



Y5W HYDRONIC MODELS

AFFINITY™ SERIES

# GEOHERMAL HEAT PUMPS

WATER TO WATER

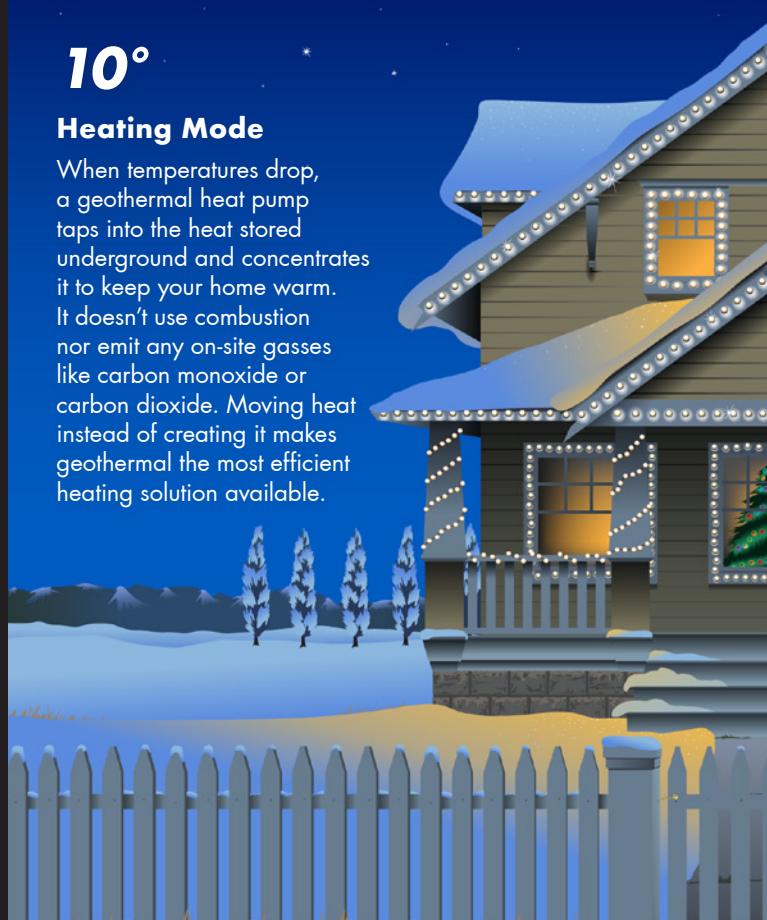


 **YORK®**

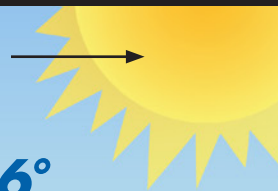
10°

### Heating Mode

When temperatures drop, a geothermal heat pump taps into the heat stored underground and concentrates it to keep your home warm. It doesn't use combustion nor emit any on-site gasses like carbon monoxide or carbon dioxide. Moving heat instead of creating it makes geothermal the most efficient heating solution available.



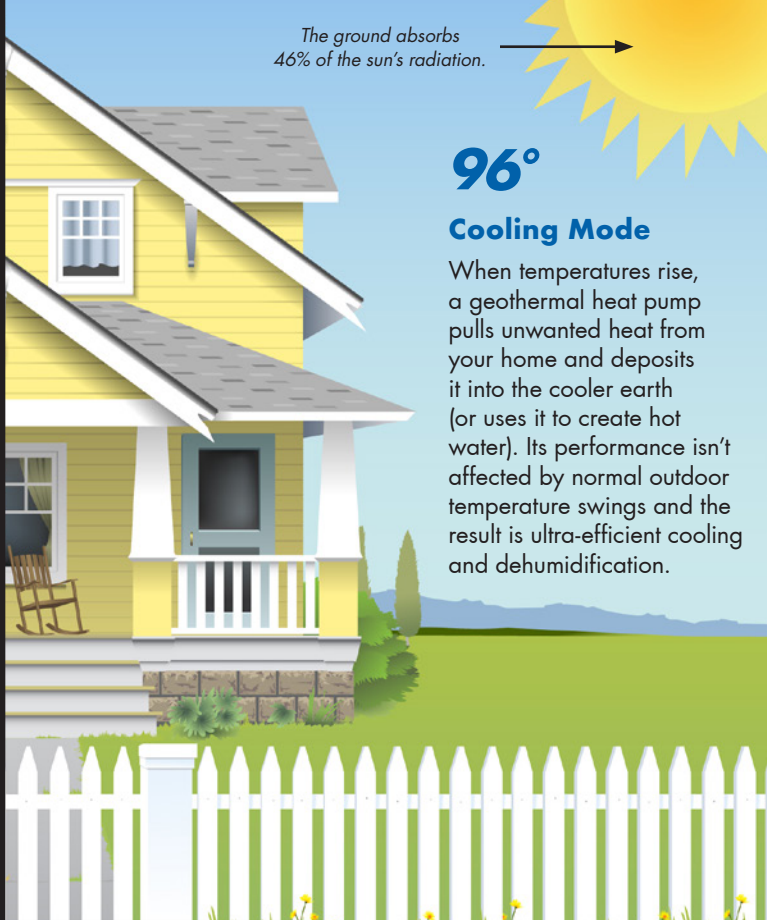
The ground absorbs 46% of the sun's radiation.



