



Optimal Air Conditioning Systems for Residences

VRV is a trade mark of Daikin Industries, Ltd.

VRV Air Conditioning System is the world's first individual air conditioning system with variable refrigerant flow control and was commercialised by Daikin in 1982.

VRV is the trade mark of Daikin Industries, Ltd., which is derived from the technology we call "variable refrigerant volume."

Dealer

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As a leading company in the air conditioning industry, we develop and supply optimal systems designed for a wide range of living environments. Our residential-use multi-split systems are able to combine a variety of equipment, providing customised air conditioning solutions for individual lifestyles.

With multi-split systems, a single space saving outdoor unit can be connected to multiple indoor units. These indoor units are available in various capacities and configurations, allowing home owners and architects to create ideal interior designs. Individual control and automatic operation also ensure comfort and energy savings.

We also provide engineering support services including heat load calculation and model selection. These advantages make residential-use multi-split systems an outstanding choice for luxury residences. We hope you will both enjoy and be inspired by the many installation examples in this casebook.



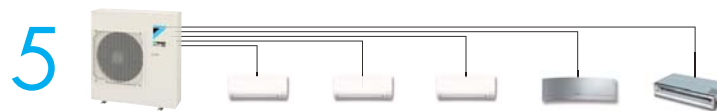
Yoshihiro Mineno
Senior Executive Officer
General Manager of the
Global Operations Division
Daikin Industries, Ltd.

Single Outdoor Unit Connectable to Up to 19 Indoor Units

Daikin residential-use multi-split systems provide outstanding flexibility and selection. A wide range of compact outdoor units can be installed even in the limited space available on a balcony. These outdoor units can be connected to three to 19 indoor units with different capacities from 2.0 to 9.5 or higher kW classes. All indoor units feature individual control. Multi-split systems offer maximum customised comfort, efficiency and intelligent operation tailored to your needs.

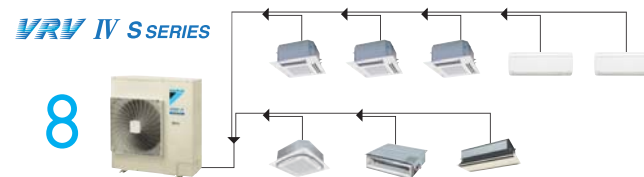
Residential-Use Multi-Split Type Air Conditioners 5.2 to 10.0 kW

Connectable to up to five indoor units with single-phase power supply

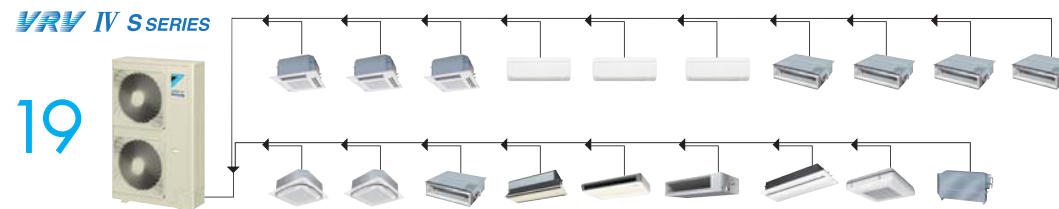


VRV IV S Series 3 to 12 HP (8.0 to 33.5 kW)

3 to 6 HP (8.0 to 16.0 kW): Connectable to up to eight indoor units with single-phase power supply



8 to 12 HP (22.4 to 33.5 kW): Connectable to up to 19 indoor units with three-phase power supply



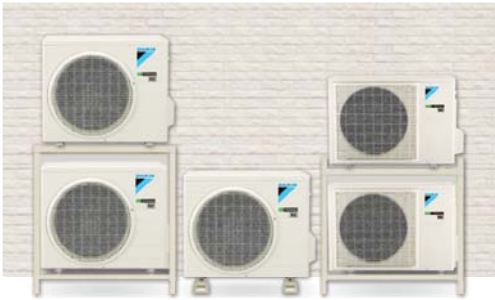
Note: The available lineup may differ depending on the individual region.

