Air curtain
Biddle Air curtain for VRV (CYV)

Indoor units
VRV type indoor units

Ventilation
Heat Reclaim ventilation (VAM/VKM)
Fresh air indoor units (FXMQ-MF)
AHU connection kit

Control systems

VRV III

VRV IV

Replacement VRV

RQYQ-P / RXYQQ-T (Heat pump)
RQCEQ-P (Heat recovery)

VRV IV
Q-series

Heat pump

✓ Variable refrigerant temperature

Customize your VRV for best seasonal efficiency & comfort

✓ VRV configurator

Software for simplified commissioning, configuration and customisation

- ✓ 7 segment indicator
- ✓ Automatic refrigerant charge
- ✓ Night quiet mode
- ✓ Manual low noise function
- ✓ Full inverter compressors
- ✓ Gas cooled PCB
- ✓ 4 side heat exchanger
- ✓ Reluctance brushless DC compressor
- ✓ Sine wave DC inverter
- ✓ DC fan motor
- ✓ E-pass heat exchanger
- ✓ I demand function
- ✓ Manual demand function

VRV III-Q

Heat pump & Heat recovery

- ✓ Automatic refrigerant charge
- ✓ Night quiet mode
- ✓ Manual low noise function
- ✓ Full inverter compressors
- ✓ Reluctance brushless DC compressor
- ✓ Sine wave DC inverter
- ✓ DC fan motor
- ✓ E-pass heat exchanger
- ✓ I demand function
- ✓ Manual demand function

For more information on these features refer to the VRV IV technologies tab

The Daikin solution to R-22 phase-out

Replace your R-22 / R-407C outdoor unit with R-410A technology, but keep your refrigerant piping and in some cases your indoor units[1].

1. Replace outdoor unit
2. Replace BS-boxes (in case of H/R)
3. Replace indoor units (check with your local dealer if needed)
4. The system will automatically clean the piping & charge the correct amount of R-410A refrigerant

* When R-22 indoors are K-series or later, it is possible to keep the indoor units.

Plan your system replacement now

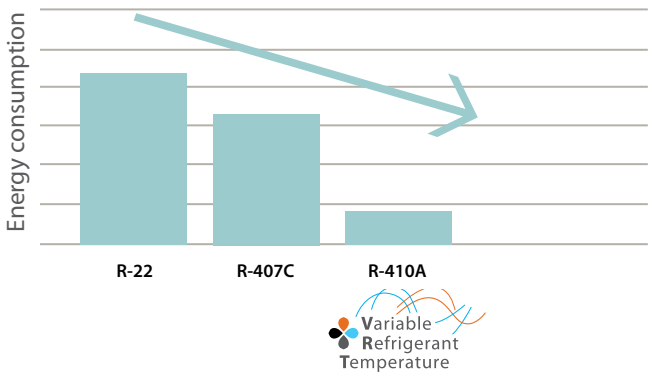
From 01/01/2015 there is a ban on the use of all R-22 for service & maintenance. Daikin advises to replace your system now to prevent unplanned downtime.

Increased efficiency

Upgrading an old R-22 system to a Replacement VRV system will result in increased system efficiency. Efficiency gains of more than 70% in cooling can be realized, by virtue of technological developments in current heat pump technology such as variable refrigerant temperature and the more efficient R-410A refrigerant. Increased energy efficiency equals lower energy consumption, subsequent lower energy costs and lower CO_2 emissions.

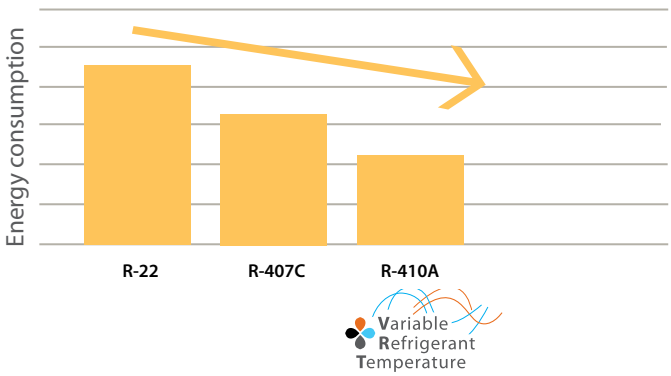
81% less consumption in cooling mode

Energy use of a 10HP system in cooling



48% less consumption in heating mode

Energy use of a 10HP system in heating



Environmental awareness

R-410A not only has a zero ozone depletion potential, it is also proven to be more energy efficient than R-22.

Fast installation

It is not necessary to remove the existing piping and even the indoor units can remain (depending on type of indoor unit). The outdoor unit automatically charges the refrigerant and cleans the refrigerant piping. This unique Daikin feature makes the installation time even shorter.

No restrictions on system history

As a result of the combined automatic charging and refrigerant pipe cleaning function, it is possible to ensure a clean piping network, even when a compressor breakdown has previously occurred.

