

40 Clarendon Road, Watford



Daikin heat recovery systems give prime office building new lease of life.

A prime office property in busy Watford has returned to the letting market after a massive facelift – including an efficient new heat recovery air conditioning installation that is configured to suit the needs of up to nine tenants.

Described as a self-contained headquarters office building, 40 Clarendon Road has almost 50,000 square feet of lettable space, spread across five floors. The building, which dates from 1998, is part of an investment company's portfolio. Refurbishment followed a previous tenant's move to even larger premises.

The new Daikin VRV IV heat recovery air conditioning system, installed by Rotherham-based Daikin D1+ Business Partner, Airmaster, as part of the Category A fit out, was designed to British Council for Offices standards.

"This means we have smaller indoor units where future tenants might want to install peripheral meeting rooms or small offices, and larger units in the central 'general office' areas," says Airmaster director Gareth Campbell.

Indoor units are exclusively medium static pressure concealed ceiling units. This is unusual in an exposed services environment as these units are primarily designed to offer flexibility and performance in rooms with limited space or with irregular shape (L-shaped, U-shaped or long rooms). They also offer automatic airflow adjustment, which means they are draught-free and quickly reach the desired temperature while being whisper-quiet. Sound levels can go lower than 25 decibels.

Year of installation

- › 2020

Project requirements

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

Installed systems

- › VRV Heat Recovery
- › Concealed ceiling unit
- › Intelligent Touch Manager
- › Branch selector unit
- › Madoka remote controller

Gareth Campbell says: "They wanted a high-end look for the pipework and ducting. We had to present a number of sample configurations and they chose a shiny, smooth aluminium cladding."

The Daikin indoor units are all in their 'natural' state – apart from in the reception area where exposed services are all sprayed matte black.

Each unit has an individual branch selector box, providing maximum flexibility to accommodate 'cooler' or 'warmer' requirements – plus facilitating isolation of units, if necessary.

At the core of the installation are 19 VRV IV heat recovery outdoor units, ranging from 8-16hp and totalling 230hp. Heat recovery units are inherently more efficient than straight heat pumps – and additionally have the ability to deliver simultaneous cooling and heating, economically using 'waste' heat.

The outdoor units drive nine independent systems – one for the 8,500 sq.ft ground floor, and two for each of the four upper floors which range from 8,000 to 10,000 sq.ft. As a result, the upper floors could each be let to one or two tenants.

Each of the systems is controlled at tenant level through a Daikin Intelligent Touch Manager with individual local control of 41 zones through Daikin's elegant wall-mounted Madoka controllers. Overall, the Daikin systems are linked to building management system via a BACnet gateway.

Conveniently sited midway between Watford Junction and the town's main shopping area – and an easy walk to both – the building has open and underground parking for 129 cars. The refurbishment also included new lighting, lifts and toilets.



Kit list

Code	Description	No of units
REYQ-T	VRV IV Heat Recovery outdoor unit	19
FXSQ-A	Concealed ceiling unit (medium static pressure)	112
BS1Q-A	Branch selector unit	112
CM601A51	Intelligent Touch Manager	9
BRC1H519	Madoka remote controller (white)	41
MS502A51	BACnet interface	3