Savings on Installation Space



With split type air conditioners, you need one outdoor unit for every indoor unit. For example, five rooms means five outdoor units. With Daikin's multi-split air conditioners, a single outdoor unit can be connected to up to 19 indoor units. In this case, five rooms would require just one outdoor unit.

Split Type



Split type air conditioners require the same number of outdoor units as the number of rooms.

Multi-Split Type



Multi-split type air conditioners can be connected to multiple indoor units.



Ideal Air and Interior Design

Most people agree indoor units should enhance a home's interior. Yet they are usually designed either to be partially hidden or displayed as part of the decor. We believe owners and architects should be able to choose the ideal unit based on the room size and their personal preferences. This is why we provide such a wide selection of models from 2.0 to 9.5 or high kW classes. Configurations and capacities are available to suit any space.



Duct Type

Duct type indoor models are for people who prefer concealed units. A wide range of external static pressures gives more flexibility in interior design.



Wall-Mounted Type

The European Design Series' wall-mounted units feature flowing curves which recreate the feeling of a gentle breeze. The front panel tapers gracefully, helping it to blend smoothly with the wall. This simple yet stylish finish harmonises effortlessly with any interior.



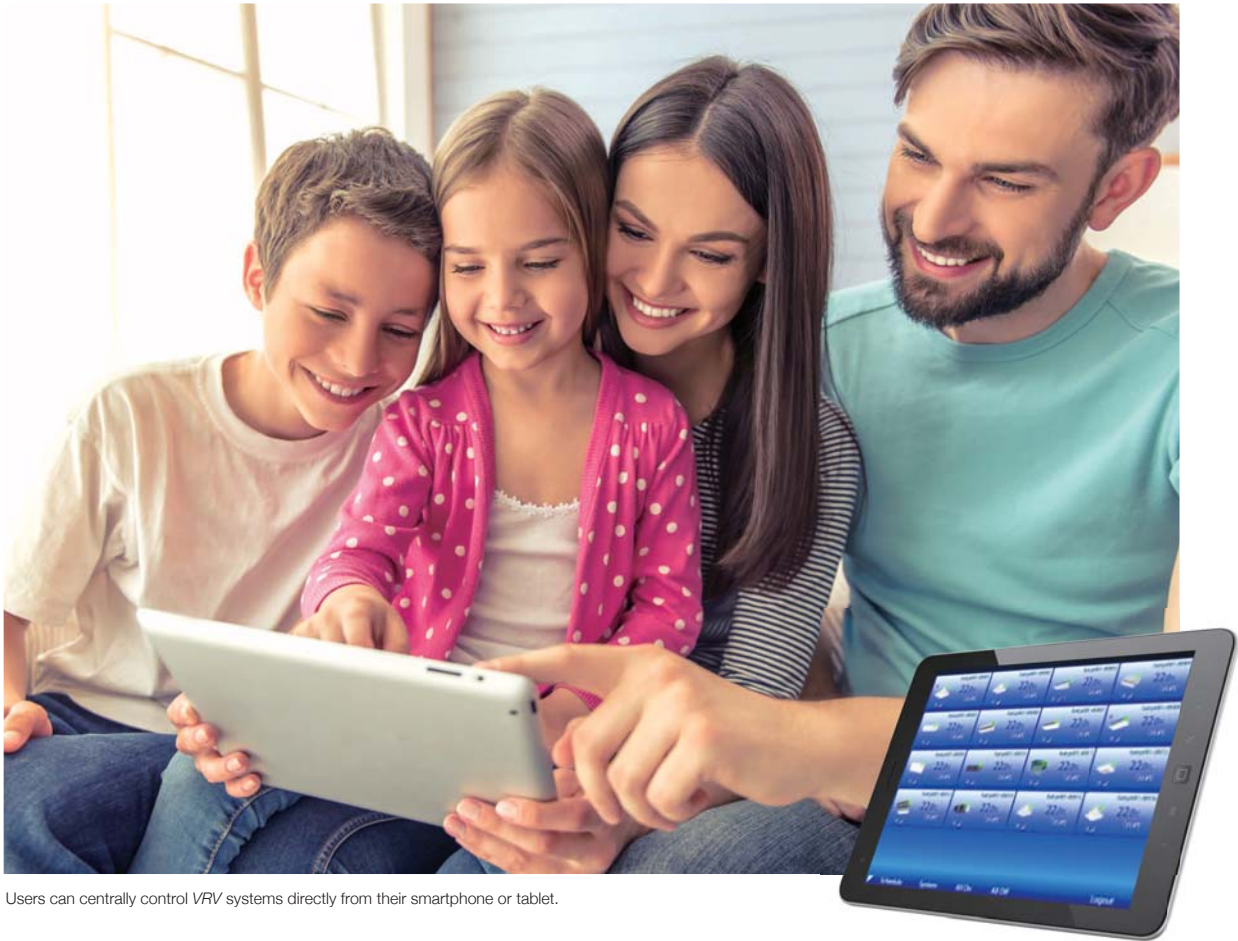
Ceiling-Mounted Cassette Type

