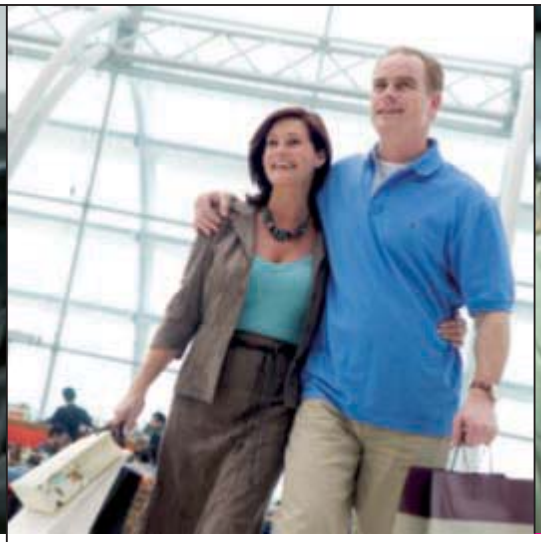
DAIKIN

AIR CONDITIONING

VRV® III

VRV® II

VRV®-WII



R-410A

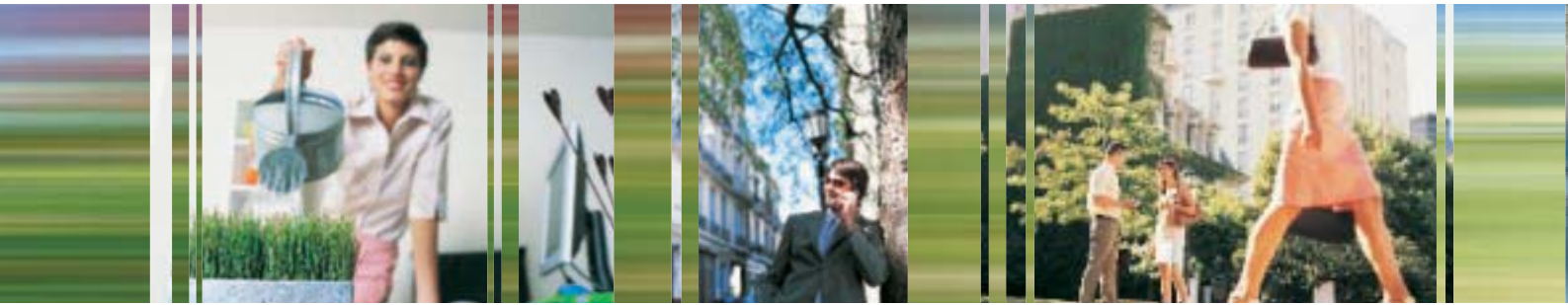
Daikin Europe N.V.

Daikin has a worldwide reputation based on over 70 years' experience in the successful manufacture of high quality air conditioning equipment for industrial, commercial and residential use.

Environmental Consciousness

Air conditioning and the environment

Air conditioning systems provide a significant level of indoor comfort, making possible optimum working and living conditions in the most extreme climates. In recent years, motivated by a global awareness of the need to reduce the burdens on the environment, some manufacturers including Daikin have invested enormous efforts in limiting the negative effects associated with the production and the operation of air conditioners. Hence, models with energy saving features and improved eco-production techniques have seen the light of day, making a significant contribution to limiting the impact on the environment.



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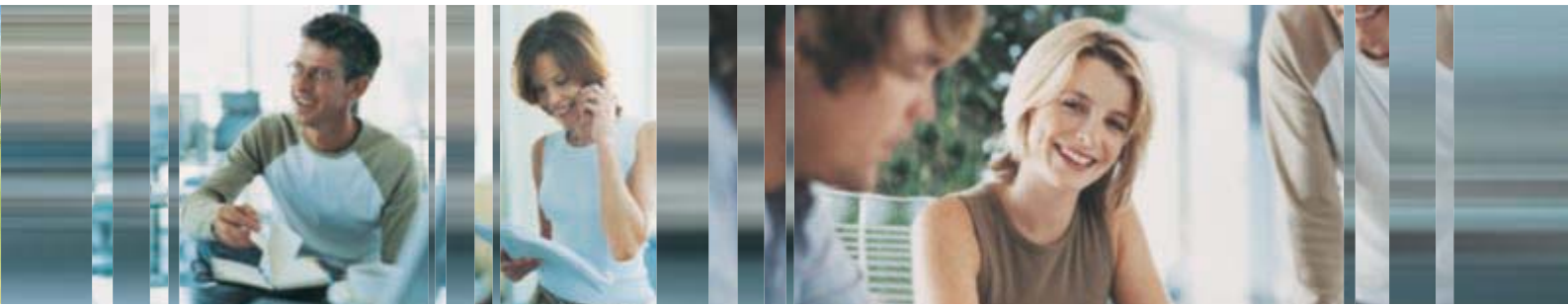


The History of VRV Systems

• 1987

The original VRV air conditioning system developed by Daikin Industries Ltd. in 1982 is introduced into Europe in VRV standard format. VRV D series can supply conditioned air from up to 4 indoor units connected to a single outdoor unit.

• 1990

The end of the year sees the launch of the new VRV Inverter G series with the facility to operate up to 8 indoor units from a single outdoor unit. Inverter capacity control greatly increases system flexibility and efficiency.

• 1991

A further step forward is taken in 1991 with the introduction of the VRV heat recovery system, offering simultaneous cooling and heating from different indoor units on the same refrigeration circuit.

• 1992

Continuous improvements to energy efficiency and system flexibility lead to the development of the advanced Hi-VRV in which fresh air supply (HRV) and computerised management (DACMS) are integrated with the VRV.

Hi-VRV™

• 1994

Consistent high quality and efficiency lead to the wide-spread acceptance of the VRV concept and Daikin becomes the first Japanese air conditioning manufacturer to be awarded the ISO9001 certification. Daikin applies yet another quantum leap to VRV technology: the VRV Inverter-H series, operate up to 16 indoor units from just 1 outdoor unit.

• 1998

In anticipation of phase out dates for all CFC based equipment, Daikin Europe steps up the production of VRV air conditioning units using R-407C.

Daikin Europe celebrates its 25th anniversary with the award of an ISO14001 environmental certificate and the introduction of VRV Inverter K series with R-407C, in cooling only or heat pump format. As many as 16 indoor units can be connected to 1 single outdoor unit.

• 1999

The VRV Plus series using R-22 has been designed around leading edge technologies to accommodate high capacity air conditioning networks of up to 30 indoor units from a single refrigerant circuit.

Another step forward has been taken with the launch of the VRV heat recovery series using R-407C and connecting up to 16 indoor units to 1 single outdoor unit.

• 2000

Because of the growing needs of large-capacity systems Daikin Europe introduces the VRV Plus series using R-407C, in heat pump format. Up to 32 indoor units can be connected to a single refrigerant circuit.

• 2001

The latest addition to the VRV Plus series is the VRV Plus heat recovery series using R-407C. Up to 32 indoor units can be connected to a single refrigerant circuit.

• 2002

Daikin launches the new πVRV series – an energy saving series with high COP levels and flexible design characteristics, using R-407C.

• 2003

Daikin introduces the of its VRVII, the world's first R-410A operated variable refrigerant flow system. Available in cooling only, heat pump and heat recovery versions, the system, which represents a considerable advance over earlier VRV systems, demonstrates Daikin's innovative application of new technology.
No less than 40 indoor units in heat recovery as well as heat pump format can be connected to a single refrigerant circuit.

• 2004

The introduction of the VRVII-S series extends VRV operating scope into the light commercial sectors.
Available in 4, 5 and 6HP capacities, the system is designed for installation in up to 9 rooms.

• 2005

Daikin has extended the operational scope of its acclaimed VRVII inverter driven dx air conditioning system, with a new water-cooled version, VRV-WII. Available in 10, 20 and 30HP models, the system operates on R-410A refrigerant and is available in both heat pump and heat recovery versions.

• 2006

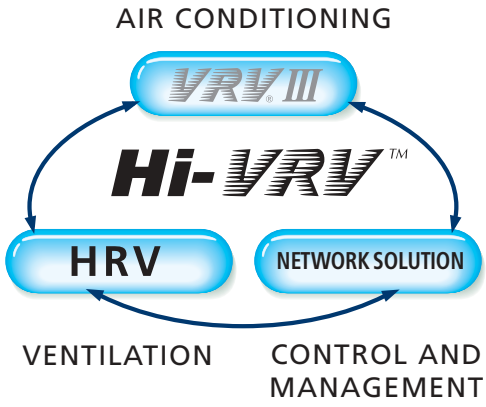
Daikin has announced the third generation of its much acclaimed VRV range with the extensively re engineered VRVIII. Available initially in heat pump and cooling only versions, VRVIII incorporates all the best features of earlier VRV systems. However, it also possesses a considerable number of new design, installation and maintenance refinements.

What is Hi-VRV™ ?

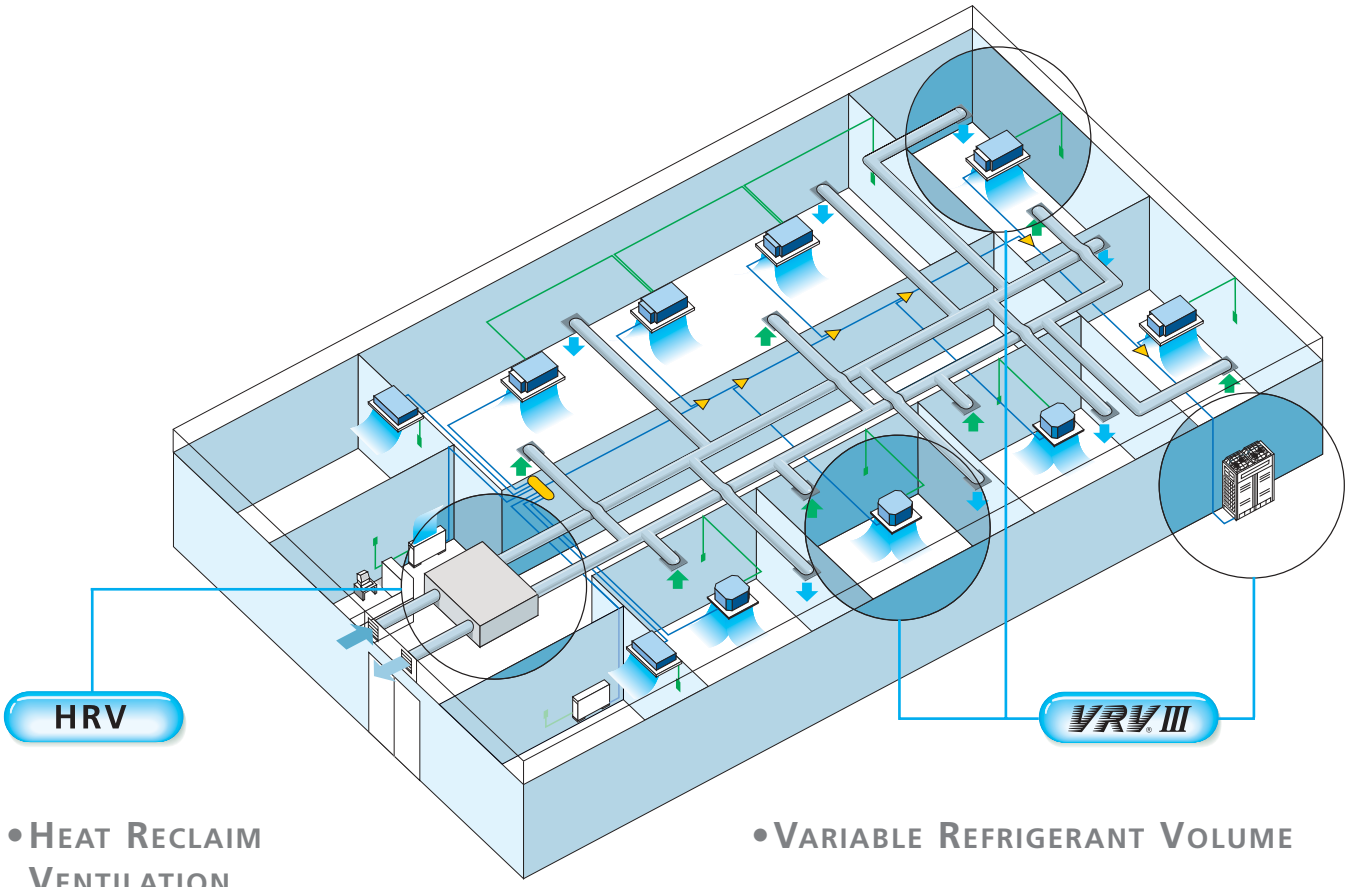
In recent years, design styles for intelligent buildings such as hotels, banks and offices etc. have increasingly featured large areas of glazing with attendant high solar heat gains that can only be dissipated by means of air conditioning. Not surprisingly therefore, air conditioning has grown in importance and is now widely accepted as an integral component of most modern architectural concepts.

The increasing use of electronic office equipment raises thermal loadings still further to a point whereby, even in winter, internal temperatures can reach uncomfortable levels. The demand for cooling or heating can also vary considerably through-out the day depending on the number and occupation of personnel on the premises. But end users have come to expect far more than just cooling and heating from their air conditioning.

The ideal modern system must be energy efficient, easy to install, flexible, reliable and user friendly. Fresh air must be supplied without increasing energy consumption and the role of central management facilities should also be considered in this respect for medium to large sized buildings. The Daikin Hi-VRV system meets all these demands.



The innovative Hi-VRV selection programme, Daikin's flag ship software package, enables you to exploit the system's possibilities to the max and guarantees the end user a perfect service. From now on you can fully plan your Daikin air-conditioning project on a step-by-step basis without difficulty.



• Heat Reclaim Ventilation

Heat and humidity are exchanged between supply and exhaust air, which

- brings outdoor air close to indoor air conditions
- recovers energy loss
- realises considerable reduction of air conditioning capacity

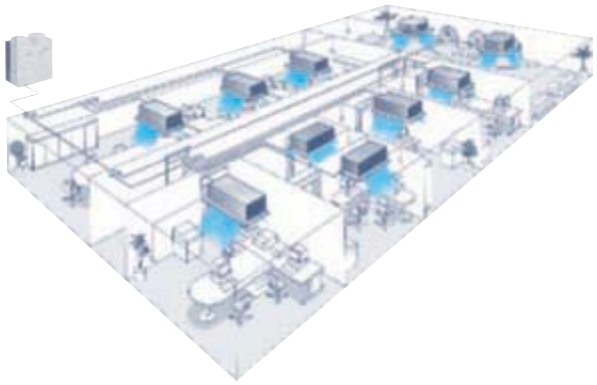
• Variable Refrigerant Volume

- available in cooling only, heat pump and heat recovery near future) formats.
- a rapid response system in which up to 64 indoor units can operate on the same refrigerant circuit.
- an inverter driven compressor enables the output of the outdoor unit to be modulated in accordance with the cooling/heating demand of the zone which it controls.

NETWORK SOLUTION

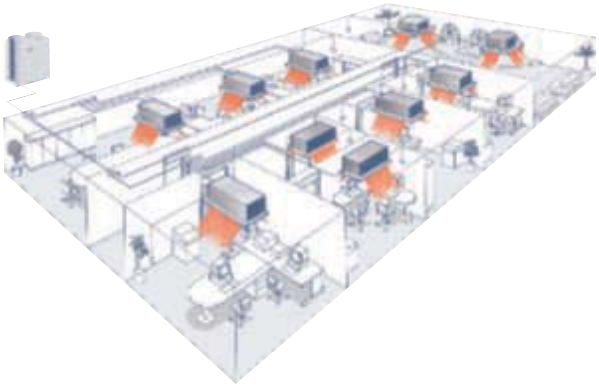
DS-net	The ideal solution for control and management of up to 2,000 indoor units.
intelligent touch Controller	Allows detailed and easy monitoring and operation of VRV systems (maximum 2 x 64 control groups).
intelligent Manager	The ideal solution for control and management of maximum 1,024 VRV indoor units.
DMS-IF	Open network integration of VRV monitoring and control functions into LonWorks® networks.
BACnet Gateway	Integrated control system for seamless connection between VRV and BMS systems.

The VRV Systems



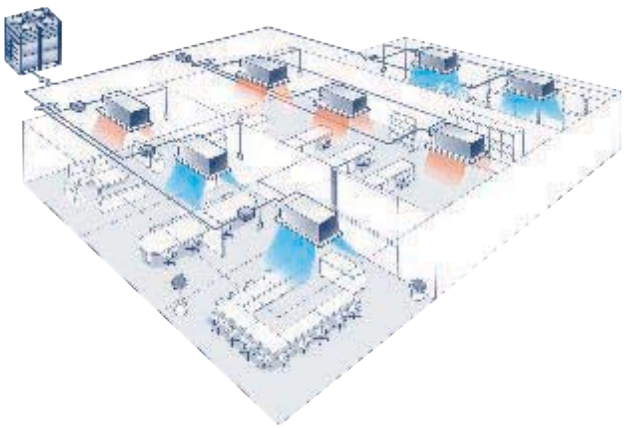
VRVIII Inverter Cooling Only

- For cooling operation from one system
- Up to 29 indoor units can be operated from a single outdoor unit without the need for an additional adapter PCB.
- The line-up of 5, 8, 10, 12, 16, 18hp models is ideally suited to applications in smaller facilities and minor expansions and upgrades.



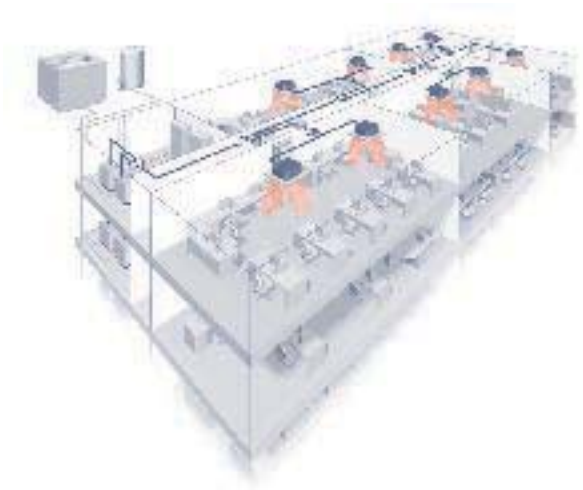
VRVIII Inverter Heat Pump

- For either cooling or heating operation from one system
- Up to 64 indoor units can be operated from a single outdoor unit without the need for an additional adapter PCB.
- An extensive capacity range starting at 5hp, then from 8hp to 54hp in 2hp increments meets all customer requirements concerning small to large buildings, whether new or existing



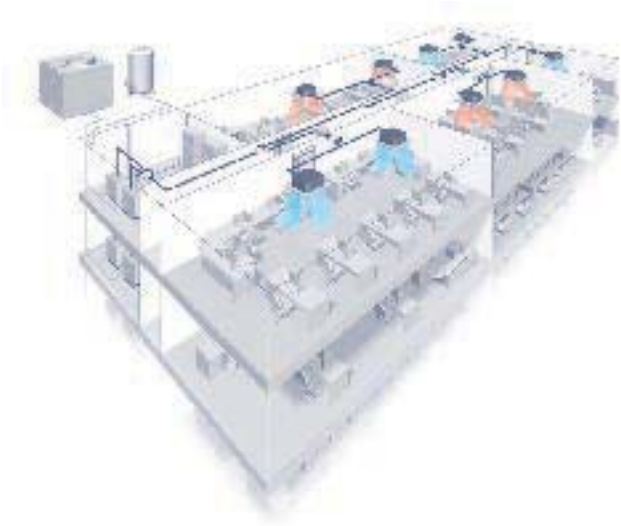
VRVII Inverter Heat Recovery

- For simultaneous cooling and heating operation from one system
- Up to 40 indoor units can be operated from a single outdoor unit in VRVII heat recovery format.
- Extensive capacity range from 8hp to 48hp in 2hp increments for VRVII, meets all customer requirements concerning small to large buildings, whether new or existing.
- Heat recovery is achieved by diverting exhaust heat from indoor units in cooling mode to areas requiring heating.
- The BS unit switches the system between cooling and heating modes.



VRV-WII Inverter Heat Pump

- For either cooling or heating operation from one system
- Up to 32 indoor units can be operated from a VRV-WII outdoor unit without the need for an additional adapter PCB.
- Availble in 10, 20 and 30 HP models



VRV-WII Inverter Heat Recovery

- For simultaneous cooling and heating operation from one system
- Up to 32 indoor units can be executed from a VRV-WII outdoor unit without the need for an additional adapter PCB
- Availble in 10, 20 and 30 HP models
- Heat recovery is achieved by diverting exhaust heat from indoor units in cooling mode to areas requiring heating.
- The BS unit switches the system between cooling and heating modes.

Features

1. Wide Application Range

1 VRVIII Outdoor Unit Range

5HP

8,10,12HP

14,16,18HP

VRVIII cooling only	VRVIII heat pump	N° of outdoor units**	N° of compressors**	Maximum n° of connectable indoor units	Minimum capacity index - 50%	Maximum *** capacity index - 130%	Capacity steps
RXQ5P	RXYQ5P	1	1	8	62.5	162.5	18
RXQ8P	RXYQ8P	1	1	13	100	260	24
RXQ10P	RXYQ10P	1	2	16	125	325	37
RXQ12P	RXYQ12P	1	2	19	150	390	37
RXQ14P	RXYQ14P	1	3	23	175	455	51
RXQ16P	RXYQ16P	1	3	26	200	520	51
RXQ18P	RXYQ18P	1	3	29	225	585	55
-	RXYQ20P	2	3	32	250	650	*
-	RXYQ22P	2	4	35	275	715	*
-	RXYQ24P	2	4	39	300	780	*
-	RXYQ26P	2	4	42	325	845	*
-	RXYQ28P	2	5	45	350	910	*
-	RXYQ30P	2	5	49	375	975	*
-	RXYQ32P	2	6	52	400	1,040	*
-	RXYQ34P	2	6	55	425	1,105	*
-	RXYQ36P	2	6	58	450	1,170	*
-	RXYQ38P	3	6	61	475	1,235	*
-	RXYQ40P	3	7	64	500	1,300	*
-	RXYQ42P	3	7	64	525	1,365	*
-	RXYQ44P	3	7	64	550	1,430	*
-	RXYQ46P	3	8	64	575	1,495	*
-	RXYQ48P	3	8	64	600	1,560	*
-	RXYQ50P	3	9	64	625	1,625	*
-	RXYQ52P	3	9	64	650	1,690	*
-	RXYQ54P	3	9	64	675	1,755	*

*Information was not available at time of publication

** based on optimised footprint combinations.

*** Please contact your local Daikin dealer for more information.

8,10HP

12,14,16HP

2 VRVII Outdoor Unit Range

VRV II heat recovery	N° of outdoor units	N° of compressors	Maximum n° of connectable indoor units	Minimum capacity index - 50%	Maximum capacity index - 130%	Capacity steps
REYQ8M8	1	2	13	100	260	29
REYQ10M8	1	2	16	125	325	29
REYQ12M8	1	2	19	150	390	29
REYQ14M8	1	3	20	175	455	35
REYQ16M8	1	3	20	200	520	35
REYQ18M8	2	4	20	225	585	41
REYQ20M8	2	4	20	250	650	41
REYQ22M8	2	4	22	275	715	41
REYQ24M8	2	5	32	300	780	46
REYQ26M8	2	5	32	325	845	46
REYQ28M8	2	5	32	350	910	46
REYQ30M8	2	6	32	375	975	51
REYQ32M8	2	6	32	400	1,040	51
REYQ34M8	3	7	34	425	1,105	56
REYQ36M8	3	7	36	450	1,170	56
REYQ38M8	3	7	38	475	1,235	56
REYQ40M8	3	8	40	500	1,300	61
REYQ42M8	3	8	40	525	1,365	61
REYQ44M8	3	8	40	550	1,430	61
REYQ46M8	3	9	40	575	1,495	68
REYQ48M8	3	9	40	600	1,560	68

3 VRV-WII Outdoor Unit Range

10HP

VRV-WII heat pump	VRV-WII heat recovery	N° of outdoor units*	N° of compressors	Maximum n° of connectable indoor units	Minimum capacity index - 50%	Maximum capacity index - 130%	Capacity steps
RWEYQ10M		1	1	16	125	325	22
RWEYQ20M		2	2	20	250	650	32
RWEYQ30M		3	3	32	375	975	37

4 Indoor Unit Capacity Index

Model	20	25	32	40	50	63	71	80	100	125	200	250
Capacity index	20	25	31.5	40	50	62.5	71	80	100	125	200	250

eg. Selected indoor units: FXCQ25 + FXFQ100 + FXMQ200 + FXSQ40

Connection ratio: 25 + 100 + 200 + 40 = 365

→ possible outdoor unit REYQ12M

5 Wide Range of Indoor Units

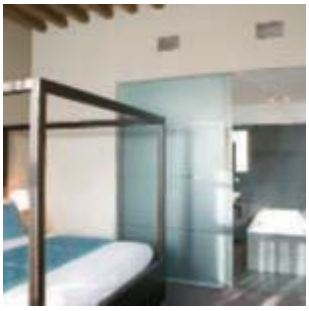
VRV air conditioning brings summer freshness and winter warmth to offices, hotels, department stores and many other commercial premises. It enhances the indoor environment and creates a basis for increased business prosperity and whatever the air conditioning requirement, a Daikin indoor unit will provide the answer. VRV air conditioning can be supplied via **13 different indoor unit models** in a total of **75 variations**.

