# REVOLUTION®



# **Outdoor Split Unit**



**Pure and Simple**<sup>™</sup>

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



# **Outdoor Split Unit**

Wishing for **higher efficiency** out of your existing conventional furnace or air conditioner? Look no further than a Hydron Module® geothermal outdoor split system. In this application, a geothermal system can be **added to your existing furnace or air conditioner.** The Hydron Module geothermal system provides the **initial stages of heating** for the home (typically over 90% of heating requirements) and **all of the air conditioning.** In very cold temperatures, the existing furnace supplements the geothermal unit essentially **creating a hybrid system.** In some installations the outdoor split system will not completely eliminate the need for fossil fuels such as natural gas, propane, or fuel oil, however it will **reduce your carbon footprint** through reduced fossil fuel usage, and **decrease your monthly utility bills** – all with a lower up-front cost versus a complete geothermal package system. **Purely practical,** simply an efficient and economical choice.

Owning a Hydron Module is even more affordable thanks to a 30% U.S. tax credit. Other state/provincial or local incentives may exist in your area.



Hydron Module split systems have AHRI (Air-Conditioning, Heating, and Refrigeration Institute) **certified air handler matches** for every model. That means **better performance** and **guarantees the operating efficiency** of the system, which is a requirement for many rebate and incentive programs. Hydron Module units come equipped with an oversized, rifled coaxial water heat exchanger for increased surface area, providing **significantly higher efficiencies** than required by Energy Star<sup>®</sup>

or ASHRAE (American Society of Heating, Refrigeration, and Air-Conditioning Engineers) standard 90.1. Energy Star designation is required for the 30% U.S. tax credit.



### The Revolution Series has **everything** you would expect from a **quality** handcrafted Hydron Module geothermal system. What will **surprise** you is what it *doesn't* offer.

#### No More High Operational Costs

Hydron Module Revolution geothermal systems elevate heating and cooling to a new standard. These systems are up to **500% efficient**. Compare that to the most efficient fossil fuel systems, which are a mere 95% efficient. Because this system utilizes the free energy stored in the ground, you can expect to **save up to 70%** off heating and cooling costs versus conventional systems.

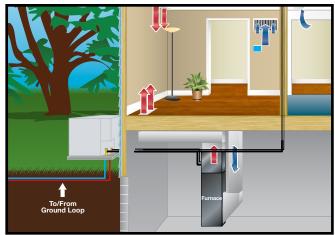
#### No Unsightly Equipment

The **compact cabinet** has a modern, yet unobtrusive design to help in blend in to most any outdoor setting. UV paint helps ensure the unit maintains its good looks for years and years of heating and cooling.

#### No Risk

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

Common hybrid heating system with furnace.



Common split geothermal installation with air handler.



#### No Imposing Noise Level

Unlike traditional outdoor heating and cooling equipment, the Hydron Module outdoor split uses no blower fan, resulting in **extremely quiet operation**, making it one of the quietest geothermal heat pumps available.

#### **No Comparison**

Hydron Module selects only **the best components** for unsurpassed quality that produces extremely high cooling efficiency and unbeatable heating capacity and performance compared to other geothermal heat pumps.

#### No Negative Environmental Impact

The Revolution Series 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.

#### **No Worries**

Hydron Module boasts **the best geothermal warranty**. In fact, Hydron Module is the only geothermal heat pump available with a **lifetime compressor**, heat exchanger and cabinet warranty. *Pure and simple*.

#### Unit Performance (Two-Stage)\* Ground Loop Heat Pump

Model	Capacity	Heating		Cooling	
		Btu/hr	COP	Btu/hr	EER
HRT024	Full Load	17,800	3.4	24,600	15.9
	Part Load	14,700	3.9	19,600	23.7
HRT036	Full Load	27,200	3.8	36,000	16.7
	Part Load	21,700	4.2	27,800	25.3
HRT048	Full Load	36,400	3.9	50,800	18.0
	Part Load	29,800	4.4	39,000	25.4
HRT060	Full Load	45,600	3.5	61,500	17.2
	Part Load	37,000	4.1	47,900	24.1

Notes:

Certified in accordance with ISO Standard 13256-1 which includes pump penalties. Heating capacities based on 68.0°F DB, 59.0°F WB entering air temperature. Cooling capacities based on 80.6°F DB, 66.2°F WB entering air temperature. Entering water temperatures Full Load: 32°F heating / 77°F cooling. Entering water temperatures Part Load: 41°F heating / 68°F cooling.

\*With company matched air handlers and ECM motor. Does not apply to "A" coil matches.

# How Geothermal Works

The earth's natural heat is collected in the winter by a series of 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.

Sun

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.

21% Absorbed by Water Vapor & Dust

18% Reflected Back by Clouds

6% Absorbed by Clouds

Geothermal Systems

7% Reflected Back

48% Absorbed by the Ground

Average Ground Temperature at 6ft 45° - 70°F

# Select & Compare

There are many options when selecting a L 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.

#### Comparison Chart Key:

- $\checkmark$  = Applies
- 1 = Can be used with both Forced Air and Radiant Floor Heating at the same time

Conventional Furnace Conventional AC Combination Outdoor Spiir Hydronic Packaged Heating V Air Conditioning 1 Forced Air 1 1 1 V V Zoning Capability ~ **Radiant Floor Heating** 1 V ~ **Domestic Hot Water** 1 ~ ~ V ~ New Construction 2 2 2 **Existing Home Install** 2 2 **ENERGY STAR Rated** 1

**Environmentally Conscious** 





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

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Proudly built in Mitchell, SD by





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