Ceiling-mounted cassette indoor units enable more flexible installation. They can be set to deliver air in any direction from two to four outlets depending on where they are mounted in the ceiling. This makes the units highly adaptable to free floor plans.

Note: The available lineup may differ depending on the individual region.

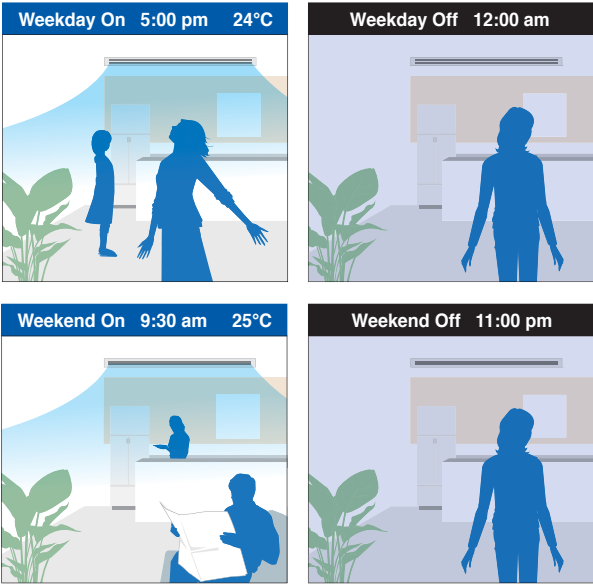
Individual and Centralised Control

Daikin multi-split systems feature both individual and centralised control. Users can individually adjust indoor unit settings such as operation periods, temperature and airflow to meet their personal preferences. The schedule timer, set point restriction and other automatic controls are highly effective for saving energy. These features ensure efficient, whole house comfort for everyone. Users can also centrally control VRV systems directly from their smartphone or tablet. VRV can also be linked to the master controller of a home automation system for lighting and electric curtains.



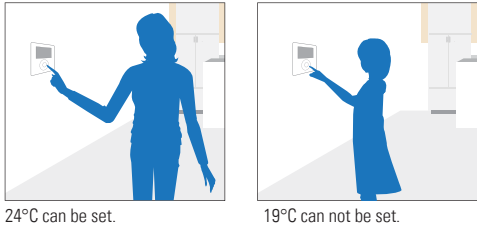
Users can centrally control VRV systems directly from their smartphone or tablet.

Schedule Timer



With this function, a user can easily schedule on/off times and set temperatures in advance for each day of the week. The system will constantly maintain a comfortable temperature and automatically turn itself off when a user goes out.

Set Point Restriction



This function saves energy by limiting the minimum and maximum set temperatures to prevent excessive cooling or heating. For example, if a child tries to reduce the temperature to 19°C on a wired remote controller, the system will restrict the set point range to 22 to 28°C.

