

Replacement technology

for installers



The quick and quality way of upgrading R-22 and R-407C systems

VRV-Q benefits to increase your profit

Increase your business

Less installation time

Tackle more projects in less time thanks to faster installation. VRV-Q is more profitable than replacing the full system with new piping.

Lower installation costs

Reducing installation costs enables you to offer customers the most cost-effective solution and improve your competitive edge.

Replace non-Daikin systems

NON DAIKIN → DAIKIN

It is a trouble-free replacement solution for Daikin systems and for systems made by other manufacturers.

Easy as one-two-three

A simple solution: Daikin VRV-Q enables you to handle more projects for more customers in less time and offer them the best price! Everybody gains.

Compare installation steps

Conventional solution

- 1 Recover refrigerant
- 2 Remove units
- 3 Remove refrigerant pipes
- 4 Install new piping and wiring
- 5 Install new units
- 6 Leak test
- 7 Vacuum drying
- 8 Refrigerant charging
- 9 Collect contamination
- 10 Test operation

VRV-Q

- 1 Recover refrigerant
 - 2 Remove units
- Re-use existing piping and wiring
- 3 Install new units
 - 4 Leak test
 - 5 Vacuum drying
 - 6 Automatic refrigerant charging, cleaning and testing



Up to 45% shorter installation time

Automatic pipe cleaning

There is no need to clean inside piping as this is handled automatically by the VRV-Q unit. Finally the test operation is performed automatically to save time.

Automatic refrigerant charge

The unique automatic refrigerant charge eliminates the need to calculate refrigerant volume and ensures that the system will operate perfectly. Not knowing the exact piping lengths because of changes or mistakes in case you didn't do the original installation or replacing a competitor installation no longer poses a problem.

