Transportable air-source heat pump







THE CASE

Fenagy's very first heat pump – a 600 kW air-to-water unit – was developed and designed during the autumn of 2020. The heat pump was installed at a biomass-fired district heating system in a small city outside Aarhus, where it operated in combination with a straw boiler and oil boilers for peak load and back-up. The heat pump served as both a test unit and a demonstration unit.

YEAR: 2021/2023

MODEL: H-600 (AW)

APPLICATION: Air-to-water heat pump

CAPACITY (HEAT):

600 kW (5°C ambient, 40/70°C hot water)

HEAT SOURCE: Air

COP: 2.9

DEFROST METHOD: Glycol

HEAT PUMP TEST PROJECT

Fenagy received DKK 250,000 in support from the Green Investment Pool, and Kredsløb utility company in Aarhus purchased the heat from the heat pump for the district heating network. During the test period, Fenagy paid a fixed price for electricity, and Kredsløb paid a fixed price for the heat. When this agreement expired, the operation of the heat pump needed to be changed in order to still be cost-effective, and as the demonstration site had fulfilled its purpose, Fenagy decided to move the heat pump.

MOVING THE UNIT

In 2023, the heat pump was sold and moved to a different district heating plant in Djursland, Trustrup/Lyngby, where it supplies heat to the small town Balle – approx. 50 kilometres away from the original site.

The move was done in just 2-3 weeks showing that a factory-built unit from Fenagy provides a great opportunity to buy a mobile unit for consumers in areas where a transmission line for district heating has not yet been established. They can buy a heat pump first and then connect to the district heating once this is established.