96°

### Cooling Mode

When temperatures rise, a geothermal heat pump pulls unwanted heat from your home and deposits it into the cooler earth (or uses it to create hot water). Its performance isn't affected by normal outdoor temperature swings and the result is ultra-efficient cooling and dehumidification.

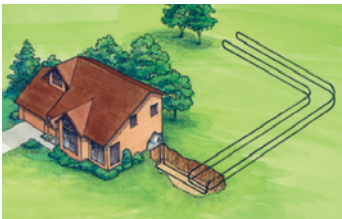


55°-70° The average year-round ground temperature only three to four feet beneath the frost line.



## Geothermal Earth Loops

A geothermal system uses a series of underground pipes called a "loop." A loop is the secret behind a geothermal system's amazing efficiencies and the biggest difference from ordinary heating and cooling technologies.



### Horizontal Loop

A typical home needs 1/4 to 3/4 of an acre to utilize a horizontal loop, and trenches are dug using a backhoe or chain trencher. High density polyethylene pipes are inserted, and the trenches are backfilled.



### Vertical Loop

A typical home requires three to five bore holes, dug with a drilling rig. A pair of pipes with special u-bend fittings is inserted into the holes.



### Pond Loop

A 1/2 acre, 8-foot-deep pond is usually sufficient for the average home. A series of coiled, closed loops are sunk to the bottom of the body of water and are used for heat transfer.



### Open Loop

An open loop utilizes a well that has an adequate capacity to provide water flow for both domestic use and the geothermal unit. Most units require 3-10 GPM, depending on size and model.





### Efficiency

Geothermal heat pumps are much more efficient than ordinary heating and cooling systems. The York® Affinity™ hydronic water-to-water models can reduce water heating costs by as much as 60% per year. Efficiency translates into savings. All sizes except 180 meet Energy Star efficiency requirements.



### Safe

Since our units don't burn expensive, polluting fossil fuels, they're the most environmentally responsible options available today. Utilizing geothermal with R-454B refrigerant can minimize acid rain threats, air pollution, and the greenhouse effect.



### Cost effective

Geothermal heat pumps are so efficient that any added cost over ordinary equipment is usually recovered in just a few years. And because they have a lifespan of 20-25 years, your investment will last longer and your return on investment will grow year by year.



### Environmentally responsible

Since our units don't burn expensive, polluting fossil fuels, they're the most environmentally responsible options available today. Utilizing geothermal with R-454B refrigerant can minimize acid rain threats, air pollution, and the greenhouse effect.



### Comfortable

A York® Affinity™ hydronic model provides consistent comfortable heating when used in radiant floor applications, hydronic air handlers and more. One model configuration can produce 100% domestic hot water use.



### Affordable peace of mind

York® Affinity™ hydronic units come with warranties up to 10 years for parts and labor allowances. Other options are available, so see your York® Contractor for details. Other options are available, so see your York® Contractor for details.

## The Affinity Hydronic Models (Y5W series) can be used in applications for:

Radiant Floor Heating | Hydronic Air Handlers | Pool / Spa Heating\* | Domestic Hot Water | Snow & Ice Melt



### York Single Hydronic

A field-switchable control box makes it easy for a dealer to face the controls to the most accessible side of the system in your home.



