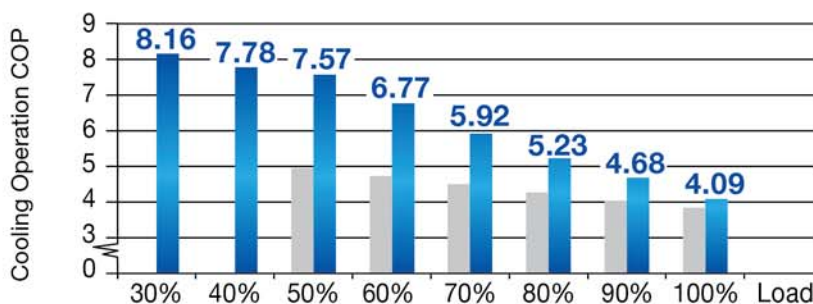
Utilising these technologies, Daikin's new VRV A series raises the standard of energy efficiency.

• Correlation between the load factor for the rated capacity and operation time (in office buildings in Singapore)  
\* According to a survey by Daikin (based on Air Conditioning Network Service System data)



## Higher Coefficient of Performance (COP)

COP for 10 HP



Annual power consumption  
**14%\* lower**

\* Simulation conditions :  
• Location : Bangkok, Thailand  
• System : Outdoor unit (10 HP) x 1  
Indoor unit (2 HP, Round Flow with Sensing type) x 5  
• Operation time : 8:00-20:00 5 days/week  
• Outdoor units :  
New model : RXQ10A (VRV A series)  
Conventional model : RXQ10T (VRV IV)

VRV IV (RXQ10T)

**VRV A SERIES**

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



## Advanced technologies for greater energy savings

**VRV+VRT+VAV**

By uniting advanced software and hardware technologies for greater energy savings during actual operation and combining the technologies of VRV, VRT and VAV, we have attained both energy savings and comfortable air conditioning.

### VRT Smart Control (Fully Automatic Energy-saving Refrigerant Control)

**Software technology**

#### Optimally supply only for the needed capacity of indoor units

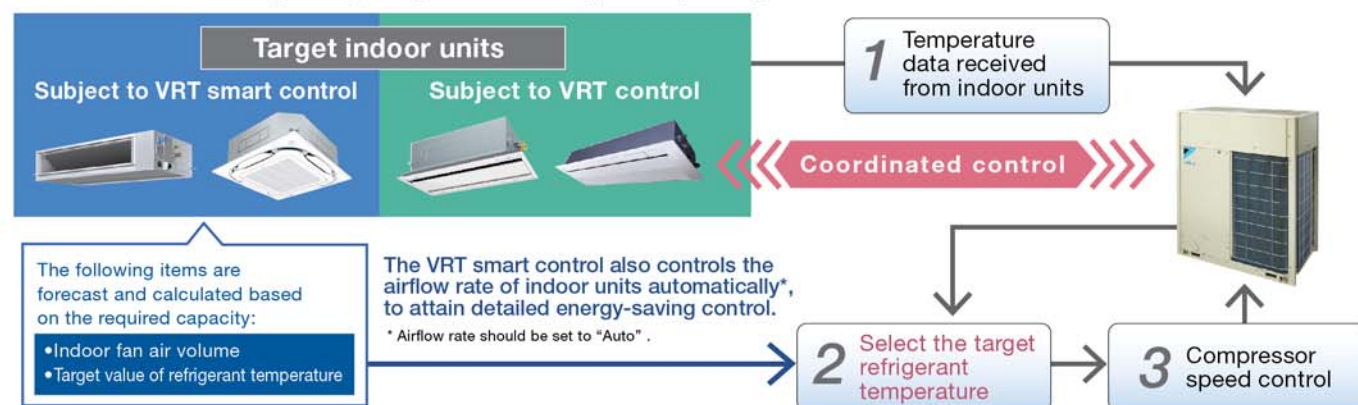
Daikin developed VRT smart control by combining air volume control (VAV: Variable Air Volume) for indoor units with conventional VRT control, which optimises compressor speed by calculating the required load for the entire system and optimal target refrigerant temperature based on data sent from each indoor unit. Coordination with the air volume control reduces compressor load and minimises operation loss based on detailed control. VRT smart control ensures energy savings and comfortable air conditioning to meet actual operating conditions.



VRT Smart Control Function movie

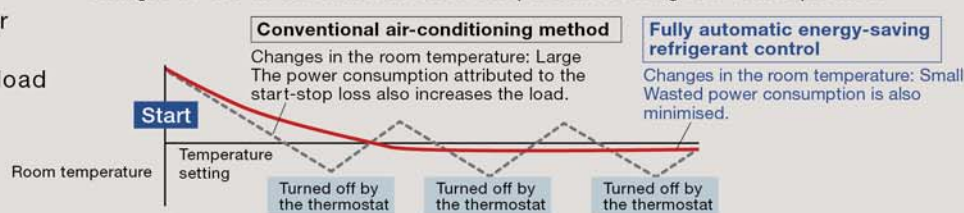
#### •Overview of the control (system control flow)

Different automatic energy-saving refrigerant control applies depending on the indoor units connected.



The smooth control (which keeps the compressor running) saves energy and ensures comfort during low-load operation.

#### •Changes in the air-conditioned room temperature during low-load operation\*



\*Graph shown above is for illustration purposes only.

#### Note:

- For the classification of indoor units (VRT smart control and VRT control), refer to page 41–42.
- 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.

### Optimum utilisation of VRT Smart Control and VRT Control

Effectiveness can be demonstrated for VRT Smart Control and VRT Control when all the indoor units operate under low load conditions in a similar manner.

Low load conditions are the time when room temperature approaches set temperature.

For this reason, please note the following to maximise energy efficiency.

#### •When selecting indoor units

Indoor units are installed in a system so that they operate largely under the same conditions.

Energy efficiency decreases for the installation patterns shown below.

Example:

- 1) A load imbalance occurs because an indoor unit in the same system is installed near the perimeter of the room or in the vicinity of a room entrance.
- 2) Different operating hours for indoor units.

#### •Time of Use

1. Energy efficiency decreases when the set temperature of a specified indoor unit is excessively lowered during cooling operation.
2. The airflow rate setting is set to "Auto" during VRT Smart Control.



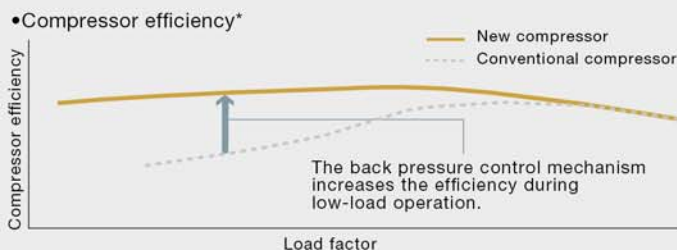
# Achieves Space Saving & Excellent Performance

## New Scroll Compressor\*

Hardware  
technology

### Refrigerant leakage is minimised during low-load operation.

Operation loss due to refrigerant leakage is reduced by the proprietary back pressure control mechanism to ensure stable low-load operation.



\*Graph shown above is for illustration purposes only.



New Scroll  
Compressor  
movie

### Back pressure control mechanism

#### Conventional mechanism

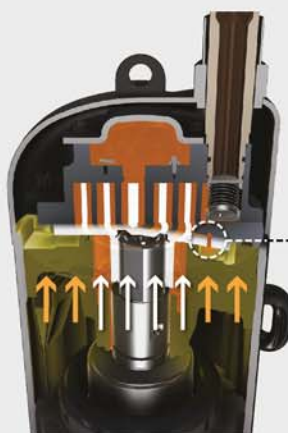
The movable scroll is pressed by the pressure difference between high and low pressures. The force pressing the movable scroll decreases during low-load operation, resulting in compression leakage from movable parts.



