

Land To The Rear Of 18-26 Railway Approach East Grinstead West Sussex

Sustainability report

Air Source Heat Pump

Low energy consumption

We have proposed one of the most efficient heat pumps on the market, the Vaillant AroTHERM plus. It is capable of providing energy savings with a SCOP (seasonal coefficient of performance) of up to 4. (4 kWh of delivered energy for every 1 kWh of energy generated).

Heat pump efficiency is measured by its Coefficient of Performance (CoP), which shows how efficiently the heat pump system can heat your home under the best possible conditions. Using this scale, heat pump efficiency can be as high as 4. This means that for every unit of electricity you put in, heat pumps have the potential to produce 4 units of heat. To put this into perspective, electric heaters operate at around 100% efficiency (1 unit of electricity produces 1 unit of heat), and even brand-new oil and gas boilers only function at an efficiency of around 90%.

R290 refrigerant

Low Global warming potential (GWP)

Vaillant AroTHERM plus uses monobloc technology with a hermetically sealed refrigerant circuit using natural refrigerant R290 to deliver the one of the lowest GWPs of just 3. R32 refrigerant in comparison has a GWP of 675.

The natural refrigerant R290 for this heat pump has other advantages over alternative refrigerants: approx. 75% less filling quantity is needed; it has low GWP and provides significant product benefits for your customers. Using R290 means Vaillant heat pumps can achieve a high flow temperature of up to 75°C if required. Setting the flow to this maximum temperature for hot water means that an electric immersion heater for legionella protection isn't always necessary.

Compared to the installation of a Natural Gas Boiler the expected CO2 will be reduced by approx. 50 – 55%