### York Dual Hydronic

Many of today's bigger homes require a large supply of hot water. The York Series Dual Hydronic is designed for high-demand / high volume hot water applications such as radiant floor heating, hydronic air handlers, pool or spa heating\*, and even snow melting for icy sidewalks and driveways.

## Features of the Affinity™ Series

### Field Switchable Control Box:

A field-switchable control box makes it easy for a dealer to face the controls to the most accessible side of the system in your home.

### Aurora Controls:

The powerful Aurora controls offer two-way communication between components, operating logic, and robust troubleshooting capabilities. Diagnosis and setup are also simplified, making service much simpler for the technician.

### Hot Water Assist:

Some models can include a hot water assist option to provide supplemental heating of domestic hot water while simultaneously providing space heating.

### IntelliStart®:

This optional soft starter reduces start-up amperage by 60% of normal draw to reduce noise, eliminate light flicker, and increase compressor life.

### Heat Exchangers:

Single hydronic model heat exchangers are coated with foam insulation which increases both the efficiency and the consistency of our heat exchangers. Dual hydronic models feature braze plate heat exchanges for high performance in a compact size.

### Compressors:

Affinity™ hydronic units feature scroll compressors for amazing efficiency. All compressors are double isolation mounted for extra quiet operation.

### Cabinet:

The cabinet is built for durability and long-lasting beauty.

### R-454BA:

All York® geothermal units utilize R-454B refrigerant, which is friendly to the environment.



\* Not suitable for direct use with chlorinated water. Can be installed with an additional heat exchanger for chlorinated pool applications.

## Make a smart choice: York®

Choosing the right contractor is the first step in selecting the best system for your home. Your York® Contractor is trained to give you professional home comfort services, including:



- An evaluation of factors such as your home's size, age, number of rooms, climate characteristics and utility costs
- A system recommendation that fits your family's comfort needs, your home, your lifestyle and your budget
- The assurance of proper installation and customer care, including warranties and maintenance options

## Stay comfortable for years to come.

York® is proud to offer the YorkCare™ Comfort Plan. It's designed to maintain your system as well as your peace of mind. With YorkCare™ you get total protection that ensures your unit is effective and efficient for years to come.

What's more, your York® Contractor offers maintenance agreements that provide upkeep while maximizing the warranty provisions. Ask about the YorkCare™ Comfort Plan. A little extra coverage is always a comforting idea.

## Long story short—our history.

OVER  
**135**  
YEARS  
OF DESIGN AND  
INNOVATION

You've probably enjoyed York® engineering for years without even knowing it. We have, after all, designed and implemented heating and cooling systems in some of the world's most famous structures, including the U.S. Capitol building, the Sydney Opera House, the entire U.S. Navy nuclear submarine fleet, and even venues such as your local mall and corner bank.

There's a reason people trust us with the big jobs. We've been doing this a long time. Over 135 years, in fact. In that time, we developed the first successful room air conditioner and cooled the world's first theater, hotel and office building. We're constantly leading the industry in our design and our technology. And our commitment has earned our products the Good Housekeeping Seal of Approval. No matter what the scale, chances are we've developed an efficient, durable and effective solution for it.



Homeowners who install an ENERGY STAR® rated geothermal system in the U.S. are eligible for a 30% federal tax credit. The 30% credit will last through 2032 and can be claimed on equipment and installation costs with no upper limit. The credit is scheduled to decrease to 26% in 2033 then to 22% in 2034, so act now for the most savings!

## ISO/AHRI/ASHRAE (13256-2) Performance Ratings

AFFINITY™ Y5W MODEL					
MODEL & SIZE		CLOSED LOOP		OPEN LOOP	
		COOLING (EER)	HEATING (COP)	COOLING (EER)	HEATING (COP)
024	Single	16.1	3.1	22.2	3.8
048	Single	16.1	3.1	20.9	3.6
060	Single	16.1	3.1	20.4	3.8
120	Full Load	15.4	2.9	19.9	3.6
	Part Load	18.1	3.3	20.5	3.7
180	Full Load	14.2	2.7	18.1	3.2
	Part Load	16	3.2	17.9	3.6

For additional product details, such as weight and dimensions, visit [www.yorkgeothermal.com](http://www.yorkgeothermal.com) or ask your York® Contractor.



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WE ENCOURAGE  
NATE  
CERTIFICATION  
BCW5-0025Y

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