

FAQ



Product Overview

What is the Ice Air RSXC Series?

The Ice Air RSXC Series is a family of **Cold Climate Packaged Terminal Heat Pumps (PTHPs)** designed for high efficiency, all-electric heating and cooling in challenging climates. They combine the performance of a **Variable Refrigerant Flow (VRF)** system with the **convenience of a PTAC**, making them ideal for retrofit and new construction applications where through-the-wall units are preferred.

What makes RSXC different from conventional PTACs?

RSXC units use **advanced VRF technology** and **enhanced vapor injection (EVI) compressors** to “right-size” capacity in real time and extend heat pump operation into much colder temperatures than typical PTAC systems. This allows RSXC units to deliver efficient heating at low ambient temperatures instead of depending primarily on electric resistance heat.

Where are RSXC units typically used?

RSXC PTHPs are suited for **hotel and hospitality, multifamily, senior living, student housing**, and other applications that use through-the-wall packaged units and want to electrify heating while maintaining simple, room-by-room control.

Design and Installation

What is the physical form factor of an RSXC unit?

RSXC units are designed to fit a **standard size wall sleeve** measuring **42" wide × 16" high**, simplifying both retrofit and new construction.

What materials are used in the chassis and enclosure?

The chassis is **concealed by a steel enclosure** with a **designer-grade baked powder-coat finish**, providing both durability and an attractive appearance compared with typical plastic fronts.

Does the RSXC provide fresh air ventilation?

Yes. RSXC units offer **outside air options** for room conditioning, allowing fresh air to be introduced and tempered. The performance table lists **60 CFM of outside airflow** for each model (8RSXC09, 8RSXC13, 8RSXC18).

Performance and Efficiency

How does the RSXC Series perform in cold climates?

RSXC heating performance is **laboratory tested and certified down to –5°F**, with a **theoretical lower limit of –25°F ambient** for heat pump operation. This makes the series highly suitable for true cold-climate electrification.

What are the low-temperature capacities?

- **At 10°F**
 - Heating Capacity: 6,600 / 7,700 / 11,600 BTU/h
 - COP: 2.20 / 2.14 / 2.02
- **At 5°F**
 - Heating Capacity: 6,100 / 6,900 / 10,600 BTU/h
 - COP: 1.98 / 1.91 / 1.93
- **At –5°F**
 - Heating Capacity: 5,500 / 6,400 / 8,100 BTU/h
 - COP: 1.74 / 1.62 / 1.60

These figures show that RSXC continues to deliver meaningful heat pump output even at very low outdoor temperatures.

What are the rated capacities and efficiency metrics at standard conditions?

The performance table lists the following for RSXC models 8RSXC09, 8RSXC13, 8RSXC18:

- **Cooling Capacity (BTU/h):** 9,200 / 12,500 / 16,300
- **Cooling Capacity Range (BTU/h):** 6,300–11,800 / 6,500–14,900 / 7,300–18,000
- **EER:** 12.1 / 11.1 / 10.0
- **Heating Capacity (BTU/h):** 10,300 / 13,700 / 17,900
- **Heating Capacity Range (BTU/h):** 8,700–12,600 / 9,000–14,700 / 10,900–19,300
- **COP (heating):** 4.1 / 3.7 / 3.0
- **HSPF2:** 9.6 / 9.5 / 9.0

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Does it need electric resistance heat?

Electric heat is optional. Units operate independently to -5°F and below, but a supplemental heater is recommended for extreme conditions. When installed, it may activate automatically around -5°F or be controlled manually.

How quiet is the RSXC Series?

RSXC achieves industry-leading sound levels through sound-insulated construction and variable speed operation, making it suitable for noise-sensitive spaces.

Controls and Operation

How does the RSXC modulate its output?

RSXC models feature **variable speed compressors** that provide **on-demand operation**, modulating capacity based on room demand. This ensures stable comfort and reduces short-cycling.

What role do enhanced vapor injection (EVI) compressors play?

EVI compressors allow Ice Air's PTHP units, including RSXC, to operate effectively at **extreme low temperatures**, supporting strong heat output and efficiency in cold climates where conventional PTACs struggle.

What thermostat and control system is provided?

Each RSXC unit comes standard with a **Habitat Wireless Thermostat** that offers **smart control capabilities**. This provides enhanced control options beyond basic local knobs, enabling more precise temperature management.

