

PREMIUM Q



GEOSMART
ENERGY

Quad Function System¹



Live Geo.

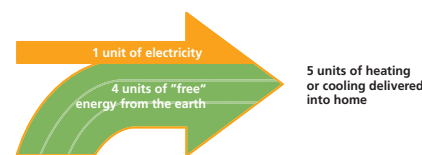
The GeoSmart Premium Q series is an all-in-one quad function system. It provides forced air heating & cooling, hydronic heat and domestic hot water production all in one convenient package. Engineered with leading edge components, the Premium Q series from GeoSmart takes efficiency to new levels. Compared to ordinary furnaces and air conditioners, the Q can provide energy savings up to 60%. When coupled with GeoSmart's intelligent thermostats and an integrated monitoring system, the Premium Q will provide the finest in comfort and reliability. Best of all, GeoSmart technology uses the earth as a free energy source.

>THE GREEN CHOICE

GeoSmart Energy Systems use the Earth's Ability to store heat energy as a perfect source for high efficiency heating and cooling. Using advanced technology, GeoSmart systems tap into that stored energy to provide comfort for your home year around. Heat energy is collected and transferred through an earth loop an underground piping system. With a GeoSmart Energy system, you'll not only save money, but you'll experience enhanced comfort and safe, quiet operation with a system that's environmentally friendly. That's why we call it "GeoSmart from the Ground up"

>THE GEOTHERMAL BENEFITS

ENERGY EFFICIENT: GeoSmart Premium Q systems are rated number one in energy efficiency because they can deliver almost five dollars of energy for every dollar of electrical energy used. That translates into an efficiency rating of 500 percent, compared to the best ordinary furnace that delivers less than 97 cents of energy for every dollar spent on expensive fossil fuels.



COST EFFECTIVE: Because of the extraordinary efficiency of a GeoSmart system, any added investment related to installing a geothermal unit is usually more than offset by your energy savings. In new homes, most homeowners will experience an immediate positive return on their investment when the system cost is added to the mortgage. In replacement installations, homeowners find that any added investment over the cost of an ordinary system is generally recovered through energy savings within a few years.

COMFORTABLE: By using the stable solar energy stored in the Earth, GeoSmart systems provide consistent, comfortable heating and cooling. You can even regulate temperatures in different areas of your home with an optional zone control system.

RELIABLE: The GeoSmart reputation for reliability has been earned by using only the highest-quality components, design and workmanship. Computer run-testing after assembly ensures that your unit performs flawlessly at start-up. And in the unlikely event of a malfunction, GeoSmart units are backed by the best warranties in the industry. Your geothermal unit will provide many years of dependable operation.

QUIET: GeoSmart systems don't require noisy outdoor units that can disturb your peaceful surroundings or create unsightly additions to your home's appearance.

SAFE: Because natural gas, propane or oil is not required to operate a GeoSmart unit, there's no combustion, flames or fumes and no chance of carbon-monoxide poisoning.

FLEXIBLE: One compact GeoSmart unit provides heating, central air conditioning and hot water for radiant floors. Vertical left and right return configurations are available for a wide range of home applications, including newly constructed and existing homes. No matter what climate you live in, your GeoSmart system will deliver.

CLEAN: High-efficiency air cleaners found in GeoSmart systems keep your indoor air quality clean, removing dust and pollen so you and your family can breathe easier.

ENVIRONMENTALLY FRIENDLY: The ground absorbs about 47 percent of the solar energy that reaches the Earth. GeoSmart systems harness that free, renewable energy and provide an environmentally friendly way to heat and cool your home. Installing a GeoSmart system is the environmental equivalent of planting 750 trees or removing two cars from the road. And the GeoSmart system doesn't burn fossil fuels, which means no emissions or harmful greenhouse gases are released into the air.

