

Case study

11-12 Wellington Place, Leeds

The first building outside London to achieve NABERS rating of 5*; This all electric and BREEAM outstanding building utilises the Daikin EWYD 4Z B air source heat pump.

Wellington Place is a prestigious urban quarter and the business location of choice, located at the heart of Leeds city centre.

11 - 12 Wellington Place consists of a CAT A office fitout on the upper levels with retail space on the ground floor and a basement gym. The building achieves BREEAM outstanding, is fully electric and is operational zero carbon. It is also the first building outside of London to achieve a NABERS rating of 5* .

As the heating and cooling needed to be fully electric, air source technology was essential due to the location of the building. It was at this stage that Daikin Applied was introduced to the project and were subsequently selected due to their first class support in previous buildings on the same site.

“Daikin have always been supportive throughout the design phase on the existing buildings on the same business park and equally as supportive throughout the build and commissioning of the projects”.

(Matthew Bell – Senior Project Engineer (MEP). Wates Constrution Ltd.)

2 x EWYD 4Z B



“Daikin Applied UK were instrumental to establishing a workable Net-Zero Carbon Operation design”

The Daikin EWYD-4Z unit is able to provide simultaneous heating and cooling with a wide operating envelope and high efficiency. Each unit has 2 separate refrigerant circuits with an inverter driven compressor on each, there is one cold heat exchanger/evaporator and one hot heat exchanger/condenser. Each machine also has a set of on-board pumps, 2 per water circuit that are run/standby. All components within the footprint of the unit including pumps, compressors and valves for example are all managed by an advanced Microtech controller located in the unit's electrical panel.

This meant that the heating and cooling load could be achieved for the building without introducing additional units.

The heat recovery when working in mixed modes has exceeded the clients expectations, enabling the removal of natural gas dependency, which has driven down the carbon footprint of the building. The EWYD 4Z B achieved all BREEAM requirements and contributed to the 'outstanding design' score.

“Daikin have worked with Wates on numerous projects across the Wellington Place development and they were selected again on building 11&12 due to the brilliant technical and site support, high quality equipment and competitive tendering”.

(Matthew Bell – Senior Project Engineer (MEP). Wates Construction Ltd.)

Product solution:

2off EWYD8004ZXSB2 R134a

Simultaneous heating and cooling 4 pipe air source heat pump

Cooling Capacity: 794kW at 13/7oC and 35oC ambient

Heating Capacity: 632kW at 45/50oC and -4oC ambient

with low noise solution considering surrounding environment.

