

# Innovation, dependability and total Comfort



BROAN

EARTHDIREX<sup>™</sup> GEOTHERMAL DIRECT GEOEXCHANGE HEAT PUMP SYSTEM 19+ EER, 3.8+ COP

## HIGH ENERGY SAVINGS WITH A LOW INITIAL INVESTMENT

**USE EARTH'S ENERGY TO HEAT AND COOL YOUR HOME** 

Geothermal heat pump systems are an incredibly quiet and efficient way to heat and cool your home. Because you are using the natural energy from the Earth, you can reduce your monthly utility bills by as much as 70 percent. Best of all, geothermal systems can be installed in any sized home in almost any location.

#### Save energy. Save money.

Typical central cooling systems work by exchanging heat with the air. Because ambient air temperatures can vary greatly, how hard the system has to work varies as well. When temperatures outside are very hot, for instance, it is harder to disperse heat into already hot air.

A geothermal heat pump, on the other hand, exchanges heat with the ground. While the air outside will vary in temperature, the ground stays a fairly consistent 55°-70°F year-round. That means a geothermal system doesn't have to work nearly as hard to disperse heat as a traditional split-system air conditioner or heat pump, which is how it operates so efficiently.

In the winter, geothermal heat pumps simply move the heat from the ground to your home. Unlike a gas furnace, geothermal heat pumps don't burn a fuel source to create heat.



Based on a 2,200 square foot home with 1215 cooling degree hours and 4900 heating degree days. Utility rates at 0.11/kW hr and 1.28/therm.



### HOW EARTHDIREX<sup>™</sup> GEOTHERMAL DIRECT GEOEXCHANGE HEAT PUMPS WORK

A direct exchange geothermal system uses a series of underground refrigerant tubes called an "Earth loop." A typical installation includes a small trench and/or one to two 5- to 6-inch diameter boreholes drilled to depths of 400 feet or less. The refrigerant tubes are placed into these holes, which is how they access the natural heating and cooling power of the Earth.

The tubes connect through the house to a compressor and an air handler that sits inside. When running, the compressor unit makes about as much noise as a refrigerator and is quieter than an electric fan. There is no unsightly and noisy outdoor unit. In areas near the seashore, there is no exterior equipment subjected to corrosive salt-water air.



Take advantage of a 30% geothermal tax credit. U.S. homeowners who install an ENERGY STAR-rated geothermal system can take advantage of a 30% tax credit – that's 30% back on both the equipment and the installation costs. The credit is scheduled to be in effect until the end of 2016. Talk with your tax advisor for more details.

#### EARTHDIREX<sup>™</sup> VS. OTHER GEOTHERMAL SYSTEMS

**Less expensive.** EarthDirEX geothermal direct geoexchange heat pumps require much less drilling than other geothermal systems. Drilling can account for half of your total cost, so reducing drilling can significantly reduce your initial investment

**100% refrigerant.** With the EarthDirEX system, there is no refrigerant-to-water heat exchanger component, so the heat pump transfers heat more efficient! . Other geothermal systems transfer heat from refrigerant to water to the Earth and back again. EarthDirEX transfers heat simply from the refrigerant to the Earth.

**Fewer moving parts.** An EarthDirEX system has only two primary moving parts – a compressor and a

blower – which means you have less to service and less to potentially break down over time.

**Electronic expansion valve.** While other geothermal heat pumps use a thermal expansion valve, EarthDirEX uses an electronic one for precise refrigerant control.

**Greater corrosion resistance.** EarthDirEX geothermal heat pumps utilize all-aluminum Anteater MC<sup>®</sup> Micro-Channel coils for superior protection against leaks caused by corrosion.

**Earth friendly.** Broan EarthDirEX geothermal direct geoexchange heat pumps are energy-efficient, environmentally responsible products. Look for the ecoLogic<sup>®</sup> seal.



**Outstanding Warranty.** Broan products offer a 10-year limited warranty on all parts, and a 10-year Quality Pledge at no extra cost (when product is registered as part of a complete Broan system). With our 10-year Quality Pledge, we will replace the indoor unit should the compressor fail within the first 10 years. Ask your Broan heating and cooling contractor or visit us at www.broanhvac.net for warranty details.

Product registration required.



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