



**HWCAC**

- CHW** Console Units
- VSHW** Vertical Stack Units
- HHW** Horizontal Units
- VCHW** Vertical Closet Units

Hybrid Water-Cooled  
Air Conditioner Units

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## About Ice Air

Ice Air has over 50 years of industry experience in developing and manufacturing a wide variety of HVAC units to provide superior heating and cooling systems for new construction, retrofit and replacement installations. Ice Air offers advanced green technologies and provides world-class comfort at high efficiency levels, meeting environmental standards and promoting a healthy environment.

Ice Air's state-of-the-art units can be equipped with digital controls designed to optimize user comfort and ease of operation. Ice Air products are designed to provide years of trouble-free operation and reliable performance in multi-family housing, hotels/motels, dormitories, commercial buildings and similar projects. Units are ideal for new construction, retrofit and replacement applications.

## Overview

Quiet Comfort...Efficient Control...Flexible Design

Ice Air Hydronic Hybrid Water-Cooled Air Conditioners (HWCAC) provide reliable performance, high-efficiency cooling operation with an advanced hot water coil that provides hydronic heat for an entire room without using the unit's compressor.

Ice Air HWCACs utilize the highest quality materials and manufacturing practices. The high capacity heating coil operates at low Entering Water Temperatures (EWT), between 95°-125°F. An optional EC motor meets green energy requirements.

Maintaining the highest quality product means Ice Air products meet all UL standards and conform to ASHRAE 90.1, local building codes and energy standards. All Ice Air products are ETL-listed for safety in the U.S. and Canada.

Every project is different with distinctive needs outside of providing comfort to the space. Ice Air hybrid units are available in a multitude of piping configurations with a wide variety of options and accessories to create a custom design tailored to the needs of the project.



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VCHW Vertical Closet, Page 7



CHW Console, Page 4



# CHW Series



Ice Air's Console Hybrid Water Cooled Air Conditioners (CHW) independently provide comfort cooling and heating within a room and are often located against walls or beneath windows of a room to accommodate maximum load requirements. These floor console units offer superior performance and are piped to a central water loop.

**Features:**

- Enclosures available in Flat Top or Slope Top configurations
- Enclosure fabricated from furniture grade galvanized steel and finished with designer grade baked powder coating
- Ideal for new construction or replacement applications
- Digital controls
- Factory prepared for full right-hand / left-hand piping capabilities
- Central piping area expedites field layout and piping



- Optional removable chassis
- Full selection of factory-installed piping packages

SERIES MODEL #	5CHW09	5CHW13	8CHW09	8CHW13	8CHW16	8CHW19
<b>Cooling Capacity <sup>1</sup> (BTU/h)</b>	9,800	12,000	9,900	12,300	16,400	17,400
<b>Sensible Cooling <sup>1</sup> (BTU/h)</b>	8,800	10,500	8,900	10,700	13,100	13,300
<b>EER</b>	13.2	13.0	13.7	13.5	13.7	13.2
<b>Airflow (CFM)</b>	400	450	300	400	450	550
<b>Hydronic Heating @ 110°F EWT (BTU/h)</b>	11,100	14,100	11,100	14,100	17,900	21,600
<b>Hydronic Heating @ 105°F EWT (BTU/h)</b>	10,000	12,700	10,000	12,700	16,200	19,400
<b>Hydronic Heating @ 95°F EWT (BTU/h)</b>	7,100	9,000	7,100	9,000	11,500	13,800

**SPECIFICATION NOTES:**

1. Cooling capacity BTUH rated @ 80.6°F DB, 66.2°F WB EAT; 86°F EWT, 3 GPM/TON
2. Heating capacity BTUH rated @ 68°F DB, 62°F WB EAT @ 3 GPM/TON

# VSHW Series



When space is an issue, Ice Air's Vertical Stack Hybrid Water-Cooled Air Conditioner (VSHW) provides an ideal solution for whisper quiet cooling and heating within a tight footprint. With the lowest sound levels and smallest footprints available, our VSHWs offer superior value – efficiently heating and cooling with full thermal and acoustical insulation, advanced electronic control interface, high and low pressure protection, and condensate overflow sensors.