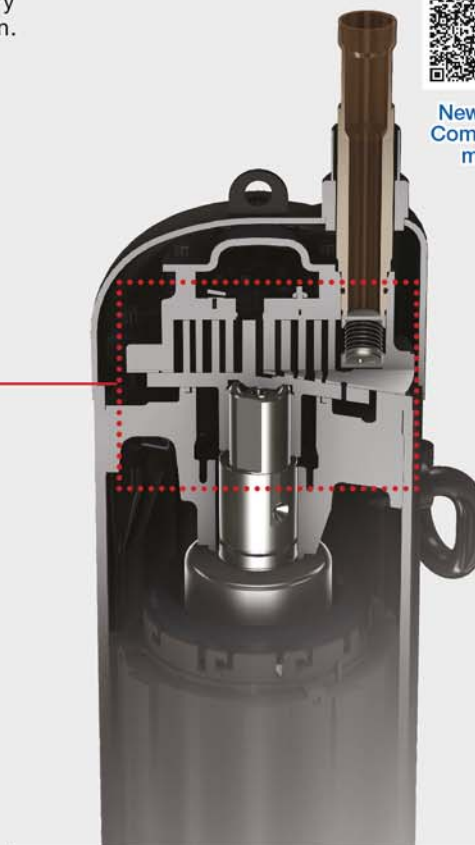
The force pressing the movable scroll decreases during low-load operation.

#### New intermediate pressure mechanism

The force pressing the movable scroll is optimised according to operating conditions. The behavior of the movable scroll has been stabilised to increase efficiency during low-load operation.

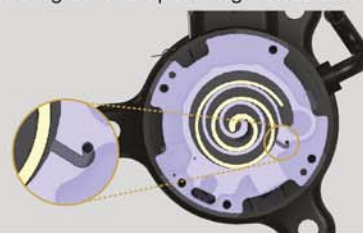


The intermediate pressure keeps pressing the movable scroll during low-load operation.



#### Intermediate pressure adjustment port

The intermediate pressure (back pressure) optimises the force pressing the movable scroll depending on the operating condition.



\* The new mechanism is used in RXQ10,12,14 and 20A models.

## Advanced oil temperature control

### Standby power consumption is reduced

The advanced oil temperature control reduces standby power consumption by up to 82.7%\* annually compared to conventional models. Standby power needed for preheating refrigerator oil, which consumed substantial standby power, was reduced to save energy when the air conditioner is stopped.

\* Operation calculation conditions: VRV A series 14 HP Location: Singapore Operation time: 08:00–18:00 on weekdays.



# Automatic refrigerant charge function

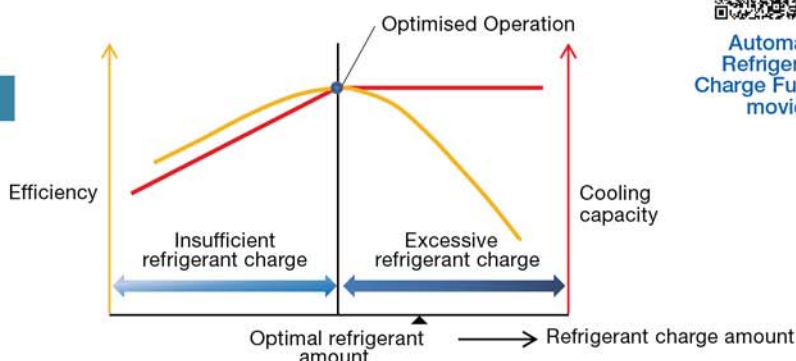
Contribute to optimised operation efficiency, higher quality and easier installation



Automatic Refrigerant Charge Function movie

## Optimised operation efficiency

The automatic refrigerant charge function automatically determines the optimal amount of refrigerant to be charged. 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 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.

### VRV IV

- 1** Calculate necessary refrigerant amount from design drawing
- 2** Recalculate refrigerant amount from final installation drawing
- 3** Charge refrigerant
- 4** Regularly check refrigerant weight on weighing scale
- 5** Complete by manually closing valves when proper weight is reached

### VRV A SERIES

- 1** Calculation of necessary refrigerant amount from design drawing
- 2** Pre-charge of refrigerant\*
- 3** 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

\*Pre-charge amount changes according to conditions, and pre-charging is unnecessary when necessary refrigerant amount is 4 kg and under.

Please refer to Engineering Data Book for details.

Even if a refrigerant leak occurs from local piping after installation, the proper refrigerant amount can still be charged without needing to calculate the necessary amount.

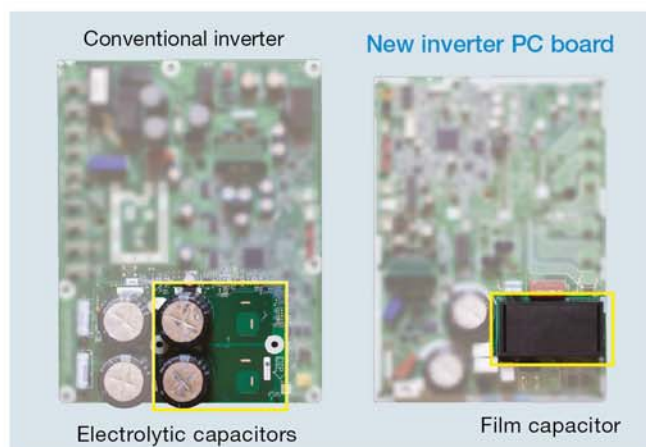
Starting the automatic refrigerant charge operation again will ensure that optimum operation efficiency and installation quality are maintained.

# High reliability

## New inverter PC board

The control functions of inverter technology have been integrated on printed circuit boards. As well as improving reliability, this has reduced the number of parts and enabled downsizing.

- New waveform control improves tolerance of variations in power supply voltage. Even if the power supply has irregularities, rises in current are suppressed and operation continues.
- Durability of the inverter printed circuit board improved by changing the electrolytic capacitors for the compressor to film capacitors.





# Excellent Operational Performance

## ■ Comfort

### Low operation sound

High efficiency heat exchanger helps to achieve low operation sound.

	Sound level(dB(A))			
	6/8 HP	10 HP	12 HP	14/16 HP
<i>VRV A SERIES</i>	56	57	59	60

### Large airflow, high static pressure and quiet technology

Advanced analytic technologies are utilised to optimise fan design and increase airflow rate and high external static pressure.

#### Streamlined air grille

It promotes the discharge of swirling airflow, further reducing pressure loss.



#### Streamlined scroll fan

The curvature of each fan blade edge reduces both vibration and pressure loss.



### Nighttime quiet operation function

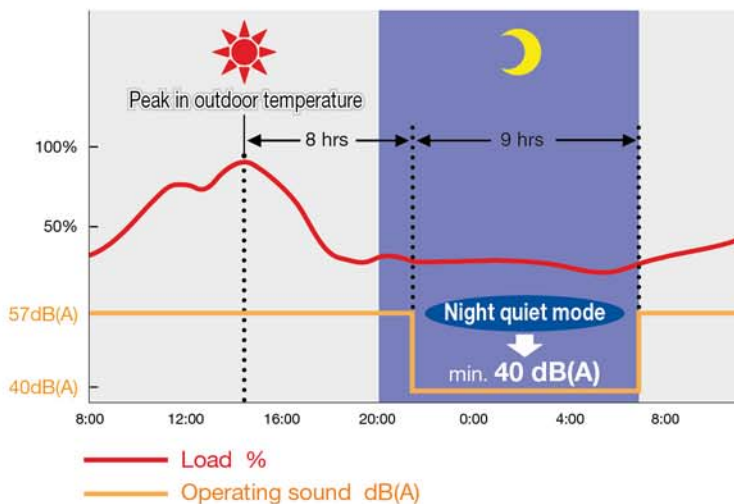
For areas with stringent restrictions placed on outdoor sound levels, the outdoor unit can be set for low operation sound during the nighttime to meet sound restrictions.

