Parkside Place, London, UK

Forty newly built luxury apartments with Individual exhaust air source heat pumps for space heating and domestic hot water.

Key facts

Building

Location	London, UK
Construction	2019
Heat distribution	in building
Heated area	m² living
Level of insulation	

Heat pump and source

Number of heat pumps	40
Installed capacity	6 kW + 8 kW
Operation mode	monoenergetic
Heat source	Air
Brand and type	NIBE VVM 320 hot water storage
Refrigerant	R134a
Sound level	dB

Heating system

Heat demand	Floor heating
Heating temperature	30 °C

Domestic hot water

Type of system	Individual
Max. Temperature	60 - 70°C
Circulation system	Individual
Legionella measures	Thermal
Storage size	200 litres
Number of storage tanks	40
Storage losses	
Temperature control	

Other information

Electric energy	
Consumption year	unknown
Investments costs	unknown
PV installation	Photovoltaic solar panels

Lessons learned

The project perfectly showcases the true versatility of renewable heating technologies. As well as fitting seamlessly with the sleek, luxury look and feel of the Parkside Place apartments.

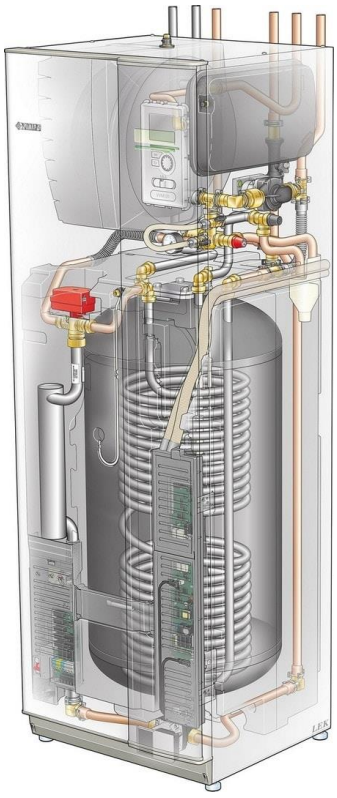
Information

A brand new luxury apartment complex in West London has been fitted with a range of air source and exhaust air heat pump systems from NIBE – providing residents with a cost-effective, sustainable and dependable supply of heating, hot water and ventilation.

Located directly opposite Ravenscourt Park on Goldhawk Road, in the desirable Hammersmith area of London, Parkside Place comprises 40 high-spec, one-, two- and three-bed homes. Tasked with ensuring the complex met Code for Sustainable Homes Level Four standards, developer Linden Homes needed to find a reliable solution to efficiently meet the properties' space heating and hot water needs, while simultaneously supplying sufficient ventilation for the well-insulated, new-build homes. Providing residents with optimum efficiency and a comfortable indoor environment – as well as a system that would be both economical and easy to use – were also key considerations for the project.

Installed are NIBE F470 exhaust air heat pump systems for each of the development's 23 single-level apartments. The remaining 16 split-level duplexes and one mews house were each fitted with an air source heat pump (ASHP) package system made up of an 8kW NIBE F2040 ASHP and a NIBE VVM320 combined water storage and controls unit.

Parkside Place, London, UK, Technical details



NIBE VVM 320 hot water storage

Description of the technical concept

The Parkside's 16 duplexes and mews house are bigger than its standard apartments, and therefore have a higher heat demand, so the output provided by a NIBE F470 EAHP wouldn't have sufficed. For this reason the 8kW NIBE F2040 ASHPs is installed an intelligent and compact inverter controlled air source heat pump. The heat pump works down to an outdoor temperature of –20°C and at the same time supplies up to 58°C in supply line temperature. Conveniently, the duplexes' terraces provided the necessary outdoor space to accommodate the external ASHP units. The ASHPs are coupled to the compact all-in-one NIBE VVM 320 hot water storage and control units. The NIBE VVM 320 has a built-in DHW storage tank of 185 litres. NIBE VVM 320 is equipped with the new generation controller for comfort, good economy and safe operation. Clear information about status, operating time and all temperatures in the system is shown on the large and easy to read display.

NIBE F470 EAHPs work by recovering warm stale air from inside of the smaller apartments' 'wet rooms' (e.g. the kitchen and bathroom) and feeding this back to the heat pump via a ducting system. The energy recovered from this air is then re-used to provide efficient heating and hot water, while fresh air is drawn back into the homes for ventilation.

Specified in the larger duplexes and mews house, NIBE's MCS-F2040 air source heat pumps are designed to meet 100% of properties' heating power demand. They feature high-end inverter technology for maximum efficiency, reliability and heating output all year round. They are also ideally suited to partner with the NIBE VVM320 – a complete plug-and-play indoor unit featuring a stainless steel hot water cylinder, integrated buffer vessel, climate-controlled automatic shunt valve, self-regulating A-class design circulation pump and backup immersion heater, as well as intuitive, user-friendly controls.