>THE PREMIUM Q TECHNOLOGY

Radiant heat (hydronic) is widely regarded as the most comfortable way of heating the home while forced air is typically the most cost effective. The **Premium Q** combines the best of both worlds, providing the luxurious comfort of radiant heat for basement and bathroom floors while providing traditional forced air heating & cooling for the rest of the home. You no longer have to purchase a dedicated hot-water unit for radiant heat, a furnace for the rest of the house, and an air conditioner to cool in the summer. The **Premium Q** does it all in one convenient package, using environmentally friendly R410A refrigerant, dual capacity scroll compressors, and the unmatched energy efficiency of geothermal technology.

>THE PREMIUM Q SERIES DESIGN

- 1 **BLOWER MOTOR:** A variable-speed ECM blower motor with up to 12 airflow selections allows the unit to provide enhanced comfort, quiet operation and energy savings.
- 2 **CABINET:** The cabinet is finished with a durable blue and stainless steel finish for long lasting beauty and protection. Fully insulated for quiet operation with cleanable, foil backed insulation. New exterior design elements put the unit in the same class as today's stylish high-end appliances.
- 3 **COATED AIR COIL:** Our exclusive FormiShield™ coating on the air coil resists corrosion and increases equipment life. Its large size improves efficiency and dehumidification during cooling.
- 4 **DRAIN PAN:** Electronic overflow protection is included to eliminate the possibility of condensate flooding. Constructed of plastic, the drain pan is also corrosion-proof and resists bacterial growth.
- 5 **HOT WATER ASSIST:** The **Premium Q** preheats your water and delivers it to your water heater. The longer the unit operates, the greater the amount of hot water generated. In the heating mode the hot water is generated at the efficiency of the unit. In cooling, waste heat is recovered and hot water is free! (Optional)
- 6 **COMPRESSOR:** Copeland Scroll™ compressors are featured in all **Premium Q** products. Superb efficiency and reliability. Dual capacity units include Scroll UltraTech™ compressors. Mounted on double-isolation plates for extra quiet operation.
- 7 **CONTROLS:** Sophisticated microprocessor control sequences components to provide ultimate performance. Onboard diagnostics allow for easy service. Controls communicate with thermostat to display service messages. ComfortAlert module monitors compressor operation for added reliability and easy troubleshooting.
- 8 **LED STATUS LIGHTS:** Externally mounted status lights indicate normal operation or display faults and assist the technician in troubleshooting.
- 9 **HYDRONIC/RADIANT HEAT:** Hot water for in-floor radiant heat is generated on demand at a fraction of the cost of ordinary boilers. Typically, the GeoSmart GeoTank is connected to the **Premium Q** to store and distribute the heated water.

FACTORY QUALITY: GeoSmart systems are the result of state-of-the-art research and development. Dozens of quality checks are performed throughout the assembly process, and computer-run testing is done on every unit, ensuring flawless start-up and long-term reliability.

R-410A: R-410A is an environmentally friendly, non-ozone-depleting refrigerant that enhances efficiency and savings.

ARI CERTIFIED/ETL LISTED/ENERGY STAR RATED: GeoSmart **Premium Q** Units are performance-certified by the Air Conditioning and Refrigeration Institute, safety listed by ETL and exceed performance standards for the ENERGY STAR rating.

Model & Size	Comp. Mode	Closed Loop		Open Loop		
		Cooling EER	Heating COP	Cooling EER	Heating COP	
Dual Capacity	026	High	19.0	4.1	25.8	5.1
		Part	28.0	4.5	33.5	5.7
	038	High	19.8	4.2	24.1	4.9
		Part	28.0	4.8	31.2	5.3
	049	High	18.3	4.1	22.7	4.7
		Part	25.0	4.5	29.6	5.1
	064	High	17.5	3.9	22.2	4.4
		Part	24.8	4.1	29.0	4.5
072	High	16.5	3.5	21.5	4.5	
	Part	23.1	4.0	27.6	4.6	
Single Speed	022	Single	22.0	4.0	32.2	5.4
	030	Single	21.2	3.9	30.0	5.1
	036	Single	22.0	4.2	29.8	5.2
	042	Single	21.2	4.1	29.5	5.1
	048	Single	21.8	4.0	27.0	4.9
	060	Single	22.2	3.8	25.5	4.6
	070	Single	19.5	3.7	24.3	4.5