Limited and planned-downtime

As the refrigerant piping can be maintained the installation is less intrusive and less time consuming than for a completely new system. Moreover, downtime can be carefully planned: whereas if a problem occurs when not enough reclaimed R-22 is available, a long and unplanned downtime can be the result.

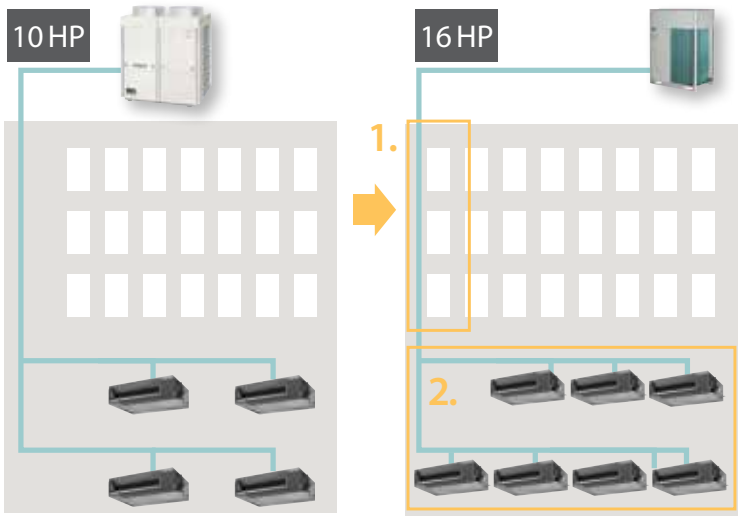
Limited and phased investment cost

It is possible to spread the various stages of replacement over a certain period of time because the indoor units can remain in most cases. The air conditioning replacement therefore, can be incorporated in the general refurbishment schedule of the building and the investment cost can be spread. A further reduction in installation cost can be achieved by maintaining the old refrigerant copper pipe work.

Increase capacity

Cooling loads often increase subsequent to the initial installation of the air conditioning system. The Replacement VRV(VRVIII-Q) enables system capacity to be increased without changing the refrigerant piping (depending on system characteristics).

Example: replace a 10HP VRV with a 16HP Replacement VRV unit

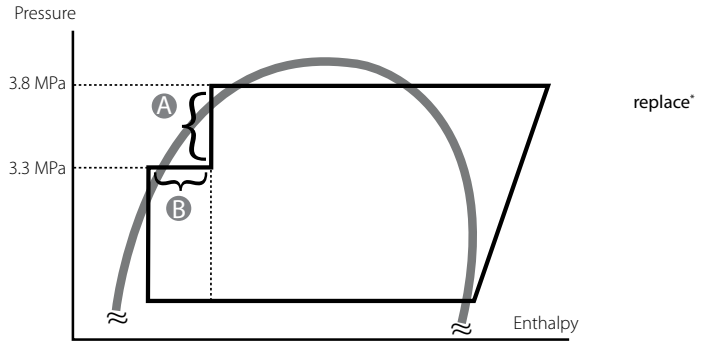


1. Keep main piping
2. Add indoor units

Technologies

Reduced pressure

As R-22 VRV systems used to work on a lower pressure than R-410A systems / thus the copper refrigerant piping was also designed for these lower pressures. Therefore the Replacement VRV must operate at lower pressures than the standard VRV series. However thanks to the sub cool circuit a high efficiency level can be kept even with the lower pressures.



A Decompression to 3.3MPa(s) → R-22 existing piping can be used
B Extra sub cool circuit → high COP

Specifications

RQYQ140P

VRV III-Q

RXYQQ-T

VRV IV-Q

Replacement VRV heat pump (RQYQ-P / RXYQQ-T)