**Features:**

- Ideal for condominiums, lodging, educational and institutional properties
- Heavy gauge galvanized stack casings
- Slide-out motor/blower assembly for easy service
- Powder coated decorator front covers (custom colors available)
- Available optional riser and piping packages
- Easy access electrical compartment
- Multiple pipe and air flow knockouts provide maximum flexibility



SERIES MODEL #	8VSHW09	8VSHW12	8VSHW15	8VSHW18	8VSHW24	8VSHW30	8VSHW36
<b>Cooling Capacity (BTU/h)</b>	9,400	13,100	14,900	17,500	24,100	28,200	37,700
<b>Sensible Capacity (BTU/h)</b>	7,600	10,200	12,100	12,500	17,900	24,100	25,800
<b>Cooling EER</b>	14.4	15.3	14.8	14.4	13.8	14.2	13.5
<b>Flow Rate (GPM)</b>	2.3	3.0	3.8	4.5	6.0	7.5	9.0
<b>Airflow (CFM)</b>	420	500	540	630	770	1000	1150
<b>Heating Capacity @ 120°F EWT (BTU/h)</b>	14,000	17,800	20,600	26,800	32,600	36,800	44,800
<b>Heating Capacity @ 105°F EWT (BTU/h)</b>	9,800	12,400	14,400	18,700	22,800	25,800	31,300
<b>Heating Capacity @ 95°F EWT (BTU/h)</b>	7,000	8,900	10,200	13,400	16,300	18,400	22,400

**SPECIFICATION NOTES:**

1. Cooling capacity BTUH rated @ 80.6°F DB, 66.2°F WB EAT; 86°F EWT, 3 GPM/TON
2. Heating capacity BTUH rated @ 68°F DB, 59°F WB EAT, 3 GPM/TON

# HHW Series



Conserve floor space with Ice Air's Horizontal Hybrid Water-Cooled Air Conditioners (HHW). Its low profile design is unobtrusive with a seamless appearance on the ceiling – they are completely concealed with an access panel control box. Flexible control options, variable air discharge outlets, and easy service access provide superior design and installation options. High efficiency fan motors provide low operating costs and reduced energy consumption.

**Features:**

- Perfect for new construction or replacement projects
- Side or end-discharge can be field changed
- Rotary or scroll compressors
- Sustainable R32 Refrigerant
- 13.0+ EERs
- Advanced programmable controls
- Ultra-quiet



SERIES MODEL #	8HHW09	8HHW12	8HHW15	8HHW18	8HHW24	8HHW30	8HHW36
<b>Cooling Capacity (BTU/h)</b>	10,600	12,200	19,600	21,100	26,900	30,200	36,400
<b>Sensible Capacity (BTU/h)</b>	7,800	8,900	14,300	15,400	19,700	22,000	26,600
<b>Cooling EER</b>	16.4	14.5	17.4	16.8	16.6	16.2	16.4
<b>Flow Rate (GPM)</b>	2.3	3.0	3.8	4.5	6.0	7.5	9.0
<b>Airflow (CFM)</b>	300	400	500	600	800	1,000	1,200
<b>Heating Capacity @ 120°F EWT (BTU/h)</b>	10,500	16,900	21,000	25,500	28,000	31,200	37,400
<b>Heating Capacity @ 105°F EWT (BTU/h)</b>	8,500	12,300	15,500	18,600	19,800	21,900	26,300
<b>Heating Capacity @ 95°F EWT (BTU/h)</b>	6,300	9,200	12,000	15,800	16,700	17,800	21,300

**SPECIFICATION NOTES:**  
 1. Cooling capacity BTUH rated @ 80.6°F DB, 66.2°F WB EAT; 86°F EWT  
 2. Heating capacity BTUH rated @ 68°F EAT DB; @ 3 GPM/TON

# VCHW Series



Designed to operate within an equipment closet, Ice Air's Vertical Closet Hybrid Water-Cooled Air Conditioners (VCHW) provide a clean look within rooms as well as optimal installation and maintenance conditions. These quiet units feature high EERs, efficient motors and low-speed fan operation for low operating costs and reduced energy consumption.

**Features:**

- Perfect for new construction or replacement projects
- Rotary or scroll compressors
- Sustainable R32 Refrigerant
- 13.0+ EERs
- Advanced programmable controls available
- Ultra-quiet
- Optional access doors and color-matched grilles available



