

Hyde Park Gardens



'Unseen' mini-VRV solution beats urban planning constraints

A 960mm parapet wall nearly scuppered plans to air condition apartments in the multi-million-pound redevelopment of a listed five storey house in London's plush residential area of Hyde Park.

Planning constraints meant that the heat recovery condensing units originally specified for the second, third and fourth floor apartments were too tall to go on the roof behind the parapet wall.

With air conditioning a key specification for the luxury apartments' bedrooms and living areas, installers Hoveair (Building Services) Limited recommended that the equipment specified manufacturer be changed to Daikin throughout the building.

The choice of Daikin's 823mm S-series low height mini-VRV heat pumps, which top out at just 918mm after mounting on 95mm rubber bearers, satisfied Building Control and subsequently gained their approval.

Designed especially for urban environments of

high-density residential properties – as in many areas of London, the compact S-series are the lowest-profile VRV units on the market today. They bring single-phase 4hp or 5hp VRV systems into contention for sites with limited space and typical inner-city elevation control restrictions.

The mini-VRV units can be installed behind parapet walls or on balconies – so they are effectively unseen. They are also pleasantly quiet at 51dBA and 52dBA respectively. And at just 94kg they are easy to move into position.

In addition to working with Daikin fan coil units, the mini-VRV units can be connected to other products such as air curtains and air handling units.

London-based contractor Hoveair has been working with Daikin systems for more than 30 years and is a D1+ installer. The company was formed in 1984 by its current directors to deliver innovative solutions in a wide range of applications. A maintenance division was formed in 1998 to meet warranty commitments following installations for a comprehensive client base.

Year of installation

› 2016

Project requirements

- ☒ Air conditioning
- ☐ Air curtain
- ☐ Air purification
- ☒ Control
- ☐ Heating
- ☐ Hot water
- ☐ Refrigeration
- ☐ Ventilation

Installed systems

- › S-Series Low height mini VRV
- › VRV Heat Recovery
- › Vertical chassis Units
- › Concealed Ceiling Unit
- › ITM

Project Director David Collins says:

“We were awarded this project on our innovative design solution to overcome the difficulties of renovating a listed building in a prestige area of London.

“Selection of this equipment has enabled us to provide heating and cooling in each of the apartments in an energy efficient manner. It also enabled us to overcome the urban limitations by having a significantly smaller footprint, lower profile and limited noise, the Daikin mini-VRV unit helps ensure compliance with the stringent planning conditions for this project.

“We will definitely consider this solution for future residential projects.”

David Collins says: “Heat recovery systems were originally specified to give future residents the flexibility to use cooling and heating simultaneously, if needed. The mini-VRV heat pump systems provide either heating or cooling, but we have kept the flexibility by providing each of the upper apartments with two systems, one for each living area and one for the bedrooms.

“The large apartment beneath is air conditioned with a conventional Daikin VRV Heat Recovery system served by a 16hp condensing unit discreetly positioned at the rear of the building.” The apartments have a mix of discreet, concealed fan coil units –



including wall mounted vertical chassis units and medium static ceiling units – so that the air conditioning is almost as invisible indoors as it is outdoors.

All the apartment systems are independently controlled by Daikin I-Touch Managers, which are linked to a building management system.

Code	Description	No of units
RXYSQ	VRV IV low height mini condensing unit	6
FXNQ-A	VRV Fan coil – Vertical chassis unit	7
FXSQ-A	VRV Fan coil – Concealed ceiling unit (Medium static)	22
REYQ-T	VRV IV Heat Recovery condensing unit	1
DCM601A51	I-Touch Manager	4



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