



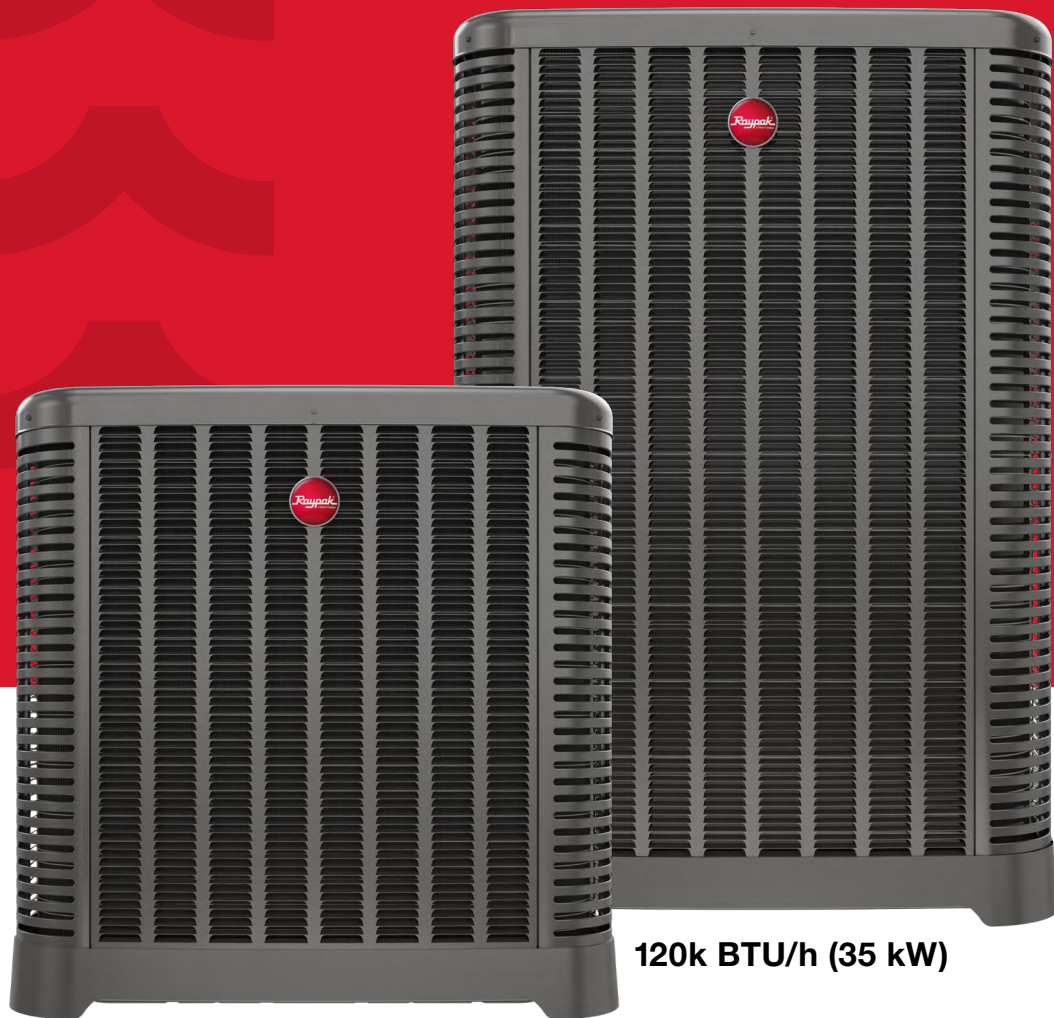
Torin™ Commercial Air to Water Heat Pump Water Heaters

Technical Sales Guide



**Engineered to Endure.
Trusted to Perform.**

Torin™ Commercial Air to Water Heat Pump Water Heaters



68k BTU/h (20 kW)

120k BTU/h (35 kW)

For large demands, and demanding environments, Raypak's Torin™ heat pump delivers exceptional efficiency and a reliable, consistent supply of hot water.

Torin delivers high efficiency, sustainability, and reliable cold-climate performance. With a COP over 4.5, low GWP-R refrigerant and a footprint up to 36% smaller than comparable systems Torin fits easily in tight spaces, maximizing energy and space efficiency. Smart inverter capacity control, an intuitive touchscreen interface, and remote monitoring provides advance efficiency, intelligent operation and dependable performance for modern commercial applications.

