

ThermoGenius™ M1 – M3

The geothermal heat exchanger

Description

ThermoGenius™ geothermal heat exchangers M1 – M3 extract energy from surface water and use it in combination with a heat pump to heat or cool buildings.

Extracting energy from a renewable heat source in this way provides sustainable, safe and cost-effective heating or cooling with high system efficiency.



Convincing Facts:

Highly Efficient – Sustainable – Cost Effective – Reliable – Powerful

Using ThermoGenius™ M1 as an energy source, the heat pump can supply the house with hot water, heating and passive cooling.

Technical data case study floating holiday home:

97 m² two bedroom accommodation over two floors according to energy saving regulations (EnEV) 2000

Energy requirements: 5800 kWh/year

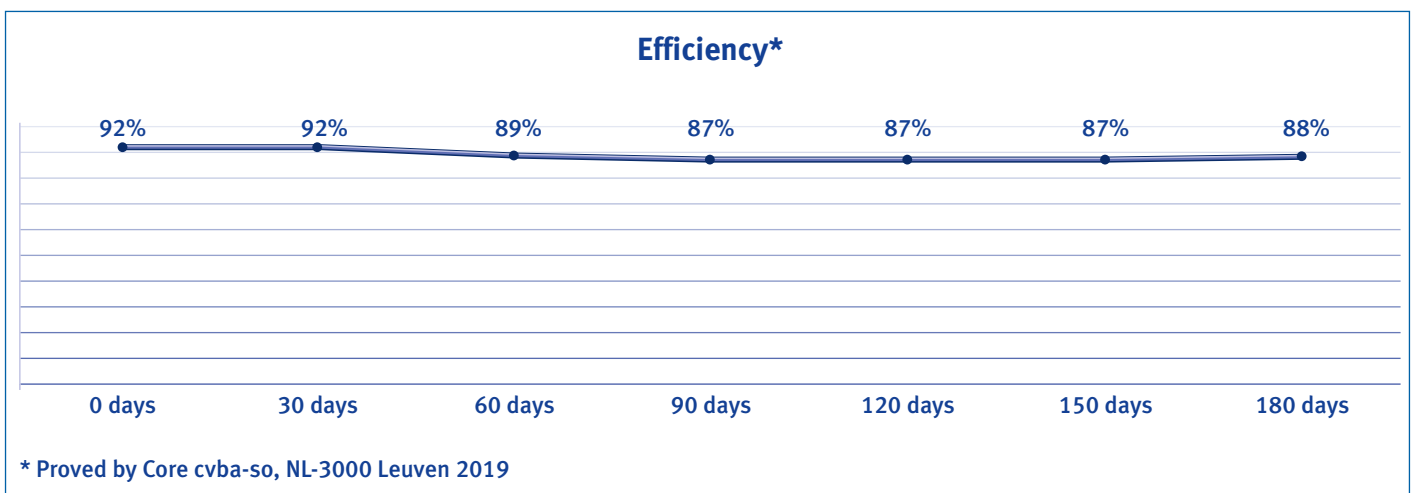
Nibe F1255-6PC heat pump

Heating capacity 6 kW

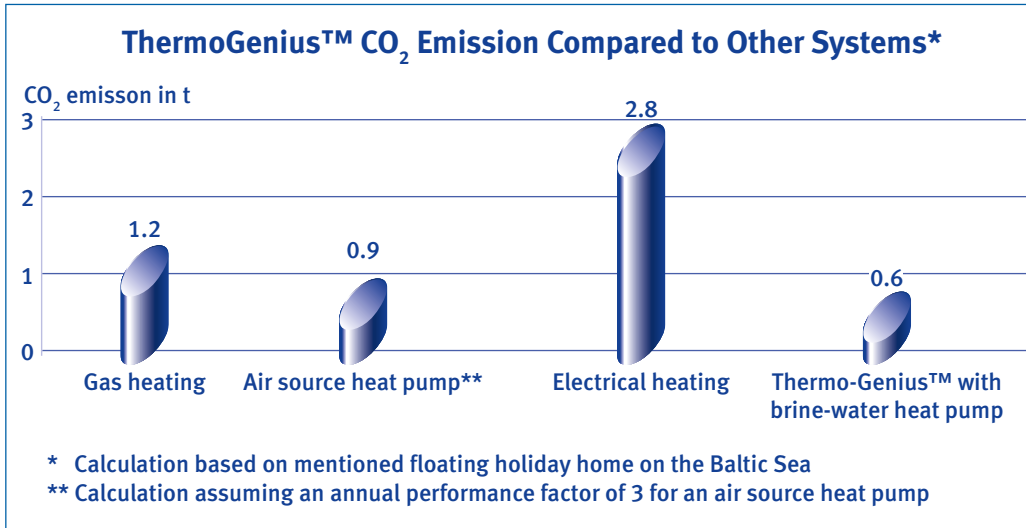


Case Study: Floating holiday home on the Baltic Sea

Highly Efficient



Sustainable



Calculation based on the following sources:

CO₂ emission g/kWh from natural gas (Federal Environment Agency) 201

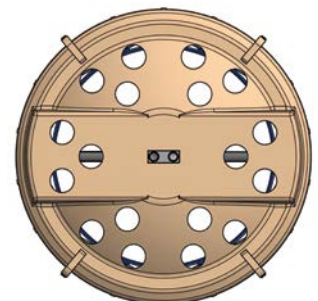
CO₂ emission g/kWh from electricity acc. to electricity mix 2017 projected (Federal Environment Agency) 489