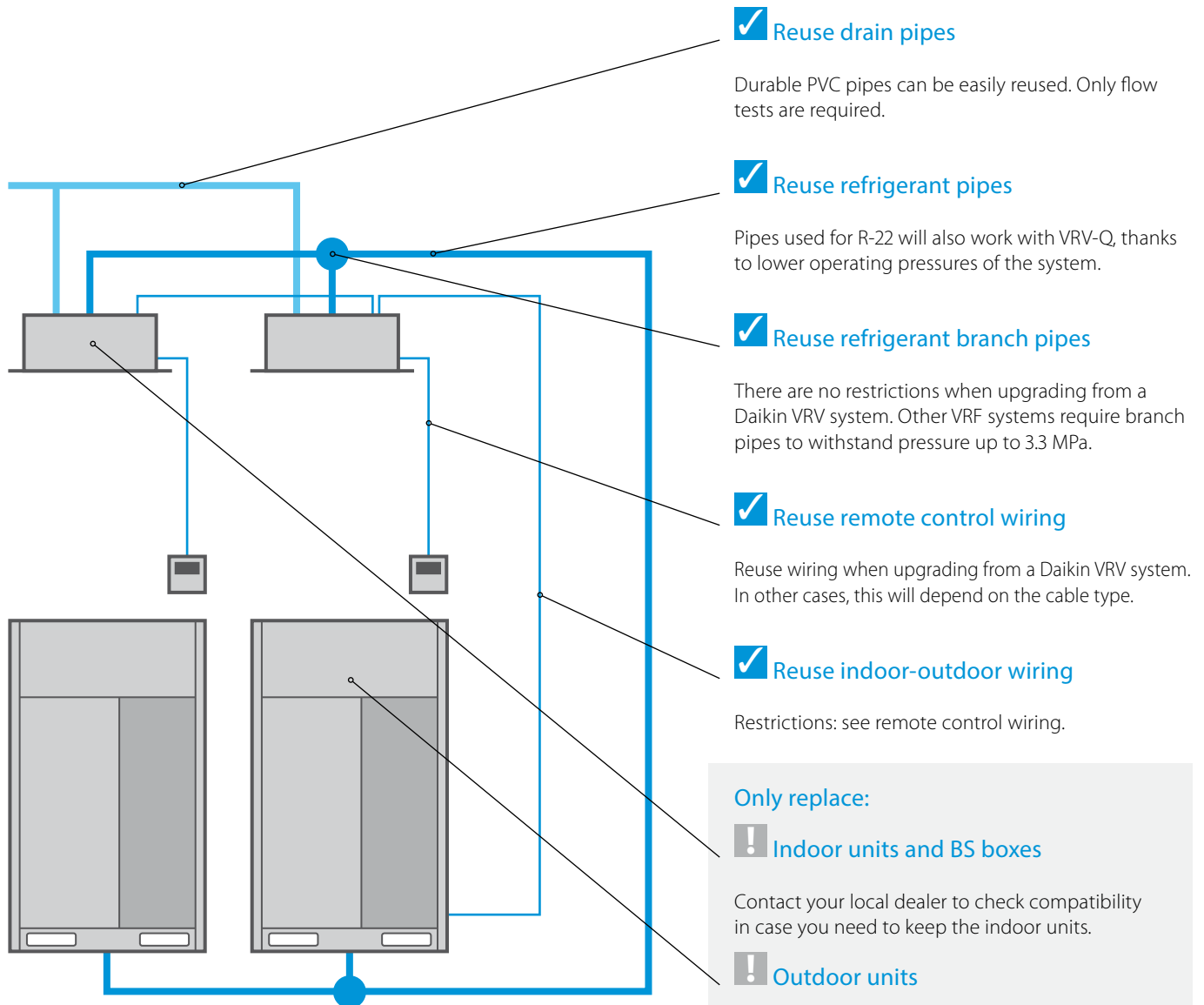


One touch convenience:

- › Measure and charge refrigerant
- › Automatic pipe cleaning
- › Test operation

The quick and quality way to upgrade R-22 and R-407C systems

The Daikin cost effective upgrade solution



Your copper pipes will last for multiple generations

- > copper pipes used in air conditioning systems tested by Daikin will last over 60 years after installation.
- > Japan/China have replaced with VRV Q-series already 10 years ago!

Umeda Center Building, Japan

- > original A/C system: 20 years in use
- > replacement with VRV Q-series: 2006 - 2009
- > capacity up from 1620HP to 2322HP
- > SHASE renewal award:



Success stories

with VRV-Q

Palace of Westminster, United Kingdom

Why VRV-Q?

"VRV-Q offers a replacement option with the unique ability to reduce operating pressures of R-410A down to R-22 levels, keeping the R-410A performance."

Mick Langford (All Seasons Climate Control, Daikin D1 dealer)

- › More than 35% energy savings
- › Over 6 tonnes less CO₂ per year
- › Year of installation: 2012
- › Installed units: 3 VRV-Q outdoor units, 13 indoor units
- › Replacement of competitor system



Torre Serenissima office tower, Italy

Why VRV-Q?

"The complete replacement of the 17-years-old R-22 system resulted in only a half-day of missed work for employees. The improved control of the air flow by the user significantly enhanced comfort, while reducing energy consumption by 25%."

Maurizio Casarola (Property Manager)

- › 25% energy savings
- › Year of installation: 2013
- › Installed units: 39 VRV-Q outdoor units, 250 indoor units, 35 VAM 500, 4 intelligent Touch Controllers
- › Full installation done during weekends



Hotel Le Pignonnet, France

Why VRV-Q?

Refurbishment of the existing VRV system of a luxury 5 star hotel to anticipate R-22 phase out, while preserving interior decoration.

- › Year of installation: 2011
- › Installed units: 8 VRV-Q outdoor units, 36 indoor units



These benefits will convince your customer

Drastically improve your efficiency, comfort and reliability

Always operational

Avoid loss of business

Replacing old units that risk to break down now prevents unplanned, lengthy downtime of air conditioning systems. It also avoids loss of business for shops, complaints from guests in hotels, lower working efficiency and loss of tenants in offices.

Quick and easy installation

There is no interruption of daily business while replacing the system thanks to phased-in, fast installation.

A reliable, high-quality solution

Customers can cost effectively replace systems from other manufacturers with highly-efficient and flexible Daikin VRV technology, featuring higher quality, enhanced comfort and superior indoor units.



- > 360° air discharge
- > Optional presence sensor and floor sensor
- > Optional auto cleaning filter

Smaller footprint, more performance

Thanks to a smaller footprint, Daikin outdoor units save space. Also, more indoor units can be connected to the new outdoor unit compared to the old system, allowing to increase capacity.

A cost effective decision

Less investment

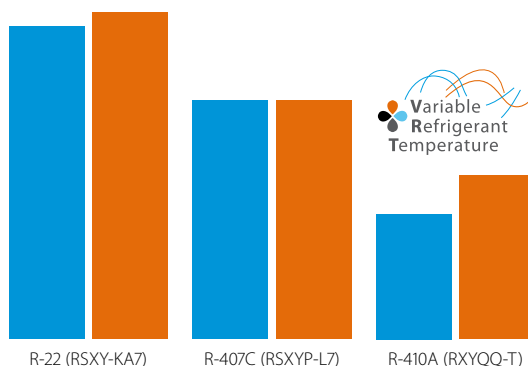
System upgrades cost less, because only the outdoor and indoor units need to be replaced. This is also the easiest and fastest way to comply with EPDB regulations for buildings.