68k BTU/h (20 kW) and 120k BTU/h (35 kW) Capacity Models

Versatility: Indoor/outdoor flexibility with added domestic hot water or hydronic capabilities

Meets up to 4.5 COP: Super-high efficiency that maximizes energy transfer and reduces operational costs

Cold Climate Ready: Reliable operation in cold ambient temperatures down to -13°F (-25°C)

Single or Multipass Configurations: Aligns the unit with the required system flow path

Smaller Footprint: Easier placement and system customization

Smart Connectivity and Control: Unified through the Sky-35 interface with BACnet compatibility and Contractor App tools for real-time insights and easier service workflows.

Engineered for *Performance*. Built for Business.

Torin™ is ideal for the following applications:



MULTIFAMILY HOUSING

Centralized water heating with lower operating costs and reduced emissions.



HOTELS AND HOSPITALITY

Efficient hot water generation for guest rooms, kitchens and laundry.



SCHOOLS AND UNIVERSITIES

Energy-efficient water heating for dorms, cafeterias and gym facilities.



GOVERNMENT AND OFFICE BUILDINGS

Supports sustainability goals with reduced carbon footprint and energy savings.

Torin™ stands out in every category.



PERFORMANCE

- Exceptional energy efficiency with a Coefficient of Performance (COP) up to 4.5
- Extreme cold weather reliability, Torin consistently delivers 150°F output even in temperatures as low as -13°F (-25°C)¹
- Designed for indoor and outdoor installation for domestic hot water or space heating applications



DURABILITY

- Built to last with a stainless-steel plate heat exchanger and outdoor-rated, powder-coated finish for long-lasting performance
- Backed by an optional 5-year compressor warranty and a 1-year parts warranty



SMART

- Sky-35 user interface offers intuitive touchscreen control allows for effortless configuration and management
- BACnet(MS/TP) integration for seamless connectivity to Building Management Systems for monitoring and centralized control
- Contractor App with Bluetooth® streamlines Torin™ commissioning and service



ECO-FRIENDLINESS

- Energy Star certified
- Uses Low-GWP-R 454B refrigerant
- Super high efficiency is ideal for green building programs and increased efficiency ratings such as LEED
- Designed to reduce carbon emissions.* Operates entirely without fossil fuels



FLEXIBILITY

- On average 36% smaller than major competitors²
- Inverter technology allows variable capacity control for efficient compressor operation
- Allows for connection of up to 16 units to ensure redundancy and meet the needs of larger demands
- Single or multi-pass flexible piping solutions

¹ For single pass configuration 50°F delta up to 150°F. For multipass configuration, 15°F delta up to 140°F.

² Based on overall unit footprint compared to the average of comparable models using published specifications.

Key Components

Top and Back View

Evaporator Fan

3 blade fan
High speed motor

Outdoor-rated, Powder-coated Paint



Durable Curb Appeal

Curved panels and strong corners protect components, while a corrosion-resistant base and sleek finish ensure lasting style

Side Water Connection (Outlet)

Side Water Connection (Inlet)