→ FXFQ
20-25-32-40-50-63-80-100-125
FXZQ
20-25-32-40-50

FXCQ →
20-25-32-40-50-63-80-125

→ FXKQ
25-32-40-63

FXDQ-M8 →
20-25



→ FXDQ-P/NA
20-25-32-40-50-63

FXSQ →
20-25-32-40-50-63-80-100-125

Indoor units		20	25	32	40	50	63	71	80	100	125	200	250
4-way blow ceiling mounted cassette (600x600mm)	FXZQ	x	x	x	x	x							
4-way blow ceiling mounted cassette	FXFQ	x	x	x	x	x	x		x	x	x		
2-way blow ceiling mounted cassette	FXCQ	x	x	x	x	x	x		x		x		
Ceiling mounted corner cassette	FXKQ		x	x	x		x						
Small concealed ceiling unit	FXDQ	x	x										
Slim concealed ceiling unit	FXDQ	x	x	x	x	x	x						
Concealed ceiling unit	FXSQ	x	x	x	x	x	x		x	x	x		
Large concealed ceiling unit	FXMQ				x	x	x		x	x	x	x	x
Wall mounted unit	FXAQ	x	x	x	x	x	x						
Ceiling suspended unit	FXHQ			x			x			x			
4-way blow ceiling suspended unit	FXUQ							x		x	x		
Floor standing unit	FXLQ	x	x	x	x	x	x						
Concealed floor standing unit	FXNQ	x	x	x	x	x	x						

HRV		50	80	100
Ventilation, DX coil & humidifier	VKM-GM	x	x	x
Ventilation & DX coil	VKM-G	x	x	x

→ FXMQ
40-50-63-80-100-125-200-250

FXAQ →
20-25-32-40-50-63

→ FXHQ
32-63-100

FXUQ →
71-100-125

→ FXLQ
20-25-32-40-50-63

FXNQ →
20-25-32-40-50-63

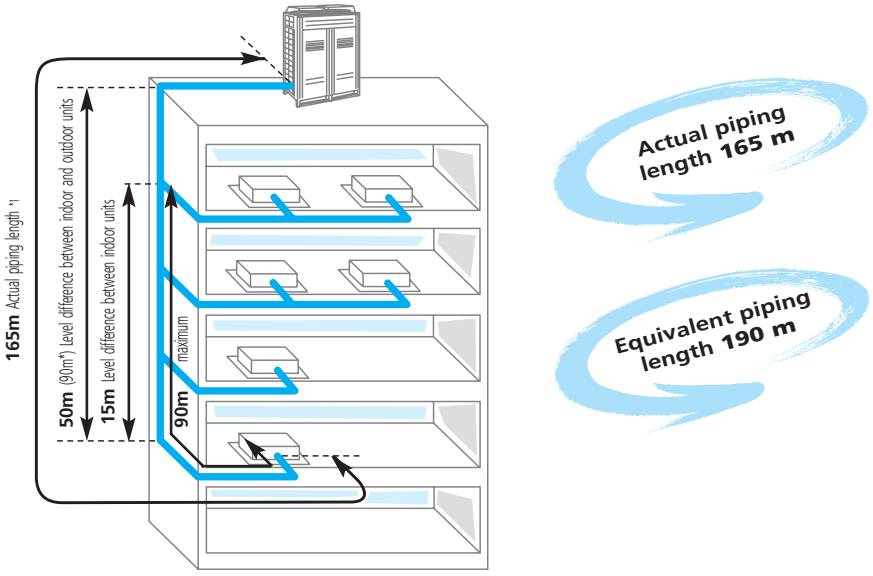
6 Extended Piping Length

VRVIII

VRVIII offers an extended piping length of 165m (190m equivalent piping length) with a total system piping length of 1,000m.

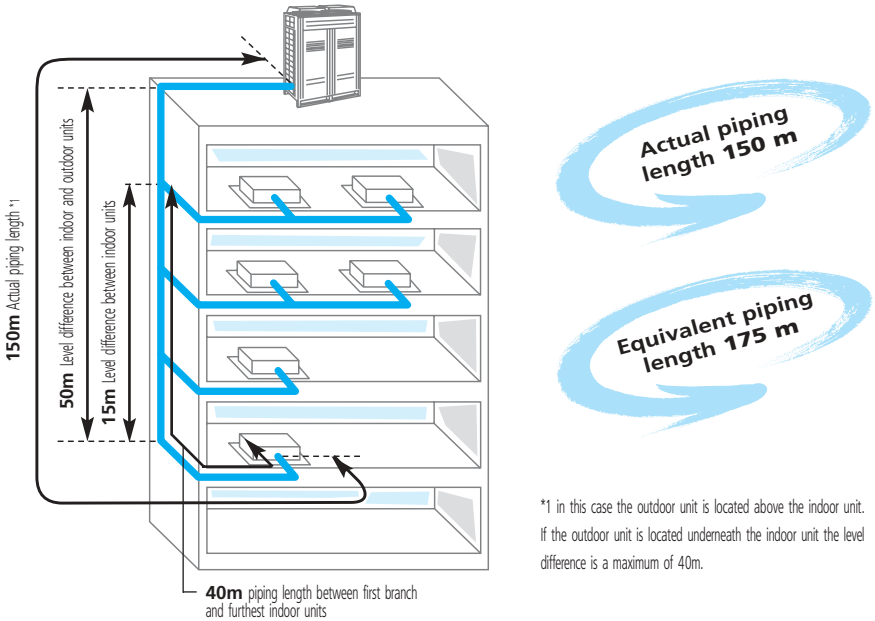
In case the outdoor unit is located above the indoor unit the height difference is 50m standard. It can be extended to 90m*

In case the outdoor unit is located below the indoor unit, the height difference is 40m standard. Height differences up to maximum 90m are possible*.



After the first branch, the difference between the longest piping length and the shortest piping length can be maximum 40m, provided that the longest piping length amounts to maximum 90m.

* For more information, please contact your local Daikin dealer.



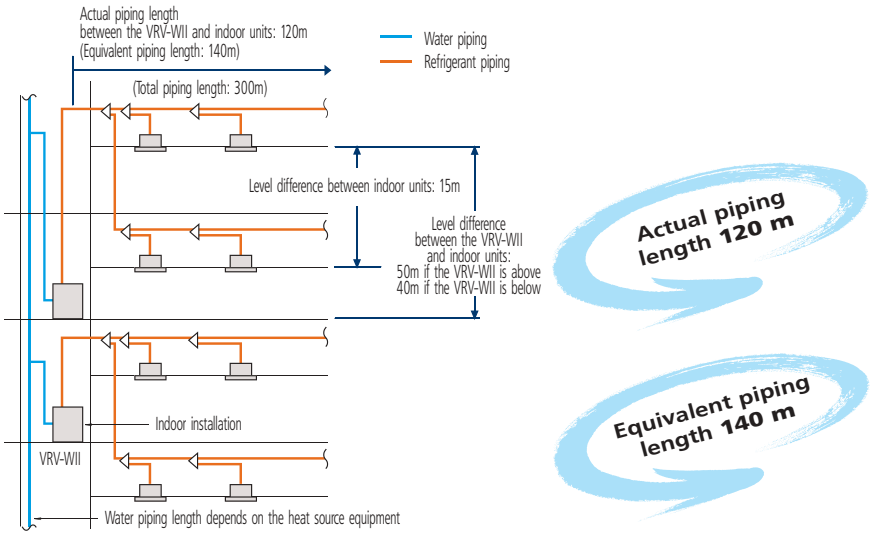
*1 in this case the outdoor unit is located above the indoor unit. If the outdoor unit is located underneath the indoor unit the level difference is a maximum of 40m.

VRVII

The ability to sustain refrigerant piping in lengths up to 150m (175m equivalent), allows systems to be designed with level differences of 50m between indoor and outdoor units and 15m between individual indoor units. Thus, even with installations in 15 storey buildings, all outdoor units can be located at rooftop level.

VRV-WII

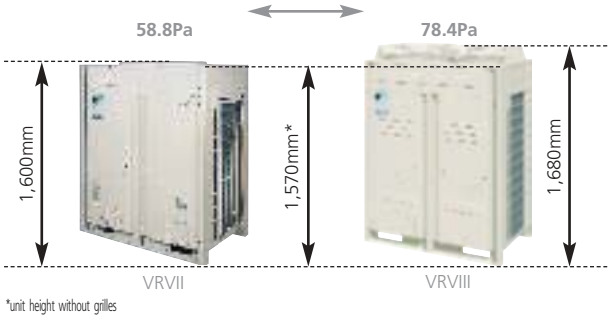
The water-cooled VRV-WII uses water as its heat source and since there are no limitations on water piping length, is eminently suitable for application to tall multi storey or large buildings. Considerable flexibility is available within the refrigerant circuit since up to 120m actual piping length and 50m* (if the VRV-WII is above the indoor units) in height can exist between the VRV-WII and indoor units. Water piping does not intrude on the occupied spaces, so there are no leakage problems.



* 40m if the VRV-WII is below the indoor units.

7 Higher Outdoor Fan ESP

Although VRVIII outdoor units are the same height (1,570mm) as VRVII units, they feature a higher ESP due to new and powerful inverter driven fans, modified grilles and heat exchanger.



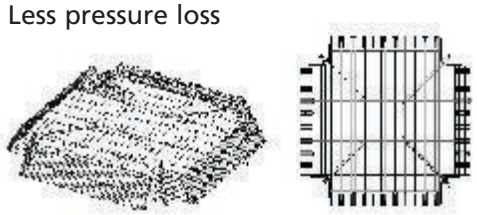
Powerful Inverter Driven Fans

Blade increase of 25 % compared to VRVII series.

10HP	VRVII	VRVIII
Blade area	3 blades, ø 700	4 blades, ø 680

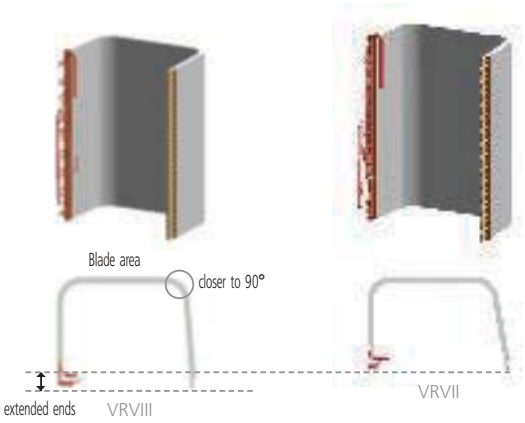
New Fan Grilles

Less pressure loss



New Heat Exchanger

The ends of the heat exchanger have been extended, resulting in an overall increase of 138mm or 7-10% increase in effective length.



8 Super Silent Mode

		5HP	8HP	10HP	12HP	14HP	16HP	18HP
Step 1	50dB	14.7	19.9	19.9	20.9	19.9	20.1	20.2
		100%	98%	78%	69%	55%	49%	44%
Step 2	45dB	11.9	15.1	15.1	15.6	15.5	15.6	15.6
		93%	74%	59%	51%	43%	38%	34%

Step 1 fixes the operating sound value at 50dBA. When the sound level of an 8HP outdoor unit is fixed at 50dBA it will operate at 98 % of its nominal capacity. Step 2 fixes the operating sound value at 45dBA. When the sound level of the same 8HP outdoor unit is fixed at 45dBA it will operate at 74 % of its nominal capacity.

For some applications the operating sound level of the outdoor unit might be too high. VRVIII super silent mode however, allows the sound level to be fixed in order to avoid noise pollution.

9 Smaller Footprint

VRVIII/VRVII

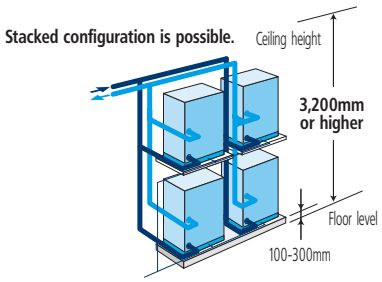
HP	5	8	10	12	14	16
VRVII	 0.49m²	 0.71m²		 0.95m²		

34% REDUCTION

HP	5	8	10	12	14	16	18
VRVIII	 0.49m²	 0.71m²			 0.95m²		

VRV-WII

The adoption of a new water heat exchanger and optimization of the refrigerant control circuit has resulted in the industry's most compact and lightweight design. The unit weight of 150kg and height of 1,000mm makes installation easy. Stacked configuration is also possible, contributing further to space savings.



10 Back-up Function

In the event of a compressor malfunction, the remotely controlled or field set back-up function in the outdoor unit in question (and also between different outdoor units) will allow emergency operation of another compressor in order to maintain 8 hour maximum interim capacity.

11 Year Round Cooling and/or Heating

→Designed to provide simultaneous year round cooling and/or heating, VRV heat recovery systems are modular in concept and are therefore, ideal for use in rooms or zones that generate varying thermal loads according to building orientation or local hot or cold spots.

→It is possible for the same meeting room to give rise to differing thermal loads depending on the time of day, number of occupants present, location and usage pattern of lighting and electronic office equipment.

→The colder it is outside, the warmer it needs to be indoors, which means that the capacity of the air-cooled outdoor unit drops. Water-cooled air conditioners are not subject to this problem. The boiler ensures that sufficient enough additional heat is always available indoors.

12 Integration with Ventilation

HRV - Heat Reclaim Ventilation

→Heat and humidity are exchanged between supply and exhaust air, which
- brings outdoor air close to indoor air conditions
- recovers energy loss
- realises considerable reduction of air conditioning capacity

→The heat exchanger modulates the humidity and temperature of incoming fresh air to match indoor conditions.

→The balance achieved between indoor and outdoor ambients, enables the cooling/heating load placed on the air conditioning system to be reduced. (Heat and humidity are exchanged)

→Most energy saving solution as smaller indoor units can be selected:
- Size down of indoor units down to 40 %
- Payback total VAM system: ±2.5 years*

*conditions:
- outside cooling conditions: 30°C / outside heating conditions: - 8°C
- Inside cooling conditions: 24°C / inside heating conditions: 22°C
- Ventilation per room: 150m³/h

→Ideal modular concept to cope with the fresh air requirements

13 Anti Corrosion Treatment

Special anti corrosion treatment of the heat exchanger provides 5 to 6 times greater resistance against acid rain and salt corrosion. The provision of rust proof steel sheet on the underside of the unit gives additional protection.

Improvement in corrosion resistance

Corrosion resistance rating

	Non-treated	Anti-corrosion treated
Salt corrosion	1	5 to 6
Acid rain	1	5 to 6

Performed tests :

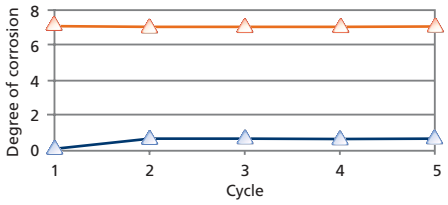
VDA Wechseltest

contents of 1 cycle (7 days):

→24 hours salt spray test SS DIN 50021

→96 hours humidity cycle test KFW DIN 50017

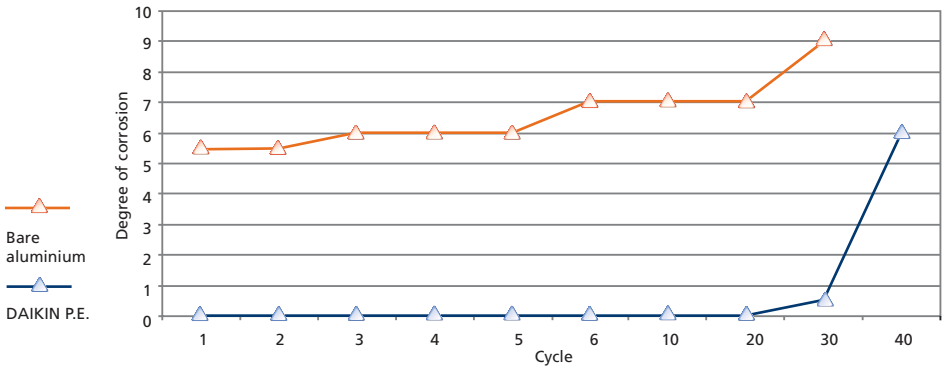
→48 hours room temperature & room humidity testing period : 5 cycles



Kesternich test (SO2)

→contents of 1 cycle (48 hours) according to DIN50018 (0.21)

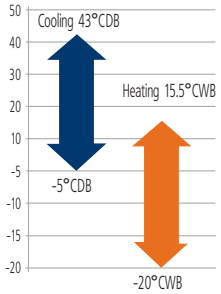
→testing period : 40 cycles



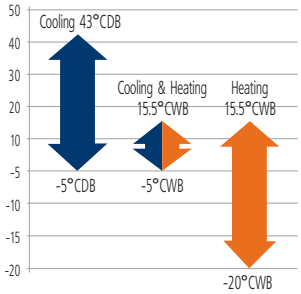
14 Operation Range

VRVIII/VRVII

Standard operation down to -20°C outdoor ambient temperature. Advanced PI control of the outdoor unit enables VRV series to operate at outdoor ambients down to -5°C in cooling mode and down to -20°C in heating mode.



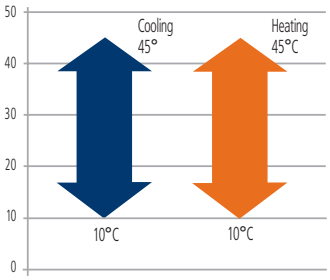
VRVIII / VRVII
cooling only / heat pump



VRVIII / VRVII
heat recovery

VRV-WII

Wide operation range of the water-cooled units between 10°C & 45°C, both in cooling and heating.



VRV-WII
heat pump / heat recovery

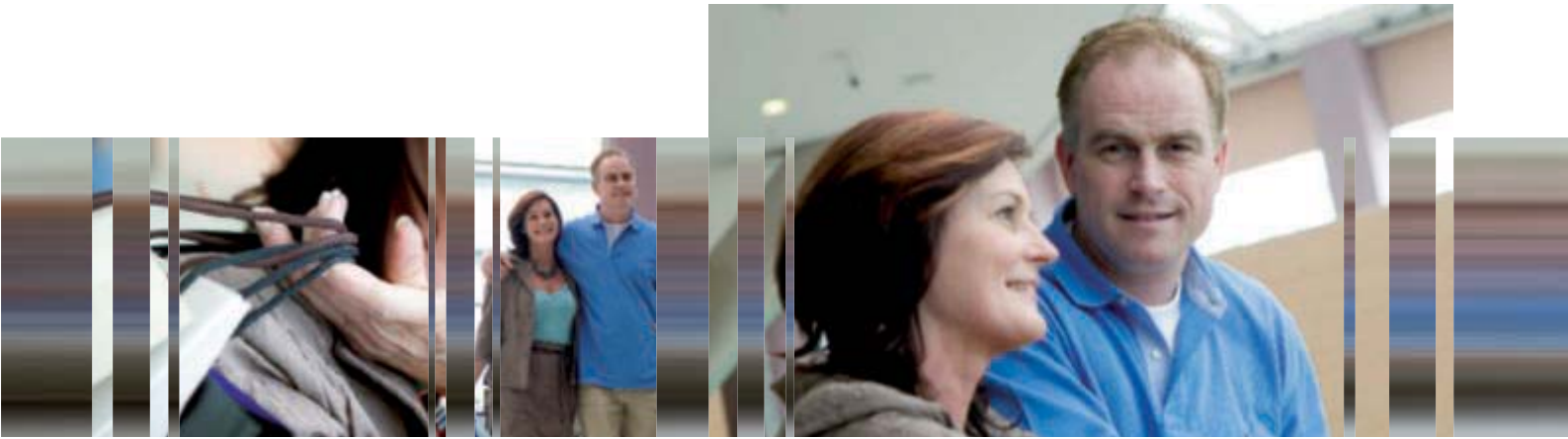
15 Low Operation Sound Level

→Continuous research by Daikin into reducing operation sound levels has resulted in the development of a purpose designed inverter scroll compressor and fan.

→Daikin indoor units have very low sound operation levels, down to 25dB(A)

dB(A)	Perceived loudness	Sound
0	Treshold of hearing	-
20	Extremely soft	Rustling leaves
40	Very soft	Quiet room
60	Moderately loud	Normal conversation
80	Very loud	City traffic noise
100	Extremely loud	Symphonic orchestra
120	Threshold of feeling	Jet taking off

DAIKIN INDOOR UNIT



2. Environmental Consciousness

1 Higher EER/COP

Option 1: Compact Combinations

Compact combinations from 5HP to 54HP provide the smallest footprint

HP	16	18	20	22	24	26	28	30	32	34	36
8			1			1					
10				1			1				
12			1	1	2			1			
14									1		
16	1									1	
18		1				1	1	1	1	1	2

EER/COP Values

HP	16	18	20	22	24	26	28	30	32	34	36
EER	3.17	3.02	3.68	3.62	3.49	3.28	3.26	3.20	3.11	3.09	3.02
COP	3.88	3.69	4.08	4.04	3.47	3.84	3.83	3.81	3.83	3.79	3.69

Option 2: High EER/COP Combinations

High EER/COP combinations provide the most energy efficient outdoor units from 16HP to 36HP

HP	16	18	20	22	24	26	28	30	32	34	36
8	2	1			3	2	1		1		
10		1	2	1		1	2	3		1	
12				1					2	2	3

← 30 % RISE

Optimised EER/COP Values

HP	16	18	20	22	24	26	28	30	32	34	36
EER	4.04	3.88	3.78	3.62	4.02	3.94	3.84	3.77	3.60	3.56	3.49
COP	4.27	4.15	4.09	4.04	3.97	4.20	4.13	4.09	4.05	4.02	3.99

2 Smaller Refrigerant Charge

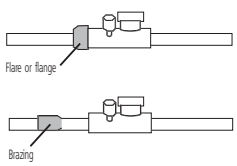
Compared to previous series VRVIII has the smallest refrigerant amount in the system.

10HP	R-22 VRV-K	R-407C VRV-K	R-410A VRVII	R-410A VRVIII
Refrigerant charge	13.5 kg	11.2 kg	8.6 kg	8.4 kg
	100 %	83 %	63.7 %	62.2 %

← 37.8 % REDUCTION

3 Improved Refrigerant Containment

All flange and flare connections in the unit have been replaced by brazing connections to ensure improved refrigerant containment.



4 Refrigerant Containment Check

The refrigerant volume of the complete system is calculated from the following data:

- outdoor temperature
- reference system temperatures
- reference pressure temperatures
- refrigerant density
- types and number of indoor units

When activating the refrigerant containment check, the unit switches into cooling mode and duplicates certain reference conditions based on memory data. The result indicates whether or not refrigerant leakage has occurred.

5 RoHS Compliance

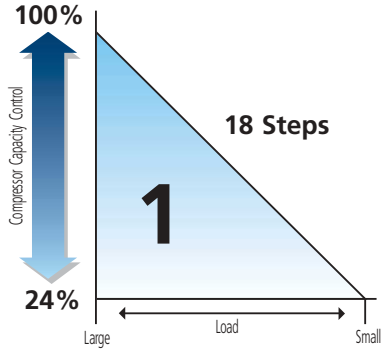
Restriction of Hazardous Substances in electrical and electronic equipment (2002/95/EC)
Hazardous substances include Lead (Pb), Cadmium (Cd), Hexavalent Chromium (Cr6+), Mercury (Hg), Polybrominated biphenyls (PBB), Polybrominated diphenylether (PBDE).

Although RoHS regulations are only applicable to small and large household equipment, Daikin environmental policy nevertheless ensures that VRVIII will be totally in line with RoHS.

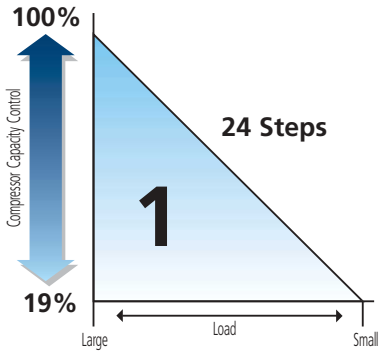
6 Inverter Technology

The linear VRV system makes use of a variable Proportional Integral (PI) control system which uses refrigerant pressure sensors to give added control over inverter and ON/OFF control compressors in order to abbreviate control steps into smaller units to provide precise control in both small and larger areas. This in turn enables individual control of up to 60 indoor units of different capacity and type at a ratio of 50~200 % in comparison with outdoor units capacity. 5 HP outdoor units use inverter control compressors only.VRV systems have low running costs because it permits each zone to be controlled individually. That is, only those rooms that require air conditioning will be heated or cooled, while the system can be shut down completely in rooms where no air conditioning is required.