> ENVIRONMENTALLY FRIENDLY

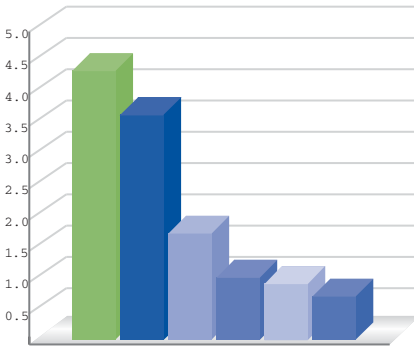
The **Premium Q** sets new standards for environmental responsibility. Engineered using R-410A refrigerant and multi-stage technology, our system doesn't burn any fossil fuels, meaning there are no harmful emissions. It helps to conserve rapidly depleting natural resources while helping to reduce our dependence on foreign oil products. You can take comfort in knowing that your **Premium Q** works in harmony with nature while saving you money.

> SAVINGS AND PERFORMANCE

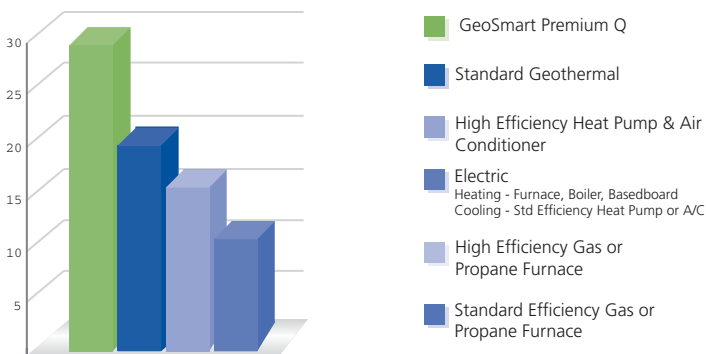
The GeoSmart **Premium Q** series can dramatically reduce your annual costs for heating, cooling and hot water - often as much as 70%! No other gas furnace, air conditioner or heat pump comes close to **Premium Q's** efficiency. With continuous fluctuation in fossil fuel costs, your future savings will only increase.

Our GeoSmart dealers utilize GeoSmart Design Studio, a sophisticated software package designed to ensure proper design and sizing of your new **Premium Q** system. And only GeoSmart dealers have access to our exclusive audit software designed to estimate the heating and cooling costs for your home based on square footage, construction style and climate. You can be confident knowing your **Premium Q** system is specifically matched to your home and its climate.

HEATING EFFICIENCY



COOLING EFFICIENCY



> GEOTHERMAL LOOP TYPES

Our Geothermal Specialists are trained to determine the best type of earth loop to use in any situation. The type of loop used is based on available land space and installation costs for specific areas.



HORIZONTAL LOOPS

Used where adequate land space is available, horizontal loops involve one or more trenches that are dug using a backhoe or excavator. High Density Green Geothermal Pipe is inserted, and the trenches are backfilled. Each trench ranges in length up to 300'.



VERTICAL LOOPS

Vertical loops are used when space is limited. Holes are bored using a drilling rig, and a pair of High Density Green Geothermal Pipes with special u-bend fittings is inserted into the holes. A typical home requires three to five bores with 10' between each hole.



POND LOOPS

Pond or Lake Loops are a great choice if an adequately sized body of water is close to your home. This is an affordable alternative as excavation costs can be virtually eliminated. A 1/2-acre, 8-foot-deep pond is usually sufficient for the average home.



OPEN LOOPS

An open loop is used where there is an abundant supply of quality well water. The well must have enough capacity to provide adequate flow for both domestic use and the GeoSmart Energy unit. Discharge water should be sent directly to a second recharge well.

For more information on our Premium Q systems please visit our website www.geosmartenergy.com

GEO SMART ENERGY

GEOSMART GEOTHERMAL Specialist

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