



Heating Mode

During the HEATING mode, the refrigerant, a hot gas, is pumped from the compressor to the air-to-refrigerant heat exchanger coil via the reversing valve. In the air-to-refrigerant heat exchanger coil, the heat is removed by the air that passes over the coil surface, and the hot gas condenses into a liquid. The air is circuited to the space and provides heating for the house. The refrigerant liquid then flows through a metering system to the water-to-refrigerant heat exchanger. When evaporating into a gas, the liquid absorbs heat and cools the water. The heating cycle is completed when the refrigerant flows as a low pressure gas through the reversing valve and back to the suction side of the compressor.

In the winter the fluid in the ground loop extracts heat from the ground, raising the fluid temperature and circulates back to the heat pump into the house.