Set Point Auto-Reset



If the set temperature is changed, this function will automatically return it to the preset level after a fixed period of time to prevent excessive cooling or heating.

Dalkeith on Waratha

Dalkeith, Australia



Waratha is located in Dalkeith near the beautiful Swan River, around eight kilometres from the centre of Perth. It consists of 31 luxury apartments and seven commercial tenancies with a basement and ground floor car park. Individual apartments measure 180 m² and the spacious penthouses are 311 m².

All residences are fitted with *VRV S* series systems while *VRV IV* heat pumps are used for commercial tenancies. The selection of systems was handled by the project's consultant. The company maintains a close working relationship with Daikin due to both the excellent quality of Daikin's systems and reliability as a supplier.



Project Outline	
Number of floors	4
Total floor space	1,500 m ²
Construction	2016

Daikin Systems Installed	
Outdoor units (total 256 HP)	
VRV IV and IV S heat pump type x 40	
Indoor units	
Ceiling-mounted duct type x 125	

Private Residence

New South Wales, Australia



New South Wales, located on the east coast of Australia, is the home state of the popular tourist destination city of Sydney. This is where construction of a brand new residential living space has just recently been completed in Sylvania Waters, a waterfront suburb 21 kilometres out of Sydney. Along with all the other home essentials and comforts, the highlight of this private residence is its five spacious bedrooms. In balance with the uniquely modern design elements of this dwelling, VRV was chosen by the dealer, who prefers Daikin for its unmatched quality, variety of equipment on offer, and the long-term relationship between both companies.



Project Outline	
Number of floors	2
Total floor space	400 m ²
Construction	2018

Daikin Systems Installed	
Outdoor units (total 10 HP)	VRV IV S heat pump type x 2
Indoor units	Ceiling-mounted duct type x 7

Omkar 1973

Mumbai, India



Omkar 1973 is a residential apartment project located in Worli, the most high-end residential area of Mumbai. The distinctive tri-towers, by Omkar Realtors, consist of different combinations of 3 to 5 BHK* flats (each 260 to 370 m²) per floor with marvelous views of the Arabian Sea and the impressive Bandra-Worli Sea Link.

VRV water-cooled technology has been selected for this prestigious project as outside units can be double-stacked to lessen the installation footprint. A water-cooled VRV system also provides high COP and a lower noise level for full comfort.



Project Outline

Number of floors	67
Floor space	1,170 m ² per floor
Construction	2016

Daikin systems installed

Outside units (total 4,530 HP)	
Water-cooled VRV III heat pump type x 550	
Indoor units	
Ceiling-mounted duct type x 1,400	

* 3 to 5 BHK includes 3 to 5 bedrooms, a hall area, and a kitchen.

Kasturi Builder- Balmoral

Pune, India



The luxurious Balmoral condominiums are located in the high end residential area called Baner, not far from Pune's rapidly expanding business hub. This upscale apartment complex consists of two buildings.

The interior of each residence is inspired by the philosophy that savvy aesthetics can create a better life for the discerning dweller. The layout and furnishings imaginatively fuse the most contemporary of world designs into stylish ambiances that energise and revitalise. Balmoral offers a quality living experience with all the necessary amenities. Daikin has provided its VRV systems to cover all the air conditioning needs of this building.



Project Outline

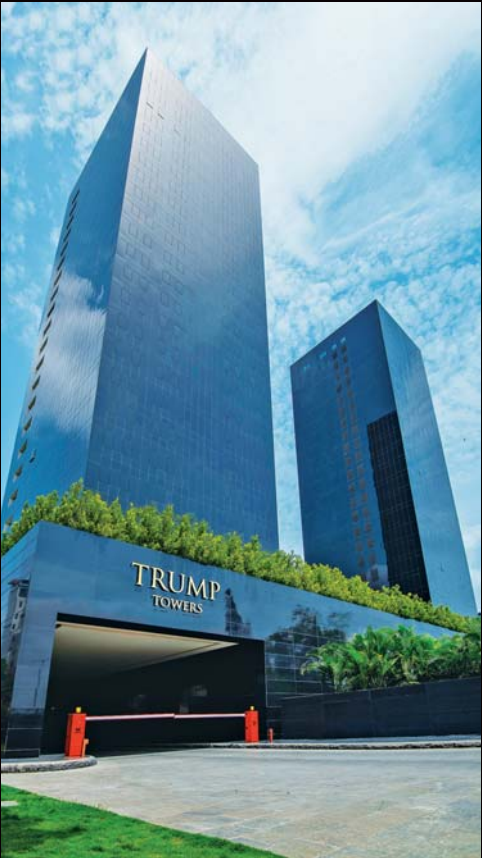
Number of floors	16
Total floor space	8,445 m ²
Construction	2018