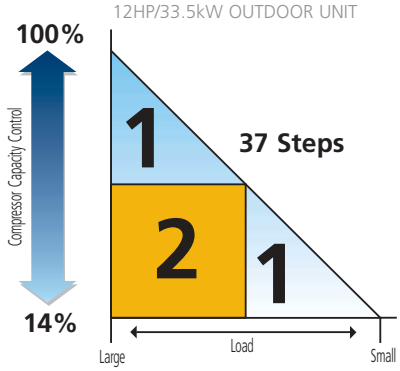
5HP/14kW OUTDOOR UNIT



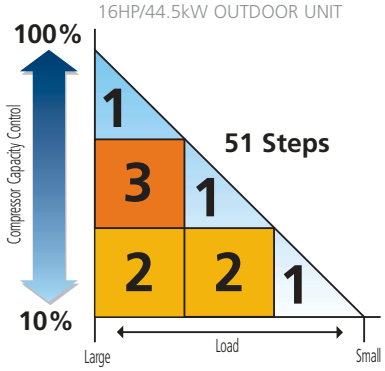
8HP/22.4kW OUTDOOR UNIT



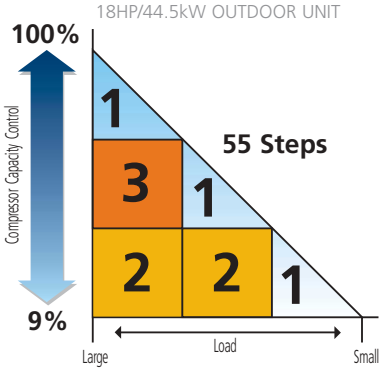
10HP/28kW OUTDOOR UNIT
12HP/33.5kW OUTDOOR UNIT



14HP/40.0kW OUTDOOR UNIT
16HP/44.5kW OUTDOOR UNIT

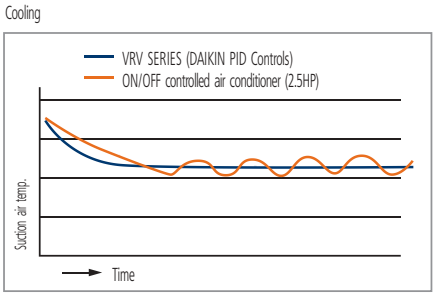


18HP/44.5kW OUTDOOR UNIT



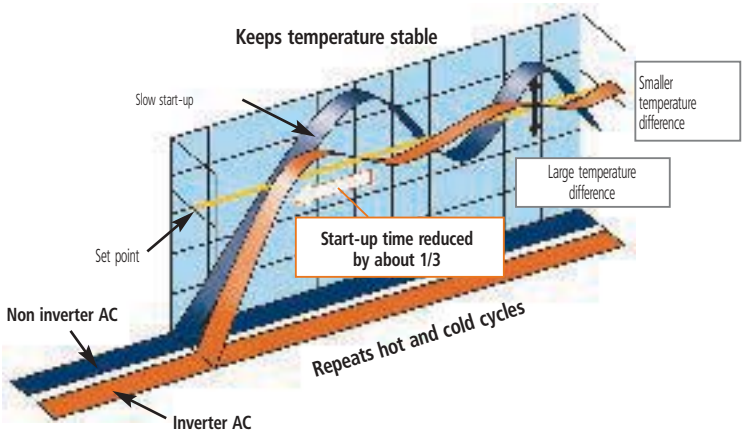
7 Smart Control Brings Comfort

An electronic expansion valve, using PID control, continuously adjusts the refrigerant volume in respond to load variations of the indoor units. The VRV system thus maintains comfortable room temperatures at a virtually constant level, without the temperature variations typical of conventional ON/OFF control systems.



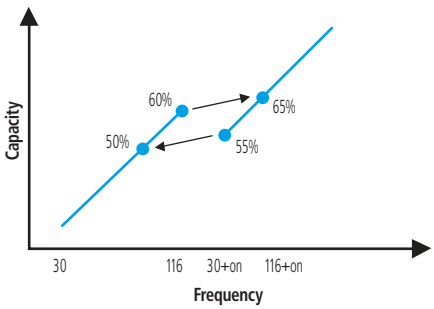
Note: the graph shows the data, measured in a test room assuming actual heating load.

The thermostat can control stable room temperature at ± 0.5°C from set point.



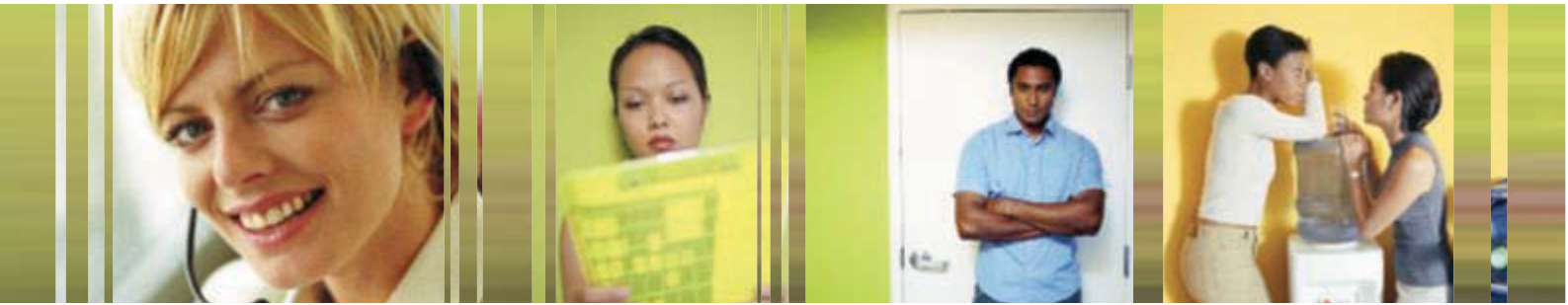
8 Less Frequent Start/Stop Cycle

- the technique adopted by Daikin, of regulating the capacity using multiple compressors clearly results in minimum switching losses and power surges because of the overlap in capacity and frequency
- since Daikin utilises small 5HP inverter compressors, the influence of harmonics is less than that generated by a single large compressor
- the use of multiple compressors by Daikin also ensures a 50 % standby facility
- smaller compressors are cheaper and faster to replace



9 Refrigerant Recovery Function

The refrigerant recovery function enables all expansion valves to be opened. In this way the refrigerant can be drained from the piping system.



3. Installation & Maintenance Friendly Design

1 Automatic Charge Function

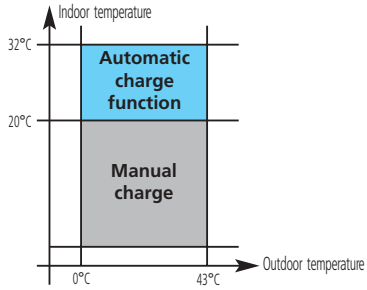
Conventional Way:

1. calculation of additional refrigerant charging volume
2. charging the unit with additional refrigerant
3. measuring the weight of the cylinder
4. judgment based on pressure (test operation)

VRVIII

With VRVIII however, these 4 steps are omitted since VRVIII unit can be charged with the necessary amount of refrigerant automatically via a push button on the PCB. Automatic charging will cease once the appropriate amount of refrigerant has been transferred.

If temperature drops below 20°C manual charging is necessary. After having switched to heating and once the indoor temperature rises above 20°C, push the auto charge button to activate auto charge function. Refrigerant containment is only available after performing the automatic charge function.



2 Automatic Test

When refrigerant charging has ceased, pushing the test operation button on the PCB will initiate a check on the wiring, shut off valves, sensors and refrigerant volume. This test ceases automatically when completed.

3 Easy Maintenance

Self Diagnostic Function

This function operated via push button on the PCB, speeds up troubleshooting and should be used for start-up and maintenance. Disconnected thermistors, faulty solenoid valves or motor operated valves, compressor malfunctions, communication errors, etc can be diagnosed quickly.

Automatic Information Storage

During unit operation, storage of data from the last 5 minutes occurs automatically. In cases of malfunction, analysis of data from the last 5 minutes will be carried out to identify the location of the problem and cause of malfunction. Measures to eliminate the cause of malfunction then be implemented.

4 Duty Cycling

The cyclical start-up sequence of multiple outdoor units systems equalized compressor duty and extends operating life

5 Short Installation Time

Thanks to small refrigerant pipes and REFNET piping options, the VRV piping system can be installed very easily and quickly.

Installation of the VRV system can also be implemented floor by floor, so that sections of the building can be put into use very quickly, or enabling the air conditioning system to be commissioned and operated in stages, rather than on final completion of the project.

6 Modular & Lightweight

Modular design enables units to be joined together in rows with an outstanding degree of uniformity.

The design of the outdoor units is sufficiently compact to allow them to be taken up to the top of a building in a commercial elevator, overcoming site transportation problem, particularly when outdoor units need to be installed on each floor.

7 No structural reinforcement necessary

Thanks to the lightweight and vibration-free construction of the outdoor units, floors do not need to be reinforced, reducing the overall cost of the building.

8 Refrigerant Piping

Reduced piping diameters

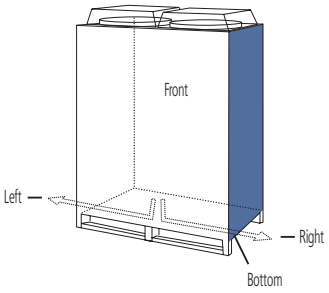
Use of high efficiency R-410A enables the VRVIII to operate on a smaller refrigerant charge to be used, leading to a reduction in liquid and gas pipe diameters.

Reduced piping costs thanks to modular design

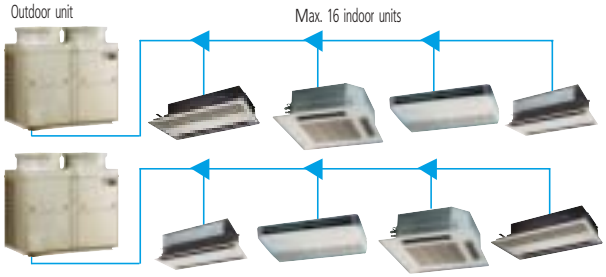
Smaller diameter liquid and gas piping contributes to a reduction in installation space and installation costs.

4-way Piping Connection

VRV series not only offer the possibility to run piping from the front,
but also from the left, right or bottom, thus providing greater freedom of layout.

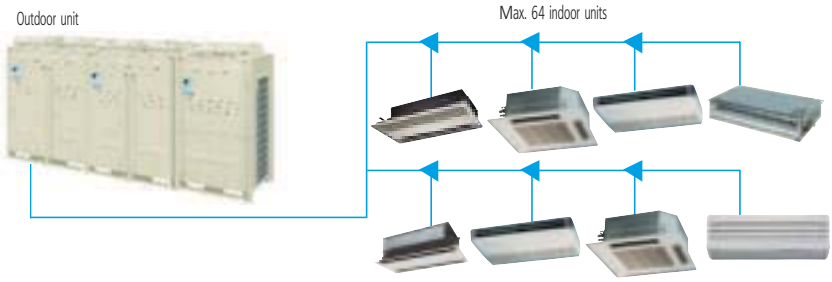


Non Modular VRF System

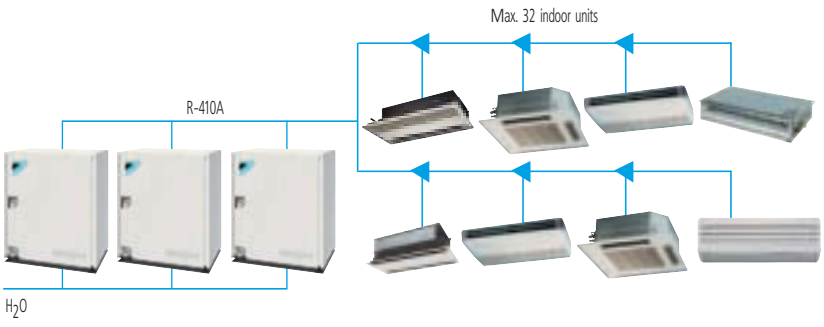


Around 30% reduction in installation costs for refrigerant piping.

VRVIII System



VRV-WII System



9 Unified REFNET piping

The unified Daikin REFNET piping system is especially designed for simple installation

The use of REFNET piping in combination with electronic expansion valves, results in a dramatic reduction in imbalance in refrigerant flowing between indoor units, despite the small diameter of the piping.

REFNET joints and headers (both accessories) can cut down on installation work and increase system reliability.

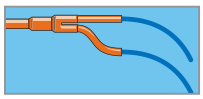
Compared to regular T-joints, where refrigerant distribution is far from optimal, the Daikin REFNET joints have specifically been designed to optimise refrigerant flow.

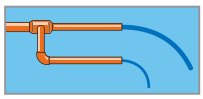

REFNET joint


Attached insulators for REFNET joint


REFNET header


Attached insulators for REFNET header


REFNET joint


T-joint

10 Sequential Start

Up to 3 outdoor units can be connected to 1 power supply and can be turned on sequentially. This allows the number of breakers and their capacities to remain small and simplifies wiring (for models of 10Hp or less).

11 Cross Wiring Check

The cross wiring check facility available on the VRV is the first of its type in the industry to warn operatives of connection errors in inter unit wiring and piping. This function identifies and alerts system errors by means of on/off LEDs on the outdoor unit's PC boards.

12 Simplified Wiring

A simple 2-wire non-shielded multiplex transmission system links each outdoor unit to multiple indoor units using one 2-core wire, thus simplifying the wiring operation.

Furthermore, outdoor units have power connection outlets on side and front, resulting in easier installation and maintenance and saving space when rows of units are connected together.

13 "Super Wiring" System

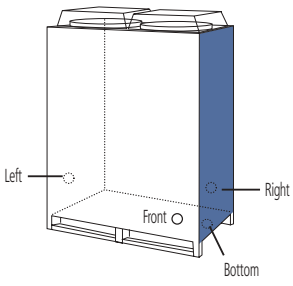
A Super Wiring system is used to enable the shared use of wiring between indoor units, outdoor units and the centralised remote control.

This system makes it easy for the user to retrofit the existing system with a centralised remote control, simply by connecting it to the outdoor units.

Thanks to a non polarity wiring system, incorrect connections become impossible and installation time is reduced.

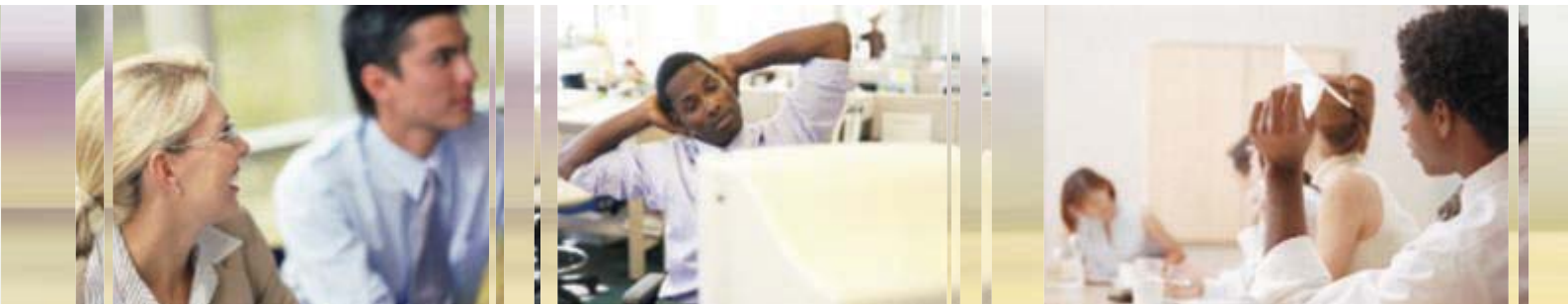
14 4-way Wiring Connection

Wiring can be fed from the front panel, both left and right side panels and bottom panel of the outdoor unit.



15 Auto Address Setting Function

Allows wiring between indoor and outdoor units, as well as group control wiring of multiple indoor units, to be performed without the bothersome task of manually setting each address.



Outdoor Units

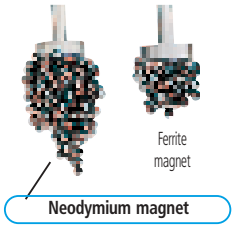
1. VRVIII

1 VRVIII Technology

1 Reluctance Brushless DC Compressor

→ The reluctance brushless DC motor provides significant increases in efficiency compared to conventional AC inverter motors, simultaneously using 2 different forms of torque (normal and reluctance torque) to produce extra power from small electric currents.

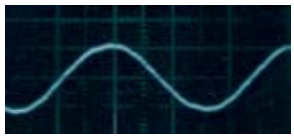
→ The motor comprises powerful neodymium magnets, that create the reluctance torque. These magnets are approximately 12 times stronger than ferrite magnets and make a major contribution to its energy saving characteristics.



→ **High thrust mechanism (VRVIII cooling only/heat pump)**
By introducing high pressure oil, the reactive force from the fixed scroll is added to the internal force, thereby reducing thrust losses. This results in improved efficiency and suppressed sound level

2 Sine Wave DC Inverter

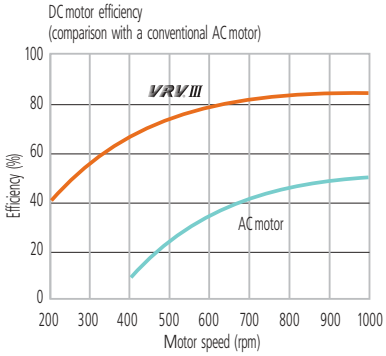
Optimizing the sine wave curve, results in smoother motor rotation and improved motor efficiency.

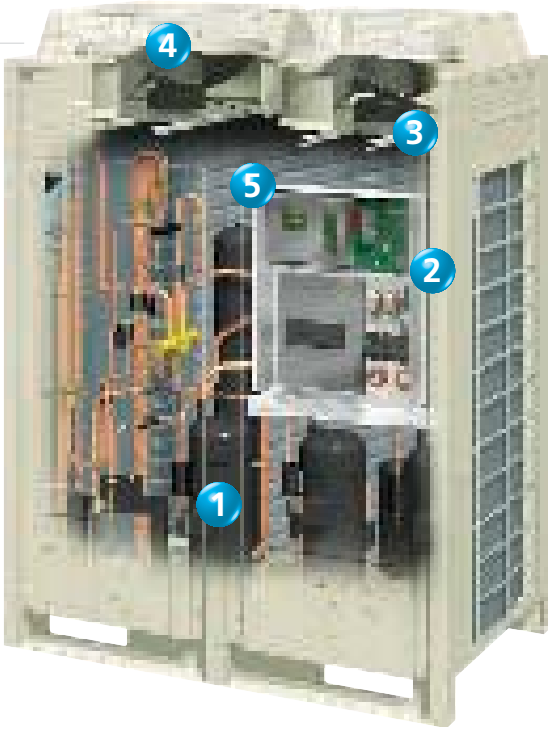


3 DC Fan Motor

The use of a DC fan motor offers substantial improvements in operating efficiency compared to conventional AC motors, especially during low speed rotation.

DC fan motor structure

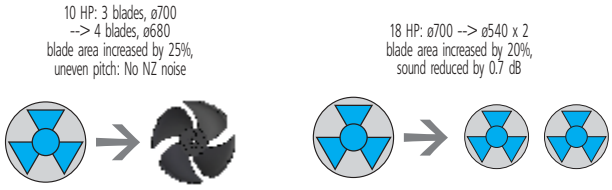




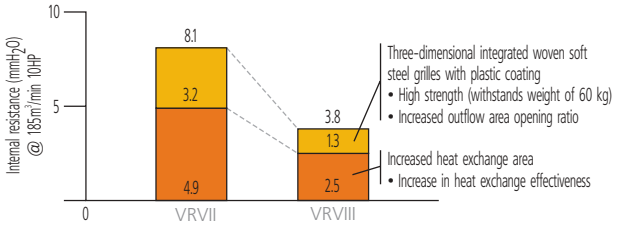
4 Dual DC Fans

- Maximum 10% increase in airflow (16 HP) due to dual DC fans

- Increased output and reduced pressure loss together with increased external static pressure and reduced rated fan input.



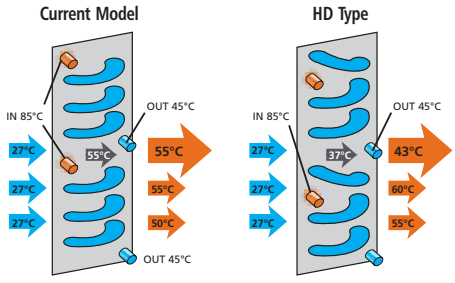
Fans optimized for their casings (increased air flow without sound increase)



Substantial reduction in pressure loss

5 e-Pass Heat Exchanger

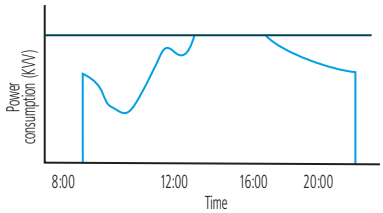
Optimization of the path layout of the heat exchanger prevents heat transferring from the overheated gas section towards the sub cooled liquid section - a more efficient use of the heat exchanger.



In cooling mode, the heat exchanger of the condensor is improved.
This means an improvement of COP by 3%.

6 i-Demand Function

The newly introduced current sensor minimizes the difference between the actual power consumption and the predefined power consumption.



2 VRVIII COOLING ONLY

RXQ-P				RXQ5P7W1B	RXQ8P7W1B	RXQ10P7W1B	RXQ12P7W1B	RXQ14P7W1B	RXQ16P7W1B	RXQ18P7W1B
Nominal capacity			kW	14.0	22.4	28.0	33.5	40.0	45.0	49.0
COP				3.98	4.03	3.77	3.48	3.23	3.17	3.02
Capacity range			HP	5	8	10	12	14	16	18
Power input (nominal)			kW	3.52	5.56	7.42	9.62	12.4	14.2	16.2
Max n° of indoor units to be connected				8	13	16	19	23	26	29
Indoor index connection	Minimum			62.5	100	125	150	175	200	225
	Maximum			162.5	260	325	390	455	520	585
Casing	Colour			Daikin White						
	Material			Painted galvanised steel						
Dimensions	Unit	Height	mm	1,680	1,680	1,680	1,680	1,680	1,680	1,680
		Width	mm	635	930	930	930	1,240	1,240	1,240
		Depth	mm	765	765	765	765	765	765	765
Weight	Unit		kg	157	185	238	238	315	315	323
Fan	Type			Propeller						
	Air Flow Rate (nominal at 230V)		m^3/min	95	171	185	196	233	233	239
	External static pressure (MAX)		Pa	78Pa in high static pressure						
Compressor	Type			Hermetically sealed scroll compressor						
Operation range		Minimum	°CDB	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0
		Maximum	°CDB	43.0	43.0	43.0	43.0	43.0	43.0	43.0
Sound level (nominal)		Sound Power	dBA	72	78	78	80	80	80	83
		Sound Pressure	dBA	54	57	58	60	60	60	63
Refrigerant	Type			R-410A						
	Charge		kg	6.2	7.7	8.4	8.6	12.3	12.5	12.7
	Control			Expansion valve (electronic type)						
Refrigerant Oil	Type			Synthetic (ether) oil						
	Charged Volume		l	1.7	2.1	3.9	3.9	5.7	5.7	5.8
Piping Connections	Liquid	Type		Braze connection						
		Diameter (OD)	mm	9.52	9.52	9.52	12.7	12.7	12.7	15.9
	Gas	Type		Braze connection						
		Diameter (OD)	mm	15.9	19.1	22.2	22.2	28.6	28.6	28.6
	Heat Insulation			Both liquid and gas pipes						
Capacity control method				Inverter controlled						
Capacity control [%]				~ 100	~ 100	~ 100	~ 100	~ 100	~ 100	~ 100
Safety devices				HPS, fan motor driver overload protector, overcurrent relay, inverter overload protector, PC board fuse						
Power supply	Name			W1	W1	W1	W1	W1	W1	W1
	Phase			3N~	3N~	3N~	3N~	3N~	3N~	3N~
	Frequency		Hz	50	50	50	50	50	50	50
	Voltage		V	400	400	400	400	400	400	400

Notes
Nominal cooling capacities are based on : indoor temperature : 27°CDB, 19°CWB, outdoor temperature : 35°CDB, equivalent refrigerant piping : 7.5m, level difference : 0m.
Sound power level is an absolute value that a sound source generates.
Sound pressure level is a relative value, depending on the distance and acoustic environment.
Sound values are measured in a semi-anechoic room.