The automatic night quiet mode will initiate 8 hours\*1 after the peak temperature is reached in the daytime, and normal operation will resume 9 hours\*2 after that.

\*1. Initial setting is 8 hours. Can be selected from 6, 8 and 10 hours.

\*2. Initial setting is 9 hours. Can be selected from 8, 9 and 10 hours.

\*3. In case of 10 HP outdoor unit.



#### Note:

- The night quiet mode lowers operating sound by reducing capacity. This function is available in setting at site.
- The operating sound in quiet operation mode is the actual value measured by our company. Because priority is given to protection mode, such as for oil recovery, the operating sound may become higher temporarily.
- The relationship of outdoor temperature (load) and time shown above is just an example.



# Compact design with high performance

## Highly integrated heat exchanger

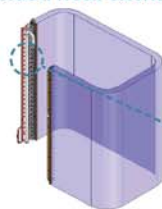
The unique 4-sided all round heat exchanger ensures sufficient surface area for the heat exchanger. This improves the heat exchanger performance without increasing the footprint.

### Waffle Fin

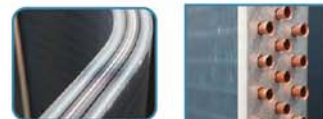
A waffled-shaped fin with fin pitch of 1.4 mm was adopted to realise sufficient heat exchanger area for optimum unit efficiency.



### 4-sided heat exchanger



High efficiency heat exchanger is realised by reducing airflow resistance with adoption of small cooling tubes with a diameter of  $\phi 7$ .

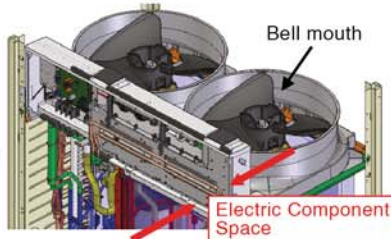


**20 HP**

3-row small pipe design increases heat transfer efficiency.

## Optimised inner design to ensure smooth airflow

Electric components were downsized and positioned in the dead space of the bell mouth side to decrease airflow resistance.



## Easy maintenance

The electrical components are strategically located on the top which eases the maintenance process. Moreover, the heat exchanger on the front side can be used effectively to improve its performance.

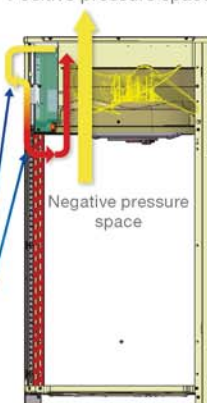
### Electrical components



## Sufficient cooling for electrical components

The VRV A series is designed with the electrical box strategically positioned between a region of positive and negative pressure. This design allows large airflow from negative pressure to positive pressure due to the high pressure difference.

### Positive pressure space

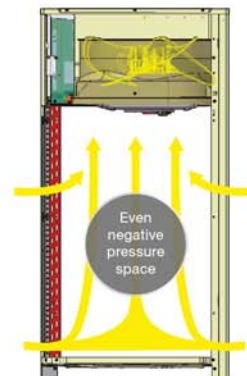


- High pressure since air enters near the fan blower inlet

High pressure difference

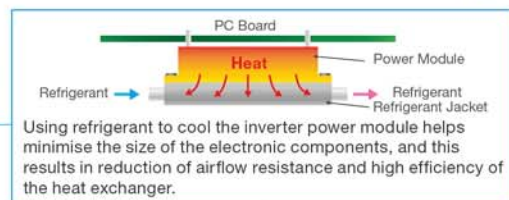
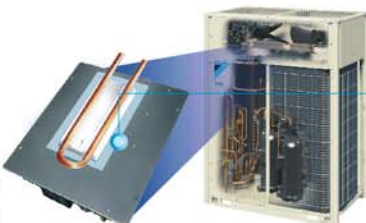
## Eliminate suction resistance issue

Without affecting the fan volume, the electric components are designed to be at the top and this utilises dead space. This eliminates the problem of suction resistance.



## High reliability at high ambient temperatures

It is possible to keep operation stable even at high ambient temperatures by cooling the inverter power module. This helps maintain air-conditioning capacity and reduces failure ratio.



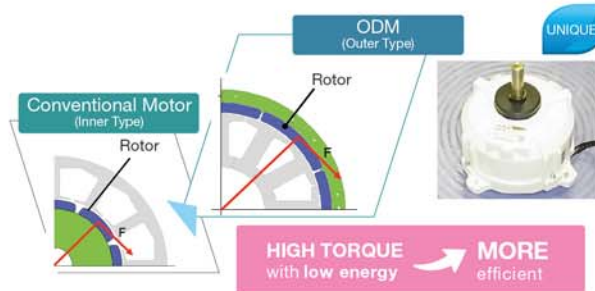
Control board failure ratio at stable operation is reduced.

## Outer Rotor DC Motor (ODM)

Only Daikin has adapted an ODM with the feature of stable rotation and volumetric efficiency.

### Advantages of ODM

- ① Large torque with same electromagnetic force
- ② Stable rotation in all ranges and can be operated with small number of rotations





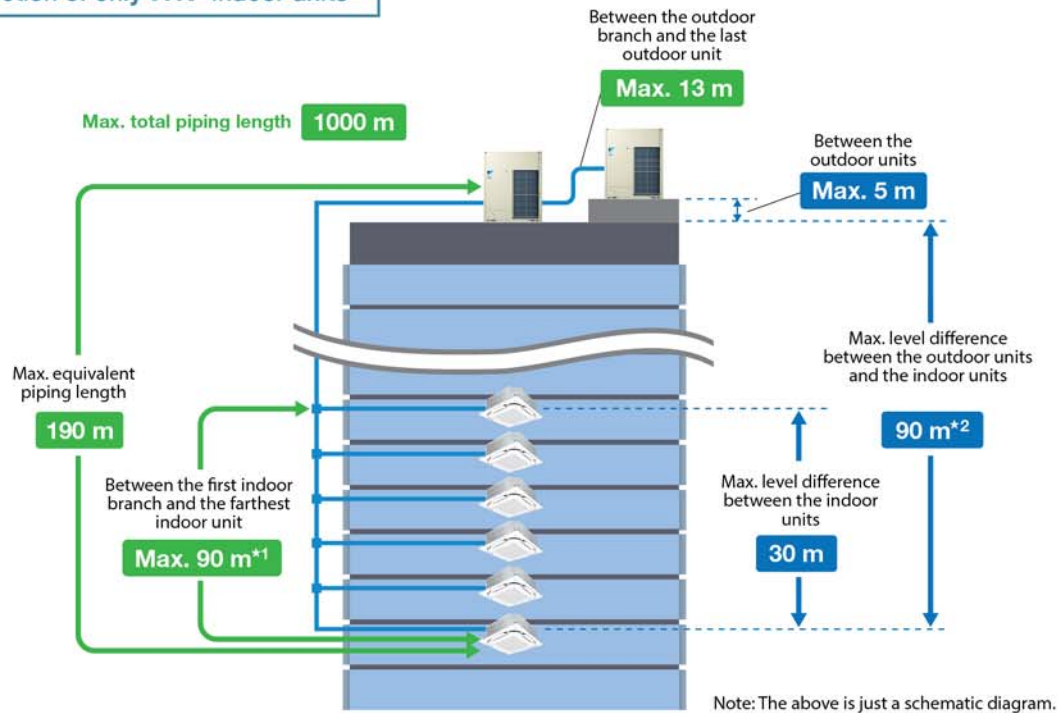
# Flexible System Design

## More options for installation location

### Long piping length

The long piping length provides more design flexibility, which can match even large-sized buildings.