External Refrigerant Ports

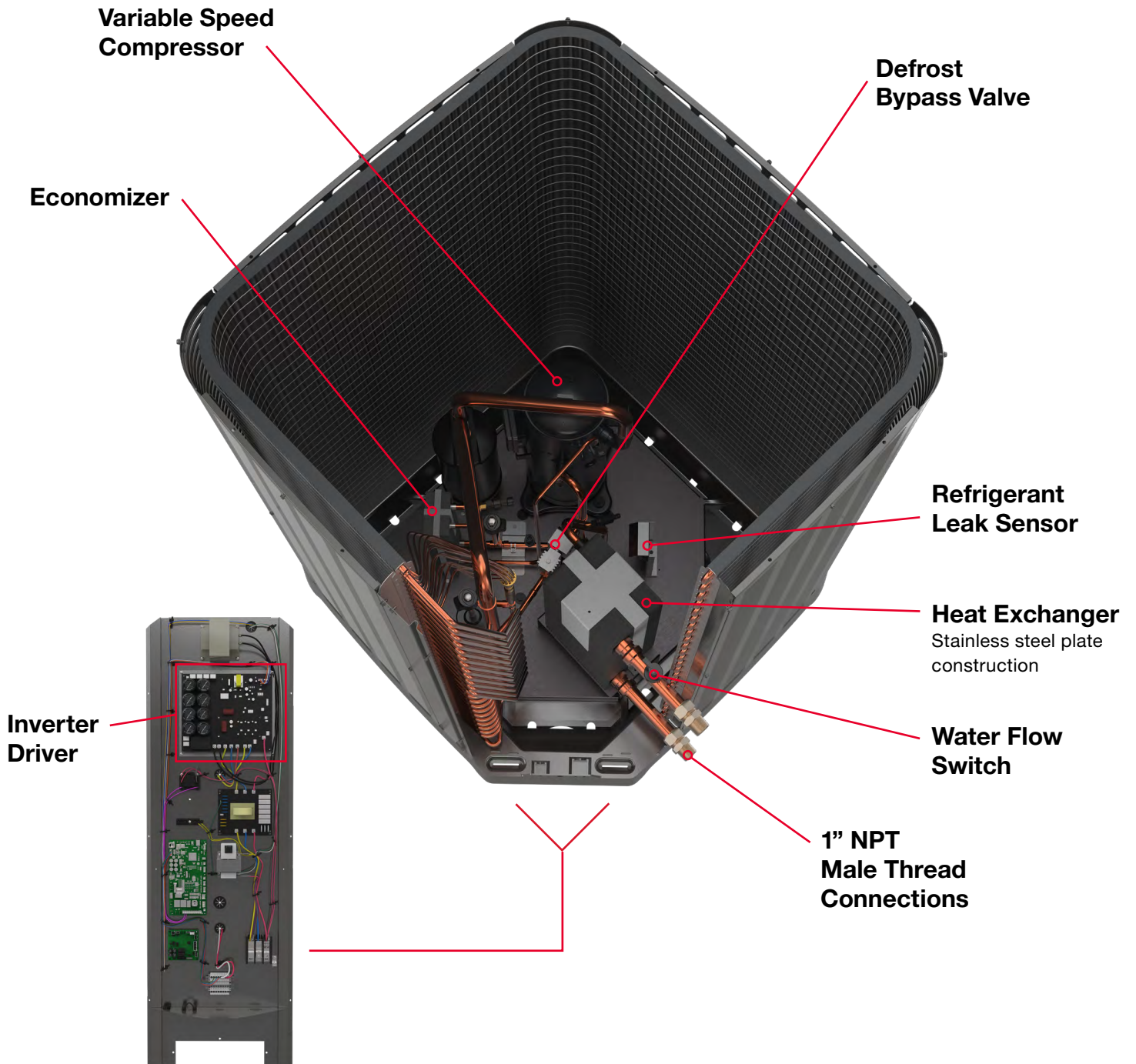
Torin uses a closed loop refrigerant circuit and external ports allow for easy service
Service of the refrigerant system requires a licensed technician



Condensate/Shipping Bracket

Manages condensate drainage and provides a durable mounting platform for rooftop craning and hurricane/seismic securing

Internal View



Sky-35, BACnet & Contractor App

Integrated Control for Hybrid Systems

Torin's Sky-35 Controller provides easy and versatile management of multiple hydronic heat sources. Sky-35 allows you to set up primary and backup heat sources so they work together in a priority sequence.

Offered as a modular system component; Sky-35 controller required for operation and sold separately.

Built-in Features

- Intuitive user interface for easy and smart configuration
- Flexible options for a wide spectrum of domestic hot water and hydronic applications
- Adaptable hardware connections for easy updates as technologies change and systems are added
- Supply, return, and outdoor temperature sensors included
- Control up to 6 ECM pumps
- Conventional ON/OFF control for 3 pumps with included pump relay unit
- Heat Pump overtemp protection
- 24V AC thermostat outputs
- Heat loop and buffer tank monitoring and control



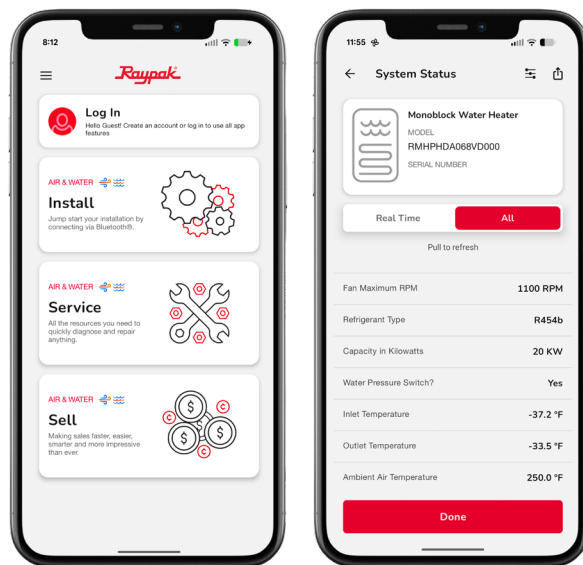
Integrated BMS Connectivity vis BACnet (MS/TP)

