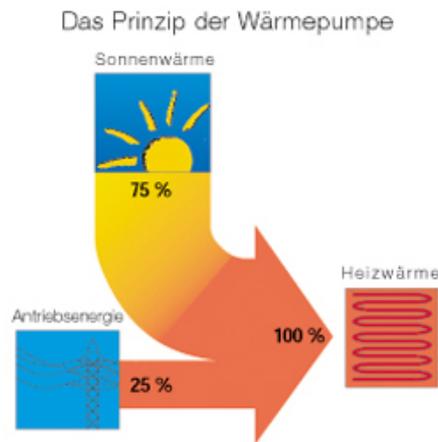


Title: Heat pumps in private houses
Category: Renewable energy
Place/country: Schrobenhausen/Germany
Contact addresses: verwaltung@fvls.de
Author: Roland Schneidt



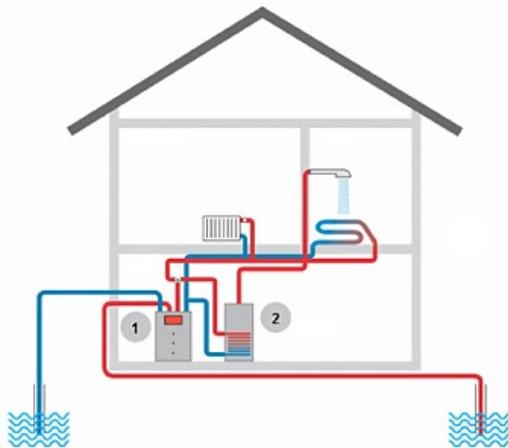
The house is to be heated in winter.



25% electric energy gives you 100% warmth.

This house in Reichertshausen, near Schrobenhausen in Germany is to be heated during winter about 6 to 8 month. That's why the owner did following work to reduce the heating cost and to reduce the consumption of energy:

1. The walls in the house are made of 48 cm of bricks.
2. The house has an open fire in the living room for extra warmth.
3. The complete house is heated by a heat pump, which makes out of 25% of electric energy together with the temperature of the ground water 100% of warmth, even in the coldest days.



Groundwater is compressed in a heat pump.



The temperature-reduction is to be seen: from 12°C to 9°C

Water/water heat pump: heat from groundwater

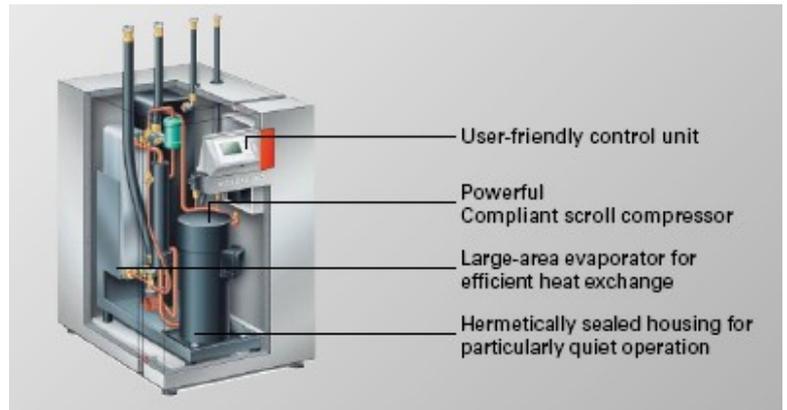
Heat pump heat pumps give you heat right on your doorstep with an efficiency that lets you use them to satisfy all your heating needs. If it is possible at your location, a good alternative is to use heat from the groundwater. In this case the heat pump is simply converted to operate as a water/water heat pump and in this operating mode achieves the highest performance factor.

Powerful, quiet and reliable

The heart of the heat pump is the powerful Compliant scroll compressor. In addition to having high operational reliability it is particularly quiet-running. This is because it is hermetically sealed and has doubled vibration damping. This is an additional comfort advantage if, for example, the heat pump is installed close to the living-room. At the same time the Compliant scroll compressor guarantees the highest performance factors and flow temperatures up to 55 °C.



Water/water heat pump rated from 6.3 to 43.0 kW, flow temperatures up to 55 °C



Comfortable and easy to regulate

The menu-operated digital control unit will impress you with its straightforward user interface with a generously-sized plain-text display and integrated diagnostic system. The control unit looks after management of the entire heating system and also, if need be, a solar heating system as well.

“Natural Cooling“: cooling with the heating

With the “Natural Cooling” function the low temperatures in the ground or groundwater can be used for cooling the building on hot days (special accessories required).

Benefits at a glance

- As water/water heat pump for exploiting heat from groundwater; output 6.3 to 43.0 kW
- Can be used all year round as a standalone heating system
- A standardized modular design saves time and money in installation and servicing
- Particularly quiet in operation
- Easy, menu-guided operation