For connection of only **VRV** indoor units



Maximum allowable piping length	Actual piping length (Equivalent)	165 m (190 m)
	Total piping length	1000 m
	Between the first indoor branch and the farthest indoor unit	90 m <sup>*1</sup>
	Between the outdoor branch and the last outdoor unit (Equivalent)	10 m (13 m)
Maximum allowable level difference	Between the outdoor units (Multiple use)	5 m
	Between the indoor units	30 m
	Between the outdoor units and the indoor units	90 m <sup>*2</sup>

- ★ 1. No special requirements up to 40 m. The maximum actual piping length can be 90 m, depending on conditions. The **VRV A** series is easy to extend to 90 m by lessening the conditions from conventional **VRV IV** models. Be sure to refer to the Engineering Data Book for details of these conditions and requirements.
- ★ 2. When level differences are 50 m or more, the diameter of the main liquid piping size must be increased. If the outdoor unit is above the indoor unit, a dedicated setting on the outdoor unit is required. Refer to the Engineering Data Book and contact your local dealer for more information.

## Connection ratio

Connection capacity at maximum is 200%.

Connection ratio  
**50%–200%**

$$\text{Connection ratio} = \frac{\text{Total capacity index of the indoor units}}{\text{Capacity index of the outdoor units}}$$

### Conditions of **VRV** indoor unit connection capacity

Applicable <b>VRV</b> indoor units	FXDQ, FXSQ, FXMQ-PA, FXAQ, FXB(P)Q models	Other <b>VRV</b> indoor unit models <sup>*1</sup>
Single outdoor units	<b>200%</b>	200%
Double outdoor units		160%
Triple outdoor units		130%

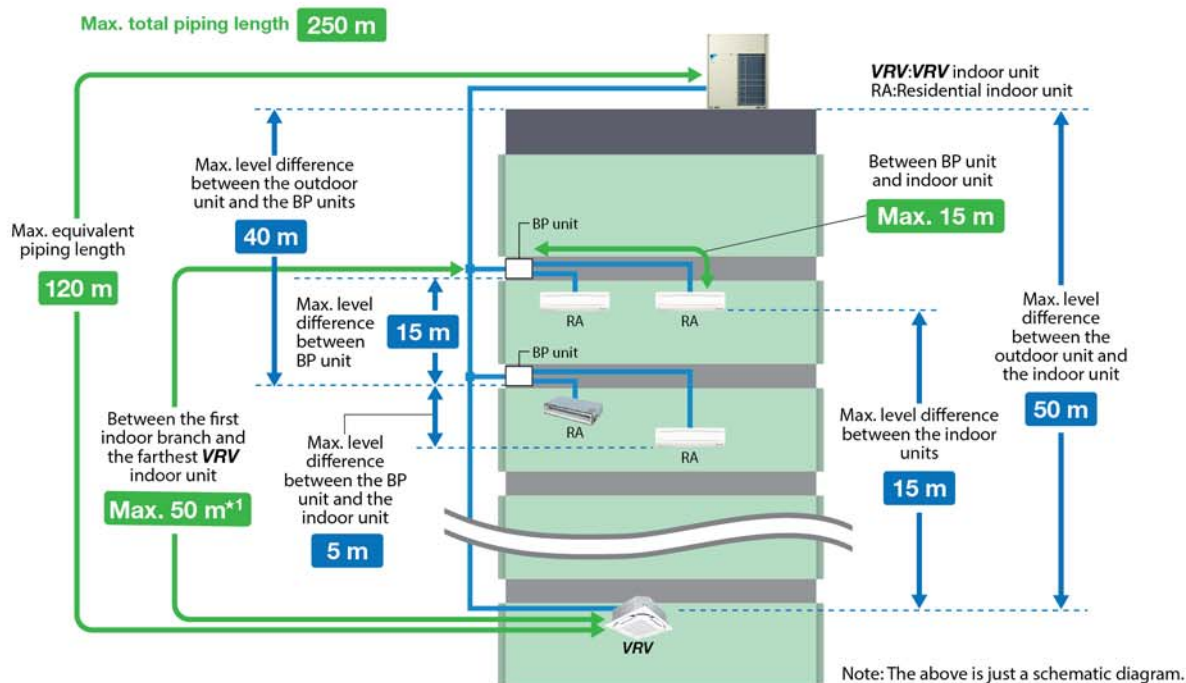
<sup>\*1</sup> For the FXF(S)Q25 and FXVQ models, maximum connection ratio is 130% for the entire range of outdoor units.

Note: If the operational capacity of indoor units is more than 130%, low airflow operation is enforced in all the indoor units.

<sup>\*</sup>Refer to page 40 for outdoor unit combination details.



### For mixed combination of VRV and residential indoor units



### When a mixed combination of VRV and residential indoor units is connected or when only residential indoor units are connected

Maximum allowable piping length	Actual piping length (Equivalent)		100 m (120 m)
	Total piping length		250 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
Maximum allowable level difference	Between the first indoor branch and the farthest BP unit or between the first indoor branch and the farthest VRV indoor unit		50 m <sup>*1</sup>
	Between outdoor unit and the first indoor branch		5 m
	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

★ 1. If the piping length between the first indoor branch and BP unit or VRV indoor unit is over 20 m, it is necessary to increase the gas and liquid piping size between the first indoor branch and BP unit or VRV indoor unit. If the piping diameter of the sized up piping exceeds the diameter of the piping before the first indoor branch kit, then the latter also requires a liquid piping and gas piping size up. Please refer to Engineering Data Book for details.

\*When a mixed combination of VRV and residential indoor units is connected or when only residential indoor units are connected, connection ratio must be 50% to 130%. Refer to page 40 for outdoor unit combination details.

## High external static pressure

VRV A series outdoor unit has been achieved high external static pressure up to 78.4 Pa, ensuring the efficient heat dissipation and stable operation of equipment in either hierarchical or intensive arrangement.

### 78.4 Pa

- More options in the opening/angle of louver
- Outstanding heat dissipation effect in both hierarchical and intensive arrangement





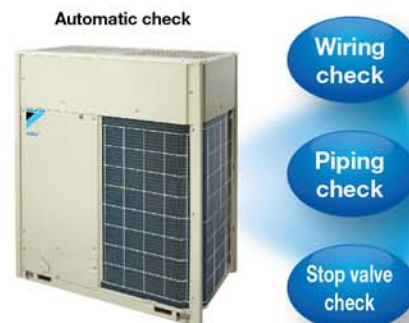
# Reliable and Stable System

## More accurate test operation and stable system

### Efficient automatic test operation

Daikin **VRV** A series incorporates a simplified and efficient test operation function, that not only greatly accelerates the installation process, but also effectively improves the field setting quality.

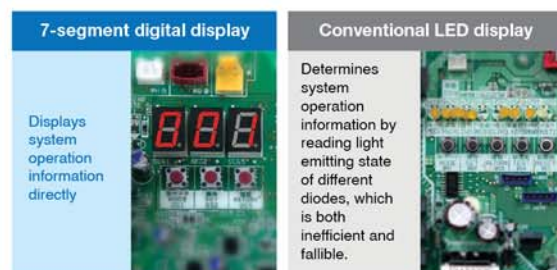
- Automatically checks the wiring between outdoor units and indoor units to confirm whether there is defective wiring.
- Confirms piping length to optimise operation.
- Automatically checks whether the stop valve in each outdoor unit is functioning normally to ensure the smooth operation of air conditioning system.



## Simplified commissioning and after-sales service

### Function of information display by luminous digital tube

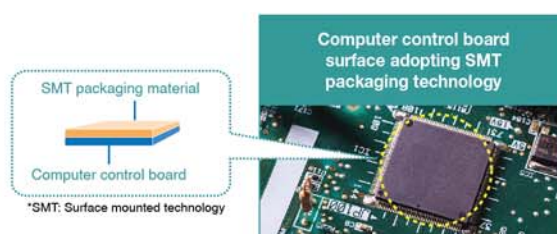
**VRV** A series utilises 7-segment luminous digital tubes to display system operation information, enabling the operational state to be visually displayed whilst facilitating simplified commissioning and after-sales service.