A built-in BACnet port provides easy integrations with building management systems (BMS). Note, while the port is included, BACnet requires an accessory to enable functionality.



Contractor App

Installing and servicing Raypak's Torin™ commercial heat pump systems is now more streamlined than ever. The new Contractor App delivers an intuitive, Bluetooth®-enabled experience that simplifies commissioning, accelerates diagnostics, and supports faster, more accurate service across your Torin installations.



Single and Multipass Diagrams

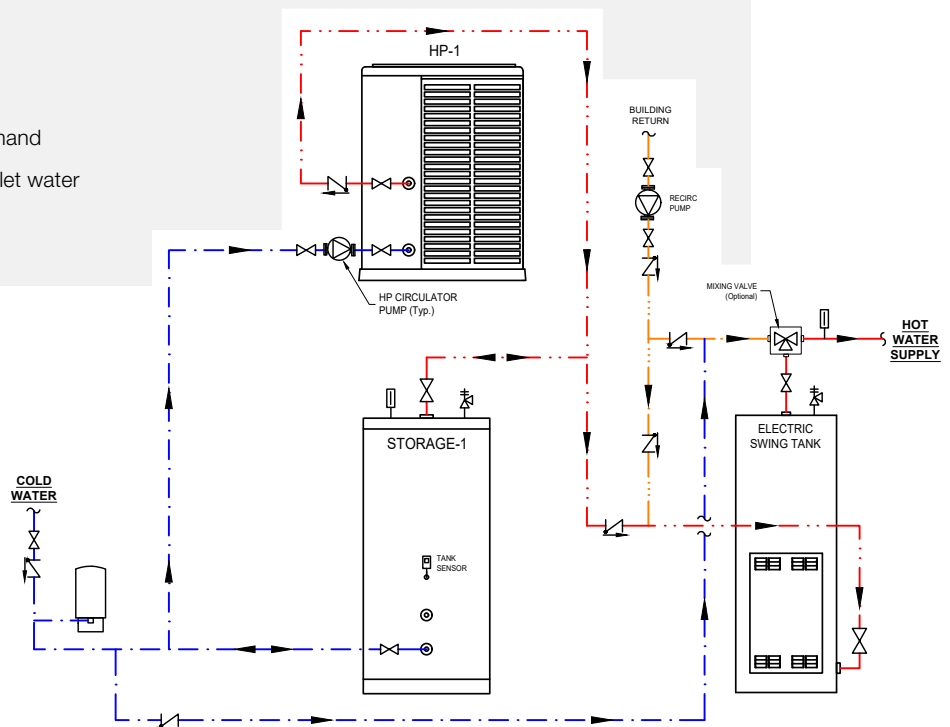
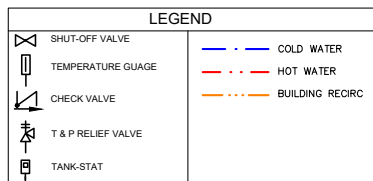
Torin™ offers two piping methods allowing the system to integrate seamlessly with existing infrastructure or new builds.

Single-pass

Single-pass heat pumps move water through the system once, using a designed temperature differential to minimize flow and maximize efficiency. They perform best with colder incoming water and steady, continuous loads, achieving higher COP in applications like offices and commercial facilities. However, they are not suited for warm recirculation return water, which reduces efficiency and complicates controls, so a separate swing tank is often used to handle recirculation.

Single pass is an ideal solution when the design goal is to size heat pump capacity and storage to meet the load directly at the time of demand.

