

Multi-Positional Vertical Packaged Unit

**GEOHERMAL HEAT PUMP
TECHNICAL OVERVIEW**



Multi-Positional Vertical Packaged

The Evolution Series Vertical Packaged unit is Hydron Module's next generation of geothermal packaged system. These models incorporate many of the improvements introduced throughout the product line over the past few years. The result is a geothermal system that is one of our most advanced ever.

The Evolution Series YT model was designed by taking our best product development ideas and combining them with all-new innovative features. Dramatic improvements in sound quality and efficiency were achieved, along with a reduction in cabinet size. The Hydron Module Vertical Packaged Systems are sure to satisfy homeowners, building owners and HVAC contractors alike.

Peace of mind is a standard feature with Hydron Module. Our products are manufactured with common components from reliable, proven suppliers. These supplier partners share our commitment to excellence, which is evident in the products that we build.

It's All About the Benefits

YT Vertical Packaged models use a variety of innovative features that work together to fulfill an impressive set of benefits.

High Efficiency

All-aluminum microchannel air coil

Variable speed ECM blower motor

Copeland UltraTech 2-stage Scroll compressor

Foam insulated coaxial heat exchanger

Ultra Quiet Operation

Elastomeric compressor isolation pads

High density closed-cell foam insulation

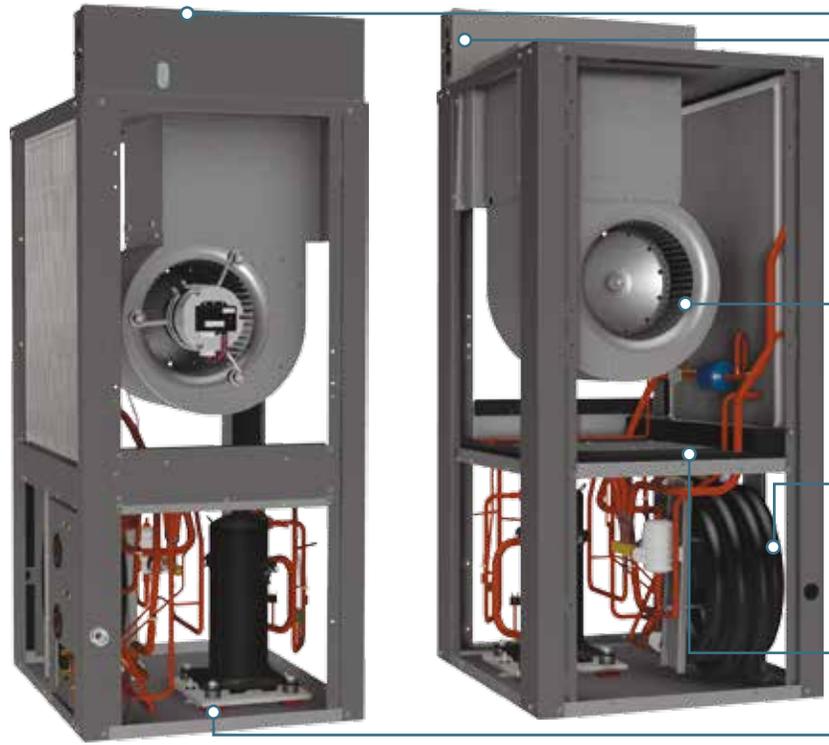
Ease of Installation & Service

Top or side-mounted control box

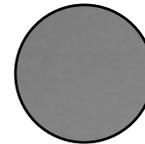
Smaller cabinet footprint

All cabinet panels removable

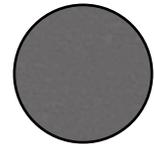
High and low pressure ports



Available Cabinet Finishes:



Charcoal with
Stainless Steel
Front Panel
Residential Models



Galvanized
Commercial
Series only

Unit Information

Model	W	D	H	Weight (lbs)
YT024	23.0"	26.5"	46.0"	300
YT036	25.4"	30.5"	54.0"	415
YT048	25.4"	30.5"	54.0"	450
YT060	25.4"	30.5"	58.4"	475
YT072	25.4"	30.5"	58.4"	480