SERIES MODEL #	8VCHW09	8VCHW12	8VCHW15	8VCHW18	8VCHW24	8VCHW30	8VCHW36
<b>Cooling Capacity (BTU/h)</b>	10,600	12,200	19,600	21,100	26,900	30,200	36,400
<b>Sensible Capacity (BTU/h)</b>	7,800	8,900	14,300	15,400	19,700	22,000	26,600
<b>Cooling EER</b>	16.4	14.5	17.4	16.8	16.6	16.2	16.4
<b>Flow Rate (GPM)</b>	2.3	3.0	3.8	4.5	6.0	7.5	9.0
<b>Airflow (CFM)</b>	300	400	500	600	800	1,000	1,200
<b>Heating Capacity @ 120°F EWT (BTU/h)</b>	10,500	16,900	21,000	25,500	28,000	31,200	37,400
<b>Heating Capacity @ 105°F EWT (BTU/h)</b>	8,500	12,300	15,500	18,600	19,800	21,900	26,300
<b>Heating Capacity @ 95°F EWT (BTU/h)</b>	6,300	9,200	12,000	15,800	16,700	17,800	21,300

**SPECIFICATION NOTES:**  
 1. Cooling capacity BTUH rated @ 80.6°F DB, 66.2°F WB EAT; 86°F EWT  
 2. Heating capacity BTUH rated @ 68°F EAT DB; @ 3 GPM/TON



# Hybrids on the High Line

## HWCAC

Ice Air's new Hybrid Water-Cooled Air Conditioners (WCAC) are now a part of the first residential tower in the high-profile Hudson Yards development in New York City. Located at 500 W. 30th Street in Manhattan, Abington House represents an exciting area of development, as well as an example of Ice Air's recent HVAC innovation.

Ice Air supplied 600+ Hybrid Console and Vertical Stack WCACs for the project, which will provide superior high efficiency comfort conditioning for the building. The Hybrid system combines a water-cooled cooling system with an advanced hot water coil to provide hydronic heat for an entire room without using the unit's compressor. The high capacity heating coil operates at extremely low Entering Water Temperatures (between 105°-125°F).

Abington House was designed as a LEED Gold building due the developer's strong commitment to sustainability. Ice Air's Hybrid units have helped to promote high efficiency in the building.



### Innovative Hybrid Water-Cooled Air Conditioning System in landmark location

- 632 Hybrid Console and Hybrid Vertical Stack Water-Cooled Air Conditioners
- Hudson Yards' first residential tower
- Combines high-efficiency water-cooled air conditioning with lower temperature (105°-125°F EWT) hot water heat



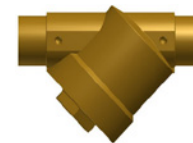
For more information visit [www.ice-air.com](http://www.ice-air.com) or call **877-ICE-AIR-1**

# Optional Valve Accessories



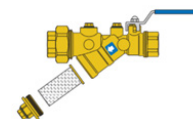
### Motorized Valve

The optional factory supplied motorized valve comes with a 2-way or 3-way valve body and a 2-position electric actuator. The actuator can be normally open or normally closed. When powered, the actuator moves to the desired position. When power is removed, the actuator returns to the normal position.



### Autoflow Valve

The optional automatic balancing valve provides accurate flow control. Valves are factory set to a rated flow. Flow will automatically be controlled within a given tolerance of the set flow rate.



### Strainer

The optional y-strainer collects and removes debris, extending coil lifetime and preventing damage to controls and heat transfer components. Optional blowdown valve allows for clean-out without removing mesh screen.



### Isolation Valve

The optional isolation valve is a manual shutoff valve. Water flow is controlled by rotating the valve handle.



### Stainless Steel Hoses

The optional stainless-steel hoses comes with swivel connections for union of chassis and risers. Two hoses are provided per unit for connection of supply and return lines.



### Purge Valve

Purge valves facilitate the removal of excess or unwanted liquids/gases within a piping system, storage tank, or other container.

# Thermostat Options

Ice Air's thermostats for its lines of PTACs, WSHPs, Fan Coils, SPACs and Hybrid Water-Cooled ACs are designed for ease-of-use and efficiency. Unit-mounted controls are standard (accessible through an attractive brushed aluminum control door). Optional wall-mounted remote controls are available.