- Works well in systems designed around continuous hot water recirculation loops such as hotels, dorms and multifamily buildings.
- Reduces systems complexity
- Rapid response by heating water in a single pass
- Less effective for long peak loads without storage
- May need larger capacity to meet instantaneous demand
- Performance and outlet temperature can vary with inlet water conditions



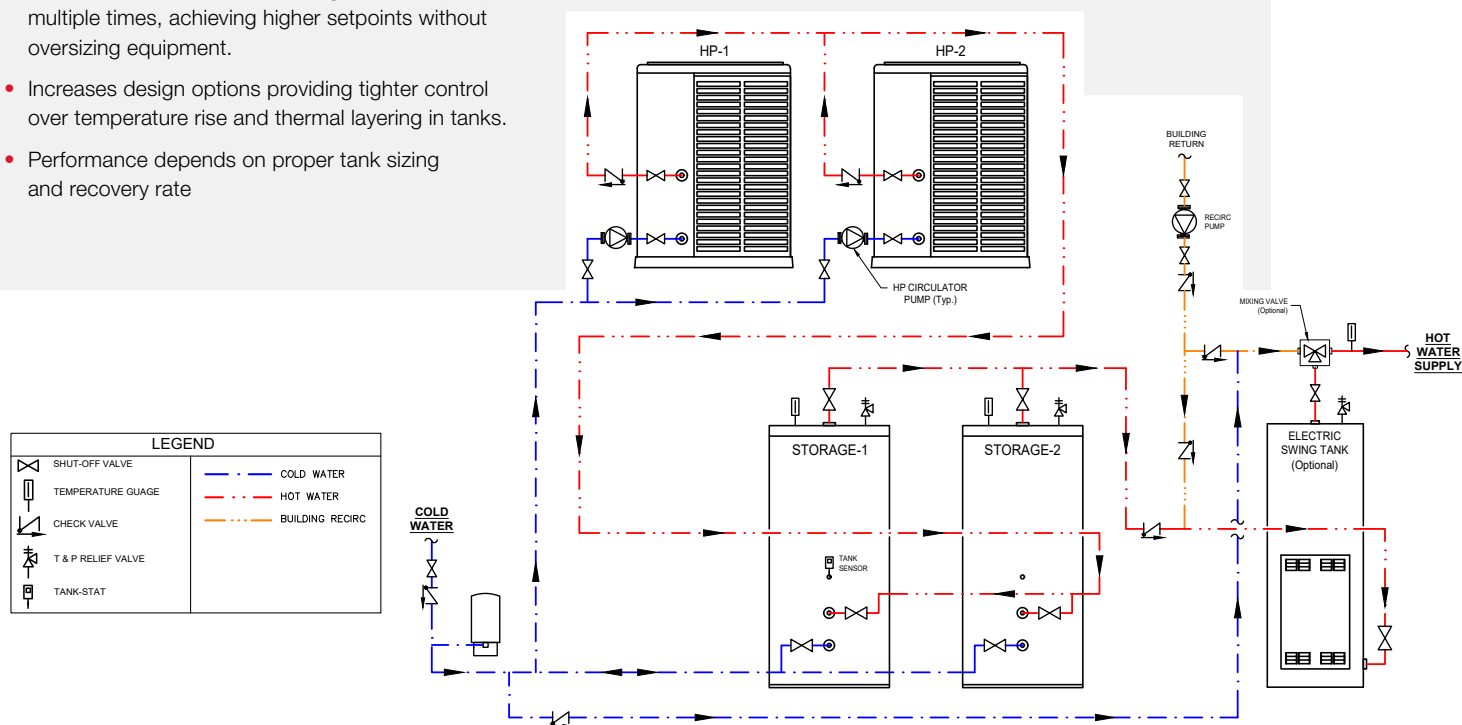
One sample piping layout—additional configurations are available.

Multi-pass

Multi-pass heat pumps raise water temperature in smaller steps over multiple cycles, making them ideal for predictable, storage-based loads such as multifamily and hotel applications. With storage tanks handling peak demand, the heat pump restores temperature between peaks, and the smaller ΔT allows efficient use of warm recirculation return water, making these systems well suited for buildings with active recirculation loops.

Multi-pass is ideal when storage is intended to meet peak demand, and the heat pump's role is primarily to recover tank temperature between predictable load periods.