Daikin Systems Installed

Outdoor units (total 768 HP)	
VRV IV x 64	
Indoor units	
Ceiling-mounted duct type x 386	

Trump Towers

Pune, India



A synthesis of modern architecture, impeccable design and unparalleled amenities offering uncompromising services, Trump Towers Pune is India's first Trump-branded residence. Upholding unrivalled standards of the Trump brand, lush interiors styled by award-winning designer Matteo Nunziati facilitate a lifestyle that is distinctively refined and the first of such high calibre in India. The 46 single-floor residences, all with breathtaking views, embrace a refined, opulent modernity harmonised with local Indian art and beauty.

The Daikin brand is well suited to the requirements of this premium project – now fully on board with our well reputed quality products, along with efficient installation and full services. The VRV system was selected for its advanced air conditioning technology, high level of comfort, flexibility, and low energy consumption.

Project Outline

Number of floors	23
Total floor space	Approximately 268,000 m ²
Construction	2017
Further details	http://trumptowerspune.com/

Daikin Systems Installed

Outdoor units (total 1,016 HP)	
VRV IV x 58	
Indoor units	
Ceiling-mounted duct type x 493	
Other	
Modbus Gateway device connecting Daikin VRV systems to home automation and building management control systems	

Rivera Park Saigon

Ho Chi Minh, Vietnam



The Rivera Park project is owned by Long Giang Investment and Urban Development Joint-Stock Company. The complex is situated in a highly desirable central location and includes 420 luxury apartments with full amenities and services. It was constructed for a total investment of VND 1.337 billion and covers a land area of 10,893 m².

Rivera Park has been designed to create a “place of peace” for each resident. In keeping with this theme, the owners chose VRV S series. While Daikin’s superior brand image enhances the luxury appeal of the project, the series’ quiet, energy saving operation and concealed indoor units ensure a more comfortable living environment.



Project Outline	
Number of floors	25
Total floor space	88,565 m ²
Construction	2017

Daikin Systems Installed	
Outdoor units (total 2,250 HP)	
VRV S cooling only type x 420	
VRV IV cooling only type x 40	
Indoor units	
Ceiling-mounted duct type x 1,260	

The Nassim

Ho Chi Minh, Vietnam



Four spectacularly modernistic towers housing 238 dynamic residential units featuring one- to four-bedroom spaces and stately penthouses, panoramic views with the serenity of the Saigon River below, and in-house parking access. This is The Nassim, a premium condominium development fringed by an exclusive enclave of low-rise private residences of Vietnam. It is conveniently close to the Ha Noi Highway and the Metro line. Nearby community amenities include international schools, shopping malls and medical care centres. The Nassim offers residents an inspiring and luxurious urban lifestyle in one of Asia's most vibrant and fast-growing cities.