Is app-based control available?

Yes. The brochure notes that a **smart app module must be purchased separately**, which enables app-based smart control of the RSXC system.

How is electric resistance heat controlled when installed?

Electric heat is optional. When it is included, customers can choose either:

- A **manual trigger switch** to engage resistance heat, or
- **Automatic changeover at -5°F ($\pm 3^{\circ}\text{F}$)** with a manual override switch.

Units without electric heat will still operate below -5°F with **derated performance**, though performance below -5°F is not certified.

Sustainability and Compliance

What refrigerant does the RSXC Series use, and why is it important?

RSXC uses **sustainable R32 “green” refrigerant**, which helps achieve higher efficiency and reduced environmental impact compared with legacy refrigerants.

Is RSXC recognized as a cold climate air source heat pump?

Yes. The RSXC Series **complies with the NEEP Cold Climate Air Source Heat Pump (ccASHP) efficiency requirements**. The NEEP product listing identifies RSXC among products best suited for cold-climate heating electrification.

How does RSXC help with NYC Local Law 97 and similar regulations?

The brochure notes that the RSXC Series provides **superior energy savings**, which is especially important for projects seeking to satisfy **NYC Local Law 97** and other carbon-reduction laws across the U.S. It also helps projects comply with **green building rating systems such as LEED®**.

Are rebates and incentives available for RSXC installations?

Yes. **Rebates, incentives, and tax credits** may be available through **state, federal, and local utility programs**. The brochure directs users to visit Ice Air's rebates page for more information.

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Technical Details

What are the key electrical specifications?

Values for 8RSXC09, 8RSXC13, and 8RSXC18:

- **Voltage:** 208 V (all three models)
- **Cooling Mode Current (A):**
3.7 / 5.4 / 7.8
- **Cooling Mode Power (W):**
760 / 1,126 / 1,630
- **Heating Mode Current (A):**
3.5 / 5.2 / 8.4
- **Heating Mode Power (W):**
737 / 1,086 / 1,750
- **MCA (without Electric Heat):**
7.9 / 9.9 / 12.9
- **MOCP (without Electric Heat):**
15 (all three models)

With electric heat, the table lists:

- **Electric Heater Power (kW):**
 - 8RSXC09: 3.0 | 3.5
 - 8RSXC13: 3.0 | 3.5 | 4.3
 - 8RSXC18: 3.0 | 3.5 | 4.3
- **Electric Heater Current (A):**
 - 8RSXC09: 14.4 | 16.8
 - 8RSXC13: 14.4 | 16.8 | 20.7
 - 8RSXC18: 14.4 | 16.8 | 20.7
- **MCA (with Electric Heat):**
18.4 | 21.5 | 26.4 (varies by heater size)
- **MOCP (with Electric Heat):**
20 | 25 | 30 A

What are the airflow and weight specifications?

- **Indoor Airflow (CFM):** 380 / 400 / 480
- **Outside Airflow (CFM):** 60 / 60 / 60
- **Weights (lbs):** 127 / 134 / 151

These values are for models 8RSXC09, 8RSXC13, and 8RSXC18 respectively.

Are there other electrical or configuration options?

Yes. **Additional voltages and alternate electric heat and heat pump options are available.** Designers should consult the factory for performance data and details on those configurations.

Integration and Compatibility

Is it part of a larger product family?

Yes. RSXC is featured within Ice Air's Electrified Product Family, which also includes:

- **iCool XC** wall-mounted air source heat pumps
- **Cold Climate Heat Pump Water Heaters (HPWH, HPWH-SC)**
- **Cold Climate heat pump chiller heaters**
- **SPXC** cold climate vertical packaged systems
- **VSHPG** geothermal systems

Together, these solutions support whole-building electrification and decarbonization strategies.

Warranty and Support

What is the warranty coverage?

RSXC units include a limited manufacturer warranty. Coverage varies by model and application; detailed terms are available from Ice Air sales and support.

How can technical or sales support be contacted?

Ice Air, LLC
 80 Hartford Avenue, Mount Vernon, NY 10553
 Tel 877-ICE-AIR-1 (877-423-2471)
 Email sales@ice-air.com
 Web www.ice-air.com

Are training or education resources available?

Ice Air offers continuing-education webinars and training covering HVAC electrification and heat-pump technologies for design and engineering professionals.