- Ideal for applications needing higher outlet temperatures or when the building has cold incoming water (schools, gyms, food service).
- Allows water to recirculate through the heat pump coil multiple times, achieving higher setpoints without oversizing equipment.
- Increases design options providing tighter control over temperature rise and thermal layering in tanks.
- Performance depends on proper tank sizing and recovery rate

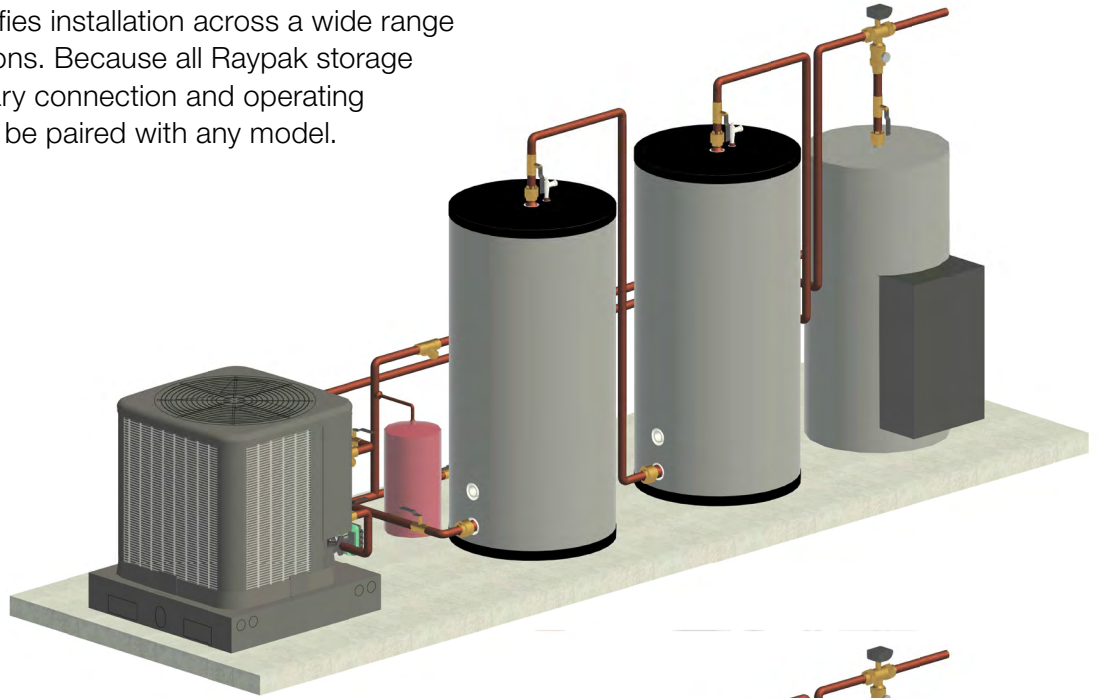


One sample piping layout—additional configurations are available.