3 VRVIII HEAT PUMP - SMALL FOOTPRINT COMBINATION

RXYQ-P				RXYQ5P7W1B	RXYQ8P7W1B	RXYQ10P7W1B	RXYQ12P7W1B	RXYQ14P7W1B	RXYQ16P7W1B	RXYQ18P7W1B
Nominal capacity	Cooling		kW	14.0	22.4	28.0	33.5	40.0	45.0	49.0
	Heating		kW	16.0	25.0	31.5	37.5	45.0	50.0	56.5
COP	Cooling			3.98	4.03	3.77	3.48	3.23	3.17	3.02
	Heating			4.00	4.27	4.09	3.97	3.98	3.88	3.69
Capacity range			HP	5	8	10	12	14	16	18
Power input (nominal)	Cooling		kW	3.52	5.56	7.42	9.62	12.4	14.2	16.2
	Heating		kW	4.00	5.86	7.70	9.44	11.30	12.90	15.30
Max n° of indoor units to be connected				8	13	16	19	23	26	29
Indoor index connection	Minimum			62.5	100	125	150	175	200	225
	Maximum			162.5	260	325	390	455	520	585
Casing	Colour			Daikin White						
	Material			Painted galvanised steel						
Dimensions	Unit	Height	mm	1,680	1,680	1,680	1,680	1,680	1,680	1,680
		Width	mm	635	930	930	930	1,240	1,240	1,240
		Depth	mm	765	765	765	765	765	765	765
Weight	Unit		kg	159	187	240	240	317	317	325
Fan	Type			Propeller						
	Air Flow Rate	Cooling	m^3/min	95	171	185	196	233	233	239
	(nominal at 230V)	Heating	m^3/min	95	171	185	196	233	233	239
	External static pressure (MAX)		Pa	78Pa in high static pressure						
Compressor	Type			Hermetically sealed scroll compressor						
Operation range	Cooling	Minimum	°CDB	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0
		Maximum	°CDB	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Heating	Minimum	°CWB	-20.0	-20.0	-20.0	-20.0	-20.0	-20.0	-20.0
		Maximum	°CWB	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Sound level (nominal)	Cooling	Sound Power	dBA	72	78	78	80	80	80	83
		Sound Pressure	dBA	54	57	58	60	60	60	63
Refrigerant	Type			R-410A						
	Charge		kg	6.2	7.7	8.4	8.6	12.3	12.5	12.7
	Control			Expansion valve (electronic type)						
Refrigerant Oil	Type			Synthetic (ether) oil						
	Charged Volume		l	1.7	2.1	3.9	3.9	5.7	5.7	5.8
Piping Connections	Liquid	Type		Braze connection						
		Diameter (OD)	mm	9.52	9.52	9.52	12.7	12.7	12.7	15.9
	Gas	Type		Braze connection						
		Diameter (OD)	mm	15.9	19.1	22.2	28.6	28.6	28.6	28.6
	Heat Insulation			Both liquid and gas pipes						
	Max. total length		m	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Defrost method				Reversed cycle						
Defrost control				Sensor for outdoor heat exchanger temperature						
Capacity control method				Inverter controlled						
Capacity control [%]				~ 100	~ 100	~ 100	~ 100	~ 100	~ 100	~ 100
Safety devices				HPS, fan motor driver overload protector, overcurrent relay, inverter overload protector, PC board fuse						
Power supply	Name			W1	W1	W1	W1	W1	W1	W1
	Phase			3N~	3N~	3N~	3N~	3N~	3N~	3N~
	Frequency		Hz	50	50	50	50	50	50	50
	Voltage		V	400	400	400	400	400	400	400

Notes: Nominal cooling capacities are based on : indoor temperature : 27°CDB, 19°CWB, outdoor temperature : 35°CDB, equivalent refrigerant piping : 7.5m, level difference : 0m.
Nominal heating capacities are based on : indoor temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB, equivalent refrigerant piping : 7.5m, level difference : 0m
Sound power level is an absolute value that a sound source generates.
Sound pressure level is a relative value, depending on the distance and acoustic environment.
Sound values are measured in a semi-anechoic room.

3 VRVIII HEAT PUMP - SMALL FOOTPRINT COMBINATION

RXYQ-P				RXYQ20P7W1B	RXYQ22P7W1B	RXYQ24P7W1B	RXYQ26P7W1B	RXYQ28P7W1B	RXYQ30P7W1B	RXYQ32P7W1B	RXYQ34P7W1B	RXYQ36P7W1B
Combination	RXYQ8P7W1B			1			1					
	RXYQ10P7W1B				1			1				
	RXYQ12P7W1B			1	1	2			1			
	RXYQ14P7W1B									1		
	RXYQ16P7W1B										1	
	RXYQ18P7W1B						1	1	1	1	1	2
Nominal capacity	Cooling		kW	55.9	61.5	67.0	71.4	77.0	82.5	89.0	94.0	98.0
	Heating		kW	62.5	69.0	75.0	81.5	88.0	94.0	102.0	107.0	113.0
COP	Cooling			3.68	3.62	3.49	3.28	3.26	3.20	3.11	3.09	3.02
	Heating			4.08	4.04	3.97	3.84	3.83	3.81	3.83	3.79	3.69
Capacity range			HP	20	22	24	26	28	30	32	34	36
Power input (nominal)	Cooling		kW	15.2	17.0	19.2	21.8	23.6	25.8	28.6	30.4	32.4
	Heating		kW	15.3	17.1	18.9	21.2	23.0	24.7	26.6	28.2	30.6
Max n° of indoor units to be connected				32	35	39	42	45	49	52	55	58
Indoor index connection	Minimum			250	275	300	325	350	375	400	425	450
	Maximum			650	715	780	845	910	975	1,040	1,105	1,170
Casing	Colour			Daikin White								
	Material			Painted galvanised steel								
Fan	Type			Propeller	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
	Air Flow Rate	Cooling	m^3/min	171 + 196	185 + 196	196 + 196	171 + 239	185 + 239	196 + 239	233 + 239	233 + 239	239 + 239
	(nominal at 230V)	Heating	m^3/min	171 + 196	185 + 196	196 + 196	171 + 239	185 + 239	196 + 239	233 + 239	233 + 239	239 + 239
	External static pressure (MAX)		Pa	78Pa in high static pressure								
Compressor	Type			Hermetically sealed scroll compressor								
Operation range	Cooling	Minimum	°CDB	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0
		Maximum	°CDB	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Heating	Minimum	°CWB	-20.0	-20.0	-20.0	-20.0	-20.0	-20.0	-20.0	-20.0	-20.0
		Maximum	°CWB	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Refrigerant	Type			R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
	Charge		kg	7.7 + 8.6	8.4 + 8.6	8.6 + 8.6	7.7 + 12.7	8.4 + 12.7	8.6 + 12.7	12.3 + 12.7	12.5 + 12.7	12.7 + 12.7
	Control			Expansion valve (electronic type)								
Maximum total refrigerant charge in the system			kg	Less than 100 (calculated charge less than 95)								
Refrigerant Oil	Type			Synthetic (ether) oil								
	Charged Volume		l	2.1 + 3.9	3.9 + 3.9	3.9 + 3.9	2.1 + 5.8	3.9 + 5.8	3.9 + 5.8	5.7 + 5.8	5.7 + 5.8	5.8 + 5.8
Piping Connections	Liquid	Type		Braze connection								
		Diameter (OD)	mm	15.9	15.9	15.9	19.1	19.1	19.1	19.1	19.1	19.1
	Gas	Type		Braze connection								
		Diameter (OD)	mm	28.6	28.6	34.9	34.9	34.9	34.9	34.9	34.9	41.3
	Heat Insulation			Both liquid and gas pipes								
	Max. total length		m	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Defrost method				Reversed cycle								
Defrost control				Sensor for outdoor heat exchanger temperature								
Capacity control method				Inverter controlled								
Capacity control [%]				~ 100	~ 100	~ 100	~ 100	~ 100	~ 100	~ 100	~ 100	~ 100
Safety devices				HPS, fan motor driver overload protector, overcurrent relay, inverter overload protector, PC board fuse								
Power supply	Name			W1	W1	W1	W1	W1	W1	W1	W1	W1
	Phase			3N~	3N~	3N~	3N~	3N~	3N~	3N~	3N~	3N~
	Frequency		Hz	50	50	50	50	50	50	50	50	50
	Voltage		V	400	400	400	400	400	400	400	400	400

Notes: Nominal cooling capacities are based on : indoor temperature : 27°CDB, 19°CWB, outdoor temperature : 35°CDB, equivalent refrigerant piping : 7.5m, level difference : 0m.
Nominal heating capacities are based on : indoor temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB, equivalent refrigerant piping : 7.5m, level difference : 0m
Sound level of a multi system is determined by the individual outdoor unit and installation condition
The refrigerant charge of the system must be less than 100 kg. This means that in case the calculated refrigerant charge is equal to or more than 95 kg, you must divide your multiple outdoor system into smaller independent systems, each containing less than 95 kg refrigerant charge. For factory charge, refer to the nameplate of the unit.

RXYQ-P				RXYQ38P7W1B	RXYQ40P7W1B	RXYQ42P7W1B	RXYQ44P7W1B	RXYQ46P7W1B	RXYQ48P7W1B	RXYQ50P7W1B	RXYQ52P7W1B	RXYQ54P7W1B
Combination	RXYQ8P7W1B			1			1					
	RXYQ10P7W1B				1			1				
	RXYQ12P7W1B			1	1	2			1			
	RXYQ14P7W1B									1		
	RXYQ16P7W1B										1	
	RXYQ18P7W1B			1	1	1	2	2	2	2	2	3
Nominal capacity	Cooling		kW	105.0	111.0	116.0	120.0	126.0	132.0	138.0	143.0	147.0
	Heating		kW	119.0	126.0	132.0	138.0	145.0	151.0	158.0	163.0	170.0
COP	Cooling			3.34	3.34	3.28	3.16	3.17	3.14	3.08	3.07	3.02
	Heating			3.89	3.89	3.86	3.78	3.79	3.78	3.77	3.75	3.70
Capacity range			HP	38	40	42	44	46	48	50	52	54
Power input (nominal)	Cooling		kW	31.4	33.2	35.4	38.0	39.8	42.0	44.8	46.6	48.6
	Heating		kW	30.6	32.4	34.2	36.5	38.3	40.0	41.9	43.5	45.9
Max n° of indoor units to be connected				61	64	64	64	64	64	64	64	64
Indoor index connection	Minimum			475	500	525	550	575	600	625	650	675
	Maximum			1,235	1,300	1,365	1,430	1,495	1,560	1,625	1,690	1,755
Casing	Colour			Daikin White								
	Material			Painted galvanised steel								
Fan	Type			Propeller								
	Air Flow Rate	Cooling	m^3/min	171 + 196 + 239	185 + 196 + 239	196 + 196 + 239	171 + 239 + 239	185 + 239 + 239	196 + 239 + 239	233 + 239 + 239	233 + 239 + 239	239 + 239 + 239
	(nominal at 230V)	Heating	m^3/min	171 + 196 + 239	185 + 196 + 239	196 + 196 + 239	171 + 239 + 239	185 + 239 + 239	196 + 239 + 239	233 + 239 + 239	233 + 239 + 239	239 + 239 + 239
	External static pressure (MAX)		Pa	78 Pa in high static pressure								
Compressor	Type			Hermetically sealed scroll compressor								
Operation range	Cooling	Minimum	°CDB	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0
		Maximum	°CDB	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Heating	Minimum	°CWB	-20.0	-20.0	-20.0	-20.0	-20.0	-20.0	-20.0	-20.0	-20.0
		Maximum	°CWB	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Refrigerant	Type			R-410A								
	Charge		kg	7.7 + 8.6 + 12.7	8.4 + 8.6 + 12.7	8.6 + 8.6 + 12.7	7.7 + 12.7 + 12.7	8.4 + 12.7 + 12.7	8.6 + 12.7 + 12.7	12.3 + 12.7 + 12.7	12.5 + 12.7 + 12.7	12.7 + 12.7 + 12.7
	Control			Expansion valve (electronic type)								
Maximum total refrigerant charge in the system			kg	Less than 100 (calculated charge less than 95)								
Refrigerant Oil	Type			Synthetic (ether) oil								
	Charged Volume		l	2.9 + 3.9 + 5.8	3.9 + 3.9 + 5.8	3.9 + 3.9 + 5.8	2.1 + 5.8 + 5.8	3.9 + 5.8 + 5.8	3.9 + 5.8 + 5.8	5.7 + 5.8 + 5.8	5.7 + 5.8 + 5.8	5.8 + 5.8 + 5.8
Piping Connections	Liquid	Type		Braze connection								
		Diameter (OD)	mm	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1
	Gas	Type		Braze connection								
		Diameter (OD)	mm	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3
	Heat Insulation			Both liquid and gas pipes								
	Max. total length		m	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Defrost method				Reversed cycle								
Defrost control				Sensor for outdoor heat exchanger temperature								
Capacity control method				Inverter controlled								
Capacity control [%]				~ 100	~ 100	~ 100	~ 100	~ 100	~ 100	~ 100	~ 100	~ 100
Safety devices				HPS, fan motor driver overload protector, overcurrent relay, inverter overload protector, PC board fuse								
Power supply	Name			W1	W1	W1	W1	W1	W1	W1	W1	W1
	Phase			3N~	3N~	3N~	3N~	3N~	3N~	3N~	3N~	3N~
	Frequency		Hz	50	50	50	50	50	50	50	50	50
	Voltage		V	400	400	400	400	400	400	400	400	400

Notes: Nominal cooling capacities are based on : indoor temperature : 27°CDB, 19°CWB, outdoor temperature : 35°CDB, equivalent refrigerant piping : 7.5m, level difference : 0m.
Nominal heating capacities are based on : indoor temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB, equivalent refrigerant piping : 7.5m, level difference : 0m
Sound level of a multi system is determined by the individual outdoor unit and installation condition
The refrigerant charge of the system must be less than 100 kg. This means that in case the calculated refrigerant charge is equal to or more than 95 kg, you must divide your multiple outdoor system into smaller independent systems, each containing less than 95 kg refrigerant charge. For factory charge, refer to the nameplate of the unit.

4 VRVIII HEAT PUMP - HIGH COP COMBINATION

RXYQ-P				RXYQ16P7W1B	RXYQ18P7W1B	RXYQ20P7W1B	RXYQ22P7W1B
Combination	RXYQ8P7W1B			2	1		
	RXYQ10P7W1B				1	2	1
	RXYQ12P7W1B						1
Nominal capacity	Cooling		kW	44.8	50.4	56.0	61.5
	Heating		kW	50.0	56.5	63.0	69.0
COP	Cooling			4.04	3.88	3.78	3.62
	Heating			4.27	4.15	4.09	4.04
Capacity range			HP	16	18	20	22
Power input (nominal)	Cooling		kW	11.1	13.0	14.8	17.0
	Heating		kW	11.7	13.6	15.4	17.1
Max n° of indoor units to be connected				26	29	32	35
Indoor index connection	Minimum			200	225	250	275
	Maximum			520	585	650	715
Casing	Colour			Daikin White			
	Material			Painted galvanised steel			
Fan	Type			Propeller			
	Air Flow Rate	Cooling	m^3/min	171 + 171	171 + 185	185 + 185	185 + 185
	(nominal at 230V)	Heating	m^3/min	171 + 171	171 + 185	185 + 185	185 + 185
	External static pressure (MAX)		Pa	78Pa in high static pressure			
Compressor	Type			Hermetically sealed scroll compressor			
Operation range	Cooling	Minimum	°CDB	-5.0	-5.0	-5.0	-5.0
		Maximum	°CDB	43.0	43.0	43.0	43.0
	Heating	Minimum	°CWB	-20.0	-20.0	-20.0	-20.0
		Maximum	°CWB	15.0	15.0	15.0	15.0
Refrigerant	Type			R-410A			
	Charge		kg	7.7 + 7.7	7.7 + 8.4	8.4 + 8.4	8.4 + 8.6
	Control			Expansion valve (electronic type)			
Maximum total refrigerant charge in the system			kg	Less than 100 (calculated charge less than 95)			
Refrigerant Oil	Type			Synthetic (ether) oil			
	Charged Volume		l	2.1 + 2.1	2.1 + 3.9	3.9 + 3.9	3.9 + 3.9
Piping Connections	Liquid	Type		Braze connection			
		Diameter (OD)	mm	12.7	15.9	15.9	15.9
	Gas	Type		Braze connection			
		Diameter (OD)	mm	28.6	28.6	28.6	28.6
	Heat Insulation			Both liquid and gas pipes			
	Max. total length		m	1,000	1,000	1,000	1,000
Defrost method				Reversed cycle			
Defrost control				Sensor for outdoor heat exchanger temperature			
Capacity control method				Inverter controlled			
Capacity control [%]				~ 100	~ 100	~ 100	~ 100
Safety devices				HPS, fan motor driver overload protector, overcurrent relay, inverter overload protector, PC board fuse			
Power supply	Name			W1	W1	W1	W1
	Phase			3N~	3N~	3N~	3N~
	Frequency		Hz	50	50	50	50
	Voltage		V	400	400	400	400

Notes: Nominal cooling capacities are based on : indoor temperature : 27°CDB, 19°CWB, outdoor temperature : 35°CDB, equivalent refrigerant piping : 7.5m, level difference : 0m.
Nominal heating capacities are based on : indoor temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB, equivalent refrigerant piping : 7.5m, level difference : 0m
Sound level of a multi system is determined by the individual outdoor unit and installation condition
The refrigerant charge of the system must be less than 100 kg. This means that in case the calculated refrigerant charge is equal to or more than 95 kg, you must divide your multiple outdoor system into smaller independent systems, each containing less than 95 kg refrigerant charge. For factory charge, refer to the nameplate of the unit.



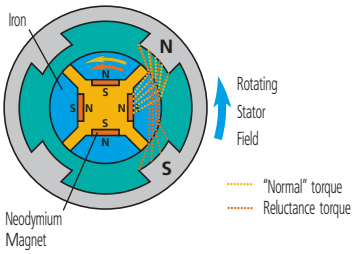
RXYQ-P				RXYQ24P7W1B	RXYQ26P7W1B	RXYQ28P7W1B	RXYQ30P7W1B	RXYQ32P7W1B	RXYQ34P7W1B	RXYQ36P7W1B
Combination	RXYQ8P7W1B			3	2	1		1		
	RXYQ10P7W1B				1	2	3		1	
	RXYQ12P7W1B							2	2	3
Nominal capacity	Cooling		kW	67.2	72.8	78.4	84.0	89.4	95.0	101.0
	Heating		kW	75.0	81.5	88.0	94.5	100.0	107.0	113.0
COP	Cooling			4.02	3.94	3.84	3.77	3.60	3.56	3.49
	Heating			3.97	4.20	4.13	4.09	4.05	4.02	3.99
Capacity range			HP	24	26	28	30	32	34	36
Power input (nominal)	Cooling		kW	16.7	18.5	20.4	22.3	24.8	26.7	28.9
	Heating		kW	18.9	19.4	21.3	23.1	24.7	26.6	28.3
Max n° of indoor units to be connected				39	42	45	48	52	55	58
Indoor index connection	Minimum			300	325	350	375	400	425	450
	Maximum			780	845	910	975	1,040	1,105	1,170
Casing	Colour			Daikin White						
	Material			Painted galvanised steel						
Fan	Type			Propeller	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
	Air Flow Rate	Cooling	m^3/min	171 + 171 + 171	171 + 171 + 185	171 + 185 + 185	185 + 185 + 185	171 + 196 + 196	185 + 196 + 196	196 + 196 + 196
	(nominal at 230V)	Heating	m^3/min	171 + 171 + 171	171 + 171 + 185	171 + 185 + 185	185 + 185 + 185	171 + 196 + 196	185 + 196 + 196	196 + 196 + 196
	External static pressure (MAX)		Pa	78Pa in high static pressure						
Compressor	Type			Hermetically sealed scroll compressor						
Operation range	Cooling	Minimum	°CDB	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0
		Maximum	°CDB	43.0	43.0	43.0	43.0	43.0	43.0	43.0
	Heating	Minimum	°CWB	-20.0	-20.0	-20.0	-20.0	-20.0	-20.0	-20.0
		Maximum	°CWB	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Refrigerant	Type			R-410A						
	Charge		kg	7.7 + 7.7 + 7.7	7.7 + 7.7 + 8.4	7.7 + 8.4 + 8.4	8.6 + 8.6 + 8.6	7.7 + 8.6 + 8.6	8.4 + 8.6 + 8.6	8.6 + 8.6 + 8.6
	Control			Expansion valve (electronic type)						
Maximum total refrigerant charge in the system			kg	Less than 100 (calculated charge less than 95)						
Refrigerant Oil	Type			Synthetic (ether) oil						
	Charged Volume		l	2.1 + 2.1 + 2.1	2.1 + 2.1 + 3.9	2.1 + 3.9 + 3.9	3.9 + 3.9 + 3.9	2.1 + 3.9 + 3.9	3.9 + 3.9 + 3.9	3.9 + 3.9 + 3.9
Piping Connections	Liquid	Type		Braze connection						
		Diameter (OD)	mm	15.9	19.1	19.1	19.1	19.1	19.1	19.1
	Gas	Type		Braze connection						
		Diameter (OD)	mm	34.9	34.9	34.9	34.9	34.9	34.9	41.3
	Heat Insulation			Both liquid and gas pipes						
	Max. total length		m	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Defrost method				Reversed cycle						
Defrost control				Sensor for outdoor heat exchanger temperature						
Capacity control method				Inverter controlled						
Capacity control [%]				~ 100	~ 100	~ 100	~ 100	~ 100	~ 100	~ 100
Safety devices				HPS, fan motor driver overload protector, overcurrent relay, inverter overload protector, PC board fuse						
Power supply	Name			W1	W1	W1	W1	W1	W1	W1
	Phase			3N~	3N~	3N~	3N~	3N~	3N~	3N~
	Frequency		Hz	50	50	50	50	50	50	50
	Voltage		V	400	400	400	400	400	400	400

Notes: Nominal cooling capacities are based on : indoor temperature : 27°CDB, 19°CWB, outdoor temperature : 35°CDB, equivalent refrigerant piping : 7.5m, level difference : 0m.
Nominal heating capacities are based on : indoor temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB, equivalent refrigerant piping : 7.5m, level difference : 0m
Sound level of a multi system is determined by the individual outdoor unit and installation condition
The refrigerant charge of the system must be less than 100 kg. This means that in case the calculated refrigerant charge is equal to or more than 95 kg, you must divide your multiple outdoor system into smaller independent systems, each containing less than 95 kg refrigerant charge. For factory charge, refer to the nameplate of the unit.

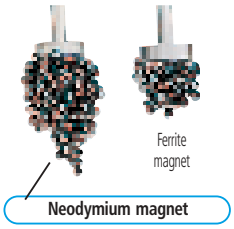
2. VRVII

1 VRVII Technology

1 Reluctance Brushless DC Compressor

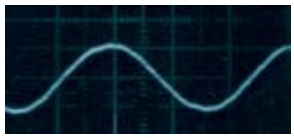


- The reluctance brushless DC motor provides significant increases in efficiency compared to conventional AC inverter motors, simultaneously using 2 different forms of torque (normal and reluctance torque) to produce extra power from small electric currents.
- The motor comprises powerful neodymium magnets, that create the reluctance torque. These magnets are approximately 12 times stronger than ferrite magnets and make a major contribution to its energy saving characteristics.



- **High thrust mechanism (VRVII cooling only/heat pump)**
  By introducing high pressure oil, the reactive force from the fixed scroll is added to the internal force, thereby reducing thrust losses. This results in improved efficiency and suppressed sound level

2 Sine Wave DC Inverter

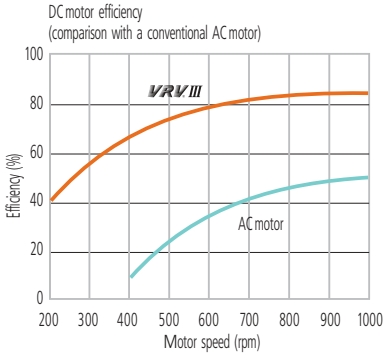


Optimizing the sine wave curve, results in smoother motor rotation and improved motor efficiency.

3 DC Fan Motor

The use of a DC fan motor offers substantial improvements in operating efficiency compared to conventional AC motors, especially during low speed rotation.

DC fan motor structure



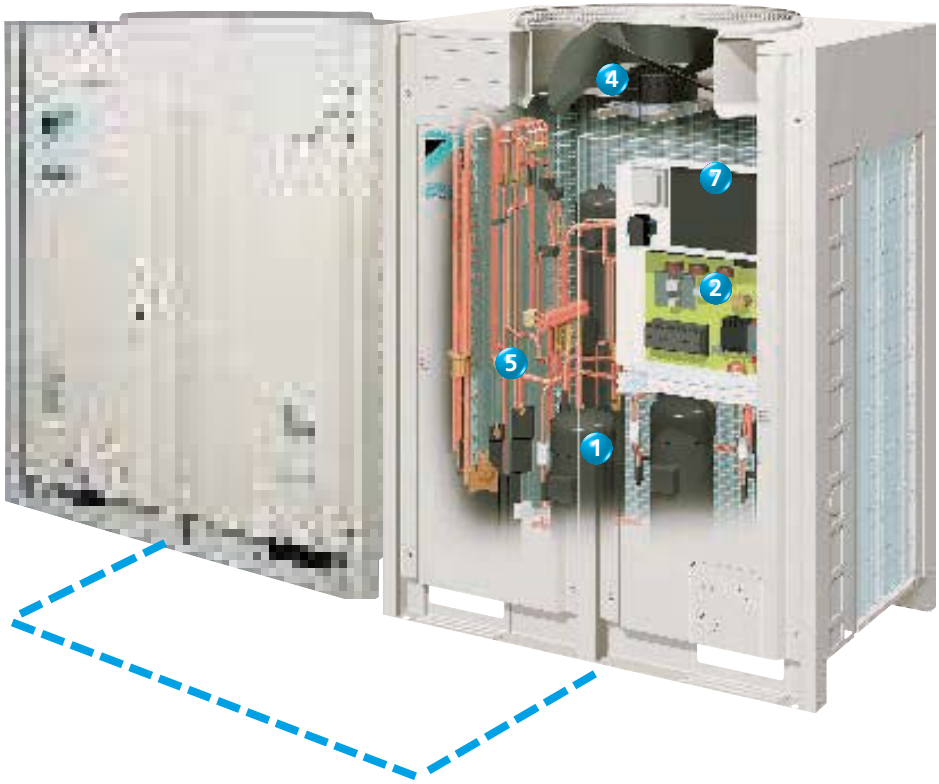
4 Aero Fitting Grille & Aero Spiral Fan

These features achieve a low noise fan with a large airflow, and realize a compact casing together with the compressor linking technology.