Project Outline	
Number of floors	29
Total floor space	6,464 m²
Construction	2017
Further details	http://www.hkland.com/en/properties/vietnam/ho-chi-minh-city/the-nassim.html

Daikin Systems Installed	
Outdoor units (total 1,494.5 HP)	
VRV S cooling only type	x 150
VRV IV cooling only type	x 9
Residential-use multi-split cooling only type	x 94
Indoor units	
VRV: Ceiling-mounted duct type	x 509
VRV: Wall-mounted type	x 1
Duct-Connected type	x 142

Le Nouvel KLCC

Kuala Lumpur, Malaysia



Le Nouvel KLCC is a dual-tower residence on Jalan Ampang Road, just a stone's throw from Kuala Lumpur's city centre. Now one of Malaysia's most luxurious high-rise condominiums, this highly sought after address neighbours the distinguished Petronas Twin Towers and Suria KLCC. While it's striking façade integrates lush greenery and glass as it accentuates the natural light, what truly brings Le Nouvel KLCC to life is the refined interiors and thoughtfully articulated furnishings, including one-off silk screened window panels designed for each and every residence. All rooms are served by ceiling concealed indoor units. VRV III outdoor units have solved the short circuit problem for discharged air.



Project Outline

Number of floors	49, 43 respectively
Construction	2017

Daikin Systems Installed

- Outdoor units (total 2,706 HP)
 - VRV III cooling only type x 213
- Indoor units
 - Ceiling-mounted duct type x 1,349

Joyes-Pinehills

New Taipei, Taiwan



Joyes-Pinehills is located in a new and rapidly expanding business district of New Taipei City. The apartment building has become a prominent feature in the area, with its fastest growing residential population.

Daikin VRV indoor and outdoor units are sold together with each condominium unit. This adds significant value to the property and saves home buyers the trouble of designing their own air conditioning systems before moving to a new residence.



Project Outline

Number of floors 26 and 3 level basement
Total floor space 52,000 m²
Construction 2017
Further details
<https://www.joyes-pinehills.com/>

Daikin Systems Installed

Outdoor units (total 1,344 HP)
VRV III S heat pump type x 2
VRV IV heat pump type x 105
Indoor units
Ceiling-mounted duct type x 635
Ventilation
Heat reclaim ventilation units x 224

We House

Taipei, Taiwan



We House is located in the centre of Taipei, an important educational, commercial, residential and cultural city. The complex includes two buildings, each containing luxury condominiums featuring three or four bedrooms. Residents are able to enjoy views of surrounding greenescapes from their own homes.

We House condominiums are sold with Daikin air conditioners preinstalled. The systems were chosen by the architect due to Daikin's reputation for quality and style. The compact outdoor units are ideal for installation on balconies with limited space, and their quiet operation is also important with We House located near a school.



Project Outline

Number of floors	23 and 4 level basement
Total floor space	50,500 m ²
Construction	2017
Further details	https://goo.gl/kot14E

Daikin Systems Installed

- Outdoor units (total 2,098 HP)
VRV III S heat pump type x 21
VRV III and IV heat pump type x 174
- Indoor units
Ceiling-mounted duct type x 134
- Ventilation
Heat reclaim ventilation units x 185
- Controller
intelligent Touch Manager

Spring Blossoms Town

Hangzhou, China



Spring Blossoms Town is a stunning compound comprised of traditional Chinese houses set in a forested area where the change of seasons can be fully enjoyed. Allowing for more privacy to all residents, each house also has its own garden space. Because the interiors in all of these traditional units come already exquisitely finished, the property value as a luxury residence is significantly heightened.

Moreover, all units come equipped with home automation, enabling the units to be state-of-the-art residences. The floor heating system comforts occupants with a gentle radiant stream of heat from the floor level while simultaneously keeping out cold drafts. Since this region has no gas supply for floor heating systems which require gas boilers, the VRV residential S series was selected for installation as it provides floor heating using heat pumps, as well as cooling.



Project Outline*	
Number of floors	2
Total number of houses	405
Construction	2018

Daikin Systems Installed	
Outdoor units (total 2,215 HP)	
VRV residential S heat pump type	x 405
Indoor units	
Ceiling-mounted duct type	x 1,818
Others	
Hydrobox	x 405

* Figures indicate information in the first phase.