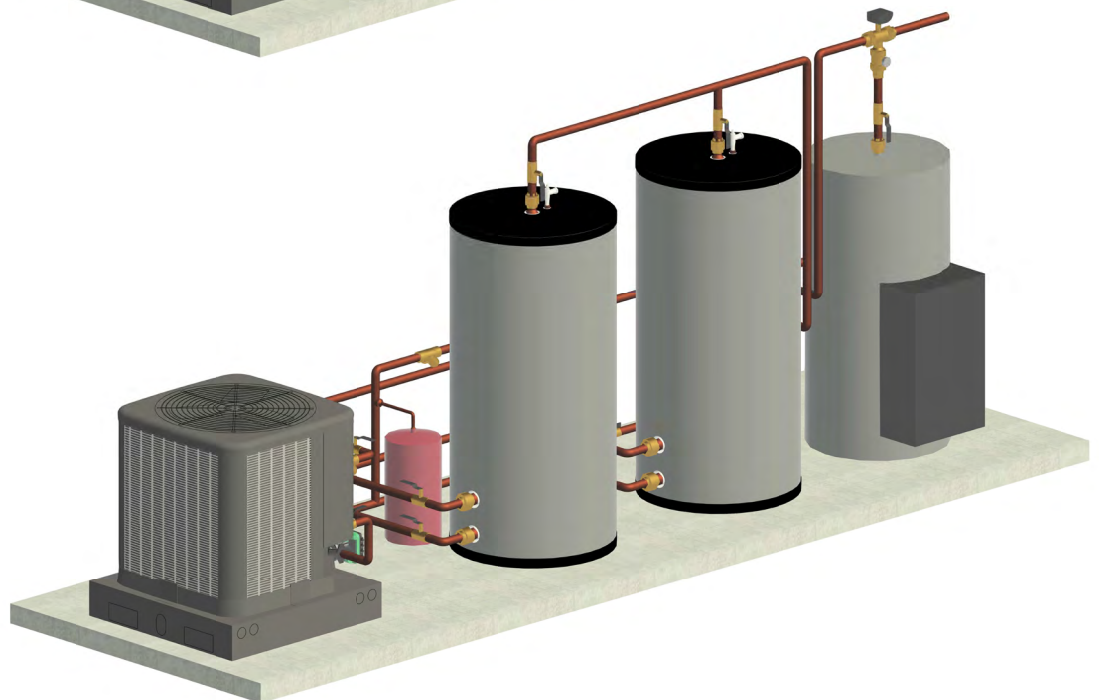
Storage Tanks

Torin™ is fully compatible with all Raypak storage tanks, allowing it to integrate seamlessly into both new and existing system designs. This flexibility ensures consistent performance and simplifies installation across a wide range of commercial applications. Because all Raypak storage tanks meet the necessary connection and operating requirements, Torin can be paired with any model.

Single-pass



Multi-pass



Domestic Hot Water and Hydronic Capabilities

Raypak Torin™ delivers efficient air-to-water heating for both DHW and hydronic applications, backed by flexible design, smart controls, and dependable cold-climate performance.

Domestic Water Heating (DHW)

Heat-pump DHW systems deliver reliable potable hot water by pairing efficient heat recovery with thermal storage for strong peak-demand performance.

KEY FEATURES

High Capacity: Up to 2,000,000 BTU/h with 16-unit cascades.

Cold-Climate Ready: Efficient year-round operation with COPs up to 4.5.

Scalable: Modular design supports up to 16 units for redundancy and optimized loads.

Compliant: Meets ASHRAE and local energy codes; ENERGY STAR® certified.

Hydronic Heating

Hydronic systems provide efficient heat transfer and precise temperature control across diverse commercial applications.

KEY FEATURES

High Temperature Output: Loop temps up to 150°F; up to 2,000,000 BTU/h combined.

Consistent Control: Stable supply temperatures under varying demand.

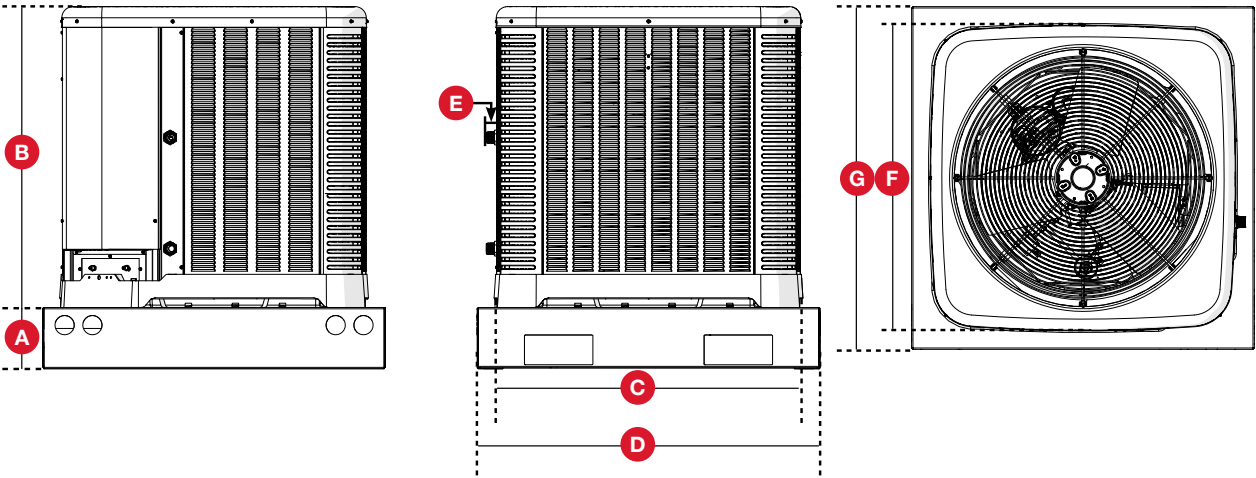
Dual-Energy Flexibility: With SKY 35, shift between heat sources for optimal efficiency.

Reliable: Delivers steady hot-water performance during demand peaks.