## Advanced control main PC board

### SMT\* packaging technology

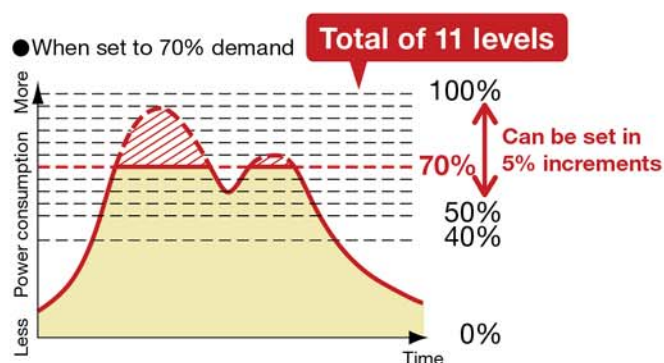
- SMT packaging technology adopted by the computer control panel improves the anti-clutter performance.
- Protects your computer boards from the adverse effects of sandy climates and humid weather.



## I-demand function

Limit to power consumption can be set precisely to one of 11 levels. Peak power cut-off can be accomplished according to each user situation.

\*Set on the circuit board of the outdoor unit.

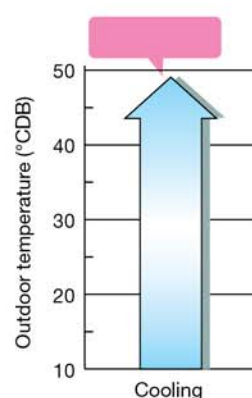


## Wide operation temperature range up to 49

The versatile operation range of the **VRV** A series works to reduce limitations on installation locations.

The operation temperature range for cooling can be performed with outdoor temperatures as high as 49°C.

This enables reliable operation even under high temperature conditions.



Note: When outdoor temperature falls below 10°C, the thermostat shuts OFF, the outdoor unit stops, and operation switches from cooling to fan operation.



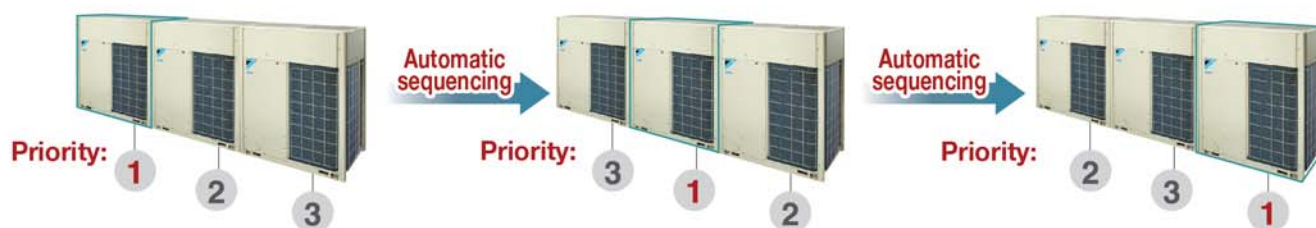
## Automatic sequencing operation

During start-up, Daikin **VRV A** series outdoor unit sequencing operation will be automatically enabled to ensure balance operation of each outdoor unit to improve longevity of equipment and operation stability.

Stage 1

Stage 2

Stage 3



## Double backup operation functions

Daikin **VRV A** series outdoor unit boasts double backup operation functions, which can secure the use of air conditioners in this area to the greatest extent in an emergency by enabling double backup operation functions even if failure occurs in a set of air conditioning equipment.

In the event of a failure, emergency operation can be conveniently enabled to allow the remaining system to operate in a limited fashion.

### Unit backup operation function

If one of the units in a multiple outdoor system malfunctions, the other outdoor units provide emergency operation until repairs can be made.

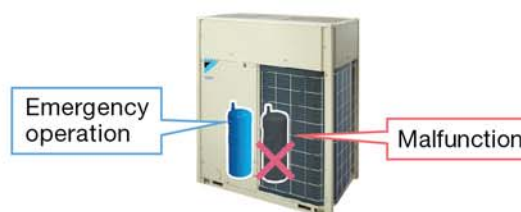
\* For systems composed of two or more outdoor units.



### Compressor backup operation function

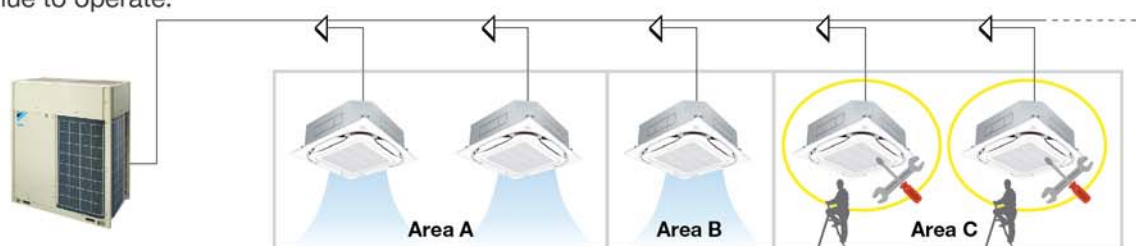
The outdoor unit is equipped with two compressors. Even if one compressor malfunctions, the other compressor provides emergency operation, reducing the risk of air conditioning shutdown due to compressor failure. (Capacity is saved during backup operation.)

\* For single outdoor unit system RXQ16-20AY1S models. On-site settings are required using the printed circuit board of the outdoor unit.



## Ease of Maintenance

**VRV A** series provides a maintenance feature\* which allows the shutdown of indoor unit without shutting down the whole **VRV** system. This feature comes in handy during maintenance period as the remaining indoor units continue to operate.



\* Field setting is required.

This feature does not apply to residential indoor unit connection.

For more information, please contact Daikin sales office.



# Outdoor Unit Lineup

## ■ VRV A Series Outdoor Units New

The outdoor unit capacity is up to 60 HP (168 kW) in increment of 2 HP.

- VRV A series outdoor unit offers a high capacity of up to 60 HP, responding to the needs of large-sized building.
- 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.

### 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
VRV A SERIES	Single outdoor units	●	●	●	●	●	●	●	●																				
	Double outdoor units							●	●	●	●	●	●	●	●	●	●	●	●										
	Triple outdoor units																			●	●	●	●	●	●	●	●	●	●