Aero spiral fan
Bending the fan blade edge reduces turbulence, resulting in less pressure loss.

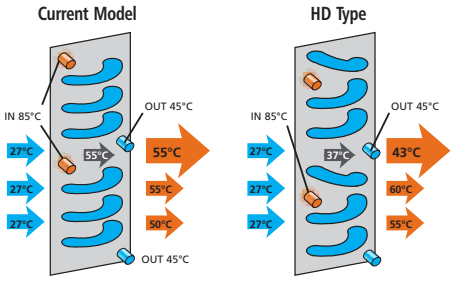
Aero fitting grille
New shape promotes a spiral discharge airflow, resulting in reduced pressure loss.

No oil equalising piping necessary for VRVII cooling only / heat pump series



5 e-Pass Heat Exchanger

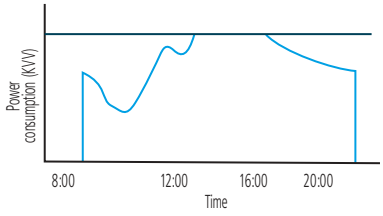
Optimization of the path layout of the heat exchanger prevents heat transferring from the overheated gas section towards the sub cooled liquid section - a more efficient use of the heat exchanger.



In cooling mode, the heat exchanger of the condensor is improved.
This means an improvement of COP by 3%.

6 i-Demand Function

The newly introduced current sensor minimizes the difference between the actual power consumption and the predefined power consumption.

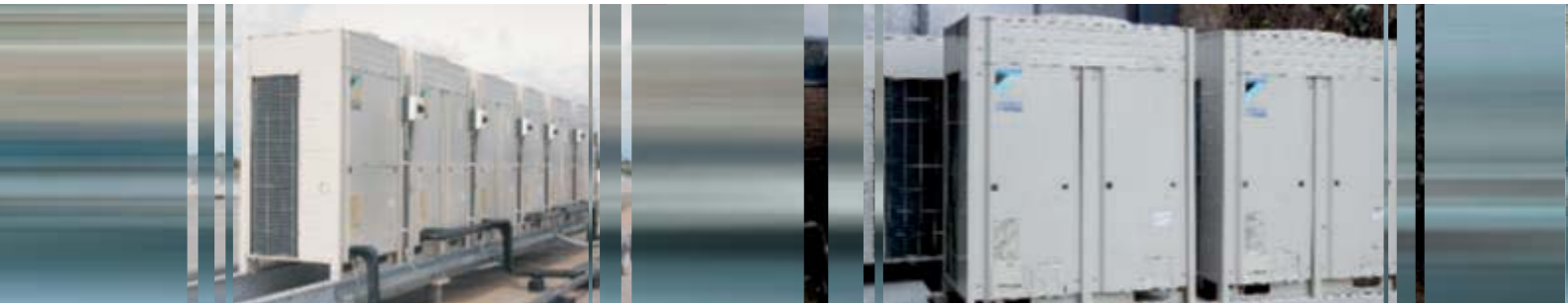


7 Compact Aero Box

Lower noise and savings in input power are achieved by stacking the inverter and control PCBs within a new and more compact 'aero' box.

2 VRVII HEAT RECOVERY

REYQ-M8			8	10	12	14	16	18	20	22	24	26	28
Modules	REYQ8M8		●					●					
	REYQ10M8			●				●	●●	●	●	●	
	REYQ12M8				●					●			●
	REYQ14M8					●					●		
	REYQ16M8						●					●	●
Number of outdoor units*			1	1	1	1	1	2	2	2	2	2	2
Equivalent horsepower		HP	8	10	12	14	16	18	20	22	24	26	28
Cooling capacity**		kW	22.40	28.00	33.50	40.00	44.50	50.40	56.00	61.50	68.00	72.50	78.00
Heating capacity**		kW	25.00	31.50	37.50	45.00	50.00	56.50	63.00	69.00	76.50	81.50	87.50
Nominal input**	Cooling	kW	6.97	9.00	10.60	14.30	15.60	16.00	18.00	19.60	23.24	24.60	26.20
	Heating	kW	6.89	9.31	10.80	12.90	14.00	16.50	19.00	20.50	22.60	23.80	25.30
EER**	Cooling		3.21	3.11	3.16	2.80	2.85	3.15	3.11	3.14	2.93	2.95	2.98
COP**	Heating		3.63	3.38	3.47	3.49	3.57	3.42	3.32	3.37	3.38	3.42	3.46
Max. number of connectable indoor units			13	16	19	20	20	20	20	22	32	32	32
Minimum capacity index			100	125	150	175	200	225	250	275	300	325	350
Maximum capacity index - 130 %			260	325	390	455	520	585	650	715	780	845	910
Capacity steps			29	29	29	35	35	41	41	41	46	46	46
Dimensions	Height	mm	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600
	Width	mm	930	930	1,240	1,240	1,240	1,860	1,860	2,170	2,170	2,170	2,480
	Depth	mm	765	765	765	765	765	765	765	765	765	765	765
Weight		kg	245	245	295	340	340	490	490	540	585	585	635
Casing			painted galvanised steel										
Colour			ivory white										
Sound pressure level		dB(A)	57.0	58.0	60.0	60.0	60.0	61.0	61.0	62.0	62.0	62.0	63.0
Sound power level		dB(A)	78.0	78.0	80.0	80.0	80.0	81.0	81.0	82.0	82.0	82.0	83.0
Fan	Type		propeller fan										
	Air flow rate		175	180	210	210	210	355	360	390	390	390	420
Refrigerant	Name		R-410A										
	Charge	kg	10.3	11.4	12.4	13.5	14.6	21.7	22.8	23.8	24.9	26.0	27.0
	Control		electronic expansion valve										
Refrigerant oil	Type		synthetic ether oil										
	Charge	l	1.9+1.6	1.9+1.6	1.9+1.6	1.9+1.6+1.6	1.9+1.6+1.6	(2x1.9)+(2x1.6)	(2x1.9)+(2x1.6)	(2x1.9)+(2x1.6)	(2x1.9)+(3x1.6)	(2x1.9)+(3x1.6)	(2x1.9)+(3x1.6)
Compressor	Type		hermetically sealed scroll compressor										
	Starting method		direct on line										
Piping connections	Liquid	mm	9.52	9.52	12.7	12.7	12.7	15.9	15.9	15.9	15.9	19.1	19.1
	Gas	mm	19.1	22.2	28.6	28.6	28.6	28.6	28.6	28.6	34.9	34.9	34.9
	Discharge gas	mm	15.9	19.1	19.1	22.2	22.2	22.2	28.6	28.6	28.6	28.6	28.6
	Oil equalising	mm	-	-	-	-	-	6.4	6.4	6.4	6.4	6.4	6.4
Operation range	Cooling	°CDB	-5 ~ 43	-5 ~ 43	-5 ~ 43	-5 ~ 43	-5 ~ 43	-5 ~ 43	-5 ~ 43	-5 ~ 43	-5 ~ 43	-5 ~ 43	-5 ~ 43
	Heating	°CWB	-20 ~ 15.5	-20 ~ 15.5	-20 ~ 15.5	-20 ~ 15.5	-20 ~ 15.5	-20 ~ 15.5	-20 ~ 15.5	-20 ~ 15.5	-20 ~ 15.5	-20 ~ 15.5	-20 ~ 15.5
Power supply		W1	3~, 50Hz, 380-415V										
Safety devices			HPS, fan motor overcurrent protector, inverter overload protector, overcurrent relay, PC board fuse										



REYQ-M8			30	32	34	36	38	40	42	44	46	48
Modules	REYQ8M8											
	REYQ10M8				●●	●●	●	●	●			
	REYQ12M8						●			●		
	REYQ14M8		●		●			●			●	
	REYQ16M8		●	●●		●	●	●	●●	●●	●●	●●●
Number of outdoor units*			2	2	3	3	3	3	3	3	3	3
Equivalent horsepower		HP	30	32	34	36	38	40	42	44	46	48
Cooling capacity**		kW	84.50	89.00	96.00	101.00	106.00	113.00	117.00	123.00	129.00	134.00
Heating capacity**		kW	95.00	100.00	108.00	113.00	119.00	127.00	132.00	138.00	145.00	150.00
Nominal input**	Cooling	kW	29.90	31.20	32.20	33.60	35.20	38.90	40.20	41.80	45.50	46.90
	Heating	kW	27.50	28.60	32.10	33.30	34.80	37.00	38.10	39.60	41.80	42.90
EER**	Cooling		2.83	2.85	2.98	3.01	3.01	2.90	2.91	2.94	2.84	2.86
COP**	Heating		3.45	3.50	3.36	3.39	3.42	3.43	3.46	3.48	3.47	3.50
Max. number of connectable indoor units			32	32	34	36	38	40	40	40	40	40
Minimum capacity index			375	400	425	450	475	500	525	550	575	600
Maximum capacity index - 130 %			975	1,040	1,105	1,170	1,235	1,300	1,365	1,430	1,495	1,560
Capacity steps			51	51	56	56	56	61	61	61	68	68
Dimensions	Height	mm	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600
	Width	mm	2,480	2,480	3,100	3,100	3,410	3,410	3,410	3,720	3,720	3,720
	Depth	mm	765	765	765	765	765	765	765	765	765	765
Weight		kg	680	680	830	830	880	925	925	975	1,020	1,020
Casing			painted galvanised steel									
Colour			ivory white									
Sound pressure level		dB(A)	63.0	63.0	64.0	64.0	64.0	64.0	64.0	65.0	65.0	65.0
Sound power level		dB(A)	83.0	83.0	84.0	84.0	84.0	84.0	84.0	85.0	85.0	85.0
Fan	Type		propeller fan									
	Air flow rate		420	420	570	570	600	600	600	630	630	630
Refrigerant	Name		R-410A									
	Charge	kg	28.1	29.2	36.3	37.4	38.4	39.5	40.6	41.6	42.7	43.8
	Control		electronic expansion valve									
Refrigerant oil	Type		synthetic ether oil									
	Charge	l	(2x1.9)+(4x1.6)	(2x1.9)+(4x1.6)	(3x1.9)+(4x1.6)	(3x1.9)+(4x1.6)	(3x1.9)+(4x1.6)	(3x1.9)+(5x1.6)	(3x1.9)+(5x1.6)	(3x1.9)+(5x1.6)	(3x1.9)+(6x1.6)	(3x1.9)+(6x1.6)
Compressor	Type		hermetically sealed scroll compressor									
	Starting method		direct on line									
Piping connections	Liquid	mm	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1
	Gas	mm	34.9	34.9	34.9	41.3	41.3	41.3	41.3	41.3	41.3	41.3
	Discharge gas	mm	28.6	28.6	28.6	28.6	34.9	34.9	34.9	34.9	34.9	34.9
	Oil equalising	mm	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
Operation range	Cooling	°CDB	-5 ~ 43	-5 ~ 43	-5 ~ 43	-5 ~ 43	-5 ~ 43	-5 ~ 43	-5 ~ 43	-5 ~ 43	-5 ~ 43	-5 ~ 43
	Heating	°CWB	-20 ~ 15.5	-20 ~ 15.5	-20 ~ 15.5	-20 ~ 15.5	-20 ~ 15.5	-20 ~ 15.5	-20 ~ 15.5	-20 ~ 15.5	-20 ~ 15.5	-20 ~ 15.5
Power supply		W1	3~, 50Hz, 380-415V									
Safety devices			HPS, fan motor overcurrent protector, inverter overload protector, overcurrent relay, PC board fuse									

Notes: • Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB • outdoor temperature: 35°CDB • equivalent refrigerant piping: 7.5m • level difference: 0m
• Nominal heating capacities are based on: indoor temperature: 20°CDB • outdoor temperature: 7°CDB/6°CWB • equivalent refrigerant piping: 7.5m • level difference: 0m

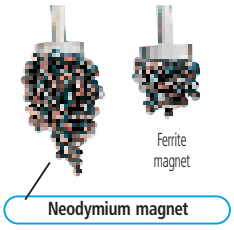
3. VRV-WII

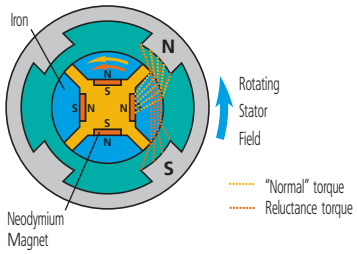
1 VRV-WII Technology

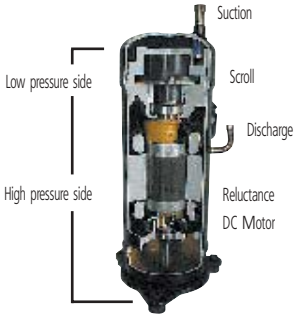
1 Reluctance Brushless DC Compressor

- The reluctance brushless DC motor provides significant increases in efficiency compared to conventional AC inverter motors, simultaneously using 2 different forms of torque (normal and reluctance torque) to produce extra power from small electric currents.
- **High thrust mechanism**
  By introducing high pressure oil, the reactive force from the fixed scroll is added to the internal force, thereby reducing thrust losses. This results in improved efficiency and suppressed sound level
- The motor comprises powerful neodymium magnets, that create the reluctance torque.

  These magnets are approximately 12 times stronger than ferrite magnets and make a major contribution to its energy saving characteristics.





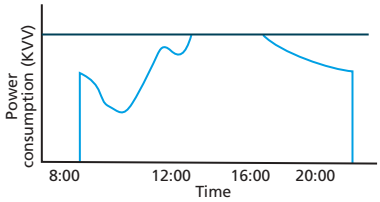


2 Sine Wave DC Inverter

Optimizing the sine wave curve, results in smoother motor rotation and improved motor efficiency.

3 i-Demand Function

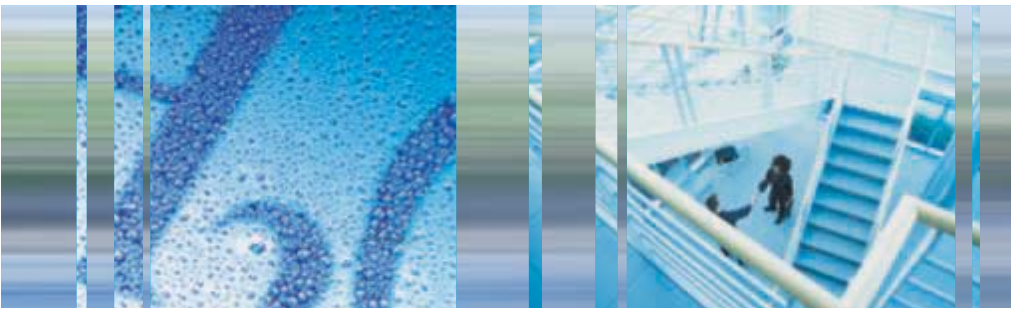
The newly introduced current sensor minimizes the difference between the actual power consumption and the predefined power consumption.



2 VRV-WII HEAT PUMP / HEAT RECOVERY

VRV-WII			HEAT PUMP			HEAT RECOVERY		
			RWEYQ10M	RWEYQ20M	RWEYQ30M	RWEYQ10M	RWEYQ20M	RWEYQ30M
Nominal cooling capacity		kW	26.70	53.40	80.10	26.70	53.40	80.10
Nominal heating capacity		kW	31.50	63.00	94.50	31.50	63.00	94.50
Capacity range		HP	10	20	30	10	20	30
Power input (nominal)	Cooling	kW	6.03	12.10	18.10	6.03	12.10	18.10
	Heating	kW	6.05	12.10	18.20	6.05	12.10	18.20
COP	Cooling		4.43	4.41	4.43	4.43	4.41	4.43
	Heating		5.21	5.21	5.19	5.21	5.21	5.19
Max n° of indoor units to be connected			16	20	32	16	20	32
Minimum capacity index			125	250	375	125	250	375
Maximum capacity index			325	650	975	325	650	975
Power supply		Y1	3~, 50Hz, 380-415V			3~, 50Hz, 380-415V		
Dimensions	Height	mm	1,000	*	*	1,000	*	*
	Width	mm	780	*	*	780	*	*
	Depth	mm	550	*	*	550	*	*
Weight		kg	150	150+150	150+150+150	150	150+150	150+150+150
Colour			Ivory white (5Y7,5/1)			Ivory white (5Y7,5/1)		
Sound pressure levels		dBA	51.0	54.0	56.0	51.0	54.0	56.0
Sound power levels		dBA	**	**	**	**	**	**
Fan	Type		**	**	**	**	**	**
	Air Flow Rate (nominal)	m^3/min	**	**	**	**	**	**
Refrigerant	Name		R-410A			R-410A		
	Charge	kg	5.2	5.2+5.2	5.2+5.2+5.2	5.2	5.2+5.2	5.2+5.2+5.2
	Control		Expansion valve (electronic type)			Expansion valve (electronic type)		
Refrigerant Oil	Type		Synthetic (ether) oil			Synthetic (ether) oil		
	Charged Volume	l	**	**	**	**	**	**
Compressor	Quantity		1	2	3	1	2	3
	Type		Hermetically sealed scroll compressor			Hermetically sealed scroll compressor		
	Starting method		Soft start			Soft start		
Piping Connections	Liquid	mm	9.52 (flare)	15.9 (flare)	19.1 (flare)	9.52 (flare)	15.9 (flare)	19.1 (flare)
	Discharge gas	mm	22.2 (brazing)	28.6 (brazing)	34.9 (brazing)	19.1 (brazing)	22.2 (brazing)	28.6 (brazing)
	Gas	mm	-	-	-	22.2 (brazing)	28.6 (brazing)	34.9 (brazing)
Safety devices			HPS, inverter overload protector, fusible plugs			HPS, inverter overload protector, fusible plugs		

Notes:
- Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB • inlet water temperature: 30°C • equivalent refrigerant piping: 7.5m • level difference: 0m
- Nominal heating capacities are based on: indoor temperature: 20°CDB • inlet water temperature: 20°C • equivalent refrigerant piping: 7.5m • level difference: 0m
- This unit should not be installed outdoors, but indoors eg. in a machine room, etc.
- Indoor operating ambient temperature: 0 ~ 40°C. Heat rejection from the outdoor unit: 0,71kW/10HP
- *Dimensions of 20HP and 30HP units depend on the method of stacking
- **Data were not available at the time of publication



4. ACCESSORIES

VRVIII COOLING ONLY	RXQ5P	RXQ8-10P	RXQ12-18P
Fixing box	KJB111A		
REFNET header	KHRQ22M29H	KHRQ22M29H	KHRQ22M29H
	-	-	KHRQ22M64H
REFNET joint	KHRQ22M20T	KHRQ22M20T	KHRQ22M20T
	-	KHRQ22M29T	KHRQ22M29T
	-	-	KHRQ22M64T
Central drain pan kit	KWC26B160	KWC26B280	KWC26B450

VRVIII HEAT PUMP	RXYQ5P	RXYQ8-10P	RXYQ12-18P	RXYQ20-54P
Cool/heat selector	KKRC19-26A6			
Fixing box	KJB111A			
REFNET header	KHRQ22M29H	KHRQ22M29H	KHRQ22M29H	KHRQ22M29H
	-	-	KHRQ22M64H	KHRQ22M64H
	-	-	-	KHRQ22M75H
REFNET joint	KHRQ22M20T	KHRQ22M20T	KHRQ22M20T	KHRQ22M20T
	-	KHRQ22M29T	KHRQ22M29T	KHRQ22M29T
	-	-	KHRQ22M64T	KHRQ22M64T
	-	-	-	KHRQ22M75T
Outdoor unit multi piping connection kit for 2 outdoor units	-			BHFQ22P1007
Outdoor unit multi piping connection kit for 3 outdoor units	-	-	-	BHFQ22P1517
Central drain pan kit	KWC26B160	KWC26B280	KWC26B450	cf. note 2

1 All options are kits
2 Central drain pan kit should be combined based on the outdoor unit combination table

VRVII HEAT RECOVERY	REYQ8-10M8	REYQ12-16M8	REYQ18-48M8
REFNET header	KHRQ23M29H	KHRQ23M29H	KHRQ23M29H
	-	KHRQ23M64H	KHRQ23M64H
	-	-	KHRQ23M75H
REFNET joint	KHRQ23M20T	KHRQ23M20T	KHRQ23M20T
	KHRQ23M29T	KHRQ23M29T	KHRQ23M29T
	-	KHRQ23M64T	KHRQ23M64T
	-	-	KHRQ23M75T
Outdoor unit multi piping connection kit - 2 units	-	-	BHFQ23M90
Outdoor unit multi piping connection kit - 3 units	-	-	BHFQ23M135
Central drain pan kit	KWC26B280	KWC26B450	cf. note 2

1 All options are kits
2 Central drain pan kit should be combined based on the outdoor unit combination table

VRV-WII HEAT PUMP	RWEYQ10M	RWEYQ20M	RWEYQ30M
Cool/heat selector	KRC19-26A		
Fixing box	KJB111A		
REFNET header	KHRQ22M29H	KHRQ22M29H	KHRQ22M29H
	-	KHRQ22M64H	KHRQ22M64H
	-	KHRQ22M75H	KHRQ22M75H
REFNET joint	KHRQ22M20T	KHRQ22M20T	KHRQ22M20T
	KHRQ22M29T	KHRQ22M29T	KHRQ22M29T
	-	KHRQ22M64T	KHRQ22M64T
	-	KHRQ22M75T	KHRQ22M75T
Outdoor unit multi piping connection kit	-	BHFP22MA56	BHFP22MA84
Strainer kit	BWU26A15, BWU26A20		
External control adapter for outdoor unit	DTA104A62		

VRV-WII HEAT RECOVERY	RWEYQ10M	RWEYQ20M	RWEYQ30M
Fixing box	KJB111A		
REFNET header	KHRQ23M29H	KHRQ23M29H	KHRQ23M29H
	-	KHRQ23M64H	KHRQ23M64H
	-	KHRQ23M75H	KHRQ23M75H
REFNET joint	KHRQ23M20T	KHRQ23M20T	KHRQ23M20T
	KHRQ23M29T	KHRQ23M29T	KHRQ23M29T
	-	KHRQ23M64T	KHRQ23M64T
	-	KHRQ23M75T	KHRQ23M75T
Outdoor unit multi piping connection kit	-	BHFP26MA56	BHFP26MA84
Strainer kit	BWU26A15, BWU26A20		
External control adapter for outdoor unit	DTA104A62		

BS BOX				BSVQ100M	BSVQ160M	BSVQ250M
Total capacity of connectable indoor units				x ≤ 100	100 Æx ≤ 160	160 Æx ≤ 250
Maximum number of connectable indoor units				5	8	5
Casing				galvanised steel plate		
Dimensions	HxWxD		mm	185x310x280		
Weight			kg	9	9	10
Piping connections	indoor unit	liquid/gas	mm	9.5/15.9	9.5/15.9	9.5/22.2
	outdoor unit	liquid/suction gas/discharge gas	mm	9.5/15.9/12.7	9.5/15.9/12.7	9.5/22.2/19.1
Safety devices				PCB fuse		
Cool/heat selector				KRC19-26A		
Fixing box				KJB111A		

Indoor Units

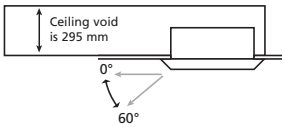
1. Features

FXZQ-M8

20-25-32-40-50

Comfort

- Modern style decoration panel in white (RAL9010)
- Extremely quiet in operation
- Excellent low draught characteristics. Since the flaps can move to a 0° position, virtually no draught can be experienced

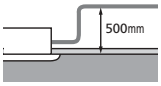


- Any one of 5 different air flow patterns can be freely selected between 0° and 60° and will then be maintained during the operational cycle of the air conditioner

Flexible Installation and Easy Maintenance

- Thanks to the compact casing, it matches standard architectural modules of 600 x 600mm, therefore ceiling tile cutting is no longer necessary
- Air can be discharged in any of 4 directions.
- Possibility to shut 1 or 2 flaps for easy installation in corners

- Since the switch box is located within the unit, it is easy to access from below for maintenance without removing ceiling tiles
- Drain-up pump with 500mm lift fitted as standard

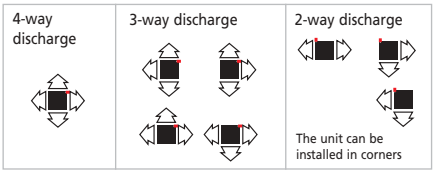


FXFQ-M8

20-25-32-40-50-63-80-100-125

Comfort

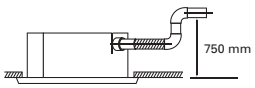
- Quiet in operation
- Air flow distribution to suit ceiling heights up to 4.2m for model 80 and above
- Air can be discharged in any of 4 directions
- Possibility to use 1 or 2 branches for better air distribution
- Equipped with special draught prevention and anti-ceiling soiling technology

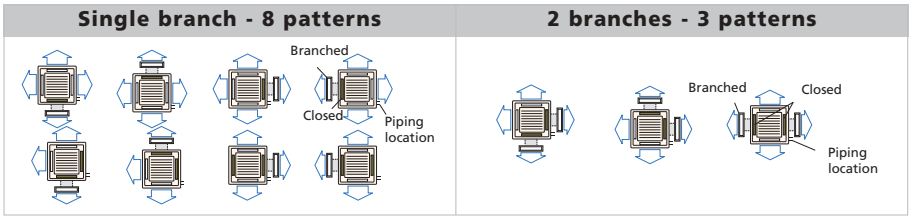


▮ ... indicates the piping connection direction

Flexible Installation and Easy Maintenance

- Drain-up pump with 750mm lift fitted as standard
- Possibility to shut 1 or 2 flaps for easy installation in corners
- Easy to fit decoration panel
- Suction grille can be rotated by 90°„
- Easy height adjustment via adjuster slot
- Easy to clean suction grille and filter
- 3 year cleaning cycle of the heat exchanger





Comfort

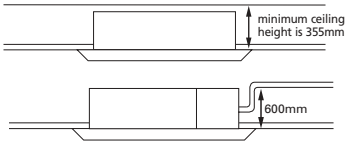
- Quiet in operation
- Leaves maximum floor and wall space for furniture, decorations and fittings
- Automatic air flow director ensures uniform air flow and temperature distribution
- Anti-ceiling soiling technology

Filter

- Standard long life filter

Flexible Installation and Easy Maintenance

- Easy installation in false ceilings of only 355mm
- Drain-up pump with 600mm lift fitted as standard



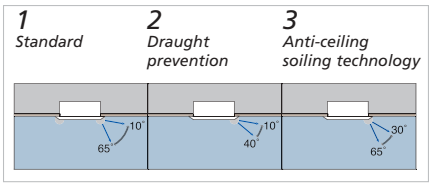
- Maintenance can be performed by simply removing the front panel
- Easy to clean flat suction grille
- Detachable swing flaps

FXCQ-M8

20-25-32-40-50-63-80-125

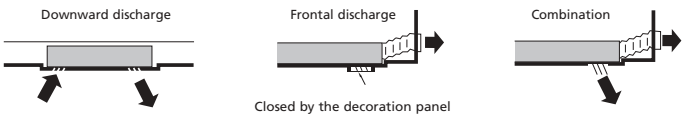
Comfort

- Equipped with special draught prevention and anti-ceiling soiling technology
- Automatic air flow director ensures uniform air flow and temperature distribution



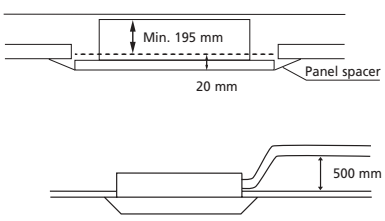
Note: Standard setting when shipped.