Hualuxe Haikou Seaview

Haikou, China



Located in one of China’s famous marine resort areas, the Hualuxe Haikou Seaview complex offers fabulous service apartments with wide windows which allow residents spectacular scenic views overlooking the sea, the river, the city and the yacht basins. With its proximity to the sea, Haikou can be a very humid location so the duct type features selected here control both humidity and temperature. Automatic dehumidifying offers continuous dehumidification even when residents are away. Daikin’s reheating dehumidifying also prevents overcooling. All these factors greatly enhance the overall value of these sophisticated home properties.



Project Outline*	
Number of floors	19
Total number of houses	300 including hotel rooms
Construction	2016

Daikin Systems Installed**	
Outdoor units (total 505 HP)	VRV residential S heat pump type x 93
Indoor units	Ceiling-mounted duct type x 256

* Figures indicate information for both the hotel rooms and the service apartments.
** Figures indicate information for the service apartments.

Windward Bay Estate

Antigua and Barbuda



With over 300 beaches of clean turquoise waters, the lush tropical islands of Antigua and Barbuda in the Eastern Caribbean are an inviting paradise – and considered to be one of the world’s most beautiful places. It is here that the Windward Bay Estate has been developed on 376,371m² of waterfront and prime real estate, boasting 32 high-demand luxury waterfront villas on plots of approximately 6,475m² each along with four waterfront villas on allotments of 2,024m².

After a meeting in Antigua with the architect, VRV was chosen for Windward Bay due to its efficiency, control, and variety of units. Daikin multi-split systems were also selected for some areas which called for fewer indoor units and matched space conditions.



Project Outline	
Number of floors	2
Construction	Ongoing from 2013
Further details	https://www.windwardantigua.com/completed-villas/villa-lucia

Daikin Systems Installed	
Outdoor units	VRV III heat pump type (8 to 12 HP) and multi-split type air conditioners
Indoor units	Ceiling-mounted duct type Wall-mounted type

Samrya 44 Hotel Suites

Doha, Qatar



Samrya 44, featuring 228 upscale and spacious apartments, was designed with the aim of guaranteeing both luxury and comfort to its tenants. The warm and elegant colours chosen for Samrya 44 interiors communicate a wish to provide new style and design, while still retaining a classical, luxurious feeling. Here, residents will experience high-end apartment living through exceptional interior detail and unique furniture selection and accessorising.

Since the building was already constructed, Daikin had to work within the limitations of the existing building, but thanks to the small footprint of the water-cooled VRV IV outside units, small available spaces were pinpointed on each floor for installation. We are proud to announce this is our first water-cooled heat recovery system located in the Middle East and Africa.



Project Outline

Number of floors	44 and 4 level basement
Total floor space	48,340 m ²
Construction	Ongoing from 2018
Further details	http://www.jre.com.qa/portfolio/samrya-44-hotel-suites/

Daikin Systems Installed

Outside units (total 1,976 HP)	Water-cooled VRV IV heat recovery type x 219
Ventilation	Heat reclaim ventilation units x 7
Indoor units	Ceiling-mounted duct and wall-mounted types x 777

Hyde Park Gardens

London, United Kingdom



Innovative design solutions, which master the challenges of renovating a listed building in a prestigious part of London, are what ultimately landed a multi-million-pound venture to equip this redevelopment house in a residential area of Hyde Park.

The VRV IV S series at Hyde Park Gardens complies with stringent planning conditions and successfully deals with urban limitations requiring a significantly smaller footprint, a lower profile, and quieter operation. Almost invisibly, a mix of discreet, concealed indoor units – including concealed floor mounted type and ceiling-mounted duct type with middle static pressure – have been installed at Hyde Park Gardens.



Low style, rooftop-installed mini VRV systems offer an unobstructed view.

Project Outline

Number of floors	5
Total floor space	800 m ²
Construction	2016
Further details	http://my.daikin.co.uk

Daikin Systems Installed

Outdoor units (total 36.5 HP)

- VRV IV S heat pump type x 6
- VRV IV heat recovery type x 1

Indoor units

- Middle static pressure ceiling-mounted duct type x 22
- Concealed floor standing type x 7

Control systems

- Intelligent Touch Manager x 4