Electricity costs €/kWh (Heat pump tariff EnBW, 2019) 0,18

Cost Effective

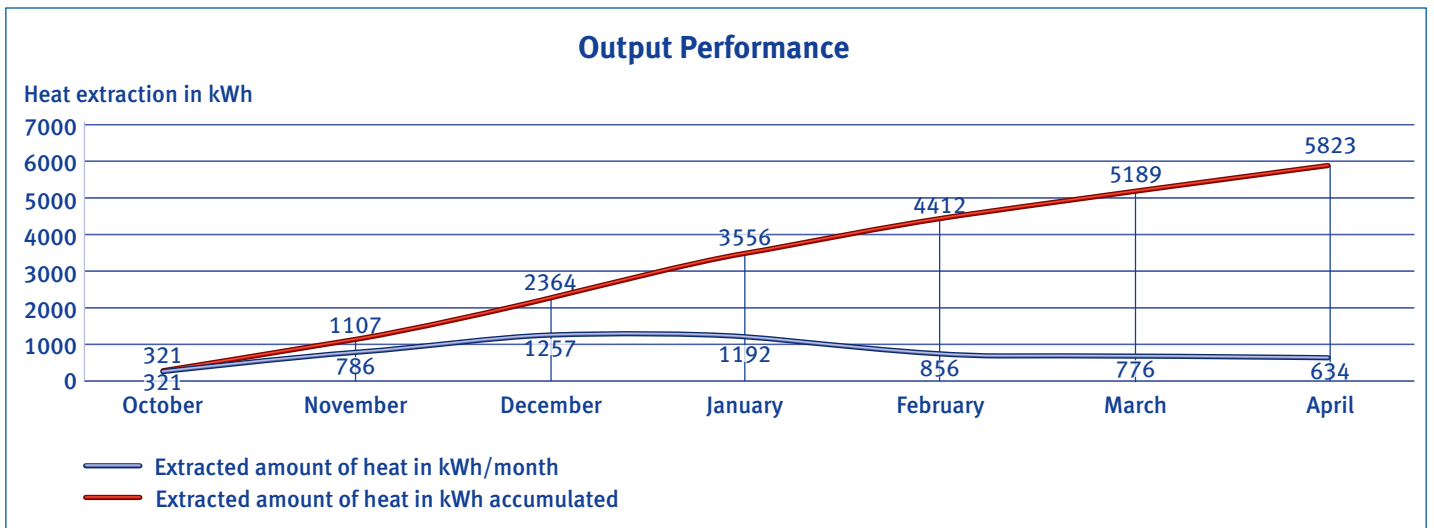
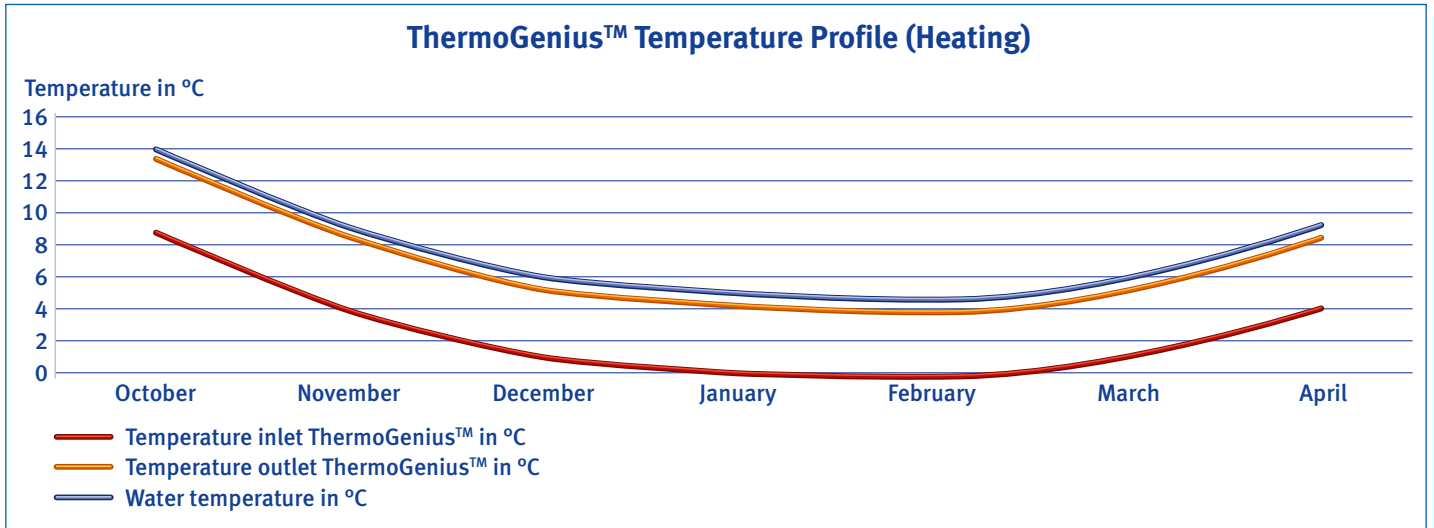
Heating System/Cooling System*	Heat pump + ThermoGenius™ M1
Energy consumption in kWh/year	5800
Electricity consumption in kWh/year	1289
Operating costs in €/year	387
CO ₂ emission from electricity consumption in t/year	0.6

Snapshot of Cooling System	
Outdoor temperature °C	31.2
Room temperature °C	24.7
Water temperature °C	17.7
Temperature inlet ThermoGenius™ °C	21.2
Temperature outlet ThermoGenius™ °C	18.3



* Calculation based on mentioned floating holiday home on the Baltic Sea

Reliable



Powerful