- Air flow by either downward air discharge, frontal discharge or a combination of both



Flexible Installation

- Compact dimensions, can easily be mounted in a narrow ceiling void (only 220mm ceiling space required, 195 with panel spacer, available as accessory)
- Drain-up pump with 500mm lift fitted as standard



FXKQ-MA

20-32-40-63

FXDQ-M8

20-25

Comfort
- Designed for hotel bedrooms
- Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- Extremely quiet in operation

Filter
- Air suction filter fitted as standard

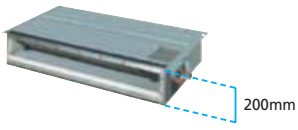
Flexible Installation
- Compact dimensions (230mm high & 652mm deep), can easily be mounted in a ceiling void
- The air suction direction can be altered from rear to bottom suction
- For easy mounting, the drain pan can be located to the left or the right of the unit

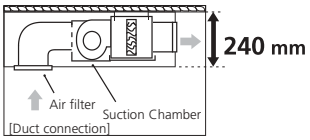
FXDQ-P/NA

20-25-32-40-50-63

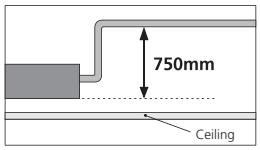
Comfort
- Quiet in operation
- Blends unobtrusively with any interior décor
- Leaves maximum floor and wall space for furniture, decorations and fittings

Flexible Installation
- Slim design, can easily be mounted in a ceiling void of only 240mm





- Can be installed in both new and existing buildings
- Medium external static pressure facilitates unit use with flexible ducts of varying lengths
- Drain-up pump with 750mm lift fitted as standard



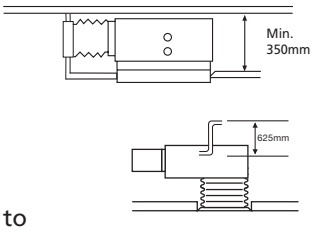
FXSQ-M8

20-25-32-40-50-63-80-100-125

Comfort
- High flexibility for a wide variety of applications
- Quiet in operation
- Blends unobtrusively with any interior décor

Filter
- Long life filter fitted as standard
- High efficiency filters (65% and 95%) available as accessory

Flexible Installation and Easy Maintenance
- High external static pressure facilitates unit use with flexible ducts of varying lengths
- When using suction panel, unit requires only 350mm of ceiling space



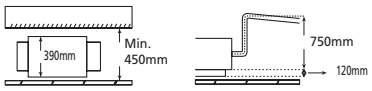
- Drain-up pump with 625mm lift fitted as standard
- The air suction direction can be altered from rear to bottom suction
- The switch box can be reached from the side or from the bottom side of the unit for easy servicing

FXMQ-MA

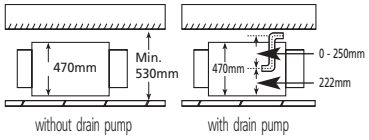
40-50-63-80-100-125 200-250

Comfort
- Leaves maximum floor and wall space for furniture, decorations and fittings

Flexible Installation
- More than 150 Pa external static pressure allows extensive ductwork runs and flexible application: ideal for use in large areas
- Drain-up pump with 750mm lift available as accessory for class 40-125



- External static pressure can be easily adjusted using a change-over switch inside the electrical box to meet the resistance in the duct system
- Built-in drain pump (accessory): housing the drain pump inside the unit (class 200 & 250) has reduced the required installation space

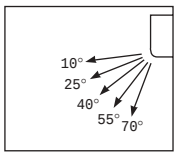


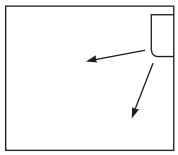
FXAQ-MA

20-25-32-40-50-63

Comfort

- Compact and stylish design blends unobtrusively in any interior décor
- Automatic air flow director ensures efficient air distribution via louvers that close automatically when the unit is switched off
- 5 different discharge angles can be programmed via the remote control
- Discharge angle automatically returns to its previous position on restart (initial setting 10 degrees for cooling and 70 degrees for heating)



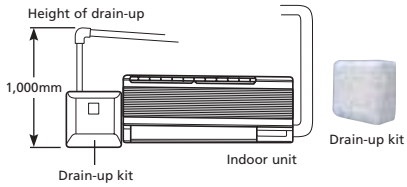


Filter

- Mildew proof polystyrene filter and drain pan

Flexible Installation and Easy Maintance

- Both horizontal flaps and front panel can easily be removed and washed
- All maintenance operations can be carried out from the front of the unit
- Drain-up pump with 1,000mm lift available as accessory
- Drain pipe can be fitted either to the left or right side of the unit

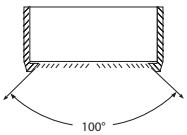


FXHQ-MA

32-63-100

Comfort

- Quiet in operation
- Leaves maximum floor and wall space for furniture, decorations and fittings
- Enhanced horizontal and vertical air circulation in all directions thanks to an air flow pattern of 100°

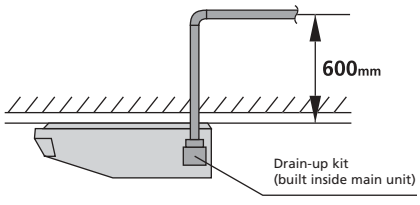


Filter

- Long life filter fitted as standard

Flexible Installation and Easy Maintenance

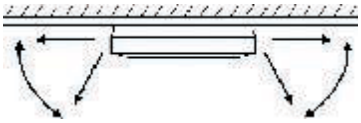
- Can be installed in both new and existing buildings
- The ideal solution for installation without false ceilings
- Drain-up pump with 600mm lift available as accessory



- Maintenance can be performed easily from below the unit
- Bristle free flap makes cleaning easier

Comfort

- Group control with other VRV indoor units possible
- Cool heat selection
- Prevention of cold draught at hot start, defrost and oil return in heating
- Air can be discharged in any of 4 directions
- Air can be discharged at 5 different angles between 0 and 60 degrees



- Automatic air flow director ensures efficient air and temperature distribution.
- Air flow distribution for ceiling heights up to 3.5m without loss of capacity.

Filter

- Air filter, drain pan and heat exchanger fin are mildew proof and anti-bacterial treated

Flexible Installation

- Ideal for installation in new and existing buildings
- 5m maximum distance between FXUQ unit and junction box
- Possibility to shut 1 or 2 flaps for easy installation in corners

- Drain-up pump with 500mm lift fitted as standard

FXUQ-MA

71-100-125

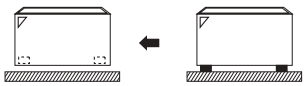
FXLQ-MA

20-25-32-40-50-63

Comfort
- Ideal for installation beneath a window
- Compact dimensions (only 222mm deep and 600mm high)
- All models are available with remote control

Filter
- Long life filter fitted as standard

Flexible Installation & Easy Maintenance
- Running the pipes from connections at the back, enables the unit to be wall mounted



- On site connection during installation is easier
- The fibreless discharge grille prevents condensation and staining

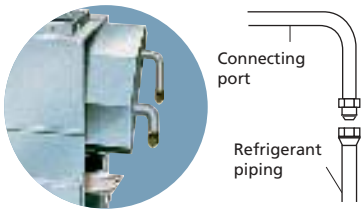
FXNQ-MA

20-25-32-40-50-63

Comfort
- Ideal for perimeter air conditioning
- Ideal for installation below a window
- All models are available with remote control

Filter
- Long life filter fitted as standard

Flexible Installation
- On site connection during installation is easier
- The connecting port faces downward, eliminating the need to attach auxiliary piping



2. Specifications

FXZQ-M8

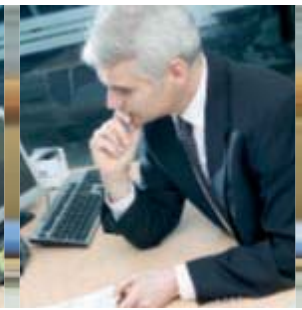
4-way blow ceiling mounted cassette (600mm x 600mm)

FXZQ-M8				20	25	32	40	50
Cooling capacity			kW	2.2	2.8	3.6	4.5	5.6
Heating capacity			kW	2.5	3.2	4.0	5.0	6.3
Nominal input		Cooling	W	73	73	76	89	115
		Heating	W	64	64	68	80	107
Dimensions (HxWxD)			mm	286x575x575				
Weight			kg	18				
Casing				galvanised steel plate				
Air flow rate (H/L)			m^3/min	9.0/7.0	9.0/7.0	9.5/7.5	11.0/8.0	14.0/10.0
Sound pressure level (H/L)(220V)			dB(A)	30/25	30/25	32/26	36/28	41/33
Sound power level			dB(A)	47	47	49	53	58
Refrigerant type				R-410A				
Piping connections	liquid/gas		mm	ø6.4/ø12.7				
Air filter				resin net with mold resistant				
Drain-up height			mm	500				
Power supply			V1	1~, 50Hz, 220-240V				
Decoration panel		Dimensions (HxWxD)	mm	55x700x700				
		Weight	kg	2.7				
		Colour		white (RAL 9010)				

Notes:
- Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB • outdoor temperature: 35°CDB • equivalent piping length: 7.5m (horizontal)
- Nominal heating capacities are based on: indoor temperature: 20°CDB • outdoor temperature: 7°CDB, 6°CWB • equivalent piping length: 7.5m (horizontal)
- Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat

ACCESSORIES

FXZQ-M8		20	25	32	40	50
Wired remote control		BRC1D52				
Infrared remote control	Cooling only	BRC7E531				
	Heat pump	BRC7E530				
Decoration panel		BYFQ60B				
Sealing member of air discharge outlet		KDBH44B60				
Panel spacer		KDBQ44B60				
Replacement long life filter		KAFQ441B60				
Fresh air intake kit	Direct installation type	KDDQ44X60				



FXFQ-M8

4-way blow ceiling mounted cassette

FXFQ-M8				20	25	32	40	50	63	80	100	125
Cooling capacity			kW	2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0
Heating capacity			kW	2.5	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0
Nominal input	Cooling		W	90	90	90	97	106	118	173	184	230
	Heating		W	75	75	75	82	90	101	159	169	215
Dimensions (HxWxD)			mm	230x840x840						288x840x840		
Weight			kg	24						28		
Casing				galvanised steel plate								
Air flow rate (H/L)			m^3/min	13/10	13/10	13/10	14/10	16/11	18/14	28/20	28/21	31/24
Sound pressure level (H/L)			dB(A)	31/28	31/28	31/28	32/28	33/28	34/29	38/32	40/33	45/36
Sound power level			dB(A)	48	48	48	49	50	51	54	56	61
Refrigerant type				R-410A								
Piping connections	liquid/gas		mm	ø6.4/ø12.7					ø9.5/ø15.9			
Air filter				resin net with mold resistant								
Drain-up height			mm	750								
Power supply			V3	1~, 50Hz, 230V								
Decoration panel	Dimensions (HxWxD)		mm	40x950x950								
	Weight		kg	5								
	Colour			ivory white								

Notes:
- Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB • outdoor temperature: 35°CDB • equivalent refrigerant piping: 8m, level difference : 0m
- Nominal heating capacities are based on: indoor temperature: 20°CDB • outdoor temperature: 7°CDB, 6°CWB • equivalent refrigerant piping: 8m, level difference : 0m
- Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat
- The sound pressure is measured in an anechoic room at 1m distance from the unit. It is a relative value, depending on the distance and acoustic environment
- The sound power level is an absolute value indicating of the "power" which a sound source generates

ACCESSORIES

FXFQ-M8			20	25	32	40	50	63	80	100	125
Wired remote control			BRC1D52								
Infrared remote control		Cooling only	BRC7C513								
		Heat pump	BRC7C512								
Decoration panel			BYC125K								
High efficiency filter 65%		Colorimetric method	KAFJ556K80					KAFJ556K160			
High efficiency filter 90%		Colorimetric method	KAFJ557K80					KAFJ557K160			
Replacement high eff. filter 65%		Colorimetric method	KAF552K80					KAF552K160			
Replacement high eff. filter 90%		Colorimetric method	KAF553K80					KAF553K160			
Filter chamber for above			KDDFJ55K160								
Replacement long life filter		Non woven type	KAFJ55K160								
Replacement ultra long life filter			KAFJ551K160H								
Fresh air intake kit	Chamber type	without T-shape and fan	KDDJ55B160								
		with T-shape and fan	KDDJ55B160F								
		with T-shape, without fan	KDDJ55B160K								
	Direct installation type		KDDJ55X160								
Air discharge outlet sealing member			KDBHJ55K160								
Panel spacer			KDBP55H160W								
Branch duct chamber			KDJ55B80					KDJ55B160			
Chamber connection kit			KKSJ55K160								

FXCQ-M8

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2-way blow ceiling mounted cassette

FXCQ-M8			20	25	32	40	50	63	80	125
Cooling capacity		kW	2.2	2.8	3.6	4.5	5.6	7.1	9.0	14.0
Heating capacity		kW	2.5	3.2	4.0	5.0	6.3	8.0	10.0	16.0
Nominal input	Cooling	W	77	92	92	130	130	161	209	256
	Heating	W	44	59	59	97	97	126	176	223
Dimensions (HxWxD)		mm	305x780x600			305x995x600		305x1,180x600	305x1,670x600	
Weight		kg	26			31	32	35	47	48
Casing			galvanised steel plate							
Air flow rate (H/L)		m^3/min	7/5	9/6.5	9/6.5	12/9	12/9	16.5/13	26/21	33/25
Sound pressure level (H/L)		dB(A)	33/28	35/29	35/29	35.5/30.5	35.5/30.5	38/33	40/35	45/39
Sound power level		dB(A)	45	50	50	50	50	52	54	60
Refrigerant type			R-410A							
Piping connections	liquid/gas	mm	ø6.4/ø12.7					ø9.5/ø15.9		
Air filter			resin net with mold resistant							
Drain-up height		mm	600							
Power supply		V3	1~, 50Hz, 230V							
Decoration panel	Dimensions (HxWxD)	mm	53x1,030x680			53x1,245x680		53x1,430x680	53x1,920x680	
	Weight	kg	8			8.5		9.5	12	
	Colour		ivory white							

Notes:
- Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB • outdoor temperature: 35°CDB • equivalent refrigerant piping: 8m • level difference: 0m
- Nominal heating capacities are based on: indoor temperature: 20°CDB • outdoor temperature: 7°CDB, 6°CWB • equivalent refrigerant piping: 8m • level difference: 0m
- Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat

ACCESSORIES

FXCQ-M8		20	25	32	40	50	63	80	125
Wired remote control		BRC1D52							
Infrared remote control	Cooling only	BRC7C67							
	Heat pump	BRC7C62							
Decoration panel		BYBC32G			BYBC50G		BYBC63G	BYBC125G	
High efficiency filter 65% *1		KAFJ532G36			KAFJ532G56		KAFJ532G80	KAFJ532G160	
High efficiency filter 90% *1		KAFJ533G36			KAFJ533G56		KAFJ533G80	KAFJ533G160	
Filter chamber for bottom suction		KDDFJ53G36			KDDFJ53G56		KDDFJ53G80	KDDFJ53G160	
Replacement long life filter		KAFJ531G36			KAFJ531G56		KAFJ531G80	KAFJ531G160	

Note: *1. Filter chamber is required when installing a high efficiency filter

FXKQ-MA

Ceiling mounted corner cassette

FXKQ-MA			25	32	40	63
Cooling capacity		kW	2.8	3.6	4.5	7.1
Heating capacity		kW	3.2	4.0	5.0	8.0
Nominal input	Cooling	W	66	66	76	105
	Heating	W	46	46	56	85
Dimensions (HxWxD)		mm	215x1,110x710			215x1,310x710
Weight		kg	31			34
Casing			galvanised steel plate			
Air flow rate (H/L)		m^3/min	11/9	11/9	13/10	18/15
Sound pressure level (H/L)(220V)		dB(A)	38/33	38/33	40/34	42/37
Sound power level		dB(A)	*	*	*	*
Refrigerant type			R-410A			
Piping connections	liquid/gas	mm	ø6.4/ø12.7			ø9.5/ø15.9
Air filter			resin net with mold resistant			
Drain-up height		mm	500			
Power supply		VE	1~, 50Hz, 220-240V			
Decoration panel	Dimensions (HxWxD)	mm	70x1,240x800			70x1,440x800
	Weight	kg	8.5			9.5
	Colour		ivory white			

Notes:
- Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB • outdoor temperature: 35°CDB • equivalent refrigerant piping: 7.5m (horizontal)
- Nominal heating capacities are based on: indoor temperature: 20°CDB • outdoor temperature: 7°CDB, 6°CWB • equivalent refrigerant piping: 7.5m (horizontal)
- Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat
- *Data were not available at time of publication

ACCESSORIES

FXKQ-MA		25	32	40	63
Wired remote control		BRC1D52			
Infrared remote control	Cooling only	BRC4C63			
	Heat pump	BRC4C61			
Decoration panel		BYK45F			BYK71F
Panel spacer		KPBJ52F56			KPBJ52F80
Replacement long life filter		KAFJ521F56			KAFJ521F80
Air discharge grille		K-HV7AW			K-HV9AW
Air discharge blind panel		KDBJ52F56W			KDBJ52F80W
Flexible duct (with shutter)		KFDJ52F56			KFDJ52F80

FXDQ-M8

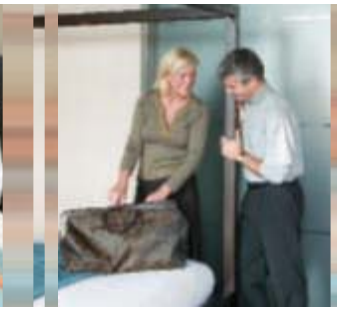
Small concealed ceiling unit

FXDQ-M8			20	25
Cooling capacity		kW	2.2	2.8
Heating capacity		kW	2.5	3.2
Nominal input	Cooling	W	50	
	Heating	W	50	
Dimensions (HxWxD)		mm	230x502x652	
Weight		kg	17	
Casing			galvanised steel plate	
Air flow rate (H/L)		m^3/min	6.7/5.2	7.4/5.8
Sound pressure level (H/L)		dB(A)	37/32	
Sound power level		dB(A)	50	
Refrigerant type			R-410A	
Piping connections	liquid/gas	mm	ø6.4/ø12.7	
Air filter			resin net with mold resistant	
Power supply		V3	1~, 50Hz, 230V	

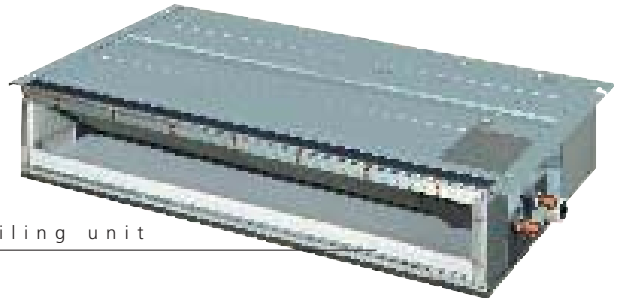
Notes :
- Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB • outdoor temperature: 35°CDB • equivalent refrigerant piping: 8m • level difference : 0m
- Nominal heating capacities are based on: indoor air temperature: 20°CDB • outdoor temperature: 7°CDB, 6°CWB • equivalent refrigerant piping: 8m • level difference : 0m
- Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

ACCESSORIES

FXDQ-M8		20	25
Wired remote control		BRC1D52, BRC2C51, BRC3A61	
Infrared remote control	Cooling	BRC4C64	
	Heating	BRC4C62	



FXDQ-P/NA



Slim concealed ceiling unit

			FXDQ20P	FXDQ25P	FXDQ32P	FXDQ40NA	FXDQ50NA	FXDQ63NA
Cooling capacity		kW	2.2	2.8	3.6	4.5	5.6	7.1
Heating capacity		kW	2.5	3.2	4.0	5.0	6.3	8.0
Nominal input	cooling	W	86	86	89	160	165	181
	heating	W	67	67	70	70	152	168
Dimensions (HxWxD)		mm	200x700x620			200x900x620		200x1,100x620
Weight		kg	23	23	23	27	28	31
Casing			galvanised steel plate					
Air flow rate (H/L)		m^3/min	8.0/6.4	8.0/6.4	8.0/6.4	10.5/8.5	12.5/10.0	16.5/13.0
Sound pressure level (H/L)		dB(A)	33/29	33/29	33/29	34/30	35/31	36/32
Sound power level		dB(A)	*	*	*	*	*	*
Refrigerant type			R-410A					
Drain-up height		mm	750					
Piping connections	liquid/gas	mm	ø6.4/ø12.7					ø9.5/ø15.9
Air filter			removable, washable, mildew proof					
Power supply		VE	1~, 50Hz, 220-240V					

Notes:
- Nominal cooling capacities are based on: • Indoor temperature: 27°CDB, 19°CWB • Outdoor temperature: 35°CDB • Equivalent piping length: 7.5m (horizontal)
- Nominal heating capacities are based on: • Indoor temperature: 20°CDB • Outdoor temperature: 7°CDB, 6°CWB • Equivalent piping length: 7.5m (horizontal)
- Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat
- The sound pressure values are mentioned for a unit installed with rear suction
- * Data were not available at time of publication

ACCESSORIES

		FXDQ20P	FXDQ25P	FXDQ32P	FXDQ40NA	FXDQ50NA	FXDQ63NA
Wired remote control		BRC1D52					
Infrared remote control	Cooling only	BRC4C64					
	Heat pump	BRC4C62					

FXSQ-M8

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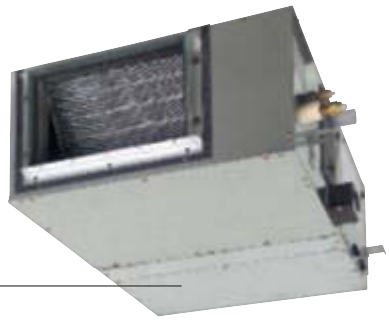


Concealed ceiling unit

FXSQ-M8			20	25	32	40	50	63	80	100	125
Cooling capacity		kW	2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0
Heating capacity		kW	2.5	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0
Nominal input	Cooling	W	110	110	114	127	143	189	234	242	321
	Heating	W	90	90	94	107	123	169	214	222	301
Dimensions (HxWxD)		mm	300x550x800			300x700x800		300x1,000x800	300x1,400x800		
Weight		kg	30	30	30	30	31	41	51	51	52
Casing			galvanised steel plate								
Air flow rate (H/L)		m^3/min	9/6.5	9/6.5	9.5/7	11.5/9	15/11	21/15.5	27/20	28/20.5	38/28
Sound pressure level (H/L)		dB(A)	32/28	32/28	33/28	33/29	35/31	35/30	37/31	38/33	40/35
Sound power level		dB(A)	50	50	51	56	58	56	55	56	65
Refrigerant type			R-410A								
Piping connections	liquid/gas	mm	ø6.4/ø12.7					ø9.5/ø15.9			
Air filter			resin net with mold resistant								
Drain-up height		mm	625								
Power supply		V3	1~, 50Hz, 230V								
Decoration panel	Dimensions (HxWxD)	mm	55x650x500			55x800x500		55x1,100x500	55x1,500x500		
	Weight	kg	3			3.5		4.5	6.5		
	Colour		ivory white								

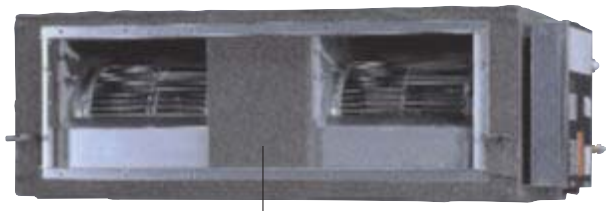
Notes:
- Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB • outdoor temperature: 35°CDB • equivalent refrigerant piping: 8m • level difference: 0m
- Nominal heating capacities are based on: indoor temperature: 20°CDB • outdoor temperature: 7°CDB, 6°CWB • equivalent refrigerant piping: 8m • level difference: 0m
- Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat
- The sound pressure values are mentioned for a unit installed with rear suction

ACCESSORIES

FXSQ-M8		20	25	32	40	50	63	80	100	125
Wired remote control		BRC1D52, BRC2C51, BRC3A61								
Infrared remote control	Cooling only	BRC4C64								
	Heat pump	BRC4C62								
Decoration panel		BYBS32D			BYBS45D		BYB571D	BYBS125D		
Service access panel		KTBJ25K36W			KTBJ25K56W		KTBJ25K80W	KTBJ25K160W		
High efficiency filter 65% *1		KAFJ252L36			KAFJ252L56		KAFJ252L80	KAFJ252L160		
High efficiency filter 90% *1		KAFJ253L36			KAFJ253L56		KAFJ253L80	KAFJ253L160		
Filter chamber for bottom suction		KAJ25L36D			KAJ25L56D		KAJ25L80D	KAJ25L160D		
Filter chamber rear suction		KAJ25L36B			KAJ25L56B		KAJ25L80B	KAJ25L160B		
Air suction canvas		KSA-25K36			KSA-25K56		KSA-25K80	KSA-25K160		
Screening door/blind board		KBBJ25K36			KBBJ25K56		KBBJ25K80	KBBJ25K160		
Air discharge adapter for round duct		KDAJ25K36			KDAJ25K56		KDAJ25K71	KDAJ25K140		

Notes: • *1. If installing a high efficiency filter in the unit, an assembly chamber for either bottom or rear suction is required.

