

# Water-to-Water 2-Stage Geothermal System



**Pure and Simple**<sup>™</sup>

Hydron Module<sup>®</sup> will *revolutionize* the way you think about heating & cooling.





12010

——Module— Geothermal Systems

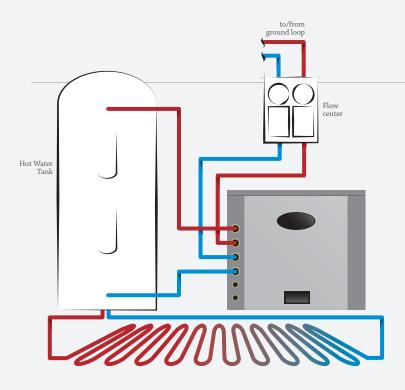
## As seen on House

## Two-Stage Water-to-Water System

The *premium* Revolution<sup>®</sup> Series is built upon the Hydron Module<sup>®</sup> heritage of *superb craftsmanship* with the highest *quality* materials and unmatched attention to detail. It is the *ultimate solution* for increased efficiency, reduced heating and cooling costs, unsurpassed comfort and increased reliability, packaged in a dramatically detailed yet functional cabinet. One look at the *extraordinary construction* assures that this geothermal system *truly is in a class by itself*.

The Revolution series Water-to-Water geothermal *heating and cooling* system is able to deliver hydronic heat through radiant floor systems or forced-air fans. Radiant floor systems deliver heating or cooling from the floor up, emanating a *consistent room temperature* with no moving air. This system can also effectively be used to assist with domestic water heating, pool conditioning, as well as ice and snow melt, where allowed.

#### WWW.HYDRONMODULE.COM



## Heating and Cooling Cycles

During the heating cycle, the fluid circulates through the loop extracting heat from the ground. The heat energy is transferred to the geothermal unit. The unit compresses the extracted heat to a high temperature and delivers it to your home through a radiant heat system or by a duct system when paired with an air handler.

For cooling, the process is simply reversed. Because the earth is much cooler than the air temperatures on a hot day, the geothermal system removes heat from the home and deposits it into the ground. The fluid is cooled by the ground temperatures and returned to the unit for cooling your home.

# Earth Friendly Benefits

Earth friendly Hydron Module geothermal systems burn no fossil fuels and use very little electricity. According to the U.S. Department of Energy, nearly **40% of all U.S.** *emissions of carbon dioxide (CO2) are the result of using energy to heat, cool and provide hot water for buildings*. The greenhouse gas reduction of installing a geothermal system in a typical home is equivalent to *planting an acre of trees,* or *taking two cars off the road*. This enhances our efforts to control pollution, green house emissions, and other issues that impact our everyday environment.

Owning a *Hydron Module* is even more affordable thanks to *state/provincial and local rebates and incentives*. Ask your dealer for more information or visit **dsireusa.org**.

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## How Geothermal Works

The earth is warmed by the sun. This natural heat is collected in the winter by a series of buried pipes called a loop system. Fluid circulating in the loop system carries this heat to the home, where it is compressed and released to raise the inside temperature.

In the summer, this process is reversed in order to cool the home. Heat is drawn from the home, rejected to the loop and absorbed by the earth. The result is a comfortable home all year round.

Since most of the energy used for heating and cooling is free from the earth, geothermal systems are the most efficient and environmentally friendly systems on the market today.



48% of the sun's energy is absorbed by the ground, maintaining an average ground temperature of 45° - 70°F at 6'.

## Loop Types

VERTICAL LOOP



POND LOOP

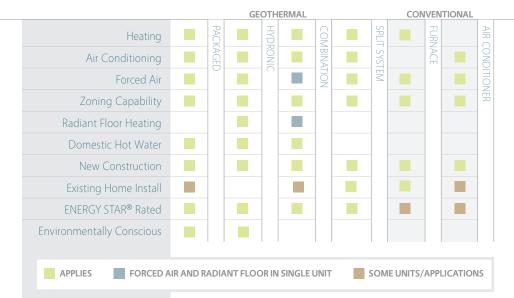
OPEN LOOP



Horizontal and Vertical loops are most common and laid or drilled in a horizontal or vertical fashion. Pond loops are coils that are laid at the bottom of a nearby pond. Open loops pull from a source of water and dump into another.

## Select & Compare

There are many options when selecting a heating and cooling system. This comparison table will help simplify the features of the various Hydron Module model offerings and discern them versus conventional systems. Your qualified Hydron Module dealer will assist you in determining which application provides the best solution for your specific needs.



# *The Revolution Series* has everything you would expect from a quality handcrafted Hydron Module geothermal system. What will surprise you is how much *more* it offers.

#### Best Geothermal Warranty



Hydron Module boasts the **best geothermal warranty** – Pure and simple. An Optional

Limited Lifetime Warranty is also available on the compressor and allaluminum microchannel air coil. Visit **hydronmodule.com** or ask your Hydron dealer for details.

## Operational Cost Savings

By using the free energy stored in the ground, Hydron Module geothermal systems are *up to 500% efficient*, saving you up to 70% off heating and cooling costs versus conventional systems.

#### Free Hot Water

A Hot Water Generator is standard with all Hydron Module units. This allows the capture of free, unused heat, typically *cutting hot water costs by 30-50%*.

#### Peace and Comfort

Closed-cell foam insulation is used throughout the cabinet to **enhance the already quiet operation** of a Hydron Module geothermal system.

### Safe and Secure

Hydron Module geothermal systems *burn no fossil fuels*, so there is no combustion, flames, fumes or risk of carbon monoxide poisoning.

### Whisper Quiet

Our exclusive design and advanced craftsmanship provide isolation between the heat pump's compressor and the cabinet resulting in *extremely quiet operation*, making it one of the quietest geothermal heat pumps available.

#### **Environmentally Friendly**

Releases no environmentally harmful emissions, reducing your carbon footprint. In fact, geothermal systems are recognized by the U.S. EPA and Natural Resources Canada as the *most energy efficient heating and cooling systems* available.

Model	Capacity	Cooling		Heating	
		BTU/H	EER	BTU/H	СОР
WT036	Full Load	42,000	16.0	36,400	3.0
	Part Load	33,300	20.6	29,200	3.1
WT048	Full Load	49,400	15.1	44,100	3.0
	Part Load	38,800	19.2	35,700	3.1
WT060	Full Load	57,800	14.6	53,200	3.0
	Part Load	46,100	18.1	44,400	3.1
WT092	Full Load	100,200	15.2	92,400	3.1
	Part Load	75,700	18.6	72,200	3.1
WT120	Nominal	114,800	15.4	97,400	2.8

#### Notes:

Rated in accordance with ISO Standard 13256-2 which includes Pump Penalties.

Heating capacities based on 32°F EST & 104°F ELT. Cooling capacities based on 77°F EST & 53.6°F ELT. Entering load temperature over 120°F heating and under 45°F Cooling is not permissible.

Floor heating is most generally designed for 85°F entering load temperature.

#### Notice:

Model 092 and 120 do not meet ENERGY STAR Tier 3 requirements



See our full line of geothermal products at **www.hydronmodule.com** 



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Proudly built in Mitchell, SD by











Product specifications reflect available information at time of printing. Design and specifications may change without notice.