Environment protection

Improved efficiency saves energy and lowers CO₂ emissions.

Improved efficiency

EU Directives prohibit system repairs with R-22 after January 1st, 2015. Delaying the required R-22 replacement until an unplanned system breakdown is a losing game. Replacement day will come. Installing a technically advanced system lowers energy consumption and maintenance costs from day one.



Up to 48% less consumption

EER / COP	8HP	10HP
RXYQQ-T (R-410A)	4.30 / 4.54	3.84 / 4.45
RSXYP-L7 (R-407C)	3.10 / 3.14	3.10 / 3.10
RSXY-KA7 (R-22)	2.37 / 2.95	2.37 / 3.00

Comparison of 10HP systems:
■ Cooling mode
■ Heating mode

! Planning your replacement in future? Monitor your system now!

Your building use might have changed over the years. Monitoring and Daikin expert advice prepare you for an optimum replacement to maximize efficiency and comfort, while minizing the investment cost of your new system.

Key guidelines

for a quality replacement with VRV-Q

Refrigerant branch pipes

Refrigerant branch pipes, including those from other manufacturers, Y-refnets, T-refnets and headers can be reused under the following conditions:

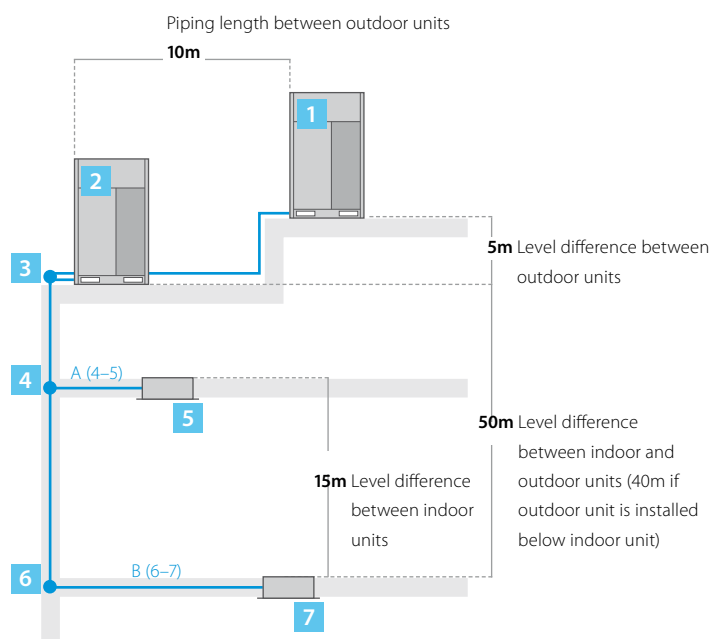
- ✓ Pipes are corrosion-free
- ✓ Pipes are insulated
- ✓ Pipes can withstand a pressure up to 3.3 MPa
- ✓ There are no special components that implement decompression (e.g. oil trap)
- ✓ Installed copper pipework is in suitable condition (piping thickness will generally meet specifications, since the unique Daikin VRV solution operates at lower pressure levels)

Refrigerant oil

Refrigerant piping can be reused if one of the following oils was used: Barrel Freeze, Ethereal, Ester, Ferreol, HAB, MS, Suniso.

Maximum piping lengths and level distances

VRV-Q can be installed for piping systems with a total length up to 300m. See the illustration below for further requirements.



Total piping length:	300m
Longest piping length (1-7) actual / equivalent:	120m / 150m
Maximum difference between shortest (A) and longest (B) branch:	40m

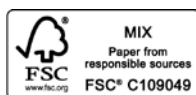


Download the detailed data book and replacement VRV comparator tool from our extranet to calculate operating costs.

https://my.daikin.eu/content/denv/en_US/home/applications/campaign-finder/r22-replacement.html

If you have questions or require further information, please contact your local sales specialist for expert support.

Daikin Europe N.V. Naamloze Vennootschap · Zandvoordestraat 300 · 8400 Oostende · Belgium · www.daikin.eu · BE 0412 120 336 · RPR Oostende (Responsible Editor)



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