iCool-XC™
ALL CLIMATE COMFORT™

ICE AIR®
All Climate Comfort™

FAQ

Product Overview

What is the Ice Air iCool-XC™?

The iCool-XC™ is a wall-mounted, all-electric air source heat pump that delivers **All Climate Comfort™ with Zero Emissions**. It both heats and cools spaces efficiently using advanced inverter and heat-pump technology based on eco-friendly R32 refrigerant.

What makes it different from a traditional PTAC?

It delivers up to 25% greater efficiency than standard units, operates quietly with advanced soundproofing, and pairs modern design with durable steel construction. Unlike traditional PTACs, the iCool-XC uses dual 8-inch wall openings, a variable-speed compressor, and advanced airflow isolation for quieter, more efficient performance and improved wall integrity.

Design and Installation

How big is the iCool-XC™ unit?

Its compact dimensions are approximately **45.63" (W) × 7.75" (D) × 21.75" (H)**, making it easy to fit in any room without intruding on the interior design.

Is installation complicated?

No, installation is simple and seamless. The unit mounts on a wall bracket aligned with two circular penetrations for intake and exhaust. This setup preserves façade aesthetics while simplifying installation for both new construction and retrofit projects.

Can it replace existing PTAC units?

Yes. The iCool-XC can retrofit into existing PTAC openings using **transition sleeves or plenums**. These adapter assemblies insulate and seal the old rectangular wall sleeve while accommodating the two round ducts of the SPHP design.

What about condensate management?

Units include a drain connection for internal condensate routing. Internal routing is recommended to prevent freezing and minimize maintenance.

How is noise handled?

Compressor vibration and sound are minimized through **insulated compartments, balanced airflow, and variable-speed operation**, producing noticeably lower room sound levels than standard PTACs.

Materials used for the chassis?

Unlike plastic-cased units, the iCool-XC™ features a **steel enclosure with a designer-grade baked powder-coat finish**, ensuring long-term strength and visual appeal.

Are there different styles available?

Yes, the product can be ordered as **Style A or Style B**, each featuring distinct aesthetic options for installation layout.

Performance and Efficiency

How efficient is the iCool-XC?

The unit is certified under **AHRI 210/240 (2023)** as a **Central Air Conditioner / Central Heat Pump**, meeting DOE's latest efficiency requirements with **SEER2** and **HSPF2** ratings.

Can it operate in cold climates?

Yes. The iCool-XC™ is a **Cold Climate Air Source Heat Pump (ccASHP)** certified by **NEEP**, with partial cold-climate operation down to 23 °F and supplemental electric heat below that temperature.

What are the rated capacities and efficiency ranges?

- **Cooling:** up to 1.0 ton (12,000 BTU/h)
- **Heating:** up to 10,000 BTU/h at 22 °F; maintains heat output even at 5 °F when assisted by its optional electric element.
- **SEER2:** ≥ 15
- **HSPF2:** ≥ 9

Variable-speed control allows automatic modulation between ~30% and 100% capacity for maximum comfort and efficiency.

Does it include supplemental electric heat?

Yes. A **1 kW** electric heater operates in parallel with the compressor during extreme cold to maintain setpoint, though most heating demand is met via the heat-pump cycle.

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How long is the defrost cycle?

The defrost cycle is short, typically 2–4 minutes, and the unit maintains room temperature even during defrost events.

What refrigerant does it use and why?

It uses **R32 green refrigerant**, which has lower global-warming potential than older R410A systems and enhances overall energy efficiency.

Controls and Operation

What control options are available?

The iCool-XC™ supports:

- Programmable and wireless thermostats
- Smart-app connectivity via Ice Air's Habitat platform
- Demand-response integration for utility incentives
- Central monitoring or BMS (Building Management System) connection via Wi-Fi or third-party thermostats

Can multiple units be networked together?

Yes. The Habitat system enables centralized monitoring of multiple units without special wiring, making it suitable for multifamily and hotel applications.

Is there a timer or automation feature?

Yes, it includes a **24-hour programmable timer** and is compatible with **Nexus Home Automation Products** for expanded smart-home integration.

Does the compressor shut off at extreme cold?

No. The compressor continues to operate at all outdoor temperatures, modulating capacity as needed.

Does it make a lot of noise?

No. The system uses **whisper-quiet sound proofing**, making it one of the quietest units in its class - ideal for residential and hospitality settings.

Sustainability and Compliance

Is the iCool-XC™ eligible for incentives or tax credits?

Yes. Its high efficiency qualifies for **state, federal, and local rebates and tax credits**, often listed through utility programs. Visit ice-air.com/rebates for current offers.

How does it help meet NYC Local Law 97 requirements?

Because it is **fully electric** and highly efficient, the iCool-XC™ reduces on-site emissions and supports **building electrification initiatives** that align with LL97 and LEED® green-building criteria.

Integration and Compatibility

Is it part of a larger product family?

Yes. The iCool-XC™ belongs to Ice Air's **Electrified Product Family**, which includes cold-climate SPXC, RSXC, HPWH, and VSHPGE series for various applications - all designed to support HVAC electrification and decarbonization efforts.

Is the Habitat Thermostat available for other Ice Air units?

Yes. The **Habitat Smart Technologies thermostat** can be paired with fan-coil units and other Ice Air equipment to enable wireless smart control without opening walls for wiring.

Warranty and Support

What is the warranty coverage?

Each unit includes a limited manufacturer warranty covering components and compressors. Extended service plans are available for commercial projects.

Where can I learn more about installation and training?

Professional training and continuing-education resources are available through **Ice Air's CEU Webinar Series**, which covers the role of HVAC electrification in building decarbonization. Visit iceairceu.com for schedules and details.