#### ●Single Outdoor Units

6, 8, 10, 12 HP    14, 16, 18, 20 HP



RXQ6AY1S  
RXQ8AY1S  
RXQ10AY1S  
RXQ12AY1S



RXQ14AY1S  
RXQ16AY1S  
RXQ18AY1S  
RXQ20AY1S

#### ●Double Outdoor Units

18, 20, 22, 24 HP    26, 28, 30 HP



RXQ18AMY1S  
RXQ20AMY1S  
RXQ22AMY1S  
RXQ24AMY1S



RXQ26AMY1S  
RXQ28AMY1S  
RXQ30AMY1S



RXQ32AMY1S  
RXQ34AMY1S  
RXQ36AMY1S  
RXQ38AMY1S  
RXQ40AMY1S

#### ●Triple Outdoor Units

42, 44 HP



RXQ42AMY1S  
RXQ44AMY1S

46, 48, 50, 52, 54, 56, 58, 60 HP



RXQ46AMY1S  
RXQ48AMY1S  
RXQ50AMY1S  
RXQ52AMY1S    RXQ54AMY1S  
RXQ56AMY1S  
RXQ58AMY1S  
RXQ60AMY1S



# Outdoor Unit Combinations

For connection of VRV indoor units

HP	kW	Capacity index	Model name	Combination	Outdoor unit multi connection piping kit <sup>*1</sup>	Total capacity index of connectable indoor units <sup>*2</sup>	Maximum number of connectable indoor units <sup>*2</sup>
6 HP	16.0	150	RXQ6A	RXQ6A	—	75 to 195 (300)	9 (15)
8 HP	22.4	200	RXQ8A	RXQ8A	—	100 to 260 (400)	13 (20)
10 HP	28.0	250	RXQ10A	RXQ10A	—	125 to 325 (500)	16 (25)
12 HP	33.5	300	RXQ12A	RXQ12A	—	150 to 390 (600)	19 (30)
14 HP	40.0	350	RXQ14A	RXQ14A	—	175 to 455 (700)	22 (35)
16 HP	45.0	400	RXQ16A	RXQ16A	—	200 to 520 (800)	26 (40)
18 HP	50.0	450	RXQ18A	RXQ18A	—	225 to 585 (900)	29 (45)
20 HP	56.0	500	RXQ20A	RXQ20A	—	250 to 650 (1,000)	32 (50)
18 HP	50.4	450	RXQ18AM	RXQ8A + RXQ10A	BHFP22P100	225 to 585 (720)	29 (36)
20 HP	55.9	500	RXQ20AM	RXQ8A + RXQ12A		250 to 650 (800)	32 (40)
22 HP	61.5	550	RXQ22AM	RXQ10A + RXQ12A		275 to 715 (880)	35 (44)
24 HP	67.0	600	RXQ24AM	RXQ12A × 2		300 to 780 (960)	39 (48)
26 HP	73.5	650	RXQ26AM	RXQ12A + RXQ14A		325 to 845 (1,040)	42 (52)
28 HP	78.5	700	RXQ28AM	RXQ12A + RXQ16A		350 to 910 (1,120)	45 (56)
30 HP	83.5	750	RXQ30AM	RXQ12A + RXQ18A		375 to 975 (1,200)	48 (60)
32 HP	90.0	800	RXQ32AM	RXQ14A + RXQ18A		400 to 1,040 (1,280)	52 (64)
34 HP	95.0	850	RXQ34AM	RXQ16A + RXQ18A		425 to 1,105 (1,360)	55 (64)
36 HP	100	900	RXQ36AM	RXQ18A × 2		450 to 1,170 (1,440)	58 (64)
38 HP	106	950	RXQ38AM	RXQ18A + RXQ20A		475 to 1,235 (1,520)	61 (64)
40 HP	112	1,000	RXQ40AM	RXQ20A × 2		500 to 1,300 (1,600)	64 (64)
42 HP	117	1,050	RXQ42AM	RXQ12A × 2 + RXQ18A		525 to 1,365 (1,365)	
44 HP	123	1,100	RXQ44AM	RXQ12A × 2 + RXQ20A		550 to 1,430 (1,430)	
46 HP	130	1,150	RXQ46AM	RXQ14A × 2 + RXQ18A		575 to 1,495 (1,495)	
48 HP	135	1,200	RXQ48AM	RXQ14A + RXQ16A + RXQ18A		600 to 1,560 (1,560)	
50 HP	140	1,250	RXQ50AM	RXQ14A + RXQ18A × 2		625 to 1,625 (1,625)	
52 HP	145	1,300	RXQ52AM	RXQ16A + RXQ18A × 2		650 to 1,690 (1,690)	
54 HP	150	1,350	RXQ54AM	RXQ18A × 3		675 to 1,755 (1,755)	
56 HP	156	1,400	RXQ56AM	RXQ18A × 2 + RXQ20A		700 to 1,820 (1,820)	
58 HP	162	1,450	RXQ58AM	RXQ18A + RXQ20A × 2		725 to 1,885 (1,885)	
60 HP	168	1,500	RXQ60AM	RXQ20A × 3		750 to 1,950 (1,950)	

Note: <sup>\*1</sup> For multiple connection, the outdoor unit multi connection piping kit (separately sold) is required.

<sup>\*2</sup> Values inside brackets are based on connection of indoor units rated at maximum capacity, 200% for single outdoor units, 160% for double outdoor units, and 130% for triple outdoor units.

## For mixed combination of VRV and residential indoor units or connection of residential indoor units only

Model name <sup>*1</sup>	kW	HP	Capacity index	Total capacity index of connectable indoor units <sup>*2</sup>			Maximum number of connectable indoor units
				Combination (%) <sup>*2</sup>			
				50%	100%	130%	
<b>RXQ6AY1S</b>	16.0	6	150	75	150	195	9
<b>RXQ8AY1S</b>	22.4	8	200	100	200	260	13
<b>RXQ10AY1S</b>	28.0	10	250	125	250	325	16
<b>RXQ12AY1S</b>	33.5	12	300	150	300	390	19
<b>RXQ14AY1S</b>	40.0	14	350	175	350	455	22
<b>RXQ16AY1S</b>	45.0	16	400	200	400	520	26
<b>RXQ18AY1S</b>	50.0	18	450	225	450	585	29
<b>RXQ20AY1S</b>	56.0	20	500	250	500	650	32

Note: <sup>\*1</sup> Only single outdoor unit (RXQ6-20AY1S) can be connected.

<sup>\*2</sup> Total capacity index of connectable indoor units must be 50%–130% of the capacity index of the outdoor unit.

# Indoor Unit Lineup

## Enhanced range of choices

A mixed combination of **VRV** indoor units and residential indoor units is enabled all in one system, opening the door to stylish and quiet indoor units.

### VRV indoor units
























 New lineup

 VRT smart

Indoor units subject to VRT smart control





 VRT

Indoor units subject to VRT control

Type	Model Name		Capacity Range																
			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)	New FXFSQ-AVS	VRT smart																	
Ceiling Mounted Cassette (Round Flow)	New FXFQ-AVS	VRT smart																	
Ceiling Mounted Cassette (Compact Multi Flow)	FXZQ-MVES	VRT																	
Ceiling Mounted Cassette (Double Flow)	FXCQ-AVMS	VRT																	
Ceiling Mounted Cassette (Single Flow)	New FXEQ-AV36	VRT																	
Slim Ceiling Mounted Duct (Standard Series)	New FXDQ-PDV2S (with drain pump)	VRT smart	 (700mm width type)																
	New FXDQ-PDVTS (without drain pump)	VRT smart																	
	New FXDQ-NDV2S (with drain pump)	VRT smart	 (900 / 1100mm width type)																
	New FXDQ-NDVTS (without drain pump)	VRT smart																	
Slim Ceiling Mounted Duct (Compact Series)	FXDQ-SPV1	VRT																	
Middle Static Pressure Ceiling Mounted Duct	New FXSQ-PAVS	VRT smart																	
Ceiling Mounted Duct	New FXMQ-PA/PV	VRT smart																	
	FXMQ-MVES	VRT																	
Outdoor-Air Processing Unit	FXMQ-MFV1																		
4-Way Flow Ceiling Suspended	FXUQ-AVEB	VRT																	
Ceiling Suspended	FXHQ-MAVS	VRT																	
	FXHQ-AVMS	VRT																	
Wall Mounted	FXAQ-AVMS	VRT																	
Floor Standing	FXLQ-MAVE8	VRT																	
Concealed Floor Standing	FXNQ-MAVE8	VRT																	
Floor Standing Duct	FXVQ-NY1	VRT																	
	FXVQ-NY16 (high static pressure type)	VRT																	
Clean Room Air Conditioner	FXBQ-PVE	VRT																	
	FXBPQ-PVE	VRT																	
Heat Reclaim Ventilator with DX-Coil and Humidifier	VKM-GA(M)V1			Airflow rate 500-1000 m³/h															
Heat Reclaim Ventilator	VAM-GJVE			Airflow rate 150-2000 m³/h															
Air Handling Unit	AHUR			6-120 HP															



## Residential indoor units with connection to BP units

Type	Model Name	Rated Capacity (kW) Capacity Index	09	12	18	24	28
			2.5	3.5	5.0	6.0	7.1
			25	35	50	60	71
Slim Ceiling Mounted Duct	FDKS-EAVMS <b>VRT</b>	 (700 mm width type)	●	●			
	FDKS-C(A)VMS <b>VRT</b>	 (900/1,100 mm width type)	●	●	●	●	
Wall Mounted	FTKJ-NV1SW <b>VRT</b>		●	●	●		
	FTKJ-NV1SS <b>VRT</b>		●	●	●		
	FTKS-DVMS <b>VRT</b>		●	●			
	FTKS-FVMS <b>VRT</b>				●	●	●

Note: BP units are necessary for residential indoor units. Only single outdoor unit (RXQ6-20AY1S) can be connected.