OUTDOOR UNIT					RQYQ140P	RXYQQ8T	RXYQQ10T	RXYQQ12T	RXYQQ14T	RXYQQ16T	RXYQQ18T	RXYQQ20T
Capacity range				HP	5	8	10	12	14	16	18	20
Cooling capacity	Nom.			kW	14.0	22.4	28.0	33.5	40.0	45.0	50.0	56.0
Heating capacity	Nom.			kW	16.0	25.0	31.5	37.5	45.0	50.0	56.0	63.0
Power input - 50Hz	Cooling	Nom.		kW	3.36	5.21	7.29	8.98	11.0	13.0	14.7	18.5
	Heating	Nom.		kW	3.91	5.51	7.38	9.10	11.2	12.8	14.4	17.0
EER					4.17	4.30	3.84	3.73	3.64	3.46	3.40	3.03
ESEER					-	6.37 (2) / 7.53 (3)	5.67 (2) / 7.20 (3)	5.50 (2) / 6.96 (3)	5.31 (2) / 6.83 (3)	5.05 (2) / 6.50 (3)	4.97 (2) / 6.38 (3)	4.42 (2) / 5.67 (3)
COP					4.09	4.54	4.27	4.12	4.02	3.91	3.89	3.71
Maximum number of connectable indoor units					10	64 (1)						
Indoor index connection	Min.				62.5	100	125	150	175	200	225	250
	Nom.				125	200	250	300	350	400	450	500
	Max.				162.5	260	325	390	455	520	585	650
Dimensions	Unit	HeightxWidthxDepth		mm	1,680x635x765	1,685x930x765			1,685x1,240x765			
Weight	Unit			kg	175	187	194		305		314	
Fan	Air flow rate	Cooling	Nom.	m^3/min	-	162	175	185	223	260	251	261
Sound power level	Cooling	Nom.		dBA	-	78	79	81		86		88
Sound pressure level	Cooling	Nom.		dBA	54	58		61		64	65	66
Operation range	Cooling	Min.~Max.		°CDB	-5~43							
	Heating	Min.~Max.		°CWB	-20~15.5							
Refrigerant	Type				R-410A							
Piping connections	Liquid	OD		mm	9.52			12.7			15.9	
	Gas	OD		mm	15.9	19.1	22.2	28.6				
	Total piping length	System	Actual	m	300							
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/380-415	3N~/50/380-415						
Current - 50Hz	Maximum fuse amps (MFA)			A	15	20	25	32		40		50

OUTDOOR UNIT					RXYQQ22T	RXYQQ24T	RXYQQ26T	RXYQQ28T	RXYQQ30T	RXYQQ32T	RXYQQ34T	RXYQQ36T
System	Outdoor unit module 1				RXYQQ10T	RXYQQ8T	RXYQQ12T			RXYQQ16T		
	Outdoor unit module 2				RXYQQ12T	RXYQQ16T	RXYQQ14T	RXYQQ16T	RXYQQ18T	RXYQQ16T	RXYQQ18T	RXYQQ20T
	Outdoor unit module 3				-							
Capacity range				HP	22	24	26	28	30	32	34	36
Cooling capacity	Nom.			kW	61.5	67.4	73.5	78.5	83.5	90.0	95.0	101.0
Heating capacity	Nom.			kW	69.0	75.0	82.5	87.5	93.5	100.0	106.0	113.0
Power input - 50Hz	Cooling	Nom.		kW	16.3	18.2	20.0	22.0	23.7	26.0	27.7	31.5
	Heating	Nom.		kW	16.5	18.3	20.3	21.9	23.5	25.6	27.2	29.8
EER					3.77	3.70	3.68	3.57	3.52	3.46	3.43	3.21
ESEER					5.58 (2) / 7.07 (3)	5.42 (2) / 6.81 (3)	5.39 (2) / 6.89 (3)	5.23 (2) / 6.69 (3)	5.17 (2) / 6.60 (3)	5.05 (2) / 6.50 (3)	5.01 (2) / 6.44 (3)	4.68 (2) / 6.02 (3)
COP					4.18	4.10	4.06	4.00	3.98	3.91	3.90	3.79
Maximum number of connectable indoor units					64 (1)							
Piping connections	Liquid	OD		mm	15.9		19.1					
	Gas	OD		mm	28.6	34.9						41.3
	Total piping length	System	Actual	m	300							
Current - 50Hz	Maximum fuse amps (MFA)			A	63				80			

OUTDOOR UNIT					RXYQQ38T	RXYQQ40T	RXYQQ42T
System	Outdoor unit module 1				RXYQQ8T	RXYQQ10T	RXYQQ10T
	Outdoor unit module 2				RXYQQ10T	RXYQQ12T	RXYQQ16T
	Outdoor unit module 3				RXYQQ20T	RXYQQ18T	RXYQQ16T
Capacity range				HP	38	40	42
Cooling capacity	Nom.			kW	106.0	112.0	118.0
Heating capacity	Nom.			kW	120.0	125.0	132.0
Power input - 50Hz	Cooling	Nom.		kW	31.0		33.3
	Heating	Nom.		kW	29.9	30.9	33.0
EER					3.42	3.61	3.54
ESEER					5.03 (2) / 6.36 (3)	5.29 (2) / 6.74 (3)	5.19 (2) / 6.65 (3)
COP					4.01	4.05	4.00
Maximum number of connectable indoor units					64 (1)		
Piping connections	Liquid	OD		mm	19.1		
	Gas	OD		mm	41.3		
	Total piping length	System	Actual	m	300		
Current - 50Hz	Maximum fuse amps (MFA)			A	100		

(1) Actual number of connectable indoor units depends on the indoor unit type (VRV indoor, Hydrobox, RA indoor, etc.) and the connection ratio restriction for the system (50% <= CR <= 130%) (2) The STANDARD ESEER value corresponds with normal VRV4 Heat Pump operation, not taking into account advanced energy saving operation functionality (3) The AUTOMATIC SEER value corresponds with normal VRV4 Heat Pump operation, taking into account advanced energy saving operation functionality (variable refrigerant temperature control operation)