Physical dimensions exclude control box and return/discharge air duct flanges

Available Voltages

208/230V, 60Hz, 1Ph/3Ph

460V, 60Hz, 3Ph

Unit Performance

Ground Loop Heat Pump

Model	Capacity	Cooling		Heating	
		BTU/hr	EER	BTU/hr	COP
YT024	Full Load	27,100	19.9	19,000	4.3
	Part Load	21,400	28.2	15,200	4.8
YT036	Full Load	41,200	20.9	29,100	4.5
	Part Load	31,500	31.3	23,300	5.1
YT048	Full Load	53,300	20.2	39,900	4.3
	Part Load	42,600	29.6	32,000	4.9
YT060	Full Load	64,300	19.3	49,200	4.1
	Part Load	50,000	28.0	37,700	4.6
YT072	Full Load	71,900	18.0	56,200	3.8
	Part Load	58,500	24.8	45,800	4.4

Notes:

Rated in accordance with AHRI/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





Improved Digital Controls ensure proper operation, providing user-friendly diagnostics.



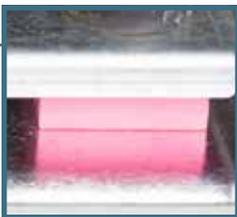
Top or Side-Mounted Control Box for installation convenience. Status Window allows visibility of unit status lights without opening cover.



Foam insulated, enhanced surface Coaxial Heat Exchanger protects against moisture and improves unit performance and reliability.



Variable Speed ECM Blower Motor matches to ductwork to deliver optimum airflow, plus has multiple CFM settings to fit any installation.



Elastomeric Compressor Vibration Absorption Pads provide superior sound and vibration insulation, resulting in quiet operation.



High Density Closed Cell Foam insulation helps absorb sound. This insulation is UL GREENGUARD Certified, meaning improved air quality and low chemical emissions.

Air Coil Failures? Problem Solved.

The issue of formicary corrosion is one that has continually plagued contractors and manufacturers... until now. In the fall of 2011, Hydron Module turned the geothermal industry on its head when our two-stage vertical packaged models began production using **all-aluminum microchannel air coils** manufactured by Delphi Automotive. Compared to traditional copper tube / aluminum fin coil technology, the microchannel heat exchanger offers a variety of benefits.

Improved heat transfer and thermal performance results in increased unit efficiencies and lower operating costs

Single material construction (all-aluminum versus copper/aluminum) eliminates formicary corrosion

40% less material than a standard tube-and-fin copper/aluminum coil reduces unit weight and is also fully recyclable

Enhanced structural robustness means less chance of damaging the coil during basic maintenance (such as filter replacement)

Substantial refrigeration charge reduction lessens overall environmental impact



Additional Features

Multi-positional YT model cabinet design is field convertible to **left hand** or **right hand return air** with minimal effort and tools.

Factory installed desuperheater (hot water generator) allows the capture of free unused heat, which is used to heat domestic water. This application can cut hot water costs by up to 50%.

Front or rear connection points for condensate drain allow for field conversion, making installation easier.

Next generation **Copeland UltraTech 2-stage scroll compressor** allows the unit to match itself to the weather to deliver the best comfort at very high efficiencies.

The **stainless steel drain pan** won't rust or corrode, while a **condensate overflow sensor** guards against clogged condensate drains.

The **TXV (thermal expansion valve)** and **filter drier** are located together in the air handler section to ensure easy access if service is required.

Improved **blower mount** allows for air discharge flexibility. Structural enhancements help reduce transportation stress. A removable **venturi ring** allows for easy maintenance of blower motor.

An optional electric **auxiliary heater** provides back-up heat in emergencies and on extremely cold days.

Side or back discharge factory option for added installation flexibility.

Meets **ENERGY STAR®** requirements and qualifies for US federal tax credits. Other rebates and incentives may be available in your area.





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