## VRV indoor units combine with residential indoor units in one system.

### VRV indoor unit system



Max.  
**64** 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.

### Mixed residential and VRV indoor unit system



Max.  
**32** indoor units

- BP units are necessary for residential indoor units. Only single outdoor unit (RXQ6-20AY1S) can be connected.
- If a system has both residential indoor units and VRV indoor units, the system is operated under VRT control.

### Residential indoor unit system





Max.  
**32** indoor units



- BP units are necessary for residential indoor units. Only single outdoor unit (RXQ6-20AY1S) can be connected.
- If a system has only residential indoor units, the system is operated under VRT control.

# Specifications

## ■ VRV A Series Outdoor Units

**RXQ-A**





									
MODEL			RXQ6AY1S	RXQ8AY1S	RXQ10AY1S	RXQ12AY1S	RXQ14AY1S	RXQ16AY1S	RXQ18AY1S
Combination units			—	—	—	—	—	—	—
			—	—	—	—	—	—	—
Power supply			3 phase 4-wire system, 380-415V/ 380V, 50Hz/ 60Hz						
Cooling capacity	Btu/h		54,600	76,400	95,500	114,000	136,000	154,000	171,000
	Btu/h*		54,900	76,900	96,200	115,000	137,300	154,600	171,800
	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*	50.0/50.4*
COP			4.73	4.33	4.09	3.85	3.74	3.49	3.27
Power consumption	kW		3.38	5.17	6.84	8.70	10.7	12.9	15.3
Capacity Control	%		25-100	20-100	13-100	12-100	11-100	10-100	10-100
Casing colour			Ivory white (5Y7.5/1)						
Compressor	Type		Hermetically sealed scroll type						
	Motor Outputx Number of Units	kW	2.3×1	3.4×1	4.5×1	5.6×1	6.4×1	(3.5×1)+(3.5×1)	(4.0×1)+(4.0×1)
Airflow rate	m³/min		119	178		191	257		
Dimensions (H×W×D)	mm		1,657×930×765				1,657×1,240×765		
Machine weight	kg		175		185		215	260	
Sound level	dB(A)		56		57	59	60		61
Operation range		°CDB	10 to 49						
Refrigerant	Type		R-410A						
	Charge	kg	5.9		6.7	6.8	7.4	8.2	8.4
Piping connections	Liquid	mm	φ9.5 (Brazing)			φ12.7 (Brazing)			φ15.9 (Brazing)
	Gas	mm	φ19.1 (Brazing)		φ22.2 (Brazing)	φ28.6 (Brazing)			

									
MODEL			RXQ32AMYS	RXQ34AMYS	RXQ36AMYS	RXQ38AMYS	RXQ40AMYS	RXQ42AMYS	RXQ44AMYS
Combination units			RXQ14AY1S	RXQ16AY1S	RXQ18AY1S	RXQ18AY1S	RXQ20AY1S	RXQ12AY1S	RXQ12AY1S
			RXQ18AY1S	RXQ18AY1S	RXQ18AY1S	RXQ20AY1S	RXQ20AY1S	RXQ12AY1S	RXQ12AY1S
			—	—	—	—	—	RXQ18AY1S	RXQ20AY1S
Power supply			3 phase 4-wire system, 380-415V/ 380V, 50Hz/ 60Hz						
Cooling capacity		Btu/h	307,000	324,000	341,000	362,000	382,000	399,000	420,000
		Btu/h*	309,100	326,400	342,900	363,400	383,900	402,600	423,100
		kW	90.0/90.6*	95.0/95.7*	100/100.5*	106/106.5*	112/112.5*	117/118*	123/124*
COP			3.46	3.37	3.27	3.21	3.16	3.58	3.5
Power consumption	kW	26.0	28.2	30.6	33.0	35.4	32.7	35.1	
Capacity Control	%	5-100	5-100	5-100	4-100	3-100	4-100	3-100	
Casing colour			Ivory white (5Y7.5/1)						
Compressor	Type	Hermetically sealed scroll type							
	Motor Outputx Number of Units	kW	(6.4×1)+(4.0×1) +(4.0×1)	(3.5×1)+(3.5×1) +(4.0×1)+(4.0×1)	(4.0×1)+(4.0×1) +(4.0×1)+(4.0×1)	(4.0×1)+(4.0×1) +(3.8×1)+(6.3×1)	(3.8×1)+(6.3×1) +(3.8×1)+(6.3×1)	(5.6×1)+(5.6×1) +(4.0×1)+(4.0×1)	(5.6×1)+(5.6×1) +(3.8×1)+(6.3×1)
Airflow rate	m³/min	257+257				257+297	297+297	191+191+257	191+191+297
Dimensions (H×W×D)	mm	(1,657×1,240×765)+(1,657×1,240×765)						(1,657×930×765)+(1,657×930×765)+ (1,657×1,240×765)	
Machine weight	kg	215+260	260+260			260+285	285+285	185+185+260	185+185+285
Sound level	dB(A)	64				66	68	65	67
Operation range	°CDB	10 to 49							
Refrigerant	Type	R-410A							
	Charge	kg	7.4+8.4	8.2+8.4	8.4+8.4	8.4+11.8	11.8+11.8	6.8+6.8+8.4	6.8+6.8+11.8
Piping connections	Liquid	mm	φ19.1 (Brazing)						
	Gas	mm	φ34.9 (Brazing)			φ41.3 (Brazing)			

Note: Specifications are based on the following conditions;

- Cooling: Indoor temp.: 27°CDB, 19°CWB, ; \*27°CDB, 19.5°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.
  - 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.



								
	RXQ20AY1S	RXQ18AMYS	RXQ20AMYS	RXQ22AMYS	RXQ24AMYS	RXQ26AMYS	RXQ28AMYS	RXQ30AMYS
	—	RXQ8AY1S	RXQ8AY1S	RXQ10AY1S	RXQ12AY1S	RXQ12AY1S	RXQ12AY1S	RXQ12AY1S
	—	RXQ10AY1S	RXQ12AY1S	RXQ12AY1S	RXQ12AY1S	RXQ14AY1S	RXQ16AY1S	RXQ18AY1S
	3 phase 4-wire system, 380-415V/ 380V, 50Hz/ 60Hz							
	191,000	172,000	191,000	210,000	229,000	251,000	268,000	285,000
	192,300	173,200	191,900	211,200	230,100	252,500	269,500	286,800
	56.0/56.4*	50.4/50.8*	55.9/56.3*	61.5/61.9*	67.0/67.5*	73.5/74.0*	78.5/79.0*	83.5/84.1*
	3.16	4.2	4.02	3.97	3.85	3.79	3.63	3.48
	17.7	12.0	13.9	15.5	17.4	19.4	21.6	24.0
	7-100	7-100	7-100	6-100	6-100	6-100	5-100	5-100
	Ivory white (5Y7.5/1)							
	Hermetically sealed scroll type							
	(3.8×1)+(6.3×1)	(3.4×1)+(4.5×1)	(3.4×1)+(5.6×1)	(4.5×1)+(5.6×1)	(5.6×1)+(5.6×1)	(5.6×1)+(6.4×1)	(5.6×1)+(3.5×1) +(3.5×1)	(5.6×1)+(4.0×1) +(4.0×1)
	297	178+178	178+191		191+191	191+257		
	1,657×1,240×765	(1,657×930×765)+(1,657×930×765)				(1,657×930×765)+(1,657×1,240×765)		
	285	175+185		185+185		185+215	185+260	
	65	60	61		62	63		
	10 to 49							
	R-410A							
	11.8	5.9+6.7	5.9+6.8	6.7+6.8	6.8+6.8	6.8+7.4	6.8+8.2	6.8+8.4
	φ15.9 (Brazing)					φ19.1 (Brazing)		
	φ28.6 (Brazing)				φ34.9 (Brazing)			
								