### Habitat Wireless Thermostat

- Attractive, user-friendly design
- Wireless or wired connection
- Mobile app provides full control from anywhere, anytime
- Wi-Fi enabled for Smart App control options
- Works with Alexa or Google Assistant



### Programmable Digital Touchscreen Thermostat

- Streamlined touchscreen display
- Intuitive design makes configuration fast and easy



### Programmable Digital LCD Thermostat

- Easy-to-read digital display
- Compact, attractive design
- User-friendly for quick configuration



### Non-Programmable LCD Digital Touch Pad Thermostat

- Touchpad interface controls basic functions
- Designed for simple operation



### Non-Programmable LED Digital Touch Pad Thermostat

- Touchpad interface controls basic functions
- Designed for simple operation



### Manual Temperature and Fan Speed Dial Thermostat

- Straightforward design for controlling basic functions
- Allows for easy thermostatic control

for FCVE/FCVC only



### Manual Temperature and Mode Dial Thermostat

- Designed for Packaged Terminal Units
- Simple to operate
- Provides basic control functions

for PTAC/PTHP only

## Get Electrified Using Building Electrification and Ice Air

Whether driven by corporate policy or local greenhouse gas emission legislation, the movement to reduce carbon dioxide emissions – also known as decarbonization – is gaining momentum. As building owners explore ways to reduce reliance on fossil fuels and meet increasingly stringent environmental requirements, **building electrification** has emerged as a proven strategy for reducing emissions while increasing efficiency and lowering operating costs. Building electrification is the process of replacing existing technologies that rely on fossil fuels – such as space heating systems – with newer technologies such as heat pumps that use electricity as the energy source for both heating and cooling.

Numerous states around the U.S. – including California, New York, Washington DC, and others – have adopted regulatory policies aimed at reducing greenhouse gas emissions. Such regulations stress the role of electrification in decarbonizing the built environment and have wide-ranging implications for utilities, building engineers and architects, OEMs and building owners.

As an established HVAC original equipment manufacturer, Ice Air has been ahead of the of building electrification and decarbonization movement for decades. We're proud to leading the way and usher in a better tomorrow with innovative, reliable and efficient systems – all designed to help building owners make the transition to a greener, efficient and sustainable future.

## Electrified Product Family



**RSXC**

Packaged Terminal Heat Pump



**SPXC**

Central Air Conditioner



**HPWH**

Heat Pump Water Heater - Domestic HW



**VSHPG**

Geothermal Vertical Stack Heat Pump

## Electrified Product Family



\* By making energy-saving upgrades today, you can give your building a head start on upcoming changes to city regulations such as NYC Law 97.

### RSXC Series\*

Cold Climate PTHPs give you the performance of a VRF system with the convenience of a PTAC. Using breakthrough cold climate technology allows Ice Air PTHPs to efficiently provide space heating down to -5°F and below.



### iCool XC\*

iCool XC heat pumps are compact, with advanced, two-stage dual heating capabilities (partial cold climate operation down to 23°F then supplemental electric heat resistance for increased output).



### SPXC Series\*

Cold Climate SPHPs are self-contained, concealed, ducted systems. This line of vertical packaged heat pumps serves multiple spaces through concealed ductwork to efficiently provide space heating to -5°F and below.



### HPWH Series\*

Air-Source Cold Climate Heat Pump Water Heaters capture the free energy in the environment and convert it to hot water. These units are certified to operate down to -13°F.



### HPWH-SC Series\*

Air-Source Cold Climate heat pump chiller heaters capture free energy in the environment to provide both hot and chilled water. These units are certified to operate down to -13°F.



### VSHPGE Geothermal\*

Ice Air's Geothermal WSHP is a versatile geothermal heat pump that is available in a range of sizes and configurations for convenient installation. Fully compatible with geothermal conditions, it provides an ideal solution for whisper quiet cooling and heating within a tight footprint.



## Habitat Smart Technologies



The **Habitat Thermostat's** unique wireless mesh technology allows smart temperature control over the space it is monitoring. Transform a Fan Coil Unit into a state-of-the-art heating and cooling unit without opening walls to run wires.

Compatible with **Nexus Home Automation Products** **neXus** Equipment Management System™

## Other Products

### FCU

#### Fan Coil Units



This simple and easy cooling and heating solution provides reliable performance, high efficiency, ease of operation, low cost, easy installation, quiet comfort and a variety of solution-based options.

### HWCAC

#### Hybrid Water-Cooled Air Conditioners



HWCACs provide hydronic heat without using the unit's compressor through an innovative system that combines high-efficiency cooling with a hot water coil.

### WSHP

#### Water Source Heat Pumps



WSHPs provide efficient room-by-room comfort. Units function independently and are piped to a central water loop.

### PTAC

#### Packaged Terminal Air Conditioners

PTACs are designed for ultra-high efficiency and comply with LEED® criteria in a durable, user-friendly package. Available for new construction, retrofit and ExactFit™ replacement applications.



## NEW! Ice Air CEU Webinar

Learn more about the role HVAC electrification plays in building decarbonization today at [iceairceu.com](http://iceairceu.com)