



Efficient, Cost-Effective, Environmentally Friendly. The ECO-Y® Series by GeoSmart provides homeowners with energy savings and years of outstanding comfort and reliability. ECO-Y® units offer several options for any application whether it's new construction or retrofit. Available in packaged forced-air configurations with 22.4 EER for cooling and 4.3 COP for heating in closed loop conditions (26.4 EER and 4.7 COP for open loop), the ECO-Y® Series is Energy Star rated and performance-certified under ARI/ISO 13256-1.

By utilizing environmentally safe, low GWP R454B refrigerant, the ECO-Y® sets the industry standard in its class for performance, efficiency and quality. Additional features include X-13 ECM blower motors, optional domestic hotwater generator, and Airora microprocessor based controls with on-board diagnostics for maximum efficiency. Several decades of research, engineering advancements and manufacturing experience have come together to create the ECO-Y® Series. These units benefit from the technology that has been refined through several generations of products, and offers it at an affordable price.

## ECO-Y® FEATURES

**BLOWER MOTOR:** A multi speed X-13 ECM blower motor with 5 airflow selections allows the unit to provide precisely controlled comfort, quiet operation and energy savings.



**CABINET:** Heavy gauge, galvanized steel and tan powder coated finish for maximum corrosion resistance. High density, foil faced cabinet insulation for improved air quality and easy cleaning.

**ALL-ALUMINUM AIR COIL:** An upgraded PinnaCoil aluminum air coil is now standard on the ECO-Y® making it more durable than previous generations and providing extended system life.

**INSULATED COAXIAL HEAT EXCHANGER:** Our exclusive ThermoShield™ foam insulation takes the place of traditional taping and increases both efficiency and consistency of our heat exchangers. Robotic application ensures an even, airtight seal, while the GeoSmart name ensures it's environmentally safe.

**CONTROLS:** Aurora microprocessor control continuously sequences all components to ensure maximum performance. AID tool diagnostics allow for easy service. Optional communicating thermostat can display service codes.



**HOT WATER ASSIST:** With an optional hot water generator, the ECO-Y®

preheats your water heater to save money. In heating mode, water is heated at the efficiency of the unit. In cooling, the heat from your home is transferred to your water heater instead of the ground and hot water is virtually free!

**COMPRESSOR:** Two-stage scroll compressors are featured in all ECO-Y® products for efficiency and reliability. Compressors are mounted on double-isolation plates for extremely quiet operation.



**DRAIN PAN:** Electronic overflow protection is included to eliminate the possibility of condensate flooding. The drain pan is also corrosion-proof and resists bacterial growth.

**REFRIGERANT:** R454B is an environmentally friendly, low global warming potential refrigerant that enhances efficiency and savings. That's why our entire product offering uses R454B.

**FACTORY QUALITY:** GeoSmart systems are the result of state-of-the-art research and development. Quality checks are performed throughout the assembly process, while computer-run testing ensures flawless start-up and long-term reliability.

**ENERGY STAR RATED / AHRI CERTIFIED / ETL LISTED:** GeoSmart ECO-Y®.



The GeoSmart ECO-Y® is AHRI Performance Certified® by the Air-Conditioning, Heating and Refrigeration Institute, is safety listed by ETL (Electrical Testing Labs) and exceeds performance standards for the ENERGY STAR® rating.



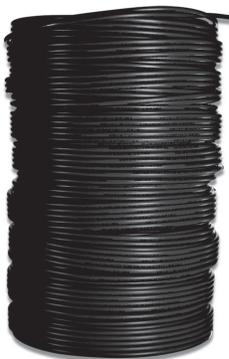
# Performance Data

MODEL & SIZE	COMP. MODE	CLOSED LOOP		OPEN LOOP		
		COOLING EER	Heating COP	Cooling EER	Heating COP	
DUAL CAPACITY	024	High	15.7	4.0	21.3	4.6
		Part	21.3	4.3	25.3	4.7
	036	High	15.8	3.7	20.5	1.3
		Part	22.4	4.2	26.4	4.6
	048	High	16.0	3.7	19.6	4.2
		Part	21.0	4.1	24.5	4.5
	060	High	15.2	3.4	18.8	4.0
		Part	20.4	3.9	23.5	4.2
072	High	16.4	3.6	20.8	4.2	
	Part	20.4	3.9	23.9	4.3	

## Installing Geothermal Loops

When it comes to geothermal installation, no one knows more about how to do it right than GeoSmart's Geothermal Specialists. Backed by extensive training, our Geothermal Specialists are skilled in selecting and installing the geothermal loop system best suited for your home or business regardless of the weather and soil conditions in your area.

Each loop system uses GeoSmart's high density PE100 geothermal pipe, the most resilient geothermal pipe available on the market today. Once inserted in the ground, the pipe leads into the foundation of your building through either a sleeve cemented into the wall or under the footings and connects directly to your heat pump, bringing you years of worry-free, high performance renewable heating and cooling using the earth as a natural energy source.



### HORIZONTAL LOOPS

Horizontal loops are the most common type of loop system, and are commonly used in rural areas due to the land space needed for installation. An excavator will dig several trenches about six feet deep in the ground, each one up to 300 feet long. Our green geothermal pipe is placed in the trenches which are then backfilled with soil.



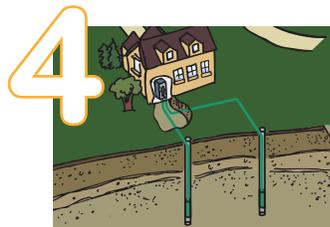
### VERTICAL LOOPS

Vertical loops are primarily used in urban areas because they require little land space for installation. A specially designed geothermal drilling rig bores vertical holes into the ground each ranging from 180 to 540 feet deep. Our green geothermal pipe is inserted into each vertical bore and then the holes are filled with bentonite grout.



### POND OR LAKE LOOPS

On properties that have a nearby lake or pond that is appropriate in size and eight feet deep, a loop system can be submerged at the bottom of the body of water. A single trench is excavated from the home to the water and typically two pipes are inserted into it. These two pipes connect to several green geothermal pipes that are submerged at the bottom of the lake or pond.



### OPEN LOOPS

Open loops are most commonly used on rural properties that have existing high capacity water wells. Ground water is withdrawn from an aquifer through a supply well and pumped into the heat pump, while discharged water from the heat pump is redirected into a second well and back into the same aquifer.