	RXQ46AMYS	RXQ48AMYS	RXQ50AMYS	RXQ52AMYS	RXQ54AMYS	RXQ56AMYS	RXQ58AMYS	RXQ60AMYS
	RXQ14AY1S	RXQ14AY1S	RXQ14AY1S	RXQ16AY1S	RXQ18AY1S	RXQ18AY1S	RXQ18AY1S	RXQ20AY1S
	RXQ14AY1S	RXQ16AY1S	RXQ18AY1S	RXQ18AY1S	RXQ18AY1S	RXQ18AY1S	RXQ20AY1S	RXQ20AY1S
	RXQ18AY1S	RXQ18AY1S	RXQ18AY1S	RXQ18AY1S	RXQ18AY1S	RXQ20AY1S	RXQ20AY1S	RXQ20AY1S
	3 phase 4-wire system, 380-415V/ 380V, 50Hz/ 60Hz							
	444,000	461,000	478,000	495,000	512,000	532,000	553,000	573,000
	447,000	464,000	481,100	498,200	515,200	535,700	556,200	576,600
	130/131*	135/136*	140/141*	145/146*	150/151*	156/157*	162/163*	168/169*
	3.54	3.47	3.39	3.33	3.27	3.23	3.2	3.16
	36.7	38.9	41.3	43.5	45.9	48.3	50.7	53.1
	3-100	3-100	3-100	3-100	3-100	3-100	2-100	2-100
	Ivory white (5Y7.5/1)							
	Hermetically sealed scroll type							
	(6.4×1)+(6.4×1) +(4.0×1)+(4.0×1)	(6.4×1)+(3.5×1)+(3.5×1) +(4.0×1)+(4.0×1)	(6.4×1)+(4.0×1)+(4.0×1) +(4.0×1)+(4.0×1)	(3.5×1)+(3.5×1)+(4.0×1) +(4.0×1)+(4.0×1)+(4.0×1)	(4.0×1)+(4.0×1)+(4.0×1) +(4.0×1)+(4.0×1)+(4.0×1)	(4.0×1)+(4.0×1)+(4.0×1) +(4.0×1)+(3.8×1)+(6.3×1)	(4.0×1)+(4.0×1)+(3.8×1) +(6.3×1)+(3.8×1)+(6.3×1)	(3.8×1)+(6.3×1)+(3.8×1) +(6.3×1)+(3.8×1)+(6.3×1)
	257+257+257					257+257+297	257+297+297	297+297+297
	(1,657×1,240×765)+(1,657×1,240×765)+(1,657×1,240×765)							
	215+215+260	215+260+260		260+260+260		260+260+285	260+285+285	285+285+285
	65			66		68	69	70
	10 to 49							
	R-410A							
	7.4+7.4+8.4	7.4+8.2+8.4	7.4+8.4+8.4	8.2+8.4+8.4	8.4+8.4+8.4	8.4+8.4+11.8	8.4+11.8+11.8	11.8+11.8+11.8
	φ19.1 (Brazing)							
	φ41.3 (Brazing)							

# Option List

## Outdoor Units

### VRV A SERIES

No.	Type		RXQ6AY1S RXQ8AY1S RXQ10AY1S	RXQ12AY1S RXQ14AY1S RXQ16AY1S	RXQ18AY1S RXQ20AY1S	RXQ18AMY1S RXQ20AMY1S RXQ22AMY1S
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		
2	Outdoor unit multi connection piping kit		—			BHFP22P100

No.	Type		RXQ24AMY1S RXQ26AMY1S RXQ28AMY1S RXQ30AMY1S RXQ32AMY1S	RXQ34AMY1S RXQ36AMY1S RXQ38AMY1S RXQ40AMY1S	RXQ42AMY1S RXQ44AMY1S RXQ46AMY1S RXQ48AMY1S RXQ50AMY1S	RXQ52AMY1S RXQ54AMY1S RXQ56AMY1S RXQ58AMY1S RXQ60AMY1S
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 multi connection piping kit		BHFP22P100		BHFP22P151	

### Option PCB

No.	Type		RXQ6AY1S RXQ8AY1S RXQ10AY1S RXQ12AY1S	RXQ14AY1S RXQ16AY1S RXQ18AY1S RXQ20AY1S	RXQ18AMY1S RXQ20AMY1S RXQ22AMY1S RXQ24AMY1S	RXQ26AMY1S RXQ28AMY1S RXQ30AMY1S
1	DIII-NET expander adaptor ★		DTA109A51			
2	External control adaptor ★		DTA109A61			
3	Home Automation Interface Adaptor ★		DTA116A51			
4	Option plate for control adaptor		—	BKS26A *1	—	

No.	Type		RXQ32AMY1S RXQ34AMY1S RXQ36AMY1S RXQ38AMY1S RXQ40AMY1S	RXQ42AMY1S RXQ44AMY1S	RXQ46AMY1S RXQ48AMY1S RXQ50AMY1S RXQ52AMY1S	RXQ54AMY1S RXQ56AMY1S RXQ58AMY1S RXQ60AMY1S
1	DIII-NET expander adaptor ★		DTA109A51			
2	External control adaptor ★		DTA109A61			
3	Home Automation Interface Adaptor ★		DTA116A51			
4	Option plate for control adaptor		BKS26A *1	—	BKS26A *1	

Note: 1. This plate is necessary for each adaptor marked ★.



# 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

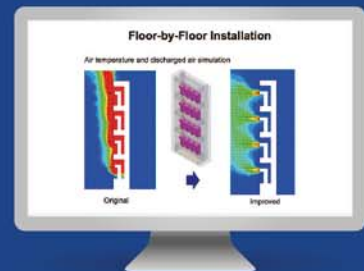
VRV Xpress is a flexible design software that optimises equipment selection. It can empower consultants and air conditioning engineers so they can fully enhance their equipment selections to design the most effective, optimum systems possible. The software also allows the choice of outdoor units based 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

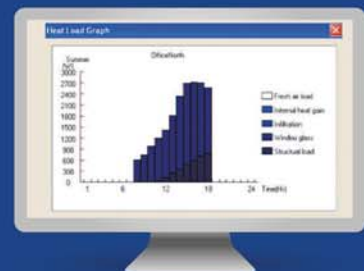
DT FLOW II is a simulation software that uses computational fluid dynamics (CFD), aiming to optimise outdoor unit layouts right at the design stage. When discharged air from the outdoor unit is drawn back into the suction vent, it can short circuit the system and lead to: decrease in efficiency of cooling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

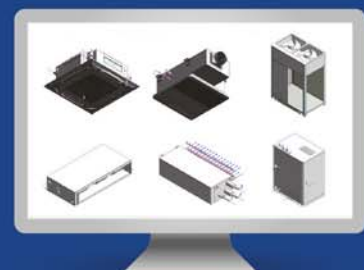
The DACCS program uses a steady-state load calculation method to compute heat load over a 24-hour period on summer and winter days. The heat load coming in through outer walls and rooftops from strong summer sunlight can be substantial, but the DACCS program applies effective temperature differences 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 specifications for Daikin products, including things like capacities and electric characteristics to support Business Information Modeling (BIM).







**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.

**SIAM DAIKIN SALES CO., LTD.**

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Fax. 0-2721-7607



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."