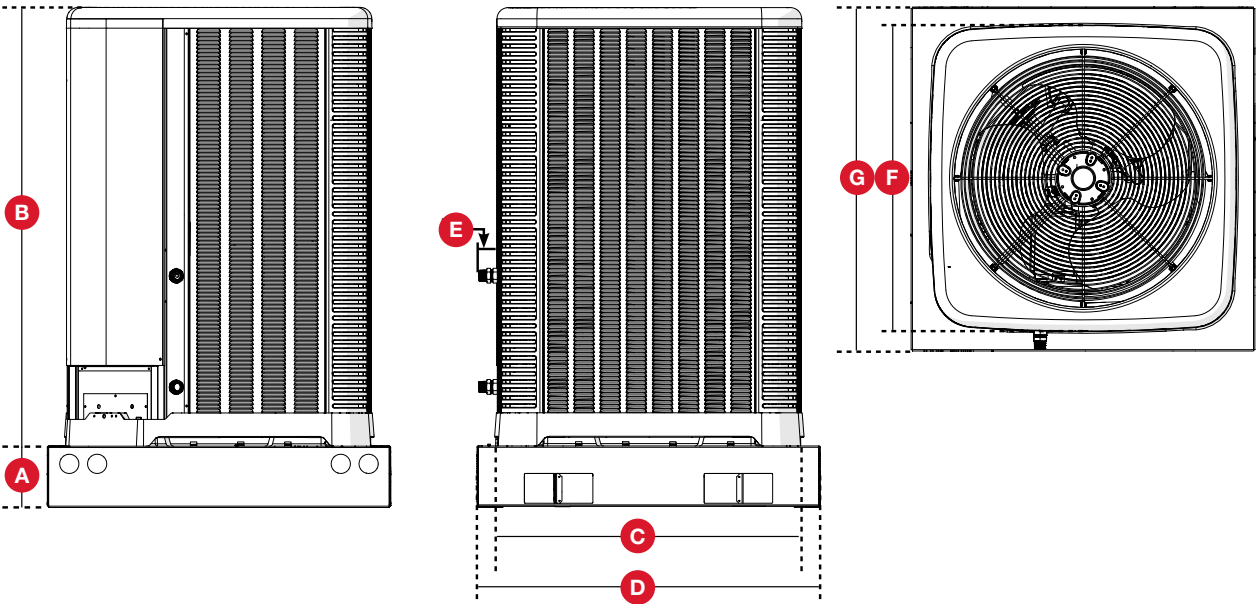


Model Numbers & Dimensions

RMHPHDA068V000



RMHPHDA120V000



MODEL NUMBER	DIMENSIONS						
	A	B	C	D	E	F	G
RMHPHDA068V000	7"	35"	36"	40"	1.2"	36"	40"
RMHPHDA120V000	7"	51"	36"	40"	1.4"	36"	40"

All dimensions shown above are in inches.

Raypak Parts & Accessories

IMAGE	PART	DESCRIPTION	PART NUMBER
	Unit Control / Display	Sky 35 Unit Control (min. 1 required)	016-204
	Storage Tank	200-950 Gallon Storage Tank (Non-Jacketed)	STU Series: STU950A, STU750A, STU500A, STU430A, STU320A, STU260A, STU200A
		200-950 Gallon Storage Tank (Jacketed)	ST950A, ST750A, ST500A, ST430A, ST320A, ST260A, ST200A
		80-175 Gallon Storage Tank	ST Series: ST80(A), ST120(A), ST175(A)
	Primary Circulation Pump	ECM High-Efficiency Circulator Pumps	VM3450-DD1-RS2W00
	Control Interface	BACnet® and Modbus® Interface (ProtoNode)	100-10004278
	Storage Tank Thermistor	Tank Well Thermistor	011932
	Seismic Tie Down	Bracket and Screws for hurricane or seismic tie downs	10-105931-02 and 63-105938-01
	Transformer	Dry Type Power Distribution Transformer: 480V AC, 120V AC/208V AC	T3045K0013B
	Solenoid Valve	Solenoid valve for the water inlet	USS-MSV00009



Contact Us

Customer Service, Warranty, Parts	800.621.5622
Technical Support	866.720.2076
Sizing & Selection Support – Rheem Engineering	commercial.application@rheem.com



Contact us now to get started.
www.rheem.com/commercial-hot-water-application-consulting/

For more details, visit:
www.raypak.com