FXMQ-MA



Large concealed ceiling unit

FXMQ-MA			40	50	63	80	100	125	200	250
Cooling capacity		kW	4.5	5.6	7.1	9.0	11.2	14.0	22.4	28.0
Heating capacity		kW	5.0	6.3	8.0	10.0	12.5	16.0	25.0	31.5
Nominal input	cooling	W	211	211	211	284	411	619	1,294	1,465
	heating	W	211	211	211	284	411	619	1,294	1,465
Dimensions (HxWxD)		mm	390x720x690				390x1,110x690		470x1,380x1,100	
Weight		kg	44	44	44	45	63	65	137	137
Casing			galvanised steel plate							
Air flow rate (H/L)		m^3/min	14/11.5	14/11.5	14/11.5	19.5/16	29/23	36/29	58/50	72/62
Sound pressure level (H/L)(220V)		dB(A)	39/35	39/35	39/35	42/38	43/39	45/42	48/45	48/45
Sound power level		dB(A)	*	*	*	*	*	*	*	*
Refrigerant type			R-410A							
Piping connections	liquid/gas	mm	ø6.4/ø12.7		ø9.5/ø15.9				ø9.5/ø19.1	ø9.5/ø22.2
Air filter			cf. note 4							
Power supply		VE	1~, 50Hz, 220-240V							

Notes:
- Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB • outdoor temperature: 35°CDB • equivalent refrigerant piping: 7.5m (horizontal)
- Nominal heating capacities are based on: indoor temperature: 20°CDB • outdoor temperature: 7°CDB, 6°CWB • equivalent refrigerant piping: 7.5m (horizontal)
- Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat
- The air filter is not a standard accessory, but please mount it in the duct system at the suction side. Select its colorimetric method (gravity method) 50% or more.
- *Data were not available at time of publication

ACCESSORIES

FXMQ-MVE		40	50	63	80	100	125	200	250
Wired remote control		BRC1D52, BRC2C51, BRC3A61							
Infrared remote control	Cooling only	BRC4C64							
	Heat pump	BRC4C62							
Drain pump kit		KDU-30L125						KDU-30L250	
High efficiency filter 65%		KAFP372A80			KAFP372A160			KAFJ372L280	
High efficiency filter 90%		KAFP373A80			KAFP373A160			KAFJ373L280	
Filter chamber		KDDFP37A80			KDDFP37A160			KDJ3705L280	
Replacement long life filter		KAFP371A80			KAFP371A160			KAFJ371L280	

FXAQ-MA

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Wall mounted unit

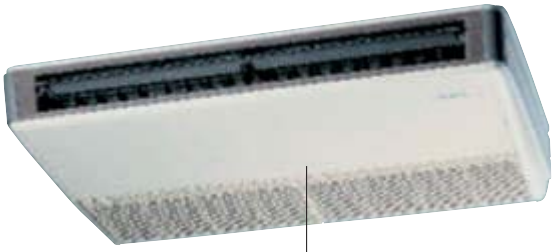
FXAQ-MA			20	25	32	40	50	63
Cooling capacity		kW	2.2	2.8	3.6	4.5	5.6	7.1
Heating capacity		kW	2.5	3.2	4.0	5.0	6.3	8.0
Nominal input	Cooling	W	16	22	27	20	27	50
	Heating	W	24	27	32	20	32	60
Dimensions (HxWxD)		mm	290x795x230			290x1,050x230		
Weight		kg	11			14		
Colour			white					
Air flow rate (H/L)		m^3/min	7.5/4.5	8/5	9/5.5	12/9	15/12	19/14
Sound pressure level (H/L)(220V)		dB(A)	35/29	36/29	37/29	39/34	42/36	46/39
Sound power level		dB(A)	*	*	*	*	*	*
Refrigerant type			R-410A					
Piping connections	liquid/gas	mm	ø6.4/ø12.7					ø9.5/ø15.9
Air filter			resin net washable					
Power supply		VE	1~, 50Hz, 220-240V					

Notes:
- Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB • outdoor temperature: 35°CDB • equivalent refrigerant piping: 5m (horizontal)
- Nominal heating capacities are based on: indoor temperature: 20°CDB • outdoor temperature: 7°CDB, 6°CWB • equivalent refrigerant piping: 5m (horizontal)
- Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat
- *Data were not available at time of publication

ACCESSORIES

FXAQ-MA		20	25	32	40	50	63
Wired remote control		BRC1D52					
Infrared remote control	Cooling only	BRC7E619					
	Heat pump	BRC7E618					
Drain pump kit		K-KDU572DVE					

FXHQ-MA



Ceiling suspended unit

FXHQ-MA			32	63	100
Cooling capacity		kW	3.6	7.1	11.2
Heating capacity		kW	4.0	8.0	12.5
Nominal input	cooling	W	111	115	135
	heating	W	111	115	135
Dimensions (HxWxD)		mm	195x960x680	195x1,160x680	195x1,400x680
Weight		kg	24	28	33
Colour			ivory white		
Air flow rate (H/L)		m^3/min	12/10	17.5/14	25/19.5
Sound pressure level (H/L)(220V)		dB(A)	36/31	39/34	45/37
Sound power level		dB(A)	*	*	*
Refrigerant type			R-410A		
Piping connections	liquid/gas	mm	ø6.4/ø12.7	ø9.5/ø15.9	
Air filter			resin net with mold resistant		
Power supply		VE	1~, 50Hz, 220-240V		

Notes:
- Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB • outdoor temperature: 35°CDB • equivalent refrigerant piping: 7.5m (horizontal)
- Nominal heating capacities are based on: indoor temperature: 20°CDB • outdoor temperature: 7°CDB, 6°CWB • equivalent refrigerant piping: 7.5m (horizontal)
- Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat
- *Data were not available at time of publication

ACCESSORIES

FXHQ-MA		32	63	100
Wired remote control		BRC1D52		
Infrared remote control	Cooling only	BRC7E66		
	Heat pump	BRC7E63		
Drain pump kit		KDU50M60	KDU50M125	KDU50M125
Replacement long life filter	Resin net	KAFJ501DA56	KAFJ501DA80	KAFJ501DA112
L-type piping kit	For upward direction	KHFP5M35	KHFP5M63	KHFP5M63

FXUQ-MA

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4-way blow ceiling suspended unit

FXUQ-MA			71	100	125
Cooling capacity		kW	8.0	11.2	14.0
Heating capacity		kW	9.0	12.5	14.0
Nominal input	cooling	W	180	289	289
	heating	W	160	269	269
Dimensions (HxWxD)		mm	165x895x895	230x895x895x	230x895x895
Weight		kg	25	31	31
Colour			white		
Air flow rate (H/L)			19/14	29/21	32/23
Sound pressure level (H/L) (220V)		dB(A)	40/35	43/38	44/39
Sound power level (H)		dB(A)	56	59	60
Refrigerant type			R-410A		
Piping connections	liquid/gas	mm	ø9.5/ø15.9	ø9.5/ø15.9	ø9.5/ø15.9
Air filter			resin net with mold resistant		
Power supply		V1	1~, 50Hz, 230V		
Combination with junction box			BEVQ71MA	BEVQ100MA	BEVQ125MA

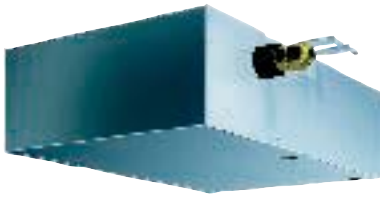
Notes: • Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB • outdoor temperature: 35°CDB, 24° CWB
• Nominal heating capacities are based on: indoor temperature: 20°CDB, 15° CWB • outdoor temperature: 7°CDB, 6°CWB
• Capacities are net including a deduction for cooling (an addition for heating) for indoor fan motor heat

ACCESSORIES

FXUQ-MA		71	100	125
Wired remote control		BRC1D52		
Infrared remote control	Cooling only	BRC7C529		
	Heat pump	BRC7C528		
Sealing member of air discharge outlet		KDBHJ49F80	KDBHJ49F140	
Air discharge decoration panel		KDBTJ49F80	KDBTJ49F140	
Vertical flap kit		KDGJ49F80	KDGJ49F140	
Replacement long life filter		KAFJ495F140		
L-type connection piping kit		KHFP49M63	KHFP49M140	

JUNCTION BOX FOR CONNECTION TO VRV

BEVQ-MA			71	100	125
Dimensions	HxWxD	mm	100x350x225		
Weight		kg	3.0	3.0	3.5
Casing			galvanised steel plate		
Power supply		VE	1~, 50Hz, 220-240V		



BEVQ-MA

FXLQ-MA

Floor standing unit

FXLQ-MA			20	25	32	40	50	63
Cooling capacity		kW	2.2	2.8	3.6	4.5	5.6	7.1
Heating capacity		kW	2.5	3.2	4.0	5.0	6.3	8.0
Nominal input	cooling	W	49	49	90	90	110	110
	heating	W	49	49	90	90	110	110
Dimensions (HxWxD)		mm	600x1,000x222		600x1,140x222		600x1,420x222	
Weight		kg	25		30		36	
Colour			ivory white					
Air flow rate (H/L)		m^3/min	7/6	7/6	8/6	11/8.5	14/11	16/12
Sound pressure level (H/L)(220V)		dB(A)	35/32	35/32	35/32	38/33	39/34	40/35
Sound power level		dB(A)	*	*	*	*	*	*
Refrigerant type			R-410A					
Piping connections	liquid/gas	mm	ø6.4/ø12.7					ø9.5/ø15.9
Air filter			resin net with mold resistant					
Power supply		VE	1~, 50Hz, 220-240V					

Notes:
- Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB • outdoor temperature: 35°CDB • equivalent refrigerant piping: 7.5m (horizontal)
- Nominal heating capacities are based on: indoor temperature: 20°CDB • outdoor temperature: 7°CDB, 6°CWB • equivalent refrigerant piping: 7.5m (horizontal)
- Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat
- *Data were not available at time of publication

ACCESSORIES

FXLQ-MA		20	25	32	40	50	63
Wired remote control		BRC1D52, BRC2C51, BRC3A61					
Infrared remote control	Cooling only	BRC4C64					
	Heat pump	BRC4C62					
Long life replacement filter		KAFJ361K28		KAFJ361K45		KAFJ361K71	

FXNQ-MA

Concealed floor standing unit

FXNQ-MA			20	25	32	40	50	63
Cooling capacity		kW	2.2	2.8	3.6	4.5	5.6	7.1
Heating capacity		kW	2.5	3.2	4.0	5.0	6.3	8.0
Nominal input	cooling	W	49	49	90	90	110	110
	heating	W	49	49	90	90	110	110
Dimensions (HxWxD)		mm	610x930x220		610x1,070x220		610x1,350x220	
Weight		kg	19		23		27	
Casing			galvanised steel plate					
Air flow rate (H/L)		m^3/min	7/6	7/6	8/6	11/8.5	14/11	16/12
Sound pressure level (H/L)(220V)		dB(A)	35/32	35/32	35/32	38/33	39/34	40/35
Sound power level		dB(A)	*	*	*	*	*	*
Refrigerant type			R-410A					
Piping connections	liquid/gas	mm	ø6.4/ø12.7					ø9.5/ø15.9
Air filter			resin net with mold resistant					
Power supply		VE	1~, 50Hz, 220-240V					

Notes:
- Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB • outdoor temperature: 35°CDB • equivalent refrigerant piping: 7.5m (horizontal)
- Nominal heating capacities are based on: indoor temperature: 20°CDB • outdoor temperature: 7°CDB, 6°CWB • equivalent refrigerant piping: 7.5m (horizontal)
- Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat
- *Data were not available at time of publication

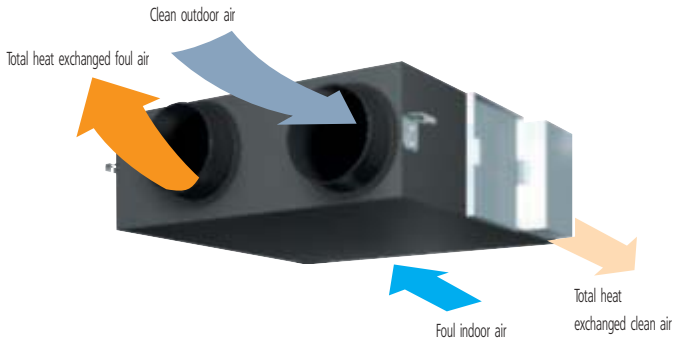
ACCESSORIES

FXNQ-MA		20	25	32	40	50	63
Wired remote control		BRC1D52, BRC2C51, BRC3A61					
Infrared remote control	Cooling only	BRC4C64					
	Heat pump	BRC4C62					
Replacement long life filter		KAFJ361K28		KAFJ361K45		KAFJ361K71	

Heat Recovery Ventilation

1. VAM-FA7

The Daikin heat recovery ventilation system modulates the temperature and humidity of incoming fresh air to match indoor conditions. A balance is thus achieved between indoor and outdoor ambients, enabling the cooling or heating load placed on the air conditioning system to be reduced significantly.
HRV units can be controlled individually or integral with the air conditioning system (Daikin VRV or Sky Air series).



- 9 models to choose from
- Compact, energy saving ventilation
- Specially developed heat exchange element with HEP (High Efficiency Paper)
- Easy integration into the VRV system
- Connectable to current Daikin control systems :

DS-net

intelligent Touch Controller

intelligent Manager

BACnet Gateway

DMS-IF

VAM-FA

VENTILATION			VAM150FA	VAM250FA	VAM350FA	VAM500FA	VAM650FA	VAM800FA	VAM1000FA	VAM1500FA	VAM2000FA
Air flow rate		m^3/h	150	250	350	500	650	800	1,000	1,500	2,000
Sound pressure level (max.) (1)		dBA	27/28.5	28/29	32/34	33/34.5	34.5/35.5	36/37	36/37	39.5/41.5	40/42.5
External static pressure (max.)		Pa	69	64	98	98	93	137	157	137	137
Temperature exchange efficiency		%	74	72	75	74	74	74	75	75	75
Enthalpy exchange efficiency	heating	%	58	58	61	58	58	60	61	61	61
	cooling	%	64	64	65	62	63	65	66	66	66
Dimensions	H	mm	269	269	285	285	348	348	348	710	710
	W	mm	760	760	812	812	988	988	988	1,498	1,498
	D	mm	509	509	800	800	852	852	1,140	852	1,140
Weight		kg	24	24	33	33	48	48	61	132	158
Duct diameter		mm	Ø 100	Ø 150	Ø 150	Ø 200	Ø 200	Ø 250	Ø 250	Ø 350	Ø 350
Power supply		VE	1~, 50Hz, 220-240V								

(1) Sound pressure level is measured in heat exchange mode.

2. VKM-G / VKM-GM

- Heat purge (economiser): heat accumulated indoors is discharged at night
- Integration of humidification and air conditioning into HRV unit
- Increased static pressure thanks to improved fan performance
- Individual control via HRV remote control
- Connectable to current Daikin control systems:

DS-net

intelligent touch Controller

intelligent Manager

BACnet Gateway

DMS-IF

VKM-GM

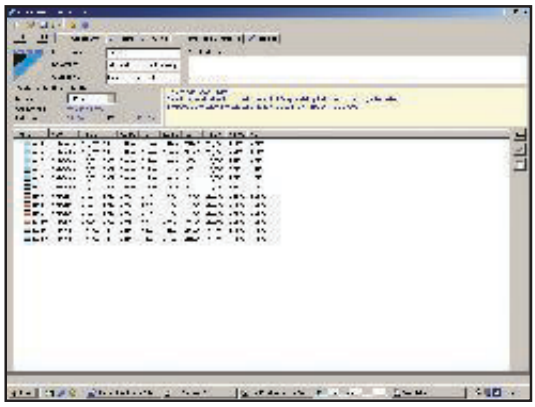
VENTILATION, DX COIL & HUMIDIFIER			VKM50GM	VKM80GM	VKM100GM
Fresh air conditioning load	Cooling	kW	4.71	7.46	9.12
	Heating	kW	5.58	8.79	10.69
Air flow rate	Ultra high - high - low	m^3/h	500 - 500 - 440	750 - 750 - 640	950 - 950 - 820
Sound pressure level - 220V	Ultra high - high - low	dBA	37 - 35 - 32	38.5 - 36 - 33	39 - 37 - 34
Sound pressure level - 240V	Ultra high - high - low	dBA	38 - 36 - 34	40 - 37.5 - 35.5	40 - 38 - 35.5
Static pressure	Ultra high - high - low	Pa	160 - 120 - 100	140 - 90 - 70	110 - 70 - 60
Temperature exchange efficiency	Ultra high - high - low	%	76 - 76 - 77.5	78 - 78 - 79	74 - 74 - 76.5
Enthalpy exchange efficiency - cooling	Ultra high - high - low	%	64 - 64 - 67	66 - 66 - 68	62 - 62 - 66
Enthalpy exchange efficiency - heating	Ultra high - high - low	%	67 - 67- 69	71 - 71 - 73	65 - 65 -69
Humidifier type			natural evaporating humdifier		
Humidification capacity		kg/h	2.70	4.00	5.40
Dimensions	Height	mm	387	387	387
	Width	mm	1,764	1,764	1,764
	Depth	mm	832	1,214	1,214
Weight		kg	102	120	125
Power supply		V1	1~, 220-240V, 50Hz		

VKM-G

VENTILATION & DX COIL			VKM50G	VKM80G	VKM100G
Fresh air conditioning load	Cooling	kW	4.71	7.46	9.12
	Heating	kW	5.58	8.79	10.69
Air flow rate	Ultra high - high - low	m^3/h	500 - 500 - 440	750 - 750 - 640	950 - 950 - 820
Sound pressure level - 220V	Ultra high - high - low	dBA	38 - 36 - 33.5	40 - 37.5 - 34.5	40 - 38 - 35
Sound pressure level - 240V	Ultra high - high - low	dBA	39 - 37 - 35.5	41.5 - 39 - 37	41 - 39 - 36.5
Static pressure	Ultra high - high - low	Pa	180 - 150 - 110	170 - 120 - 80	150 - 100 - 70
Temperature exchange efficiency	Ultra high - high - low	%	76 - 76 - 77.5	78 - 78 - 79	74 - 74 - 76.5
Enthalpy exchange efficiency - cooling	Ultra high - high - low	%	64 - 64 - 67	66 - 66 - 68	62 - 62 - 66
Enthalpy exchange efficiency - heating	Ultra high - high - low	%	67 - 67- 69	71 - 71 - 73	65 - 65 -69
Dimensions	Height	mm	387	387	387
	Width	mm	1,764	1,764	1,764
	Depth	mm	832	1,214	1,214
Weight		kg	96	109	114
Power supply		V1	1~, 220-240V, 50Hz		

Powerful Selection Programmes

1. VRV Xpress

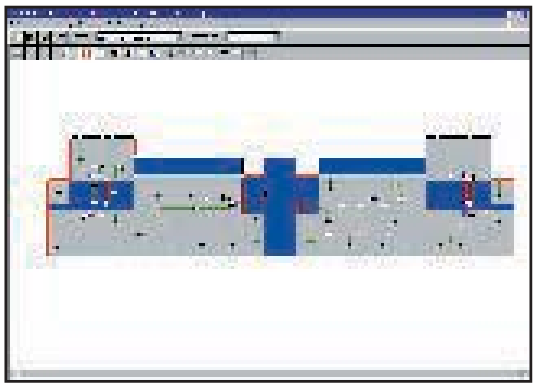


Daikin has developed a new user friendly, software tool that allows rapid VRV selection and provides a professional result in the 7 following steps:

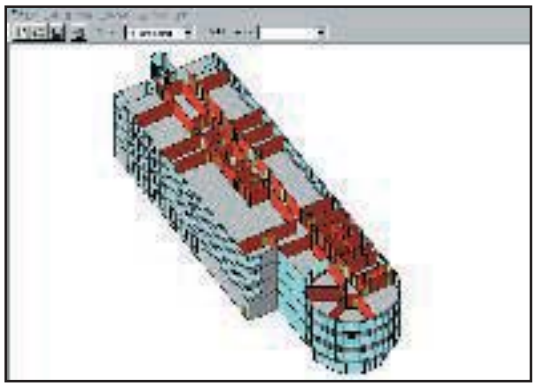
1. Select indoor units
2. Connect outdoor units to indoor units
3. Automatic receipt of piping diagram with joints
4. Automatic receipt of wiring diagram
5. Connect appropriate centralised control systems
6. Visualise result in Word or Excel format
7. Save project

Using VRV Xpress enables VRV selection to be achieved in a simple, complete and professional manner.

2. VRV Pro



A simple to use, Daikin computerised selection programme, designed for use with Windows 95®, Windows 98®, WindowsNT®, Windows 2000® and Windows XP® systems, enables consulting engineers, design and build contractors, property developers and architects etc. to plan a Daikin air conditioning project on a step by step basis, complete with detailed drawings, bills of quantities and costs.
The programme thus enables VRV air conditioning systems to be engineered precisely and economically (without over-sizing units), thereby ensuring optimum operating cycles and maximum energy efficiency.



FEATURES :

- the VRV Pro selection programme offers 3 separate modes to accommodate different design formats according to customer requirements. Multi languages are possible.

1. EXPERT MODE :
   once the cooling and heating loads in the different rooms have been calculated, the software will select the most appropriate system plus an estimate of the power consumption.
2. QUICK MODE :
   based on calculated system loads, the software will select the most appropriate system.
3. DRAWING MODE :
   selecting the indoor and outdoor units from a list enables the user to design a system in no time at all.

User Friendly Control Systems

1. Individual Control Systems

BRC4*
BRC7*

Infrared remote control

Operation buttons: ON/OFF, timer mode start/stop, timer mode on/off, programme time, temperature setting, air flow direction (FXHQ, FXFQ, FXCQ and FXAQ models only), operating mode, fan speed control, filter sign reset, inspection / test indication

Display: Operating mode, battery change, set temperature, air flow direction (FXHQ, FXFQ, FXCQ and FXAQ models only), programmed time, inspection/test operation, fan speed

BRC2C51

Simplified remote control
Simple, compact and easy to operate unit, suitable for use in hotel bedrooms

Operation buttons: ON/OFF, operating mode selection, fan speed control, temperature setting

Display: Cool/heat changeover control, Heat Recovery Ventilation (HRV) in operation, set temperature, operating mode, centralised control indication, fan speed, defrost/hot start, malfunction adjustment, operating mode selection, fan speed control, filter sign reset, inspection test/operation

BRC3A61

Simplified built-in remote control for hotel applications
Compact, user friendly unit, ideal for use in hotel bedrooms

Operation buttons: ON/OFF, fan speed control, temperature setting

Display : Heat Recovery Ventilation (HRV) in operation, set temperature, operating mode, centralised control indication, fan speed, defrost/hot start, malfunction

BRC1D52

Wired remote control

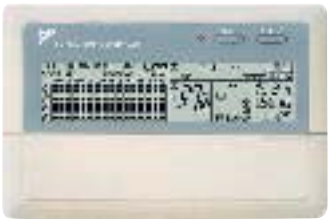
- Limit operation (min/max): room temperature is controlled within adjustable upper and lower limits. Limit operation can be activated manually or by schedule timer
- Real time clock: indicates real time and day
- Schedule timer:
  - It is possible to programme a weekly schedule timer
  - It is possible to programme the remote control for each day of the week. Five day actions can be set as follows:
    - Set point: unit is switched ON and normal operation is maintained
    - OFF: unit is switched OFF
    - Limits: unit is switched ON and min/max control (cf. limit operation for more details)
- Home leave (frost protection): during occupants' absence, the indoor temperature can be maintained at a certain level. This function can also switch the unit ON/OFF
- Different levels of disabled buttons can be selected as follows:
  - **Level 1**: all buttons are accessible
  - **Level 2**: all buttons are disabled except for: ON/OFF, set temperature up/down, fan speed, cooling/heating mode, enable/disable schedule timer, air flow direction adjustment button
  - **Level 3**: all buttons are disabled except for: ON/OFF, set temperature up/down, fan speed
- User friendly HRV function, thanks to the introduction of a button for ventilation mode and fan speed
- Constantly monitoring of the system for malfunctions in a total of 80 components
- Immediate display of fault location and condition
- Reduction of maintenance time and costs.

Operation buttons: ON/OFF, timer mode start/stop, timer on/off, programmed time, temperature setting, air flow direction adjustment, operating mode selection, fan speed control, filter sign reset, inspection test/operation

Display: Operating mode, Heat Recovery Ventilation (HRV) in operation, cool/heat changeover control, centralised control indication, group control indication, set temperature, air flow direction, programmed time, inspection/test operation, fan speed, clean air filter, defrost/hot start, malfunction

2. Centralised Control Systems

DCS302C51



Centralised remote control

Providing individual control of 64 groups (zones) of indoor units

- → A maximum of 64 groups (128 indoor units, max. 10 outdoor units) can be controlled
- → A maximum of 128 groups (128 indoor units, max. 10 outdoor units) can be controlled via 2 centralised remote controls in separate locations
- → Zone control
- → Group control (up and down buttons are added for group selection)
- → Control of HRV air flow direction and air flow rate
- → Expanded timer function
- → Malfunction code display
- → Maximum wiring length of 1,000m (total: 2,000m)

DCS301B51

Unified ON/OFF control

Providing simultaneous and individual control of 16 groups of indoor units

- → A maximum of 16 groups (128 indoor units) can be controlled
- → 2 remote controls in separate locations can be used
- → Operating status indication (normal operation, alarm)
- → Centralised control indication
- → Maximum wiring length of 1,000m (total: 2,000m)

DST301B51

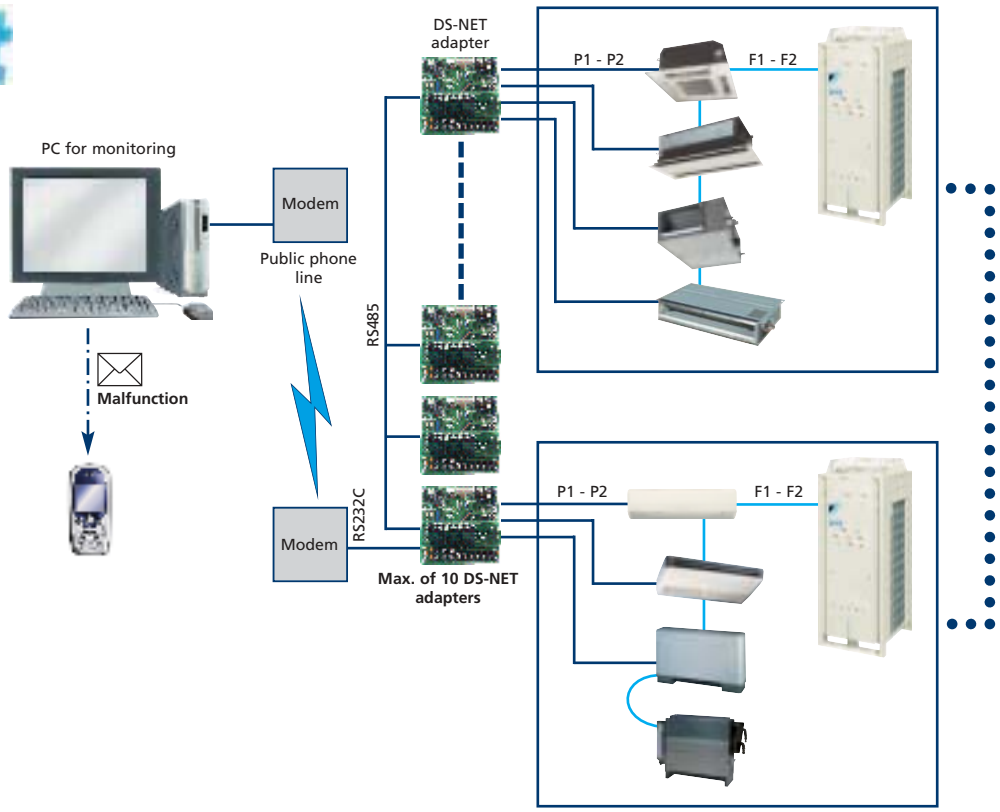
Schedule timer

Enabling 64 groups to be programmed

- → A maximum of 128 indoor units can be controlled
- → 8 types of weekly schedule
- → A maximum of 48 hours back-up power supply
- → Maximum wiring length of 1,000m (total: 2,000m)

3. Network Solutions

The ideal solution for control and management up to 2,000 indoor units



Application area

- A small commercial area of less than 40 indoor units.
- Critical applications for centralized monitoring.

System layout

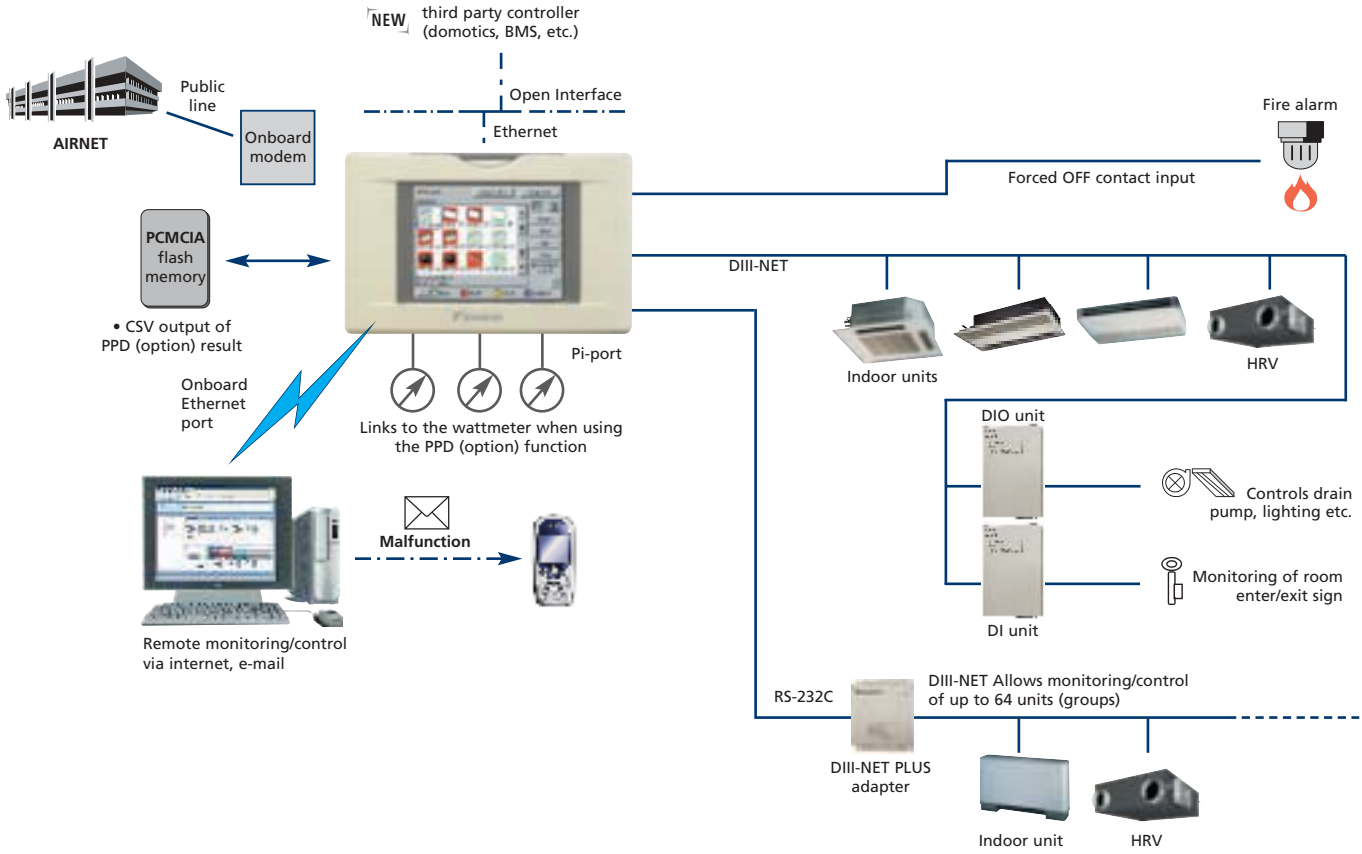
- Allows monitoring and control of up to up to 50 stores or sites and 2,000 indoor units with just one modem and phone line.
- Automates daily air conditioning operation in order to free users from the hassle of air conditioning operation/management.
- The daily schedule setting allows automatic operation afterward.
- Automates alarm (report messages) for any malfunctions/errors. Immediate report of any indoor unit breakdown to the servicing company.
- Automatic report of breakdown/ malfunction information.
- Minimizes the inconvenience of not having air conditioning via rapid messages

Functions

- Schedule setup (Daily schedule)
  - Start/stop
- A/C malfunction report
  - Send message to monitoring system
- Manual operation
  - Start/Stop, set temperature, operation mode, fan speed
- Status monitoring
  - Start/Stop, set temperature,
  - Operation mode, room temperature, operation time, error code

intelligent touch Controller

Allows detailed and easy monitoring and operation of VRV systems (max. 2 x 64 control groups)



Languages
English, French, German, Italian, Spanish

System layout
- Up to 2 x 64 indoor units can be controlled
- Onboard Ethernet port (web browser & e-mail)
- Digital i/o contacts (option)
- Touch panel (full colour LCD via icon display)

Management
- Web application & internet compatibility
  - Monitoring & control according to user
  - Remote monitoring & control of more than one building
  - Remote monitoring & control of more than one building via internet
- Power Proportional Distribution (option)
- Easy management of electricity consumption
- Enhanced history function

Control
- Individual control (set point, start / stop, fan speed) (max. 2 x 64 indoor units/groups)
- Schedule control (8 schedules, 17 patterns)
- Flexible grouping in zones
- Yearly schedule
- Fire emergency stop control
- Interlocking control
- Increased HRV monitoring and control function
- Automatic cooling/heating changeover
- Quick selection and full control
- Simple navigation
- Heating optimization
- Temperature limit
- Password security: 3 levels (general, administration & service)

Monitoring
- Visualisation via Graphical User Interface (GUI)
- Icon colour display change function
- Indoor units operation mode
- Error messages via e-mail & mobile phone (option)
- Indication filter replacement
- Multi PC

Cost performance
- Labour saving
- Easy installation
- Compact design: limited installation space
- Overall energy saving

Open interface NEW
- Communication to any third party controller (domotics, BMS, etc.) is possible via open interface.

Connectable to
- VRV
- HRV
- Sky Air (via interface adapter)
- Split (via interface adapter)




Intelligent Manager

The ideal solution for control and management of maximum 1,024 VRV indoor units

System layout

- Up to 1,024 indoor units can be controlled (by 4 iPUs)
- Ethernet TCPIP / 10 base/ T communication
- Integrated digital contacts on the Intelligent Processing Unit (iPU)
  - 19 general input ports
  - 2 digital outputs
- Stand alone operation of the iPU for minimum 48 hours
- Compatible with UPS shutdown software

Management

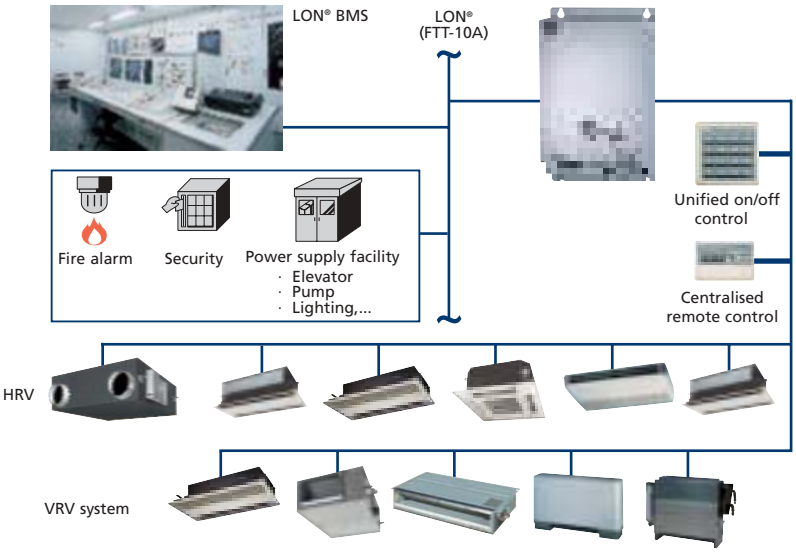
- Power Proportional Distribution
- Operational history management (start/stop, malfunction, operation hours)
- Generation of reports (graphics & tables) (daily, weekly, monthly)
- Peak load shedding
- Advanced tenant management
- Sliding temperature
- Eco mode

Control

- Individual control (setpoint, start/stop, fan speed) (max. 1,024 indoor units)
- Group control (100 groups)
- Schedule control (128 programs)
- Fire emergency stop control (32 programs)
- Interlocking control
- Setpoint limitation
- Automatic cooling heating changeover
- Power failure/release control
- Temperature limit (automatic start)
- Timer extension

Monitoring

- Visualisation via a Graphical User Interface (GUI) featuring free layout
- Operation mode of indoor & outdoor units
- Fault indication
- Indication filter replacement
- Setpoint indication
- Operation time monitoring
- Multi PC
- On-line help



DMS-IF

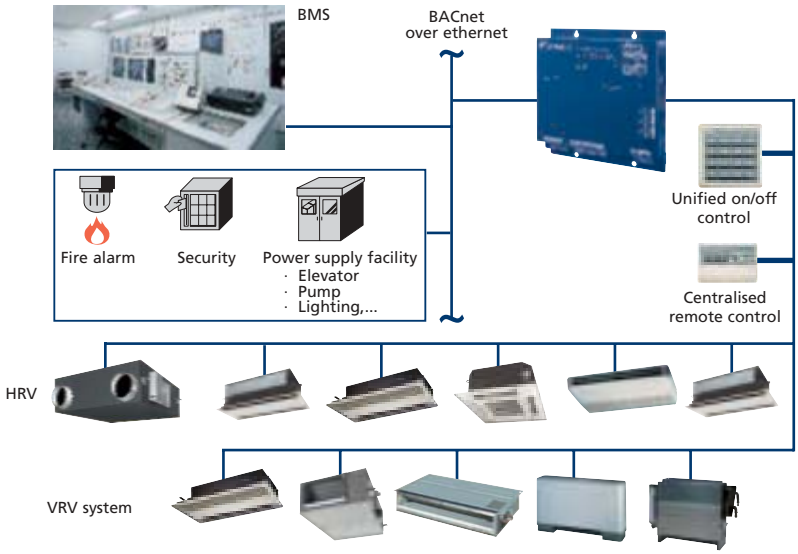
LonWorks® Networks Compatible Gateway

- Interface for connection to LonWorks® networks
- Communication via Lon® protocol (twisted pair wire)
- 64 units connectable per DMS-IF
- Unlimited site size
- Quick and easy installation

BACnet Gateway

Integrated control system connecting VRV system with BMS system

- Interface for BMS system
- Communication via BACnet protocol (connection via Ethernet)
- 256 units connectable per BACnet gateway
- Unlimited site size
- Easy and fast installation



4. ACCESSORIES

• INDIVIDUAL CONTROL SYSTEMS

DESCRIPTION		FXZQ	FXFQ	FXCQ	FXKQ	FXDQ	FXDQ-N	FXSQ	FXMQ	FXUQ	FXHQ	FXAQ	FXLQ	FXNQ
Wired remote control		BRC1D52												
Infrared remote control	cooling only	BRC7E531	BRC7C513	BRC7C67	BRC4C63	BRC4C64	BRC4C64	BRC4C64	BRC4C64	BRC7C529	BRC7E66	BRC7E619	BRC4C64	BRC4C64
	heat pump	BRC7E530	BRC7C512	BRC7C62	BRC4C61	BRC4C62	BRC4C62	BRC4C62	BRC4C62	BRC7C528	BRC7E63	BRC7E618	BRC4C62	BRC4C62
Simplified remote control		-	-	-	-	BRC2C51	BRC2C51	BRC2C51	BRC2C51	-	-	-	BRC2C51	BRC2C51
Simplified remote control for hotel use		-	-	-	-	BRC3A61	BRC3A61	BRC3A61	BRC3A61	-	-	-	BRC3A61	BRC3A61

• CENTRALISED CONTROL SYSTEMS

DESCRIPTION	FXZQ	FXFQ	FXCQ	FXKQ	FXDQ	FXDQ-N	FXSQ	FXMQ	FXUQ	FXHQ	FXAQ	FXLQ	FXNQ
Centralised remote control	DCS302C51												
Unified ON/OFF control	DCS301B51												
Schedule timer	DST301B51												

• OTHERS

DESCRIPTION	FXZQ	FXFQ	FXCQ	FXKQ	FXDQ	FXDQ-N	FXSQ	FXMQ	FXUQ	FXHQ	FXAQ	FXLQ	FXNQ
Wiring adapter	KRP1B57*1	-	-	KRP1B61	KRP1B61	KRP1B56	-	KRP1B61	KRP4A53	KRP1B3	-	KRP1B61	KRP1B61
Wiring adapter (hour meter)	-	EKRP1B2*1	EKRP1B2	-	EKRP1B2*2	-	EKRP1B2	-		-	-	-	-
Wiring adapter for electrical appendices (1)	KRP2A526*1	KRP2A526*1	KRP2A516*1	KRP2A61	KRP2A516	KRP2A53	KRP2A516	KRP2A61		KRP2A62*	KRP2A51	KRP2A51	KRP2A51
Wiring adapter for electrical appendices (2)	KRP4A536*1	KRP4A536*1	KRP4A516*1	KRP4A51	KRP4A516	KRP4A54	KRP4A516	KRP4A51		KRP4A52*	KRP4A51	KRP4A51	KRP4A51
Remote sensor	KRCS01-1												
Installation box for adapter PCB	KRP1BA101	KRP1C98	KRP1B96*3/4	-	-	KRP1BA101		-	KRP1B97	KRP1C93*3	KRP4A93*3/4	-	-
Electrical box with earth terminal (3 blocks)	KJB311A												
Electrical box with earth terminal (2 blocks)	KJB212A												
Noise filter (for electromagnetic interface only)	KEK26-1A												
External control adapter	DTA104A52	DTA104A52*1	DTA104A51*1	DTA104A61	DTA104A51	DTA104A53	DTA104A51	DTA104A61		DTA104A62	DTA104A51	DTA104A61	DTA104A61
Interface adapter for Sky Air series	-	-	-	-	-	-	-	-	DTA102A52	-	-	-	-
Connector for forced on/forced off	-	-	-	-	-	-	-	-	EKRORO	-	-	-	-

Notes:
- *1: Installation box is required
- *2: Fixing box is KRP1A90
- *3: Up to 2 adapters can be fixed per installation box
- *4: Only 1 installation box can be installed per indoor unit

• DS-net

DESCRIPTION	REFERENCE	COMMENTS
DS-net adapter	DTA113B51	4 units can be connected per adapter, 40 units when 10 adapters are connected
Software	DPC001B1-B51	Monitoring panel software

• iTC – intelligent Touch Controller

DESCRIPTION	REFERENCE	COMMENTS
Intelligent Touch Controller	DCS601C51	2x64 units can be connected
Software	DCS002C51	Power Proportional Distribution (PPD) software
	DCS004A51	E-mail / Web software
Hardware	DCS601A52	DIII NET-Plus adapter
Installation box	KJB411A	For wall mounted installation
Touch-Pen	1264009	Spare part n° of Touch-Pen for Intelligent Touch Controller
Interface adapters	KRP928A2S	For connection to Split units
	DTA102A52	For connection to R-22 / R-407C Sky Air units
	DTA112B51	For connection to R-410A Sky Air units
Digital input	DEC101A51	Input contacts: 16 points
Digital input/output	DEC102A51	Input contacts: 8 points; output contacts: 4 points

• iME – intelligent Manager

DESCRIPTION	REFERENCE	COMMENTS
Intelligent Processing unit	DAM602A51	256 indoor units per IPU
	DAM602A52	128 indoor units per IPU
	DAM602A53	192 indoor units per IPU
Software	IM3.XX	Up to 1,024 indoor units
Interface adapters	KRP928A2S	For connection to Split units
	DTA102A52	For connection to R-407C/R-22 Sky Air units
	DTA112B51	For connection to R-410A Sky Air units
DIII Ai	DAM101A51	Outdoor temperature sensor
Digital input	DEC101A51	Input contacts: 16 points
Digital input/output	DEC102A51	Input contacts: 8 points; output contacts: 4 points

• DMS-IF

DESCRIPTION	REFERENCE	COMMENTS
LonWorks® networks compatible Gateway	DMS504B51	Up to 64 units can be connected per DMS-IF
Interface adapters	KRP928A2S	For connection to Split units
	DTA102A52	For connection to R-407C/R-22 Sky Air units
	DTA112B51	For connection to R-410A Sky Air units

• BACnet Gateway

DESCRIPTION	REFERENCE	COMMENTS
BACnet Gateway	DMS502A51	64 units per Gateway
DIII board	DAM411A1	Extension of 3 x DIII lines (3 x 64) indoor units
Digital input/output	DAM412A1	For forced shutdown
Interface adapters	KRP928A2S	For connection to Split units
	DTA102A52	For connection to R-407C/R-22 Sky Air units
	DTA112B51	For connection to R-410A Sky Air units

• BMS: Building Management system

DESCRIPTION		REFERENCE	COMMENTS
Contact / analog signal	Parallel interface - Basic unit	DPF201A51	enables ON/OFF command, operation and display of malfunction can be used in combination with up to 4 units.
	Temperature measurement units	DPF201A52	enables temperature measurement output for 4 groups; 0~5VDC."
	Temperature setting units	DPF201A53	enables temperature setting input for 16 groups; 0~5VDC."
	Unification adapter for computerised control	DCS302A52	used for combining of air conditioning control computer and central remote controller (ON/OFF, display)
	Wiring adapter for electrical appendices (1)	KRP2A51	simultaneously controls air conditioning control computer and up to 64 groups of indoor units.
		KRP2A52	
	Wiring adapter for electrical appendices (2)	KRP4A51-53	to control the group of indoor units collectively, which are connected by the transmission wiring of remote controller.
External control adapter for outdoor unit		DTA104A51	cooling/heating mode change over, demand control and low noise control are available between the plural
		DTA104A52	outdoor units.
DIII-net expander adapter		DTA109A51	a maximum of 10 outdoors or 128 indoors can be connected to 1 DTA109A51 a maximum of 8 DTA109A51 can be connected to DIII-net
Mounting kit		KRP4A92	for easy installation of the DTA109A51

Notes



Daikin Europe N.V. is approved by LRQA for its Quality Management System in accordance with the ISO9001 standard. ISO9001 pertains to quality assurance regarding design, development, manufacturing as well as to services related to the product.

ISO14001 assures an effective environmental management system in order to help protect human health and the environment from the potential impact of our activities, products and services and to assist in maintaining and improving the quality of the environment.

Daikin units comply with the European regulations that guarantee the safety of the product.

VRV products are not within the scope of the Eurovent certification programme

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